1969 INDUSTRIAL ELECTRONICS CATALOG NO. 69

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CORPORATION

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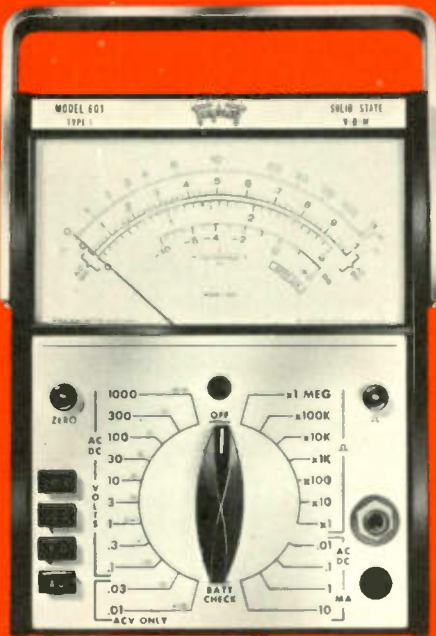
MODEL 601



1. **14 Ohmmeter ranges with 7 Low-Power ranges (LPΩ) at 75 mV DC for Transistorized and Integrated circuits.**

2. **Voltage ranges from 10 mV AC and 100 mV DC full scale; plus AC & DC Current ranges from 10 uA full scale.**

3. **Modern Easy-To-Use push button selection of DC Polarity, AC, and Low-Power Ohms (LPΩ) functions.**

Triplett announces the Model 601, a new addition to its already large family of multimeters. The 601 is revolutionary in design as it uses the latest developments in solid state technology, namely the Field Effect Transistor, to combine the portability and ease of operation of a V-O-M with 11 megohm input impedance. An entirely new concept in popular priced V-O-M's is Triplett's use of four functional push-button selector switches located conveniently at the left side of the aluminum front panel. The Triplett "Low Power Ohms" feature is designed to prevent electrical damage to IC's. In-circuit resistance measurements can be easily made without the usual diode or transistor loading. A total of 52 selections including "off" and "battery check" can be accomplished using the single range switch. The test ranges that the 601 can measure include: D.C. volts: 0-.1-.3-1-3-10-30-100-300-1000, at 11 megohms. AC volts: 0-0.01-0.03-0.1-0.3-1-3-10-30-100-300-1000 at 11 megohms. Ohms: 0-1K-10K-100K-1meg-10meg-100meg-1000meg (std. 1.5V), (low power .01mW, 75mV) ctr. scale 10 ohms on X1 range. AC-DC current: 0-10-100-1000-10,000 ua, DB: (decibel) −40 to +60. In short, the Triplett 601 has been designed to fit the many present and advanced circuit measurement requirements of television and high fidelity service and test technicians, circuit designers, instrument evaluation, production quality control, industrial processing, etc.

62F1768. NET 125.00

Your Dependable Source for Dependable Test Instruments by

TRIPLETT

The world's most complete V-O-M line

MODEL 310 AND 310-C

1. **One selector switch.**

2. **20,000 ohms per volt DC sensitivity.**

3. **Shirt pocket size VOM with provision for attaching AC clamp-on ammeter.**

Triplett's ever-popular 310 VOM series has been improved by the addition of a taut-band meter movement to the 310-C. These miniature VOMs feature an interchangeable test prod which fits into the tester top becoming the common probe, freeing one of your hands. Unbreakable plastic window protects the self-shielded meter movements. Standard sensitivity is 20K ohms/volt DC and 5K ohms/volt AC (15K ohms/volt, 310-C). Voltage ranges: (AC & DC): 0-3-12-60-300-1200 (600, 310-C). Resistance ranges: 0-20K-200K-2meg-20meg. DC current: 0-600ua-6ma-60ma-600ma. Molded, fully insulated case, 2¾"x4¼"x1-5/16". Comes complete with batteries, test leads, and instruction manual. Model 10 clamp-on ammeter-plugs directly into the tops of these units—the perfect combination for the home appliance repairman.

Model 310. 62F230. NET 42.00
Model 310-C. 62F292. NET 53.00

MODEL 600

1. **F-E-T Circuitry—Portable Battery Operated with 11 Megohm Input Impedance (Field Effect Transistor). Stable; Low Drift.**

2. **One Selector Switch minimizes chance of incorrect settings and burnouts. DC Polarity reversing.**

3. **Human engineered for ease of use. Clean uncluttered scale, excellent range overlap, for more accurate readings.**

This versatile member of the Triplett family combines semiconductor circuit technology with advanced Triplett electrical measuring engineering knowhow to bring you an unparalleled transistorized voltohmmeter (TVO) in an economically priced, portable unit. The model 600 gives you the high input impedance necessary for today's advanced electronic testing, including low voltage semiconductor testing, without the inconvenience of a line cord. The ranges are as follows: DC volts: 0-.4-.8-1.6-4-8-16-40-160-400-1600. AC volts: 0-4-8-16-40-160-400-800. Resistance: 0-1K-10K-100K-1Meg-10Meg-100Meg. All of this versatility is combined with an input impedance (DC) of 11 megohms. The Triplett model 600 truly combines all of the qualities of the past with the requirements and conveniences of the future in a single, portable unit at low cost.

62F1769. NET 78.00

630 630-A 630 L 630 PL 630-APL 630-NA 630-NS 630-M 630-PLK 631 310 310-C 800 666-R 850

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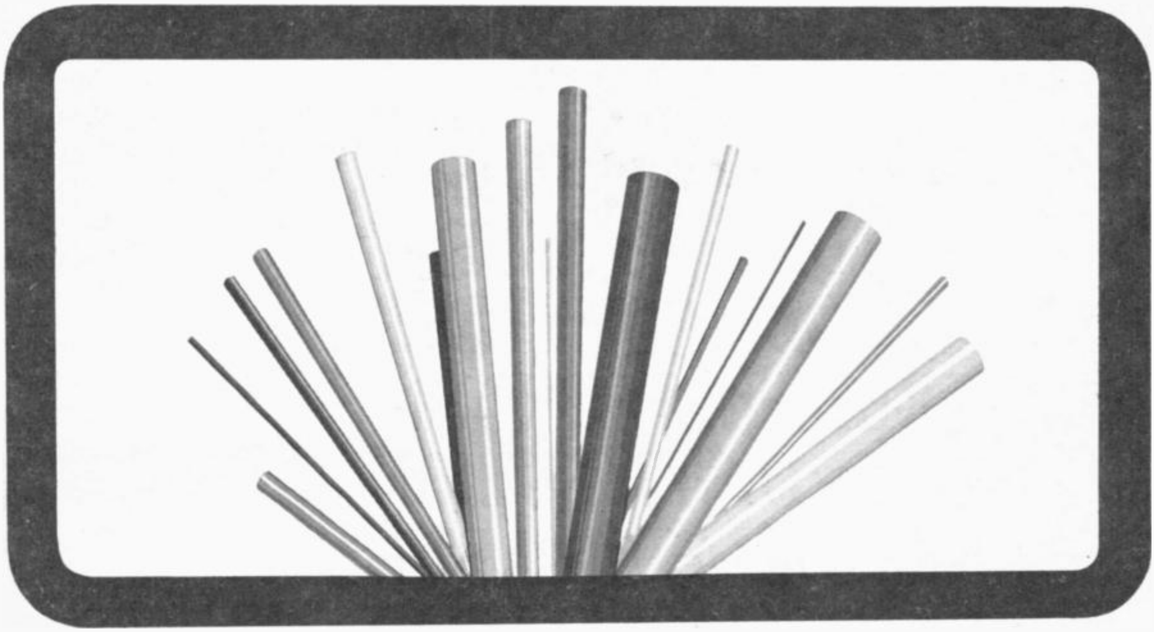

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See Index For Complete Listing of Alpha Products

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Shipping section and terminus of conveyor system. The active stock, on over 17 city blocks of steel shelving, is in the background.

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Karachi, Pakistan
Tel Aviv, Israel
Lisbon, Portugal
Seoul, Korea

Integrated Circuit Directory

INTEGRATED CIR. PAGE LOCATOR

Key	Mfg	Page No.
GE	General Electric	67
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SPR	Sprague	71
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Type No.	Mfg.	1-99	100-999	1000-Up
CA3000	RCA	3.80	2.76	2.30
CA3001	RCA	5.55	4.00	3.35
CA3002	RCA	3.71	2.70	2.25
CA3004	RCA	3.71	2.70	2.25
CA3005	RCA	2.48	1.80	1.50
CA3006	RCA	5.80	4.20	3.50
CA3007	RCA	5.35	3.90	3.25
CA3008	RCA	10.90	7.90	6.60
CA3008A	RCA	11.55	8.40	7.00
CA3010	RCA	4.95	3.60	3.00
CA3010A	RCA	7.00	5.10	4.25
CA3011	RCA	1.47	1.07	.89
CA3012	RCA	1.82	1.32	1.10
CA3013	RCA	2.15	1.56	1.30
CA3014	RCA	2.48	1.80	1.50
CA3015	RCA	6.60	4.80	4.00
CA3015A	RCA	8.65	6.30	5.25
CA3016	RCA	11.15	8.10	6.75
CA3016A	RCA	10.90	9.00	7.50
CA3018	RCA	1.62	1.18	.98
CA3019	RCA	1.62	1.18	.98
CA3020	RCA	2.56	1.86	1.55
CA3021	RCA	3.14	2.28	1.90
CA3022	RCA	2.64	1.92	1.60
CA3023	RCA	2.56	1.86	1.55
CA3028A	RCA	1.47	1.07	.89
CA3029	RCA	2.48	1.80	1.50
CA3029A	RCA	4.13	3.00	2.50
CA3030	RCA	3.71	2.70	2.25
CA3030A	RCA	5.36	3.90	3.25
CA3031	RCA	4.95	3.60	3.00
CA3032	RCA	3.30	2.40	2.00
CA3033	RCA	6.50	4.75	3.95
CA3033A	RCA	8.15	5.95	4.95
CA3034	RCA	2.89	2.10	1.75
CA3030V1	RCA	2.89	2.10	1.75
CA3035	RCA	2.48	1.80	1.50
CA3035V1	RCA	2.48	1.80	1.50
CA3036	RCA	1.47	1.07	.89
CA3037	RCA	4.95	3.60	3.00
CA3037A	RCA	7.00	5.10	4.25
CA3038	RCA	6.60	4.80	4.00
CA3038A	RCA	8.65	6.30	5.25
CA3041	RCA	2.64	1.92	1.60
CA3042	RCA	2.64	1.92	1.60
CA3043	RCA	2.81	2.04	1.70
CD2100	RCA	6.20	4.50	3.75
CD2150	RCA	6.50	4.75	3.95
CD2151	RCA	3.96	2.88	2.40
CD2101	RCA	3.96	2.88	2.40
CD2152	RCA	3.96	2.88	2.40
CD2200	RCA	5.20	3.80	3.15
CD2200D	RCA	5.20	3.80	3.15
CD2201	RCA	5.45	3.95	3.30
CD2201D	RCA	5.45	3.95	3.30
CD2202	RCA	5.45	3.95	3.30
CD2202D	RCA	5.45	3.95	3.30
CD2203	RCA	6.95	5.05	4.20
CD2203D	RCA	6.95	5.05	4.20
CD2204	RCA	3.71	2.70	2.25
CD2204D	RCA	3.71	2.70	2.25
CD2205	RCA	5.20	3.80	3.15
CD2205D	RCA	5.20	3.80	3.15
CD2300/930	RCA	4.13	3.00	2.50
CD2300D/930	RCA	4.13	3.00	2.50
CD2300E/830	RCA	1.73	1.26	1.05
CD2301/961	RCA	4.13	3.00	2.50
CD2301D/961	RCA	4.13	3.00	2.50
CD2301E/861	RCA	1.73	1.26	1.05
CD2302/946	RCA	4.54	3.30	2.75
CD2302D/946	RCA	4.54	3.30	2.75
CD2302E/846	RCA	1.90	1.38	1.15
CD2303/949	RCA	4.45	3.30	2.75
CD2303D/949	RCA	4.45	3.30	2.75
CD2303E/849	RCA	1.90	1.38	1.15

Type No.	Mfg.	1-99	100-999	1000-Up
CD2304/945	RCA	4.95	3.60	3.00
CD2304D/945	RCA	4.95	3.60	3.00
CD2304E845	RCA	3.14	2.28	1.90
CD2305/948	RCA	4.95	3.60	3.00
CD2305D/948	RCA	4.95	3.60	3.00
CD2305E/848	RCA	3.14	2.28	1.90
CD2306/932	RCA	4.54	3.30	2.75
CD2306D/932	RCA	4.54	3.30	2.75
CD2306E/832	RCA	1.90	1.38	1.15
CD2307/944	RCA	4.54	3.30	2.75
CD2307D/944	RCA	4.54	3.30	2.75
CD2307E/844	RCA	1.90	1.38	1.15
CD2308/962	RCA	4.54	3.30	2.75
CD2308D/962	RCA	4.54	3.30	2.75
CD2308E/862	RCA	1.90	1.38	1.15
CD2309/963	RCA	4.54	3.30	2.75
CD2309D/963	RCA	4.54	3.30	2.75
CD2309E/863	RCA	1.90	1.38	1.15
CD2310/936	RCA	4.79	3.48	2.90
CD2310D/936	RCA	4.79	3.48	2.90
CD2310E/836	RCA	2.39	1.74	1.45
CD2311/937	RCA	4.79	3.48	2.90
CD2311D/937	RCA	4.79	3.48	2.90
CD2311E/837	RCA	2.39	1.74	1.45
CD2312	RCA	4.79	3.48	2.90
CD2312D	RCA	4.79	3.48	2.90
CD2312E	RCA	2.39	1.74	1.45
CD2313	RCA	4.79	3.48	2.90
CD2313D	RCA	4.79	3.48	2.90
CD2313E	RCA	2.39	1.74	1.45
CD2314/933	RCA	3.71	2.70	2.25
CD2314D/933	RCA	3.71	2.70	2.25
CD2314E/833	RCA	1.49	1.08	.90

Type No.	Mfg.	1-99	100-999
GAD2014	HUG	.80	.40
GAD2015	HUG	.90	.45
GAT1918	HUG	2.30	1.15
GAT2605	HUG	3.00	1.50
GAT2484	HUG	2.40	1.20
HRM0030	HUG	75.00	52.00
HRM0036	HUG	65.00	42.00
HRM0053	HUG	130.00	99.00
HRM0054	HUG	205.00	165.00
HRM1306	HUG	18.00	12.50
HRM2026	HUG	19.80	14.50
HRM2027	HUG	32.50	24.20
HRM2028	HUG	68.50	51.25
HRM2031	HUG	62.25	35.00
HRM2032	HUG	87.50	55.00
HRM2040	HUG	25.50	17.80
HRM2041	HUG	12.00	7.50
HRM2042	HUG	35.00	27.00
HRM2046	HUG	38.75	23.50
HRM2047	HUG	110.00	78.50
HRM2049	HUG	55.00	43.50
HRM2050	HUG	250.00	180.00
HRM2051	HUG	38.00	24.50
HRM2061	HUG	42.00	26.50
HRM2302	HUG	68.50	40.00
HRN1020	HUG	5.25	3.55
HRN8346D	HUG	9.25	7.15
HRN8348D	HUG	9.25	7.15

Type No.	Mfg.	1-49	50-499	500-999
HSC201	HUG	3.81	3.05	2.53
HSC202	HUG	3.81	3.05	2.53
HSC206	HUG	4.22	3.38	2.80
HSC210	HUG	4.58	3.67	3.04
HSC211	HUG	3.81	3.05	2.53
HSC212	HUG	3.81	3.05	2.53
HSC213	HUG	5.34	4.27	3.55
HSC214	HUG	3.81	3.05	2.53
HSC215	HUG	5.34	4.27	3.55
HSC217	HUG	3.40	2.70	2.25
HSC220	HUG	4.58	3.67	3.04
HSC221	HUG	3.81	3.05	2.53
HSC222	HUG	3.81	3.05	2.53
HSC224	HUG	3.81	3.05	2.53
HSC225	HUG	5.34	4.27	3.55
HSC226	HUG	4.22	3.38	2.80
HSC227	HUG	3.40	2.70	2.25
HSC231	HUG	3.81	3.05	2.53
HSC234	HUG	3.81	3.05	2.53
HSC236	HUG	4.22	3.38	2.80
HSC241	HUG	3.81	3.05	2.53
HSC246	HUG	4.22	3.38	2.80
HSC261	HUG	3.81	3.05	2.53
HSC266	HUG	4.22	3.38	2.80
HSC286	HUG	4.58	3.67	3.04
HSC288	HUG	7.20	5.76	4.78
HSC296	HUG	4.58	3.67	3.04

Type No.	Mfg.	1-99	100-999	1000-Up
HSC702	HUG	6.08	4.00	....
HSC709	HUG	7.50	5.00	....
HSC710	HUG	6.00	4.00	....
HSC711	HUG	7.50	5.00	....

Type No.	Mfg.	1-49	50-99	100-999
HSC930	HUG	3.81	3.05	2.53
HSC932	HUG	4.58	3.67	3.04
HSC933	HUG	3.40	2.72	2.20
HSC944	HUG	4.58	3.67	3.04
HSC945	HUG	5.34	4.27	3.55
HSC946	HUG	4.22	3.38	2.80
HSC948	HUG	5.34	4.27	3.55
HSC950	HUG	7.20	5.76	4.78
HSC951	HUG	7.20	5.76	4.78
HSC962	HUG	4.22	3.38	2.80

Type No.	Mfg.	1-99	100-999	
HSC4709	HUG	15.00	10.00	....
HSC4710	HUG	12.00	8.00	....

Type No.	Mfg.	1-24	25-99	100-999
HSF13	HUG	4.62	3.69	3.14
HSF23	HUG	5.62	4.49	3.82
HSF33	HUG	6.16	4.49	4.19
HSF53	HUG	6.87	5.50	4.67
HSF63	HUG	6.87	5.50	4.67
HSF103	HUG	10.17	8.15	6.93
HSF113	HUG	10.17	8.15	6.93
HSF253	HUG	7.54	6.03	5.13
HSF263	HUG	7.54	6.03	5.13
HSG43	HUG	4.62	3.69	3.14
HSG53	HUG	4.62	3.69	3.14
HSG63	HUG	4.62	3.69	3.14
HSG73	HUG	5.62	4.49	3.82
HSG93	HUG	5.62	4.49	3.82
HSG103	HUG	4.62	3.69	3.14
HSG113	HUG	4.62	3.69	3.14
HSG123	HUG	4.62	3.69	3.14
HSG133	HUG	5.62	4.49	3.82
HSG143	HUG	4.62	3.69	3.14
HSG153	HUG	4.52	3.61	3.07
HSG163	HUG	5.62	4.49	3.82
HSG173	HUG	4.52	3.61	3.07
HSG183	HUG	4.52	3.61	3.07
HSG193	HUG	4.62	3.69	3.14
HSG213	HUG	4.95	3.96	3.36
HSG223	HUG	4.95	3.96	3.36
HSG233	HUG	4.52	3.61	3.07
HSG243	HUG	4.95	3.96	3.36
HSG253	HUG	4.95	3.96	3.36
HSG263	HUG	4.95	3.96	3.36
HSG273	HUG	4.52	3.61	3.07

Type No.	Mfg.	1-99	100-499	
HSM709	HUG	15.00	10.00	....
HSM710	HUG	12.00	8.00	....
HSM2000	HUG	15.00	10.00	....
HSM2001	HUG	15.00	10.00	....
HSM2002	HUG	18.00	12.00	....

Type No.	Mfg.	1-49	50-499	500-999
HSM6172	HUG	6.35	5.08	4.22
HSM6175	HUG	8.90	7.12	5.91
HSM6176	HUG	8.90	7.12	5.91
HSM6178	HUG	7.30	5.63	4.67
HSM6179	HUG	7.03	5.63	4.67
HSM6180	HUG	7.03	5.63	4.67
HSM6181	HUG	7.03	5.63	4.67
HSM6184	HUG	7.03	5.63	4.67
HSM6185	HUG	7.03	5.63	4.67

Type No.	Mfg.	1-99	100-999	
HST5001	HUG	2.25	1.50	....
HST5002	HUG	4.50	3.00	....
HST5003	HUG	5.00	3.75	....
HST5004	HUG	7.00	5.00	....
HST5005	HUG	9.00	7.00	....
HST5006	HUG	1.25	1.00	....
HST5007	HUG	3.00	2.50	....
HST5008	HUG	2.75	2.00	....
HST5009	HUG	5.00	3.50	....
HST5010	HUG	7.00	5.00	....
HST5011	HUG	8.00	4.30	....
HST5012	HUG	9.00	6.00	....
HST5013	HUG	10.00	7.50	....
HST5015	HUG	15.00	10.00	....

Type No.	Mfg.	1-24	25-99	100-Up
MC351G	MOT	4.55	4.00	3.65

Type No.	Mfg.	1-24	25-99	100-Up
MC352AF	MOT	6.45	5.65	5.15
MC352AG	MOT	4.55	4.00	3.65
MC352G	MOT	4.55	4.00	3.65
MC353G	MOT	5.95	5.20	4.75
MC354G	MOT	2.45	2.15	1.95
MC355G	MOT	2.80	2.45	2.25
MC356G	MOT	3.55	3.15	2.85

Type No.	Mfg.	1-24	25-99	100-999
MC357G	MOT	3.55	3.15	2.85
MC358AF	MOT	11.50	10.35	9.10
MC358AG	MOT	9.50	8.35	7.60
MC358G	MOT	9.50	8.35	7.60
MC359G	MOT	3.70	3.25	2.95
MC360G	MOT	3.70	3.25	2.95
MC361G	MOT	3.70	3.25	2.95
MC362AF	MOT	6.85	6.05	5.50
MC362AG	MOT	5.00	4.40	4.00
MC362G	MOT	5.00	4.40	4.00
MC364G	MOT	10.75	9.45	8.60
MC365G	MOT	9.20	8.10	7.35
MC366G	MOT	6.25	5.50	5.00
MC367G	MOT	5.60	4.95	4.50
MC368G	MOT	5.60	4.95	4.50
MC369G	MOT	5.45	4.80	4.35
MC400F	MOT	4.70	3.80	3.15
MC401F	MOT	5.25	4.20	3.50
MC402F	MOT	2.70	3.80	3.15
MC403F	MOT	4.70	3.80	3.15
MC404F	MOT	5.25	4.20	3.50
MC405F	MOT	5.25	4.20	3.50
MC406F	MOT	5.25	4.20	3.50
MC408F	MOT	4.70	3.80	3.15
MC409F	MOT	4.25	3.40	2.85
MC410F	MOT	4.25	3.40	2.85
MC411F	MOT	4.25	3.40	2.85
MC412F	MOT	4.70	3.80	3.15
MC413F	MOT	5.25	4.20	3.50
MC415F	MOT	6.60	5.30	4.40
MC416F	MOT	6.60	5.30	4.40
MC450F	MOT	3.75	3.00	2.50
MC451F	MOT	4.10	3.30	2.75
MC452F	MOT	3.75	3.00	2.50
MC453F	MOT	3.75	3.00	2.50
MC454F	MOT	4.10	3.30	2.75
MC455F	MOT	4.10	3.30	2.75
MC456F	MOT	4.10	3.30	2.75
MC458F	MOT	3.75	3.00	2.50
MC459F	MOT	3.35	2.70	2.25
MC460F	MOT	3.35	2.70	2.25
MC461F	MOT	3.35	2.70	2.25
MC462F	MOT	3.75	3.00	2.50
MC463F	MOT	4.10	3.30	2.75
MC465F	MOT	5.25	4.20	3.50
MC466F	MOT	5.25	4.20	3.50

Type No.	Mfg.	1-999	1000-4999	
MC400P	MOT	2.30	1.75	
MC401P	MOT	2.55	1.95	
MC402P	MOT	2.30	1.75	
MC403P	MOT	2.30	1.75	
MC404P	MOT	2.55	1.95	
MC405P	MOT	2.55	1.95	
MC406P	MOT	2.55	1.95	
MC408P	MOT	2.30	1.75	
MC409P	MOT	1.60	1.20	
MC410P	MOT	1.60	1.20	
MC411P	MOT	1.60	1.20	
MC412P	MOT	2.30	1.75	
MC413P	MOT	2.55	1.95	
MC415P	MOT	3.70	2.80	
MC416P	MOT	3.70	2.80	
MC450P	MOT	1.85	1.40	
MC451P	MOT	2.05	1.55	
MC452P	MOT	1.85	1.40	
MC453P	MOT	1.85	1.40	
MC454P	MOT	2.05	1.55	
MC455P	MOT	2.05	1.55	
MC456P	MOT	2.05	1.55	
MC458P	MOT	1.85	1.40	
MC459P	MOT	1.60	1.20	
MC460P	MOT	1.60	1.20	
MC461P	MOT	1.60	1.20	
MC462P	MOT	1.85	1.40	
MC463P	MOT	2.05	1.55	
MC465P	MOT	2.95	2.25	
MC466P	MOT	2.95	2.25	
MC650G	MOT	8.65	7.60	6.90
MC651F	MOT	10.65	9.35	8.50
MC651G	MOT	12.00	10.50	9.55

Type No.	Mfg.	1-999	1000-4999	
MC652F	MOT	14.45	12.70	11.55
MC652G	MOT	12.00	10.50	9.55

Type No.	Mfg.	1-99	100-499
MC660P	MOT	3.35	2.50
MC661P	MOT	3.35	2.50
MC663P	MOT	7.20	6.10
MC664P	MOT	4.80	4.05

Type No.	Mfg.	1-999	1000-4999
MC668P	MOT	3.70	2.75
MC669P	MOT	3.15	2.35

Type No.	Mfg.	1-24	25-99	100-Up
MC700G	MOT	3.15	2.50	2.10
MC701G	MOT	3.15	2.50	2.10
MC702G	MOT	3.15	2.50	2.10
MC703G	MOT	3.00	2.40	2.00
MC704G	MOT	3.20	2.60	2.15
MC705G	MOT	4.05	3.25	2.70
MC706G	MOT	4.05	3.25	2.70
MC707G	MOT	3.00	2.40	2.00
MC708G	MOT	2.60	2.10	1.75
MC709G	MOT	2.85	2.30	1.95
MC722P	MOT	4.85	3.90	3.25
MC723G	MOT	4.85	3.90	3.25
MC723P	MOT	4.85	3.90	3.25
MC724P	MOT	3.35	2.70	2.25
MC725P	MOT	3.15	2.50	2.10
MC726G	MOT	4.85	3.90	3.25
MC726P	MOT	4.85	3.90	3.25
MC727G	MOT	3.20	2.60	2.15
MC728G	MOT	1.90	1.55	1.30
MC729G	MOT	3.05	2.45	2.05
MC774G	MOT	3.05	2.45	2.05
MC776P	MOT	7.20	5.75	4.80
MC710G	MOT	2.25	1.70	1.50
MC711G	MOT	2.25	1.70	1.50
MC712G	MOT	2.60	2.10	1.75
MC713G	MOT	3.75	3.00	2.50
MC714G	MOT	3.15	2.50	2.10
MC715G	MOT	3.15	2.50	2.10
MC715P	MOT	3.15	2.50	2.10
MC717P	MOT	3.35	2.70	2.25
MC718G	MOT	2.70	2.15	1.80
MC718P	MOT	2.70	2.15	1.80
MC719P	MOT	3.20	2.60	2.15
MC720G	MOT	4.85	3.90	3.25

Type No.	Mfg.	1-999	1000-4999
MC778P	MOT	2.35	1.75
MC779P	MOT	2.45	1.80
MC785P	MOT	1.25	.95
MC786P	MOT	1.25	.95
MC787P	MOT	2.45	1.80
MC788P	MOT	1.35	1.00
MC789P	MOT	1.08	.81
MC790P	MOT	2.00	1.50
MC791P	MOT	2.35	1.75
MC792P	MOT	1.20	.90
MC793P	MOT	1.20	.90
MC796P	MOT	5.05	3.75
MC798P	MOT	1.35	1.00
MC799G	MOT	2.30	1.70
MC799P	MOT	1.08	.81

Type No.	Mfg.	1-24	25-99	100-Up
MC800G	MOT	2.85	2.30	1.90
MC801G	MOT	2.45	2.00	1.65
MC802G	MOT	2.75	2.20	1.85
MC803G	MOT	2.45	2.00	1.65
MC804G	MOT	3.30	2.65	2.20
MC805G	MOT	3.35	2.70	2.25
MC806G	MOT	3.35	2.70	2.25
MC807G	MOT	2.45	2.00	1.65
MC808G	MOT	2.85	2.30	1.90
MC810G	MOT	2.45	2.00	1.65
MC812G	MOT	2.85	2.30	1.90
MC814G	MOT	2.60	2.10	1.75
MC815G	MOT	2.60	2.10	1.75
MC816G	MOT	4.20	3.35	2.80
MC818G	MOT	2.60	2.10	1.75
MC820G	MOT	4.20	3.35	2.80
MC821G	MOT	2.30	1.85	1.55
MC822G	MOT	4.20	3.35	2.80
MC826G	MOT	4.20	3.35	2.80
MC828G	MOT	2.10	1.70	1.40

Type No.	Mfg.	1-24	25-99	100-Up
MC829G	MOT	2.45	2.00	1.65
MC830G	MOT	3.60	2.90	2.40
MC831G	MOT	5.25	4.20	3.50

Type No.	Mfg.	1-999	1000-4999
MC815P	MOT	1.15	.86
MC817P	MOT	1.25	.93
MC818P	MOT	1.15	.86
MC819P	MOT	1.25	.93
MC822P	MOT	1.55	1.15
MC824P	MOT	1.25	.93
MC825P	MOT	1.25	.93
MC826P	MOT	1.55	1.15
MC830P	MOT	1.55	1.15
MC831P	MOT	3.00	2.25

Type No.	Mfg.	1-24	25-99	100-999
MC832G	MOT	4.05	3.25	2.70

Type No.	Mfg.	1-999	1000-4999
MC832P	MOT	1.65	1.25

Type No.	Mfg.	1-24	25-99	100-Up
MC833G	MOT	4.50	3.60	3.00
MC839F	MOT	15.00	12.00	10.00

Type No.	Mfg.	1-999	1000-4999
MC833P	MOT	1.35	1.00
MC834P	MOT	2.00	1.50
MC835P	MOT	2.00	1.50
MC836P	MOT	2.00	1.50
MC837P	MOT	2.00	1.50
MC838P	MOT	7.55	6.70
MC839P	MOT	7.55	6.70
MC840P	MOT	2.00	1.50
MC841P	MOT	2.00	1.50
MC844P	MOT	1.65	1.25

Type No.	Mfg.	1-24	25-99	100-999
MC844G	MOT	4.05	3.25	2.70
MC845G	MOT	5.25	4.20	3.50

Type No.	Mfg.	1-999	1000-4999
MC845P	MOT	3.00	2.25

Type No.	Mfg.	1-24	25-99	100-999
MC846G	MOT	3.60	2.90	2.40

Type No.	Mfg.	1-999	1000-4999
MC846P	MOT	1.65	1.25

Type No.	Mfg.	1-24	25-99	100-999
MC848G	MOT	5.25	4.20	3.50

Type No.	Mfg.	1-999	1000-4999
MC848P	MOT	3.00	2.25

Type No.	Mfg.	1-24	25-99	100-999
MC849G	MOT	3 .60	2.90	2.40

Type No.	Mfg.	1-999	1000-4999
MC849P	MOT	1.65	1.25

Type No.	Mfg.	1-24	25-99	100-999
MC850G	MOT	11.40	9.10	7.60

Type No.	Mfg.	1-999	1000-4999
MC850P	MOT	4.50	3.35

Type No.	Mfg.	1-24	25-99	100-999
MC851G	MOT	11.40	9.10	7.60

Type No.	Mfg.	1-999	1000-4999
MC851P	MOT	4.50	3.35
MC852P	MOT	4.75	3.60
MC853P	MOT	4.75	3.60
MC855P	MOT	4.75	3.60
MC856P	MOT	4.75	3.60
MC857P	MOT	2.70	2.00
MC858P	MOT	2.70	2.00

Type No.	Mfg.	1-24	25-99	100-999
MC861G	MOT	3.60	2.90	2.40

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Type No.	Mfg.	1-999	1000-4999	
MC861P	MOT	1.65	1.25	....

Type No.	Mfg.	1-24	25-99	100-999
MC862G	MOT	3.60	2.90	2.40

Type No.	Mfg.	1-999	1000-4999	
MC862P	MOT	1.65	1.25	....

Type No.	Mfg.	1-24	25-99	100-999
MC863G	MOT	3.60	2.90	2.40

Type No.	Mfg.	1-999	1000-4999	
MC863P	MOT	1.65	1.25	....

Type No.	Mfg.	1-24	25-99	100-999
MC874G	MOT	4.20	3.35	2.80

Type No.	Mfg.	1-999	1000-4999	
MC876P	MOT	2.40	1.85	....
MC878P	MOT	2.70	2.00	....
MC879P	MOT	2.85	2.10	....
MC885P	MOT	1.50	1.12	....
MC886P	MOT	1.50	1.12	....
MC887P	MOT	2.85	2.10	....
MC888P	MOT	1.55	1.15	....
MC889P	MOT	1.25	.93	....
MC890P	MOT	2.30	1.72	....
MC892P	MOT	1.38	1.05	....
MC893P	MOT	1.38	1.05	....
MC899P	MOT	1.25	.93	....

Type No.	Mfg.	1-24	25-99	100-Up
MC899G	MOT	4.35	3.50	2.90
MC900F	MOT	6.15	4.90	4.10
MC903F	MOT	5.75	4.60	3.85
MC904F	MOT	6.15	4.90	4.10
MC905F	MOT	7.65	6.10	5.10
MC905G	MOT	7.65	6.10	5.10
MC907F	MOT	5.75	4.60	3.85

Type No.	Mfg.	1-999	1000-4999	
MC1001P	MOT	1.60	1.25	....
MC1002P	MOT	1.60	1.25	....
MC1003P	MOT	1.60	1.25	....
MC1004P	MOT	1.70	1.30	....
MC1005P	MOT	1.70	1.30	....
MC1006P	MOT	1.70	1.30	....
MC1007P	MOT	1.75	1.35	....
MC1008P	MOT	1.75	1.35	....
MC1009P	MOT	1.75	1.35	....
MC1010P	MOT	1.80	1.40	....
MC1011P	MOT	1.80	1.40	....
MC1012P	MOT	1.80	1.40	....
MC1013P	MOT	3.10	2.40	....
MC1014P	MOT	3.40	2.60	....
MC1015P	MOT	3.40	2.60	....
MC1016P	MOT	3.40	2.60	....
MC1017P	MOT	3.55	2.75	....
MC1018P	MOT	3.55	2.75	....
MC1019P	MOT	4.55	3.50	....
MC1020P	MOT	1.60	1.25	....
MC1021P	MOT	4.55	3.50	....
MC1022P	MOT	4.85	3.70	....
MC1023P	MOT	7.55	5.80	....
MC1024P	MOT	1.75	1.35	....
MC1025P	MOT	1.70	1.30	....
MC1027P	MOT	7.55	5.80	....
MC1029P	MOT	3.40	2.60	....
MC1030P	MOT	5.15	3.95	....
MC1031P	MOT	5.15	3.95	....
MC1033P	MOT	3.40	2.60	....

Type No.	Mfg.	1-999	1000-4999	
MC1036P	MOT	16.20	12.00	....
MC1037P	MOT	16.20	12.00	....

Type No.	Mfg.	1-99	100-Mix	100-999
MC1050F	MOT	5.30	4.25	3.55
MC1051F	MOT	5.30	4.25	3.55
MC1052F	MOT	5.30	4.25	3.55

Type No.	Mfg.	1-24	25-99	100-Up
MC1110G	MOT	37.50	31.25	25.00

Type No.	Mfg.	1-99	100-999	1000-Up
MC1120P	MOT	4.90	4.20	3.50
MC1124P	MOT	6.30	5.40	4.50

Type No.	Mfg.	1-24	25-99	100-Up
MC1302P	MOT	4.90	4.20	3.50
MC1429G	MOT	4.50	3.75	3.00
MC1430F	MOT	15.00	12.50	10.00
MC1430G	MOT	8.25	6.90	5.50
MC1431F	MOT	17.25	14.35	11.50
MC1431G	MOT	8.85	7.35	5.90
MC1433F	MOT	28.50	23.75	19.00
MC1433G	MOT	9.75	8.10	6.50
MC1435F	MOT	16.50	13.25	11.00
MC1435G	MOT	7.50	6.25	5.00
MC1435P	MOT	6.25	5.60	4.50
MC1439G	MOT	11.25	9.35	7.50
MC1440F	MOT	18.00	15.00	12.00
MC1440G	MOT	12.00	10.00	8.00
MC1510F	MOT	13.95	11.65	9.30
MC1510G	MOT	12.00	10.00	8.00
MC1511F	MOT	15.95	14.00	12.75
MC1511G	MOT	13.45	11.80	10.75
MC1512F	MOT	18.45	16.20	14.75
MC1512G	MOT	15.30	13.50	12.25
MC1519G	MOT	50.00	40.00	30.00
MC1524G	MOT	70.00	55.00	40.00
MC1525F	MOT	12.00	10.00	8.00
MC1526G	MOT	60.00	48.00	36.00
MC1529G	MOT	11.25	9.35	7.50
MC1530F	MOT	30.00	25.00	20.00
MC1530G	MOT	27.00	22.50	18.00
MC1531F	MOT	33.00	27.50	22.00
MC1531G	MOT	30.00	25.00	20.00
MC1533F	MOT	15.00	12.50	10.00
MC1533G	MOT	15.00	12.50	10.00
MC1539G	MOT	18.00	15.00	12.00
MC1540G	MOT	31.50	26.25	21.00
MC1540G	MOT	22.50	18.75	15.00
MC1550G	MOT	.425	3.55	2.85
MC1552G	MOT	9.00	7.50	6.00
MC1553G	MOT	9.00	7.50	6.00
MC1554G	MOT	14.25	11.85	9.50
MC1709	MOT	75.00	62.50	50.00
MC1709CF	MOT	31.50	25.20	21.00
MC1709CG	MOT	9.90	8.25	6.60
MC1703F	MOT	69.00	57.50	46.00
MC1709G	MOT	15.00	12.50	10.00
MC1710CF	MOT	18.00	14.40	12.00
MC1710CG	MOT	7.50	6.25	5.00
MC1710F	MOT	20.25	16.90	13.50
MC1710G	MOT	15.00	12.50	10.00
MC1711CG	MOT	13.54	11.25	9.00
MC1712CF	MOT	7.50	6.25	5.00
MC1712CG	MOT	4.90	4.05	3.25
MC1712G	MOT	15.00	12.50	10.00
MC1712F	MOT	12.00	10.00	8.00
MC2000F	MOT	6.30	5.05	4.20
MC2001F	MOT	5.70	4.55	3.80
MC2002F	MOT	4.25	3.40	2.85
MC2003F	MOT	5.70	4.55	3.80
MC2004F	MOT	6.30	5.05	4.20
MC2005F	MOT	5.70	4.55	3.80
MC2006F	MOT	4.25	3.40	2.85
MC2007F	MOT	5.70	4.55	3.80
MC2009F	MOT	7.95	6.35	5.30
MC2010F	MOT	7.95	6.35	5.30
MC2013F	MOT	6.80	5.45	4.55
MC2050F	MOT	4.95	3.95	3.30
MC2051F	MOT	4.50	3.60	3.00
MC2052F	MOT	3.40	2.70	2.25
MC2053F	MOT	4.50	3.60	3.00

Type No.	Mfg.	1-999	1000-4999	
MC2000P	MOT	3.10	2.35	....
MC2001P	MOT	2.80	2.10	....

Type No.	Mfg.	1-999	1000-4999	
MC2002P	MOT	1.60	1.20	....
MC2003P	MOT	2.80	2.10	....
MC2004P	MOT	3.00	2.35	....
MC2005P	MOT	2.80	2.10	....
MC2006P	MOT	1.60	1.20	....
MC2007P	MOT	2.85	2.10	....
MC2009P	MOT	4.45	3.35	....
MC2010P	MOT	1.45	3.35	....
MC2013P	MOT	3.35	2.50	....
MC2050P	MOT	2.40	1.85	....
MC2051P	MOT	2.25	1.70	....
MC2052P	MOT	1.60	1.20	....
MC2053P	MOT	2.25	1.70	....
MC2054P	MOT	2.40	1.85	....
MC2055P	MOT	2.25	1.70	....
MC2056P	MOT	1.60	1.20	....
MC2057P	MOT	2.30	1.70	....
MC2059P	MOT	3.60	2.70	....
MC2060P	MOT	3.60	2.70	....
MC2063P	MOT	2.75	2.05	....
MC3000P	MOT	2.50	1.85	....
MC3001P	MOT	2.50	1.85	....
MC3002P	MOT	2.75	2.05	....
MC3003P	MOT	2.75	2.05	....
MC3005P	MOT	2.50	1.85	....
MC3010P	MOT	2.50	1.85	....
MC3015P	MOT	2.50	1.85	....
MC3020P	MOT	2.75	2.05	....
MC3025P	MOT	2.75	2.05	....
MC3026P	MOT	2.75	2.05	....
MC3028P	MOT	2.75	2.05	....
MC3029P	MOT	2.75	2.05	....
MC3030P	MOT	2.00	1.50	....
MC3050P	MOT	4.00	2.95	....
MC3052P	MOT	4.00	2.95	....
MC3060P	MOT	6.35	4.70	....
MC3062P	MOT	6.35	4.70	....

Type No.	Mfg.	1-24	25-99	100-Up
MC2054F	MOT	4.95	3.95	3.30
MC2055F	MOT	4.50	3.60	3.00
MC2056F	MOT	3.40	2.70	2.25
MC2057F	MOT	4.50	3.60	3.00
MC2059F	MOT	.630	5.05	4.20
MC2060F	MOT	6.30	5.05	4.20
MC2063F	MOT	5.40	4.30	3.60
MC2100F	MOT	10.80	8.65	7.20
MC2101F	MOT	9.80	7.85	6.55
MC2102F	MOT	7.35	5.90	4.90
MC2103F	MOT	9.80	7.85	6.55
MC2104F	MOT	10.80	8.65	7.20
MC2105F	MOT	9.80	7.85	6.55
MC2106F	MOT	7.35	5.90	4.90
MC2109F	MOT	13.80	11.05	9.20
MC2110F	MOT	13.80	11.05	9.20
MC2150F	MOT	8.60	6.90	5.75
MC2151F	MOT	7.80	6.25	5.20
MC2152F	MOT	5.85	4.70	3.90
MC2153F	MOT	7.80	6.25	5.20
MC2154F	MOT	8.60	6.90	5.75
MC2155F	MOT	7.80	6.25	5.20
MC2156F	MOT	5.85	4.70	3.90
MC2159F	MOT	7.80	6.25	5.20
MC2160F	MOT	10.95	8.75	7.30
MC3000F	MOT	5.40	4.30	3.60
MC3001F	MOT	5.40	4.30	3.60
MC3002F	MOT	5.90	4.75	3.95
MC3005F	MOT	5.40	4.30	3.60
MC3010F	MOT	5.40	4.30	3.60
MC3015F	MOT	5.40	4.30	3.60
MC3020F	MOT	5.90	4.75	3.95
MC3025F	MOT	5.90	4.75	3.95
MC3026F	MOT	5.90	4.75	3.95
MC3028F	MOT	5.90	4.75	3.95
MC3029F	MOT	5.90	4.75	3.95
MC3030F	MOT	4.20	3.40	2.80
MC3050F	MOT	7.45	5.95	4.95
MC3052F	MOT	7.45	5.95	4.95
MC3060F	MOT	10.40	8.35	6.95
MC3062F	MOT	10.40	8.35	6.95

Type No.	Mfg	1-9	10-99	100-999
PA908	GE	9.65	6.45	4.30
PA113	GE	15.15	10.10	6.75

Type No.	Mfg.	1-99	100-999	1000-Up
PA189	GE	3.60	2.40	2.16
PA222	GE	3.70	2.45	2.20
PA223	GE	9.05	4.70	......
PA230	GE	3.30	2.20	1.98
PA234	GE	2.35	1.57	1.41

Type No.	Mfg.	1-99	100-999	1000-Up
PA237	GE	3.98	2.65	2.38
PA238	GE	2.30	2.20	......
PA424	GE	8.25	5.50	......
PA436	GE	7.50	5.00	......
PD-455	GE	5.25	3.50	......

Type No.	Mfg.	1-24	25-99	100-Up
S9303-02	SYL	3.65	3.65	2.50
S9313-02	SYL	5.10	5.10	3.50
S9323-02	SYL	4.05	4.05	2.75
S9443-02	SYL	4.05	4.05	2.75
S9463-02	SYL	3.65	3.65	2.50

Type No.	Mfg.	1-99	100-999	1000-Up
SA20-03	SYL	10.05	8.00	6.80

Type No.	Mfg.	1-24	25-99	100-249
SA21-03	SYL	6.95	5.55	4.70

Type No.	Mfg.	1-24	25-99	100-Up
SE8162J	SPR	20.40	16.25	13.15
SE8280J	SPR	49.00	39.30	32.70
SE8281J	SPR	49.00	39.30	32.70
SE8415J	SPR	6.50	5.15	4.20
SE8416J	SPR	6.50	5.15	4.20
SE8417J	SPR	6.50	5.15	4.20
SE8424J	SPR	13.30	10.60	8.55
SE8440J	SPR	6.50	5.15	4.20
SE8455J	SPR	7.15	5.70	4.60
SE8470J	SPR	6.50	5.15	4.20
SE8471J	SPR	6.50	5.15	4.20
SE8480J	SPR	6.50	5.15	4.20
SE8481J	SPR	6.50	5.15	4.20
SE8731J	SPR	5.85	4.65	3.80
SE8806J	SPR	5.85	4.65	3.80
SE8808J	SPR	6.50	5.15	4.20
SE8816J	SPR	6.50	5.15	4.20
SE8825J	SPR	10.35	8.25	6.70
SE8826J	SPR	13.30	10.60	8.55
SE8828J	SPR	12.90	10.30	8.40
SE8840J	SPR	6.50	5.15	4.20
SE8855J	SPR	7.15	5.70	4.60
SE8870J	SPR	6.50	5.15	4.20
SE8880J	SPR	6.50	5.15	4.20
SF10-02	SYL	10.85	8.70	7.45
SF10-03	SYL	10.85	8.70	7.45
SF11-02	SYL	9.95	8.00	6.80
SF-11-03	SYL	9.95	8.00	6.80
SF-12-02	SYL	7.05	5.65	4.80
SF-12-03	SYL	7.05	5.65	4.80
SF-13-02	SYL	5.90	4.70	4.00
SF-13-03	SYL	5.90	4.70	4.00
SF-20-02	SYL	13.80	11.00	9.35
SF-20-03	SYL	13.80	11.00	9.35
SF-21-02	SYL	12.65	10.10	8.60
SF-21-03	SYL	12.65	10.10	8.60
SF-22-02	SYL	8.90	7.10	6.05
SF-22-03	SYL	8.90	7.10	6.05
SF-23-02	SYL	7.45	5.95	5.05
SF-23-03	SYL	7.45	5.95	5.05
SF-30-02	SYL	17.20	13.75	11.65
SF-30-03	SYL	17.20	13.75	11.65
SF-31-02	SYL	15.75	12.55	10.60
SF-31-03	SYL	15.75	12.55	10.60
SF-32-02	SYL	11.20	8.95	7.55
SF-32-03	SYL	11.20	8.95	7.55
SF-33-02	SYL	9.30	7.40	6.25
SF-33-03	SYL	9.30	7.40	6.25
SF-50-02	SYL	17.20	13.75	11.65
SF-50-03	SYL	17.20	13.75	11.65
SF-51-02	SYL	15.75	12.55	10.60
SF-51-03	SYL	15.75	12.55	10.60
SF-52-02	SYL	5.25	4.20	3.50
SF-52-03	SYL	9.65	7.70	6.50

Type No.	Mfg.	1-999	1000-4999	5000-Up
SF-52P-03	SYL	3.75	2.80	2.50

Type No.	Mfg.	1-10	11-99	100-Up
SF-53-02	SYL	5.25	4.20	3.50
SF-53-03	SYL	8.00	6.40	5.40

Type No.	Mfg.	1-999	1000-4999	5000-Up
SF-53P-03	SYL	3.00	2.25	2.00

Type No.	Mfg.	1-24	25-99	100-Up
SF-60-02	SYL	17.20	13.75	11.65
SF-60-03	SYL	17.20	13.75	11.65

Type No.	Mfg.	1-10	11-99	100-Up
SF-61-02	SYL	15.75	12.55	10.60
SF-61-03	SYL	15.75	12.55	10.60

Type No.	Mfg.	1-24	25-99	100-Up
SF-62-02	SYL	6.60	5.30	4.40
SF-62-03	SYL	9.65	7.70	6.50

Type No.	Mfg.	1-999	1000-4999	5000-Up
SF-62P-03	SYL	3.75	2.80	2.50

Type No.	Mfg.	1-10	11-99	100-Up
SF-63-02	SYL	5.25	4.20	3.50
SF-63-03	SYL	8.00	6.40	5.40

Type No.	Mfg.	1-999	1000-4999	5000-Up
SF-63P-03	SYL	3.00	2.25	2.00

Type No.	Mfg.	1-24	25-99	100-Up
SF-100-02	SYL	22.20	17.70	15.00
SF-100-03	SYL	22.20	17.70	15.00
SF-101-02	SYL	20.40	16.25	13.75
SF-101-03	SYL	20.40	16.25	13.75
SF-102-02	SYL	14.40	11.50	9.70
SF-102-03	SYL	14.40	11.50	9.70
SF-103-02	SYL	12.00	9.60	8.10
SF-103-03	SYL	12.00	9.60	8.10
SF-110-02	SYL	22.20	17.70	15.00
SF-110-03	SYL	22.20	17.70	15.00
SF-111-02	SYL	20.40	16.25	13.75
SF-111-03	SYL	20.40	16.25	13.75
SF-112-02	SYL	14.40	11.50	9.70
SF-112-03	SYL	14.40	11.50	9.70
SF-113-02	SYL	12.00	9.60	8.10
SF-113-03	SYL	12.00	9.60	8.10
SF-120-02	SYL	28.45	22.80	19.20
SF-120-03	SYL	28.45	22.80	19.20
SF-121-02	SYL	26.25	20.95	17.75
SF-121-03	SYL	26.25	20.95	17.75
SF-122-02	SYL	18.50	14.80	12.50
SF-122-03	SYL	18.50	14.80	12.50
SF-123-02	SYL	15.45	12.30	10.40
SF-123-03	SYL	15.45	12.30	10.40
SF-130-02	SYL	28.45	22.80	19.20
SF-130-03	SYL	28.45	22.80	19.20
SF-131-02	SYL	26.25	20.95	17.75
SF-131-03	SYL	26.25	20.95	17.75
SF-132-02	SYL	18.50	14.80	12.50
SF-132-03	SYL	18.50	14.80	12.50
SF-133-02	SYL	15.45	12.30	10.40
SF-133-03	SYL	15.45	12.30	10.40
SF-200-02	SYL	19.00	15.15	12.85
SF-200-03	SYL	19.00	15.15	12.85
SF-201-02	SYL	17.50	14.00	11.85
SF-201-03	SYL	17.50	14.00	11.85
SF-202-02	SYL	12.35	9.85	8.35
SF-202-03	SYL	12.35	9.85	8.35

Type No.	Mfg.	1-999	1000-4999	5000-Up
SF-202P-03	SYL	9.00	6.60	5.95

Type No.	Mfg.	1-24	25-99	100-Up
SF-203-02	SYL	10.25	8.20	6.95
SF-203-03	SYL	10.25	8.20	6.95

Type No.	Mfg.	1-999	1000-4999	5000-Up
SF-203P-03	SYL	7.15	5.25	4.75

Type No.	Mfg.	1-24	25-99	100-Up
SF-210-02	SYL	19.00	15.15	12.85
SF-210-03	SYL	19.00	15.15	12.85
SF-211-02	SYL	17.50	14.00	11.85
SF-211-03	SYL	17.50	14.00	11.85
SF-212-02	SYL	12.35	9.85	8.35
SF-212-03	SYL	12.35	9.85	8.35

Type No.	Mfg.	1-999	1000-4999	5000-Up
SF-212P-03	SYL	9.00	6.60	5.95

Type No.	Mfg.	1-24	25-99	100-Up
SF-213-02	SYL	10.25	8.20	6.95
SF-213-03	SYL	10.25	8.20	6.95

Type No.	Mfg.	1-999	1000-4999	5000-Up
SF-213P-03	SYL	7.15	5.25	4.75

Type No.	Mfg.	1-24	25-99	100-Up
SF-250-02	SYL	19.00	15.15	12.85
SF-250-03	SYL	19.00	15.15	12.85
SF-251-02	SYL	17.50	14.00	11.85
SF-251-03	SYL	17.50	14.00	11.85
SF-252-02	SYL	12.35	9.85	8.35
SF-252-03	SYL	12.35	9.85	8.35
SF-253-02	SYL	8.20	7.05	6.30
SF-253-03	SYL	8.20	7.05	6.30
SF-260-02	SYL	19.00	15.15	12.85
SF-260-03	SYL	19.00	15.15	12.85
SF-261-02	SYL	14.00	12.05	10.75
SF261-03	SYL	14.00	12.05	10.75
SF-262-02	SYL	12.35	9.85	8.35
SF-262-03	SYL	12.35	9.85	8.35
SF-263-02	SYL	8.20	7.05	6.30
SF-263-03	SYL	8.20	7.05	6.30
SFF3A	SYL	50.00	42.85	....
SG-40-02	SYL	10.85	8.70	7.45
SG-40-03	SYL	10.85	8.70	7.45
SG-41-02	SYL	9.95	8.00	6.80
SG-41-03	SYL	9.95	8.00	6.80
SG-42-02	SYL	7.05	5.65	4.80
SG-42-03	SYL	7.05	5.65	4.80

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-42P-03	SYL	2.30	1.75	1.55

Type No.	Mfg.	1-24	25-99	100-Up
SG-43-02	SYL	5.90	4.70	4.00
SG-43-03	SYL	5.90	4.70	4.00

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-43-03	SYL	1.85	1.40	1.25

Type No.	Mfg.	1-24	25-99	100-Up
SG-50-02	SYL	10.85	8.70	7.45
SF-50-03	SYL	10.85	8.70	7.45
SG-51-02	SYL	9.95	8.00	6.80
SG-51-03	SYL	9.95	8.00	6.80
SG-52-02	SYL	5.25	4.20	3.50
SG-52-03	SYL	5.00	4.00	3.35

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-52P-03	SYL	2.55	1.95	1.75

Type No.	Mfg.	1-24	25-99	100-Up
SG-53-02	SYL	4.10	3.30	2.75
SG-53-03	SYL	5.00	4.00	3.35

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-53P-03	SYL	2.10	1.55	1.40

Type No.	Mfg.	1-24	25-99	100-Up
SG-60-02	SYL	10.85	8.70	7.45
SG-60-03	SYL	10.85	8.70	7.45
SG-61-02	SYL	9.95	8.00	6.80
SG-61-03	SYL	9.95	8.00	6.80
SG-62-02	SYL	4.70	3.80	3.15
SG-62-03	SYL	6.05	4.85	4.10

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-62P-03	SYL	2.30	1.75	1.55

Type No.	Mfg.	1-24	25-99	100-Up
SG-63-02	SYL	3.75	3.00	2.50
SG-63-03	SYL	5.00	4.00	3.35

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-63P-03	SYK	1.85	1.40	1.25

Type No.	Mfg.	1-24	25-99	100-Up
SG-70-02	SYL	13.80	11.00	9.35
SG-70-03	SYL	13.80	11.00	9.35
SG-71-02	SYL	12.65	10.10	8.60
SG-71-03	SYL	12.65	10.10	8.60
SG-72-02	SYL	7.25	5.80	4.90
SG-72-03	SYL	7.25	5.80	4.90

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-72P-03	SYL	4.50	3.35	3.00

Type No.	Mfg.	1-24	25-99	100-Up
SG-73-02	SYL	6.05	4.85	4.10
SG-73-03	SYL	6.05	4.85	4.10

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Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-73P-03	SYL	3.75	2.80	2.50

Type No.	Mfg.	1-24	25-99	100-Up
SG-80-02	SYL	13.80	11.00	9.35
SG-80-03	SYL	13.80	11.00	9.35
SG-81-02	SYL	12.65	10.10	8.60
SG-81-03	SYL	12.65	10.10	8.60
SG-82-02	SYL	8.90	7.10	6.05
SG-82-03	SYL	8.90	7.10	6.05
SG-83-02	SYL	7.45	5.95	5.05
SG-83-03	SYL	7.45	5.95	5.05
SG-90-02	SYL	13.80	11.00	9.35
SG-90-03	SYL	13.80	11.00	9.35
SG-91-02	SYL	12.65	10.10	8.60
SG-91-03	SYL	12.65	10.10	8.60
SG-92-02	SYL	8.90	7.10	6.05
SG-92-03	SYL	8.90	7.10	6.05
SG-93-02	SYL	7.45	5.95	5.05
SG-93-03	SYL	7.45	5.95	5.05
SG-100-02	SYL	12.40	9.90	8.35
SG-100-03	SYL	12.40	9.90	8.35
SG-101-02	SYL	9.95	8.00	6.80
SG-101-03	SYL	9.95	8.00	6.80
SG-102-02	SYL	5.25	4.20	3.50
SG-102-03	SYL	6.05	4.85	4.10

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-102P-03	SYL	2.55	1.95	1.75

Type No.	Mfg.	1-24	25-99	100-Up
SG-103-02	SYL	4.10	3.30	2.75
SG-103-03	SYL	5.00	4.00	3.35

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-103P-03	SYL	2.10	1.55	1.40

Type No.	Mfg.	1-24	25-99	100-Up
SG-110-02	SYL	10.85	8.70	7.45
SG-110-03	SYL	10.85	8.70	7.45
SG-111-02	SYL	9.95	8.00	6.80
SG-111-03	SYL	9.95	8.00	6.80
SG-112-02	SYL	5.25	4.20	3.50
SG-112-03	SYL	6.05	4.85	4.10

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-112P-03	SYL	2.55	1.95	1.75

Type No.	Mfg.	1-24	25-99	100-Up
SG-113-02	SYL	4.10	3.30	2.75
SG-113-03	SYL	5.00	4.00	3.35

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-113P-03	SYL	2.10	1.55	1.77

Type No.	Mfg.	1-24	25-99	100-Up
SG1-20-02	SYL	10.85	8.70	7.45
SG-120-03	SYL	10.85	8.70	7.45
SG-121-02	SYL	9.95	8.00	6.80
SG-121-03	SYL	9.95	8.00	6.80
SG-122-02	SYL	7.05	5.65	4.80
SG-122-03	SYL	7.05	5.65	4.80
SG-123-02	SYL	5.90	4.70	4.00
SG-123-03	SYL	5.90	4.70	4.00
SG-130-02	SYL	13.80	11.00	9.35
SG-130-03	SYL	13.80	11.00	9.35
SG-131-02	SYL	12.65	10.10	8.60
SG-131-03	SYL	12.65	10.10	8.60
SG-132-02	SYL	7.60	6.05	5.15
SG-132-03	SYL	7.60	6.05	5.15

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-132P-03	SYL	5.35	3.95	3.55

Type No.	Mfg.	1-24	25-99	100-Up
SG-133-02	SYL	6.35	5.10	4.30
SG-133-03	SYL	6.35	5.10	4.30

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-133P-03	SYL	4.60	3.40	3.05

Type No.	Mfg.	1-24	25-99	100-Up
SG-140-02	SYL	10.85	8.70	7.45
SG-140-03	SYL	10.85	8.70	7.45
SG-141-02	SYL	9.95	8.00	6.80
SG-141-03	SYL	9.95	8.00	6.80
SG-142-02	SYL	4.70	3.80	3.15
SG-142-03	SYL	6.05	4.84	4.10

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-142P-03	SYL	2.30	1.75	1.55

Type No.	Mfg.	1-24	25-99	100-Up
SG-143-02	SYL	3.75	3.00	2.50
SG-143-03	SYL	5.00	4.00	3.35

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-143P-03	SYL	1.85	1.40	1.25

Type No.	Mfg.	1-24	25-99	100-Up
SG-150-02	SYL	8.35	6.65	5.65
SG-150-03	SYL	8.35	6.65	5.65
SG-151-02	SYL	8.35	6.65	5.65
SG-151-03	SYL	8.35	6.65	5.65
SG-152-02	SYL	4.25	3.40	2.85
SG-152-03	SYL	4.25	3.40	2.90

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-152P-03	SYL	1.60	1.20	1.10

Type No.	Mfg.	1-24	25-99	100-Up
SG-153-02	SYL	3.35	2.70	2.25
SG-153-03	SYL	4.25	3.40	2.90

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-153P-03	SYL	1.60	1.20	1.10

Type No.	Mfg.	1-24	25-99	100-Up
SG-160-02	SYL	13.80	11.00	9.35
SG-160-03	SYL	13.80	11.00	9.35
SG-161-02	SYL	12.65	10.10	8.60
SG-161-03	SYL	12.65	10.10	8.60
SG-162-02	SYL	8.90	7.10	6.05
SG-162-03	SYL	8.90	7.10	6.05
SG-163-02	SYL	7.45	5.95	5.05
SG-163-03	SYL	7.45	5.95	5.05
SG-170-02	SYL	8.35	6.65	5.65
SG-170-03	SYL	8.35	6.65	5.65
SG-171-02	SYL	8.35	6.65	5.65
SG-171-03	SYL	8.35	6.65	5.65
SG-172-02	SYL	4.25	3.40	2.85
SG-172-03	SYL	4.25	3.40	2.90

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-172P-03	SYL	1.60	1.20	1.10

Type No.	Mfg.	1-24	25-99	100-Up
SG-173-02	SYL	3.35	2.70	2.25
SG-173-03	SYL	4.25	3.40	2.90

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-173P-03	SYL	1.60	1.20	1.10

Type No.	Mfg.	1-24	25-99	100-Up
SG-180-02	SYL	8.35	6.65	5.65
SG-180-03	SYL	8.35	6.65	5.65
SG-181-02	SYL	8.35	6.65	5.65
SG-181-03	SYL	8.35	6.65	5.65
SG-182-02	SYL	4.25	3.40	2.85
SG-182-03	SYL	4.25	3.40	2.90
SG-183-02	SYL	3.35	2.05	2.25
SG-183-03	SYL	4.25	2.40	2.90
SG-190-02	SYL	10.85	8.70	7.45
SG-190-03	SYL	10.85	8.70	7.45
SG-191-02	SYL	9.95	8.00	6.80
SG-191-03	SYL	9.95	8.00	6.80
SG-192-02	SYL	4.65	3.70	3.15
SG-192-03	SYL	6.05	4.85	4.10

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-192P-03	SYL	2.30	1.75	1.25

Type No.	Mfg.	1-24	25-99	100-Up
SG-193-02	SYL	3.70	2.95	2.50
SG-193-03	SYL	5.00	4.00	3.35

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-193P-03	SYL	1.85	1.40	1.25

Type No.	Mfg.	1-24	25-99	100-Up
SG-200-02	SYL	11.50	9.20	7.80
SG-200-03	SYL	11.50	9.20	7.80
SG-201-02	SYL	10.50	8.40	7.10
SG-201-03	SYL	10.50	8.40	7.10
SG-202-02	SYL	7.45	5.95	5.05
SG-202-03	SYL	7.45	5.95	5.05
SG-203-02	SYL	6.20	4.95	4.20
SG-210-02	SYL	11.50	9.20	7.80
SG-210-03	SYL	11.50	9.20	7.80
SG-211-02	SYL	10.50	8.40	7.10
SG-211-03	SYL	10.50	8.40	7.10
SG-212-02	SYL	6.05	4.85	4.10
SG-212-03	SYL	6.05	4.85	4.10

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-212P-03	SYL	3.10	2.35	2.10

Type No.	Mfg.	1-24	25-99	100-Up
SG-213-02	SYL	4.95	3.95	3.30
SG-213-03	SYL	5.00	4.00	3.35

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-213P-03	SYL	2.40	1.85	1.65

Type No.	Mfg.	1-24	25-99	100-Up
SG-220-02	SYL	11.50	9.20	7.80
SG-220-03	SYL	11.50	9.20	7.80
SG-221-02	SYL	10.50	8.40	7.10
SG-221-03	SYL	10.50	8.40	7.10
SG-222-02	SYL	5.70	4.55	3.80
SG-222-03	SYL	6.05	4.85	4.10

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-222P-03	SYL	2.80	2.10	1.90

Type No.	Mfg.	1-24	25-99	100-Up
SG-223-02	SYL	4.50	3.60	3.00
SG-223-03	SYL	5.00	4.00	3.35

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-223P-03	SYL	2.25	1.70	1.50

Type No.	Mfg.	1-24	25-99	100-Up
SG-230-02	SYL	8.70	6.95	5.90
SG-230-03	SYL	8.70	6.95	5.90
SG-231-02	SYL	8.70	6.95	5.90
SG-231-03	SYL	8.70	6.95	5.90
SG-232-02	SYL	4.25	3.40	2.85
SG-232-03	SYL	4.25	3.40	2.90

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-232P-03	SYL	1.60	1.20	1.10

Type No.	Mfg.	1-24	25-99	100-Up
SG-233-02	SYL	3.40	2.70	2.25
SG-233-03	SYL	4.25	3.40	2.90

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-233P-03	SYL	1.60	1.20	1.10

Type No.	Mfg.	1-24	25-99	100-Up
SG-240-02	SYL	11.50	9.20	7.80
SG-240-03	SYL	11.50	9.20	7.80
SG-241-02	SYL	10.50	8.40	7.10
SG-241-03	SYL	10.50	8.40	7.10
SG-242-02	YSL	5.70	4.55	3.80
SG-242-03	SYL	6.05	4.85	4.10

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-242P-03	SYL	2.25	1.70	1.50

Type No.	Mfg.	1-24	25-99	100-Up
SG-243-02	SYL	4.50	3.60	3.00
SG-243-03	SYL	5.00	4.00	3.35

Type No.	Mfg.	1-999	1000-4999	5000-Up
SG-243-03	SYL	2.25	1.70	1.50

Type No.	Mfg.	1-24	25-99	100-Up
SG-250-02	SYL	11.50	9.20	7.80
SG-250-03	SYL	11.50	9.20	7.80
SG-251-02	SYL	10.50	8.45	7.10
SG-251-03	SYL	10.50	8.45	7.10
SG-252-02	SYL	6.05	4.85	4.10
SG-252-03	SYL	6.05	4.85	4.10
Type No.	**Mfg.**	**1-999**	**1000-4999**	**5000-Up**
SG-252P-03	SYL	3.10	2.35	2.10
Type No.	**Mfg.**	**1-24**	**25-99**	**100-Up**
SG-253-02	SYL	4.94	3.95	3.30
SG-253-03	SYL	5.00	4.00	3.35
Type No.	**Mfg.**	**1-999**	**1000-4999**	**5000-Up**
SG-253P-03	SYL	2.40	1.85	1.65
Type No.	**Mfg.**	**1-24**	**25-99**	**100-Up**
SG-260-02	SYL	11.50	9.20	7.80
SG-260-03	SYL	11.50	9.20	7.80
SG-261-02	SYL	10.50	8.40	7.10
SG-261-03	SYL	10.50	8.40	7.10
SG-262-02	SYL	5.70	4.55	3.80
SG-262-03	SYL	6.05	4.85	4.10
Type No.	**Mfg.**	**1-999**	**1000-4999**	**5000-Up**
SG-262P-03	SYL	2.80	2.10	1.90
Type No.	**Mfg.**	**1-24**	**25-99**	**100-Up**
SG 263-02	SYL	4.50	3.60	3.00
SG-263-03	SYL	5.00	4.00	3.35
Type No.	**Mfg.**	**1-999**	**1000-4999**	**5000-Up**
SG-263P-03	SYL	2.25	1.70	1.50
Type No.	**Mfg.**	**1-24**	**25-99**	**100-Up**
SG-270-02	SYL	8.70	6.95	5.90
SG-270-03	SYL	8.70	6.95	5.90
SG-271-02	SYL	8.70	6.95	5.90
SG-271-03	SYL	8.70	6.95	5.90
SG-272-02	SYL	4.25	3.40	2.85
SG-272-03	SYL	4.25	3.40	2.85
Type No.	**Mfg.**	**1-999**	**1000-4999**	**5000-Up**
SG-272P-03	SYL	1.60	1.20	1.10
Type No.	**Mfg.**	**1-24**	**25-99**	**100-Up**
SG-273-02	SYL	3.40	2.70	2.25
SG-273-03	SYL	4.25	3.40	2.90
Type No.	**Mfg.**	**1-999**	**1000-4999**	**5000-Up**
SG-273-03	SYL	1.60	1.20	1.10
Type No.	**Mfg.**	**1-24**	**25-99**	**100-Up**
SG-280-02	SYL	10.85	8.70	7.45
SG-280-03	SYL	10.85	8.70	7.45
SG-281-02	SYL	9.95	8.00	6.80
SG-281-03	SYL	9.95	8.00	6.80
SG-282-02	SYL	7.05	5.65	4.80
SG-282-03	SYL	7.05	5.65	4.80
SG-283-02	SYL	5.90	4.70	4.00
SG-283-03	SYL	5.90	4.70	4.00
SG-290-02	SYL	8.35	6.65	5.65
SG-290-03	SYL	8.35	6.65	5.65
SG-291-02	SYL	8.35	6.65	5.65
SG-291-03	SYL	8.35	6.65	5.65
SG-292-02	SYL	4.90	3.90	3.35
SG-292-03	SYL	4.90	3.90	3.35
SG-293-02	SYL	4.90	3.90	3.35
SG-293-03	SYL	4.90	3.90	3.35
SG-300-02	SYL	11.50	9.20	7.80
SG-300-03	SYL	11.50	49.20	7.80
SG-301-02	SYL	10.50	8.40	7.10
SG-301-03	SYL	10.50	8.40	7.10
SG-302-02	SYL	6.05	4.85	4.10
SG-302-03	SYL	6.05	4.85	4.10
Type No.	**Mfg.**	**1-999**	**1000-4999**	**5000-Up**
SG-302P-03	SYL	3.90	2.90	2.60
Type No.	**Mfg.**	**1-24**	**25-99**	**100-Up**
SG-303-02	SYL	5.00	4.00	3.35
SG-303-03	SYL	5.00	4.00	3.35
Type No.	**Mfg.**	**1-999**	**1000-4999**	**5000-Up**
SG-303P-03	SYL	3.10	2.30	2.05

Type No.	Mfg.	1-24	25-99	100-Up
SG-310-02	SYL	15.10	12.05	10.25
SG-310-03	SYL	15.10	12.05	10.25
SG-311-02	SYL	13.90	11.05	9.45
SG-311-03	SYL	13.90	11.05	9.45
SG-312-02	SYL	7.25	5.80	4.90
SG-312-03	SYL	7.25	5.80	4.90
Type No.	**Mfg.**	**1-999**	**1000-4999**	**5000-Up**
SG-312P-03	SYL	4.50	3.35	3.00
Type No.	**Mfg.**	**1-24**	**25-99**	**100-Up**
SG-313-02	SYL	6.05	4.85	4.10
SG-313-03	SYL	6.05	4.85	410
Type No.	**Mfg.**	**1-999**	**1000-4999**	**5000-Up**
SG-313P-03	SYL	3.60	2.80	42.40
Type No.	**Mfg.**	**1-24**	**25-99**	**100-Up**
SM-10-02	SYL	22.85	18.10	15.30
SM-10-03	SYL	22.85	18.10	15.30
SM-11-02	SYL	20.80	16.60	14.05
SM-11-03	SYL	20.80	16.60	14.05
SM-12-02	SYL	14.70	11.70	9.90
SM-12-03	SYL	14.70	11.70	9.90
SM-13-02	SYL	12.25	9.70	8.25
SM-13-03	SYL	12.25	9.70	8.25
SM-20-02	SYL	22.85	18.10	15.30
SM-20-03	SYL	22.85	18.10	15.30
SM-21-02	SYL	20.80	16.60	14.05
SM-21-03	SYL	20.80	16.60	14.05
SM-22-02	SYL	14.70	11.70	9.90
SM-22-03	SYL	14.70	11.70	9.90
SM-23-02	SYL	12.25	9.75	8.25
SM-23-03	SYL	12.25	9.75	8.25
SM-30-02	SYL	22.85	18.10	15.30
SM-30-03	SYL	22.85	18.10	15.30
SM-31-02	SYL	20.80	16.60	14.05
SM-31-03	SYL	20.80	16.60	14.05
SM-32-02	SYL	14.70	11.70	9.90
SM-32-03	SYL	14.70	11.70	9.90
SM-33-02	SYL	12.25	9.75	8.25
SM-33-03	SYL	12.25	9.75	8.25
SM-40-02	SYL	17.35	13.85	11.75
SM-40-03	SYL	17.35	13.85	11.75
SM-41-02	SYL	17.35	13.85	11.75
SM-41-03	SYL	17.35	13.85	11.75
SM-42-02	SYL	10.20	8.15	6.90
SM-42-03	SYL	10.20	8.15	6.90
SM-43-02	SYL	10.20	8.15	6.90
SM-43-03	SYL	10.20	8.15	6.90
SM-60-02	SYL	25.70	20.50	17.85
SM-60-03	SYL	25.70	20.50	17.35
SM-61-02	SYL	23.55	18.80	15.90
SM-61-03	SYL	23.55	18.80	15.90
SM-62-02	SYL	16.65	13.30	11.25
SM-62-03	SYL	16.65	13.30	11.25
SM-63-02	SYL	13.85	11.05	9.35
SM-63-03	SYL	13.85	11.05	9.35
SM-70-02	SYL	25.70	20.50	17.35
SM-70-03	SYL	25.70	20.50	17.35
SM-71-02	SYL	23.55	18.80	15.90
SM-71-03	SYL	23.55	18.80	15.90
SM-72-02	SYL	16.65	13.30	11.25
SM-72-03	SYL	16.65	13.30	11.25
SM-73-02	SYL	13.85	11.05	9.35
SM-73-03	SYL	13.85	11.05	9.35
SM-80-02	SYL	73.35	58.50	50.00
SM-80-03	SLI	73.35	58.50	50.00
SM-81-02	SYL	62.35	49.75	42.50
SM-81-03	SYL	62.35	49.75	42.50
SM-82-02	SYL	51.35	40.95	35.00
SM-82-03	SYL	51.35	40.95	35.00
SM-83-02	SYL	36.70	39.25	25.00
SM-83-03	SYL	36.70	39.25	25.00
SN-006A	TI	6.50	6.00	...
SN15830N	TI	1.90	1.60	1.40
SN15831N	TI	2.66	2.24	1.96
SN15832N	TI	1.90	1.60	1.40
SN15833N	TI	1.60	1.40	1.30
SN15-844	TI	4.70	3.70	3.20
SN15844N	TI	2.00	1.70	1.50
SN15-845	TI	5.25	4.20	3.65
SN15-845-2	TI	5.25	4.20	3.65
SN15845N	TI	3.65	3.00	2.80
SN15-846	TI	3.65	2.90	2.55
SN15846N	TI	2.00	1.70	1.50
SN1584N	TI	3.65	3.00	2.80
SN15-851	TI	11.70	9.30	8.00
SN15-851N	TI	8.55	7.20	6.30
SN15862-2	TI	3.21	2.45	2.14
SN15862N	TI	1.90	1.60	1.40

Type No.	Mfg.	1-24	25-99	100-Up
SN52702	TI	10.02	8.02	6.01
SN52702L	TI	10.85	8.75	7.00
SN52709	TI	9.62	7.70	5.77
SN52709L	TI	9.89	7.97	6.38
SN52710	TI	7.44	5.95	4.46
SN52710L	TI	8.53	6.88	5.50
SN52711	TI	12.46	9.97	7.48
SN52711L	TI	13.95	11.25	9.00
SN-54H00	TI	9.70	7.75	6.60
SN-54H10	TI	9.70	7.75	6.60
SN-54H11	TI	9.70	7.75	6.60
SN-54H20	TI	9.70	7.75	6.60
SN-54H21	TI	9.70	7.75	6.60
SN-54H30	TI	9.70	7.75	6.60
SN-54H40	TI	10.70	8.50	7.25
SN-54H50	TI	10.70	8.50	7.25
SN-54H52	TI	10.70	8.50	7.25
SN-54H53	TI	10.70	8.50	7.25
SN-54H55	TI	10.70	8.50	7.25
SN-54H60	TI	8.75	6.95	5.95
SN-54H61	TI	8.75	6.95	5.95
SN-54H62	TI	8.75	6.95	5.95
SN-54H71	TI	13.60	10.85	9.25
SN-54H72	TI	13.60	10.85	9.25
S5N4-L00	TI	14.17	11.28	9.62
SN-54L20	TI	14.17	11.28	9.62
SN-54L71	TI	23.24	18.51	15.78
SN-54L72	TI	23.24	18.51	15.78
SN723	TI	17.85	14.20	12.10
SN723L	TI	17.85	14.20	12.10
SN724	TI	12.15	9.70	8.25
SN724L	TI	12.15	9.70	8.25
SN725	TI	25.20	20.00	17.10
SN726	TI	20.10	16.10	13.75
SN72-702	TI	7.00	6.20	4.80
SN72-702L	TI	7.00	6.20	4.80
SN72-709	TI	9.35	7.45	6.35
SN72-709L	TI	9.35	7.45	6.35
SN72-709N	TI	7.45	5.90	5.00
SN72-710	TI	7.00	6.20	4.80
SN72-710L	TI	7.00	6.20	4.80
SN72-710N	TI	5.60	4.45	3.80
SN72-711	TI	26.00	20.75	17.50
SN-72-711L	TI	26.00	20.75	17.50
SN7300-2	TI	8.10	6.45	5.50
SN7302-2	TI	10.50	8.35	7.15
SN7304-2	TI	10.50	8.35	7.15
SN7310-2	TI	5.65	4.50	3.85
SN7311-2	TI	6.50	5.15	4.40
SN7320-2	TI	5.65	4.50	3.85
SN7400-2	TI	3.65	2.90	2.50
SN7401	TI	3.65	2.90	2.50
SN7401N	TI	2.25	1.80	1.55
SN7410-2	TI	3.65	2.90	2.50
SN7420-2	TI	3.65	2.90	2.50
SN7440-2	TI	4.05	3.20	2.75
SN7491AN	TI	15.00	11.90	10.20
SN7494N	TI	15.25	12.15	10.35
SN7495N	TI	17.00	13.55	11.55
SN7496N	TI	17.00	13.55	11.55
SN74H00	TI	5.50	4.40	3.75
SN74H00N	TI	3.40	2.70	2.30
SN74H10	TI	5.50	4.40	3.75
SN74H10N	TI	3.40	2.70	2.30
SN74H11	TI	5.50	4.40	3.75
SN74H11N	TI	3.40	2.70	2.30
SN74H20	TI	5.50	4.40	3.75
SN74H20N	TI	3.40	2.70	2.30
SN74H21	TI	5.50	4.40	3.75
SN74H21N	TI	3.40	2.70	2.30
SN74H30	TI	5.50	4.40	3.75
SN74H30N	TI	3.40	2.70	2.30
SN74H40	TI	6.05	4.85	4.10
SN74H40N	TI	3.75	2.95	2.55
SN74H50	TI	6.05	4.85	4.10
SN74H50N	TI	3.75	2.95	2.55
SN74H52	TI	6.05	4.85	4.10
SN74HS2N	TI	3.75	2.95	2.55
SN74H53	TI	6.05	4.85	4.10
SN74H53N	TI	3.75	2.95	2.55
SN74H55	TI	6.05	4.85	4.10
SN74H55N	TI	3.75	2.95	2.55
SN74H60	TI	4.40	3.50	2.95
SN74H60N	TI	2.65	2.15	1.80
SN74H61	TI	4.40	3.50	2.95
SN74H61N	TI	2.65	2.15	1.80
SN74H62	TI	4.40	3.50	2.95
SN74H62N	TI	2.65	2.15	1.80
SN74H71	TI	7.70	6.15	5.20
SN74H71N	TI	5.50	4.40	3.75
SN74H72	TI	7.70	6.15	5.20
SN74H72N	TI	5.50	4.40	3.75

Integrated Circuit Directory

Type No.	Mfg.	1-24	25-99	100-Up
SN74L00	TI	9.07	7.22	6.15
SN74L20	TI	9.07	7.22	6.15
SN74L71	TI	15.55	12.38	10.55
SN74L72	TI	15.55	12.38	10.55
SN336A	TI	53.00	43.00	....
SN345A	TI	89.00	71.00	....
SN351A	TI	142.00	114.00	....
SN5300	TI	17.75	14.25	12.10
SN53CL	TI	17.75	14.20	12.20
SN531	TI	11.35	9.00	7.70
SN531L	TI	11.35	9.00	7.70
SN532L	TI	11.35	9.00	7.70
SN533	TI	11.35	9.00	7.70
SN534	TI	11.35	9.00	7.70
SN534L	TI	11.35	9.00	7.70
SN535-2	TI	11.35	9.00	7.70
SN535L	TI	11.35	9.00	7.70
SN717A	TI	130.00	103.00	....
SN5400	TI	6.50	5.15	4.40
SN5400N	TI	3.51	2.79	2.38
SN5401	TI	6.50	5.15	4.40
SN5401N	TI	3.51	2.79	2.38
SN5402	TI	7.15	5.70	4.85
SN5402N	TI	3.88	3.09	2.63
SN5410	TI	6.50	5.15	4.40
SN5410N	TI	3.51	2.79	2.38
SN5420	TI	6.50	5.15	4.40
SN5420N	TI	3.51	2.79	2.38
SN5430	TI	6.50	5.15	4.40
SN5430N	TI	3.51	2.79	2.38
SN5440	TI	7.15	5.70	4.85
SN5440N	TI	3.88	3.09	2.63
SN5441N	TI	30.80	24.50	21.00
SN5450	TI	7.15	5.70	4.85
SN5450N	TI	3.88	3.09	2.63
SN5451	TI	6.50	5.15	4.40
SN5451N	TI	3.51	2.79	2.38
SN5453	TI	7.15	5.70	4.85
SN5453N	TI	3.88	3.09	2.63
SN5454	TI	6.50	5.15	4.40
SN5454N	TI	3.51	2.79	2.38
SN5460	TI	5.85	4.65	4.00
SN5460N	TI	2.75	2.19	1.86
SN5470	TI	10.35	8.25	7.05
SN5470N	TI	6.26	4.99	4.25
SN5472	TI	9.05	7.25	6.15
SN5472N	TI	5.63	4.48	3.82
SN5473	TI	13.30	10.60	9.00
SN5473N	TI	9.15	7.28	6.21
SN5474	TI	12.90	10.30	8.80
SN5474N	TI	8.78	6.99	5.96
SN5475N	TI	15.97	12.57	10.72
SN5476N	TI	9.67	7.20	6.56
SN5480	TI	16.20	12.90	11.00
SN5480N	TI	8.78	6.99	5.46
SN5482	TI	24.00	19.10	16.30
SN5482N	TI	13.05	10.39	8.86
SN5483N	TI	26.80	21.40	18.30
SN5491	TI	38.90	31.30	26.40
SN5491N	TI	30.00	23.80	20.40
SN5500	TI	56.00	44.50	38.00
SN5510	TI	13.80	10.95	9.30

Type No.	Mfg.	1-24	25-99	100-Up
SN5510L	TI	13.80	10.95	9.30
SN5511	TI	22.00	18.00	15.40
SN7231L	TI	17.85	14.20	12.10
SN7300	TI	8.10	6.45	5.50
SN7301	TI	8.50	6.75	5.75
SN7301-2	TI	8.50	6.75	5.75
SN7302	TI	10.50	8.35	7.15
SN7304	TI	10.50	8.35	7.15
SN7310	TI	5.65	4.50	3.85
SN7311	TI	6.50	5.15	4.40
SN7315	TI	6.50	5.15	4.40
SN7320	TI	5.65	4.50	3.85
SN7330	TI	5.65	4.50	3.85
SN7330-2	TI	5.65	4.50	3.85
SN7331	TI	6.50	5.15	4.40
SN7331-2	TI	6.50	5.15	4.40
SN7350	TI	5.65	4.50	3.85
SN7350-2	TI	5.65	4.50	3.85
SN7360	TI	6.50	5.15	4.40
SN7370	TI	7.70	6.15	5.25
SN7380	TI	9.75	7.75	6.60
SN7380-2	TI	9.75	7.75	6.60
SN7400	TI	3.65	2.90	2.50
SN7400N	TI	2.25	1.80	1.55
SN7402	TI	4.05	3.20	2.75
SN7402N	TI	2.50	2.00	1.70
SN7410	TI	3.65	2.90	2.50
SN7410N	TI	2.25	1.80	1.55
SN7420	TI	3.65	2.90	2.50
SN7420N	TI	2.25	1.80	1.55
SN7430	TI	3.65	2.90	2.50
SN7430-2	TI	3.65	2.90	2.50
SN7430N	TI	2.25	1.80	1.55
SN7440	TI	4.05	3.20	2.75
SN7440N	TI	2.50	2.00	1.70
SN7441AN	TI	15.40	12.25	10.50
SN7450	TI	4.05	3.20	2.75
SN7450N	TI	2.50	2.00	1.70
SN7451	TI	3.65	2.90	2.50
SN7451N	TI	2.25	1.80	1.55
SN7453	TI	4.05	3.20	2.75
SN7453N	TI	2.50	2.00	1.70
SN7454	TI	3.65	2.90	2.50
SN7454N	TI	2.25	1.80	1.55
SN7460	TI	2.90	2.30	2.00
SN7460N	TI	1.80	1.40	1.20
SN7470	TI	5.85	4.65	4.00
SN7470N	TI	4.05	3.20	2.75
SN7472	TI	5.10	4.05	3.50
SN7472N	TI	3.65	2.90	2.50
SN7473	TI	7.45	5.95	5.05
SN7473N	TI	5.90	4.70	4.00
SN7474	TI	7.30	5.80	4.95
SN7474N	TI	5.65	4.50	3.85
SN7475N	TI	10.20	8.15	6.95
SN7476N	TI	6.20	4.95	4.20
SN7480	TI	9.10	7.25	6.15
SN7480N	TI	5.65	4.50	3.85
SN7482	TI	13.50	10.80	9.20
SN7482N	TI	8.45	6.70	5.75
SN7483N	TI	13.40	10.70	9.15
SN7490	TI	14.90	11.85	10.15

Type No.	Mfg.	1-24	25-99	100-Up
SN7490N	TI	11.10	8.85	7.55
SN7491	TI	19.90	15.90	13.50
SN7491N	TI	15.00	11.90	10.20
SN7492N	TI	12.20	9.75	8.30
SN7493N	TI	12.20	9.75	8.30
SN7500	TI	24.40	19.35	16.50
SN7501	TI	37.00	29.75	24.25
SN7501L	TI	37.00	29.75	24.25
SN7502	TI	37.00	29.75	24.25
SN7502L	TI	37.00	29.75	24.25
SN7510L	TI	6.50	5.15	4.40
SP616A	SPR	1.80	1.45	1.20
SP620A	SPR	3.50	2.80	2.35
SP629A	SPR	3.50	2.80	2.35
SP631A	SPR	1.55	1.25	1.05
SP659A	SPR	2.00	1.60	1.35
SP670A	SPR	2.00	1.60	1.35
SP680A	SPR	2.00	1.60	1.35

Type No.	Mfg.	1-24	25-99	100-249
TMS-1A-1700AA	TI	34.25	20.75	18.00
TMS-1A-1702LA	TI	15.25	9.20	8.00
TMS-1A-6009AA	TI	40.00	24.15	21.00
TMS-1B-3016LA	TI	22.80	13.75	12.00
TMS-7A-7000LA	TI	17.00	10.40	9.00
TMS-7B-3000LA	TI	35.25	21.25	18.50
TMS-7B-3001LA	TI	40.20	24.25	21.05
TMS-7C-3002LA	TI	57.00	34.50	30.00
USN7400A	SPR	2.25	1.80	1.55
USN7401A	SPR	2.25	1.80	1.55
USN7402A	SPR	2.50	2.00	1.70
USN7410A	SPR	2.25	1.80	1.55
USN7420A	SPR	2.25	1.80	1.55
USN7430A	SPR	2.25	1.80	1.55
USN7440A	SPR	2.50	2.00	1.70
USN7450A	SPR	2.50	2.00	1.70
USN7451A	SPR	2.25	1.80	1.55
USN7453A	SPR	2.50	2.00	1.70
USN7454A	SPR	2.25	1.80	1.55
USN7460A	SPR	1.80	1.40	1.20
USN7470A	SPR	4.05	3.20	2.75
USN7472A	SPR	3.65	2.90	2.50
USN7473A	SPR	5.90	4.70	4.00
USN7474A	SPR	5.65	4.50	3.85
USN7470A	SPR	7.10	5.70	5.00
USS5400J	SPR	6.50	5.15	4.40
USS5401J	SPR	6.50	5.15	4.40
USS5402J	SPR	7.15	5.70	4.85
USS5410J	SPR	6.50	5.15	4.40
USS5420J	SPR	6.50	5.15	4.40
USS5430J	SPR	6.50	5.15	4.40
USS5440J	SPR	7.15	5.70	4.85
USS5450J	SPR	7.15	5.70	4.85
USS5451J	SPR	6.50	5.15	4.40
USS5453J	SPR	7.15	5.70	4.85
USS5454J	SPR	6.50	5.15	4.85
USS5460J	SPR	5.85	4.65	4.00
USS5470J	SPR	10.35	8.25	7.05
USS5472J	SPR	9.05	7.25	6.15
USS5473J	SPR	13.30	10.60	9.00
USS5474J	SPR	12.90	10.30	8.80
USS5479J	SPR	13.30	10.60	9.00

SEMICONDUCTOR DIRECTORY

Type No.	Mfg.	1-9	10-99	100-999
1N21B	SYL	1.02	.88	.81
1N21BM	SYL	2.43	2.12	1.94
1N21BMR	SYL	3.07	2.64	2.45
1N21BR	SYL	1.41	1.22	1.12
1N21D	SYL	2.10	1.80	1.65
1N21E	SYL	3.50	3.00	2.75
1N21F	SYL	7.15	6.10	5.60
1N21G	SYL	11.90	10.40	9.35
1N21WE	SYL	4.35	3.72	3.40
1N21WE/JAN	SYL	5.25	4.50	4.15
1N21WEM/JAN	SYL	13.10	11.25	10.40
1N21WEMR/JAN	SYL	13.10	11.25	10.40
1N23B	SYL	1.02	.88	.81
1N23BR	SYL	1.02	.88	.81
1N23C	SYL	1.02	.88	.81
1N23CR	SYL	1.41	1.22	1.12
1N23D	SYL	2.10	1.80	1.65
1N23CR	SYL	2.52	2.33	2.14
1N23E	SYL	3.50	3.00	2.75
1N23ER	SYL	4.55	3.90	3.58
1N23F	SYL	7.15	6.10	5.60
1N23FMR	SYL	18.60	16.00	14.60

Type No.	Mfg.	1-9	10-99	100-999
1N23G	SYL	11.90	10.40	9.35
1N23WE	SYL	4.55	3.90	3.58
1N23WE/JAN	SYL	5.25	4.50	4.15
1N23WEM/JAN	SYL	13.10	11.25	10.40
1N23WEMR/JAN	SYL	13.10	11.25	10.40
1N25	SYL	3.53	3.03	2.74
1N25/JAN	SYL	3.25	3.03	2.74
1N26	SYL	6.50	4.60	5.10
1N26A	SYL	7.75	6.60	6.05
1N26B	SYL	27.25	23.70	21.75
1N26R	SYL	9.90	8.50	7.80
1N31/JAN	SYL	7.05	6.05	5.53
1N32/JAN	SYL	11.61	9.95	9.15

Type No.	Mfg.	1-99	100-999	1000-Up
1N34	GE	.22	.15	.10
1N34A	GE	.22	.15	.10
1N34A	HUG	.30	.23	...
1N34A	SYL	.30	.23	.14
1N34AS	GE	.22	.15	.10
1N35	SYL	1.58	1.21	.99
1N38A	SYL	.49	.38	.16

Type No.	Mfg.	1-99	100-999	1000-Up
1N38BS	SYL	.49	.38	.16
1N48	SYL	.30	.20	.14
1N48S	SYL	.30	.20	.14

Type No.	Mfg.	1-9	10-99	100-999
1N53	SYL	23.20	19.80	18.25
1N53/JAN	SYL	23.20	19.80	18.25
1N53C	SYL	46.80	40.25	37.45

Type No.	Mfg.	1-99	100-999	1000-Up
1N54A	SYL	.42	.32	.17
1N55A	SYL	.40	.31	.14
1N55AS	SYL	.40	.31	.14
1N58AS	SYL	.55	.41	.23
1N60	GE	.18	.12	.08
1N60	SYL	.30	.23	.18
1N63	GE	.30	.20	.14
1N64	GE	.27	.18	.12
1N64	SYL	.30	.23	.18
1N67A	HUG	.58	.44	......
1N67A	SYL	.28	.21	.14

Type No.	Mfg.	1-99	100-999	1000-Up
1N68A	SYL	.28	.21	.14
1N69	GE	.30	.20	.14
1N69	SYL	.30	.23	.18

Type No.	Mfg.	1-9	10-99	100-999
1N76A	SYL	2.60	2.23	2.04
1N78	SYL	4.00	3.43	3.14
1N78/JAN	SYL	4.50	3.85	3.54
1N78A	SYL	4.50	3.85	3.54

Type No.	Mfg.	1-99	100-Mix	100-999
1N78B	SYL	5.00	4.30	3.93

Type No.	Mfg.	1-9	10-99	100-999
1N78B/USA	SYL	7.00	6.00	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N78BR	SYL	7.50	6.45	5.90

Type No.	Mfg.	1-9	10-99	100-999
1N78C/JAN	SYL	14.00	12.00	11.00
1N78CM/JAN	SYL	35.00	30.00	27.50
1N78CMR/JAN	SYL	42.00	37.00	33.00
1N78CR/JAN	SYL	21.00	18.00	16.50
1N78R	SYL	6.00	5.15	4.70

Type No.	Mfg.	1-99	100-999	1000-Up
1N82	SYL	.60	.45	.25
1N82A	SYL	.60	.42	.35

Type No.	Mfg.	1-9	10-99	100-999
1N82A/USA	SYL	.91	.71	......

Type No.	Mfg.	1-99	100-999	1000-Up
1N82AG	SYL	.59	.41	.34

Type No.	Mfg.	1-9	10-99	100-999
1N82AG/USA	SYL	.91	.91	.71

Type No.	Mfg.	1-99	100-999	1000-Up
1N86	HUG	.46	.35	......
1N87A	GE	.18	.12	.08
1N90	GE	.27	.18	.12
1N90	HUG	.33	.22	......
1N91	GE	.90	.60	.50
1N92	GE	1.95	1.30	1.15
1N92	MOT	1.95	1.30	......
1N93	GE	2.70	1.80	1.60
1N93	MOT	2.70	1.80	......
1N93A/JAN	GE	3.45	2.10	......
1N95	HUG	.50	.33	......
1N96	HUG	.59	.44	......
1N96A	HUG	.59	.44	......
1N98	SYL	.31	.24	.12
1N98A	HUG	.48	.34	......
1N99	HUG	.45	.39	......
1N99	SYL	.50	.39	.16
1N100	HUG	.50	.39	......
1N100	SYL	.32	.27	.12
1N100A	HUG	.50	.39	......
1N116	GE	.29	.19	.13
1N116	GE	.54	.36	......
1N116	HUG	.53	.40	......
1N118	HUG	.60	.46	......
1N118	SYL	.23	.20	.13
1N120	SYL	.46	.36	.29
1N126	SYL	.30	.24	.15
1N126A	HUG	.30	.24	......
1N126A	SYL	.30	.24	.11
1N127A	SYL	.42	.28	.16
1N128	SYL	.32	.25	.12
1N138A	HOF	2.75	2.50	2.06
1N151	GE	2.70	2.15	......
1N158	GE	6.10	5.00	......
1N191	GE	.21	.14	.10
1N191	HUG	.35	.27	......
1N191	SYL	.35	.28	.15
1N192	SYL	.34	.26	.14
1N198	SYL	.35	.28	.15
1N198A	SYL	.35	.28	......
1N198B	SYL	1.03	.78	......
1N207	HOF	3.25	2.95	2.44
1N214	HOF	3.25	2.95	2.44
1N216	HOF	3.25	2.95	2.44
1N222	HOF	3.25	2.95	2.44
1N225	HOF	4.70	4.30	3.75
1N226	HOF	4.70	4.30	3.75

Type No.	Mfg.	1-99	100-999	1000-Up
1N227	HOF	4.70	4.30	3.75
1N248	WES	1.58	1.10	......
1N248B	MOT	1.50	1.00	......
1N248C	MOT	1.55	1.05	......
1N249	WES	1.65	1.15	......
1N249B	MOT	1.65	1.10	......
1N249B/JAN	WES	2.45	1.69	......
1N249B/USA	RCA	3.33	2.42	......
1N250B	GE	3.90	2.60	......
1N249B/JAN	MOT	2.40	1.60	......
1N250B/JAN	WES	3.63	2.42	......
1N250B/USA	RCA	4.08	2.96	......
1N250B/JAN	GE	5.47	3.65	......
1N250C	GE	2.78	1.85	......
1N250C	MOT	2.70	1.80	......
1N251	GE	.65	.43	......
1N251	SYL	.65	.43	......
1N251	TI	.32	.21	......
1N251/JAN	TI	.32	.21	......
1N251/JAN	GE	.72	.48	......
1N251/JAN	RAY	1.10	.75	......
1N252	SYL	.65	.43	......
1N253	GE	1.05	.70	......
1N254	TI	1.13	.75	......
1N255	TI	1.58	1.05	......
1N256/JAN	TI	2.64	1.76	......
1N270	SYL	.32	.25	......
1N270/JAN	HUG	.32	.25	......

Type No.	Mfg.	1-9	10-99	100-999
1N270/JAN	SYL	.32	.25	.11

Type No.	Mfg.	1-99	100-999	
1N273	HUG	.68	.51	......
1N276	HUG	.31	.24	......
1N276	SYL	.31	.24	......
1N276/JAN	HUG	.31	.24	......
1N277	SYL	.34	.26	......
1N277/JAN	HUG	.34	.26	......

Type No.	Mfg.	1-9	10-99	100-999
1N277/JAN	SYL	.32	.25	.11

Type No.	Mfg.	1-99	100-999	1000-Up
1N279	GE	.27	.18	.12
1N279	SYL	.29	.22	.17
1N281	GE	.18	.12	.08
1N281	HUG	.31	.24	......
1N281	SYL	.31	.24	.14
1N283	HUG	.51	.40	......
1N283	SYL	.51	.40	.15
1N294	SYL	.34	.26	.15
1N295	GE	.21	.14	.10
1N295	SYL	.35	.27	.15
1N332	TI	1.72	1.15	......
1N342	TI	1.72	1.15	......
1N346	HUG	1.10	.74	......
1N347	TI	1.05	.70	......

Type No.	Mfg.	1-9	10-99	100-999
1N415E	SYL	4.20	3.60	3.30
1N416B	SYL	1.02	.88	.81

Type No.	Mfg.	1-99	100-999	1000-Up
1N416E	SYL	3.50	3.00	2.75
1N429	HOF	5.40	4.85	4.10
1N429	INT	5.00	4.10	......
1N429	MOT	5.45	4.70	4.10
1N429/JAN	MOT	7.30	5.50	6.30
1N429/USAF	MOT	7.30	6.30	5.50
1N430	HOF	16.00	14.40	12.35
1N430	INT	15.50	12.40	......
1N430A	HOF	24.00	21.60	18.70
1N440	GE	.66	.44	.35
1N440B	GE	.66	.44	.35
1N440B	TI	.66	.44	......
1N443	GE	.98	.65	.52
1N443B	GE	.98	.65	.52
1N444B	TI	1.05	.70	......
1N448	HUG	1.00	.75	......
1N456	SYL	.42	.28	.18
1N456	TI	.35	.23	......
1N456A	TI	.35	.23	......
1N456A	SYL	.42	.28	.18
1N457	SYL	.45	.30	.19
1N457	TI	.44	.29	......

Type No.	Mfg.	1-9	10-99	100-999
1N457/JAN	SYL	.45	.30	.19

Type No.	Mfg.	1-99	100-999	1000-Up
1N457/JAN	TI	.45	.36	......
1N457A	SYL	.45	.30	.19
1N457A	TI	.44	.29	......
1N458	SYL	.48	.32	.21
1N458	TI	.47	.31	......

Type No.	Mfg.	1-9	10-99	100-999
1N458/JAN	SYL	.48	.32	.21

Type No.	Mfg.	1-99	100-999	1000-Up
1N458/JAN	TI	.51	.40	......
1N458A	SYL	.48	.32	.21
1N458	TI	.47	.31	......
1N459	SYL	.51	.34	.21
1N459	TI	.48	.32	......

Type No.	Mfg.	1-9	10-99	100-999
1N459/JAN	SYL	.51	.34	.21

Type No.	Mfg.	1-99	100-999	1000-Up
1N459/JAN	TI	.66	.51	......
1N459A	SYL	.51	.34	.21
1N459A	TI	.48	.32	......
1N461S	SYL	.42	.28	.18
1N461A	SYL	.42	.28	.18
1N462	SYL	.44	.29	.19
1N462	TI	.36	.24	......
1N462A	SYL	.44	.29	.19
1N463	SYL	.54	.36	.22
1N463	TI	.44	.29	......
1N463A	SYL	.54	.36	.22
1N464	SYL	.53	.35	.21
1N464	TI	.45	.30	......
1N464A	SYL	.53	.35	.21

Type No.	Mfg.	1-99	100-Mix	100-999
1N466	HOF	3.25	2.90	2.45
1N467	HOF	3.25	2.90	2.45
1N468	HOF	3.25	2.90	2.45
1N470	HOF	3.25	2.90	2.45
1N471	HOF	4.75	4.30	3.80
1N472	HOF	4.75	4.30	3.80
1N473	HOF	4.75	4.30	3.80
1N474	HOF	4.75	4.30	3.80
1N475	HOF	4.75	4.30	3.80
1N482	SYL	.66	......	.40
1N482	TI	.48	......	.32
1N482A	SYL	.69	......	.46
1N482A	TI	.48	......	.32
1N483	TI	.51	......	.32

Type No.	Mfg.	1-99	100-999	1000-Up
1N483A	SYL	.70	.47	.19
1N483A	TI	.51	.32	......
1N483B	SYL	.70	.47	.19
1N483B	TI	.51	.32	......
1N483B/JAN	TI	.61	.47	......
1N484	SYL	.70	.47	.22
1N484	TI	.51	.82	......
1N484A	SYL	.70	.27	.22
1N484A	TI	.51	.32	......
1N484B	SYL	.70	.47	.22
1N485	SYL	.90	.60	.24
1N485	TI	.58	.38	......
1N485A	TI	.58	.38	......
1N485B	SYL	.90	.60	.26
1N485B	TI	.58	.38	......
1N485B/JAN	TI	.85	.60	......
1N486	TI	.78	.52	......
1N486A	SYL	.90	.60	......
1N486B	SYL	.90	.60	.26
1N486B	TI	.78	.52	......
1N486B/JAN	TI	1.25	.98	......
1N488	SYL	1.17	.78	.45
1N488A	SYL	1.78	1.19	.49
1N497	HUG	.45	.34	......
1N497	SYL	.39	.30	.14
1N498	SYL	.44	.35	.15
1N500	HUG	.91	.68	......
1N536	GE	.45	.30	.23
1N536	INT	.45	.30	......
1N536	TI	.45	.30	......
1N536	WES	.40	.29	......
1N537	GE	.50	.33	.26
1N537	RCA	.50	.36	.30
1N537	TI	.49	.33	......
1N538	GE	.53	.35	.27
1N538	INT	.53	.35	......
1N538	RCA	.53	.39	.32

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Type No.	Mfg.	1-99	100-999	1000-Up
1N538/JAN	GE	.72	.33	
1N539	GE	.60	.40	.32
1N539	RCA	.60	.44	.36
1N539	TI	.60	.40	
1N540	GE	.68	.45	.36
1N540	INT	.68	.45	
1N540	RCA	.68	.49	.41
1N540	TI	.67	.45	
1N540/JAN	GE	.90	.42	
1N541	GE	.20	.13	.09
1N547	GE	.96	.64	.51
1N547	RCA	.96	.70	.58
1N547	TI	.96	.64	
1N547	GE	1.28	.59	
1N547/JAN	WES	1.22	1.02	
1N561/1N5054	HUG	.44	.30	
1N625	SYL	.43	.29	.18
1N625	TI	.40	.26	
1N625	HUG	.48	.34	
1N626	SYL	.45	.30	.19
1N626	TI	.40	.26	
1N626	SYL	.60	.39	.21
1N627	TI	.51	.34	
1N627	SYL	.72	.47	.22
1N628	TI	.61	.40	
1N628	SYL	.81	.54	.24
1N629	TI	.68	.44	
1N629	TI	.98	.65	
1N643	TI	.98	.65	.21
1N643/JAN	SYL	1.50	1.00	.22
1N643A	SYL	1.40	.80	.20
1N645	GE	1.40	.93	
1N645	TI	1.40	.80	
1N645	TI	1.55	1.00	.60
1N645/JAN	GE	1.50	1.00	
1N645/JAN	SYL	1.65	1.10	.42
1N645A	HUG	1.40	1.05	
1N645A	SYL	1.65	1.10	.27
1N646	HUG	1.65	1.24	
1N646	TI	1.60	1.05	
1N646	TI	1.85	1.24	
1N646/AF	HUG	1.65	1.24	
1N646A	SYL	1.70	1.10	.20
1N647	GE	1.80	1.20	
1N647	HUG	1.80	1.35	
1N648	TI	1.70	1.10	
1N647	GE	1.95	1.30	
1N647/JAN	TI	1.70	1.10	
1N647/USAF	HUG	1.80	1.35	
1N647A	SYL	1.80	1.20	.20
1N648	GE	1.95	1.30	
1N648	HUG	1.95	1.46	
1N648	TI	1.80	1.20	
1N648	TI	2.15	1.45	
1N648/AF	GE	2.50	1.65	
1N649	HUG	2.50	1.88	
1N649	TI	2.25	1.40	
1N649	SYL	2.25	1.40	.56
1N649/AF	TI	3.00	2.43	
1N649/JAN	GE	2.63	1.75	
1N658	SYL	1.76	1.20	.27
1N658	TI	1.48	.98	

Type No.	Mfg.	1-9	10-99	100-999
1N658/USN	SYL	1.76	1.76	1.20

Type No.	Mfg.	1-99	100-999	1000-Up
1N659	SYL	.58	.39	
1N659	TI	.56	.36	
1N660	TI	.65	.34	
1N661	TI	.98	.68	
1N662	SYL	.92	.44	.24
1N662	TI	.25	.15	
1N662/JAN	TI	.25	.15	.13

Type No.	Mfg.	1-9	10-99	100-999
1N662/JAN	SYL	1.00	1.00	.78

Type No.	Mfg.	1-99	100-999	1000-Up
1N663	SYL	1.20	.80	.26
1N663	TI	.58	.38	

Type No.	Mfg.	1-9	10-99	100-999
1N663/JAN	SYL	1.20	1.20	.80

Type No.	Mfg.	1-99	100-Mix	100-999
1N663/JAN	TI	.58		.38
1N695	HUG	.77		.58
1N695	SYL	.30		.24
1N695A	HUG	.98		.74
1N702	INT	1.00	.90	.80
1N702/GZ-1	HOF	1.50	1.35	1.25
1N702A	HOF	1.75	1.55	1.50
1N702A	INT	1.00	.92	.85
1N702A-0	MOT	2.60		2.10
1N702A-1	MOT	2.60		2.10
1N702A-2	MOT	2.60		2.10
1N702A-3	MOT	2.60		2.10
1N702A-4	MOT	2.60		2.10
1N702A-5	MOT	2.60		2.10
1N702A-6	MOT	2.60		2.10
1N702A-7	MOT	2.60		2.10
1N702A-8	MOT	2.60		2.10
1N702A-9	MOT	2.60		2.10
1N703	INT	1.00	.90	.80
1N703/GZ-2	HOF	1.50	1.35	1.25
1N703A	HOF	1.75	1.55	1.50
1N703A	INT	1.00	.92	.85
1N703A-0	MOT	2.60		2.10
1N703A-1	MOT	2.60		2.10
1N703A-2	MOT	2.60		2.10
1N703A-3	MOT	2.60		2.10
1N703A-4	MOT	2.60		2.10
1N703A-5	MOT	2.60		2.10
1N703A-6	MOT	2.60		2.10
1N704	INT	1.00	.90	.80
1N704/GZ-3	HOF	1.50	1.35	1.25
1N704A	HOF	1.75	1.55	1.50
1N704A-0	MOT	2.60		2.10
1N704A-1	MOT	2.60		2.10
1N704A-2	MOT	2.60		2.10
1N704A-3	MOT	2.60		2.10
1N704A-4	MOT	2.60		2.10
1N704A-5	MOT	2.60		2.10
1N705	INT	1.00	.90	.80
1N705/GZ-4	HOF	1.50	1.35	1.25
1N705A	HOF	1.75	1.55	1.50
1N705A	INT	2.55	2.25	2.03
1N705A-0	MOT	2.60		2.10
1N705A-1	MOT	2.60		2.10
1N705A-2	MOT	2.60		2.10
1N705A-3	MOT	2.60		2.10
1N705A-4	MOT	2.60		2.10
1N705A-5	MOT	2.60		2.10
1N705A-6	MOT	2.60		2.10
1N705A-7	MOT	2.60		2.10
1N705A-8	MOT	2.60		2.10
1N706	INT	1.00	.90	.80
1N706/GZ-5	HOF	1.50	1.35	1.25
1N706A	HOF	1.75	1.55	1.50
1N706A-0	MOT	2.60		2.10
1N706A-1	MOT	2.60		2.10
1N706A-2	MOT	2.60		2.10
1N706A-3	MOT	2.60		2.10
1N706A-4	MOT	2.60		2.10
1N706A-5	MOT	2.60		2.10
1N706A-6	MOT	2.60		2.10
1N706A-7	MOT	2.60		2.10
1N706A-8	MOT	2.60		2.10
1N706A-9	MOT	2.60		2.10
1N707/GZ-6	HOF	1.50	1.35	1.25
1N707A	HOF	1.75	1.55	1.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N707A	INT	2.55	2.25	2.03
1N707A-0	MOT	2.60		2.10
1N707A-1	MOT	2.60		2.10
1N707A-2	MOT	2.60		2.10
1N707A-3	MOT	2.60		2.10
1N707A-4	MOT	2.60		2.10
1N707A-5	MOT	2.60		2.10
1N707A-6	MOT	2.60		2.10
1N707A-7	MOT	2.60		2.10
1N708	HOF	1.50	1.35	1.25
1N708	INT	1.00	.90	.80
1N708	MOT	1.85		1.50
1N708A	HOF	1.75	1.55	1.50
1N708A	INT	2.55	2.25	2.03
1N709	HOF	1.50	1.35	1.25
1N709	INT	1.00	.90	.80
1N709	MOT	1.85		1.50
1N709A	HOF	1.75	1.55	1.50
1N709A	INT	2.55	2.25	2.03
1N710	HOF	1.50	1.35	1.25
1N710	INT	1.00	.90	.80
1N710	MOT	1.85		1.50
1N710A	HOF	1.75	1.55	1.50
1N710A	INT	2.55	2.25	2.03
1N711	HOF	1.50	1.35	1.25
1N711	INT	1.00	.90	.80
1N711	MOT	1.85		1.50
1N711A	HOF	1.75	1.55	1.50
1N711A	INT	1.00	.92	.85
1N712	HOF	1.50	1.35	1.25
1N712	INT	1.00	.90	.80
1N712	MOT	1.85		1.50
1N712A	HOF	1.75	1.55	1.50
1N713	HOF	1.50	1.35	1.25
1N713	INT	1.00	.90	.80
1N713	MOT	1.85		1.50
1N713A	HOF	1.75	1.55	1.50
1N713A	INT	1.00	.92	.85
1N714	HOF	1.50	1.35	1.25
1N714	INT	1.00	.90	.80
1N714	MOT	1.85		1.50
1N714A	HOF	1.75	1.55	1.50
1N714A	INT	1.00	.92	.85
1N715	HOF	1.50	1.35	1.25
1N715	HUG	1.00	.90	.80
1N715	INT	1.00	.90	.80
1N715	MOT	1.85		1.50
1N715A	HOF	1.75	1.55	1.50
1N715G	SYL	11.90		10.40
1N716	HOF	1.50	1.35	1.25
1N716	INT	1.00	.90	.80
1N716	MOT	1.85		1.50
1N716A	HOF	1.75	1.55	1.50
1N717	HOF	1.50	1.35	1.25
1N717	MOT	1.85		1.50
1N717A	HOF	1.75	1.55	1.50
1N718	HOF	1.50	1.35	1.25
1N718	INT	1.00	.90	.80
1N718	MOT	1.85		1.50
1N718A	HOF	1.75	1.55	1.50
1N719	HOF	1.50	1.35	1.25
1N719	INT	1.00	.90	.80
1N719	MOT	1.85		1.50
1N719A	HOF	1.75	1.55	1.50
1N720	HOF	1.50	1.35	1.25
1N720	INT	1.00	.90	.80
1N720	MOT	1.85		1.50
1N720A	HOF	1.75	1.55	1.50
1N720A	INT	1.00	.92	.85
1N721	HOF	1.50	1.35	1.25
1N721	INT	1.00	.90	.80
1N721	MOT	1.85		1.50
1N721A	HOF	1.75	1.55	1.50
1N722	INT	1.00	.90	.80
1N722	MOT	1.85		1.50
1N722A	HOF	1.75	1.55	1.50
1N723	HOF	1.50	1.35	1.25
1N723	INT	1.00	.90	.80
1N723	MOT	1.85		1.50
1N723A	HOF	1.75	1.55	1.50
1N723A	INT	1.00	.92	.85
1N724	HOF	1.50	1.35	1.25
1N724	INT	1.00	.90	.80
1N724	MOT	1.85		1.50
1N724A	HOF	1.75	1.55	1.50
1N725	HOF	1.50	1.35	1.25
1N725	MOT	1.85		1.50
1N725A	HOF	1.75	1.55	1.50
1N725A	INT	1.00	.92	.85
1N726	MOT	1.85		1.50
1N726A	HOF	1.75	1.55	1.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N726A	INT	2.55	2.25	2.03
1N727	HOF	1.65	1.50	1.45
1N727	MOT	1.85		1.50
1N727A	HOF	1.75	1.60	1.50
1N728	MOT	1.85		1.50
1N728A	HOF	1.75	1.60	1.50
1N729	HOF	1.65	1.50	1.45
1N729	MOT	3.50		2.80
1N729A	HOF	1.75	1.60	1.50
1N730	MOT	3.50		2.80
1N730A	HOF	1.75	1.60	1.50
1N731	MOT	3.50		2.80
1N731A	HOF	1.75	1.60	1.50
1N732	MOT	3.50		2.80
1N733	HOF	1.65	1.50	1.45
1N733	MOT	3.50		2.80
1N733A	HOF	1.75	1.60	1.50
1N734	MOT	3.50		2.80
1N734A	HOF	1.75	1.60	1.50
1N735	HOF	1.65	1.50	1.45
1N735	MOT	3.50		2.80
1N735A	HOF	1.75	1.60	1.50
1N736	HOF	1.65	1.50	1.45
1N736	MOT	3.50		2.80
1N736A	HOF	1.75	1.60	1.50
1N737	HOF	1.65	1.50	1.45
1N737	MOT	3.50		2.80
1N737A	HOF	1.75	1.60	1.50
1N738	HOF	2.15	1.95	1.85
1N738	MOT	3.50		2.80
1N738A	HOF	3.10	2.80	2.60
1N739	MOT	3.50		2.80
1N739A	HOF	3.10	2.80	2.60
1N740	HOF	2.15	1.95	1.85
1N740	MOT	3.50		2.80
1N740A	HOF	3.10	2.80	2.60
1N741	MOT	3.50		2.80
1N741A	HOF	3.10	2.80	2.60
1N742	HOF	2.15	1.95	1.85
1N742	MOT	3.50		2.80
1N742A	HOF	3.10	2.80	2.60
1N743	MOT	3.50		2.80
1N743A	HOF	3.10	2.80	2.60
1N744	MOT	3.50		2.80
1N744A	HOF	3.10	2.80	2.60
1N745	MOT	3.50		2.80
1N745A	HOF	3.10	2.80	2.60
1N746	HOF	1.50	1.35	1.10
1N746	HUG	1.80		1.35
1N746	INT	1.40	1.25	1.12
1N746/ .4M3 3AZ10	MOT	2.00	1.70	1.50
1N746	TI	1.05		.85
1N746A	HOF	1.75	1.55	1.50
1N746A/ .4M3 3AZ5	MOT	2.75	2.35	2.05
1N746A	TI	1.05		.85
1N746AML1	MOT	3.05		2.30
1N746AML2	MOT	4.10		3.10
1N746AML3	MOT	4.65		3.50
1N746A/JAN	TI	1.10	.90	.22
1N746A/JAN	MOT	2.95	2.20	2.55
1N746A	INT	1.00	.92	.85
1N747	INT	1.00	.90	.80
1N747/ 4M3.6AZ10	MOT	2.00	1.70	1.50
1N747A	HOF	1.75	1.55	1.50
1N747A	INT	1.00	.92	.85
1N747A/ .4M3.6AZ5	MOT	2.75	2.35	2.05
1N747A	TI	1.05		.85
1N747AML1	MOT	3.05		2.30
1N747AML2	MOT	4.10		3.10
1N747AML3	MOT	4.65		3.50
1N747A/JAN	MOT	2.95	2.20	2.55
1N747A/JAN	TI	1.10	.90	.22
1N748	INT	1.00	.90	.80
1N748/ 4M3.9AZ10	MOT	2.00	1.70	1.50
1N748	TI	1.05		.85
1N748A	HOF	1.75	1.55	1.50
1N748A	INT	1.00	.92	.85
1N748A/ .4M3.9AZ5	MOT	2.75	2.35	2.05
1N748A	TI	1.05		.85
1N748AML1	MOT	3.05		2.30
1N748AML2	MOT	4.10		3.10
1N748AML3	MOT	4.65		3.50
1N748A/JAN	MOT	2.95	2.20	2.55
1N748A/JAN	TI	1.10	.90	.22
1N749	HOF	1.50	1.35	1.10
1N749	INT	1.00	.90	.80
1N749/ .4M4 3AZ10	MOT	2.00	1.70	1.50
1N749	TI	1.05		.85
1N749A	HOF	1.75	1.55	1.50
1N749A	INT	1.00	.92	.85
1N749A/ .4M4 3AZ5	MOT	2.75	2.35	2.05
1N749A	TI	1.05		.85
1N749AML1	MOT	3.05		2.30
1N749AML2	MOT	4.10		3.10
1N749AML3	MOT	4.65		3.50
1N749A/JAN	MOT	2.95	2.20	2.55
1N749A/JAN	TI	1.10	.90	.22
1N750	HOF	1.50	1.35	1.10
1N750	INT	1.00	.90	.80
1N750/ .4M4.7AZ10	MOT	2.00	1.70	1.50
1N750A	INT	1.00	.92	.85
1N750A/ .4M4.7AZ5	MOT	2.75	2.35	2.05
1N750A	TI	1.05		.85
1N750AML1	MOT	3.05		2.30
1N750AML2	MOT	4.10		3.10
1N750AML3	MOT	4.65		3.50
1N750A/JAN	MOT	2.95	2.20	2.55
1N750A/JAN	TI	1.10	.90	.22
1N751	HOF	1.50	1.35	1.10
1N751	INT	1.00	.90	.80
1N751/ .4M5.1AZ10	MOT	2.00	1.70	1.50
1N751A	HOF	1.75	1.55	1.50
1N751A	INT	1.00	.92	.85
1N751A/ .4M5.1AZ5	MOT	2.75	2.35	2.05
1N751A	TI	1.05		.85
1N751AML1	MOT	3.05		2.30
1N751AML2	MOT	4.10		3.10
1N751AML3	MOT	4.65		3.50
1N751A/JAN	MOT	2.95	2.20	2.55
1N751A/JAN	TI	1.10	.90	.22
1N752	HOF	1.50	1.35	1.10
1N752	INT	1.00	.90	.80
1N752/ .4M5.6AZ5	MOT	2.75	2.35	2.05
1N752	TI	1.05		.85
1N752A	HOF	1.75	1.55	1.50
1N752A	INT	1.00	.92	.85
1N752A/ .4M6 2AZ10	MOT	2.75	2.35	2.05
1N752A	TI	1.05		.85
1N752AML1	MOT	3.05		2.30
1N752AML2	MOT	4.10		3.10
1N752AML3	MOT	4.65		3.50
1N752A/JAN	MOT	2.95		2.55
1N752A/JAN	TI	1.10	.90	.22
1N753	HOF	1.50	1.35	1.10
1N753	INT	1.00	.90	.80
1N753/ 4M6.2AZ10	MOT	2.00	1.70	1.50
1N753	TI	1.05		.85
1N753A	HOF	1.75	1.55	1.50
1N753A	INT	1.00	.92	.85
1N753A/ 4M6.2AZ5	MOT	2.75	2.35	2.05
1N753A	TI	1.05		.85
1N753AML1	MOT	3.05		2.30
1N753AML2	MOT	4.10		3.10
1N753AML3	MOT	4.65		3.50
1N753A/JAN	MOT	2.95	2.20	2.55
1N753A/JAN	TI	1.10	.90	.22
1N754	HOF	1.50	1.35	1.10
1N754	INT	1.00	.90	.80
1N754/ .4M6.8AZ10	MOT	2.00	1.70	1.50
1N754	TI	1.05		.85
1N754A	HOF	1.75	1.55	1.50
1N754A	INT	1.00	.92	.85
1N754A/ .4M6.8AZ5	MOT	2.75	2.35	2.05
1N754A	TI	1.05		.85
1N754AML1	MOT	3.05		2.30
1N754AML2	MOT	4.10		3.10
1N754AML3	MOT	4.65		3.50
1N754A/JAN	MOT	2.95	2.20	2.55
1N754A/JAN	TI	1.10	.90	.22
1N755	INT	1.00	.90	.80
1N755/ .4M7.5AZ10	MOT	2.00	1.70	1.50
1N755	TI	1.05		.85
1N755A	HOF	1.75	1.55	1.50
1N755A	INT	1.00	.92	.85
1N755A/ .4M7.5AZ5	MOT	2.75	2.35	2.05
1N755A	TI	1.05		.85
1N755AML1	MOT	3.05		2.30
1N755AML2	MOT	4.10		3.10
1N755AML3	MOT	4.65		3.50
1N755A/JAN	MOT	2.95	2.20	2.55
1N755A/JAN	TI	1.10	.90	.22
1N756	HOF	1.50	1.35	1.10
1N756	INT	1.00	.90	.80
1N756/ .4M8.2AZ10	MOT	2.00	1.70	1.50
1N756	TI	1.05		.85
1N756A	HOF	1.75	1.55	1.50
1N756A	IMT	1.00	.92	.85
1N756A/ .4M8.2AZ5	MOT	2.75	2.35	2.05
1N756A	TI	1.05		.85
1N756AML1	MOT	3.05		2.30
1N756AML2	MOT	4.10		3.10
1N756AML3	MOT	4.65		3.50
1N756A/JAN	MOT	2.95	2.20	2.55
1N756A/JAN	TI	1.10	.90	.22
1N757	HOF	1.50	1.35	1.10
1N757	INT	1.00	.90	.80
1N757/ .4M9 1AZ10	MOT	2.00	1.70	1.50
1N757	TI	1.05		.85
1N757A	HOF	1.75	1.55	1.50
1N757A	INT	1.00	.92	.85
1N757A/ .4M9.1AZ5	MOT	2.75	2.35	2.05
1N757A	TI	1.05		.85
1N757AML1	MOT	3.05		2.30
1N757AML2	MOT	4.10		3.10
1N757AML3	MOT	4.65		3.50
1N757A/JAN	MOT	2.95	2.20	2.55
1N757A/JAN	TI	1.10	.90	.22
1N758	HOF	1.50	1.35	1.10
1N758	INT	1.00	.90	.80
1N758/ .4M10AZ10	MOT	2.00	1.70	1.50
1N758	TI	1.40	1.25	1.12
1N758A	HOF	1.75	1.55	1.50
1N758A	INT	1.00	.92	.85
1N758A/ .4M10AZ5	MOT	2.75	2.35	2.05
1N758A	TI	1.05		.85
1N758AML1	MOT	3.05		2.30
1N758AML2	MOT	4.10		3.10
1N758AML3	MOT	4.65		3.50
1N758A/JAN	MOT	2.95	2.20	2.55
1N758A/JAN	TI	1.10	.90	.22
1N759	HOF	1.50	1.35	1.10
1N759	INT	1.00	.90	.80
1N759/ .4M12AZ10	MOT	2.00	1.70	1.50
1N759	TI	1.05		.85
1N759A	HOF	1.75	1.55	1.50
1N759A	INT	1.00	.92	.85
1N759A/ .4M12AZ5	MOT	2.75	2.35	2.05
1N759A	TI	1.05		.85
1N759AML1	MOT	3.05		2.30
1N759AML2	MOT	4.10		3.10
1N759AML3	MOT	4.65		3.50
1N759A/JAN	MOT	2.95	2.20	2.55
1N759A/JAN	TI	1.10	.90	.22
1N761	HOF	1.55	1.40	1.30
1N761	TI	1.05		.85
1N761-1	MOT	2.80		2.10
1N761-2	MOT	2.80		2.10
1N761A	INT	2.20	1.96	1.76
1N762	HOF	1.55	1.40	1.30
1N762	TI	1.05		.85
1N762-1	MOT	2.80		2.10
1N762-2	MOT	2.80		2.10
1N763	HOF	1.55	1.40	1.30
1N763-1	MOT	2.80		2.10
1N763-2	MOT	2.80		2.10
1N763-3	MOT	2.80		2.10
1N763A	INT	2.20	1.96	1.76
1N764	HOF	1.55	1.40	1.30
1N764-1	MOT	2.80		2.10
1N764-2	MOT	2.80		2.10
1N764-3	MOT	2.80		2.10
1N764-4	MOT	2.80		2.10
1N764A	INT	2.20	1.96	1.76
1N765	HOF	1.55	1.40	1.30
1N765-1	MOT	2.80		2.10
1N765-2	MOT	2.80		2.10
1N765A	INT	2.20	1.96	1.76
1N766	HOF	1.55	1.40	1.30
1N766-1	MOT	2.80		2.10

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Type No.	Mfg.	1-99	100-Mix	100-999
1N766-2	MOT	2.80		2.10
1N766-3	MOT	2.80		2.10
1N768	HOF	1.55	1.40	1.30
1N768-1	MOT	2.80		2.10
1N768-2	MOT	2.80		2.10
1N763-3	MOT	2.80		2.10
1N768A	INT	2.20	1.96	1.76
1N769	HOF	1.55	1.40	1.30
1N769-1	MOT	2.80		2.10
1N769-2	MOT	2.80		2.10
1N769-3	MOT	2.80		2.10
1N769-4	MOT	2.80		2.10
1N769A	INT	2.20	1.96	1.76
1N770	SYL	.48		.38
1N771B	HUG	1.28		.96
1N773	HUG	.66		.50
1N775	HUG	.58		.44
1N777	HUG	.66		.50
1N811	HUG	.70		.53
1N812	HUG	.98		.74
1N815	HUG	.91		.68
1N816	MOT	.33		.25
1N816	SYL	.52		.35
1N816W	SYL	.52		.25
1N821	HOF	2.55	2.40	1.90
1N821	INT	2.30		1.85

Type No.	Mfg.	1-24	25-99	100-Up
1N821	MOT	2.75	2.35	2.10
1N821/JAN	MOT	2.97	2.55	2.05

Type No.	Mfg.	1-99	100-Mix	100-999
1N821A	INT	2.50		2.10

Type No.	Mfg.	1-24	25-99	100-Up
1N821A	MOT	3.05	2.60	2.30
1N821ML1	MOT	3.50	3.00	2.40
1N821ML2	MOT	5.65	4.85	3.90
1N821ML3	MOT	5.85	5.05	4.05

Type No.	Mfg.	1-99	100-Mix	100-999
1N823	HOF	3.35	3.00	2.50
1N823	INT	3.05		2.45
1N823	MOT	3.50	3.10	2.75
1N823/JAN	MOT	4.35	3.75	3.00
1N823A	MOT	3.90	3.35	2.95
1N823ML1	MOT	4.35	3.75	3.00
1N823ML2	MOT	6.50	5.60	4.50
1N823ML3	MOT	7.24	6.25	5.00
1N825	INT	4.60		3.70

Type No.	Mfg.	1-24	25-99	100-Up
1N825	MOT	5.80	5.00	4.40
1N825ML1	MOT	6.50	5.60	4.95
1N825ML2	MOT	8.70	7.50	6.60
1N825ML3	MOT	10.00	8.60	7.60
1N825/JAN	MOT	7.10	6.10	4.90
1N825A	MOT	6.50	5.60	4.95
1N827	MOT	10.85	9.35	7.50
1N827ML1	MOT	11.60	10.00	8.00
1N827ML2	MOT	13.75	11.85	9.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N827ML3	MOT	17.40	15.00	12.00

Type No.	Mfg.	1-24	25-99	100-999
1N827/JAN	MOT	14.50	12.50	10.00
1N827A	MOT	13.05	11.25	9.00
1N829	MOT	16.30	14.05	11.25
1N829ML1	MOT	17.05	14.70	11.75
1N829ML2	MOT	19.20	16.55	13.25
1N829ML3	MOT	31.15	26.85	21.50
1N829/JAN	MOT	28.25	24.35	19.50
1N829A	MOT	19.55	16.85	13.50

Type No.	Mfg.	1-9	10-99	100-999
1N830	SYL	2.95	2.53	2.35
1N830A	SYL	3.85	3.30	3.00
1N830A/JAN	SYL	3.30	3.00	
1N831	SYL	6.85	5.85	5.40
1N831A	SYL	10.90	9.35	8.60
1N831AM	SYL	27.30	23.50	21.50
1N832A	SYL	10.90	9.35	8.60
1N833	SYL	4.65	4.00	3.65

Type No.	Mfg.	1-99	100-Mix	100-999
1N903A	SYL	1.02		.68

Type No.	Mfg.	1-99	100-999	1000-Up
1N905A	SYL	1.55	1.09	.98
1N906	HUG	.98	.74	
1N906A	SYL	1.13	.75	.39
1N908A	SYL	1.02	.68	.30
1N914	GE	.35	.24	.14
1N914	HUG	1.89	1.42	
1N914	SYL	.45	.30	.18
1N914	TI	.32	.21	
1N914/JAN	TI	.32	.21	.13
1N914A	GE	.40	.26	.15
1N914A	SYL	.50	.33	.18
1N914A	TI	.37	.24	
1N914B	GE	.80	.54	.17
1N914B	SYL	1.35	.90	.22
1N914B	TI	.77	.52	
1N915	HUG	1.00	.75	
1N916	GE	.52	.34	.16
1N916	HUG	.67	.44	
1N916	SYL	.75	.50	.32
1N916	TI	.50	.32	
1N916A	TI	.56	.37	
1N916B	TI	.72	.48	
1N935	HOF	2.15	1.95	1.60
1N935	INT	1.60	1.50	1.45

Type No.	Mfg.	1-24	25-99	100-Up
1N935	MOT	2.30	2.00	1.75
1N935A	INT	1.80	1.70	1.60
1N935A	MOT	2.60	2.25	2.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N935B	INT	2.45	2.32	2.20

Type No.	Mfg.	1-24	25-99	100-Up
1N935B	MOT	3.55	3.05	2.70
1N935B/JAN	MOT	5.30	4.55	4.00
1N935BML1	MOT	4.25	3.70	2.95
1N935BML2	MOT	6.45	5.55	4.45
1N935BML3	MOT	8.20	7.05	5.65

Type No.	Mfg.	1-99	100-Mix	100-999
1N936	HOF	2.55	2.30	1.90
1N936	INT	1.90	1.80	1.70

Type No.	Mfg.	1-24	25-99	100-Up
1N936	MOT	2.75	2.35	2.10
1N936A	INT			
1N936A	MOT	3.55	3.05	2.70

Type No.	Mfg.	1-99	100-Mix	100-999
1N936B	HOF	3.85	3.45	2.90
1N936B	INT			

Type No.	Mfg.	1-24	25-99	100-Up
1N936B	MOT	4.20	3.60	3.20

Type No.	Mfg.	1-99	100-Mix	100-999
1N937	INT	3.70	3.50	3.30

Type No.	Mfg.	1-24	25-99	100-Up
1N937	MOT	5.35	4.60	3.70

Type No.	Mfg.	1-99	100-Mix	100-999
1N937A	INT			

Type No.	Mfg.	1-24	25-99	100-Up
1N937A	MOT	6.15	5.30	4.65
1N937B	MOT	7.10	6.10	4.90
1N937B/JAN	MOT	9.30	8.00	6.40
1N937BML1	MOT	7.85	6.75	5.40
1N937BML2	MOT	10.00	8.60	6.90
1N937BML3	MOT	12.20	10.50	8.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N938	HOF	6.40	5.75	4.80

Type No.	Mfg.	1-24	25-99	100-Up
1N938	MOT	6.95	6.00	4.80

Type No.	Mfg.	1-99	100-Mix	100-999
1N938A	HOF	7.00	6.30	5.20
1N938A	INT	5.20	4.95	4.70

Type No.	Mfg.	1-24	25-99	100-Up
1N938A	MOT	7.55	6.50	5.20

Type No.	Mfg.	1-99	100-Mix	100-999
1N938B	HOF	9.20	8.30	6.90
1N938B	INT	6.90	6.55	6.20

Type No.	Mfg.	1-24	25-99	100-Up
1N938B	MOT	10.00	8.60	6.90
1N938B/JAN	MOT	13.35	11.75	9.40
1N938BML1	MOT	10.75	9.25	7.40
1N938BML2	MOT	12.90	11.10	8.90
1N938BML3	MOT	16.55	14.25	11.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N939	INT	12.40	11.78	11.15

Type No.	Mfg.	1-24	25-99	100-999
1N939A	MOT	25.35	21.85	17.50
1N939B/JAN	MOT	29.80	26.70	21.35
1N939BML1	MOT	28.05	24.20	19.35
1N939BML2	MOT	30.25	26.05	20.85
1N939BML3	MOT	33.85	29.20	23.35
1N941	MOT	3.20	2.75	2.20
1N941A	MOT	3.40	2.90	2.34
1N941B	MOT	3.60	3.10	2.50
1N941B/JAN	MOT	7.45	6.70	5.35
1N941BML1	MOT	4.35	3.75	3.00
1N941BML2	MOT	6.50	5.60	4.50
1N941BML3	MOT	10.45	9.00	7.20
1N942	MOT	3.50	3.00	2.40
1N942A	MOT	4.35	3.75	3.00
1N942B	MOT	4.95	4.25	3.40
1N943	MOT	6.90	5.95	4.75
1N943B/JAN	MOT	12.80	11.55	9.25
1N943BML1	MOT	7.90	6.80	5.45
1N943BML2	MOT	10.05	8.70	6.95
1N943BML3	MOT	15.95	13.75	11.00
1N944	MOT	10.15	8.75	7.00
1N944A	MOT	13.05	11.25	9.00
1N944B	MOT	17.30	14.95	11.95
1N944B/JAN	MOT	17.30	15.60	12.50
1N944BML1	MOT	18.05	15.55	12.45
1N944BML2	MOT	20.20	17.45	13.95
1N944BML3	MOT	20.65	17.80	14.25

Type No.	Mfg.	1-99	100-Mix	100-999
1N950	HUG	4.00		3.00
1N950/HC7001	HUG	4.00		3.00
1N952	HUG	3.70		2.90
1N953	HUG	3.00		2.25
1N954	HUG	2.00		1.50
1N954/HC7006	HUG	2.00		1.50
1N955	HUG	2.00		1.50
1N957	HUG	1.35		1.01
1N957	INT	1.00	.90	.80
1N957	MOT	2.15	1.85	1.60
1N957A	INT	1.00	.90	.80
1N957A	MOT	2.35	2.00	1.75
1N957B	HOF	2.75	2.55	2.20
1N957B	INT	1.00	.92	.85
1N957B	MOT	2.95	2.55	2.20
1N958	HUG	1.40		1.05
1N958	INT	1.00	.90	.80
1N958A	MOT	2.35	2.00	1.75
1N958B	HOF	2.75	2.55	2.20
1N958B	MOT	2.95	2.55	2.20

Type No.	Mfg.	1-99	100-Mix	100-999
1N959	HUG	1.40		1.05
1N959	INT	1.00	.90	.80
1N959	MOT	2.15	1.85	1.60
1N959A	INT	1.00	.90	.80
1N959B	HOF	2.75	2.55	2.20
1N959B	MOT	2.95	2.55	2.20
1N959B	INT	1.00	.92	.85
1N960	HUG	1.40		1.05
1N960	INT	1.00	.90	.80
1N960	MOT	2.15	1.85	1.60
1N960A	MOT	2.35	2.00	1.75
1N960B	HOF	2.75	2.55	2.20
1N960B	INT	1.00	.92	.85
1N960B	MOT	2.95	2.55	2.20
1N961	HUG	1.40		1.05
1N961	INT	1.00	.90	.80
1N961	MOT	2.15	1.85	1.60
1N961	TI	1.05		.85
1N961A	HOF	2.20	2.00	1.65
1N961A	INT	1.00	.90	.80
1N961A	MOT	2.35	2.00	1.75
1N961B	HOF	2.75	2.55	2.20
1N961B	INT	1.00	.92	.85
1N961B	MOT	2.95	2.55	2.20
1N962	HUG	1.40		1.05
1N962	MOT	2.15	1.85	1.60
1N962B	HOF	2.75	2.55	2.20
1N962B	INT	1.00	.92	.85
1N962B	MOT	2.95	2.55	2.20
1N962B	TI	1.05		.85
1N962B/JAN	MOT	3.50	3.05	2.65
1N962BML1	MOT	3.25		2.45
1N962BML2	MOT	4.30		3.25
1N962BML3	MOT	5.70		4.30
1N962BML1	MOT	3.25		2.45
1N962BML2	MOT	4.30		3.25
1N962BML3	MOT	5.70		4.30
1N963	HUG	1.40		1.05
1N963	INT	1.00	.90	.80
1N963	MOT	2.15	1.85	1.60
1N963A	INT	1.00	.90	.80
1N963A	MOT	2.35	2.00	1.75
1N963B	HOF	2.75	2.55	2.20
1N963B	INT	1.00	.92	.85
1N963B	MOT	2.95	2.55	2.20
1N963B/JAN	MOT	3.50	3.05	2.65
1N963BML1	MOT	3.25		2.45
1N963BML2	MOT	4.30		3.25
1N963BML3	MOT	5.70		4.30
1N964	HUG	1.40		1.05
1N964	MOT	2.15	1.85	1.60
1N964A	INT	1.00	.90	.80
1N964A	MOT	2.35	2.00	1.75
1N964B	HOF	2.75	2.55	2.20
1N964B	INT	1.00	.92	.85
1N964B	MOT	2.95	2.55	2.20
1N964B/JAN	MOT	3.50	3.05	2.65
1N964BML1	MOT	3.25		2.45
1N964BML2	MOT	4.30		3.25
1N964BML3	MOT	5.70		4.30
1N965	HUG	1.40		1.05
1N965	INT	1.00	.90	.80
1N965	MOT	2.15	1.85	1.60
1N965A	INT	1.00	.90	.80
1N965A	MOT	2.35	2.00	1.75
1N965B	HOF	2.75	2.55	2.20
1N965B	INT	1.00	.92	.85
1N965B	MOT	2.95	2.55	2.20
1N965B/JAN	MOT	3.50	3.05	2.65
1N965B/USN	HOF	3.25	2.95	2.60
1N965BML1	MOT	3.25		2.45
1N965BML2	MOT	4.30		3.25
1N965BML3	MOT	5.70		4.30
1N965BML1	MOT	6.25		2.45
1N965BML2	MOT	4.30		3.25
1N965BML3	MOT	5.70		4.30
1N966	HUG	1.40		1.05
1N966	MOT	2.15	1.85	1.60
1N966A	HOF	2.20	2.00	1.65
1N966A	INT	1.00	.90	.80
1N966A	MOT	2.35	2.00	1.75
1N966B	INT	1.00	.92	.85
1N966B	MOT	2.95	2.55	2.20
1N966B/JAN	MOT	3.50	3.05	2.65
1N966B/USN	HOF	3.25	2.95	2.60
1N966BML1	MOT	3.25		2.45
1N966BML2	MOT	4.30		3.25
1N966BML3	MOT	5.70		4.30
1N966BML1	MOT	3.25		2.45
1N966BML2	MOT	4.30		3.25
1N966BML3	MOT	5.70		4.30
1N967	HUG	1.40		1.05
1N967	INT	1.00	.90	.80

Type No.	Mfg.	1-99	100-Mix	100-999
1N967	MOT	2.15	1.85	1.60
1N967A	INT	1.00	.90	.80
1N967A	MOT	2.35	2.00	1.75
1N967B	HOF	2.75	2.55	2.20
1N967B	INT	1.00	.92	.85
1N967B	MOT	2.95	2.55	2.20
1N967B/JAN	MOT	3.50	3.05	2.65
1N967B/USN	HOF	3.25	2.95	2.60
1N967BML1	MOT	3.25		2.45
1N967BML2	MOT	4.30		3.25
1N967BML3	MOT	5.70		4.30
1N967BML1	MOT	3.25		2.45
1N967BML2	MOT	4.30		3.25
1N967BML3	MOT	5.70		4.30
1N968	HUG	1.40		1.05
1N968	MOT	2.15	1.85	1.60
1N968A	INT	1.00	.90	.80
1N968A	MOT	2.35	2.00	1.75
1N968B	HOF	2.75	2.55	2.20
1N968B	INT	1.00	.92	.85
1N968B	MOT	2.95	2.55	2.20
1N968B/JAN	MOT	3.50	3.05	2.65
1N968B/USN	HOF	3.25	2.95	2.60
1N968BML1	MOT	3.25		2.45
1N968BML2	MOT	4.30		3.25
1N968ML3	MOT	5.70		4.30
1N968ML1	MOT	3.25		2.45
1N968ML2	MOT	4.30		3.25
1N968ML3	MOT	5.70		4.30
1N969	HUG	1.40		1.05
1N969	INT	1.00	.90	.80
1N969	MOT	2.15	1.85	1.60
1N969A	HOF	2.20	2.00	1.65
1N969A	INT	1.00	.90	.80
1N969A	MOT	2.35	2.00	1.75
1N969B	HOF	2.75	2.55	2.20
1N969B	HUG	1.75		1.31
1N969B	INT	1.00	.92	.85
1N969B	MOT	2.95	2.55	2.20
1N969B/JAN	MOT	3.50	3.05	2.65
1N969B/USN	HOF	3.25	2.95	2.60
1N969BML1	MOT	3.25		2.45
1N969BML2	MOT	4.30		3.25
1N969BML3	MOT	5.70		4.30
1N969BML1	MOT	3.25		2.45
1N969BML2	MOT	4.30		3.25
1N969BML3	MOT	5.70		4.30
1N970	HUG	1.40		1.05
1N970	INT	1.40	1.28	1.15
1N970	MOT	2.15	1.85	1.60
1N970A	HUG	1.50		1.13
1N970A	INT	1.00	.90	.80
1N970A	MOT	2.35	2.00	1.75
1N970B	HUG	1.70		1.28
1N970B	INT	1.00	.92	.85
1N970B	MOT	2.95	2.55	2.20
1N970B/JAN	MOT	3.50	3.05	2.65
1N970B/USN	HOF	3.25	2.95	2.60
1N970BML1	MOT	3.25		2.45
1N970BML2	MOT	4.30		3.25
1N970BML3	MOT	5.70		4.30
1N970BML1	MOT	3.25		2.45
1N970BML2	MOT	4.30		3.25
1N970BML3	MOT	5.70		4.30
1N971	HUG	1.40		1.05
1N971	INT	1.00	.90	.80
1N971A	HUG	1.50		1.13
1N971A	INT	1.00	.90	.80
1N971B	HOF	2.75	2.55	2.20
1N971B	INT	1.00	.92	.85
1N971B	MOT	2.95	2.55	2.20
1N971B/JAN	MOT	3.50	3.05	2.65
1N971B/USN	HOF	3.25	2.95	2.60
1N971BML1	MOT	3.25		2.45
1N971BML2	MOT	4.30		3.25
1N971BML3	MOT	5.70		4.30
1N971BML1	MOT	3.25		2.45
1N971BML2	MOT	4.30		3.25
1N971BML3	MOT	5.70		4.30
1N972	HUG	1.40		1.05
1N972	INT	1.00	.90	.80
1N972A	HUG	1.50		1.13
1N972A	INT	1.00	.90	.80
1N972B	HOF	2.75	2.55	2.20
1N972B	INT	1.00	.92	.85
1N972B	MOT	2.95	2.55	2.20
1N972B/JAN	MOT	4.00	3.45	3.00
1N972B/USN	HOF	3.25	2.95	2.60
1N972BML1	MOT	3.25		2.45
1N972BML2	MOT	4.30		3.25
1N972BML3	MOT	5.70		4.30

Type No.	Mfg.	1-99	100-999	1000-Up
1N972BML1	MOT	4.30		3.25
1N972BML2	MOT	5.70		4.30
1N972BML3	HUG	1.40		1.05
1N973	HUG	1.40	1.05	
1N973	INT	1.00	.90	.80
1N973	MOT	2.15	1.85	1.60
1N973A	HUG	1.50		1.13
1N973A	INT	1.00	.90	.80
1N973A	MOT	2.35	2.00	1.75
1N973B	HOF	2.75	2.55	2.20
1N973B	HUG	1.70		1.28
1N973B	INT	1.00	.92	.85
1N973B	MOT	2.95	2.55	2.20
1N973B/JAN	MOT	4.00	3.45	3.00
1N973B/USN	HOF	3.25	2.95	2.60
1N973BML1	MOT	3.25		2.45
1N973BML2	MOT	4.30		3.25
1N973BML3	MOT	5.70		4.30
1N973BML1	MOT	3.25		2.45
1N973BML2	MOT	4.30		3.25
1N973BML3	MOT	5.70		4.30
1N974	HUG	2.10		1.58
1N974	MOT	2.15	1.85	1.60

Type No.	Mfg.	1-99	100-Mix	100-999
1N974A	HUG	2.30		1.73
1N974A	MOT	2.35	2.00	1.75
1N974B	HOF	2.75	2.55	2.20
1N974B	HUG	2.90		2.18
1N974B	MOT	2.95	2.55	2.20
1N974B/JAN	MOT	4.00	3.45	3.00
1N974BML1	MOT	3.25		2.45
1N974BML2	MOT	4.30		3.25
1N974BML3	MOT	5.70		4.30
1N974BML1	MOT	3.25		2.45
1N974BML2	MOT	4.30		3.25
1N974BML3	MOT	5.70		4.30
1N975	MOT	2.15	1.85	1.60
1N975A	MOT	2.35	2.00	1.75
1N975B	HUG	2.90		2.18
1N975B	MOT	2.95	2.55	2.20
1N975B/JAN	MOT	4.00	3.45	3.00
1N975BML1	MOT	3.25		2.45
1N975BML2	MOT	4.30		3.25
1N975BML3	MOT	5.70		4.30
1N975BML1	MOT	3.25		2.45
1N975BML2	MOT	4.30		3.25
1N975BML3	MOT	5.70		4.30
1N976B	HOF	2.75	2.55	2.20
1N976B	HUG	2.95		2.20
1N976B	MOT	2.95	2.55	2.20
1N976B/JAN	MOT	4.00	3.45	3.00
1N976BML1	MOT	3.25		2.45
1N976BML2	MOT	4.30		3.25
1N976BML3	MOT	5.70		4.30
1N976BML1	MOT	3.25		2.45
1N976BML2	MOT	4.30		3.25
1N976BML3	MOT	5.70		4.30
1N977	HUG	2.15		1.60
1N977	MOT	2.15	1.85	1.60
1N977B	HUG	2.95		2.20
1N977B	MOT	2.95	2.55	2.20
1N977B/JAN	MOT	4.00	3.45	3.00
1N977BML1	MOT	3.25		2.45
1N977BML2	MOT	4.30		3.25
1N977BML3	MOT	5.70		4.30
1N977BML1	MOT	3.25		2.45
1N977BML2	MOT	4.30		3.25
1N977BML3	MOT	5.70		4.30
1N978	HUG	2.15		1.60
1N978A	HUG	2.35		1.75
1N978B	HOF	2.75	2.55	2.20
1N978B	HUG	2.95		2.20
1N978B	MOT	2.95	2.55	2.20
1N978B/JAN	MOT	4.00	3.45	3.00
1N978BML1	MOT	3.25		2.45
1N978BML2	MOT	4.30		3.25
1N978BML3	MOT	5.70		4.30
1N978BML1	MOT	3.25		2.45
1N978BML2	MOT	4.30		3.25
1N978BML3	MOT	5.70		4.30
1N979	HUG	2.15		1.60
1N979	MOT	2.15	1.85	1.60
1N979A	HUG	2.35		1.75
1N979A	MOT	2.35	2.00	1.75
1N979B	HUG	2.95		2.20
1N979B	MOT	2.95	2.55	2.20
1N979B/JAN	MOT	4.00	3.45	3.00
1N979BML1	MOT	3.25		2.45
1N979BML2	MOT	4.30		3.25
1N979BML3	MOT	5.70		4.30
1N979BML1	MOT	3.25		2.45

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Type No.	Mfg.	1-99	100-Mix	100-999
1N979BML2	MOT	4.30		3.25
1N979BML3	MOT	5.70		4.30
1N980	HUG	2.15		1.60
1N980	MOT	2.15	1.85	1.60
1N980A	HUG	2.35		1.75
1N980A	MOT	2.35	2.00	1.75
1N980B	HUG	2.95		2.20
1N980B	MOT	2.95	2.55	2.20
1N980B/JAN	MOT	4.00	3.45	3.00
1N980BML1	MOT	3.25		2.45
1N980BML2	MOT	4.30		3.25
1N980BML3	MOT	5.70		4.30
1N980BML3	MOT	5.70		4.30
1N980MBL1	MOT	3.25		2.45
1N980MBL2	MOT	4.30		3.25
1N981	HUG	2.15		1.60
1N981A	HUG	2.35		1.75
1N981B	HUG	2.95		2.20
1N981B	MOT	2.95	2.55	2.20
1N981B/JAN	MOT	4.00	3.45	3.00
1N981BML1	MOT	3.25		2.45
1N981BML2	MOT	4.30		3.25
1N981BML3	MOT	5.70		4.30
1N981BML1	MOT	3.25		2.45
1N981BML2	MOT	4.30		3.25
1N981BML3	MOT	5.70		4.30
1N982	MOT	2.15	1.85	1.60
1N982A	MOT	2.35	2.00	1.75
1N982B	MOT	2.95	2.55	2.20
1N982B/JAN	MOT	4.00	3.45	3.00
1N982BML1	MOT	3.25		2.45
1N982BML2	MOT	4.30		3.25
1N982BML3	MOT	5.70		4.30
1N982BML1	MOT	3.25		2.45
1N982BML2	MOT	4.30		3.25
1N982BML3	MOT	5.70		4.30
1N983B	HOF	2.75	2.55	2.20
1N983B/JAN	MOT	4.00	3.45	3.00
1N983BML1	MOT	3.25		2.45
1N983BML2	MOT	4.30		3.25
1N983BML3	MOT	5.70		4.30
1N983BML1	MOT	3.25		2.45
1N983BML2	MOT	4.30		3.25
1N983BML3	MOT	5.70		4.30
1N984	MOT	2.15	1.85	1.60
1N984A	MOT	2.35	2.00	1.75
1N984B	HOF	2.75	2.55	2.20
1N984B	MOT	2.95	2.55	2.20
1N984B/JAN	MOT	4.00	3.45	3.00
1N984BML1	MOT	3.25		2.45
1N984BML2	MOT	4.30		3.25
1N984BML3	MOT	5.70		4.30
1N984BML1	MOT	3.25		2.45
1N984BML2	MOT	4.30		3.25
1N984BML3	MOT	5.70		4.30
1N985	MOT	2.60	2.25	1.95
1N985A	MOT	3.00	2.60	2.25
1N985B	HOF	3.45	3.15	2.75
1N985B	MOT	3.65	3.15	2.75
1N985B/JAN	MOT	4.45	3.85	3.35
1N985BML1	MOT	4.05		3.05
1N985BML2	MOT	5.05		3.80
1N985BML3	MOT	6.20		4.65

Type No.	Mfg.	1-99	100-Mix	100-999
1N986	MOT	2.60	2.25	1.95
1N986A	MOT	3.00	2.60	2.25
1N986B	HOF	3.45	3.15	2.75
1N986B	HUG			
1N986B/JAN	MOT	4.45	3.85	3.35
1N986BML1	MOT	4.05		3.05
1N986BML2	MOT	5.05		3.80
1N986BML3	MOT	6.20		4.65
1N987	MOT	2.60	2.25	1.95
1N987A	HUG			
1N987A	MOT	3.00	2.60	2.25
1N987B	HUG			
1N987B/JAN	MOT	4.45	3.85	3.35
1N987BML1	MOT	4.05		3.05
1N987BML2	MOT	5.05		3.80
1N987BML3	MOT	6.20		4.65
1N988	MOT	2.60	2.25	1.95
1N988A	MOT	3.00	2.60	2.25
1N988B	MOT	3.65	3.15	2.75
1N988B/JAN	MOT	4.45	3.85	3.35
1N988BML1	MOT	4.05		3.05
1N988BML2	MOT	5.05		3.80
1N988BML3	MOT	6.20		4.65
1N989	MOT	2.60	2.25	1.95
1N989A	MOT	3.00	2.60	2.25
1N989B	MOT	3.65	3.15	2.75
1N989B/JAN	MOT	4.45	3.85	3.35
1N989BML1	MOT	4.05		3.05
1N989BML2	MOT	5.05		3.80
1N989BML3	MOT	6.20		4.65
1N990	MOT	2.60	2.25	1.95
1N990A	MOT	3.00	2.60	2.25
1N990B/JAN	MOT	4.45	3.85	3.35
1N990BML1	MOT	4.05		3.05
1N990BML2	MOT	5.05		3.80
1N990BML3	MOT	6.20		4.65
1N991	MOT	2.60	2.25	1.95
1N991A	MOT	3.00	2.60	2.25
1N991B/JAN	MOT	4.45	3.85	3.35
1N991BML1	MOT	4.05		3.05
1N991BML2	MOT	5.05		3.80
1N991BML3	MOT	6.20		4.65
1N992	MOT	2.60	2.25	1.95
1N992A	MOT	3.00	2.60	2.25
1N992B	HOF	3.45		2.75
1N992B	MOT	3.65	3.15	2.75
1N992B/JAN	MOT	4.45	3.85	3.35
1N992BML1	MOT	4.05		3.05
1N992BML2	MOT	5.05		3.80
1N992BML3	MOT	6.20		4.65
1N995	HUG	.60		.45
1N995	SYL	.60		.45
1N995/JAN	HUG	.60		.45

Type No.	Mfg.	1-24	25-99	100-999
1N1081/10M	SAR	.60	.55	.51

Type No.	Mfg.	1-99	100-Mix	100-999
1N1082/5MA2	INT	.75		.60
1N1083	INT	.85		.68

Type No.	Mfg.	1-24	25-99	100-999
1N1083/30M	SAR	.70	.61	.57
1N1084/M500	SAR	.75	.63	.59
1N1085/10LA	SAR	3.34	2.86	2.66
1N1086A/20LA	SAR	4.00	3.43	3.20
1N1092/40LF	SAR	5.35	4.67	4.27

Type No.	Mfg.	1-99	100-999	1000-Up
1N1095	GE	.77	.51	.41
1N1095	RCA	.88	.64	.53
1N1095	TI	.76	.51	
1N1096	GE	.96	.64	.51

Type No.	Mfg.	1-24	25-99	100-999
1N1109/120SM	SAR	4.00	3.43	3.20

Type No.	Mfg.	1-99	100-999	1000-Up
1N1115	GE	1.05	.70	
1N1117	GE	1.43	.95	
1N1119	GE	1.80	1.20	
1N1120	GE	2.40	1.60	
1N1124	HUG	1.85	1.39	
1N1124	TI	1.86	1.24	
1N1124A	TI	1.86	1.24	
1N124A/USN	BEN	3.35	2.25	
1N1124R	TI	2.10	1.40	
1N1125	TI	2.55	1.70	
1N1126	TI	3.90	2.60	
1N1126A/JAN	BEN	5.25	3.50	

Type No.	Mfg.	1-99	100-998	1000-Up
1N1126R	TI	3.90	2.60	
1N1128	TI	6.00	4.00	
1N1128A	TI	5.20	3.47	
1N1128A	BEN	7.50	5.00	
1N1130/JAN	TI	7.03	4.69	
1N1131/JAN	TI	7.03	4.69	
1N1183	MOT	1.80	1.20	
1N1183/40HF5	IR	1.15	.80	
1N1183A	RCA	2.15	1.56	1.30
1N1183AR	WES	2.14	1.43	
1N1183R	WES	1.95	1.30	
1N1183RA	WES	2.14	1.43	
1N1184	GE	2.40	1.60	
1N1184	MOT	2.10	1.40	
1N1184/40HF10	IR	1.45	1.05	
1N1184/JAN	WES	3.90	2.60	
1N1184/USAF	RCA	4.31	3.13	2.61
1N1184A	RCA	2.48	1.80	1.50
1N1184A	WES	2.47	1.65	
1N1184R	WES	2.40	1.60	
1N1184R/JAN	GE	3.70	2.47	
1N1184RA	WES	2.47	1.65	
1N1185	MOT	2.60	1.75	
1N1185A	WES	3.10	2.07	
1N1185R	WES	2.93	1.95	
1N1185RA	WES	3.10	2.07	
1N1186	GE	3.45	2.30	
1N1186	MOT	3.15	2.10	
1N1186/40HF20	IR	2.00	1.40	
1N1186/JAN	WES	5.60	4.30	
1N1186/USAF	RCA	5.20	3.47	
1N1186A	RCA	3.55	2.58	2.15
1N1186A	WES	3.55	2.37	
1N1186R	WES	3.45	2.30	
1N1186R/JAN	GE	5.47	3.65	
1N1186RA	WES	3.55	2.37	
1N1187	GE	4.72	3.15	
1N1187	MOT	4.65	3.10	
1N1187/40HF30	IR	2.55	1.85	
1N1187A	WES	4.95	3.30	
1N1187RA	WES	4.73	3.15	
1N1187RA	WES	4.95	3.30	
1N1188	GE	5.85	3.90	
1N1188	MOT	5.25	3.50	
1N1188/40HF40	IR	3.05	2.20	
1N1188/JAN	WES	8.85	6.18	
1N1188/USAF	RCA	7.84	5.23	
1N1188A	WES	6.19	4.13	
1N1188R	WES	5.85	3.90	
1N1188R/JAN	GE	8.89	5.93	
1N1188RA	WES	6.19	4.13	
1N1189	MOT	6.00	4.00	
1N1189	WES	6.45	4.30	
1N1189A	RCA	7.43	5.40	4.50
1N1189A	WES	7.43	4.95	
1N1189R	WES	6.45	4.30	
1N1189RA	WES	7.43	4.85	
1N1190	GE	6.90	4.60	
1N1190	MOT	6.75	4.50	
1N1190/JAN	WES	12.05	8.05	
1N1190/USAF	RCA	11.55	8.00	

Type No.	Mfg.	1-24	25-99	100-999
1N1190/ST460P	SAR	4.89	4.19	3.90

Type No.	Mfg.	1-99	100-999	1000-Up
1N1190A	RCA	8.65	6.30	5.25
1N1190A	WES	8.65	5.80	
1N1190R	WES	6.90	4.60	
1N1190RA	WES	8.65	4.80	
1N1191	WES	1.65	1.10	
1N1191R	WES	1.65	1.10	
1N1192	MOT	1.50	1.05	
1N1192	WES	1.73	1.15	
1N1192R	WES	1.73	1.15	
1N1193	MOT	1.80	1.20	
1N1193	WES	2.10	1.40	
1N1193R	WES	2.10	1.40	
1N1194	MOT	2.60	1.75	
1N1194	WES	2.48	1.65	
1N1194R	WES	2.48	1.65	
1N1195	MOT	3.80	2.55	
1N1195	WES	3.88	2.59	
1N1195A	MOT	3.95	2.65	
1N1195R	WES	3.88	2.59	
1N1196	MOT	4.35	2.90	
1N1196	WES	4.95	3.30	
1N1196A	MOT	4.70	3.15	
1N1196R	WES	4.95	3.30	
1N1197	MOT	5.55	3.70	
1N1197	WES	5.94	3.96	

Type No.	Mfg.	1-99	100-999	1000-Up
1N1197A	MOT	5.70	3.85	
1N1197R	WES	5.94	3.96	
1N1198	WES	7.01	4.68	
1N1198	MOT	6.75	4.50	
1N1198A	MOT	7.05	4.70	
1N1198A	RCA	7.01	5.10	4.25
1N1198A/JAN	RCA	7.84	5.42	
1N1198R	WES	7.01	4.68	
1N1199	GE	1.24	.83	
1N1199	WES	1.24	.83	
1N1199A	GE	1.24	.83	
1N1199A	INT	1.20	.80	
1N1199A	RCA	1.24	.90	.75
1N1199A	WES	1.24	.83	
1N1199R	WES	1.24	.83	
1N1199RA	WES	1.24	.83	
1N1200	GE	1.41	.94	
1N1200	WES	1.41	.94	
1N1200A	GE	1.41	.94	
1N1200A	INT	1.32	.94	
1N1200A	RCA	1.41	1.02	.85
1N1200A	WES	1.41	.94	
1N1200R	WES	1.41	.94	
1N1200RA	WES	1.41	.94	
1N1201	WES	1.82	1.20	

Type No.	Mfg.	1-99	100-999	1000-Up
1N1201A	GE			
1N1201A	INT	1.75	1.20	
1N1201A	WES	1.82	1.21	
1N1201R	WES	1.82	1.21	
1N1201RA	WES	1.82	1.21	
1N1202	GE	2.62	1.75	
1N1202	WES	2.48	1.65	
1N1202/JAN	BEN	3.30	2.28	
1N1202A	GE	2.62	1.75	
1N1202A	INT	2.60	1.65	
121202A	RCA	2.48	1.80	1.50
1N1202A	WES	2.48	1.65	
1N1202R	WES	2.48	1.65	
1N1202R/JAN	GE	3.96	2.64	
1N1202RA	WES	2.48	1.65	
1N1203	WES	3.47	2.31	
1N1203A	INT	3.45	2.35	
1N1203A	WES	3.47	2.31	
1N1203R	WES	3.47	2.31	
1N1203RA	WES	3.47	2.31	
1N1204	WES	4.46	2.97	

Type No.	Mfg.	1-99	100-Mix	100-999
1N1204/JAN	RCA	5.28	3.84	3.20
1N1204/JAN	WES	5.55	3.70	
1N1204/USAF	RCA	5.28	3.84	
1N1204A	INT	4.40	2.95	

Type No.	Mfg.	1-99	100-999	1000-Up
1N1204A	RCA	4.46	3.24	2.70
1N1204A	WES	4.46	2.97	
1N1204R	WES	4.50	3.00	
1N1204R	WES	4.46	2.97	
1N1204RA	WES	4.46	2.97	
1N1205	WES	5.33	3.55	
1N1205A	WES	5.33	3.55	
1N1205R	WES	5.33	3.55	
1N1205RA	WES	5.33	3.55	
1N1206	WES	6.19	4.13	
1N1206/JAN	WES	8.25	5.50	

Type No.	Mfg.	1-24	25-99	100-Up
1N1206/ST260P	SAR	2.34	2.00	1.86

Type No.	Mfg.	1-99	100-Mix	100-999
1N1206A	INT	6.10		4.10
1N1206A	WES	6.19		4.13
1N1206R	WES	6.19		4.13
1N1206R/JAN	BEN	8.25		5.50
1N1206RA	WES	6.19		4.13

Type No.	Mfg.	1-24	25-99	100-999
1N-1237/S-5017	SAR	5.25	4.69	4.13
1N-1238/S-5018	SAR	5.25	4.69	
1N-1239/S-5019	SAR	7.77	6.94	

Type No.	Mfg.	1-99	100-Mix	100-999
1N-1313	HUG	1.95		1.70
1N-1313	MOT	3.10	2.70	2.35
1N-1313A	HUG	2.45		2.20
1N-1313A	MOT	5.45	4.70	4.10

Type No.	Mfg.	1-99	100-Mix	100-999
1N-1314	MOT	3.10	2.70	2.35
1N-1314A	HOF	3.50	3.20	2.80
1N-1314A	MOT	5.45	4.70	4.10
1N-1315	HOF	2.88	2.65	2.30
1N-1315	MOT	3.10	2.70	2.35
1N-1315A	MOT	5.45	4.70	4.10
1N-1315A	MOT	3.10	2.70	2.35
1N-1316A	MOT	5.45	4.70	4.10
1N-1317	HOF	2.88	2.65	2.30
1N-1317	MOT	3.10	2.70	2.35
1N-1317A	MOT	5.45	4.70	4.10
1N-1318	MOT	3.10	2.70	2.35
1N1318A	MOT	5.45	4.70	4.10
1N1319	MOT	3.10	2.70	2.35
1N1319A	MOT	5.45	4.70	4.10
1N1320	MOT	3.10	2.70	2.35
1N1320A	MOT	5.45	4.70	4.10
1N1321	MOT	3.10	2.70	2.35
1N1321A	MOT	5.45	4.70	4.10
1N1322	MOT	3.10	2.70	2.35
1N1322A	MOT	5.45	4.70	4.10
1N1323	MOT	3.10	2.70	2.35
1N1323A	MOT	5.45	4.70	4.10
1N1324	MOT	3.10	2.70	2.35
1N1324A	MOT	5.45	4.70	4.10
1N1325	MOT	3.10	2.70	2.35
1N1325A	MOT	5.45	4.70	4.10
1N1326	MOT	3.10	2.70	2.35
1N1326A	MOT	5.45	4.70	4.10
1N1327	MOT	3.10	2.70	2.35
1N1327A	MOT	5.45	4.70	4.10
1N1341	GE	1.12		.75
1N1341	WES	1.13		.75
1N1341A	GE	1.12		.75
1N1341A	INT	1.15		.75
1N1341A	WES	1.13		.75
1N1341R	WES	1.13		.75
1N1341RA	WES	1.13		.75
1N1342	INT	1.25		.85
1N1342	WES	1.28		.85
1N1342A	INT	1.25	.85	
1N1342A	WES	1.28	.85	
1N1342B	RCA	1.32	.96	.80
1N1342R	WES	1.28	.85	
1N1342RA	WES	1.28	.85	
1N1342RB	RCA	1.32	.96	.80
1N1343	WES	1.64	1.09	
1N1343A	INT	.160	1.10	
1N1343A	WES	1.64	1.09	
1N1343AR	WES	1.64	1.09	
1N1343R	WES	1.64	1.09	
1N1343RA	WES	1.64	1.09	
1N1344	GE	2.22	1.48	
1N1344	WES	2.15	1.43	

Type No.	Mfg.	1-24	25-99	100-999
1N1344/20H3P	SAR	1.20	1.03	.96

Type No.	Mfg.	1-99	100-Mix	100-999
1N1344A	WES	2.15		1.43
1N1344R	WES	2.15		1.43
1N1344RA	WES	2.15		1.43
1N1345	WES	3.05		2.04
1N1345A	WES	3.05		2.04
1N1345R	WES	3.05		2.04
1N1345RA	WES	3.05		2.04
1N1346	GE	3.96		2.64
1N1346	WES	3.96		2.64

Type No.	Mfg.	1-24	25-99	100-Up
1N1346/40H3P	SAR	1.50	1.29	1.20

Type No.	Mfg.	1-99	100-Mix	100-999
1N1346A	GE	3.96		2.64
1N1346A	WES	3.96		2.64
1N1346R	WES	3.96		2.64
1N1346RA	WES	3.96		2.64
1N1347	WES	4.79		3.19
1N1347A	WES	4.79		3.19
1N1347R	WES	4.79		3.19
1N1347RA	WES	4.78		3.85
1N1348	WES	5.78		3.85

Type No.	Mfg.	1-24	25-99	100-Up
1N1348/60H3P	SAR	2.12	1.82	1.69

Type No.	Mfg.	1-99	100-999	
1N1348A	GE	5.48	3.65	
1N1348A	WES	5.78	3.85	
1N1348R	WES	5.78	3.85	
1N1348RA	WES	1.13	.75	
1N1351	HUG	4.90	3.68	

Type No.	Mfg.	1-99	100-Mix	100-999
1N1351	MOT	6.20	5.35	4.65
1N1351A	MOT	7.85	6.80	5.90
1N1352	HUG	4.90		3.68
1N1352	MOT	6.20	5.35	4.65
1N1352A	MOT	7.85	6.80	5.90
1N1353	HUG	4.90		3.68
1N1353	MOT	6.20	5.35	4.65
1N1353A	INT	7.05	6.30	5.65
1N1353A	MOT	7.85	6.80	5.90
1N1354	HUG	4.90		3.68
1N1354	MOT	6.20	5.35	4.65
1N1354A	MOT	7.85	6.80	5.90
1N1355	HOF	4.50	4.15	3.60
1N1355	HUG	4.90		3.68
1N1355	MOT	6.20	5.35	4.65
1N1355A	MOT	7.85	6.80	5.90
1N1356	MOT	6.20	5.35	4.65
1N1356A	MOT	7.85	6.80	5.90
1N1357	MOT	6.20	5.35	4.65
1N1357A	MOT	7.85	6.80	5.90
1N1358	MOT	6.20	5.35	4.65
1N1358A	MOT	7.85	6.80	5.90
1N1359	MOT	6.20	5.35	4.65
1N1359A	INT	7.05	6.30	5.65
1N1359A	MOT	7.85	6.80	5.90
1N1360	HOF	4.50	4.15	3.60
1N1360	MOT	6.20	5.35	4.65
1N1360A	INT	7.05	6.30	5.65
1N1360A	MOT	7.85	6.80	5.90
1N1361	MOT	6.20	5.35	4.65
1N1361A	INT	7.05	6.30	5.65
1N1361A	MOT	7.85	6.80	5.90
1N1362	MOT	6.20	5.35	4.65
1N1362A	INT	7.05	6.30	5.65
1N1362A	MOT	7.85	6.80	5.90
1N1363	MOT	6.20	5.35	4.65
1N1363A	MOT	7.85	6.80	5.90
1N1364	MOT	6.20	5.35	4.65
1N1364A	MOT	7.85	6.80	5.90
1N1365	MOT	6.20	5.35	4.65
1N1365A	MOT	7.85	6.80	5.90
1N1366	MOT	6.20	5.35	4.65
1N1366A	MOT	7.85	6.80	5.90
1N1367	MOT	6.20	5.35	4.65
1N1367A	MOT	7.85	6.80	5.90
1N1368	MOT	6.20	5.35	4.65
1N1368A	MOT	7.85	6.80	5.90
1N1369	HOF	4.50	4.15	3.60
1N1369A	MOT	6.20	5.35	4.65
1N1370	MOT	7.85	6.80	5.90
1N1370	MOT	6.20	5.35	4.65
1N1370A	MOT	7.85	6.80	5.90
1N1371	MOT	6.20	5.35	4.65
1N1371A	MOT	7.85	6.80	5.90
1N1372	MOT	6.20	5.35	4.65
1N1372A	MOT	7.85	6.80	5.90
1N1373	MOT	6.20	5.35	4.65
1N1373A	MOT	7.85	6.80	5.90
1N1374	MOT	6.20	5.35	4.65
1N1374A	MOT	7.85	6.80	5.90
1N1375A	MOT	7.85	6.80	5.90

Type No.	Mfg.	1-24	25-99	100-Up
1N1396	WES	6.20	5.30	
1N1397	WES	7.65	6.50	
1N1398	WES	10.00	8.30	
1N1399	WES	12.40	10.00	
1N1400	WES	14.10	11.60	
1N1401	WES	15.20	12.70	
1N1402	WES	16.90	14.10	
1N1403	WES	19.90	16.50	

Type No.	Mfg.	1-99	100-Mix	100-999
1N1488	TI	.52		.35
1N1507A	MOT	3.65		2.75
1N1508	MOT	2.95		2.20
1N1508/MZ4.7T10	INT	2.75	2.45	2.10
1N1508A	MOT	3.65		2.75
1N1509	MOT	2.95		2.20
1N1509/MZ5.6T10	INT	2.75	2.45	2.10
1N1509A	MOT	3.65		2.75
1N1510	MOT	2.95		2.20

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Type No.	Mfg.	1-99	100-Mix	100-999
1N1510/MZ6.8T10	INT	2.75	2.45	2.10
1N1510A	MOT	3.65	....	2.75
1N1511	MOT	2.95	....	2.20
1N1511A	MOT	3.65	....	2.75
1N1512	MOT	2.95	....	2.20
1N1512/MZ10T10	INT	2.75	2.45	2.10
1N1512A	MOT	3.65	....	2.75
1N1512A/MZ10T5	INT	3.45	3.05	2.65
1N1513	MOT	2.95	....	2.20
1N1513/MZ12T10	INT	2.75	2.45	2.10
1N1513A	MOT	3.65	....	2.75
1N1513A/MZ12T5	INT	3.45	3.05	2.65
1N1514	MOT	2.95	....	2.20
1N1514/MZ15T10	INT	2.75	2.45	2.10
1N1514A	MOT	3.65	....	2.75
1N1514A/MZ15T5	INT	3.45	3.05	2.65
1N1515	MOT	2.95	....	2.20
1N1515A	MOT	3.65	....	2.75
1N1516	MOT	2.95	....	2.20
1N1516A	MOT	3.65	....	2.75
1N1517	MOT	2.95	....	2.20
1N1517/MZ22T10	INT	2.75	2.45	2.10
1N1517A	MOT	3.65	....	2.75
1N1517A/MZ27T5	INT	3.45	3.05	2.65
1N1518	MOT	2.95	....	2.20
1N1518/1Z3.9T10	INT	2.70	2.40	2.20
1N1518A	MOT	3.65	....	2.75
1N1518A/1Z3.9T5	INT	3.50	3.00	2.75
1N1519	MOT	2.95	....	2.20
1N1519/1Z4.7T10	INT	2.70	2.40	2.20
1N1519A	MOT	3.65	....	2.75
1N1519A/1Z4.7T5	INT	3.50	3.00	2.75
1N1520	MOT	2.95	....	2.20
1N1520/1Z5.6T10	INT	2.70	2.40	2.20
1N1520A	MOT	3.65	....	2.75
1N1520A/1Z5.6T5	INT	3.50	3.00	2.75
1N1521	MOT	2.95	....	2.20
1N1521/1Z6.8T10	INT	2.70	2.40	2.20
1N1521A	MOT	3.65	....	2.75
1N1521A/1Z6.8T5	INT	3.50	3.00	2.75
1N1522	MOT	2.95	....	2.20
1N1522A	MOT	3.65	....	2.75
1N1522A/1Z8.2T5	INT	3.50	3.00	2.75
1N1523	MOT	2.95	....	2.20
1N1523/1Z10T10	INT	2.70	2.40	2.20
1N1523A	MOT	3.65	....	2.75
1N1523A/1Z10T5	INT	3.50	3.00	2.75
1N1524	MOT	2.95	....	2.20
1N1524/1Z12T10	INT	2.70	2.40	2.20
1N1524A	MOT	3.65	....	2.75
1N1524A/1Z12T5	INT	3.50	3.00	2.75
1N1525	MOT	2.95	....	2.20
1N1525/1Z15T10	INT	2.70	2.40	2.20
1N1525A	MOT	3.65	....	2.75
1N1525A/1Z15T5	INT	3.50	3.00	2.75
1N1526	MOT	2.95	....	2.20
1N1526/1Z18T10	INT	2.70	2.40	2.20
1N1526A	MOT	3.65	....	2.75
1N1526A/1Z18T5	INT	3.50	3.00	2.75
1N1527	MOT	2.95	....	2.20
1N1527/1Z22T10	INT	2.70	2.40	2.20
1N1527A	MOT	3.65	....	2.75

Type No.	Mfg.	1-99	100-Mix	100-999
1N1527A/1Z22T5	INT	3.50	3.00	2.75
1N1528	MOT	2.95	....	2.20
1N1528/1Z27T10	INT	2.70	2.40	2.20
1N1528A	MOT	3.65	....	2.75
1N1528A/1Z27T5	INT	3.50	3.00	2.75

Type No.	Mfg.	1-99	100-Mix	100-Up
1N1530A/JAN	MOT	27.55	23.80	20.70

Type No.	Mfg.	1-99	100-Mix	100-999
1N1563	MOT	1.57	....	1.05
1N1563A	MOT	1.80	....	1.20
1N1564	MOT	1.72	....	1.15
1N1564A	MOT	2.02	....	1.35
1N1565	MOT	1.87	....	1.25

Type No.	Mfg.	1-99	100-Mix	100-Up
1N1565A	MOT	2.30	....	1.55

Type No.	Mfg.	1-99	100-Mix	100-999
1N1566	MOT	2.02	....	1.35
1N1566A	MOT	2.70	....	1.80

Type No.	Mfg.	1-99	100-Mix	100-Up
1N1567	MOT	2.30	....	1.55

Type No.	Mfg.	1-99	100-Mix	100-999
1N1567A	MOT	3.15	....	2.10

Type No.	Mfg.	1-99	100-Mix	100-Up
1N1568	MOT	3.60	....	2.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N1568A	MOT	4.65	....	3.10
1N1581	TI	1.10	....	.72
1N1582	TI	1.20	....	.80

Type No.	Mfg.	1-99	100-Mix	100-Up
1N1583	TI	2.25	....	1.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N1585	TI	4.05	....	2.70
1N1588	MOT	4.10	....	3.10
1N1588/3Z3.9T10	INT	3.80	3.40	3.05
1N1588A	MOT	4.90	....	3.70
1N1588A/3Z3.9T5	INT	4.55	4.05	3.65
1N1589	MOT	4.10	....	3.10
1N1589/3Z4.7T10	INT	4.55	4.05	3.65
1N1589A	MOT	4.90	....	3.70
1N1589A/3Z4.7T5	INT	4.55	4.05	3.65
1N1590	MOT	4.10	....	3.10
1N1590/3Z5.6T10	INT	3.80	3.40	3.05
1N1590A	MOT	4.90	....	3.70
1N1590A/3Z5.6T5	INT	4.55	4.05	3.65

Type No.	Mfg.	1-99	100-Mix	100-Up
1N1591	MOT	4.10	....	3.10
1N1591/3Z6.8T10	INT	3.80	3.40	3.05
1N1591A	MOT	4.90	....	3.70
1N1591A/3Z6.8T5	INT	4.55	4.05	3.65
1N1592	MOT	4.10	....	3.10
1N1592/3Z8.2T10	IN T	3.80	3.40	3.05
1N1592A	MOT	4.90	....	3.70
1N1592A/3Z8.2T5	INT	3.80	3.40	3.05
1N1593	MOT	4.10	....	3.10
1N1593/3Z10T10	INT	3.80	3.40	3.05
1N1593A	MOT	4.90	....	3.70

Type No.	Mfg.	1-99	100-999	1000-Up
1N1593A/3Z10T5	INT	4.55	4.05	3.65
1N1594	MOT	4.10	....	3.10
1N1594/3Z12T10	INT	3.80	3.40	3.05
1N1594A	MOT	4.90	....	3.70
1N1594A/3Z12T5	INT	4.55	4.05	3.65
1N1595	MOT	4.10	....	3.10
1N1595/3Z15T10	INT	3.80	3.40	3.05
1N1595A	MOT	4.90	....	3.70
1N1595A/AZ15T5	INT	4.55	4.05	3.65
1N1596	MOT	4.10	....	3.10
1N1596/3Z18T10	INT	3.80	3.40	3.05
1N1596A	MOT	4.90	....	3.70
1N1596A/3Z18T5	INT	4.55	4.05	3.65
1N1597	MOT	4.10	....	3.10
1N1597/3Z22T10	INT	3.80	3.40	3.05
1N1597A	MOT	4.90	....	3.70
1N1597A/3Z22T5	INT	4.55	4.05	3.65
1N1598	MOT	4.10	....	3.10

Type No.	Mfg.	1-99	100-999	1000-Up
1N1598/3Z27T10	INT			
1N1598A	MOT	4.90	....	3.70
1N1598A/3Z27T5	INT			
1N1599	MOT	6.50	....	4.90
1N1599/10Z3.9T10	INT	5.95	5.40	4.75

Type No.	Mfg.	1-99	100-Mix	100-Up
1N1599A	MOT	8.50	....	6.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N1599A/10Z3.9T5	INT	8.00	7.10	6.40
1N1600	MOT	6.50	....	4.90
1N1600/10Z4.7T10	INT	5.95	5.40	4.75

Type No.	Mfg.	1-99	100-Mix	100-Up
1N1600A	MOT	8.50	....	6.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N1600A/10Z4.7T5	INT	8.00	7.10	6.40
1N1601	MOT	6.50	....	4.90
1N1601/10Z5.6T10	INT	5.95	5.40	4.75

Type No.	Mfg.	1-99	100-Mix	100-Up
1N1601A	MOT	8.50	....	6.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N1601A/10Z5.6T5	INT	8.00	7.10	6.40
1N1602	MOT	6.50	....	4.90
1N1602/10Z6.8T10	INT	5.95	5.40	4.75

Type No.	Mfg.	1-99	100-Mix	100-Up
1N1602A	MOT	8.50	....	6.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N1603	MOT	6.50	....	4.90

Type No.	Mfg.	1-99	100-Mix	100-Up
1N1603A	MOT	8.50	....	6.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N1604	MOT	6.50	....	4.90

Type No.	Mfg.	1-99	100-Mix	100-Up
1N1604A	MOT	8.50	....	6.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N1604A/10Z10T5	INT	8.00	7.10	6.40
1N1605	MOT	6.50	....	4.90
1N1605/10Z12T10	INT	5.95	5.40	4.75

Type No.	Mfg.	1-99	100-Mix	100-Up
1N1605A	MOT	8.50	....	6.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N1605A/10Z12T5	INT	8.00	7.10	6.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N1606	MOT	6.50	....	4.90
1N1606/10Z15T10	INT	5.95	5.40	4.75

Type No.	Mfg.	1-99	100-Mix	100-Up
1N1606A	MOT	8.50	....	6.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N1607	MOT	6.50	....	4.90
1N1607/10Z18T10	INT	5.95	5.40	4.75

Type No.	Mfg.	1-99	100-Mix	100-Up
1N1607A	MOT	8.50	....	6.40
1N1608	MOT	6.50	....	4.90

Type No.	Mfg.	1-99	100-Mix	100-999
1N1608A	INT	5.50	4.80	4.[illegible]7

Type No.	Mfg.	1-99	100-Mix	100-Up
1N1608A	MOT	8.50	......	6.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N1609	MOT	6.50	......	4.90

Type No.	Mfg.	1-99	100-Mix	100-Up
1N1609A	MOT	8.50	......	6.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N1609A/10Z27T5	INT	8.00	7.10	6.48

Type No.	Mfg.	1-9	10-99	100-999
1N1611	SYL	4.30	3.68	3.40
1N1611A	SYL	9.15	7.85	7.35

Type No.	Mfg.	1-99	100-999	1000-Up
1N1612	GE	1.08	.72	......
1N1612	RCA	1.08	.78	.85
1N1612	WES	1.07	......	.72
1N1612R	RCA	1.08	.78	.85
1N1612R	WES	1.07	.72	......
1N1613	RCA	1.24	.90	.75
1N1613	TI	.120	.80	......
1N1613R	RCA	1.24	.90	.75
1N1613R	WES	1.24	.83	......
1N1614	GE	1.90	1.20	......
1N1614	RCA	1.90	1.38	1.15
1N1614	TI	1.87	1.25	......
1N1614/USA	BEN	3.03	2.02	......
1N1614R	RCA	1.90	1.38	1.15
1N1614R	MOT	1.90	1.27	......
1N1614R/JAN	GE	1.90	1.27	......
1N1615	GE	3.75	2.50	......
1N1615	RCA	3.71	2.70	2.25
1N1615	WES	3.71	......	2.48
1N1615R	WES	3.71	2.48	......
1N1615R/JAN	GE	5.25	3.50	......
1N1616	RCA	5.36	3.90	3.25
1N1616R	WES	3.36	3.58	......
1N1616R/JAN	GE	7.16	4.77	......

Type No.	Mfg.	1-24	25-99	100-999
1N1622/20J2	SAR	2.80	2.48	2.24
1N1624/40J2	SAR	4.24	3.62	3.40
1N1670	WES	24.95	20.45	......
1N1671	WES	29.85	24.40	......
1N1672	WES	34.40	28.10	......
1N1673	WES	42.15	34.30	......
1N1674	WES	62.30	50.80	......
1N1675	WES	81.50	66.50	......
1N1676	WES	106.30	86.75	......

Type No.	Mfg.	1-99	100-999	1000-Up
1N1692	GE	.45	.30	.24
1N1692	INT	.45	.30	......
1N1692	TI	.49	.33	......
1N1693	GE	.48	.32	.26
1N1693	INT	.48	.32	......
1N1693	TI	.52	.35	......
1N1694	TI	.60	.40	......
1N1695	GE	.66	.44	.35
1N1695	INT	.66	.44	......
1N1695	TI	.67	.45	......
1N1696	GE	.72	.48	.38
1N1696	TI	.76	.51	......
1N1697	GE	.93	.62	.50
1N1697	TI	.97	.64	......
1N1701	INT	.75	.50	......
1N1730	MOT	4.85	3.25	......
1N1732	MOT	6.75	4.50	......
1N1731	MOT	6.00	4.00	......

Type No.	Mfg.	1-99	100-Mix	100-999
1N1733	MOT	7.80	......	5.20
1N1734	MOT	11.60	......	7.75

Type No.	Mfg.	1-99	100-Mix	100-Up
1N1742A/JAN	MOT	45.50	40.00	35.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N1763A	RCA	.42	......	.30
1N1764A	RCA	.52	......	.38
1N1765	MOT	2.80	......	2.10
1N1765A	MOT	3.20	......	2.40
1N1766	HOF	2.60	2.35	2.05
1N1766A	HOF	2.85	2.55	2.25
1N1766A	MOT	3.20	......	2.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N1767	HOF	2.60	2.35	2.05
1N1767	HUG	2.40	......	1.80
1N1767	MOT	2.80	......	2.10
1N1767A	HOF	2.85	2.55	2.25
1N1767A	INT	2.85	2.55	2.29
1N1767A	MOT	3.20	......	2.40
1N1768	HOF	2.60	2.35	2.05
1N1768	HUG	2.40	......	1.80
1N1768	MOT	2.80	......	2.10
1N1768A	MOT	3.20	......	2.40
1N1769	HOF	2.60	2.35	2.05
1N1769	HUG	3.00	......	2.25
1N1769	MOT	2.80	......	2.10
1N1769A	MOT	3.20	......	2.40
1N1770	HOF	2.60	2.35	2.05
1N1770	HUG	3.00	......	2.25
1N1770	MOT	2.80	......	2.10
1N1770A	MOT	3.20	......	2.40
1N1771/4JZ4X10B	GE	3.00	......	2.00
1N1771A	HOF	2.85	2.55	2.25
1N1771A	MOT	3.20	......	2.40
1N1772	HOF	2.60	2.35	2.05
1N1772	HUG	3.00	......	2.25
1N1772	MOT	2.80	......	2.10
1N1772A	MOT	3.20	......	2.40
1N1773	HOF	2.60	2.35	2.05
1N1773	HUG	3.00	......	2.25
1N1773	MOT	2.80	......	2.10

Type No.	Mfg.	1-99	100-999	1000-Up
1N1773/4JZ4X12B	GE	3.00	2.00	1.75

Type No.	Mfg.	1-99	100-Mix	100-999
1N1773A	HOF	2.85	2.55	2.25
1N1773A	INT	2.85	2.55	2.29
1N1773A	MOT	3.20	......	2.40
1N1774	HUG	3.00	......	2.25
1N1774A	INT	2.85	2.55	2.29
1N1774A	MOT	3.20	......	2.40
1N1775	HOF	2.60	2.35	2.05
1N1775	HUG	3.00	......	2.25
1N1775	MOT	2.80	......	2.10
1N1775A	HOF	2.85	2.55	2.25
1N1775A	MOT	3.20	......	2.40
1N1776	HOF	2.60	2.35	2.05
1N1776	HUG	3.00	......	2.25
1N1776	MOT	2.80	......	2.10
1N1776A	MOT	2.80	......	2.10
1N1777	HOF	2.85	2.55	2.25
1N1777	HUG	2.80	......	2.10
1N1777	MOT	2.80	......	2.10
1N1777A	HOF	2.85	2.55	2.25
1N1777A	INT	2.85	2.55	2.29
1N1777A	MOT	3.20	......	2.40
1N1778	HOF	2.60	2.35	2.05
1N1778	HUG	2.80	......	2.10
1N1778	MOT	2.80	......	2.10
1N1778A	INT	2.85	2.55	2.29
1N1778A	MOT	3.20	......	2.40
1N1779	HOF	2.60	2.35	2.05
1N1779	HUG	2.80	......	2.10
1N1779	MOT	2.80	......	2.10
1N1779A	MOT	3.20	......	2.40
1N1780	HOF	2.60	2.35	2.05
1N1780	HUG	2.80	......	2.10
1N1780	MOT	2.80	......	2.10
1N1780A	INT	2.85	2.55	2.29
1N1780A	MOT	3.20	......	2.40
1N1781	HOF	2.60	2.35	2.05
1N1781	HUG	2.80	......	2.10
1N1781	MOT	2.80	......	2.10
1N1781A	MOT	3.20	......	2.40
1N1782	MOT	2.80	......	2.10
1N1782A	INT	3.10	2.75	2.47
1N1782A	MOT	4.00	......	3.00
1N1783	HUG	2.85	......	2.14
1N1783	MOT	2.80	......	2.10
1N1783A	MOT	4.00	......	3.00
1N1784	HUG	2.85	......	2.14
1N1784	MOT	2.80	......	2.10
1N1784A	MOT	4.00	......	3.00
1N1785	HUG	2.85	......	2.14
1N1785	MOT	2.80	......	2.10
1N1785A	INT	3.10	2.75	2.47
1N1785A	MOT	4.00	......	3.00
1N1786	HUG	2.85	......	2.14
1N1786	MOT	2.80	......	2.10
1N1786A	MOT	4.00	......	3.00
1N1787	HUG	2.85	......	2.14
1N1787	MOT	2.80	......	2.10
1N1787A	MOT	4.00	......	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N1788	HUG	2.85	......	2.14
1N1788	MOT	2.80	......	2.10
1N1788A	MOT	4.00	......	3.00
1N1789	HUG	2.85	......	2.14
1N1789	MOT	2.80	......	2.10
1N1789A	HOF	4.00	3.60	3.00
1N1789A	MOT	4.00	......	3.00
1N1790	HUG	2.85	......	2.14
1N1790	MOT	2.80	......	2.10
1N1790A	MOT	4.00	......	3.00
1N1791	HUG	2.85	......	2.14
1N1791	MOT	2.80	......	2.10
1N1791A	MOT	4.00	......	3.00
1N1792	HUG	2.85	......	2.14
1N1792	MOT	2.80	......	2.10
1N1792A	INT	3.10	2.75	2.47
1N1792A	MOT	4.00	......	3.00
1N1793	HUG	2.85	......	2.14
1N1793	MOT	2.80	......	2.10
1N1793A	MOT	4.00	......	3.00
1N1794	HUG	2.85	......	2.14
1N1794	MOT	2.80	......	2.10
1N1794A	MOT	4.00	......	3.00
1N1795	HUG	2.85	......	2.14
1N1795	MOT	2.80	......	2.10
1N1795A	MOT	4.00	......	3.00
1N1796	MOT	5.10	......	3.85
1N1796A	HUG	3.25	......	2.44
1N1796A	MOT	7.80	......	5.85
1N1797	MOT	5.10	......	3.85
1N1797A	HUG	3.25	......	2.44
1N1797A	INT	6.65	5.90	5.30
1N1797A	MOT	7.80	......	5.85
1N1798	MOT	5.10	......	3.85
1N1798A	MOT	7.80	......	5.85
1N1799	MOT	5.10	......	3.85
1N1799A	HUG	2.85	......	2.14
1N1799A	MOT	7.80	......	5.85
1N1800	HUG	1.20	......	.90
1N1800	MOT	5.10	......	3.85
1N1800A	MOT	7.80	......	5.85
1N1801	HUG	1.20	......	.90
1N1801	MOT	5.10	......	3.85
1N1801A	MOT	7.80	......	5.85
1N1802	HUG	1.20	......	.90
1N1802	MOT	5.10	......	3.85
1N1802A	MOT	7.80	......	5.85
1N1803	MOT	6.20	5.35	4.65
1N1804	MOT	6.20	5.35	4.65

Type No.	Mfg.	1-24	25-99	100-Up
1N1804/10T6.2	SAR	3.39	2.90	2.70

Type No.	Mfg.	1-99	100-Mix	100-999
1N1805	MOT	6.20	5.35	4.65
1N1806	MOT	6.20	5.35	4.65
1N1807	HOF	4.50	4.05	3.60
1N1807	MOT	6.20	5.35	4.65
1N1808	MOT	6.20	5.35	4.65
1N1809	MOT	6.20	5.35	4.65
1N1809A	MOT	7.85	6.80	5.90
1N1810	MOT	6.20	5.35	4.65
1N1810A	MOT	7.85	6.80	5.90
1N1811	MOT	6.20	5.35	4.65
1N1811A	MOT	7.85	6.80	5.90
1N1812	MOT	6.20	5.35	4.65
1N1812A	MOT	7.85	6.80	5.90
1N1813	MOT	9.10	7.90	6.85
1N1813A	MOT	14.10	12.20	10.60
1N1814	MOT	9.10	7.90	6.85
1N1814A	MOT	14.10	12.20	10.60
1N1815	MOT	9.10	7.90	6.85
1N1815A	MOT	14.10	12.20	10.60
1N1816	MOT	6.20	5.35	4.65
1N1816A	MOT	7.85	6.80	5.90
1N1818	TI	8.05	......	6.70
1N1818A	MOT	6.20	5.35	4.65
1N1816A/USN	MOT	7.85	6.80	5.90
1N1818A/USN	TI	8.05	......	6.70
1N1819	MOT	6.20	5.35	4.65
1N1819	MOT	7.85	6.80	5.90
1N1819A	TI	8.05	......	6.70
1N1820	MOT	6.20	5.35	4.65
1N1820A	MOT	7.85	6.80	5.90
1N1820A/USN	TI	8.05	......	6.70
1N1821	MOT	6.20	5.35	4.65
1N1821A	MOT	7.85	6.80	5.90
1N1821A/USN	TI	8.05	......	6.70
1N1821C	MOT	6.20	5.35	4.65
1N1822	MOT	7.85	6.80	5.90

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Type No.	Mfg.	1-99	100-Mix	100-999
1N1822A	TI	8.05		6.70
1N1822A/USN	MOT	7.50	6.50	5.65
1N1822C	MOT	6.20	5.35	4.65
1N1823	MOT	7.85	6.80	5.90
1N1823A	TI	8.05		6.70
1N1823A/USN	MOT	7.50	6.50	5.65
1N1815	MOT	9.10	7.90	6.85
1N1815A	MOT	14.10	12.20	10.60
1N1816	MOT	6.20	5.35	4.65
1N1816A	MOT	7.85	6.80	5.90
1N1816A/USN	TI	8.05		6.70
1N1817	MOT	6.20	5.35	4.65
1N1817A	MOT	7.85	6.80	5.90
1N1817A/USN	TI	8.05		6.70
1N1818	MOT	6.20	5.35	4.65
1N1818A	MOT	7.85	6.80	5.90
1N1818A/USN	TI	8.05		6.70
1N1819	MOT	6.20	5.35	4.65
1N1819A	MOT	7.85	6.80	5.90
1N1819A/USN	TI	8.05		6.70
1N1820	MOT	6.20	5.35	4.65
1N1820A	MOT	7.85	6.80	5.90
1N1820A/USN	TI	8.05		6.70
1N1821	MOT	6.20	5.35	4.65
1N1821A	MOT	7.85	6.80	5.90
1N1821A/USN	TI	8.05		6.70
1N1821C	MOT	7.50	6.50	5.65
1N1822	MOT	6.20	5.35	4.65
1N1822A	MOT	7.85	6.80	5.90
1N1822A/USN	TI	8.05		6.70
1N1822C	MOT	7.50	6.50	5.65
1N1823	MOT	6.20	5.35	4.65
1N1823A	MOT	7.85	6.80	5.90
1N1823A/USN	TI	8.05		6.70
1N1823C	MOT	7.50	6.50	5.65
1N1824	MOT	6.20	5.35	4.65
1N1824	TI	5.10		4.50
1N1824A	MOT	7.85	6.80	5.90
1N1824A	TI	5.80		5.05
1N1824A/USN	TI	8.05		6.70
1N1824C	MOT	7.50	6.50	5.65
1N1825	MOT	6.20	5.35	4.65
1N1825A	MOT	7.85	6.80	5.90
1N1825A/USN	TI	8.05		6.70
1N1825C	MOT	7.50	6.50	5.65
1N1826	MOT	6.20	5.35	4.65
1N1826	TI	5.10		4.50
1N1826A	MOT	7.85	6.80	5.90
1N1826A/USN	TI	8.05		6.70
1N1826C	MOT	7.50	6.50	5.65
1N1827	MOT	6.20	5.35	4.65
1N1827A	MOT	7.85	6.80	5.90
1N1827A/USN	TI	8.05		6.70
1N1827C	MOT	7.50	6.50	5.65
1N1828	MOT	6.20	5.35	4.65
1N1828A	MOT	7.85	6.80	5.90
1N1828C	MOT	7.50	6.50	5.65
1N1829	MOT	6.20	5.35	4.65
1N1829A	MOT	7.85	6.80	5.90
1N1829A/USN	TI	8.05		6.70
1N1829C	MOT	7.50	6.50	5.65
1N1830	MOT	6.20	5.35	4.65

Type No.	Mfg.	1-99	100-Mix	100-999
1N1830A	MOT	7.85	6.80	5.90
1N1830A/USN	TI	8.05		6.70
1N1830C	MOT	7.50	6.50	5.65
1N1831	MOT	6.20	5.35	4.65
1N1831A	MOT	7.85	6.80	5.90
1N1831A/USN	TI	8.05		6.70
1N1831C	MOT	7.50	6.50	5.65
1N1832	MOT	6.20	5.35	4.65
1N1832	TI	5.10		4.50
1N1832A	MOT	7.85	6.80	5.90
1N1832A/USN	TI	8.05		6.70
1N1832C	MOT	7.50	6.50	5.65
1N1833	MOT	6.20	5.35	4.65
1N1833A	MOT	7.85	6.80	5.90
1N1833A/USN	TI	8.05		6.70
1N1833C	MOT	7.50	6.50	5.65
1N1834	MOT	6.20	5.35	4.65
1N1834A	MOT	7.85	6.80	5.90
1N1834A/USN	TI	8.05		6.70
1N1834C	MOT	7.50	6.50	5.65
1N1835	MOT	6.20	5.35	4.65
1N1835A	MOT	7.85	6.80	5.90
1N1835A/USN	TI	8.05		6.70
1N1835C	MOT	7.50	6.50	5.65
1N1836	MOT	6.20	5.35	4.65
1N1836A	MOT	7.85	6.80	5.90
1N1836A/USN	TI	8.05		6.70
1N1836C	MOT	7.50	6.50	5.65
1N2008	MOT	6.00		4.50
1N2008A	MOT	7.50		5.65
1N2009	MOT	6.00		4.50
1N2009A	MOT	7.50		5.65
1N2010	MOT	6.00		4.50
1N2010A	MOT	7.50		5.65
1N2011	MOT	6.00		4.50
1N2011A	MOT	7.50		5.65
1N2012	MOT	6.00		4.50
1N2012A	MOT	7.50		5.65
1N2032-1	MOT	4.00		3.00
1N2032-2	MOT	4.00		3.00
1N2033-1	MOT	4.00		3.00
1N2033-2	MOT	4.00		3.00
1N2034-1	MOT	4.00		3.00
1N2034-2	MOT	4.00		3.00
1N2034-3	MOT	4.00		3.00
1N2035-1	MOT	4.00		3.00
1N2035-2	MOT	4.00		3.00
1N2035-3	MOT	4.00		3.00
1N2035-4	MOT	4.00		3.00
1N2036-1	MOT	4.00		3.00
1N2036-2	MOT	4.00		3.00
1N2037-1	MOT	4.00		3.00
1N2037-2	MOT	4.00		3.00
1N2037-3	MOT	4.00		3.00
1N2038-1	MOT	4.00		3.00
1N2038-2	MOT	4.00		3.00
1N2038-3	MOT	4.00		3.00
1N2039-1	MOT	4.00		3.00
1N2039-2	MOT	4.00		3.00
1N2039-3	MOT	4.00		3.00
1N2040-1	MOT	4.00		3.00
1N2040-2	MOT	4.00		3.00
1N2040-3	MOT	4.00		3.00
1N2041-1	MOT	7.60		5.70
1N2041-2	MOT	7.60		5.70
1N2042-1	MOT	7.60		5.70
1N2042-2	MOT	7.60		5.70
1N2043-1	MOT	7.60		5.70
1N2043-2	MOT	7.60		5.70
1N2043-3	MOT	7.60		5.70
1N2044-1	MOT	7.60		5.70
1N2044-2	MOT	7.60		5.70

Type No.	Mfg.	1-99	100-999	1000-Up
1N2044-3	MOT	7.60		5.70
1N2044-4	MOT	7.60		5.70
1N2045-1	MOT	7.60		5.70
1N2045-2	MOT	7.60		5.70
1N2046-1	MOT	7.60		5.70
1N2046-2	MOT	7.60		5.70
1N2046-3	MOT	7.60		5.70
1N2047-1	MOT	7.60		5.70
1N2047-2	MOT	7.60		5.70
1N2047-3	MOT	7.60		5.70
1N2048-1	MOT	7.60		5.70
1N2048-2	MOT	7.60		5.70
1N2048-3	MOT	7.60		5.70
1N2049-1	MOT	7.60		5.70
1N2049-2	MOT	7.60		5.70
1N2049-3	MOT	7.60		5.70
1N2049-4	MOT	7.60		5.70

Type No.	Mfg.	1-99	100-999	1000-Up
1N2055/70U10	INT	NET	13.90	
1N2068	INT	NET	61.00	
1N2069	SYL	.45	.30	.22
1N2069	TI	.45	.30	
1N2069/ED3002A	ERI	.50	.33	.22
1N2069/10D2	INT	.52	.28	
1N2069A	INT	.50	.33	
1N2069A	SYL	.50	.33	.25
1N2070	SYL	.57	.38	.27
1N2070	TI	.57	.38	
1N2070/ED3004A	ERI	.61	.45	.27
1N2070/10D4	INT	.41	.35	
1N2070A	INT	.68	.45	
1N2070A	SYL	.67	.45	.31
1N2071	SYL	.72	.48	.33
1N2071	TI	.72	.48	
1N2071/ED3006A	ERI	.66	.51	.29
1N2071/10D6	INT	.50	.44	
1N2071A	INT	.87	.58	
1N2071A	SYL	.75	.50	.35
1N2130	INT	3.80		
1N2130A/25H15	INT	3.10		2.30
1N2131/25HB20	INT	4.50		
1N2135/25HB40	INT	NET	6.70	
1N2135A/JAN	WES	7.10		4.80
1N2135A/USA	RCA	6.11	4.44	3.70
1N2135AR/JAN	GE	8.89		5.73
1N2137A/25H50	INT	5.95		3.95
1N2154	GE	2.38		1.59
1N2155	GE	3.00		2.00
1N2156	GE	4.38		2.92
1N2157	GE	5.25		3.50
1N2158	GE	5.92		3.95
1N2159R	GE	6.15		4.10
1N2160	GE	6.30		4.20
1N2175	HOF	11.50		8.00
1N2175	TI	6.40		5.05
1N2326	RCA	.55	.40	.33

Type No.	Mfg.	1-24	25-99	100-999
1N2389/S5251	SAR	5.25	4.69	

Type No.	Mfg.	1-99	100-999	1000-Up
1N2482	SYL	.65	.43	.29

Type No.	Mfg.	1-24	25-99	100-Up
1N2482/F-2	SAR	.33	.29	.27

Type No.	Mfg.	1-99	100-999	1000-Up
1N2483	SYL	.69	.46	.31
1N2483/F-4	SAR	.35	.30	.20
1N2484	SYL	.71	.47	.31

Type No.	Mfg.	1-24	25-99	100-Up
1N2484/F-6	SAR	.37	.32	.29
1N2487/40-H	SAR	.43	.37	.35
1N2489/60-H	SAR	.47	.40	.31

Type No.	Mfg.	1-99	100-Mix	100-999
1N2498	MOT	6.00		4.50
1N2498A	MOT	7.60		5.70
1N2499	MOT	6.00		4.50
1N2499A	MOT	7.60		5.70
1N2500	MOT	6.00		4.50
1N2500A	MOT	7.60		5.70

Type No.	Mfg.	1-9	10-99	100-999
1N2510	SYL	18.20	15.60	14.30

Type No.	Mfg.	1-99	100-Mix	100-999
1N2568	HUG	3.90		3.00
1N2610	GE	1.02	.68	.38

Type No.	Mfg.	1-99	100-999	1000-Up
1N2611	GE	1.14	.76	.43

Type No.	Mfg.	1-24	25-99	100-Up
1N2611/20C	SAR	.37	.32	.29

Type No.	Mfg.	1-99	100-999	1000-Up
1N2613	GE	1.71	1.14	.56
1N2615	GE	2.30	1.53	.83

Type No.	Mfg.	1-24	25-99	100-Up
1N2615/60C	SAR	.47	.40	.37

Type No.	Mfg.	1-99	100-Mix	100-999
1N2620	MOT	4.10	3.55	3.05
1N2620A	MOT	4.35	3.75	3.25
1N2621	MOT	4.60	3.95	3.45
1N2622A	MOT	8.15	7.05	6.10
1N2623	MOT	8.80	7.60	6.60

Type No.	Mfg.	1-9	10-99	100-999
1N2631/ST-2	INT	5.50	4.95	
1N2632/ST-2A	INT	7.95	7.10	
1N2725	INT	NET	6.01	
1N2728	INT	NET	6.01	
1N2731	INT	NET	7.31	
1N2767	MOT	9.05	7.80	6.80
1N2804	MOT	5.65	4.90	4.25
1N2804A	MOT	7.65	6.60	5.75
1N2804B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2804B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2804BML1	MOT	10.95		8.25
1N2804BML2	MOT	13.30		10.00
1N2804BML3	MOT	17.30		13.00
1N2805B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2805B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2805BML1	MOT	10.95		8.25
1N2805BML2	MOT	13.30		10.00
1N2805BML3	MOT	17.30		13.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2806	MOT	5.65	4.90	4.25
1N2806B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2806BML1	MOT	10.95		8.25
1N2806BML2	MOT	13.30		10.00
1N2806BML3	MOT	17.30		13.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2801B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2807BML1	MOT	10.95		8.25
1N2807BML2	MOT	13.30		10.00
1N2807BML3	MOT	17.30		13.00
1N2808	MOT	5.65	4.90	4.25
1N2808A	MOT	7.65	6.60	5.75
1N2808B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2808B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2808BML1	MOT	10.95		8.25
1N2808BML2	MOT	13.30		10.00
1N2808BML3	MOT	17.30		13.00
1N2809	MOT	5.65	4.90	4.25

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2809B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2809BML1	MOT	10.95		8.25
1N2809BML2	MOT	13.30		10.00
1N2809BML3	MOT	17.30		13.00
1N2810	MOT	5.65	4.90	4.25
1N2810A	MOT	7.65	6.60	5.75
1N2810B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2810B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2810BML1	MOT	10.95		8.25
1N2810BML2	MOT	13.30		10.00
1N2810BML3	MOT	17.30		13.00
1N2811	MOT	5.65	4.90	4.25
1N2811A	MOT	7.65	6.60	5.75
1N2811B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2811B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2811BML1	MOT	10.95		8.25
1N2811BML2	MOT	13.30		10.00
1N2811BML3	MOT	17.30		13.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2812	MOT	5.65	4.90	4.25

Type No.	Mfg.	1-99	100-Mix	100-999
1N2812B	MOT	10.65	9.20	8.00
1N2812BML1	MOT	10.95		8.25
1N2812BML2	MOT	13.30		10.00
1N2812BML3	MOT	17.30		13.00
1N2813	MOT	5.65	4.90	4.25
1N2813B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2813B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2813BML1	MOT	10.95		8.25
1N2813BML2	MOT	13.30		10.00
1N2813BML3	MOT	17.30		13.00
1N2814	MOT	5.65	4.90	4.25
1N2814A	MOT	7.65	6.60	5.75
1N2814B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2814B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2814BML1	MOT	10.95		8.25
1N2814BML2	MOT	13.30		10.00
1N2814BML3	MOT	17.30		13.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2815	MOT	5.65	4.90	4.25

Type No.	Mfg.	1-99	100-Mix	100-999
1N2815BML1	MOT	10.95		8.25
1N2815BML2	MOT	13.30		10.00
1N2815BML3	MOT	17.30		13.00
1N2816	MOT	5.65	4.90	4.25

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2816B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2816BML1	MOT	10.95		8.25
1N2816BML2	MOT	13.30		10.00
1N2816BML3	MOT	17.30		13.00
1N2817	MOT	5.65	4.90	4.25

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2817B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2817BML1	MOT	10.95		8.25
1N2817BML2	MOT	13.30		10.00
1N2817BML3	MOT	17.30		13.00
1N2818	MOT	5.65	4.90	4.25
1N2818A	MOT	7.65	6.60	5.75
1N2818B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2818B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2818BML1	MOT	10.95		8.25
1N2818BML2	MOT	13.30		10.00
1N2818BML3	MOT	17.30		13.00
1N2819	MOT	5.65	4.90	4.25
1N2819A	MOT	7.65	6.60	5.75
1N2819B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2819B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2819BML1	MOT	10.95		8.25
1N2819BML2	MOT	13.30		10.00
1N2819BML3	MOT	17.30		13.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2820	MOT	5.65	4.90	4.25
1N2820A	MOT	7.65	6.60	5.75
1N2820B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2820B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2820BML1	MOT	10.95		8.25
1N2820BML2	MOT	13.30		10.00
1N2820BML3	MOT	17.30		13.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2821	MOT	5.65	4.90	4.25

Type No.	Mfg.	1-99	100-Mix	100-999
1N2821BML1	MOT	10.95		8.25
1N2821BML2	MOT	13.30		10.00
1N2821BML3	MOT	17.30		13.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2822	MOT	5.65	4.90	4.25

Type No.	Mfg.	1-99	100-Mix	100-999
1N2822B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2822B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2822BML1	MOT	10.95		8.25
1N2822BML2	MOT	13.30		10.00
1N2822ML3	MOT	17.30		13.00
1N2823	MOT	5.65	4.90	4.25
1N2823A	MOT	7.65	6.60	5.75

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2823B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2823B	MOT	10.65	9.20	8.00
1N2823BML1	MOT	10.95		8.25
1N2823BML2	MOT	13.30		10.00
1N2823BML3	MOT	17.30		13.00
1N2824	MOT	5.65	4.90	4.25
1N2824A	MOT	7.65	6.60	5.75
1N2824B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2824B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2824BML1	MOT	10.95		8.25
1N2824BML2	MOT	13.30		10.00
1N2824BML3	MOT	17.30		13.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2825	MOT	5.65	4.80	4.25

Type No.	Mfg.	1-99	100-Mix	100-999
1N2825B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2825B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2825BML1	MOT	10.95		8.25
1N2825BML2	MOT	13.30		10.00
1N2825BML3	MOT	17.30		13.00
1N2826	MOT	5.65	4.90	4.25
1N2826A	MOT	7.65	6.60	5.75
1N2826B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2826B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2826BML1	MOT	10.95		8.25
1N2826BML2	MOT	13.30		10.00
1N2826BML3	MOT	17.30		13.00
1N2827	MOT	5.65	4.90	4.25

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Type No.	Mfg.	1-99	100-Mix	100-999
1N2827A	MOT	7.65	6.60	5.75
1N2827B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2827B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2827BML1	MOT	10.95		8.25
1N2827BML2	MOT	13.30		10.00
1N2827BML3	MOT	17.30		13.00
1N2828	MOT	5.65	4.90	4.25
1N2828A	MOT	7.65	6.60	5.75
1N2828B	MOT	10.65	9.20	8.00
1N2828BML1	MOT	10.95		8.25
1N2828BML3	MOT	17.30		13.00
1N2829	MOT	5.65	4.90	4.25
1N2829A	MOT	7.65	6.60	5.75
1N2829B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2829B JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2829BML1	MOT	10.95		8.25
1N2829BML2	MOT	13.30		10.00
1N2829BML3	MOT	17.30		13.00
1N2830	MOT	5.65	4.90	4.25
1N2830A	MOT	7.65	6.60	5.75
1N2830B	MOT	10.65	9.20	8.00
1N2830BML1	MOT	10.95		8.25
1N2830BML2	MOT	13.30		10.00
1N2830BML3	MOT	17.30		13.00
1N2831B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2831B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2831BML1	MOT	10.95		8.25
1N2831BML2	MOT	13.30		10.00
1N2831BML3	MOT	17.30		13.00
1N2832	MOT	5.65	4.90	4.25
1N2832A	MOT	7.65	6.60	5.75
1N2832B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2832B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2832BML1	MOT	10.95		8.25
1N2832BML2	MOT	13.30		10.00
1N2832BML3	MOT	17.30		13.00
1N2833	MOT	5.65	4.90	4.25
1N2833A	MOT	7.65	6.60	5.75
1N2833B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2833B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2833BML1	MOT	10.95		8.25
1N2833BML2	MOT	13.30		10.00
1N2833BML3	MOT	17.30		13.00
1N2834	MOT	5.65	4.90	4.25
1N2834A	MOT	7.65	6.60	5.75
1N2834B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2834B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2834BML1	MOT	10.95		8.25
1N2834BML2	MOT	13.30		10.00
1N2834BML3	MOT	17.30		13.00
1N2835	MOT	5.65	4.90	4.25
1N2835A	MOT	7.65	6.60	5.75
1N2835B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2835B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2835BML1	MOT	10.95		8.25
1N2835BML2	MOT	13.30		10.00
1N2835BML3	MOT	17.30		13.00
1N2836	MOT	5.65	4.90	4.25
1N2836A	MOT	7.65	6.60	5.75
1N2836B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2836B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2836BML1	MOT	10.95		8.25
1N2836BML2	MOT	13.30		10.00
1N2836BML3	MOT	17.30		13.00
1N2837	MOT	5.65	4.90	4.25
1N2837A	MOT	7.65	6.60	5.75
1N2837B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2837B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2837BML1	MOT	10.95		8.25
1N2837BML2	MOT	13.30		10.00
1N2837BML3	MOT	17.30		13.00
1N2838	MOT	5.65	4.90	4.25
1N2838A	MOT	7.65	6.60	5.75
1N2838B	HOF	10.60	9.54	8.46
1N2838B	MOT	10.65	9.20	8.00

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2838B/JAN	MOT	14.65	12.65	11.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N2838BML1	MOT	10.95		8.25
1N2838BML2	MOT	13.30		10.00
1N2838BML3	MOT	17.30		13.00
1N2839	MOT	6.80	5.85	5.10
1N2839A	MOT	11.30	9.75	8.50
1N2839B	MOT	17.95	15.50	13.50
1N2839BML1	MOT	18.30		13.75
1N2839BML2	MOT	20.60		15.50
1N2839BML3	MOT	28.40		21.35
1N2840	MOT	6.80	5.85	5.10
1N2840A	MOT	11.30	9.75	8.50
1N2840B	MOT	17.95	15.50	13.50

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2840B/JAN	MOT	25.75	22.25	19.35

Type No.	Mfg.	1-99	100-Mix	100-999
1N2840BML1	MOT	18.30		13.75
1N2840BML2	MOT	20.60		15.50
1N2840BML3	MOT	28.40		21.35
1N2841	MOT	6.80	5.85	5.10
1N2841A	MOT	11.30	9.75	8.50
1N2841B	MOT	17.95	15.50	13.50

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2841B/JAN	MOT	25.75	22.25	19.35

Type No.	Mfg.	1-99	100-Mix	100-999
1N2841BML1	MOT	18.30		13.75

Type No.	Mfg.	1-99	100-Mix	100-999
1N2841BML2	MOT	20.60		15.50
1N2841BML3	MOT	28.40		21.35
1N2842	MOT	6.80	5.85	5.10
1N2842A	MOT	11.30	9.75	8.50
1N2842B	MOT	17.95	15.50	13.50

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2842B/JAN	MOT	25.75	22.25	19.35

Type No.	Mfg.	1-99	100-Mix	100-999
1N2842BML1	MOT	18.30		13.75
1N2842BML2	MOT	20.60		15.50
1N2842BML3	MOT	28.40		21.35
1N2843	MOT	6.80	5.85	5.10
1N2843A	MOT	11.30	9.75	8.50
1N2843B	MOT	17.95	15.50	13.50

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2843B/JAN	MOT	25.75	22.25	19.35

Type No.	Mfg.	1-99	100-Mix	100-999
1N2843BML1	MOT	18.30		13.75
1N2843BML2	MOT	20.60		15.50
1N2843BML3	MOT	28.40		21.35
1N2844	MOT	6.80	5.85	5.10
1N2844A	MOT	11.30	9.75	8.50
1N2844B	MOT	17.95	15.50	13.50

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2844B/JAN	MOT	25.75	22.25	19.35

Type No.	Mfg.	1-99	100-Mix	100-999
1N2844BML1	MOT	18.30		13.75
1N2844BML2	MOT	20.60		15.50
1N2844BML3	MOT	28.40		21.35
1N2845	MOT	6.80	5.85	5.10
1N2845A	MOT	11.30	9.75	8.50
1N2845B	MOT	17.95	15.50	13.50

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2845B/JAN	MOT	25.75	22.25	19.35

Type No.	Mfg.	1-99	100-Mix	100-999
1N2845BML1	MOT	18.30		13.75
1N2845BML2	MOT	20.60		15.50
1N2845BML3	MOT	28.40		21.35
1N2846	MOT	6.80	5.85	5.10
1N2846A	MOT	11.30	9.75	8.50
1N2846B	MOT	17.95	15.50	13.50

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2846B/JAN	MOT	25.75	22.25	19.35

Type No.	Mfg.	1-99	100-Mix	100-999
1N2846BML1	MOT	18.30		13.75
1N2846BML2	MOT	20.60		15.50
1N2846BML3	MOT	28.40		21.35

Type No.	Mfg.	1-99	100-999	1000-Up
1N2858A	RCA	.33	.24	.20
1N2859A	RCA	.37	.27	.22
1N2860A	RCA	.40	.29	.24
1N2863A	RCA	.58	.42	.35
1N2864A	RCA	.70	.51	.42
1N2928	HOF	12.50	9.40	
1N2930	HOF	11.10	8.30	
1N2931	HOF	11.10	8.30	

Type No.	Mfg.	1-99	100-Mix	100-499
1N2970	MOT	5.45	4.70	4.10

Type No.	Mfg.	1-99	100-Mix	100-999
1N2970	TI	3.60		2.40
1N2970A	INT	3.30	2.95	2.65
1N2970A	MOT	5.85	5.05	4.40
1N2970A	TI	3.98		2.65
1N2970B	INT	4.25	3.80	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N2970B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N2970B	TI	4.95		3.30

Type No.	Mfg.	1-99	100-Mix	100-Up
1N2970B/JAN	HOF	7.80	7.00	5.85

Type No.	Mfg.	1-99	100-Mix	100-499
1N2970B/JAN	MOT	7.30	6.70	5.85

Type No.	Mfg.	1-99	100-Mix	100-999
1N2970BML1	MOT	7.65	....	5.75
1N2970BML2	MOT	9.95	....	7.50
1N2970BML3	MOT	10.45	....	7.85
1N2971	TI	3.60	....	2.40
1N2971A	TI	3.98	....	2.85
1N2971B	INT	4.25	3.80	3.30
1N2971B/JAN	HOF	7.85	....	5.85

Type No.	Mfg.	1-99	100-Mix	100-499
1N2971B/JAN	MOT	7.30	6.70	5.85

Type No.	Mfg.	1-99	100-Mix	100-999
1N2971B/USA	HOF	7.80	7.[illegible]	5.85
1N2971BML1	MOT	7.65	....	5.75
1N2971BML2	MOT	9.95	....	7.50
1N2971BML3	MOT	10.45	....	7.85
1N2972	MOT	5.45	4.70	4.10
1N2972	TI	3.60	....	2.40
1N2972A	INT	3.30	2.95	2.85
1N2972A	MOT	5.85	5.05	4.40
1N2972A	TI	3.98	....	2.85
1N2972B	INT	4.25	3.80	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N2972B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N2972B	TI	4.95	....	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N2972B/JAN	MOT	7.30	6.70	5.85

Type No.	Mfg.	1-99	100-Mix	100-999
1N2972BML1	MOT	7.65	....	5.75
1N2972BML2	MOT	9.95	....	7.50
1N2972BML3	MOT	10.45	....	7.85
1N2973	MOT	5.45	4.70	4.10
1N2973A	MOT	5.85	5.05	4.40
1N2973A	TI	3.98	....	2.65

Type No.	Mfg.	1-99	100-Mix	100-499
1N2973B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N2973B	TI	4.95	....	3.30
1N2973B/JAN	MOT	7.30	6.70	5.85
1N2973BML1	MOT	7.65	....	5.75
1N2973BML2	MOT	9.95	....	7.50
1N2973BML3	MOT	10.45	....	7.85
1N2974	MOT	5.45	4.70	4.10
1N2974	TI	3.60	....	2.40
1N2974A	MOT	5.85	5.05	4.40
1N2974A	TI	3.98	....	2.65

Type No.	Mfg.	1-99	100-Mix	100-499
1N2974B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N2974B	TI	4.95	....	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N2974B/JAN	MOT	7.30	6.70	5.85

Type No.	Mfg.	1-99	100-Mix	100-999
1N2974RB/JAN	MOT	7.80	6.70	5.85
1N2974BML1	MOT	7.65	....	5.75
1N2974BML2	MOT	9.95	....	7.50
1N2974BML3	MOT	10.45	....	7.85

Type No.	Mfg.	1-99	100-Mix	100-499
1N2975	MOT	5.45	4.70	4.10

Type No.	Mfg.	1-99	100-Mix	100-999
1N2975A	MOT	5.85	5.05	4.40
1N2975A	TI	3.98	....	2.65
1N2975B	TI	4.95	....	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N2975B/JAN	MOT	7.30	6.70	5.85

Type No.	Mfg.	1-99	100-Mix	100-999
1N2975BML1	MOT	7.65	....	5.75
1N2975BML2	MOT	9.95	....	7.50
1N2975BML3	MOT	10.45	....	7.85
1N2976	MOT	5.45	4.70	4.10
1N2976	TI	3.60	....	2.40
1N2976A	INT	3.30	2.95	2.65
1N2976A	MOT	5.85	5.05	4.40
1N2976A	TI	3.98	....	2.65
1N2976B	HOF	4.15	3.80	3.30
1N2976B	INT	4.25	3.80	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N2976B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N2976B	TI	4.95	....	3.30
1N2976B/JAN	HOF	7.80	6.70	5.85

Type No.	Mfg.	1-99	100-Mix	100-499
1N2976B/JAN	MOT	7.50	6.70	5.85
1N2976BML1	MOT	7.65	....	5.75
1N2976ML2	MOT	9.95	....	7.50
1N2976ML3	MOT	10.45	....	7.85
1N2977	MOT	5.45	4.70	4.10
1N2977	TI	3.60	....	2.40
1N2977A	INT	3.30	2.95	2.65
1N2977A	MOT	5.85	5.05	4.40
1N2977A	TI	3.98	....	2.65
1N2977B	INT	4.25	3.80	3.30
1N2977B	MOT	7.30	6.30	5.30

Type No.	Mfg.	1-99	100-Mix	100-999
1N2977B	TI	4.95	....	3.30
1N2977B/JAN	INT	4.60	....	3.65

Type No.	Mfg.	1-99	100-Mix	100-499
1N2977B/JAN	MOT	7.30	6.70	5.85

Type No.	Mfg.	1-99	100-Mix	100-999
1N2977BML1	MOT	7.65	....	5.75
1N2977BML2	MOT	9.95	....	7.50
1N2977BML3	MOT	10.45	....	7.85

Type No.	Mfg.	1-99	100-Mix	100-499
1N2978	MOT	5.45	4.70	4.10

Type No.	Mfg.	1-99	100-Mix	100-999
1N2978A	MOT	5.85	5.05	4.40
1N2978A	TI	3.98	....	2.65
1N2978B	INT	4.25	3.80	3.30
1N2978B	TI	4.95	....	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N2978B/JAN	MOT	7.30	6.70	5.85

Type No.	Mfg.	1-99	100-Mix	100-999
1N2978BML1	MOT	7.65	....	5.75
1N2978BML2	MOT	9.95	....	7.50
1N2978BML3	MOT	10.45	....	7.85

Type No.	Mfg.	1-99	100-Mix	100-499
1N2979	MOT	5.45	4.70	4.10

Type No.	Mfg.	1-99	100-Mix	100-999
1N2979A	MOT	5.85	5.05	4.40
1N2979A	TI	3.98	....	2.65
1N2979B	INT	4.25	3.80	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N2979B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N2979B	TI	4.95	....	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N2979B/JAN	MOT	7.30	6.70	5.85

Type No.	Mfg.	1-99	100-Mix	100-999
1N2979BML1	MOT	7.65	....	5.75
1N2979BML2	MOT	9.95	....	7.50
1N2979BML3	MOT	10.45	....	7.85
1N2980	MOT	5.45	4.70	4.10
1N2980A	TI	3.98	....	2.65
1N2980B	INT	4.25	3.80	3.30
1N2980B	TI	4.95	....	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N2980B/JAN	MOT	7.30	6.70	5.85

Type No.	Mfg.	1-99	100-Mix	100-999
1N2980BML1	MOT	7.65	....	5.75
1N2980BML2	MOT	9.95	....	7.50
1N2980BML3	MOT	10.45	....	7.85

Type No.	Mfg.	1-99	100-Mix	100-499
1N2981	MOT	5.45	4.70	4.10

Type No.	Mfg.	1-99	100-Mix	100-999
1N2981A	MOT	5.85	5.05	4.40
1N2981B	TI	4.95	....	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N2981B/JAN	MOT	7.30	6.70	5.85

Type No.	Mfg.	1-99	100-Mix	100-999
1N2981BML1	MOT	7.65	....	5.75
1N2981BML2	MOT	9.95	....	7.50
1N2981BML3	MOT	10.45	....	7.85
1N2982	MOT	5.45	4.70	4.10
1N2982	TI	3.60	....	2.40

Type No.	Mfg.	1-99	100-Mix	100-499
1N2982A	MOT	5.85	5.05	4.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N2982A	TI	3.98	....	2.65
1N2982A	INT	3.30	2.95	2.65
1N2982B	INT	4.25	3.80	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N2982B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N2982B	TI	4.95	....	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N2982B/JAN	MOT	7.30	6.70	5.85

Type No.	Mfg.	1-99	100-Mix	100-999
1N2982BML1	MOT	7.65	....	5.75
1N2982BML2	M OT	9.95	....	7.50
1N2982BML3	MOT	10.45	....	7.85

Type No.	Mfg.	1-99	100-Mix	100-499
1N2983	MOT	5.45	4.70	4.10

Type No.	Mfg.	1-99	100-Mix	100-999
1N2983A	MOT	5.85	5.05	4.40
1N2983B	TI	4.95	....	3.30
1N2983BML1	MOT	7.65	....	5.75
1N2983BML2	MOT	9.95	....	7.50
1N2983BML3	MOT	10.45	....	7.85

Type No.	Mfg.	1-99	100-Mix	100-999
1N2984	MOT	5.45	4.70	4.10
1N2984	TI	3.60	....	2.40
1N2984A	MOT	5.85	5.05	4.40
1N2984A	TI	3.98	....	2.65
1N2984B	INT	4.25	3.80	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N2984B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N2984B	TI	4.95	....	3.30
1N2984B/JAN	HOF	7.85	....	5.85
1N2984B/JAN	MOT	7.80	6.70	5.85
1N2984B/USA	HOF	7.80	.670	5.85
1N2984BML1	MOT	7.65	....	5.75
1N2984BML2	MOT	9.95	....	7.50
1N2984BML3	MOT	10.45	....	7.85

Type No.	Mfg.	1-99	100-Mix	100-499
1N2985	MOT	5.45	4.70	4.10

Type No.	Mfg.	1-99	100-Mix	100-999
1N2985	TI	3.60	....	2.40
1N2985A	MOT	5.85	5.05	4.40
1N2985A	TI	3.98	....	2.65

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Type No.	Mfg.	1-99	100-Mix	100-499
1N2985B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N2985B	TI	4.95	...	3.30
1N2985B/JAN	HOF	7.85	...	5.85
1N2985B/JAN	MOT	7.80	6.70	5.85
1N2985B/USA	HOF	7.80	7.00	5.85
1N2985BML1	MOT	7.65	...	5.75
1N2985BML2	MOT	9.95	...	7.50
1N2985BML3	MOT	10.45	...	7.85

Type No.	Mfg.	1-99	100-Mix	100-499
1N2986	MOT	5.45	4.70	4.10

Type No.	Mfg.	1-99	100-Mix	100-999
1N2986	TI	3.60	...	2.40
1N2986	INT	3.00	2.68	2.40
1N2986A	INT	3.30	2.95	2.65
1N2986A	MOT	5.85	5.05	4.40
1N2986A	TI	3.98	...	2.65
1N2986B	INT	4.25	3.80	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N2986B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N2986B	TI	4.95	...	3.30
1N2986B/JAN	HOF	7.85	...	5.85
1N2986B/JAN	MOT	7.80	6.70	5.85
1N2986B/USA	HOF	7.80	7.00	5.85
1N2986BML1	MOT	7.65	...	5.75
1N2986BML2	MOT	9.95	...	7.50
1N2986BML3	MOT	10.45	...	7.85
1N2987	MOT	5.45	4.70	4.10
1N2987A	MOT	5.85	5.05	4.40
1N2987A	TI	3.98	...	2.65
1N2987B	INT	4.25	3.80	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N2987B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N2987B	TI	4.95	...	3.30
1N2987B/JAN	MOT	7.80	6.70	5.85
1N2987BML1	MOT	7.65	...	5.75
1N2987BML2	MOT	9.95	...	7.50
1N2987BML3	MOT	10.45	...	7.85

Type No.	Mfg.	1-99	100-Mix	100-499
1N2988	MOT	5.45	4.70	4.10

Type No.	Mfg.	1-99	100-Mix	100-999
1N2988A	INT	3.30	2.95	2.65
1N2988A	MOT	5.85	5.05	4.40
1N2988A	TI	3.98	...	2.65
1N2988B	INT	4.25	3.80	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N2988B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N2988B	TI	4.95	...	3.30
1N2988B/JAN	HOF	7.85	...	5.85
1N2988B/JAN	MOT	7.80	6.70	5.85
1N2988B/USA	HOF	7.80	7.00	5.85
1N2988BML1	MOT	7.65	...	5.75
1N2988BML2	MOT	9.95	...	7.50
1N2988BML3	MOT	10.45	...	7.85

Type No.	Mfg.	1-99	100-Mix	100-499
1N2989	MOT	5.45	4.70	4.10

Type No.	Mfg.	1-99	100-Mix	100-999
1N2989	TI	3.60	...	2.40
1N2989A	INT	3.30	2.95	2.65
1N2989A	MOT	5.85	5.05	4.40
1N2989A	TI	3.98	...	2.65
1N2989B	INT	4.25	3.80	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N2989B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N2989B	TI	4.95	...	3.30
1N2989B/JAN	HOF	7.80	7.00	5.85
1N2989B/JAN	MOT	7.80	6.70	5.85
1N2989B/USA	HOF	7.80	7.00	5.85
1N2989BML1	MOT	7.65	...	5.75
1N2989BML2	MOT	9.95	...	7.50
1N2989BML3	MOT	10.45	...	7.85
1N2990A	TI	3.98	...	2.65

Type No.	Mfg.	1-99	100-Mix	100-499
1N2990B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N2990B	TI	4.95	...	3.30
1N2990B/JAN	HOF	7.80	7.00	5.85
1N2990B/JAN	MOT	7.80	6.70	5.85
1N2990B/USA	HOF	7.80	7.00	5.85
1N2990BML1	MOT	7.65	...	5.75
1N2990BML2	MOT	9.95	...	7.50
1N2990BML3	MOT	10.45	...	7.85

Type No.	Mfg.	1-99	100-Mix	100-499
1N2991	MOT	5.45	4.70	4.10

Type No.	Mfg.	1-99	100-Mix	100-999
1N2991A	MOT	5.85	5.05	4.40
1N2991A	TI	3.98	...	2.65
1N2991B	INT	4.25	3.80	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N2991B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N2991B	TI	4.95	...	3.30
1N2991B/JAN	HOF	7.80	7.00	5.85
1N2991B/JAN	MOT	7.80	6.70	5.85
1N2991B/USA	HOF	7.80	7.00	5.85
1N2991BML1	MOT	7.65	...	5.75
1N2991BML2	MOT	9.95	...	7.50
1N2991BML3	MOT	10.45	...	7.85

Type No.	Mfg.	1-99	100-Mix	100-499
1N2992	MOT	5.45	4.70	4.10

Type No.	Mfg.	1-99	100-Mix	100-999
1N2992A	INT			
1N2992A	MOT	5.85	5.05	4.40
1N2992A	TI	3.98	...	2.65
1N2992B	INT	4.25	3.80	3.30
1N2992B	TI	4.95	...	3.30
1N2992B/JAN	HOF	7.80	7.00	5.85
1N2992B/JAN	MOT	7.80	6.70	5.85
1N2992B/USA	HOF	7.80	7.00	5.85
1N2992BML1	MOT	7.65	...	5.75
1N2992BML2	MOT	9.95	...	7.50
1N2992BML3	MOT	10.45	...	7.85
1N2993	MOT	5.45	4.70	4.10
1N2993	TI	3.60	...	2.40
1N2993A	MOT	5.85	5.05	4.40
1N2993B	INT	4.25	3.80	3.30
1N2993B/JAN	HOF	7.80	7.00	5.85
1N2993B/JAN	MOT	7.80	6.70	5.85
1N2993BML1	MOT	7.65	...	5.75
1N2993BML2	MOT	9.95	...	7.50
1N2993BML3	MOT	10.45	...	7.85

Type No.	Mfg.	1-99	100-Mix	100-999
1N2994	MOT	5.45	4.70	4.10
1N2994A	MOT	5.85	5.05	4.40
1N2994B	TI	4.95	...	3.30
1N2994BML1	MOT	7.65	...	5.75
1N2994BML2	MOT	9.95	...	7.50
1N2994BML3	MOT	10.45	...	7.85

Type No.	Mfg.	1-99	100-Mix	100-499
1N2995	MOT	5.45	4.70	4.10

Type No.	Mfg.	1-99	100-Mix	100-999
1N2995A	MOT	5.85	5.05	4.40
1N2995A	TI	3.98	...	2.65
1N2995B	TI	4.95	...	3.30
1N2995B/JAN	HOF	7.80	7.00	5.85
1N2995B/JAN	MOT	7.80	6.70	5.85
1N2995B/USA	HOF	7.80	7.00	5.85
1N2995BML1	MOT	7.65	...	5.75
1N2995BML2	MOT	9.95	...	7.50
1N2995BML3	MOT	10.45	...	7.85
1N2996	MOT	5.45	4.70	4.10
1N2996	TI	3.60	...	2.40
1N2996A	INT	3.30	2.55	2.65
1N2996A	MOT	5.85	5.05	4.40

Type No.	Mfg.	1-99	100-Mix	100-499
1N2996B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N2996BML1	MOT	7.65	...	5.75
1N2996BML2	MOT	9.95	...	7.50
1N2996BML3	MOT	10.45	...	7.85
1N2997	TI	3.60	...	2.40
1N2997A	TI	3.98	...	2.65
1N2997B	HOF	4.15	3.80	3.30
1N2997B	TI	4.95	...	3.30
1N2997B/JAN	HOF	7.85	...	5.85
1N2997B/JAN	INT	4.60	...	3.65
1N2997B/JAN	MOT	7.80	6.70	5.85
1N2997BML1	MOT	7.65	...	5.75
1N2997BML2	MOT	9.95	...	7.50
1N2997BML3	MOT	10.45	...	7.85

Type No.	Mfg.	1-99	100-Mix	100-499
1N2998	MOT	5.45	4.70	4.10

Type No.	Mfg.	1-99	100-Mix	100-999
1N2998A	MOT	5.85	5.05	4.40
1N2998BML1	MOT	7.65	...	5.75
1N2998BML2	MOT	9.95	...	7.50
1N2998BML3	MOT	10.45	...	7.85
1N2999	TI	3.60	...	2.40
1N2999A	TI	3.98	...	2.65
1N2999B	INT	4.25	3.80	3.30
1N2999B	TI	4.95	...	3.30
1N2999B/JAN	HOF	7.85	...	5.85

Type No.	Mfg.	1-99	100-Mix	100-499
1N2999B/JAN	MOT	7.80	6.70	5.85

Type No.	Mfg.	1-99	100-Mix	100-999
1N2999B/USA	HOF	7.80	7.00	5.85
1N2999BML1	MOT	7.65	...	5.75
1N2999BML2	MOT	9.95	...	7.50
1N2999BML3	MOT	10.45	...	7.85
1N3000	TI	3.60	...	2.40
1N3000A	TI	3.98	...	2.65

Type No.	Mfg.	1-99	100-Mix	100-499
1N3000B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N3000B	TI	4.95	...	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N3000B/JAN	MOT	7.80	6.70	5.85

Type No.	Mfg.	1-99	100-Mix	100-999
1N3000BML1	MOT	7.65	...	5.75
1N3000BML2	MOT	9.95	...	7.50
1N3000BML3	MOT	10.45	...	7.85
1N3001	MOT	5.45	4.70	4.10
1N3001A	TI	3.98	...	2.65
1N3001B	INT	4.25	3.80	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N3001B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N3001B	TI	4.95	....	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N3001B/JAN	MOT	7.80	6.70	5.85

Type No.	Mfg.	1-99	100-Mix	100-999
1N3001BML1	MOT	7.65	....	5.75
1N3001BML2	MOT	9.95	....	7.50
1N3001BML3	MOT	10.45	....	7.85
1N3002	MOT	5.45	4.70	4.10
1N3002	TI	3.60	....	2.40
1N3002A	TI	3.98	....	2.65
1N3002B	INT	4.25	3.80	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N3002B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N3002B	TI	4.95	....	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N3002B/JAN	MOT	7.80	6.70	5.85

Type No.	Mfg.	1-99	100-Mix	100-999
1N3002BML1	MOT	7.65	....	5.75
1N3002BML2	MOT	9.95	....	7.50
1N3002BML3	MOT	10.45	....	7.85
1N3003	MOT	5.45	4.70	4.10
1N3003	TI	3.60	....	2.40
1N3003A	INT	3.30	2.95	2.65
1N3003A	MOT	5.85	5.05	4.40
1N3003A	TI	3.98	....	2.65
1N3003B	INT	4.25	3.80	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N3003B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N3003B	TI	4.95	....	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N3003B/JAN	MOT	7.80	6.70	5.85

Type No.	Mfg.	1-99	100-Mix	100-999
1N3003BML1	MOT	7.65	....	5.75
1N3003BML2	MOT	9.95	....	7.50
1N3003BML3	MOT	10.45	....	7.85
1N3004	MOT	5.45	4.70	4.10
1N3004	TI	3.60	....	2.40
1N3004A	MOT	5.85	5.05	4.40
1N3004B	INT	4.25	3.80	3.30
1N3004B	TI	4.95	....	3.30
1N3004B/JAN	HOF	7.85	....	5.85

Type No.	Mfg.	1-99	100-Mix	100-499
1N3004B/JAN	MOT	7.80	6.70	5.85

Type No.	Mfg.	1-99	100-Mix	100-999
1N3004B/USA	HOF	7.80	7.00	5.85
1N3004BML1	MOT	7.65	....	5.75
1N3004BML2	MOT	9.95	....	7.50
1N3004BML3	MOT	10.45	....	7.85

Type No.	Mfg.	1-99	100-Mix	100-499
1N3005	MOT	5.45	4.70	4.10

Type No.	Mfg.	1-99	100-Mix	100-999
1N3005	TI	3.60	....	2.40
1N3005A	INT	3.30	2.95	2.65
1N3005A	MOT	5.85	5.05	4.40
1N3005A	TI	3.98	....	2.65
1N3005B	INT	4.25	3.80	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N3005B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N3005B	TI	4.95	....	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N3005B/JAN	MOT	9.95	8.60	7.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N3005BML1	MOT	7.65	....	5.75
1N3005BML2	MOT	9.95	....	7.50
1N3005BML3	MOT	12.65	....	9.50
1N3006	MOT	5.45	4.70	4.10
1N3006A	MOT	5.85	5.05	4.40
1N3006A	TI	3.98	....	2.65

Type No.	Mfg.	1-99	100-Mix	100-499
1N3006B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N3006B	TI	4.95	....	3.30
1N3006BML1	MOT	7.65	....	5.75
1N3006BML2	MOT	9.95	....	7.50
1N3006BML3	MOT	12.65	....	9.50
1N3007	MOT	5.45	4.70	4.10
1N3007	TI	3.60	....	2.40
1N3007A	MOT	5.85	5.05	4.40
1N3007A	TI	3.98	....	2.65
1N3007B	INT	4.25	3.80	3.30

Typc No.	Mfg.	1-99	100-Mix	100-499
1N3007B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N3007B	TI	4.95	....	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N3007B/JAN	MOT	9.95	8.60	7.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N3007BML1	MOT	7.65	....	5.75
1N3007BML2	MOT	9.95	....	7.50
1N3007BML3	MOT	12.65	....	9.50
1N3008	MOT	5.45	4.70	4.10
1N3008	TI	3.60	....	2.40
1N3008A	MOT	5.85	5.05	4.40
1N3008A	TI	3.98	....	2.65

Type No.	Mfg.	1-99	100-Mix	100-499
1N3008B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N3008B	TI	4.95	....	3.30
1N3008BML1	MOT	7.65	....	5.75
1N3008BML2	MOT	9.95	....	7.50
1N3008BML3	MOT	12.65	....	9.50
1N3009	TI	3.60	....	2.40
1N3009A	TI	3.98	....	2.65
1N3009B	INT	4.25	3.80	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N3009B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N3009B	TI	4.95	....	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N3009B/JAN	MOT	9.95	8.60	7.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N3009BML1	MOT	7.65	....	5.75
1N3009BML2	MOT	9.95	....	7.50
1N3009BML3	MOT	12.65	....	9.50
1N3010	MOT	5.45	4.70	4.10
1N3010A	MOT	5.85	5.05	4.40
1N3010A	TI	3.98	....	2.65
1N3010B	INT	4.25	3.80	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N3010B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N3010BML1	MOT	7.65	....	5.75
1N3010BML2	MOT	9.95	....	7.50
1N3010BML3	MOT	12.65	....	9.50

Type No.	Mfg.	1-99	100-Mix	100-499
1N3011	MOT	5.45	4.70	4.10

Type No.	Mfg.	1-99	100-Mix	100-999
1N3011	TI	3.60	....	2.40
1N3011A	INT	3.30	2.95	2.65
1N3011A	MOT	5.85	5.05	4.40

Type No.	Mfg.	99 1-	Mix 100-	999 100-
1N3011A	TI	3.98	....	2.65
103011B	INT	4.25	3.80	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N3011B	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N3011B	TI	4.95	....	3.30

Type No.	Mfg.	1-99	100-Mix	100-499
1N3011B/JAN	MOT	9.95	8.60	7.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N3011BML1	MOT	7.65	....	5.75
1N3011BML2	MOT	9.95	....	7.50
1N3011BML3	MOT	12.65	....	9.50
1N3012	MOT	6.00	5.15	4.50
1N3012A	INT	4.90	4.35	3.90
1N3012B	INT	7.75	6.90	6.20

Type No.	Mfg.	1-99	100-Mix	100-499
1N3012B/JAN	MOT	17.40	15.00	13.10

Type No.	Mfg.	1-99	100-Mix	100-999
1N3012BML1	MOT	14.10	....	10.60
1N3013	MOT	17.75	....	13.35
1N3012BML2	MOT	21.40	....	16.10

Type No.	Mfg.	1-99	100-Mix	100-499
1N3012BML3	MOT	6.00	5.15	4.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N3013B	INT	7.75	6.90	6.20
1N3013BML1	MOT	14.10	....	10.60
1N3013BML2	MOT	17.75	....	13.35
1N3013BML3	MOT	21.40	....	16.10

Type No.	Mfg.	1-99	100-Mix	100-499
1N3014	MOT	6.00	5.15	4.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N3014B	INT	7.75	6.90	6.20

Type No.	Mfg.	1-99	100-Mix	100-499
1N3014B/JAN	MOT	17.40	15.00	13.10

Type No.	Mfg.	1-99	100-Mix	100-999
1N3014BML1	MOT	14.10	....	10.60
1N3014BML2	MOT	17.75	....	13.35
1N3014BML3	MOT	21.40	....	16.10
1N3015	INT	3.40	3.00	2.70

Type No.	Mfg.	1-99	100-Mix	100-499
1N3015	MOT	6.00	5.15	4.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N3015A	INT	4.90	4.35	3.90
1N3015B	INT	7.75	6.90	6.20

Type No.	Mfg.	1-99	100-Mix	100-499
1N3015B	MOT	13.75	11.90	10.35

Type No.	Mfg.	1-99	100-Mix	100-499
1N3015B/JAN	MOT	17.40	15.00	13.10

Type No.	Mfg.	1-99	100-Mix	100-999
1N3015BML1	MOT	14.10	....	10.60
1N3015BML2	MOT	17.75	....	13.35
1N3015BML3	MOT	21.40	....	16.10
1N3016	INT	2.45	2.25	2.05
1N3016	MOT	2.85	2.45	2.15
1N3016A	INT	2.76	2.50	2.25
1N3016B	HOF	3.25	3.00	2.60
1N3016B	INT	3.20	2.70	2.25
1N3016B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3016B/JAN	MOT	4.00	3.45	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3016B/JAN	TI	3.45	....	3.00
1N3016B/USN	HOF	9.45	8.50	2.90

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Type No.	Mfg.	1-99	100-Mix	100-999
1N3016BML1	MOT	4.05	...	3.05
1N3016BML2	MOT	5.70	...	4.30
1N3016BML3	MOT	6.00	...	4.50
1N3017	INT	2.45	2.25	2.05
1N3017	MOT	2.85	2.45	2.15
1N3017B	INT	3.20	2.70	2.75
1N3017B	MOT	3.70	3.20	2.80
1N3017B/JAN	INT	3.70	...	2.95

Type No.	Mfg.	1-99	100-Mix	100-499
1N3017B/JAN	MOT	4.00	3.00	3.45

Type No.	Mfg.	1-99	100-Mix	100-999
1N3017BML1	MOT	4.05	...	3.05
1N3017BML2	MOT	5.70	...	4.30
1N3017BML3	MOT	6.00	...	4.50
1N3018	MOT	2.85	2.45	2.15
1N3018A	MOT	3.20	2.75	2.40
1N3018B	INT	3.32	3.01	2.70
1N3018B	MOT	3.70	3.20	2.80
1N3018B/JAN	INT	3.70	...	2.95

Type No.	Mfg.	1-99	100-Mix	100-499
1N3018B/JAN	MOT	4.00	3.45	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3018B/JAN	TI	3.45	...	3.00
1N3018BML1	MOT	4.05	...	3.05
1N3018BML2	MOT	5.70	...	4.30
1N3018BML3	MOT	6.00	...	4.50
1N3019	MOT	2.85	2.45	2.15
1N3019A	INT	2.76	2.50	2.25
1N3019B	INT	3.20	2.70	2.25
1N3019B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3019B/JAN	MOT	4.00	3.00	3.45

Type No.	Mfg.	1-99	100-Mix	100-999
1N3019B/JAN	TI	3.45	...	3.00
1N3019BML1	MOT	4.05	...	3.05
1N3019BML2	MOT	5.70	...	4.30
1N3019BML3	MOT	6.00	...	4.50
1N3020	INT	2.45	2.25	2.05

Type No.	Mfg.	1-99	100-499	
1N3020	MOT	2.85	2.15	...
1N3020A	MOT	3.20	2.75	2.40
1N3020B	INT	3.20	2.70	2.25
1N3020B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3020B/JAN	MOT	4.00	3.45	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3020B/JAN	TI	3.45	...	3.00
1N3020BML1	MOT	4.05	...	3.05
1N3020BML2	MOT	5.70	...	4.30
1N3020BML3	MOT	6.00	...	4.50

Type No.	Mfg.	1-99	100-Mix	100-999
1N3021	INT	2.45	2.25	2.05
1N3021	MOT	2.85	2.45	2.15
1N3021B	INT	3.20	2.70	2.25
1N3021B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3021B/JAN	MOT	4.00	3.45	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3021B/JAN	TI	3.45	...	3.00
1N3021BML1	MOT	4.05	...	3.05
1N3021BML2	MOT	5.70	...	4.30
1N3021BML3	MOT	6.00	...	4.50
1N3022	INT	2.45	2.25	2.05
1N3022	MOT	2.85	2.45	2.15
1N3033A	INT	2.76	2.50	2.25
1N3022B	INT	3.20	2.70	2.25
1N3022B	MOT	3.70	3.20	2.80
1N3022B/JAN	INT	3.70	...	2.95

Type No.	Mfg.	1-99	100-Mix	100-499
1N3022B/JAN	MOT	4.00	3.45	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3022B/USN	HOF	3.90	3.70	2.90
1N3022BML1	MOT	4.05	...	3.05
1N3022BML2	MOT	5.70	...	4.30
1N3022BML3	MOT	6.00	...	4.50
1N3023B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3023B/JAN	MOT	4.00	3.45	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3023B/JAN	TI	3.45	...	3.00
1N3023B/USN	HOF	3.90	3.70	2.90
1N3023BML1	MOT	4.05	...	3.05
1N3023BML2	MOT	5.70	...	4.30
1N3023BML3	MOT	6.00	...	4.50
1N3024	INT	2.45	2.25	2.05
1N3024A	INT	2.76	2.50	2.25
1N3024A	MOT	3.20	2.75	2.40
1N3024B	INT	3.20	2.70	2.25
1N3024B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3024B/JAN	MOT	4.00	3.45	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3024B/JAN	TI	3.45	...	3.00
1N3024B/USN	HOF	3.90	3.70	2.90
1N3024BML1	MOT	4.05	...	3.05
1N3024BML2	MOT	5.70	...	4.30
1N3024BML3	MOT	6.00	...	4.50
1N3025	MOT	2.85	2.45	2.15
1N3025B	INT	3.32	3.01	2.70
1N3025B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3025B/JAN	MOT	4.00	3.45	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3025B/JAN	TI	3.45	...	3.00
1N3025BML1	MOT	4.05	...	3.05
1N3025BML2	MOT	5.70	...	4.30
1N3025BML3	MOT	6.00	...	4.50
1N3026	INT	2.45	2.25	2.05
1N3026	MOT	2.85	2.45	2.15
1N3026A	INT	2.76	2.50	2.25
1N3026B	INT	3.20	2.70	2.25
1N3026B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3026B/JAN	MOT	4.00	3.00	3.45

Type No.	Mfg.	1-99	100-Mix	100-999
1N3026B/JAN	TI	3.45	...	3.00
1N3026B/USN	HOF	3.90	3.70	2.90
1N3026BML1	MOT	4.05	...	3.05
1N3026BML2	MOT	5.70	...	4.30
1N3026BML3	MOT	6.00	...	4.50
1N3027	INT	2.45	2.25	2.05
1N3027	MOT	2.85	2.45	2.15
1N3027A	INT	2.76	2.50	2.25
1N3027B	INT	3.20	2.70	2.25
1N3027B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3027B/JAN	MOT	4.00	3.45	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3027BML1	MOT	4.05	...	3.05
1N3027BML2	MOT	5.70	...	4.30
1N3027BML3	MOT	6.00	...	4.50
1N3028	INT	2.45	2.25	2.05
1N3028	MOT	2.85	2.15	...
1N3028A	INT	2.76	2.50	2.25
1N3028B	INT	3.20	2.70	2.25
1N3028B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3028B/JAN	MOT	4.00	3.45	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3028BML1	MOT	4.05	...	3.05
1N3028BML2	MOT	5.70	...	4.30
1N3028BML3	MOT	6.00	...	4.50
1N3029	HOF	2.50	2.25	2.05
1N3029	INT	2.45	2.25	2.05
1N3029	MOT	2.85	2.45	2.15
1N3029A	INT	2.76	2.50	2.25
1N3029B	HOF	3.25	3.00	2.60
1N3029B	INT	3.20	2.70	2.25
1N3029B	MOT	3.70	3.20	2.80
1N3029B/JAN	INT	3.70	...	2.95

Type No.	Mfg.	1-99	100-Mix	100-499
1N3029B/JAN	MOT	4.00	3.45	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3029B/JAN	TI	3.45	...	3.00
1N3029B/USN	HOF	3.90	3.70	2.90
1N3029BML1	MOT	4.05	...	3.05
1N3029BML2	MOT	5.70	...	4.30
1N3029BML3	MOT	6.00	...	4.50
1N3030	MOT	2.85	2.15	...
1N3030	INT	2.45	2.25	2.05
1N3030A	INT	2.76	2.30	2.25

Type No.	Mfg.	1-99	100-Mix	100-499
1N3030A	MOT	3.20	2.75	2.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N3030B	INT	3.20	2.70	2.25
1N3030B	MOT	3.70	3.20	2.80
1N3030B/JAN	TI	3.45	...	3.00
1N3030B/USN	HOF	3.90	3.70	2.90
1N3030BML1	MOT	4.05	...	3.05
1N3030BML2	MOT	5.70	...	4.30
1N3030BML3	MOT	6.00	...	4.50
1N3031	INT	2.45	2.25	2.05
1N3031	MOT	2.85	2.15	2.45
1N3031A	MOT	3.20	2.40	2.75
1N3031A	INT	2.76	2.50	2.25
1N3031B	HOF	3.25	3.00	2.60
1N3031B	INT	3.20	2.70	2.25
1N3031B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3031B/JAN	MOT	4.00	3.00	3.45

Type No.	Mfg.	1-99	100-Mix	100-999
1N3031B/JAN	TI	3.45	...	3.00
1N3031B/USN	HOF	3.90	3.70	2.90
1N3031BML1	MOT	4.05	...	3.05
1N3031BML2	MOT	5.70	...	4.30
1N3031BML3	MOT	6.00	...	4.50
1N3032	MOT	2.85	2.45	2.15
1N3032A	MOT	3.20	2.75	2.40
1N3032B	INT	3.20	2.70	2.25
1N3032B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3032B/JAN	MOT	4.00	3.45	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3032B/JAN	TI	3.45	...	3.00
1N3032B/USN	HOF	3.90	3.70	2.90
1N3032BML1	MOT	4.05	...	3.05
1N3032BML2	MOT	5.70	...	4.30
1N3032BML3	MOT	6.00	...	4.50
1N3033	INT	2.45	2.25	2.05

Type No.	Mfg.	1-99	100-Mix	100-499
1N3033	MOT	2.85	2.45	2.15

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Type No.	Mfg.	1-99	100-Mix	100-999
1N3033A	MOT	3.20	2.40	2.75
1N3033B	HOF	3.60	3.20	2.70
1N3033B	INT	3.20	2.70	2.25
1N3033B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3033B/JAN	MOT	4.00	3.45	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3033B/JAN	TI	3.45	....	3.00
1N3033BML1	MOT	4.05	....	3.05
1N3033BML2	MOT	5.70	....	4.30
1N3033BML3	MOT	6.00	....	4.50
1N3034	INT	2.45	2.25	2.05

Type No.	Mfg.	1-99	100-Mix	100-499
1N3034	MOT	2.85	2.45	2.15

Type No.	Mfg.	1-99	100-Mix	100-999
1N3034A	MOT	3.20	2.40	2.75
1N3034B	INT	3.20	2.70	2.25
1N3034B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3034B/JAN	MOT	4.00	3.00	3.45

Type No.	Mfg.	1-99	100-Mix	100-999
1N3034B/JAN	TI	3.45	....	3.00
1N3034BML1	MOT	4.05	....	3.05
1N3034BML2	MOT	5.70	....	4.30
1N3034BML3	MOT	6.00	....	4.50
1N3035	INT	2.45	2.25	2.05

Type No.	Mfg.	1-99	100-Mix	100-499
1N3035	MOT	2.85	2.45	2.15

Type No.	Mfg.	1-99	100-Mix	100-999
1N3055A	MOT	3.20	2.40	2.75
1N3055A	INT	2.76	2.50	2.25
1N3035B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3035B/JAN	MOT	4.00	3.00	3.45

Type No.	Mfg.	1-99	100-Mix	100-999
1N3035B/JAN	TI	3.45	....	3.00
1N3035BML1	MOT	4.05	....	3.05
1N3035BML2	MOT	5.70	....	4.30
1N3035BML3	MOT	6.00	....	4.50
1N3036	INT	2.45	2.25	2.05

Type No.	Mfg.	1-99	100-Mix	100-499
1N3036	MOT	2.85	2.45	2.15

Type No.	Mfg.	1-99	100-Mix	100-999
1N3036A	MOT	3.20	2.40	2.75
1N3036B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3036B/JAN	MOT	4.00	3.45	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3036B/JAN	TI	3.45	....	3.00
1N3036BML1	MOT	4.05	....	3.05
1N3036BML2	MOT	5.70	....	4.30
1N3036BML3	MOT	6.00	....	4.50
1N3037	INT	2.45	2.25	2.05

Type No.	Mfg.	1-99	100-Mix	100-499
1N3037	MOT	2.85	2.45	2.15

Type No.	Mfg.	1-99	100-Mix	100-999
1N3037B	INT	3.20	2.70	2.25
1N3037B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3037B/JAN	MOT	4.00	3.45	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3037B/JAN	TI	3.45	....	3.00
1N3037BML1	MOT	4.05	....	3.05
1N3037BML2	MOT	5.70	....	4.30
1N3037BML3	MOT	6.00	....	4.50
1N3038	INT	2.45	2.25	2.05
1N3038	TI	2.36	....	2.05

Type No.	Mfg.	1-99	100-Mix	100-499
1N3038	MOT	2.85	2.45	2.15

Type No.	Mfg.	1-99	100-Mix	100-999
1N3038A	MOT	3.20	2.40	2.75
1N3038B	INT	3.20	2.70	2.25
1N3038B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3038B/JAN	MOT	4.00	3.00	3.45

Type No.	Mfg.	1-99	100-Mix	100-999
1N3038B/JAN	MOT	3.45	....	3.00
1N3038BML1	MOT	4.05	....	3.00
1N3038BML2	MOT	5.70	....	4.30
1N3038BML3	MOT	6.00	....	4.50
1N3039	TI	2.36	....	2.05
1N3039	MOT	2.85	2.45	2.15
1N3039A	MOT	3.20	2.75	2.40
1N3039A	INT	2.76	2.50	2.25
1N3039B	INT	3.20	2.70	2.25
1N3039B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3039B/JAN	MOT	4.00	3.45	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3039B/JAN	TI	3.45	....	3.00
1N3039BML1	MOT	4.05	....	3.05
1N3039BML2	MOT	5.70	....	4.30
1N3039BML3	MOT	6.00	....	4.50

Type No.	Mfg.	1-99	100-Mix	100-499
1N3040	MOT	2.85	2.45	2.15
1N3040A	MOT	3.20	2.75	2.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N3040B	INT	3.32	3.01	2.70
1N3040B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3040B/JAN	MOT	4.00	3.45	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3040BML1	MOT	4.05	....	3.05
1N3040BML2	MOT	5.70	....	4.30
1N3040BML3	MOT	6.00	....	4.50
1N3041	TI	2.76	2.50	2.25

Type No.	Mfg.	1-99	100-Mix	100-499
1N3041	MOT	2.85	2.45	2.15
1N3041A	MOT	3.20	2.75	2.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N3041A	INT	2.76	2.30	2.25
1N3041B	INT	3.20	2.70	2.25
1N3041B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3041B/JAN	MOT	4.00	3.45	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3041B/JAN	TI	3.45	....	3.00
1N3041BML1	MOT	4.05	....	3.05
1N3041BML2	MOT	5.70	....	4.30
1N3041BML3	MOT	6.00	....	4.50
1N3042	INT	2.45	2.25	2.05

Type No.	Mfg.	1-99	100-Mix	100-499
1N3042	MOT	2.85	2.45	2.15
1N3042A	MOT	3.20	2.75	2.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N3042B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3042B/JAN	MOT	4.00	3.45	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3042B/JAN	TI	3.45	....	3.00
1N3042BML1	MOT	4.05	....	3.05
1N3042BML2	MOT	5.70	....	4.30
1N3042BML3	MOT	6.00	....	4.50
1N3043	INT	2.45	2.25	2.05
1N3043	TI	3.45	....	3.00

Type No.	Mfg.	1-99	100-Mix	100-499
1N3043	MOT	2.85	2.45	2.15
1N3043A	MOT	3.20	2.75	2.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N3043B	MOT	3.70	3.20	2.80
1N3043B	INT	3.20	2.70	2.25

Type No.	Mfg.	1-99	100-Mix	100-499
1N3043B/JAN	MOT	4.00	3.45	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3043B/JAN	TI	3.45	....	3.00
1N3043BML1	MOT	4.05	....	3.05
1N3043BML2	MOT	5.70	....	4.30
1N3043BML3	MOT	6.00	....	4.50
1N3044	INT	2.45	2.25	2.05

Type No.	Mfg.	1-99	100-Mix	100-499
1N3044	MOT	2.85	2.45	2.15
1N3044A	MOT	3.20	2.75	2.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N3044B	INT	3.70	2.70	2.25
1N3044B	MOT	3.70	3.20	2.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3044B/JAN	MOT	4.00	3.45	3.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3044BML1	MOT	4.05	....	3.05
1N3044BML2	MOT	5.70	....	4.30
1N3044BML3	MOT	6.00	....	4.50
1N3045	MOT	2.95	2.55	2.20

Type No.	Mfg.	1-99	100-999	1000-Up
1N3045A	MOT	3.25	2.80	2.45

Type No.	Mfg.	1-99	100-Mix	100-499
1N3045B/JAN	MOT	6.90	6.00	5.20

Type No.	Mfg.	1-99	100-Mix	100-999
1N3045BML1	MOT	5.00	....	3.75
1N3045BML2	MOT	7.30	....	5.50
1N3045BML3	MOT	9.55	....	7.20

Type No.	Mfg.	1-99	100-Mix	100-499
1N3046	MOT	2.95	2.20	2.55

Type No.	Mfg.	1-99	100-Mix	100-999
1N3046A	INT	2.85	2.56	2.30
1N3046B	INT	4.20	3.70	3.35
1N3046B	MOT	4.65	4.05	3.50

Type No.	Mfg.	1-99	100-Mix	100-499
1N3046B/JAN	MOT	6.90	6.00	5.20

Type No.	Mfg.	1-99	100-Mix	100-999
1N3046BML1	MOT	5.00	....	3.75
1N3046BML2	MOT	7.30	....	5.50
1N3046BML3	MOT	9.55	....	7.20
1N3047	INT	2.45	2.55	2.05
1N3047	MOT	2.95	2.55	2.20
1N3047A	MOT	3.25	2.80	2.45
1N3047B	INT	4.65	4.05	3.50

Type No.	Mfg.	1-99	100-Mix	100-499
1N3047B/JAN	MOT	6.90	6.00	5.20

Type No.	Mfg.	1-99	100-Mix	100-999
1N3047BML1	MOT	5.00	....	3.75
1N3047BML2	MOT	7.30	....	5.50
1N3047BML3	MOT	9.55	....	7.20
1N3048	INT	2.45	2.25	2.05
1N3048	MOT	2.95	2.55	2.20
1N3048A	MOT	3.25	2.80	2.45
1N3048A	INT	2.76	2.50	2.25
1N3048B	MOT	4.65	4.05	3.50

Type No.	Mfg.	1-99	100-Mix	100-499
1N3048B/JAN	MOT	6.90	6.00	5.20

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Type No.	Mfg.	1-99	100-Mix	100-999
1N3048BML1	MOT	5.00	....	3.75
1N3048BML2	MOT	7.30	....	5.50
1N3048BML3	MOT	9.55	....	7.20
1N3049	MOT	2.95	2.55	2.20

Type No.	Mfg.	1-99	100-Mix	100-499
1N3049B/JAN	MOT	6.90	6.00	5.20

Type No.	Mfg.	1-99	100-Mix	100-999
1N3049BML1	MOT	5.00	....	3.75
1N3049BML2	MOT	7.30	....	5.50
1N3049BML3	MOT	9.55	....	7.20
1N3050	INT	2.45	2.25	2.05
1N3050	MOT	2.95	2.55	2.20

Type No.	Mfg.	1-99	100-Mix	100-499
1N3050/JAN	MOT	6.90	6.00	5.20

Type No.	Mfg.	1-99	100-Mix	100-999
1N3050BML1	MOT	5.00	....	3.75
1N3050BML2	MOT	7.30	....	5.50
1N3050BML3	MOT	9.55	....	7.20
1N3051	INT	2.45	2.25	2.05

Type No.	Mfg.	1-99	100-Mix	100-499
1N3051	MOT	2.95	2.55	2.20
1N3051A	MOT	3.25	2.80	2.45

Type No.	Mfg.	1-99	100-Mix	100-999
1N3051A	INT	2.85	2.56	2.30
1N3051B	MOT	4.65	4.05	3.50
1N3051BML1	MOT	5.00	....	3.75
1N3051BML2	MOT	7.30	....	5.50
1N3051BML3	MOT	9.55	....	7.20
1N3062	RAY	3.00	....	2.00
1N3063	HUG	2.45	....	1.84

Type No.	Mfg.	1-99	100-999	1000-Up
1N3064	SYL	.67	.44	.23
1N3064	TI	.24	.14	.23
1N3064/1N4454	GE	.67	.44	.23

Type No.	Mfg.	1-9	10-99	100-999
1N3064/JAN	SYL	.67	.67	.44

Type No.	Mfg.	1-99	100-Mix	100-999
1N3064/JAN	TI	.40	....	.26
1N3064/USN	HOF	.40	....	.26
1N3067	HUG	1.00	....	.75
1N3070	TI	1.22	....	.98
1N3070/JAN	TI	2.25	....	1.50
1N3085/45L10	INT	NET	8.00	....
1N3086/45L20	INT	NET	14.00	....
1N3089	INT	NET	22.50	....
1N3118/TD554	GE	9.15	....	6.10
1N3125	HUG	.80	....	.60
1N3125	SYL	.51	....	.40
1N3129	RCA	7.59	5.52	4.60
1N3154/JAN	MOT	3.50	3.00	2.40

Type No.	Mfg.	1-24	25-99	100-999
1N3154ML1	MOT	3.25	2.80	2.25
1N3154ML2	MOT	4.95	4.25	3.40
1N3154ML3	MOT	6.10	5.25	4.20

Type No.	Mfg.	1-99	100-Mix	100-499
1N3155/JAN	MOT	4.95	4.25	3.40

Type No.	Mfg.	1-24	25-99	100-999
1N3155ML1	MOT	4.15	3.55	2.65
1N3155ML2	MOT	6.10	5.25	4.20
1N3155ML3	MOT	7.55	5.50	5.20

Type No.	Mfg.	1-99	100-Mix	100-999
1N3156/JAN	MOT	9.55	8.25	6.60

Type No.	Mfg.	1-24	25-99	100-999
1N3156ML1	MOT	6.80	5.85	4.70
1N3156ML2	MOT	8.70	7.50	6.00
1N3156ML3	MOT	12.20	10.50	8.40

Type No.	Mfg.	1-99	100-Mix	100-999
1N3157/JAN	MOT	12.75	11.00	8.80
1N3157ML1	MOT	8.20	7.05	5.65
1N3157ML2	MOT	10.15	8.75	7.00
1N3157ML3	MOT	15.35	13.25	10.60

Type No.	Mfg.	1-24	25-99	
1N3161/439A	WES	19.25	16.20	....
1N3162/439B	WES	22.95	19.35	....
1N3163/439C	WES	26.95	23.50	....
1N3164/439D	WES	31.80	26.85	....
1N3164/USA	WES	35.70	30.20	....
1N3165/439E	WES	36.15	30.50	....
1N3166/439F	WES	41.20	34.75	....
1N3167/439G	WES	52.55	44.30	....
1N3168/439H	WES	60.20	50.65	....
1N3168/USA	WES	66.15	55.65	....
1N3169/439K	WES	72.70	61.20	....
1N3170/439M	WES	89.05	74.70	....
1N3170/USA	WES	97.90	82.10	....
1N3171A	WES	103.45	87.90	....
1N3172A	WES	122.40	102.85	....

Type No.	Mfg.	1-24	25-99	100-999
1N3173A	WES	145.40	122.40	....
1N3174A	WES	176.85	143.10	....

Type No.	Mfg.	1-99	100-Mix	100-999
1N3182	AME	.68	....	.45
1N3189/JAN	GE	2.70	1.80	1.08
1N31901/JAN	GE	3.60	2.40	1.44
1N3191/JAN	GE	5.80	3.85	2.30

Type No.	Mfg.	1-99	100-999	1000-Up
1N3193	RCA	.35	.26	.21
1N3194	RCA	.38	.28	.23
1N3195	RCA	.53	.39	.32
1N3196	RCA	.74	.54	.45
1N3208	GE	1.73	1.15	....
1N3208	INT	1.05	.75	....
1N3208/MR312	MOT	1.10	.75	....
1N3208R	MOT	1.10	.75	....
1N3209	GE	1.77	1.18	....
1N3209	INT	1.30	.90	....
1N3209/MR313	MOT	1.25	.85	....
1N3209R	MOT	1.25	.85	....
1N3210	INT	1.80	1.20	....
1N3210/MR314	MOT	1.70	1.15	....
1N3210R	MOT	1.70	1.15	....
1N3211	INT	2.35	1.60	....
1N3211/MR315	MOT	2.30	1.55	....
1N3211R	MOT	2.30	1.55	....
1N3212	GE	2.90	1.93	....
1N3212	INT	2.85	1.90	....
1N3212/MR316	MOT	2.55	1.70	....
1N3212R	MOT	2.55	1.70	....
1N3213	MOT	3.45	2.30	....
1N3214	MOT	3.90	2.60	....

Type No.	Mfg.	1-99	100-999	1000-Up
1N3253	RCA	.38	.28	.23
1N3254	RCA	.42	.30	.25
1N3255	RCA	.56	.41	.34
1N3256	RCA	.78	.57	.47

Type No.	Mfg.	1-24	25-99	100-249
1N3260	WES	8.00	6.85	....
1N3260R	WES	8.00	6.85	....

Type No.	Mfg.	1-24	25-99	100-249
1N3261	WES	9.05	7.75	....
1N3261R	WES	9.05	7.75	....
1N3262	WES	11.80	10.33	....
1N3262R	WES	11.80	10.33	....
1N3263	WES	15.35	13.10	....
1N3263R	WES	15.35	13.10	....
1N3263/USA	WES	21.40	18.15	....
1N3264	WES	17.60	14.60	....
1N3264R	WES	17.60	14.60	....
1N3265	WES	18.45	15.20	....
1N3265R	WES	18.45	15.20	....

Type No.	Mfg.	1-99	100-999	1000-Up
1N3266	WES	19.25	15.95	....
1N3266R	WES	19.25	15.95	....
1N3267	WES	20.05	16.70	....
1N3267R	WES	20.05	16.70	....
1N3267/USA	WES	36.95	31.05	....
1N3268	WES	22.25	18.45	....
1N3268R	WES	22.25	18.45	....
1N3269	WES	26.10	21.50	....
1N3269R	WES	26.10	21.50	....
1N3269/USA	WES	62.65	53.00	....
1N3270	WES	29.40	24.30	....
1N3270R	WES	29.40	24.30	....
1N3271	WES	32.55	26.95	....
1N3271R	WES	32.55	26.95	....
1N3272	WES	35.80	29.40	....
1N3272R	WES	35.80	29.40	....
1N3273	WES	39.05	32.50	....
1N3273R	WES	39.05	32.50	....
1N3274	WES	42.50	35.70	....
1N3274R	WES	42.50	35.70	....
1N3275	WES	46.70	39.35	....
1N3275R	WES	46.70	39.35	....
1N3276	WES	51.45	43.55	....
1N3276R	WES	51.45	43.55	....
1N3282	MOT	2.45	1.65	....
1N3283	MOT	3.05	2.05	....
1N3284	MOT	7.95	5.30	....
1N3285	MOT	10.05	6.70	....
1N3287/JAN	HUG	.55	.41	....
1N3287W/JAN	HUG	.55	.41	....

Type No.	Mfg.	1-9	10-99	100-999
1N3287W/USN	SYL	.45	.45	.35

Type No.	Mfg.	1-99	100-499	500-999
1N3289R/JAN	GE	17.90	14.50	....
1N3291/4JA70D	GE	14.00	11.60	....
1N3291R/JAN	GE	20.80	16.60	....
1N3293R/JAN	GE	26.45	20.90	....

Type No.	Mfg.	1-99	100-499	500-999
1N3294R/JAN	GE	35.20	28.10	....
1N3295R/JAN	GE	40.90	32.50	....
1N3296/A70PB	GE	34.50	26.40	....

Type No.	Mfg.	1-99	100-Mix	100-999
1N3305	MOT	5.65	4.90	4.25
1N3306	MOT	5.65	4.90	4.25
1N3307	MOT	5.65	4.90	4.25
1N3308	MOT	5.65	4.90	4.25
1N3309	MOT	5.65	4.90	4.25
1N3310	MOT	5.65	4.90	4.25
1N3311	MOT	5.65	4.90	4.25
1N3312	MOT	5.65	4.90	4.25
1N3313	MOT	5.65	4.90	4.25
1N3314	MOT	5.65	4.90	4.25
1N3315	MOT	5.65	4.90	4.25
1N3316	MOT	5.65	4.90	4.25
1N3317	MOT	5.65	4.90	4.25
1N3318	MOT	5.65	4.90	4.25
1N3319	MOT	5.65	4.90	4.25
1N3320	MOT	5.65	4.90	4.25
1N3321	MOT	5.65	4.90	4.25
1N3322	MOT	5.65	4.90	4.25
1N3323	MOT	5.65	4.90	4.25
1N3324	MOT	5.65	4.90	4.25
1N3325	MOT	5.65	4.90	4.25
1N3326	MOT	5.65	4.90	4.25
1N3327	MOT	5.65	4.90	4.25
1N3328	MOT	5.65	4.90	4.25
1N3329	MOT	5.65	4.90	4.25
1N3330	MOT	5.65	4.90	4.25
1N3331	MOT	5.65	4.90	4.25
1N3332	MOT	5.65	4.90	4.25
1N3333	MOT	5.65	4.90	4.25
1N3334	MOT	5.65	4.90	4.25

Type No.	Mfg.	1-99	100-Mix	100-999
1N3335	MOT	5.65	4.90	4.25
1N3336	MOT	5.65	4.90	4.25
1N3337	MOT	5.65	4.90	4.25
1N3338	MOT	5.65	4.90	4.25
1N3339	MOT	5.65	4.90	4.25
1N3340	MOT	5.65	4.90	4.25
1N3341	MOT	6.80	5.85	5.10
1N3342	MOT	6.80	5.85	5.10
1N3343	MOT	6.80	5.85	5.10
1N3344	MOT	6.80	5.85	5.10
1N3345	MOT	6.80	5.85	5.10
1N3346	MOT	6.80	5.85	5.10
1N3347	MOT	6.80	5.85	5.10
1N3348	MOT	6.80	5.85	5.10
1N3349	MOT	6.80	5.85	5.10
1N3350	MOT	6.80	5.85	5.10

Type No.	Mfg.	1-99	100-999	1000-Up
1N3491/MR322	MOT	.67	.45	.40
1N3491R/MR322R	MOT	.67	.45	.40
1N3492/MR323	MOT	.76	.51	.46
1N3492R/MR323R	MOT	.76	.51	.46
1N3493/MR324	MOT	1.11	.74	.67
1N3493R/MR324R	MOT	1.11	.74	.67
1N3494/MR325	MOT	1.27	.85	.76
1N3494R/MR325R	MOT	1.27	.85	.76
1N3495/MR326	MOT	1.48	.99	.89
1N3495R/MR326R	MOT	1.48	.99	.89

Type No.	Mfg.	1-99	100-Mix	100-999
1N3498	IR	9.00	7.00	...
1N3499	IR	19.00	15.50	...
1N3506	TI	1.10	.90	...
1N3511	TI	1.10	.90	...
1N3512	TI	1.10	.90	...
1N3530	TI	1.10	.90	...
1N3563	RCA	.94	.69	...
1N3584A	MOT	32.80	28.35	24.65
1N3584B	MOT	36.80	31.80	27.65
1N3604	HUG	2.59	...	1.94

Type No.	Mfg.	1-99	100-Mix	100-999
1N3604	SYL	.80	.56	.32

Type No.	Mfg.	1-99	100-999	1000-Up
1N3604/SD150	GE	.83	.56	.32

Type No.	Mfg.	1-9	10-99	100-999
1N3605	SYL	.72	.48	.26

Type No.	Mfg.	1-99	100-999	1000-Up
1N3605/1N4152	GE	.72	.48	.43

Type No.	Mfg.	1-99	100-Mix	100-999
1N3605/1N4152	HUG	1.00	...	.55

Type No.	Mfg.	1-99	100-999	1000-Up
1N3606/1N4153	GE	1.00	.67	.60

Type No.	Mfg.	1-99	100-Mix	100-999
1N3606/1N4153	HUG	1.00	...	.60
1N3616/16F10	INT	1.54	...	1.05
1N3618/16F20	INT	3.03	...	2.04
1N3620/16F40	INT	4.90	...	3.15
1N3659	MOT	.90	...	.60
1N3659R	MOT	.90	...	.60
1N3660	MOT	.99	...	.66
1N3660R	MOT	.99	...	.66
1N3661	MOT	1.33	...	.89
1N3661R	MOT	1.33	...	.89
1N3662	MOT	1.48	...	.99
1N3662R	MOT	1.48	...	.99
1N3663	MOT	1.70	...	1.14
1N3663R	MOT	1.70	...	1.14
1N3666	HUG	.70	...	.53
1N3666M/JAN	HUG	.70	...	.53
1N3670	HUG	6.75	...	5.15
1N3670	WES	7.88	...	5.25
1N3670A	WES	7.88	...	5.25
1N3671	HUG	7.90	...	5.70
1N3671	WES	8.78	...	5.85
1N3671A	WES	8.78	...	5.85
1N3673	HUG	9.10	...	6.50
1N3673A	GE	9.90	...	6.60
1N3673A	WES	9.90	...	6.60
1N3682B	MOT	4.90	4.25	3.70
1N3683	MOT	3.45	3.00	2.60
1N3683B	MOT	4.90	4.25	3.70

Type No.	Mfg.	1-99	100-Mix	100-999
1N3685	MOT	3.45	3.00	2.60
1N3685B	MOT	4.90	4.25	3.70
1N3686B	MOT	4.90	4.25	3.70
1N3687B	MOT	4.90	4.25	3.70
1N3689	MOT	3.45	3.00	2.60
1N3690B	MOT	4.90	4.25	3.70
1N3695	MOT	3.45	3.00	2.60
1N3696	MOT	3.45	3.00	2.60

Type No.	Mfg.	1-99	100-999	1000-Up
1N3712/TD-1	GE	3.30	2.20	2.00
1N3713/JAN	GE	5.30	3.20	...
1N3713/TD-1A	GE	5.00	3.30	3.00
1N3714/TD-2	GE	2.90	1.95	1.75
1N3715/JAN	GE	4.90	2.97	...
1N3716/TD3	GE	2.06	1.38	1.24
1N3717/JAN	GE	4.30	2.57	...
1N3717/TD-3A	GE	3.90	2.60	2.35
1N3718/TD4	GE	2.52	1.68	1.51
1N3719/JAN	GE	4.30	2.57	...
1N3719/TD-4A	GE	3.90	2.60	2.35
1N3720/TD5	GE	3.34	2.22	2.00
1N3721/JAN	GE	4.30	2.57	...

Type No.	Mfg.	1-24	25-99	100-249
1N3742	GE	83.90	66.00	...

Type No.	Mfg.	1-9	10-99	100-999
1N3747/USAF	SYL	19.75	16.95	15.50

Type No.	Mfg.	1-99	100-999	1000-Up
1N3754	RCA	.32	.23	.19
1N3755	RCA	.33	.24	.20
1N3756	RCA	.35	.26	.21
1N3765	WES	8.55	5.70	...
1N3766	WES	9.75	6.50	...

Type No.	Mfg.	1-99	100-Mix	100-999
1N3785	MOT	3.75	3.20	2.80
1N3785B/ 1.5M6.8Z5	MOT	6.95	6.00	5.25
1N3786	MOT	3.75	3.20	2.80
1N3787	MOT	3.75	3.20	2.80
1N3788	MOT	3.75	3.20	2.80
1N3788	MOT	3.75	3.20	2.80
1N3789	MOT	3.75	3.20	2.80
1N3789B/ 1.5M10Z5	MOT	6.95	6.00	5.25
1N3790	MOT	3.75	3.20	2.80
1N3791	MOT	3.75	3.20	2.80
1N3791B/ 1.5M12Z5	MOT	6.95	6.00	5.25
1N3792	MOT	3.75	3.20	2.80
1N3793	MOT	3.75	3.20	2.80
1N3793B/ 1.5M15Z5	MOT	6.95	6.00	5.25
1N3794	MOT	3.75	3.20	2.80
1N3795	MOT	3.75	3.20	2.80
1N3795B/ 1.5M18Z5	MOT	6.95	6.00	5.25
1N3796	MOT	3.75	3.20	2.80
1N3796B/ 1.5M20Z5	MOT	6.95	6.00	5.25
1N3797	MOT	3.75	3.20	2.80
1N3798	MOT	3.75	3.20	2.80
1N3798B/ 1.5M24Z5	MOT	6.95	6.00	5.25
1N3799	MOT	3.75	3.20	2.80
1N3800	MOT	3.75	3.20	2.80
1N3800B/ 1.5M30Z5	MOT	6.95	6.00	5.25
1N3801	MOT	3.75	3.20	2.80
1N3801A	MOT	5.30	4.60	4.00
1N3801B/ 1.5M33Z5	MOT	6.95	6.00	5.25
1N3803	MOT	3.75	3.20	2.80
1N3803A	MOT	5.30	4.60	4.00
1N3804	MOT	3.75	3.20	2.80
1N3808B/ 1.5M62Z5	MOT	6.95	6.00	5.25
1N3810	MOT	3.75	3.20	2.80
1N3810B/ 1.5M75Z5	MOT	6.95	6.00	5.25
1N3813	MOT	3.75	3.20	2.80
1N3813A	MOT	5.30	4.60	4.00
1N3813B/ 1.5M100Z5	MOT	6.95	6.00	5.25
1N3818	MOT	4.75	4.10	3.55
1N3821	INT	2.00	...	1.60

Type No.	Mfg.	1-99	100-Mix	100-999
1N3821	MOT	2.10	...	1.60
1N3821A	INT	2.50	...	2.00
1N3821A	MOT	2.65	2.30	2.00

Type No.	Mfg.	1-99	100-Mix	100-499
1N3821A/JAN	MOT	5.05	4.35	3.80

Type No.	Mfg.	1-99	100-Mix	100-999
1N3821AML1	MOT	3.00	...	2.25
1N3821AML2	MOT	4.65	...	3.50
1N3821AML3	MOT	7.05	...	5.30
1N3822	INT	2.00	...	1.60
1N3822	MOT	2.10	...	1.60
1N3822A	INT	2.50	...	2.00
1N3822A	MOT	2.65	2.30	2.00
1N3822A/JAN	MOT	5.05	4.35	3.80
1N3822AML1	MOT	3.00	...	2.25
1N3822AML2	MOT	4.65	...	3.50
1N3822AML3	MOT	7.05	...	5.30
1N3823	MOT	2.10	...	1.60
1N3823	INT	2.00	...	1.60
1N3823A	INT	2.50	...	2.00
1N3823A	MOT	2.65	2.30	2.00
1N3823A/JAN	MOT	5.05	4.35	3.80
1N3823AML1	MOT	3.00	...	2.25
1N3823AML2	MOT	4.65	...	3.50
1N3823AML3	MOT	7.05	...	5.30
1N3824	MOT	2.10	...	1.60
1N3824	INT	2.00	...	1.60
1N3824A	INT	2.50	...	2.00
1N3824A	MOT	2.65	2.30	2.00
1N3824A/JAN	MOT	5.05	4.35	3.80
1N3824AML1	MOT	3.00	...	2.25
1N3824AML2	MOT	4.65	...	3.50
1N3824AML3	MOT	7.05	...	5.30

Type No.	Mfg.	1-99	100-Mix	100-Up
1N3825	MOT	2.10	...	1.60
1N3825	INT	2.00	...	1.60
1N3825A	INT	2.50	...	2.00
1N3825A	MOT	2.65	2.30	2.00
1N3825A/JAN	MOT	5.05	4.35	3.80
1N3825AML1	MOT	3.00	...	2.25
1N3825AML2	MOT	4.65	...	3.50
1N3825AML3	MOT	7.05	...	5.30
1N3826	INT	2.00	...	1.60
1N3826	MOT	2.10	...	1.60
1N3826A	INT	2.50	...	2.00
1N3826A	MOT	2.65	2.30	2.00
1N3826A/JAN	MOT	5.05	4.35	3.80
1N3826A/USN	MOT	5.05	4.35	3.80
1N3826AML1	MOT	3.00	...	2.25
1N3826AML2	MOT	4.65	...	3.50
1N3826AML3	MOT	7.05	...	5.30
1N3827	INT	2.00	...	1.60
1N3827	MOT	2.10	...	1.60
1N3827A	INT	2.50	...	2.00
1N3827A	MOT	2.65	2.30	2.00

Type No.	Mfg.	1-99	100-Mix	100-499
1N3827A/JAN	MOT	5.05	4.35	3.80
1N3827A/USN	MOT	5.05	4.35	3.80
1N3827A/USN	MOT	5.05	4.35	3.80

Type No.	Mfg.	1-99	100-Mix	100-999
1N3827A/ML1	MOT	3.00	...	2.25
1N3827AML2	MOT	4.65	...	3.50
1N3827AML3	MOT	7.05	...	5.30
1N3828	INT	2.00	...	1.60
1N3828	MOT	2.10	...	1.60
1N3828A	INT	2.50	...	2.00
1N3828A	MOT	2.65	2.30	2.00

Type No.	Mfg.	1-99	100-Mix	100-499
1N3828A/JAN	MOT	5.05	4.35	3.80
1N3828A/USN	MOT	5.05	4.35	3.80

Type No.	Mfg.	1-99	100-Mix	100-999
1N3828AML1	MOT	3.00	...	2.25
1N3828AML2	MOT	4.65	...	3.50
1N3828AML3	MOT	7.05	...	5.30
1N3829	INT	2.00	...	1.60
1N3829	MOT	2.10	...	1.60
1N3829A	INT	2.50	...	2.00
1N3829A	MOT	2.65	2.30	2.00
1N3830	MOT	2.10	...	1.60
1N3830A	MOT	2.65	2.30	2.00

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Type No.	Mfg.	1-99	100-999	1000-Up
1N3858	RCA	6.52	4.74	3.95
1N3879	MOT	4.20		2.80
1N3880	MOT	4.65		3.10
1N3881	MOT	6.60		4.40
1N3882	MOT	9.90		6.60
1N3883	MOT	13.65		9.10
1N3889	WES	5.03		3.35
1N3890	MOT	5.40		3.60
1N3890	WES	5.40		3.60
1N3891	GE	6.97		4.65
1N3891	MOT	7.80		5.20
1N3891	WES	7.80		5.20
1N3892	MOT	11.70		7.80
1N3892	WES	11.70		7.80
1N3893	MOT	17.25		11.50
1N3893	WES	17.25		11.50
1N3899	WES	6.38		4.25
1N3899	MOT	6.30		4.20
1N3900	WES	7.05		4.70
1N3900	MOT	6.90		4.65
1N3901	MOT	9.60		6.45
1N3901	WES	9.70		6.50
1N3902	WES	15.00		10.00
1N3902	MOT	14.85		9.90
1N3903	MOT	22.35		14.90
1N3903	WES	22.50		15.00
1N3909	WES	8.95		6.00
1N3909	MOT	8.90		5.95
1N3910	MOT	9.60		6.45
1N3910	WES	9.75		6.50
1N3911	MOT	12.60		8.45
1N3911	WES	12.75		8.50
1N3912	MOT	18.45		12.30
1N3912	WES	18.60		12.40
1N3913	MOT	27.60		18.40
1N3913	WES	27.75		18.50
1N3987	HUG	8.25		6.19
1N3987R	WES	7.65		5.15
1N3988	HUG	9.10		6.83
1N3988R	WES	8.60		5.75
1N3989	HUG	11.05		8.29
1N3989R	WES	9.30		6.20
1N3990	HUG	12.00		9.00
1N3993	INT	5.60		4.10

Type No.	Mfg.	1-99	100-Mix	100-499
1N3993	MOT	5.65	4.90	4.20

Type No.	Mfg.	1-99	100-Mix	100-999
1N3993A	INT	7.20		5.75
1N3993A	MOT	7.70	6.65	5.80
1N3993AML1	MOT	8.05		6.05

Type No.	Mfg.	1-99	100-Mix	100-499
1N3993A/JAN	MOT	11.95	10.35	9.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3993AML2	MOT	10.35		7.80
1N3993AML3	MOT	14.65		11.00
1N3994	MOT	5.65	4.90	4.20

Type No.	Mfg.	1-99	100-Mix	100-499
1N3994A/JAN	MOT	11.95	10.35	9.00
1N3994A/USN	MOT	11.95	10.35	9.00
1N3994AML1	MOT	8.05		6.05
1N3994AML2	MOT	10.35		7.80
1N3994AML3	MOT	14.65		11.00
1N3995	MOT	5.65	4.90	4.20
1N3995A	MOT	7.70	6.65	5.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3995A/JAN	MOT	11.95	10.35	9.00
1N3995A/USN	MOT	11.95	10.35	9.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3995AML1	MOT	8.05		6.05
1N3995AML2	MOT	10.35		7.80
1N3995AML3	MOT	14.65		11.00
1N3996	INT	5.60		4.10
1N3996	MOT	5.65	4.90	4.25
1N3996A	INT	7.20		5.75
1N3996A	MOT	7.70	6.65	5.80

Type No.	Mfg.	1-99	100-Mix	100-499
1N3996A/JAN	MOT	11.95	10.35	9.00
1N3996A/USN	MOT	11.95	10.35	9.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3996AML1	MOT	8.05		6.05
1N3996AML2	MOT	10.35		7.80
1N3996AML3	MOT	14.65		11.00
1N3997	INT	5.60		4.10
1N3997	MOT	5.65	4.90	4.25
1N3997A	INT	7.20		5.75
1N3997A	MOT	7.70	6.65	5.80

Type No.	Mfg.	1-99	100-499	100-Mix
1N3997A/JAN	MOT	11.95	10.35	9.00
1N3997A/USN	MOT	11.95	10.35	9.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3997AML1	MOT	8.05		6.05
1N3997AML2	MOT	10.35		7.80
1N3997AML3	MOT	14.65		11.00
1N3998	INT	5.60		4.10
1N3998	MOT	5.65	4.90	4.25
1N3998A	INT	7.20		5.75
1N3998A	MOT	7.70	6.65	5.80

Type No.	Mfg.	1-99	100-499	100-Mix
1N3998A/JAN	MOT	11.95	10.35	9.00
1N3998A/USN	MOT	11.95	10.35	9.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3998AML1	MOT	8.05		6.05
1N3998AML2	MOT	10.35		7.80
1N3998AML3	MOT	14.65		11.00

Type No.	Mfg.	1-99	100-Mix	100-499
1N3999	MOT	5.65	4.90	4.20

Type No.	Mfg.	1-99	100-Mix	100-999
1N3999A	MOT	7.70	6.65	5.80

Type No.	Mfg.	1-99	100-499	100-Mix
1N3999A/JAN	MOT	11.95	10.35	9.00
1N3999A/USN	MOT	11.95	10.35	9.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N3999AML1	MOT	8.05		6.05
1N3999AML2	MOT	10.35		7.80
1N3999AML3	MOT	14.65		11.00
1N4000	MOT	5.65	4.90	4.25

Type No.	Mfg.	1-99	100-499	100-Mix
1N4000A/JAN	MOT	11.95	10.35	9.00
1N4000A/USN	MOT	11.95	10.35	9.00

Type No.	Mfg.	1-99	100-Mix	100-999
1N400AML1	MOT	8.05		6.05
1N4000AML2	MOT	10.35		7.80
1N4000AML3	MOT	14.65		11.00

Type No.	Mfg.	1-99	100-999	1000-Up
1N4001	HUG	.36	.24	
1N4001	SYL	.45	.30	.27
1N4001	MOT	.45	.30	.24
1N4001	TI	.45	.30	
1N4001S	ERIE	.41	.26	.18
1N4002	HUG	.36	.24	
1N4002	SYL	.49	.33	.30
1N4002	MOT	.49	.33	.26
1N4002	TI	.49	.33	
1N4002S	ERI	.46	.31	.22

Type No.	Mfg.	1-24	25-99	100-999
1N4002/E1	SAR	.33	.29	.27

Type No.	Mfg.	1-99	100-999	1000-Up
1N4003	HUG	.43	.29	
1N4003	SYL	.60	.40	.36
1N4003	MOT	.60	.40	.36
1N4003	TI	.60	.40	.36
1N4003S	ERI	.51	.34	.23

Type No.	Mfg.	1-24	25-99	100-999
1N4003/E2	SAR	.33	.29	.27

Type No.	Mfg.	1-99	100-999	1000-Up
1N4004	MOT	.67	.45	.36
1N4004	TI	.67	.45	
1N4004	SYL	.67	.45	.41
1N4004	HUG	.52	.35	
1N4004S	ERI	.62	.46	.28

Type No.	Mfg.	1-24	25-99	100-999
1N4004/E4	SAR	.35	.30	.28

Type No.	Mfg.	1-99	100-999	1000-Up
1N4005	MOT	.75	.50	.40
1N4005	TI	.81	.54	
1N4005	SYL	.81	.54	.49
1N4005	HUG	.68	.45	
1N4005S	ERI	.68	.53	.31

Type No.	Mfg.	1-24	25-99	100-999
1N4005/E6	SAR	.37	.32	.29

Type No.	Mfg.	1-99	100-999	1000-Up
1N4006	MOT	.82	.55	.44
1N4006	TI	1.12	.75	
1N4006	SYL	1.12	.75	.69
1N4006	HUG	.95	.63	
1N4006S	ERI	.75	.60	.45

Type No.	Mfg.	1-24	25-99	100-999
1N4006/E8	SAR	.52	.44	.41

Type No.	Mfg.	1-99	100-999	1000-Up
1N4007	MOT	.90	.60	.48
1N4007	SYL	1.80	1.20	1.10
1N4007	HUG	1.55	1.05	
1N4007S	ERI	.81	.66	.51

Type No.	Mfg.	1-24	25-99	100-999
1N4007/E10	SAR	.79	.67	.63

Type No.	Mfg.	1-99	100-Mix	100-999
1N4009	HUG	.44		.22

Type No.	Mfg.	1-99	100-999	1000-Up
1N4009/1N4154	GE	.42	.28	.19

Type No.	Mfg.	1-99	100-Mix	100-999
1N4009/1N4154	HUG	.44		.22

Type No.	Mfg.	1-24	25-99	100-Up
1N4044	WES	13.50	11.75	
1N4044R	WES	13.50	11.75	
1N4045	WES	20.50	16.25	
1N4046	WES	23.90	19.00	
1N4046R	WES	23.90	19.00	
1N4047	WES	29.50	21.00	
1N4047R	WES	28.50	21.90	
1N4048	WES	30.50	23.50	
1N4048R	WES	30.50	23.50	
1N4049	WES	32.90	25.25	
1N4049R	WES	32.90	25.25	
1N4050	WES	36.00	27.50	

Type No.	Mfg.	1-24	25-99	100-Up
1N4050R	WES	36.00	27.50	...
1N4051	WES	44.50	34.50	...
1N4051R	WES	44.50	34.50	...
1N4052	WES	52.75	40.75	...
1N4052R	WES	52.75	40.75	...
1N4053	WES	59.00	45.50	...
1N4053R	WES	59.00	45.50	...
1N4054	WES	67.50	52.75	...
1N4054R	WES	67.50	52.75	...
1N4055R	WES	72.50	58.00	...
1N4056	WES	80.00	63.50	...
1N4056R	WES	80.00	63.50	...

Type No.	Mfg.	1-99	100-Mix	100-999
1N4099	MOT	5.05	4.35	3.80
1N4100	MOT	5.05	4.35	3.80
1N4101	MOT	5.05	4.35	3.80
1N4102	MOT	5.05	4.35	3.80
1N4103	MOT	5.05	4.35	3.80
1N4104	MOT	5.05	4.35	3.80
1N4105	MOT	5.05	4.35	3.80
1N4106	MOT	5.05	4.35	3.80
1N4107	MOT	5.05	4.35	3.80
1N4109	MOT	5.05	4.35	3.80
1N4110	MOT	5.05	4.35	3.80
1N4113	MOT	5.05	4.35	3.80
1N4114	MOT	5.05	4.35	3.80
1N4115	MOT	5.05	4.35	3.80
1N4117	MOT	5.05	4.35	3.80
1N4121	MOT	5.05	4.35	3.80
1N4123	MOT	5.05	4.35	3.80
1N4124	MOT	5.05	4.35	3.80
1N4125	MOT	5.05	4.35	3.80
1N4130	MOT	5.05	4.35	3.80
1N4132	MOT	5.05	4.35	3.80
1N4135	MOT	5.05	4.35	3.80
1N4137	WES	7.55	...	5.21
1N4138	WES	9.15	...	6.17
1N4139	HUG	.55	...	.37
1N4140	HUG	.60	...	.40
1N4141	HUG	.67	...	.45
1N4142	HUG	.97	...	.65
1N4143	HUG	1.31	...	.88
1N4144	HUG	3.91	...	2.61
1N4145	HUG	6.01	...	4.61
1N4146	HUG	8.41	...	5.61

Type No.	Mfg.	1-99	100-999	1000-Up
1N4148	GE	.35	.24	.14
1N4148	HUG	.40	.25	...
1N4148	SYL	.35	.24	.14
1N4148/JAN	HUG	.45	.30	...
1N4149	SYL	.45	.30	.19

Type No.	Mfg.	1-99	100-Mix	100-999
1N4150	HUG	2.00	...	1.25

Type No.	Mfg.	1-99	100-999	1000-Up
1N4151	GE	.75	.50	.19
1N4151	HUG	.44	.22	...
1N4151	SYL	.80	.56	.32
1N4151/1N3604	HUG	.44	.22	...
1N4152	SYL	.65	.44	.18
1N4152/1N3605	HUG	1.00	...	.55
1N4153	GE	.95	.62	.31
1N4153/1N3606	HUG	1.00	.60	...
1N4154	GE	.37	.23	.18
N14154	SYL	.42	.28	.19
1N4154/1N4009	HUG	.44	.22	...
1N4156	GE	.75	.50	.33
1N4157	GE	1.04	.69	.39
1N4245	HUG	.38	.29	...
1N4246	HUG	.46	.35	...
1N4247	HUG	.56	.42	...
1N4248	HUG	1.11	.83	...
1N4249	HUG	1.11	.83	...
1N4250	HUG	1.10	.83	...
1N4251	HUG	1.75	1.31	...
1N4252	HUG	1.50	1.13	...
1N4253	HUG	1.89	1.42	...
1N4254	HUG	1.80	1.35	...
1N4255	HUG	2.70	2.03	...
1N4256	HUG	3.60	2.70	...
1N4257	HUG	4.20	3.15	...
1N4305	GE	.60	.40	.17
1N4305	HUG	.70	.40	...

Type No.	Mfg.	1-99	100-Mix	100-999
1N4370	HOF	1.75	1.55	1.30
1N4370/.4M2.4AZ10	MOT	2.00	1.70	1.50
1N4370	TI	1.05	...	.85
1N4370A	HOF	2.45	2.20	1.85
1N4370A	INT	2.30	...	1.85
1N4370A/USN	MOT	2.95	2.55	2.20
1N4370A/USN	MOT	2.95	2.55	2.20
1N4370A/JAN	TI	1.10	.80	.22
1N4370AML1	MOT	3.05	...	2.30
1N4370AML2	MOT	4.10		3.10
1N4370A/.4M2.4AZ5	MOT	2.75	2.35	2.05
1N4370AMLA	MOT	4.65	...	3.50
1N4371	HOF	1.75	1.55	1.30
1N4371/.4M2.7AZ10	MOT	2.00	1.70	1.50
1N4371	TI	1.05	...	.85
1N4371A	HOF	2.45	2.20	1.85
1N4371A	INT	2.30	...	1.85
1N4371A/.4M2.7AZ5	MOT	2.75	2.35	2.05
1N4371A/JAN	TI	1.10	.80	.22
1N4371A/USN	MOT	2.95	2.55	2.20
1N4371AML1	MOT	3.05		2.30
1N4371AML2	MOT	4.10	...	3.10
1N4371AML3	MOT	4.65	...	3.50
1N4372	HOF	1.75	1.55	1.30
1N4372/.4M3.0AZ10	MOT	2.00	1.70	1.50
1N4372	TI	1.05		.85
1N4372A	HOF	2.45	2.20	1.85
1N4372A	INT	2.30	...	1.85
1N4372A/.4M3.0AZ5	MOT	2.75	2.35	2.05
1N4372A/JAN	TI	1.10	.80	.22
1N4372A/USN	MOT	2.95	2.55	2.20
1N4372AML1	MOT	3.05	...	2.30
1N4372AML2	MOT	4.10	...	3.10
1N4372AML3	MOT	4.65	...	3.50

Type No.	Mfg.	1-99	100-999	1000-Up
1N4383	SYL	.48	.38	.27
1N4384	SYL	.58	.41	.30
1N4385	SYL	.78	.54	.35
1N4387/MV1804	MOT	42.00	28.00	...
1N4388/MV1806	MOT	42.00	28.00	...
1N4395	HOF	8.15	6.10	...
1N4396	HOF	8.15	6.10	...
1N4444	HUG	1.44	.72	...
1N4446	GE	.40	.26	.15
1N4446	HUG	.50	.30	...
1N4446	SYL	.40	.26	.15
1N4447	SYL	.50	.34	.19
1N4448	GE	.80	.54	.17
1N4448	HUG	.80	.45	...
1N4448	SYL	.80	.54	.17
1N4449	SYL	.50	.34	.19
1N4450	HUG	1.30	.70	...
1N4454	HUG	.50	.30	...
1N4454	SYL	.50	.34	.16
1N4454/JAN	GE	.35	.24	.14
1N4467	HOF	2.15	1.95	1.70
1N4469	HOF	2.15	1.95	1.70
1N4475	HOF	2.15	1.95	1.70
1N4517	HUG	.57	.43	...
1N4529/A38P	GE	13.50	9.00	...
1N4530/A38PB	GE	17.25	11.50	...
1N4531	GE	.59	.39	.14
1N4533	GE	.96	.63	.24

Type No.	Mfg.	1-99	100-Mix	100-999
1N4549	MOT	6.05	5.25	4.55
1N4549A	MOT	8.00	6.90	6.00
1N4549B	MOT	11.50	9.95	8.65
1N4550	MOT	6.05	5.25	4.55
1N4550A	MOT	8.00	6.90	6.00
1N4550B	MOT	11.50	9.95	8.65
1N4551	MOT	6.05	5.25	4.55
1N4551A	MOT	8.00	6.90	6.00
1N4551B	MOT	11.50	9.95	8.65
1N4552	MOT	6.05	5.25	4.55
1N4552A	MOT	8.00	6.90	6.00
1N4552B	MOT	11.50	9.95	8.65
1N4553	MOT	6.05	5.25	4.55
1N4553A	MOT	8.00	6.90	6.00
1N4553B	MOT	11.50	9.95	8.65
1N4554	MOT	6.05	5.25	4.55
1N4554A	MOT	8.00	6.90	6.00
1N4554B	MOT	11.50	9.95	8.65
1N4555	MOT	6.05	5.25	4.55
1N4555A	MOT	8.00	6.90	6.00
1N4555B	MOT	11.50	9.95	8.65
1N4556	MOT	6.05	5.25	4.55
1N4556A	MOT	8.00	6.90	6.00
1N4556B	MOT	11.50	9.95	8.65
1N4557	MOT	6.05	5.25	4.55
1N4557A	MOT	8.00	6.90	6.00
1N4557B	MOT	11.50	9.95	8.65
1N4558	MOT	6.05	5.25	4.55
1N4558A	MOT	8.00	6.90	6.00
1N4558B	MOT	11.50	9.95	8.65
1N4559	MOT	6.05	5.25	4.55
1N4559A	MOT	8.00	6.90	6.00
1N4559B	MOT	11.50	9.95	8.65
1N4560	MOT	6.05	5.25	4.55
1N4560A	MOT	8.00	6.90	6.00
1N4560B	MOT	11.50	9.95	8.65
1N4561	MOT	6.05	5.25	4.55
1N4561A	MOT	8.00	6.90	6.00
1N4561B	MOT	11.50	9.95	8.65
1N4562	MOT	6.05	5.25	4.55
1N4562A	MOT	8.00	6.90	6.00
1N4562B	MOT	11.50	9.95	8.65
1N4563	MOT	6.05	5.25	4.55
1N4563A	MOT	8.00	6.90	6.00
1N4563B	MOT	11.50	9.95	8.65
1N4564	MOT	6.05	5.25	4.55
1N4564A	MOT	8.00	6.90	6.00
1N4564B	MOT	11.50	9.95	8.65
1N4565	MOT	8.65	7.45	6.50
1N4565A	MOT	9.70	8.40	7.30
1N4566	MOT	11.70	10.10	8.80
1N4566A	MOT	13.05	11.25	9.80
1N4567	MOT	23.80	20.60	17.90
1N4567A	MOT	26.45	22.90	19.90
1N4568	MOT	41.10	35.55	30.90
1N4568A	MOT	45.75	39.55	34.40
1N4569	MOT	89.50	77.40	67.30
1N4569A	MOT	99.50	86.00	74.80
1N4570	MOT	5.85	5.05	4.40
1N4570A	MOT	6.50	5.65	4.90
1N4571	MOT	7.30	6.30	5.50
1N4571A	MOT	8.10	7.00	6.10
1N4572	MOT	13.25	11.45	9.95
1N4572A	MOT	14.75	12.75	11.10
1N4575	MOT	3.00	2.60	2.25
1N4575A	MOT	3.30	2.85	2.50
1N4576	MOT	3.56	3.15	2.75
1N4576A	MOT	4.05	3.50	3.05
1N4577	MOT	6.60	5.70	4.95
1N4577A	MOT	7.30	6.30	5.50
1N4580	MOT	3.00	2.60	2.25
1N4580A	MOT	3.30	2.85	2.50
1N4581	MOT	3.65	3.15	2.75
1N4581A	MOT	4.05	3.50	3.05
1N4582	MOT	6.60	5.70	4.95
1N4582A	MOT	7.30	6.30	5.50

Type No.	Mfg.	1-99	100-999	1000-Up
1N4585	SYL	1.20	.80	.65
1N4586	SYL	2.70	1.80	1.62
1N4606	GE	1.27	.83	.78
1N4608	GE	1.44	.94	.89
1N4719/MR1030A	MOT	.66	.44	.40
1N4720/MR1031A	MOT	.73	.49	.44
1N4721/MR1032A	MOT	.82	.55	.49
1N4722/MR1034A	MOT	1.12	.75	.67
1N4723/MR1036A	MOT	1.50	1.00	.90
1N4724/MR1038A	MOT	4.10	2.75	2.45
1N4725/MR1040A	MOT	6.35	4.25	3.80

Type No.	Mfg.	1-99	100-Mix	100-Up
1N4728	MOT	1.26	1.09	.95
1N4728	INT	1.25	1.05	.93
1N4728A	MOT	1.93	1.66	1.45
1N4728A	INT	1.90	1.60	1.40
1N4729	MOT	1.26	1.09	.95
1N4729	INT	1.25	1.05	.93
1N4729A	MOT	1.93	1.66	1.45
1N4729A	INT	1.90	1.60	1.40
1N4730	MOT	1.26	1.09	.95
1N4730	INT	1.25	1.05	.93
1N4730A	MOT	1.93	1.66	1.45
1N4730A	INT	1.90	1.60	1.40
1N4731	MOT	1.26	1.09	.95
1N4731	INT	1.25	1.05	.93
1N4731A	MOT	1.93	1.66	1.45

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Type No.	Mfg.	1-99	100-Mix	100-Up
1N4731A	INT	1.90	1.60	1.40
1N4732	MOT	1.26	1.09	.95
1N4732	INT	1.25	1.05	.93
1N4732A	MOT	1.93	1.66	1.40
1N4732A	INT	1.90	1.60	1.40
1N4733	MOT	1.26	1.09	.95
1N4733	INT	1.25	1.05	.93
1N4733A	MOT	1.93	1.66	1.40
1N4733A	INT	1.90	1.60	1.40
1N4734	MOT	1.26	1.09	.95
1N4734	INT	1.25	1.05	.93
1N4734A	MOT	1.93	1.66	1.40
1N4734A	INT	1.90	1.60	1.40
1N4735	MOT	1.26	1.09	.95
1N4735	INT	1.25	1.05	.93
1N4735A	MOT	1.93	1.66	1.45
1N4735A	INT	1.90	1.60	1.40
1N4736	MOT	1.26	1.09	.95
1N4736	INT	1.25	1.05	.93
1N4736A	MOT	1.93	1.66	1.45
1N4736A	INT	1.90	1.60	1.40
1N4737	MOT	1.26	1.09	.95
1N4737	INT	1.25	1.05	.93
1N4737A	MOT	1.93	1.66	1.45
1N4737A	INT	1.90	1.60	1.40
1N4738	MOT	1.26	1.09	.95
1N4738	INT	1.25	1.05	.93
1N4738A	MOT	1.93	1.66	1.45
1N4738A	INT	1.90	1.60	1.40
1N4739	MOT	1.26	1.09	.95
1N4739	INT	1.25	1.05	.93
1N4739A	MOT	1.93	1.66	1.45
1N4739A	INT	1.90	1.60	1.40
1N4740	MOT	1.26	1.09	.95
1N4740	INT	1.25	1.05	.93
1N4740A	MOT	1.93	1.66	1.45
1N4740A	INT	1.90	1.60	1.40
1N4741	MOT	1.26	1.09	.95
1N4741	INT	1.25	1.05	.93
1N4741A	MOT	1.93	1.66	1.45
1N4741A	INT	1.90	1.60	1.40
1N4742	MOT	1.26	1.09	.95
1N4742	INT	1.25	1.05	.93
1N4742A	MOT	1.93	1.66	1.45
1N4742A	INT	1.90	1.60	1.40
1N4743	MOT	1.26	1.09	.95
1N4743	INT	1.25	1.05	.93
1N4743A	MOT	1.93	1.66	1.45
1N4743A	INT	1.90	1.60	1.40
1N4744	MOT	1.26	1.09	.95
1N4744	INT	1.25	1.05	.93
1N4744A	MOT	1.93	1.66	1.45
1N4744A	INT	1.90	1.60	1.40
1N4745	MOT	1.26	1.09	.95
1N4745	INT	1.25	1.05	.93
1N4745A	MOT	1.93	1.66	1.45
1N4745A	INT	1.90	1.60	1.40
1N4746	MOT	1.26	1.09	.95
1N4746	INT	1.25	1.05	.93
1N4746A	MOT	1.93	1.66	1.45
1N4746A	INT	1.90	1.60	1.40
1N4747	MOT	1.26	1.09	.95
1N4747	INT	1.25	1.05	.93

Type No.	Mfg.	1-99	100-Mix	100-Up
1N4747A	MOT	1.93	1.66	1.45
1N4747A	INT	1.90	1.60	1.40
1N4748	MOT	1.26	1.09	.95
1N4748	INT	1.25	1.05	.93
1N4748A	MOT	1.93	1.66	1.45
1N4748A	INT	1.90	1.60	1.40
1N4749	MOT	1.26	1.09	.95
1N4749	INT	1.25	1.05	.93
1N4749A	MOT	1.93	1.66	1.45
1N4749A	INT	1.90	1.60	1.40
1N4750	MOT	1.26	1.09	.95
1N4750	INT	1.25	1.05	.93
1N4750A	MOT	1.93	1.66	1.45
1N4750A	INT	1.90	1.60	1.40
1N4751	MOT	1.26	1.09	.95
1N4751	INT	1.25	1.05	.93
1N4751A	MOT	1.93	1.66	1.45
1N4751A	INT	1.90	1.66	1.40
1N4752	MOT	1.26	1.09	.95
1N4752	INT	1.25	1.05	.93
1N4752A	MOT	1.93	1.66	1.45
1N4752A	INT	1.90	1.60	1.40
1N4753	MOT	1.26	1.09	.95
1N4753	INT	1.25	1.05	.93
1N4753A	MOT	1.93	1.66	1.45
1N4753A	INT	1.90	1.60	1.40
1N4754	MOT	1.26	1.09	.95
1N4754	INT	1.25	1.05	.93
1N4754A	MOT	1.93	1.66	1.45
1N4754A	INT	1.90	1.60	1.40
1N4755	MOT	1.26	1.09	.95
1N4755	INT	1.25	1.05	.93
1N4755A	MOT	1.93	1.66	1.45
1N4755A	INT	1.90	1.60	1.40
1N4756	MOT	1.26	1.09	.95
1N4756	INT	1.25	1.05	.93
1N4756A	MOT	1.93	1.66	1.45
1N4756A	INT	1.90	1.60	1.40
1N4757	MOT	1.26	1.09	.95
1N4757	INT	1.25	1.05	.93
1N4757A	MOT	1.93	1.66	1.45
1N4757A	INT	1.90	1.60	1.40
1N4758	MOT	1.26	1.09	.95
1N4758	INT	1.25	1.05	.93
1N4758A	MOT	1.93	1.66	1.45
1N4758A	INT	1.90	1.60	1.40
1N4759	MOT	1.26	1.09	.95
1N4759	INT	1.25	1.05	.93
1N4759A	MOT	1.93	1.66	1.45
1N4759A	INT	1.90	1.60	1.40
1N4760	MOT	1.26	1.09	.95
1N4760	INT	1.25	1.05	.93
1N4760A	MOT	1.93	1.66	1.45
1N4760A	INT	1.90	1.60	1.40
1N4761	MOT	1.26	1.09	.95
1N4761	INT	1.25	1.05	.93
1N4761A	MOT	1.93	1.66	1.45
1N4761A	INT	1.90	1.60	1.40
1N4762	MOT	1.26	1.09	.95
1N4762	INT	1.25	1.05	.93
1N4762A	MOT	1.93	1.66	1.45
1N4762A	INT	1.90	1.60	1.40
1N4763	MOT	1.26	1.09	.95
1N4763	INT	1.25	1.05	.93
1N4763A	MOT	1.93	1.66	1.45
1N4763A	INT	1.90	1.60	1.40
1N4764	MOT	1.26	1.09	.95
1N4764	INT	1.25	1.05	.93
1N4764A	INT	1.90	1.60	1.40
1N4764A	MOT	1.93	1.66	1.45

Type No.	Mfg.	1-99	100-999	1000-Up
1N4785	RCA	1.08	.78	.65
1N4816	INT	.24	.20	
1N4816	WES	.24	.20	
1N4817	INT	.28	.24	
1N4817	WES	.29	.24	
1N4818	INT	.32	.28	
1N4818	WES	.33	.28	
1N48819	INT	.37	.32	
1N48819	WES	.38	.32	
1N4820	INT	.41	.35	
1N4820	WES	.42	.35	
1N4821	INT	.45	.38	
1N4821	WES	.46	.38	
1N4822	INT	.50	.44	
1N4822	WES	.52	.44	
1N4830	GE	.93	.62	.36

Type No.	Mfg.	1-99	100-Mix	100-999
1N4933	MOT	1.12		.75
1N4934	MOT	1.42		.95
1N4935	MOT	1.65		1.10
1N4936	MOT	2.45		1.65
1N4937	MOT	3.90		2.60

Type No.	Mfg.	1-99	100-999	1000-Up
1N4997	MOT	.66	.44	
1N4997/MR1030B	MOT	.66	.44	.40
1N4998/MR1031B	MOT	.73	.49	.49
1N4999/MR1032B	MOT	.82	.55	.49
1N5000/MR1034B	MOT	1.12	.75	.67
1N5001/MR1036B	MOT	1.50	1.00	.90
1N5002/MR1038B	MOT	4.10	2.75	2.45
1N5003	MOT	6.35	4.25	
1N5052	INT	.70	.62	
1N5052	WES	.74	.62	
1N5053	INT	.85	.75	
1N5053	WES	.89	.75	
1N5054	INT	1.20	1.02	
1N5054/IN561	WES	1.22	1.02	
1N5059/A14B	GE	.46	.31	.22
1N5060/A14D	GE	.56	.37	.26
1N5061/A14M	GE	.75	.50	.35
1N5062/A14N	GE	1.12	.75	.52
1N5139	MOT	5.85	3.90	
1N5139A	MOT	6.45	4.30	
1N5140	MOT	5.85	3.90	
1N5140A	MOT	6.45	4.30	
1N5141	MOT	5.85	3.90	
1N5141A	MOT	6.45	4.30	
1N5142	MOT	5.85	3.90	
1N5142A	MOT	6.54	4.30	
1N5143	MOT	5.85	3.90	
1N5143A	MOT	6.45	4.30	
1N5144	MOT	5.85	3.90	
1N5144A	MOT	6.45	4.30	
1N5145	MOT	5.85	3.90	
1N5145A	MOT	6.45	4.30	
1N5146	MOT	5.85	3.90	
1N5146A	MOT	6.45	4.30	
1N5147	MOT	5.85	3.90	
1N5147A	MOT	6.45	4.30	
1N5148	MOT	5.85	3.90	
1N5148A	MOT	6.45	4.30	
11N5149/ MV1806C	MOT	27.00	18.00	
1N5150/ MV1807C	MOT	42.00	28.00	
1N5151/ MV1808A	MOT	42.00	28.00	
1N5152/ MV1808B	MOT	42.00	28.00	
1N5153/ MV1808C	MOT	42.00	28.00	
1N5154/ MV1810A	MOT	42.00	28.00	
1N5155/ MV1810B	MOT	42.00	28.00	
1N5170	HUG	.36	.27	
1N5171	HUG	.46	.35	
1N5172	HUG	.50	.38	
1N5173	HUG	.65	.49	
1N5174	HUG	.81	.61	
1N5175	HUG	.90	.68	
1N5176	HUG	1.13	.85	
1N5177	HUG	2.00	1.50	
1N5178	HUG	2.50	1.88	
1N5212	RCA	.42	.30	.25
1N5213	RCA	.56	.41	.34
1N5214	RCA	.81	.59	.49
1N5215	RCA	.42	.30	.25
1N5216	RCA	.45	.33	.27
1N5217	RCA	.60	.40	.36
1N5218	RCA	.85	.62	.51

Type No.	Mfg.	1-24	25-99	100-249
1N5221A	MOT	.90	.80	.60
1N5221B	MOT	1.05	.93	.70
1N5222	MOT	.67	.60	.45
1N5222A	MOT	.90	.80	.60
1N5222B	MOT	1.05	.93	.70
1N5223	MOT	.67	.60	.45
1N5223A	MOT	.90	.80	.60
1N5223B	MOT	1.05	.93	.70
1N5224	MOT	.67	.60	.45
1N5224A	MOT	.90	.80	.60
1N5224B	MOT	1.05	.93	.70
1N5225	MOT	.67	.60	.45
1N5225A	MOT	.90	.80	.60
1N5225B	MOT	1.05	.93	.70
1N5226	MOT	.67	.60	.45
1N5226A	MOT	.90	.80	.60

Type No.	Mfg.	1-24	25-99	100-249
1N5226B	MOT	1.05	.93	.70
1N5227	MOT	.67	.60	.45
1N5227A	MOT	.90	.80	.60
1N5227B	MOT	1.05	.93	.70
1N5228	MOT	.67	.60	.45
1N5228A	MOT	.90	.80	.60
1N5228B	MOT	1.05	.93	.70
1N5229	MOT	.67	.60	.45
1N5229A	MOT	.90	.80	.60
1N5229B	MOT	1.05	.93	.70
1N5230	MOT	.67	.60	.45
1N5230A	MOT	.90	.80	.60
1N5230B	MOT	1.05	.93	.70
1N5231	MOT	.67	.60	.45
1N5231A	MOT	.90	.80	.60
1N5231B	MOT	1.05	.93	.70
1N5232	MOT	.67	.60	.45
1N5232A	MOT	.90	.80	.60
1N5232B	MOT	1.05	.93	.70
1N5233	MOT	.67	.60	.45
1N5233A	MOT	.90	.80	.60
1N5233B	MOT	1.05	.93	.70
1N5234	MOT	.67	.60	.45
1N5234A	MOT	.90	.80	.60
1N5234B	MOT	1.05	.93	.70
1N5235	MOT	.67	.60	.45
1N5235A	MOT	.90	.80	.60
1N5235B	MOT	1.05	.93	.70
1N5236	MOT	.67	.60	.45
1N5236A	MOT	.90	.80	.60
1N5236B	MOT	1.05	.93	.70
1N5237	MOT	.67	.60	.45
1N5237A	MOT	.90	.80	.60
1N5237B	MOT	1.05	.93	.70
1N5238	MOT	.67	.60	.45
1N5238A	MOT	.90	.80	.60
1N5238B	MOT	1.05	.93	.70
1N5239	MOT	.67	.60	.45
1N5239A	MOT	.90	.80	.60
1N5239B	MOT	1.05	.93	.70
1N5240	MOT	.67	.60	.45
1N5240A	MOT	.90	.80	.60
1N5240B	MOT	1.05	.93	.70
1N5241	MOT	.67	.60	.45
1N5241A	MOT	.90	.80	.60
1N5241B	MOT	1.05	.93	.70
1N5242	MOT	.67	.60	.45
1N5242A	MOT	.90	.80	.60
1N5242B	MOT	1.05	.93	.70
1N5243	MOT	.67	.60	.45
1N5243A	MOT	.90	.80	.60
1N5243B	MOT	1.05	.93	.70
1N5244	MOT	.67	.60	.45
1N5244A	MOT	.90	.80	.60
1N5244B	MOT	1.05	.93	.70
1N5245	MOT	.67	.60	.45
1N5245A	MOT	.90	.80	.60
1N5245B	MOT	1.05	.93	.70
1N5246	MOT	.67	.60	.45
1N5246A	MOT	.90	.80	.60
1N5246B	MOT	1.05	.93	.70
1N5247	MOT	.67	.60	.45
1N5247A	MOT	.90	.80	.60
1N5247B	MOT	1.05	.93	.70
1N5248	MOT	.67	.60	.45
1N5248A	MOT	.90	.80	.60
1N5248B	MOT	1.05	.93	.70
1N5249	MOT	.67	.60	.45
1N5249A	MOT	.90	.80	.60
1N5249B	MOT	1.05	.93	.70
1N5250	MOT	.67	.60	.45
1N5250A	MOT	.90	.80	.60
1N5250B	MOT	1.05	.93	.70
1N5251	MOT	.67	.60	.45
1N5251A	MOT	.90	.80	.60
1N5251B	MOT	1.05	.93	.70
1N5252	MOT	.67	.60	.45
1N5252A	MOT	.90	.80	.60
1N5252B	MOT	1.05	.93	.70
1N5253	MOT	.67	.60	.45
1N5253A	MOT	.90	.80	.60
1N5253B	MOT	1.05	.93	.70
1N5254	MOT	.67	.60	.45
1N5254A	MOT	.90	.80	.60
1N5254B	MOT	1.05	.93	.70
1N5255	MOT	.67	.60	.45
1N5255A	MOT	.90	.80	.60
1N5255B	MOT	1.05	.93	.70
1N5256	MOT	.67	.60	.45
1N5256A	MOT	.90	.80	.60
1N5256B	MOT	1.05	.93	.70
1N5257	MOT	.67	.60	.45
1N5257A	MOT	.90	.80	.60
1N5257B	MOT	1.05	[illegible]	.70
1N5258	MOT	.90	.80	.60
1N5258A	MOT	1.12	1.00	.75
1N5258B	MOT	1.27	1.13	.85
1N5259	MOT	.90	.80	.60
1N5259A	MOT	1.12	1.00	.75
1N5259B	MOT	1.27	1.13	.85
1N5260	MOT	.90	.80	.60
1N5260A	MOT	1.12	1.00	.75
1N5260B	MOT	1.27	1.13	.85
1N5261	MOT	.90	.80	.60
1N5261A	MOT	1.12	1.00	.75
1N5261B	MOT	1.27	1.13	.85
1N5262	MOT	.90	.80	.60
1N5262A	MOT	1.12	1.00	.75
1N5262B	MOT	1.27	1.13	.85
1N5263	MOT	.90	.80	.60
1N5263A	MOT	1.12	1.00	.75
1N5263B	MOT	1.27	1.13	.85
1N5264	MOT	.90	.80	.60
1N5264A	MOT	1.12	1.00	.75
1N5264B	MOT	1.27	1.13	.85
1N5265	MOT	.90	.80	.60
1N5265A	MOT	1.12	1.00	.75
1N5265B	MOT	1.27	1.13	.85
1N5266	MOT	.90	.80	.60
1N5266A	MOT	1.12	1.00	.75
1N5266B	MOT	1.27	1.13	.85
1N5267	MOT	.90	.80	.60
1N5267A	MOT	1.12	1.00	.75
1N5267B	MOT	1.27	1.13	.85
1N5268	MOT	.90	.80	.60
1N5268A	MOT	1.12	1.00	.75
1N5268B	MOT	1.27	1.13	.85
1N5269	MOT	.90	.80	.60
1N5269A	MOT	1.12	1.00	.75
1N5269B	MOT	1.27	1.13	.85
1N5270	MOT	.90	.80	.80
1N5270A	MOT	1.12	1.00	.75
1N5270B	MOT	1.27	1.13	.85
1N5271	MOT	1.27	1.13	.85
1N5271A	MOT	1.50	1.33	1.00
1N5271B	MOT	1.65	1.46	1.10
1N5272	MOT	1.27	1.13	.85
1N5272A	MOT	1.50	1.33	1.00
1N5272B	MOT	1.65	1.46	1.10
1N5273	MOT	1.27	1.13	.85
1N5273A	MOT	1.50	1.33	1.00
1N5273B	MOT	1.65	1.46	1.10
1N5274	MOT	1.27	1.13	.85
1N5274A	MOT	1.50	1.33	1.00
1N5274B	MOT	1.65	1.46	1.10
1N5275	MOT	1.27	1.13	.85
1N5275A	MOT	1.50	1.33	1.00
1N5275B	MOT	1.65	1.46	1.10
1N5276	MOT	1.27	1.13	.85
1N5276A	MOT	1.50	1.33	1.00
1N5276B	MOT	1.65	1.46	1.10
1N5277	MOT	1.27	1.13	.85
1N5277A	MOT	1.50	1.33	1.00
1N5277B	MOT	1.65	1.46	1.10
1N5278	MOT	1.27	1.13	.85
1N5278A	MOT	1.50	1.33	1.00
1N5278B	MOT	1.65	1.46	1.10
1N5279	MOT	1.27	1.13	.85
1N5279A	MOT	1.50	1.33	1.00
1N5279B	MOT	1.65	1.46	1.10
1N5280	MOT	1.27	1.13	.85
1N5280A	MOT	1.50	1.33	1.00
1N5280B	MOT	1.65	1.46	1.10
1N5281	MOT	1.27	1.13	.85
1N5181A	MOT	1.50	1.33	1.00
1N5281B	MOT	1.65	1.46	1.10

Type No.	Mfr.	1-24	25-99	100-up	100-Mix
1N5283	MOT	4.45	3.90	2.95	3.40
1N5284	MOT	4.45	3.90	2.95	3.40
1N5285	MOT	4.45	3.90	2.95	3.40
1N5286	MOT	4.45	3.90	2.95	3.40
1N5287	MOT	4.45	3.90	2.95	3.40
1N5288	MOT	4.45	3.90	2.95	3.40
1N5289	MOT	4.45	3.90	2.95	3.40
1N5290	MOT	4.45	3.90	2.95	3.40
1N5291	MOT	4.45	3.90	2.95	3.40
1N5292	MOT	4.45	3.90	2.95	3.40
1N5293	MOT	4.45	3.90	2.95	3.40
1N5294	MOT	4.45	3.90	2.95	3.40
1N5295	MOT	4.45	3.90	2.95	3.40
1N5296	MOT	4.45	3.90	2.95	3.40
1N5297	MOT	4.45	3.90	2.95	3.40
1N5298	MOT	4.45	3.90	2.95	3.40
1N5299	MOT	4.45	3.90	2.95	3.40
1N5300	MOT	4.45	3.90	2.95	3.40
1N5301	MOT	4.45	3.90	2.95	3.40
1N5302	MOT	4.45	3.90	2.95	3.40
1N5303	MOT	4.45	3.90	2.95	3.40
1N5304	MOT	4.45	3.90	2.95	3.40
1N5305	MOT	4.45	3.90	2.95	3.40
1N5306	MOT	4.45	3.90	2.95	3.40
1N5307	MOT	4.45	3.90	2.95	3.40
1N5308	MOT	4.45	3.90	2.95	3.40
1N5309	MOT	4.45	3.90	2.95	3.40
1N5310	MOT	4.45	3.90	2.95	3.40
1N5311	MOT	4.45	3.90	2.95	3.40
1N5312	MOT	4.45	3.90	2.95	3.40
1N5313	MOT	4.45	3.90	2.95	3.40
1N5314	MOT	4.45	3.90	2.95	3.40

Type No.	Mfg.	1-99	100-999	1000-Up
1N5400/398A	WES	.46	.31	....
1N5411	RCA	.61	.44	.37

Type No.	Mfg.	1-99	100-Mix	100-999
2N1537	MOT	3.90	....	2.90
2N1537A	BEN	5.15	....	3.45
2N1537A	MOT	4.45	....	3.30
2N1538	MOT	5.50	....	4.05
2N1539	MOT	1.50	....	1.12
2N1539	TI	1.50	....	1.12
2N1539A	MOT	2.05	....	1.52
2N1540	BEN	1.65	....	1.20
2N1540	MOT	1.58	....	1.18
2N1540	TI	1.58	....	1.18
2N1540A	BEN	2.60	....	1.73
2N1540A	MOT	2.10	....	1.62
2N1541	BEN	2.70	....	1.90
2N1541	MOT	1.85	....	1.38
2N1541	TI	1.85	....	1.38
2N1542	MOT	2.35	....	1.75
2N1542	TI	2.35	....	1.75
2N1543	TI	3.60	....	2.65
2N1543	MOT	3.60	....	2.65
2N1544	BEN	1.65	....	1.24
2N1544	MOT	1.65	....	1.24
2N1544A	MOT	2.22	....	1.64
2N1545	BEN	2.35	....	1.75
2N1545	MOT	1.85	....	1.35
2N1545A	MOT	2.35	....	1.75
2N1546	MOT	2.30	....	1.70
2N1546A	MOT	2.95	....	2.20
2N1547	MOT	2.75	....	2.05
2N1547	BEN	2.75	....	2.05
2N1547A	MOT	3.45	....	2.55
2N1548	MOT	4.00	....	2.95
2N1549	BEN	2.55	....	1.70
2N1549	MOT	2.55	....	1.70
2N1549A	BEN	3.30	....	2.20
2N1549A	MOT	3.30	....	2.20
2N1549A/JAN	MOT	3.65	....	2.45
2N1550	BEN	3.05	....	2.05
2N1550	MOT	3.05	....	2.05
2N1550A	BEN	3.80	....	2.55
2N1550A/JAN	MOT	4.20	....	2.80
2N1551	BEN	4.85	....	3.25
2N1551	MOT	4.85	....	3.25
2N1551A	BEN	5.60	....	3.75
2N1551A	MOT	5.60	....	3.75
2N1551A/JAN	MOT	6.00	....	4.00
2N1552	BEN	5.55	....	3.70
2N1552	MOT	5.55	....	3.70
2N1552A	BEN	6.30	....	4.20
2N1552A	MOT	6.30	....	4.20
2N1552A/JAN	MOT	6.65	....	4.45
2N1553	MOT	1.85	....	1.35
2N1553A	MOT	2.35	....	1.75
2N1553A/JAN	MOT	3.35	....	2.25
2N1554	MOT	2.30	....	1.70
2N1554A	BEN	3.90	....	2.60
2N1554A	MOT	2.85	....	2.10
2N15521A/JAN	MOT	4.05	....	2.70
2N1555	MOT	2.75	....	2.05
2N1555A	BEN	5.90	....	4.00
2N1555A	MOT	3.45	....	2.55
2N1555A/JAN	MOT	5.25	....	3.50
2N1556	MOT	4.00	....	2.95
2N1556A	BEN	4.65	....	3.45
2N1556A	MOT	4.65	....	3.45
2N1556A/JAN	MOT	6.00	....	4.00
2N1557	BEN	3.20	....	2.15
2N1557	MOT	2.15	....	1.58
2N1557A	BEN	3.90	....	2.60
2N1557A	MOT	2.70	....	2.00
2N1558	MOT	2.80	....	2.06

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Type No.	Mfg.	1-99	100-Mix	100-999
2N1558A	BEN	5.45		3.65
2N1558A	MOT	3.40		2.50
2N1559	BEN	5.90		4.00
2N1559	MOT	3.25		2.40

Type No.	Mfg.	1-99	100-999	1000-4999
2N1613	MOT	.79	.68	

Type No.	Mfg.	1-99	100-999
2N1560	MOT	4.45	3.30
2N1560A	MOT	5.00	3.70
2N1566	TI	2.50	1.65
2N1595	GE	2.25	1.50
2N1595	HOF	2.15	1.45
2N1595	MOT	2.15	1.45
2N1595/TI-110	TI	3.00	2.00
2N1596	HOF	2.60	1.75
2N1596	MOT	2.60	1.75
2N1596/TI-111	TI	4.50	3.05
2N1597	MOT	4.95	3.30
2N1598	MOT	8.60	5.75
2N1599	MOT	12.35	8.25
2N1600/TI-130	TI	5.10	3.40
2N1601/TI-131	TI	5.70	3.45
2N1602/3RC20A	INT	9.45	6.30
2N1604/3RC40A	INT	16.80	10.80
2N1605	TI	.72	.48
2N1605A	RCA	1.09	.80

Type No.	Mfg.	1-99	100-999	1000-4999
2N1613	MOT	.79	.68	.60

Type No.	Mfg.	1-99	100-999	1000-Up
2N1613	RCA	.75	.54	.45
2N1613	TI	.79	.68	
2N1613/JAN	TI	2.25	1.50	
2N1623	HUG	1.94	1.21	
2N1631	RCA	.65	.47	.39
2N1632	RCA	.58	.42	.35
2N1637	RCA	.57	.41	.34
2N1638	RCA	.50	.36	.30
2N1651	BEN	5.25	3.50	
2N1652	BEN	12.00	8.00	
2N1671	GE	2.95	1.97	1.80
2N1671	TI	2.95	1.98	
2N1671A	GE	3.20	2.13	1.95
2N1671A	TI	3.20	2.14	
2N1671B	GE	3.55	2.36	2.15
2N1671B	TI	3.55	2.36	
2N1683	RCA	1.90	1.38	1.15
2N1692	MOT	22.50	17.00	
2N1694	GE	.99	.66	
2N1700	RCA	1.90	1.38	1.15
2N1701	RCA	2.31	1.68	1.40
2N1702	RCA	4.54	3.30	2.75
2N1706	MOT	.83	.55	

Type No.	Mfg.	1-99	100-999	1000-4999
2N1711	MOT	.85	.74	.65

Type No.	Mfg.	1-99	100-999	1000-Up
2N1711	RCA	.94	.68	.57
2N1711	RAY	.85	.72	
2N1711	TI	.85	.74	
2N1711/JAN	TI	3.35	2.30	
2N1714/JAN	TI	6.45	4.30	
2N1715/JAN	TI	8.70	5.80	
2N1716	TI	7.50	5.00	
2N1716/JAN	TI	7.95	5.30	
2N1717/JAN	TI	11.70	7.80	
2N1720	TI	8.25	5.50	
2N1722/JAN	TI	57.00	38.00	
2N1724/JAN	TI	32.25	21.50	
2N1727	SPR	1.00	.75	
2N1728	SPR	1.10	.80	
2N1742	SPR	2.93	2.15	
2N1744	SPR	2.25	1.65	
2N1745	SPR	1.80	1.32	
2N1747	SPR	1.00	.75	
2N1748	SPR	1.05	.80	
2N1748A	SPR	1.15	.85	
2N1749	SPR	1.45	1.05	
2N1754	SPR	1.35	.95	
2N1771	TI	4.65	3.10	
2N1771A/JAN	GE	9.37	6.25	
2N1772	TI	5.75	3.85	
2N1772A/C10A	GE	9.00	6.00	
2N1772A/JAN	GE	11.76	7.84	
2N1773/C11G	GE	6.97	4.65	
2N1773/5RC15A	INT	6.92	4.60	
2N1774	TI	8.15	5.45	
2N1774/5RC20A	INT	8.12	5.40	
2N1774A/C10B	GE	13.50	9.00	
2N1774A/5RC20B	INT	13.45	8.95	
2N1774A/JAN	GE	17.04	11.36	
2N1774A/5RC25B	INT	15.50	10.45	
2N1776A/C10C	GE	18.40	12.25	
2N1776A/5RC30B	INT	18.35	12.20	
2N1776A/JAN	GE	22.00	14.67	
2N1776A/C10D	GE	23.65	15.75	
2N1777A/5RC40B	INT	23.60	15.50	
2N1774A/JAN	GE	27.36	18.24	

Type No.	Mfg.	1-24	25-99	100-999
2N1792	WES	24.80	19.20	
2N1793	WES	28.80	22.30	
2N1794	WES	33.40	25.80	
2N1795	WES	38.00	29.40	
2N1796	WES	44.50	34.50	
2N1797	WES	50.50	39.20	
2N1798	WES	66.50	51.50	
2N1799	WES	80.50	62.50	
2N1800	WES	97.50	75.50	
2N1801	WES	120.00	94.00	
2N1802	WES	145.00	112.00	
2N1803	WES	172.00	133.00	
2N1804	WES	210.00	155.00	
2N1805	WES	80.50	62.50	
2N1806	WES	97.50	75.50	
2N1807	WES	120.00	94.00	

Type No.	Mfg.	1-99	100-Mix	100-999
2N1808	TI	.58		.39

Type No.	Mfg.	1-24	25-99	100-Up
2N1809/WX115U-A	WES	76.00	63.00	
2N1810/WX115U-B	WES	115.00	76.00	
2N1811/WX115V-C	WES	141.00	94.00	
2N1812/WX115V-D	WES	172.00	114.00	
2N1813	WES	211.00	147.00	
2N1814	WES	260.00	178.00	
2N1816/WX115W-A	WES	101.00	84.00	
2N1817/WX115W-B	WES	154.00	102.00	
2N1818/WX115W-C	WES	189.00	125.00	
2N1819	WES	232.00	156.00	
2N1820	WES	286.00	191.00	
2N1823/WX115X-A	WES	135.00	111.00	
2N1824/WX115X-B	WES	204.00	136.00	
2N1825	WES	251.00	168.00	
2N1826	WES	304.00	207.00	
2N1830	WES	179.00	146.00	
2N1831	WES	270.00	180.00	
2N1832	WES	332.00	222.00	
2N1833	WES	404.00	275.00	

Type No.	Mfg.	1-99	100-999	1000-Up
2N1842	MOT	3.00	2.00	
2N1842A	WES	2.85	1.90	
2N1843/10RC5	INT	3.15	2.10	
2N1843A	WES	3.45	2.30	
2N1844/C36A	GE	4.95	3.30	
2N1844A	WES	4.45	2.95	
2N1845A	WES	5.20	3.45	
2N1846	WES	5.35	3.55	
2N1846/C36B	GE	5.32	3.55	
2N1846A	MOT	6.35	4.25	
2N1846A	WES	5.65	3.75	
2N1846B	TI	6.19	4.13	
2N1847	WES	5.70	3.80	
2N1847A	GE	6.00	4.00	
2N1847A	WES	6.00	4.00	
2N1848	WES	6.10	4.05	
2N1848/C36C	GE	6.07	4.05	
2N1848A	WES	6.45	4.30	
2N1849	WES	7.45	4.95	
2N1849A	WES	7.90	5.25	
2N1849B	TI	15.60	10.40	
2N1850A	GE	9.60	6.40	
2N1850A/10RC50A	INT	9.60	6.40	
2N1853/JAN	RCA	1.32	.92	
2N1889	TI	5.25	3.50	
2N1890	TI	5.30	3.55	
2N1890/JAN	TI	8.65	5.80	
2N1893	MOT	1.57	1.05	
2N1893	MOT	1.57	.95	
2N1893	RCA	1.08	.78	.65
2N1893	TI	1.32	.88	
2N1893/JAN	MOT	4.65	3.10	
2N1893/JAN	TI	4.65	3.10	
2N1905	RCA	4.13	3.00	2.50
2N1906	RCA	6.60	4.80	4.00
2N1907	TI	7.88	5.25	
2N1908	TI	11.25	7.50	

Type No.	Mfg.	1-24	25-99	100-Up
2N1909	WES	19.50	15.10	
2N1909/C50U	GE	17.50	13.50	
2N1910	WES	24.80	19.20	
2N1910W/JAN	GE	35.00	28.30	
2N1910W/USN	WES	29.20	23.60	
2N1911	WES	28.80	22.30	
2N1911/C50A	GE	25.90	19.80	
2N1911W/USN	WES	33.20	26.70	
2N1912	WES	33.40	25.80	
2N1913	WES	38.00	29.40	
2N1913/C50B	GE	34.20	25.00	
2N1913W/USN	WES	42.40	33.80	
2N1914	WES	44.50	34.50	
2N1915	WES	50.50	39.20	
2N1915W/JAN	GE	65.88	52.30	
2N1915/USN	WES	54.90	43.60	
2N1916	WES	66.50	51.50	

Type No.	Mfg.	1-99	100-999	1000-Up
2N1916/C50D	GE	60.00	38.50	

Type No.	Mfg.	1-24	25-99	100-Up
2N1916/809H	WES	66.50	51.50	

Type No.	Mfg.	1-99	100-999	1000-Up
2N1916W/JAN	GE	85.40	67.00	
2N1924	MOT	1.80	1.20	

Type No.	Mfg.	1-99	100-999	1000-4999
2N1925	GE	1.56	1.04	.94

Type No.	Mfg.	1-99	100-999	1000-Up
2N1925	MOT	2.03	1.35	

Type No.	Mfg.	1-99	100-999	1000-4999
2N1926	GE	1.82	1.21	1.09

Type No.	Mfg.	1-99	100-999	1800-Up
2N1926	MOT	2.40	1.60	
2N1959	MOT	4.45	2.95	

Type No.	Mfg.	1-9	10-99	100-999
2N1959	SYL	4.45	4.45	2.95

Type No.	Mfg.	1-99	100-999	1000-Up
2N1970	MOT	2.35	1.73	

Type No.	Mfg.	1-99	100-999	1000-Up
2N1973	TI	2.37	1.58	
2N1974	TI	6.70	6.00	
2N1975	TI	5.30	4.00	
2N1980	MOT	4.50	3.00	
2N1981	MOT	5.50	3.70	
2N1982	MOT	7.80	5.20	
2N1983	MOT	2.50	1.67	
2N1984	MOT	2.33	1.56	
2N1990	MOT	2.25	1.50	
2N1991	HUG	3.95	2.96	
2N1991	MOT	3.95	2.96	
2N1994	TI	2.33	1.55	
2N1997	TI	1.77	1.18	
2N1998	TI	1.88	1.25	
2N2000	TI	2.50	1.67	
2N2001	TI	2.17	1.45	
2N2015	RCA	9.08	6.60	5.50
2N2015/USA	RCA	9.90	6.85	
2N2016	RCA	9.90	7.20	6.00
2N2016/USA	RCA	10.73	7.40	

Type No.	Mfg.	1-24	25-99	100-Up
2N2031W/JAN	GE	29.20	23.60	
2N2031W/USN	GE	29.20	23.60	
2N2031W/USN	GE	29.20	23.60	

Type No.	Mfg.	1-99	100-999	1000-Up
2N2042	MOT	2.85	1.90	
2N2043	MOT	3.20	2.15	
2N2043A	MOT	3.90	2.60	
2N2048	SPR	1.80	1.32	
2N2060	MOT	21.00	14.00	
2N2060/JAN	MOT	36.00	24.00	
2N2060/JAN	TI	24.00	16.00	
2N2075	MOT	5.20	3.84	
2N2076	MOT	3.60	2.67	
2N2076A	MOT	4.75	3.17	
2N2077	MOT	2.85	2.12	
2N2078	MOT	1.90	1.39	
2N2079	MOT	7.20	5.34	
2N2079A/JAN	MOT	9.95	6.65	
2N2080	MOT	5.10	3.78	
2N2081	MOT	3.15	2.32	
2N2082	MOT	2.40	1.78	
2N2096	MOT	1.65	1.10	
2N2097	MOT	3.30	2.20	
2N2099	MOT	2.17	1.45	
2N2100	MOT	3.80	2.55	
2N2102	RCA	1.13	.82	.68
2N2102	TI	.99	.75	
2N2102A	TI	1.07	.80	
2N2106	GE	1.97	1.32	1.19
2N2107	GE	2.09	1.39	
2N2108	GE	2.10	1.40	1.26
2N2137	MOT	1.80	1.20	
2N2138	MOT	2.10	1.40	
2N2139	MOT	2.20	1.50	
2N2140	MOT	3.90	2.60	
2N2142	MOT	2.30	1.55	
2N2143	MOT	2.45	1.65	
2N2144	MOT	3.75	2.50	
2N2147	RCA	1.57	1.14	.95
2N2148	RCA	1.08	.78	.65
2N2151/TIX92	TI	24.75	16.50	
2N2152	MOT	3.60	2.40	
2N2153	MOT	5.55	3.70	
2N2153A	MOT	6.30	4.20	
2N2154	MOT	10.10	6.75	
2N2156	MOT	4.10	2.75	
2N2156A	MOT	4.85	3.25	
2N2157	MOT	6.35	4.25	
2N2158	MOT	10.85	7.25	
2N2160	GE	1.49	.99	.89
2N2160	TI	1.49	.99	
2N2171	MOT	1.95	1.30	
2N2185	SPR	15.00	11.00	
2N2188	TI	1.28	.85	
2N2189	TI	1.64	1.09	
2N2190	TI	1.47	.98	
2N2191	TI	1.85	1.23	
2N2192	MOT	4.20	2.80	
2N2192	TI	4.20	2.80	
2N2192A	MOT	4.40	2.95	
2N2192A	TI	4.45	2.95	
2N2192B	MOT	12.45	8.30	
2N2193	MOT	2.90	1.95	
2N2193	TI	2.95	1.95	
2N2193A	MOT	3.15	2.10	
2N2193A	TI	3.15	2.10	
2N2193B	MOT	10.80	7.20	
2N2194	MOT	2.18	1.45	
2N2194	TI	2.18	1.45	

Type No.	Mfg.	1-99	100-999	1000-Up
2N2194A	MOT	2.40	1.60	
2N2194B	MOT	8.25	5.50	
2N2195	MOT	1.38	.92	
2N2195A	MOT	1.53	1.02	
2N2195B	MOT	2.40	1.60	
2N2196	GE	4.50	3.00	2.00
2N2197	GE	4.62	3.25	2.93
2N2201/7B4	GE	6.90	4.60	4.15
2N2217	SPR	3.35	2.25	
2N2217	TI	3.02	2.01	
2N2218	SPR	1.07	.93	
2N2218/JAN	MOT	1.80	1.20	
2N2218	TI	1.00	.88	
2N2218/JAN	TI	1.80	1.20	
2N2218/MM487	MOT	.75	.50	
2N2218A	MOT	4.50	3.00	
2N2218A	TI	5.25	3.50	
2N2218A/JAN	MOT	6.00	4.00	
2N2218A/JAN	TI	5.75	3.85	
2N2218AML1	MOT	4.65	3.10	
2N2218AML2	MOT	5.25	3.50	
2N2218AML3	MOT	6.00	4.00	
2N2218ML1	MOT	1.20	.80	
2N2218ML2	MOT	1.80	1.20	
2N2218ML3	MOT	2.55	1.70	
2N2219	SPR	1.07	.93	
2N2219	TI	1.00	.88	
2N2219/JAN	MOT	1.80	1.20	
2N2219/MM488	MOT	1.05	.70	
2N2219A	MOT	5.25	3.50	
2N2219A	SPR	4.35	2.90	
2N2219A	TI	5.70	3.80	
2N2219A/JAN	MOT	6.00	4.00	
2N2219A/JAN	TI	6.60	4.40	
2N2219AML1	MOT	5.40	3.60	
2N2219AML2	MOT	6.00	4.00	
2N2219AML3	MOT	6.25	4.50	
2N2219ML1	MOT	1.20	.80	
2N2219ML2	MOT	1.80	1.20	
2N2219ML3	MOT	2.55	1.70	
2N2220	TI	3.02	2.01	
2N2220/MM511	MOT	3.35	2.25	
2N2221	MOT	1.07	.93	.82
2N2221	TI	1.00	.88	
2N2221/JAN	GE	4.10	2.75	
2N2221/JAN	MOT	1.80	1.20	
2N2221/JAN	TI	1.80	1.20	
2N2221/MM512	MOT	.75	.50	
2N2221A	MOT	4.10	2.75	
2N2221A	TI	4.35	2.90	
2N2221A/JAN	MOT	4.85	3.25	
2N2221A/JAN	TI	5.70	3.80	
2N2221AML1	MOT	4.25	2.85	
2N2221AML2	MOT	4.85	3.25	
2N2221AML3	MOT	5.65	3.75	
2N2221/JAN	MOT	1.80	1.20	
2N2221ML1	MOT	1.20	.80	
2N2221ML2	MOT	1.80	1.20	
2N2221ML3	MOT	2.55	1.70	
2N2222	MOT	1.07	.93	.82
2N2222	TI	1.07	.93	
2N2222/JAN	GE	4.70	3.15	
2N2222/JAN	TI	1.80	1.20	
2N2222/USA	MOT	1.80	1.20	
2N2222/JAN	MOT	1.80	1.20	
2N2222A/JAN	MOT	5.65	3.75	
2N2222A/JAN	TI	5.70	3.80	
2N2222ML1	MOT	3.50	2.35	
2N2222ML2	MOT	4.10	2.75	
2N2222ML3	MOT	4.85	3.25	
2N2222/MM513	MOT	1.05	.70	
2N2222A	MOT	4.85	3.25	
2N2222A	TI	5.40	3.60	
2N2222AML1	MOT	6.15	4.10	
2N2222AML2	MOT	6.75	4.50	
2N2222AML3	MOT	7.50	5.00	
2N2222AML1	MOT	5.00	3.35	
2N2222AML2	MOT	5.65	3.75	
2N2222AML3	MOT	6.40	4.25	
2N2222ML1	MOT	1.20	.80	
2N2222ML2	MOT	1.80	1.20	
2N2222ML3	MOT	2.55	1.70	
2N2223	GE	10.00	6.70	
2N2223	MOT	10.05	6.70	
2N2223A	MOT	15.00	10.00	
2N2224	MOT	3.75	2.50	

Type No.	Mfg.	1-24	25-99	100-Up
2N2226	WES	44.10	29.10	
2N2227	WES	61.10	41.10	
2N2228	WES	83.10	55.10	

Type No.	Mfg.	1-99	100-999	1000-Up
2N2229	WES	112.00	75.00	

Type No.	Mfg.	1-24	25-99	100-Up
2N2230	WES	73.10	48.10	
2N2231	WES	99.10	66.10	
2N2232	WES	132.10	88.10	
2N2233	WES	183.10	122.10	

Type No.	Mfg.	1-99	100-999	1000-Up
2N2243	TI	4.80	3.20	
2N2243A	TI	5.10	3.40	
2N2256	MOT	1.12	.75	
2N2257	MOT	1.27	.85	
2N2258	MOT	1.12	.75	
2N2259	MOT	1.27	.85	
2N2267	HUG	11.85	7.90	
2N2270	RCA	.91	.66	.55
2N2273	MOT	2.45	1.65	
2N2273/JAN	MOT	2.25	1.50	
2N2273/JAN	TI	2.25	1.50	
2N2280	SPR	4.50	3.30	
2N2288	BEN	2.65	1.78	
2N2289	BEN	4.00	2.67	
2N2303	MOT	8.25	5.50	
2N2322	MOT	2.30	1.55	
2N2322/C5U	GE	2.25	1.50	
2N2322A	GE	3.24	2.16	
2N2323	HOF	2.50	1.65	
2N2323	MOT	2.85	1.90	
2N2323/JAN	GE	5.05	3.95	
2N2323/C5F	GE	2.47	1.65	
2N2323A	GE	3.60	2.40	
2N2323A/JAN	GE	5.75	4.40	
2N2324	MOT	3.75	2.50	
2N2324/JAN	GE	7.40	5.60	
2N2324/C5A	GE	4.05	2.70	
2N2324A	GE	5.76	3.84	
2N2324A/JAN	GE	8.60	6.40	
2N2325	MOT	4.95	3.30	
2N2325/C5G	GE	5.92	3.95	
2N2326	MOT	5.40	3.60	
2N2326/JAN	GE	12.85	9.40	
2N2326/C5B	GE	7.80	5.20	
2N2326A	GE	11.07	7.38	
2N2326A/JAN	GE	14.90	10.75	
2N2328/C5C	GE	12.00	8.00	
2N2338	RCA	6.60	4.80	4.00
2N2345/C7F	GE	9.15	6.10	
2N2346/C7A	GE	13.35	8.90	
2N2348/C7B	GE	18.90	12.60	
2N2349/4D-22	GE	2.32	1.54	1.39
2N2360	SPR	2.40	1.80	
2N2362	SPR	2.10	1.55	
2N2368	MOT	1.07	.93	.82
2N2368	TI	1.07	.93	
2N2369	MOT	1.07	.93	.82
2N2369	TI	1.07	.93	
2N2369A	RCA	1.65	1.14	
2N2369A	TI	1.65	1.10	
2N2369A	MOT	1.65		
2N2369A/JAN	MOT	3.15	2.10	
2N2369A/JAN	TI	3.00	2.00	
2N2382	MOT	5.15	3.45	
2N2386/TIX693	TI	3.75	2.40	
2N2388/TI421	TI	14.40	9.65	
2N2395/TI432	TI	10.10	6.75	
2N2386/TI433	TI	11.55	7.70	
2N2398	SPR	3.45	2.50	
2N2399	SPR	3.35	2.45	
2N2400	SPR	1.25	.95	
2N2401	SPR	1.45	1.05	
2N2402	SPR	2.25	1.65	
2N2405	MOT	1.82	1.25	
2N2405	RCA	1.57	1.14	.95
2N2410	MOT	4.50	3.00	
2N2410	TI	4.50	3.00	
2N2411	TI	3.15	2.10	
2N2412	TI	6.00	4.00	
2N2415	MOT	6.00	4.00	
2N2415	TI	5.80	3.85	
2N2416	MOT	3.35	2.25	
2N2420B	MOT	11.90	7.95	
2N2432/TIX605	TI	8.10	5.40	
2N2432A	TI	8.10	5.40	
2N2432/JAN	TI	8.81	5.87	
2N2433	WES	89.00	66.50	
2N2453A	MOT	24.00	16.00	
2N2459	HUG	9.62	7.40	
2N2460	HUG	10.50	8.08	
2N2461	HUG	12.90	9.90	
2N2462	HUG	13.20	10.10	
2N2469	BEN	11.25	7.50	

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Type No.	Mfg.	1-24	25-99	100-Up
2N2471	WES	61.00	41.00	....

Type No.	Mfg.	1-99	100-999	1000-Up
2N2475	RCA	1.62	1.18	.98
2N2476	MOT	1.65	1.14	....
2N2477	MOT	2.06	1.35	....
2N2480	GE	12.75	8.50	....
2N2480	MOT	12.75	8.50	....
2N2480A	MOT	15.35	10.25	....
2N2481	TI	2.63	1.75	....
2N2481/JAN	TI	3.35	2.25	....
2N2481ML1	MOT	2.75	1.85	....
2N2481ML2	MOT	3.35	2.25	....
2N2481ML3	MOT	2.75	1.85	....
2N2481ML1	MOT	2.75	1.85	....
2N2481ML2	MOT	3.35	2.25	....

Type No.	Mfg.	1-99	100-999	1000-4999
2N2481ML3	MOT	4.10	2.75	....

Type No.	Mfg.	1-99	100-999	1000-Up
2N2483	GE	2.63	1.95	....
2N2483	TI	3.60	2.40	....
2N2484	TI	3.80	2.65	....
2N2489	SPR	3.65	2.70	....
2N2490	MOT	1.88	1.39	....
2N2491	MOT	2.63	1.95	....
2N2492/MP-732	MOT	3.38	2.50	....
2N2493/MP-733	MOT	6.00	4.45	....
2N2497/TIX694	TI	6.45	4.95	....
2N2498/TIX695	TI	6.45	4.95	....
2N2499/TIX696	TI	6.45	4.95	....
2N2500/TIX697	TI	13.20	10.50	....
2N2501	MOT	4.70	3.15	....
2N2516	HUG	8.12	6.13	....
2N2518	HUG	8.79	6.76	....
2N2519	HUG	10.80	8.30	....
2N2520	HUG	6.45	4.30	....
2N2521	HUG	10.30	7.93	....
2N2522	HUG	10.70	8.24	....
2N2523	HUG	4.35	2.90	....
2N2524	HUG	3.75	2.50	....
2N2527	HUG	5.40	3.60	....
2N2528	MOT	9.30	6.20	....
2N2537	MOT	14.85	9.90	....
2N2538	TI	4.95	3.30	....
2N2538	MOT	5.85	3.90	....
2N2539	TI	5.85	3.90	....
2N2540	TI	4.50	2.95	....
2N2551	MOT	5.85	3.90	....
2N2552/2N1038-1	HUG	29.75	22.31	....
2N2553/JAN	TI	3.00	2.00	....
2N2553/2N1039-1	TI	2.55	1.70	....
2N2555/JAN	TI	3.90	2.60	....
2N2556/1038-2	TI	4.50	3.00	....
2N2557/JAN	TI	3.05	2.05	....
2N2557/2N1039-2	TI	3.95	2.65	....
2N2559/JAN	TI	4.58	3.05	....
2N2564/2N1042-2	TI	4.30	2.80	....
2N2573	MOT	18.60	12.40	....
2N2574	MOT	5.60	3.75	....
2N2575	MOT	7.10	4.75	....

Type No.	Mfg.	1-99	100-999	1000-Up
2N2576	MOT	8.10	5.40	....
2N2577	MOT	16.10	10.75	....
2N2578	MOT	4.80	3.20	....
2N2586	TI	6.00	4.00	....
2N2604	TI	6.00	4.00	....
2N2605	TI	6.60	4.40	....
2N2613	RCA	.55	.40	.33
2N2614	RCA	.50	.36	.30

Type No.	Mfg.	1-99	100-999	1000-4999
2N2626	GE	.45	.30	.20

Type No.	Mfg.	1-99	100-999	1000-Up
2N2630	MOT	3.22	2.15	....
2N2631	TI	4.79	3.31	....
2N2632	HUG	46.00	30.85	....
2N2633	HUG	62.00	41.20	....
2N2634	HUG	79.00	52.65	....
2N2635	MOT	.94	.63	....
2N2635	TI	.94	.63	....
2N2639	HUG	22.00	14.70	....
2N2639	MOT	22.50	15.00	....
2N2639/TIX-613	TI	22.00	14.90	....
2N2640	HUG	10.00	6.60	....
2N2640	MOT	17.25	11.50	....
2N2641	HUG	4.50	3.00	....
2N2641	MOT	7.20	4.80	....
2N2641	TI	6.00	4.00	....
2N2642	HUG	24.00	16.00	....
2N2642	MOT	25.00	17.00	....
2N2642	TI	25.00	16.70	....
2N2642/TIX-616	TI	26.25	17.50	....
2N2643	HUG	12.00	8.00	....
2N2643	MOT	22.20	14.80	....
2N2644	HUG	5.00	3.50	....
2N2644	MOT	8.25	5.50	....

Type No.	Mfg.	1-99	100-999	1000-4999
2N2646	GE	1.05	.70	.60

Type No.	Mfg.	1-99	100-999	1000-Up
2N2646	MOT	1.05	.70	....
2N2647	MOT	3.00	2.00	....
2N2657	HUG	26.00	17.35	....
2N2658	HUG	32.40	21.60	....
2N2659	TI	1.80	1.20	....
2N2660	TI	2.33	1.55	....
2N2661	TI	2.85	1.90	....
2N2662	TI	1.95	1.30	....
2N2665	TI	2.40	1.60	....
2N2693	TI	7.75	5.50	....
2N2695	TI	8.00	5.75	....
2N2696	TI	7.50	5.00	....
2N2697	HUG	34.00	22.75	....
2N2698	HUG	40.50	27.00	....
2N2708	RCA	2.31	1.68	1.40
2N2708/JAN	MOT	5.15	3.42	....
2N2710/JAN	MOT	7.50	5.00	....
2N2711	SPR	.45	.30	.20
2N2711/16A-1	GE	.29	.20	.17
2N2712	SPR	.48	.32	.22
2N2712/16A-2	GE	.34	.23	.19

Type No.	Mfg.	1-99	100-999	1000-4999
2N2712/16A2	GE	.48	.32	.22

Type No.	Mfg.	1-99	100-999	1000-Up
2N2713	SPR	.51	.34	.23

Type No.	Mfg.	1-99	100-999	1000-4999
2N2713/16B1	GE	.51	.34	.23

Type No.	Mfg.	1-99	100-999	1000-Up
2N2714	SPR	.53	.35	.24
2N2714/16B-2	GE	.41	.27	.23
2N2722	HUG	15.00	10.00	....
2N2723	HUG	14.40	9.60	....
2N2724	HUG	15.00	10.00	....
2N2725	HUG	18.00	12.00	....
2N2726	GE	5.40	3.60	3.24
2N2727	GE	5.60	3.75	3.37
2N2728	MOT	11.25	7.50	....
2N2730	HUG	23.50	15.65	....
2N2731	HUG	17.50	11.65	....
2N2732	HUG	11.25	7.50	....
2N2733	HUG	23.00	15.35	....
2N2734	HUG	17.00	11.35	....
2N2735	HUG	10.75	7.20	....

Type No.	Mfg.	1-24	25-99	100-Up
2N2739/109VA	WES	43.50	36.60	....
2N2740/109VB	WES	53.80	45.10	....
2N2741/109VC	WES	69.30	58.40	....
2N2745/109WA	WES	56.70	46.80	....
2N2746/109WB	WES	73.80	61.20	....
2N2747/109WC	WES	94.50	78.30	....
2N2748	WES	120.60	100.80	....
2N2751/109XA	WES	63.00	53.10	....
2N2752/109XB	WES	81.70	68.40	....
2N2753/109XC	WES	103.50	88.20	....
2N2754	WES	132.30	111.60	....
2N2757	WES	51.30	43.20	....
2N2758	WES	66.60	55.80	....
2N2759	WES	85.50	72.00	....
2N2760	WES	109.90	91.80	....
2N2761	WES	142.20	117.00	....
2N2763	WES	56.70	46.80	....
2N2764	WES	73.80	61.20	....
2N2765	WES	94.50	78.30	....
2N2766	WES	120.00	100.80	....
2N2769	WES	63.00	53.10	....
2N2770	WES	81.70	68.40	....
2N2771	WES	103.50	88.20	....
2N2772	WES	104.50	87.30	....
2N2775	WES	69.30	58.50	....
2N2776	WES	89.10	75.30	....
2N2777	WES	114.00	97.10	....
2N2778	WES	145.60	122.85	....

Type No.	Mfg.	1-99	100-999	1000-Up
2N2800	MOT	6.75	4.50	....
2N2801	MOT	7.10	4.75	....
2N2802	MOT	20.00	13.40	....
2N2802/TI619	TI	39.50	26.30	....
2N2803	MOT	12.00	8.50	....
2N2803/TI620	TI	24.00	16.00	....
2N2804	MOT	7.00	4.70	....
2N2805	MOT	20.50	13.60	....
2N2806	MOT	17.25	11.50	....
2N2807	MOT	6.00	4.00	....
2N2807/TI624	TI	6.00	4.00	....
2N2811	HUG	NET	38.00	....
2N2812	HUG	NET	48.00	....
2N2813	HUG	75.00	50.00	....
2N2814	HUG	90.00	60.00	....
2N2832	MOT	4.50	3.00	....
2N2833	MOT	4.85	3.25	....
2N2834	MOT	9.00	6.00	....
2N2834	MOT	5.25	3.50	....
2N2838	MOT	7.10	4.75	....
2N2840	GE	6.35	4.25	....
2N2845	MOT	4.95	3.30	....
2N2846	MOT	4.95	3.30	....
2N2847	MOT	5.10	3.40	....
2N2848	MOT	5.10	3.40	....
2N2848	SPR	5.85	3.90	....
2N2857	MOT	4.46	3.24	....
2N2857	RCA	4.46	3.24	2.70
2N2861	TI	8.50	5.65	....
2N2862	TI	6.00	4.00	....
2N2863	TI	1.50	1.00	....
2N2865	TI	3.45	2.30	....
2N2869/2N301	RCA	1.52	1.11	.92
2N2870/2N301A	RCA	3.15	2.29	1.91
2N2876	RCA	12.75	10.55	8.80
2N2876	TI	14.50	10.05	....
2N2877	HUG	32.40	21.60	....
2N2878	HUG	40.50	27.00	....
2N2879	HUG	40.50	27.00	....
2N2880	HUG	48.60	32.40	....
2N2894	MOT	1.95	1.30	....
2N2894	TI	1.95	1.30	....
2N2895	RCA	1.41	1.02	.85
2N2896	RCA	2.06	1.50	1.25
2N2897	RCA	1.16	.94	.70
2N2903	MOT	15.00	10.00	....
2N2904/JAN	MOT	2.85	1.90	....
2N2904	MOT	1.90	1.65	1.45
2N2904/JAN	TI	8.25	5.50	....
2N2904	TI	1.90	1.65	....
2N2904/JAN	TI	2.85	1.90	....
2N2904-ML1	MOT	2.65	1.75	....
2N2904-ML2	MOT	3.25	2.15	....
2N2904-ML3	MOT	4.00	2.65	....
2N2904A	MOT	5.60	3.75	....
2N2904A	TI	10.50	7.00	....
2N2904/JAN	TI	8.25	5.50	....
2N2904A/JAN	TI	5.60	3.75	....
2N2904A-ML1	MOT	5.00	3.35	....
2N2904A-ML2	MOT	5.60	3.75	....
2N2904A-ML3	MOT	6.40	4.25	....
2N2904AML1	MOT	10.65	7.10	....

Type No.	Mfg.	1-99	100-999	1000-Up
2N2904AML2	MOT	11.25	7.50	
2N2904AML3	MOT	12.00	8.00	
2N2904ML1	MOT	7.65	5.10	
2N2904ML2	MOT	8.25	5.50	
2N2904ML3	MOT	9.00	6.00	
2N2905	MOT	1.90	1.65	1.45
2N2905	TI	1.90	1.65	
2N2905/JAN	MOT	2.85	1.90	
2N2905-ML1	MOT	2.65	1.75	
2N2905-ML2	MOT	3.25	2.15	
2N2905-ML3	MOT	4.00	2.65	
2N2905A/JAN	MOT	6.40	4.25	
2N2905A	MOT	6.40	4.25	
2N2905A	TI	12.00	8.00	
2N2905A/JAN	TI	6.40	4.25	
2N2905A-ML1	MOT	5.70	3.80	
2N2905A-ML2	MOT	6.40	4.25	
2N2905A-ML3	MOT	7.10	4.75	
2N2905AML1	MOT	12.15	8.10	
2N2905AML2	MOT	12.75	8.50	
2N2905AML3	MOT	13.50	9.00	
2N2905ML1	MOT	9.15	6.10	
2N2905ML2	MOT	9.75	6.50	
2N2905ML3	MOT	10.50	7.00	
2N2906	MOT	1.90	1.65	1.45
2N2906	TI	1.90	1.65	
2N2906/JAN	MOT	2.85	1.90	
2N2906/JAN	TI	2.85	1.90	
2N2906/USA	MOT	2.85	1.90	
2N2906-ML1	MOT	2.65	1.75	
2N2906-ML2	MOT	3.25	2.15	
2N2906-ML3	MOT	4.00	2.65	
2N2906A	MOT	5.40	3.60	
2N2906A	TI	10.05	6.70	
2N2906/JAN	TI	7.95	5.30	
2N2906A/JAN	TI	10.80	7.20	
2N2906A-ML1	MOT	4.80	3.20	
2N2906A-ML2	MOT	5.40	3.60	
2N2906A-ML3	MOT	6.15	4.10	
2N2906AML1	MOT	10.20	6.80	
2N2906AML2	MOT	10.80	7.20	
2N2906AML3	MOT	11.55	7.70	
2N2906ML1	MOT	7.35	4.90	
2N2906ML2	MOT	7.95	5.30	
2N2906ML3	MOT	8.70	5.80	
2N2907	MOT	1.90	1.65	1.45
2N2907	SYL	2.85	1.90	
2N2907	TI	2.85	1.90	
2N2907/JAN	MOT	2.85	1.90	
2N2907-ML1	MOT	2.65	1.75	
2N2907-ML2	MOT	3.25	2.15	
2N2907-ML3	MOT	4.00	2.65	
2N2907A	TI	11.55	7.70	
2N2907A/JAN	MOT	6.15	4.10	
2N2907A/JAN	TI	6.15	4.10	
2N2907A-ML1	MOT	5.55	3.70	
2N2907A-ML2	MOT	6.15	4.10	
2N2907A-ML3	MOT	6.90	4.60	
2N2907AML1	MOT	11.70	7.80	
2N2907AML2	MOT	12.30	8.20	
2N2907AML3	MOT	13.05	8.70	
2N2907ML1	MOT	8.85	5.90	
2N2907ML2	MOT	9.45	6.30	
2N2907ML3	MOT	10.20	6.80	
2N2910	GE	12.75	9.35	
2N2912	MOT	8.10	5.40	
2N2913	HUG	4.50	3.00	
2N2913	TI	3.10	2.10	
2N2914	HUG	3.50	2.30	
2N2914	TI	3.50	2.30	
2N2915	MOT	10.50	7.00	
2N2915	TI	10.10	6.75	
2N2916	MOT	12.00	8.00	
2N2916	TI	12.00	8.05	
2N2917	MOT	7.50	5.00	
2N2917	TI	7.50	5.00	
2N2918	MOT	9.75	6.50	
2N2918	TI	9.75	6.50	
2N2919	MOT	11.25	7.50	
2N2919	TI	11.00	7.35	
2N2920	MOT	14.25	9.50	
2N2920	TI	14.00	9.40	
2N2923	GE	.32	.21	.18
2N2923	SPR	.48	.32	.22
2N2924	GE	.34	.23	.19
2N2924	SPR	.53	.35	.24
2N2925	GE	.41	.27	.23
2N2925	SPR	.60	.40	.29
2N2926	GE	.29	.20	.17
2N2926	GE	11.25	7.50	5.00
2N2926	SPR	.45	.30	.20
2N2929	MOT	6.75	4.50	
2N2944	TI	5.50	3.68	
2N2944A	TI	6.30	4.20	
2N2945	TI	5.00	3.35	
2N2946	TI	5.75	3.85	
2N2948	MOT	20.25	13.50	
2N2949	MOT	10.50	7.00	
2N2950/MM801	MOT	11.25	7.50	
2N2951	MOT	4.50	3.00	
2N2952	MOT	4.95	3.30	
2N2956	MOT	2.63	1.75	
2N2957	MOT	3.37	2.25	
2N2958	MOT	2.25	1.50	
2N2959	MOT	2.70	1.80	
2N2972	MOT	11.60	7.75	
2N2973	MOT	14.55	9.70	
2N2977	MOT	25.50	17.00	
2N2979	MOT	32.25	21.50	
2N2989	TI	10.20	6.75	
2N2990	TI	13.10	8.75	
2N2993	TI	10.90	7.25	
2N2996/TIX316	TI	1.40	.99	
2N2997	TI	3.38	2.25	
2N3001	TI	3.63	2.42	
2N3002	TI	3.90	2.60	
2N3004	TI	9.08	6.05	
2N3005	TI	3.30	2.20	
2N3009	MOT	1.98	1.32	
2N3009	TI	1.98	1.32	
2N3010	TI	1.09	1.27	
2N3011	TI	1.98	1.32	
2N3012	TI	1.95	1.30	
2N3013	MOT	7.00	4.69	
2N3013	TI	7.00	4.69	
2N3013/JAN	TI	8.05	5.36	
2N3014	MOT	3.60	2.40	
2N3014	TI	3.60	2.40	
2N3015	MOT	1.93	1.29	
2N3015	TI	3.50	2.00	
2N3019	MOT	6.00	4.00	
2N3020	MOT	5.70	3.80	
2N3034/TI611	TI	14.50	9.67	
2N3035/TI610	TI	12.50	8.30	
2N3036	TI	5.50	3.70	
2N3039/TIX804	TI	22.50	15.00	
2N3043	MOT	39.00	26.00	

Type No.	Mfg.	1-24	25-99	100-999
2N3043/TIX806	TI	39.00	31.20	26.00

Type No.	Mfg.	1-99	100-999	1000-Up
2N3044	MOT	33.00	22.00	
2N3045	MOT	14.25	9.50	
2N3046	MOT	36.00	24.00	
2N3047	MOT	30.00	20.00	
2N3048	MOT	12.75	8.50	
2N3049	MOT	34.50	23.00	
2N3050	MOT	24.00	16.00	

Type No.	Mfg.	1-24	25-99	100-999
2N3050/TIX813	TI	43.40	34.75	29.00

Type No.	Mfg.	1-99	100-999	1000-Up
2N3053	MOT	1.09	.73	
2N3053/40053	RCA	.75	.54	.45
2N3054	RCA	1.16	.84	.70
2N3055	BEN	2.06	1.45	
2N3055	HUG	2.45	1.70	
2N3055	MOT	2.05	1.45	
2N3055	RCA	1.82	1.32	1.10
2N3055	WES	2.48	1.71	
2N3114	MOT	6.00	4.00	
2N3114	TI	6.00	4.00	
2N3115	MOT	1.95	1.30	
2N3116	MOT	2.40	1.60	
2N3117	TI	6.00	4.00	
2N3118	RCA	4.95	3.60	3.00
2N3119	RCA	5.36	3.90	3.25
2N3127	MOT	5.10	3.40	
2N3133	MOT	4.95	3.30	
2N3134	MOT	5.85	3.90	
2N3135	MOT	4.95	3.30	
2N3136	MOT	5.85	3.90	
2N3137	MOT	11.10	7.40	
2N3146	TI	5.25	3.50	
2N3149	HUG	320.00	240.00	
2N3150	HUG	360.00	270.00	
2N3151	HUG	400.00	340.00	
2N3210	MOT	.83	.55	
2N3211	MOT	1.27	.85	
2N3223	GE	19.85	13.25	
2N3227	MOT	2.40	1.60	
2N3228	RCA	1.62	1.18	.98
2N3232	BEN	2.06	1.43	
2N3232	MOT	3.75	2.50	
2N3232	WES	1.49	1.03	
2N3233	WES	1.82	1.25	
2N3235	MOT	3.75	2.50	
2N3235	WES	2.48	1.71	
2N3236	WES	4.13	2.85	
2N3237	WES	4.37	3.02	
2N3238	WES	3.96	2.74	
2N3239	WES	4.21	2.91	
2N3241A	RCA	.73	.53	.44
2N3242A	RCA	.83	.60	.50
2N3244	MOT	15.75	10.50	
2N3245	MOT	15.75	10.50	
2N3248	MOT	3.90	2.60	
2N3249	MOT	4.65	3.10	
2N3250	MOT	3.90	2.60	
2N3250A	MOT	4.50	3.00	
2N3250A/JAN	MOT	5.25	3.50	
2N3250AML1	MOT	4.65	3.10	
2N3250AML2	MOT	5.25	3.50	
2N3250AML3	MOT	6.00	4.00	
2N3250ML1	MOT	4.05	2.70	
2N3250ML2	MOT	4.65	3.10	
2N3250ML3	MOT	5.40	3.60	
2N3251	MOT	4.65	3.10	
2N3251A	MOT	5.25	3.50	
2N3251A/JAN	MOT	6.00	4.00	
2N3251A/JAN	TI	6.00	4.00	
2N3251AML1	MOT	5.40	3.60	
2N3251AML2	MOT	6.00	4.00	
2N3251AML3	MOT	6.75	4.50	
2N3251ML1	MOT	4.80	3.20	
2N3251ML2	MOT	5.40	3.60	
2N3251ML3	MOT	6.15	4.10	
2N3252	MOT	9.75	6.50	
2N3253	MOT	9.75	6.50	
2N3253/JAN	MOT	10.50	7.00	
2N3279/MM1151	MOT	4.50	3.00	
2N3280/MM1152	MOT	4.10	2.75	
2N3282/MM1154	MOT	2.15	1.45	
2N3283	MOT	1.50	1.00	
2N3284	MOT	1.42	.95	
2N3285	MOT	1.12	.75	
2N3286	MOT	.97	.65	
2N3287	MOT	7.50	5.00	
2N3291	MOT	2.25	1.50	
2N3292	MOT	2.10	1.40	
2N3293	MOT	1.80	1.20	
2N3294	MOT	1.65	1.10	
2N3298	MOT	2.40	1.60	
2N3299	MOT	.75	.50	
2N3300	MOT	1.05	.50	
2N3301	MOT	.75	.50	
2N3302	MOT	1.05	.70	
2N3303	MOT	13.50	9.00	
2N3303	TI	13.50	9.00	
2N3304	MOT	4.50	3.00	
2N3307	MOT	10.50	7.00	
2N3309A	MOT	5.25	3.50	
2N3311	MOT	2.70	1.80	
2N3312	MOT	3.30	2.20	
2N3313	MOT	4.20	2.80	
2N3314	MOT	3.15	2.10	
2N3315	MOT	3.90	2.60	
2N3316	MOT	5.25	3.50	
2N3320	SPR	3.50	2.60	
2N3323	MOT	.90	.60	
2N3324	MOT	.82	.55	
2N3325	MOT	.75	.50	
2N3328	TI	10.50	7.00	
2N3330	TI	5.50	3.70	
2N3331	TI	6.50	4.30	
2N3332	TI	12.00	8.05	
2N3340	HUG	7.20	4.80	

Type No.	Mfg.	1-99	100-999	1000-4999
2N43	GE	4.13	2.75	2.48
2N43A	GE	4.13	2.75	2.48

Type No.	Mfg.	1-99	100-999	1000-Up
2N43A/JAN	GE	5.00	3.33	3.00
2N44	GE	2.93	1.95	1.75
2N44A/JAN	GE	4.67	3.11	2.80
2N78	GE	2.49	1.66	1.50
2N78A/JAN	GE	3.15	2.11	1.90
2N104	RCA	1.65	1.20	1.00
2N107	GE	NET	.75	
2N109	RCA	.66	.48	.40
2N117	TI	8.15	5.45	
2N117/JAN	TI	8.45	5.65	

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Type No.	Mfg.	1-99	100-999	1000-Up
2N117/USN	TI	8.45	5.65	
2N119/JAN	TI	9.15	6.35	
2N119/JAN	TI	11.45	7.55	
2N119/USN	TI	11.45	7.55	
2N123/USAF	GE	4.50	2.70	2.70
2N128/JAN	SPR	6.65	4.90	
2N140	RCA	1.24	.90	.75
2N167	GE	5.16	3.44	
2N167A/JAN	GE	5.67	3.78	
2N169	GE	1.59	1.06	
2N169A	GE	2.42	1.61	
2N173	MOT	3.40	2.50	
2N174	MOT	3.60	2.67	
2N174A	MOT	3.80	2.79	
2N174A/JAN	MOT	4.30	3.18	
2N175	RCA	1.63	1.19	.99
2N176	MOT	1.20	.87	
2N176	RCA	1.31	.95	.79
2N178	MOT	1.10	.80	.79
2N188A	GE	1.65	1.10	.99
2N191	GE	.90	.60	.50
2N192	GE	1.59	1.06	.95
2N215	RCA	1.73	1.26	1.05
2N216	SYL	1.24	.83	
2N217	RCA	.57	.41	.34
2N220	RCA	1.52	1.10	.92
2N220/JAN	RCA	2.06	1.50	1.25
2N229	GE	.50	.33	
2N231	SPR	1.15	.85	
2N234A	BEN	1.13	.75	
2N235A	BEN	1.00	.90	
2N235B	BEN	1.70	1.05	
2N241A	GE	.98	.65	.55
2N242	MOT	1.65	1.10	.55
2N250	TI	1.90	1.25	
2N250A	TI	1.73	1.15	
2N251	TI	2.25	1.50	
2N251A	TI	1.88	1.25	
2N255	BEN	.75	.50	
2N256	BEN	.95	.70	
2N256A	BEN	1.15	.78	
2N270	RCA	.76	.55	.46
2N277	MOT	2.25	1.66	
2N278	MOT	2.80	2.07	
2N279A/JAN	MOT	2.40	1.78	
2N285A	BEN	3.45	2.30	
2N297A	BEN	2.40	1.78	
2N297A	MOT	1.60	1.17	
2N297A/JAN	MOT	2.40	1.78	
2N301	BEN	1.26	.84	
2N301/2N2869	RCA	1.52	1.11	.92
2N301A	BEN	2.82	2.10	
2N301A/2N2870	RCA	3.15	2.29	1.91
2N307	BEN	1.49	1.03	
2N307	MOT	1.12	.75	
2N307A	MOT	1.87	1.25	
2N307A	MOT	1.87	1.25	
2N319	GE	.44	.29	.26
2N319	MOT	.53	.35	
2N320	GE	.59	.39	.35
2N320	MOT	.75	.50	
2N321	GE	.65	.43	.39
2N321	MOT	.83	.55	

Type No.	Mfg.	1-99	100-999	1000-Up
2N322	GE	.42	.28	.25
2N322	MOT	.53	.35	
2N323	GE	.59	.39	.35
2N323	MOT	.75	.50	
2N324	MOT	.75	.50	
2N327A	HUG	2.25	1.49	
2N327A	TI	2.00	1.25	
2N328A	HUG	3.00	2.00	
2N328A	TI	3.00	2.00	
2N328A/JAN	HUG	4.95	3.27	
2N329A	HUG	4.50	3.00	
2N329A	TI	4.50	3.00	
2N329A/JAN	HUG	6.50	4.88	
2N331	MOT	1.88	1.25	
2N331/JAN	MOT	2.25	1.50	
2N332	GE	4.65	3.10	
2N332	TI	4.65	3.10	
2N332/USN	TI	4.95	3.30	
2N332A	TI	4.90	3.30	
2N333	TI	4.65	3.10	
2N333/JAN	GE	4.95	3.30	1.19
2N333/JAN	TI	4.95	3.30	
2N333A	TI	4.90	3.30	
2N334	TI	4.65	3.10	
2N334/USN	TI	4.95	3.30	
2N335	GE	4.95	3.30	.90
2N335	TI	4.90	3.30	
2N335/JAN	GE	5.25	3.50	1.20
2N335/JAN	TI	5.25	3.50	
2N335/USN	TI	5.25	3.50	
2N335A	GE	5.25	3.50	1.20
2N335A	TI	5.20	3.50	
2N336	GE	6.00	4.00	.90
2N336	TI	5.95	3.95	
2N336/JAN	GE	6.30	4.20	1.30
2N336/JAN	TI	6.30	4.20	
2N336A	GE	6.30	4.20	1.30
2N336A	TI	6.25	4.20	
2N337	TI	4.85	3.20	
2N337/JAN	GE	5.15	3.40	1.20
2N337/JAN	TI	5.15	3.40	
2N337/USN	TI	5.15	3.40	
2N338	GE	5.50	3.65	1.05
2N338	TI	5.50	3.65	
2N338/JAN	GE	5.80	3.85	1.40
2N338/JAN	TI	5.80	3.85	
2N338/USN	GE	5.80	3.85	1.40
2N338/USN	TI	5.80	3.85	
2N338A	GE	5.80	3.85	2.00
2N339	TI	8.12	6.08	
2N340	TI	8.64	6.48	
2N341/JAN	TI	14.00	10.49	
2N342/JAN	TI	11.64	8.69	
2N343	TI	14.72	11.03	
2N343/JAN	TI	15.52	11.93	
2N344	SPR	3.45	2.50	
2N345	SPR	4.35	3.15	
2N346	SPR	5.85	4.25	
2N350A	MOT	1.65	1.10	
2N351A	MOT	1.70	1.15	
2N358A/JAN	TI	3.92	2.62	
2N370	RCA	1.08	.78	.65
2N371	RCA	.80	.55	
2N372	RCA	1.06	.77	.64
2N375/MN-75	MOT	2.20	1.65	
2N376A	MOT	1.85	1.25	
2N378	MOT	1.80	1.20	
2N379	MOT	1.90	1.39	
2N380	BEN	1.70	1.26	
2N380	MOT	1.70	1.26	
2N381	MOT	1.28	.85	
2N382	MOT	1.73	1.15	
2N383	MOT	2.18	1.45	
2N384/JAN	RCA	3.30	2.40	2.00
2N388	RCA	.47	.34	.28
2N388	TI	.50	.35	
2N388/JAN	RCA	.61	.42	.39
2N388A	RCA	.88	.64	.53
2N388A	TI	1.03	.69	
2N393	SPR	4.35	3.15	
2N395	TI	.50	.33	

Type No.	Mfg.	1-99	100-999	1000-4999
2N396	GE	.62	.41	.37

Type No.	Mfg.	1-99	100-Mix	100-999
2N396	TI	.61	.41	

Type No.	Mfg.	1-99	100-999	1000-4999
2N396A	GE	.62	.41	.37

Type No.	Mfg.	1-99	100-Mix	100-999
2N396A/JAN	GE	.74		.49
2N398	MOT	1.20	.80	
2N398	RCA	.83	.60	.50
2N398	TI	.90	.60	
2N398/JAN	RCA	1.27	.88	
2N398/JAN	MOT	1.35	1.90	
2N398/USN	MOT	1.47	.98	
2N398A	MOT	1.28	.85	
2N398A	RCA	.91	.66	.55
2N398A	TI	.98	.65	
2N398A/JAN	MOT	1.35	.90	
2N398B	RCA	1.16	.84	.70
2N398B	MOT	1.23	.82	

Type No.	Mfg.	1-99	100-999	1000-4999
2N404	GE	.42	.28	.24

Type No.	Mfg.	1-99	100-999	1000-Up
2N404	RCA	.42	.30	.25
2N404	TI	.42	.28	
2N404/JAN	RCA	.43	.32	.26
2N404/JAN	TI	.43	.30	

Type No.	Mfg.	1-99	100-999	1000-4999
2N404A	GE	.58	.39	.31

Type No.	Mfg.	1-99	100-999	1000-Up
2N404A	RCA	.55	.40	.33
2N404A	TI	.58	.39	
2N404A/JAN	RCA	.48	.35	.28
2N405	TI	.62	.45	
2N406	RCA	.41	.30	.24
2N407	RCA	.54	.39	.32
2N408	RCA	.48	.35	.28
2N410	RCA	.48	.35	.29
2N411	RCA	.60	.44	.36
2N412	RCA	.53	.39	.32

Type No.	Mfg.	1-99	100-999	1000-4999
2N414	GE	.42	.29	.24

Type No.	Mfg.	1-99	100-999	1000-Up
2N414	RCA	.42	.30	.25
2N416/USA	TI	1.09	.73	
2N417/USA	TI	1.27	.85	
2N427	TI	.92	.61	
2N427/JAN	TI	1.34	.89	
2N427/USA	TI	1.34	.89	
2N428	TI	1.23	.82	
2N428M/JAN	TI	1.98	.99	
2N441	MOT	1.26	.84	
2N442	MOT	1.66	1.11	
2N443	MOT	1.90	1.39	
2N456	BEN	1.80	1.20	
2N456A	BEN	1.80	1.20	
2N456A	MOT	1.80	1.20	
2N456A	TI	1.80	1.20	
2N456B	BEN	1.80	1.20	
2N456B	TI	1.80	1.20	
2N457	BEN	2.18	1.45	
2N457A	MOT	2.20	1.45	
2N457A	TI	2.18	1.45	
2N458A	MOT	2.65	1.75	
2N458A	TI	2.63	1.75	
2N458B	TI	2.63	1.75	
2N459	MOT	4.35	2.90	
2N459A	MOT	4.65	3.10	
2N460	MOT	2.25	1.50	
2N461	MOT	2.25	1.50	
2N461/JAN	GE	1.92	1.28	
2N461/JAN	MOT	2.85	1.90	
2N464	MOT	1.88	1.25	
2N465	MOT	1.88	1.25	
2N465/JAN	MOT	2.25	1.50	
2N466	MOT	2.10	1.40	
2N466/JAN	MOT	2.40	1.60	
2N467	MOT	2.55	1.70	
2N467/JAN	MOT	2.70	1.80	
2N467/USA	MOT	2.70	1.80	
2N478	GE	3.60	2.40	
2N489	GE	7.10	4.75	4.30
2N489	TI	7.10	4.75	
2N489/USAF	TI	7.80	5.20	
2N489A/JAN	GE	7.80	5.20	
2N489A/JAN	TI	7.80	5.20	
2N490	GE	7.80	5.20	4.70
2N490	TI	7.80	5.20	
2N490/USAF	TI	8.55	5.70	
2N490A/JAN	GE	8.55	5.70	5.10
2N490A/JAN	TI	8.55	5.70	

Type No.	Mfg.	1-99	100-999	1000-Up
2N491	GE	8.40	5.60	5.05
2N491	TI	8.40	5.60	
2N491/USAF	TI	9.15	6.10	
2N491A	GE	8.90	5.95	5.35
2N491A/JAN	GE	9.15	6.10	5.45
2N491A/JAN	TI	G.15	6.10	
2N491B	GE	10.40	6.95	6.25
2N492	GE	9.90	6.60	5.95
2N492	TI	9.80	6.55	
2N492/USAF	TI	10.55	7.05	
2N492A/JAN	GE	10.55	7.05	6.35
2N492A/JAN	TI	9.95	7.05	
2N492B	GE	11.90	7.95	7.15
2N493/USAF	TI	11.40	7.60	
2N493A/JAN	GE	11.40	7.60	6.85
2N493A/JAN	TI	11.40	7.60	
2N494	GE	10.90	7.30	6.55
2N494	TI	10.90	7.30	
2N494/USAF	TI	11.60	7.70	
2N494A/JAN	GE	11.60	7.70	6.95
2N494A/JAN	TI	11.60	7.70	
2N494C	GE	14.95	9.95	8.95
2N494C	TI	14.95	9.90	
2N497/JAN	GE	1.96	1.31	1.11
2N498	TI	2.12	1.41	
2N498/JAN	GE	2.18	1.46	1.24
2N499	SPR	3.95	2.90	
2N501	SPR	6.35	4.65	
2N502	SPR	2.90	2.15	
2N502A	SPR	3.45	2.50	
2N502A/JAN	MOT	4.10	2.75	
2N502B/JAN	MOT	4.55	3.05	

Type No.	Mfg.	1-99	100-999	1000-4999
2N508	GE	.69	.46	.39

Type No.	Mfg.	1-99	100-999	1000-Up
2N508	MOT	.75	.50	

Type No.	Mfg.	1-99	100-999	1000-4999
2N508A	GE	.81	.54	.44

Type No.	Mfg.	1-99	100-999	1000-Up
2N511	TI	4.05	2.70	
2N511A	TI	4.73	3.15	
2N512	TI	4.73	3.15	
2N513B	TI	8.70	5.80	
2N517	SYL	1.67	1.11	

Type No.	Mfg.	1-99	100-999	1000-4999
2N524	GE	.59	.39	.35

Type No.	Mfg.	1-99	100-Mix	100-999
2N524	MOT	1.20		.80
2N524A	MOT	1.95		1.30

Type No.	Mfg.	1-99	100-999	1000-Up
2N525	GE	.80	.53	.48
2N525	MOT	1.20	.80	
2N525A	MOT	1.95	1.30	

Type No.	Mfg.	1-99	100-999	1000-4999
2N526	GE	1.00	.67	.59

Type No.	Mfg.	1-99	100-999	1000-Up
2N526	MOT	1.20	.80	
2N526/JAN	MOT	1.26	.84	
2N526/JAN	MOT	1.10	.73	

Type No.	Mfg.	1-99	100-999	1000-4999
2N527	GE	1.00	.67	.60

Type No.	Mfg.	1-99	100-999	1000-Up
2N527	MOT	1.43	.93	
2N538	HUG	5.40	3.60	

Type No.	Mfg.	1-99	100-999	1000-Up
2N538A	HUG	5.70	3.80	
2N539	HUG	7.35	4.90	
2N539A	HUG	7.65	5.10	
2N539AM/JAN	HUG	8.25	5.50	
2N539M/JAN	HUG	7.95	5.30	
2N540	HUG	7.80	5.20	
2N542	TI	6.30	4.20	
2N553	BEN	3.25	2.23	
2N554	BEN	.90	.67	
2N555	BEN	1.13	.75	

Type No.	Mfg.	1-99	100-999	1000-Up
2N555/JAN	BEN	7.65	5.10	
2N555/MN/29	MOT	.75	.50	
2N557/JAN	BEN	3.95	2.65	
2N559/JAN	BEN	7.75	5.15	
2N559/JAN	MOT	5.75	3.85	
2N574	HUG	13.50	9.00	
2N574A	HUG	16.20	10.80	
2N574/USA	HUG	15.75	10.50	
2N575	HUG	16.90	11.25	
2N575A	HUG	20.25	13.50	
2N575/USA	HUG	19.15	12.75	
2N575A/USA	HUG	22.50	15.00	
2N585	RCA	.99	.72	.60
2N586	RCA	1.73	1.26	1.05
2N588	SPR	1.45	1.05	
2N591	RCA	.58	.42	.35
2N595	TI	4.25	2.83	
2N596	TI	5.65	3.77	
2N618/MN-49	MOT	2.45	1.82	
2N627	MOT	2.85	1.90	
2N628	MOT	3.35	2.25	
2N629	MOT	5.30	3.55	
2N630	MOT	6.05	4.05	
2N647	RCA	1.08	.78	.65
2N649	RCA	.88	.63	.52
2N650	MOT	2.03	1.35	
2N650A	TI	1.69	1.13	
2N650A/JAN	MOT	4.35	2.90	
2N650A/USN	MOT	4.35	2.90	
2N651	MOT	2.13	1.35	
2N651A	TI	1.69	1.13	
2N651A/JAN	MOT	3.50	2.35	
2N652	MOT	2.30	1.55	
2N652A	MOT	2.80	1.85	
2N652A	TI	2.25	1.50	
2N652A/JAN	MOT	4.20	2.80	
2N652A/USN	MOT	4.20	2.80	
2N653	MOT	2.50	1.65	
2N654	MOT	2.60	1.75	
2N655	MOT	2.80	1.85	
2N656	GE	2.03	1.35	1.15
2N656	MOT	2.03	1.35	
2N656/JAN	GE	2.10	1.40	1.19
2N657	GE	2.20	1.47	1.25
2N657	MOT	2.20	1.47	
2N657/JAN	GE	2.28	1.52	1.29
2N657/JAN	MOT	8.65	5.75	
2N657/JAN	TI	2.28	1.52	
2N657A	GE	2.92	1.92	1.65
2N665	MOT	4.40	2.95	
2N665/JAN	MOT	8.90	6.60	
2N669	MOT	1.42	.95	
2N677	BEN	3.00	2.00	
2N677A	BEN	3.60	2.40	
2N677B	BEN	7.13	4.75	
2N678B	BEN	10.50	7.00	
2N681	GE	3.00	2.00	
2N681	WES	3.00	2.00	
2N682	MOT	4.10	2.75	
2N682	WES	3.60	2.40	
2N682/16RC5A	INT	3.60	2.40	
2N682/JAN	GE	5.25	3.50	
2N683	GE	4.72	3.15	
2N683	MOT	5.60	3.75	
2N683	WES	4.73	3.15	
2N683/16RC10A	INT	4.72	3.15	
2N683/JAN	GE	6.37	4.25	
2N683/USN	GE	6.37	4.25	
2N684	GE	5.47	3.65	
2N684	WES	5.48	3.65	
2N684/16RC15A	INT	5.47	3.65	
2N685	GE	5.92	3.95	
2N685	MOT	6.60	4.40	
2N685	RCA	6.60	4.80	
2N685	TI	6.60	4.40	
2N685	WES	5.93	3.95	
2N685/16RC20A	INT	5.92	3.95	
2N685/JAN	GE	7.57	5.05	
2N685/USN	GE	7.57	5.05	
2N686	GE	6.30	4.20	
2N686	TI	7.01	4.68	
2N686	WES	6.30	4.20	
2N686/16RC25A	INT	6.30	4.20	
2N686/JAN	GE	8.10	5.40	
2N687	GE	6.75	4.50	
2N687	MOT	14.60	9.75	
2N687	RCA	7.43	5.40	4.50
2N687	WES	6.75	4.50	
2N687/16RC30A	INT	6.75	4.50	
2N687/JAN	GE	8.62	5.75	
2N688	GE	8.25	5.50	
2N688	MOT	17.10	11.40	

Type No.	Mfg.	1-99	100-999	1000-Up
2N688	TI	17.10	11.40	
2N688/16RC40A	INT	8.25	5.50	
2N689	GE	10.12	6.75	
2N689	MOT	20.60	13.75	
2N689	WES	10.30	7.50	6.25
2N689	WES	10.12	6.75	
2N689/16RC50A	INT	10.12	6.75	
2N689A	TI	22.60	15.10	
2N690	RCA	10.50	8.70	7.25
2N690	WES	19.27	12.85	
2N690/16RC60A	INT	12.00	8.00	
2N691	WES	23.25	15.50	
2N691/16RC70A	INT	19.27	12.85	
2N692	GE	27.75	18.50	
2N692	WES	27.75	18.50	
2N692/16RC70A	INT	25.00	18.50	
2N696	TI	.52	.46	
2N696/JAN	TI	1.12	.75	
2N696/USA	TI	1.25	.83	

Type No.	Mfg.	1-99	100-999	1000-4999
2N697	MOT	.52	.46	.40

Type No.	Mfg.	1-99	100-999	1000-Up
2N697	RCA	.63	.46	.38
2N697	TI	.52	.46	
2N697/JAN	MOT	1.29	1.29	
2N697/JAN	TI	1.29	.86	
2N697/USN	TI	1.35	.90	
2N698	TI	1.57	1.05	
2N699	MOT	1.32	.88	
2N699	RCA	1.16	.84	.70
2N699	TI	1.32	.88	
2N700	MOT	7.35	4.90	
2N700A/JAN	MOT	14.25	9.50	
2N700A/USN	MOT	14.25	9.50	
2N702	MOT	6.75	4.50	
2N702	TI	6.75	4.50	
2N702/JAN	TI	7.65	5.10	
2N703	MOT	6.75	4.50	
2N703/JAN	MOT	7.85	5.25	
2N703/JAN	TI	7.80	5.25	
2N703/USA	TI	7.80	5.25	
2N705	MOT	1.03	.69	
2N705	TI	1.04	.69	
2N705/JAN	MOT	1.14	.76	
2N705/JAN	TI	1.14	.76	
2N705/USN	MOT	1.14	.76	

Type No.	Mfg.	1-99	100-999	1000-4999
2N706	MOT	.46	.40	.35
2N706	TI	.99	.66	
2N706A	MOT	1.18	.79	
2N706A	TI	1.19	.79	
2N706B	MOT	1.48	.99	
2N706B	TI	1.49	.99	
2N706/JAN	MOT	.58	.50	

Type No.	Mfg.	1-9	10-99	100-999
2N706/JAN	SYL	.91	.91	.61

Type No.	Mfg.	1-99	100-Mix	100-999
2N706/JAN	TI	1.03		.69
2N707	MOT	6.30		4.20

Type No.	Mfg.	1-99	100-999	1000-4999
2N708	MOT	.49	.43	.38

Type No.	Mfg.	1-99	100-999	1000-Up
2N708	TI	.49	.43	
2N709	RCA	1.32	.96	.80
2N709	TI	2.48	1.65	
2N711	MOT	.88	.59	
2N711	TI	.89	.59	
2N711A	MOT	.88	.59	
2N711A	TI	.89	.59	
2N711B	MOT	.94	.63	
2N711B	TI	.94	.63	
2N716	TI	43.10	28.70	
2N717	TI	2.35	1.56	

Type No.	Mfg.	1-99	100-999	1000-4999
2N718	MOT	.46	.40	.35

Type No.	Mfg.	1-99	100-999	1000-Up
2N718	RCA	1.08	.78	.65
2N718	TI	.46	.40	.65

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Type No.	Mfg.	1-99	100-999	1000-4999
2N718A	MOT	.79	.68	.60

Type No.	Mfg.	1-99	100-999	1000-Up
2N718A	TI	.79	.68	
2N718A/JAN	TI	2.43	1.90	
2N718A/USN	TI	4.68	3.12	
2N719	TI	2.35	1.56	
2N719A	TI	2.50	1.67	
2N720A	RCA	1.32	.96	.80
2N720A	TI	1.32	.88	
2N720A	MOT	1.22	3.88	
2N720A/JAN	TI	4.65	3.10	
2N721	MOT	1.46	1.27	
2N721	TI	1.46	1.27	
2N722	MOT	1.46	1.27	
2N722	TI	1.46	1.27	
2N726	TI	3.00	2.00	
2N730	TI	.99	.66	
2N731	MOT	1.30	.86	
2N731	TI	1.30	.86	
2N735	TI	2.50	1.65	
2N735	MOT	2.50	1.65	
2N736	MOT	2.50	1.65	
2N736	TI	2.50	1.65	
2N736A	TI	2.50	1.65	
2N741	MOT	2.18	1.45	
2N741A	MOT	3.30	2.20	
2N743	MOT	6.20	4.15	
2N744	MOT	2.90	1.95	
2N744	TI	1.90	1.25	
2N744/JAN	TI	7.05	4.80	
2N753	TI	.72	.48	
2N759A USA	TI	3.00	2.00	
2N760	TI	1.80	1.20	
2N760A/JAN	TI	3.00	2.00	
2N760A/USA	HUG	3.00	2.00	
2N760A/USA	TI	3.00	2.00	
2N769	SPR	6.75	4.95	
2N779A	SPR	3.50	2.55	
2N797	TI	4.27	2.85	
2N827	MOT	2.50	1.65	
2N828	MOT	3.30	2.20	
2N834	MOT	2.00	1.35	
2N838	MOT	5.40	3.60	
2N840	MOT	3.60	2.45	
2N841	MOT	4.40	2.95	
2N850	TI	7.10	4.75	
2N852/TI423	TI	9.43	6.30	
2N861	SPR	6.00	4.40	
2N863	SPR	4.50	3.30	
2N865	SPR	8.25	6.05	
2N869	MOT	5.85	3.90	
2N869A	MOT	9.00	6.50	
2N870	TI	5.25	3.50	
2N871	TI	5.33	3.56	
2N877	HOF	3.00	2.00	
2N878	HOF	3.30	2.20	
2N886	HOF	9.25	6.20	
2N910	TI	2.37	1.58	
2N910	MOT	2.37	1.58	
2N910/JAN	TI	4.50	3.00	
2N911	MOT	5.55	3.70	
2N911/JAN	TI	6.00	4.00	

Type No.	Mfg.	1-99	100-999	1000-Up
2N912	TI	5.30	4.00	
2N912/JAN	TI	6.00	4.00	
2N914	MOT	.95	.63	
2N914	TI	.93	.63	
2N915	MOT	4.95	3.30	
2N916	MOT	3.65	2.45	
2N916	TI	3.65	2.90	
2N916/JAN	MOT	4.87	3.25	
2N916/JAN	TI	4.87	3.25	
2N917	TI	2.48	1.65	
2N918	MOT	3.30	2.20	
2N918	RCA	1.41	1.02	.85
2N918	TI	3.30	2.20	
2N918/JAN	MOT	6.00	4.00	
2N918/JAN	TI	6.00	4.00	
2N918/USA	TI	6.00	4.00	
2N929	MOT	2.25	1.50	
2N929A	MOT	4.50	3.00	
2N929/JAN	TI	4.35	2.90	
2N929/T1-474	TI	2.25	1.50	
2N929/JAN	HUG	4.98	3.32	
2N929/JAN	MOT	2.60	1.75	
2N929/JAN	TI	4.35	2.90	
2N930	MOT	2.60	1.75	
2N930	TI	2.60	1.75	
2N930A	MOT	5.40	3.60	
2N930/JAN	HUG	5.73	3.82	
2N930/JAN	MOT	4.55	3.05	
2N930/JAN	TI	4.55	3.05	

Type No.	Mfg.	1-99	100-999	1000-4999
2N956	MOT	.85	.74	.65

Type No.	Mfg.	1-99	100-999	1000-Up
2N960	MOT	.96	.64	
2N960	TI	.96	.64	
2N961	TI	.91	.61	
2N962	MOT	.85	.57	
2N962	TI	.86	.57	
2N962/JAN	MOT	1.14	.76	
2N962/JAN	TI	1.14	.76	
2N962/USN	MOT	1.14	.76	

Type No.	Mfg.	1-9	10-99	100-999
2N962/USN	SYL	.93	.93	.62

Type No.	Mfg.	1-99		100-999
2N964	MOT	.99	.66	
2N964	TI	.99	.66	
2N964/JAN	TI	1.27	.85	

Type No.	Mfg.	1-9	10-99	100-999
2N964/USN	SYL	1.65	1.65	1.10

Type No.	Mfg.	1-99	100-999	1000-Up
2N965	TI	.94	.63	
2N966	MOT	.88	.59	
2N966	TI	.89	.59	
2N967	MOT	.87	.58	
2N967	TI	.87	.58	
2N968	MOT	.90	.60	
2N970	MOT	.81	.54	
2N972	MOT	.93	.62	
2N972	TI	.93	.62	
2N973	TI	.89	.59	
2N974	MOT	.83	.55	
2N974	TI	.83	.55	
2N975	TI	.81	.54	
2N976	SPR	4.35	3.20	
2N984	SPR	1.00	.75	
2N985	MOT	2.88	1.92	
2N985/TI898	TI	2.83	1.89	
2N995	MOT	5.85	3.90	
2N995	TI	5.85	3.90	
2N997	GE	14.95	9.95	
2N998	MOT	13.50	9.00	
2N999	MOT	14.85	9.90	
2N1008	MOT	1.10	.75	
2N1008A	MOT	1.20	.80	
2N1008B	MOT	1.30	.85	
2N1008B/JAN	MOT	9.00	6.00	
2N1008B/USA	MOT	9.00	6.00	
2N1011	MOT	1.95	1.45	
2N1011/JAN	MOT	2.65	1.94	
2N1011/USA	MOT	2.65	1.94	
2N1015	WES	15.00	11.50	
2N1015A	WES	19.00	14.25	
2N1015B	WES	24.00	18.00	
2N1015C	WES	32.00	24.00	

Type No.	Mfg.	1-99	100-999	1000-Up
2N1015D	WES	45.00	33.75	
2N1015E	WES	77.00	57.30	
2N1015F	WES	102.50	77.00	
2N1016	WES	16.00	12.00	
2N1016A	WES	20.00	15.00	
2N1016B	WES	26.00	19.50	

Type No.	Mfg.	1-24	25-99	100-Up
2N1016BM/USN	WES	43.70	32.55	
2N1016CM/USN	WES	52.70	43.25	
2N1016DM/USN	WES	77.05	57.50	

Type No.	Mfg.	1-99	100-999	1000-Up
2N1016C	WES	32.00	24.00	
2N1016D	WES	50.00	37.50	
2N1016E	WES	89.00	66.50	
2N1021	MOT	3.10	2.05	
2N1021	TI	3.08	2.05	
2N1021A	BEN	3.08	2.05	
2N1022	MOT	3.60	2.40	
2N1022	TI	3.60	2.40	
2N1022A	TI	3.60	2.40	
2N1025M/JAN	HUG	3.90	3.00	
2N1026M/JAN	HUG	6.50	5.00	
2N1027	SPR	3.00	2.00	
2N1034	HUG	2.70	1.80	
2N1035	SPR	4.05	2.70	
2N1038	TI	2.85	1.90	
2N1038-1/2N2552	TI	3.00	2.00	
2N1039	TI	3.75	2.50	
2N1039/JAN	TI	4.50	3.00	
2N1039/USN	BEN	4.50	3.00	
2N1039-1/2N2553	TI	3.90	2.60	
2N1039-2/2N2557	TI	3.95	2.65	
2N1040	TI	5.70	3.80	
2N1041	TI	7.50	5.00	

Type No.	Mfg.	1-9	10-99	100-999
2N1041/JAN	SYL	8.25	8.25	5.50

Type No.	Mfg.	1-99	100-999	1000-Up
2N1041/JAN	TI	8.25	5.50	
2N1042	TI	4.50	3.00	
2N1042/JAN	TI	3.00	2.00	
2N1042-1/2N2560	TI	4.45	3.95	
2N1042-2/2N2564	TI	4.30	2.80	
2N1043	TI	5.85	3.90	
2N1043/JAN	TI	4.35	2.90	
2N1043-2/2(2565	TI	5.63	3.75	
2N1044/JAN	TI	4.95	3.30	
2N1045/JAN	TI	7.80	5.20	
2N1045-2	BEN	11.25	7.50	
2N1046	TI	8.25	5.50	
2N1046/JAN	TI	8.85	5.90	
2N1046/USN	TI	8.85	5.90	
2N1048	TI	18.10	12.05	
2N1049	TI	16.75	11.15	
2N1049A/JAN	TI	17.50	11.65	
2N1050A/JAN	TI	22.85	14.70	
2N1073	MOT	2.40	1.78	
2N1073A	MOT	3.60	2.67	
2N1073B	MOT	4.50	3.30	
2N1086	GE	1.11	.74	
2N1097	GE	.57	.38	.28
2N1098	GE	.53	.35	.25
2N1099	MOT	3.90	2.87	
2N1100	MOT	4.50	3.34	
2N1120	MOT	8.25	5.50	
2N1120/JAN	MOT	12.75	8.50	
2N1120/USA	MOT	12.75	8.50	
2N1121	GE	1.59	1.06	
2N1121	GE	1.59	1.06	.95
2N1131	HUG	5.00	3.75	
2N1131	MOT	5.60	3.75	
2N1131	TI	1.46	1.27	
2N1131/JAN	MOT	2.30	1.55	
2N1131/JAN	TI	6.00	4.00	
2N1131/USN	MOT	6.00	4.00	
2N1132	HUG	5.85	4.39	
2N1132	MOT	1.46	1.27	1.10
2N1132	TI	1.46	1.27	
2N1132/JAN	MOT	2.30	1.55	
2N1132/JAN	TI	6.00	4.00	
2N1132/USN	MOT	2.30	1.55	
2N1132B	MOT	16.70	11.15	
2N1136	BEN	2.48	1.65	
2N1136A	BEN	3.23	2.15	
2N1136B	BEN	4.50	3.00	
2N1137	BEN	2.85	1.90	

Type No.	Mfg.	1-99	100-999	1000-Up
2N1137A	BEN	3.98	2.65	....
2N1137B	BEN	5.70	3.80	....
2N1138	BEN	3.23	2.15	....
2N1141	MOT	4.83	3.22	....
2N1141	TI	4.73	3.15	....
2N1142	MOT	4.20	2.80	....
2N1142	TI	4.05	2.70	....
2N1142/JAN	MOT	4.61	3.08	....
2N1142/USN	MOT	4.61	3.08	....
2N1142/USN	TI	4.35	2.90	....
2N1142/JAN	TI	4.35	2.90	....
2N1143	MOT	3.50	2.33	....
2N1143	TI	3.34	2.22	....
2N1146	BEN	2.75	1.80	....
2N1146A	BEN	3.10	2.25	....
2N1149/903	TI	8.65	5.75	....
2N1155/952	TI	10.52	7.92	....
2N1156/953	TI	14.12	10.58	....
2N1157	HUG	21.60	14.40	....
2N1157A	HUG	25.95	17.30	....
2N1157A/USA	HUG	28.20	18.80	....
2N1162	MOT	4.45	3.30	....
2N1163	MOT	4.45	3.30	....
2N1163A	MOT	5.08	3.75	....
2N1165	MOT	6.35	4.70	....
2N1165/JAN	MOT	14.60	9.75	....
2N1165/USN	MOT	14.60	9.75	....
2N1167	MOT	7.55	5.60	....

Type No.	Mfg.	1-99	100-999	1000-4999
2N1175	MOT	1.12	.75	....
2N1175A	GE	1.35	.90	.80

Type No.	Mfg.	1-99	100-999	1000-Up
2N1177	RCA	1.01	.74	.61
2N1178	RCA	.99	.72	.60
2N1179	RCA	.99	.72	.60
2N1180	RCA	.80	.58	.48
2N1183	RCA	1.82	1.32	1.10

Type No.	Mfg.	1-99	100-Mix	100-999
2N1183/USA	RCA	2.64	1.92	1.60

Type No.	Mfg.	1-99	100-999	1000-Up
2N1183A	RCA	2.31	1.68	1.40

Type No.	Mfg.	1-99	100-Mix	100-999
2N1183A/USA	RCA	3.30	2.40	2.00

Type No.	Mfg.	1-99	100-999	1000-Up
2N1183B	RCA	2.89	2.10	1.75

Type No.	Mfg.	1-99	100-Mix	100-999
2N1183B/USA	RCA	3.88	2.82	2.35

Type No.	Mfg.	1-99	100-999	1000-Up
2N1184	RCA	2.48	1.80	1.50

Type No.	Mfg.	1-99	100-Mix	100-999
2N1184/USA	RCA	3.71	2.70	2.25

Type No.	Mfg.	1-99	100-999	1000-Up
2N1184A	RCA	2.81	2.04	1.70

Type No.	Mfg.	1-99	100-Mix	100-999
2N1184A/USA	RCA	4.04	2.94	2.45

Type No.	Mfg.	1-99	100-999	1000-Up
2N1184B	RCA	4.13	3.00	2.50

Type No.	Mfg.	1-99	100-Mix	100-999
2N1184B/USA	RCA	5.36	3.90	3.25
2N1187	MOT	3.80	....	2.55
2N1188	MOT	4.70		3.15
2N1189	MOT	2.25		1.50
2N1191	MOT	1.40		.95
2N1192	MOT	1.40		.95
2N1193	MOT	1.87		1.25
2N1194	MOT	2.03		1.35
2N1195	MOT	3.95		2.63
2N1195	TI	3.95		2.63
2N1195/JAN	MOT	4.43		2.95
2N1204	MOT	1.65		1.10
2N1204A	MOT	1.65		1.10
2N1224/USA	RCA	1.41	....	.97

Type No.	Mfg.	1-99	100-Mix	100-999
2N1225/USA	RCA	1.57	1.14	.95
2N1228	HUG	3.10	....	2.33
2N1229	HUG	3.10	....	2.33
2N1234	HUG	20.50	....	15.38
2N1234/JAN	HUG	25.30	....	19.00
2N1247	TI	13.50	....	9.00
2N1358	MOT	4.50	....	3.34
2N1259	HUG	12.85	....	9.64
2N1273	TI	.42	....	.28
2N1274	TI	.50	....	.33
2N1278	TI	4.75	....	3.15

Type No.	Mfg.	1-99	100-999	1000-Up
2N1302	RCA	.42	.30	.25
2N1302	TI	.45	.31	....
2N1302/JAN	RCA	.52	.36	....
2N1302/JAN	TI	.43	.32	....

Type No.	Mfg.	1-99	100-999	1000-4999
2N1303	GE	.45	.30	.25

Type No.	Mfg.	1-99	100-999	1000-Up
2N1303	RCA	.42	.30	.25
2N1303	TI	.45	.30	....
2N1303/JAN	RCA	.52	.35	....
2N1303/JAN	TI	.43	.31	....
2N1303/USN	GE	.47	.31	.28
2N1304	RCA	.50	.36	.30
2N1304	TI	.53	.37	....
2N1304/JAN	RCA	.65	.45	....
2N1304/JAN	TI	.53	.39	....

Type No.	Mfg.	1-99	100-999	1000-4999
2N1305	GE	.52	.35	.28

Type No.	Mfg.	1-99	100-999	1000-Up
2N1305	RCA	.48	.35	.29
2N1305	TI	.52	.35	....
2N1305/JAN	GE	.54	.37	.32
2N1305/JAN	RCA	.65	.43	....
2N1305/JAN	TI	.52	.38	....
2N1306	RCA	.62	.45	.37
2N1306	TI	.74	.49	....
2N1306/JAN	RCA	.86	.60	....
2N1306/JAN	TI	.66	.48	....

Type No.	Mfg.	1-99	100-999	1000-4999
2N1307	GE	.66	.44	.34

Type No.	Mfg.	1-99	100-999	1000-Up
2N1307	RCA	.58	.42	.35
2N1307	TI	.66	.44	....
2N1307/JAN	GE	.71	.47	.40
2N1307/JAN	RCA	.86	.58	....
2N1307/JAN	TI	.63	.46	....
2N1308	RCA	.91	.66	.55
2N1308	TI	1.08	.72	....
2N1308/JAN	RCA	1.16	.80	....
2N1308/JAN	TI	.96	.70	....
2N1309	RCA	.91	.66	.55
2N1309	TI	1.07	.72	....
2N1309/JAN	RCA	1.16	.80	....
2N1309/JAN	TI	.96	.70	....
2N1312	TI	1.77	1.18	....
2N1358	MOT	4.15	3.06	....
2N1358/JAN	MOT	4.50	3.34	....
2N1358/USA	MOT	4.50	3.34	....
2N1359	MOT	1.40	1.05	....
2N1360	MOT	1.70	1.25	....
2N1362	MOT	2.85	2.12	....
2N1363	MOT	3.10	2.30	....
2N1364	MOT	4.75	3.53	....
2N1370	TI	.72	.48	....
2N1371	TI	1.14	.76	....
2N1372	TI	.81	.54	....
2N1373	TI	1.20	.80	....
2N1374	TI	1.02	.68	....
2N1375	TI	1.38	.92	....
2N1376	TI	1.29	.86	....
2N1377	SYL	1.50	1.00	....
2N1377	TI	1.50	1.00	....
2N1378	TI	1.29	.86	....
2N1379	TI	1.44	.96	....
2N1380	TI	.66	.44	....
2N1381	TI	.72	.48	....
2N1382	TI	.99	.66	....
2N1383	TI	.92	.61	....
2N1384	RCA	2.89	2.00	....
2N1404	TI	.58	.39	....

Type No.	Mfg.	1-99	100-999	1000-Up
2N1408	MOT	1.05	.70	....
2N1412/USN	MOT	5.25	3.89	....
2N1413	MOT	.83	.55	....

Type No.	Mfg.	1-99	100-999	1000-4999
2N1414	GE	.69	.46	.41

Type No.	Mfg.	1-99	100-999	1000-Up
2N1414	MOT	.90	.60	....

Type No.	Mfg.	1-99	100-999	1000-4999
2N1415	GE	.80	.53	.48

Type No.	Mfg.	1-99	100-999	1000-Up
2N1415	MOT	1.05	.70	....
2N1420	TI	.65	.56	....
2N1429	SPR	8.75	6.45	....
2N1469M/JAN	HUG	19.50	15.00	....
2N1479	RCA	2.15	1.56	1.30

Type No.	Mfg.	1-99	100-Mix	100-999
2N1479/USA	RCA	2.56	1.86	1.58

Type No.	Mfg.	1-99	100-999	1000-Up
2N1480	RCA	2.31	1.68	1.40

Type No.	Mfg.	1-99	100-Mix	100-999
2N1480/USA	RCA	2.72	1.98	1.65
2N1481/USA	RCA	2.89	2.10	1.75

Type No.	Mfg.	1-99	100-999	1000-Up
2N1482	RCA	3.30	2.40	2.00

Type No.	Mfg.	1-99	100-Mix	100-999
2N1482/USA	RCA	3.71	2.70	2.25

Type No.	Mfg.	1-99	100-999	1000-Up
2N1483	RCA	2.89	2.10	1.75

Type No.	Mfg.	1-99	100-Mix	100-999
2N1483/USA	RCA	3.71	2.70	2.25

Type No.	Mfg.	1-99	100-999	1000-Up
2N1484	RCA	3.63	2.64	2.20

Type No.	Mfg.	1-99	100-Mix	100-999
2N1484/USA	RCA	4.46	3.24	2.70

Type No.	Mfg.	1-99	100-999	1000-Up
2N1485	RCA	4.46	3.24	2.70

Type No.	Mfg.	1-99	100-Mix	100-999
2N1485/USA	RCA	5.28	3.84	3.20

Type No.	Mfg.	1-99	100-999	1000-Up
2N1486	RCA	6.77	4.92	4.10

Type No.	Mfg.	1-99	100-Mix	100-999
2N1486/USA	RCA	7.59	5.52	4.60
2N1487/USA	RCA	5.36	3.99	....
2N1487	RCA	4.54	3.30	2.75
2N1488	RCA	4.95	3.60	3.00
2N1488/USA	RCA	5.78	3.99	....
2N1489	RCA	7.43	5.40	4.50

Type No.	Mfg.	1-99	100-999	1000-Up
2N1489/USA	RCA	8.25	6.00	5.00

Type No.	Mfg.	1-99	100-Mix	100-999
2N1490	RCA	8.25	6.00	5.00

Type No.	Mfg.	1-99	100-999	1000-Up
2N1490/USA	RCA	9.10	6.60	5.50

Type No.	Mfg.	1-99	100-Mix	100-999
2N1491	RCA	1.82	1.32	1.10
2N1493	RCA	7.01	5.10	4.25
2N1493/USA	RCA	7.43	....	5.13

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Type No.	Mfg.	1-99	100-999	1000-Up
2N1494A	MOT	2.17	1.45	....
2N1495	MOT	3.30	2.20	....
2N1496	MOT	3.80	2.55	....
2N1499A	SPR	1.40	1.05	....
2N1500	SPR	6.95	5.10	....
2N1507	TI	1.20	.80	....
2N1524	RCA	.47	.34	.28
2N1525	RCA	.53	.39	.32
2N1526	RCA	.48	.35	.29
2N1527	RCA	.5[illegible]	.40	.33
2N1529	MOT	1.45	1.08	....
2N1529A	BEN	2.60	1.75	....
2N1530	BEN	2.00	1.35	....
2N1530	MOT	1.60	1.15	....
2N1530A	BEN	2.70	1.80	....
2N1531	BEN	3.00	2.00	....
2N1531	MOT	2.30	1.70	....
2N1531A	BEN	3.80	2.55	....
2N1532	MOT	3.00	2.24	....
2N1532A	BEN	5.10	3.40	....
2N1533	MOT	4.35	3.25	....
2N1534	MOT	1.40	1.05	....
2N1535	MOT	1.50	1.14	....
2N1536	MOT	1.70	1.25	....
2N1536A	MOT	2.20	1.65	....
2N3375	MOT	10.80	8.95	....
2N3375	RCA	10.80	8.95	7.45
2N3375/JAN	MOT	21.75	14.50	....

Type No.	Mfg.	1-99	100-999	1000-4999
2N3390	GE	.90	.60	.50
2N3391	GE	.61	.40	.34

Type No.	Mfg.	1-99	100-999	1000-Up
2N3391	GE	.65	.43	....
2N3391	SPR	.65	.43	.32
2N3391A	GE	.70	.46	.39
2N3391A	SPR	.75	.50	.37
2N3392	GE	.29	.20	.17
2N3392	SPR	.53	.35	.25
2N3393	GE	.29	.20	.17
2N3393	SPR	.45	.30	.20
2N3394	GE	.27	.18	.15
2N3394	SPR	.42	.28	.19
2N3395	GE	.45	.30	.25
2N3395	SPR	.59	.39	.29
2N3396	GE	.41	.27	.23
2N3396	SPR	.54	.36	.26
2N3397	GE	.38	.26	.21
2N3397	SPR	.51	.34	.24
2N3398	SPR	.58	.38	.29
2N3402	GE	.41	.27	.23
2N3402	SPR	.75	.50	.37
2N3403	GE	.43	.29	.24
2N3404	GE	.61	.40	.33
2N3404	SPR	.80	.53	.40
2N3405	GE	.77	.51	.43
2N3405	SPR	.91	.63	.48
2N3409	MOT	13.50	9.00	....
2N3414	GE	.36	.24	.20
2N3414	SPR	.45	.30	.23
2N3415	GE	.38	.26	.21

Type No.	Mfg.	1-99	100-999	1000-Up
2N3415	SPR	.51	.34	.25
2N3416	GE	.56	.38	.31
2N3416	SPR	.65	.43	.32
2N3417	GE	.72	.48	.40
2N3417	SPR	.74	.51	.41
2N3420/TI3035	TI	10.45	6.95	....
2N3421/TI3036	TI	10.80	7.20	....
2N3423	MOT	18.00	12.00	....
2N3425	MOT	5.25	3.50	....
2N3427	MOT	1.95	1.30	....
2N3428	MOT	2.25	1.50	....
2N3429	WES	29.10	21.70	....
2N3430	WES	38.10	28.40	....
2N3431	WES	51.10	37.80	....
2N3432	WES	67.10	50.10	....
2N3433	WES	89.10	66.60	....
2N3439	RCA	3.71	2.70	2.25
2N3440	RCA	1.82	1.32	1.10
2N3441	RCA	2.48	1.80	1.50
2N3442	RCA	5.54	3.30	2.75
2N3442	WES	4.54	3.14	....
2N3444	MOT	12.00	8.00	....
2N3445	MOT	9.00	6.00	....
2N3446	MOT	13.50	9.00	....
2N3447	MOT	14.40	9.60	....
2N3448	MOT	18.00	12.00	....
2N3467	MOT	9.75	6.50	....
2N3469	HUG	13.50	9.00	....
2N3470	WES	44.10	29.10	....
2N3471	WES	61.10	41.10	....
2N3472	WES	83.10	55.10	....
2N3473	WES	112.10	75.10	....
2N3474	WES	73.10	48.10	....
2N3475	WES	99.10	66.10	....
2N3476	WES	132.10	88.10	....
2N3477	WES	183.10	122.10	....
2N3478	RCA	1.90	1.38	1.15
2N3485	MOT	8.70	5.80	....
2N3486	MOT	10.20	6.80	....
2N3487	MOT	42.00	28.00	....
2N3491	MOT	63.00	42.00	....
2N3492	MOT	75.00	50.00	....
2N3493	MOT	14.25	9.50	....
2N3494	MOT	9.75	6.50	....
2N3495	MOT	12.75	8.50	....
2N3496	MOT	9.75	6.50	....
2N3497	MOT	12.75	8.50	....
2N3498	MOT	6.60	4.40	....
2N3499	MOT	7.40	4.95	....
2N3500	MOT	11.25	7.50	....
2N3501	MOT	12.60	8.40	....
2N3502	TI	1.90	1.65	....
2N3503	TI	11.55	7.70	....
2N3504	TI	1.90	1.65	....
2N3506	MOT	11.55	7.70	....
2N3506/JAN	MOT	12.30	8.20	....
2N3507	MOT	13.20	8.80	....
2N3509	MOT	5.40	3.60	....
2N3510	MOT	1.42	.95	....
2N3511	MOT	1.80	1.20	....
2N3512	RCA	1.08	.78	.65
2N3515	MOT	27.00	18.00	....
2N3522/12X165	GE	35.10	23.40	....
263525	RCA	2.31	1.68	1.40
2N3528	RCA	1.62	1.18	.98
2N3529	RCA	2.31	1.68	1.40
2N3544	MOT	7.50	5.00	....
2N3546	MOT	5.25	3.50	....
2N3551/TIX-210	TI	100.00	67.50	....
2N3552/TIX-211	TI	112.50	75.00	....
2N3553	RCA	4.37	3.18	2.65
2N3553	MOT	4.37	3.18	....
2N3553/JAN	MOT	7.35	4.90	....
2N3554	TI	8.10	5.40	....
2N3560	TI	6.15	4.10	....
2N3572	TI	5.25	4.95	....
2N3583	RCA	2.48	1.80	1.50
2N3584	RCA	4.13	3.00	2.50
2N3585	RCA	6.60	4.80	4.00
2N3597	HUG	78.30	52.20	....
2N3600	RCA	3.80	2.76	2.30
2N3605A	GE	.43	.29	.24
2N3606/16J2	GE	.29	.20	.17
2N3606A	GE	.36	.24	.20
2N3607/16J3	GE	.23	.15	.13
2N3611	MOT	1.15	.78	....
2N3611	HUG	1.15	.78	....
2N3612	MOT	1.30	.88	....
2N3612	HUG	1.30	.88	....
2N3613	MOT	1.25	.85	....
2N3613	HUG	1.25	.85	....
2N3614	MOT	1.40	.94	....

Type No.	Mfg.	1-99	100-999	1000-Up
2N3614	HUG	1.40	.94	....
2N3615	MOT	1.65	1.10	....
2N3615	HUG	1.65	1.10	....
2N3616	MOT	2.10	1.39	....
2N3616	HUG	1.95	1.30	....
2N3617	MOT	1.88	1.25	....
2N3617	HUG	1.88	1.25	....
2N3618	MOT	2.37	1.58	....
2N3618	HUG	2.37	1.58	....
2N3632	MOT	12.75	10.55	....
2N3632	RCA	12.75	10.55	8.80
2N3634/MM1736	MOT	13.20	8.80	....
2N3635/MM1737	MOT	14.40	9.60	....
2N3636/MM1738	MOT	19.40	12.95	....
2N3637/MM1739	MOT	21.30	14.20	....
2N3647	MOT	2.25	1.50	....
2N3648	MOT	2.70	1.80	....
2N3649C140F	GE	9.82	6.55	....
2N3650C140A	GE	10.72	7.15	....
2N3651C140B	GE	15.30	10.20	....
2N3652C140C	GE	23.10	15.40	....
2N3653C140D	GE	28.05	18.70	....
2N3658/C141D	GE	29.25	19.50	....
2N3669	RCA	3.27	2.38	1.98
2N3670	RCA	4.92	3.58	2.98
2N3680	TI	49.00	32.60	....
2N3702/TIS03	TI	.45	.30	....
2N3703/TIS04	TI	.39	.26	....
2N3704/TI-412	TI	.60	.41	....
2N3705/TI-413	TI	.57	.38	....
2N3706/TI-414	TI	.52	.35	....
2N3707/TI-415	TI	.60	.37	....
2N3708/TI-416	TI	.45	.30	....
2N3709	TI	.48	.32	....
2N3710/TI-417	TI	.49	.33	....
2N3711/TI-418	TI	.54	.36	....
2N3712	MOT	2.25	1.50	....
2N3712	TI	3.00	2.00	....
2N3713	MOT	4.40	2.95	....
2N3714	MOT	4.70	3.15	....
2N3715	MOT	4.85	3.25	....
2N3716	MOT	6.75	4.50	....
2N3719	MOT	9.75	6.50	....
2N3720	MOT	10.85	7.25	....

Type No.	Mfg.	1-99	100-999	1000-4999
2N3721	GE	.29	.20	.17

Type No.	Mfg.	1-99	100-999	1000-Up
2N3721	SPR	.39	.26	.18
2N3724	TI	8.50	5.50	....
2N3725	TI	11.50	7.50	....
2N3730	RCA	1.24	.90	.75
2N3731	RCA	1.62	1.18	.98
2N3733	MOT	34.20	22.80	....
2N3734	MOT	6.00	4.00	....
2N3735	MOT	6.00	4.00	....
2N3736	MOT	6.60	4.40	....
2N3737	MOT	6.60	4.40	....
2N3738	MOT	2.25	1.50	....
2N3739	MOT	2.45	1.65	....
2N3740	MOT	2.90	1.95	....
2N3741	MOT	3.15	2.10	....
2N3742	MOT	12.60	8.40	....
2N3743	MOT	29.25	19.50	....
2N3744	HUG	32.40	[illegible]1.60	....
2N3745	HUG	34.30	22.85	....
2N3746	HUG	42.40	28.25	....
2N3747	HUG	37.80	25.20	....
2N3748	HUG	42.40	28.25	....
2N3749	HUG	52.50	33.65	....
2N3750	HUG	46.80	31.30	....
2N3755/C135B	GE	9.45	6.30	....
2N3757/C135D	GE	15.00	10.00	....
2N3762	MOT	7.50	5.00	....
2N3763	MOT	7.50	5.00	....
2N3764	MOT	8.25	5.50	....
2N3765	MOT	8.25	5.50	....
2N3766	MOT	2.10	1.40	....
2N3767	MOT	2.30	1.55	....
2N3771	HUG	5.78	3.99	....
2N3771	RCA	4.13	3.00	2.50
2N3771	WES	4.13	3.00	....
2N3772	BEN	4.95	3.42	....
2N3772	HUG	4.95	3.42	....
2N3772	RCA	4.13	3.00	2.50
2N3772	WES	4.13	3.00	....
2N3773	HUG	7.84	5.20	....
2N3773	RCA	7.33	5.40	4.50
2N3773	WES	7.43	5.40	....
2N3839	MOT	13.80	11.40	....

Type No.	Mfg.	1-99	100-999	1000-Up
2N3839	RCA	13.80	11.40	9.50
2N3643	SPR	.54	.36	.26
2N3843A	SPR	.59	.39	.27
2N3844	SPR	.57	.38	.27
2N3844A	SPR	.62	.42	.28
2N3845	SPR	.62	.42	.28
2N3845A	SPR	.66	.44	.30
2N3852	BEN	17.00	11.00	......
2N3854	SPR	.51	.34	.24
2N3854/16L43	GE	.34	.23	.19
2N3854A	SPR	.54	.36	.26
2N3854A 16L3	GE	.36	.24	.20
2N3854A/16L63	GE	.54	.36	.26
2N3855	SPR	.53	.35	.25
2N3783/MM2500	MOT	30.00	20.00	......
2N3784	MOT	15.00	10.00	......
2N3785/MM2502	MOT	6.75	4.50	......
2N3789	MOT	7.50	5.00	......
2N3790	MOT	8.90	5.95	......
2N3791	MOT	8.75	5.85	......
2N3792	MOT	9.50	6.35	......
2N3796	MOT	13.50	9.00	......
2N3797	MOT	16.50	11.00	......
2N3798	MOT	6.15	4.10	......
2N3798	TI	6.15	4.10	......
2N3799	MOT	6.75	4.50	......
2N3799	TI	6.75	4.50	......
2N3800	MOT	14.25	9.50	......
2N3801	MOT	15.75	10.50	......
2N3805	MOT	27.75	18.50	......
2N3805A	MOT	36.15	24.10	......
2N3806	MOT	14.25	9.50	......
2N3806	TI	14.25	9.50	......
2N3807	MOT	15.75	10.50	......
2N3807	TI	15.75	10.50	......
2N3808	MOT	21.00	14.00	......
2N3808	TI	21.00	14.00	......
2N3809	MOT	22.50	15.00	......
2N3809	TI	22.50	15.00	......
2N3810	MOT	26.25	17.50	......
2N3810	TI	26.25	17.50	......
2N3810/JAN	TI	20.25	18.75	......
2N3811	MOT	27.75	18.50	......
2N3811	TI	27.75	18.50	......
2N3811A	MOT	36.15	24.10	......
2N3819	TI	.90	.60	......
2N3820	TI	2.95	1.95	......
2N3821	MOT	11.15	7.45	......
2N3821	TI	8.00	5.35	......
2N3822	MOT	8.85	5.90	......
2N3822	TI	6.50	4.70	......
2N3823	MOT	3.35	2.25	......
2N3823	TI	4.00	2.70	......
2N3824	MOT	7.20	4.80	......
2N3824	TI	4.00	2.70	......
2N3825	TI	.58	.39	......
2N3826	TI	.54	.36	......
2N3827	TI	.58	.39	......
2N3829	TI	6.00	4.00	......
2N3831	TI	9.00	6.00	......
2N3832	TI	7.50	5.00	......

Type No.	Mfg.	1-24	25-99	100-999
2N3838	TI	27.75	24.00	18.50

Type No.	Mfg.	1-99	100-999	1000-Up
2N3855A	SPR	.57	.38	.27
2N3855A/16L4	GE	.38	.26	.21

Type No.	Mfg.	1-99	100-999	1000-4999
2N3855A/16L64	GE	.57	.38	.27

Type No.	Mfg.	1-99	100-999	1000-Up
2N3856	SPR	.57	.38	.27
2N3856/16L45	GE	.38	.26	.21
2N3856A	SPR	.62	.42	.28
2N3856A/16L65	GE	.41	.27	.23
2N3858	GE	.32	.21	.18
2N3858	SPR	.48	.32	.22
2N3858A	GE	.41	.27	.23
2N3858A	SPR	.59	.39	.27
2N3859	GE	.34	.23	.19
2N3859	SPR	.49	.33	.23
2N3859A	GE	.43	.29	.24
2N3859A	SPR	.60	.40	.28
2N3860	GE	.38	.26	.21
2N3860	SPR	.54	.36	.26
2N3866	MOT	2.97	2.05	......
2N3866	RCA	2.97	2.16	1.80
2N3873	RCA	10.48	7.60	6.35

Type No.	Mfg.	1-99	100-999	1000-Up
2N3877	SPR	.56	.38	.28
2N3877/16X2	GE	.47	.32	.26
2N3877A	SPR	.63	.42	.31
2N3877A/16X1	GE	.52	.35	.29
2N3878	RCA	4.95	3.60	3.00
2N3879	RCA	6.60	4.80	4.00
2N3883	MOT	1.35	.90	......
2N3896	RCA	4.95	3.60	3.00
2N3897	RCA	5.36	3.90	3.25
2N3898	RCA	7.43	5.40	4.50
2N3899	RCA	10.73	7.80	6.50
2N3900	GE	.59	.39	.33
2N3900	SPR	.60	.40	.30

Type No.	Mfg.	1-99	100-999	1000-4999
2N3900A	GE	.70	.47	.35

Type No.	Mfg.	1-99	100-999	1000-Up
2N3900A	SPR	.70	.47	.35

Type No.	Mfg.	1-99	100-999	1000-4999
2N3903	MOT	.75	.50	.37

Type No.	Mfg.	1-99	100-999	1000-4999
2N3904	MOT	.82	.55	.41
2N3905	MOT	.75	.50	.37
2N3906	MOT	.82	.55	.41

Type No.	Mfg.	1-99	100-999	1000-Up
2N3924	MOT	5.15	3.42	......
2N3925	MOT	8.70	5.80	......
2N3926	MOT	14.85	9.90	......
2N3927	MOT	20.25	13.50	......
2N3932	RCA	1.40	1.02	.85
2N3933	RCA	1.62	1.18	.98
2N3937	TI	14.60	9.75	......
2N3940	TI	30.00	20.00	......
2N3946	MOT	2.40	1.60	......
2N3947	MOT	2.75	1.85	......
2N3948	MOT	5.12	3.42	......
2N3950	MOT	34.20	22.80	......
2N3959/MM2400	MOT	10.50	7.00	......
2N3960/MM2401	MOT	13.10	8.75	......
2N3961	MOT	8.70	5.80	......
2N3962	TI	3.80	2.65	......
2N3963	TI	6.00	4.00	......
2N3964	TI	6.00	4.00	......
2N3965	TI	7.50	5.00	......
2N3973	SPR	.63	.42	.31
2N3974	SPR	.70	.46	.35
2N3975	SPR	.58	.39	.29
2N3976	SPR	.60	.40	.30
2N3980	MOT	3.40	2.25	......
2N3980	TI	7.35	4.90	......
2N3993	TI	30.00	20.00	......
2N3994	TI	26.10	16.80	......
2N3995	TI	8.85	5.95	......
2N3997	TI	54.00	36.00	......
2N3998	TI	18.30	12.20	......
2N3999	TI	19.60	13.05	......
2N4000	BEN	10.20	6.75	......
2N4000	TI	7.10	4.75	......
2N4001	TI	7.65	5.10	......
2N4002	TI	112.50	75.00	......
2N4003	TI	148.00	99.00	......
2N4004	TI	112.50	75.00	......
2N4005	TI	148.00	99.00	......
2N4012	MOT	14.20	11.75	......
2N4036	RCA	1.32	.96	.80
2N4037	RCA	1.16	.84	.70
2N4048	MOT	5.60	3.75	......
2N4049	MOT	7.50	5.00	......
2N4050	HUG	50.00	34.00	......
2N4050	MOT	9.30	6.20	......
2N4051	MOT	6.45	4.30	......
2N4052	MOT	8.25	5.50	......
2N4053	MOT	10.10	6.75	......
2N4054 D20D1	GE	1.20	.80	.64
2N4055/D20D3	GE	1.06	.71	.57
2N4056/D20D5	GE	.95	.51	.63
2N4057/D20D7	GE	.81	.54	.44
2N4058	TI	.66	.44	......
2N4059	TI	.54	.36	......
2N4060	TI	.55	.37	......
2N4061	TI	.57	.38	......
2N4062	TI	.60	.40	......
2N4063	RCA	3.80	2.62	......
2N4063/40255	RCA	3.80	2.76	2.30
2N4064	RCA	1.90	1.31	......

Type No.	Mfg.	1-99	100-999	1000-Up
2N4064/40256	RCA	1.90	1.38	1.15
2N4068	RCA	1.34	.97	.81
2N4069	RCA	1.40	1.02	.85
2N4070	HUG	25.00	16.00	......
2N4071	HUG	50.00	33.50	......
2N4072	MOT	2.25	1.50	......
2N4073	MOT	2.70	1.80	......
2N4074	RCA	.73	.53	.44
2N4101	RCA	3.05	2.22	1.85
2N4102	RCA	3.05	2.22	1.85
2N4103	RCA	9.90	7.20	6.00
2N4104	TI	6.00	4.00	......

Type No.	Mfr.	1-99	100-999	1000-4999	5000-up
2N4123	MOT	.52	.35	.26	.24
2N4124	MOT	.60	.40	.30	.28
2N4125	MOT	.52	.35	.26	.24
2N4126	MOT	.60	.40	.30	.28

Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
2N4138	TI	12.00	......	8.00	......

Type No.	Mfr.	1-99	100-999	1000-4999	5000-up
2N4140	TI	.63	.42	.36	.35
2N4141	TI	.74	.49	.41	.39
2N4142	TI	.75	.50	.42	.40

Type No.	Mfr.	1-99	100-999	1000-4999	5000-up
2N4143	TI	.96	.64	.55	.50
2N4150	HUG	50.00	34.00	......	......

Type No.	Mfg.	1-99	100-999	1000-Up
2N4151/ MCR2304-1	MOT	1.45	1.05	......
2N4167/ MCR2305-1	MOT	1.60	1.20	......
2N4168/ MCR2305-2	MOT	1.75	1.25	......
2N4169/ MCR2305-3	MOT	1.90	1.40	......
2N4170/ MCR2305 4	MOT	2.10	1.50	......
2N4171/ MCR2305-5	MOT	2.55	1.75	......
2N4172/ MCR2305-6	MOT	2.95	2.00	......
2N4173/ MCR2305-7	MOT	5.15	3.50	......
2N4174/ MCR2305-6	MOT	6.90	4.65	......
2N4175/ MCR2305L-1	MOT	1.60	1.20	......
2N4176/ MCR2305L-2	MOT	1.75	1.25	......
2N4177/ MCR2305L-3	MOT	1.90	1.40	......
2N4178/ MCR2305L-4	MOT	2.10	1.50	......
2N4179/ MCR2305L-5	MOT	2.55	1.75	......
2N4180/ MCR2305L-6	MOT	2.95	2.00	......
2N4181/ MCR2305L-7	MOT	5.15	3.50	......
2N4182/ MCR2305L-8	MOT	6.90	4.65	......
2N4183/ MCR2604L-1	MOT	1.59	1.19	......
2N4184/ MCR2604L-2	MOT	1.74	1.24	......
2N4185/ MCR2604L-3	MOT	1.89	1.39	......
2N4186/ MCR2604L-4	MOT	2.09	1.49	......
2N4187/ MCR2604L 5	MOT	2.54	1.74	......
2N4188/ MCR2604L-6	MOT	2.94	1.99	......
2N4189/ MCR2604L-7	MOT	5.14	3.49	......
2N4190/ MCR2604L-8	MOT	6.89	4.64	......
2N4191/ MCR2605L-1	MOT	1.59	1.19	......
2N4192/ MCR2605L-2	MOT	1.74	1.24	......
2N4193/ MCR2605L-3	MOT	1.89	1.39	......
2N4194/ MCR2605L-4	MOT	2.09	1.49	......

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Type No.	Mfg.	1-99	100-999	1000-Up
2N4195/MCR2605L-5	MOT	2.54	1.74	....
2N4196/MCR2605L-6	MOT	2.94	1.99	....
2N4197/MCR2605L-7	MOT	5.14	3.49	....
2N4198/MCR2605L-8	MOT	6.89	4.64	....

Type No.	Mfg.	1-24	25-99	100-999
2N4199	MOT	21.25	19.10	15.00
2N5200	MOT	28.75	25.80	20.00
2N4201	MOT	32.50	29.10	22.50
2N4202	MOT	44.25	38.40	29.50
2N4203	MOT	51.75	45.05	34.50
2N4204	MOT	63.75	55.70	42.50

Type No.	Mfg.	1-99	100-999	1000-Up
2N4212	MOT	2.15	1.45	....
2N4213	MOT	2.60	1.75	....
2N4214	MOT	3.30	2.20	....
2N4215	MOT	4.50	3.00	....
2N4216	MOT	4.95	3.30	....
2N4220	MOT	2.70	1.80	....
2N4220A	MOT	3.20	2.15	....
2N4221	MOT	2.55	1.70	....
2N4221A	MOT	3.05	2.05	....
2N4222	MOT	2.55	1.70	....
2N4222A	MOT	3.05	2.05	....
2N4223	MOT	3.00	2.00	....
2N4224	MOT	2.40	1.60	....
2N4225	BEN	5.40	3.60	....
2N4226	BEN	6.45	4.30	....
2N4231	MOT	2.10	1.40	....
2N4232	MOT	2.40	1.60	....
2N4233	MOT	3.20	2.15	....
2N4234	MOT	3.00	2.00	....
2N4235	MOT	3.60	2.39	....
2N4236	MOT	4.00	2.66	....
2N4237	BEN	2.25	1.50	....
2N4237	MOT	2.25	1.50	....
2N4238	BEN	2.75	1.85	....
2N4238	MOT	2.75	1.85	....
2N4239	BEN	3.05	2.05	....
2N4239	MOT	3.05	2.05	....
2N4240	RCA	2.89	2.10	1.75
2N4242	HUG	2.25	1.50	....
2N4243	HUG	1.88	1.25	....
2N4244	HUG	1.47	.98	....
2N4245	HUG	2.70	1.80	....
2N4246	HUG	2.16	1.44	....
2N4247	HUG	16.2	1.08	....
2N4252	TI	1.85	1.23	....
2N4253	TI	1.60	1.00	....
2N4254	TI	.90	.60	....
2N4255	TI	.85	.57	....

Type No.	Mfg.	1-99	100-999	1000-4999
2N4256	GE	.65	.44	.36

Type No.	Mfg.	1-99	100-999	1000-Up
2N4256	SPR	.69	.46	.35

Type No.	Mfg.	1-99	100-999	1000-Up
2N4259	RCA	1.90	1.38	1.15
2N4260	MOT	12.35	8.25	....
2N4261	MOT	14.60	9.75	....

Type No.	Mfg.	1-99	100-999	1000-4999
2N4264	MOT	.60	.40	.30
2N4265	MOT	.67	.45	.34

Type No.	Mfg.	1-99	100-999	1000-Up
2N4276	MOT	3.50	2.35	....
2N4277	MOT	4.20	2.80	....
2N4278	MOT	4.65	3.10	....
2N4279	MOT	5.30	3.55	....
2N4280	MOT	5.70	3.80	....
2N4281	MOT	6.80	4.55	....
2N4282	MOT	7.05	4.70	....
2N4283	MOT	8.45	5.65	....
2N4296	RCA	2.48	1.80	1.50
2N4297	RCA	2.89	2.10	1.75
2N4298	RCA	3.71	2.70	2.25
2N4299	RCA	4.13	3.00	2.50
2N4300	BEN	12.75	8.50	....
2N4300	TI	8.10	5.40	....
2N4301	TI	31.50	21.00	....
2N4314	RCA	1.24	.90	.75
2N4346	RCA	2.31	1.68	1.40
2N4347	RCA	2.97	2.16	1.80
2N4348	RCA	4.13	3.00	2.50
2N4351	MOT	6.75	4.50	....
2N4352	MOT	6.75	4.50	....
2N4371	WES	28.80	22.30	....
2N4372	WES	38.00	29.40	....
2N4373	WES	66.50	51.50	....
2N4374	WES	97.50	75.50	....
2N4375	WES	145.00	112.00	....
2N4376	WES	210.00	155.00	....
2N4377	WES	286.00	215.00	....
2N4378	WES	370.00	275.00	....
2N4383	SPR	1.35	.90	....
2N4384	SPR	1.35	.90	....
2N4385	SPR	.85	.56	....
2N4386	SPR	.85	.56	....
2N4390	RCA	.75	.54	.45
2N4398	MOT	11.25	7.50	....
2N4399	MOT	13.50	9.05	....

Type No.	Mfg.	1-99	100-999	1000-4999
2N4400	MOT	.60	.40	.30
2N4401	MOT	.75	.50	.38
2N4402	MOT	.60	.40	.30
2N4403	MOT	.75	.50	.38
2N4404	MOT	8.25	5.50	....
2N4405	MOT	9.75	6.50	....
2N4406	MOT	11.25	7.50	....
2N4407	MOT	12.75	8.50	....
2N4409	MOT	.67	.45	.34
2N4410	MOT	.96	.64	.48

Type No.	Mfg.	1-99	100-999	1000-Up
2N4411	MOT	18.00	12.00	....
2N4412	SPR	2.00	1.35	....
2N4412A	SPR	2.15	1.45	....
2N4413	SPR	2.00	1.35	....
2N4413A	SPR	2.15	1.45	....
2N4414	SPR	1.25	.85	....
2N4414A	SPR	1.40	.95	....
2N4415	SPR	1.25	.85	....
2N4415A	SPR	1.40	.95	....
2N4416	MOT	5.00	3.35	....
2N4416	TI	5.00	3.35	....
2N4416A	TI	5.00	3.35	....
2N4418	TI	.64	.48	....
2N4419	TI	.60	.45	....
2N4420	TI	.65	.49	....
2N4421	TI	.60	.45	....
2N4422	TI	.60	.46	....
2N4423	TI	.76	.51	....

Type No.	Mfg.	1-99	100-999	1000-4999
2N4424	GE	.47	.32	.26
2N4425	GE	.52	.35	.29

Type No.	Mfg.	1-99	100-999	1000-Up
2N4427	RCA	2.15	1.56	1.30
2N4440	RCA	11.90	9.85	8.20
2N4441	MOT	1.20	.80	.68
2N4442	MOT	1.50	1.00	.85
2N4443	MOT	2.00	1.35	1.15
2N4444	MOT	4.50	3.00	2.55

Type No.	Mfg.	1-99	100-999	1000-Up
2N4851	MOT	1.10	.75	....
2N4852	MOT	1.10	.75	....
2N4853	MOT	2.25	1.50	....
2N4854	TI	13.50	9.00	....
2N4855	TI	10.80	7.20	....
2N4856	TI	4.95	3.75	....
2N4857	TI	4.45	3.40	....
2N4858	TI	4.95	3.75	....
2N4859/TIS41	TI	3.80	2.85	....
2N4860	TI	3.60	2.70	....
2N4861	TI	3.80	2.85	....
2N4862	HUG	12.00	10.00	....
2N4863	HUG	10.00	8.00	....
2N4864	HUG	13.00	11.00	....
2N4865	HUG	220.00	175.00	....
2N4866	HUG	420.00	360.00	....
2N4870	MOT	.75	.50	.43
2N4871	MOT	.75	.50	.43
2N4874	TI	5.85	3.90	....
2N4875	TI	4.95	3.42	....
2N4876	TI	4.20	2.80	....
2N4890	MOT	1.12	.75	....
2N4891	TI	1.05	.72	....
2N4892	TI	1.25	.85	....
2N4893	TI	1.10	.75	....
2N4894	TI	1.20	.80	....
2N4898	MOT	1.95	1.30	....
2N4899	MOT	2.60	1.75	....
2N4900	MOT	2.90	1.95	....
2N4901	MOT	2.75	1.84	....
2N4902	MOT	3.30	2.21	....
2N4903	MOT	4.25	2.84	....
2N4904	MOT	3.35	2.25	....
2N4905	MOT	4.45	2.98	....
2N4906	MOT	5.60	3.75	....
2N4910	MOT	1.55	1.05	....
2N4911	MOT	1.80	1.20	....
2N4912	MOT	2.10	1.40	....
2N4913	MOT	2.40	1.60	....
2N4914	MOT	2.60	1.75	....
2N4915	MOT	4.20	2.80	....
2N4918	MOT	1.65	1.11	....
2N4919	MOT	1.90	1.27	....
2N4920	MOT	2.25	1.50	....
2N4921	MOT	1.33	.89	....
2N4922	MOT	1.48	.99	....
2N4923	MOT	1.80	1.20	....
2N4924	MOT	2.03	1.35	....
2N4925	MOT	2.50	1.65	....
2N4926	MOT	2.95	1.95	....
2N4927	MOT	3.15	2.10	....
2N4928	MOT	4.05	2.70	....
2N4929	MOT	4.95	3.30	....
2N4930	MOT	5.90	4.50	....
2N4931	MOT	6.75	4.50	....
2N4932	RCA	29.00	24.00	20.00
2N4933	RCA	29.00	24.00	20.00
2N4934	RCA	1.40	1.02	.85
2N4935	RCA	1.62	1.18	.98
2N4936	RCA	1.90	1.38	1.15
2N4937	MOT	7.15	4.75	....
2N4938	MOT	5.70	3.80	....
2N4939	MOT	3.40	2.25	....
2N4940	MOT	15.75	10.50	....
2N4941	MOT	12.30	8.20	....
2N4942	MOT	8.85	5.90	....
2N4947	TI	2.03	1.35	....
2N4948	TI	1.47	.98	....
2N4948	MOT	1.35	.90	....
2N4449	TI	2.78	1.85	....
2N4449	MOT	2.40	1.60	....
2N4951	GE	.63	.42	.35
2N4951	SPR	.67	.45	.34
2N4952	GE	.68	.45	.38
2N4952	SPR	.72	.48	.36
2N4953	GE	.74	.50	.41
2N4953	SPR	.80	.53	.40
2N4954	GE	.54	.36	.30
2N4954	SPR	.59	.39	.29
2N4957	MOT	20.25	13.50	....
2N4958	MOT	10.35	6.90	....
2N4959	MOT	6.75	4.50	....
2N4983/D13D1	GE	1.17	.78	.60
2N4987	GE	.84	.56	.41
2N4988	GE	1.23	.82	.65
2N4989	GE	1.73	1.15	.88
2N4990	GE	.89	.59	.45
2N4991	GE	.75	.50	.40
2N4992	GE	1.35	.90	.71
2N4993/D13E1	GE	1.65	1.10	.99
2N5016	RCA	43.50	36.00	30.00
2N5024	MOT	7.35	4.90	....

Type No.	Mfg.	1-99	100-999	1000-Up
2N5027	GE	.56	.38	.31
2N5028	GE	.68	.45	.38
2N5029	GE	.50	.33	.28
2N5030	GE	.43	.29	.24
2N5034	RCA	1.34	.98	.81
2N5035	RCA	1.32	.96	.80
2N5036	RCA	1.42	1.04	.86
2N5037	RCA	1.41	1.02	.85
2N5045	TI	16.95	11.25	....
2N5048	GE	30.00	20.00	....
2N5049	GE	37.50	25.00	....
2N5058	TI	12.00	8.00	....
2N5059	TI	9.00	6.00	....

Type No.	Mfg.	1-99	100-999	1000-4999
2N5060	MOT	.77	.51	.43
2N5061	MOT	.83	.55	.47
2N5062	MOT	.96	.64	.54
2N5063	MOT	1.09	.85	.72

Type No.	Mfg.	1-99	100-Mix	100-999
2N5067	MOT	1.80	1.20	....
2N5068	MOT	2.25	1.50	....
2N5069	MOT	2.85	1.90	....
2N5070	RCA	29.00	24.00	20.00
2N5071	RCA	29.00	24.00	20.00

Type No.	Mfg.	1-99	100-999	1000-4999
2N5086	MOT	.75	.50	.38
2N5087	MOT	.81	.54	.40
2N5088	MOT	.75	.50	.38
2N5089	MOT	.98	.65	.49

Type No.	Mfg.	1-99	100-999	1000-Up
2N5090	RCA	11.40	8.30	6.90
2N5102	RCA	21.75	18.00	15.00
2N5108	RCA	12.90	10.70	8.90
2N5109	RCA	3.47	2.52	2.10
2N5160	MOT	6.75	4.50	....
2N5161	MOT	18.75	12.00	....
2N5162	MOT	27.00	18.00	....
2N5164	MOT	3.30	2.20	....
2N5165	MOT	4.65	3.10	....
2N5166	MOT	6.45	4.30	....
2N5167	MOT	9.75	6.50	....
2N5168	MOT	3.70	2.45	....
2N5169	MOT	5.00	3.35	....
2N5170	MOT	6.80	4.55	....
2N5171	MOT	10.10	6.75	....
2N5172	GE	.21	.14	.11
2N5174	GE	.63	.42	.35
2N5175	GE	.68	.45	.38
2N5176A	GE	.72	.48	.40
2N5179	RCA	.65	.47	.39
2N5180	RCA	.48	.35	.29
2N5181	RCA	.45	.33	.27
2N5182	RCA	.40	.29	.24
2N5183	RCA	.32	.23	.19
2N5184	RCA	.45	.33	.27
2N5185	RCA	.52	.38	.31
2N5186	RCA	.40	.29	.24
2N5187	RCA	.45	.33	.27
2N5188	RCA	.55	.40	.33
2N5189	RCA	.65	.47	.39
2N5190	RCA	1.57	1.05	....
2N5191	RCA	1.92	1.28	....
2N5192	RCA	2.50	1.67	....
2N5193	RCA	2.00	1.33	....
2N5194	RCA	2.25	1.50	....
2N5195	RCA	2.90	1.95	....
2N5202	RCA	4.53	3.30	2.75
2N5204/C137M	GE	21.00	14.00	....
2N5205/C137N	GE	30.60	20.40	....
2N5208	GE	1.80	1.20	.90
2N5208	MOT	1.80	1.20	.90
2N5209	GE	.66	.44	.33
2N5209	MOT	.66	.44	.33
2N5210	GE	.72	.48	.36
2N5210	MOT	.72	.48	.36
2N5221	MOT	.30	.20	.18
2N5222	MOT	.24	.16	.14
2N5223	MOT	.21	.14	.12
2N5224	MOT	.24	.18	....
2N5225	MOT	.24	.18	....
2N5227	MOT	.24	.18	....
2N5232	GE	.56	.38	.31
2N5232A	GE	.61	.40	.34
2N5233	GE	.38	.26	.21
2N5234	GE	.41	.27	.23
2N5235	GE	.47	.32	.26

Type No.	Mfg.	1-99	100-999	1000-Up
2N5239	RCA	8.25	6.00	5.00
2N5240	RCA	11.55	8.00	7.00
2N5245/TIS88	TI	1.75	.95	....
2N5249	GE	.88	.59	.49
2N5249A	GE	.97	.65	.54
2N5262	RCA	1.62	1.18	.98
2N5265	MOT	8.10	5.40	....
2N5266	MOT	7.65	5.10	....
2N5267	MOT	7.20	4.80	....
2N5268	MOT	6.75	4.50	....
2N5269	MOT	7.20	4.80	....
2N5270	MOT	7.65	5.10	....
2N5275	TI	24.00	16.00	....
2N5293	RCA	.91	.66	.55
2N5294	RCA	.91	.66	.55
2N5295	RCA	.91	.66	.55
2N5296	RCA	.91	.66	.55
2N5297	RCA	1.04	.76	.63
2N5298	RCA	1.04	.76	.63
2N5305	GE	.54	.36	.30
2N5306/D16P4	GE	.59	.39	.33
2N5307	GE	.63	.42	.35
2N5308	GE	.68	.45	.38
2N5320	RCA	2.15	1.56	1.30
2N5321	RCA	1.57	1.14	.95
2N5322	RCA	2.15	1.56	1.30
2N5323	RCA	1.57	1.14	.95
2N5354/D29A4	GE	.43	.29	.24
2N5355/D29A5	GE	.55	.33	.28
2N5356/D29A6	GE	.52	.35	.29
2N5365/D29A7	GE	.55	.37	.28
2N5366/D29A8	GE	.60	.40	.30
2N5367/D29A9	GE	.62	.42	.31
2N5415/TA2819	RCA	3.30	2.40	2.00
2N5416/TA2819A	RCA	4.95	3.60	3.00
2N5441 TA2836	RCA	8.17	5.94	4.95
2N442/TA2B37	RCA	11.47	8.34	6.95
2N5444/TA2837	RCA	8.66	6.30	5.25
2N5445/TA2839	RCA	10.51	8.70	7.25
3N34	TI	5.00	4.15	....
3N35	TI	22.50	15.00	....
3N35/JAN	TI	24.38	16.25	....
3N74/TIX608	TI	15.00	10.00	....
3N81	GE	3.40	2.25	2.00
3N82	GE	4.95	3.30	2.95
3N83	GE	2.13	1.42	.99
3N84	GE	1.98	1.32	.99
3N85	GE	3.30	2.20	1.98
3N92	SPR	6.75	4.50	....
3N117	SPR	7.50	5.00	....
3N123	SPR	3.30	2.20	....
3N124/MM2090	MOT	4.35	2.90	....
3N125/MM2091	MOT	4.35	2.90	....
3N126 MM2092	MOT	4.35	2.90	....
3N128	RCA	1.45	1.06	.88
3N138	RCA	3.30	2.40	2.00
3N139	RCA	2.89	2.10	1.75
3N140	RCA	1.62	1.18	.98
3N141	RCA	1.55	1.13	.94
3N142	RCA	1.08	.78	.65
3N143	RCA	1.39	1.01	.84
3N152	RCA	1.78	1.30	1.08
3N153	RCA	1.58	1.15	.96
3N154	RCA	1.62	1.18	.98
3N155	RCA	7.50	5.00	....
3N155A	RCA	8.25	5.50	....
3N156	RCA	7.50	5.00	....
3N156A	RCA	8.25	5.50	....
3N157	RCA	7.50	5.00	....
3N157A	RCA	8.25	5.50	....
3N158	RCA	7.50	5.00	....
3N158A	RCA	8.25	5.50	....
3N159	RCA	2.18	1.58	1.32

Type No.	Mfg.	1-99	100-Mix	100-999
4M1C36FR5	MOT	1.66	1.44	1.25
4M1 36FR	MOT	2.30	2.00	1.75
5M2 04FR2	MOT	3.05	2.65	2.30
5M2 04FR5	MOT	2.40	2.05	1.80
4M2 4AZ5/ 1N4370A	MOT	2.75	2.35	2.05
4M2 4AZ10/ 1N4370	MOT	2.00	1.70	1.50
4M2 7AZ5/ 1N4371A	MOT	2.75	2.35	2.05
4M2 7AZ10/ 1N4371	MOT	2.00	1.70	1.50
4M3 0AZ5/ 1N4372A	MOT	2.75	2.35	2.05
4M3.0AZ10/ 1N4372	MOT	2.00	1.70	1.50

Type No.	Mfg.	1-99	100-Mix	100-999
4M3.3AZ5/ 1N746A	MOT	2.75	2.35	2.05
4M3.3AZ10/ 1N746	MOT	2.00	1.70	1.50

Type No.	Mfg.	1-99	100-499	500-999
4M3.3ZS-5	MOT	1.40	.95	.87
4M3.3ZS-10	MOT	1.15	.75	.71

Type No.	Mfg.	1-99	100-Mix	100-999
4M3 6AZ5/ 1N747A	MOT	2.75	2.35	2.05
4M3 6AZ10/ 1N747	MOT	2.00	1.70	1.50

Type No.	Mfg.	1-99	100-499	500-999
4M3 6ZS-5	MOT	1.40	.95	.87
4M3 6ZS-10	MOT	1.15	.75	.71

Type No.	Mfg.	1-99	100-Mix	100-999
4M3 9AZ5/ 1N748A	MOT	2.75	2.35	2.05
4M3 9AZ10/ 1N748	MOT	2.00	1.70	1.50

Type No.	Mfg.	1-99	100-499	500-999
4M3.9ZS-5	MOT	1.40	.95	.87
4M3.9ZS-10	MOT	1.15	.75	.71

Type No.	Mfg.	1-99	100-Mix	100-999
4M4 3AZ5/ 1N749A	MOT	2.75	2.35	2.05
4M4.3AZ10/ 1N749	MOT	2.00	1.70	1.50

Type No.	Mfg.	1-99	100-499	500-999
4M4.3ZS-5	MOT	1.40	.95	.87
4M4 3ZS-10	MOT	1.15	.75	.71

Type No.	Mfg.	1-99	100-Mix	100-999
4M4 7AZ5/ 1N750A	MOT	2.75	2.35	2.05
4M4.7AZ10/ 1N750	MOT	2.00	1.70	1.50

Type No.	Mfg.	1-99	100-499	500-999
4M4.7ZS-5	MOT	1.40	.95	.87
4M4.7ZS-10	MOT	1.15	.75	.71

Type No.	Mfg.	1-99	100-Mix	100-999
4M5 1AZ5/ 1N751A	MOT	2.75	2.35	2.05
4M5 1AZ10/ 1N751	MOT	2.00	1.70	1.50

Type No.	Mfg.	1-99	100-499	500-999
4M5 1ZS-5	MOT	1.40	.95	.87
4M5 1ZS-10	MOT	1.15	.75	.71

Type No.	Mfg.	1-99	100-Mix	100-999
4M5.6AZ5/ 1N752A	MOT	2.75	2.35	2.05
4M5 6AZ10/ 1N752	MOT	2.00	1.70	1.50

Type No.	Mfg.	1-99	100-499	500-999
4M5 6ZS-5	MOT	1.40	.95	.87
4M5.6ZS-10	MOT	1.15	.75	.71

Type No.	Mfg.	1-99	100-Mix	100-999
4M6.2AZ5/ 1N753A	MOT	2.75	2.35	2.05
4M6 2AZ10/ 1N753	MOT	2.00	1.70	1.50

Type No.	Mfg.	1-99	100-499	500-999
4M6 2ZS-5	MOT	1.40	.95	.87
4M6 2ZS-10	MOT	1.15	.75	.71

Type No.	Mfg.	1-99	100-Mix	100-999
4M6.4FR10	MOT	.33	....	.25
4M6.8AZ5/ 1N754A	MOT	2.75	2.35	2.05

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Type No.	Mfg.	1-99	100-Mix	100-999
.4M6.8AZ10/ 1N754	MOT	2.00	1.70	1.50

Type No.	Mfg.	1-99	100-499	500-999
.4M6.8ZS-5	MOT	1.40	.95	.87
.4M6.8ZS-10	MOT	1.15	.75	.71

Type No.	Mfg.	1-99	100-Mix	100-999
.4M7.5AZ5/ 1N755A	MOT	2.75	2.35	2.05
.4M7.5AZ10/ 1N755	MOT	2.00	1.70	1.50

Type No.	Mfg.	1-99	100-499	500-999
.4M7.5ZS-5	MOT	1.40	.95	.87
.4M7.5ZS-10	MOT	1.15	.75	.71

Type No.	Mfg.	1-99	100-Mix	100-999
.4M8.2AZ5/ 1N756A	MOT	2.75	2.35	2.05
.4M8.2AZ10/ 1N756	MOT	2.00	1.70	1.50

Type No.	Mfg.	1-99	100-499	500-999
.4M8.2ZS-5	MOT	1.40	.95	.87
.4M8.2ZS-10	MOT	1.15	.75	.71

Type No.	Mfg.	1-99	100-Mix	100-999
.4M9.1AZ5/ 1N757A	MOT	2.75	2.35	2.05
.4M9.1AZ10/ 1N757	MOT	2.00	1.70	1.50

Type No.	Mfg.	1-99	100-499	500-999
.4M9.1ZS-5	MOT	1.40	.95	.87
.4M9.1ZS-10	MOT	1.15	.75	.71

Type No.	Mfg.	1-99	100-Mix	100-999
.4M10AZ5/ 1N758A	MOT	2.75	2.35	2.05
.4M10AZ10/ 1N758	MOT	2.00	1.70	1.50

Type No.	Mfg.	1-99	100-499	500-999
.4M10ZS-5	MOT	1.40	.95	.87
.4M10ZS-10	MOT	1.15	.75	.71
.4M11ZS-5	MOT	1.40	.95	.87
.4M11ZS-10	MOT	1.15	.75	.71

Type No.	Mfg.	1-99	100-Mix	100-999
.4M12AZ5/ 1N759	MOT	2.75	2.35	2.05
.4M12AZ10/ 1N759A	MOT	2.00	1.70	1.50

Type No.	Mfg.	1-99	100-499	500-999
.4M12ZS-5	MOT	1.40	.95	.87
.4M12ZS-10	MOT	1.15	.75	.71

Type No.	Mfg.	1-99	100-499	500-999
.4M13ZS-5	MOT	1.40	.95	.87
.4M13ZS-10	MOT	1.15	.75	.71
.4M15ZS-5	MOT	1.40	.95	.87
.4M15ZS-10	MOT	1.15	.75	.71
.4M16ZS-5	MOT	1.40	.95	.87
.4M16ZS-10	MOT	1.15	.75	.71
.4M18ZS-5	MOT	1.40	.95	.87
.4M18ZS-10	MOT	1.15	.75	.71
.4M20ZS-5	MOT	1.40	.95	.87
.4M20ZS-10	MOT	1.15	.75	.71
.4M22ZS-5	MOT	1.40	.95	.87
.4M22ZS-10	MOT	1.15	.75	.71
.4M24ZS-5	MOT	1.40	.95	.87
.4M24ZS-10	MOT	1.15	.75	.71
.4M27ZS-5	MOT	1.40	.95	.87
.4M27ZS-10	MOT	1.15	.75	.71
.4M30ZS-5	MOT	1.40	.95	.87
.4M30ZS-10	MOT	1.15	.75	.71
.4M33ZS-5	MOT	1.40	.95	.87
.4M33ZS-10	MOT	1.15	.75	.71
.4M36ZS-5	MOT	1.60	1.05	1.00
.4M36ZS-10	MOT	1.35	.90	.85
.4M38ZS-5	MOT	1.60	1.05	1.00
.4M38ZS-10	MOT	1.35	.90	.85
.4M43ZS-5	MOT	1.60	1.05	1.00
.4M43ZS-10	MOT	1.35	.90	.85
.4M47ZS-5	MOT	1.60	1.05	1.00
.4M47ZS-10	MOT	1.35	.90	.85
.4M51ZS-5	MOT	1.60	1.05	1.00
.4M51ZS-10	MOT	1.35	.90	.85
.4M56ZS-5	MOT	1.60	1.05	1.00
.4M56ZS-10	MOT	1.35	.90	.85
.4M62ZS-5	MOT	1.60	1.05	1.00
.4M62ZS-10	MOT	1.35	.90	.85

Type No.	Mfg.	1-99	100-Mix	100-999
.5M.64FR10	MOT	.33		.25
.4M68ZS-5	MOT	1.60	1.05	1.00
.4M68ZS-10	MOT	1.35	.90	.85
.4M75ZS-5	MOT	1.60	1.05	1.00
.4M75ZS-10	MOT	1.35	.90	.85
.4M82ZS-5	MOT	1.60	1.05	1.00
.4M82ZS-10	MOT	1.35	.90	.85
.4M91ZS-5	MOT	1.60	1.05	1.00
.4M91ZS-10	MOT	1.35	.90	.85
.4M100ZS-5	MOT	1.60	1.05	1.00
.4M100ZS-10	MOT	1.35	.90	.85
1Z3.9T5/ 1N1518A	INT	3.50	3.00	2.75
1Z3.9T10/ 1N1518	INT	2.70	2.40	2.20
1Z4.7T5/ 1N1519A	INT	3.50	3.00	2.75
1Z4.7T10/ 1N1519	INT	2.70	2.40	2.20
1Z5.1T5	INT			
1Z5.6T5/ 1N1520A	INT	3.50	3.00	2.75
1Z5.6T10/ 1N1520	INT	2.70	2.40	2.20
1Z6.2T5	INT			
1Z6.8T5/ 1N1521A	INT	3.50	3.00	2.75
1Z6.8T10/ 1N1521	INT	2.70	2.40	2.20
1Z8 2T5/ 1N1522A	INT	3.50	3.00	2.75
1Z10T5/ 1N1523A	INT	3.50	3.00	2.75
1Z10T10/ 1N1523	INT	2.70	2.40	2.20
1Z12T5/ 1N1524A	INT	3.50	3.00	2.75
1Z12T10/ 1N1524	INT	2.70	2.40	2.20
1Z15T5/ 1N1525A	INT	3.50	3.00	2.75
1Z15T10/ 1N1525	INT	2.70	2.40	2.20
1Z18T5/ 1N1526A	INT	3.50	3.00	2.75
1Z18T10/ 1N1526	INT	2.70	2.40	2.20
1Z22T5/ 1N1527A	INT	3.50	3.00	2.75
1Z22T10/ 1N1527	INT	2.70	2.40	2.20
1Z27T5/ 1N1528A	INT	3.50	3.00	2.75
1Z27T10/ 1N1528	INT	2.70	2.40	2.20
1Z30T5	INT	3.70		2.95

Type No.	Mfg.	1-99	100-Mix	100-999
1ZC3.9T10	INT	1.34		1.02
1ZC4.3T10	INT	1.34		1.02
1ZC5.1T10	INT	1.34		1.02
1ZC6.2T10	INT	1.34		1.02
1ZC7.5T10	INT	1.12		.85
1ZC9.1T10	INT	1.12		.85
1ZC10T10/ 1ZF10T10	INT	1.12		.85
1ZC11T10/ 1ZF11T10	INT	1.12		.85
1ZC12T10/ 1ZF12T10	INT	1.12		.85
1ZC13T10/ 1ZF13T10	INT	1.12		.85
1ZC16T10/ 1ZF16T10	INT	1.12		.85
1ZC20T10/ 1ZF20T10	INT	1.12		.85
1ZC24T10/ 1ZF24T10	INT	1.12		.85
1ZC27T10/ 1ZF27T10	INT	1.12		.85
1ZC30T10/ 1ZF30T10	INT	1.12		.85
1ZF4.3T10	INT	1.34		1.02
1ZF5.1T10	INT	1.34		1.02
1ZF6.2T10	INT	1.34		1.02
1ZF7.5T10	INT	1.12		.85
1ZF9.1T10	INT	1.12		.85
1ZF10T10/ 1ZC10T10	INT	1.12		.85
1ZF11T10/ 1ZC11T10	INT	1.12		.85
1ZF12T10/ 1ZC12T10	INT	1.12		.85
1ZF13T10/ 1ZC13T10	INT	1.12		.85
1ZF16T10/ 1ZC16T10	INT	1.12		.85
1ZF20T10/ 1ZC20T10	INT	1.12		.85
1ZF24T10/ 1ZC24T10	INT	1.12		.85
1ZF27T10/ 1ZC27T10	INT	1.12		.85
1ZF30T10/ 1ZC30T10	INT	1.12		.85
1.5M6.8Z5/ 1N3785B	MOT	6.95	6.00	5.25
1.5M10Z5/ 1N3789B	MOT	6.95	6.00	5.25
1.5M12Z5/ 1N3791B	MOT	6.95	6.00	5.25
1.5M15Z5/ 1N3793B	MOT	6.95	6.00	5.25
1.5M17Z5	MOT	6.95	6.00	5.25
1.5M18Z5/ 1N3795B	MOT	6.95	6.00	5.25
1.5M20Z5/ 1N3796B	MOT	6.95	6.00	5.25
1.5M24Z5/ 1N3798B	MOT	6.95	6.00	5.25
1.5M25Z5	MOT	6.95	6.00	5.25
1.5M30Z5/ 1N3800B	MOT	6.95	6.00	5.25
1.5M33Z5/ 1N3801B	MOT	6.95	6.00	5.25
1.5M62Z5/ 1N3808B	MOT	6.95	6.00	5.25
1.5M75Z5/ 1N3810B	MOT	6.95	6.00	5.25
1.5M100ZS/ 1N3813B	MOT	6.95	6.00	5.25
2A	HOF	7.50		6.00
2AFB05AP	INT	4.05		3.25
2AFB1AP	INT	4.30		3.45
2AFB2AP	INT	5.15		4.15
2AFB3AP	INT	5.55		4.50
2AFB4AP	INT	6.50		5.30
2AFB5AP	INT	8.00		6.40
2AFB6AP	INT	9.95		8.00
2E4	INT	.55		.42

Type No.	Mfg.	1-24	25-99	100-Up
3AF1	SAR	.60	.53	.49
3AF2	SAR	.65	.57	.53
3AF4	SAR	.85	.72	.67
3AF6	SAR	1.25	1.07	1.00

Type No.	Mfg.	1-9	10-99	100-999
3F20D	INT	.93	.82	.74

Type No.	Mfg.	1-9	10-99	100-999
3F40D	INT	1.50	1.43	1.27
3F60D	INT	3.51	3.16	2.84
3F80D	INT	5.43	4.89	4.40
3F100D	INT	7.05	6.34	5.71

Type No.	Mfg.	1-99	100-999	1000-Up
3SH1/1N606	INT	1.19	.79	....
3MS30/1N1704	INT	1.23	.82	....
3RC20A/2N1602	INT	9.45	6.30	....
3Z3.9T5/1N1588A	INT	4.55	4.05	3.65
3Z3.9T10/1N1588	INT	3.80	3.40	3.05
3Z4.7T5/1N1589A	INT	4.55	4.05	3.65
3Z5.6T10/1N1590	INT	3.80	3.40	3.05
3Z6 8T5/1N1591A	INT	4.55	4.05	3.65
3Z8.2T5/1N1592A	INT	4.55	4.05	3.65
3Z8.2T10/1N1592	INT	3.80	3.40	3.05
3Z10T5/1N1593A	INT	4.55	4.05	3.65
3Z10T10/1N1593	INT	3.80	3.40	3.05
3Z12T5/1N1594A	INT	4.55	4.05	3.65
3Z12T10/1N1594	INT	3.80	3.40	3.05
3Z15T5/1N1595A	INT	4.55	4.05	3.65
3Z15T10/1N1595	INT	3.80	3.40	3.05
3Z18T5/1N1596A	INT	4.55	4.05	3.65
3Z18T10/1N1596	INT	3.80	3.40	3.05
3Z22T5/1N1597A	INT	4.55	4.05	3.65
3Z22T10/1N1597	INT	3.80	3.40	3.05

Type No.	Mfg.	1-9	10-99	100-999
4D4	INT	.55	.40	.31
4D6	INT	.65	.55	.40
4D8	INT	.75	.65	.55

Type No.	Mfg.	1-99	100-999	1000-Up
4JA40A/A40A	GE	1.77	1.18	1.06
4JA40B/A40B	GE	1.82	1.21	1.09
4JA40C/A40C	GE	2.40	1.60	1.44
4JA40D/A40D	GE	2.90	1.93	1.74
4JA40E/A40E	GE	3.53	2.35	2.12
4JA40F/A40F	GE	1.73	1.15	1.04
4JA40M/A40M	GE	4.20	2.80	2.52
4JA44B/A44B	GE	1.16	.77	.69
4JA44C/A44C	GE	1.28	.85	.76
4JA70D/1N3291	GE	14.00	11.60	....

Type No.	Mfg.	1-9	10-99	100-999
4JA411CB1AD1	GE	7.20	6.00	......

Type No.	Mfg.	1-99	100-Mix	100-999
4JZ4X5.6B/1N1765	GE	2.40	......	1.60
4JZ4X6.2B/1N1766	GE	2.40	......	1.60
4JZ4X6.8B/1N1767	GE	2.40	......	1.60
4JZ4X7.5B/1N1768	GE	2.40	......	1.60
4JZ4X8.2B/1N1769	GE	3.00	......	2.00
4JZ4X9.1B/1N1770	GE	3.00	......	2.00
4JZ4X10B/1N1771	GE	3.00	......	2.00
4JZ4X11B/1N1772	GE	3.00	......	2.00
4JZ4X12B/1N1773	GE	3.00	......	2.00
4JZ4X13B/1N1774	GE	3.00	......	2.00
4JZ4X15B/1N1775	GE	3.00	......	2.00
4JZ4X16B/1N1776	GE	3.00	......	2.00
5A2	INT	.32	......	.28
5A3	INT	.37	......	.32
5A4	INT	.41	......	.35
5A5	INT	.45	......	.38
5A6	INT	.50	......	.44
5A8	INT	.85	......	.75
5A10	INT	1.20	......	1.02
5MA2/1N1082	INT	.75	......	.60
5MA4/1N1084	INT	.94	......	.76
5MA6	INT	1.70	......	1.35
5MA8	INT	2.70	......	1.95
5MA10	INT	3.40	......	2.40

Type No.	Mfg.	1-99	100-Mix	100-999
5RC15A/2N1773	INT	6.92	......	4.60
5RC20A/2N1774	INT	8.12	......	5.40
5RC20B/2N1774A	INT	13.45	......	8.95
5RC25B/2N1775A	INT	15.50	......	10.45
5RC30B/2N1776A	INT	18.35	......	12.20
5RC40B/2N1777A	INT	23.60	......	15.50

Type No.	Mfg.	1-9	10-99	100-999
6F20D	INT	1.45	1.31	1.16
6F40D	INT	2.61	2.35	2.09
6F60D	INT	3.30	2.97	2.67
6F80D	INT	3.90	3.51	2.84
6F100D	INT	6.63	5.97	5.37

Type No.	Mfg.	1-49	50-99	100-999
6RS5SP4B4	GE	.81	.61	.55
6RS20SP1B1	GE	.69	.52	.47
6RS20SP2B2	GE	.80	.60	.54
6RS20SP3B3	GE	.91	.69	.62
6RS20SP4B4	GE	1.03	.78	.70
6RS20SP5B5	GE	1.15	.87	.78
6RS20SP6B6	GE	1.26	.95	.86
6RS20SP7B7	GE	1.38	1.04	.94
6RS20SP9B9	GE	1.62	1.22	1.10
6RS20SP10B10	GE	1.73	1.31	1.18
6RS21SA1D1	GE	1.87	1.33	1.20
6RS21SA2D2	GE	2.00	1.45	1.30
6RS21SA3D3	GE	2.20	1.63	1.43
6RS21SA4D4	GE	2.38	1.70	1.55
6RS21SAA5D5	GE	2.55	1.85	1.65
6RS21SA6D6	GE	2.75	1.97	1.78
6RS21SA7D7	GE	2.90	2.10	1.90
6RS21SA8D8	GE	3.10	2.25	2.04

Type No.	Mfg.	1-99	100-Mix	100-999
A30	GE	1.01	......	.67
/B4/2N2201	GE	6.90	.	4.60

Type No.	Mfg.	1-99	100-Mix	100-Up
8D4	INT	.59	.50	.44
8D6	INT	.67	.59	.53
10	SAR	NET	.90	......

Type No.	Mfg.	1-24	25-99	100-999
10B	SAR	1.05	.89	.83

Type No.	Mfg.	1-99	100-Mix	100-999
10B1	INT	.50	......	.37
10B2	INT	.55	......	.40
10B4	INT	.80	......	.64
10B10	INT	2.05	......	1.64
10C1	INT	.32	......	.29
10C2	INT	.35	......	.32
10C3	INT	.38	......	.36
10C4	INT	.42	......	.38
10C5	INT	.47	......	.43
10C6	INT	.52	......	.46
10C8	INT	.75	......	.65
10C10	INT	1.70	......	1.20
10D2/1N2069	INT	.32	......	.28
10D3	INT	.37	......	.32
10D4/1N2070	INT	.41	......	.35
10D5	INT	.45	......	.38
10D6/1N2071	INT	.50	......	.44
10D8	INT	.85	......	.75
10D10	INT	1.20	......	1.02

Type No.	Mfg.	1-24	25-99	100-999
10JM	SAR	2.24	1.92	1.80
10LA/1N1085A	SAR	3.24	2.86	2.66
10M/1N1081	SAR	.60	.55	.51

Type No.	Mfg.	1-99	100-Mix	100-999
10RC5/2N1843	INT	3.15	......	2.10
10RC20A/2N1846A	INT	5.62	......	3.75
10RC50A/2N1850A	INT	9.60	......	6.40

Type No.	Mfg.	1-24	25-99	100-999
10T5.6	SAR	4.83	4.14	3.86
10T6.2/1N1804	SAR	3.39	2.90	2.70
10T7.5	SAR	4.83	4.14	3.86
10T9.1	SAR	4.83	4.14	3.86

Type No.	Mfg.	1-99	100-Mix	100-999
10Z3.9T5/1N1599A	INT	8.00	7.10	6.40
10Z3.9T10/1N1599	INT	5.95	5.40	4.75
10Z4.7T5/1N1600A	INT	8.00	7.10	6.40
10Z4.7T10/1N1600	INT	5.95	5.40	4.75
10Z5.6T5/1N1601A	INT	8.00	7.10	6.40
10Z5.6T10/1N1601	INT	5.95	5.40	4.75
10Z6.8T10/1N1602	INT	5.95	5.40	4.75
10Z8.2T5/1N1603A	INT	8.00	7.10	6.40
10Z10T5/1N1604A	INT	8.00	7.10	6.40
10Z12T5/1N1605A	INT	8.00	7.10	6.40
10Z12T10/1N1605	INT	5.95	5.40	4.75
10Z15T10/1N1606	INT	5.95	5.40	4.75
10Z18T10/1N1607	INT	5.95	5.40	4.75
10Z27T5/1N1609A	INT	8.00	7.10	6.40
12A8	GE	5.65	......	3.75

Type No.	Mfg.	1-24	25-99	100-Up
14A502	GE	15.00	10.00	......

Type No.	Mfg.	1-99	100-999	1000-Up
16A-1/2N2711	GE	.29	.20	.17
16A2/2N2712	GE	.34	.23	.19
16B-2/2N2714	GE	.41	.27	.23
16F10/1N3616	INT	1.54	1.05	......
16F20/1N3618	INT	3.03	2.04	......
16F40/1N3620	INT	4.90	3.15	......
16J2/2N3606	GE	.29	.20	.17
16J3/2N3607	GE	.23	.15	.13
16L43/2N3854	GE	.34	.23	.19
16L45/2N3856	GE	.38	.26	.21
16L63/2N3854A	GE	.36	.24	.20
16L64/2N3855A	GE	.38	.26	.21
16L65/2N3856A	GE	.41	.27	.23
16RC2A/2N681	INT	7.65	4.50	....
16RC5A/2N682	INT	3.60	2.40	....
16RC10A/2N683	INT	4.72	3.15	....
16RC15A/2N684	INT	5.47	3.65	....
16RC20A/2N685	INT	5.92	3.95	....
16RC25A/2N686	INT	6.30	4.20	....
16RC30A/2N687	INT	6.75	4.50	....
16RC40A/2N688	INT	8.25	5.50	....
16RC50A/2N689	INT	10.12	6.75	....
16RC60	INT	11.95	8.00	....
16RC60A/2N690	INT	12.00	8.00	....
16RC70A/2N691	INT	19.27	12.85	....
16RC80A/2N692	INT	25.00	18.50	....
16X2/2N3877	GE	.47	.32	.26
18DB2A	INT	2.50	2.25	....
18DB3A	INT	2.60	2.35	....
18DB4A	INT	2.75	2.48	....
18DB5A	NIT	2.90	2.60	....
18DB6A	INT	3.05	2.75	....
18DB8A	INT	3.60	3.24	....
18DB10A	INT	5.40	4.85	....
20A05	INT	.45	.32	....
20A1	INT	.50	.35	....
20A2	INT	.55	.39	....
20A3	INT	.60	.43	....
20A4	INT	.70	.50	....
20A5	INT	.80	.56	....
20A6	INT	.90	.63	....
20A8	INT	1.30	.91	....
20A10	INT	1.60	1.10	....

Type No.	Mfg.	1-24	25-99	100-Up
20C/1N2611	SAR	.37	.32	.29
20H3P/1N1344	SAR	1.20	1.03	.96
20J2/1N1622	SAR	2.80	2.40	2.24
20LA/1N1086A	SAR	4.00	3.43	3.20

Type No.	Mfg.	1-99	100-Mix	100-999
20SP4B4	GE	1.03	....	.78
2191A	WES	23.50	....	18.50
2191B	WES	27.00	....	21.50
2191C	WES	32.00	....	24.50

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Type No.	Mfg.	1-99	100-Mix	100-999
2191D	WES	36.00	....	28.80
2191E	WES	40.00	....	32.00
2191F	WES	48.00	....	38.00
2191H	WES	63.00	....	49.00
2191K	WES	76.00	....	59.50
2191M	WES	92.00	....	72.00
2191P	WES	113.00	....	89.00
2191S	WES	136.00	....	107.50
2191V	WES	158.50	....	125.50
2191Z	WES	187.00	....	148.00
25-2005	INT	.90	....	.75
2541A	WES	47.50	....	36.00
2541B	WES	52.00	....	40.00
2541D	WES	66.00	....	52.00
2541F	WES	86.00	....	68.00
2541H	WES	117.00	....	88.00
2541K	WES	136.50	....	106.50
2541M	WES	164.00	....	127.50
2541P	WES	297.00	....	196.00
2541S	WES	362.50	....	209.50
25H15/1N2130A	INT	3.10	....	2.30
25H50/1N2137A	INT	5.95	....	3.85

Type No.	Mfg.	1-24	25-99	100-Up
263C	WES	35.00	29.00	....
263D	WES	40.00	32.00	....
263E	WES	49.00	38.00	....
263F	WES	58.00	44.00	....
263H	WES	74.00	58.00	....
263K	WES	91.00	67.00	....
263M	WES	105.00	81.00	....
263P	WES	131.00	102.00	....
263S	WES	157.00	121.00	....
263V	WES	188.00	145.00	....
263Z	WES	222.00	172.00	....
263ZB	WES	258.00	203.00	....
263ZD	WES	291.00	237.00	....
263ZF	WES	340.00	276.00	....
263ZH	WES	390.00	316.00	....
263ZK	WES	440.00	356.00	....
30M/1N1083	SAR	.70	.61	.57
40B	WES	1.75	1.51	1.41
40-H/1N2487	SAR	.43	.37	.35
40M3P/1N1346	SAR	1.50	1.29	1.20

Type No.	Mfg.	1-99	100-Mix	100-999
40HF-5/1N1183	INT	1.15	....	.80
40HF-10/1N1184	INT	1.45	....	1.05
40HF-20/1N1186	INT	2.00	....	1.40
40HF-30/1N1187	INT	2.55	....	1.85
40HF-40/1N1188	INT	3.05	....	2.20
40HF50	INT	3.85	....	2.80
40HF60	INT	4.55	....	3.30
40HF80	INT	7.05	....	5.05
40HF100	INT	9.90	....	7.20

Type No.	Mfg.	1-24	25-99	100-Up
40J2/1N1624	SAR	4.24	3.62	3.40
40J3N	SAR	4.48	3.84	3.60
40J3P	SAR	4.48	3.84	3.60
40LA/1N1088A	SAR	5.35	4.67	4.27
40-LF/1N1092	SAR	5.35	4.67	4.27

Type No.	Mfg.	1-24	25-99	100-Up
60B	SAR	1.50	1.27	1.19
60B	WES	1.95	1.66	1.54
60C/1N2615	SAR	.55	.45	.42
60H/1N2489	SAR	.47	.40	.31
60H3P/1N1348	SAR	2.12	1.82	1.69
60LA	WES	6.45	5.52	5.15
60M	SAR	.85	.70	.66
61-8969	INT	2.95	2.65	2.35

Type No.	Mfg.	1-9	10-99	100-999
71RA60	INT	185.00	81.70	....
71RA100	INT	220.00	141.55	....

Type No.	Mfg.	1-99	100-Mix	100-999
72DK	TI	NET	49.50	....
73DK	TI	NET	49.50	....
74DK	TI	NET	49.50	....
75	SAR	5.53	.61	....

Type No.	Mfg.	1-24	25-99	100-999
80C	SAR	.62	.53	.49
100	SAR	NET	1.02	....
100C	SAR	.95	.82	.76
100-150	SAR	1.20	.44	.40

Type No.	Mfg.	1-24	25-99	100-Up
109UA/2N2739	WES	57.10	48.10	....
109UB/2N2740	WES	74.10	62.10	....
109UC/2N2741	WES	95.10	80.10	....
109WA/2N2745	WES	63.10	52.10	....
109WB/2N2746	WES	82.10	68.10	....
109WC/2N2747	WES	150.10	87.10	....
109XA2N2751	WES	70.10	59.10	....
109XB/2N2752	WES	90.10	76.10	....
109XC/2N2753	WES	115.10	98.10	....

Type No.	Mfg.	1-99	100-Mix	100-999
110C	HOF	1.90	....	1.50
110CL	HOF	2.15	....	1.75
120C8	HOF	3.75	....	3.45

Type No.	Mfg.	1-24	25-99	100-Up
120SM/1N1109	SAR	4.00	3.43	3.20

Type No.	Mfg.	1-99	100-Mix	100-999
150	SAR	NET	1.02	....
151-04	WES	5.65	....	4.45
151-06	WES	8.50	....	6.65
151-08	WES	11.40	....	8.80
151-09	WES	12.85	....	10.00
151-10	WES	14.40	....	11.20
151-12	WES	16.25	....	12.50
151-14	WES	18.30	....	14.10
151-16	WES	20.60	....	15.80
151-18	WES	23.20	....	17.90
151-20	WES	26.20	....	20.10
151-22	WES	29.60	....	22.70
151-24	WES	34.20	....	25.85
151-26	WES	38.90	....	29.40
151-28	WES	44.10	....	33.50
151-30	WES	50.00	....	38.00

Type No.	Mfg.	1-9	10-99	100-999
151RA60	INT	177.00	124.50	....
151RA100	INT	328.00	225.00	....

Type No.	Mfg.	1-99	100-Mix	100-999
152-04	WES	6.55	....	5.10
152-06	WES	9.60	....	7.50
152-08	WES	12.70	....	9.90
152-09	WES	14.25	....	11.10
152-10	WES	15.85	....	12.35
152-12	WES	18.70	....	14.40
152-14	WES	21.00	....	16.20
152-16	WES	23.70	....	18.30
152-18	WES	26.70	....	20.35
152-20	WES	28.90	....	22.10
152-22	WES	32.70	....	24.90
152-24	WES	37.20	....	28.40
152-26	WES	42.35	....	32.30
152-28	WES	48.20	....	36.80
152-30	WES	54.60	....	41.70
153-04	WES	5.65	....	4.45
153-05	WES	7.10	....	5.55
153-06	WES	8.50	....	6.65
153-08	WES	11.40	....	8.80
153-10	WES	14.40	....	11.20
153-12	WES	16.25	....	12.50
153-14	WES	18.30	....	14.10

Type No.	Mfg.	1-99	100-Mix	100-999
153-16	WES	20.60	....	15.80
153-18	WES	23.20	....	17.90
153-20	WES	26.20	....	20.10
153-22	WES	29.60	....	22.70
153-24	WES	34.20	....	25.85
153-26	WES	38.90	....	29.40
153-28	WES	44.10	....	33.50
153-30	WES	50.00	....	38.00
153-06	WES	8.50	....	6.65
153-07	WES	9.95	....	7.75
153-08	WES	11.40	....	8.80
153-10	WES	14.40	....	11.20
153-12	WES	16.25	....	12.50
153-14	WES	18.30	....	14.10
153-16	WES	20.60	....	15.80
153-18	WES	23.20	....	17.90
153-20	WES	26.20	....	20.10
153-22	WES	29.60	....	22.70
153-24	WES	34.20	....	25.85
153-26	WES	38.90	....	29.40
153-28	WES	44.10	....	33.50
154-04	WES	6.55	....	5.10
154-05	WES	8.05	....	6.55
154-06	WES	8.60	....	7.50
154-08	WES	12.70	....	9.90
154-10	WES	15.85	....	12.35
154-12	WES	18.70	....	14.40
154-14	WES	21.00	....	16.20
154-16	WES	23.70	....	18.30
154-18	WES	26.70	....	20.35
154-20	WES	28.90	....	22.10
154-22	WES	32.70	....	24.90
154-24	WES	37.20	....	28.40
154-26	WES	42.35	....	32.30
154-28	WES	48.20	....	36.80
154-30	WES	54.60	....	41.70
163-04	WES	14.60	....	11.35
163-05	WES	16.90	....	12.60
163-06	WES	18.60	....	13.40
163-07	WES	19.60	....	14.15
163-08	WES	20.60	....	14.85
163-09	WES	21.60	....	15.56
163-10	WES	22.60	....	16.30
163-12	WES	25.60	....	18.45
163-14	WES	28.60	....	20.60
163-16	WES	31.60	....	22.75
163-18	WES	34.60	....	24.90
163-20	WES	37.60	....	27.10
163-22	WES	40.85	....	29.55
163-24	WES	44.40	....	32.20
163-26	WES	48.25	....	35.10
163-28	WES	52.45	....	38.25
163-30	WES	57.00	....	41.70
164-04	WES	19.50	....	14.15
164-05	WES	20.60	....	14.85
164-06	WES	21.60	....	15.60
164-07	WES	22.60	....	16.30
164-08	WES	23.60	....	17.00
164-09	WES	24.60	....	17.75
164-10	WES	25.60	....	18.45
164-12	WES	28.60	....	20.60
164-14	WES	31.60	....	22.75
164-16	WES	34.60	....	24.90
164-18	WES	37.60	....	27.10
164-20	WES	40.60	....	29.30
164-22	WES	43.85	....	31.85
164-24	WES	47.35	....	34.20
164-26	WES	51.15	....	36.95
164-28	WES	55.25	....	39.90
164-30	WES	59.70	....	43.10
200	SAR	NET	1.26	
202M	WES	10.65	....	7.10

Type No.	Mfg.	1-99	100-999	1000-Up
203M	WES	13.25	8.75	....
2106500	BEN	.50	.25	.20
2106518	BEN	.40	.20	.16

Type No.	Mfg.	1-24	25-99	100-Up
211E	WES	32.00	25.00	....
218B	WES	67.00	56.00	....
218C	WES	70.00	59.00	....
218D	WES	73.00	62.00	....
218F	WES	85.00	74.00	....
218H	WES	109.00	93.00	....
218K	WES	134.00	113.00	....
218M	WES	156.00	134.00	....
218P	WES	205.00	162.00	....
218S	WES	239.00	197.00	....
218V	WES	277.00	237.00	....
218Z	WES	315.00	269.00	....

Type No.	Mfg.	1-24	25-99	100-Up
218ZB	WES	351.00	296.00	
218ZD	WES	406.00	332.00	
219ZB	WES	174.00	130.50	

Type No.	Mfg.	1-24	25-99	100-999
223A	WES	124.00	108.00	
223B	WES	132.00	115.00	
223C	WES	138.00	120.00	
223D	WES	144.00	125.00	
223F	WES	166.00	145.00	
223H	WES	210.00	183.00	
223K	WES	260.00	226.00	
223M	WES	315.00	274.00	
223P	WES	370.00	322.00	
223S	WES	425.00	370.00	
223V	WES	485.00	422.00	
223Z	WES	540.00	470.00	
223ZB	WES	600.00	525.00	
223ZD	WES	675.00	590.00	

Type No.	Mfg.	1-99	100-Mix	100-999
250	SAR	38.60		33.20
250A	WES	24.80		19.20
250B	WES	28.80		22.30
250C	WES	33.40		25.80
250D	WES	38.00		29.40
250F	WES	44.50		34.50
250F	WES	50.50		39.20
250H	WES	66.50		51.50
250K	WES	80.50		62.50
250M	WES	97.50		75.50
250P	WES	120.00		94.00
250S	WES	145.00		112.00
250V	WES	172.00		133.00
250Z	WES	210.00		152.00
250ZB	WES	248.00		190.00
250ZD	WES	286.00		215.00
250ZF	WES	320.00		245.00
250ZH	WES	370.00		275.00
250ZK	WES	410.00		305.00
251E	WES	32.00		25.00
251ZH	WES	247.00		187.50
251ZK	WES	275.00		205.00

Type No.	Mfg.	1-24	25-99	100-999
254A	WES	24.[illegible]	19.20	
254F	WES	50.50	39.20	
254K	WES	80.50	62.50	
254P	WES	120.00	94.00	
254V	WES	126.00	94.50	
254ZB	WES	24.80	19.20	
254ZF	WES	50.50	39.20	
263A	WES	27.00	23.00	
263B	WES	31.00	26.00	
300	SAR	NET	1.32	

Type No.	Mfg.	1-99	100-Mix	100-999
320-H/1N1222	WES	.75		.50
366-F	WES	1.08		.70
368-A	WES	.79		.67
368AR	WES	.79		.67
368B	WES	.83		.71
368BR	WES	.83		.71
368C	WES	.93		.72
368CR	WES	.93		.72
368D	WES	1.10		.77
368DR	WES	1.10		.77
368F	WES	1.31		.88
368FR	WES	1.31		.88
368H	WES	1.52		.99
368HR	WES	1.52		.99
368K	WES	1.79		1.16
368KR	WES	1.79		1.16
368M	WES	2.05		1.42
368MR	WES	2.05		1.42
376A	WES	6.30		5.40
376B	WES	7.50		6.40
376C	WES	8.95		7.60
376D	WES	10.70		9.50
376F	WES	13.60		11.50
376H	WES	15.50		13.10
376M	WES	21.30		18.00
377-A	WES	7.95		6.25
377-B	WES	9.45		7.50
377-C	WES	11.40		8.90
377-D	WES	15.45		11.00
377-E	WES	16.50		12.30
377-H	WES	20.20		16.00
377-K	WES	25.30		22.10
377-M	WES	31.00		26.10

Type No.	Mfg.	1-99	100-Mix	100-999
384B	WES	.29		.24
384C	WES	.31		.26
384D	WES	.33		.28
384F	WES	.38		.32
384H	WES	.42		.35
384K	WES	.46		.38
384M	WES	.52		.44
384P	WES	.74		.62
384S	WES	.89		.75
386IA	WES	1.35		.90
386IC	WES	1.74		1.20
386IF	WES	2.40		1.62
386IK	WES	3.00		2.05
387C	WES	8.35		5.55
398C	WES	.45		.35
398P	WES	1.05		.82
400	SAR	NET	1.68	
407A	WES	.64		.43
407AR	WES	.64		.43
407B	WES	.67		.45
407BR	WES	.67		.45
407C	WES	.74		.50
407CR	WES	.74		.50
407D	WES	.85		.57
407DR	WES	.85		.57
407F	WES	1.06		.71
407FR	WES	1.06		.71
407H	WES	1.15		.77
407HR	WES	1.15		.77
407K	WES	1.38		.93
407KR	WES	1.38		.93
407M	WES	1.71		1.15
407MR	WES	1.71		1.15
408A	WES	.67		.45
408AR	WES	.67		.45
408B	WES	.70		.47
408BR	WES	.70		.47
408C	WES	.78		.52
408CR	WES	.78		.52
408D	WES	.90		.60
408DR	WES	.90		.60
408F	WES	1.11		.75
408FR	WES	1.11		.75
408H	WES	1.22		.82
408HR	WES	1.22		.82
408K	WES	1.45		.97
408KR	WES	1.45		.97
408M	WES	1.80		1.23
408MR	WES	1.80		1.23
409A	WES	.71		.47
409AR	WES	.71		.47
409B	WES	.74		.50
409BR	WES	.74		.50
409C	WES	.82		.55
409CR	WES	.82		.55
409D	WES	.95		.64
409DR	WES	.95		.64
409F	WES	1.17		.78
409FR	WES	1.17		.78
409H	WES	1.28		.86
409HR	WES	1.28		.86
409K	WES	1.53		1.03
409KR	WES	1.53		1.03
409M	WES	1.90		1.27
409MR	WES	1.90		1.27
416B	WES	3.95		2.74
416C	WES	4.65		3.35
416F	WES	6.55		4.57
416K	WES	8.55		5.74
416P	WES	11.00		9.65
416S	WES	12.55		10.37
416V	WES	13.80		10.90
416V	WES	15.05		11.45
417A	WES	1.20		.80
417AR	WES	1.56		.80
417B	WES	1.56		1.05
417BR	WES	1.56		1.05
417C	WES	1.89		1.26
417CR	WES	1.89		1.26
417D	WES	2.12		1.42
417DR	WES	2.12		1.42
417F	WES	3.31		2.22
417FR	WES	3.31		2.22
417H	WES	3.86		2.59
417HR	WES	3.86		2.59
417K	WES	4.60		3.08
417KR	WES	4.60		3.08
417M	WES	5.52		3.70
417MR	WES	5.52		3.70
418A	WES	1.46		.98
418AR	WES	1.46		.98
418B	WES	1.67		1.13

Type No.	Mfg.	1-99	100-Mix	100-999
418BR	WES	1.67		1.13
418C	WES	1.94		1.31
418CR	WES	1.94		1.31
418D	WES	2.16		1.45
418DR	WES	2.16		1.45
418F	WES	3.69		2.48
418FR	WES	3.69		2.48
418H	WES	4.37		2.93
418HR	WES	4.37		2.93
418K	WES	5.09		3.41
418KR	WES	5.09		3.41
418M	WES	5.85		3.92
418MR	WES	5.85		3.92
419A	WES	1.55		1.04
419AR	WES	1.55		1.04
419B	WES	1.77		1.19
419BR	WES	1.77		1.19
419C	WES	2.05		1.37
419CR	WES	2.05		1.37
419D	WES	2.73		1.83
419DR	WES	2.73		1.83
419F	WES	4.28		2.87
419FR	WES	4.28		2.87
419H	WES	5.00		3.96
419HR	WES	5.00		3.96
419K	WES	5.73		4.83
419KR	WES	5.73		4.83
419M	WES	6.14		4.11
419MR	WES	6.14		4.11

Type No.	Mfg.	1-24	25-99	100-Up
439A/1N3161	WES	19.25	16.20	
439B/1N3162	WES	22.95	19.35	
439C/1N3163	WES	26.95	23.05	
439D/1N3164	WES	31.80	26.85	
439F/1N3165	WES	36.15	30.50	
439F/1N3166	WES	41.20	34.75	
439G/1N3167	WES	52.55	44.30	
439H/1N3168	WES	62.00	50.65	
439K/1N3169	WES	72.70	61.20	
439M/1N3170	WES	89.05	74.70	

Type No.	Mfg.	1-99	100-Mix	100-999
478C	WES	5.63		3.75
479C	WES	6.60		4.40
500	SAR	NET	1.74	

Type No.	Mfg.	1-24	25-99	100-Up
509C-916H14	WES	3.52	2.80	
509C-916H16	WES	3.80	2.88	
509C-916H18	WES	5.00	3.80	
509C-916H22	WES	8.00	7.00	
509C-916H74	WES	4.25	3.60	
509C-916H76	WES	5.80	4.90	
509C-916H78	WES	8.05	7.20	

Type No.	Mfg.	1-99	100-Mix	100-999
600	TI	1.94		1.58
601	TI	3.60		2.94

Type No.	Mfg.	1-99	100-999	1000-Up
622	TI	3.70	3.03	
624	TI	3.75	3.07	
650	TI	4.35	3.65	
650C	TI	4.35	3.65	
650C0	TI	4.85	4.15	
650C3	TI	4.85	4.15	
651C4	TI	4.85	4.15	
652	TI	4.35	3.65	
652C	TI	4.85	4.15	
652C5	TI	4.85	4.15	
653C	TI	4.35	3.65	
653C2	TI	4.85	4.15	
653C4	TI	4.85	4.15	
653C9	TI	4.85	4.15	
654C9	TI	4.85	4.15	
655C9	TI	4.85	4.15	
703A	WES	.43	.37	
703AR	WES	.43	.37	
703B	WES	.49	.41	
703BR	WES	.49	.41	
703D	WES	.71	.59	
703DR	WES	.71	.59	
703F	WES	.81	.68	
703FR	WES	.81	.68	

Type No.	Mfg.	1-24	25-99	100-Up
760ZHR	WES	109.50	104.50	
760ZM	WES	125.50	120.50	

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Type No.	Mfg.	1-24	25-99	100-Up
770ZDR	WES	96.50	81.50	
809P	WES	120.00	94.00	
809V	WES	172.00	133.00	

Type No.	Mfg.	1-99	100-Mix	100-999
809Z	WES	210.00		155.00

Type No.	Mfg.	1-24	25-99	100-Up
809ZB	WES	248.00	109.00	
809ZD	WES	286.00	215.00	
903/2N1149	TI	8.65	5.75	

Type No.	Mfg.	1-99	100-999	1000-Up
904A/2N1151	TI	8.65	5.75	
952/2N1155	TI	10.52	7.92	
953/2N1156	TI	14.12	10.58	
1711-0402	WES	22.20	14.80	
1711-0405	WES	27.00	18.00	
1711-0602	WES	24.00	15.95	
1711-0605	WES	30.00	20.00	
1711-0802	WES	28.50	19.00	
1711-0805	WES	33.50	23.00	
1711 1002	WES	32.00	22.00	
1711-1005	WES	37.00	26.50	
1711-1202	WES	35.50	25.00	
1711-1205	WES	41.00	30.00	
1714-0402	WES	3.25	2.50	
1714-0405	WES	5.00	3.50	
1714-0602	WES	5.00	3.75	
1714-0605	WES	6.50	4.50	
1714 0802	WES	6.00	4.75	
1714-0805	WES	8.00	5.75	
1714-1002	WES	8.00	6.00	
1714-1005	WES	9.50	7.25	
1714-1202	WES	10.00	8.00	
1714-1205	WES	11.50	9.00	
1717-0402	WES	23.50	15.50	
1717-0405	WES	30.00	20.00	
1717-0602	WES	28.00	19.00	
1717-0605	WES	34.00	22.50	
1717-0802	WES	34.00	22.50	
1717-0805	WES	37.50	25.00	
1717-1002	WES	37.50	25.00	
1717-1005	WES	41.50	27.50	
1717-1202	WES	41.50	27.50	
1717-1205	WES	45.00	31.00	
1723 0405	WES	8.50	7.50	
1723-0410	WES	9.00	8.00	
1723-0605	WES	9.50	8.50	
1723-0610	WES	10.00	9.00	
1723-0805	WES	11.00	9.50	
1723-0810	WES	12.00	10.00	
1723-1005	WES	12.00	10.00	

Type No.	Mfg.	1-24	25-99	100-Up
1723-1010	WES	12.50	11.00	
1726-0405	WES	33.00	22.80	
1726-0410	WES	39.50	27.50	
1726-0605	WES	39.50	27.50	
1726-0610	WES	46.00	32.00	
1726-0805	WES	46.00	32.00	

Type No.	Mfg.	1-24	25-99	100-Up
1726-0810	WES	53.00	36.50	
1726-1005	WES	53.00	36.50	
1726-1010	WES	61.00	42.00	

Type No.	Mfg.	1-99	100-999	1000-Up
1763-0415	WES	13.50	10.00	
1763-0420	WES	16.00	12.00	
1763-0425	WES	19.50	14.50	
1763-0615	WES	15.00	11.00	
1763-0620	WES	17.50	13.00	
1763-0625	WES	22.00	16.00	
1763-0815	WES	17.50	12.80	
1763-0820	WES	20.00	15.50	
1763-0825	WES	25.00	19.00	
1763-1015	WES	20.00	14.70	
1763-1020	WES	23.00	18.00	
1763-1025	WES	28.00	21.50	

Type No.	Mfg.	1-24	25-99	100-Up
1768-0415	WES	67.00	46.00	
1768-0420	WES	78.00	54.00	
1768-0425	WES	90.00	62.00	
1768-0615	WES	74.00	51.00	
1768-0620	WES	86.00	59.00	
1768-0625	WES	99.00	68.00	
1768-0815	WES	82.00	56.00	
1768-0820	WES	95.00	66.00	
1768-0825	WES	109.00	75.00	
1768-1015	WES	90.00	62.00	
1768-1020	WES	105.00	73.00	
1765-1025	WES	120.00	83.00	
1771-0440	WES	150.00	103.00	
1771-0450	WES	165.00	114.00	
1771-0460	WES	175.00	122.00	
1771-0640	WES	165.00	113.00	
1771-0650	WES	180.00	125.00	
1771-0660	WES	195.00	135.00	
1771-0840	WES	180.00	124.00	
1771-0850	WES	200.00	140.00	
1771-0860	WES	215.00	150.00	
1771-1040	WES	200.00	135.00	
1771-1050	WES	220.00	150.00	
1771-1060	WES	230.00	160.00	
1776-0440	WES	108.00	75.00	
1776-0450	WES	119.00	82.00	
1776-0460	WES	130.00	90.00	
1776-0640	WES	119.00	82.00	
1776-0650	WES	130.00	90.00	
1776 0660	WES	144.00	99.00	
1776-0840	WES	130.00	90.00	
1776-0850	WES	144.00	99.00	
1776-0860	WES	157.00	108.00	
1776-1040	WES	144.00	99.00	
1776-1050	WES	157.00	108.00	
1776-1060	WES	175.00	120.00	

Type No.	Mfg.	1-99	100-999	1000-Up
4403	RCA	1.21	.88	.73
4404	RCA	1.32	.96	.80
4448	RCA	1.32	.96	.80
4450	RCA	1.37	.95	
4451	RCA	1.37	.95	
4453	RCA	1.28	.93	.77
7163	RCA	1.21	.88	.73
40004	RCA	1.65	1.20	1.00
40022	RCA	.83	.60	.50
40050	RCA	.99	.72	.60
40051	RCA	1.21	.88	.73
40053/2N3053	RCA	.75	.54	.45
40080	RCA	1.08	.78	.65
40081	RCA	1.41	1.02	.85
40082	RCA	4.04	2.94	2.45
40108	RCA	.99	.72	.60
40108R	RCA	.99	.72	.60
40109	RCA	1.16	.84	.70
40109R	RCA	1.16	.84	.70
40110	RCA	1.57	1.14	.95
40110R	RCA	1.57	1.14	.95
40111R	RCA	2.15	1.56	1.30
40113R	RCA	3.14	2.28	1.90
40114R	RCA	3.71	2.70	2.25
40115R	RCA	6.00	4.80	4.00
40208R	RCA	1.19	.87	.72
40209R	RCA	1.32	.96	.80
40210R	RCA	1.78	1.30	1.08
40211R	RCA	2.39	1.74	1.45
40212R	RCA	2.89	2.10	1.75
40213R	RCA	3.63	2.64	2.20
40214	RCA	4.21	3.06	2.55
40214R	RCA	4.21	3.06	2.55

Type No.	Mfg.	1-99	100-999	1000-Up
40231	RCA	.47	.34	.28
40232	RCA	.53	.39	.32
40233	RCA	.60	.44	.36
40234	RCA	.42	.30	.25
40235	RCA	.57	.41	.34
40236	RCA	.48	.35	.29
40237	RCA	.38	.28	.23
40238	RCA	.43	.32	.26
40242	RCA	.57	.41	.34
40243	RCA	.47	.34	.28
40244	RCA	.38	.28	.23
40245	RCA	.40	.29	.24
40246	RCA	.38	.28	.23
40250	RCA	1.16	.84	.70
40250V1	RCA	1.24	.90	.75
40251	RCA	1.90	1.38	1.15
40253	RCA	.60	.44	.36
40254	RCA	.78	.57	.47
40255/2N4063	RCA	3.80	2.76	2.30
40256/2N4064	RCA	1.90	1.38	1.15
40263	RCA	.50	.36	.30
40265	RCA	.35	.25	.21
40266	RCA	.29	.21	1.75
40267	RCA	.33	.24	.20
40280	RCA	4.62	3.36	2.80
40310	RCA	.99	.72	.60
40312	RCA	1.03	.75	.62
40313	RCA	2.23	1.62	1.35
40314	RCA	.78	.57	.47
40315	RCA	.75	.54	.45
40316	RCA	.99	.72	.60
40317	RCA	.78	.57	.47
40318	RCA	2.10	1.52	1.27
40319	RCA	1.16	.84	.70
40321	RCA	1.24	.90	.75
40322	RCA	2.15	1.56	1.30
40323	RCA	.70	.51	.42
40324	RCA	.99	.72	.60
40325	RCA	1.90	1.38	1.15
40326	RCA	.78	.57	.47
40327	RCA	1.24	.90	.75
40328	RCA	2.19	1.60	1.33
40329	RCA	.47	.34	.28
40346	RCA	1.14	.83	.69
40346V1	RCA	1.23	.89	.74
40346V2	RCA	1.23	.89	.74
40347	RCA	.66	.48	.40
40347V1	RCA	.75	.54	.45
40347V2	RCA	.75	.54	.45
40348	RCA	1.06	.77	.64
40348V1	RCA	1.14	.83	.69
40348V2	RCA	1.14	.83	.69
40349	RCA	1.56	1.13	.94
40349V1	RCA	1.64	1.19	.99
40349V2	RCA	1.64	1.19	.99
40354	RCA	1.18	.86	.71
40355	RCA	1.24	.90	.75
40359	RCA	.32	.23	.19
40360	RCA	.91	.66	.55
40361	RCA	.99	72	.60
40362	RCA	1.24	.90	.75
40363	RCA	1.82	1.32	1.10
40364	RCA	4.79	3.48	2.90
40372	RCA	1.24	.90	.75
40373	RCA	2.56	1.86	1.55
40374	RCA	2.56	1.86	1.55
40375	RCA	5.03	3.66	3.05
40378	RCA	1.62	1.18	.98
40379	RCA	2.31	1.68	1.40
40389	RCA	.91	.66	.55
40391	RCA	1.24	.90	.75
40392	RCA	.91	.66	.55
40394	RCA	1.24	.90	.75
40395	RCA	.38	.28	.23
40396	RCA	.83	.60	.50
40397	RCA	.66	.48	.40
40398	RCA	.60	.40	.36
40399	RCA	.55	.40	.33
40400	RCA	.50	.36	.30
40403	RCA	.66	.48	.40
40405	RCA	1.65	1.20	1.00
40406	RCA	1.19	.87	.72
40407	RCA	.81	.59	.49
40408	RCA	1.08	.78	.65
40409	RCA	1.14	.83	.69
40410	RCA	1.32	.96	.80
40411	RCA	4.29	3.12	2.60
40412	RCA	1.06	.77	.64
40412V1	RCA	1.14	.83	.69
40412V2	RCA	1.14	.83	.69
40413	RCA	3.88	2.82	2.35
40414	RCA	5.10	3.70	3.10

Type No.	Mfg.	1-99	100-999	1000-Up
40421	RCA	1.28	.93	.77
40422	RCA	1.03	.75	.62
40423	RCA	1.11	.81	.67
40424	RCA	.98	.71	.58
40425	RCA	1.06	.77	.64
40426	RCA	.93	.68	.56
40428	RCA	.31	.23	.18
40429	RCA	2.48	1.80	1.50
40430	RCA	3.27	2.38	1.98
40431	RCA	2.97	2.16	1.80
40432	RCA	3.76	2.74	2.28
40439	RCA	1.98	1.44	1.20
40440	RCA	1.32	.96	.80
40442	RCA	.83	.60	.50
40446	RCA	4.29	3.12	2.60
40450	RCA	.80	.58	.48
40451	RCA	.90	.65	.54
40452	RCA	.80	.58	.48
40453	RCA	.73	.53	.44
40454	RCA	.66	.48	.40
40455	RCA	.62	.45	.37
40456	RCA	.57	.41	.34
40458	RCA	.78	.57	.47
40459	RCA	.85	.62	.51
40462	RCA	1.16	.84	.70
40467	RCA	1.24	.90	.75
40468	RCA	.75	.54	.45
40472	RCA	.66	.48	.40
40473	RCA	.60	.44	.36
40474	RCA	.48	.35	.29
40475	RCA	.55	.40	.33
40476	RCA	.53	.39	.32
40477	RCA	.50	.36	.30
40478	RCA	.66	.48	.40
40479	RCA	.58	.42	.35
40480	RCA	.48	.35	.29
40481	RCA	.53	.39	.32
40482	RCA	.50	.36	.30
40485	RCA	2.48	1.80	1.50
40486	RCA	3.27	2.38	1.98
40513	RCA	1.24	.90	.75
40514	RCA	1.26	.92	.76
40525	RCA	1.57	1.14	.95
40526	RCA	1.62	1.18	.98
40527	RCA	2.31	1.68	1.40
40528	RCA	1.57	1.14	.95
40529	RCA	1.62	1.18	.98
40530	RCA	2.31	1.68	1.40
40531	RCA	1.24	.90	.75
40538	RCA	1.36	.99	.82
40539	RCA	.66	.48	.40
40542	RCA	1.31	.95	.79
40543	RCA	1.37	1.00	.83
40544	RCA	.75	.54	.45
40546	RCA	.96	.70	.58
40547	RCA	.88	.64	.53
40553	RCA	3.27	2.38	1.98
40554	RCA	6.57	4.78	3.98
40555	RCA	9.85	7.20	5.98
40559	RCA	.70	.51	.42
40575	RCA	3.27	2.38	1.98
40576	RCA	4.92	3.58	2.98
40581	RCA	4.87	3.54	2.95
40582	RCA	5.12	3.72	3.10
40600	RCA	1.24	.90	.75
40601	RCA	1.16	.84	.70
40602	RCA	.83	.60	.50
40603	RCA	1.04	.76	.63
40604	RCA	.98	.71	.59
40608/TA2761	RCA	2.48	1.80	1.50
70318-1	TI	.15	.05	....
354001-99	TI	.15	.05	....
354001-100	TI	.15	.10	....

Type No.	Mfg.	1-99	100-Mix	100-999
A1B	INT	1.22		.82
A1H	INT	.43		.30

Type No.	Mfg.	1-9	10-99	100-999
A5M	INT	7.00	6.65	4.55

Type No.	Mfg.	1-99	100-Mix	100-999
A7G	GE	1.95	....	1.30
A14A	GE	.42	....	.28

Type No.	Mfg.	1-99	100-999	1000-Up
A14B	GE	.46	.31	.22
A14B/1N5059	GE	.46	.31	.23
A14C	GE	.54	.36	.26
A14D/1N5060	GE	.56	.37	.26
A14E	GE	.68	.45	.34
A14F	GE	.37	.25	.19
A14M/1N5061	GE	.75	.50	.35
A14N/1N5062	GE	1.12	.75	.52
A15M	INT	10.40	7.15	....
A27D/1N4507	GE	6.90	4.60	....
A38B/1N4525	GE	6.45	4.30	....
A38D/1N4526	GE	8.78	5.85	....
A38M/1N4527	GE	10.70	6.90	....
A38P/1N4529	GE	13.50	9.00	....
A38PB/1N4530	GE	17.25	11.50	....
A40A/4JA40A	GE	1.77	1.18	....
A40B/4JA40B	GE	1.82	1.21	....
A40C/4JA40C	GE	2.40	1.60	....
A40D/4JA40D	GE	2.90	1.93	....
A40E/4JA40E	GE	3.53	2.35	....
A40F/4JA40F	GE	1.73	1.15	....
A40M/4JA40M	GE	4.20	2.80	....
A44B/4JA44B	GE	1.16	.77	....
A44C/4JA44C	GE	1.28	.85	....
AF139	MOT	1.95	1.30	....
AF239	MOT	2.17	1.45	....
B	CON	1.50	NET	....
B1B	INT	1.28	.86	....
B-2M	INT	1.50	1.35	....

Type No.	Mfg.	1-9	10-99	100-999
B3M	INT	1.75	1.55	....
B10M	INT	7.00	6.65	4.55
B12F10	INT	8.75	7.95	....
B12F20	INT	13.11	11.40	....
B12F30	INT	14.80	12.35	....
B12F40	INT	18.65	15.55	....
B12F50	INT	19.55	16.35	....
B70HB5	INT	13.75	12.38	....
B70HB10	INT	16.35	14.72	....
B70HB20	INT	22.00	18.70	....
B70HB30	INT	26.60	22.65	....
B70HB40	INT	32.70	27.80	....
B70HB50	INT	40.20	34.20	....

Type No.	Mfg.	1-99	100-999	1000-Up
BC21F108	CON	2.06	NET	....
BD1	GE	5.00	3.30	....
BD2	GE	5.00	3.30	....
BD3	GE	3.00	2.00	....
BD4	GE	5.00	3.30	....
BH21F107	CON	NET	1.50	....
BHA-0001	BEN	7.35	6.10	4.90
BHA-0002	BEN	9.40	7.50	5.60
BHB-0005	BEN	18.45	15.40	12.30
BHB-0005A	BEN	20.25	16.90	13.50
BHB-0006	BEN	16.90	14.05	11.25
BHB-0006A	BEN	18.45	15.40	12.30
BHC-0001	BEN	4.30	3.55	2.85
BHC-0002	BEN	4.50	3.75	3.00
BHC-0003	BEN	4.65	3.90	3.30
BHC-0004	BEN	5.25	4.35	3.50
BHC-0005	BEN	5.60	4.70	3.75
BHS	CON	NET	1.50	....
BHS21F105	CON	NET	2.06	....

Type No.	Mfg.	1-24	25-99	100-Up
BN4000	BEN	30.00	24.50	....
BN4001	BEN	30.00	24.50	....
BN4002	BEN	30.00	24.50	....
BN4003	BEN	30.00	24.50	....
BN4004	BEN	37.00	30.00	....
BN4005	BEN	37.00	30.00	....
BN4006	BEN	37.00	30.00	....
BN4008	BEN	30.00	24.50	....
BN4009	BEN	37.00	30.00	....
BN-4100	BEN	10.40	8.90	6.60
BN-4101	BEN	10.40	8.90	6.60
BN-4102	BEN	10.40	8.90	6.60
BN-4103	BEN	10.40	8.90	6.60
BN-4104	BEN	10.40	8.90	6.60
BT21F106	CON	1.18	NET	....

Type No.	Mfg.	1-99	100-999	1000-Up
C1B	INT	1.46	1.00	....
C5A/2N2324	GE	4.05	2.70	....
C5B/2N2326	GE	7.80	5.20	....
C5C/2N2328	GE	12.00	8.00	....
C5F/2N2323	GE	2.47	1.65	....
C5G/2N2325	GE	5.92	3.95	....
C5U/2N2322	GE	2.25	1.50	....
C6A	GE	1.87	1.25	....
C6B	GE	2.07	1.38	....
C6F	GE	1.65	1.10	....
C6G	GE	1.98	1.32	....
C6U	GE	1.57	1.05	....
C7A/2N2346	GE	13.35	8.90	....
C7B/2N2348	GE	18.90	12.60	....
C7F/2N2345	GE	9.15	6.10	....
C8H/2N1930	GE	7.65	5.10	....
C10A/2N1772A	GE	9.00	6.00	....
C10B/2N1774A	GE	13.50	9.00	....
C10C/2N1776A	GE	18.40	12.25	....
C10D/2N1777A	GE	23.85	15.75	....
C11G/2N1773	GE	6.97	4.65	....
C15B	GE	3.75	2.50	....
C15F	GE	1.87	1.25	....
C15G	GE	2.17	1.45	....
C20A	GE	1.92	1.28	....
C20B	GE	1.98	1.32	....
C20C	GE	2.64	1.76	....
C20D	GE	3.00	2.00	....
C20F	GE	1.77	1.18	....
C22A	GE	1.62	1.08	....
C22B	GE	1.68	1.12	....
C22C	GE	2.34	1.56	....
C22D	GE	2.70	1.80	....
C30B	GE	5.57	3.71	....
C30C	GE	7.40	4.95	....
C30D	GE	7.70	5.13	....
C31B	GE	6.12	4.08	....
C31C	GE	8.10	5.40	....
C31D	GE	8.48	5.65	....
C32A	GE	4.55	3.05	....
C32B	GE	7.44	4.96	....
C32C	GE	7.05	4.70	....
C32D	GE	5.32	3.55	....
C32F	GE	3.75	2.50	....
C33D	GE	8.18	5.45	....
C35A	GE	4.72	3.15	....
C35B	GE	5.92	3.95	....
C35C	GE	6.75	4.50	....
C35D	GE	8.25	5.50	....
C35E	GE	11.17	7.45	....
C35F	GE	3.60	2.40	....
C35G	GE	5.48	3.65	....
C35H	GE	6.30	4.20	....
C35N	GE	30.60	20.40	....
C35U	GE	3.00	2.00	....
C36A/2N1844	GE	6.25	4.15	....
C36B/2N1846	GE	5.32	3.55	....
C36G/2N1845	GE	7.35	4.90	....
C36H/2N1847	GE	9.75	6.50	....
C37B	GE	262.00	224.00	....
C37M	GE	10.65	7.10	....
C37S	GE	13.42	8.95	....
C38D	GE	13.50	9.00	....
C40B	GE	17.40	11.60	....

Type No.	Mfg.	1-24	25-99	100-Up
C45U	GE	14.95	11.70	....
C46B	GE	28.50	22.30	....
C46D	GE	50.15	39.25	....

Type No.	Mfg.	1-99	100-999	1000-Up
C50A/2N1911	GE	25.90	19.80	....
C50B/2N1913	GE	34.20	25.00	....
C50D/2N1916	GE	60.00	38.50	....
C50U/2N1909	GE	17.50	13.50	....
C106A1	GE	1.13	.75	.64
C-106B1	GE	1.28	.85	.65
C-106F1	GE	1.05	.70	.59
C-135B/2N3755	GE	9.45	6.30	....
C-135D/2N3757	GE	15.00	10.00	....
C-135F/2N3753	GE	5.55	3.70	....
C-137M/2N5204	GE	21.00	14.00	....
C-137N/2N5205	GE	30.60	20.40	....
C-140F/2N3649	GE	9.82	6.55	....
C-140A/2N3650	GE	10.72	7.15	....
C-180E	GE	176.00	149.00	....
C180N	GE	292.00	248.00	....
C611A	GE	2.40	1.60	....
C611F	GE	2.20	1.45	....
C611G	GE	2.50	1.67	....
C611U	GE	2.10	1.40	....
CR101	RCA	5.75	5.47	....
CR102	RCA	7.20	6.85	....
CR103	RCA	8.15	7.75	....
CR105	RCA	10.55	10.05	....
CR106	RCA	12.00	11.40	....
CR108	RCA	13.90	13.20	....
CR110	RCA	16.30	15.50	....
CR201	RCA	3.10	2.96	....
CR203	RCA	4.80	4.56	....
CR204	RCA	5.75	5.47	....
CR206	RCA	6.95	6.60	....

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Type No.	Mfg.	1-99	100-999	1000-Up
CR208	RCA	8.40	8.00	...
CR210	RCA	10.10	9.60	...
CR212	RCA	12.00	11.40	...
CS-120	INT	2.35	1.57	...
CS-120-M6/CS120	INT	2.35	1.57	...

Type No.	Mfg.	1-9	10-99	100-999
CS-120-U6	INT	1.95	1.30	...
CS-120-U16	INT	3.50	2.33	...

Type No.	Mfg.	1-24	25-99	100-Up
DUAL CLIP	SAR	.24	.22	.19

Type No.	Mfg.	1-99	100-999	1000-Up
D5E43	GE	1.05	.70	.60
D5E44	GE	.97	.65	.55
D-5K2	GE	2.55	1.70	1.40
D-13D1/2N4983	GE	1.17	.78	.60
D-13E1/2N4993	GE	1.65	1.10	.99
D-13T1	GE	.87	.58	.46
D-13T2	GE	1.89	1.26	1.05
D-14A502	GE	6.00	4.00	3.60
D-16P1	GE	.47	.32	.26
D-16P2	GE	.52	.35	.29
D-16P4/2N5306	GE	.59	.39	.33
D-19RA1	GE	4.50	3.00	2.70
D-20D1/2N4054	GE	1.20	.80	.64
D-20D3/2N4055	GE	1.06	.71	.57
D-20D5/2N4056	GE	.95	.63	.51
D-20D7/2N4057	GE	.81	.54	.44
D-26B1	GE	.75	.52	.47
D-26B2	GE	.83	.55	.50
D-26C1	GE	.76	.51	.46
D-26C2	GE	.80	.53	.48
D-26C3	GE	.85	.57	.51
D-26E1	GE	1.35	.90	.81
D-26E5	GE	.93	.62	.56
D-26E6	GE	.75	.49	.44
D-26G1	GE	1.02	.68	.62
D-27C1	GE	1.44	.96	.77
D-27C2	GE	1.35	.90	.72
D-27C3	GE	1.30	.87	.70
D-27C4	GE	1.21	.81	.65
D-28A5	GE	.74	.50	.40
D-28A6	GE	.84	.55	.45
D-28A9	GE	.79	.53	.42
D-29A10	GE	1.01	.68	.54
D-28A12	GE	.86	.57	.46
D-28A13	GE	1.06	.71	.57
D-28C1	GE	1.06	.70	.57
D-28C2	GE	1.01	.68	.54
D-28C3	GE	1.15	.76	.61
D-28C4	GE	1.06	.71	.57
D-28C5	GE	1.17	.78	.63
D-28D1	GE	.77	.51	.41
D-28D2	GE	.88	.59	.47
D-28D3	GE	1.01	.68	.54
D-28D4	GE	.90	.60	.48
D-28D5	GE	1.04	.69	.55
D-28D7	GE	1.08	.72	.58
D-28D10	GE	1.21	.81	.65
D-29A4/2N5354	GE	.43	.29	.24
D29A5/2N5355	GE	.50	.33	.28
D-29A6/2N5356	GE	.52	.35	.29
D-29A7/2N5365	GE	.55	.37	.28
D-28A8/2N5366	GE	.60	.40	.31
D-29A9/2N5367	GE	.62	.42	.31
D29A12	GE	.58	.38	.29
D-30A1	GE	1.16	.77	.69
D-30A2	GE	1.20	.80	.72
D-30A3	GE	1.28	.86	.77
D-33D1	GE	.51	.34	...
D-33D2	GE	.58	.38	...
D-33D3	GE	.65	.43	...
D-33D4	GE	.67	.45	...
D-33D5	GE	.74	.50	...
D-33D6	GE	.82	.54	...
D6623	SYL	.48	.32	.21
D6623A	SYL	.52	.35	.22
D6624A	SYL	.56	.38	.23
D6625	SYL	.57	.38	.23
D6625A	SYL	.60	.40	.24

Type No.	Mfg.	1-9	10-99	100-999
DD-190	INT	.99	.89	...
DT42OP	SAR	2.44	2.09	1.94
E1/1N4002	SAR	.33	.29	.27
E2/1N4003	SAR	.33	.29	.27
E4/1N4004	SAR	.35	.30	.28
E6/1N4005	SAR	.37	.22	.29
E8/1N4006	SAR	.52	.44	.41
E10/1N4007	SAR	.79	.67	.63

Type No.	Mfg.	1-99	100-999	1000-Up
EA7E1	HOF	6.75	5.10	...
EA7E2	HOF	6.00	4.50	...
EA7E3	HOF	5.10	3.80	...
ED3001A	ERI	.45	.30	.21
ED3002A/IN2069	ERI	.50	.33	.22
ED3003A	ERI	.58	.39	.23
ED3004A/IN2070	ERI	.61	.45	.27
ED3005A	ERI	.64	.49	.28
ED3006A/IN2071	ERI	.66	.51	.29
ED3008A	ERI	.72	.57	.42
ED3010A	ERI	.76	.61	.46
ED3100	ERI	.61	.36	.24
ED3101	ERI	.66	.41	.28
ED3102	ERI	.71	.44	.30
ED3104	ERI	.82	.56	.34
ED3106	ERI	.88	.59	.37
ED3108	ERI	.95	.70	.51
ED3110	ERI	1.01	.76	.57
EP-50	INT	3.95	2.40	

Type No.	Mfg.	1-24	25-99	100-Up
F-2/IN2482	SAR	.33	.29	.27
F-4/IN2483	SAR	.35	.30	.28
F-6/IN2484	SAR	.37	.32	.29
F8	SAR	.52	.44	.41
F10	SAR	.79	.67	.63
F15	SAR	1.17	1.00	.93
F20	SAR	1.50	1.29	1.20
F25	SAR	2.00	1.72	1.60

Type No.	Mfg.	1-9	10-24	
FC100	INT	60.00	51.00	...
FC200	INT	130.00	110.00	...
FC300	INT	215.00	183.00	...

Type No.	Mfg.	1-99	100-999	1000-Up
FWB3001A	ERI	1.80	1.45	...
FWB3002A	ERI	1.80	1.50	...
FWB3003A	ERI	1.90	1.60	...
FWB3004A	ERI	2.00	1.70	...
FWB3005A	ERI	2.25	1.80	...
FWB3006A	ERI	2.50	1.90	...
FWB3008A	ERI	2.75	2.30	...
FWB3010A	ERI	3.00	2.50	...
FWBTS3001	ERI	1.70	1.25	...
FWBTS3001A	ERI	1.75	1.30	...
FWBTS3002	ERI	1.75	1.30	...
FWBTS3003	ERI	1.85	1.40	...
FWBTS3004	ERI	1.95	1.50	...
FWBTS3005	ERI	2.05	1.60	...
FWBTS3005A	ERI	2.10	1.65	...
FWBTS3006	ERI	2.15	1.70	...
FWBTS3008	ERI	2.60	1.70	...
FWBTS3010	ERI	3.00	2.50	...
FWBTS3010A	ERI	3.05	2.55	...
FWDA3001A	ERI	.97	.69	.59
FWDA3002A	ERI	.98	.70	.60
FWDA3003A	ERI	.99	.71	.61
FWDA3004A	ERI	1.00	.72	.62
FWDA3005A	ERI	1.01	.73	.63
FWDA3006A	ERI	1.09	.78	.67
FWDA3007A	ERI	1.12	.81	.70
FWDA3008A	ERI	1.18	.84	.73
FWDA3009A	ERI	1.27	.91	.78
FWDA3010A	ERI	1.57	1.12	.88
GO1	TI	.85	.66	
GO2	TI	.60	.49	

Type No.	Mfg.	1-24	25-99	100-999
G1	SAR	.35	.30	.28
G2	SAR	.37	.32	.28
G4	SAR	.43	.37	.35
G6	SAR	.47	.40	.37
G8	SAR	.62	.53	.49
G10	SAR	.95	.82	.76

Type No.	Mfg.	1-99	100-999	1000-Up
GAD-2000	HUG	12.30	6.20	...
GAD-2002	HUG	9.00	4.50	...
GAD-2014	HUG	.80	.40	...
GAD-2015	HUG	.90	.45	...
GAD-3000	HUG	17.20	8.60	...
GAD-3050-1	HUG	38.00	19.20	...
GAD-5000	HUG	16.20	8.10	...
GAD-5002	HUG	11.20	5.60	...
GAD-5003	HUG	18.80	9.40	...
GAD-6000	HUG	18.00	8.80	...
GAD-6001	HUG	14.00	7.00	...
GAT-1200	HUG	19.90	10.00	...
GAT-1202	HUG	12.30	6.20	...
GAT-1203	HUG	23.30	11.70	...
GAT-1215	HUG	21.40	10.70	...
GAT-1216	HUG	16.00	8.00	...
GAT-1222	HUG	32.00	16.00	...
GAT-1223	HUG	22.70	11.30	...
GAT-1226	HUG	11.80	5.90	...
GAT-1918	HUG	2.30	1.15	...
GAT-2605	HUG	3.00	1.50	...
GAT-2484	HUG	2.40	1.20	...
GE-1	GE	1.20	...	...
GE-2	GE	1.02	...	...
GE-3	GE	1.78	...	...
GE-4	GE	2.94	...	...
GE-5	GE	1.68	...	...
GE-6	GE	1.83	...	...
GE-7	GE	1.77	...	...
GE-8	GE	1.27	...	...
GE-9	GE	1.26	...	...
GE-9A	GE	1.26	...	...
GE-10	GE	1.20	...	...
GE-11	GE	1.53	...	...
GE-12	GE	2.34	...	...
GE-13-MP	GE	4.68	...	...
GE-14	GE	3.51	...	...
GE-15-MP	GE	7.02	...	...
GE-16	GE	3.15	...	...
GE-17	GE	1.42	...	...
GE-18	GE	1.46	...	...
GE-19	GE	3.06	...	...
GE-20	GE	1.10	...	...
GE-21	GE	1.12	...	...
GE-22	GE	1.03	...	...
GE-23	GE	2.52	...	...
GE-24-MP	GE	5.04	...	...
GE-25	GE	7.50	...	...
GE-504A	GE	.66	...	...
GE-509	GE	.79	...	...
GE-FET-1	GE	2.25	...	...
GE-X1	GE	2.60	...	...
GE-X2A	GE	2.80	...	...
GE-X3	GE	4.00	...	...
GE-X4	GE	1.60	...	...
GE-X5	GE	2.30	...	...
GE-X6	GE	1.40	...	...
GE-X7	GE	.80	...	...
GE-X8	GE	.70	...	...
GE-X9	GE	.70	...	...
GE-X10	GE	1.35	...	...
GE-X11	GE	1.80	...	...
GE-X13	GE	1.60	...	...
GE-X16	GE	3.45	...	...

Typo No.	Mfg.	1-99	100-Mix	100-999
GZ-1/1N702	HOF	2.10	1.90	1.60
GZ-2/1N703	HOF	1.85	1.65	1.38
GZ-3/1N704	HOF	1.85	1.65	1.38
GZ-4/1N705	HOF	1.85	1.65	1.38
GZ-5/1N706	HOF	1.85	1.65	1.38

Type No.	Mfg.	1-99	100-Mix	100-999
GZ-6/1N707	HOF	1.85	1.65	1.38
H21F103	CON	NET	1.50	....
H11	TI	4.00		2.80
H35	TI	5.00		3.50
H38	TI	4.00		2.80
H-60	TI	8.00		5.60
H-61	TI	9.00		6.25
HB-1	HOF	NET	.65	....
HB-2	HOF	NET	.65	....
HB-3	HOF	NET	.65	....
HC7001/1N950	HUG	4.00		3.00
HC7006/1N954	HUG	2.00		1.50
HD1811	HUG	.77		.58
HD1842	HUG	.49		.37
HD1870	HUG	.98		.74
HD1871	HUG	.88		.66
HD1872	HUG	.63		.47
HD2051	HUG	.89		.67
HD2135	HUG	.64		.48
HD-5000	HUG	2.85		2.14
HD-5001	HUG	2.55		1.91
HD-5004	HUG	.90		.68
HD6001/1N461	HUG	.40		.30
HD225	HUG	1.68		1.26
HDS50	HUG	.90		.55
HDS51	HUG	.50		.30
HDS52	HUG	.40		.25
HDS100	HUG	1.75		1.00
HDS110	HUG	.75		.40
HDS120	HUG	.60		.35
HE9001	HUG	3.01		2.26
HE9002	HUG	2.73		2.05
HE9003	HUG	3.46		2.60
HE9004	HUG	2.94		2.21
HE9005	HUG	2.45		1.84
HE9006	HUG	3.36		2.52
HE9007	HUG	2.97		2.23
HE9008	HUG	2.45		1.84
HE9010	HUG	1.54		1.16

Type No.	Mfg.	NET
HEK-1	MOT	3.95
HEP-1	MOT	.89
HEP-2	MOT	1.25
HEP-3	MOT	1.25
HEP-50	MOT	.79
HEP-51	MOT	1.29
HEP-52	MOT	.95
HEP-53	MOT	1.15
HEP-54	MOT	1.08
HEP-55	MOT	1.20
HEP-56	MOT	1.44
HEP-57	MOT	1.20
HEP-101	MOT	.95
HEP-102	MOT	1.20
HEP-103	MOT	1.20
HEP-104	MOT	1.20
HEP-105	MOT	1.20
HEP-151	MOT	.79
HEP-153	MOT	1.24
HEP-154	MOT	.36
HEP-156	MOT	.49
HEP-157	MOT	.56
HEP-158	MOT	.66
HEP-159	MOT	.92
HEP-160	MOT	1.45
HEP-161	MOT	1.09
HEP-162	MOT	1.25
HEP-165	MOT	.62
HEP-166	MOT	.60
HEP-175	MOT	1.49
HEP-176	MOT	2.05
HEP-177	MOT	2.25
HEP-178	MOT	3.05
HEP-200	MOT	.82
HEP-230	MOT	.89
HEP-231	MOT	1.69
HEP-232	MOT	2.34
HEP-233	MOT	4.20
HEP-240	MOT	2.05
HEP-250	MOT	.79
HEP-251	MOT	.89
HEP-252	MOT	.89
HEP-253	MOT	.95
HEP-254	MOT	.89
HEP-300	MOT	2.29
HEP-302	MOT	2.69
HEP-304	MOT	4.35
HEP-305	MOT	4.60
HEP-306	MOT	5.90
HEP-307	MOT	6.20
HEP-310	MOT	1.49
HEP-450	MOT	.30

Type No.	Mfg.	NET
HEP-451	MOT	1.49
HEP-452	MOT	.32
HEP-500	MOT	2.35
HEP-501	MOT	2.35
HEP-553	MOT	1.89
HEP-554	MOT	1.49
HEP-556	MOT	1.79
HEP-558	MOT	2.39
HEP-570	MOT	2.10
HEP-571	MOT	2.10
HEP-572	MOT	3.90
HEP-801	MOT	3.39
HEP-802	MOT	1.59

Type No.	Mfg.	1-99	100-Mix	100-999
HMG1148	HUG	35.00		28.00
HMG9001	HUG	2.10		1.58
HMG9002	HUG	1.91		1.54
HMG9003	HUG	2.42		1.82
HMG9004	HUG	2.06		1.54
HMG9005	HUG	1.72		1.29
HMG9006	HUG	3.36		2.52
HMG9007	HUG	2.08		1.56
HMG9008	HUG	1.72		1.29
HMG9009	HUG	1.37		1.03
HMG9010	HUG	1.08		.82
HRM0030	HUG	75.00		52.00
HRM0036	HUG	65.00		42.00
HRM0053	HUG	130.00		99.00
HRM0054	HUG	205.00		165.00
HRM1306	HUG	18.00		12.50
HRM2026	HUG	19.80		14.50
HRM2027	HUG	32.50		24.20
HRM2028	HUG	68.50		51.25
HRM2031	HUG	62.25		35.00
HRM2032	HUG	87.50		55.00
HRM2040	HUG	25.50		17.80
HRM2041	HUG	12.00		7.50
HRM2042	HUG	35.00		27.00
HRM2046	HUG	38.75		23.50
HRM2047	HUG	110.00		78.00
HRM2049	HUG	55.00		43.00
HRM2050	HUG	250.00		180.00
HRM2051	HUG	38.00		24.50
HRM2061	HUG	42.00		26.50
HRM2206	HUG	27.50		20.00
HRM2302	HUG	68.50		40.00
HRM2304	HUG	25.00		18.00
HRM2306	HUG	18.00		12.50
HRM3203	HUG	28.00		21.50

Type No.	Mfg.	1-49		50-499
HRM8013	HUG	55.00		38.40
HRM8014D	HUG	19.50		15.00
HRM8047	HUG	6.25		3.80
HRM8068	HUG	55.00		38.40
HRN1020	HUG	5.25		3.55
HRN1030	HUG	4.80		3.25
HRN8318D	HUG	4.30		2.80
HRN8338D	HUG	4.80		3.25
HRN8348D	HUG	9.25		7.15
HRN8348D	HUG	9.25		7.15
HS21F101	CON	NET	1.18	......
HS6	HOF	1.30		2.85
HS7	HOF	3.50		2.10
HS8	HOF	3.50		2.10
HS14	HOF	6.00		3.70

Type No.	Mfg.	1-49	50-499	500-999
HSC201	HUG	3.81	3.05	2.53
HSC202	HUG	3.81	3.05	2.53
HSC206	HUG	4.22	3.38	2.80
HSC210	HUG	4.58	3.67	3.04
HSC211	HUG	3.81	3.05	2.53
HSC212	HUG	3.81	3.05	2.53
HSC213	HUG	5.34	4.27	3.55
HSC214	HUG	3.81	3.05	2.53
HSC215	HUG	5.34	4.27	3.55
HSC217	HUG	3.40	2.70	2.25
HSC220	HUG	4.58	3.67	3.04
HSC221	HUG	3.81	3.05	2.53
HSC222	HUG	3.81	3.05	2.53
HSC224	HUG	3.81	3.05	2.53
HSC225	HUG	5.34	4.27	3.55
HSC226	HUG	4.22	3.38	2.80
HSC227	HUG	3.40	2.70	2.25
HSC231	HUG	3.81	3.05	2.53
HSC234	HUG	3.81	3.05	2.53
HSC236	HUG	4.22	3.38	2.80
HSC241	HUG	3.81	3.05	2.53
HSC246	HUG	4.22	3.38	2.80

Type No.	Mfg.	1-49	50-499	500-999
HSC261	HUG	3.81	3.05	2.53
HSC266	HUG	4.22	3.38	2.80
HSC286	HUG	4.58	3.67	3.04
HSC288	HUG	7.20	5.76	4.78
HSC296	HUG	4.58	3.67	3.04

Type No.	Mfg.	1-99	100-999	1000-Up
HSC702	HUG	6.00	4.00	....
HSC709	HUG	7.50	5.00	....
HSC710	HUG	6.00	4.00	....
HSC711	HUG	7.50	5.00	....

Type No.	Mfg.	1-49	50-99	100-999
HSC930	HUG	3.81	3.05	2.53
HSC932	HUG	4.58	3.67	3.04
HSC933	HUG	3.40	2.72	2.20
HSC944	HUG	4.58	3.67	3.04
HSC945	HUG	5.34	4.27	3.55
HSC946	HUG	4.22	3.38	2.80
HSC948	HUG	5.34	4.27	3.55
HSC950	HUG	7.20	5.76	4.78
HSC951	HUG	7.20	5.76	4.78
HSC962	HUG	4.22	3.38	2.80

Type No.	Mfg.	1-99	100-999	1000-Up
HSC4709	HUG	15.00	10.00	....
HSC4710	HUG	12.00	8.00	....

Type No.	Mfg.	1-24	25-99	100-999
HSF13	HUG	4.62	3.69	3.14
HSF23	HUG	5.62	4.49	3.82
HSF33	HUG	6.16	4.94	4.19
HSF53	HUG	6.87	5.50	4.67
HSF63	HUG	6.87	5.50	4.67
HSF103	HUG	10.17	8.15	6.93
HSF113	HUG	10.17	8.15	6.93
HSF253	HUG	7.54	6.03	5.13
HSF263	HUG	7.54	6.03	5.13
HSG43	HUG	4.62	3.69	3.14
HSG53	HUG	4.62	3.69	3.14
HSG63	HUG	4.62	3.69	3.14
HSG73	HUG	5.62	4.49	3.82
HSG93	HUG	5.62	4.49	3.82
HSG103	HUG	4.62	3.69	3.14
HSG113	HUG	4.62	3.69	3.14
HSG123	HUG	4.62	3.69	3.14
HSG133	HUG	5.62	4.49	3.82
HSG143	HUG	4.62	3.69	3.14
HSG153	HUG	4.52	3.61	3.07
HSG163	HUG	5.62	4.49	3.82
HSG173	HUG	4.52	3.61	3.07
HSG183	HUG	4.52	3.61	3.07
HSG193	HUG	4.62	3.69	3.14
HSG213	HUG	4.95	3.96	3.36
HSG223	HUG	4.95	3.96	3.36
HSG233	HUG	4.52	3.61	3.07
HSG243	HUG	4.95	3.96	3.36
HSG253	HUG	4.95	3.96	3.36
HSG263	HUG	4.95	3.96	3.36
HSG273	HUG	4.52	3.61	3.07

Type No.	Mfg.	1-99	100-999	1000-Up
HSM709	HUG	15.00	10.00	....
HSM710	HUG	12.00	8.00	....
HSM2000	HUG	15.00	10.00	....
HSM2001	HUG	15.00	10.00	....
HSM2002	HUG	18.00	12.00	....

Type No.	Mfg.	1-49	50-499	500-999
HSM6172	HUG	6.35	5.08	4.22
HSM6175	HUG	8.90	7.12	5.91
HSM6176	HUG	8.90	7.12	5.91
HSM6178	HUG	7.03	5.63	4.67
HSM6179	HUG	7.03	5.63	4.67
HSM6180	HUG	7.03	5.63	4.67
HSM6181	HUG	7.03	5.63	4.67
HSM6184	HUG	7.03	5.63	4.67
HSM6185	HUG	7.03	5.63	4.67

Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
HSPP-2-40	HOF	5.50		4.10	....

Type No.	Mfg.	1-99	100-999	1000-Up
HST5001	HUG	2.25	1.50	....
HST5002	HUG	4.50	3.00	....
HST5003	HUG	5.00	3.75	....
HST5004	HUG	7.00	5.00	....
HST5005	HUG	9.00	7.00	....
HST5006	HUG	1.25	1.00	....

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Type No.	Mfg.	1-99	100-999	1000-Up
HST5007	HUG	3.00	2.50	
HST5008	HUG	2.75	2.00	
HST5009	HUG	5.00	3.50	
HST5010	HUG	7.00	5.00	
HST5011	HUG	8.00	4.30	
HST5012	HUG	9.00	6.00	
HST5013	HUG	10.00	7.50	
HST5015	HUG	15.00	10.00	
HU-5	HOF	7.50	5.70	
HU-100	HOF	7.50	5.70	

Type No.	Mfg.	1-24	25-99	100-999
HVC180	SAR	3.35	2.86	2.66
HVC240	SAR	3.60	3.08	2.87
HVC300	SAR	3.85	3.28	3.07
HVC400	SAR	4.00	3.44	3.20
HVC500	SAR	4.15	3.67	3.34
HVC600	SAR	4.55	3.92	3.66
HVC650	SAR	5.00	4.29	4.00
HVC750	SAR	5.40	4.64	4.34
HVC840	SAR	5.85	5.00	4.66
HVC1000	SAR	7.10	6.07	5.66
HVC1200	SAR	8.35	7.15	6.66
HVC1500	SAR	10.40	8.94	8.34

Type No.	Mfg.	1-99	100-999	1000-Up
HW6 8B	HOF	1.65	1.25	
HW7 5B	HOF	1.65	1.25	
HW8 2B	HOF	1.65	1.25	
HW9 1B	HOF	1.65	1.25	
HW10B	HOF	1.65	1.25	
HW11B	HOF	1.65	1.25	
HW12B	HOF	1.65	1.25	
HW15B	HOF	1.65	1.25	
HW18B	HOF	1.65	1.25	
HW20B	HOF	1.65	1.25	
HW22B	HOF	1.65	1.25	
HW24B	HOF	1.65	1.25	
HW27B	HOF	1.65	1.25	
HW30B	HOF	1.65	1.25	
HW33B	HOF	1.65	1.25	
HW36B	HOF	1.65	1.25	
HW39B	HOF	1.65	1.25	
HW43B	HOF	1.65	1.25	
HW47B	HOF	1.65	1.25	
HW51B	HOF	1.65	1.25	
HW56B	HOF	1.65	1.25	
HW62B	HOF	1.65	1.25	
HW68B	HOF	1.65	1.25	
HW75B	HOF	1.65	1.25	
HW82B	HOF	1.65	1.25	
HW91B	HOF	1.65	1.25	

Type No.	Mfg.	1-9	10-99	100-999
J29B04	INT	1.70	1.44	
J29B1	INT	2.48	2.10	
J29B5	INT	7.02	5.94	
J29B8	INT	10.25	8.25	
J29B17	INT	15.35	12.99	
J58B8	INT	19.38	16.40	
J116B04	INT	6.08	5.15	
J116B1	INT	8.91	7.54	
J116B5	INT	26.48	22.41	
J116B8	INT	37.13	31.42	
J135B1	INT	10.86	9.19	
KSA1DAF	INT	1.04	.91	.79
KSA2DAF	INT	1.24	1.09	.95
KSA5DAF	INT	1.84	1.62	1.40
KSA6DBF	INT	2.04	1.80	1.56
KSA8DAF	INT	3.74	3.08	
KSA9DBF	INT	2.64	2.33	2.02
KSL5DAF	INT	5.95	5.95	4.55
KSP11DBF	INT	26.14	23.06	19.99
KY5DPF	INT	1.27	1.12	.97
KY6DPF	INT	1.36	1.20	1.04
KZ6DPF	INT	1.74	1.53	1.33

Type No.	Mfg.	1-99	100-999	1000-Up
L1V/LASCS	GE	3.15	2.10	1.89
L8F	GE	4.90	3.25	
L8U	GE	4.50	3.00	
L9F	GE	5.40	3.60	
L9U	GE	4.95	3.30	
L14A502 D14A502	GE	6.00	4.00	3.60
L14B	GE	1.45	.97	.68
L811A	GE	8.50	5.45	
LASCS/LIV	GE	3.15	2.10	1.89
LS400	TI	8.30	7.05	
LS600	TI	9.00	7.60	
LSX515	TI	14.95	11.30	
M1B	INT	1.72	1.03	
M1H	INT	.56	.34	

Type No.	Mfg.	1-24	25-99	100-Up
M4L20-3	MOT	6.05	5.40	4.05
M4L20-8	MOT	4.05	3.60	2.70
M4L20-28	MOT	3.60	3.20	2.40
M4L20A	MOT	2.70	2.40	1.80
M4L20M-3	MOT	14.25	12.65	9.50
M4L20M 8	MOT	9.00	8.00	6.00
M4L20M-28	MOT	9.00	8.00	6.00
M4L30-3	MOT	5.25	4.65	3.50
M4L30-8	MOT	4.05	3.60	2.70
M4L30-28	MOT	3.60	3.20	2.40
M4L30A	MOT	2.70	2.40	1.80
M4L30M-28	MOT	9.00	8.00	6.00
M4L30M-3	MOT	12.75	11.30	8.50
M4L30M-8	MOT	9.00	8.00	6.00
M4L40-3	MOT	5.25	4.65	3.50
M4L40 8	MOT	4.05	3.60	2.70
M4L40-28	MOT	3.60	3.20	2.40
M4L40A	MOT	2.70	2.40	1.80
M4L40M-3	MOT	12.75	11.30	8.50
M4L40M 8	MOT	9.00	8.00	6.00
M4L40M-28	MOT	9.00	8.00	6.00
M4L50-3	MOT	5.25	4.65	3.50
M4L50-8	MOT	4.05	3.60	2.70
M4L50-28	MOT	3.60	3.20	2.40
M4L50A	MOT	2.70	2.40	1.80
M4L50M-3	MOT	12.75	11.30	8.50
M4L50M-8	MOT	9.00	8.00	6.00
M4L50M-28	MOT	9.00	8.00	6.00
M4L3052	MOT	4.20	3.65	2.80
M4L3053	MOT	3.60	3.10	2.40
M4L3054	MOT	3.45	3.00	2.30
M-150	SAR	.65	.57	.53
M 150	SAR	.94	.85	.77
M500	SAR	2.80	2.52	2.24

Type No.	Mfg.	1-99	100-999	1000-Up
MA100	MOT	1.00	.67	
MA200	MOT	.58	.39	
MA201	MOT	.67	.45	
MA202	MOT	.67	.45	
MA203	MOT	.75	.50	
MA204	MOT	.58	.39	
MA205	MOT	.50	.33	
MA206	MOT	.42	.28	
MA881	MOT	.72	.48	
MA882	MOT	.80	.52	
MA883	MOT	.89	.59	
MA884	MOT	.98	.65	
MA885	MOT	.50	.33	
MA886	MOT	.59	.39	
MA887	MOT	.68	.45	
MA888	MOT	.75	.50	
MA889	MOT	.84	.56	
MA909	MOT	.63	.42	
MA910	MOT	.75	.50	
MA1703	MOT	1.17	.78	
MA1704	MOT	1.34	.89	
MA1706	MOT	1.00	.67	
MA1707	MOT	1.17	.78	

Type No.	Mfg.	1-99	100-999	1000-Up
MAC1-2	MOT	2.40	1.60	
MAC1-4	MOT	3.30	2.20	
MAC1-6	MOT	5.25	3.50	
MAC2-2	MOT	2.55	1.75	
MAC2-4	MOT	3.45	2.35	
MAC2-6	MOT	5.40	3.65	
MAC3-2	MOT	2.50	1.70	
MAC3-4	MOT	3.40	2.30	
MAC3-6	MOT	3.35	3.60	

Type No.	Mfg.	1-99	100-Mix	100-999
MCA1911N	MOT	4.50		3.00
MCA1911P	MOT	4.50		3.00
MCA1912N	MOT	7.95		5.30
MCA1912P	MOT	7.95		5.30
MCA1913N	MOT	14.10		9.40
MCA1913P	MOT	14.10		9.40
MCA1914N	MOT	23.40		15.60
MCA1914P	MOT	23.40		15.60
MCA1921N	MOT	7.95		5.30
MCA1921P	MOT	7.95		5.30
MCA1922N	MOT	14.10		9.40
MCA1922P	MOT	14.10		9.40
MCA1923N	MOT	22.50		15.00
MCA1923P	MOT	22.50		15.00
MCA1924N	MOT	45.00		29.00
MCA1924P	MOT	45.00		29.00
MCA1931N	MOT	8.25		5.50
MCA1931P	MOT	8.25		5.50
MCA1932N	MOT	14.10		9.40
MCA1932P	MOT	14.10		9.40
MCA1933N	MOT	23.40		15.60
MCA1933P	MOT	23.40		15.60
MCA1934N	MOT	49.50		33.00
MCA1934P	MOT	49.50		33.00
MCA2011N	MOT	4.50		3.00
MCA2011P	MOT	4.50		3.00
MCA2012N	MOT	7.95		5.30
MCA2012P	MOT	7.95		5.30
MCA2013N	MOT	14.10		9.40
MCA2013P	MOT	14.10		9.40
MCA2014N	MOT	23.40		15.60
MCA2014P	MOT	23.40		15.60
MCA2021N	MOT	7.95		5.30
MCA2021P	MOT	7.95		5.30
MCA2022N	MOT	14.10		9.40
MCA2022P	MOT	14.10		9.40
MCA2023N	MOT	22.50		15.00
MCA2023P	MOT	22.50		15.00
MCA2024N	MOT	45.00		29.00
MCA2024P	MOT	45.00		29.00
MCA2031N	MOT	8.25		5.50
MCA2031P	MOT	8.25		5.50
MCA2032N	MOT	14.10		9.40
MCA2032P	MOT	14.10		9.40
MCA2033N	MOT	23.40		15.60
MCA2033P	MOT	23.40		15.60
MCA2034N	MOT	49.50		33.00
MCA2034P	MOT	49.50		33.00
MCA2111N	MOT	5.25		3.95
MCA2111P	MOT	5.25		3.95
MCA2112N	MOT	7.95		5.30
MCA2112P	MOT	7.95		5.30
MCA2111N	MOT	23.40		15.60
MCA2111P	MOT	23.40		15.60
MCA2121N	MOT	7.95		5.30
MCA2121P	MOT	7.95		5.30
MCA2122N	MOT	14.10		9.40
MCA2122P	MOT	14.10		9.40
MCA2123N	MOT	22.50		15.00
MCA2123P	MOT	22.50		15.00
MCA2124N	MOT	45.00		29.00
MCA2131N	MOT	8.25		5.50
MCA2131P	MOT	8.25		5.50
MCA2132N	MOT	14.10		9.40
MCA2132P	MOT	14.10		9.40
MCA2133N	MOT	23.40		15.60
MCA2133P	MOT	23.40		15.60
MCA2134N	MOT	49.50		33.00
MCA2134P	MOT	49.50		33.00
MCA2211N	MOT	5.25		3.95
MCA2211P	MOT	5.25		3.95
MCA2212N	MOT	7.95		5.30
MCA2212P	MOT	7.95		5.30
MCA2213N	MOT	14.10		9.40
MCA2213P	MOT	14.10		9.40
MCA2214N	MOT	23.40		15.60
MCA2214P	MOT	23.40		15.60
MCA2221N	MOT	7.95		5.30
MCA2221P	MOT	7.95		5.30
MCA2222N	MOT	14.10		9.40

Type No.	Mfg.	1-99	100-Mix	100-999
MCA2222P	MOT	14.10		9.40
MCA2223N	MOT	22.50		15.00
MCA2223P	MOT	22.50		15.00
MCA2224N	MOT	45.00		29.00
MCA2224P	MOT	8.25		29.00
MCA2231N	MOT	8.25		29.00
MCA2231P	MOT	8.25		29.00
MCA2232N	MOT	14.10		9.40
MCA2232P	MOT	14.10		9.40
MCA2233N	MOT	23.40		15.60
MCA2233P	MOT	23.40		15.60
MCA2234N	MOT	49.50		33.00
MCA2234P	MOT	49.50		33.00

Type No.	Mfg.	1-24	25-99	100-Up
MCL1300	MOT	4.45	3.90	3.40
MCL1301	MOT	4.45	3.90	3.40
MCL1302	MOT	4.45	3.90	3.40
MCL1303	MOT	4.45	3.90	3.40
MCL1304	MOT	4.45	3.90	3.40

Type No.	Mfg.	1-99	100-Mix	100-999
MCR649-1	MOT	4.35		2.90
MCR649-2	MOT	4.80		3.20
MCR649-3	MOT	5.55		3.70
MCR649-4	MOT	7.35		4.90
MCR649-5	MOT	14.10		9.40
MCR649-6	MOT	16.50		11.00
MCR649-7	MOT	19.65		13.10
MCR1308R-5	MOT	7.20		5.85
MCR1906-1	MOT	1.57		1.05
MCR1906-2	MOT	1.65		1.10
MCR1906-3	MOT	1.87		1.25
MCR1906-4	MOT	1.98		1.35
MCR2304-1/2N4151	MOT	1.45		1.05
MCR2304-2/2N4152	MOT	1.60		1.10
MCR2304-3/2N4153	MOT	1.75		1.25
MCR2304-4/2N4154	MOT	1.95		1.35
MCR2304-5/2N4155	MOT	2.40		1.60
MCR2304-6/2N4156	MOT	2.80		1.85
MCR2304-7/2N4157	MOT	5.00		3.35
MCR2304-8/2N4158	MOT	6.75		4.50
MCR2304L-1/2N4159	MOT	1.45		1.05
MCR2304L-2/2N4160	MOT	1.60		1.10
MCR2304L-3/2N4161	MOT	1.75		1.25
MCR23041-4/2N4162	MOT	1.95		1.35
MCR2304L-5/2N4163	MOT	2.40		1.60
MCR2304L-6/2N4164	MOT	2.80		1.85
MCR2304L-7/2N4165	MOT	5.00		3.35
MCR2304L-8/2N4166	MOT	6.75		4.50
MCR2305-2/2N4168	MOT	1.75		1.25
MCR2305-3/2N4169	MOT	1.90		1.40
MCR2305-4/2N4170	MOT	2.10		1.50
MCR2305-5/2N4171	MOT	2.55		1.75
MCR2305-6/2N4172	MOT	2.95		2.00
MCR2305-7/2N4173	MOT	5.15		3.50
MCR2305-8/2N4174	MOT	6.90		4.65
MCR2305L-1/2N4175	MOT	1.60		1.20
MCR2305L-2/2N4176	MOT	1.75		1.25
MCR2305L-3/2N4177	MOT	1.90		1.40
MCR2305L-4/2N4178	MOT	2.10		1.50
MCR2305L-5/2N4179	MOT	2.55		1.75
MCR2305L-6/2N4180	MOT	2.95		2.00
MCR2305L-7/2N4181	MOT	5.15		3.50
MCR2305L-8/2N4182	MOT	6.90		4.65
MCR2604-1	MOT	1.55		1.15
MCR2604-2	MOT	1.70		1.20
MCR2604-3	MOT	1.85		1.35
MCR2604-4	MOT	2.05		1.45
MCR2604-5	MOT	2.50		1.70
MCR2604-6	MOT	2.90		1.95
MCR2604-8	MOT	6.85		4.60
MCR2604L-1/2N4183	MOT	1.59		1.19
MCR2604L-2/2N4184	MOT	1.74		1.24
MCR2604L-3/2N4185	MOT	1.89		1.39
MCR2604L-4/2N4186	MOT	2.09		1.49
MCR2604L-5/2N4187	MOT	2.54		1.74
MCR2604L-6/2N4188	MOT	2.94		1.99
MCR2604L-7/2N4189	MOT	5.14		3.49
MCR2604L-8/2N4190	MOT	6.89		4.64
MCR2605-1	MOT	1.55		1.15
MCR2605-2	MOT	1.70		1.20
MCR2605-3	MOT	1.85		1.35
MCR2605-4	MOT	2.05		1.45
MCR2605-5	MOT	2.50		1.70
MCR2605-6	MOT	2.90		1.95
MCR2605-7	MOT	5.10		3.45
MCR2605-8	MOT	6.85		4.60
MCR2605L-1/2N4191	MOT	1.59		1.19
MCR2605L-2/2N4192	MOT	1.74		1.24
MCR2605L-3/2N4193	MOT	1.89		1.39
MCR2605L-4/2N4194	MOT	2.09		1.49
MCR2605L-5/2N4195	MOT	2.54		1.74
MCR2605L-6/2N4196	MOT	2.94		1.99
MCR2605L-7/2N4197	MOT	5.14		3.49
MCR2605L-8/2N4198	MOT	6.89		4.64
MCR2818-1	MOT	3.00		2.00
MCR2818-2	MOT	3.30		2.20
MCR2818-3	MOT	3.75		2.50
MCR2818-4	MOT	4.65		3.10
MCR2818-5	MOT	5.00		3.70
MCR2818-6	MOT	6.45		4.30
MCR2818-7	MOT	8.85		5.90
MCR2818-8	MOT	9.75		6.50
MCR2835-1	MOT	3.75		2.50
MCR2835-2	MOT	4.50		3.00
MCR2835-3	MOT	4.85		3.25
MCR2835-4	MOT	5.85		3.90
MCR2835-5	MOT	7.20		4.80
MCR2835-6	MOT	8.25		5.50
MCR2835-7	MOT	10.65		7.10
MCR2835-8	MOT	12.35		8.25
MCR2918-1	MOT	3.40		2.25
MCR2918-2	MOT	3.70		2.45
MCR2918-3	MOT	4.10		2.75
MCR2918-4	MOT	5.00		3.35
MCR2918-5	MOT	5.90		3.95
MCR2918-6	MOT	6.80		4.55
MCR2918-7	MOT	9.20		6.15
MCR2918-8	MOT	10.10		6.75
MCR2935-1	MOT	4.10		2.75
MCR2935-2	MOT	4.85		3.25
MCR2935-3	MOT	5.25		3.50
MCR2935-4	MOT	6.20		4.15
MCR2935-5	MOT	7.55		5.05
MCR2935-6	MOT	8.60		5.75
MCR2935-7	MOT	11.00		7.35
MCR2935-8	MOT	12.75		8.50
MD708	MOT	4.35		2.90
MD708A	MOT	6.75		4.50
MD708AF	MOT	15.75		10.50
MD708B	MOT	4.80		3.20
MD708BF	MOT	12.30		8.20
MD708F	MOT	8.85		5.90
MD918	MOT	8.25		5.50
MD918A	MOT	15.75		10.50
MD918AF	MOT	24.75		16.50
MD918B	MOT	13.20		8.80
MD918BF	MOT	20.25		13.50
MD918F	MOT	12.75		8.50
MD981	MOT	12.95		8.65
MD981F	MOT	29.10		19.40
MD982	MOT	27.60		18.40
MD982F	MOT	49.70		33.15
MD984F	MOT	37.20		24.80
MD986	MOT	18.90		12.60
MD1120F	MOT	42.95		28.65
MD1121	MOT	24.80		16.55
MD1121F	MOT	55.80		37.20
MD1122	MOT	37.00		24.65
MD1122F	MOT	83.15		55.45
MD1123	MOT	27.60		18.40
MD1123F	MOT	49.70		33.15
MD1124F	MOT	64.80		43.20
MD1125F	MOT	83.15		55.45
MD1127	MOT	98.50		
MD1129	MOT	51.75		34.50
MD1129F	MOT	93.15		62.10
MD1130	MOT	58.20		38.80
MD1131	MOT	28.35		18.90
MD1131F	MOT	39.60		26.40
MD1132	MOT	38.25		25.50
MD1132F	MOT	48.50		33.00
MD-1133	MOT	15.00		10.00
MD-1133F	MOT	22.50		15.00
MD1134	MOT	11.65		7.75
MD2218	MOT	6.75		4.50
MD2218A	MOT	11.40		7.60
MD2218AF	MOT	15.90		10.60
MD2218F	MOT	11.25		7.50
MD2219	MOT	7.95		5.30
MD2219A	MOT	13.20		8.80
MD2219AF	MOT	17.70		11.80
MD2219F	MOT	12.45		8.30
MD2369	MOT	9.00		6.00
MD2904	MOT	6.75		4.50
MD2904A	MOT	11.40		7.60
MD2904AF	MOT	15.90		10.60
MD2904F	MOT	11.25		7.50
MD2905	MOT	7.95		5.30
MD2905A	MOT	13.20		8.80
MD2905AF	MOT	17.70		11.80
MD2905F	MOT	12.45		8.30
MD3133	MOT	7.35		4.90
MD3133F	MOT	11.10		7.40
MD3134	MOT	7.80		5.20
MD3134F	MOT	9.75		6.50
MD3250	MOT	19.50		13.00
MD3250A	MOT	29.25		19.50
MD3250F	MOT	17.25		11.50
MD3251	MOT	11.60		7.75
MD3251A	MOT	23.25		15.50
MD3251AF	MOT	30.75		20.50
MD3251F	MOT	19.10		12.75
MD5000	MOT	11.25		7.50
MD5000A	MOT	23.25		15.50
MD5000B	MOT	15.75		10.50
MD6001	MOT	10.80		7.20
MD6002	MOT	13.50		9.00

Type No.	Mfg.	1-24	25-99	100-Up
MDA920-1	MOT	1.42	1.26	.95
MDA920-2	MOT	1.69	1.50	1.15
MDA920-3	MOT	1.95	1.73	1.30
MDA920-4	MOT	2.30	2.05	1.55
MDA920-5	MOT	2.40	2.10	1.60
MDA920-6	MOT	2.45	2.20	1.65
MDA920-7	MOT	3.20	2.85	2.15
MDA930-1	MOT	.82	.73	.55
MDA930-2	MOT	.90	.80	.60
MDA930-3	MOT	.97	.86	.65
MDA930-4	MOT	1.14	1.01	.76
MDA930-5	MOT	1.21	1.08	.81
MDA930-6	MOT	1.27	1.13	.85
MDA930-7	MOT	1.65	1.46	1.10
MDA940-1	MOT	.82	.73	.55
MDA940-2	MOT	.90	.80	.60
MDA940-3	MOT	.97	.86	.65
MDA940-4	MOT	1.14	1.01	.76
MDA940-5	MOT	1.21	1.08	.81
MDA940-6	MOT	1.27	1.13	.85
MDA940-7	MOT	1.65	1.46	1.10
MDA942-1	MOT	2.35	2.10	1.75
MDA942-2	MOT	2.65	2.40	2.00
MDA940-3	MOT	2.95	2.40	2.20
MDA942-4	MOT	3.20	2.90	2.40
MDA942-5	MOT	3.45	3.10	2.60
MDA942-6	MOT	4.50	4.10	3.40

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Type No.	Mfg.	1-24	25-99	100-Up
MDA950-1	MOT	.82	.73	.55
MDA950-2	MOT	.90	.80	.60
MDA950-3	MOT	.97	.86	.65
MDA950-4	MOT	1.14	1.01	.76
MDA950-5	MOT	1.21	1.08	.81
MDA950-6	MOT	1.27	1.13	.85
MDA950-7	MOT	1.65	1.46	1.10
MDA952-1	MOT	3.25	2.95	2.45
MDA952-2	MOT	3.50	3.20	2.65
MDA952-3	MOT	4.45	4.00	3.35
MDA952-4	MOT	4.90	4.45	3.70
MDA952-5	MOT	6.00	5.40	4.50
MDA952-6	MOT	7.30	6.60	5.50

Type No.	Mfg.	1-24	25-99	100-999
MDA960-1	MOT	2.90	2.55	1.95
MDA960-2	MOT	3.35	2.95	2.25
MDA960-3	MOT	3.75	3.30	2.50

Type No.	Mfg.	1-24	25-99	100-Up
MDA962-1	MOT	3.65	3.30	2.75
MDA962-2	MOT	3.90	3.55	2.95
MDA962-3	MOT	4.85	4.40	3.65
MDA962-4	MOT	5.30	4.80	4.00
MDA962-5	MOT	6.40	5.75	4.80

Type No.	Mfg.	1-24	25-99	100-999
MDA970-1	MOT	3.20	2.90	2.15
MDA970-2	MOT	3.65	3.30	2.45
MDA970-3	MOT	4.10	3.70	2.75

Type No.	Mfg.	1-24	25-99	100-Up
MDA972-1	MOT	9.65	8.70	7.25
MDA972-2	MOT	10.25	9.25	7.70
MDA972-3	MOT	11.45	10.30	8.60
MDA972-4	MOT	12.55	11.35	9.45
MDA972-5	MOT	13.75	12.40	10.35
MDA1491-1	MOT	2.11	1.92	1.60
MDA1491-2	MOT	2.39	2.16	1.80
MDA1491-3	MOT	2.66	2.40	2.00
MDA1491-4	MOT	2.82	2.64	2.20
MDA1491-5	MOT	3.12	2.82	2.35
MDA1491-6	MOT	4.12	3.72	3.10
MDA1591-1	MOT	2.60	2.40	2.00
MDA1591-2	MOT	2.82	2.64	2.20
MDA1591-3	MOT	3.62	3.18	2.65
MDA1591-4	MOT	3.92	3.54	2.95
MDA1591-5	MOT	4.52	4.08	3.40
MDA1591-6	MOT	5.65	5.10	4.25
MDA1505-1	MOT	5.65	5.10	4.25
MDA1505-2	MOT	6.05	5.45	4.55
MDA1505-3	MOT	7.32	6.60	5.50
MDA1505-4	MOT	7.91	7.15	5.95
MDA1505-5	MOT	9.30	8.40	7.00
MDA1505-6	MOT	10.45	9.42	7.85

Type No.	Mfg.	1-99	100-Mix	100-999
MF3304	MOT	6.75		4.50
MFE2000	MOT	4.00		2.65
MFE2001	MOT	4.45		2.95
MFE2002	MOT	6.10		4.05
MFE2093	MOT	2.85		1.90
MFE2094	MOT	2.85		1.90
MFE2095	MOT	2.85		1.90
MFE2097	MOT	7.35		4.90
MFE2098	MOT	7.35		4.90
MFE2133	MOT	14.70		9.80
MFE3001	MOT	5.85		3.90
MFE3002	MOT	8.10		5.40
MFE3003	MOT	8.10		5.40
MFE3004	MOT	6.40		4.25
MFE3005	MOT	6.75		4.50
MFE4001	MOT	11.10		7.40
MFE4002	MOT	6.45		4.30
MFE4003	MOT	8.10		5.40
MFE4004	MOT	11.85		7.90
MFE4005	MOT	7.20		4.80
MJ400	MOT	1.65		1.10
MJ413	MOT	6.50		4.82
MJ420	MOT	1.80		1.20
MJ421	MOT	1.85		1.25
MJ423	MOT	8.00		5.93
MJ431	MOT	37.50		27.78
MJ450	MOT	9.50		6.35
MJ480	MOT	1.93		1.29
MJ481	MOT	2.45		1.64
MJ491	MOT	2.80		1.88
MJ2249	MOT	2.02		1.35
MJ2250	MOT	2.15		1.45
MJ2251	MOT	1.87		1.25
MJ2252	MOT	2.02		1.35
MJ2253	MOT	2.65		1.76
MJ2254	MOT	2.90		1.95
MJ2255	MOT	2.70		1.80
MJ2256	MOT	3.05		2.05
MJ2257	MOT	4.40		2.95
MJ2267	MOT	4.95		3.30
MJ2268	MOT	5.45		3.65
MJ2801	MOT	2.85		1.90
MJ2901	MOT	3.75		2.50
MJ3101	MOT	1.95		1.30
MJ3201	MOT	1.72		1.15
MJ3202	MOT	1.87		1.25
MJ3701	MOT	2.00		1.35
MJ4101	MOT	1.57		1.09
MJE340	MOT	1.06		.71
MJE370	MOT	1.65		1.10
MJE371	MOT	1.96		1.31
MJE520	MOT	1.33		.89
MJE521	MOT	1.68		1.12
MK10	MOT	.23		.15
MK15	MOT	.23		.15
MK20	MOT	.35		.23
MK25	MOT	.25		.18
MM380	MOT	1.26		.84
MM487/2N2218	MOT	.75		.50
MM488/2N2219	MOT	1.05		.70
MM512/2N2221	MOT	.75		.50
MM513/2N2222	MOT	1.05		.70
MM709	MOT	1.35		.90
MM719	MOT	4.50		3.00
MM801/2N2950	MOT	11.25		7.50
MM1139	MOT	1.35		.90
MM1151/2N3279	MOT	4.50		3.00
MM1152/2N3280	MOT	4.10		2.75
MM1145/2N3282	MOT	2.15		1.45
MM1500	MOT	42.00		28.00
MM1501	MOT	27.00		18.00
MM1736/2N3634	MOT	13.20		8.80
MM1737/2N3635	MOT	14.40		9.60
MM1738/2N3636	MOT	19.40		12.95
MM1739/2N3637	MOT	21.30		14.20
MM1749	MOT	.53		.35
MM1803	MOT	11.70		7.80
MM1812	MOT	3.75		2.50
MM1941	MOT	1.95		1.30

Type No.	Mfg.	1-99	100-999	1000-Up
MM2090/3N124	MOT	4.35	2.90	
MM2091/3N125	MOT	4.35	2.90	
MM2092/3N126	MOT	4.35	2.90	
MM2258	MOT	3.90	2.60	
MM2259	MOT	4.20	2.80	
MM2260	MOT	4.50	3.00	
MM2261	MOT	3.35	2.25	
MM2263	MOT	5.15	3.45	
MM2400 2N3959	MOT	10.50	7.00	
MM2401/2N3960	MOT	13.10	8.75	
MM2483	MOT	3.15	2.10	
MM2484	MOT	3.50	2.35	
MM2500/2N3783	MOT	30.00	20.00	
MM2502 2N3785	MOT	6.75	4.50	
MM2894	MOT	1.80	1.20	
MM3000	MOT	1.25	.83	
MM3001	MOT	1.40	.93	
MM3002	MOT	1.65	1.10	
MM3003	MOT	1.90	1.25	
MM3724	MOT	5.25	3.50	
MM3725	MOT	5.60	3.75	
MM3726	MOT	6.75	4.50	
MM4000	MOT	1.24	.83	
MM4001	MOT	1.39	.93	
MM4002	MOT	1.65	1.10	
MM4003	MOT	1.85	1.25	
MM4048	MOT	4.10	2.75	
MM5000	MOT	4.40	2.95	
MM5001	MOT	3.15	2.10	
MM5002	MOT	2.25	1.50	
MM5043	MOT	9.75	6.50	
MM5044	MOT	6.00	4.00	
MMF1	MOT	23.25	15.50	
MMF2	MOT	23.25	15.50	
MMF3	MOT	15.75	10.50	
MMF4	MOT	15.75	10.50	
MMF5	MOT	12.75	8.50	
MMF6	MOT	12.75	8.50	
MMT918	MOT	3.30	2.20	1.65
MMT2369	MOT	1.95	1.30	.97
MMT3903	MOT	2.40	1.60	1.45
MMT3904	MOT	3.00	2.00	1.80
MMT3905	MOT	2.40	1.60	1.45
MMT3906	MOT	3.00	2.00	1.80
MN-21/2N375	MOT	2.20	1.65	
MN-26/2N554	MOT	.60	.40	
MN-29/2N555	MOT	.75	.50	
MN 43/2N618	MOT	2.45	1.82	
MP110	MOT	1.67	1.12	
MP500	MOT	5.70	3.80	
MP500A	MOT	7.10	4.75	
MP501	MOT	9.00	6.60	
MP502	MOT	12.00	8.00	
MP504	MOT	6.60	4.40	
MP505	MOT	10.20	6.80	
MP506	MOT	13.85	9.25	
MP506A	MOT	16.85	11.25	
MP525	MOT	1.00	.75	
MP732 2N2492	MOT	3.38	2.50	
MP733/2N2493	MOT	6.00	4.45	
MP800	MOT	51.00	46.00	
MP801	MOT	42.00	37.75	
MP900	MOT	110.00	100.00	
MP901	MOT	121.00	110.00	
MP902	MOT	132.00	120.00	
MP1612	MOT	3.55	2.65	
MP1612A	MOT	3.90	2.90	
MP1612B	MOT	4.20	3.10	
MP2060-4	MOT	1.05	.75	
MP2060 3	MOT	1.15	.85	
MP2062	MOT	1.35	1.00	
MP2063	MOT	1.65	1.25	

Type No.	Mfg.	1-99	100-Mix	100-Up
MP2200A	MOT	3.40		2.25
MP2300A	MOT	3.70		2.45
MP2400A	MOT	3.90		2.60
MP3730	MOT	1.58		1.05

Type No.	Mfg.	1-24	25-99	100-Up
MPC1A	TI	4.75	4.10	3.25
MPC-2	TI	6.50	6.00	5.40
MPC-4	TI	3.50	2.60	2.25
MPC-5A	TI	3.50	2.60	2.25
MPC-5B	TI	5.25	4.25	3.40

Type No.	Mfg.	1-99	100-Mix	100-999
MPD300	GE	1.49		.99
MPD400	GE	1.62		1.08

Type No.	Mfg.	1-99	100-999	1000-Up
MPF102	MOT	.90	.60	.45
MPF103/2N5457	MOT	.90	.60	.45
MPF104/2N5458	MOT	.82	.55	.41
MPF105/2N5459	MOT	.90	.60	.45
MPF106	MOT	1.12	.75	.56
MPF107	MOT	1.20	.80	.60
MPF151/2N5460	MOT	1.00	.67	.50
MPF152/2N5461	MOT	.75	.50	.37
MPF153/2N5462	MOT	1.00	.67	.50
MPF154/2N5463	MOT	1.50	1.00	.75
MPF155/2N5464	MOT	1.20	.80	.60
MPF156/2N5465	MOT	1.50	1.00	.75
MPF159	MOT	4.15	2.75	
MPF160	MOT	4.15	2.75	

Type No.	Mfg.	1-24	25-99	100-Up
MP010ABA	WES	2.00	1.80	
MP010ABB	WES	2.25	2.05	
MP010ABC	WES	2.35	2.15	
MP010ABD	WES	2.50	2.25	
MP010ABF	WES	2.80	2.60	
MP010ABH	WES	3.00	2.70	
MP010ABK	WES	3.40	3.00	
MP010ABM	WES	3.80	3.35	
MP010ABP	WES	4.10	3.70	
MP010ABS	WES	4.60	4.20	
MP010ABV	WES	5.10	4.70	
MP010ABZ	WES	5.60	5.20	
MP011BBA	WES	2.40	2.05	
MP011BBB	WES	2.85	2.40	
MP011BBC	WES	3.05	2.60	
MP011BBD	WES	3.25	2.85	
MP011BBF	WES	3.35	2.95	
MP011BBH	WES	3.50	3.15	
MP011BBK	WES	3.80	3.50	
MP011BBM	WES	4.30	4.00	
MP011BBP	WES	4.80	4.50	
MP011BBS	WES	5.30	5.00	
MP011BBV	WES	5.80	5.50	
MP011BBZ	WES	6.30	6.00	
MP012FBA	WES	2.55	2.15	
MP012FBB	WES	2.75	2.35	
MP012FBC	WES	3.05	2.65	
MP012FBD	WES	3.20	2.80	
MP012FBF	WES	3.60	3.20	
MP012FBH	WES	4.20	3.80	
MP012FBK	WES	4.70	4.30	
MP012FBM	WES	5.20	4.80	
MP012FBP	WES	5.70	5.30	
MP012FBS	WES	6.20	5.80	
MP012FBV	WES	6.70	6.30	
MP012FBZ	WES	7.20	6.80	
MP012HBA	WES	3.15	2.75	
MP012HBB	WES	3.35	3.00	
MP012HBC	WES	3.85	3.50	
MP012HBD	WES	4.10	3.75	
MP012HBF	WES	4.60	4.25	
MP012HBH	WES	5.60	5.20	
MP012HBK	WES	6.10	5.70	
MPO12HBM	WES	6.60	6.20	
MP013LBA	WES	3.95	3.55	
MP013LBB	WES	4.30	3.80	
MP013LBC	WES	4.70	4.00	
MP013LBD	WES	4.85	4.20	
MP013LBF	WES	5.50	4.80	
MP013LBH	WES	6.00	5.30	
MP013LBK	WES	6.55	5.85	
MP013LBM	WES	7.00	6.30	
MP013PBA	WES	8.25	7.25	
MP013PBB	WES	8.75	7.75	
MP013PBC	WES	9.25	8.25	
MP013PBD	WES	9.75	8.70	
MP013PBF	WES	10.75	9.60	
MP013PBH	WES	11.75	10.60	
MP013PBK	WES	12.75	11.55	
MP013PBM	WES	13.70	12.55	
MP020VHK	WES	6.25	6.00	
MP020VHM	WES	7.10	6.75	
MP020VHP	WES	7.90	7.50	
MP020VHS	WES	8.75	8.25	
MP020VHV	WES	9.65	9.10	
MP020VHZ	WES	10.50	9.95	

Type No.	Mfg.	1-99	100-999	1000-Up
MPS404	MOT	.42	.28	.25
MPS44A	MOT	.58	.39	.35
MPS706	MOT	.45	.30	.22
MPS834	MOT	.70	.46	
MPS918	MOT	1.30	.87	.65
MPS2369	MOT	.53	.35	.26
MPS2711	MOT	.40	.27	.20
MPS2712	MOT	.43	.29	.22
MPS2713	MOT	.48	.32	.24
MPS2714	MOT	.51	.34	.25
MPS2715	MOT	.57	.38	.28
MPS2716	MOT	.60	.40	.30
MPS2923	MOT	.43	.29	.22
MPS2924	MOT	.51	.34	.25
MPS2925	MOT	.60	.40	.30
MPS2926	MOT	.40	.27	.20
MPS3392	MOT	.51	.34	.25
MPS3393	MOT	.40	.27	.20
MPS3394	MOT	.39	.26	.19
MPS3395	MOT	.58	.39	.29
MPS3396	MOT	.54	.36	.27
MPS3397	MOT	.48	.32	.24
MPS3398	MOT	.57	.38	.28
MPS3563	MOT	.57	.38	.28
MPS3638	MOT	.46	.31	.28
MPS3638A	MOT	.76	.51	.38
MPS3639	MOT	.54	.36	.27
MPS3640	MOT	.57	.38	.28
MPS3646	MOT	.69	.46	.35
MPS3693	MOT	.55	.37	
MPS3694	MOT	.57	.38	
MPS3702	MOT	.45	.30	.22
MPS3703	MOT	.49	.33	.25
MPS3704	MOT	.61	.41	.31
MPS3705	MOT	.57	.38	.29
MPS3706	MOT	.52	.35	.26
MPS3707	MOT	.60	.40	.30
MPS3708	MOT	.48	.32	.24
MPS3709	MOT	.45	.30	.22
MPS3710	MOT	.49	.33	.25
MPS3711	MOT	.54	.36	.27
MPS3721	MOT	.39	.26	.19
MPS3826	MOT	.54	.36	.27
MPS3827	MOT	.58	.39	.29
MPS6507	MOT	1.12	.75	.56
MPS6511	MOT	1.05	.70	.52
MPS6512	MOT	.54	.36	.27
MPS6513	MOT	.57	.38	.28
MPS6514	MOT	.60	.40	.30
MPS6515	MOT	.64	.43	.32
MPS6516	MOT	.60	.40	.30
MPS6517	MOT	.63	.42	.31
MPS6518	MOT	.67	.45	.34
MPS6519	MOT	.75	.50	.37
MPS6520	MOT	.82	.55	.41
MPS6521	MOT	.90	.60	.45
MPS6522	MOT	.90	.60	.45
MPS6523	MOT	.97	.65	.49
MPS6528	MOT	1.00	.67	.50
MPS6529	MOT	1.15	.77	.58
MPS6530	MOT	.72	.48	.36
MPS6531	MOT	.75	.50	.37
MPS6532	MOT	.60	.40	.30
MPS6533	MOT	.78	.52	.39
MPS6534	MOT	.81	.54	.40
MPS6535	MOT	.66	.44	.33
MPS6539	MOT	.90	.60	.45
MPS6540	MOT	.75	.50	.38
MPS6541	MOT	.96	.64	.48
MPS6542	MOT	1.20	.80	.60
MPS6543	MOT	1.32	.88	.66
MPS6544	MOT	1.12	.75	.56
MPS6545	MOT	1.24	.83	.62
MPS6546	MOT	1.24	.83	.62
MPS6547	MOT	1.35	.90	.67
MPS6548	MOT	.90	.60	.45
MPS6552	MOT	.55	.37	.28
MPS6553	MOT	.60	.40	.30
MPS6554	MOT	.63	.42	.31
MPS6555	MOT	.67	.45	.34
MPS6560	MOT	.78	.52	.39
MPS6561	MOT	.69	.46	.35
MPS6562	MOT	.84	.56	.42
MPS6563	MOT	.74	.48	.36
MPS6564	MOT	.75	.50	.37
MPS6565	MOT	.52	.35	.26
MPS6566	MOT	.57	.38	.28
MPS6567	MOT	1.00	.67	.50
MPS6568	MOT	1.50	1.00	.75
MPS6569	MOT	1.11	.74	.55
MPS6570	MOT	.96	.64	.48
MPS6571	MOT	.60	.40	.30
MPS6573	MOT	.67	.45	.34
MPS6574	MOT	.55	.37	.28
MPS6575	MOT	.75	.50	.38
MPS6576	MOT	.63	.42	.32
MPS6579	MOT	1.05	.70	.52
MPS6580	MOT	.90	.60	.45
MPSA09	MOT	.54	.36	.27
MPSK-300	MOT	NET	49.50	
MPT20	MOT	.67	.45	.38
MPT28	MOT	.67	.45	.38
MPT32	MOT	.67	.45	.38

Type No.	Mfg.	1-24	25-99	100-999
MPZ5-16A	MOT	46.80	40.30	36.00
MPZ5-16B	MOT	52.00	44.80	40.00
MPZ5 32A	MOT	39.00	33.60	30.00
MPZ5-32B	MOT	46.80	40.30	36.00
MPZ5-32C	MOT	52.00	44.80	40.00
MPZ5-180A	MOT	48.75	42.00	37.50
MPZ5-180B	MOT	58.50	50.40	45.00
MPZ5-180C	MOT	65.00	56.00	50.00

Type No.	Mfg.	1-99	100-999	1000-Up
MR312/1N3208	MOT	1.10	.75	

Type No.	Mfg.	1-99	100-999	1000-Up
MR313/1N3209	MOT	1.25	.85	
MR314/1N3210	MOT	1.70	1.15	
MR315/1N3211	MOT	2.30	1.55	
MR316/1N3212	MOT	2.55	1.70	
MR322/1N3491	MOT	.67	.45	.40
MR322R/1N3491R	MOT	.67	.45	.40
MR323/1N3492	MOT	.76	.51	.46
MR323R/1N3492R	MOT	.76	.51	.46
MR324/1N3493	MOT	1.11	.74	.67
MR324R/1N3493R	MOT	1.11	.74	.67
MR325/1N3494	MOT	1.27	.85	.76
MR325R/1N3494R	MOT	1.27	.85	.76
MR326/1N3495	MOT	1.48	.99	.89
MR326R/1N3495R	MOT	1.48	.99	.89
MR327	MOT	2.40	1.60	1.45
MR327R	MOT	2.40	1.60	1.45
MR328	MOT	3.35	2.25	2.00
MR328R	MOT	3.35	2.25	2.00
MR330	MOT	6.75	4.50	4.05
MR330R	MOT	6.75	4.50	4.05
MR331	MOT	9.75	6.50	5.85
MR331R	MOT	9.75	6.50	5.85
MR810	MOT	.67	.45	
MR811	MOT	.75	.50	
MR812	MOT	.97	.65	
MR814	MOT	1.27	.85	
MR816	MOT	2.40	1.60	
MR830	MOT	2.40	1.60	
MR831	MOT	2.75	1.85	
MR832	MOT	3.35	2.25	
MR834	MOT	5.60	3.75	
MR836	MOT	9.35	6.25	
MR840	MOT	1.27	.85	
MR841	MOT	1.42	.95	
MR842	MOT	1.80	1.20	
MR844	MOT	2.55	1.70	
MR846	MOT	5.60	3.75	
MR881	MOT	2.45	1.65	
MR882	MOT	3.30	2.20	
MR884	MOT	6.90	4.60	
MR886	MOT	8.70	5.80	
MR880	MOT	2.10	1.40	
MR890	MOT	3.75	2.50	
MR891	MOT	4.20	2.80	
MR892	MOT	5.15	3.45	
MR894	MOT	10.35	6.90	
MR896	MOT	14.95	9.95	
MR990	MOT	1.42	.95	
MR991	MOT	2.10	1.40	
MR992	MOT	4.95	3.30	
MR993	MOT	6.60	4.40	
MR994	MOT	7.85	5.25	
MR1030A/1N4719	MOT	.55	.37	.33
MR1030B/1N4997	MOT	.55	.37	.33
MR1031A/1N4720	MOT	.60	.40	.36
MR1031B/1N4998	MOT	.60	.40	.36
MR1032A/1N4721	MOT	.67	.45	.40
MR1032B/1N4999	MOT	.67	.45	.40
MR1033A	MOT	.93	.62	
MR1033B	MOT	.93	.62	.56
MR1034A/1N4722	MOT	.97	.65	.58
MR1034B/1N5000	MOT	1.12	.75	.67
MR1035A				
MR1035B	MOT	1.32	.88	
MR1036A/	MOT	1.32	.88	.79
1N4723	MOT	1.33	.89	.80
MR1036B/1N5001	MOT	1.33	.89	.80
MR1038A/1N4724	MOT	4.10	2.75	2.45
MR1038B/1N5002	MOT	4.10	2.75	2.45
MR1040A/1N4725	MOT	6.35	4.25	3.80
MR1040B	MOT			
MR1120	MOT	1.03	.69	
MR1121	MOT	1.15	.77	
MR1122	MOT	1.32	.88	
MR1123	MOT	1.48	.99	

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Type No.	Mfg.	1-99	100-999	1000-Up
MR1124	MOT	1.65	1.10	
MR1125	MOT	2.02	1.35	
MR1126	MOT	2.45	1.65	
MR1128	MOT	5.60	3.75	
MR1130	MOT	7.85	5.25	

Type No.	Mfg.	1-24	25-99	100-Up
MR1200FL	MOT	3.20	2.90	2.40
MR1201FL	MOT	4.10	3.70	3.10
MR1202FL	MOT	5.60	5.05	4.20
MR1204FL	MOT	6.40	5.75	4.80
MR1205FL	MOT	6.40	5.75	4.80
MR1210SB	MOT	4.80	4.30	3.60
MR1211SL	MOT	5.25	4.75	3.95
MR1212SB	MOT	7.00	6.30	5.25
MR1214SB	MOT	8.15	7.40	6.15
MR1217SL	MOT	9.95	9.00	7.50
MR1227SB	MOT	17.95	16.20	13.50

Type No.	Mfg.	1-99	100-Mix	100-999
MR1337-1	MOT	3.35		2.25
MR1337-2	MOT	4.95		3.30
MR1337-3	MOT	6.75		4.50
MR1337-4	MOT	9.00		6.00
MR1337-5	MOT	12.00		8.00

Type No.	Mfg.	1-24	25-99	100-Up
MR1810SB	MOT	5.45	4.90	4.10
MR1810SL	MOT	5.05	4.55	3.80
MR1813SB	MOT	7.65	6.90	5.75

Type No.	Mfg.	1-99	100-Mix	100-999
MR2064	MOT	.36		.24
MR2065	MOT	.40		.27
MR2066	MOT	.48		.32
MR2067	MOT	.54		.36
MR2068	MOT	.67		.45
MR2069	MOT	.60		.40
MR2070	MOT	.67		.45
MR2071	MOT	.76		.51
MR2072	MOT	.87		.58
MR2073	MOT	1.06		.71
MR2074	MOT	1.26		.84
MR2075	MOT	1.44		.96
MR2261	MOT	.19		.13
MR2262	MOT	.25		.17
MR2263	MOT	.30		.20
MR2264	MOT	.37		.25
MR2265	MOT	.54		.36
MR2266	MOT	1.08		.72
MR2271	MOT	1.68		1.12
MR2272	MOT	.57		.38
MR2273	MOT	.48		.32
MR2360	MOT	.28		.19
MR2361	MOT	.57		.38

Type No.	Mfg.	1-24	25-99	100-999
MRD200	MOT	11.30	9.80	7.50
MRD300	MOT	10.50	9.10	7.00

Type No.	Mfg.	1-24	25-99	100-Up
MRK-200	MOT	NET	94.50	
MSD6100	MOT	1.12	.75	.56

Type No.	Mfg.	1-99	100-999	1000-Up
MSD6101	MOT	1.27	.85	.65
MSD6102	MOT	.75	.50	.37
MSD6150	MOT	.82	.55	.41
MU4891	MOT	.90	.60	.51
MU4892	MOT	1.23	.82	.70
MU4893	MOT	.96	.64	.54
MU4894	MOT	1.05	.70	.60
MV830	MOT	1.35	.90	
MV831	MOT	1.35	.90	
MV832	MOT	1.35	.90	
MV833	MOT	1.35	.90	
MV834	MOT	1.35	.90	
MV835	MOT	1.35	.90	
MV836	MOT	1.35	.90	
MV837	MOT	1.35	.90	
MV838	MOT	1.35	.90	
MV839	MOT	1.35	.90	
MV840	MOT	1.35	.90	
MV1403	MOT	8.95	5.95	
MV1620	MOT	1.42	.95	
MV1622	MOT	1.42	.95	
MV1624	MOT	1.42	.95	
MV1626	MOT	1.42	.95	
MV1628	MOT	1.42	.95	
MV1630	MOT	1.42	.95	
MV1632	MOT	1.42	.95	
MV1634	MOT	1.42	.95	
MV1636	MOT	1.42	.95	
MV1638	MOT	1.42	.95	
MV1640	MOT	1.42	.95	
MV1642	MOT	1.42	.95	
MV1644	MOT	1.42	.95	
MV1646	MOT	1.42	.95	
MV1648	MOT	1.42	.95	
MV1650	MOT	1.42	.95	
MV1652	MOT	3.60	2.40	
MV1654	MOT	3.60	2.40	
MV1656	MOT	3.60	2.40	
MV1658	MOT	3.60	2.40	
MV1660	MOT	3.60	2.40	
MV1662	MOT	3.60	2.40	
MV1664	MOT	3.60	2.40	
MV1666	MOT	3.60	2.40	
MV1720	MOT	7.35	4.90	
MV1722	MOT	7.35	4.90	
MV1724	MOT	7.35	4.90	
MV1726	MOT	7.35	4.90	
MV1728	MOT	7.35	4.90	
MV1730	MOT	7.35	4.90	
MV1732	MOT	7.35	4.90	
MV1734	MOT	7.35	4.90	
MV1736	MOT	7.35	4.90	
MV1738	MOT	7.35	4.90	
MV1740	MOT	7.35	4.90	
MV1742	MOT	7.35	4.90	
MV1744	MOT	7.35	4.90	
MV1748	MOT	7.35	4.90	
MV1750	MOT	7.35	4.90	

Type No.	Mfg.	1-9	10-99	100-999
MV1804/1N4387	MOT	42.00	35.00	28.00
MV1805C	MOT	42.00	28.00	
MV1806/1N4388	MOT	42.00	35.00	28.00
MV1806C/1N5149	MOT	27.00	18.00	
MV1807C/1N5150	MOT	42.00	28.00	
MV1808A/1N5151	MOT	42.00	28.00	
MV1808C/1N5153	MOT	42.00	28.00	

Type No.	Mfg.	1-99	100-Mix	100-999
MV1810A/1N5154	MOT	42.00		28.00
MV1810B/1N5155	MOT	42.00		28.00
MV1858D	MOT	12.00		8.00
MV1860D	MOT	12.00		8.00
MV1862D	MOT	12.00		8.00
MV1864D	MOT	12.00		8.00
MV1864D	MOT	12.00		8.00
MV1866	MOT	10.50		7.00
MV1866D	MOT	12.00		8.00
MV1868	MOT	10.50		7.00
MV1868D	MOT	12.00		8.00

Type No.	Mfg.	1-99	100-Mix	100-999
MV1870	MOT	10.50		7.00
MV1870D	MOT	12.00		8.00
MV1871	MOT	10.50		7.00
MV1872	MOT	10.50		7.00
MV1874	MOT	10.50		7.00
MV1876	MOT	10.50		7.00
MV1877	MOT	10.50		7.00
MV1878	MOT	10.50		7.00
MZ4.7T10/1N1508	INT	2.75	2.45	2.10
MZ5.6T10/1N1509	INT	2.75	2.45	2.10
MZ6.8T10/1N1510	INT	2.75	2.45	2.10
MZ10T5/1N1512A	INT	3.45	3.05	2.65
MZ10T10/1N1512	INT	2.75	2.45	2.10
MZ12T5/1N1513A	INT	3.45	3.05	2.65
MZ12T10/1N1513	INT	2.75	2.45	2.10
MZ13T5	INT	3.45	3.05	2.65
MZ15T5/1N1514A	INT	3.45	3.05	2.65
MZ15T10/1N1514	INT	2.75	2.45	2.10
MZ500-1	MOT	.57		.38
MZ500-2	MOT	.57		.38
MZ500-3	MOT	.57		.38
MZ500-4	MOT	.57		.38
MZ500-5	MOT	.57		.38
MZ500-6	MOT	.57		.38
MZ500-7	MOT	.57		.38
MZ500-8	MOT	.57		.38
MZ500-9	MOT	.57		.38
MZ500-10	MOT	.57		.38
MZ500-11	MOT	.57		.38
MZ500-12	MOT	.57		.38
MZ500-13	MOT	.57		.38
MZ500-14	MOT	.57		.38
MZ500-15	MOT	.57		.38
MZ500-16	MOT	.57		.38
MZ500-17	MOT	.57		.38
MZ500-18	MOT	.57		.38
MZ500-19	MOT	.57		.38
MZ500-20	MOT	.57		.38
MZ500-21	MOT	.57		.38
MZ500-22	MOT	.57		.38
MZ500-23	MOT	.57		.38
M500-24	MOT	.57		.38
M500-25	MOT	.57		.38
MZ500-26	MOT	.57		.38
MZ500-27	MOT	.57		.38
MZ500-28	MOT	.57		.38
MZ500-29	MOT	.57		.38
MZ500-30	MOT	.57		.38
MZ500-31	MOT	.57		.38
MZ500-32	MOT	.57		.38
MZ500-33	MOT	.57		.38
MZ500-34	MOT	.57		.38
MZ500-35	MOT	.57		.38
MZ500-36	MOT	.57		.38
MZ500-37	MOT	.57		.38
MZ500-38	MOT	.57		.38
MZ500-39	MOT	.57		.38
MZ500-40	MOT	.57		.38
N-120CG-8L	HOF	3.85		3.25
N-120CG-9L	HOF	4.35		3.65
N-120CG-10L	HOF	5.05		4.25
N-120CG-11L	HOF	7.45		6.25

Type No.	Mfg.	1-24	25-99	100-Up
NE506K	SPR	26.25	21.00	18.50
NE518K	SPR	11.25	9.00	7.90

Type No.	Mfg.	1-9	10-99	100-999
Q1B	INT	.55	.41	.33
Q1H	INT	.38	.29	.23

Type No.	Mfg.	1-99	100-999	1000-Up
Q4B	INT	1.56	.94	
QK-2200	RCA	39.95	NET	
RA1/D19RA1	GE	4.50	3.00	2.70
RAL/D19RA1	GE	7.95	5.30	
RA1A	GE	7.95	5.30	4.75
RA1B	GE	14.10	9.40	8.45
RA2	GE	7.95	5.30	4.75
RA2A	GE	22.50	15.00	13.50

Type No.	Mfg.	1-99	100-Mix	100-999
RS6	HOF	1.80		1.35
RT6	HOF	1.80		1.35
S-1M	INT	2.25		2.00
S-3M	INT	3.95		3.51

Type No.	Mfg.	1-9	10-99	100-999
S-4M	INT	3.95	3.51	......

Type No.	Mfg.	1-99	100-Mix	100-999
S-5M	INT	4.95		4.40

Type No.	Mfg.	1-9	10-99	100-999
S-5W5P-AC	INT	3.22	2.98	2.10
S-6V2P-DC				
S-26	GE	NET	9.95	......

Type No.	Mfg.	1-24	25-99	100-Up
S-50M	SAR	12.00	10.30	9.60

Type No.	Mfg.	1-99	100-Mix	100-999
S-100A1	GE	6.90		
S-100A3	GE	7.45		
S-100A4	GE	9.85		
S-100B1	GE	7.80		
S-100B3	GE	8.35		
S-100B4	GE	10.70		
S-100C1	GE	8.80		
S-100C3	GE	9.30		
S-100C4	GE	11.70		
S-100D1	GE	8.20		
S-100D3	GE	8.70		
S-100D4	GE	11.20		
S-100E1	GE	8.80		
S-100E3	GE	9.30		
S-100E4	GE	11.70		
S-100F1	GE	8.20		
S-100F3	GE	8.70		
S-100F4	GE	11.20		
S-100G1	GE	5.70		
S-100G3	GE	6.25		
S-100G4	GE	8.65		
S-200A1	GE	18.00		
S200A2	GE	23.20		
S200A3	GE	24.40		
S200A4	GE	26.10		
S200A21	GE	24.00		
S200A41	GE	27.15		
S300A1	GE	22.60		
S300A2	GE	23.30		
S300A3	GE	23.30		
S300A4	GE	23.90		
S300A5	GE	25.30		
S300A6	GE	26.60		

Type No.	Mfg.	1-9	10-99	100-999
S-488	SAR	1.60	1.15	1.02
S-490	SAR	2.20	1.58	1.41
S-492	SAR	2.80	2.02	1.80
S-493	SAR	3.35	2.44	2.18
S-494	SAR	4.00	2.88	2.56
S-591	SAR	.83	.75	.72
S-594	SAR	5.03	4.53	4.02
S1020E4PL	INT	1.95	1.95	1.75
S1020E6PL	INT	2.50	2.50	2.20
S1020E8PL	INT	3.85	3.85	3.40

Type No.	Mfg.	1-24	25-99	100-Up
S-5017/1N1237	SAR	5.25	4.69	
S-5018/1N1238	SAR	5.25	4.69	
S-5019/1N1239	SAR	7.77	6.94	
S5130	SAR	9.65	8.65	
S-5251/1N2389	SAR	5.25	4.69	
S-5343	SAR	8.33	7.44	
S-5959	SAR	1.94	1.66	1.54
S-5959-1	SAR	2.22	.200	1.77
S-5959-2	SAR	2.44	2.09	1.94
S-5959-3	SAR	3.06	2.62	2.43
S-5991	SAR	3.50	3.00	2.80
S-6121	SAR	4.01	3.43	3.19
S-6121-1	SAR	4.21	3.60	3.35
S-6121-2	SAR	4.36	3.73	3.47
S-6121-3	SAR	4.41	3.78	3.51
S-6211	SAR	2.12	1.82	1.69
S-6211-1	SAR	2.34	2.00	1.86
S-6211-2	SAR	2.56	2.19	2.04
S-6211-3	SAR	3.21	2.75	2.55
S9313-02	SYL	3.65	3.65	2.50

Type No.	Mfg.	1-24	25-99	100-Up
S9303-02	SYL	5.10	5.10	3.50
S9323-02	SYL	4.05	4.05	2.75
S9443-02	SYL	4.05	4.05	2.75
S9463-02	SYL	3.65	3.65	2.50

Type No.	Mfg.	1-99	100-999	1000-Up
SA20-03	SYL	10.05	8.00	6.80

Type No.	Mfg.	1-24	25-99	100-Up
SA21-03	SYL	6.95	5.55	4.70

Type No.	Mfg.	1-99	100-999	1000-Up
SA7405A	HUG	9.68	7.26	
SA7406A	HUG	8.12	6.09	
SA7407A	HUG	7.08	5.31	
SA7408A	HUG	6.64	4.98	
SA7409A	HUG	19.36	14.52	
SA7410A	HUG	16.24	13.68	
SA7411A	HUG	14.16	10.62	
SA7412A	HUG	13.28	9.96	
SC35A	GE	2.52	1.68	
SC35B	GE	2.70	1.80	
SC35D	GE	3.39	2.26	
SC35F	GE	2.36	1.57	
SC36A	GE	2.07	1.38	
SC36B	GE	2.25	1.50	
SC36D	GE	2.94	1.96	
SC36F	GE	1.91	1.27	
SC40A	GE	2.84	1.89	
SC40B/ZJ257B	GE	3.03	2.02	
SC40D	GE	3.86	2.57	
SC40E	GE	4.31	2.87	
SC40F	GE	2.64	1.76	
SC41A	GE	2.39	1.59	
SC41B/ZJ285B	GE	2.58	1.72	
SC41E	GE	3.85	2.57	
SC41F	GE	2.19	1.46	
SC45A	GE	3.65	2.43	
SC45B ZJ290B	GE	3.93	2.62	
SC45D	GE	4.98	3.32	
SC45D/ZJ290B	GE	3.93	2.62	
SC45E	GE	5.64	3.76	
SC45F	GE	3.38	2.25	
SC45A	GE	3.20	2.13	
SC45B/ZJ291B	GE	3.48	2.32	
SC46D	GE	4.53	3.02	
SC46E	GE	5.19	3.46	
SC46F	GE	2.93	1.95	
SC50A	GE	3.75	2.50	
SC50B	GE	4.02	2.68	
SC50D	GE	5.82	3.88	
SC50E	GE	8.50	5.67	
SC50F	GE	3.50	2.33	
SC51A	GE	3.30	2.20	
SC51B	GE	3.57	2.38	
SC51D	GE	5.37	3.58	
SC51E	GE	8.05	5.37	
SC51F	GE	3.05	2.03	
SCH51	SCH	NET	24.50	
SD-92A	INT	.68	.46	
SD-94	INT	.89	.60	
SD-94A	INT	.96	.64	
SD-95	INT	.99	.67	
SD-95A	INT	1.06	.71	
SD150/1N3604	GE	.83	.56	.32

Type No.	Mfg.	1-24	25-99	100-Up
SD500	INT	.67	.59	.63

Type No.	Mfg.	1-99	100-999	1000-Up
SDA1020E6	INT	5.40	4.30	
SDA1020E8	INT	6.75	6.00	
SP5G26C	INT	7.45	NET	
SR200B	SYL	.65	.42	.25
SR500B	SYL	.68	.45	.26

Type No.	Mfg.	1-9	10-99	100-999
SR1692	SYL	.45	.45	.30

Type No.	Mfg.	1-99	100-999	1000-Up
SR6587	SYL	1.20	.80	.40
SR6588	SYL	1.29	.86	.43
SR6589	SYL	1.38	.92	.46
SR6590	SYL	2.07	1.38	.69
SR6591	SYL	3.30	2.20	1.10

Type No.	Mfg.	1-99	100-499	500-999
SS1	SCH	.23	.18	.16
SS1-2	SCH	.50	.39	.35

Type No.	Mfg.	1-24	25-99	100-Up
ST2-30P	SAR	3.70	3.17	2.97

Type No.	Mfg.	1-9	10-99	100-999
ST-2/1N2631	INT	5.50	4.95	

Type No.	Mfg.	1-99	100-Mix	100-999
ST2/ZJ238	GE	.75		.50

Type No.	Mfg.	1-9	10-99	100-999
ST-2A/1N2632	INT	7.95	7.10	

Type No.	Mfg.	1-24	25-99	100-999
ST3A40/ST340P	SAR	3.16	2.70	2.52
ST4-10P	SAR	1.75	1.50	1.39
ST5A10P	SAR	3.25	2.78	2.60
ST5A20P	SAR	3.78	3.23	3.00
ST5A40P	SAR	5.28	4.52	4.20
ST5A60P	SAR	7.80	6.68	6.20

Type No.	Mfg.	1-9	10-99	100-999
ST-7A	INT	9.65	8.65	
ST-220P/1N1202	SAR	4.20	3.75	

Type No.	Mfg.	1-24	25-99	100-999
ST460P/1N1190	SAR	4.89	4.19	3.90
ST660P	SAR	28.50	24.40	22.80

Type No.	Mfg.	1-99	100-499	500-999
SV1	SCH	.41	.35	.29
SV1-LR	SCH	.43	.37	.31

Type No.	Mfg.	1-99	100-499	500-999
SZ2.4	SCH	.49	.38	.33
SZ2.4A	SCH	.59	.47	.41
SZ2.4-1%	SCH	1.07	.97	.91
SZ2.4-2%	SCH	.89	.81	.76
SZ2.7	SCH	.49	.38	.33
SZ2.7A	SCH	.59	.47	.41
SZ2.7-1%	SCH	1.07	.97	.91
SZ2.7-2%	SCH	.89	.81	.76
SZ3.0	SCH	.49	.38	.33
SZ3.0A	SCH	.59	.47	.41
SZ3.0-1%	SCH	1.07	.97	.91
SZ3.0-2%	SCH	.89	.81	.76
SZ3.3	SCH	.49	.38	.33
SZ3.3A	SCH	.59	.47	.41
SZ3.3-1%	SCH	1.07	.97	.91
SZ3.3-2%	SCH	.89	.81	.76
SZ3.6	SCH	.49	.38	.33
SZ3.6A	SCH	.59	.47	.41
SZ3.6-1%	SCH	1.07	.97	.91
SZ3.6-2%	SCH	.89	.81	.76
SZ3.9	SCH	.49	.38	.33
SZ3.9A	SCH	.59	.47	.41
SZ3.9-1%	SCH	1.07	.97	.91
SZ3.9-2%	SCH	.89	.81	.76
SZ4.3	SCH	.49	.38	.33
SZ4.3A	SCH	.59	.47	.41
SZ4.3-1%	SCH	1.07	.97	.91
SZ4.3-2%	SCH	.89	.81	.76
SZ4.7	SCH	.49	.38	.33
SZ4.7A	SCH	.59	.47	.41
SZ4.7-1%	SCH	1.07	.97	.91
SZ4.7-2%	SCH	.89	.81	.76
SZ5.1	SCH	.49	.38	.33
SZ5.1A	SCH	.59	.47	.41
SZ5.1-1%	SCH	1.07	.97	.91
SZ5.1-2%	SCH	.89	.81	.76
SZ5.6	SCH	.49	.38	.33
SZ5.6A	SCH	.59	.47	.41
SZ5.6-1%	SCH	1.07	.97	.91
SZ5.6-2%	SCH	.89	.81	.76
SZ6.2	SCH	.49	.38	.33
SZ6.2A	SCH	.59	.47	.41
SZ6.2-1%	SCH	1.07	.97	.91
SZ6.2-2%	SCH	.89	.81	.76
SZ6.8	SCH	.49	.38	.33
SZ6.8A	SCH	.59	.47	.41
SZ6.8-1%	SCH	1.07	.97	.91
SZ6.8-2%	SCH	.89	.81	.76
SZ7.5	SCH	.49	.38	.33

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Type No.	Mfg.	1-99	100-499	500-999
SZ7.5A	SCH	.59	.47	.41
SZ7.5-1%	SCH	1.07	.97	.91
SZ7.5-2%	SCH	.89	.81	.76
SZ8.2	SCH	.49	.39	.33
SZ8.2A	SCH	.59	.47	.41
SZ8.2-1%	SCH	1.07	.97	.91
SZ8.2-2%	SCH	.89	.81	.76
SZ9.1	SCH	.49	.38	.33
SZ9 1A	SCH	.59	.47	.41
SZ9.1-1%	SCH	1.07	.97	.91
SZ9.1-2%	SCH	.89	.81	.76
SZ10.0	SCH	.49	.38	.33
SZ10.0A	SCH	.59	.47	.41
SZ10.0-1%	SCH	1.07	.97	.91
SZ10.0-2%	SCH	.89	.81	.76
SZ11.0	SCH	.49	.38	.33
SZ11.0A	SCH	.59	.47	.41
SZ11.0-1%	SCH	1.07	.97	.91
SZ11.0-2%	SCH	.89	.81	.76
SZ12.0	SCH	.49	.38	.33
SZ12.0A	SCH	.59	.47	.41
SZ12.0-1%	SCH	1.07	.97	.91
SZ12.0-2%	SCH	.89	.81	.76
SZ13.0	SCH	.49	.38	.33
SZ13.0A	SCH	.59	.47	.41
SZ13.0-1%	SCH	1.07	.97	.91
SZ13.0-2%	SCH	.89	.81	.76
SZ15.0	SCH	.49	.38	.33
SZ15.0A	SCH	.59	.47	.41
SZ15.0-1%	SCH	1.07	.97	.91
SZ15.0-2%	SCH	.89	.81	.76
SZ16.0	SCH	.49	.38	.33
SZ16.0A	SCH	.59	.47	.41
SZ16.0-1%	SCH	1.07	.97	.91
SZ16 0-2%	SCH	.89	.81	.76
T21F102	CON	NET	1.50	....

Type No.	Mfg.	1-9	10-99	100-999
T065/075	INT	.59	.44	.35
T200/300	INT	1.10	.92	.61

Type No.	Mfg.	1-99	100-999	1000-Up
TA2761/40608	RCA	2.48	1.80	1.50
TA2819/2N5415	RCA	3.30	2.40	2.00
TA2819A/2N5416	RCA	4.95	3.60	3.00
TA2836/2N5441	RCA	8.17	5.94	4.95
TA2837/2N5442	RCA	11.47	8.34	6.95
TA2838/2N5444	RCA	8.66	6.30	5.25
TA2839/2N5445	RCA	10.51	8.70	7.25
TD-1/1N3712	GE	3.30	2.20	2.00

Type No.	Mfg.	1-24	25-99	100-999
TIZS-12	TI	155.00	128.00	105.00
TIXA-13	TI	125.00	100.00	85.00

Type No.	Mfg.	1-99	100-999	1000-Up
TIXS-33	TI	33.60	22.50	....
TIXS-35	TI	39.30	26.50	....

Type No.	Mtg.	1-99	100-999	1000-Up
TIXS-36	TI	36.30	24.50	....
TIXS-39	TI	5.55	3.70	....
TIXS-67	TI	3.50	2.60	....
TIXS-79	TI	6.50	4.80	....
TD-1A/1N3713	GE	5.00	3.30	3.00
TD-2/1N3714	GE	2.90	1.95	1.74
TD-3/1N3716	GE	2.06	1.38	1.24
TD-3A/1N3717	GE	3.90	2.60	2.35
TD-4/1N3718	GE	2.52	1.68	2.52
TD-4A/1N3719	GE	3.90	2.60	2.35
TD-5/1N3720	GE	3.34	2.22	2.00
TD-9	GE	4.00	2.65	....
TD-100	SPR	3.00	2.00	1.50
TD-102	SPR	1.65	1.10	.85
TD-104/ TD-253B-	GE	12.00	8.00	....
TD-251	GE	7.50	5.00	....
TD-251A	GE	12.00	8.00	....
TD-252	GE	7.50	5.00	....
TD252A	GE	12.00	8.00	....
TD-253	GE	6.00	4.00	....
TD-253A	GE	9.00	6.00	....
TD-253B/TD104	GE	12.00	8.00	....
TD-254A	GE	12.00	8.00	....
TD-256A	GE	12.00	8.00	....
TD-400	SPR	3.60	2.40	1.80
TD-401	SPR	2.40	1.60	1.20
TD-402	SPR	2.25	1.50	1.15
TD-554/1N3118	GE	9.15	6.10	....
TD-600	SPR	3.30	2.20	1.65
TD-601	SPR	1.95	1.30	.95
TD-602	SPR	1.95	1.30	.95
TD-710	GE	1.25	.83	.75
TD-712	GE	1.12	.75	.68
TD-713	GE	1.62	1.08	.98
TD-714	GE	1.08	.72	.65
TD-715	GE	1.56	1.04	.94
TD-716	GE	1.05	.68	.62
TD-717	GE	1.50	1.00	.91
TD-718	GE	1.05	.68	.62
TD-719	GE	1.50	1.00	.91
TI-40A0	TI	1.70	1.18	....
TI-40A1	TI	1.85	1.28	....
TI-40A2	TI	2.05	1.52	....
TI-40A3	TI	3.65	2.45	....
TI-40A4	TI	5.50	3.55	....
TI-42	TI	.87	.58	....
TI-43	TI	1.02	.68	....
TI-51	TI	.39	.26	....
TI-52	TI	.42	.28	....
TI55	TI	.57	.34	....
TI56	TI	.65	.40	....
TI57	TI	.73	.46	....
TI59	TI	.90	.60	....
TI60	TI	.96	.67	....
TI-110/2N1595	TI	3.00	2.00	....
TI-111/2N1596	TI	4.50	3.05	....
TI-130/2N1600	TI	5.10	3.40	....
TI-131/2N1601	TI	5.70	3.45	....
TI145A0	TI	1.60	1.10	....
TI145A1	TI	1.75	1.25	....
TI159	TI	3.00	2.00	....
TI3-95	TI	.66	.44	....
TI400	TI	.92	.61	....
TI401	TI	.92	.61	....
TI407	TI	.59	.39	....
TI408	TI	.57	.38	....
TI409	TI	.54	.36	....
TI412/2N3704	TI	.60	.41	....
TI413/2N3705	TI	.57	.38	....
TI414/2N3706	TI	.52	.35	....
TI415/2N3707	TI	.60	.37	....
TI416/2N3708	TI	.45	.30	....
TI417/2N3710	TI	.49	.33	....
TI418/2N3711	TI	.54	.36	....
TI421/2N2388	TI	14.40	9.65	....
TI429/2N2394	TI	18.00	12.00	....
TI433/2N2396	TI	11.55	7.70	....
TI474/2N929	TI	2.25	1.50	....
TI480	TI	1.55	1.20	....
TI481	TI	1.90	1.45	....
TI482	TI	2.10	1.55	....
TI483	TI	2.30	1.75	....
TI484	TI	2.80	2.15	....
TI485	TI	3.25	2.50	....
TI486	TI	4.90	3.25	....
TI487	TI	5.60	3.75	....
TI492	TI	1.55	1.20	....
TI493	TI	1.90	1.45	....
TI494	TI	2.50	1.90	....

Type No.	Mfg.	1-99	100-999	1000-Up
TI495	TI	3.00	2.30	....
TI496	TI	1.75	1.35	....
TI540	TI	7.88	5.25	....
TI608/3N74	TI	14.70	9.80	....
TI610/2N3035	TI	12.50	8.30	....
TI611/2N3034	TI	14.50	9.67	....
TI619/2N2802	TI	39.50	26.30	....
TI620/2N2803	TI	24.00	16.00	....
TI621/2N2804	TI	21.45	14.30	....
TI622/2N2805	TI	41.10	27.40	....
TI623/2N2806	TI	26.00	17.30	....
TI624/2N2807	TI	6.00	4.00	....
TI898/2N985	TI	2.83	1.89	....
TI1133	TI	14.70	9.80	....
TI3027	TI	1.20	.80	....
TI3028	TI	1.43	.95	....
TI3029	TI	1.65	1.10	....
TI3030	TI	1.88	1.25	....
TI3031	TI	2.03	1.35	....
TI3035/2N3420	TI	10.45	6.95	....
TI3036/2N3421	TI	10.80	7.20	....
TI3041	TI	29.25	19.50	....
TIC20	TI	2.58	1.72	....
TIC21	TI	2.90	1.95	....
TIC22	TI	3.03	2.02	....
TIC23	TI	3.35	2.25	....
TIC44	TI	.84	.56	....
TIC45	TI	1.00	.67	....
TIC46	TI	1.08	.72	....
TIC47	TI	1.26	.84	....
TIP29	TI	.91	.70	....
TIP29A	TI	1.00	.76	....
TIP30	TI	1.00	.78	....
TIP30A	TI	1.12	.86	....
TIP31	TI	1.25	.82	....
TIP31A	TI	1.37	.91	....
TIP32	TI	1.57	1.05	....
TIP32A	TI	1.80	1.19	....
TIP33	TI	1.79	1.19	....
TIP33A	TI	1.92	1.28	....
TIP34	TI	3.58	2.38	....
TIP34A	TI	3.84	2.56	....
TIP35	TI	4.38	2.92	....
TIP35A	TI	4.86	3.24	....
TIP36	TI	9.00	6.00	....
TIP36A	TI	10.80	7.20	....
TIS03/2N3702	TI	.45	.30	....
TIS04/2N3703	TI	.39	.26	....
TIS05	TI	30.00	20.00	....
TIS-23	TI	4.65	3.10	....
TIS-24	TI	4.65	4.30	....
TIS-34	TI	1.10	.75	....
TIS-37	TI	.88	.59	....
TIS-38	TI	.83	.55	....
TIS-41	TI	3.60	2.70	....
TIS-42	TI	4.95	3.25	....
TIS-43	TI	1.08	.72	....
TIS-44	TI	.49	.37	....
TIS-45	TI	.60	.45	....
TIS-46	TI	.63	.47	....
TIS-47	TI	.60	.45	....
TIS-48	TI	.64	.48	....
TIS-49	TI	.75	.55	....
TIS-51	TI	.63	.48	....
TIS-52	TI	.65	.49	....
TIS-55	TI	.60	.46	....
TIS-56	TI	2.70	1.80	....
TIS-57	TI	1.80	1.20	....
TIS-58	TI	.99	.67	....
TIS-59	TI	.96	.64	....
TIS-60	TI	.53	.34	....
TIS-60M	TI	.56	.36	....
TIS-61	TI	.57	.38	....
TIS-61M	TI	.59	.40	....
TIS-62	TI	.59	.39	....
TIS-63	TI	.57	.38	....
TIS-64	TI	.54	.36	....
TIS-73	TI	5.25	3.65	....
TIS-74	TI	5.00	3.25	....
TIS-75	TI	5.10	3.30	....
TIS-83	TI	1.05	.70	....
TIS-84	TI	.97	.65	....
TIS-85	TI	.93	.62	....
TIS-86	TI	.97	.65	....
TIS-87	TI	.93	.62	....
TIS-88/2N5245	TI	1.75	.95	....
TIS-90	TI	.55	.36	....
TIS-90M	TI	.58	.38	....
TIS-91	TI	.59	.42	....
TIS-91M	TI	.61	.43	....
TIS-92	TI	.55	.36	....

Type No.	Mfg.	1-99	100-999	1000-Up
TIS-92M	TI	.58	.38	....
TIS-93	TI	.59	.42	....
TIS-93M	TI	.61	.43	....
TIS-94	TI	.49	.36	....
TIS-95	TI	.45	.33	....
TIS-96	TI	.45	.33	....
TIS-97	TI	.49	.36	....
TIS-98	TI	.39	.30	....
TIS-99	TI	.45	.33	....
TIX696/2N2499	TI	6.45	4.95	....
TIX697/2N2500	TI	8.45	5.95	....
TIX802/2N3037	TI	18.00	12.00	....
TIX803/2N3038	TI	19.50	13.00	....
TIX804/2N3039	TI	22.50	15.00	....
TIX805/2N3040	TI	24.00	16.00	....

Type No.	Mfg.	1-24	25-99	100-999
TIX806/2N3043	TI	39.00	31.20	26.00
TIX808/2N3045	TI	22.40	19.40	14.90
TIX810/2N3047	TI	29.90	25.90	19.90
TIX813/2N3050	TI	43.40	34.75	29.00
TIX3016A	TI	50.00	43.50	29.00

Type No.	Mfg.	1-9	10-99	100-999
TIXD17	TI	4.38	2.92	2.10
TIXD18	TI	3.10	2.05	1.50
TIXD19	TI	4.38	2.92	2.10
TIXD20	TI	3.10	2.05	1.50
TIXD21	TI	25.00	16.80	12.10
TIXD22	TI	22.50	15.00	11.00
TIXD23	TI	25.00	16.80	12.10
TIXD24	TI	22.50	15.00	11.00
TIXD25	TI	54.00	36.00	26.20
TIXD26	TI	46.50	31.00	22.50

Type No.	Mfg.	1-99	100-999	1000-Up
TIXM10	TI	.92	.61	....
TIXM12	TI			
TIXM15	TI	.44	.21	....
TIXM17	TI	.47	.31	....
TIXM101	TI	19.00	12.65	....
TIXM103	TI	50.00	33.00	....
TIXM104	TI	33.00	22.00	....

Type No.	Mfg.	1-99	100-499	500-999
V64	SCH	.45	.39	.33

Type No.	Mfg.	1-9	10-99	100-999
V75HF	INT	4.60	3.22	2.76
V100HF	INT	5.50	3.85	3.30
V150HF	INT	7.75	5.42	4.65

Type No.	Mfg.	1-24	25-99	100-999
VR6	SAR	.62	.53	.49
VR7	SAR	.62	.53	.49
VR8.5	SAR	.62	.53	.49
VR9A	SAR	.62	.53	.49
VR10	SAR	.62	.53	.49
VR10A	SAR	.62	.53	.49
VR12	SAR	.62	.53	.49
VR14	SAR	.62	.53	.49
VR18	SAR	.62	.53	.49
VR20	SAR	.62	.53	.49
VR20A	SAR	.67	.57	.53
VR24	SAR	.62	.53	.49
VR28	SAR	.62	.53	.49
VR33	SAR	.62	.53	.49
VR39	SAR	.62	.53	.49
VR47	SAR	.62	.53	.49
VR56	SAR	.62	.53	.49
VR67	SAR	.62	.53	.49
VR80	SAR	.62	.53	.49
VR90	SAR	.62	.53	.49
VR105	SAR	.82	.70	.65
VR110	SAR	.82	.70	.65
VR120	SAR	.82	.70	.65
VR130	SAR	.82	.70	.65
VR160	SAR	.82	.70	.65
VR180	SAR	.82	.70	.65
VR200	SAR	.82	.70	.65

Type No.	Mfg.	1-24	25-99	100-Up
WX115UA/ 2N1809	WES	76.00	63.00	....
WX115UB/ 2N1810	WES	115.00	76.00	....
WX115VC/ 2N1811	WES	141.00	94.00	....
WX115VD/ 2N1812	WES	172.00	114.00	....
WX115WA/ 2N1816	WES	101.00	84.00	....
WX115WB/ 2N1817	WES	154.00	102.00	....
WX115WC/ 2N1818	WES	189.00	125.00	....
WX115XA/ 2N1823	WES	135.00	111.00	....
WX115XA/ 2N1824	WES	204.00	136.00	....

Type No.	Mfg.	1-9	10-24	25-Up
XC63	MOT	150.00	120.00	100.00
XC72	MOT	240.00	192.00	160.00
XC73	MOT	210.00	168.00	140.00

Type No.	Mfg.	1-99	100-999	1000-Up
Z4XL6.2	GE	.75	.50	....
Z4XL6.2B	GE	.84	.56	.49
Z4XL7.5	GE	.72	.50	....
Z4XL9.1	GE	.75	.50	....
Z4XL12	GE	.74	.50	....
Z4XL14	GE	.75	.50	....
Z4XL16	GE	.75	.50	....
Z4XL16B	GE	.84	.56	.49
Z4XL18	GE	.75	.50	.45
Z4XL18B	GE	.84	.56	.49
Z4XL20	GE	.75	.50	.45
Z4XL20B	GE	.84	.56	.49
Z4XL22	GE	.75	.50	.45
Z4XL22B	GE	.84	.56	.49

Type No.	Mfg.	1-99	100-Mix	100-999
ZJ238/ST2	GE	.75	....	.50
ZJ257B/SC40B	GE	3.03	....	2.02
ZJ285B/SC41B	BE	2.58	....	1.72
ZJ290B/SC45B	GE	3.93	....	2.62
ZJ291B/SC46B	GE	2.48	....	2.32
ZRS1/1N1735	HOF	6.20	5.60	4.65
ZRS3/1N1737	HOF	13.00	11.70	9.80

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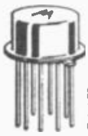
5-Pin Designated by Suffix G after Type Number.

Case 89



8-Pin (TO-99) Designated by Suffix G after type number.

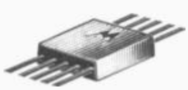
Case 96

10-Pin. Designated by Suffix G after type number.

Case 71, 71A, 96A

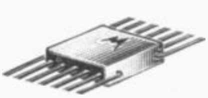
12-Pin Designated by Suffix G after type number.

Case 98



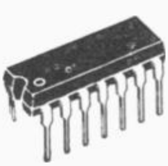
Case 72, 73

TO-91. Designated by Suffix F after type number.



Case 83, 609

TO-86. Designated by Suffix F after type number.



Case 93

Plastic Dual-In Line. Designated by Suffix P after type number.

DIGITAL INTEGRATED CIRCUITS

MECL — MC350 Series (0 to +175°)

Type	Function	DC Loading Factor	Prop. Delay ns typ	Power Dissipat. mW typ/pkg.	Case	1-24	25-99	100-999
MC351	5-Input OR-NOR Gate	25	7.5	37	71	4.55	4.00	3.65
MC352A	R-S Flip-Flop	25	11	42	71	4.55	4.00	3.65
MC352	R-S Flip-Flop	25			71			
	w/o Buffered Outputs	25	11	40	71	4.55	4.00	3.65
MC353	Half-Adder	25	7.5	63	71	5.95	5.20	4.75
MC354	Bias Driver	25	....	18	71	2.45	2.15	1.95
MC355	5-Input Gate Expander	....	4.5	....	71	2.80	2.45	2.25
MC356	3-Input OR-NOR Gate	25	7.5	37	71	3.55	3.15	2.85
MC357	3-Input OR-NOR Gate	25	7.5	15	71	3.55	3.15	2.85
MC358A	AC-Coupled J-K Flip-Flop	25	8.5	87	71	9.50	8.35	7.60
MC359	Dual 2-Input NOR Gate	25	7.0	54	71	3.70	3.25	2.95
MC360	Dual 2-Input NOR Gate	25	7.0	54	71	3.70	3.25	2.95
MC361	Dual 2-Input NOR Gate	25	7.0	41	71	3.70	3.25	2.95
MC362A	Dual 3-Input NOR Gate	25			71			
	(With Internal Bias	25	7.5	70	71	5.00	4.40	4.00
MC362	Dual 3-Input NOR Gate	25	7.5	54	98	5.00	4.40	4.00
MC364	AC-Coupled J-K Flip-Flop	25	12	118	71	10.75	9.45	8.60
MC365	Line Driver	. .	14	270	71	9.20	8.10	7.35
MC366	Lamp Driver	....	....	135	71	6.25	5.50	5.00
MC367	Level Translator —				71			
	MECL to Saturated Logic	7 (DTL)	27.5	63	71	5.60	4.95	4.50
MC368	Level Translator —				71			
	Saturated Logic to MECL	25 (MECL)	17	105	71	5.60	4.95	4.50
MC369G	Dual 2-Input Clock				71			
	Driver/High-Speed Gate	100	3.0	250	71	5.45	4.80	4.35

Important Note: Above types also available in 0 to +75°C in Flat-Pack (suffix F) and —55° to +125°C in both metal can (suffix G) and Flat-Pack (suffix F). Contact NEWARK for latest prices.

MECL II — MC1000 Series (0 to +75°C)

Type	Function	DC Loading Factor	Prop. Delay	Case	1-999	1000-Up
MC1001P	Single 6-Input Gate, 3 "OR" Outputs w Pulldowns	25	4.0	93		
	3 "NOR" Outputs w/o Pulldowns	25	4.0	93	1.60	1.25
MC1002P	Single 6-Input Gate, 3 "OR" Outputs w Pulldowns	25	4.0	93		
	3 "NOR" Outputs w/o Pulldowns	25	4.0	93	1.60	1.25
MC1003P	Single 6-Input Gate, 3 "OR" Outputs w/o Pulldowns	25	4.0	93		
	3 "NOR" Outputs w/o Pulldowns	25	4.0	93	1.60	1.25
MC1004P	Dual 4 Input Gate, 2 "OR" Output w Pulldowns	25	4.0	93		
	2 "NOR" Outputs w Pulldowns	25	4.0	93	1.70	1.30
MC1005P	Dual 4-Input Gate, 2 "OR" Outputs w Pulldowns	25	4.0	93		
	2 "NOR" Outputs w/o Pulldowns	25	4.0	93	1.70	1.30
MC1006P	Dual 4-Input Gate, 2 "OR" Outputs w/o Pulldowns	25	4.0	93		
	2 "NOR" Outputs w/o Pulldowns	25	4.0	93	1.70	1.30
MC1007P	Triple 3-Input Gate, 3 "NOR" Outputs w Pulldowns	25	4.0	93	1.75	1.35
MC1008P	Triple 3-Input Gate, 1 "NOR" Output w Pulldowns	25	4.0	93		
	2 "NOR" Outputs w/o Pulldowns	25	4.0	93	1.75	1.35
MC1009P	Triple 3-Input Gate, 3 "NOR" Outputs w/o Pulldowns	25	4.0	93	1.75	1.35
MC1010P	Quad 2-Input Gate, 4 "NOR" Outputs w Pulldowns	25	4.0	93	1.80	1.40
MC1011P	Quad 2-Input Gate, 2 "NOR" Outputs w Pulldowns	25	4.0	93		
	2 "NOR" Outputs w/o Pulldowns	25	4.0	93	1.80	1.40
MC1012P	Quad 2-Input Gate, 4 "NOR" Outputs w/o Pulldowns	25	4.0	93	1.80	1.40
MC1013P	85 MHz AC-Coupled J-K Flip-Flop	25	6.0	93	3.10	2.40
MC1014P	Dual R-S Flip-Flop (Positive Clock)	25	6.0	93	3.40	2.60
MC1015P	Dual R-S Flip-Flop (Negative Clock)	25	6.0	93	3.40	2.60
MC1016P	Dual R-S Flip-Flop (Single Rail, Positive Clock)	25	6.0	93	3.40	2.60
MC1017P	Level Translator (Sat. Logic to MECL)	25 (MECL)	15	93	3.55	2.75
MC1018P	Level Translator (MECL to Sat. Logic)	7 (DTL)	20	93	3.55	2.75
MC1019P	Full Adder	25	8.0	93	4.55	3.50
MC1020P	Quad Line Receiver	25	4.0	93	1.60	1.25
MC1021P	Full Subtractor	25	8.0	93	4.55	3.50
MC1022P	Type "D" Flip-Flop	25	4.0	93	4.85	3.70
MC1023P	Dual 4-Input "OR-NOR" Clock Driver	25	2.0	93	7.55	5.80
MC1024P	Dual 2-Input Expandable Gate	25	4.0	93	1.75	1.35
MC1025P	Dual 4- and 5-Input Expander		—	93	1.70	1.30
MC1027P	120 MHz AC-Coupled J-K Flip-Flop	25	4.0	93	7.55	5.80
MC1029P	Data Distributor	25	4.0	93	3.40	2.60
MC1030P	Quad Exclusive OR Gate	25	5.0	93	5.15	3.95
MC1031P	Quad Exclusive NOR Gate	25	5.0	93	5.15	3.95
MC1033P	Dual R-S Flip-Flop (Single Rail, Negative Clock)	25	6.0	93	3.40	2.60
MC1036P	16 Bit Coincident Memory	5	17	93	16.20	12.00
MC1037P	16 Bit Coincident Memory w/o Pulldowns	5	17	93	16.20	12.00

Important Note: Above types also available in —55 to +125° in Flat-Pack (suffix F)

MHTL — MC660 Series (—30 to +75°C)

Type	Function	DC Loading Factor	Prop. Delay	Case	1-999	1000-Up
MC660P	Dual 4-Input Gate NAND/NOR (passive pull-up)	10	110	93	3.35	2.50
MC661P	Dual 4-Input Gate NAND/NOR (active pull-up)	10	125	93	3.35	2.50
MC662P	Expandable Dual 4-input line driver	30	140	93	3.90	2.90
MC663P	Dual J-K Flip-Flop	9	—	93	7.20	6.10
MC664P	Master Slave R-S Flip-Flop	8	—	93	4.80	4.05
MC668P	Quad 2-input NAND gate (passive pull-up)	10	125	93	3.70	2.75
MC669P	Dual 4-Input expander	—	—	93	3.15	2.35
MC670P	Triple 3-Input NAND gate Passive pull-up	10	125	93	3.50	2.60
MC671P	Triple 3-Input NAND gate Active pull-up	10	110	93	3.50	2.60
MC672P	Quad 2-Input NAND gate (active pull-up)	10	110	93	3.70	2.75

DIGITAL INTEGRATED CIRCUITS (Cont'd)

MTTL — MC400 Series (0 to +75°C)

Function	Flat-Pack Type	Case	1-24	25-99	100-Up	Plastic Type	Case	1-999	1000-Up	Output Loading Factor	Propagation Delay tpd ns typ	Power Dissipation mW typ/pkg
Dual 4-Input NAND Gate	MC400F		4.70	3.80	3.15	MC400P		2.30	1.75	12		
Dual 4-Input NAND Gate	MC450F	609	3.75	3.00	2.50	MC450P	93	1.85	1.40	6	10	30
Expandable 4-Wide 2-2-2-3-Input	MC401F		5.25	4.20	3.50	MC401P		2.55	1.95	12		
AND-OR-INVERT Gate	MC451F	609	4.10	3.30	2.75	MC451P	93	2.05	1.55	6	12	30
Single 8-Input NAND Gate	MC402F		4.70	3.80	3.15	MC402P		2.30	1.75	12		
Single 8-Input NAND Gate	MC452F	609	3.75	3.00	2.50	MC452P	93	1.85	1.40	6	12	15
2-Wide 3-Input AND-OR-INVERT	MC403F		4.70	3.80	3.15	MC403P		2.30	1.75	12		
Gate with Gated Complement	MC453F	609	3.75	3.00	2.50	MC453P	93	1.85	1.40	6	11	35
Expandable 3-Wide 3-Input	MC404F		5.25	4.20	3.50	MC404P		2.55	1.95	12		
AND-OR-INVERT Gate	MC454F	609	4.10	3.30	2.75	MC454P	93	2.05	1.55	6	12	25
Expandable 2-Wide 4-Input	MC405F		5.25	4.20	3.50	MC405P		2.55	1.95	12		
AND-OR-INVERT Gate	MC455F	609	4.10	3.30	2.75	MC455P	93	2.05	1.55	6	12	20
Expandable 8-Input NAND Gate	MC406F		5.25	4.20	3.50	MC406P		2.55	1.95	12		
Expandable 8-Input NAND Gate	MC456F	609	4.10	3.30	2.75	MC456P	93	2.05	1.55	6	18	15
Quad 2-Input NAND Gate	MC408F		4.70	3.80	3.15	MC408P		2.30	1.75	12		
Quad 2-Input NAND Gate	MC458F	609	3.75	3.00	2.50	MC458P	93	1.85	1.40	6	10	60
4-Wide 3-2-2-3 Input Expander	MC409F		4.25	3.40	2.85	MC409P		1.60	1.20	12		
for AND-OR-INVERT Gates	MC459F	609	3.35	2.70	2.25	MC459P	93	1.60	1.20	6		...
Dual 4-Input Expander	MC410F		4.25	3.40	2.85	MC410P		1.60	1.20	12		
for AND-OR-INVERT Gate	MC460F	609	3.35	2.70	2.25	MC460P	93	1.60	1.20	6	...	...
Dual 4-Input Expander	MC411F		4.25	3.40	2.85	MC411P		1.60	1.20	12		
for NAND Gates	MC461F	609	3.35	2.70	2.25	MC461P	93	1.60	1.20	6		
Triple 3-Input NAND Gate	MC412F		4.70	3.80	3.15	MC412P		2.30	1.75	12		
Triple 3-Input NAND Gate	MC462F	609	3.75	3.00	2.50	MC462P	93	1.85	1.40	6	10	45
R-S Flip-Flop	MC413F		5.25	4.20	3.50	MC413P		2.55	1.95	12		
R-S Flip-Flop	MC463F	609	4.10	3.30	2.75	MC463P	93	2.05	1.55	6	f=20 MHz	30
AND J-K Flip-Flop	MC415F		6.60	5.30	4.40	MC415P		3.70	2.80	12		
AND J-K Flip-Flop	MC465F	609	5.25	4.20	3.50	MC465P	93	2.95	2.25	6	f=20 MHz	40
OR J-K Flip-Flop	MC416F		6.60	5.30	4.40	MC416P		3.70	2.80	12		
OR J-K Flip-Flop	MC466F	609	5.25	4.20	3.50	MC466P	93	2.95	2.25	6	f=20 MHz	50

Important Note: Above types also available in —55 to +125°C in flat-pack (suffix F).

MTTL II — MC2000 Series (0 to +75°C)

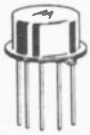
Function	Flat-Pack Type	Case	1-24	25-99	100-Up	Plastic Type	Case	1-999	1000-Up	Output Loading Factor	Propagation Delay tpd ns typ	Power Dissipation mW typ/pkg
Expandable 2-Wide 4-Input	MC2000F		6.30	5.05	4.20	MC2000P		3.10	2.35	9		
AND-OR-INVERT Gate	MC2050F	609	4.95	3.95	3.30	MC2050P	93	2.40	1.85	5	7.0	27
Quad 2-Input NAND Gate	MC2001F		5.70	4.55	3.80	MC2001P		2.80	2.10	9		
Quad 2-Input NAND Gate	MC2051F	609	4.50	3.60	3.00	MC2051P	93	2.25	1.70	5	6.0	88
4-Wide 3-2-2-3 Input	MC2002F		4.25	3.40	2.85	MC2002P		1.60	1.20	9		
Expander for AND-OR-INVERT Gates	MC2052F	609	3.40	2.70	2.25	MC2052P	93	1.60	1.20	5		28
Dual 4-Input NAND Gate	MC2009F		5.70	4.55	3.80	MC2003P		2.80	2.10	9		
Dual 4-Input NAND Gate	MC2053F	609	4.50	3.60	3.00	MC2053P	93	2.25	1.70	5	6.0	44
Expandable 4-Wide 2-2-2-3 Input	MC2004F		6.30	5.05	4.20	MC2004P		3.10	2.35	9		
AND-OR-INVERT Gate	MC2054F	609	4.95	3.95	3.30	MC2054P	93	2.40	1.85	5	7.0	36
Single 8-Input NAND Gate	MC2005F		5.70	4.55	3.80	MC2005P		2.80	2.10	9		
Single 8-Input NAND Gate	MC2055F	609	4.50	3.60	3.00	MC2055P	93	2.25	1.70	5	8.0	22
Dual 4-Input Expander for	MC2006F		4.25	3.40	2.85	MC2006P		1.60	1.20	9		
AND-OR-INVERT Gates	MC2056F	609	3.40	2.70	2.25	MC2056P	93	1.60	1.20	5	...	14
AND J-K Flip-Flop	MC2009F		7.95	6.35	5.30	MC2009P		4.45	3.35	9		
AND J-K Flip-Flop	MC2059F	609	6.30	5.05	4.20	MC2059P	93	3.60	2.70	5	f=30 MHz	40
OR J-K Flip-Flop	MC2010F		7.95	6.35	5.30	MC2010P		4.45	3.35	9		
OR J-K Flip-Flop	MC2060F	609	6.30	5.05	4.20	MC2060P	93	3.60	2.70	5	f=30 MHz	50

Important Note: Above types also available in —55 to +125°C in flat-pack (suffix F).

MTTL III — MC3000 Series (0 to +75°C)

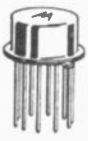
Function	Flat-Pack Type	Case	1-24	25-99	100-Up	Plastic Type	Case	1-999	1000-Up	Output Loading Factor	Propagation Delaye tpd ns typ	Power Dissipation mW typ/pkg
Quad 2-Input NAND Gate	MC3000F	83	5.40	4.30	3.60	MC3000P	93	2.50	1.85	10	6.0	88
Quad 2-Input AND Gate	MC3001F	83	5.40	4.30	3.60	MC3001P	93	2.50	1.85	10	9.0	112
Quad 2-Input NOR Gate	MC3002F	83	5.90	4.75	3.95	MC3002P	93	2.75	2.05	10	6.0	122
Quad 2-Input OR Gate	MC3003F	83	5.90	4.75	3.95	MC3003P	93	2.75	2.05	10	9.0	150
Triple 3-Input NAND Gate	MC3005F	83	5.40	4.30	3.60	MC3005P	93	2.50	1.85	10	6.0	66
Dual 4-Input NAND Gate	MC3010F	83	5.40	4.30	3.60	MC3010P	93	2.50	1.85	10	6.0	44
Single 8-Input NAND Gate	MC3015F	83	5.40	4.30	3.60	MC3015P	93	2.50	1.85	10	8.0	22
Expandable Dual 2-Wide 2-Input AND-OR-INVERT Gate	MC3020F	83	5.90	4.75	3.95	MC3020P	93	2.75	2.05	10	6.0	62.5
Dual 4-Input NAND Power Gate	MC3025F	83	5.90	4.75	3.95	MC3025P	93	2.75	2.05	20	6.0	70
Dual 4-Input AND Power Gate	MC3026F	83	5.90	4.75	3.95	MC3026P	93	2.75	2.05	20	9.0	90
Dual 3-Input 3-Output AND Series Terminated Line Driver	MC3028F	83	5.90	4.75	3.95	MC3028P	93	2.75	2.05	.	9.0	56
Dual 3-Input 3-Output NAND Series Terminated Line Driver	MC3029F	83	5.90	4.75	3.95	MC3029P	93	2.75	2.05	. .	6.0	44
Dual 4-Input Expander for AND-OR-INVERT Gates	MC3030F	83	4.20	3.40	2.80	MC3030P	93	2.00	1.50			15
AND J-K Flip-Flops	MC3050F	83	7.45	5.95	4.95	MC3050P	93	4.00	2.95	10	f=40 MHz	80
AND Input JJ-KK Flip-Flop	MC3052F	83	7.45	5.95	4.95	MC3052P	93	4.00	2.95	10	f=40 MHz	75
Dual Type D Flip-Flop	MC3060F	83	10.40	8.35	6.95	MC3060P	93	6.35	4.70	10	f=30 MHz	120
Dual J-K Flip-Flop	MC3061F	83	10.40	8.35	6.95	MC3061P	93	6.35	4.70	10	f=50 MHz	100
Dual J-K Flip-Flop	MC3062F	83	10.40	8.35	6.95	MC3062P	93	6.35	4.70	10	f=50 MHz	100

Motorola Integrated Circuits



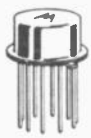
5-Pin Designated by Suffix G after Type number.

Case 89



8-Pin. (TO-99) Designated by Suffix G after type number.

Case 96

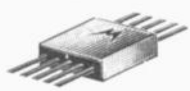


10-Pin. Designated by Suffix G after type number.

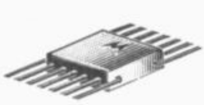
Case 71, 71A, 96A

12-Pin. Designated by Suffix G after type number.

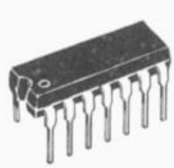
Case 98



Case 72, 73
TO-91. Designated by Suffix F after type number.



Case 83, 609
TO-86. Designated by Suffix F after type number.



Case 93
Plastic Dual-In Line. Designated by Suffix P after type number.

DIGITAL INTEGRATED CIRCUITS (Cont.d)

MDTL — MC830 Series (0 to +75°C)

Function	Flat-Pack Type	Case	1-24	25-99	100-Up	Plastic Type	Case	1-999	1000-Up
Dual 4-Input NAND Gate	MC830F	83	3.60	2.90	2.40	MC830P	93	1.55	1.15
Clock Flip-Flop	MC831F		5.25	4.20	3.50	MC831P		3.00	2.25
Dual 4-Input Buffer	MC832F		4.05	3.25	2.70	MC832P		1.65	1.25
Dual 4-Input Gate Expander	MC833F	83	4.70	3.80	3.15	MC833P	93	1.35	1.00
Hex Inverter	MC834F		4.35	3.50	2.90	MC834P		2.00	1.50
Hex Inverter	MC836F		4.35	3.50	2.90	MC836P		2.00	1.50
Hex Inverter	MC837F		4.35	3.50	2.90	MC837P		2.00	1.50
Decade Counter	MC838F		15.00	12.00	10.00	MC838P		7.55	6.70
Divide-by-Sixteen Counter	MC839F	83	15.00	12.00	10.00	MC839P	93	7.55	6.70
Dual 4-Input Power NAND Gate	MC844F		4.05	3.25	2.70	MC844P		1.65	1.25
Clocked Flip-Flop	MC845F		5.25	4.20	3.50	MC845P		3.00	2.25
Quad 2-Input NAND Gate	MC846F	83	3.60	2.90	2.40	MC846P	93	1.65	1.25
Clocked Flip-Flop	MC848F		5.25	4.20	3.50	MC848P		3.00	2.25
Quad 2-Input NAND Gate	MC849F		3.60	2.90	2.40	MC849P		1.65	1.25
Pulse Triggered Binary	MC850F	83	11.60	9.30	7.75	MC850P	93	4.50	3.35
Monostable Multivibrator	MC851F		11.60	9.30	7.75	MC851P		4.50	3.35
Dual J-K Flip-Flop	MC852F		8.40	6.70	5.60	MC852P		4.75	3.60
Dual J-K Flip-Flop	MC853F		8.40	6.70	5.60	MC853P		4.75	3.60
Dual J-K Flip-Flop	MC855F		8.40	6.70	5.60	MC855P		4.75	3.60
Dual J-K Flip-Flop	MC856F	83	8.40	6.70	5.60	MC856P	93	4.75	3.60
Dual 4-Input NAND Gate	MC861F		3.60	2.90	2.40	MC861P		1.65	1.25
Triple 3-Input NAND Gate	MC862F		3.60	2.90	2.40	MC862P		1.65	1.25
Triple 3-Input NAND Gate	MC863F	83	3.60	2.90	2.40	MC863P	93	1.65	1.25

Important Note: Above types also available in —55 to +125°C in flat-pack (suffix F) and in Case 96A (suffix G).

MDTL — MC830 Series (0 to +75°C)

Can Type	Function	Case	Output Loading Factor	Propagation Delay (ns)	Total pwr. diss. mw	1-24	24-99	100-Up
MC830G	Dual 3-2 Input NAND gate	96A	8	30	22	3.60	2.90	2.40
MC831G	Clocked Flip-Flop		7	40	55	5.25	4.20	3.50
MC832G	Dual 3-2 Input buffer		25	35	85	4.05	3.25	2.70
MC833G	Dual 3-4 Input gate expander		.	..	..	4.50	3.60	3.00
MC843G	4-Input AND driver w/NOR strobe		250	80	50	13.35	10.70	8.90
MC844G	Dual 3-2 Input pwr. NAND gate	96A	27	30	65	4.05	3.25	2.70
MC845G	Clocked Flip-Flop		12	40	60	5.25	4.20	3.50
MC846G	Quad Inverter		8	30	44	3.60	2.90	2.40
MC848G	Clocked Flip-Flop		11	40	70	5.25	4.20	3.50
MC849G	Quad Inverter		7	25	60	3.60	2.90	2.40
MC850G	Pulse Triggered binary	96A	10	15	50	11.40	9.10	7.60
MC851G	Monostable multivibrator		10	40	30	11.40	9.10	7.60
MC861G	Dual 3-2 Input NAND gate		7	25	33	3.60	2.90	2.40
MC862G	Dual 2-Input NAND gate w/inverter		8	30	30	3.60	2.90	2.40
MC863G	Dual 2-Input NAND gate w/inverter; (2 k pull-up resistor).		7	25	45	3.60	2.90	2.40

MRTL — MC700 Series (+15 to +55°C)

Type	Function	Case	Output Loading Factor	Propagation Delay	Power Diss. mW typ.	1-999	1000-Up
MC700G	Buffer	96	80	20	25	1.75	1.30
MC701G	Counter Adapter	96	15	22	80	1.55	1.15
MC702G	R-S Flip-Flop	96	13	14	32	1.70	1.25
MC703G	3-Input Gate NAND/NOR	96	16	12	28	1.40	1.05
MC704G	Half Adder	96	16	14	65	2.30	1.70
MC705G	Half-shift Register	96	13	22	75	2.45	1.80
MC706G	Half-shift Register (w/o inverter)	96	13	22	52	2.45	1.80
MC707G	4-Input Gate NAND/NOR	96	16	12	30	1.40	1.05
MC714G	Dual 2-Input Gate NAND/NOR	96	16	12	50	1.55	1.15
MC715G	Dual 3-Input Gate NAND/NOR	96A	16	12	55	1.55	1.15
MC723G	J-K Flip-Flop	96	10	35	91	2.90	2.15
MC726G	J-K Flip-Flop	96A	16	35	100	2.90	2.15
MC727G	Quad Inverter	96A	16	12	87	1.55	1.15
MC729G	5-Input Gate NAND/NOR	96	16	12	33	1.40	1.05
MC774G	J-K Flip-Flop	96	16	35	100	2.90	2.15
MC799G	Dual Buffer	96A	80	20	50	2.30	1.70

mW MRTL — MC700 Series (+15 to +55°C)

Type	Function	Case	Output Loading Factor	Propagation Delay	Power Diss. mW typ.	1-999	1000-Up
MC708G	Half Adder	96	4	60	19	1.60	1.20
MC709G	2-Input Buffer	96	30	57	7.0	1.75	1.30
MC710G	Dual 2-Input Gate NAND/NOR	96	4	27	10	1.40	1.05
MC711G	4-Input Gate NAND/AND OR/NOR	96	4	60	8.0	1.40	1.05
MC712G	Half Adder	96	4	66	15.5	1.60	1.20
MC713G	Type D Flip-Flop	96	3	75	24	2.75	2.05
MC718G	Dual 3-Input Gate NAND/NOR	96A	4	27	12	1.55	1.15
MC720G	J-K Flip-Flop	96	2	50	20.5	2.90	1.15
MC721G	Dual 2-Input Gate Expander	96	....	27	3.0	1.40	1.05
MC722G	J-K -Flip-Flop	96A	4	70	24	2.90	2.15
MC728G	5-Input Gate NAND/NOR	96	4	27	7.5	1.40	1.05
MC781G	Dual Buffer	96	30	57	14	2.25	1.70
MC782G	J-K Flip-Flop	96	2	80	23	2.90	2.15

DIGITAL INTEGRATED CIRCUITS (CONT'D)

MRTL — MC800 SERIES (0 TO +100°C)

Type	Function	Case	1-24	25-99	100-999
MC800G	Buffer	96	2.85	2.30	1.90
MC801G	Counter Adapter	96	2.45	2.00	1.65
MC802G	R-S Flip-Flop	96	2.75	2.45	1.85
MC803G	3-Input Gate NAND/NOR	96	2.45	2.00	1.65
MC804G	Half Adder	96	3.30	2.65	2.20
MC805G	Half-Shift Register	96	3.35	2.70	2.25
MC806G	Half-Shift Register w/o inverter	96	3.35	2.70	2.25
MC807G	4-Input Gate NAND/NOR	96	2.45	2.00	1.65
MC814G	Dual 2-Input Gate NAND/NOR	96	2.60	2.10	1.75
MC815G	Dual 3-Input Gate NAND/NOR	96A	2.60	2.10	1.75
MC816G	J-K Flip-Flop	96	4.20	3.35	2.80
MC826G	J-K Flip-Flop	96A	4.20	3.35	2.60
MC827G	Quad Inverter	96A	2.60	2.10	1.75
MC829G	5-Input Gate NAND/NOR	96	2.45	2.00	1.65
MC874G	J-K Flip-Flop	96	4.20	3.35	2.80
MC899G	Dual Buffer	96A	4.35	3.50	2.90

Important Note: Above types also available in 0 to +75°C in flat-pack Suffix F.

mW MRTL — MC800 SERIES (0 TO +75°C)

Can Type	Function	Case	1-24	25-99	100-999
MC808G	Half Adder	96	2.85	2.30	1.90
MC809G	2-Input Buffer	96	2.85	2.30	1.90
MC810G	Dual 2-Input Gate NAND/NOR	96	2.45	2.00	1.65
MC811G	4-Input Gate AND/NAND—OR/NOR	96	2.45	2.00	1.65
MC812G	Half Adder	96	2.85	2.30	1.90
MC818G	Dual 3-Input Gate NAND/NOR	96A	2.60	2.10	1.75
MC820G	J-K Flip-Flop	96	4.20	3.35	2.80
MC821G	Dual 2-Input Gate Expander	96	2.30	1.85	1.55
MC822G	J-K Flip-Flop	96A	4.20	3.35	2.80
MC828G	5-Input Gate NAND/NOR	96	2.10	1.70	1.40
MC881G	Dual Buffer	96	4.35	3.50	2.90
MC882G	J-K Flip-Flop	96	4.20	3.35	2.80

Important Note: Above types also available in 0 to +100°C in flat-pack Suffix F.

PLASTIC MRTL — MC800 SERIES (0 TO +75°C)

Type	Function	Case	Output Loading Factor	Propagation @ 25°C Tpd	Total Pwr. Diss.	1-999	1000-Up
MC815P	Dual 3-Input Gate NAND/NOR	93	5	12	55/15	1.15	.86
MC816P	J-K Flip-Flop	93	3	35	91/79	1.55	1.15
MC824P	Quad 2-Input Gate NAND/NOR	93	5	12	100/30	1.25	.93
MC825P	Dual 4-Input Gate NAND/NOR	93	5	12	60/15	1.25	.93
MC826P	J-K Flip-Flop	93	5	35	100/86	1.55	1.15
MC875P	Dual Half Adder	93	5	20	120	2.70	2.00
MC879P	1 J-K FF, 1 Expander, 2 Buffers	93			168/169	2.85	2.10
MC883P	Half-Shift Register	93	4	22	140	2.85	2.10
MC884P	Half-Shift Register	93	4	22	100	2.85	2.10
MC885P	Quad 2-Input Expander	93		12	20/-	1.50	1.12
MC886P	Dual 4-Input Expander	93		12	20/-	1.50	1.12
MC887P	1 J-K FF, 1 Inverter, 2 Buffers	93	....	. . .	163/177	2.85	2.10
MC888P	Dual 3-Input Buffer, non inverting	93	25	24	145/56	1.55	1.15
MC889P	Hex Inverter	93	5	12	130/15	1.25	.93
MC890P	Dual J-K Flip-Flop	93	3	35	182/158	2.30	1.72
MC891P	Dual J-K Flip-Flop	93	5	40	190/160	2.95	2.20
MC892P	Triple 3-Input Gate NAND/NOR	93	5	12	82/24	1.38	1.05
MC899P	Dual Buffer	93	25	20	50/90	1.25	.93

mW PLASTIC MRTL — MC800 SERIES (0 TO +75°C)

Type	Function	Case	Output Loading Factor	Propagation @ 25°C Tpd	Total Pwr. Diss.	1-999	1000-Up
MC817P	Quad 2-Input Gate NAND/NOR	93	4	27	20/5.0	1.25	.93
MC818P	Dual 3-Input Gate NAND/NOR	93	4	27	12/2.5	1.15	.86
MC819P	Dual 4-Input Gate NAND/NOR	93	4	27	13/2.5	1.25	.93
MC822P	J-K Flip-Flop	93	4	70	24/20	1.55	1.15
MC876P	Dual J-K Flip-Flop	93	2	50	41/29	2.40	1.85
MC878P	Dual Type D Flip-Flop	93	3	60	48/35	2.70	2.00
MC893P	Triple 3-Input Gate NAND/NOR	93	4	27	18/3.5	1.38	1.05
MC898P	Dual 2-Input Bufftr	93	30	57	14/46	1.55	1.15

PLASTIC MRTL — MC700 SERIES (+15 TO +55°C)

Type	Function	Case	Output Loading Factor	Propagation @ 25°C Tpd	Total Pwr. Diss.	1-999	1000-Up
MC715P	Dual 3-Input Gate NAND/NOR	93	16	12	55/15	1.00	.75
MC723P	J-K Flip-Flop	93	10	35	91/79	1.35	1.00
MC724P	Quad 2-Input Gate NAND/NOR	93	16	12	100/30	1.08	.81
MC725P	Dual 4-Input Gate NAND/NOR	93	16	12	60/15	1.08	.81
MC726P	J-K Flip-Flop	93	16	35	100/86	1.35	1.00
MC775P	Dual Half Adder	93	5	20	120	2.10	1.60
MC779P	1 J-K FF, 1 Expander, 2 Buffers	93			166/169	2.45	1.80
MC783P	Half-Shift Register	93	4	22	140	2.30	1.70
MC784P	Half-Shift Register	93	4	22	100	2.30	1.70
MC785P	Quad 2-Input Expander	93		12	20/-	1.25	.95
MC786P	Dual 4-Input Expander	93		12	20/-	1.25	.95
MC787P	1 J-K FF, 1 Inverter, 2 Buffers	93			163/177	2.45	1.80
MC788P	Dual 3-Input Buffer, non inverting	93	80	24	145/56	1.35	1.00
MC789P	Hex Inverter	93	16	12	130/15	1.08	.81
MC790P	Dual J-K Flip-Flop	93	10	35	182/158	2.00	1.50
MC791P	Dual J-K Flip-Flop	93	5	40	190/160	2.35	1.75
MC792P	Triple 3-Input Gate NAND/NOR	93	16	12	82/24	1.20	.90
MC799P	Dual Buffer	93	80	20	50/100	1.08	.81

mW PLASTIC MRTL — MC700 SERIES (+15 TO +55°C)

Type	Function	Case	Output Loading Factor	Propagation @ 25°C Tpd	Total Pwr. Diss.	1-999	1000-Up
MC717P	Quad 2-Input Gate NAND/NOR	93	4	27	20/5.0	1.08	.81
MC718P	Dual 3-Input Gate NAND/NOR	93	4	27	12/2.5	1.00	.75
MC719P	Dual 4-Input Gate NAND/NOR	93	4	27	13/2 5	1.08	.81
MC722P	J-K Flip-Flop	93	4	70	24/20	1.35	1.00
MC776P	Dual J-K Flip-Flop	93	2	50	41/29	2.10	1.60
MC778P	Dual Type D Flip-Flop	93	3	60	48/35	2.35	1.75
MC793P	Triple 3-Input Gate NAND/NOR	93	4	27	18/3.5	1.20	.90
MC798P	Dual 2-Input Buffer	93	30	57	14/46	1.35	1.00

MOS — MC1120 SERIES (0 TO +75°C)

Type	Function	Case	Output Voltage Swing Volts	Operating Frequency kHZ	Total Power Dissipation mW typ/pkg.	1-99	100-999	1000-Up
MC1120P	Dual Keyer Gate with Snub Inputs	93	12	0 to 100	10	4.90	4.20	3.50
MC1124P	Frequency Divider (Four Stage)	93	10	0 to 100	190	6.30	5.40	4.50

Motorola Integrated Circuits

5-Pin. Designated by Suffix G after Type number.

Case 89

8-Pin. (TO-99) Designated by Suffix G after type number.

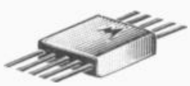
Case 96

10-Pin. Designated by Suffix G after type number.

Case 71, 71A, 96A

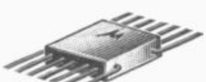
12-Pin. Designated by Suffix G after type number.

Case 98



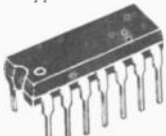
Case 72, 73

TO-91. Designated by Suffix F after type number.



Case 83, 609

TO-86. Designated by Suffix F after type number.



Case 93

Plastic Dual-In Line. Designated by Suffix P after type number.

LINEAR INTEGRATED CIRCUITS

HIGH FREQUENCY AMPLIFIERS — (—55 to +125°C)

Type	Case	Small-Signal Voltage Gain (Av, dB)	Bandwidth (MHz)	Noise Figure (dB)	1-24	25-99	100-999
MC1110G	89	20 (2) @ 100 MHz	300	4.0 @ 100 MHz	37.50	31.25	25.00
MC1509F	73	40	40	4.5µV(5Hz-10MHz) (1)	13.95	11.60	9.30
MC1510F	73	40	40	4.5µV(5Hz-10MHz) (1)	13.95	11.65	9.30
MC1550G	71	26 @ 60MHz	200	5.0 @ 60 MHz	4.25	3.55	2.85
MC1552G	71	34	40	5.0 @ 30 MHz	9.00	7.50	6.00
MC1553G	71	52	35	5.0 @ 30 MHz	9.00	7.50	6.00

POWER AMPLIFIERS — (—55 to +125°C)

Type	Case	Output Power (W)	Voltage Gain (AV, V/V)	Total Harmonic Distortion (%)	1-24	25-99	100-Up
MC1524G	71	1.0	38	0.6	70.00	55.00	40.00
MC1554G	71	1.0	10,18,36	0.4	14.25	11.85	9.50

DIFFERENTIAL AMPLIFIERS

Type	Case	Temperature	Differential Voltage Gain (Add, dB)	Output Voltage Swing (Vout, Vp-p)	1-24	25-99	100-Up
MC1429G	71	0 o + 75°C	38	6.0	4.50	3.75	3.00
MC1519G	71	—55 o + 125°C	73	14	50.00	40.00	30.00
MC1525G	71	—55 to + 25°C	43	8.0	12.00	10.00	8.00
MC1526G	71	—55 to + 125°C	36	8.0	60.00	48.00	36.00
MC1529G	71	—55 to + 125°C	38	6.0	11.25	9.35	7.50

SENSE AMPLIFIERS — (0 to +75°C)

Flat-Pack Type	Case	1-24	25-99	100-Up	Can Type	Case	1-24	25-99	100-Up	Plastic Type	Case	1-24	25-99	100-Up
MC1440F	72	13.50	11.25	9.00	MC1440G	71	12.00	10.00	8.00	MC1440P	93	12.00	10.00	8.00
MC1540F	72	24.00	20.00	16.00	MC1540G	71	22.50	18.75	15.00					
MC1710F	72	13.50	11.25	9.00	MC1710G	96	11.25	9.35	7.50					
MC1710CF	72	6.60	5.50	4.40	MC1710CG	96	6.00	5.00	4.00	MC1710CP	93	6.00	5.00	4.00
MC1711F	72	20.25	16.85	13.50	MC1711G	71A	18.00	15.00	12.00					
MC1711CF	72	10.35	8.60	6.90	MC1711CG	71A	9.75	8.10	6.50	MC1711CP	93	9.75	8.10	6.50

STEREO PREAMPLIFIERS — (0 to +75°C)

Type	Case	Avol	Input offset V	Vrms	Channel Separation db	1-24	25-99	100-Up
MC1303P	93	10,000	3.0	5.5	70	5.25	4.35	3.50

INTEGRATED CIRCUIT BREADBOARDS

16-socket breadboards are designed for rapid interconnection and evaluation of individual integrated circuits or complete logic designs. Include provision for distribution of three supply voltages to each socket, and use double pin jacks for interconnections. An input/output arrangement using a 22-pin PC edge connector or 11 BNC coaxial connectors, plus bananna plugs for power connection between boards gives the designer complete breadboarding flexibility with simple plug-in and plug-out change possibility. Broadboards rated for dc to 50MHz, and —65 to +150°C performance.

Type	Description	1-9	10-24	25-Up
XC63	16 10-pin sockets for TO-5 cases	150.00	120.00	100.00
XC72	16 14-pin sockets for 10 and 14 pin Flat-Packs	240.00	192.00	160.00
XC73	16 14-Pin sockets for 14 pin Dual in line packages	210.00	168.00	140.00

OPERATIONAL AMPLIFIERS

	0 to +75°C													—55 to +125°C									
	Flat-Pack "F" Suffix				Can "G" Suffix				Plastic "P" Suffix					Flat-Pack "F" Suffix				Can "G" Suffix			
Type	Case	1-24	25-99	100-Up	Case	1-24	25-99	100-Up	Case	1-24	25-99	100-Up	Type	Case	1-24	25-99	100-Up	Case	1-24	25-99	100-Up
													MC1520	72	22.50	18.75	15.00	71A	15.00	12.50	10.00
MC1430	72	6.75	5.60	4.50	71	8.25	6.90	5.50	93	5.25	4.35	3.50	MC1530	72	30.00	25.00	20.00	71A	27.00	22.50	18.00
MC1431	72	6.75	5.60	4.50	71	8.25	6.90	5.50	93	6.00	5.00	4.00	MC1531	72	33.00	27.50	22.00	71A	30.00	25.00	20.00
MC1433	72	8.85	7.35	5.90	71	9.25	8.10	6.50	93	8.00	7.50	6.00	MC1533	72	60.00	40.00	20.00	71A	15.00	12.50	10.00
MC1435	83	8.25	6.85	5.50	71	7.50	6.25	5.00	93	6.75	5.60	4.50	MC1535	72	22.50	18.75	15.00	71A	12.75	10.60	8.50
MC1437									93	12.75	10.65	8.50									
MC1709C	72	8.85	7.35	5.90	96	9.90	8.25	6.60	93	9.00	7.50	6.00	MC1709	72	68.00	57.50	46.00	96	15.00	12.50	10.00
MC1712C	72	4.80	4.00	3.20	96	7.50	6.25	5.00	93	7.50	6.25	5.00	MC1712	72	15.00	12.50	10.00	96	12.00	10.00	8.00

IMPORTANT ORDERING INFORMATION: When ordering specify case desired by stating Suffix F for Flat-Pack; Suffix G for Can; and Suffix P for Plastic.

Integrated Circuits

Hybrid circuits made by utilizing transistors and diode elements in combination with thin film resistors and capacitors. Offer optimum performance, reliability and spacesaving possibilities. All integrated circuits feature planar epitaxial passivated construction, fabricated with diffusion techniques in a single silicon eqitaxial monolithis substrate. All MOS devices are P-channel enhancement mode. In hermetically sealed packages. (See illustrations in center column). *Also include heat sink tab.

MEDIUM FREQUENCY AMPLIFIER—TO-5

D12X207-1. Amplifier with 3 very high gain transistors and 5 thin-film resistors. 10 Ohms min. Min. of 30 V required. Noise voltage: 400-100,000 Hz @ 10 mV.

Type	1-99	100-999
D12X207-1	75.00	50.00

MEDIUM FREQUENCY AMPLIFIER—TO-5

D12X207-2. Same as 12X207-1 above, but min. voltage required is 20 V; voltage gain with Eu = 1 mV. 400 Hz is 350/700 mV; and max output volts is 4.5.

Type	1-99	100-999
D12X207-2	60.00	40.00

FUNCTIONAL AMPLIFIER

D12X218. Active functional amplifier circuit featuring unity voltage gain with minimum input resistance of 50 ohms. Voltage required: 43 V. Temp. range: —25° +125°. 12 lead flat package.

Type	1-99	100-999
D12X218	82.50	55.00

VIDEO AMPLIFIER—TO-5

D12X257. Video amplifier with 2 trans. with ft's in excess of 600 MHz. Has broadband capabilitier for frequencies up to 25 MHz. 8 lead TO-5 package.

Type	1-99	100-999
D12X257	45.00	30.00

IF AMPLIFIER—DUAL IN-LINE PACKAGE

PA189. 80 db gain at 4.5 MHz, will also provide for 40+ db at 40 MHz in tuned circuit. Operates at voltages up to 30 V. Uses include and wide range of industrial applications.

Type	1-99	100-999	1000-9999
PA189	3.60	2.40	2.16

ONE WATT AUDIO AMPLIFIER — DUAL IN-LINE

PA222. Features feedback loop that eliminates thermal runaway. Use 18/25V supply voltage. Input impedance typically 55 K-ohms, current drain 6-25 mA. Dual in-line package.

Type	1-99	100-999	1000-9999
PA222	3.70	2.45	2.20

HIGH PERFORMANCE OPERATIONAL AMPLIFIER

PA223. Features differential Darlington input with input impedance of 2.5 megomhs. ±12V input supply operation with ±10V output swing. Other features include 8000 open loop voltage gain and 80-nA bias current.

Type	1-99	100-999
PA223	9.05	4.70

LOW LEVEL AMPLIFIER — DUAL IN LINE PACKAGE

PA230. Designed and specified for low signal audio prosucts. Supply voltage: +12V, output 10 V p-p. 7000 ioen loop voltage gain Also excellent as general purpose dc amplifier.

Type	1-99	100-999	1000-9999
PA230	3.30	2.20	1.98

ONE WATT AUDIO AMPLIFIER — DUAL IN LINE

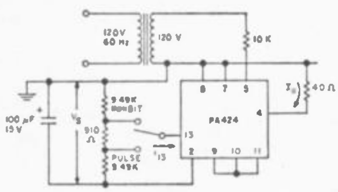
PA234. Utilizes only three capacitors and three resistors for performance operation. Suitable for both battery and line cord circuits — operates from supply voltage 9V-25V. Tab on package allows for direct heat transfer to printed circuit board.

Type	1-99	100-999	1000-9999
PA234	2.35	1.57	1.41

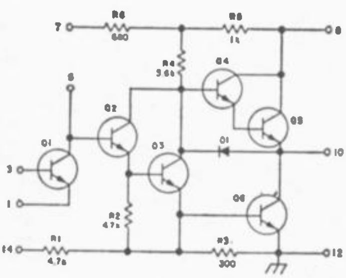
PA222
1-Watt Audio Amplifier

PA238
Economy Operational Amplifier

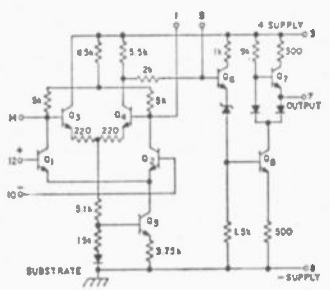
PA436
Monolithic Phase Control



PA424
Circuit Diagram



PA222
Circuit Diagram



PA230
Circuit Diagram

TWO WATT AUDIO AMPLIFIER — DUAL IN LINE

PA237. Capable of operating from a wide variety of supply voltages (9 to 27V) into numerous load impedances. Features excellent sensitivity, 8 - mV open loop, 2% distortion. Versatile circuit may also be utilized as servo amplifier or voltage reg.

Type	1-99	100-999	1000-9999
PA237	3.98	2.65	2.38

OPERATIONAL AMPLIFIER — DUAL IN LINE

PA238. Economy amplifier provides performance associated with more expensive counterparts. ±6V input supply, ±5V output swing, 7000 open-loop voltage gain. Input is differential.

Type	1-99	100-999
PA238	3.30	2.20

ZERO VOLTAGE SWITCH — DUAL IN LINE

PA424.. A synchronous switch used to pulse thyrsitor and at ac zero voltage crossing thus eliminating radio frequency interference. Excellent for precision temperature control applications with thermistor as input device.

Type	1-99	100-999
PA424	3.60	2.40

PHASE CONTROL — DUAL IN LINE PACKAGE

PA436. For application in Triac gating when controlling resistive or reactive loads. Feedback operation provides continuous precision control. Circuit is adjustable for various input and sensitivity combinations. Operates directly from AC line.

Type	1-99	100-999
PA436	5.17	3.45

DIODE SHUNT QUAD — DUAL IN LINE PACKAGE

PA908. For gating and ring demodulation uses. 4 lead package.

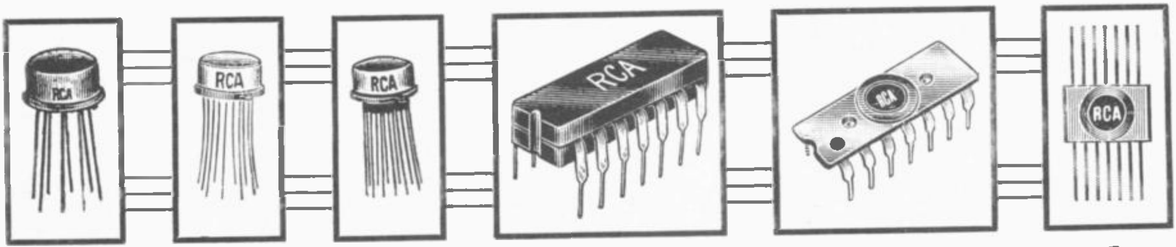
Type	1-99	10-99	100-999
PA908	9.65	6.45	4.30

MOSFET FREQUENCY DIVIDER — DUAL IN LINE

PD455. Six stage bistable divider providing cascade stages of 3, 2, and 1. Excellent for organ, low frequency timing applications. Inputs are zener diode protected. Operating features include 2 K-ohm output impedance, asynchronous logic and dc to 1 Meg. Hz. toggle frequency.

Type	1-99	100-999
PD455	5.25	3.50

RCA Integrated Circuits



A 8-Leads | B 10-Leads | C 12-Leads | D Plastic Dual-In Line | E Ceramic Dual-In Line | F Flat-Pack

DIGITAL INTEGRATED CIRCUITS

MEDIUM POWER DTL

Type	Description	Input Current For-ward mA	Input Current Re-verse mA	Output Curr. (into output) mA	Output Voltage "Low" V max	Output Voltage "High" V min	Input Current Re-verse µA max	Input Current For-ward mA max	Output Current Leak-age µA max	Output Current Short Circuit mA min	Output Current Short Circuit mA max	Pack-age	1.99	100-999	1000-Up
Dual Four-Input Gates															
CD2300/930	Expandable				0.4	2.6	2	—1.6	50	—0.61	—1.34	F	4.13	3.00	2.50
CD2300D/930	NAND Gate with	—10	1	30								D	4.13	3.00	2.50
CD2300E/830	6kΩ output pull-up				0.45	2.6	5	—1.4	100	—0.61	—1.3	D	1.73	1.26	1.05
CD2301/961	Expandable				0.4	3.8	2	—1.6	50	—2.1	—3.7	F	4.13	3.00	2.50
CD2301D/961	NAND Gate with	—10	1	30								D	4.13	3.00	2.50
CD2301E/861	2kΩ output pull-up				0.45	4.3	5	—1.4	100	—1.85	—3.68	D	1.73	1.26	1.05
CD2306/932	Expandable NAND				0.4	2.6	2	—1.6	50	—18	—	F	4.54	3.30	2.75
CD2306D/932	High Fanout Gate	—10	1	150								D	4.54	3.30	2.75
CD2306E/832					0.45	2.6	5	—1.4	100	—16	—	D	1.90	1.38	1.15
CD2307/944	Expandable NAND				0.4	6	2	—1.6	100	—	—	F	4.54	3.30	2.75
CD2307D/944	High Fanout Gate	—10	1	150								D	4.54	3.30	2.75
CD2307E/844	with "Wired-OR"				0.45	6	5	—1.4	100	—	—	D	1.90	1.38	1.15
Triple Three-Input Gates															
CD2308/962	NAND Gate with				0.4	2.6	2	—1.6	50	—0.61	—1.34	F	4.54	3.30	2.75
CD2308D/962	6kΩ output pull-up	—10	1	30								D	4.54	3.30	2.75
CD2308E/862					0.45	2.6	5	—1.4	100	—0.61	—1.3	D	1.90	1.38	1.15
CD2309/963	NAND Gate with				0.4	3.8	2	—1.6	50	—2.1	—3.7	F	4.54	3.30	2.75
CD2309D/963	2kΩ output pull-up	—10	1	30								D	4.54	3.30	2.75
CD2309E/863					0.45	4.3	5	—1.4	100	—1.85	—3.68	D	1.90	1.38	1.15
Quadruple Two-Input Gates															
CD2302/946	NAND Gate with				0.4	2.6	2	—1.6	50	—0.61	—1.34	F	4.54	3.30	2.75
CD2302D/946	6kΩ output pull-up	—10	1	30								D	4.54	3.30	2.75
CD2302E/846					0.45	2.6	5	—1.4	100	—0.61	—1.3	D	1.90	1.38	1.15
CD2303/949	NAND Gate with				0.4	3.8	2	—1.6	50	—2.1	—3.7	F	4.54	3.30	2.75
CD2303D/949	2kΩ output pull-up	—10	1	30								D	4.54	3.30	2.75
CD2303E/849					0.45	4.3	5	—1.4	100	—1.85	—3.68	D	1.90	1.38	1.15

Hex Inverters

Type	Description	Input Current For-ward mA	Input Current Re-verse mA	Output Curr. (into output) mA	Output Voltage "Low" V max	Output Voltage "High" V min	Input Current Re-verse µA max	Input Current For-ward mA max	Output Current Leak-age µA max	Output Current Short Circuit mA min	Output Current Short Circuit mA max	Pack-age	1.99	100-999	1000-Up
CD2310/936	Diode Input with				0.4	2.6	2	—1.6	50	—0.61	—1.34	F	4.79	3.48	2.90
CD2310D/936	6kΩ output pull-up	—10	1	30								D	4.79	3.48	2.90
CD2310E/836					0.45	2.6	5	—1.4	100	—0.61	—1.3	D	2.39	1.74	1.45
CD2311/937	Diode Input with				0.4	3.8	2	—1.6	50	—2.1	—3.7	F	4.79	3.48	2.90
CD2311D/937	2kΩ output pull-up	—10	1	30								D	4.79	3.48	2.90
CD2311E/837					0.5	4.3	5	—1.4	100	—1.85	—3.68	D	2.39	1.74	1.45
CD2312	Expandable Input				0.4	2.6		—1.6	50	—0.61	—1.34	F	4.79	3.48	2.90
CD2312D	with	—10	1	30								D	4.79	3.48	2.90
CD2312E	6kΩ output pull-up				0.45	2.6		—1.4	100	—0.61	—1.3	D	2.39	1.74	1.45
CD2313	Expandable Input				0.4	3.8		—1.6	50	—2.1	—3.7	F	4.79	3.48	2.90
CD2313D	with	—10	1	30								D	4.79	3.48	2.90
CD2313E	2kΩ output pull-up				0.5	4.3		—1.4	100	—1.85	—3.68	D	2.39	1.74	1.45
Dual Four-Diode Input Expander															
CD2314/933		—10	1	30	Input for Volt per Diode				Current per Diode			F	3.71	2.70	2.25
CD2314D/933	....				0.7V min	0.82V max			2µA max			D	3.71	2.70	2.25
CD2314E/933					0.68V min	0.84V max			5µA max			D	1.49	1.08	.90
Clocked R-S Flip-Flops															
CD2304/945	J-K Capability						2	—1.07				F	4.95	3.60	3.00
CD2304D/945	with 6kΩ output pull-up	—10	1	30	0.4	2.6	2 10	—2.4 —3.2	50	—0.61	—1.34	D	4.95	3.60	3.00
CD2304E/845					0.45	2.6	5	—0.95	100	—0.61	—1.3	D	3.14	2.28	1.90
CD2305/948	J-K Capability						2	—1.07				F	4.95	3.60	3.00
CD2305D/948	with 2kΩ output pull-up	—10	1	30	0.4	3.8	2 10	—2.4 —2.56	50	—2.1	—3.7	D	4.95	3.60	3.00
CD2305E/848					.045	4.3	5	—0.95	100	—1.85	—3.68	D	3.14	2.28	1.90

DIGITAL INTEGRATED CIRCUITS (CONT'D.)

LOW-POWER DTL

Type	Description	Maximum Fan-Out Per Gate	Vcc V	Vee V	Typ. Logic Levels "O" V	Typ. Logic Levels "1" V	Max. DC Input Curr. mA	Typ. Device Dissi-pation mW	Type Noise Immu-nity V	Pack-age	1-99	100-999	1000-Up
CD2200 CD2200D	Dual Four Input Expandable NAND Gate	6	+4	0	+0.1	+3.4	—0.33	2.3 per gate	1.2	F F	5.20	3.80	3.15
CD2201 CD2201D	Quadruple Two-Input NAND Gate	6	+4	0	+0.1	+3.4	—0.33	2.3 per gate	1.2	F F	5.45	3.95	3.30
CD2202 CD2202D	Dual Four-Input Expandable NAND Buffer Gate	25	+4	0	+0.1	+3.4	—0.33	12 per gate	1.2	F F	5.45	3.95	3.30
CD2203 CD2203D	J-K Flip-Flop	5	+4	0	+0.1	+3.4	—0.33	7 per pkg.	1.2	F F	6.95	5.05	4.20
CD2204 CD2204D	Dual Four-Input Gate Expander	For input expansion of CD2200, CD2202, and CD2205 gates	forward voltage, 0.72 typ. capable of expanding fan-in to more than 20				low capacitive loading on expanded gate, 4pF typ. leakage current, 5nA typ.			F F	3.71	2.70	2.25
CD2205 CD2205D	Dual Three-Input Expandable AND/OR/NOT Gate	—	+4	0	+0.1	+3.4	—0.33	5 per pkg.	1.2	F F	5.20	3.80	3.15

ULTRA-HIGH SPEED ECCSL

Type	Description	Maximum Fan-Out Per Gate	Vcc V	Vee V	Typ. Logic Levels "O" V	Typ. Logic Levels "1" V	Max. DC Input Curr. mA	Typ. Device Dissi-pation mW	Type Noise Immu-nity V	Pack-age	1-99	100-999	1000-Up
CD2150	Dual Four Input OR/NOR Gate	12 (unterminated 6 (100-Ω termination)	0	—5	—1.6 outputs unloaded	—0.76	0.186	220 per pkg.	.035	F F	3.96	2.88	2.40
CD2151	Dual Four-Input OR/NOR Gate with "Wired-OR"	12 (unterminated 6 (100-Ω termination)	0	—5	—1.6 outputs unloaded	—0.76	0.186	175 per pkg.	.035	F	3.96	2.88	2.40
CD2152	Eight-Input OR/NOR Gate with "Wired-OR"	12 (unterminated 6 (100-Ω termination)	0	—5	—1.6 outputs unloaded	—0.76	0.186	147 per pkg.	.035	F	3.96	2.88	2.40
CD2153	Quadruple Two-Input NOR Gate with "Wired-OR"	12 (unterminated 6 (100-Ω termination)	0	—5	—1.6 outputs unloaded	—0.76	0.186	175 per pkg.	.035	F	5.20	3.80	3.15

HIGH SPEED ECCSL

Type	Description	Maximum Fan-Out Per Gate	Vcc V	Vee V	Typ. Logic Levels "O" V	Typ. Logic Levels "1" V	Max. DC Input Curr. mA	Typ. Device Dissi-pation mW	Type Noise Immu-nity V	Pack-age	1-99	100-999	1000-Up
CD2100	Dual Four Input OR/NOR Gate	12 (unterminated 6 (300-Ω termination)	0	—5.2	—1.55 outputs unloaded	—0.75	0.1	88 per pkg.	0.32	F	6.20	4.50	3.75
CD2101	Quadruple Two-Input NOR Gate	12 (unterminated 6 (300-Ω termination)	0	—5.2	—1.55 outputs unloaded	—0.75	0.1	120 per pkg.	0.32	F	6.50	4.75	3.95

LINEAR INTEGRATED CIRCUITS

DIFFERENTIAL AMPLIFIERS

Type	Description	DC Supply Voltages Vee V	DC Supply Voltages Vcc V	Input Offset Voltage mV	Input Bias Current µA	DC Input Power Drain mW	Device Gain Test Freq. MHz	Device Gain Gain dB	Useful Frequency Range MHz	Package	1-99	100-999	1000-Up
CA3000	DC Amplifier	—6	+6	1.4	23	30	1kHz	32a 37b	DC to 30	F	3.80	2.76	2.30
CA3001	DC, IF and Video Amp.	—6	+6	1.5	16	78	1.75 20	19 14	DC to 100	C	5.55	4.00	3.35
CA3002	IF, and Video Amplifier	—6	+6	2.2 unbal.	20	55	1.75	24 diff.	DC to 15	C	3.71	2.70	2.25
CA3004	RF/IF Amplifier, Linear transfer.	—6	+6	1.7	21	26	100	12e	DC to 120	C	3.71	2.70	2.25
CA3005	RF/IF Amplifier High Gain	—6	+6	2.6	19	26	100	20c,e 16d,e	DC to 120	C	2.48	1.80	1.50
CA3006	RF/IF Amplifier, Sharp Limiting.	—6	+6	0.8	19	26	100	20c,e 16d,e	DC to 120	C	5.80	4.20	3.50
CA3007	AF Amplifier	—6	+6	0.57 unbal.	11	30	1kHz	22e	DC to 20kHz	F	5.35	3.90	3.25
CA3020	AF Amplifier	3	+9	Pour (max.) =550mW at THD=10%			1kHz	75	Up to 8	C	2.56	1.86	1.55
CA3028A	RF/IF Amplifier	0 0 0 0	+6 +6 +9 +9	....	16.6d	36	100 10.7 10.7 10.7	20c,e 17d,e 40c 30d	DC to 120	A	1.47	1.07	.89
CA3028B	DC Differental Amp.	—6	+6	0.98	16.6d	36	1kHz at R=2kΩ	38	DC to 120	A	2.06	1.50	1.25

HIGH-GAIN WIDE-BAND AMPLIFIERS

Type	Description	DC Supply Voltages Vee V	DC Supply Voltages Vcc V	Input Offset Voltage mV	Input Bias Current µA	DC Input Power Drain mW	Device Gain Test Freq. MHz	Device Gain Gain dB	Useful Frequency Range MHz	Package	1-99	100-999	1000-Up
CA3011	FM, IF Amplifier	0	+7.5	.... .	. .. .	120	1 4.5 10.7	70 67 61	100kHz to >20MHz	C	1.47	1.07	.89
CA3012	Wide Grand Amplifier	0	+7.5	. .. .	. .	120	1 4.5 10.7	70 67 61	100kHz to >20MHz	C	1.82	1.32	1.10
CA3013	FM, IF Amplifier	0	+7.5	. ....	......	120	1 4.5 10.7	70 67 60	100kHz to >20MHz	C	2.15	1.56	1.30
CA3014	Limiter, FM Detector	0	+7.5	.	. .	120	1	70	100kHz	A	2.48	1.80	1.50
CA3021	Video & Wide Band Amplifier	0	+6	. .	.. ....	4	0.5	56	DC to 6	C	3.14	2.28	1.90
CA3022	Video & Wide Band Amplifier	0	+6	.. ..	. .. .	12.5	2.5	57	DC to 20	C	2.64	1.92	1.60

RCA Integrated Circuits

LINEAR INTEGRATED CIRCUITS

HIGH-GAIN WIDE-BAND AMPLIFIERS CONTINUED

Type	Description	DC Supply Voltages Vee V	DC Supply Voltages Vcc V	Input Offset Voltage mV	Input Bias Current µA	DC Input Power Drain mW	Device Gain Test Freq. MHz	Device Gain Gain dB	Useful Frequency Range MHz	Package	1-99	100-999	1000-Up
CA3023	Video Wide-Band Amplifier	0	+6	....	....	35	5 10	53 44	DC to 40	C	2.56	1.86	1.55
CA3035	Multipurose Wide Band Amplifier	....	+9	Total Drain: 5mA typ.		.	40kHz	44	—3db B-W 500kHz	A	2.48	1.80	1.50
CA3035V1	See CA3035	Identical to CA3035, but with formed leads								B	2.48	1.80	1.50
CA3041	High Gain FM IF Amp.	......	+140	.. ..	......	250	4.5	67	0.1 to 20	D	2.64	1.92	1.60
CA3042	See CA3042	......	....	......	......	240	1kHz	30	....	D	2.64	1.92	1.60
CA3043	High Gain FM IF Amp.	....	+30	16mA	6V	225	10.7	80	100kHz	C	2.81	2.04	1.70
SPECIAL-FUNCTION SUBSYSTEMS													
CA3013	FM IF Amplifier, FM Detector	0	+7.5	....	....	120	1 4.5	70 67	100kHz	C	2.15	1.56	1.30
CA3014	FM IF Amplifier, Noise limiter	0	+7.5	....	....	120	1 4.5	70 67	100kHz	A	2.48	1.80	1.50
CA3034	Dual Phase detector, with differential output amplifier	......	+10	7.5 mA	+13V	.	40 kHz	44	—3db B-W	A	2.89	1.80	1.75
CA3034V1	See CA3034	Identical to CA3034 but with formed leads								B	2.89	2.10	1.75
OPERATIONAL AMPLIFIERS													
CA3008	Static Power Drain: ±6V = 30 mw typ; ±3V = 7 mw typ.	—6	+6	1.08	5.3	30	1kHz	60 power gain	DC to 15	C	10.90	7.90	6.60
CA3008A	Similar to CA3008	—6	+6	0.9	2.5	40	1kHz	60	DC to 15	F	11.55	8.40	7.00
CA3010	Static Power Drain: ±6V = 30 mw typ.	Ratings and Characteristics Identical to CA3008								C	4.95	3.60	3.00
CA3010A	Similar to CA3010	Ratings and Characteristics Identical to CA3008A								C	7.00	5.10	4.25
CA3015	Static Power Drain: 175 mw typ. at ±12V	—12	+12	1.37	9.6	175	1kHz	70	DC to 50	C	6.60	4.80	4.00
CA3015A	Similar to CA3015	—12	+12	1	4.7	175	1kHz	70	DC to 50	C	8.65	6.30	5.25
CA3016	Similar to CA3015	Ratings and Characteristics Identical to CA3015								F	11.15	8.10	6.75
CA3016A	Similar to CA3015	Ratings and Characteristics Identical to CA3015A								F	10.90	9.00	7.50
CA3029	Similar to CA3008 but with 14-lead plastic pack.	—6	+6	1.08	5.3	30	1kHz	60	DC to 15	A	2.48	1.80	1.50
CA3029A	Similar to CA3008A but with 14-lead plastic pack	—6	+6	0.9	2.5	40	1kHz	60	DC to 15	D	4.13	3.00	2.50
CA3030	Similar to CA3015 but with 14-lead plastic pack.	—12	+12	1.37	9.6	175	1kHz	70	DC to 50	A	3.71	2.70	2.25
CA3030A	Similar to CA3015A but with 14-lead plastic pack.	—12	+12	1	4.7	175	1kHz	70	DC to 50	D	5.36	3.90	3.25
CA3031/ 702A	Similar to CA3032 but with lower temp. range	—6	+12	2	3	85	1kHz	70	DC to 40	A	4.95	3.60	3.00
CA3032/ 702C	Similar to CA3031 but with higher temp. range	—6	+12	5	5	90	1kHz	70	DC to 40	A	3.30	2.40	2.00
CA3033	Input impedance 1.5 MΩ typ.	—12	+12	2.6	83nA	120	1kHz	90	DC to 0.5	B	6.50	4.75	3.95
CA3033A	Max. Voltage Swing: 72V typ.	—18	+18	2.9	103nA	250	1kHz	96	DC to 0.5	E	8.15	5.95	4.95
CA3037	Static Power Drain: ±6V = 30 mw	—6	+6	1.08	5.3	30	1kHz	60	DC to 15	B	4.95	3.60	3.00
CA3037A	Similar to CA3037	—6	+6	0.9	2.5	40	1kHz	60	DC to 15	E	7.00	5.10	4.25
CA3038	Static Power Drain: 175 mw typ.	—12	+12	1.37	9.6	175	1kHz	70	DC to 50	B	6.60	4.80	4.00
CA3038A	Similar to CA3038	—12	+12	1	4.7	175	1kHz	70	DC to 50	E	8.65	6.30	5.25

DIODE ARRAYS

Type	Description	Device Dissipation Transistor or Diode P mW	Device Dissipation Total Package mW	Ambient Temp. Operating °C	Ambient Temp. Storage °C	Collector to Emitter Voltage Vceo V	Collector to Base Voltage Vcbo V	Emitter to Base Voltage Vebo V	Package	1-99	100-999	1000-up
CA3019	Six diodes on a single silicon chip.	20	120	—55	—65	. . .	.	....	B	1.62	1.18	.98
CA3039	Six diodes on a single silicon chip.	20	450	—55	—65	...	...	....	C	1.61	1.17	.98
TRANSISTOR ARRAYS												
CA3018	Four VPN transistors on a single silicon chip.	300	300	—55 to +125	—65 to +200	15	20	4	C	1.62	1.18	.98
CA3018A	Similar to CA3018	300	300	—55	—65	15	20	5	C	2.22	1.62	1.35
CA3026	Six transistors on a single silicon chip.	300	450	—55	—65	15	20	5	C	2.06	1.50	1.25
CA3036	Two Independent low-noise wide band amp channels.	300	300	—55 to +125	—65 to +200	...	. .	....	A	1.47	1.07	.89
CA3045	Three isolated trans.	300	750	—55	—65	15	20	5	E	2.47	1.80	1.50
CA3046	Similar to CA3045 but in plastic pack.	300	750	0	—25	15	20	5	D	1.61	1.17	.98

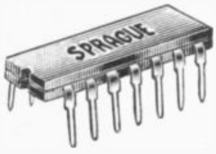


FIG. A
PLASTIC DUAL-IN-LINE

FIG. B
FLAT-PACK

SERIES 7400 A TTL
COMPATIBLE HIGH SPEED DIGITAL (0° TO +70°C)

All gates of classical TTL design utilizing multiple-emitter input transistors for optimum switching speed. Compatible and interchangeable with other similar TTL logic.

14 Lead Dual-In-Line-Package

Type Number	Circuit Function	1-24	25-99	100-999
USN 7400A	Quad 2-Input NAND	2.25	1.80	1.55
USN 7401A	Quad 2-Input NAND (No Collector Load)	2.25	1.80	1.55
USN 7402A	Quad 2-Input NOR	2.50	2.00	1.70
USN 7410A	Triple 3-Input NAND	2.25	1.80	1.55
USN 7420A	Dual 4-Input NAND	2.25	1.80	1.55
USN 7430A	Single 8-Input NAND	2.25	1.80	1.55
USN 7440A	Dual 4-Input NAND buffer	2.50	2.00	1.70
USN 7450A	Dual 2-Wide 2-Input Expandable AND-OR-INVERT	2.50	2.00	1.70
USN 7451A	Dual 2-Wide 2-Input AND-OR-INVERT	2.25	1.80	1.50
USN 7453A	4-Wide 2-Input Expandable AND-OR-INVERT	2.50	2.00	1.70
USN 7454A	4-Wide 2-Input AND-OR-INVERT	2.25	1.80	1.55
USN 7460A	Dual 4-Input Expander	1.80	1.40	1.20
USN 7470A	D-C Clocked J-K Flip-Flop	4.05	3.20	2.75
USN 7472A	J-K Master Slave Flip-Flop	3.65	2.90	2.50
USN 7473A	Dual J-K Master Slave Flip-Flop	5.90	4.70	4.00
USN 7474A	Dual "D" Type Flip-Flop	5.65	4.50	3.85
USN 7479A	Dual AC Clocked J-K Flip-Flop	5.90	4.70	4.00

SERIES 5400 J TTL
COMPATIBLE HIGH SPEED DIGITAL (—55° TO +125°C)

Glass-to-metal hermetically sealed welded package. High speed digital applications. Low power. Full fan-out of 10.

14 LEAD TO-88 'J' FLAT PACK

Type Number	Circuit Function	1-24	25-99	100-999
USS 5400J	Quad 2-Input NAND	6.50	5.15	4.40
USS 5401J	Quad 2-Input NAND (No Collector Load)	6.50	5.15	4.40
USS 5402J	Quad 2-Input NOR	7.15	5.70	4.85
USS 5410J	Triple 3-Input NAND	6.50	5.15	4.40
USS 5420J	Dual 4-Input NAND	6.50	5.15	4.40
USS 5430J	Single 8-Input NAND	6.50	5.15	4.40
USS 5440J	Dual 4-Input NAND buffer	7.15	5.70	4.85
USS 5450J	Dual 2-Wide 2-Input Expandable AND-OR-INVERT	7.15	5.70	4.85
USS 5451J	Dual 2-Wide 2-Input AND-OR-INVERT	6.50	5.15	4.40
USS 5453J	4-Wide 2-Input Expandable AND-OR-INVERT	7.15	5.70	4.85
USS 5454J	4-Wide 2-Input AND-OR-INVERT	6.50	5.15	4.40
USS 5470J	Dual 4-Input Expander	5.85	4.65	4.00
USS 5460J	D-C Clocked J-K Flip-Flop	10.35	8.25	7.05
USS 5472J	J-K Master Slave Flip-Flop	9.05	7.25	6.15
USS 5473J	Dual J-K Master Slave Flip-Flop	13.30	10.60	9.00
USS 5474J	Dual 'D' Type Flip-Flop	12.90	10.30	8.80
USS 5479T	Dual AC Clocked J-K Flip-Flop	13.30	10.60	9.00

TYPE ULN—2111A UNICIRCUIT
FM DETECTOR AND LIMITER

This linear device comprises a three stage limiter and a balanced product detector. Applications include TV sound channels, FM receivers, AFC systems, communication receivers, and radar etc. . . . Only one low cost single winding tuning coil necessary. Frequency range 5kHz to 50kHz.

14-LEAD DUAL-IN-LINE PACKAGE

Type	1-24	25-99	100-999
ULN-211A	2.65	2.10	1.75

SERIES SP 600A (0° TO +75°C)
COMPATIBLE DTL —INDUSTRIAL/COMMERCIAL

Noise margin of 700m V to 2V, high speed. Low power and high performance. Recommended power supply 5 Volts.

Type Number	Circuit Function	1-24	25-99	100-999	1000-4999
SP616A	Dual 4-Input NAND Gate	1.80	1.45	1.20	1.15
SP620A	J-K Binary Element	3.50	2.80	2.35	2.25
SP629A	RST Binary Element	3.50	2.80	2.35	2.25
SP631A	Quad 2-Input Gate Expander	1.55	1.25	1.05	1.00
SP659A	Dual 4-Input Buffer/Driver	2.00	1.60	1.35	1.25
SP670A	Triple 3-Input NAND	2.00	1.60	1.35	1.25
SP680A	Quad 2-Input NAND	2.00	1.60	1.35	1.25

SERIES SE 8000J (—55° TO +125°C)
COMPATIBLE DESIGNERS CHOICE LOGIC (DCL)

These circuits offer high speed TTL, slower low power TTL with high AC noise immunity, and low power DTL with high DC noise margins.

14 LEAD TO-88 'J' FLAT PACK

Type Number	Circuit Function	1.24	25-99	100-999
SE 8162J	One-Shot Multivibrator	20.40	16.25	13.15
SE 8280J	Decade Counter/Storage Register	49.00	39.30	32.70
SE 8281J	Binary Counter/Storage Register	49.00	39.30	32.70
SE 8415J	Dual 5-Input DTL NAND	6.50	5.15	4.20
SE 8416J	Dual 4-Input DTL NAND	6.50	5.15	4.20
SE 8417J	Dual 3-Input DTL NAND	6.50	5.15	4.20
SE 8424J	Dual A-C Binary DTL	13.30	10.60	8.55
SE 8440J	Dual AND-OR-INVERT TTL	6.50	5.15	4.20
SE 8455J	Dua 14-Input TTL NAND	7.15	5.70	4.60
SE 8470J	Triple 3-Input TTL NAND	6.50	5.15	4.20
SE 8471J	Triple 3-Input TTL NAND	6.50	5.15	4.20
SE 8480J	Quad 2-Input TTL NAND	6.50	5.15	4.20
SE 8481J	Quad 2-Input TTL NAND	6.50	5.15	4.20
SE 8731J	Quad 2-Input Diode Expander	5.85	4.65	3.80
SE 8806J	Dual 4-Input TTL Expander	5.85	4.65	3.80
SE 8808J	8-Input TTL NAND	6.50	5.15	4.20
SE 8816J	Dual 4-Input TTL NAND	6.50	5.15	4.20
SE 8825J	D-C Clocked Multiple Input J-K TTL Binary	10.35	8.25	6.70
SE 8826J	Dual High Speed J-K TTL Binary	13.30	10.60	8.55
SE 8828J	Dual Delay Type 'D' TTL Binary	12.90	10.30	8.40
SE 8840J	Dual AND-OR-INVERT TTL Gate	6.50	5.15	4.20
SE 8855J	Dual 4-Input TTL Power	7.15	5.70	4.60
SE 8870J	Triple 3-Input TTL NAND	6.50	5.15	4.20
SE 8880J	Quad 2-Input TTL NAND	6.50	5.15	4.20

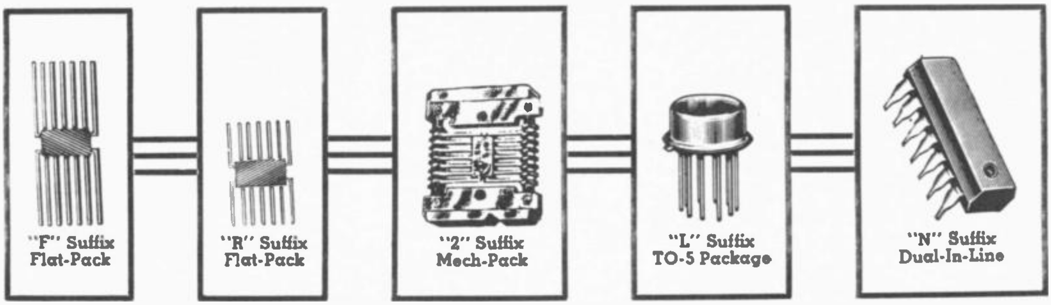
COLLINS

HYBRID THIN FILM CIRCUITS

Microelectronic system of tantalum thin film elements and active semiconductor chip devices. Tantalum film gives stability for uses in high speed computer logic, digital frequency synthesizers. I.F. and R.F. stages and special digital and analog circuitry. Encased in 1" x 1" x .155" hermetically sealed ceramic case. Insulations furnished.

Stk. No.	Type	Description	1-4	5-24	25-49
39F2890	351-2017-010	BCD to 7 bar decoder & lamp driver	103.40	93.05	88.40
39F2891	351-2019-010	Binary to BCD convrtr.; 4 BCD outputs	87.55	78.80	74.80
39F2892	351-7050-010	500 kHz I.F. amp with AGC	71.10	84.00	60.80
39F2893	351-7058-020	AC Op. amp w/stabilizer	71.55	64.40	61.20
39F2894	351-7059-010	4 188B output level translators	147.40	132.70	126.05
39F2895	351-7060-010	4 188B input level translators	175.45	157.90	150.00
39F2896	351-7194-010	2 sense amp w/cycle times to 1.2 usec	105.55	95.00	90.25
39F2897	351-7261-010	10 MHz line drive	93.55	84.20	80.00
39F2898	351-7262-010	90 ohm ternary line terminator 10MHz	99.10	89.20	84.75

Texas Instruments Integrated Circuits



"F" Suffix Flat-Pack | "R" Suffix Flat-Pack | "2" Suffix Mech-Pack | "L" Suffix TO-5 Package | "N" Suffix Dual-In-Line

INTEGRATED CIRCUITS DEVICE DESIGNATIONS

When you order a Texas Instrument integrated circuit, the designation must contain three (and may contain four) parts.

1. PREFIX 2. UNIQUE DEVICE DESCRIPTION 3. PACKAGE 4. SPECIAL INSTRUCTIONS (optional)

EXAMPLE: SNR • 54H72 • F • 02

PREFIX

MUST CONTAIN TWO OR THREE LETTERS

SN	Standard Prefix
SNR	Hi-Rel processing without Group B and C
SNT	Hi-Rel processing with B and C
SNX	Preliminary Device prefix

UNIQUE DEVICE DESCRIPTION

MUST CONTAIN THREE, FOUR, OR FIVE CHARACTERS

EXAMPLES:	15930 74H72 510B 777	52709 5473 521A 5161B

PACKAGE

MUST CONTAIN A SINGLE LETTER ONLY —F THROUGH 2

F	Flat package	Kovar	10 or 14 leads std.
R	Flat package	Kovar	10 or 14 leads long
L	TO-5 type	....	8 or 10 leads
N	Dual in line	Plastic	14 or 16 leads

SPECIAL INSTRUCTIONS

MUST CONTAIN TWO NUMBERS ONLY IF PACKAGE DESIGNATION IS "F" OR "R"

No.	Formed leads	Insulator	Mech Pak	Tinned leads
00	No	No	No	No
01	Yes	Yes	No	No
02	No	No	Yes	No
03	No	Yes	Yes	No
04	Yes	No	Yes	No
05	Yes	Yes	Yes	No
06	No	Yes	No	No
07	Yes	No	No	No
10	No	No	No	Yes
11	Yes	Yes	No	Yes
12	No	No	Yes	Yes
13	No	Yes	Yes	Yes
14	Yes	No	Yes	Yes
15	Yes	Yes	Yes	Yes
16	No	Yes	No	Yes
17	Yes	No	No	Yes

SERIES 74N AND 54N PLASTIC DIGITAL CIRCUITS

0°C TO 70°C					—55°C TO 125°C			
Type	1-24	25-99	100-999	Description	Type	1-24	25-99	100-999
SN7400N	2.25	1.80	1.55	Quadruple 2-input positive NAND Gate	SN5400N	3.51	2.79	2.38
SN7401N	2.25	1.80	1.55	Quadruple 2-input positive NAND Gate with open collector	SN5401N	3.51	2.79	2.38
SN7402N	2.50	2.00	1.70	Quadruple 2-input positive NOR Gate	SN5402N	3.88	3.09	2.63
SN7410N	2.25	1.80	1.55	Triple 3-input positive NAND Gate	SN5410N	3.51	2.79	2.38
SN7420N	2.25	1.80	1.55	Dual 4-input positive NAND Gate	SN5420N	3.51	2.79	2.38
SN7430N	2.25	1.80	1.55	8-input positive NAND Gate	SN5430N	3.51	2.79	2.38
SN7440N	2.50	2.00	1.70	Dual 4-input positive NAND Buffer	SN5440N	3.88	3.09	2.63
SN7441AN	15.40	12.25	10.50	BCD-to-Decimal Decoder Driver	SN5441AN	23.81	18.96	16.16
SN7442N	12.71	10.12	8.63	BCD-to-Decimal 4-10 Line Decoder				
SN7443N	12.71	10.12	8.63	Excess 3-to-Decimal 4-10 Line Decoder				
SN7444N	12.71	10.12	8.63	Excess 3-gray-to-Decimal 4-10 Line Decoder	SN5444N			
SN7450N	2.50	2.00	1.70	Expandable dual 2-wide AND-OR-INVERT Gate	SN5450N	3.88	3.09	2.63
SN7451N	2.25	1.80	1.55	Dual 2-wide 2-input AND-OR-INVERT Gate	SN5451N	3.51	2.79	2.38
SN7453N	2.50	2.00	1.70	Expandable 4-wide 2-input AND-OR-INVERT Gate	SN5453N	3.88	3.09	2.63
SN7454N	[illegible]	1.80	1.55	4-wide 2-input AND-OR-INVERT Gate	SN5454N	3.51	2.79	2.38
SN7460N	1.80	1.40	1.20	Dual 4-input expander	SN5460N	2.75	2.19	1.86
SN7470N	4.05	3.20	2.75	J-K Flip-Flop	SN5470N	6.26	4.99	4.25
SN7472N	3.65	2.90	2.50	J-K Master-slave Flip-Flop	SN5472N	5.63	4.48	3.82
SN7473N	5.90	4.70	4.00	Dual J-K Master-slave Flip-Flop	SN5473N	9.15	7.28	6.21
SN7474N	5.65	4.50	3.85	Dual D-type Edge triggered Flip-Flop	SN5474N	8.78	6.99	5.96
SN7475N	10.20	8.15	6.95	Quadruple Bistable latch	SN5475N	15.79	12.57	10.72
SN7476N	6.20	4.95	4.20	Dual J-K Master-slave Flip-Flop with preset and clear	SN5476N	9.67	7.70	6.56
SN7480N	5.65	4.50	3.85	Gated full adder	SN5480N	8.78	6.99	5.96
SN7482N	8.45	6.70	5.75	2-bit binary full adder	SN5482N	13.05	10.39	8.86
SN7483N	13.40	10.70	9.15	4-bit binary full adder	SN5483N	26.80	21.40	18.30
SN7490N	11.10	8.85	7.55	Decade counter				
SN7491AN	15.00	11.90	10.20	8-bit shift register	SN5491AN	23.24	18.51	15.78
SN7492N	12.20	9.75	8.30	Divide by twelve counter				
SN7493N	12.20	9.75	8.30	4-bit binary counter				
SN7494N	15.25	12.15	10.35	Flip-Flop with set and clear				
SN7495N	17.00	13.55	11.55	4-bit right-shift left-shift register	SN5495N	26.40	21.02	17.93
SN7496N	17.00	13.55	11.55	5-bit shift register	SN5496N	26.40	21.02	17.93

Texas Instruments Integrated Circuits

SERIES 74 AND 54 TTL DIGITAL CIRCUITS

0°C TO 70°C					—55°C TO 125°C			
Type	1-24	25-99	100-999	Description	Type	1-24	25-99	00-999
SN7400	3.65	2.90	2.50	Quadruple 2-input positive NAND Gate	SN5400	6.50	5.15	4.40
SN7401	3.65	2.90	2.50	Quadruple 2-input positive NAND with open collector output	SN5401	6.50	5.15	4.40
SN7402	4.05	3.20	2.75	Quadruple 2-input positive NOR Gate	SN5402	7.15	5.70	4.85
SN7410	3.65	2.90	2.50	Triple 3-input positive NAND Gate	SN5410	6.50	5.15	4.40
SN7420	3.65	2.90	2.50	Dual 4-input positive NAND Gate	SN5420	6.50	5.15	4.40
SN7430	3.65	2.90	2.50	8-input positive NAND Gate	SN5430	6.50	5.15	4.40
SN7440	4.05	3.20	2.75	Dual 4-input positive NAND Buffer	SN5440	7.15	5.70	4.85
SN7450	4.05	3.20	2.75	Expandable Dual 2-wide 2-input AND-OR-INVERT Gate	SN5450	7.15	5.70	4.85
SN7451	3.65	2.90	2.50	Dual 2-wide 2-input AND-OR-INVERT Gate	SN5451	6.50	5.15	4.40
SN7453	4.05	3.20	2.75	Expandable 4-wide 2-input AND-OR-INVERT Gate	SN5453	7.15	5.70	4.85
SN7454	3.65	2.90	2.50	4-wide 2-input AND-OR-INVERT Gate	SN5454	6.50	5.15	4.40
SN7460	2.90	2.30	2.00	Dual 4-input Expander	SN5460	5.85	4.65	4.00
SN7470	5.85	4.65	4.00	J-K Flip-Flop	SN5470	10.35	8.25	7.05
SN7472	5.10	4.05	3.50	J-K Master slave flip-flop	SN5472	9.05	7.25	6.15
SN7473	7.45	5.95	5.05	Dual J-K master slave flip-flop	SN5473	13.30	10.60	9.00
SN7474	7.30	5.80	4.95	Dual D-type edge triggered flip-flop	SN5474	12.90	10.30	8.80
SN7480	9.10	7.25	6.15	Gated full adder	SN5480	16.20	12.90	11.00
SN7482	13.50	10.80	9.20	2-bit binary full adder	SN5482	24.00	19.10	16.30
SN7490	14.90	11.85	10.15	Decade Counter	....	...	..	....
SN7491	19.90	15.90	13.50	8-bit shift register	SN5491	38.90	31.30	26.40

SERIES 74H AND 54H DIGITAL CIRCUITS

SN74H00	5.50	4.40	3.75	Quadruple 2-input NAND gate	SN54H00	9.70	7.75	6.60
SN74H10	5.50	4.40	3.75	Triple 3-input NAND gate	SN54H10	9.70	7.75	6.60
SN74H11	5.50	4.40	3.75	Triple 3-input AND gate	SN54H11	9.70	7.75	6.60
SN74H20	5.50	4.40	3.75	Dual 4-input NAND gate	SN54H20	9.70	7.75	6.60
SN74H21	5.50	4.40	3.75	Dual 4-input AND gate	SN54H21	9.70	7.75	6.60
SN74H30	5.50	4.40	3.75	8-input NAND gate	SN54H30	9.70	7.75	6.60
SN74H40	6.05	4.85	4.10	Dual 4-input buffer	SN54H40	10.70	8.50	7.25
SN74H50	6.05	4.85	4.10	Expandable dual 2-wide 2-input AND-OR-INVERT gate	SN54H50	10.70	8.50	7.25
SN74H52	6.05	4.85	4.10	Expandable 4-wide 2-2-2-3 input ANR-OR gate	SN54H52	10.70	8.50	7.25
SN74H53	6.05	4.85	4.10	Expandable 4-wide 2-input AND-OR-INVERT gate	SN54H53	10.70	8.50	7.25
SN74H55	6.05	4.85	4.10	Expandable 2-wide 4-input AND-OR-INVERT gate	SN54H55	10.70	8.50	7.25
SN74H60	4.40	3.50	2.95	Dual 4-input expander	SN54H60	8.75	6.95	5.95
SN74H61	4.40	3.50	2.95	Triple 3-input expander	SN54H61	8.75	6.95	5.95
SN74H62	4.40	3.50	2.95	4-wide 3-2-2-3 input AND-OR expander	SN54H62	8.75	6.95	5.95
SN74H71	7.70	6.15	5.20	J-K Master-slave Flip-Flop	SN4H71	13.60	10.85	9.25
SN74H72	7.70	6.15	5.20	J-K Master-slave Flip-Flop	SN54H72	13.60	10.85	9.25

SERIES 74HN PLASTIC DIGITAL CIRCUITS

Type	Description	1-24	25-99	100-999
SN74H00	Quadruple 2-input NAND gate	5.50	4.40	3.75
SN74H10	Triple 3-input NAND gate	5.50	4.40	3.75
SN74H11	Triple 3-input AND gate	5.50	4.40	3.75
SN74H20	Dual 4-input NAND gate	5.50	4.40	3.75
SN74H21	Dual 4-input AND gate	5.50	4.40	3.75
SN74H30	8-input NAND gate	5.50	4.40	3.75
SN74H40	Dual 4-input buffer	6.05	4.85	4.10
SN74H50	Expandable dual 2-wide 2-input AND-OR-INVERT gate	6.05	4.85	4.10
SN74H52	Expndabe 4-wide 2-2-2-3 input AND-OR gate	6.05	4.85	4.10
SN74H53	Expandable 4-wide 2-input AND-OR-INVERT gate	6.05	4.85	4.10
SN74H55	Expandable 2-wide 4-input AND-OR-INVERT gate	6.05	4.85	4.10
SN74H60	Dual 4-input expander	4.40	3.50	2.95
SN74H61	Triple-3-input expander	4.40	3.50	2.95
SN74H62	4-wide 3-2-2-3 input AND-OR Expander	4.40	3.50	2.95
SN74H71	J-K Master-slave Flip-Flop	7.70	6.15	5.20
SN74H72	J-K Master-slave Flip-Flop	7.70	6.15	5.20

SERIES 73 DIGITAL CIRCUITS

Type	Description	1-24	25-99	100-999
SN7300	J-K Flip-Flop with preset	8.10	6.45	5.50
SN7301	J-K Flip-Flop with preset and clear	8.50	6.75	5.75
SN7302	Dual J-K Flip-Flop with preset	10.50	8.35	7.15
SN7304	Dual —K Flip-Flop with preset and clear	10.50	8.35	7.15
SN7310	5-input expandable NAND/NOR gate	5.65	4.50	3.85
SN7311	Dual 5-input NAND/NOR gate	6.50	5.15	4.40
SN7315	10-input NAND/NOR gate	6.50	5.15	4.40
SN7320	5-input AND/OR gate OR expander	5.65	4.50	3.85
SN7330	Dual 3-input NAND/NOR gate	5.65	4.50	3.85
SN7331	Triple 3-input NAND/NOR gate	6.50	5.15	4.40
SN7350	Quadruple inverter/driver	5.65	4.50	3.85
SN7360	Quadruple 2-input NAND/NOR gate	6.50	5.15	4.40
SN7370	Dual EXCLESIVE-OR gate	7.70	6.15	5.25
SN7380	"One shot" Monostable multivibrator	9.75	7.75	6.60

SERIES 74L AND 54L TTL LOW POWER

0°C TO 70°C					—55°C TO 125°C			
Type	1-24	25-99	100-999	Description	Type	1-24	25-99	100-999
SN74L00	6.80	5.41	4.61	Quadruple 2-input NAND Gate	SN54L00	10.61	8.44	7.20
SN74L10	6.80	5.41	4.61	Triple 3-input positive NAND Gate	SN54L10	10.61	8.44	7.20
SN74L20	6.80	5.41	4.61	Dual 4-input NAND Gate	SN54L20	10.61	8.44	7.20
SN74L30	12.00	9.70	8.25	8-input positive NAND Gate	SN54L30	10.61	8.44	7.20
SN74L51	6.80	5.41	4.61	Dual 2-wide 2-input/2-wide and/or INVERT Gate	SN54L51	10.61	8.44	7.20
SN74L54	6.80	5.41	4.61	4-wide 2-2-3-3 input and/or INVERT Gate	SN54L54	10.61	8.44	7.20
SN74L55	6.80	5.41	4.61	2-wide 4-input and/or INVERT Gate	SN54L55	10.61	8.44	7.20
SN74L71	11.66	9.28	7.91	R-S Flip-Flop	SN54L71	17.41	13.86	11.82
SN74L72	11.66	9.28	7.91	J-K Flip-Flop	SN54L72	17.41	13.86	11.82
SN74L73	16.36	13.02	11.10	Dual J-R Master Slave Flip-Flop	SN54L73	25.59	20.38	17.38

SERIES 15830 AND 15830N DIGITAL CIRCUITS

0°C TO 70°C					—55°C TO 125°C			
Can Type	1-24	25-99	100-999	Description	Plastic Type	1-24	25-99	100-999
....	....	....	....	Dual 4-input NAND/NOR Gate	SN15-830N	1.90	1.60	1.40
....	....			Flip-Flop with set and clear	SN15-831N	2.66	2.24	1.96
....	....	..	..	Dual 4-input NAND/NOR buffer	SN15-832N	1.90	1.60	1.40
....	....	...	......	Dual 4-input expander	SN15-833N	1.60	1.40	1.30
SN15-844	3.21	2.45	2.14	Dual 4-input NAND/NOR power Gate	SN15-844N	1.90	1.60	1.40
SN15-845	4.50	3.43	3.00	Flip-Flop with set and clear	SN15-845N	2.66	2.24	1.96
SN15-846	3.21	2.45	2.14	Quadruple 2-input NAND/NOR Gate	SN15-846N	1.90	1.60	1.40
.....	...		...	Flip/Flop with set and clear	SN15-848N	2.66	2.24	1.96
SN15-851	9.65	7.37	6.43	Monostable multivibrator	SN15-851N	8.55	7.20	6.30
....	....	......	..	Triple 3-input NAND/NOR Gate	SN15-862N	1.90	1.60	1.40

Texas Instruments Integrated Circuits

SN1580 AND SN1590 DTL PLASTIC SERIES

0°C to +70°C					−55° to +125°C			
Type	1-24	25-99	100-999	Description	Type	1-24	25-99	100-999
SN158093N	3.80	3.20	2.80	Dual J-K Clocked Flip-Flop	SN159093N	7.80	6.08	5.06
SN158094N	3.80	3.20	2.80	Dual J-K Clocked Flip-Flop	SN159094N	7.80	6.08	5.06
SN158097N	3.80	3.20	2.80	Dual J-K Clocked Flip-Flop	SN159097N	7.80	6.08	5.06
SN158099N	3.80	3.20	2.80	Dual J-K Clocked Flip-Flop	SN159099N	7.80	6.08	5.06

SN1580 DTL CERAMIC SERIES
(0°C TO +70°C)

Type	Description	1-24	25-99	100-999
SN15830J	Dual 4-input NAND/NOR Gate w/Expander	3.21	2.45	2.14
SN15831J	RS/JK Clocked Flip-Flop	4.50	3.43	3.00
SN15832J	Dual 4-input NAND/NOR Buffer w/Expander	3.21	2.45	2.14
SN15833J	Dual 4-input AND Expander	3.00	2.29	2.00
SN15836J	Hex Inverter	3.54	2.70	2.36
SN15837J	Hex Inverter	3.54	2.70	2.36
SN15844J	Dual NAND/NOR Power Gate w/Expander	3.21	2.45	2.14
SN15845J	RS/JK Clocked Flip-Flop	4.50	3.43	3.00
SN15846J	Quad 2-input NAND/NOR Gate	3.21	2.45	2.14

Type	Description	1-24	25-99	100-999
SN15848J	RS/JK Clocked Flip-Flop	4.50	3.43	3.00
SN15849J	Quad 2-input NAND/NOR Gate	3.21	2.45	2.14
SN158550J	Pulse Triggered Binary	9.65	7.37	6.43
SN15851J	Monostable Multivibrator	9.65	7.37	6.43
SN15861J	Dual 4-input NAND/NOR Gate w/Expander	3.21	2.45	2.14
SN15862J	Triple 3-input NAND/NOR Gate	3.21	2.45	2.14
SN15863J	Triple 3-input NAND/NOR Gate	3.21	2.45	2.14
SN158093J	Dual J-K Clocked Flip-Flop	6.43	4.91	4.28
SN158094J	Dual J-K Clocked Flip-Flop	6.43	4.91	4.28
SN158097J	Dual J-K Clocked Flip-Flop	6.43	4.91	4.28
SN158099J	Dual J-K Clocked Flip-Flop	6.43	4.91	4.28

Flat Pack suffix "F" —55° to 125° and 0-70°; suffix "J" —55° to 125°; and TO-5 —55° to 125° and 0-70° are also available.

SERIES 72 AND 52 LINEAR CIRCUITS

0° to +70°C					−55 C to +125 C			
Type	1-24	25-99	100-999	Description	Type	1-24	25-99	100-999
....	....	....	....	Operational amplifier	SN521A	36.50	29.00	24.80
....				OA with emitter follower output	SN522A	36.50	29.00	24.80
SN723	17.85	14.20	12.10	General Purpose DA	SN523A	26.00	20.60	17.60
SN7231L	17.85	14.20	12.10	General Purpose DA	SN5231L	26.00	20.60	17.60
SN724	12.15	9.70	8.25	General Purpose OA	SN524A	17.00	13.60	11.60
SN724L	12.15	9.70	8.25	General Purpose OA	SN524AL	17.00	13.60	11.60
SN725	25.20	20.00	17.10	General purpose DA	SN525	35.70	28.40	24.20
SN726	20.10	16.10	13.75	General purpose DA	SN526	29.20	23.20	19.80
SN72-702	5.30	4.24	3.18	General purpose DA	SN52-702	10.02	8.02	6.01
SN72-702L	4.48	3.58	2.69	General purpose OA	SN52-702L	10.85	8.75	7.00
SN72-709	6.20	4.96	3.72	High performance OA	SN52-709	9.62	7.70	5.77
SN72-709L	6.94	5.60	4.48	High performance OA	SN52-709L	9.89	7.97	6.38
SN72-710	5.96	4.77	3.58	Differential comparator	SN52-710	7.44	5.95	4.46
SN72-710L	6.20	5.00	4.00	Differential comparator	SN52-710L	8.53	6.88	5.50
SN72-711	9.16	7.33	5.50	Dual differential comparator	SN52-711	12.46	9.97	7.48
SN72-711L	10.11	8.15	6.52	Dual differential comparator	SN52-711L	13.95	11.25	9.00

SERIES 74N AND 54N COMPLEX FUNCTIONS
0°C to 70°C

Type	Description	1-24	25-99	100-999
SN7442N	4-line to 10-line decoders	12.71	10.12	8.63
SN7443N	4-line to 10-line decoders	12.71	10.12	8.63
SN7444N	4-line to 10-line decoders	12.75	10.12	8.63

SERIES 55 LINEAR CIRCUITS
Temp. Range: —55°C to 125°C

Type	Description	1-24	25-99	100-999
SN5500	Magnetic core sense amp.	56.00	44.50	38.00
SN5510	Wide-band video amplifier	13.80	10.95	9.30
SN5510L	Wide-band video amplifier	13.80	10.95	9.30
SN5511	Wide-band video amplifier	22.00	18.00	15.40

MOS INTEGRATED CIRCUITS

Type	Description	1-24	25-99	100-999
TMS-7A-7000LA	RC Coupled Audio Amplifier	17.00	10.40	9.00
TMS-1B-3016LA	16 Bit Dual Static Shift Register	22.80	13.75	12.00
TMS-7B-3000LA	25 Bit Dual Static Shift Register	35.25	21.25	18.50
TMS-7B-3001-LA	32 Bit Dual Static Shift Register	40.20	24.25	21.05
TMS-7C-3002LA	50 Bit Dual Static Shift Register	57.00	34.50	30.00
TMS-7D-3302LA		61.00	36.80	32.00
TMS-1A-1700-AA	Dual Full Adder	34.25	20.75	18.00
TMS-1A-1702-LA	Dual 3-input NOR-Gate	15.25	9.20	8.00
TMS-1A-6009-AA	Six-Channel Switch	40.00	24.15	21.00

SERIES 75 LINEAR CIRCUITS
Temp. Range: (0°C to 70°C)

SN7500	Sense amplifier with one shot output	24.40	19.35	16.50
SN7501	Sense amplifier with Flip-Flop output	37.00	29.75	24.25
SN7502	Sense amplifier wth one shot output	37.00	29.75	24.25
SN7510	Monolithic wide band video Amplifier	6.50	5.15	4.40
SN7510L	Monolithic wide band video Amplifier	6.50	5.15	4.40
SN7520N	Sense Amplifier	19.40	15.30	13.20
SN7521N	Sense Amplifier	13.90	11.90	10.10
SN7522N	Sense Amplifier	18.65	14.85	12.65
SN7523N	Sense Amplifier	14.00	11.15	9.50
SN7524N	Sense Amplifier	17.50	13.90	11.90
SN7525N	Sense Amplifier	13.10	10.45	8.90

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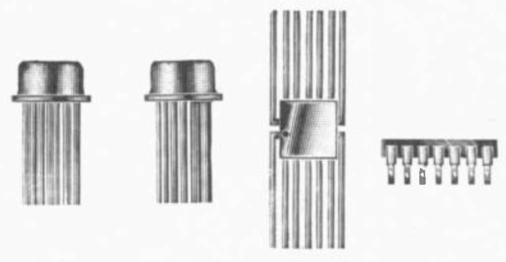


10 Pin 14 Pin T-Packages -J- Package -D- Package

DTL 200 SERIES

Add suffix T for TO-5 or J for Flat Pack.

Type	Description	1-49	50-499	500-999
HSC201	Dual 3-Nand Gate	3.81	3.05	2.53
HSC202	R-S Flip Flop (3 Inputs/Side)	3.81	3.05	2.53
HSC206	Triple 3-Nand (1 gate, 2 Inputs, & Node)	4.22	3.38	2.80
HSC210	Dual 3-Nand Line Driver	4.58	3.67	3.04
HSC211	Dual 4-Nand Gate	3.81	3.05	2.53
HSC212	R-S Flip Flop (3 Inputs & Node/Side)	3.81	3.05	2.53
HSC213	Pulse Binary Counter	5.34	4.27	3.55
HSC214	Single 6-Nand W/Nodes	3.81	3.05	2.53
HSC215	J-K Flip Flop	5.34	4.27	3.55
HSC217	Diode Array (4 & 3 Diodes)	3.40	2.70	2.25
HSC220	Dual 3-Nand Line Driver with Node	4.58	3.67	3.04
HSC221	Dual 3-Nand with Nodes	3.81	3.05	2.53
HSC222	R-S Flip Flop (3 Inputs & Node/Side)	3.81	3.05	2.53
HSC224	Single 8-Nand with Node	3.81	3.05	2.53
HSC225	J-K Flip Flop, multiple J&K Inputs	5.34	4.27	3.55
HSC226	Triple 3-Nand (1-Gate, 2-Inputs, & Node)	4.22	3.38	2.80
HSC227	Diode Array (4 & 3 & 3 diodes)	3.40	2.70	2.25
HSC231	Dual 4-Nand 2/Nodes	3.81	3.05	2.53
HSC234	Single 8-Nand 2/Nodes	3.81	3.05	2.53
HSC236	Triple 3-Nand Gate	4.22	3.38	2.80
HSC241	Dual 4-Nand Gate	3.81	3.05	2.53
HSC246	Quad 2-Nand Gate	4.22	3.38	2.80
HSC261	Dual 4-Nand w/Nodes	3.81	3.05	2.53
HSC266	Quad 2-Nand Gate	4.22	3.38	2.80
HSC286	Hex Gate (inputs idiode/gate	4.58	3.67	3.04
HSC288	Monostable Multivibr.	7.20	5.76	4.78
HSC296	Hex Gate (idiode Input/gate)	4.58	3.67	3.04

AMPLIFIERS — 700 SERIES

Add suffix "T" for TO-5 only.

Type	Description	1-99	100-999
HSC702	Wide Band DC Ampl.	6.00	4.00
HSM709	High Gain OP Ampl.	15.00	10.00
HSC709	High Gain OP Ampl.	7.50	5.00
HSM710	High Speed Diff. Comp.	12.00	8.00
HSC710	High Speed Diff. Comp.	6.00	4.00
HSC711	Dual Diff. Comparator	7.50	5.00
HSC4709	Mono Dual High Gain Diff. Ampl.	30.00	20.00
HSC4710	Mono Dual High Gain Diff. Ampl.	24.00	16.00

DTL — 930 SERIES

Add suffix "J" for flat pack; suffix 'D" for Dual In-Line, or suffix "T" for 10 pin TO-15.

Type	Description	1-49	50-99	100-999
HSC930	Dual 4-Nand Gate	3.81	3.05	2.53
HSC932	Dual 4-Buffers	4.58	3.67	3.04
HSC933	Dual 4-Input Expander	3.40	2.72	2.20
HSC944	Dual 4-Power Gates	4.58	3.67	3.04
HSC945	Clocked Flip Flop	5.34	4.27	3.55
HSC950	AC Binaries	7.20	5.76	4.78
HSC951	Monostable Multivibr.	7.20	5.76	4.78
HSC962	Triple 3-Nand Gate	4.22	3.38	2.80

DTL — 2000 SERIES

Add suffix "D" for Dual In-Line Package.

Type	Description	1-99	100-999
HSM2000	Quad. Level Translator	15.00	10.00
HSM2001	High V High Curr Driver	15.00	10.00
HSM2002	Lamp Driver	18.00	12.00

DTL — 6100 SERIES

Add suffix "T" for TO-15 Package.

Type	Description	1-49	50-499	500-999
HSM6172	Dual 3-Nand w/Nodes	6.35	5.08	4.22
HSM6175	Hex Gate (1 Node input/gate)	8.90	7.12	5.91
HSM6176	Hex Gate (1 Node input/gate)	8.90	7.12	5.91
HSM6178	Triple 2-Nand (1 Node on 1 Gate)	7.03	5.63	4.67
HSM6179	Triple 2-Nand (1 Node on 1 Gate)	7.03	5.63	4.67
HSM6180	Quad 2-Nand (Dual 2 & Dual 1)	7.03	5.63	4.67
HSM6181	Quad 2-Nand (Dual 2 & Dual 1)	7.03	5.63	4.67
HSM6184	Triple 2-Nand (Third Diode 1 Gate)	7.03	5.63	4.67
HSM6185	Triple 2-Nand (Third Diode 1 Gate)	7.03	5.63	4.67

HLT 2L-0-99

Add suffix "J" for Flat-Pack or suffix "D" for Dual In-Line Package.

Type	Description	1-24	25-99	100-999
HSG43	Dual 4-Nand Gates	4.62	3.69	3.14
HSG53	Expandable Quad 2-Input or Gate	4.62	3.69	3.14
HSG63	Single 8-Nand/Nor Gates	4.62	3.69	3.14
HSG73	Expandable Dual Output Dual 2-Nor Gates	5.62	4.49	3.82
HSG93	Exclusive OR Gates w/Complement	5.62	4.49	3.82

HLT²L/100-199 SERIES

Add suffix "D" for Dual In-Line Package, or suffix "T" for TO-85.

Type	Description	1-24	25-99	100-999
HSG103	Expandable Triple 3-Inputs OR Gates	4.62	3.69	3.14
HSG113	Expandable Dual 4-Inputs OR Gates	4.62	3.69	3.14
HSG123	Expandable Single 8-Nand/Nor Gates	4.62	3.69	3.14
HSG133	Dual 4-Nand/Nor Drivers	5.62	4.49	3.82
HSG143	Quad 2-Nand/Nor Gates	4.62	3.69	3.14
HSG153	Quad 2-Inputs & OR Expanders	4.52	3.61	3.07
HSG163	Triple 2-Inputs Buss Drivers	5.62	4.49	3.82
HSG173	Dual 4-Inputs OR Expanders	4.52	3.61	3.07
HSG183	Dual 4-Inputs OR Expanders	4.52	3.61	3.07
HSG193	Triple 3-Nand/Nor Gates	4.62	3.69	3.14

HLT²L/200-299 SERIES

Add suffix "D" for Dual In-Line Package, or suffix "T" for TO-85.

Type	Description	1-24	25-99	100-999
HSG213	Expandable Nand/Nor Gates	4.95	3.96	3.36
HSG223	Nand/Nor Gates	4.95	3.96	3.36
HSG233	Quad 2-Inputs Nand/Nor Expanders	4.52	3.61	3.07
HSG243	Nand/Nor Gates	4.95	3.96	3.36
HSG253	Expandable Nand/Nor Gates	4.95	3.96	3.36
HSG263	Nand/Nor Gates	4.95	3.96	3.36
HSG273	Dual 4-Inputs Nand/ Nor Gates	4.52	3.61	3.07

HLT²L/0-99 SERIES

Add suffix "D" for Dual In-Line Package, or suffix "T" for TO-85.

Type	Description	1-24	25-99	100-999
HSF13	Set-Reset Flip Flops	4.62	3.69	3.14
HSF23	S-R Clocked Flip Flops	5.62	4.49	3.82
HSF33	Single-Phase S-R-T Flip Flops	6.16	4.94	4.19
HSF53	Nand Input J-K Flip Flops	6.87	5.50	4.67
HSF63	OR Input J-K Flip Flops	6.87	5.50	4.67

HLT²L/100-199 SERIES

Add suffix "D" for Dual In-Line Package, or suffix "T" for TO-85.

Type	Description	1-24	25-99	100-999
HSF103	Sep. Clock 35 & 50 MHE	10.17	8.15	6.93
HSF113	Com. Clock Dual J-K/F-F	10.17	8.15	6.93

HLT²L/200-299 SERIES

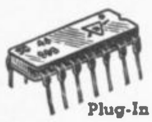
Add suffix "D" for Dual-in-Line package, or suffix "T" for TO-85.

Type	Description	1-24	25-99	100-999
HSF253	Nand Input J-K Flip Flops	7.54	6.03	5.13
HSF263	OR Input J-K Flip Flops	7.54	6.03	5.13

NOTE: All of the above types and more are available in standard flat packs, TO-5, 14 Pin DIP.

Sylvania Integrated Circuits

SUHL I AND II



Plug-In

SUHL circuits characterized into two temperature ranges: —55°C to ±125°C for military applications and 0°C to +75°C for industrial and commercial use. SUHL I circuits designed for applications up to and including 20 megacycles, with gate propagation delays within 10 nanoseconds.

Single chip high speed (20 mos) Si planar epitaxial, hermetically sealed units. Low speed-power product. Provides fan-in capabilities as high as 18. Use suffix —02 for standard flat package and suffix —03 for Plug-In package when ordering types with SF, SG, SM and SA.

Flat-Pack

SUHL I

Flat Pack	1-24	25-99	100-249	Plug-In	1-24	25-99	100-249	Circuit	TPD (nsec)	Fan-Out Military	Fan-Out Industrial
SG40-02	10.85	8.70	7.45	SG40-03	10.85	8.70	7.45	Dual 4-	10	15	....
SG41-02	9.95	8.00	6.80	SG41-03	9.95	8.00	6.80	Input	10	7	..
SG42-02	4.70	3.80	3.15	SG42-03	6.05	4.85	4.10	NAND/NOR	10		12
SG43-02	3.75	3.00	2.50	SG43-03	5.00	4.00	3.35	Gate	10	..	6
SG50-02	10.85	8.70	7.45	SG50-03	10.85	8.70	7.45	Expand-	12	15	....
SG51-02	9.95	8.00	6.80	SG51-03	9.95	8.00	6.80	able Quad	12	7	..
SG52-02	5.25	4.20	3.50	SG52-03	6.05	4.85	4.10	2-Input	12		12
SG53-02	4.10	3.30	2.75	SG53-03	5.00	4.00	3.35	OR Gate	12	..	6
SG60-02	10.85	8.70	7.45	SG60-03	10.85	8.70	7.45	Single	12	15	..
SG61-02	9.95	8.00	6.80	SG61-03	9.95	8.00	6.80	8-input	12	7	
SG62-02	4.70	3.80	3.15	SG62-03	6.05	4.85	4.10	NAND/NOR	12		12
SG63-02	3.75	3.00	2.50	SG63-03	5.00	4.00	3.35	Gate	12	..	6
SG70-02	13.80	11.00	9.35	SG70-03	13.80	11.00	9.35	Expand-	12	15	..
SG71-02	12.65	10.10	8.60	SG71-03	12.65	10.10	8.60	able 2-	12	7	
SG72-02	7.25	5.80	4.90	SG72-03	7.25	5.80	4.90	Input Excl.	12	.	12
SG73-02	6.05	4.85	4.10	SG73-03	6.05	4.85	4.10	OR Gate	12		6
SG80-02	13.80	11.00	9.35	SG80-03	13.80	11.00	9.35	Dual Pulse	11	15	..
SG81-02	12.65	10.10	8.60	SG81-03	12.65	10.10	8.60	Shaper/	11	7	..
SG82-02	8.90	7.10	6.05	SG82-03	8.90	7.10	6.05	Delay	11	..	12
SG83-02	7.45	5.95	5.05	SG83-03	7.45	5.95	5.05	Gate	11	....	6
SG90-02	13.80	11.00	9.35	SG90-03	13.80	11.00	9.35	Exclusive	11	15	....
SG91-02	12.65	10.10	8.60	SG91-03	12.65	10.10	8.60	OR with	11	7	....
SG92-02	8.90	7.10	6.05	SG92-03	8.90	7.10	6.05	Comple-	11	..	12
SG83-02	7.45	5.95	5.05	SG93-03	7.45	5.95	5.05	ment	11	.	6
SG100-02	10.85	8.70	7.45	SG100-03	10.85	8.70	7.45	Expand-	12	15	....
SG101-02	9.95	8.00	6.80	SG101-03	9.95	8.00	6.80	able Triple	12	7	....
SG102-02	5.25	4.20	3.50	SG102-03	6.05	4.85	4.10	3-Input	12	...	12
SG103-02	4.10	3.30	2.75	SG103-03	5.00	4.00	3.35	OR Gate	12	....	6
SG110-02	10.85	8.70	7.45	SG110-03	10.85	8.70	7.45	Expand-	12	15	..
SG111-02	9.95	8.00	6.80	SG111-03	9.95	8.00	6.80	able Dual	12	7	....
SG112-02	5.25	4.20	3.50	SG112-03	6.05	4.85	4.10	4-Input	12	..	12
SG113-02	4.10	3.30	2.75	SG113-03	5.00	4.00	3.35	OR Gate	12	..	6
SG120-02	10.85	8.70	7.45	SG120-03	10.85	8.70	7.45	Single 8	18	15	..
SG121-02	9.95	8.00	6.80	SG121-03	9.95	8.00	6.80	Input	18	7	..
SG122-02	7.05	5.65	4.80	SG122-03	7.05	5.65	4.80	NAND/NOR	18	.	12
SG123-02	5.90	4.70	4.00	SG123-03	5.90	4.70	4.00	Gate	18		6
SG130-02	13.80	11.00	9.35	SG130-03	13.80	11.00	9.35	Dual 4-Input	25	30	...
SG131-02	12.65	10.10	8.60	SG131-03	12.65	10.10	8.60	Line Driver/	25	15	..
SG132-02	7.60	6.05	5.15	SG132-03	7.60	6.05	5.15	Lamp	25	..	24
SG133-02	6.35	5.10	4.30	SG133-03	6.35	5.10	4.30	Driver	25		12
SG140-02	10.85	8.70	7.45	SG140-03	10.85	8.70	7.45	Quad 2	10	15	..
SG141-02	9.95	8.00	6.80	SG141-03	9.95	8.00	6.80	Input	10	7	.
SG142-02	4.70	3.80	3.15	SG142-03	6.05	4.85	4.10	NAND/NOR	10	.	12
SG143-02	3.75	3.00	2.50	SG143-03	5.00	4.00	3.35	Gate	10	.	6
SG150-02	8.35	6.65	5.65	SG150-03	8.35	6.65	5.65	Quad 2	4	15	..
SG151-02	8.35	6.65	5.65	SG151-03	8.35	6.65	5.65	Input	4	7	
SG152-02	4.25	3.40	2.85	SG152-03	4.25	3.40	2.90	OR	4		12
SG153-02	3.35	2.70	2.25	SG153-03	4.25	3.40	2.90	Expander	4		6
SG160-02	13.80	11.00	9.35	SG160-03	13.80	11.00	9.35	Triple 2	15	15	...
SG161-02	12.65	10.10	8.60	SG161-03	12.65	10.10	8.60	Input	15	7	..
SG162-02	8.90	7.10	6.05	SG162-03	8.90	7.10	6.05	Buss	15		12
SG163-02	7.45	5.95	5.05	SG163-03	7.45	5.95	5.05	Driver	15	....	6
SG170-02	8.35	6.65	5.65	SG170-03	8.35	6.65	5.65	Dual 4	3	15	..
SG171-02	8.35	6.65	5.65	SG171-03	8.35	6.65	5.65	Input	3	7	
SG172-02	4.25	3.40	2.85	SG172-03	4.25	3.40	2.90	OR	3	...	12
SG173-02	3.35	2.70	2.25	SG173-03	4.25	3.40	2.90	Expander	3		6
SG180-02	8.35	6.65	5.65	SG180-03	8.35	6.65	5.65	Dual 4	20 Mcs	.	....
SG181-02	8.35	6.85	6.65	SG181-03	8.35	6.65	5.65	Input	20 Mcs		..
SG182-02	4.25	3.40	2.85	SG182-03	4.25	3.40	2.90	and	20 Mcs	.	....
SG183-02	3.35	2.70	2.25	SG183-03	4.25	3.40	2.90	Expander	20 Mcs	.	..
SG190-02	10.85	8.70	7.45	SG190-03	10.85	8.70	7.45	Triple	10	15	
SG191-02	9.95	8.00	6.80	SG191-03	9.95	8.00	6.80	Input	10	7	..
SG192-02	4.65	3.70	3.15	SG192-03	6.05	4.85	4.10	NAND/NOR	10	.	12
SG193-02	3.70	2.95	2.50	SG193-03	5.00	4.00	3.35	Gate	10		6
SF10-02	10.85	8.70	7.45	SF10-03	10.85	8.70	7.45	SET/	20 mc	15	....
SF11-02	9.95	8.00	6.80	SF11-03	9.95	8.00	6.80	RE-SET	20 mc	7	..
SF12-02	7.05	5.65	4.80	SF12-03	7.05	5.65	4.80	Flip-	20 mc	..	12
SF13-02	5.90	4.70	4.00	SF13-03	5.90	4.70	4.00	Flop	20 mc	.	6
SF20-02	13.80	11.00	9.35	SF20-03	13.80	11.00	9.35	2 Phase	20 mc	15	....
SF21-02	12.65	10.10	8.60	SF21-03	12.65	10.10	8.60	SR clock-	20 mc	7	..
SF22-02	8.90	7.10	6.05	SF22-03	8.90	7.10	6.05	ed Flip	20 mc	..	12
SF23-02	7.45	5.95	5.05	SF23-03	7.45	5.95	5.05	Flop	20 mc	.	6
SF30-02	17.20	13.75	11.65	SF30-03	17.20	13.75	11.65	Single	12 mc	15	....
SF31-02	15.75	12.55	10.60	SF31-03	15.75	12.55	10.60	Phase	12 mc	7	....
SF32-02	11.20	8.95	7.55	SF32-03	11.20	8.95	7.55	SRT Flip-	12 mc		12
SF33-02	9.30	7.40	6.25	SF33-03	9.30	7.40	6.25	Flop	12 mc		6
SF50-02	17.20	13.75	11.65	SF50-03	17.20	13.75	11.65	J-K	20 mc	15	.
SF51-02	15.75	12.55	10.60	SF51-03	15.75	12.55	10.60	Flip-Flop	20 mc	7	
SF52-02	6.60	5.30	4.40	SF52-03	9.65	7.70	6.50	(and	20 mc	.	12
SF53-02	5.25	4.20	3.50	SF53-03	8.00	6.40	5.40	inputs)	20 mc	..	6

 Newark Industrial Electronics Corp., 2114 S. Division Ave., Grand Rapids, Mich. 49507

SUHL I CONT.

Type Flat-Pack	1-24	25-99	100-249	Type Plug-In	1-24	25-99	100-249	Circuit	TPD (nsec)	Fan-Out Mil.	Fan-Out Ind.
SF60-02	17.20	13.75	11.65	SF60-03	17.20	13.75	11.65	J-K	20 mc	15	
SF61-02	15.75	12.55	10.60	SF61-03	15.75	12.55	10.60	Flip-Flop	20 mc	7	
SF62-02	6.60	5.30	4.40	SF62-03	9:65	7.70	6.50	(or	20 mc		12
SF63-02	5.25	4.20	3.50	SF63-03	8.00	6.40	5.40	inputs)	20 mc		6
SF100-02	22.20	17.70	15.00	SF100-03	22.20	17.70	15.00	Dual J-K	35 mcs	11	
SF101-02	20.40	16.25	13.75	SF101-03	20.40	16.25	13.75	Flip-Flop	35 mcs	6	
SF102-02	14.40	11.50	9.70	SF102-03	14.40	11.50	9.70	Separate	35 mcs		9
SF103-02	12.00	9.60	8.10	SF103-03	12.00	9.60	8.10	Clock	35 mcs		5
SF110-02	22.20	17.70	15.00	SF110-03	22.20	17.70	15.00	Dual J-K	35 mcs	11	
SF111-02	20.40	16.25	13.75	SF111-03	20.40	16.25	13.75	Flip-Flop	35 mcs	6	
SF112-02	14.40	11.50	9.70	SF112-03	14.40	11.50	9.70	Common	35 mcs		9
SF113-02	12.00	9.60	8.10	SF113-03	12.00	9.60	8.10	Clock	35 mcs		5
SF120-02	28.45	22.80	19.20	SF120-03	28.45	22.80	19.20	Dual J-K	50 mcs	11	
SF121-02	26.25	20.95	17.75	SF121-03	26.25	20.95	17.75	Flip-Flop	50 mcs	6	
SF122-02	18.50	14.80	12.50	SF122-03	18.50	14.80	12.50	Separate	50 mcs		9
SF123-02	15.45	12.30	10.40	SF123-03	15.45	12.30	10.40	Clock	50 mcs		5
SF130-02	28.45	22.80	19.20	SF130-03	28.45	22.80	19.20	Dual J-K	50 mcs	11	
SF131-02	26.25	20.95	17.75	SF131-03	26.25	20.95	17.75	Flip-Flop	50 mcs	6	
SF132-02	18.50	14.80	12.50	SF132-03	18.50	14.80	12.50	Common	50 mcs		9
SF133-02	15.45	12.30	10.40	SF133-03	15.45	12.30	10.40	Clock	50 mcs		5

SUHL II

Type Flat-Pack	1-24	25-99	100-249	Type Plug-In	1-24	25-99	100-249	Circuit	TPD (nsec)	Fan-Out Mil.	Fan-Out Ind.
SG200-02	19.00	15.15	12.85	SG200-03	19.00	15.15	12.85	Expandable	8	11	
SG201-02	17.50	14.00	11.85	SG201-03	17.50	14.00	11.85	Single 8 Input	8	6	
SG202-02	12.35	9.85	8.35	SG202-03	12.35	9.85	8.35	NAND/NOR	8		9
SG203-02	10.25	8.20	6.95	SG203-03	10.25	8.20	6.95	Gate	8		5
SG210-02	19.00	15.15	12.85	SG210-03	19.00	15.15	12.85	Expandable	7	11	
SG211-02	17.50	14.00	11.85	SG211-03	17.50	14.00	11.85	Dual 4	7	6	
SG212-02	12.35	9.85	8.35	SG212-03	12.35	9.85	8.35	Input	7		9
SG213-02	10.25	8.20	6.95	SG213-03	10.25	8.20	6.95	OR Gate	7		5
SG220-02	11.50	9.20	7.80	SG220-03	11.50	9.20	7.80	Quad 2	6	11	
SG221-02	10.50	8.40	7.10	SG221-03	10.50	8.40	7.10	Input	6	6	
SG222-02	5.70	4.85	3.80	SG222-03	6.05	4.85	7.10	NAND/NOR	6		9
SG223-02	4.50	3.60	3.00	SG223-03	5.00	4.00	3.35	Gate	6		5
SG230-02	8.70	6.95	5.90	SG230-03	8.70	6.95	5.90	Quad 2	2	11	
SG231-02	8.70	6.95	5.90	SG231-03	8.70	6.95	5.90	Input	2	6	
SG232-02	4.25	3.40	2.85	SG232-03	4.25	3.40	2.90	OR	2		9
SG233-02	3.40	2.70	2.25	SG233-03	4.25	3.40	2.90	Expander	2		5
SG240-02	11.50	9.20	7.80	SG240-03	11.50	9.20	7.80	Dual 4	6	11	
SG241-02	10.50	8.40	7.10	SG241-03	10.50	8.40	7.10	Input	6	6	
SG242-02	5.70	4.55	3.80	SG242-03	6.05	4.85	4.10	NAND/NOR	6		9
SG243-02	4.50	3.60	3.00	SG243-03	5.00	4.00	3.35	Gate	6		5
SG250-02	11.50	9.20	7.80	SG250-03	11.50	9.20	7.80	Expander	7.5	11	
SG251-02	10.50	8.40	7.10	SG251-03	10.50	8.40	7.10	Quad 2	7.5	6	
SG252-02	6.05	4.85	4.10	SG252-03	6.05	4.85	4.10	Input	7.5		9
SG253-02	4.95	3.95	3.30	SG253-03	5.00	4.00	3.35	OR Gate	7.5		5
SG260-02	11.50	9.20	7.80	SG260-03	11.50	9.20	7.80	Single 8	8	11	
SG261-02	10.50	8.40	7.10	SG261-03	10.50	8.40	7.10	Input	8	6	
SG262-02	5.70	4.55	3.80	SG262-03	6.05	4.85	4.10	NAND/NOR	8		9
SG263-02	4.50	3.60	3.00	SG263-03	5.00	4.00	3.35	Gate	8		5
SG270-02	8.70	6.95	5.90	SG270-03	8.70	6.95	5.90	Dual 4	2	11	
SG271-02	8.70	6.95	5.90	SG271-03	8.70	6.95	5.90	Input	2	6	
SG272-02	4.25	3.40	2.85	SG272-03	4.25	3.40	2.90	OR	2		9
SG273-02	3.40	2.70	2.25	SG273-03	4.25	3.40	2.90	Expander	2		5
SG280-02	10.85	8.70	7.45	SG280-03	10.85	8.70	7.45	Expandable	11	10	
SG281-02	9.95	8.00	6.80	SG281-03	9.95	8.00	6.80	Dual 4	11	5	
SG282-02	7.05	5.65	4.80	SG282-03	7.05	5.65	4.80	Input AND/	11		8
SG283-02	5.90	4.70	4.00	SG283-03	5.90	4.70	4.00	OR Gate	11		4
SG290-02	8.35	6.65	5.65	SG290-03	8.35	6.65	5.65	Dual 2 & 3	11	10	
SG291-02	8.35	6.65	5.65	SG291-03	8.35	6.65	5.65	Input AND/	11	5	
SG292-02	4.90	3.90	3.35	SG292-03	4.90	3.90	3.35	OR Expander	11		8
SG293-02	4.90	3.90	3.35	SG293-03	4.90	3.90	3.35		11		4
SG300-02	11.50	9.20	7.80	SG300-03	11.50	9.20	7.80	Expandable	7	11	
SG301-02	10.50	8.40	7.10	SG301-03	10.50	8.40	7.10	Triple 3-	7	6	
SG302-02	6.05	4.85	4.10	SG302-03	6.05	4.85	4.10	Input AND/	7		9
SG303-02	5.00	4.00	3.35	SG303-03	5.00	4.00	3.35	OR Gate	7		5
SG310-02	15.10	12.05	10.25	SG310-03	15.10	12.05	10.25	Expandable	7	11	
SG311-02	13.90	11.05	9.45	SG311-03	13.90	11.05	9.45	Dual 2-Input	7	6	
SG312-02	7.25	5.80	4.90	SG312-03	7.25	5.80	4.90	OR Gate	7		9
SG313-02	6.05	4.85	4.10	SG313-03	6.05	4.85	4.10		7		5
SF200-02	19.00	15.15	12.85	SF200-03	19.00	15.15	12.85	Single J-K	50 mcs	11	
SF201-02	17.50	14.00	11.85	SF201-03	17.50	14.00	11.85	Flip-Flop	50 mcs	6	
SF202-02	12.35	9.85	8.35	SF202-03	12.35	9.85	8.35	AND	50 mcs		9
SF203-02	10.25	8.20	6.95	SF203-03	10.25	8.20	6.95	Input	50 mcs		5
SF210-02	19.00	15.15	12.85	SF210-03	19.00	15.15	12.85	Single	50 mcs	11	
SF211-02	17.50	14.00	11.85	SF211-03	17.50	14.00	11.85	J-K	50 mcs	6	
SF212-02	12.35	9.85	8.35	SF212-03	12.35	9.85	8.35	Flip-Flop	50 mcs		9
SF213-02	10.25	8.20	6.95	SF213-03	10.25	8.20	6.95	OR Input	50 mcs		5
SF250-02	19.00	15.15	12.85	SF250-03	19.00	15.15	12.85	J-K Flip-	30 mcs	11	
SF251-02	17.50	14.00	11.25	SF251-03	17.50	14.00	11.85	Flop and	30 mcs	6	
SF252-02	12.35	9.85	8.35	SF252-03	12.35	9.85	8.35	Inputs	30 mcs		9
SF253-02	10.25	8.20	6.95	SF253-03	10.25	8.20	6.95		30 mcs		5
SF260-02	19.00	15.15	12.85	SF260-03	19.00	15.15	12.85	J-K Flip-	30 mcs	11	
SF261-02	17.50	14.00	11.85	SF261-03	17.50	14.00	11.85	Flop or	30 mcs	6	
SF262-02	12.35	9.85	8.35	SF262-03	12.35	9.85	8.35	Inputs	30 mcs		9
SF263-02	10.25	8.20	6.95	SF263-03	10.25	8.20	6.95		30 mcs		5

Sylvania Integrated Circuits

SM SERIES INTEGRATED CIRCUIT ARRAYS

Flat Pack	Plug In	Circuit	AVG. Pwr. (mw)	1-24	25-99	100-249
SM10-02	SM10-03	Full Adder	90	22.85	18.10	15.30
SM11-02	SM11-03		90	20.80	16.60	14.05
SM12-02	SM12-03		90	14.70	11.70	9.90
SM13-02	SM13-03		90	12.25	9.75	8.25
SM20-02	SM20-03	Dependent Carry Fast Adder	125	22.85	18.10	15.30
SM21-02	SM21-03		125	20.80	16.60	14.05
SM22-02	SM22-03		125	14.70	11.70	9.90
SM23-02	SM23-03		125	12.25	9.75	8.25
SM30-02	SM30-03	Independent Carry Fast Adder	125	22.85	18.10	15.30
SM31-02	SM31-03		125	20.80	16.60	14.05
SM32-02	SM32-03		125	14.70	11.70	9.90
SM33-02	SM33-03		125	12.25	9.75	8.25
SM40-02	SM40-03	Carry Decoder & Storage	25	17.35	13.85	11.75
SM41-02	SM41-03		25	17.35	13.85	11.75
SM42-02	SM42-03		25	10.20	8.15	6.90
SM43-02	SM43-03		25	10.20	8.15	6.90
SM60-02	SM60-03	4 Bit Register Bus Transformer Output and Storage	30/Bit	25.70	20.50	17.35
SM61-02	SM61-03		30/Bit	23.55	18.80	15.90
SM62-02	SM62-03		30/Bit	16.65	13.30	11.25
SM63-02	SM63-03		30/Bit	13.85	11.05	9.35
SM70-02	SM70-03	4 Bit Register Cascade Pull-up Register	30/Bit	25.70	20.50	17.35
SM71-02	SM71-03		30/Bit	23.55	18.80	15.90
SM72-02	SM72-03		30/Bit	16.65	13.30	11.25
SM73-02	SM73-03		30/Bit	13.85	11.05	9.35
SM80-02	SM80-03	16 Bit Scratch Pad Memory	250	73.35	58.50	50.00
SM81-02	SM81-03		250	62.35	49.75	42.50
SM82-02	SM82-03		250	51.35	40.95	35.00
SM83-02	SM83-03		250	36.70	29.25	25.00
SM90-02	SM90-03	Decade Divider	120	36.20	28.90	24.45
SM91-02	SM91-03		120	36.20	28.90	24.45
SM92-02	SM92-03		85	23.50	18.75	15.85
SM93-02	SM93-03		85	23.50	18.75	15.85

TTL INTEGRATED CIRCUITS — PLASTIC DUAL IN — LINE PLUG-IN PACK

Plug-in Type	Function	1-99	1000-4999
SF52P-03	J-K Flip-Flop	3.75	2.80
SF53P-03	AND	3.00	2.25
SF62P-03	J-K Flip-Flop	3.75	2.80
SF63P-03	OR Input	3.00	2.25
SF202P-03	Single 50 MHz	9.00	6.60
SF203P-03	J-K Flip-Flop AND Input	7.15	5.25
SF212P-03	Single 50 MHz	9.00	6.60
SF213P-03	Flip-Flop OR Input	7.15	5.25
SG42P-03	Dual 4-Input	2.30	1.75
SG43P-03	NAND/NOR Gate	1.85	1.40
SG52P-03	Expandable Quad	2.55	1.95
SG53P-03	2-Input OR Gate	2.10	1.55
SG62P-03	Single 8-Input	2.30	1.75
SG63P-03	NAND/NOR Gate	1.85	1.40
SG72P-03	Expandable Dual	4.50	3.35
SG73P-03	2-Input OR	3.75	2.80
SG102P-03	Expandable 3-In.	2.55	1.95
SG103P-03	OR Gate	2.10	1.55
SG112P-03	Expandable 4-In.	2.55	1.95
SG113P-03	OR Gate	2.10	1.55
SG132P-03	Dual 4-Input	5.35	3.95
SG133P-03	Line Lamp/Driver	4.60	3.40
SG142P-03	Quad 2-Input	2.30	1.75
SG143P-03	NAND/NOR Gate	1.85	1.40
SG152P-03	Quad 2-Input	1.60	1.20
SG153P-03	OR Expander	1.60	1.20
SG172P-03	Dual 4-Input	1.60	1.20
SG173P-03	OR Expander	1.60	1.20
SG192P-03	Triple 3-Input	2.30	1.75
SG193P-03	NAND/NOR Gate	1.85	1.40
SG212P-30	Expandable Dual	3.10	2.35
SG213P-03	4-Input OR Gate	2.40	1.85
SG222P-03	Quad 2-Input	2.80	2.10
SG223P-03	NAND/NOR Gate	2.25	1.70
SG232P-03	Quad 2-Input	1.60	1.20
SG233P-03	OR Expander	1.60	1.20
SG242P-03	Dual 4-Input	2.80	2.10
SG243P-03	NAND/NOR Gate	2.25	1.70
SG252P-03	Expandable Quad	3.10	2.35
SG253P-03	2-Input OR Gate	2.40	1.85
SG262P-03	Single 8-Input	2.80	2.10
SG263P-03	NAND/NOR Gate	2.25	1.70
SG272P-03	Dual 4-Input	1.60	1.20
SG273P-03	OR Expander	1.60	1.20
SG302P-03	Expandable Triple	3.90	2.90
SG303P-03	Input NAND/NOR Gate	3.10	2.30
SG312P-03	Expandable Dual Input	4.50	3.35
SG313P-03	Exclusive OR Gate	3.60	2.80

AMPLIFIERS

Type	Function	Au Pa mW	TPD Nsec	1-24	25-99	100-249
SA20	Wide Band video amplifier. Plug in pack only.	100 mcliner 20 db typ grain.		10.05	8.00	6.80
SA21	Wide Band video Arrays. Plug in pack only.			6.85	5.55	4.20
SA40				22.50	18.00	15.20
SA41	Operational			15.00	12.00	10.10
SA42	Amplifier			7.50	6.00	5.10
SA43				6.30	5.00	4.25

MIXING PRIVILEGES

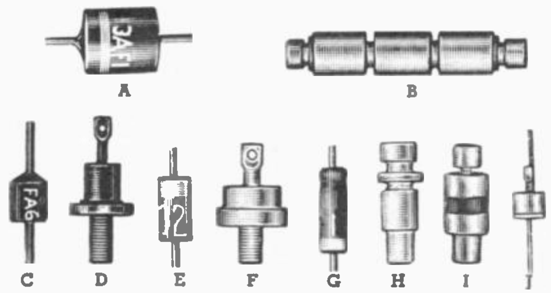
Pricing for mixed quantities of Integrated circuits; Price benefit given where single order consists of mixture of Integrated circuit types on the price list and in the same package. Types with-in the following groups may not be added to any other group in calculating price cut.

A: SA20, 21
B: Aand SF or SG prefixed types Except series SF100, SF110, SF120, SF130.
C: SM10, SM20, SM30, SM40 Series
D: SM90 Series
E: SM60 and SM70 Series
F: SM80 Series
G: SM100, SF110, SF120, SF130 Series.

NEWARKS' Semiconductor Listings are current as of August 15, 1968. New types are continually being added to NEWARKS' complete stock, and billing will be at those prices in effect at time of shipment. When ordering, supply type number along with desired manufacture for quickest and most efficient handling of your order from NEWARK —

YOUR ONE POINT SOURCE FOR ALL YOUR SEMICONDUCTOR NEEDS.

Sarkes-Tarzian Semiconductors



Silicon rectifiers for nigh temperature applications. All are now avalanche type. They provide "built in" protection against reverse transient overvoltage spikes. Use of avalanche type rectifiers eliminates need for protective components and circuitry normally used to protect standard rectifiers. Elimination of such crutch type components, reduces costs, saves space.

LOW CURRENT SILICON RECTIFIERS

Type	JEDEC	Fig.	Piv	Max. Dc/Amp.	1-24	25-99	100-up
10M	1N1081	I	100		.60	55	.51
30M	1N1083	I	300	1.0 amp @	.70	.61	.57
M 500	1N1084	I	400	55°C ambient	.75	.63	.59
60M	....	I	600		.85	.70	.66
F2	1N2482	C	200		.33	.29	.27
F4	1N2483	C	400	1.0 amp @	.35	30	.28
F6	1N2484	C	600	55°C ambient	.37	.32	.29
F8	....	C	800		.52	.44	.41
F10	....	C	1000		.79	67	.63
E1	1N4002	E	100		.33	29	.27
E2	1N4003	E	200		.33	.29	27
E4	1N4004	E	400	1.0 Amp	.35	.30	28
E6	1N4005	E	600	At	.37	.32	.29
E8	1N4006	E	800	55°C	.52	.44	.41
E10	1N4007	E	1000		.79	.67	.63
G1	....	G	100		.35	.30	.28
G2	....	G	200		.37	.32	29
G4	....	G	400		.43	.37	.35
G6	....	G	600	1.0 Amp	.47	.40	.37
G8	....	G	800	At	.62	.53	.49
G10	....	G	1000	55°C	.95	.82	.76
20C	1N2611	J	200		.37	.32	.29
60C	1N2615	J	600		.47	.40	.37
80C	....	J	800		.62	.53	.49
100C	....	J	1000		.95	.82	.76
10LA	1N1085A	H	100		3.24	2.86	2.66
20LA	1N1086A	H	200	2.0 amp @	4.00	3.43	3.20
40LA	1N1088A	H	400		5.35	4.67	4.27
3AF1	....	A	100		.60	.53	.49
3AF2	....	A	200	3.0 amp @	.65	.57	.53
3AF4	....	A	400	55°C ambient	.85	.72	.67
3AF6	....	A	600		1.25	1.07	1.00
120SM	1N1109	B	1200	425 amp	4.00	3.43	3.20
F15	....	C	1500	6 Amps 25°C	1.17	1.00	.93
F20	....	C	2000	4 Amps 25°C	1.50	1.29	1.20
F25	....	C	2500	4 Amps 25°C	2.00	1.72	1.60

MEDIUM CURRENT SILICON RECTIFIERS

Type	JEDC	Fig.	PIV	DC Max.	1-24	25-99	100-up
20H3P	1N1344	D	200	6	1.20	1.03	.96
40H3P	1N1346	D	400	6	1.50	1.29	1.20
60H3P	1N1348	D	600	6	2.12	1.82	1.69
ST260P	1N1206	D	600	12	2.34	2.00	1.86
ST410P	....	F	100	35	1.75	1.50	1.39
ST460P	1N1190	F	600	35	4.89	4.19	3.90
20J2	1N1622	....	200	10	2.80	2.40	2.24
40J2	1N1624	...	400	10	4.24	3.62	3.40
ST5A10P	....	F	100	50 Amp	3.25	2.78	2.60
ST5A20P	....	F	200	50 Amp	3.78	3.23	3.00
ST5A40P	....	F	400	50 Amp	5.28	4.52	4.20
ST5A60P	....	F	600	50 Amp	7.80	6.68	6.20

SILICON TUBE REPLACEMENT RECTIFIERS

Type	PIV	Replaces	1-24	25-99	100-Up
1N1237	1600	OZ4, 5X4, 5Y4, 6AX5, 6X5	5.25	4.69	4.13
1N1238	1600	5AU4, 5AW4, 5A24, 5T4, 5U4, 5Y3	5.25	4.69	4.13
S5130	10,400	5A4	9.65	8.65	7.78
1N2389	1600	5U4, 5AU4, 5AW4, 5AZ4, 5T4, 5Y3	5.25	4.69	4.13
S5343	7000	816, 836, 3B28	8.33	7.44	6.55
S5991	1600	5AU4, 4AW4, 5AZ4, 5T4, 5U4, 5Y3	3.50	3.00	2.52

HIGH VOLTAGE CARTRIDGE-TYPE SILICON RECTIFIERS

All units are encapsulated in epoxy sealed phenolic tubes, 3/8" diameter. Gold-plated leads 2" long, 032" diameter.

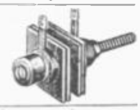
Type	Max. PIU	Max. DCMA	Length	1-24	25-99	100-499
HVC180	1800	250	9/16"	3.35	2.86	2.66
HVC240	2400	250	11/16"	3.60	3.08	2.87
HVC300	3000	200	3/4"	3.85	3.28	3.07
HVC400	4000	200	7/8"	4.00	3.44	3.20
HVC500	5000	200	1"	4.15	3.67	3.34
HVC600	6000	150	1 1/16"	4.55	3.92	3.66
HVC650	6500	150	1 3/16"	5.00	4.29	4.00
HVC750	7500	150	1 5/16"	5.40	4.64	4.34
HVC840	8400	100	1 3/8"	5.85	5.00	4.66
HVC1000	10000	100	1 3/4"	7.10	6.07	5.66
HVC1200	12000	75	1 15/16"	8.35	7.15	6.66
HVC1500	15000	75	2 5/16"	10.40	8.94	8.34

"CENTRE-KOOLED" SELENIUM RECTIFIERS

Featuring center cooling by means of spacers. Each spacer acts as an individual spring to guarantee constant assembly pressure. Higher leakage resistance assured by protective end plates of bakelite. Color coded for polarity identification. All rated at 130 volts. Av. wt., 6 oz.

Type	DC mA	Net
75	75	.81
100	100	1.02
150	150	1.02
200	200	1.26
300	300	1.32
400	400	1.68
500	500	1.74
10	0	54
50	50	70

KLIPVOLT SUPPRESSORS



Reduces transient voltages to as low a value as possible without changing circuit characteristics or adding excessive cost. S-594 has mounting stud on each end and others have single stud. Peak discharge current 2.5 amps.

Type	Max. Clamping Voltage	Rated RMS Volts	Klipvolt Overall Length*	1-9	10-99	100-up
S-488	170	70	1 1/8"	1.60	1.15	1.02
S-490	[illegible]40	140	1 3/8"	2.20	1.58	1.41
S-492	[illegible]10	210	1 11/16"	2.80	2.02	1.80
S-493	680	280	2"	3.35	2.44	2.18
S-594	1[illegible]30	490	3 3/16"	5.03	4.53	4.02

SINGLE PHASE BRIDGE RECTIFIERS

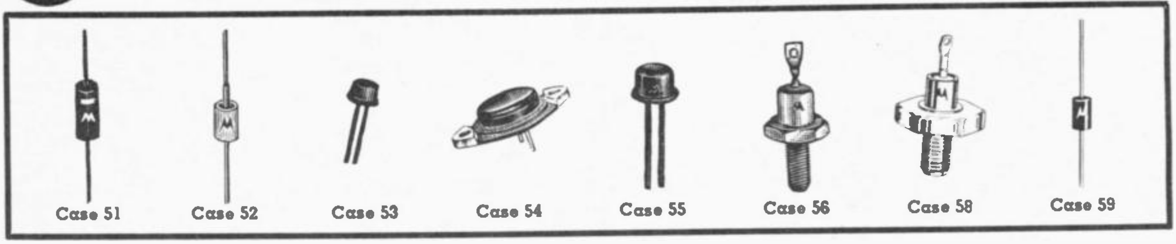
Compact efficient assemblies for quick easy installation in single phase full wave bridge applications. All offer the built-in transient protection advantage of avalanche characteristics. Ratings: 2.0 Z to 6A. 200 to 900 PIV. (Higher current and PIV ratings available on special request.)

Type	DC Output Current	Max. RMS Max. Piv.	1-24	25-99	100-Up
S-6211	2.0	200	2.12	1.82	1.69
S-6211-1	2.0	400	2.34	2.00	1.86
S-6211-2	2.0	600	2.56	2.19	2.04
S-6211-3	2.0	900	3.21	2.75	2.55
S-5959	2.5	200	1.94	1.66	1.54
S-5959-1	2.5	400	2.22	1.90	1.77
S-5959-2	2.5	600	2.44	2.09	1.94
S-5959-3	2.5	800	3.06	2.62	2.43
S-6121	6.0	100	4.01	3.43	3.19
S-6121-1	6.0	200	4.21	3.60	3.55

1 WATT ECONOMY LINE ZENER DIODES

Type	Fig.	Vz	Toler.	1-24	25-99	100-Up
VR6	E	6	±10%			
VR7	E	7	±10%			
VR8.5	E	8.5	±10%			
VR10	E	10	±10%			
VR12	E	12	±10%			
VR14	E	14	±10%			
VR18	E	18	±10%			
VR20	E	20	±10%			
VR24	E	24	±10%	.62	.53	.49
VR28	E	28	±10%			
VR33	E	33	±10%			
VR39	E	39	±10%			
VR47	E	47	±10%			
VR56	E	56	±10%			
VR67	E	67	±10%			
VR80	E	80	±10%			
VR90	E	90	±10%			
VR105	E	105	±10%			
VR110	E	110	±10%			
VR120	E	120	±10%			
VR130	E	130	±10%	.82	.70	.65
VR150	E	150	±10%			
VR160	E	160	±10%			
VR180	E	180	±10%			
VR200	E	200	±10%			

Motorola Zener Diodes



150 MILLIWATT DIFFUSED ZENER DIODES—Case 53

These types have 10% tolerance. For 5% tolerance add suffix A.

Type	Nominal Voltage Vz @ Izt Volts	Test Current Izt mA	Imped Zzt @ Izt Ohms Max	1-99	100-Mixed	100-999
1N1313	8.75	0.200	....			
1N1314	10.50	0.200	....			
1N1315	12.75	0.200	....			
1N1316	15.75	0.200	....	NO SUFFIX		
1N1317	19.00	0.200	....			
1N1318	23.50	0.200	....	3.10	2.70	2.35
1N1319	28.50	0.200	....			
1N1320	34.50	0.200	....			
1N1321	41.00	0.200	....	A SUFFIX		
1N1322	48.50	0.200	....			
1N1323	58.00	0.200	....			
1N1324	71.00	0.200	....	5.45	4.70	4.10
1N1325	87.50	0.200	....			
1N1326	105.00	0.200	....			
1N1327	127.50	0.200	....			

250 MILLIWATT LOW NOISE DIFFUSED ZENER DIODES—Case 51

Standard tolerance of 5%. Max noise density, Nd @ Izt = 40 microvolts per square root cycle.

Type	Nominal Voltage Vz @ Izt Volts	Test Current Izt mA	Imped Zzt @ Izt Ohms Max	1-99	100-Mixed	100-999
1N4099	6.8	0.250	200			
1N4100	7.5	0.250	200			
1N4101	8.2	0.250	200			
1N4102	8.7	0.250	200			
1N4103	9.1	0.250	200			
1N4104	10.	0.250	200			
1N4105	11	0.250	200			
1N4106	12	0.250	200			
1N4107	13	0.250	200			
1N4109	15	0.250	100			
1N4110	16	0.250	100			
1N4113	19	0.250	150	5.05	4.35	3.80
1N4114	20	0.250	150			
1N4115	22	0.250	150			
1N4117	25	0.250	150			
1N4121	33	0.250	200			
1N4123	39	0.250	200			
1N4124	43	0.250	250			
1N4125	47	0.250	250			
1N4129	62	0.250	500			
1N4130	68	0.250	700			
1N4131	75	0.250	700			
1N4132	82	0.250	800			
1N4135	100	0.250	1500			

250 MILLIWATT DIFFUSED ZENER DIODES—Case 51

Standard types supplied to min-max voltages shown; suffix "A" (with dash numbers) denotes 5% tolerance with varying voltages within the standard min-max voltages.

Type	Nominal Voltage Vz @ Izr Volts	Test Current Izr mA	Max Imped. Zzr @ Izr Ohms	1-99	100-999
1N702A-0	2.0	5.0	60		
1N702A-1	2.1	5.0	60		
1N702A-2	2.2	5.0	60		
1N702A-3	2.3	5.0	60		
1N702A-4	2.4	5.0	60		
1N702A-5	2.5	5.0	60		
1N702A-6	2.6	5.0	60		
1N702A-7	2.7	5.0	60		
1N702A-8	2.8	5.0	60		
1N702A-9	2.9	5.0	60	2.60	2.10
1N703A-0	3.0	5.0	55		
1N703A-1	3.1	5.0	55		
1N703A-2	3.2	5.0	55		
1N703A-3	3.3	5.0	55		
1N703A-4	3.4	5.0	55		
1N703A-5	3.5	5.0	55		
1N703A-6	3.6	5.0	55		
1N704A-0	3.7	5.0	45		
1N704A-1	3.8	5.0	45		
1N704A-2	3.9	5.0	45		

Continued next column

250 MILLIWATT DIFFUSED ZENER DIODES (CONT'D)

Type	Nominal Voltage Vz @ Izr Volts	Test Current Izr mA	Max Imped. Zzt @ Izt Ohms	1-99	100-999
1N704A-3	4.0	5.0	45		
1N704A-4	4.1	5.0	45		
1N704A-5	4.2	5.0	45		
1N705A-0	4.3	5.0	35		
1N705A-1	4.4	5.0	35		
1N705A-2	4.5	5.0	35		
1N705A-3	4.6	5.0	35		
1N705A-4	4.7	5.0	35		
1N705A-5	4.8	5.0	35		
1N705A-6	4.9	5.0	35		
1N705A-7	5.0	5.0	35		
1N705A-8	5.1	5.0	35		
1N706A-0	5.2	5.0	20		
1N706A-1	5.3	5.0	20		
1N706A-2	5.4	5.0	20		
1N706A-3	5.5	5.0	20	2.60	2.10
1N706A-4	5.6	5.0	20		
1N706A-5	5.7	5.0	20		
1N706A-6	5.8	5.0	20		
1N706A-7	5.9	5.0	20		
1N706A-8	6.0	5.0	20		
1N706A-9	6.1	5.0	20		
1N707A-0	6.2	5.0	10		
1N707A-1	6.3	5.0	10		
1N707A-2	6.4	5.0	10		
1N707A-3	6.5	5.0	10		
1N707A-4	6.6	5.0	10		
1N707A-5	6.7	5.0	10		
1N707A-6	6.8	5.0	10		
1N707A-7	7.1	5.0	10		
1N708	5.6	25	3.6		
1N709	6.2	25	4.1		
1N710	6.8	25	4.7		
1N711	7.5	25	5.3		
1N712	8.2	25	6.0		
1N713	9.1	12	7.0		
1N714	10	12	8.0		
1N715	11	12	9.0		
1N716	12	12	10		
1N717	13	12	11		
1N718	15	12	13		
1N719	16	12	15		
1N720	18	12	17	NO SUFFIX	
1N721	20	4.0	20		
1N722	22	4.0	24		
1N723	24	4.0	28		
1N724	27	4.0	35	1.85	1.50
1N725	30	4.0	42		
1N726	33	4.0	50		
1N727	36	4.0	60		
1N728	39	4.0	70		
1N729	43	4.0	84		
1N730	47	4.0	98	SUFFIX A	
1N731	51	4.0	115		
1N732	56	4.0	140		
1N733	62	2.0	170		
1N734	68	2.0	200	2.60	2.10
1N735	75	2.0	240		
1N736	82	2.0	280		
1N737	91	1.0	340		
1N738	100	1.0	400		
1N739	110	1.0	490		
1N740	120	1.0	570		
1N741	130	1.0	650		
1N742	150	1.0	860		
1N743	160	1.0	970		
1N744	180	1.0	1200		
1N745	200	1.0	1400		
1N761-1	4.5	10	40		
1N761-2	5.0	10	40		
1N762-1	5.5	10	18		
1N762-2	6.0	10	18	2.80	2.10
1N763-1	6.5	10	7.0		
1N762-2	7.0	10	7.0		
1N762-3	7.5	10	7.0		

Continued on next page

250 MILLIWATT DIFFUSED ZENER DIODES (CONT'D)

Type	Nominal Voltage Vz @ Izr Volts	Test Current Izr mA	Max. Imped. Zzr @ Izr Ohms	1-99	100-999
1N764-1	8.0	10.0	12		
1N764-2	8.5	10.0	12		
1N764-3	9.0	10.0	12		
1N764-4	9.5	10.0	12		
1N765-1	10.0	5.0	45		
1N765-2	11.0	5.0	45		
1N766-1	12.0	5.0	55		
1N766-2	13.0	5.0	55		
1N766-3	14.0	5.0	55		
1N767-1	15.0	5.0	70	2.80	2.10
1N767-2	16.0	5.0	70		
1N767-3	17.0	5.0	70		
1N768-1	18.0	5.0	100		
1N768-2	19.0	5.0	100		
1N768-3	20.0	5.0	100		
1N769-1	22.0	5.0	150		
1N769-2	24.0	5.0	150		
1N769-3	26.0	5.0	150		
1N769-4	28.0	5.0	150		

400 MILLIWATT ZENER DIODES—Case 51

Types 1N4370 thru 1N759 have 10% tolerance; add suffix A for 5% tolerance. Types 1N957 thru 1N992 have 20% tolerance; add suffix A for 10% tolerance; add suffix B for 5% tolerance. *Types available in 5% tolerance as Military and Meg-a-life II units.

Type	Nominal Voltage Vz @ Izt Volts	Test Current Izt mA	Imped. Zzt @ Izt Ohms max	1-99	100-Mix	100-999
1N4370	2.4	20.0	30.0			
1N4371	2.7	20.0	30.0			
1N4372	3.0	20.0	29.0			
1N746*	3.3	20.0	28.0	NO SUFFIX		
1N747*	3.6	20.0	24.0			
1N748*	3.9	20.0	23.0			
1N749*	4.3	20.0	22.0	2.00	1.50	1.70
1N750*	4.7	20.0	19.0			
1N751*	5.1	20.0	17.0			
1N752*	5.6	20.0	11.0	"A" SUFFIX		
1N753*	6.2	20.0	7.0			
1N754*	6.8	20.0	5.0			
1N755*	7.5	20.0	6.0			
1N756*	8.2	20.0	8.0	2.75	2.35	2.05
1N757*	9.1	20.0	10.0			
1N758*	10	20.0	17.0			
1N759*	12	20.0	30.0			
1N957	6.8	18.5	4.5			
1N958	7.5	16.5	5.5			
1N959	8.2	15.0	6.5			
1N960	9.1	14.0	7.5			
1N961	10	12.5	8.5			
1N962*	11	11.5	9.5			
1N963*	12	10.5	11.5			
1N964*	13	9.5	13.0			
1N965*	15	8.5	16.0			
1N966*	16	7.8	17.0			
1N967*	18	7.0	21.0	NO SUFFIX		
1N968*	20	6.2	25.0			
1N969*	22	5.6	29.0			
1N970*	24	5.2	33.0	2.15	1.85	1.60
1N971*	27	4.6	41.0			
1N972*	30	4.2	49.0			
1N973*	33	3.8	58.0			
1N974*	36	3.4	70.0	"A" SUFFIX		
1N975*	39	3.2	80.0			
1N976*	43	3.0	93.0			
1N977*	47	2.7	105.0	2.35	2.00	1.75
1N978*	51	2.5	125.0			
1N979*	56	2.2	150.0			
1N980*	62	2.0	185.0			
1N981*	68	1.8	230.0	"B" SUFFIX		
1N982*	75	1.7	270.0			
1N983*	82	1.5	330.0			
1N984*	91	1.4	400.0	2.95	2.55	2.20
1N985*	100	1.3	500.0			
1N986*	110	1.1	750.0			
1N987*	120	1.0	900.0			
1N988*	130	0.95	1100.0			
1N989*	150	0.85	1500.0			
1N990*	160	0.80	1700.0			
1N991*	180	0.68	2200.0			
1N992*	200	0.65	2500.0			

500 MILLIWATT ZENER DIODES—Case 51

The JEDEC type numbers shown indicate a tolerance of 20% with guaranteed limits on Vz, Ir, and Vf. Units with guaranteed limits on Vz, Ir, Zzt, Zzx, and TC are indicated by suffix "A" for 10% tolerance and suffix "B" for 5% tolerance.

Type	Nominal Voltage Vz @ Izt Volts	Test Current Izt mA	Imped. Zzt @ Izt Ohms max	1-24	25-99	100-249
1N5221	2.4	20.0	30.0			
1N5222	2.5	20.0	30.0			
1N5223	2.7	20.0	30.0			
1N5224	2.8	20.0	30.0			
1N5225	3.0	20.0	29.0			
1N5226	3.3	20.0	28.0			
1N5227	3.6	20.0	24.0			
1N5228	3.9	20.0	23.0			
1N5229	4.3	20.0	22.0			
1N5230	4.7	20.0	19.0			
1N5231	5.1	20.0	17.0			
1N5232	5.6	20.0	11.0			
1N5233	6.0	20.0	7.0			
1N5234	6.2	20.0	7.0			
1N5235	6.8	20.0	5.0			
1N5236	7.5	20.0	6.0			
1N5237	8.2	20.0	8.0			
1N5238	8.7	20.0	8.0			
1N5239	9.1	20.0	10.0			
1N5240	10.0	20.0	17.0			
1N5241	11.0	20.0	22.0			
1N5242	12.0	20.0	30.0			
1N5243	13.0	9.5	13.0	NO SUFFIX		
1N5244	14.0	9.0	15.0			
1N5245	15.0	8.5	16.0			
1N5246	16.0	7.8	17.0	.67	.60	.45
1N5247	17.0	7.4	19.0			
1N5248	18.0	7.0	21.0			
1N5249	19.0	6.6	23.0			
1N5250	20.0	6.2	25.0			
1N5251	22.0	5.6	29.0	"A" SUFFIX		
1N5252	24.0	5.2	33.0			
1N5253	25.0	5.0	35.0			
1N5254	27.0	4.6	41.0	.90	.80	.60
1N5255	28.0	4.5	44.0			
1N5256	30.0	4.2	49.0			
1N5257	33.0	3.8	58.0			
1N5258	36.0	3.4	70.0	"B" SUFFIX		
1N5259	39.0	3.2	80.0			
1N5260	43.0	3.0	93.0			
1N5261	47.0	2.7	105.0			
1N5262	51.0	2.5	125.0	1.05	.93	.70
1N5263	56.0	2.2	150.0			
1N5264	60.0	2.1	170.0			
1N5265	62.0	2.0	185.0			
1N5266	68.0	1.8	230.0			
1N5267	75.0	1.7	270.0			
1N5268	82.0	1.5	330.0			
1N5269	87.0	1.4	370.0			
1N5270	91.0	1.4	400.0			
1N5271	100.0	1.3	500.0			
1N5272	110.0	1.1	750.0			
1N5273	120.0	1.0	900.0			
1N5274	130.0	0.95	1100.0			
1N5275	140.0	0.90	1300.0			
1N5276	150.0	0.85	1500.0			
1N5277	160.0	0.80	1700.0			
1N5278	170.0	0.74	1900.0			
1N5279	180.0	0.68	2200.0			
1N5280	190.0	0.66	2400.0			
1N5281	200.0	0.65	2500.0			

1 WATT ZENER DIODES—Case 52

Standard types are 10% tolerance; suffix "A" denotes 5% tolerance.

Type	Nominal Voltage Vz @ Izr Volts	Test Current Izr mA	1-99	100-Up
1N1507	3.9	35.0		
1N1508	4.7	30.0		
1N1509	5.6	26.0		
1N1510	6.8	22.0	NO SUFFIX	
1N1511	8.2	18.0		
1N1512	10.0	15.0		
1N1513	12.0	12.0	2.95	2.20
1N1514	15.0	10.0		
1N1515	18.0	8.0		
1N1516	22.0	6.0	"A" SUFFIX	
1N1517	27.0	5.0		
1N1518	3.9	50.0	3.65	2.75
1N1519	4.7	40.0		
1N1520	5.6	35.0		
1N1521	6.8	30.0		

Continued on next page.

Motorola Zener Diodes

1 WATT ZENER DIODES (CONT'D)

Type	Nominal Voltage Vz @ Izr Volts	Test Current Izr mA	1-99	100-999
1N1522	8.2	25	NO SUFFIX 2.80; "A" SUFFIX 3.20	2.10; 2.40
1N1523	10.0	20		
1N1524	12.0	15		
1N1525	15.0	13		
1N1526	18.0	10		
1N1527	22.0	9.0		
1N1528	27.0	7.0		
1N1765	5.6	100		
1N1766	6.2	100		
1N1767	6.8	100		
1N1768	7.5	100		
1N1769	8.2	100		
1N1770	9.1	50		
1N1771	10	50		
1N1772	11	50		
1N1773	12	50		
1N1774	13	50		
1N1775	15	50		
1N1776	16	50		
1N1777	18	50		
1N1778	20	15		
1N1779	22	15		
1N1780	24	15		
1N1781	27	15		
1N1782	30	15	NO SUFFIX 3.05; "A" SUFFIX 4.00	2.30; 3.00
1N1783	33	15		
1N1784	36	15		
1N1785	39	15		
1N1786	43	15		
1N1787	47	15		
1N1788	51	15		
1N1789	56	15		
1N1790	62	5.0		
1N1791	68	5.0		
1N1792	75	5.0		
1N1793	82	5.0		
1N1794	91	5.0		
1N1795	100	5.0		
1N1796	110	5.0	NO SUFFIX 5.10; "A" SUFFIX 7.80	3.85; 5.85
1N1797	120	5.0		
1N1798	130	5.0		
1N1799	150	5.0		
1N1800	160	5.0		
1N1801	180	5.0		
1N1802	200	5.0		

Standard types are supplied to min-max voltages shown; types with dash number are 5% tolerance with varying nominal voltages.

Type	Nominal Voltage Vz @ Izr Volts	Test Current Izr mA	1-99	100-999
1N2032-1	4.5	10	4.00	3.00
1N2032-2	5.0	10		
1N2033-1	5.5	10		
1N2033-2	6.0	10		
1N2034-1	6.5	10		
1N2034-2	7.0	10		
1N2034-3	7.5	10		
1N2035-1	8.0	10		
1N2035-2	8.5	10		
1N2035-3	9.0	10		
1N2035-4	9.5	10		
1N2036-1	10.0	5.0		
1N2036-2	11.0	5.0		
1N2037-1	12.0	5.0		
1N2037-2	13.0	5.0		
1N2037-3	14.0	5.0		
1N2038-1	15.0	5.0		
1N2038-2	16.0	5.0		
1N2038-3	17.0	5.0		
1N2039-1	18.0	5.0		
1N2039-2	19.0	5.0		
1N2039-3	20.0	5.0		
1N2040-1	22.0	5.0		
1N2040-2	24.0	5.0		
1N2040-3	26.0	5.0		

All prices are current as of August 15, 1968.
For latest prices on Motorola Semiconductors, contact NEWARK'S Industrial Dept.

ORDERING INFORMATION

Specify tolerance desired by adding proper suffix to type number. When reverse polarity is desired, add "R" suffix to type number. For Meg-a-life II, level 1, add ML1 suffix; Meg-a-life II, level 2, add ML2 suffix; Meg-a-life II level 3, add ML3 to type number.

1 WATT SURMETIC ZENER DIODES—Case 59

Standard types are 10% tolerance; suffix A denotes 5% tolerance.

Type	Nominal Voltage Vz @ Izt Volts	Test Current Izt mA	Imped. Zzt @ Izt Ohms max	1-99	100-Mix	100-999
1N4728	3.3	76	10	NO SUFFIX 1.26; "A" SUFFIX 1.93	1.09; 1.66	.95; 1.45
1N4729	3.6	69	10			
1N4730	3.9	64	9.0			
1N4731	4.3	58	9.0			
1N4732	4.7	53	8.0			
1N4733	5.1	49	7.0			
1N4734	5.6	45	5.0			
1N4735	6.2	41	2.0			
1N4736	6.8	37	3.5			
1N4737	7.5	34	4.0			
1N4738	8.2	31	4.5			
1N4739	9.1	28	5.0			
1N4740	10	25	7.0			
1N4741	11	23	8.0			
1N4742	12	21	9.0			
1N4743	13	19	10			
1N4744	15	17	14			
1N4745	16	15.5	16			
1N4746	18	14	20			
1N4747	20	12.5	22			
1N4748	22	11.5	23			
1N4749	24	10.5	25			
1N4750	27	9.5	35			
1N4751	30	8.5	40			
1N4752	33	7.5	45			
1N4753	36	7.0	50			
1N4754	39	6.5	60			
1N4755	43	6.0	70			
1N4756	47	5.5	80			
1N4757	51	5.0	95			
1N4758	56	4.5	110			
1N4759	62	4.0	125			
1N4760	68	3.7	150			
1N4761	75	3.3	175			
1N4762	82	3.0	200			
1N4763	91	2.8	250			
1N4764	100	2.5	350			

1 WATT DIFFUSED ZENER DIODES—Case 52

Standard types are 10% tolerance; suffix A denotes 5% tolerance.

*Types available as Military and Meg-a-life II units. Types 1N3016 thru 1N3051 have standard tolerances of 20%; suffix A denotes 10% tolerance; suffix B denotes 5% tolerance. Reverse polarity types available—add suffix "R" to type number.

1N3821*	3.3	76	10	NO SUFFIX 2.10; "A" SUFFIX 2.65	1.85; 2.30	1.60; 2.00
1N3822*	3.6	69	10			
1N3823*	3.9	64	9.0			
1N3824*	4.3	58	9.0			
1N3825*	4.7	53	8.0			
1N3826*	5.1	49	7.0			
1N3827*	5.6	45	5.0			
1N3828*	6.2	41	2.0			
1N3829	6.8	37	1.5			
1N3830	7.5	34	1.5			
1N3016*	6.8	37	3.5	NO SUFFIX 2.85; "A" SUFFIX 3.20; "B" SUFFIX 3.70	2.45; 2.75; 3.20	2.15; 2.40; 2.80
1N3017*	7.5	34	4.0			
1N3018*	8.2	31	4.5			
1N3019*	9.1	28	5.0			
1N3020*	10	25	7.0			
1N3021*	11	23	8.0			
1N3022*	12	21	9.0			
1N3023*	13	19	10			
1N3024*	15	17	14			
1N3025*	16	15.5	16			
1N3026*	18	14.0	20			
1N3027*	20	12.5	22			
1N3028*	22	11.5	23			
1N3029*	24	10.5	25			
1N3030*	27	9.5	35			
1N3031*	30	8.5	40			
1N3032*	33	7.5	45			
1N3033*	36	7.0	50			
1N3034*	39	6.5	60			
1N3035*	43	6.0	70			
1N3036*	47	5.5	80			
1N3037*	51	5.0	95			
1N3038*	56	4.5	110			
1N3039*	62	4.0	125			
1N3040*	68	3.7	150			

Motorola Zener Diodes

1 WATT DIFFUSED ZENER DIODES (CONT'D)

Type	Nom. V. Vz@Izt Volts	Current Izt mA	Imped. Zzt@Izt Ohms	1-99	100-MIX	100-999
				NO SUFFIX		
1N3041*	75	3.3	175	2.85	2.45	2.15
1N3042*	82	3	200	"A" SUFFIX		
1N3043*	91	2.8	250	3.20	2.75	2.40
1N3044*	100	2.5	350	"B" SUFFIX		
				3.70	3.20	2.80
1N3045*	110	2.3	450	NO SUFFIX		
1N3046*	120	2	550	2.95	2.55	2.20
1N3047*	130	1.9	700			
1N3048*	150	1.7	1000	"A" SUFFIX		
1N3049*	160	1.6	1100	3.25	2.80	2.45
1N3050*	180	1.4	1200	"B" SUFFIX		
1N3051*	200	1.2	1500	4.65	4.05	3.50

*Also available in MIL types.

1.5 WATT DIFFUSED ZENER DIODES—Case 55

Standard tolerances of 20%; add "A" suffixe for 10% tolerance; ance. For reverse polarity add suffix "R".

Type	Nom. V. Vz@Izt Volts	Current Izt mA	Imped. Zzt@Izt Ohms	1-99	100-MIX	100-999
1N3785	6.8	55	2.7			
1N3786*	7.5	50	3	NO SUFFIX		
1N3787*	8.2	46	3.5			
1N3789*	10	37	5	3.75	3.20	2.80
1N3790*	11	34	6			
1N3791*	12	31	7			
1N3792*	13	29	8	"A" SUFFIX		
1N3793	15	25	10			
1N3795	18	21	13	5.30	4.60	4.00
1N3796	20	19	15			
1N3797*	22	17	16			
1N3798	24	16	17	"B" SUFFIX		
1N3799	27	14	20			
1N3800*	30	12	25	6.95	6.00	5.25
1N3803*	39	10	40			

10 WATT DIFFUSED ZENER DIODES—Case 56

Standard types are 10% tolerance; suffix "A" denotes 5% tolerance. Standard polarity is Cathode-to-base. For reverse polarity add suffix "R".

Type	Nominal Voltage Vz@Izr Volts	Test Current Izr mA	Max Imped. Zzt@Izt Ohms	1-99	100-999
1N1588	3.9	150	2.9		
1N1589	4.7	125	2.5	NO SUFFIX	
1N1590	5.6	110	1.9		
1N1591	6.8	100	0.87	4.10	3.10
1N1592	8.2	80	0.60		
1N1593	10	70	1.05		
1N1594	12	50	2.2	"A" SUFFIX	
1N1595	15	40	5.1		
1N1596	18	35	8.0		
1N1597	22	30	12	4.90	3.70
1N1598	27	25	18		
1N1599	3.9	500	0.96		
1N1600	4.7	400	0.85	NO SUFFIX	
1N1601	5.6	350	0.55		
1N1602	6.8	300	0.28		
1N1603	8.2	250	0.36	6.50	4.90
1N1604	10	200	0.78		
1N1605	12	170	1.12		
1N1606	15	140	1.90	"A" SUFFIX	
1N1607	18	110	2.60		
1N1608	22	90	3.9	8.50	6.40
1N1609	27	70	6.6		
1N1803	5.6	1000	1		
1N1804	6.2	1000	1		
1N1805	6.8	1000	1		
1N1806	7.5	1000	1		
1N1807	8.2	1000	1		
1N1808	9.1	500	1		
1N1351	10	500	2	NO SUFFIX	
1N1352	11	500	2		
1N1353	12	500	2		
1N1354	13	500	2		
1N1355	15	500	2	6.20	4.65
1N1356	16	500	3		
1N1357	18	150	3		
1N1358	20	150	3		
1N1359	22	150	3	"A" SUFFIX	
1N1360	24	150	3		
1N1361	27	150	3		
1N1362	30	150	4	7.85	5.90
1N1363	33	150	4		
1N1364	36	150	5		
1N1365	39	150	5		
1N1366	43	150	6		
1N1367	47	150	7		
1N1368	51	150	8		
1N1369	56	150	9		

Continued, next column

10 WATT DIFFUSED ZENER DIODES (CONT'D)

Type	Nominal Voltage Vz@Izr Volts	Test Current Izr mA	Max. Imped. Zzt@Izt Ohms	1-99	100-MIX	100-999
1N1370	62	50	12			
1N1371	68	50	14	NO SUFFIX		
1N1372	75	50	20			
1N1373	82	50	22			
1N1374	91	50	35	6.20	5.35	4.65
1N1375	100	50	40			
1N1809	110	50	47			
1N1810	120	50	56	"A" SUFFIX		
1N1811	130	50	65			
1N1812	150	50	82			
1N1813	160	50	93	7.85	6.80	5.90
1N1814	180	50	115			
1N1815	200	50	140			
1N2041-1	4.5	1000	1			
1N2041-2	5	1000	1			
1N2042-1	5.5	1000	0.7			
1N2042-2	6	1000	0.7			
1N2043-1	6.5	1000	0.8			
1N2043-2	7	1000	0.8			
1N2043-3	7.5	1000	0.8			
1N2044-1	8	1000	0.8			
1N2044-2	8.5	1000	0.8			
1N2044-3	9	1000	0.8			
1N2044-4	9.5	1000	0.8			
1N2045-1	10	500	1.5			
1N2045-2	11	500	1.5	7.60	......	5.70
1N2046-1	12	500	2			
1N2046-2	13	500	2			
1N2046-3	14	500	2			
1N2047-1	15	500	3			
1N2047-2	16	500	3			
1N2047-3	17	500	3			
1N2048-1	18	500	3			
1N2048-2	19	500	3			
1N2048-3	20	500	3			
1N2049-1	22	150	8			
1N2049-2	24	150	8			
1N2049-3	26	150	8			
1N2049-4	28	150	8			

Standard types are 10% tolerance; suffix "A" denotes 5% tolerance. Suffix "C" denotes 10% clipper; suffix "CA" denotes 5% clipper. For reverse polarity add suffix "R".

Type	Nominal Voltage Vz@Izr Volts	Test Current Izr mA	Max Imped. Zzt@Izt Ohms	1-99	100-MIX	100-999
1N2498	10	500	2			
1N2499	11	500	2	7.60	....	5.70
1N2500	12	500	2			
1N1816	13	500	2			
1N1817	15	500	2			
1N1818	16	500	3			
1N1819	18	500	3			
1N1820	20	250	3			
1N1821	22	250	3	NO SUFFIX		
1N1822	24	250	3			
1N1823	27	250	3			
1N1824	30	250	4			
1N1825	33	150	4	6.20	5.35	4.65
1N1826	36	150	5			
1N1827	39	150	5			
1N1828	43	150	6			
1N1829	47	150	7	"A" SUFFIX		
1N1830	51	150	8			
1N1831	56	150	9			
1N1832	62	50	12			
1N1833	68	50	14	7.85	6.80	5.90
1N1834	75	50	20			
1N1835	82	50	22			
1N1836	91	50	35			
1N2008	100	50	40	NO SUFFIX		
1N2009	110	50	47	6.00		4.50
1N2010	120	50	56	"A" SUFFIX		
1N2011	130	50	65			
1N2012	150	50	82	7.50		5.65

Standard types are 10% tolerance; suffix "A" denotes 5% tolerance. Reverse polarity types available—add suffix "R" to type number.

1N3993*	3.9	640	2	NO SUFFIX		
1N3994*	4.3	580	1.5			
1N3995*	4.7	530	1.2	5.65	4.90	4.25
1N3996*	5.1	490	1.1			
1N3997*	5.6	445	1	"A" SUFFIX		
1N3998*	6.2	405	1.1			
1N3999*	6.8	370	1.2	7.70	6.65	5.80
1N4000*	7.5	335	1.3			

*Meg-a-life and military types available.

Continued, next page

Motorola Zener and Reference Diodes

10 WATT DIFFUSED ZENER DIODES (CONT'D)

Standard tolerances of 5, 10, and 20% available. No suffix is 20%, "A" suffix is 10%, and "B" suffix is 5% tolerance. Reverse polarity types available.

Type	Nominal Voltage Vz @ Izr Volts	Test Current Izr mA	Max Imped. Zzr @ Izr Ohms	1-99	100-Mix	100-999
1N2970*	6.8	370	1.2			
1N2973*	9.1	275	2.0			
1N2974*	10	250	3.0			
1N2975*	11	230	3.0			
1N2976*	12	210	3.0		NO SUFFIX	
1N2977*	13	190	3.0			
1N2978	14	180	3.0			
1N2979*	15	170	3.0			
1N2981	17	145	4.0	5.45	4.70	4.10
1N2982*	18	140	4.0			
1N2983	19	130	4.0			
1N2984*	20	125	4.0			
1N2985*	22	115	5.0			
1N2986*	24	105	5.0			
1N2987	25	100	6.0		"A" SUFFIX	
1N2988*	27	95	7.0			
1N2989*	30	85	8.0			
1N2991*	36	70	10			
1N2992*	39	65	11	5.85	5.05	4.40
1N2995*	47	55	14			
1N2996	50	50	15			
1N2998	52	50	15			
1N3001*	68	37	18		"B" SUFFIX	
1N3002*	75	33	22			
1N3003*	82	30	25			
1N3004*	91	28	35			
1N3005*	100	25	40	7.30	6.30	5.50
1N3006	105	25	45			
1N3007*	110	23	55			
1N3011*	150	17	175			

* Military and Meg-a-life units available.

50 WATT DIFFUSED ZENER DIODES—Case 54 & 58

Standard tolerances of 5, 10, and 20% available. No suffix is 20%, "A" suffix is 10%, and "B" suffix is 5%. Reverse polarity types available—add "R" suffix to type number.

* Military and Meg-a-life units available.

Case 54 Type	Case 58 Type	Nominal Voltage Vz @ Izr Volts	Test Current Izr mA	1-99	100-Mix	100-999
1N4557	1N4549	3.9	3200			
1N4558	1N4550	4.3	2900		No Suffix	
1N4559	1N4551	4.7	2650	6.05	5.25	4.55
1N4560	1N4552	5.1	2450		"A" Suffix	
1N4561	1N4553	5.6	2250	8.00	6.90	6.00
1N4562	1N4554	6.2	2000		"B" Suffix	
1N4563	1N4555	6.8	1850	11.50	9.95	8.65
1N4564	1N4556	7.5	1650			
1N2804*	1N3305	6.8	1850			
1N2805*	1N3306	7.5	1700			
1N2806*	1N3307	8.2	1500			
1N2807*	1N3308	9.1	1370			
1N2808*	1N3309	10	1200			
1N2809*	1N3310	11	1100			
1N2810*	1N3311	12	1000			
1N2811*	1N3312	13	960			
1N2812	1N3313	14	890		NO SUFFIX	
1N2813*	1N3314	15	830			
1N2814*	1N3315	16	780	5.65	4.90	4.25
1N2815	1N3316	17	740			
1N2816*	1N3317	18	700			
1N2817	1N3318	19	660		"A" SUFFIX	
1N2818*	1N3319	20	630			
1N2819*	1N3320	22	570			
1N2820*	1N3321	24	520	7.65	6.60	5.75
1N2821	1N3322	25	500			
1N2822*	1N3323	27	460			
1N2823*	1N3324	30	420		"B" SUFFIX	
1N2824*	1N3325	33	380			
1N2825*	1N3326	36	350			
1N2826*	1N3327	39	320	10.65	9.20	8.00
1N2827*	1N3328	43	290			
1N2828	1N3329	45	280			
1N2829*	1N3330	47	270			
1N2830	1N3331	50	250			
1N2831*	1N3332	51	245			
....	1N3333	52	240			
1N2832*	1N3334	56	220			

*5% tolerances available as MIL and Meg-A-Life II units.

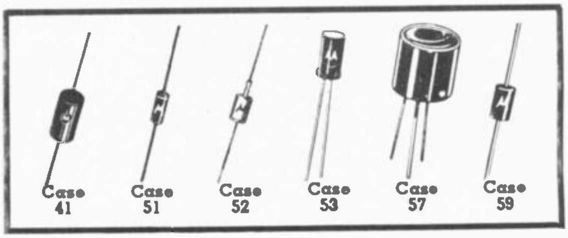
Continued next column

50 WATT ZENER DIODES (CONT'D)

Case 54 Type	Case 58 Type	Nominal Voltage Vz @ Izr Volts	Test Current Izr mA	1-99	100-Mix	100-999
1N2833*	1N3335	62	200		No Suffix	
1N2834*	1N3336	68	180	5.65	4.90	4.25
1N2835*	1N3337	75	170		"A" Suffix	
1N2836*	1N3338	82	150	7.65	6.60	5.75
1N2837*	1N3339	91	140		"B" Suffix	
1N2838*	1N3340	100	120	10.65	9.20	8.00
1N2839	1N3341	105	120			
1N2840*	1N3342	110	110		No Suffix	
1N2841*	1N3343	120	100	6.80	5.85	5.10
1N2842*	1N3344	130	95			
....	1N3345	140	90		"A" Suffix	
1N2843*	1N3346	150	85	11.30	9.75	8.50
1N2844*	1N3347	160	80			
....	1N3348	175	70		"B" Suffix	
1N2845*	1N3349	180	68	17.95	15.50	13.50
1N2846*	1N3350	200	65			

*5% tolerances available as MIL and Meg-A-Life II units.

SILICON TEMPERATURE ZENER REFERENCE DIODES



400 MILLIWATT—Case 51

For low-level applications requiring zener currents of 0.5, 1.0, 2.0, and 4.0 mA.

Type	ΔVz Volts Max	@ Test Temperature °C	1-99	100-Mix	100-999
0.5 mA			**Vz=6.4 Volts**		
1N4565	0.048	0, +25	8.65	7.45	6.50
1N4566	0.024	+75	11.70	10.10	8.80
1N4565A	0.099	—55, 0,	9.70	8.40	7.30
1N4566A	0.050	+25, +75 +100	13.05	11.25	9.80
1.0 mA			**Vz=6.4 Volts**		
1N4570	0.048	0, +25	5.85	5.05	4.40
1N4571	0.024	+75	7.30	6.30	5.50
1N4572	0.010		13.25	11.45	9.95
1N4570A	0.099	—55, 0,	6.50	5.65	4.90
1N4571A	0.050	+25, +75,	8.10	7.00	6.10
1N4572A	0.020	+100	14.75	12.75	11.10
2.0 mA			**Vz=6.4 Volts**		
1N4575	0.048	0, +25	3.00	2.60	2.25
1N4576	0.024	+75	3.65	3.15	2.75
1N4577	0.010		6.60	5.70	4.95
1N4575A	0.099	—55, 0,	3.30	2.85	2.50
1N4576A	0.050	+25, +75,	4.05	3.50	3.05
1N4577A	0.020	+100	7.30	6.30	5.50
4.0 mA			**Vz=6.4 Volts**		
1N4580	0.048	0, +25,	3.00	2.60	2.25
1N4581	0.024		3.65	3.15	2.75
1N4582	0.010	+75	6.60	5.70	4.95
1N4580A	0.099	—55,0,	3.30	2.85	2.50
1N4581A	0.050	+25, +75,	4.05	3.50	3.05
1N4582A	0.020	+100	7.30	6.30	5.50

400 MILLIWATT—Case 51

For application requiring zener current of 7.5 mA

7.5 mA Vz=6.2 Volts

Type	ΔVz Volts Max	@ Test Temperature °C	1-25	25-99	100-Mix	100-999
1N821*	0.096		2.75	2.35	2.10	1.90
1N823*	0.048	—55, 0,	3.60	3.10	2.75	2.50
1N825*	0.019	+25, +75	5.80	5.00	4.40	4.00
1N827*	0.009	+100	10.85	9.35	8.25	7.50
1N829*	0.005		16.30	14.05	12.35	11.25
1N821A	0.096		3.05	2.60	2.30	2.10
1N823A	0.048	—55, 0,	3.90	3.35	2.95	2.70
1N825A	0.019	+25, +75,	6.50	5.60	4.95	4.50
1N827A	0.009	+100	13.05	11.25	9.90	9.00
1N829A	0.005		19.55	16.85	14.85	13.50

Motorola Zener Reference Diodes

500 MILLIWATT—Case 51

7.5 mA. Vz=9.0 Volts.

Type	ΔVz Volts Max	Test @ Temperature °C	1-24	25-99	100-MIX	100-999
1N935	0.067	0, +25, +75	2.30	2.00	1.75	1.60
1N936	0.033		2.75	2.35	2.10	1.90
1N937	0.013		5.35	4.60	4.05	3.70
1N938	0.006		6.95	6.00	5.30	4.80
1N939	0.003		18.00	15.50	13.65	12.40
1N935A	0.139	—55, 0, +25, +75, +100	2.60	2.25	2.00	1.80
1N936A	0.069		3.55	3.05	2.70	2.45
1N937A	0.027		6.15	5.30	4.65	4.25
1N938A	0.013		7.55	6.50	5.70	5.20
1N939A	0.007		25.35	21.85	19.25	17.50
1N935B*	0.184	—55, 0, +25, +75, +100, +150	3.55	3.05	2.70	2.45
1N936B	0.092		4.20	3.60	3.20	2.90
1N937B*	0.037		7.10	6.10	5.40	4.90
1N938B*	0.018		10.00	8.60	7.60	6.90
1N939B*	0.009		27.35	23.55	20.75	18.85
7.5 mA. Vz=11.7 Volts						
1N941	0.088	0, +25, +75	3.20	2.75	2.40	2.20
1N942	0.044		3.50	3.00	2.65	2.40
1N943	0.018		6.90	5.95	5.20	4.75
1N944	0.099		10.15	8.75	7.70	7.00
1N941A	0.181	—55, 0, +25, +75, +100	3.40	2.90	2.55	2.34
1N942A	0.090		4.35	3.75	3.30	3.00
1N944A	0.018		13.05	11.25	9.90	9.00

750 MILLIWATT—DO-13

10 mA. Vz=9.3 Volts

Type	ΔVz Volts Max	Test Temperature °C	1-99	100-999	100-Mix
1N2620	0.070	0, +25, +75	4.10	3.55	3.05
1N2621	0.035		4.60	3.95	3.45
1N2622	0.014		7.60	6.55	5.70
1N2623	0.007		8.80	7.60	6.60
1N2624	0.003		22.00	19.00	16.55

750 MILLIWATT (CONT'D)

10 mA. Vz=9.4 Volts

Type	ΔVz Volts Max	Test Temperature °C	1-99	100-999	100-Mix
1N2620A	0.144	—55, 0, +25, +75, +100	4.35	3.25	3.75
1N2163	0.033	0, +25, +70	3.30	2.85	2.50
1N2163A	0.033		3.45	3.00	2.60
1N2166	0.007		6.80	5.85	5.10
1N2166A	0.007		8.10	7.00	6.10
1N2164	0.086	—55, 0, +25, +75, +125	4.50	3.90	3.40
1N2164A	0.086		5.50	4.75	4.15
1N2167	0.017		8.65	7.45	6.50
1N2167A	0.017		11.05	9.55	8.30

MOLDED ASSEMBLY REFERENCE DIODES

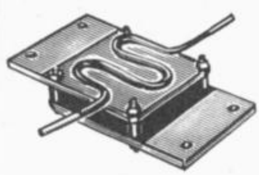
Izt=7.5 mA. *Available as military units.

Type	Case	Zener Voltage Vz 5% Volts	1-99	100-Mix	100-999
1N429*	53	6.2	5.45	4.70	4.10
1N2767	41-7	20.4	9.05	7.80	6.80

FORWARD REFERENCE DIODES

Type	Maximum Ratings: Pd mW	Ta °C	Tj Tstg °C	1-99	100-999
DO-7					
1N816	400	50	175	.33	.25
Case 59 — Surmetic					
MR2360	1000	75	175	.28	.19
MR2361	1000	75	175	.57	.38

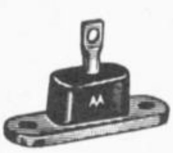
SILICON RECTIFIERS



Bus-Bar Mount Water Cooled

Stud, Braid Suffix: SB

Flat-Mount, Braid Suffix: FB



Flat-Mount (A), Lug Suffix: FL

Stud, Lug Suffix: SL

Flat-Mount (B), Lug Suffix: FL

Case 42 D0-5

Case 43 D0-21

HIGH CURRENT

50 AMPERE RECTIFIERS

Flat-mount with solid lug terminal Case 100. (FL)

Type	$V_{RM(rep)}$ Volts	$I_{R(AV)}$ mA (150°C)	1-24	25-99	100-Up
MR1200	50	10	3.20	2.90	2.40
MR1201	100	10	4.10	3.70	3.10
MR1202	150	10	5.60	5.05	4.20
MR1203	200	10	5.60	5.05	4.20
MR1204	250	10	6.40	5.75	4.80
MR1205	300	10	6.40	5.75	4.80

80 AMPERE RECTIFIERS

Stud-mount with flexable braided Case 102. (SB & SL)

Type	$V_{RM(rep)}$ Volts	$I_{R(AV)}$ mA (150°C)	1-24	25-99	100-Up
MR1210	50	15	4.80	4.30	3.60
MR1211	100	15	5.65	5.10	4.25
MR1212	150	15	7.00	6.30	5.25
MR1213	200	15	7.00	6.30	5.25
MR1214	250	15	8.15	7.40	6.15
MR1215	300	15	8.15	7.40	6.15

MEDIUM CURRENT

15 AMPERE RECTIFIERS—Case 42 (DO-5)

Type	Vrm (rep) Volts	Forward Current: Io Amps	Ifm(surge) Amps	1-99	100-Up
1N3208	50	15	250	1.10	.75
1N3209	100	15	250	1.25	.85
1N3210	200	15	250	1.70	1.15
1N3211	300	15	250	2.30	1.55
1N3212	400	15	250	2.55	1.70

25 AMPERE RECTIFIERS—Case 43 (DO-21)

Forward Current

Type	Vrm (rep) Volts	Forward Current: Io Amps	Ifm(surge) Amps	1-99	100-999	1000-Up
1N3491	50	25	300	.67	.45	.40
1N3492	100	25	300	.76	.51	.46
1N3493	200	25	300	1.11	.74	.67
1N3494	300	25	300	1.27	.85	.76
1N3495	400	25	300	1.48	.99	.89
MR327	500	25	300	2.40	1.60	1.45
MR328	600	25	300	3.35	2.25	2.00
MR330	800	25	300	6.75	4.50	4.05
MR331	1000	25	300	9.75	6.50	5.85

20 AMPERE RECTIFIERS—Case 42 (DO-5)

Type	Vrm (rep) Volts	Io Amps	Ifm(surge) Amps	1-99	100-Up
1N248B	50	20	350	1.50	1.00
1N248C	55	20	350	1.55	1.05
1N249B	100	20	350	1.65	1.10
1N249C	110	20	350	1.95	1.30
1N250B	200	20	350	2.40	1.60
1N250C	220	20	350	2.70	1.80
1N1191	50	20	350	1.35	.90
1N1192	100	20	350	1.50	1.05
1N1193	150	20	350	1.80	1.20
1N1194	200	20	350	2.60	1.75
1N1195	300	20	350	3.80	2.55

Continued on next page

Motorola Rectifiers

MEDIUM CURRENT

20 AMPERE RECTIFIERS (CONT'D)—Case 42 (DO-5)

Type	Vrm(rep) Volts	Forward Current Io Amps	Forward Current Ifm(surge) Amps	1-99	100-Up
1N1195A	300	20	350	3.95	2.65
1N1196	400	20	350	4.35	2.90
1N1196A	400	20	350	4.70	3.15
1N1197	500	20	350	5.55	3.70
1N1197A	500	20	350	5.70	3.85
1N1198	600	20	350	6.75	4.50
1N1198A	600	20	350	7.05	4.70
1N3213	500	20	350	3.45	2.30
1N3214	600	20	350	3.90	2.60

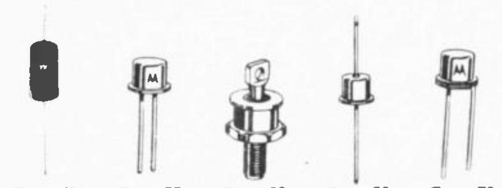
25 AMPERE RECTIFIERS—Case 43 (DO-21)

Type	Vrm(rep) Volts	Io Amps	Ifm(surge) Amps	1-99	100-Up
1N3659	50	25	400	.90	.60
1N3660	100	25	400	.99	.66
1N3661	200	25	400	1.33	.89
1N3662	300	25	400	1.48	.99
1N3663	400	25	400	1.70	1.14
MR2261	10	25	300	.19	.13
MR2262	20	25	300	.25	.17
MR2263	30	25	300	.30	.20
MR2264	40	25	300	.37	.25
MR2265	50	25	300	.54	.36

35 AMPERE RECTIFIERS—Case 42 (DO-5)

Type	Vrm(rep) Volts	Io Amps	Ifm(surge) Amps	1-99	100-Up
1N1183	50	35	400	1.80	1.20
1N1184	100	35	400	2.10	1.40
1N1185	150	35	400	2.60	1.75
1N1186	200	35	400	3.15	2.10
1N1187	300	35	400	4.65	3.10
1N1188	400	35	400	5.25	3.50
1N1189	500	35	400	6.00	4.00
1N1190	600	35	400	6.75	4.50

LOW CURRENT



Case 41 Case 55 Case 56 Case 60 Case 70

0.1 TO 0.07 AMPERE RECTIFIERS

Type	Case	Forward Current Io Amps	Forward Current Ifm(surge) Amps	1-99	100-Up
1N3282	DO-7	0.1	2.5	2.45	1.65
1N3283	DO-7	0.1	2.5	3.05	2.05
1N3284	DO-7	0.1	2.5	7.95	5.30
1N3285	DO-7	0.1	2.5	10.05	6.70
1N1730	Case 41	0.2	2.5	4.85	3.25
1N1731	Case 41	0.2	2.5	6.00	4.00
1N1732	Case 41	0.2	2.5	6.75	4.50
1N1733	Case 41	0.15	2.5	7.80	5.20
1N1734	Case 41	.10	2.5	11.60	7.75

0.25 AMPERE RECTIFIERS

Type	Case	Io Amps	Ifm(surge) Amps	1-99	100-Up
MR990	Case 59	0.250	15	1.42	.95
MR991	Case 59	0.250	15	2.10	1.40
MR992	Case 59	0.250	15	4.95	3.30
MR993	Case 59	0.250	15	6.60	4.40
MR994	Case 59	0.250	15	7.85	5.25

1.5 AMPERE RECTIFIERS

Type	Case	Io Amps	Ifm(surge) Amps	1-99	100-Up
1N1563	Case 55	0.3	70	1.57	1.05
1N1563A	Case 55	0.3	70	1.80	1.20
1N1564	Case 55	0.3	70	1.72	1.15
1N1564A	Case 55	0.3	70	2.02	1.35
1N1565	Case 55	0.3	70	1.87	1.25
1N1565A	Case 55	0.3	70	2.30	1.55
1N1566	Case 55	0.3	70	2.02	1.35
1N1566A	Case 55	0.3	70	2.70	1.80
1N1567	Case 55	0.3	70	2.30	1.55
1N1567A	Case 55	0.3	70	3.15	2.10
1N1568	Case 55	0.3	70	3.60	2.40
1N1568A	Case 55	0.3	70	4 65	3 10

1 AMPERE RECTIFIERS

Type	Case	Forward Current Io Amps	Forward Current Ifm(surge) Amps	1-99	100-Up
1N4001	Case 59	1.0	30	.45	.30
1N4002	Case 59	1.0	30	.49	.33
1N4003	Case 59	1.0	30	.60	.40
1N4004	Case 59	1.0	30	.67	.45
1N4005	Case 59	1.0	30	.81	.54
1N4006	Case 59	1.0	30	1.12	.75
1N4007	Case 59	1.0	30	1.80	1.20
1N3611*	Case 59	1.0	10	1.49	.99
1N3612*	Case 59	1.0	10	1.95	1.30
1N3613*	Case 59	1.0	10	2.70	1.85
MR2273	Case 59	1.0	30	.48	.32
MR2272	Case 59	1.0	30	.57	.38
MR2266	Case 59	1.0	30	1.08	.72

*Available in Military JAN types only.

3 AMPERE RECTIFIERS

Type	Case	Io Amps	Ifm(surge) Amps	1-99	100-Up
1N4719/MR1030A	Case 60	3.0	300	.66	.44
1N4720/MR1031A	Case 60	3.0	300	.73	.49
1N4721/MR1032A	Case 60	3.0	300	.82	.55
1N4721/MR1033A	Case 60	3.0	300	.93	.62
1N4722/MR1034A	Case 60	3.0	300	1.12	.75
1N4722/MR1035A	Case 60	3.0	300	1.32	.88
1N4723/MR1036A	Case 60	3.0	300	1.50	1.00
1N4724/MR1038A	Case 60	3.0	300	4.10	2.75
1N4725/MR1040A	Case 60	3.0	300	6.35	4.25

Reverse polarity types available—add "R" suffix

12 AMPERE RECTIFIERS

Type	Case	Io Amps	Ifm(surge) Amps	1-99	100-Up
MR1120	DO-4	12.0	300	1.03	.69
MR1121	DO-4	12.0	300	1.15	.77
MR1122	DO-4	12.0	300	1.32	.88
MR1123	DO-4	12.0	300	1.48	.99
MR1124	DO-4	12.0	300	1.65	1.10
MR1125	DO-4	12.0	300	2.02	1.35
MR1126	DO-4	12.0	300	2.45	1.65
MR1128	DO-4	12.0	300	5.60	3.75
MR1130	DO-4	12.0	300	7.85	5.25

Reverse polarity types available—add "R" suffix

FAST SWITCHING POWER RECTIFIERS

Case 42 DO-5 Case 52 DO-13 Case 59

0.75 AMPERE SWITCHING RECTIFIER

Type	Case	Vrm(rep) Volts	Forward Current Io Amps	Forward Current Ifm(surge) Amps	1-99	100-Up
MR810	Case 59	50	0.75	30	.67	.45
MR811	Case 59	100	0.75	30	.75	.50
MR812	Case 59	200	0.75	30	.97	.65
MR814	Case 59	400	0.75	30	1.27	.85
MR816	Case 59	600	0.75	30	2.40	1.60
MR2271	Case 59	300	0.75	30	1.68	1.12
MR1337-1	DO-13	50	0.75	30	3.35	2.25
MR1337-2	DO-13	100	0.75	30	4.95	3.30
MR1337-3	DO-13	200	0.75	30	6.75	4.50
MR1337-4	DO-13	300	0.75	30	9.00	6.00
MR1337-5	DO-13	400	0.75	30	12.00	8.00

1 AMPERE SWITCHING RECTIFIERS

Type	Case	Vrm(rep) Volts	Io Amps	Ifm(surge) Amps	1-99	100-Up
1N4933	Case 59	50	1.0	30	1.12	.75
1N4934	Case 59	100	1.0	30	1.42	.95
1N4935	Case 59	200	1.0	30	1.65	1.10
1N4936	Case 59	400	1.0	30	2.45	1.65
1N4937	Case 59	600	1.0	30	3.90	2.60

3 AMPERE SWITCHING RECTIFIERS

Type	Case	Vrm(rep) Volts	Io Amps	Ifm(surge) Amps	1-99	100-Up
MR830	Case 60	50	3.0	100	2.40	1.60
MR831	Case 60	100	3.0	100	2.75	1.85
MR832	Case 60	200	3.0	100	3.35	2.25
MR834	Case 60	400	3.0	100	5.60	3.75
MR836	Case 60	600	3.0	100	9.35	6.25
MR840	Case 60	50	3.0	100	1.27	.85
MR841	Case 60	100	3.0	100	1.42	.95
MR842	Case 60	200	3.0	100	1.80	1.20
MR844	Case 60	400	3.0	100	2.55	1.70
MR846	Case 60	600	3.0	100	5.60	3.75

FAST SWITCHING POWER RECTIFIERS (CONT'D)

6 AMPERE RECTIFIERS

Type	Case	Vrm (rep) Volts	Forward Current Io Amps	Ifm (surge) Amps	1-99	100-Up
1N3879	DO-4	50	6.0	75	4.20	2.80
1N3880	DO-4	100	6.0	75	4.65	3.10
1N3881	DO-4	200	6.0	75	6.60	4.40
1N3882	DO-4	300	6.0	75	9.90	6.60
1N3883	DO-4	400	6.0	75	13.65	9.10

Reverse polarity types available—add suffix "R".

12 AMPERE RECTIFIERS

1N3889	DO-4	50	12	150	5.00	3.35
1N3890	DO-4	100	12	150	5.40	3.60
1N3891	DO-4	200	12	150	7.80	5.20
1N3892	DO-4	300	12	150	11.70	7.80
1N3893	DO-4	400	12	150	17.25	11.50
MR1376	DO-4	600	12	150	25.10	16.75
MR880	DO-4	50	12	200	2.10	1.40
MR881	DO-4	100	12	200	2.45	1.65
MR882	DO-4	200	12	200	3.30	2.20
MR884	DO-4	400	12	200	6.90	4.60
MR886	DO-4	600	12	200	8.70	5.80

Reverse polarity types available—add suffix "R".

20 AMPERE RECTIFIERS

1N3899	DO-5	50	20	225	6.30	4.20
1N3900	DO-5	100	20	225	6.90	4.65
1N3901	DO-5	200	20	225	9.60	6.45
1N3902	DO-5	300	20	225	14.85	9.90
1N3903	DO-5	400	20	225	22.35	14.90

Reverse polarity types available—add suffix "R".

30 AMPERE RECTIFIERS

13909	DO-5	50	30	330	8.90	5.95
1N3910	DO-5	100	30	330	9.60	6.45
1N3911	DO-5	200	30	330	12.60	8.45
1N3912	DO-5	300	30	330	18.45	12.30
1N3913	DO-5	400	30	330	27.60	18.40
MR890	DO-5	50	30	350	3.75	2.50
MR891	DO-5	100	30	350	4.20	2.80
MR892	DO-5	200	30	350	5.15	3.45
MR894	DO-5	400	30	350	10.35	6.90
MR896	DO-5	600	30	350	14.95	9.95

Reverse polarity types available—add suffix "R".

GERMANIUM RECTIFIERS—DO-13

Type	Vrm (rep) Volts	Forward Current Io Amps	If (surge) Amps	1-99	100-Up
IN91	100	1.0	30	.90	.60
IN92	200	1.0	30	1.95	1.30
IN93	300	1.0	30	2.70	1.80

RECTIFIER HANDY LAB KIT MODEL MRK-200

84 first-quality rectifiers and molded bridges in ratings needed for lab and benchwork; 0.25 to 35 A; 200 to 3000 V.

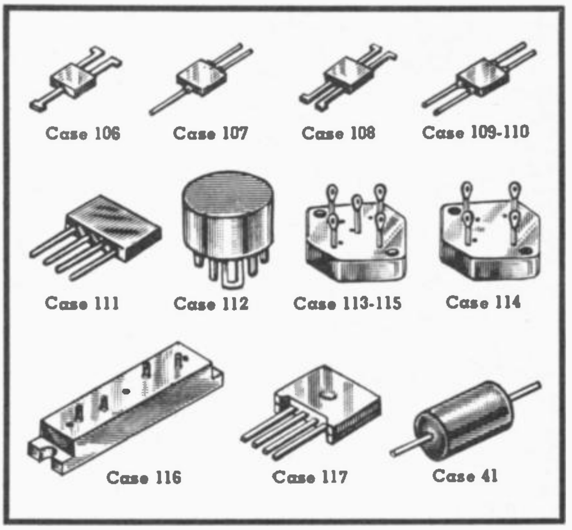
Total rectifier value 234.10
Value of Styrene cabinet 3.00
Total value 237.10
MRK-200. Your cost 94.50
YOU SAVE 142.60

TRANSIENT SUPPRESSORS

Pd = 350 W max @ Tc = 25°C, Tj = 175°C
Ir (max) @ Vr = Vcp (pk) = 50 uA

Type No.	Electrical Characteristics (Tc=25°C) Nominal Operating Voltage	Max Clamping Factor	Maximum Zener Voltage Pulse Width=1.0ms Vdc	Adc	1-24	25-99	100-Up
MPZ5-16A	14	1.5	24	200	46.80	40.30	36.00
MPZ5-16B	14	1.25	20	200	52.00	44.80	40.00
MPZ5-32A	28	1.56	50	100	39.00	33.60	30.00
MPZ5-32B	28	1.4	45	100	46.80	40.30	36.00
MPZ5-32C	28	1.25	40	100	52.00	44.80	40.00
MPZ5-180A	165	1.39	250	20	48.75	42.00	37.50
MPZ5-180B	165	1.25	225	20	58.50	50.40	45.00
MPZ5-180C	165	1.14	205	20	65.00	56.00	50.00

CIRCUIT ASSEMBLIES



MIDA RECTIFIER BRIDGE ASSEMBLIES

Ifm (rep) = 5.0 Amps. Ifm (surge) = 32 Amps.

Type	Case	Vrm (rep) Volts	1-24	25-99	100-999
Single-Phase Full-Wave Bridge					
MDA920-1		25	1.42	1.26	.95
MDA920-2		50	1.69	1.50	1.13
MDA920-3	108	100	1.95	1.73	1.30
MDA920-4	109*	200	2.30	2.05	1.55
MDA920-5		300	2.40	2.10	1.60
MDA920-6		400	2.45	2.20	1.65
MDA920-7		600	3.20	2.85	2.15
* Round leads. To order add suffix "A".					
Singel-Phase Voltage Doubler					
MDA930-1		25	.82	.73	.55
MDA930-2		50	.90	.80	.60
MDA930-3	106	100	.97	.86	.65
MDA930-4	107*	200	1.14	1.01	.76
MDA930-5		300	1.21	1.08	.81
MDA930-6		400	1.27	1.13	.85
MDA930-7		600	1.65	1.46	1.10
* Round leads. To order add suffix "A".					
Single-Phase Center Tap Common Anode					
MDA940-1		25	.82	.73	.55
MDA940-2		50	.90	.80	.60
MDA940-3	106	100	.97	.86	.65
MDA940-4	107*	200	1.14	1.01	.76
MDA940-5		300	1.21	1.08	.81
MDA940-6		400	1.27	1.13	.85
MDA940-7		600	1.65	1.46	1.10
* Round leads. To order add suffix "A".					
Single-Phase Center Tap Common Cathode					
MDA950-1		25	.82	.73	.55
MDA950-2		50	.90	.80	.60
MDA950-3	106	100	.97	.86	.65
MDA950-4		200	1.14	1.01	.76
MDA950-5	107*	300	1.21	1.08	.81
MDA950-6		400	1.27	1.13	.85
MDA950-7		600	1.65	1.46	1.10
* Round leads. To order add suffix "A".					
Single-Phase Full-Wave Bridge					
MDA960-1		50	2.90	2.55	1.95
MDA960-2	117	100	3.35	2.95	2.25
MDA960-3		200	3.75	3.30	2.50
Single-Phase Full-Wave Bridge					
MDA970-1		50	3.20	2.90	2.15
MDA970-2	117	100	3.65	3.30	2.45
MDA970-3		200	4.10	3.70	2.75

ORDERING INFORMATION

Suffix designations: "R" — Reverse polarity
"A" — Round leads

Motorola Rectifiers and Thyristors

MOLDED RECTIFIER BRIDGE ASSEMBLIES

Ifm (rep) = 6.0 Amps. Ifm (surge) = 25Amps

Type	Case	VRM(rep) Volts	1-24	25-99	100 999
MDA942-1		50	2.35	2.10	1.75
MDA942-2		100	2.65	2.40	2.00
MDA942-3	110	200	2.95	2.65	2.20
MDA942-4		300	3.20	2.90	2.40
MDA942-5		400	3.45	3.10	2.60
MDA942-6		600	4.50	4.10	3.40

Add suffix "A" for types available for printed circuit insertion without solder lugs. Slightly higher price.

Ifm (rep) = 35 Amps Ifm (surge) = 150 Amps

Type	Case	VRM(rep) Volts	1-24	25-99	100 999
MDA952-1		50	3.25	2.95	2.45
MDA952-2		100	3.50	3.20	2.65
MDA952-3	113	200	4.45	4.00	3.35
MDA952-4		300	4.90	4.45	3.70
MDA952-5		400	6.00	5.40	4.50
MDA952-6		600	7.30	6.80	5.50

Ifm (rep) = 60 Amps Ifm (surge) = 250 Amps

Type	Case	VRM(rep) Volts	1-24	25-99	100 999
MDA962-1		50	3.65	3.30	2.75
MDA962-2		100	3.90	3.55	2.95
MDA962-3	114	200	4.85	4.40	3.65
MDA962-4		300	5.30	4.80	4.00
MDA962-5		400	6.40	5.75	4.80

Ifm (rep) = 60 Amps Ifm (surge) = 250 Amps

Type	Case	VRM(rep) Volts	1-24	25-99	100 999
MDA972-1		50	9.65	8.70	7.25
MDA972-2		100	10.25	9.25	7.70
MDA972-3	116	200	11.45	10.30	8.60
MDA972-4		300	12.55	11.35	9.45
MDA972-5		400	13.75	12.40	10.35

Ifm (rep) = 6.0 Amps Ifm (surge) = 25 Amps

Type	Case	VRM(rep) Volts	1-24	25-99	100 999
MDA1491-1		50	2.11	1.92	1.60
MDA1491-2		100	2.39	2.16	1.80
MDA1491-3	112	200	2.66	2.40	2.00
MDA1491-4		300	2.82	2.64	2.20
MDA1491-5		400	3.12	2.82	2.35
MDA1491-6		600	4.12	3.72	3.10

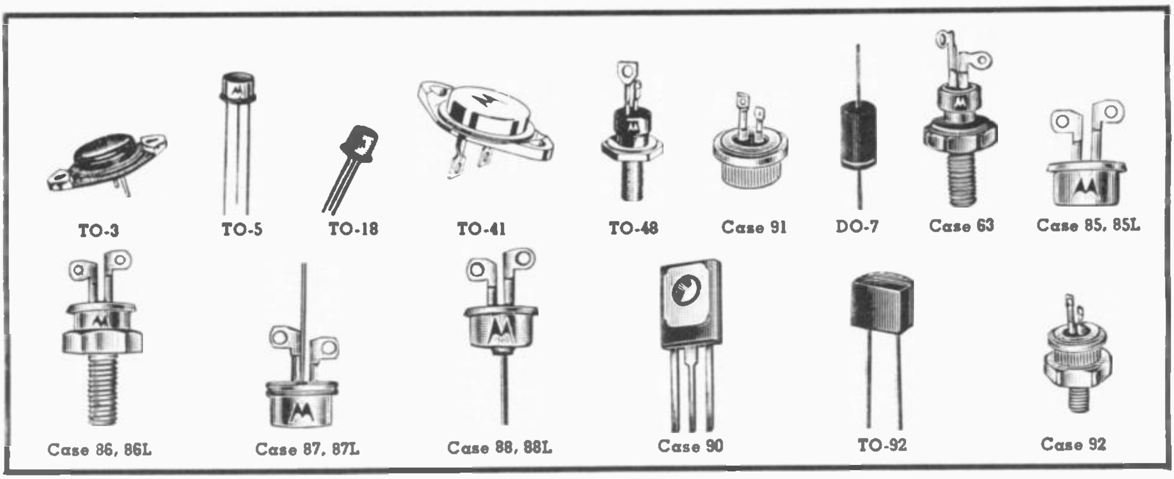
Ifm (rep) = 25 Amps Ifm (surge) = 100 Amps

Type	Case	VRM(rep) Volts	1-24	25-99	100 999
MDA1591-1		50	2.66	2.40	2.00
MDA1591-2		100	2.82	2.64	2.20
MDA1591-3	113	200	3.62	3.18	2.65
MDA1591-4		300	3.92	3.54	2.95
MDA1591-5		400	4.52	4.08	3.40
MDA1591-6		600	5.65	5.10	4.25

Ifm (rep) = 45 Amps Ifm (surge) = 200 Amp

Type	Case	VRM(rep) Volts	1-24	25-99	100 999
MDA1505-1		50	5.65	5.10	4.25
MDA1505-2		100	6.05	5.45	4.55
MDA1505-3	115	200	7.32	6.80	5.50
MDA1505-4		300	7.91	7.15	5.95
MDA1505-5		400	9.30	8.40	7.00
MDA1505-6		600	10.45	9.42	7.85

THYRISTORS



LOW CURRENT

If = 800 mA; Ifm (surge) = 6.0 Amps; Tj = 125°C; Available in TO-92 package.

Type	Vfxm or Vfom and Vrxm or Vrom Volts	Forward "On" Voltage Volts Max VF	@ Amp If (peak)	1-99	100 999
2N5060	30	1.7	1.0	.77	.51
2N5061	60	1.7	1.0	.83	.55
2N5062	100	1.7	1.0	.96	.64
2N5063	150	1.7	1.0	1.09	.85

If = 1.6 Amps; Ifm (surge) = 15 Amps; Tj = 125°C; Available in TO-5 package.

Type	Vfxm or Vfom and Vrxm or Vrom Volts	Forward "On" Voltage Volts Max VF	@ Amp If (peak)	1-99	100 999
2N1595	50	2.0	1.0	2.15	1.45
2N1596	100	2.0	1.0	2.60	1.75
2N1597	200	2.0	1.0	4.95	3.30
2N1598	300	2.0	1.0	8.60	5.75
2N1599	400	2.0	1.0	12.35	8.25
2N2322	25	1.5	1.0	2.30	1.55
2N2323	50	1.5	1.0	2.85	1.90
2N2324	100	1.5	1.0	3.75	2.50
2N2325	150	1.5	1.0	4.95	3.30
2N2326	200	1.5	1.0	5.40	3.60
2N4212	25	1.5	1.0	2.15	1.45
2N4213	50	1.5	1.0	2.60	1.75
2N4214	100	1.5	1.0	3.30	2.20

Continued next column

LOW CURRENT (CONT'D)

Type	Vfxm or Vfom and Vrxm or Vrom Amp	Forward "On" Voltage Volts Max VF	@ Amp If (peak)	1-99	100 999
2N4215	150	1.5	1.0	4.50	3.00
2N4216	200	1.5	1.0	4.95	3.30
MCR1906-1*	25	1.75	1.0	1.57	1.05
MCR1906-2*	50	1.75	1.0	1.65	1.10
MCR1906-3*	100	1.75	1.0	1.87	1.25
MCR1906-4*	200	1.75	1.0	1.98	1.35

*Tj = 100°C.

If = 8.0 Amps; Ifm (surge) = 80 Amps; Tj = 100°C; Available in Case 90.

Type	Vfxm or Vfom and Vrxm or Vrom Amp	Forward "On" Voltage Volts Max VF	@ Amp If (peak)	1-99	100 999
2N4441	50	1.5	5.0	1.20	.80
2N4442	200	1.5	5.0	1.50	1.00
2N4443	400	1.5	5.0	2.00	1.35
2N4444	600	1.5	5.0	4.50	3.00

If = 8.0 Amps; Ifm (surge) = 100 Amps; Tj = 100°C, Available in case 85 and 85L (extended leads instead of lugs).

Case 85 Type No.	Case 85L Type No.	Vfxm or Vrom V	1-99	100-999
2N4151	2N4159	25	1.45	1.05
2N4152	2N4160	50	1.60	1.10
2N4153	2N4161	100	1.75	1.25
2N4154	2N4162	200	1.95	1.35
2N4155	2N4163	300	2.40	1.60
2N4156	2N4164	400	2.80	1.85
2N4157	2N4165	500	5.00	3.35
2N4158	2N4166	600	6.75	4.50

Motorola Thyristors

LOW CURRENT (Cont'd)

If = 8.0 Amps; Ifm (surge) = 100 Amps; Tj = 100°C; Available in case 86 and 86L (extended leads).

Case 86 Type No.	Case 86L Type No.	Vfxm or Vfom	1-99	100-999
2N4167	2N4175	25	1.60	1.20
2N4168	2N4176	50	1.75	1.25
2N4169	2N4177	100	1.90	1.40
2N4170	2N4178	200	2.10	1.50
2N4171	2N4179	300	2.55	1.75
2N4172	2N4180	400	2.95	2.00
2N4173	2N4181	500	5.15	3.50
2N4174	2N4182	600	6.90	4.65

If = 8.0 Amps; Ifm (surge) = 100 Amps; Tj = 100°C; Available in case 87 and 87L (extended leads).

Type No.	1-99	100-999	Extended Lead Type No.	1-99	100-999	Vfxm or Vfom
MCR2604-1	1.55	1.15	2N4183	1.59	1.19	25
MCR2604-2	1.70	1.20	2N4184	1.74	1.24	50
MCR2604-3	1.85	1.35	2N4185	1.89	1.39	100
MCR2604-4	2.05	1.45	2N4186	2.09	1.49	200
MCR2604-5	2.50	1.70	2N4187	2.54	1.74	300
MCR2604-6	2.90	1.95	2N4188	2.94	1.99	400
MCR2604-7	5.10	3.45	2N4189	5.14	3.49	500
MCR2604-8	6.85	4.60	2N4190	6.89	4.64	600

If = 8.0 Amps; Ifm (surge) = 100 Amps; Tj = 100°C; Available in case 88 and 86L (extended leads).

MCR2605-1	1.55	1.15	2N4191	1.59	1.19	25
MCR2605-2	1.70	1.20	2N4192	1.74	1.24	50
MCR2605-3	1.85	1.35	2N4193	1.89	1.39	100
MCR2605-4	2.05	1.45	2N4194	2.09	1.49	200
MCR2605-5	2.50	1.70	2N4195	2.54	1.74	300
MCR2605-6	2.90	1.85	2N4196	2.94	1.99	400
MCR2605-7	5.10	3.45	2N4197	5.14	3.49	500
MCR2605-8	6.85	4.60	2N4198	6.89	4.64	600

MEDIUM CURRENT

If = 20 Amps; Im (surge) = 240 Amps; Tj = 100°C; available in case 91 and 92.

Case 91 Type No.	1-99	100-999	Case 92 Type No.	1-99	100-999	Vfxm or Vrom
2N5168	3.30	2.20	2N5164	3.70	2.45	50
2N5169	4.65	3.10	2N5165	5.00	3.35	200
2N5170	6.45	4.30	2N5166	6.80	4.55	400
2N5171	9.75	6.50	2N5167	10.10	6.75	600
MCR2918-1	3.40	2.25	MCR2818-1	3.00	2.00	25
MCR2918-3	4.10	2.75	MCR2818-3	3.75	2.50	100
MCR2918-5	5.90	3.95	MCR2818-5	5.55	3.70	300
MCR2918-7	9.20	6.15	MCR2818-7	8.85	5.90	500

If = 20 Amps; Ifm (surge) = 260 Amps; Tj = 100°C; available in TO-48 package.

Type	Vfxm or Vfom Volts	Forward "On" Voltage Volts	Amps	1-99	100-999
MCR649-1	25	1.5	20	4.35	2.90
MCR649-2	50	1.5	20	4.80	3.20
MCR649-3	100	1.5	20	5.55	3.70
MCR649-4	200	1.5	20	7.35	4.90
MCR649-5	300	1.5	20	14.10	9.40
MCR649-6	400	1.5	20	16.50	11.00
MCR649-7	500	1.5	20	19.65	13.10

TO-3 types specify with "P" suffix.

If = 25 Amps; Ifm (surge) = 200 Amps; Tj = 125°C; available in case 91 and 92.

2N682	50	1.5	20	4.10	2.75
2N683	100	1.5	20	5.60	3.75
2N685	200	1.5	20	6.60	4.40
2N687	300	1.5	20	14.60	9.75
2N688	400	1.5	20	17.10	11.40
2N689	500	1.5	20	20.60	13.75

MOTOROLA THYRISTORS

Devices range from plastic milliamp units to 1000 ampere radar pulse modulator types. Voltage range and package configurations are designed to meet a wide variety of applications. For more Motorola Thyristors—see preceeding and following pages. Newark can supply all Motorola Semiconductors.

If = 25 Amps; Ifm (surge) = 260 Amps; Tj = 125°C; available in TO-41 and TO-3*.

Type	Vfxm or Vfom and Vrxm or Vrom Volts	Forward "On" Voltage Volts Max Vf	Amp If (peak)	1-99	100-999
2N2573	25	1.4	20	4.80	3.20
2N2574	50	1.4	20	5.60	3.75
2N2575	100	1.4	20	7.10	4.75
2N2576	200	1.4	20	8.10	5.40
2N2577	300	1.4	20	16.10	10.75
2N2578	400	1.4	20	18.60	12.40

***For 2N2573 series specify as MCR649AP with appropriate dash numbers for voltage.**

If = 35 Amps; Ifm (surge) = 325 Amps; Tj = 100°C; available in case 91 and 92.

Case 91 Type No.	1-99	100-999	Case 92 Type No.	1-99	100-999	Vfxm or Vfom
MCR2835-1	3.75	2.50	MCR2935-1	4.10	2.75	25
MCR2835-2	4.50	3.00	MCR2935-2	4.85	3.25	50
MCR2835-3	4.85	3.25	MCR2935-3	5.25	3.50	100
MCR2835-4	5.85	3.90	MCR2935-4	6.20	4.15	200
MCR2835-5	7.20	4.80	MCR2935-5	7.55	5.05	300
MCR2835-6	8.25	5.50	MCR2935-6	8.60	5.75	400
MCR2835-7	10.65	7.10	MCR2935-7	11.00	7.35	500
MCR2835-8	12.35	8.25	MCR2935-8	12.75	8.50	600

RADAR MODULATOR TYPES

100 Amps pulse. Case 63.

Type	Vfom Volts	Vrom (rep) Volts	di/dt A/µs	dv/dt V/µs Typ	Iho Holding Current mA	1-24	25-99	100-999
2N4199	300	50	5000	600	10	21.25	19.10	15.00
2N4200	400	50	5000	600	10	28.75	25.80	20.00
2N4201	500	50	5000	600	10	32.50	29.10	22.50
2N4202	600	50	5000	600	10	44.25	38.40	29.50
2N4203	700	50	5000	600	10	51.75	45.05	34.50
2N4204	800	50	5000	600	10	63.75	55.70	42.50

BILATERAL TRIGGER DIODES—CASE 92

Type	I pulse Peak Pulse Current @ 30 µs, 120 Hz Amp (max)	V (BR) Breakover Voltage Both Directions Volts (min/max)	1-99	100-999	1000-Up
MPT20	2.0	16/24	.67	.45	.38
MPT28	2.0	24/32	.67	.45	.38
MPT32	2.0	28/36	.67	.45	.38

FOUR LAYER DIODES

Ta = 25°C; If = 150 mA; Pd = 150 mW; available in case DO-7.

Type	V (br) F Volts Min/Max	I (br) F µA Max	Iho mA Min/Max	1-24	25-99	100-999
1N5158(M4L3052)	8.0/10	50	1.0/20	4.20	3.65	2.80
1N5159(M4L3053)	9.0/11	50	1.0/20	3.60	3.10	2.40
1N5160(M4L3054)	10/12	50	1.0/20	3.45	3.00	2.30
To = 25°C; If = 180 mA; Pd = 200 mW. DO-7 package.						
M4L20-3	16/24	125	1.0/6.0	6.05	5.40	4.05
M4L20-8	16/24	125	1.0/15	4.05	3.60	2.70
M4L20-28	16/24	125	14/45	3.60	3.20	2.40
M4L20A	14/26	125	0.5/60	2.70	2.40	1.80
M4L30-3	26/34	125	1.0/6.0	5.25	4.65	3.50
M4L30-8	26/34	125	1.0/15	4.05	3.60	2.70
M4L30-28	26/34	125	14/45	3.60	3.20	2.40
M4L30A	24/36	125	0.5/60	2.70	2.40	1.80
M4L40-3	36/44	125	1.0/6.0	5.25	4.65	3.50
M4L40-8	36/44	125	1.0/15	4.05	3.60	2.70
M4L40-28	36/44	125	14/45	3.60	3.20	2.40
M4L40A	34/46	125	0 5/60	2.70	2.40	1.80
M4L50-3	46/54	125	1.0/6.0	5.25	4.65	3.50
M4L50-8	46/54	125	1.0/15	4.05	3.60	2.70
M4L50-28	46/54	125	14/45	3.60	3.20	2.40
M4L50A	44/56	125	0.5/60	2.70	2.40	1.80

BIDIRECTIONAL THYRISTORS — TRIACS

Ia = 8 Amps; Tj = 100°C; available in cases 85, 86 and 87L.

Type	Case	Vbom Volts	Igt mA Max	Iho mA Max	1-99	100-999
MAC1-2	85	50	30	30	2.40	1.60
MAC1-4	85	200	30	30	3.30	2.20
MAC1-6	85	400	30	30	5.25	3.50
MAC2-2	86	50	30	30	2.55	1.75
MAC2-4	86	200	30	30	3.45	2.35
MAC2-6	86	400	30	30	5.40	3.65
MAC3-2	87L	50	30	30	2.50	1.70
MAC3-4	87L	200	30	30	3.40	2.30
MAC3-6	87L	400	30	30	5.35	3.60

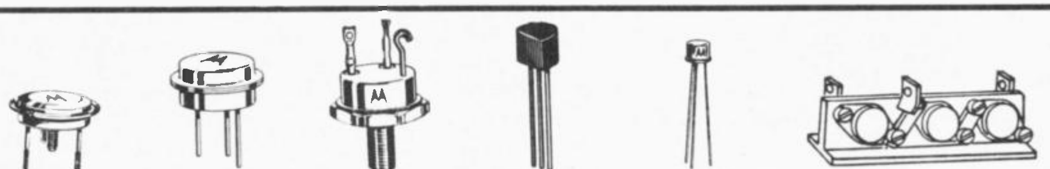
Motorola Thyristors and Transistors

UNIJUNCTION TRANSISTORS

Type	Case	Pd RMS mW	Ie Peak Amps	Vb2e Volts	Tj °C Min/Max	Rbbo@ Vbb=3V k Ohms Min/Max	n @ Vbb=10V Min/Max	Tv @ Vbb=20V Rb =100Ω mA Min	Ip @ Vbb=25V μA Max	Ieb @ Vb2e=30V μA Max	Vobl Volts Min	Freq. of Osc. MHz Min	1-99	100-999
2N2646	TO-18	300	2.0	30	—65/+125	4.7/9.1	0.56/0.75	4.0	5.0	12	3.0		1.05	.70
2N2647	TO-18	300	2.0	30	—65/+125	4.7/9.1	0.68/0.82	8.0	2.0	0.2	6.0		3.00	2.00
2N3980	TO-18	360	1.0	30	—65/+200	4.0/8.0	0.68/0.82	1.0	2.0	0.01	6.0	1.0	3.40	2.25
2N4851	TO-18	300	2.0	30	—65/+125	4.7/9.1	0.56/0.75	2.0	2.0	0.1	3.0	1.0	1.10	.75
2N4852	TO-18	300	2.0	30	—65/+125	4.7/9.1	0.70/0.85	4.0	2.0	0.1	5.0	1.0	1.10	.75
2N4853	TO-18	300	2.0	30	—65/+125	4.7/9.1	0.70/0.85	6.0	0.4	0.05	6.0	1.0	2.25	1.50
2N4870	TO-92	300	1.5	30	—65/+125	4.0/9.1	0.56/0.75	2.0	5.0	1.0	3.0		.75	.50
2N4871	TO-92	300	1.5	30	—65/+125	4.0/9.1	0.70/0.85	4.0	5.0	1.0	5.0		.75	.50
2N4948	TO-18	360	1.0	30	—65/+200	4.0/12	0.55/0.82	2.0	2.0	0.01	3.0	1.25*	1.35	.90
2N4949	TO-18	360	1.0	30	—65/+200	4.0/12	0.74/0.86	2.0	1.0	0.01	6.0	1.25*	2.40	1.60
MU4891	TO-92	300	1.0	30	—65/+125	4.0/9.1	0.55/0.82	2.0	5.0	0.01	3.0		.90	.60
MU4892	TO-92	300	1.0	30	—65/+125	4.0/9.1	0.51/0.69	2.0	2.0	0.01	3.0		1.23	.82
MU4893	TO-92	300	1.0	30	—65/+125	4.0/12	0.55/0.82	2.0	2.0	0.01	6.0		.96	.64
MU4894	TO-92	300	1.0	30	—65/+125	4.0/12	0.74/0.86	2.0	1.0	0.01	3.0	...	1.05	.70

*typical

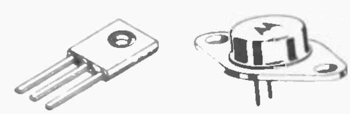
TRANSISTORS



Case 5, 7 — Case 8 — Case 9 — Case 29 — Case 31 — Case 118

Case 1, 3, 11 — Case 4, 16

Motorola Unibloc Plastic Silicon Annular Transistors offer a broad selection of high performance, high frequency silicon PNP and NPN switches and amplifiers suitable for low cost industrial circuits and state of the art consumer product applications.



Case 77 — Case 80

PLASTIC ECONOMY LINE SILICON TRANSISTORS

GENERAL SWITCHING AND AMPLIFIER TYPES

NPN—Case 29

Type	Vcb Volts	Vceo Volts	hFE @ Min/Max	Ic mA	1-99	100-999	1000-4999
2N3903	60	40	50/150	10	.75	.50	.37
2N3904	60	40	100/300	10	.82	.55	.41
2N4123	40	30	50/150	2.0	.52	.35	.26
2N4124	30	25	120/360	2.0	.60	.40	.30
2N4400	60	40	50/150	150	.60	.40	.30
2N4401	60	40	100/300	150	.75	.50	.38
MPS3704	50	30	100/300	50	.61	.41	.31
MPS3705	50	30	50/150	50	.57	.38	.28
MPS3706	40	20	30/600	50	.52	.35	.26
MPS6530	60	40	40/120	100	.72	.48	.36
MPS6531	60	40	90/270	100	.75	.50	.37
MPS6532	50	30	30/...	100	.60	.40	.30
MPS6565	60	45	40/160	10	.52	.35	.26
MPS6566	60	45	100/400	10	.57	.38	.28

PNP—Case 29

Type	Vcb Volts	Vceo Volts	hFE @ Min/Max	Ic mA	1-99	100-999	1000-4999
2N3905	40	40	50/150	10	.75	.50	.37
2N3906	40	40	100/300	10	.82	.55	.41
2N4125	30	30	50/150	2.0	.52	.35	.26
2N4126	25	25	120/360	2.0	.60	.40	.30
2N4402	40	40	50/150	150	.60	.40	.30
2N4403	40	40	100/300	150	.75	.50	.38
MPS404	...	24	30/400	12	.42	.28	.25
MPS404A	.	35	30/400	12	.58	.39	.35
MPS3638	25	25	20/ .	10	.46	.31	.28
MPS3638A	25	25	100/	10	.76	.51	.36
MPS3702	40	25	60/300	50	.45	.30	.22
MPS3703	50	30	30/150	50	.49	.33	.25
MPS6533	40	40	40/120	100	.78	.52	.39
MPS6534	40	40	90/270	100	.81	.54	.40
MPS6535	30	30	30/	100	.66	.44	.33

SMALL SIGNAL AMPLIFIER TYPES — LOW CURRENT

NPN—Case 29

Type	Vcb Volts	Vceo Volts	hFE @ Min/Max	Ic mA	1-99	100-999	1000-4999
2N5088	35	...	300/900	0.1	.75	.50	.38
2N5089	30	...	400/1200	0.1	.98	.65	.49
2N5209	50	...	100/300	0.1	.44	.66	.33
2N5210	50	....	200/600	0.1	.48	.72	.36
2N5223	25	...	50/800	2.0	.14	.21	.12
MPS918	30	.	20/	2.0	1.30	.87	.65
MPS3707	30	...	100/400	0.1	.60	.40	.30
MPS3708	30	...	45/660	1.0	.48	.32	.24
MPS3709	30	...	45/165	1.0	.45	.30	.22
MPS3710	30	...	90/330	1.0	.49	.33	.25
MPS3711	30	...	180/660	1.0	.54	.36	.27
MPS6520	40	...	200/400	2.0	.82	.55	.41
MPS6521	40	.	300/600	2.0	.90	.60	.45

SMALL SIGNAL AMPLIFIER TYPES (Cont'd)

PNP—Case 29

Type	Vcb Volts	Vceo Volts	hFE @ Min/Max	Ic mA	1-99	100-999	1000-4999
2N5086	50		150/500	0.1	.75	.50	.38
2N5087	50	...	250/800	0.1	.81	.54	.40
2N5227	30	.	50/700	2.0	.24	.18	....
MPS6522	25	.	200/400	2.0	.90	.60	.45
MPS6523	25	...	300/600	2.0	.97	.65	.49

SMALL SIGNAL AMPLIFIER TYPES — MEDIUM CURRENT

NPN—Case 29

Type	Vcb Volts	hFE @ Min/Max	Ic mA	1-99	100-999	1000-4999
2N5225	25	30/600	50	.24	.18	....
MPS2711	18	30/90	2.0	.40	.27	.20
MPS2712	18	75/225	2.0	.43	.29	.22
MPS2715	18	30/90	2.0	.57	.38	.28
MPS2716	18	75/225	2.0	.60	.40	.30
MPS2923 #	25	90/180	2.0	.43	.29	.22
MPS2924 #	25	150/300	2.0	.51	.34	.25
MPS2925 #	25	235/470	2.0	.60	.40	.30
MPS2926	18	35/470	2.0	.40	.27	.20
MPS3392	25	150/300	2.0	.51	.34	.25
MPS3393	25	90/180	2.0	.40	.27	.20
MPS3394	25	55/110	2.0	.39	.26	.19
MPS3395	25	150/500	2.0	.58	.39	.29
MPS3396	25	90/500	2.0	.54	.36	.27
MPS3397	25	55/500	2.0	.48	.32	.24
MPS3398	25	55/800	2.0	.57	.38	.28
MPS3563*	30	20/200	10	.57	.38	.28
MPS3693	45	40/160	10	.55	.37	.28
MPS3694	45	100/400	10	.57	.38	.29
MPS3721	18	60/660	2.0	.39	.26	.19
MPS3826	60	40/160	10	.54	.36	.27
MPS3827	60	100/400	10	.58	.39	.29
MPS6507	30	25/ ...	2.0	1.12	.75	.56
MPS6511	30	25/ ...	10	1.05	.70	.52
MPS6512	40	50/100	2.0	.54	.36	.27
MPS6513	40	90/180	2.0	.57	.38	.28
MPS6514	40	150/300	2.0	.60	.40	.30
MPS6515	40	250/500	2.0	.64	.43	.32

SMALL SIGNAL AMPLIFIER TYPES—MEDIUM CURRENT (Cont'd)

PNP — Case 29

Type	Vcb Volts	hFE Min/Max	@ Ic mA	1-99	100-999	1000-4999
MPS6516	40	50/100	2.0	.60	.40	.30
MPS6517	40	90/180	2.0	.63	.42	.31
MPS6518	40	150/300	2.0	.67	.45	.34
MPS6519	25	250/500	2.0	.75	.50	.37

NIXIE DRIVER TRANSISTORS

NPN — Case 29

Type	Vcb Volts	Vceo Volts	hFE Min/Max	@ Ic mA	1-99	100-999	1000-4999
2N4409	80	50	60/400	1.0	.67	.45	.34
2N4410	120	80	60/400	1.0	.96	.64	.48

RF AMPLIFIER TYPES

NPN — Case 29

Type	Vcb Volts	Veb Volts	hFE Min/Max	@ Ic mA	1-99	100-999	1000-4999
MPS918*	40	3.0	20/-	3.0	1.30	.87	.65
MPS3563*	40	2.0	20/200	8.0	.57	.38	.28
MPS3693	45	4.0	40/160	10	.55	.37	.28
MPS3694	45	4.0	100/400	10	.57	.38	.29
MPS6539	20	3.0	20/-	4.0	.90	.60	.45
MPS6568	20	3.0	20/-	4.0	1.50	1.00	.75
2N5222	20	3.0	20/1500	4.0	.24	.16	.14

PNP — Case 29

Type	Vcb Volts	Veb Volts	hFE Min/Max	@ Ic mA	1-99	100-999	1000-4999
2N5208	30	3.0	20/120	2.0	1.80	1.20	.90
MPS6579	20	3.0	20/-	2.0	1.05	.70	.52

OSCILLATOR AND MIXER TYPES

NPN — Case 29

Type	Vcb Volts	Cob (max) pF	fT (min) MHz	1-99	100-999	1000-4999
MPS918*	30	1.7	600	1.30	.87	.65
MPS6507	30	2.5	700	1.12	.75	.56
MPS6541	30	1.7	600	.96	.64	.48
MPS6542	30	1.5	700	1.20	.80	.60
MPS6543	35	1.0	750	1.32	.88	.66
MPS6546	35	0.35 Cre	600	1.24	.83	.62
MPS6547	35	0.45 Cre	600	1.35	.90	.67
MPS6548	30	0.7 Cre	650	.90	.60	.45

PNP — Case 29

Type	Vcb Volts	Cob (max) pF	fT (min) MHz	1-99	100-999	1000-4999
MPS6580	25	1.0 Cre	250	.90	.60	.45

IF AMPLIFIER TYPES

NPN — Case 29

Type	Vcb Volts	Veb Volts	hFE Min/Max	@ Ic mA	1-99	100-999	1000-4999
MPS3693	45	4.0	40/160	10	.55	.37	.28
MPS3694	45	4.0	100/400	10	.57	.38	.29
MPS6511	30	3.0	25/-	10	1.05	.70	.52
MPS6540	30	4.0	25/-	2.0	.75	.50	.38
MPS6544	60	4.0	20/-	30	1.12	.75	.56
MPS6545	60	4.0	20/-	30	1.24	.83	.62
MPS6564	45	5.0	25/-	10	.75	.50	.37
MPS6567	40	5.0	25/-	10	1.00	.67	.50
MPS6569	20	3.0	20/200	4.0	1.11	.74	.55
MPS6570	20	3.0	20/200	4.0	.96	.64	.48

HIGH SPEED SATURATED SWITCHING TYPES

NPN — Case 29

Type	Vceo Volts	hFE Min/Max	@ Ic mA	Ts ns	1-99	100-999	1000-4999
2N4264	15	40/160	10	20	.60	.40	.30
2N4265	12	100/400	10	20	.67	.45	.34
MPS706	15	20/-	10	60	.45	.30	.22
MPS834	15	25/-	10	25	.52	.35	.26
MPS2369	15	40/120	10	13	.53	.35	.26
MPS2713	18	30/90	2.0	...	.48	.32	.24
MPS2714	18	75/225	2.0	...	.51	.34	.25
MPS3646	15	30/120	30	20	.69	.46	.35
2N5224	12	-/400	10	....	.24	.18	....

HIGH SPEED SATURATED SWITCHING TYPES (Cont'd)

NPN — Case 29

Type	Vceo Volts	hFE Min/Max	@ Ic mA	Ts ns	1-99	100-999	1000-4999
MPS3639	6.0	30/120	10	20	.54	.36	.27
MPS3640	12	30/120	10	20	.57	.38	.28

AUDIO DRIVER AND AUDIO OUTPUT TYPES

NPN — Case 29

Type	Vceo Volts	VEB Volts	hFE Min/Max	@ Ic mA	1-99	100-999	1000-4999
MPS3704	30	5.0	100/300	50	.61	.41	.31
MPS3705	30	5.0	50/150	50	.57	.38	.28
MPS3706	20	5.0	30/600	50	.52	.35	.26
MPS6530	40	5.0	40/120	100	.72	.48	.36
MPS6531	40	5.0	90/270	100	.75	.50	.37
MPS6532	30	5.0	30/-	100	.60	.40	.30
MPS6560	20	5.0	50/-	500	.78	.52	.39
MPS6561	20	5.0	50/-	350	.69	.46	.35

PNP — Case 29

Type	Vceo Volts	VEB Volts	hFE Min/Max	@ Ic mA	1-99	100-999	1000-4999
2N5221	15	3.0	30/600	50	.30	.20	.18
MPS6533	40	4.0	40/120	100	.78	.52	.39
MPS6534	40	4.0	90/270	100	.81	.54	.40
MPS6535	30	4.0	30/-	100	.66	.44	.33
MPS6562	20	5.0	50/-	500	.84	.56	.42
MPS6563	20	5.0	50/-	350	.74	.48	.36

AUDIO PREAMPLIFIER AND PREDRIVER TYPES

NPN — Case 29

Type	Vceo Volts	VEB Volts	hFE Min/Max	@ Ic mA	1-99	100-999	1000-4999
2N5088	30	3.0	300/900	0.1	.75	.50	.38
2N5089	25	3.0	400/1200	0.1	.98	.65	.49
MPS6552	25	6.0	100/300	10	.55	.37	.28
MPS6553	25	6.0	100/300	10	.60	.40	.30
MPS6554	25	6.0	200/500	10	.63	.42	.31
MPS6555	25	6.0	200/500	10	.67	.45	.34
MPS6571	20	3.0	250/1000	0.1	.60	.40	.30
MPS6573	35	4.0	100/-	0.1	.67	.45	.34
MPS6574	35	4.0	100/-	0.1	.55	.37	.28
MPS6575	45	4.0	200/500	10	.75	.50	.38
MPS6576	45	4.0	200/500	10	.63	.42	.32
MPSA09	50	......	100/600	0.1	.54	.36	.27

PNP — Case 29

Type	Vceo Volts	VEB Volts	hFE Min/Max	@ Ic mA	1-99	100-999	1000-4999
2N5086	50	3.0	150/500	0.1	.75	.50	.38
2N5087	50	3.0	250/800	0.1	.81	.54	.40

MULTIPLE SWITCHING DIODES

Common Cathode — Case 29

Type	V(BR) @ I (BR) = 100 µA Min	C @ VR = 0 pF (max)	1-99	100-999	1000-4999
MSD6100	100	1.5	1.12	.75	.56
MSD6101	50	2.0	1.27	.85	.64
MSD6102	70	3.0	.75	.50	.37

Common Anode — Case 29

Type	V(BR) @ I (BR) = 100 µA Min	C @ VR = 0 pF (max)	1-99	100-999	1000-4999
MSD6150	70	3.5	.82	.55	.41

SILICON POWER TRANSISTORS

NPN — Case 77

Pd = 25 Watts

Type	Vceo Volts	hFE Min/Max	@ Ic A	fT MHz	1-99	100-999
MJE340*	300	30/240	0.05	10	1.06	.71
MJE520	30	25/-	1.0	....	1.33	.89
MJE521	40	40/-	1.0	....	1.68	1.12

PNP — Case 77

Type	Vceo Volts	hFE Min/Max	@ Ic A	fT MHz	1-99	100-999
MJE370	30	25/-	1.0	....	1.65	1.10
MJE371	40	40/-	1.0	....	1.96	1.31

Motorola Transistors

SILICON POWER TRANSISTORS (Cont'd)

MEDIUM POWER SWITCHING AND AMPLIFIERS

NPN—Case 77

Type	Vcb Volts	Vceo Volts	hFE Min/Max	@ Ic mA	1-99	100-999
2N4921	40	40	20/100	500	1.33	.89
2N4922	60	60	20/100	500	1.48	.99
2N4923	80	80	20/100	500	1.80	1.20

PNP—Case 77

Type	Vcb Volts	Vceo Volts	hFE Min/Max	@ Ic mA	1-99	100-999
2N4918	40	40	20/100	500	1.65	1.11
2N4919	60	60	20/100	500	1.90	1.27
2N4920	80	80	20/100	500	2.25	1.50

POWER TRANSISTORS

SILICON NPN TRANSISTORS

Listed in order of collector current for optimized hFE. Tj = to 200°C.

Type	Case	hFE Min/Max	@ Ic A	BVceo V	1-99	100 999
MJ420	TO-5	25/250	0.03	250	1.80	1.20
MJ421	TO-5	25/250	0.03	325	1.85	1.25
MJ2251	TO-66	25/200	0.05	225	1.87	1.25
MJ2252	TO-66	25/200	0.05	300	2.02	1.35
MJ400	TO-66	30/300	0.05	325	1.65	1.10
MJ3201	TO-66	30/200	0.05	225	1.72	1.15
MJ3202	TO-66	30/200	0.05	300	1.87	1.25
2N3738	TO-66	40/200	0.1	225	2.25	1.50
2N3739	TO-66	40/200	0.1	300	2.45	1.65
MJ413	TO-3	20/80	0.5	325	6.50	4.82
MJ2249	TO-66	25/200	0.5	60	2.02	1.35
MJ2250	TO-66	25/200	0.5	80	2.15	1.45
MJ3101	TO-66	25/200	0.5	40	1.95	1.30
2N3766	TO-66	40/160	0.5	60	2.10	1.40
2N3767	TO-66	40/160	0.5	80	2.30	1.55
2N4237	TO-5	30/150	0.25	40	2.25	1.50
2N4238	TO-5	30/150	0.25	60	2.75	1.85
2N4239	TO-5	30/150	0.25	80	3.05	2.05
2N4910	TO-66	20/100	0.5	40	1.55	1.05
2N4911	TO-66	20/100	0.5	60	1.80	1.20
2N4912	TO-66	20/100	0.5	80	2.10	1.40
2N4921	TO-77	25/100	0.5	40	1.33	.89
2N4922	TO-77	25/100	0.5	60	1.48	.99
2N4923	TO-77	25/100	0.5	80	1.80	1.20
2N5190	TO-77	25/100	0.5	40	1.57	1.05
2N5191	TO-77	25/100	0.5	60	1.92	1.28
2N5192	TO-77	25/100	0.5	80	2.50	1.67
MJ423	TO-3	30/90	1.0	325	8.00	5.93
2N3713	TO-3	25/90	1.0	60	4.40	2.95
2N3714	TO-3	25/90	1.0	80	4.70	3.15
2N3715	TO-3	50/150	1.0	60	4.85	3.25
2N3716	TO-3	50/150	1.0	80	6.75	4.50
2N5067	TO-3	20/80	1.0	40	1.80	1.20
2N5068	TO-3	20/80	1.0	60	2.25	1.50
2N5069	TO-3	20/80	1.0	80	2.85	1.90
2N4231	TO-66	25/100	1.5	40	2.10	1.40
2N4232	TO-66	25/100	1.5	60	2.40	1.60
2N4233	TO-66	25/100	1.5	80	3.20	2.15
MJ4101	TO-66	25/100	1.5	40	1.57	1.09
2N4913	TO-3	25/100	2.5	40	2.40	1.60
2N4914	TO-3	25/100	2.5	60	2.60	1.75
2N4915	TO-3	25/100	2.5	80	4.20	2.80
2N3232	TO-3	15/75	3.0	60	3.75	2.50
2N3445	TO-3	20/60	3.0	60	9.00	6.00
2N3446	TO-3	20/60	3.0	80	13.50	9.00
2N3487	TO-61	15/45	3.0	60	42.00	28.00
2N3055	TO-3	20/70	4.0	60	2.05	1.45
2N3235	TO-3	20/70	4.0		3.75	2.50
2N3447	TO-3	40/120	5.0	60	14.40	9.60
2N3448	TO-3	40/120	5.0	80	18.00	12.00
2N3491	TO-61	40/120	5.0	80	63.00	42.00
2N3492	TO-61	30/90	5.0	100	75.00	50.00
MJ2801	TO-3	15/60	8.0	40	2.85	1.90

(Continued next column)

SILICON POWER TRANSISTORS (Cont'd)

SILICON PNP TRANSISTORS

Type	Case	hFE Min/Max	@ Ic A	BVceo V	1-99	100 999
MJ2253	TO-66	20/100	0.25	60	2.65	1.76
MJ2254	TO-66	20/100	0.25	80	2.90	1.95
MJ3701	TO-66	20/100	0.25	40	2.00	1.35
2N3740	TO-66	30/100	0.25	60	2.90	1.95
2N3741	TO-66	30/100	0.25	80	3.15	2.10
2N4234	TO-5	30/150	0.25	40	3.00	2.00
2N4235	TO-5	30/150	0.25	60	3.60	2.39
2N4236	TO-5	30/150	0.25	80	4.00	2.66
2N4898	TO-66	20/100	0.5	40	1.95	1.30
2N4899	TO-66	20/100	0.5	60	2.60	1.75
2N4900	TO-66	20/100	0.5	80	2.90	1.95
2N4918	TO-77	20/100	0.5	40	1.65	1.11
2N4919	TO-77	20/100	0.5	60	1.90	1.27
2N4920	TO-77	20/100	0.5	80	2.25	1.50
2N3719	TO-5	25/180	1.0	40	9.75	6.50
2N3720	TO-5	25/180	1.0	60	10.85	7.25
2N3789	TO-3	25/90	1.0	60	7.50	5.00
2N3790	TO-3	25/90	1.0	80	8.90	5.95
2N3791	TO-3	50/150	1.0	60	8.75	5.85
2N3792	TO-3	50/150	1.0	80	9.50	6.35
2N4901	TO-3	20/80	1.0	40	2.75	1.84
2N4902	TO-3	20/80	1.0	60	3.30	2.21
2N4903	TO-3	20/80	1.0	80	4.25	2.94
2N5193	TO-77	25/100	1.5	40	2.00	1.33
2N5194	TO-77	25/100	1.5	60	2.25	1.50
2N5195	TO-77	25/100	1.5	80	2.90	1.95
2N4904	TO-3	25/100	2.5	40	3.35	2.25
2N4905	TO-3	25/100	2.5	60	4.45	2.98
2N4906	TO-3	25/100	2.5	80	5.60	3.75
MJ2267	TO-3	20/100	4.0	40	4.95	3.30
MJ2268	TO-3	20/100	4.0	55	5.45	3.65
MJ450	TO-3	20/-	10	40	9.50	6.35
2N4398	TO-3	15/60	15	40	11.25	7.50
2N4399	TO-3	15/60	15	60	13.50	9.05

GERMANIUM PNP POWER TRANSISTORS

Listed in order of collector current for optimized hFE then in numerical sequence.

Type	Case	hFE Min/Max	@ Ic Amps	BVceo Volts	1-99	100 999
MP3730	TO-3	10/200	0.05	200	1.58	1.05
MP3731	TO-3	10/200	0.05	320	2.10	1.40
2N307	TO-3	20/-	0.2	35	1.12	.75
2N307A	TO-3	30/-	0.2	35	1.87	1.25
2N176	TO-3	25/-	0.5	30	1.20	.87
2N178	TO-3	15/45	0.5	30	1.10	.80
2N242	TO-3	30/120	0.5	45	1.65	1.10
2N297A*	TO-3	40/100	0.5		1.60	1.17
2N554	TO-3	50 typ	0.5	16	.60	.40
2N555	TO-3	50 typ	0.5	30	.75	.50
2N665*	TO-3	40/80	0.5		4.40	2.95
2N669	TO-3	75/250	0.5	30	1.42	.95
2N2137	TO-3, TO-41**	30/60	0.5	30	1.80	1.20
2N2138	TO-3, TO-41**	30/60	0.5	45	2.10	1.40
2N2139	TO-3, TO-41**	30/60	0.5	60	2.25	1.50
2N2140	TO-3, TO-41**	30/60	0.5	75	3.90	2.60
2N2142	TO-3, TO-41**	30/60	0.5	30	2.30	1.55
2N2143	TO-3, TO-41**	50/100	0.5	45	2.45	1.65
2N2144	TO-3, TO-41**	50/100	0.5	60	3.75	2.50
2N350A	TO-3	20/60	0.7	40	1.65	1.10
2N351A	TO-3	25/90	0.7	40	1.70	1.15
2N376A	TO-3	35/120	0.7	40	1.85	1.25
2N375	TO-3	35/90	1.0	60	2.20	1.65
2N618	TO-3	60/140	1.0	60	2.45	1.82
2N1359	TO-3	35/90	1.0	40	1.40	1.05
2N1360	TO-3	60/140	1.0	40	1.70	1.25
2N1362	TO-3	35/90	1.0	75	2.85	2.12
2N1363	TO-3	60/140	1.0	75	3.10	2.30
2N1364	TO-3	35/90	1.0	100	4.75	3.53
MP110	TO-3	74/250	1.0	50	1.67	1.12
MP1613	TO-3	40/-	1.0	90	1.35	1.00
2N378	TO-3	40/80	2.0	20	1.80	1.20
2N379	TO-3	20/70	2.0	40	1.90	1.39
2N380	TO-3	30/70	2.0	30	1.70	1.26
2N459	TO-3	20/70	2.0	70	4.35	2.90
2N459A	TO-3	40/70	2.0	70	4.65	3.10
2N1011*	TO-3	30/75	3.0	80	1.95	1.45

*Military type available. **Solder lugs available—add prefix "MP" in place of "2N".

(Continued on next page)

GERMANIUM PNP POWER TRANSISTORS (Cont'd)

Type	"Meg-A-Life"	Case	hFE @ Ic Min/Max	Amps	1-99	100-999
2N1529	2N1529A	TO-3, TO-41**	20/40	3.0	1.45	1.08
2N1530	2N1530A	TO-3, TO-41**	20/40	3.0	1.60	1.15
2N1531	2N1531A	TO-3, TO-41**	20/40	3.0	2.30	1.70
2N1532	2N1532A	TO-3, TO-41**	20/40	3.0	3.00	2.24
2N1533	......	TO-3, TO-41**	20/40	3.0	4.35	3.25
2N1534	2N1534A	TO-3, TO-41**	35/70	3.0	1.40	1.05
2N1535	2N1535A	TO-3, TO-41**	35/70	3.0	1.50	1.14
2N1536	2N1536A	TO-3, TO-41**	35/70	3.0	1.70	1.25
2N1537	2N1537A	TO-3, TO-41**	35/70	3.0	3.90	2.90
2N1538	.	TO-3, TO-41**	35/70	3.0	5.50	4.05
2N1539	2N1539A	TO-3, TO-41**	50/100	3.0	1.50	1.12
2N1540	2N1540A	TO-3, TO-41**	50/100	3.0	1.58	1.18
2N1541	2N1541A	TO-3, TO-41**	50/100	3.0	1.85	1.38
2N1542	2N1542A	TO-3, TO-41**	50/100	3.0	2.35	1.75
2N1543		TO-3, TO-41**	50/100	3.0	3.60	2.65
2N1544	2N1544A	TO-3, TO-41**	75/150	3.0	1.65	1.24
2N1545	2N1545A	TO-3, TO-41**	75/150	3.0	1.85	1.35
2N1546	2N1546A	TO-3, TO-41**	75/150	3.0	2.30	1.70
2N1547	2N1547A	TO-3, TO-41**	75/150	3.0	2.75	2.05
2N1548	...	TO-3, TO-41**	75/150	3.0	4.00	2.95
2N2527	...	TO-3, TO-41**	20/50	3.0	9.30	6.20
2N2528*	...	TO-3, TO-41**	20/50	3.0	14.85	9.90
2N3611	...	TO-3, TO-41**	35/70	3.0	1.15	.78
2N3612	...	TO-3, TO-41**		3.0	1.30	.88
2N3613	...	TO-3, TO-41**	60/120	3.0	1.25	.85
2N3614	...	TO-3, TO-41**		3.0	1.40	.94
2N3615	...	TO-3, TO-41**	30/60	3.0	1.65	1.10
2N3616	...	TO-3, TO-41**		3.0	2.10	1.39
2N3617	...	TO-3, TO-41**	45/90	3.0	1.88	1.25
2N3618	...	TO-3, TO-41**	45/90	3.0	2.37	1.58
MP525	...	TO-3	30/150	3.0	1.00	.75
MP2060	...	TO-3	30/200	3.0	1.05	.75
MP2061	...	TO-3	30/200	3.0	1.15	.85
MP2062	...	TO-3	30/200	3.0	1.35	1.00
MP2063	...	TO-3	30/200	3.0	1.65	1.25
2N173	...	TO-36	35/70	5.0	3.40	2.50
2N174*	...	TO-36	25/50	5.0	3.60	2.67
2N174A	...	TO-36	25/50	5.0	3.80	2.79
2N277	...	TO-36	35/70	5.0	2.25	1.66
2N278	...	TO-36	35/70	5.0	2.80	2.07
2N441	...	TO-36	20/40	5.0	1.26	.84
2N442	...	TO-36	20/40	5.0	1.66	1.11
2N443	...	TO-36	20/40	5.0	1.90	1.39
2N456A	...	TO-3	30/90	5.0	1.80	1.20
2N457A	...	TO-3	30/90	5.0	2.20	1.45
2N458A	...	TO-3	30/90	5.0	2.65	1.75
2N1021	...	TO-3	30/90	5.0	3.10	2.05
2N1022	...	TO-3	30/90	5.0	3.60	2.40
2N1073	...	TO-41	20/60	5.0	2.40	1.78
2N1073A	...	TO-41	20/60	5.0	3.60	2.67
2N1073B	...	TO-41	20/60	5.0	4.50	3.30
2N1099	...	TO-36	35/70	1.0	3.90	2.87
2N1100	...	TO-36	25/50	1.0	4.50	3.34
2N1358	...	TO-36	40/100	0.5	4.15	3.06
2N1970	...	TO-36	17/40	1.0	2.35	1.73
2N2075	2N2075A	TO-36	20/40	1.0	5.20	3.84
2N2076	2N2076A	TO-36	20/40	1.0	3.60	2.67
2N2077	2N2077A	TO-36	20/40	1.0	2.85	2.12
2N2078	2N2078A	TO-36	20/40	1.0	1.90	1.39
2N2079*	...	TO-36	35/70	1.0	7.20	5.34
2N2080	...	TO-36	35/70	1.0	5.10	3.78
2N2081	...	TO-36	35/70	5.0	3.15	2.32
2N2082	...	TO-36	35/70	5.0	2.40	1.78
2N2152	2N2152A	TO-36	50/100	5.0	3.60	2.40
2N2153	2N2153A	TO-36	50/100	5.0	5.55	3.70
2N2154	2N2154A	TO-36	50/100	5.0	10.10	6.75
2N2156	2N2156A	TO-36	80/100	5.0	4.10	2.75
2N2157	2N2157A	TO-36	80/100	5.0	6.35	4.25
2N2158	2N2158A	TO-36	80/100	5.0	10.85	7.25
2N2490	...	TO-36	20/40	5.0	1.88	1.39
2N2491	...	TO-36	35/70	5.0	2.63	1.95
2N2492	...	TO-36	25/50	5.0	3.38	2.50
2N2493	...	TO-36	25/50	5.0	6.00	4.45
MP2200A	...	TO-41	25/-	8.0	3.40	2.25
MP2300A	...	TO-41	25/-	8.0	3.70	2.45
MP2400A	...	TO-41	25/-	8.0	3.90	2.60
2N1120*	...	TO-41	20/50	10	8.25	5.50
2N1549	2N1549A*	TO-3, TO-41**	10/30	10	2.55	1.70
2N1550	2N1550A*	TO-3, TO-41**		10	3.05	2.05
2N1551	2N1551A*	TO-3, TO-41**		10	4.85	3.25
2N1552	2N1552A*	TO-3, TO-41**		10	5.55	3.70
2N1553	2N1553A*	TO-3, TO-41**	30/60	10	1.85	1.35
2N1554	2N1554A*	TO-3, TO-41**		10	2.30	1.70
2N1555	2N1555A*	TO-3, TO-41**		10	2.75	2.05
2N1556	2N1556A*	TO-3, TO-41**		10	4.00	2.95

*MIL types available.

Continued Next Column

GERMANIUM PNP POWER TRANSISTORS (Cont'd)

Type	Case	hFE @ Ic Min/Max	Amps	Pd Watts	1-99	100-999
2N2832	TO-3, TO-41[1]	25/100	10	85	4.50	3.00
2N2833	TO-3, TO-41[1]	....	10	85	4.85	3.25
2N2834*	TO-3, TO-41[1]		10	85	5.25	3.50
2N2912	Case 8	75/-	10	75	8.10	5.40
MP1612	TO-3	25/100	10	85	3.55	2.65
MP1612A	TO-3	25/100	10	85	3.90	2.90
MP1612B	TO-3	25/100	10	85	4.20	3.10
MP500	TO-36	30/60	15	170	5.70	3.80
MP501	TO-36	30/60	15	170	9.00	6.00
MP502	TO-36	30/60	15	170	12.00	8.00
MP504	TO-36	50/100	15	170	6.60	4.40
MP505	TO-36	50/100	15	170	10.20	6.80
MP506	TO-36	50/100	15	170	13.85	9.25
2N2728	TO-36	40/130	20	170	11.25	7.50
2N1162	TO-3	15/	25	106	4.45	3.30
2N1163	TO-41	15/	25	106	4.45	3.30
2N1165*	TO-41	15/	25	106	6.35	4.70
2N1167	TO-41	15/	25	106	7.55	5.60
2N4276	TO-3	15/	50	170	3.50	2.35
2N4278	TO-3	15/	50	170	4.65	3.10
2N4280	TO-3	15/	50	170	5.70	3.80
2N4282	TO-3	15/	50	170	7.05	4.70
2N4048	TO-36	15/	60	170	5.60	3.75
2N4049	TO-36	15/	60	170	7.50	5.00
2N4050	TO-36	15/	60	170	9.30	6.20
2N4051	TO-36	15/	60	170	6.45	4.30
2N4052	TO-36	15/	60	170	8.25	5.50
2N4053	TO-36	15/	60	170	10.10	6.75
MP800	Case 118	15/	150	250	51.00	46.00
MP801	Case 118	15/	150	250	42.00	37.75
MP900	Case 118	20/-	70	250	110.00	100.00
MP901	Case 118	20/-	70	250	121.00	110.00
MP902	Case 118	20/-	70	250	132.00	120.00

*Military types available. ** Solder lugs available—add prefix "MP" in place of "2N".

MEG-A-LIFE GERMANIUM PNP POWER TRANSISTORS

MEG-A-LIFE II. Program is designed to provide the aerospace and industrial equipment manufacturer with a practical means of meeting demands of high-reliability assurance, low cost, and short lead time.

MEG-A-LIFE II, LEVEL 3, presents the highest level of reliability assurance. Level 3 products meet applicable military specifications and are given a 240 hour power burn-in, to stabilize characteristics. Further electrical testing assures that devices meet electrical specs of MIL group A. Level 3 devices are supported by complete test data, including results from the actual acceptance lot from which the devices are supplied.

MEG-A-LIFE II, LEVEL 2, are zener and reference diodes which recieve the same tests performed on the level 3, but acceptance data is from a recent lot which passed the MIL tests.

MEG-A-LIFE II, LEVEL 1, are similar to the Level 2 units, but not subjected to the 240-hour burn-in.

Type	Case	hFE @ Ic Min/Max	Amps	BVceo V	1-99	100-999
2N1529A	TO-3*	20/40	3.0	80	1.80	1.35
2N1530A	TO-3*	20/40	3.0	45	2.00	1.50
2N1531A	TO-3*	20/40	3.0	60	2.85	2.10
2N1532A	TO-3*	20/40	3.0	75	3.58	2.65
2N1534A	TO-3*	35/70	3.0	30	1.95	1.45
2N1535A	TO-3*	35/70	3.0	45	2.10	1.55
2N1536A	TO-3*	35/70	3.0	60	2.20	1.65
2N1537A	TO-3*	35/70	3.0	75	4.45	3.30
2N1539A	TO-3*	50/100	3.0	30	2.05	1.52
2N1540A	TO-3*	50/100	3.0	45	2.10	1.62
2N1541A	TO-3*	50/100	3.0	60	2.35	1.75
2N1542A	TO-3*	50/100	3.0	75	3.04	2.25
2N1544A	TO-3*	75/100	3.0	30	2.22	1.64
2N1545A	TO-3*	75/100	3.0	45	2.35	1.75
2N1546A	TO-3*	75/100	3.0	60	2.95	2.20
2N1547A	TO-3*	75/100	3.0	75	3.45	2.55
2N2076A	TO-36	20/40	5.0	70	4.75	3.17
2N2077A	TO-36	20/40	5.0	50	3.95	2.62
2N2078A	TO-36	20/40	5.0	40	2.85	1.89
2N2152A	TO-36	50/100	5.0	45	4.35	2.90
2N2153A	TO-36	50/100	5.0	60	6.30	4.20
2N2154A	TO-36	50/100	5.0	75	10.85	7.25
2N2156A	TO-36	80/100	5.0	45	4.85	3.25
2N2157A	TO-36	80/100	5.0	60	7.10	4.75
2N2158A	TO-36	80/100	5.0	75	11.60	7.75
2N1549A	TO-3*	10/30	10	30	3.30	2.20
2N1550A	TO-3*	10/30	10	45	3.80	2.55
2N1551A	TO-3*	10/30	10	60	5.60	3.75
2N1552A	TO-3*	10/30	10	75	6.30	4.20
2N1553A	TO-3*	30/60	10	30	2.35	1.75
2N1554A	TO-3*	30/60	10	45	2.85	2.10
2N1555A	TO-3*	30/60	10	60	3.45	2.55
2N1556A	TO-3*	30/60	10	75	4.65	3.45
2N1557A	TO-3*	50/100	10	30	2.70	2.00
2N1558A	TO-3*	50/100	10	45	3.40	2.50
2N1559A	TO-3*	50/100	10	60	3.90	2.90
2N1960A	TO-3*	50/100	10	75	5.00	3.70

*70-41 with solder lugs available.

Motorola Transistors

MILLIWATT TRANSISTORS

GERMANIUM PNP

All leads isolated from case unless otherwise specified.

Type	BV ces Volts	hFE @ IC Min/Max	mA	f ab MHz Min	Pd mW	1-99	100-999
Ic = 100 mA max							
2N398	105†	20/—	5.0	1.0*	50	1.20	.80
Ic = 200 mA max							
2N331**	12 Veb	30/70	1.0	0.4	75	1.88	1.25
2N398A**	105	20/80	5.0	1.0	50	1.28	.85
2N1191	25	20/80	10	1.5	200	1.40	.95
2N1192	25	40/135	10	2.0	200	1.40	.95
2N1193	25	70/300	10	2.5	200	1.87	1.25
2N1194	25	125/600	10	3.0	200	2.03	1.35
2N1408	50	10/—	1.0		150	1.05	.70
2N2042*	105	20/50	5.0	0.5	200	2.85	1.90
2N2043*	105	40/100	5.0	0.75	200	3.20	2.15
Ic = 250 mA max							
2N653	25	30/70	1.0 Ie	1.5	200	2.50	1.65
2N654	25	50/125	1.0 Ie	2.0	200	2.60	1.75
2N655	25	100/250	1.0 Ie	2.5	200	2.80	1.85
Ic = 300 mA max							
2N1008	20	40/150	10		200	1.10	.75
2N1008A	40	40/150	10		200	1.20	.80
2N1008B	60	40/150	10		200	1.30	.85
Ic = 400 mA (Base Connected to Case)							
2N381	25	35/65	20	3.0	225	1.28	.85
2N382	25	60/95	20	4.0	225	1.73	1.15
2N383	25	75/120	20	5.0	225	2.18	1.45
2N460	35R=1.0kΩ	17/36	1.0 Ie	1.2	225	2.25	1.50
2N461**	35R=1.0kΩ	31/200	1.0 Ie	4.0	225	2.25	1.50
2N2171	25	110/250	20	7.5	225	1.95	1.30

Ic = 500 mA max

Type	BVces Volts	hFE @ Ic Min/Max	mA	fab MHz Min	Pd mW	1-99	100-999
2N464**	40	14/ ..	1.0	0.7	200	1.88	1.25
2N465**	30	27/ ..	1.0	0.8	200	1.88	1.25
2N466**	20	56/......	1.0	1.0	200	2.10	1.40
2N467**	15	112/......	1.0	1.2	200	2.55	1.70
2N650†	30	33/ ..	10	0.75	200	2.03	1.35
2N651†	30	45/ ..	10	1.0	200	2.03	1.35
2N652†	30	80/.....	10	1.25	200	2.30	1.55
2N1185	30	130/ ..	10	1.75	200	3.60	2.40
2N1186	45	33/. ..	10	0.75	200	3.80	2.55
2N1187	45	45/ ..	10	1.0	200	3.80	2.55
2N1188	45	80/ ..	10	1.25	200	4.70	3.15
2N1189	30	60/ ..	10	1.75	200	2.25	1.50
2N1190	30	100/ .	10	2.25	200	2.40	1.60
2N3427	30	100/350	100	4.0	200	1.95	1.30
2N3428	30	150/400	100	5.0	200	2.25	1.50
Ic = 500 mA (Base Connected to Case)							
2N319	20	25/42	20	1.0	225	.53	.35
2N320	20	34/65	20	1.5	225	.75	.50
2N321	20	53/121	20	2.0	225	.83	.55
2N322	18	34/65	20	1.0	225	.53	.35
2N323	18	53/121	20	1.5	225	.75	.50
2N324	18	72/198	20	2.0	225	.75	.50
2N508	18	99/198	20	2.5	225	.75	.50
2N524*	30	25/42	20	0.8	225	1.20	.80
2N525**	30	34/65	20	1.0	225	1.20	.80
2N526†	30	53/90	20	1.3	225	1.20	.80
2N527*	30	72/121	20	1.5	225	1.43	.95
2N1175	25	70/140	20	1.5	225	1.12	.75
2N1413	25	25/42	20	0.8	225	.83	.55
2N1414	25	34/65	20	1.0	225	.90	.60
2N1415	25	53/90	20	1.3	225	1.05	.70
2N1924	40	34/65	20	1.0	225	1.80	1.20
2N1925	40	53/90	20	1.3	225	2.03	1.35
2N1926	40	72/121	20	1.5	225	2.40	1.60

* Avalable as Meg-a-life units. ** Military types available. ..
† Available as Meg-a-life units and military type.

SWITCHING TRANSISTORS

Case 20, 21 Case 22, 27 Case 25 Case 26 Case 28 Case 31, 79

SILICON HIGH SPEED — LOW CURRENT

NPN

Type	Case	Vceo Volts	Pd Ambient 25°C mW	hFE @ Ic Min/Max	mA	1-99	100-999
2N702	TO-18	....	..	.. ..	.. .	6.75	4.50
2N703	TO-18	..	..	. ....	.	6.75	4.50
2N706	TO-18	20	300	20/.	10	.46	.40
2N706A	TO-18	20	300	20/60	10	1.18	.79
2N706B	TO-18	20	300	20/60	10	1.48	.99
2N708	TO-18	15	360	30/120	10	.49	.43
2N743	TO-18	12	200	20/60	10	8.20	4.15
2N744	TO-18	12	300	40/120	10	2.90	1.95
2N834	TO-18	30	300	25/ .	10	2.00	1.35
2N914	TO-18	15	360	30/120	10	.95	.63
2N2257	TO-18	7.0	150	40/ .	10	1.27	.85
2N2368	TO-18	15	360	20/60	10	1.07	.93
2N2369	TO-18	15	360	40/120	10	1.07	.93
2N2369A**	TO-18	15	360	40/ .	10	1.65	1.10
2N2501	TO-18	20	360	50/150	10	4.70	3.15
2N2710	TO-18	20	360	40/ .	10	7.00	5.00
2N3210	TO-18	15	360	30/120	10	.83	.55
2N3211	TO-18	15	360	50/150	10	1.27	.85
2N3227	TO-18	20	360	100/300	10	2.40	1.60
2N3301	TO-18	30	360	35/	10	.75	.50
2N3302	TO-18	30	360	75/	10	1.05	.70
2N3493	TO-72	8.0	150	40/160	0.5	14.25	9.50
2N3946	TO-18	40	360	50/150	10	2.40	1.60
2N3947	TO-18	40	360	100/300	10	2.75	1.85
MM709	TO-52	8.0	400	15/200	10	1.35	.90
MM1748	TO-52	6.0	300	20/120	10	.53	.35
MMT2369	Case 28	15	225	40/120	10	1.95	1.30
MMT3903	Case 28	40	225	50/150	10	2.40	1.60
MMT3904	Case 28	40	225	100/300	10	3.00	2.00

** Military types available.

SILICON HIGH SPEED — LOW CURRENT (Cont'd)

PNP

Type	Case	Vceo Volts	Pd Ambient 25°C mW	hFE @ Ic Min/Max	mA	1-99	100-999
2N869A**	TO-18	18	360	40/120	10	9.00	6.00
2N2894	TO-18	12	360	30/....	10	1.95	1.30
2N3248	TO-18	12	360	50/150	10	3.90	2.60
2N3249	TO-18	12	360	100/300	10	4.65	3.10
2N3250	TO-18	40	360	50/150	10	3.90	2.60
2N3250A**	TO-18	60	360	50/150	10	4.50	3.00
2N3251	TO-18	40	360	100/300	10	4.65	3.10
2N3251A**	TO-18	60	360	100/300	10	5.25	3.50
2N3304	TO-18	6.0	300	30/120	10	4.50	3.00
2N3546	TO-18	12	360	30/120	10	5.25	3.50
2N4260	TO-72	15	200	30/150	10	12.35	8.25
2N4261	TO-72	15	200	30/150	10	14.60	9.75
2N4411	TO-72	12	150	40/160	0.5	18.00	12.00
MF3304**	TO-72	12	200	30/120	10	....	....
MM2894	TO-18	12	360	40/150	30	1.80	1.20
MMT3905	Case 28	40	200	50/150	10	2.40	1.60
MMT3906	Case 28	40	200	100/300	10	3.00	2.00

** Military types available.

SILICON HIGH SPEED — MEDIUM CURRENT

NPN

Type	Case	Vceo Volts	Pd Ambient 25°C mW	hFE @ Ic Min/Max	mA	1-99	100-999
2N696**	TO-5	40	600	20/60	150	.52	.46
2N697**	TO-5	40	600	40/120	150	.52	.46
2N699	TO-39	80	600	40/120	150	1.32	.88
2N718	TO-18	40	400	40/120	150	.46	.40
2N718A	TO-18	50	500	40/120	150	.79	.68
2N956	TO-18	50	500	100/300	150	.85	.74
2N1613**	TO-5	50	800	40/120	150	.79	.68
2N1711**	TO-5	50	800	100/300	150	.85	.74
2N1959	TO-5	40	600	40/120	150	4.45	2.95
2N2218**	TO-5	30	800	40/120	150	.75	.50
2N2218A**	TO-5	40	800	40/120	150	4.50	3.00
2N2219**	TO-5	30	800	100/300	150	1.05	.70

** Military types available.

Continued on next page

Motorola Transistors

SILICON HIGH SPEED — MEDIUM CURRENT (Cont'd)

Type	Case	Vceo Volts	Pd Ambient 25°C mW	hFE @ Ic min/max	mA	1-99	100-999
2N2219A**	TO-5	40	800	100/300	150	5.25	3.50
2N2221**	TO-18	30	500	40/120	150	.75	.50
2N2222**	TO-18	30	500	100/300	150	1.05	.70
2N2222A**	TO-18	40	500	100/300	150	4.85	3.25
2N2224	TO-18	40	800	40/120	100	3.75	2.50
2N2410	TO-5	40	800	30/120	150	4.50	3.00
2N2476	TO-5	20	600	20/-	150	1.65	1.14
2N2477	TO-5	20	600	40/-	150	2.06	1.35
2N2958	TO-5	60	600	40/120	150	2.25	1.50
2N2959	TO-5	60	600	100/300	150	2.70	1.80
2N3015	TO-5	30	800	30/120	150	1.93	1.29
2N3053	TO-5	40		50/250	150	.83	.57
2N3115	TO-18	60	400	40/120	150	1.95	1.30
2N3116	TO-18	60	400	100/300	150	2.40	1.60
2N3299	TO-5	30	800	40/120	150	.75	.50
2N3300	TO-5	30	800	100/300	150	1.05	.70
2N3510	TO-52	10	360	25/150	150	1.42	.95
2N3511	TO-52	15	360	30/120	150	1.80	1.20
2N3647	TO-52	10	400	25/150	150	2.25	1.50
2N3648	TO-46	15	400	30/120	150	2.70	1.80

**Military types available

PNP

Type	Case	Vceo Volts	Pd Ambient 25°C mW	hFE @ Ic min/max	mA	1-99	100-999
2N722	TO-18	35	400	30/90	150	1.46	1.27
2N1131**	TO-5	35	600	20/45	150	5.60	3.75
2N1132**	TO-5	35	600	30/90	150	5.60	3.75
2N1132B	TO-5	45	600	30/90	150	16.70	11.15
2N1991	TO-5	20	600	15/60	50	3.95	2.96
2N2303	TO-5	35	600	75/200	150	8.25	5.50
2N2800	TO-5	35	800	30/90	150	6.75	4.50
2N2801	TO-5	35	800	75/225	150	7.10	4.75
2N2838	TO-18	35	500	75/225	150	7.10	4.75
2N2904**	TO-5	40	600	40/120	150	1.90	1.65
2N2904A**	TO-5	60	600	40/120	150	4.90	3.25
2N2905**	TO-5	40	600	100/300	150	1.90	1.65
2N2905A**	TO-5	60	600	100/300	150	5.60	3.75
2N2906**	TO-18	40	400	40/120	150	1.90	1.65
2N2907**	TO-18	40	400	100/300	150	1.90	1.65
2N3133	TO-5	35	600	40/120	150	4.95	3.30
2N3134	TO-5	35	600	100/300	150	5.85	3.90
2N3135	TO-18	35	400	40/120	150	4.95	3.30
2N3136	TO-18	35	400	100/300	150	5.85	3.90
2N3485	TO-46	40	400	40/120	150	8.70	5.00
2N3486	TO-46	40	400	100/300	150	10.20	6.80

**Military types available

SILICON HIGH CURRENT

NPN

Type	Case	Vceo Volts	Pd Ambient 25°C mW	hFE @ Ic min/max	mA	1-99	100-999
2N656	TO-5	60	1000	30/90	200	2.03	1.35
2N657	TO-5	100	1000	30/90	200	2.20	1.47
2N1893	TO-5	80	800	40/120	150	1.57	1.05
2N2192	TO-5	40	800	100/300	150	4.20	2.80
2N2192A	TO-5	40	800	100/300	150	4.40	2.95
2N2193	TO-5	50	800	40/120	150	2.90	1.95
2N2193A	TO-5	50	800	40/120	150	3.15	2.10
2N2194	TO-5	40	800	20/60	150	2.18	1.45
2N2194A	TO-5	40	800	20/60	150	2.40	1.60
2N2195	TO-5	25	600	20/-	150	1.38	.92
2N2195A	TO-5	25	600	20/-	150	1.53	1.02
2N2405	TO-5	90	800	60/200	150	1.82	1.25
2N3303	TO-5	12	600	30/120	300	13.50	9.00
2N3444	TO-5	50	1000	20/60	500	12.00	8.00
2N3506	TO-5	40	1000	40/200	500	11.55	7.70
2N3507	TO-5	50	1000	30/150	500	13.20	8.80
2N3734	TO-5	30	1000	30/120	500	6.00	4.00
2N3735	TO-5	50	1000	20/80	500	6.00	4.00
MM3724	TO-46	30	1000	15/-	500	5.25	3.50
MM3725	TO-46	50	1000	15/-	500	5.60	3.75

PNP

Type	Case	Vceo Volts	Pd Ambient 25°C mW	hFE @ Ic min/max	mA	1-99	100-999
2N3244	TO-5	40	1000	50/150	500	15.75	10.50
2N3245	TO-5	50	1000	30/90	500	15.75	10.50
2N3467	TO-5	40	1000	40/120	500	9.75	6.50
2N3762	TO-5	40	1000	30/120	1.0A	7.50	5.00
2N3763	TO-5	60	1000	20/80	1.0A	7.50	5.00
2N4404	TO-39	80	1250	40/120	150	8.25	5.50
2N4405	TO-39	80	1250	40/120	150	9.75	6.50
2N4406	TO-39	80	1250	25/100	150	11.25	7.50
2N4407	TO-39	80	1250	75/225	150	12.75	8.50
2N4890	TO-5	40	1000	50/250	150	1.12	.75
MM3726	TO-5	50	1000	30/120	500	6.75	4.50

SILICON HIGH VOLTAGE

NPN

Type	Case	Vceo Volts	Pd Ambient 25°C mW	hFE @ Ic min/max	mA	1-99	100-999
2N3498	TO-5	100	1000	40/120	150	6.60	4.50
2N3499	TO-5	100	1000	100/300	150	7.40	4.95
2N3500	TO-5	150	1000	40/120	150	11.25	7.50
2N3501	TO-5	150	1000	100/300	150	12.60	8.40
2N3742	TO-5	300	1000	20/200	30	12.60	8.40
MJ420	TO-5	250	800	25/250	30	1.80	1.20
MJ421	TO-5	325	800	25/250	30	1.85	1.25
MM3000	TO-39	100	1000	20/-	10	1.25	.83
MM3001	TO-39	150	1000	20/-	10	1.40	.93
MM3002	TO-39	200	1000	20/-	10	1.65	1.10
MM3003	TO-39	250	1000	20/-	10	1.90	1.25

SILICON HIGH VOLTAGE (Cont'd)

PNP

Type	Case	Vceo Volts	Pd Ambient 25°C mW	hFE @ Ic min/max	mA	1-99	100-999
2N3494	TO-18	80	600	40/-	10	9.75	6.50
2N3495	TO-18	120	600	40/-	10	12.75	8.50
2N3496	TO-18	80	400	40/-	10	9.75	6.50
2N3497	TO-18	120	400	40/-	10	12.75	8.50
2N3634	TO-5	140	1000	50/150	50	13.20	8.80
2N3635	TO-5	140	1000	50/150	50	14.40	9.60
2N3636	TO-5	175	1000	100/300	50	19.40	12.65
2N3637	TO-5	175	1000	100/300	50	21.30	14.20
2N3734	TO-5	300	1000	25/250	30	6.00	4.00
2N4928	TO-39	100	600	25/200	10	4.05	2.70
2N4929	TO-39	150	1000	25/200	10	4.95	3.30
2N4930	TO-39	200	1000	20/200	10	5.90	3.95
2N4931	TO-39	250	1000	20/200	10	6.75	4.50
MM4000	TO-39	100	600	20/-	10	1.24	.83
MM4001	TO-39	150	1000	20/-	10	1.39	.93
MM4002	TO-39	200	1000	20/-	10	1.65	1.10
MM4003	TO-39	250	1000	20/-	10	1.85	1.25

CURRENT MODE SWITCHING

NPN

Type	Case	Material	Vceo Volts	Pd Ambient 25° C mW	1-99	100-999
2N2256	TO-18	Si	7	300	1.12	.75
2N2257	TO-18	Si	7	300	1.27	.85
2N3959	TO-18	Si	12	400	10.50	7.00
2N3960	TO-18	Si	12	400	13.10	8.75

PNP

Type	Case	Material	Vceo Volts	Pd Ambient 25° C mW	1-99	100-999
2N2258	TO-18	Ge	7	150	1.12	.75
2N2259	TO-18	Ge	7	150	1.27	.85
2N4260	TO-72	Si	15	200	12.35	8.25
2N4261	TO-72	Si	15	200	14.60	9.75

SMALL SIGNAL SILICON ANNULAR TRANSISTORS

NPN

Type	Case	Pd Ambient mW	Vcb Volts	hFE Min/Max	1-99	100-999
2N720A	TO-18	500	120	40/120	1.32	.88
2N735	TO-18	500	80	30/100	2.50	1.65
2N736	TO-18	500	80	60/200	2.50	1.65
2N840	TO-18	500	40	30/100	3.60	2.45
2N841	TO-18	500	40	60/400	4.40	2.95
2N910	TO-18	500	100	75/-	2.37	1.58
2N911	TO-18	500	100	30/-	5.55	3.70
2N929‡	TO-18	500	45	40/120	2.25	1.50
2N929A‡	TO-18	500	60	40/120	4.50	3.00
2N930‡	TO-18	500	45	100/300	2.60	1.75
2N930A‡	TO-18	500	60	100/300	5.40	3.60
2N1983	TO-5	600	50	70/210	2.50	1.67
2N1984	TO-5	600	50	35/100	2.33	1.56
2N1990	TO-39	600	100	20/-	2.25	1.50
2N3019	TO-5	800	140	100/300	6.00	4.00
2N3020	TO-5	800	140	40/120	5.70	3.80
2N3114	TO-5	800	150	30/120	6.00	4.00
2N3712	TO-5	1000	150	30/150	2.25	1.50
MM2258	TO-5	1000	120	50/-	3.90	2.60
MM2259	TO-5	1000	175	25/-	4.20	2.80
MM2260	TO-5	1000	175	50/-	4.50	3.00
MM4048	TO-18	360	45	150/450	4.10	2.75

PNP

Type	Case	Pd Ambient mW	Vcb Volts	hFE Min/Max	1-99	100-999
2N721	TO-18	400	50	20/45	1.46	1.27
2N869	TO-18	360	25	20/120	5.85	3.90
2N915	TO-18	360	70	50/200	4.95	3.30
2N916	TO-18	360	45	50/200	3.65	2.45
2N995	TO-18	360	20	35/140	5.85	3.90
2N3798	TO-18	360	60	150/450	6.15	4.10
2N3799	TO-18	360	60	300/900	6.75	4.50

GERMANIUM MESA PNP SWITCHING TRANSISTORS

HIGH-SPEED LOW-CURRENT

Type	Case	Vceo Volts	Pd Ambient mW	hFE @ Ic min/max	mA	1-99	100-999
2N705	TO-18	15	150	...	10	1.03	.69
2N711	TO-18	...	150	20/-	10	.88	.59
2N711A	TO-18	7.0	150	25/150	10	.88	.59
2N711B	TO-18	7.0	150	30/150	10	.94	.63
2N828	TO-18	10	150	25/-	10	3.30	2.20
2N838	TO-18		150	30/-	10	5.40	3.60
2N960	TO-18	15	150	20/-	10	.96	.64
2N962	TO-18	12	150	20/-	10	.85	.57
2N964	TO-18	15	150	40/-	10	.99	.66
2N965	TO-18	12	150	40/-	10	.94	.63
2N966	TO-18	12	150	40/-	10	.88	.59

Continued next page

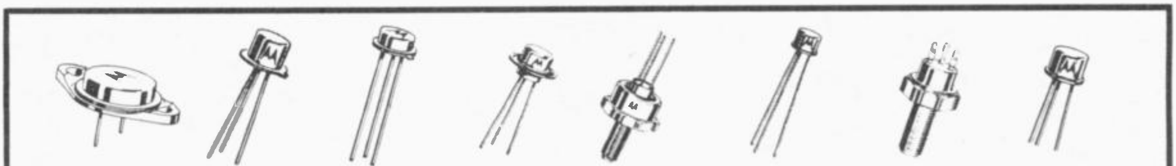
Motorola Transistors and Photosensitive Devices

GERMANIUM MESA
PNP SWITCHING TRANSISTORS

HIGH-SPEED LOW-CURRENT (Cont'd)

Type	Case	Vceo Volts	Pd Ambient mW	hFE Min/Max	@ Ic mA	1-99	100-999
2N967	TO-18		150	40/	10	.87	.58
2N968	TO-18		150	17/	10	.90	.60
2N970	TO-18		150	17/	10	.81	.54
2N972	TO-18		150	40/	10	.93	.62
2N974	TO-18		150	40/	10	.83	.55
2N985	TO-18	7.0	150	40/	10	2.88	1.92
2N2258	TO-18	7.0	150	17/	10	1.12	.75
2N2259	TO-18	7.0	150	40/	10	1.27	.85
2N2956	TO-18	20	150	30/	10	2.63	1.75
2N2957	TO-18	18	150	60/	10	3.37	2.25
2N1204	TO-5	15	300	15/	400	1.65	1.10
2N1204A	TO-5	15	300	25/	200	1.65	1.10
2N1494A	Case 25	15	500	25/	200	2.17	1.45
2N1495	TO-5	25	300	25/	200	3.30	2.20
2N1496	Case 25	25	500	25/	200	3.80	2.55
2N2096	Case 25		500	15/	400	1.65	1.10
2N2097	Case 25		500	30/	200	3.30	2.20
2N2099	TO-5	12	300	15/	400	2.17	1.45
2N2100	TO-5	20	300	20/	400	3.80	2.55
2N2382	TO-5	20	300	25/	200	5.15	3.45
2N2635	TO-18	15	150	30/	100	.94	.63
2N3883	TO-5	15	300	30/	200	1.35	.90

RF TRANSISTORS



Case 1 Case 20, 21 Case 22 Case 23 Case 24 Case 31 Case 36 Case 79

SILICON ANNULAR AMPLIFIERS AND OSCILLATORS
NPN

Type	Case	Pd @ 25°C W	Vcb Volts	Tj °C	1-99	100-999
2N2949	TO-107	6.0	60	175	10.50	7.00
2N2950	TO-102	6.0	60	175	11.25	7.50
2N2951	TO-5	3.0	60	175	4.50	3.00
2N3137	TO-5	2.0	40	200	11.10	7.40
2N3298	TO-18	1.0	25	175	2.40	1.60
2N3375	TO-60	11.6	65	175	10.30	8.95
2N3553	TO-39	7.0	65	200	4.37	3.18
2N3632	TO-60	23	65	200	12.75	10.55
2N3866	TO-39	5.0	55	200	2.97	2.05
2N3924	TO-39	7.0	36	200	5.15	3.42
2N3925	TO-102	10	36	200	8.70	5.80
2N3926	TO-60	11.6	36	200	14.85	9.90
2N3927	TO-60	23.2	36	200	20.25	13.50
2N3948	TO-39	5.0	36	200	5.15	3.42
2N3961	TO-102	10	65	200	8.70	5.80
2N4072	TO-18	0.8	40	200	2.25	1.50
2N4073	TO-5	1.5	40	200	2.70	1.80
2N4924	TO-39	5.0	100	175	2.03	1.35
2N4925	TO-39	5.0	150	175	2.50	1.65
2N4926	TO-39	5.0	200	175	2.95	1.95
2N4927	TO-39	5.0	250	175	3.15	2.10
MM1500	TO-107	3.5	250	175	42.00	28.00
MM1501	TO-107	3.5	250	175	27.00	18.00
MM1941	TO-18	0.6	30	175	1.95	1.30
MMT918	Case 28	0.225	30	135	3.30	2.20

PNP

2N5160	TO-39	5.0	60	200	6.75	4.50
2N5161	TO-60	20	60	200	18.75	12.00
2N5162	TO-60	50	60	500	27.00	18.00

SILICON RF SMALL SIGNAL AMPLIFIERS AND OSCILLATORS
NPN

Type	Case	Pd @ Ta=25°C mW	Vcb Volts	Tj °C	1-99	100-Up
2N918	20	200	30	200	3.30	2.20
2N2857	20	200	30	200	4.46	3.24
2N3287	20	200	40	200	7.50	5.00
2N3291	20	200	25	200	2.25	1.50
2N3292	20	200	25	200	2.10	1.40
2N3293	20	200	20	200	1.80	1.20
2N3294	20	200	20	200	1.64	1.10

PNP

Type	Case	Pa @ Ta=25°C mW	Vcb Volts	Tj °C	1-99	100-Up
2N3307	20	200	40	200	10.50	7.00
2N4957	20	200	30	200	20.25	13.50
2N4958	20	200	30	200	10.35	6.90
2N4959	20	200	30	200	6.75	4.50

RF GERMANIUM MESA SMALL SIGNAL TRANSISTORS

Type	Case	Pd Ambient mW	Vcb Volts	hFE Min/Max	1-99	100-999
2N700**	TO-17	75	25	4.0/	7.35	4.90
2N741	TO-18	150	15	10/	2.18	1.45
2N741A	TO-18	150	20	10/	3.30	2.20
2N1141	TO-5	300	35	10/	4.83	3.22
2N1142*	TO-5	300	30	10/	4.20	2.80
2N1143*	TO-5	300	25	10/	3.50	2.33
2N1195*	TO-5	225	30	10/	3.95	2.63
2N2929*	TO-5	300	25	10/100	6.75	4.50
2N3127*	TO-72	100	25	20/100	5.10	3.40
2N3279	TO-72	100	30	10/70	4.50	3.00
2N3283	TO-72	100	25	10/	1.50	1.00
2N3285	TO-72	100	20	5.0/	1.12	.75
2N3323	TO-18	150	35	30/200	.90	.60
2N3324	TO-18	150	35	30/200	.82	.55
2N3325	TO-18	150	35	30/200	.75	.50
AF139**	TO-72	60	20	50†	1.95	1.30
AF239**	TO-72	60	20	50†	2.17	1.45
MM380**	TO-18	250	25	15/	1.26	.84
MM1139**	TO-72	125	30	15/	1.35	.90
MM5000	TO-72	150	30	30/	4.40	2.95
MM5001	TO-72	150	30	30/	3.15	2.10
MM5002	TO-72	150	30	30/	2.25	1.50
MM5043**	TO-72	150	15	15/150	9.75	6.50
MM5044	TO-72	150	15	15/150	6.00	4.00

*Available as MIL types
**Non-epitaxial

PHOTO SENSITIVE DEVICES

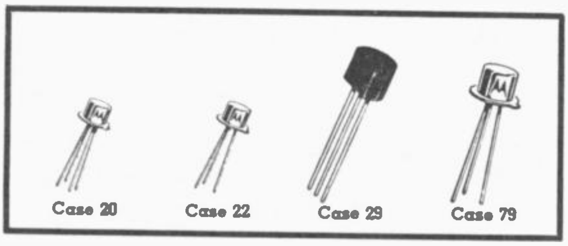
CASE 81

CASE 82

Type	Breakdown Voltage Vcbo Volts	Vceo Volts	Veco Volts	Pd mW	Tj °C	Iceo Dark Current @H=O µA Max	1-24	25-99	100-999
CASE 81									
MRD2001	(*)	50	7.0	50	125	0.1	11.30	9.80	7.50
CASE 82									
MRD3001	80	50	7.0	250	200	0.1	10.50	9.10	7.00

*No base connection

FIELD EFFECT TRANSISTORS



GENERAL PURPOSE AMPLIFIERS AND SWITCHES

Type	Case	BVdss Volts Min	Idss mA Min/Max	Vgs Volts Min/Max	1-99	100-999
2N3796	TO-18	25	0.5/3.0	/4.0	13.50	9.00
2N3797	TO-18	20	2.0/6.0	/7.0	16.50	11.00
3N157*	TO-72	35	/1.0	1.5/3.2	7.50	5.50
3N157A*	TO-72	50	/0.25	1.5/3.2	8.25	5.50
3N158*	TO-72	35	/1.0	3.0/5.0	7.50	5.00
3N158A*	TO-72	50	/0.25	3.0/5.0	8.25	5.50
MFE3001	TO-72	20	0.5/6.0	/8.0	5.85	3.90

*P channel. All other types MOS N-channel

CHOPPER AND SWITCHES

2N4351	TO-72	25	/10nA	1.0/5.0	6.75	4.50
2N4352*	TO-72	25	/10nA	1.0/5.0	6.75	4.50
3N155*	TO-72	35	/1.0	1.0/5.0	7.50	5.00
3N155A*	TO-72	35	/0.25	1.5/3.2	8.25	5.50
3N156*	TO-72	35	/1.0	1.5/3.2	7.50	5.00
3N156A*	TO-72	35	/0.25	3.0/5.0	8.25	5.50
MFE3002	TO-72	15	/10nA	/3.0	8.10	5.40
MFE3003*	TO-72	15	/10nA	/4.0	8.10	5.40

*P channel. All other types MOS N-channel

VHF RF AMPLIFIERS AND MIXERS

MFE3005	TO-72	20	2.0/10	/5.0*	6.40	4.25
MFE3004	TO-72	20	2.0/10	/5.0*	6.75	4.50

*P channel. All other types MOS N-channel

GENERAL PURPOSE AMPLIFIERS AND SWITCHES JUNCTION N CHANNEL

Type	Case	BVgss Volts Min	Idss mA Min/Max	Vgs(off) Volts Max	1-99	100 999
2N3821	TO-72	50	0.5/2.5	4.0	3.90	2.60
2N3822	TO-72	50	2.0/10	6.0	3.60	2.40
2N4220	TO-72	30	0.5/3.0	2.5	2.70	1.80
2N4220A	TO-72	30	0.5/3.0	2.5	3.20	2.15
2N4221	TO-72	30	2.0/6.0	5.0	2.55	1.70
2N4221A	TO-72	30	2.0/6.0	5.0	3.05	2.05
2N4222	TO-72	30	5.0/15	6.0	2.55	1.70
2N4222A	TO-72	30	5.0/15	6.0	3.05	2.05
3N124	TO-72	50	0.2/2.0	2.0	4.35	2.90
3N125	TO-72	50	1.5/4.5	3.0	4.35	2.90
3N126	TO-72	50	3.0/9.0	5.5	4.35	2.90
MFE2093	TO-72	50	0.1/0.7	2.5	4.35	2.90
MFE2094	TO-72	50	0.4/1.4	4.5	2.85	1.90
MFE2095	TO-72	50	1.0/3.0	5.5	2.85	1.90
MFE2097	TO-39†	50	15/15	7.0	2.85	1.90
MFE2098	TO-39†	50	40/100	10	2.85	1.90
2N5265*	TO-72	60	0.5/1.0	3.0	8.10	5.40
2N5266*	TO-72	60	0.8/1.6	3.0	7.65	5.10
2N5267*	TO-72	60	1.5/3.0	6.0	7.20	4.80
2N5268*	TO-72	60	2.5/5.0	6.0	6.75	4.50
2N5269*	TO-72	60	4.0/8.0	8.0	7.20	4.80
2N5270*	TO-72	60	7.0/14	8.0	7.65	5.10
MPF103	TO-92	25	1.0/5.0	6.0	.90	.60
MPF104	TO-92	25	2.0/9.0	7.0	.82	.55
MPF105	TO-92	25	4.0/16	8.0	.90	.60
MPF151*	TO-92	40	1.0/5.0	4.0	1.00	.67
MPF152*	TO-92	40	2.0/9.0	4.5	.75	.50
MPF153*	TO-92	40	4.0/16	6.0	1.00	.67
MPF154*	TO-92	60	1.0/5.0	4.0	1.50	1.00
MPF155*	TO-92	60	2.0/9.0	4.5	1.20	.80
MPF156*	TO-92	60	4.0/16	6.0	1.50	1.00

*P channel
† 1½" leads

CHOPPERS AND SWITCHES

2N3824	TO-72	50		250Ω	3.15	2.10
MFE2133	TO-72	30	25/	60Ω	6.35	4.25

VHF RF AMPLIFIERS AND MIXERS

Type	Case	BVgss Volts Min	Idss mA Min/Max	Vgs(off) Volts Max	1-99	100-
2N3823	TO-72	30	4.0/20	8.0	3.35	2.25
2N4223	TO-72	30	3.0/18	8.0	3.00	2.00
2N4224	TO-72	30	2.0/20	8.0	2.40	1.60
2N4416	TO-72	30	5.0/15	6.0	5.00	3.35
MFE2000	TO-39†	25	4.0/10		3.80	2.55
MFE2001	TO-72	25	8.0/20		3.60	2.40
MFE2002*	TO-72	30	4.0/20	8.0	6.10	4.05
MPF102	TO-92	25	2.0/20	8.0	.90	.60
MPF106	TO-92	25	4.0/10	4.0	1.12	.75
MPF107	TO-92	25	8.0/10	6.0	1.20	.80

*P Channel

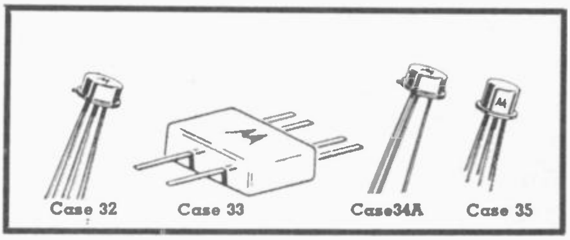
Note: Various head configurations are available on TO-92 package.

MATCHED PAIRS JUNCTION N CHANNEL

Consists of two individual devices which have been carefully matched for critical applications, such as differential amplifier service. Each pair is packaged in a metal clip for pair identity.

Type	Case Pair	BVgss V	Idss mA Min/Max	Vgs V Max	1-99	100-Up
MMF1	TO-72	30	0.5/10	8.0	23.25	15.50
MMF2	TO-72	30	0.5/10	8.0	23.25	15.50
MMF3	TO-72	30	0.5/10	8.0	15.75	10.50
MMF4	TO-72	30	0.5/10	8.0	15.75	10.50
MMF5	TO-72	30	0.5/10	8.0	12.75	8.50
MMF6	TO-72	30	0.5/10	8.0	12.75	8.50

MULTIPLE DEVICES



MOTOROLA TWINS—MULTIPLE TRANSISTORS

DIFFERENTIAL AMPLIFIER TRANSISTORS NPN

Type	Case	PD Ambient Both Sides mW	Vcb Volts	hFE Min/Max	1-99	100-999
2N2223	Case 32A	600	60	25/150	10.05	6.70
2N2223A	Case 32A	600	60	25/150	15.00	10.00
2N2480	Case 32A	600	60	20/	12.75	8.50
2N2480A	Case 32A	600	60	35/	15.35	10.25
2N2916	Case 32A	600	60	225/	12.00	8.00
2N2917	Case 32A	600	60	100/	7.50	5.00
2N2918	Case 32A	600	60	225/	9.75	6.50
2N2920	Case 32A	600	60	225/	14.25	9.50
MD708A	Case 32, TO-89	400,350	40	40/200	6.75	4.50
MD708B	Case 32, TO-89	400,350	40	40/200	4.80	3.20
MD918A	Case 32, TO-89	400,350	30	50/	15.75	10.50
MD918B	Case 32, TO-89	400,350	30	50/	13.20	8.80

PNP

2N3805	TO-71	360	60	300/900	27.75	18.50
2N3805A	TO-71	360	60	300/900	36.15	24.10
2N3808	Case 32C	600	60	150/450	21.00	14.00
2N3810	Case 32C	600	60	150/450	26.25	17.50
2N3811	Case 32C	600	60	300/900	27.75	18.50
2N3811A	Case 32C	600	60	300/900	36.15	24.10

COMPLEMENTARY PAIRS NPN/PNP

Two-in-one complentary transistors for space -reduction considerations.

Type	Case	PD Ambient Both Sides mW	Vce Volts	hFE Min/Max	@ Ic mA	1-99	100-999
2N3838	TO-89	350	40	100/300	150	27.75	18.50
MD986	Case 32,	600, 350	15	25/	10	18.90	12.60
MD6002	Case 32	600	30	100/300	150	13.50	9.00
MD6100	Case 32	600	45	100/	0.1	14.85	9.90

Motorola Special Devices

DUAL TRANSISTORS

Two transistors in the space of one; direct replacements for 2 single NPN, PNP switching and amplifier transistors.

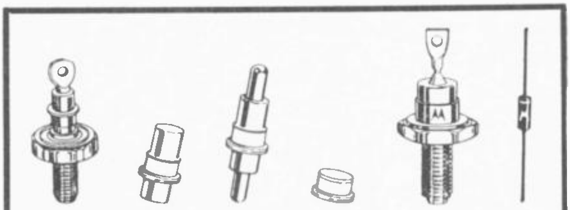
NPN

Type	Case	Pd Ambient Both Sides mW	Vceo Volts	hFE Min/Max	1-99	100-999
2N2973	TO-71	300	45	150/600	14.55	9.70
2N3045	TO-89	350	45	100/300	14.25	9.50
2N3425	Case 32A	450	45	20/200	5.25	3.50

PNP

Type	Case	Pd Ambient Both Sides mW	Vceo Volts	hFE Min/Max	1-99	100-999
2N3800	TO-71	360	60	150/450	14.25	9.50
2N3801	TO-71	360	60	300/900	15.75	10.50

VOLTAGE VARIABLE CAPACITANCE DIODES



Case 44 Case 46 Case 47 Case 48 Case 49 Case 51

VOLTAGE VARIABLE CAPACITANCE AND MULTIPLIER DIODES

Type	Case	Pd @ 75°C Watts	BVR Ir=10 μA Volts Min	Vr=6.0 Vdc, f=50 MHz Q Typ	1-99	100-499
1N4387*	Case 49	20	150	200	42.00	28.00
1N4388*	DO-4	10	100	800	42.00	28.00
1N5149	Case 47	10	80	800	27.00	18.00
1N5150	Case 47	14	80	800	42.00	28.00
1N5153	Case 47	5.5	75	1100	42.00	28.00
1N5155	Case 46	3.5	35	1700	42.00	28.00

*Tj=175°C

TUNING DIODES

Case 51. Pd @ 25°C=400 mW max.

Type	BVr Ir=10 μA Volts Min	Ct, Total Diode Capacitance Vb=4.0 V, f=1.0 MHz Min	Nom	Max	1-99	100-999
1N5139	60	6.1	6.8	7.5	5.85	3.90
1N5139A	60	6.5	6.8	7.1	6.45	4.30
1N5140	60	9.0	10.0	11.0	5.85	3.90
1N5140A	60	9.5	10.0	10.5	6.45	4.30
1N5141	60	10.8	12.0	13.2	5.85	3.90
1N5141A	60	11.4	12.0	12.6	6.45	4.30
1N5142	60	13.5	15.0	16.5	5.85	3.90
1N5142A	60	14.3	15.0	15.7	6.45	4.30
1N5143	60	16.2	18.0	19.8	5.85	3.90
1N5143A	60	17.1	18.0	18.9	6.45	4.30
1N5144	60	19.8	22.0	24.2	5.85	3.90
1N5144A	60	20.9	22.0	23.1	6.45	4.30
1N5145	60	24.3	27.0	29.7	5.85	3.90
1N5145A	60	25.7	27.0	28.3	6.45	4.30
1N5146	60	29.7	33.0	36.3	5.85	3.90
1N5146A	60	31.4	33.0	34.6	6.45	4.30
1N5147	60	36.1	39.0	42.9	5.85	3.90
1N5147A	60	37.1	39.0	40.9	6.45	4.30
1N5148	60	42.3	47.0	51.7	5.85	3.90
1N5148A	60	44.7	47.0	49.3	6.45	4.30
MV830	30	13.5	15.0	16.5	1.35	.90
MV831	30	16.2	18.0	19.8		
MV832	30	19.8	22.0	24.2		
MV833	30	24.3	27.0	29.7		
MV834	30	29.7	33.0	36.3		
MV835	30	35.1	39.0	42.9		
MV836	30	42.3	47.0	51.7		
MV837	30	50.4	56.0	61.6		
MV838	30	61.2	68.0	74.8		
MV839	30	73.8	82.0	90.2		
MV840	30	90.0	100.0	110.0		
MV1620	20	6.1	6.8	7.5	1.42	.95
MV1622	20	7.4	8.2	9.0		
MV1624	20	9.0	10.0	11.0		
MV1626	20	10.8	12.0	13.2		

(Continued next column)

TUNING DIODES (Cont'd)

Type	BVr Ir=10 μA Volts Min	Ct, Total Diode Capacitance Vb=4.0 V, f=1.0 MHz Min	Nom	Max	1-99	100-999
MV1628	20	13.5	15.0	16.5	1.42	.95
MV1630	20	16.2	18.0	19.8		
MV1632	20	18.0	20.0	22.0		
MV1634	20	19.8	22.0	24.2		
MV1636	20	24.3	27.0	29.7		
MV1638	20	29.7	33.0	36.3		
MV1640	20	36.1	39.0	42.9		
MV1642	20	42.3	47.0	51.7		
MV1644	20	50.4	56.0	61.6		
MV1646	20	61.2	68.0	74.8		
MV1648	20	73.8	82.0	90.2		
MV1650	20	90.0	100.0	110.0		
MV1720	30	6.1	6.8	7.5	7.35	4.90
MV1722	30	7.4	8.2	9.0		
MV1724	30	9.0	10.0	11.0		
MV1726	30	10.8	12.0	13.2		
MV1728	30	13.5	15.0	16.5		
MV1730	30	16.2	18.0	19.8		
MV1732	30	18.0	20.0	22.0		
MV1734	30	19.8	22.0	24.2		
MV1736	30	24.3	27.0	29.7		
MV1738	30	29.7	33.0	36.3		
MV1740	30	36.1	39.0	42.9		
MV1742	30	42.3	47.0	51.7		
MV1744	30	50.4	56.0	61.6		
MV1746	30	61.2	68.0	74.8		
MV1748	30	73.8	82.0	90.2		
MV1750	30	90.0	100.0	110.0		
MV1652	20	108	120	135	3.60	2.40
MV1654	20	132	150	165		
MV1656	20	162	180	198		
MV1658	20	180	200	220		
MV1660	20	198	220	242		
MV1662	15	225	250	275		
MV1664	15	243	270	300		
MV1666	15	297	330	363		

Case 45. Pd @ 25°C=500 mW max.

Type	BVr Ir=10 μA Volts Min	Min	Nom	Max	1-99	100-999
MV1858D	60	0.7	1.0	1.3	12.00	8.00
MV1860D	60	1.76	2.2	2.2		
MV1862D	60	2.97	3.3	3.63		
MV1864D	60	6.1	6.8	7.5		
MV1866D	60	9.0	10.0	11.0		
MV1868D	60	10.8	12.0	13.2		
MV1870D	60	13.5	15.0	16.5		

SPECIAL DEVICES

CURRENT REGULATOR DIODES

Type	Regulator Current Ip @ Vt=25 V Nom nA	1-24	25-99	100-MIX	100-999
1N5283	0.22	4.45	3.90	3.40	2.95
1N5284	0.24				
1N5285	0.27				
1N5286	0.30				
1N5287	0.33				
1N5288	0.39				
1N5289	0.43				
1N5290	0.47				
1N5291	0.56				
1N5292	0.62				
1N5293	0.68				
1N5294	0.75				
1N5295	0.82				
1N5296	0.91				
1N5297	1.00				
1N5298	1.10				
1N5299	1.20				
1N5300	1.30				
1N5301	1.40				
1N5302	1.50				
1N5303	1.60				
1N5304	1.80				
1N5305	2.00				
1N5306	2.20				
1N5307	2.40				
1N5308	2.70				
1N5309	3.00				
1N5310	3.30				
1N5311	3.60				
1N5312	3.90				
1N5313	4.30				
1N5314	4.70				

Semiconductors Bendix

DC SERIES REGULATOR MODULES

DC Series Regulator Modules places a complete DC voltage regulator in one small, compact TO-3 transistor package. "Miniaturized" card-type and hand wired circuits. Each module contains a complete silicon solid state compartor amplifier assembly—weighs only ½ ounce! 1-amp modules come as series regulators of 5, 6, 12, 18, and 24 volts, or as shunt regulators of 5, 6, 9, and 12 volts. TO-3 configuration fits all standard socket and heat sinks.

Load Regulations: No load to full load, ±1%.
Maximum Power Dissipation: 25 watts with 25°C case.
Temperature Coefficient: 0.04% per °C typical.
Output Noise: 500 μV RMS typical with no external filter.
Maximum Output Current: 1 amp.
AC Output Impedance: 20 Hz to 10 KHz = 0.1 max, 20 Hz to 40 KHz = 0.25 max. Typically less than 0.1 from 20 Hz to 40 KHz with output filter capacitor.
Operating Temperature: —30°C to +125°C case.
Weight: 0.5 ounce.

1 AMP DC SHUNT REGULATOR MODULES

Type No.	Nominal Output V @ 50% Load*	Input Volt Range	1-24	25-99
BN-4004	6 V	30 mA+	37.00	30.00
BN-4005	9 V	30 mA+	37.00	30.00
BN-4006	12 V	30 mA+	37.00	30.00
5 VOLT, 1 AMP SERIES DC REGULATOR MODULES				
BN-4008	5 V	9-30 V	30.00	24.50
5 VOLT, 1 AMP SHUNT DC REGULATOR MODULES				
BN-4009	5 V	30 mA+	37.00	30.00

1 AMP DC SERIES BN-4000 REGULATOR MODULES

Type No.	Nominal Output V @ 50% Load*	Input Volt. Range	1-24	25-99
BN-4000	6 V	10-31 V	30.00	24.50
BN-4001	12 V	16-37 V	30.00	24.50
BN-4002	18 V	22-40 V	30.00	24.50
BN-4003	24 V	28-40 V	30.00	24.50

* 3% Setting Tolerance. +Minimum Input Current.

1 AMP DC SERIES BN-4100 REGULATOR MODULES

Features: Fixed Voltage ±10%. Low temperature coefficient of 0.1%/°C typical. ±2% load regulation from minimum to maximum load. Standard TO-3 package outline. Hermetically sealed. Corrosion resistant finish. Fits all standard sockets and heat sinks. Can be mounted in any position. Mounting Kit provided. Weight 0.4 ounce.
Load Regulation (no load to full load): = 2% maximum.
Temperature Coefficient: 0.1%/°C typical.
Output Noise (no external filter): 500 μV RMS typical
Storage Temperature: —55°C to +150°C case
Operating Temperature: —30°C to +125°C case

Type No.	Nominal Output V @ 50% Load*	Input Volt. Range	1-24	25-99
BN-4100	5 V	9-20 V	10.40	8.90
BN-4101	6 V	10-21 V	10.40	8.90
BN-4102	12 V	16-27 V	10.40	8.90
BN-4103	18 V	22-33 V	10.40	8.90
BN-4104	25 V	29-40 V	10.40	8.90

HIGH FREQUENCY-HIGH POWER SILICON NPN TRANSISTORS

Type No.	Case	Vceo V	Ic A	Pc W	Cur. Gain hFE	Cur. Gain Ic in A	1-99	100-999
2N3055	TO-3	60	15	115	20-70	4	2.06	1.45
2N3771	TO-3	40	30	150	15-60	15	4.95	3.42
2N3772	TO-3	60	30	150	15-60	10	4.95	3.42
2N3852	TO-59	40	5	30	50-150	1	17.00	11.00
2N4000	TO-5	80	1	15	30-120	.5	10.20	6.75
2N4225	TO-5	40	3	5	25 min	2	5.40	3.60
2N4226	TO-5	60	3	5	20 min	2	6.45	4.30
2N4237	TO-5	40	1	5	30 min	.5	2.25	1.50
2N4238	TO-5	60	1	5	30 min	.5	2.75	1.85
2N4239	TO-5	80	1	5	30 min	.5	3.05	2.05
2N4300	TO-5	80	2	15	30-120	1	12.75	8.50

PNP ALLOY POWER TRANSISTORS

(a) Vcer @ RBE = 30 ohms; (b) Power gain in db. *Vces

2N234A	TO-3	25(a)	3	25	25(b)	0.42	1.13	.75
2N235A	TO-3	35(a)	3	25	30-40(b)	0.76	1.50	1.00
2N235B	TO-3	35(a)	3	25	30-40(b)	0.42	1.70	1.05
2N255	TO-3	14(a)	3	25	19(b)	0.5	.75	.50
2N256	TO-3	....	3	25	22(b)	0.5	.95	.70
2N301	TO-3	32*	3	25	30(b)	0.5	1.26	.84
2N301A	TO-3	32*	3	25	30(b)	0.5	2.82	2.10
2N456	TO-3	40*	5	50	10 min	5	1.80	1.20
2N457	TO-3	20	7	50	10 min	5	2.18	1.45
2N553	TO-3	40	4	25	40 min	0.5	3.25	2.23
2N554	TO-3	30(a)	3	25	25(b)	0.42	.90	.67
2N555	TO-3	30*	3	65	20 min	0.5	.90	.67
2N1021A	TO-3	100	7	150	30-90	5	3.08	2.05
2N1136	TO-3	30	5	90	50-100	3	2.48	1.65
2N1136A	TO-3	55	5	90	50-100	3	3.23	2.15
2N1136B	TO-3	65	5	90	75-150	3	4.50	3.00
2N1137	TO-3	30	5	90	75-150	3	2.85	1.90
2N1137A	TO-3	55	5	90	75-150	3	3.98	2.65
2N1137B	TO-3	65	5	90	100-200	3	5.70	3.80
2N1138	TO-3	30	5	90	100-200	3	3.23	2.15
2N1146	TO-3	20	20	90	60-150	5	2.75	1.80
2N1146A	TO-3	30	20	90	60-150	5	3.10	2.25
2N1544	TO-3	20	3	90	75-150	3	1.65	1.24
2N1547	TO-3	50	3	90	75-150	3	2.75	2.05

DIFFUSED ALLOY POWER DAP® TRANSISTORS

2N1651	TO-41	60	25	100	20 min	25	5.25	3.50
2N1652	TO-41	100	25	100	20 min	25	12.00	8.00
2N2288	TO-3	40	10	60	20-60	5	2.65	1.78
2N2289	TO-3	80	10	60	20-60	5	4.00	2.67
2N2469	TO-5	200	3	5	30-90	0.5	11.25	7.50

PNP ALLOY HIGH POWER TRANSISTORS AND INVERTERS

2N677	TO-3	20	10	90	20-60	10	3.00	2.00
2N677A	TO-3	30	15	90	20-60	10	3.60	2.40
2N677B	TO-3	60	15	90	20-60	10	7.13	4.75
2N678B	TO-3	60	15	90	50-100	10	10.50	7.00

AUDIO AMPLIFIER

Designed for marine and automotive applications with battery voltages of 14 volts. Rated output will be sustained even under elevated temperatures and power supply voltages ranging from 11 to 16 volts. Operation with inputs of 5 millivolts eliminate the need for preamplifiers, while retaining minimum distortion.

Type	Output Voltage	1-24	25-99	100-999
BHA-0001	2 watt	7.35	6.10	4.90
BHA-0002	15 watt	9.40	7.50	5.60

THICK FILM POWER DRIVER MODULE

Designed to drive loads with high power requirements from relatively feeble digital signals. Modules consist of a high power, high gain amplifier coupled to the output of a 3 input expandable logic gate. Output circuits of module can switch power as high as 300W and voltages to 60 V. Typical applications include: DC Motors and Servos, Solenoids and Relays, Tape-perforators, Magnetic Cores and a variety of power switching functions.

Type	Output Voltage	Input Leakage Current @ 125°C	1-24	25-99	100-999
BHB-0005	60V	300μA	18.45	15.40	12.30
BHB-0005A	40V	300μA	20.25	16.90	13.50
BHB-0006	60V	100μA	16.90	14.05	11.25
BHB-0006A	40V	100μA	18.45	15.40	12.30

10 AMP SILICON FULL WAVE BRIDGE RECTIFIER

Applications include power supplies, AC to DC converters and motor control circuits.

Type	Vrm	Vr	1-24	25-99	100-999
BHC-0001	100V	70	4.30	3.55	2.85
BHC-0002	200V	140	4.50	3.75	3.00
BHC-0003	300V	210	4.65	3.90	3.10
BHC-0004	400V	280	5.25	4.35	3.50
BHC-0005	500V	420	5.60	4.70	3.75

ENCAPSULATED NPN SILICON POWER TRANSISTORS

Type	Case Type	Vceo V	IC A	Pc W	Current Gain hFE	Current Gain Ic in A	1-99	100-999
B-5000	B-5000	35	3	25	30-250	0.5	.88	.59
B-5001	B-5001	35	3	...	30-250	..	.95	.65

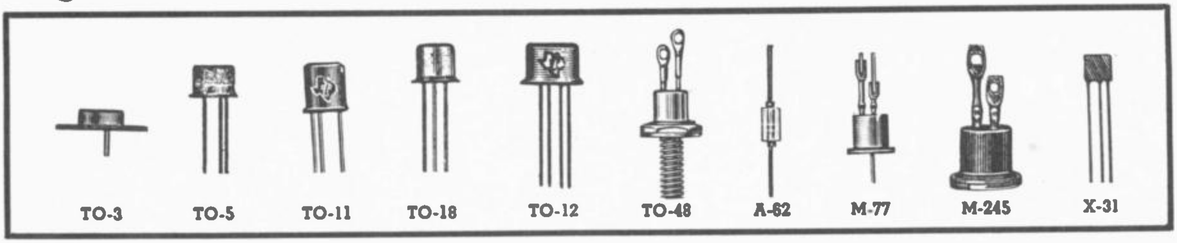
SILICON NPN AMPLIFIER TRANSISTORS

B-170003	TO-3	70	6	60	30 min.	1	2.40	1.60
B-170005	TO-3	70	15	120	12 min.	5	2.55	1.70
B-170006	TO-3	100	6	60	30 min.	1	2.80	1.85
B-170007	TO-3	100	10	90	20 min.	3	2.90	1.95

SILICON NPN REGULATOR TRANSISTORS

B-170009	TO-3	40	6	60	30 min.	1	2.10	1.40
B-170011	TO-3	40	15	120	12 min.	5	2.35	1.55
B-170012	TO-3	70	6	60	30 min.	1	2.25	1.50
B-170014	TO-3	70	15	120	12 min.	5	2.40	1.60

Texas Instruments Semiconductors



NPN SILICON GROWN-JUNCTION TRANSISTORS

Type	Case	Polarity	Rated Vcbo V	Pd 250°C mw	1-99	100-999
2N117	A-62	NPN	30	150	8.15	5.45
2N332	TO-5	NPN	45	150	4.65	3.10
2N332A	TO-5	NPN	45	500	4.90	3.30
2N333	TO-5	NPN	45	150	4.65	3.10
2N333A	TO-5	NPN	45	500	4.90	3.30
2N334	TO-5	NPN	45	150	4.65	3.10
2N335	TO-5	NPN	45	150	4.90	3.30
2N335A	TO-5	NPN	45	500	5.20	3.50
2N336	TO-5	NPN	45	150	5.95	3.95
2N336A	TO-5	NPN	45	500	6.25	4.20
2N542	TO-5	NPN	45	125	6 20	4.10
2N1149	A-62	NPN	45	150	8.65	5.75
2N1278	TO-5	NPN	40	150	4.75	3.15
TI480	TO-11	NPN	50	150	1.55	1.20
TI481	TO-11	NPN	80	600	1.90	1.45
TI492	TO-5	NPN	15	600	1.55	1.20
TI493	TO-5	NPN	30	200	1.90	1.45
TI494	TO-5	NPN	45	200	2.50	1.90
TI495	TO-5	NPN	15	125	3.00	2.30
TI496	TO-11	NPN	70	600	1.75	1.35

NPN SILICON GROWN JUNCTION

Type	Case	Vcbo Volts	hFE	Pd mW	1-99	100-999
2N337	TO-5	45	20-55	125	4.85	3.20
2N338	TO-5	45	45-150	125	5.50	3.65

GROWN JUNCTION TETRODE TRANSISTORS

Type	Case	Rated Vcbo V	hFE	Power Diss TA=25°C mW	1-99	100-999
3N34	TO-12	30	30	125	5.00	4.00
3N35	TO-12	30	70	125	22.50	15.00

MEDIUM — POWER GROWN JUNCTION TRANSISTORS

Type	Case	Rated Vcbo V	hFE	Power Diss TA=25°C mW	1-99	100-999
2N340	TO-11	85	9-90	1	8.64	6.48
2N343	TO-11	60	28-90	1	14.72	11.03
2N1155	....	80	9 Min.	0.75	10.52	7.92
2N1156	....	120	9 Min.	0.75	14.12	10.58

SILICON GROWN UNIJUNCTION TRANSISTORS

Type	Case	Rated Veb2 Volts	Intrinsic Standoff Ratio	1-99	100-999
TIS43	TO-92	35	.55 - .82	1.08	.72
2N489	TO-5	65	.51 - .62	7.10	4.75
2N490	TO-5	65	.51 - .62	7.80	5.20
2N491	TO-5	65	.56 - .68	8.40	5.60
2N492	TO-5	65	.56 - .68	9.80	6.55
2N494C	TO-5	65	.62 - .75	14.95	9.90
2N1671*	TO-5	35	.47 - .62	2.95	1.98
2N1671A*	TO-5	35	.47 - .62	3.20	2.14
2N1671B*	TO-5	35	.47 - .62	3.55	2.36
2N2160	TO-5	35	.47 - .82	1.49	.99
2N3980	TO-18	35	.68 - .82	7.35	4.90
2N4891	AAA	35	.55 - .82	1.05	.72
2N4892	AAA	35	.51 - .69	1.25	.85
2N4893	AAA	35	.55 - .82	1.10	.75
2N4894	AAA	35	.74 - .86	1.20	.80
2N4947	TO-18	35	.51 - 69	2.03	1.35
2N4948	TO-18	35	.55 - .82	1.47	.98
2N4949	TO-18	35	.74 - .86	2.78	1.85

Peak Emitter current, 2A Rated Bbb 65V except (*) 35V.
AAA indicates a Pin Circle SILECT case.

SILICON NPN GENERAL PURPOSE TRANSISTORS

Type	Case	Vcbo V	Pd W	hFE Min.	1-99	100-999
2N696*	TO-5	60	0.6	20	.52	.46
2N697*	TO-5	60	0.6	40	.52	.46
2N698*	TO-5	120	0.8	20	1.57	1.05
2N699*	TO-5	120	0.6	40	1.57	1.05
2N702*	TO-18	25	0.3	20	6.75	4.50
2N717	TO-18	60	0.4	20-60	.99	.66
2N718*	TO-18	60	0.4	40	.46	.40
2N718A*	TO-18	75	0.5	40	.79	.68
2N719	TO-18	120	0.4	20-60	2.35	1.56
2N719A	TO-18	120	0.5	20-60	2.50	1.67
2N720*	TO-18	120	0.4	40	1.83	1.22
2N730*	TO-18	60	0.5	20	.99	.66
2N731*	TO-18	60	0.5	40	1.30	.86
2N870	TO-18	100	0.5	40-120	5.25	3.50
2N871	TO-18	100	0.5	100-300	5.33	3.56
2N910*	TO-18	100	0.5	75	2.37	1.58
2N912	TO-18	100	0.5	15 min.	5.30	4.00
2N1420*	TO-5	60	0.6	100	.65	.56
2N1507*	TO-5	60	0.6	100	1.20	.80
2N1613*	TO-5	75	(0.8)	40	.79	.68
2N1711*	TO-5	75	0.8	100	.85	.74
2N1889	TO-5	100	0.8	40-120	5.25	3.50
2N1890	TO-5	100	0.8	100-300	5.30	3.55
2N1893*	TO-5	120	0.8	40	1.32	.88
2N1973*	TO-5	100	0.8	75	2.37	1.58
2N1974	TO-5	100	0.8	35 min.	6.70	5.00
2N1975	TO-5	100	0.8	15 min.	5.30	4.00
2N2102	TO-5	120	1	10 min.	.99	.75
2N2102A	TO-5	120	1	10 min.	1.07	.80
2N2192	TO-5	60	0.8	100-300	4.20	2.80
2N2192A†	TO-5	60	0.8	100	4.45	2.95
2N2193†	TO-5	60	0.8	40	2.95	1.95
2N2193A†	TO-5	60	0.8	40	3.15	2.10
2N2194	TO-5	60	0.8	20-60	2.18	1.45
2N2217†	TO-5	60	0.8	20	3.02	2.01
2N2218†	TO-5	60	0.8	40	1.00	.88
2N2218A†	TO-5	60	0.8	40	5.25	3.50
2N2219†	TO-5	60	0.8	100	1.00	.88
2N2219A†	TO-5	60	0.8	100	5.70	3.80
2N2220†	TO-18	60	0.5	20	3.02	2.01
2N2221	TO-18	60	0.5	40-120	1.00	.88
2N2221A†	TO-18	60	0.5	40	4.35	2.90
2N2222†	TO-18	60	0.5	100	1.07	.93
2N2222A†	TO-18	60	0.5	100	5.40	3.60
2N2243†	TO-5	60	0.8	40	4.80	3.20
2N2243A†	TO-5	60	0.8	40	5.10	3.40
2N3036†	TO-5	120	0.8	50	5.50	3.70
2N3053	TO-5	60	0.8	50-250	.75	.50
2N3114†	TO-5	150	0.8	30	6.00	4.00
2N3712	TO-5	150	.8	30	3.00	2.00
2N5058	TO-5	300	1	35-150	12.00	8.00
2N5059	TO-5	250	1	35-150	9.00	6.00
TIS23	X-31	45	.15	100	4.65	3.10
TIS24	X-31	60	.15	100	6.45	4.30

*Mfg. Proc., Planar. †Mfg. Proc., Epitaxial Planar.

SILICON PNP GENERAL PURPOSE TRANSISTORS

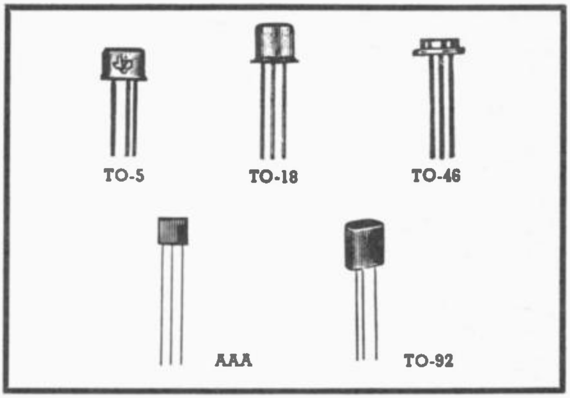
Type	Case	Vcbo V	Pd. mw	Min. hFE	1-99	100-999
2N327A	TO-5	50	....	9	2.00	1.25
2N328A	TO-5	50	....	18	3.00	2.00
2N329A	TO-5	50	....	36	4.50	3.00
2N721	TO-18	50	....	20	1.46	1.27
2N995	TO-18	20	....	35	5.85	3.90
2N1131	TO-5	50	600	20	1.46	1.27
2N1132	TO-5	50	600	30	1.46	1.27
2N2696	TO-18	25	360	30	7.50	5.00
2N2904	TO-5	60	600	40	1.90	1.65
2N2904A	TO-5	60	600	40	4.90	3.25
2N2905	TO-5	60	600	100	1.90	1.65
2N2905A	TO-5	60	600	100	5.60	3.75
2N2906	TO-18	60	400	40	1.90	1.65
2N2906A	TO-18	60	400	40	4.65	3.10
2N2907	TO-18	60	400	100	1.90	1.65
2N2907A	TO-18	60	400	100	5.40	3.60
2N3502	TO-5	45	....	100	1.90	1.65
2N3503	TO-5	60	....	100	11.55	7.70
2N3504	TO-18	45	....	100	1.90	1.65

Texas Instruments Semiconductors

SILICON NPN SWITCHING TRANSISTORS

Type	Case	Min ft Mc	Pd mw	Rated Vceo V	Max Ts nsec	1-99	100-999
TIS44	TO-92	200	250	20	60	.49	.37
TIS45	TO-92	300	250	15	25	.60	.45
TIS46	TO-92	300	250	15	40	.63	.47
TIS47	TO-92	400	250	15	18	.60	.45
TIS48	TO-92	500	250	15	23	.64	.48
TIS49	TO-92	500	250	15	18	.75	.55
TIS51	TO-92	400	250	12	18	.63	.48
TIS52	TO-92	350	250	20	20	.65	.49
TIS55	TO-92	350	250	15	18	.60	.46
T1485	TO-18	100	300	14		3.25	2.50
2N706	TO-18	200	300	15	60	.99	.66
2N706A	TO-18	200	300	15	25	1.19	.79
2N706B	TO-18	200	300	15	25	1.49	.99
2N708	TO-18	300	360	15	25	.49	.43
2N709	TO-18	600	300	6	6	2.48	1.65
2N744	TO-18	282	300	12	18	1.90	1.25
2N753	TO-18	200	300	15	35	.72	.48
2N914	TO-18	300	360	15	20	.93	.63
2N2368	TO-18	400	360	15	10	1.07	.93
2N2369	TO-18	500	360	15	13	1.07	.93
2N2369A	TO-18	500	360	15	13	1.65	1.10
2N2410	TO-5	200	800	40	40	4.50	3.00
2N2481	TO-18	300	360	15	20	2.63	1.75
2N2537	TO-5	250	800	30	20	4.95	3.30
2N2538	TO-5	250	800	30	20	5.85	3.90
2N2539	TO-18	250	500	30	20	4.50	2.95
2N2693	TO-18	150	300	30	900	7.75	5.50
2N3009	TO-18	350	360	15	18	1.98	1.32
2N3010	TO-18	600	300	6	6	1.90	1.27
2N3011	TO-18	400	360	12	13	1.98	1.32
2N3013	TO-18	350	360	15	18	7.00	4.69
2N3724	TO-5	300	800	30	60	8.50	5.50
2N3725	TO-5	300	800	50	60	11.50	7.50
2N3014	TO-18	350	360	20	18	3.60	2.40
2N3015	TO-5	250	800	30	60	3.50	2.00
2N3035	TO-18	.....	300	50	40	12.50	8.30
2N3829	TO-18	350	360	20	40	6.00	4.00
2N3831	TO-18	......	1	40	10	9.00	6.00
2N3832	TO-18	.....	200	6	....	7.50	5.00
2N4418	AAA	500	250	15	12	.64	.48
2N4419	AAA	500	250	12	14	.60	.45
2N4420	AAA	350	250	20	15	.65	.49
2N4421	AAA	350	250	12	18	.60	.45
2N4422	AAA	350	250	15	20	.60	.46

All Epitaxial Planar except (*) Mesa. AAA means Pin-Circle SILECT Case.



SILICON NPN HIGH FREQ. AMPLIFIER-OSCILLATOR

Type	Case	Min ft MHz	Pd mw	Cobo pf	1-99		100-999
TIS56	TO-18	500	200	0.32	2.70		1.80
TIS57	TO-18	500	200	0.32	1.80		1.20
2N916	TO-18	300	360	6	3.65		2.90
2N917	TO-18	500	200	1.7	2.48		1.65
2N918	TO-18	600	200	1.7	3.30		2.20
2N2863	TO-5	150	800	13	1.50		1.00
2N2865	TO-18	600	200	2.5	3.45		2.30
					1-24	25-99	100-999
TIX3016A	X-15	....	200	1.7	50.00	43.50	29.00
					1-99		100-999
2N3572	TO-18	1000	200	0.85	5.25		3.95
2N4252	TO-18	600	200	0.45	1.85		1.23
2N4253	TO-18	600	200	0.45	1.60		1.00
2N4254	TO-92	600	200	0.65	.90		.60
2N4255	TO-92	600	200	0.65	.85		.57
2N4874	TO-5	900	200	3.5	5.85		3.90
2N4875	TO-5	800	200	3.5	4.95		3.42
2N4876	TO-5	650	200	3.5	4.20		2.80

All Epitaxial Planar except (*) Planar.

SILICON NPN SWITCHING TRANSISTORS

Type	Case	Min ft MHz	Pd 25°C mw	Rated Vceo v	Ts Max. nsec.	1-99	100-999
2N726*	TO-18	140	300	20	....	3.00	2.00
2N2411	TO-18	140	300	20	90	3.15	2.10
2N2412	TO-18	140	300	20	90	6.00	4.00
2N2894	TO-18	400	360	12	(90)	1.95	1.30
2N3012	TO-18	400	360	12	(75)	1.95	1.30
2N3829	TO-18	350	360	20	....	6.00	4.00
2N4423	....	400	250	12	....	.76	.51

All Epitaxial Planar Except (*) Mesa.

SILICON CHOPPER TRANSISTORS

Type	Case	Vec(off) Offset Voltage μv	Min V(br)eco v	MAX IEB na	1-99	100-999
2N2432*	TO-18	500	15	2.0	8.10	5.40
2N2432A	TO-18	400	18	2.0	8.10	5.40
2N2944	TO-46	300	10	0.1	5.50	3.68
2N2944A	TO-46	300	10	0.1	6.30	4.20
2N2945	TO-46	500	20	0.2	5:00	3.35
2N4138	TO-46	500	15	2.0	12.00	8.00

All Epitaxial Planar and PNP except (*) Planar and NPN.

SILICON NPN LOW-LEVEL AMPLIFIER

Type	Case	Ic Range mA	Vceo v	Min fr MHz	1-99	100-999
TIS23	WWW	.001-50	45	30	4.65	3.10
2N735	TO-18	1-30	60	60	2.50	1.65
2N736	TO-18	1-30	60	60	2.50	1.65
2N736A	TO-18	1-30	80	100	2.50	1.65
2N760	TO-18	.1-30	45	50	1.80	1.20
2N929*	TO-18	.01-30	45	30	2.25	1.50
2N930*	TO-18	.01-30	45	30	2.60	1.75
2N1566	TO-5	.1-30	60	60	2.50	1.65
2N2483*	TO-18	.01-10	60	60	3.60	2.40
2N2484*	TO-18	.001-10	60	60	3.80	2.65
2N2586	TO-18	.001-10	45	45	6.00	4.00
2N3117	TO-18	.001-50	60	60	6.00	4.00
2N4104	TO-18	.001-50	60	90	6.00	4.00

All Mesa except (*) Planar.

SILICON PNP ALLOY REPLACEMENT TRANSISTORS

Type	Case	Pd mw	B Vceo V	Icbo Na	hFE Min.	1-99	100-999
2N328A	TO-5	500	35	100	18	3.00	2.00
2N329A	TO-5	500	30	100	36	4.50	3.00

SILICON NPN AVALANCHE SWITCH — EPITAXIAL MESA

Type	Case	Output v	Vbe v	V(br)cer v	Ton nsec	1-99	100-999
2N3035	TO-18	20	1.5	50	5	12.50	8.30

SILICON PNP LOW-LEVEL AMPLIFIER—EPITAXIAL PLANAR

Type	Case	Ic Range ma	Vceo v	Min ft MHz	1-99	100-999
2N2604	TO-46	.01-10	45	30	6.00	4.00
2N2605	TO-46	.01-10	45	30	6.60	4.40
2N2861	TO-18	.01-10	20	60	8.50	5.65
2N2862	TO-18	.01-10	20	45	6.00	4.00
2N3798	TO-18	.001-50	360	100	6.15	4.10
2N3799	TO-18	.001-50	360	100	6.75	4.50
2N3962	TO-18	.001-200	360	40	3.80	2.65
2N3963	TO-18	.001-200	360	40	6.00	4.00
2N3964	TO-18	.001-200	360	50	6.00	4.00
2N3965	TO-18	.001-200	360	50	7.50	5.00

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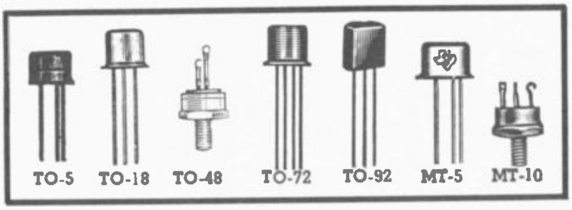

COMPLEMENTARY EPITAXIAL PLANAR SILICON TRANSISTORS

Type	Nearest Equivalent	Case	Polarity	Vceo V	1-99	100-999
TIS60	2N2217	LLL (TO-92)	NPN	25	.53	.34
TIS60M	2N2217	LLL (Pair)	NPN	25	.56	.36
TIS61	2N2904	LLL (TO-92)	PNP	25	.57	.38
TIS61M	2N2904	LLL (Pair)	PNP	25	.59	.40
TIS62	2N918	AAA	NPN	12	.59	.39
TIS63	2N918	AAA	NPN	12	.57	.38
TIS64	2N918	AAA	NPN	12	.54	.36
TIS83	2N4252	LLL (TO-92)	NPN	25	1.05	.70
TIS84	TIS56	AAA	NPN	30	.97	.65
TIS85	TIS56	AAA	NPN	30	.93	.62
TIS86	2N4252	AAA	NPN	30	.97	.65
TIS87	2N4252	AAA	NPN	45	.93	.62
TIS90	2N2219	LLL (TO-92)	NPN	40	.55	.36
TIS90M	2N2219	LLL (Pair)	NPN	40	.58	.38
TIS91	2N2905	LLL (TO-92)	PNP	40	.59	.42
TIS91M	2N2905	LLL (Pair)	PNP	40	.61	.43
TIS92	2N2219	AAA	NPN	40	.55	.36
TIS92M	2N2219	AAA (Pair)	NPN	40	.58	.38
TIS93	2N2905	AAA	PNP	40	.59	.42
TIS93M	2N2905	AAA (Pair)	PNP	40	.61	.43
TIS94	....	LLL (TO-92)	NPN	40	.49	.36
TIS95	....	LLL (TO-92)	NPN	40	.45	.33
TIS96	....	LLL (TO-92)	NPN	65	.45	.33
TIS97	....	AAA	NPN	40	.49	.36
TIS98	....	AAA	NPN	60	.39	.30
TIS99	....	AAA	NPN	65	.45	.33
TI407	2N918	LLL (TO-92)	NPN	12	.59	.39
TI408	2N918	LLL (TO-92)	NPN	12	.57	.38
TI409	2N918	LLL (TO-92)	NPN	12	.54	.36
2N3702	2N2904	LLL (TO-92)	PNP	25	.45	.30
2N3703	2N2904	LLL (TO-92)	PNP	30	.39	.26
2N3704	2N2217	LLL (TO-92)	NPN	30	.60	.41
2N3705	2N2217	LLL (TO-92)	NPN	30	.57	.38
2N3706	2N2217	LLL (TO-92)	NPN	20	.52	.35
2N3707	2N929	LLL (TO-92)	NPN	30	.60	.37
2N3708	2N929	LLL (TO-29)	NPN	30	.45	.30
2N3709	2N929	LLL (TO-92)	NPN	30	.48	.32
2N3710	2N929	LLL (TO-92)	NPN	30	.49	.33
2N3711	2N929	LLL (TO-92)	NPN	30	.54	.36
2N3712	2N3114	1 (TO-5)	NPN		3.00	2.00
2N3825		LLL (TO-92)	NPN	15	.58	.39
2N3826	2N915	LLL (TO-92)	NPN	45	.54	.36
2N3827	2N915	LLL (TO-92)	NPN	45	.58	.39
2N4058	2N2605	LLL (TO-92)	PNP	30	.66	.44
2N4059	2N2604	LLL (TO-92)	PNP	30	.54	.36
2N4060	2N2604	LLL (TO-92)	PNP	30	.54	.36
2N4061	2N2604	LLL (TO-92)	PNP	30	.55	.37
2N4062	2N2605	LLL (TO-92)	PNP	30	.57	.38
2N4254	2N4254	LLL (TO-92)	NPN	18	.60	.40
2N4255	2N4255	LLL (TO-92)	NPN	18	.90	.60

SILICON NPN DUAL PLANAR TRANSISTORS

Type	Case	Equiv. Triode	Pd w	μv/C°	1-99	100-999
2N2641	MT-5	2N929	0.6	....	6.00	4.00
2N2642	MT-5	2N930	0.6	20	25.00	16.70
2N2913	MT-5	2N2483	....	....	3.10	2.10
2N2914	MT-5	2N2484	....	....	3.50	2.30
2N2915	MT-5	2N2483	....	....	10.10	6.75
2N2916	MT-5	2N2484	....	....	12.00	8.05
2N2917	MT-5	2N2483	....	....	7.50	5.00
2N2918	MT-5	2N2484	....	....	9.75	6.40
2N2919	MT-5	2N2483	....	....	11.00	7.35
2N2920	MT-5	2N2484	....	....	14.00	9.40

Type	Case	Equiv. Triode	Pd w	μv/C°	1-24	25-99	100-999
2N3043	MT-5	2N930	....		39.00	31.20	26.00

SILICON DUAL FIELD EFFECT TRANSISTORS

Type	Case	Elements	1-24	25-99	100-999
2N3838	Axial Lead Rect.	PNP/NPN	27.75	24.00	18.50

Type	Case	Elements	1-99	100-999
2N4854	Low Profile Dual	PNP/NPN	13.50	9.00
2N4855	Low Profile Dual	PNP/NPN	10.80	7.20

SILICON PNP DUAL TRANSISTORS

Type	Case	Equiv. Triode	Pd w	μv/C°	1-99	100-999
2N2807	MT-5	2N2412	0.5	....	6.00	4.00
2N3806	MT-5	2N3798	....	....	14.25	9.50
2N3807	MT-5	2N3799	....	....	15.75	10.50
2N3808	MT-5	2N3798	....	....	21.00	14.00
2N3809	MT-5	2N3799	....	....	22.50	15.00
2N3810	MT-5	2N3798	....	....	26.25	17.50
2N3811	MT-5	2N3799	....	....	27.75	18.50

SILICON FIELD-EFFECT TRANSISTORS

Type	Case	IdSS ma	Min. Yfs mho	Min. V(BR) GSS V	1-99	100-999
TIS58†	TO-92	2.5-8	1300	25	.99	.67
TIS59†	TO-92	6-25	2300	25	.96	.64
TIS42†	TO-92	....	....	25	4.95	3.25
TIS88	AAA	5-15	4500	30	1.75	.95
TIS67	AAA	.01	3500	.....	3.50	2.60
TIS78	AAA	2-10	750	300	6.95	5.25
TIS79	AAA	2-10	750	200	6.50	4.80
2N2386	TO-5	....	1000	20	3.75	2.40
2N2497	TO-5	1-3	1000	20	6.45	4.95
2N2498	TO-18	2-6	1500	20	6.45	4.95
2N2499	TO-18	5-15	2000	20	6.45	4.95
2N2500	TO-18	1-6	1000	20	8.45	5.95
2N3328	TO-18	1 max	100	20	5.50	3.70
2N3330	TO-18	2-6	1500	20	6.50	4.30
2N3331	TO-18	5-15	2000	20	12.00	8.05
2N3332	TO-18	1-6	1000	20	4.95	3.75
2N3819	TO-92	2-10	800	25	.90	.60
2N3820	TO-92	.3-15	300	20	2.95	1.95
2N3821	TO-72	0.5-2.5	1500	50	8.00	5.35
2N3822	TO-72	2-10	3000	50	6.50	4.70
2N3823	TO-72	4-20	3500	30	4.00	2.70
2N4416	TO-72	5-15	4500	30	5.00	3.35
2N4856†	TO-18	....	....	40	4.45	3.40
2N4857†	TO-18	....	....	40	4.95	3.75
2N4858†	TO-18	....	....	40	3.60	2.70
2N4859/ TIS41	TO-18	....	....	30	3.60	2.70
2N4860†	TO-18	....	....	30	3.80	2.85
2N4861†	TO-18	....	....	30		

All P chan. polarity, planar except (†) N-channel.

SILICON FIELD-EFFECT CHOPPER TRANSISTORS

Type	Case	Input Cap. Max.	Min. V(BR)GSS V.	1-99	100-999
TIS73	TO-92	18	30	5.25	3.65
TIS74	TO-92	18	30	5.00	3.25
TIS75	TO-92	18	30	5.10	3.30
2N3824	TO-72	6	50	4.00	2.70
2N3993	TO-72	16	25	30.00	20.00
2N3994	TO-72	16	25	26.10	16.80
2N4856	TO-18	18	40	4.95	3.75
2N4857	TO-18	18	40	4.45	3.40
2N4858	TO-18	18	40	4.95	3.75
2N4859	TO-18	18	30	3.60	2.70
2N4860	TO-18	18	30	3.60	2.70
2N4861	TO-18	18	30	3.80	2.85

SILICON MINIATURE TRANSISTORS

Type	Case	Equivalent (Dual/Single)	Pd mW	1-99	100-999
TIS23	CP†	2N930	150	4.65	3.10
TIS24	CP†	2N2484	150	6.45	4.30
2N850	TO-50	2N753	300	7:10	4.75
2N2396	TO-50	2N697	450	11.55	7.70

Type	Case	Equivalent (Dual/Single)	Pd mW	1-24	25-99	100-999
2N3043	X-14	2N2642/2N930		39.00	31.20	26.00

SILICON POWER TRANSISTORS

Type	Case	Ic max a	Pd 100°C Case	V(br) ceo V	hFE Min	1-99	100-999
TI486	TO-5	.75	15	60	20	4.90	3.25
TI487	MT-21	.75	15	60	20	5.60	3.75
2N498	TO-5	.5	4	100	12	2.12	1.41
2N656	TO-5	.5	4	60	30	2.03	1.35
2N657	TO-5	.5	4	100	30	2.20	1.47
2N1048	MT-5	1	23	120	12	18.10	12.05
2N1049	MT-5	1	23	80	30	16.75	11.15
TI1133	MT-10	7.5	80	75	30	14.70	9.80
2N1716	TO-5	.75	10	100	40	7.50	5.00
2N1720	MT-13	.75	10	100	40	8.25	5.50
2N2151*	H	2	30	80	40	24.75	16.50
2N2989†	TO-5	1	15	80	60	10.20	6.75
2N2990†	TO-5	1	15	100	60	13.10	8.75
2N2993†	MT-13	1	15	80	60	10.90	7.25
2N3420*	TO-5	5	10	60	40	10.45	6.95

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SILICON POWER TRANSISTORS (Cont'd)

Type	Case	Ic max a	Pd 100°C Case	V(br) ceo V	hFE Min.	1-99	100-999
2N3421*	TO-5	5	10	80	40	10.80	7.20
2N3997	TO-18	5	30	80	80	18.30	12.20
2N3998	TO-48	5	30	80	40	19.60	13.05
2N3999	TO-48	5	30	80	80	....	....
2N4000	TO-5	1	15	80	30	7.10	4.75
2N4001	TO-5	1	15	100	40	7.65	5.10
2N4002	MT-10	30	100	80	20	112.50	75.00
2N4003	MT-10	30	100	100	20	148.00	99.00
2N4004	U-26	20	40	80	30	112.50	75.00
2N4005	U-26	20	40	100	30	148.00	99.00
2N4300	TO-5	2	15	80	30	8.10	5.40
2N4301	TO-18	10	50	80	30	31.50	21.00

All Mesa except (*) Epitaxial Planar and (†) Planar.

NPN PLASTIC SILICON POWER TRANSISTORS — FIG. A

Type	Case	BVceo	Ic	1-99	100-999
TIP29	TO-66	40	1A	.91	.70
TIP29A	TO-66	60	1A	1.00	.76
TIP31	TO-66	40	3A	1.25	.82
TIP31A	TO-66	60	3A	1.37	.91
TIP33	TO-3	40	10A	1.79	1.19
TIP33A	TO-3	60	10A	1.92	1.28
TIP35	TO-3	40	25A	4.38	2.92
TIP35A	TO-3	60	25A	4.86	3.24

PNP PLASTIC SILICON POWER TRANSISTORS — FIG. B

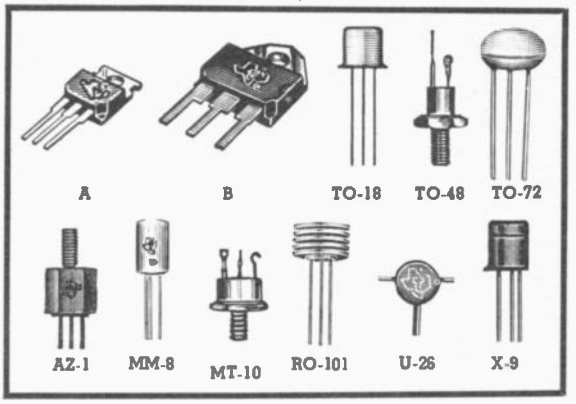
Type	Case	BVceo	Ic	1-99	100-999
TIP30	TO-66	40	1A	1.00	.78
TIP30A	TO-66	60	1A	1.12	.86
TIP32	TO-66	40	3A	1.57	1.05
TIP32A	TO-66	60	3A	1.80	1.19
TIP34	TO-3	40	10A	3.58	2.38
TIP34A	TO-3	60	10A	3.84	2.56
TIP36	TO-3	40	25A	9.00	6.00
TIP36A	TO-3	60	25A	10.80	7.20

GERMANIUM ALLOY PNP GENERAL PURPOSE AMPLIFIERS

Type	Case	Pd mW	Ic mA	Coll. Volt v	hFE Min	1-99	100-999
2N650A	TO-5	200	500	45	33	1.69	1.13
2N651A	TO-5	200	500	45	45	1.69	1.13
2N652A	TO-5	200	500	45	80	2.25	1.50
2N1273	TO-5	150	150	15	30	.42	.28
2N1274	TO-5	150	150	25	30	.50	.33
2N1370	TO-5	150	150	25	50	.72	.48
2N1371	TO-5	150	150	45	50	1.14	.76
2N1372	TO-5	250	200	25	30	.81	.54
2N1378	TO-5	250	200	45	30	1.29	.86
2N1373	TO-5	250	200	25	50	1.20	.80
2N1374	TO-5	250	200	45	50	1.02	.68
2N1375	TO-5	250	200	25	75	1.38	.92
2N1376	TO-5	250	200	45	75	1.29	.86
2N1377	TO-5	250	200	12	95	1.50	1.00
2N1379	TO-5	250	200	25	95	1.44	.96
2N1380	TO-5	250	200	12	30	.66	.44
2N1381	TO-5	250	200	25	30	.72	.48
2N1382	TO-5	200	200	25	50	.99	.66
2N1383	TO-5	200	200	25	30	.92	.61

GERMANIUM SWITCHING TRANSISTORS

Type	Case	Pwr Diss mw	Coll. Curr. ma	Coll. Volt v	fhfb MHz Min	1-99	100-999
2N388	TO-5	150	200	25	5	.50	.35
2N388A	TO-5	150	200	40	5	1.03	.69
2N395	TO-5	150	250	30	3	.50	.33
2N396	TO-5	150	250	30	5	.61	.41
2N404	TO-5	150	100	25	4	.42	.28
2N404A	TO-5	150	150	40	....	.58	.39
2N427	TO-5	150	400	30	....	.92	.61
2N428	TO-5	150	400	30	....	1.23	.82
2N595	TO-5	150	300	20	....	4.25	2.83
2N596	TO-5	150	300	20	....	5.65	3.77
2N705	TO-18	150	50	15	....	1.04	.69
2N711‡	TO-18	150	50	12	....	.89	.59
2N711A‡	TO-18	150	100	15	150	.89	.59
2N711B‡	TO-18	150	100	15	150	.94	.63
2N797‡	TO-18	150	150	20	600	4.27	2.85
2N960‡	TO-18	150	100	15	300	.96	.64
2N961‡	TO-18	150	100	12	300	.91	.61
2N962‡	TO-18	150	100	12	300	.86	.57
2N964‡	TO-18	150	100	12	300	.99	.66
2N965‡	TO-18	150	100	15	300	.94	.63
2N966‡	TO-18	150	100	12	300	.89	.59
2N967‡	TO-18	150	100	12		.87	.58
2N985‡	TO-18	150	200	7	300	2.83	1.89
2N1302§	TO-5	150	300	13	3	.45	.31
2N1303§	TO-5	150	300	25	3	.45	.30



GERMANIUM SWITCHING TRANSISTORS (Cont'd)

Type	Case	Pwr Diss mW	Coll. Curr. mA	Coll. Volt v	fhfb Mc Min	1-99	100-999
2N1304§	TO-5	150	300	30	5	.53	.37
2N1305	TO-5	150	300	30	5	.52	.35
2N1306§	TO-5	150	300	25	10	.74	.49
2N1307	TO-5	150	300	30	10	.66	.44
2N1308§	TO-5	150	300	25	15	1.08	.72
2N1309	TO-5	150	300	30	15	1.07	.72
2N1404	TO-5	150	300	25	4	.58	.39
2N1605§	TO-5	150	100	25	4	.72	.48
2N1808	TO-5	150	300	25	4	.58	.39
2N1994†	TO-5	150	300	30	3	2.23	1.55
2N1997	TO-5	250	500	45		1.77	1.18
2N1998	TO-5	250	500	35		1.88	1.25
2N2000	TO-5	300	1000	50	2	2.50	1.67
2N2001	TO-5	300	1000	30	6	2.17	1.45
2N2635‡	TO-18	150	100	30	150	.94	.63

† Bidirectional. All alloy except (‡) Epitaxial Mesa.

HIGH-VOLTAGE SWITCHING

Type	Case	Pd Free Air mW	Coll. Curr. mA	Coll. Volt v	Min hFE	fhfb Mc	1-99	100-999
2N398	TO-5	50	100	105	20	0.8	.90	.60
2N398A	TO-5	150	200	105	20	0.8	.98	.65

GERMANIUM HI-FREQ. SMALL SIGNAL TRANSISTORS

Type	Case	Pwr Diss. Free Air Mw	Ic mA	Coll. Volt. v	fT/Mc Min.	1-99	100-999
T1XM101	TO-72	75	-50	-15	. . . .	19.00	12.65
T1XM103	U-26	40	20	12	.. . .	50.00	33.00
T1XM104	U-26	40	20	12	....	33.00	22.00
2N1141	TO-11	300	100	35	....	4.73	3.15
2N1142	TO-11	300	100	30	....	4.05	2.70
2N1143	TO-11	300	100	25	..... .	3.34	2.22
2N1195	TO-11	225	40	30	400	3.95	2.63
2N2996†	TO-18	75	50	15	400	1.48	.99
2N2997†	TO-18	75	50	30	400	3.38	2.25
2N3995	TO-11	300	100	20	......	8.85	5.95

All mesa except (†) epitaxial mesa.

GERMANIUM CONSUMER TRANSISTORS

Type	Case	Coll Volt v	Max Cre. pf	Max rb'Cc psec	fT Mc Typ	1-99	100-999
TI400	TO-18	18	1	15	500	.92	.61
TI401	TO-18	18	1	15	500	.92	.61

All are Epitaxial Mesa. Power Diss., 75 mw, free air. Ic=50 ma.

GERMANIUM POWER TRANSISTORS

Type	Case	Ic a	Pd 25°C Case	V(br) cbo	hFE Min.	1-99	100-999
2N250A	TO-3	7	90	40	25	1.73	1.15
2N251A	TO-3	7	90	60	25	1.88	1.25
2N456A	TO-3	7	150	40	30	1.80	1.20
2N456B	TO-3	7	150	40	30	1.80	1.20
2N457A	TO-3	7	150	60	30	2.18	1.45
2N458A	TO-3	7	150	80	30	2.63	1.75
2N458B	TO-3	7	150	80	30	2.63	1.75
2N511	TO-3	7	150	40	20	4.05	2.70
2N511A	TO-3	25	150	60	20	4.73	3.15
2N513B	TO-3	25	150	80	20	8.70	5.80

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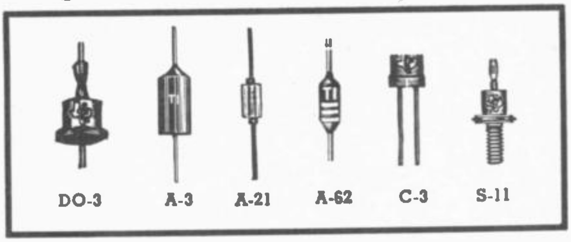
Texas Instrument Semiconductors



GERMANIUM POWER TRANSISTORS (Continued)

Type	Case	Ic a	Pd 25°C Case	V(br) cbo	hFE Min.	1-99	100-999
TI540	AZ-1	3.5	25	80	45	7.88	5.25
2N1021	TO-3	7	150	100	30	3.08	2.05
2N1022	TO-3	7	150	120	30	3.60	2.40
2N1022A	TO-3	7	150	120	30	3.60	2.40
2N1038	X-9	3	20	40	20	2.85	1.90
2N1039	X-9	3	20	60	20	3.75	2.50
2N1040	X-9	3	20	80	20	5.70	3.80
2N1041	X-9	3	20	100	20	7.50	5.00
2N1042	AZ-1	3.5	20	40	20	4.50	3.00
2N1046	TO-3	20	50	100	60	8.25	5.50
2N1539	TO-3	5	150	40	50	1.50	1.12
2N1540	TO-3	5	150	60	50	1.58	1.18
2N1541	TO-3	5	150	80	50	1.85	1.38
2N1542	TO-3	5	150	100	50	2.35	1.75
2N1543	AZ-1	3	20	40	20	3.60	2.65
2N1907	TO-3	20	60	100	30	7.88	5.25
2N1908	TO-3	20	60	130	30	11.25	7.50
2N2552	AZ-1	3	20	40	20	3.00	2.00
2N2553	AZ-1	3	20	60	20	3.90	2.60
2N2556	AZ-1	3	20	40	20	3.05	2.05
2N2557	AZ-1	3	20	60	20	3.95	2.65
2N2560	AZ-1	3.5	20	40	20	4.45	2.95
2N2659	X-9	3	15	50	30	1.80	1.20
2N2660	X-9	3	15	70	30	2.33	1.55
2N2661	X-9	3	15	90	30	2.85	1.90
2N2662	AZ-1	3	15	50	30	1.95	1.30
2N2665	X-9	3	15	50	30	2.40	1.60
TI3027	TO-3	7	150	45	40	1.20	.80
TI3028	TO-3	7	150	60	40	1.43	.95
TI3029	TO-3	7	150	80	30	1.65	1.10
TI3030	TO-3	7	150	100	30	1.88	1.25
TI3031	TO-3	7	150	120	30	2.03	1.35
2N3146	TO-3	15	150	150	25	5.25	3.50

GERMANIUM HIGH FREQ. SMALL SIGNAL TRANSISTORS

Type	Case	PD mW	Coll. Cur. mA	Coll. Volt. V	1-99	100-999
2N2188	HH	125	30	40	1.28	.85
2N2189	HH	125	30	40	1.64	1.09
2N2190	HH	125	30	40	1.47	.98
2N2191	HH	125	30	60	1.85	1.23

NOTE: HH indicates a Flangeless case.

HIGH FREQUENCY — SWITCHING — POWER

Type	Case	Ic Max a	Pd 100°C	V (br) ceo V	hFE Min	1-99	100-999
2N1907	TO-3	20	60	100	30	7.88	5.25
2N1908	TO-3	20	60	130	30	11.25	7.50
2N1046	TO-3	20	50	100	60	8.25	5.50

SILICON COMPUTER DIODES

Type	Case	V(br) v	Max Ir @ 25°C µa	@ 100°C µa	If @ Iv ma	1-99	100-999
1N251	A-21	40	0.1	10	5	.32	.21
1N625	A-21	30	1	30	4	.40	.26
1N626	A-21	50	1	30	4	.40	.26
1N627	A-21	100	1	30	4	.51	.34
1N628	A-21	150	1	30	4	.61	.40
1N629	A-21	200	1	30	4	.68	.44
1N643	A-21	200	0.025	10	10	.98	.65
1N658	A-21	120	.05	......	100	1.48	.98
1N659	A-21	60	5	25	6	.56	.36
1N660	A-21	110	5	50	6	.65	.34
1N661	A-21	240	10	100	6	.98	.68
1N662	A-21	100	20	100	10	.25	.15
1N663	A-21	100	5	50	100	.58	.38
1N914	A-21	100	0.025	50	10	.32	.21
1N914A	A-21	100	0.025	50	20	.37	.24
1N914B	A-21	100	0.025	50	100	.77	.52
1N916	A-21	100	0.025	50	10	50	.32
1N916A	A-21	100	0 025	50	20	.56	.37
1N916B	A-21	100	0.025	50	30	.72	.48
1N3064	A-21	75	.01	100	10	.24	.14
1N3070	A-21	200	0.1	100	100	1.22	.98

SILICON RECTIFIERS

Type	Case	Vr Max. V.	Amps Io	Ir mA	1-99	100-999
1N253	DO-4	100	3.0	0.01	1.05	.70
1N254	DO-4	200	3.0	0.01	1.13	.75
1N255	DO-4	400	3.0	0.01	1.58	1.05
1N332	DO-4	400	1.2	0.2	1.72	1.15
1N342	DO-4	400	0.6	0.5	1.72	1.15
1N347	DO-4	100	3.0	0.5	1.05	.70
1N440B	DO-4	100	0.75	0.3µa	.66	.44
1N444B	DO-4	500	0.65	1.75µa	1.05	.70
1N536	DO-1	50	0.75	0.01	.45	.30
1N537	DO-1	100	0.75	0.01	.49	.33
1N538	DO-1	200	0.75	0.01	.52	.35
1N539	DO-1	300	0.75	0.01	.60	.40
1N540	DO-1	400	0.75	0.01	.67	.45
1N547	DO-1	600	0.75	0.01	.96	.64
1N1095	DO-3	500	0.75	0.01	.76	.51
1N1096	DO-3	600	0.75	0.01	.97	.64
1N1124	DO-4	200	3.0	0.01	1.86	1.24
1N1124A	S-11	200	3.3	0.01	1.86	1.24
1N1125	DO-4	300	3.0	0.01	2.55	1.70
1N1126	DO-4	400	3.0	0.01	3.90	2.60
1N1128A	DO-4	600	3.3	0.1	5.20	3.47
1N1488	DO-1	200	0.75	0.3	.52	.35
1N1581	DO-4	50	10.0	0.3	1.10	.72
1N1582	DO-4	100	10.0	0.3	1.20	.80
1N1583	DO-4	200	10.0	0.3	2.25	1.50
1N1585	DO-4	400	10.0	0.3	4.05	2.70
1N1613	DO-4	100	15.0	0.3	1.20	.80
1N1614	DO-4	200	15.0	0.3	1.87	1.25
1N1692	DO-3	100	0.75	0.3	.49	.33
1N1693	DO-3	200	0.75	0.3	.52	.35
1N1694	DO-3	300	0.75	0.3	.60	.40
1N1695	DO-3	400	0.75	0.3	.67	.45
1N1696	DO-3	500	0.75	0.3	.76	.51
1N1697	DO-3	600	0.75	0.3µa	.97	.64
1N2069	A-3	200	0.75	10µa	.45	.30
1N2070	A-3	400	0.75	10µa	.57	.38
1N2071	A-3	600	0.75	10µa	.72	.48

*Io at 100°C.

SILICON VOLTAGE REGULATOR DIODES

Type	Case	V(br) I(br)t volts	Z(br)@ I(br)t ohms	Vr(1)Static Rev. Cur. mA	Pd watts	1-99	100-999
1N746	A-62	3.3	28	10	400	1.05	.85
1N748	A-62	3.9	23	10	400	1.05	.85
1N749	A-62	4.3	22	2	400	1.05	.85
1N752	A-62	5.6	11	1	400	1.05	.85
1N753	A-62	6.2	7	0.1	400	1.05	.85
1N754	A-62	6.8	5	0.1	400	1.05	.85
1N755	A-62	7.5	6	0.1	400	1.05	.85
1N756	A-62	8.2	8	0.1	400	1.05	.85
1N757	A-62	9.1	10	0.1	400	1.05	.85
1N759	A-62	12.0	30	0.1	400	1.05	.85
1N761	A-62	4.3-5.4	55	....	400	1.05	.85
1N961	A-62	10	8.5	10	400	1.05	.85
1N964	A-62	13	13	5	400	1.50	1.00
1N4370	A-62	2.4	30	100	400	1.05	.85
1N4371	A-62	2.7	30	75	400	1.05	.85
1N4372	A-62	3.0	30	50	400	1.05	.85

GENERAL PURPOSE SILICON DIODES

Type	Case	Vr	FWD1 ma. DC	Max IR µa	Pd mW	1-99	100-999
1N456	DO-7	25	40	.025	500	.35	.23
1N457	DO-7	60	20	.025	500	.44	.29
1N458	DO-7	125	7	.025	500	.47	.31
1N459	DO-7	175	3	.025	500	.48	.32
1N461	DO-7	25	15	.5	200	.34	.23
1N462	DO-7	60	5	.5	200	.36	.24
1N463	DO-7	175	1	.5	200	.44	.29
1N464	DO-7	125	3	.5	200	.45	.30
1N482	DO-7	30	100*	.25	500	.48	.32
1N482A	DO-7	30	200	.025	500	.48	.32
1N483A	DO-7	60	200	.025	500	.51	.32
1N484	DO-7	125	100*	.25	500	.51	.32
1N484A	DO-7	125	200	.025	500	.51	.32
1N485	DO-7	75	100*	.25	500	.58	.38
1N485B	DO-7	175	200	.025	500	.58	.38
1N486B	DO-7	225	200	.05	500	.78	.52
600	C-3	27	3	1.0	500	1.94	1.58
622	C-3	150	7	.2	150	3.70	3.03
624	C-3	220	3	.2	150	3.75	3.07
1N645	DO-7	225	400	.2	600	1.40	.80
1N646	DO-7	300	400	.2	600	1.60	1.05
1N647	DO-7	400	400	.2	600	1.70	1.10
1N648	DO-7	500	400	.2	600	1.80	1.20
1N649	DO-7	600	400	.2	600	2.25	1.40

* Measured at 1.1 v.

SILICON POWER REGULATOR 10 WATT SINGLE ANODE

These types 20% tolerance; add suffix "A" for 10% tolerance; and add suffix "B" for 5% tolerance.

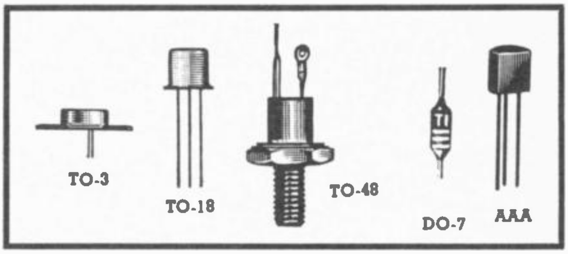
Type	Case	Vz Nominal v	Izt mA	Max. Zz @ 25°C Ohms	1-99	100-999
1N2970	S-11	6.8	370	1.2		
1N2972	S-11	8.2	305	1.5		
1N2974	S-11	10	250	3.0	No Suffix	
1N2976	S-11	12	210	3.0		
1N2977	S-11	13	190	3.0		
1N2982	S-11	18	140	4.0	3.60	2.40
1N2984	S-11	20	125	4.0		
1N2985	S-11	22	115	5.0		
1N2986	S-11	24	105	5.0	Suffix "A"	
1N2989	S-11	30	85	8.0		
1N2991	S-11	36	70	10		
1N2997	S-11	51	50	15	3.98	2.65
1N2999	S-11	56	45	16		
1N3000	S-11	62	40	17		
1N3002	S-11	75	33	22	Suffix "B"	
1N3003	S-11	82	30	25		
1N3004	S-11	91	28	35		
1N3005	S-11	100	25	40	4.95	3.30
1N3007	S-11	110	23	55		
1N3008	S-11	120	20	75		
1N3009	S-11	130	19	100		

SILICON POWER REGULATOR 10 WATT DOUBLE ANODE

Type	Case	Vz Nominal v	Izt mA	Max. Zz @ 25°C Ohms	1-99	100-999
1N1824	S-11	30	250	4	5.10	4.50
1N1826	S-11	36	150	5	5.10	4.50

SILICON PHOTOCONDUCTIVE LIGHT SENSORS

Type	Case	Bias Volt. V Max.	Max. Dark Current @ 25°C ±50 volts in μa	Max. Dark Current @ 100°C ±50 volts in μa	Min.* Light Current @ 25°C ±10 volts in μa	1-99	100-999
1N2175	CC	±50	.5	100	100	6.40	5.05
H-11	CC	±50	.5	......	40	4.00	2.80
H-35	CC	±50	.5	......	60	5.00	3.50
H-38	CC	±50	10.0	......	100	4.00	2.80
H-60	CC	±50	.5	100	100	8.00	5.60
H-61	CC	±50	.5	100	200	9.00	6.25
H-62	CC	±50	.5	100	300	13.50	10.00
LS-400	CC	....	.025	......	1000	8.30	7.05
LS-600	CC	....	.025	......	800	9.00	7.60



SILICON CONTROLLED RECTIFIERS

Type	Case	Io a	wv Fwd.-Rev.	1-99	100-999
TI40A0	TO-3	5	50	1.70	1.18
TI40A1	TO-3	5	100	1.85	1.28
TI40A2	TO-3	5	200	2.05	1.52
TI40A3	TO-3	5	300	3.65	2.45
TI40A4	TO-3	5	400	5.50	3.55
TIC44	AAA	430	30	.84	.56
TIC45	AAA	430	60	1.00	.67
TIC46	AAA	430	100	1.08	.72
TIC47	AAA	430	200	1.26	.84
TI-145A0	TO-5	0.56	50	1.60	1.10
TI145A1	TO-5	0.56	100	1.75	1.25
2N685	TO-48	16	200	6.60	4.40
2N686	TO-48	16	250	7.01	4.68
2N688	TO-48	16	400	17.10	11.40
2N689A	TO-48	18	500	22.60	15.10
2N1595	TO-5	1	50	3.00	2.00
2N1596	TO-5	1	100	4.50	3.05
2N1600	TO-3	3	50	5.10	3.40
2N1602	TO-3	3	200	9.45	6.30
2N1771	TO-3	4.7	50	4.65	3.10
2N1772	TO-3	4.7	100	5.75	3.85
2N1774	TO-3	4.7	200	8.15	5.45
2N1849B	TO-48	16	400	15.60	10.40
2N3001	TO-18	0.250	30	3.63	2.42
2N3002	TO-18	0.250	60	3.90	2.60
2N3004	TO-18	0.250	200	9.08	6.05
2N3005	TO-18	0.250	30	3.30	2.20
2N3937	TO-3	7	200	14.60	9.75
2N3940	TO-3	7	500	30.00	20.00
2N3560	TO-5	1	60	6.15	4.10

P-CHAN DUAL FIELD-EFFECT CHOPPER

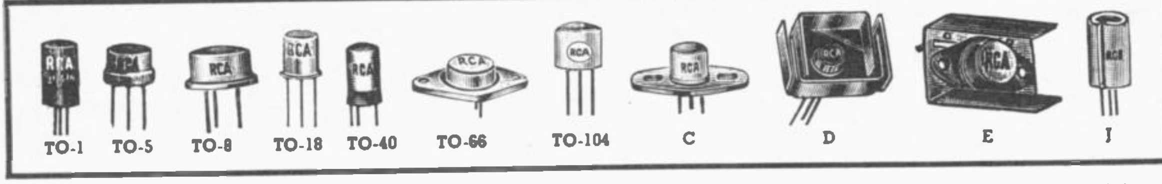
Type	Case	Ciss Input Cap. pf.	Min. V(BR)GSS V	Max ID (off) na	Min Yfs μm	1-99	100-999
TIS05	TO-18	12	25	2.0	6K	30.00	20.00

SCR TRIGGER DIODES — PEAK CURRENT, 1 AMP.

Type	Case	Avg. Pwr. mW	V(br)f	V (br)r	1-99	100-999
TI42A	A-62	100	32 v	32 v	.87	.58
TI43A	A-62	100	32 v	32 v	1.02	.68

THIS SEMICONDUCTOR LISTING IS COMPLETE TO THE DATE OF PRINTING, AUGUST 15, 1968. BUT NEW ITEMS ARE CONTINUALLY BEING DEVELOPED AND ARE ADDED TO THE NEWARK STOCK. CHECK WITH THE NEWARK INDUSTRIAL DEPARTMENT FOR ANY NEW SEMICONDUCTORS NOT LISTED. ORDERS WILL BE BILLED TO YOU AT THOSE PRICES IN EFFECT AT TIME OF SHIPMENT.

RCA Semiconductors



AUDIO FREQUENCY FOR LINEAR OPERATION
SMALL SIGNAL TYPES CLASS A SILICON NPN

Pt (Ta): to 1W

Type	Package	Pt Ta @ 25°C W	Vcbo V	Vceo V	1-99	100-999	1000-Up
40231	TO-104	0.5	18	18	.47	.34	.28
40232	TO-104	0.5	18	18	.53	.39	.32
40233	TO-104	0.5	18	18	.60	.44	.36
40234	TO-104	0.5	18	18	.42	.30	.25
2N718A	TO-18	0.5	75	32	1.08	.78	.65
2N720A	TO-18	0.5	120	80	1.32	.96	.80
2N2895	TO-18	0.5	120	65	1.41	1.02	.85
2N2896	TO-18	0.5	140	90	2.06	1.50	1.25
2N2897	TO-18	0.5	60	45	1.16	.84	.70
2N4074	TO-104	0.5	40	40	.73	.53	.44
2N5183	TO-104	0.5	18	18	.32	.23	.19
40397	TO-104	0.5	25	25	.66	.48	.40
40398	TO-104	0.5	25	25	.60	.44	.36
40399	TO-104	0.5	18	18	.55	.40	.33
40400	TO-104	0.5	18	18	.50	.36	.30
2N3241A	TO-104	0.5	30	25	.73	.53	.44
2N3242A	TO-104	0.5	40	40	.83	.60	.50
2N697	TO-5	0.6	60	40	.63	.46	.38
2N699	TO-5	0.6	120	80	1.16	.84	.70
40450	J	1	30	25	.80	.58	.48
40451	J	1	40	40	.90	.65	.54
40452	J	1	40	40	.80	.58	.48
40453	J	1	25	25	.73	.53	.44
40454	J	1	25	25	.66	.48	.40
40455	J	1	18	18	.62	.45	.37
40456	J	1	18	18	.57	.41	.34
40458	TO-104	0.5	60	40	.78	.57	.47
40459	J	1	60	40	.85	.62	.51
2N1613	TO-5	0.8	75	50	.75	.54	.45
2N1711	TO-5	0.8	75	50	.94	.69	.57
2N1893	TO-5	0.8	120	80	1.08	.78	.65
2N2102	TO-5	1	120	65	1.13	.82	.68
2N2270	TO-5	1	60	45	.91	.66	.55
2N2405	TO-5	1	120	90	1.57	1.14	.95
2N3053	TO-5	1	60	40	.75	.54	.45

SMALL SIGNAL TYPES CLASS A GERMANIUM PNP

Pt (Ta): to 165 mW

Type	Package	Pt mW	Vcbo V	Ic mA	1-99	100-999	1000-Up
2N175	TO-40	50	—10	—2	1.63	1.19	.99
2N220	TO-1	50	—10	—2	1.52	1.10	.92
2N591	TO-1	85	—32	—40	.58	.42	.35
2N2613	TO-1	120	—30	—50	.55	.40	.33
2N2614	TO-1	120	—40	—50	.50	.36	.30
40263	TO-1	120	—20	—50	.50	.36	.30
40395	TO-1	120	—20	—50	.38	.28	.23
40359	TO-1	120	—20	—50	.32	.23	.19
40490	TO-1	120	—20	—20	.38	.28	.23
40329	TO-1	125	—25	—100	.47	.34	.28
2N104	TO-40	150	—30	—50	1.65	1.20	1.00
2N215	TO-1	150	—30	—50	1.73	1.26	1.05
2N405	TO-40	150	—20	—35	.48	.35	.285
2N406	TO-1	150	—20	—35	.41	.30	.245
2N109	TO-40	165	—35	—150	.66	.48	.40
2N217	TO-1	165	—35	—150	.57	.41	.34

POWER TYPES CLASS A-AB-B SILICON NPN

Pt (Tc) up to 7W
Pt (Ta): up to 3.5W

Type	Package	Tc W	Vcbo V	Vceo V	1-99	100-999	1000-Up
40354	TO-104	0.3	......	150	1.18	.86	.71
40355	J	1	......	150	1.24	.90	.75
40407	TO-5	1	......	50	.81	.59	.49
40408	TO-5	1	......	90	1.08	.78	.65
2N2895	TO-18	1.8	120	65	1.41	1.02	.85
2N2896	TO-18	1.8	140	90	2.06	1.50	1.25
2N2897	TO-18	1.8	60	45	1.16	.84	.70
40084	TO-18	1.8	60	40	.99	.72	.60
2N3241A	TO-104	2	30	25	.73	.53	.44
2N3242A	TO-104	2	40	40	.83	.60	.50
2N697	TO-5	2	60	40	.63	.46	.38
2N699	TO-5	2	120	80	1.16	.84	.70
2N4074	TO-104	2	......	40	.73	.53	.44
40397	TO-104	2	......	25	.66	.48	.40
40398	TO-104	2	......	25	.60	.44	.36
40399	TO-104	2	......	18	.55	.40	.33
40400	TO-104	2	......	18	.50	.36	.30
40450	J	2	30	25	.80	.58	.48

Continued Next Column

POWER TYPES CLASS A-AB-B SILICON NPN (Cont'd)

Type	Package	Tc W	Vcbo V	Vceo V	1-99	100-999	1000-Up
40451	J	2	40	40	.90	.65	.54
40452	J	2	40	40	.80	.58	.48
40453	J	2	25	25	.73	.53	.44
40454	J	2	25	25	.66	.48	.40
40455	J	2	18	18	.62	.45	.37
40456	J	2	18	18	.57	.41	.34
2N1613	TO-5	3	75	50	.75	.54	.45
2N1711	TO-5	3	75	50	.94	.69	.57
2N1893	TO-5	3	120	80	1.08	.78	.65
2N1479	TO-5	5	60	40	2.15	1.56	1.30
2N1480	TO-5	5	100	55	2.31	1.68	1.40
2N1481	TO-5	5	60	40	2.48	1.80	1.50
2N1482	TO-5	5	100	55	3.30	2.40	2.00
2N1700	TO-5	5	60	40	1.90	1.38	1.15
2N2102	TO-5	5	120	65	1.13	.82	.68
2N2270	TO-5	5	60	45	.91	.66	.55
2N2405	TO-5	5	120	90	1.57	1.14	.95
2N3053	TO-5	5	60	40	.75	.54	.45
40311	TO-5	5	......	30	.73	.53	.44
40314	TO-5	5	......	40	.78	.57	.47
40315	TO-5	5	......	35	.75	.54	.45
40317	TO-5	5	......	40	.78	.57	.47
40321	TO-5	5	......	300	1.24	.90	.75
40323	TO-5	5	......	18	.70	.51	.42
40326	TO-5	5	......	40	.78	.57	.47
40327	TO-5	5	......	300	1.24	.90	.75
40360	TO-5	5	......	70	.91	.66	.55
40361	TO-5	5	......	70	1.03	.75	.62
40385	TO-5	5	450	350	9.50	6.90	5.75
40539	TO-5	5	......	55	.66	.48	.40
40409	D	3	......	90	1.14	.83	.69
40389	D	3.5	60	40	.91	.66	.55
40390	D	3.5	300	250	2.15	1.56	1.30
40392	C	7	60	40	.91	.66	.55
40544	C	7	......	50	.75	.54	.45

POWER TYPES CLASS A-AB-B SILICON NPN

Pt (Tc): above 7 to 29W
Pt (Ta): 3.8 to 5.8W

Type	Package	Tc W	Vcbo V	Vceo V	1-99	100-999	1000-Up
40423	E	3.8	300	300	1.11	.81	.67
40425	E	3.8	300	300	1.06	.77	.64
40427	E	3.8	300	300	1.01	.74	.61
40491	E	3.8	300	300	.84	.62	.51
40422	TO-66	8	300	300	1.03	.75	.62
40424	TO-66	8	300	300	.98	.71	.59
40426	TO-66	8	300	300	.96	.70	.58
40546	TO-66	8	......	250	.88	.64	.53
40547	TO-66	8	......	250	.66	.48	.40
40347	TO-5	8.75	60	40	1.06	.77	.64
40348	TO-5	8.75	90	65	1.56	1.13	.94
40349	TO-5	8.75	160	140	.93	.68	.56
40347V1	D	4.4	60	40	.75	.54	.45
40348V1	D	4.4	90	65	1.14	.83	.69
40349V1	D	4.4	160	140	1.64	1.19	.99
2N3439	TO-5	10	450	350	3.71	2.70	2.25
2N3440	TO-5	10	300	250	1.82	1.32	1.10
2N4063	C	10	450	350	3.80	2.76	2.30
2N4064	C	10	300	250	1.90	1.38	1.15
40346	TO-5	10	......	175	1.14	.83	.69
40412	TO-5	10	......	250	1.06	.77	.64
40347V2	C	11.7	60	40	.75	.54	.45
40348V2	C	11.7	90	65	1.14	.83	.69
40349V2	C	11.7	160	140	1.64	1.19	.99
2N4296	TO-66	20	350	250	2.48	1.80	1.50
2N4297	TO-66	20	350	250	2.89	2.10	1.75
2N4298	TO-66	20	500	350	3.71	2.70	2.25
2N4299	TO-66	20	500	350	4.13	3.00	2.50
40250V1	E	5.8	05	40	1.24	.90	.75
40372	E	5.8	90	55	1.24	.90	.75
40373	E	5.8	160	140	2.56	1.86	1.55
40374	E	5.8	250	175	2.56	1.86	1.55
40375	E	5.8	120	50	5.03	3.66	3.05
2N1483	TO-8	25	60	40	2.89	2.10	1.75
2N1484	TO-8	25	100	55	3.63	2.64	2.20
2N1485	TO-8	25	60	40	4.46	3.24	2.70
2N1486	TO-8	25	100	55	6.77	4.92	4.10
2N1701	TO-8	25	60	40	2.31	1.68	1.40
2N3441	TO-66	25	160	140	2.48	1.80	1.50
40368	TO-8	25	100	55	11.60	9.60	8.00

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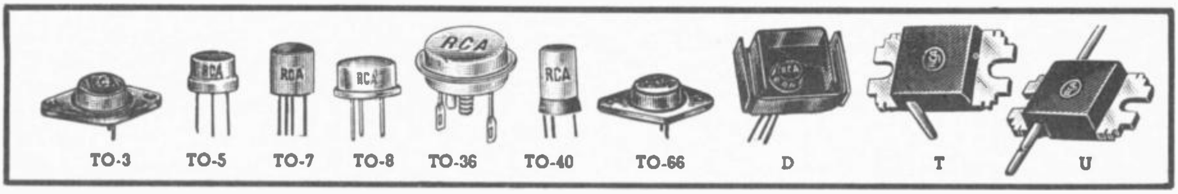

POWER TYPES CLASS A-AB-B SILICON NPN (Cont'd)

Type	Package	Tc W	Vcbo V	Vceo V	1-99	100-999	1000-Up
2N3054	TO-66	29	90	55	1.16	.84	.70
40250	TO-66	29	50	40	1.16	.84	.70
40310	TO-66	29	..	35	.99	.72	.60
40312	TO-66	29	..	60	1.03	.75	.62
40316	TO-66	29	..	40	.99	.72	.60
40324	TO-66	29	..	35	.99	.72	.60
2N5320	TO-5	10	100	75	2.15	1.56	1.30
2N5321	TO-5	10	75	50	1.57	1.14	.95

POWER TYPES CLASS A-AB-B SILICON NPN

Pt (Tc): above 29 to 150 W

Type	Package	Pt W	Vcbo V	Vceo V	1-99	100-999	1000-Up
2N3583	TO-66	35	250	175	2.48	1.80	1.50
2N3584	TO-66	35	375	250	4.13	3.00	2.50
2N3585	TO-66	35	500	300	6.60	4.80	4.00
2N3878	TO-66	35	120	50	4 95	3.60	3.00
2N3879	TO-66	35	120	75	6.60	4.80	4.00
2N4240	TO-66	35	500	300	2.89	2.10	1.75
40313	TO-66	35	..	300	2.23	1.62	1.35
40318	TO-66	35	..	300	2.10	1.52	1.27
40322	TO-66	35	..	300	2.15	1.56	1.30
40328	TO-66	35	....	300	2.19	1.60	1.33
40364	TO-66	35	..	60	4.79	3.48	2.90
2N1487	TO-3	75	60	40	4.54	3.30	2.75
2N1488	TO-3	75	100	55	4.95	3.60	3.00
2N1489	TO-3	75	60	40	7.43	5.40	4.50
2N1490	TO-3	75	100	55	8.25	6.00	5.00
2N1702	TO-3	75	60	40	4.54	3.30	2.75
2N5034	T	83	55	40	1.34	.98	.81
2N5036	T	83	70	50	1.42	1.04	.86
40514	T	83	..	45	1.26	.92	.76
2N5035	U	83	55	40	1.32	.96	.80
2N5037	U	83	70	50	1.41	1.02	.85
40513	U	83	..	45	1.24	.90	.75
40542	T	83	..	50	1.31	.95	.79
40543	T	100	..	60	1.37	1.00	.83
2N4347	TO-3	115	140	120	2.97	2.16	1.80
2N3055	TO-3	115	100	60	1.82	1.32	1.10
40363	TO-3	117	..	70	1.82	1.32	1.10
2N3442	TO-3	117	160	140	4.54	3.30	2.75
40251	TO-3	117	50	40	1.90	1.38	1.15
40325	TO-3	120	..	35	1.90	1.38	1.15
2N4348	TO-3	150	140	120	4.13	3.00	2.50
2N2015	TO-36	150	100	50	9.08	6.60	5.50
2N2016	TO-36	150	130	65	9.90	7.20	6.00
2N2338	TO-36	150	60	40	6.60	4.80	4.00
2N3771	TO-3	150	50	40	4.13	3.00	2.50
2N3772	TO-3	150	100	60	4.13	3.00	2.50
2N3773	TO-3	150	160	140	7.43	5.40	4.50
40411	TO-3	100	....	90	4.29	3.12	2.60
2N5239	TO-3	100	..	225	8.25	6.00	5.00
2N5240	TO-3	36	..	300	11.55	8.00	7.00
2N5293	X	36	80	70	.91	.66	.55
2N5294	Y	36	80	70	.91	.66	.55
2N5295	X	36	60	40	.91	.66	.55
2N5296	Y	36	60	40	.91	.66	.55
2N5297	X	36	80	60	1.04	.76	.63
2N5298	Y	36	80	60	1.04	.76	.63

POWER TYPES CLASS A-AB SILICON PNP

Pt (Tc): up to 10 W

Type	Package	Pt W	Vceo V	Ic A	1-99	100-999	1000-Up
40319	TO-5	5	—40	—0.7	1.16	.84	.70
40362	TO-5	5	—70	—0.7	1.24	.90	.75
40537	TO-5	5	—55	—0.7	1.24	.90	.75
40538	TO-5	5	—55	—0 7	1.36	.99	.82
40406	TO-5		—50	—0.7	1.19	.87	.72
40410	D	3	—90	—0.7	1.32	.96	.80
40391	D	3.5	—40	—1	1.24	.90	.75
2N4036	TO-5	7	—65	—1	1.32	.96	.80
2N4037	TO-5	7	—40	—1	1.16	.84	.70
2N4314	TO-5	7	—65	—1	1.24	.90	.75
40394	C	7	—40	—1	1.24	.90	.75
2N5322	TO-5	10	—75	—2	2.15	1.56	1.30
2N5323	TO-5	10	—50	—2	1.57	1.14	.95
2N5415	TO-5	10	—200	—1	3.30	2.40	2.00
2N5416	TO-5	10	—300	—1	4.95	3.60	3.00

POWER TYPES CLASS A-AB-B GERMANIUM NPN

Pt (Ta): up to 100 mW

Type	Package	Pt mW	Vcbo V	Ic mA	1-99	100-999	1000-Up
2N647	TO-1	100	25	100	1.08	.78	.85
2N649	TO-1	100	20	100	.86	.63	.52

COMPLEM. SYM. POWER TYPES GERMANIUM PNP NPN

Pt (Tc): up to 300 mW

Type	Package	Pt mW	Vcbo V	Ic A	1-99	100-999	1000-Up
40396	TO-1	300	—18	—0.5	.83	.60	.50
40396	TO-1	300	18	0.5	.83	.60	.50

POWER TYPES CLASS A-AB-B GERMANIUM PNP

Pt (Tc): 7.5 to 30 W

Type	Package	Pt W	Vcbo V	Ic A	1-99	100-999	1000-Up
2N407	TO-40	0.15	—20	—70	.54	.39	.325
2N408	TO-1	0.15	—20	—70	.48	.35	.285
2N270	TO-7	0.275	—25	—0.75	.76	.55	.46
2N1183	TO-8	7.5	—45	—3	1.82	1.32	1.10
2N1183A	TO-8	7.5	—60	—3	2.31	1.68	1.40
2N1183B	TO-8	7.5	—80	—3	2.89	2.10	1.75
2N1184	TO-8	7.5	—45	—3	2.48	1.80	1.50
2N1184A	TO-8	7.5	—60	—3	2.81	2.04	1.70
2N1184B	TO-8	7.5	—80	—3	4.13	3.00	2.50
2N176	TO-3	10	—40	—3	1.31	.95	.79
2N2147	TO-3	12.5	—75	—5	1.57	1.14	.95
2N2148	TO-3	12.5	—60	—5	1.08	.78	.65
40022	TO-3	12.5	—32	—5	.83	.60	.50
40050	TO-3	12.5	—40	—5	.99	.72	.60
40051	TO-3	12.5	—50	—5	1.21	.88	.73
40254	TO-3	12.5	—32	—5	.78	.57	.47
40421	TO-3	12.5	—75	—5	1.28	.93	.77
40462	TO-3	12.5	—40	—5	1.16	.84	.70
2N2869	TO-3	30	—60	—10	1.52	1.11	.92
2N2870	TO-3	30	—80	—10	3.15	2.29	1.91
2N1905	TO-3	30	—100	—6	4.13	3.00	2.50
2N1906	TO-3	30	—130	—6	6.60	4.80	4.00

HIGH VOLTAGE TYPES GERMANIUM PNP

Vcbo (peak): to —320 V

Type	Package	Vcbo V	Pt W	Ic A	1-99	100-999	1000-Up
2N3730	TO-3	—200	10	—3	1.24	.90	.75
40440	TO-3	—200	5	—10	1.32	.96	.80
2N3731	TO-3	—320	5	—10	1.62	1.18	.98
2N4346	TO-3	—320	5	—10	2.31	1.68	1.40
40439	TO-3	—320	5	—10	1.98	1.44	1.20

HIGH VOLTAGE TYPES CLASS A-AB-B SILICON NPN

Vcbo: 120 to 500 V

Type	Package	Vcbo V	Pt W	Ic A	1-99	100-999	1000-Up
2N2102	TO-5	120	5	1	1.13	.82	.68
2N2405	TO-5	120	5	1	1.57	1.14	.95
2N3264	L	120	84	25	50.75	42.00	35.00
2N3266	TO-63	120	125	25	50.75	42.00	35.00
2N3878	TO-66	120	35	7	4.95	3.60	3.00
2N3879	TO-66	120	35	7	6.60	4.80	4.00
2N4390	TO-104	120	0.5 TA	..	.75	.54	.45
2N5184	TO-104	120	0.5 TA	0.05	.45	.33	.27
2N5185	J	120	1 TA	0.05	.52	.38	.31
40366	TO-5	120	5	1	7.84	5.70	4.75
40375	E	120	5.8 TA	1	5.03	3.66	3.05
2N2016	TO-36	130	150	10	9.90	7.20	6.00
2N4347	TO-3	140	100	5	2.97	2.16	1.80
2N4348	TO-3	140	120	10	4.13	3.00	2.50
2N3263	L	150	84	25	79.75	66.00	55.00
2N3265	TO-63	150	125	25	76.85	63.50	53.00
2N4068	TO-104	150	0.5	0.2	1.34	.97	.81
2N4069	J	150	1	0.2	1.40	1.02	.85
40354	TO-104	150	0.5	0.05	1.18	.86	.71
40355	J	150	1	0.05	1.24	.90	.75

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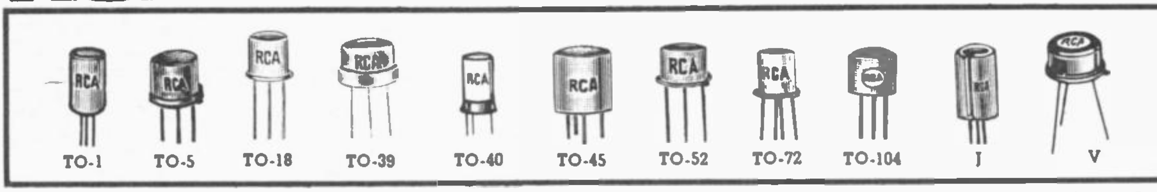
RCA Semiconductors



HIGH VOLTAGE TYPES CLASS A-AB-B SILICON NPN (Cont'd)

Type	Package	Vcbo V	Pt W	Ic A	1-99	100-999	1000-Up
2N3441	TO-66	160	29	3	2.48	1.80	1.50
2N3442	TO-3	160	117	10	4.54	3.30	2.75
2N3773	TO-3	160	150	30	7.43	5.40	4.50
40349	TO-5	160	5	1	1.56	1.13	.94
40373	E	160	29	3	2.56	1.86	1.55
40349V1	D	160	4.4	1.5	1.64	1.19	.99
40349V2	C	160	11.7	1.5	1.64	1.19	.99
40346	TO-5	175	5	1	1.14	.83	.69
2N3583	TO-66	250	35	2	2.48	1.80	1.50
40374	E	250	35	2	2.56	1.86	1.55
2N3440	TO-5	300	10	1	1.82	1.32	1.10
2N4064	C	300	10	1	1.90	1.38	1.15
40390	D	300	3.5	1	2.15	1.56	1.30
40425	TO-66	300	8	0.15	1.03	.75	.62
40423	E	300	3.5	0.15	1.11	.81	.67
40424	TO-66	300	8	0.15	.98	.71	.59
40422	E	300	3.5	0.15	1.08	.77	.64
40426	TO-66	300	8	0.15	.93	.68	.56
40427	E	300	3.5	0.15	1.01	.74	.61
2N4296	TO-66	300	20	1	2.48	1.80	1.50
2N4297	TO-66	350	20	1	2.89	2.10	1.75
2N3584	TO-66	350	35	2	4.13	3.00	2.50
2N3439	TO-5	375	10	1	3.71	2.70	2.25
2N4063	C	450	10	1	3.80	2.76	2.30
40385	TO-5	450	5	1	9.50	6.90	5.75
2N3585	TO-66	450	35	2	6.60	4.80	4.00
2N4240	TO-66	500	35	2	2.89	2.10	1.75
2N4298	TO-66	500	20	1	3.71	2.70	2.25
2N4299	TO-66	500	20	1	4.13	3.00	2.50

RADIO FREQUENCY FOR LINEAR OPERATION SMALL SIGNAL TYPES N-CHANNEL SINGLE INSUL. GATE SIL. MOS

Gps (typ): to 25.8 db

Type	Package	Gps NF db	MHz	Vds V	1-99	100-999	1000-Up
3N143	TO-72	13.5	100	20	1.39	1.01	.84
3N139	TO-72	14	200	35	2.89	2.10	1.75
3N128	TO-72	16	200	20	1.45	1.06	.88
3N152	TO-72	17	200	20	1.78	1.30	1.08
40467	TO-72	15	200	20	1.24	.90	75
3N142	TO-72	24	100	20	1.08	.78	.65
40468	TO-72	24	100	20	.75	.54	.45
40559	TO-72	25.8	100	20	.70	.51	.42
3N153	TO-72	..	...	...	1.58	1.15	.96
3N154	TO-72	15	200	20	1.62	1.18	.98
40467A	TO-72	16	200	...	1.24	.90	.75
40468A	TO-72	24	100	...	.75	.54	.45
40559A	TO-72	25.8	100	..	.70	.51	.42

SMALL SINGLE TYPES N-CHANNEL DUAL INSUL. GATE MOS FET SILICON

Gps (typ): to 18 db

Type	Package	Gps NF db	MHz	Vds V	1-99	100-999	1000-Up
3N140	TO-72	18	200	20	1.62	1.18	.98
3N141	TO-72	18	200	20	1.55	1.13	.94
3N159	TO-72	16	200	20	2.18	1.58	1.32
40600	TO-72	17.5	200	20	1.24	.90	.75
40601	TO-72	...		20	1.16	.84	.70
40602	TO-72			20	.83	.60	.50
40603	TO-72			20	1.04	.76	.63
40604	TO-72			20	.98	.71	.59

SMALL SIGNAL TYPES VHF-HF CLASS A-B-C SILICON NPN

Ft: (min): to 250 Hz (typ): to 700 MHz

Type	Package	NF db	MHz	Vcbo V	1-99	100-999	1000-Up
40354	TO-104	.		Vceo	1.18	.86	.71
40355	J		.	150V	1.24	.90	.75
2N2270	TO-5	6	1	60	.91	.66	.55
2N2897	TO-18		.	60	1.16	.84	.70
2N3053	TO-5			60	.75	.54	.45
40084	TO-18	8	1	60	.99	.72	.60
2N2102	TO-5	6	1	120	1.13	.82	.68
2N2405	TO-5	6	1	120	1.57	1.14	.95
2N2895	TO-18	8	1	120	1.41	1.02	.85
2N2896	TO-18			140	2.06	1.50	1.25
2N5188	TO-39			60	.55	.40	.33
2N5189	V			60	.65	.47	.39
2N5181	TO-104	3.5	200	45	.45	.33	.27
2N5182	TO-104	4.5	200	45	.40	.29	.24

SMALL SIGNAL TYPES UHF-VHF CLASS A-B-C SILICON NPN

Ft (min): above 250 to 1200 MHz

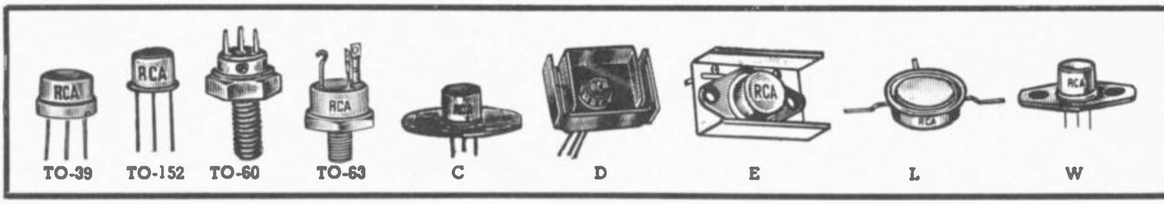
Type	Package	Ft MHz	Gpe db	Gpe MHz	1-99	100-999	1000-Up
40405	TO-52	300	6	240	1.65	1.20	1.00
40519	TO-52	300	5.5	240	1.41	1.02	.85
2N918	TO-72	600	21	200	1.41	1.02	.85
2N5180	TO-104	650	12	200	.48	.35	.29
2N2708	TO-72	700	15	200	2.31	1.68	1.40
2N4934	TO-104	700	18	200	1.40	1.02	.85
2N4935	TO-104	700	21	200	1.62	1.18	.98
2N4936	TO-104	700	20	450	1.90	1.38	1.15
2N3478	TO-104	750	12	470	1.90	1.38	1.15
2N4259	TO-104	750	11.5	450	1.90	1.38	1.15
40238	TO-104	800*	45.3	45	.43	.32	.26
40240	TO-104	800*	45.3	45	.38	.28	.23
40242	TO-104	800*	38.3	100	.57	.41	.34
40243	TO-104		37.6	100	.47	.34	.28
40244	TO-104		oscillator		.38	.28	.23
40245	TO-104	.	51.4	10.7	.40	.29	.24
40246	TO-104		51.4	10.7	.38	.28	.23
40478	TO-104	800*	37	100	.66	.48	.40
40479	TO-104	800*	35	100	.58	.42	.35
40480	TO-104	800*	oscillator		.48	.35	.29
40481	TO-104	860*	51	10.7	.53	.39	.32
40482	TO-104	860*	51	10.7	.50	.36	.30
40472	TO-104	900*	29.6	200	.66	.48	.40
40473	TO-104	900*	22.7	200	.60	.44	.36
40474	TO-104	900*	oscillator		.48	.35	.29
40475	TO-104	800*	45.6	44	.55	.40	.33
40476	TO-104	800*	45.6	44	.53	.39	.32
40477	TO-104	800*	45.6	44	.50	.36	.30
40235	TO-104	1000*	29.1	216	.57	.41	.34
40236	TO-104	1000*	19	216	.48	.35	.29
40237	TO-104	1000*	oscillator		.38	.28	.23
2N3632	TO-104	750	11.5	200	12.75	10.55	8.80
2N3933	TO-104	750	14	200	1.62	1.18	.98
2N3600	TO-72	850	17	200	3.80	2.76	2.30
2N2857	TO-72	1000	12.5	450	4.46	3.24	2.70
2N5179	TO-72	1000	15	200	.65	.47	.39
2N3839	TO-72	1000	12.5	450	13.80	11.40	9.50
40413	Shipment of 40413 & 40414				3.88	2.82	2.35
40414	complete with elec. specs.				5.10	3.70	3.10
40517	TO-72	1000	12.5	450	15.10	12.50	10.40
40518	High-rel. version of 40517				20.30	16.80	14.00
2N5109	TO-39	1200	11	200	3.47	2.52	2.10

*Typ

RADIO FREQUENCY FOR LINEAR OPERATION SMALL SIGNAL TYPES GERMANIUM PNP

Ft (typ): to 132 MHz
Fhfb (typ): to 140 MHz

Type	Package	Ft MHz	Fhfb MHz	Vcbo V	1-99	100-999	1000-Up
2N139	TO-40	14	4.7	—16	1.16	.84	.70
2N410	TO-1	14	6.7	—13	.48	.35	.29
2N140	TO-40	16.5	10	—16	1.24	.90	.75
2N411	TO-40	16.5	10	—13	.60	.44	.36
2N412	TO-40	16.5	10	—13	.53	.39	.32
40488	TO-1	30		—12	.22	.16	.13
40489	TO-1	30		—50	.28	.20	.165
40497	TO-1	40		—50	.30	.22	.18
2N1524	TO-1		33	—24	.47	.34	.28
2N1525	TO-40		33	—24	.53	.39	.32
2N1526	TO-1		33	—24	.48	.35	.29
2N1527	TO-40		33	—24	.55	.40	.33
2N1638	TO-1		40	—34	.50	.36	.30
2N1631	TO-40		45	—34	.65	.47	.39
2N1632	TO-1		45	—34	.58	.42	.35
2N1637	TO-1	...	45	—34	.57	.41	.34
2N372	TO-7	132	.	—24	1.06	.77	.64
2N370	TO-7	132		—24	1.08	.78	.65
2N1180	TO-45		100	—30	.80	.58	.48
2N1177	TO-45	.	140	—30	1.01	.74	.61
2N1179	TO-45	...	140	—30	.99	.72	.60
2N1178	TO-45	...	140	—30	.99	.72	.60



RADIO FREQ. FOR LINEAR AND CLASS C OPERATION RF POWER TYPES SILICON NPN FEATURING "OVERLAY"

Poe (min): 0.01 to 30 W

Type	Package	Poe W	Poe MHz	Ft MHz	1-99	100-999	1000-Up
2N1491	TO-5	0.01	70	380	1.82	1.32	1.10
40080	TO-39	0.1	27	350	1.08	.78	.65
40405	TO-52	0.2	172	850	1.65	1.20	1.00
40081	TO-39	0.4	27	350	1.41	1.02	.85
2N1493	TO-5	0.5	70	380	7.01	5.10	4.25
2N3118	TO-5	1	50	250*	4.95	3.60	3.00
40577	TO-5	1	50	250*	58.00	48.00	40.00
2N4427	TO-39	1	175	800	2.15	1.56	1.30
40280	TO-39	1	175	550	4.62	3.36	2.80
2N3866	TO-39	1	400	800	2.97	2.16	1.80
40578	TO-39	1	400	800	58.00	48.00	40.00
2N5108	TO-39	1	1000	1200*	12.90	10.70	8.90
2N5090	TO-60	1.2	400	500*	11.40	8.30	6.90
40291	TO-60	2	135	500	10.40	7.55	6.30
2N3553	TO-39	2.5	175	500	4.37	3.18	2.65
40082	TO-39	3	27	200	4.04	2.94	2.45
40446	W	3	27	......	4.29	3.12	2.60
2N3375	TO-60	3	400	400*	10.80	8.95	7.45
40581	TO-39	3.5	27	......	4.87	3.54	2.95
40582	W	3.5	27	......	5.12	3.72	3.10
2N4440	TO-60	5	400	500	11.90	9.85	8.20
2N2876	TO-60	10	50	200	12.75	10.55	8.80
2N3733	TO-60	10	400	400	15.80	13.10	10.90
2N4932	TO-60	12	88	......	29.00	24.00	20.00
2N3632	TO-60	13.5	175	400	12.75	10.55	8.80
2N5102	TO-60	15	136	......	21.75	18.00	15.00
2N5016	TO-60	15	400	600	43.50	36.00	30.00
2N4933	TO-60	20	88	......	29.00	24.00	20.00
2N5071	TO-60	24	76	......	29.00	24.00	20.00
2N5070	TO-60	25	30	......	29.00	24.00	20.00
40340	TO-60	25	50	125	29.00	24.00	20.00

* Min.

COMPUTER SWITCHING AND PULSE FOR MEDIUM SPEED OPERATION — LOW LEVEL TYPES SILICON NPN

Ft (min): 20 to 175 MHz

Type	Package	Ft MHz	hFE Min	Vcbo V	1-99	100-999	1000-Up
2N3263	L	20	25	150	79.75	66.00	55.00
2N3264	L	20	20	120	50.75	42.00	35.00
2N3265	TO-63	20	25	150	76.85	63.50	53.00
2N3266	TO-63	20	20	120	50.75	42.00	35.00
2N697	TO-5	50	40	60	.63	.46	.38
2N699	TO-5	50	40	120	1.16	.84	.70
2N720A	TO-18	50	40	120	1.32	.96	.80
2N1893	TO-5	50	40	100	1.08	.78	.65
2N718A	TO-18	60	40	75	1.08	.78	.65
2N1613	TO-5	60	40	75	.75	.54	.45
2N2270	TO-5	60	50	60	.91	.66	.55
2N3878	TO-66	60	20	120	4.95	3.60	3.00
2N3879	TO-66	60	20	120	6.60	4.80	4.00
2N5202	TO-66	60	10	120	4.53	3.30	2.75
40375	E	60	20	120	5.03	3.66	3.05
2N1711	TO-5	70	100	75	.94	.69	.57
2N2897	TO-18	100	40	60	1.16	.84	.70
2N3053	TO-5	100	50	60	.75	.54	.45
40084	TO-18	100	50	60	.99	.72	.60
40389	D	100	50	60	.91	.66	.55
40392	C	100	50	60	.91	.66	.55
2N2102	TO-5	120	40	120	1.13	.82	.68
2N2405	TO-5	120	60	120	1.57	1.14	.95
2N2895	TO-18	120	60	120	1.41	1.02	.85
2N2896	TO-18	120	60	140	2.06	1.50	1.25
2N5183	TO-104	125	40	18	.32	.23	.19
40458	TO-104	150	100	60	.78	.57	.47
40459	J	150	100	60	.85	.62	.51
2N3241A	TO-104	175	100	30	.73	.53	.44
2N3242A	TO-104	175	125	40	.83	.60	.50
40450	TO-104	175	100	30	.80	.58	.48
40451	TO-104	175	125	40	.90	.65	.54

SYMBOL EXPLANATIONS

NF—Noise Figure
Ta—Ambient Temperature
Tc—Case Temperature
Ic—Collector Current
Pt—total Non-resistive power input
Vcbo—Collector to base voltage
Vcbv—Collector to base voltage
Vceo—Collector to emitter volt.
Vbe—Base to emitter Voltage
Vcb—Collector to base voltage

LOW LEVEL TYPES SILICON PNP

Ft (min): to 60 MHz

Type	Package	Ft MHz	hFE min	Vcbo V	1-99	100-999	1000-Up
2N4036	TO-5	60	40	—90	1.32	.96	.80
2N4037	TO-5	60	50	—60	1.16	.84	.70
2N4314	TO-5	60	50	—90	1.24	.90	.75
40391	D	60	50	—60	1.24	.90	.75
40394	C	60	50	—60	1.24	.90	.75

COMPUTER SWITCHING AND PULSE FOR HIGH SPEED OPERATION — LOW LEVEL TYPES SILICON NPN

Ft (min): 200 to 600 MHz

Type	Package	Ft MHz	Cobo pF	hFE min	1-99	100-999	1000-Up
2N3119	TO-5	250	6	50	5.36	3.90	3.25
2N3011	TO-18	400	4	30	.99	.72	.60
2N5186	TO-52	400	3	25	.40	.29	.24
2N5187	TO-52	400	3.5	30	.45	.33	.27
2N709	TO-18	600	3	20	1.32	.96	.80
2N2475	TO-18	600	3	30	1.62	1.18	.98

HIGH VOLTAGE/HIGH CURRENT TYPES SILICON NPN

Ft (min): 250 to 600 MHz

Type	Package	Ft MHz	Vcbo V	Pt W	1-99	100-999	1000-Up
2N3512	TO-5	250	60	0.8	1.08	.78	.65
2N5188	TO-39	250	60	0.8	.55	.40	.33
2N5189	V	250	60	1	.65	.47	.39
2N5262	V	250	75	1	1.62	1.18	.98
2N3261	TO-52	600	40	0.3	1.32	.96	.80

COMPUT. SWITCH. AND PULSE FOR CHOPPER AND MULTIPLEX OPERATION — N-CHANNEL SINGLE INSULATED GATE MOS FET SILICON

Crss (mcx): to 0.34 pF

Type	Package	Crss pF	Igss Pa	Pt mW	1-99	100-999	1000-Up
3N138	TO-72	0.25	0.1	400	3.30	2.40	2.00
3N153	TO-72	0.34	0.1	400	1.58	1.15	.96

COMPUTER SWIT. AND PULSE FOR LOW AND MED. SPEED OPERATION — LOW LEVEL TYPES GERMANIUM PNP

Fhfb (min): to 15 MHz

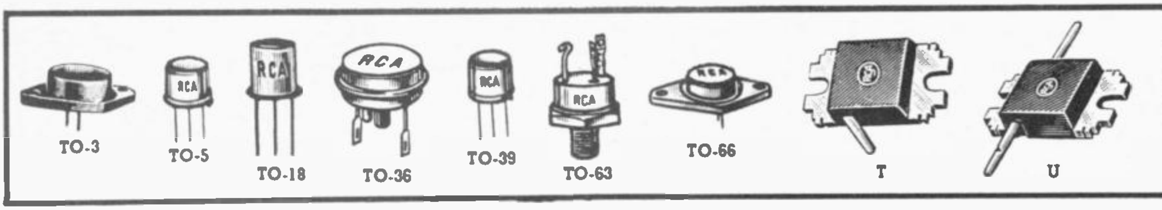
Type	Package	Fhfb MHz	Cobo pf	hFE min	1-99	100-999	1000-Up
2N1303	TO-5	3	20	20	.42	.30	.25
2N404	TO-5	4	20	30	.42	.30	.25
2N404A	TO-5	4	20	30	.55	.40	.33
2N581	TO-5	4	20	20	.50	.36	.30
40403	TO-5	5	20	30	.66	.48	.40
2N1305	TO-5	5	20	40	.48	.35	.29
2N414	TO-5	8	11	...	.42	.30	.25
2N1307	TO-5	10	20	60	.58	.42	.35
2N582	TO-5	14	20	40	.66	.48	.40
2N1309	TO-5	15	20	80	.91	.66	.55
2N1384	TO-11	....	...	20	3.30	2.40	2.00
2N1683	TO-5	....	12	50	1.90	1.38	1.15

LOW LEVEL TYPES GERMANIUM NPN

Fhfb (min): to 15 MHz

2N585	TO-5	3	25	20	.99	.72	.60
2N1302	TO-5	3	20	20	.42	.30	.25
2N1605A	TO-5	4	20	40	1.09	.80	.66
2N388	TO-5	5	20	60	.47	.34	.28
2N388A	TO-5	5	20	60	.88	.64	.53
2N1304	TO-5	5	20	40	.50	.36	.30
2N1306	TO-5	10	20	60	.62	.45	.37
2N1308	TO-5	15	20	80	.91	.66	.55

RCA Semiconductors



HIGH VOLTAGE TYPES GERMANIUM PNP

Vcbo (mcx) to—105V

Type	Package	Pt V	Uceo mW	fT KHz	1-99	100-999	1000-UP
2N398	TO-5	—105	50	20	.83	.60	.50
2N398A	TO-5	—105	150	40	.91	.66	.55
2N398B	TO-5	—105	250		1.16	.84	.70

POWER SWITCH AND PULSE FOR LOW SPEED OPERATION POWER TYPES SILICON NPN

Pt Tc: to 8.75 W
Ta: to 5.8 W

Type	Package	Pf V	Ic A	hFE min	1-99	100-999	1000-UP
40407	TO-5	1	50	0.7	.81	.59	.49
40408	TO-5	1	90	0.7	1.08	.78	.65
2N718A	TO-18	1.8	32	1	1.08	.78	.65
2N720A	TO-18	1.8	80	1	1.32	.96	.80
2N2895	TO-18	1.8	65	1	1.41	1.02	.85
2N2896	TO-18	1.8	90	1	2.06	1.50	1.25
2N2897	TO-18	1.8	45	1	1.16	.84	.70
2N697	TO-5	2	40	0.5	.63	.46	.38
2N699	TO-5	2	80	1	1.16	.84	.70
2N1613	TO-5	3	50	1	.75	.54	.45
2N1711	TO-5	3	50	1	.94	.69	.57
2N1893	TO-5	3	80	0.5	1.08	.78	.65
40409	D	3.5	90	0.7	1.14	.83	.69
40389	D	3.5	40	0.7	.91	.66	.55
40390	D	3.5	250	1	2.15	1.56	1.30
40346V1	D	4	175	1	1.23	.89	.74
40412V1	D	4	200	1	1.14	.83	.69
2N1479	TO-5	5	40	1.5	2.15	1.56	1.30
2N1480	TO-5	5	55	1.5	2.31	1.68	1.40
2N1481	TO-5	5	40	1.5	2.48	1.80	1.50
2N1482	TO-5	5	55	1.5	3.30	2.40	2.00
2N1700	TO-5	5	40	1	1.90	1.38	1.15
2N2102	TO-5	5	65	1	1.13	.82	.68
2N2270	TO-5	5	45	1	.91	.66	.55
2N2405	TO-5	5	90	1	1.57	1.14	.95
2N3053	TO-5	5	40	0.7	.75	.54	.45
40311	TO-5	5	30	0.7	.73	.53	.44
40314	TO-5	5	30	0.7	.78	.57	.47
40315	TO-5	5	40	0.7	.75	.54	.45
40317	TO-5	5	40	0.7	.78	.57	.47
40320	TO-5	5	40	0.7	.78	.57	.47
40321	TO-5	5	300	1	1.24	.90	.75
40323	TO-5	5	18	0.7	.70	.51	.42
40326	TO-5	5	40	0.7	.78	.57	.47
40327	TO-5	5	300	1	1.24	.90	.75
40360	TO-5	5	70	0.7	.91	.66	.55
40361	TO-5	5	70	0.7	1.03	.75	.62
40366	TO-5	5	65	1	7.84	5.70	4.75
40367	TO-5	5	55	1.5	7.84	5.70	4.75
40385	TO-5	5	350	1	9.50	6.90	5.75
40347V1	D	4.4	40	1	.75	.54	.45
40348V1	D	4.4	65	1	1.14	.83	.69
40349V1	D	4.4	140	1	1.64	1.19	.99
40250V1	E	5 8	40	4	1.24	.90	.75
40372	E	5 8	55	4	1.24	.90	.75
40374	E	5 8	175	2	2.56	1.86	1.55
40375	E	5.8	50	7	5.03	3.66	3.05
40392	C	7	40	0.7	.91	.66	.55
2N3262	TO-39	8 75	80	1.5	7.43	5.40	4.50
40347	TO-5	8 75	40	1	.66	.48	.40
40348	TO-5	8 75	65	1	1.06	.77	.64
40349	TO-5	8 75	140	1	1.56	1.13	.94

POWER TYPES SILICON NPN

Pt (Tc): above 8.75 to 75 W

Type	Package	Pt W	Vceo V	Ic A	1-99	100-999	1000-UP
2N3439	TO-5	10	350	1	3.71	2.70	2.25
2N3440	TO-5	10	250	1	1.82	1.32	1.10
2N4063	C	10	350	1	3.80	2.76	2.30
2N4064	C	10	250	1	1.90	1.38	1.15
40346	TO-5	10	175	1	1.14	.83	.69
40346V2	C	10	175	1	1.23	.89	.74
40412	TO-5	10	250	1	1.06	.77	.64

Continued on next column

POWER TYPES SILICON NPN (Cont'd)

Type	Package	Pt W	Vceo V	Ic A	1-99	100-999	1000-UP
40412V2	C	10	250	1	1.14	.83	.69
40347V2	C	11.7	40	1	.75	.54	.45
40348V2	C	11.7	65	1	1.14	.83	.69
40349V2	C	11.7	140	1	1.64	1.19	.99
2N4296	TO-66	20	250	1	2.48	1.80	1.50
2N4297	TO-66	20	250	1	2.89	2.10	1.75
2N4298	TO-66	20	350	1	3.71	2.70	2.25
2N4299	TO-66	20	350	1	4.13	3.00	2.50
2N1483	TO-8	25	40	3	2.89	2.10	1.75
2N1484	TO-8	25	55	3	3.63	2.64	2.20
2N1485	TO-8	25	40	3	4.46	3.24	2.70
2N1486	TO-8	25	55	3	6.77	4.92	4.10
2N1701	TO-8	25	40	2.5	2.31	1.68	1.40
40368	TO-8	25	55	3	11.60	9.60	8.00
2N3441	TO-66	25	140	3	2.48	1.80	1.50
2N3054	TO-66	29	55	4	1.16	.84	.70
40250	TO-66	29	40	4	1.16	.84	.70
40310	TO-66	29	35	4	.99	.72	.60
40312	TO-66	29	60	4	1.03	.75	.62
40316	TO-66	29	40	4	.99	.72	.60
40324	TO-66	29	35	4	.99	.72	.60
2N3583	TO-66	35	175	2	2.48	1.80	1.50
2N3584	TO-66	35	250	2	4.13	3.00	2.50
2N3585	TO-66	35	300	2	6.60	4.80	4.00
2N4240	TO-66	35	300	2	2.89	2.10	1.75
2N3878	TO-66	35	50	7	4.95	3.60	3.00
2N3879	TO-66	35	75	7	6.60	4.80	4.00
40313	TO-66	35	300	2	2.23	1.62	1.35
40318	TO-66	35	300	2	2.10	1.52	1.27
40322	TO-66	35	300	2	2.15	1.56	1.30
40328	TO-66	35	300	2	2.19	1.60	1.33
40364	TO-66	35	60	7	4.79	3.48	2.90
2N1487	TO-3	75	40	6	4.54	3.30	2.75
2N1488	TO-3	75	55	6	4.95	3.60	3.00
2N1489	TO-3	75	40	6	7.43	5.40	4.50
2N1490	TO-3	75	55	6	8.25	6.00	5.00
2N1702	TO-3	75	40	5	4.54	3.30	2.75
40369	TO-3	75	55	6	13.05	10.80	9.00

POWER TYPES SILICON NPN

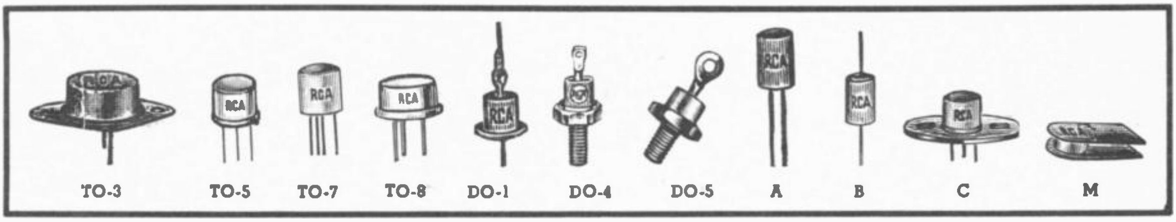
Pt (Tc): above 75 to 150 W

2N5034	T	83	40	6	1.34	.98	.81
2N5036	T	83	50	8	1.42	1.04	.86
40514	T	83	45	6	1.26	.92	.76
2N5035	U	83	40	6	1.32	.96	.80
2N5037	U	83	50	8	1.41	1.02	.85
40513	U	83	45	6	1.24	.90	.75
2N4347	TO-3	100	120	5	2.97	2.16	1.80
2N3055	TO-3	115	60	15	1.82	1.32	1.10
40363	TO-3	115	70	15	1.82	1.32	1.10
2N3442	TO-3	117	140	10	4.54	3.30	2.75
40251	TO-3	117	40	15	1.90	1.38	1.15
40325	TO-3	117	35	15	1.90	1.38	1.15
2N4348	TO-3	120	120	10	4.13	3.00	2.50
2N2015	TO-36	150	50	10	9.08	6.60	5.50
2N2016	TO-36	150	65	10	9.90	7.20	6.00
2N2338	TO-36	150	40	7.5	6.60	4.80	4.00
2N3771	TO-3	150	40	15	4.13	3.00	2.50
2N3772	TO-3	150	60	10	4.13	3.00	2.50
2N3773	TO-3	150	140	16	7.43	5.40	4.50
40411	TO-3	150	90	16	4.29	3.12	2.60

POWER TYPES SILICON PNP

Pt (Tc): to 7 W
(Ta): to 3.5 W

Type	Package	Pt W	Vceo V	hFE min	1-99	100-999	1000-UP
40406	TO-5		—50	—0.7	1.19	.87	.72
40410	D		—90	—0.7	1.32	.96	.80
40391	D		—40	—1	1.24	.90	.75
40319	TO-5	5	—40	—0.7	1.16	.84	.70
40362	TO-5	5	—70	—0.7	1.24	.90	.75
40394	D	7	—40	—1	1.24	.90	.75



POWER TYPES GERMANIUM PNP

Type	Package	Pt W	Vcbv V	Ic A	1-99	100-999	1000-Up
2N586	TO-7	0.25	—25	—0.25	1.73	1.26	1.05
2N1183	TO-8	7.5	—20	—3	1.82	1.32	1.10
2N1183A	TO-8	7.5	—30	—3	2.31	1.68	1.40
2N1183B	TO-8	7.5	—40	—3	2.89	2.10	1.75
2N1184	TO-8	7.5	—20	—3	2.48	1.80	1.50
2N1184A	TO-8	7.5	—30	—3	2.81	2.04	1.70
2N1184B	TO-8	7.5	—40	—3	4.13	3.00	2.50
2N1905	TO-3	30	—100	—6	4.13	3.00	2.50
2N1906	TO-3	30	—130	—6	6.60	4.80	4.00

POWER SWITCHING PULSE FOR HIGH VOLTAGE OPERATION HIGH VOLTAGE TYPES SILICON NPN

Vceo (max): 120 to 350 V

Type	Package	Vceo V	Pt W	Ft MHz	1-99	100-999	1000-Up
2N4347	TO-3	120	100	0.8	2.97	2.16	.45
2N4348	TO-3	120	120	0.7	4.13	3.00	1.80
2N4390	TO-104	120	0 5	50	.75	.54	2.50
2N3441	TO-66	140	25	1.2	2.48	1.80	1.50
2N3442	TO-3	140	117	0.8	4.54	3.30	2.75
2N3773	TO-3	140	150	0.7	7.43	5.40	4.50
40349	TO-5	140	8.75	1.1	1.56	1.13	.94
40349V1	D	140	4.4	1.1	1.64	1.19	.99
40349V2	C	140	11.7	1.1	1.64	1.19	.99
40373	E	140	5.8	1.2	2.56	1.86	1.55
2N4068	TO-104	150	0.5	50	1.34	.97	.81
2N4069	J	150	1	50	1.40	1.02	.85
40354	TO-104	150	0.5	50	1.18	.86	.71
40355	J	150	1	50	1.24	.90	.75
2N3583	TO-66	175	35	15	2.48	1.80	1.50
40346	TO-5	175	10	10	1.14	.83	.69
40346V1	D	175	4	10	1.23	.89	.74
40346V2	C	175	10	10	1.23	.89	.74
40374	E	175	5 8	15	2.56	1.86	1.55
2N3440	TO-5	250	10	15	1.82	1.32	1.10
2N3584	TO-66	250	35	15	4.13	3.00	2.50
2N4064	C	250	10	15	1.90	1.38	1.15
40390	D	250	3.5	15	2.15	1.56	1.30
40412	TO-5	250	10	10	1.06	.77	.64
40412V1	D	250	4	10	1.14	.83	.69
40412V2	C	250	10	10	1.14	.83	.69
2N3585	TO-66	300	35	15	6.60	4.80	4.00
2N4240	TO-66	300	35	15	2.89	2.10	1.75
2N3439	TO-5	350	10	15	3.71	2.70	2.25
2N4063	C	350	10	15	3.80	2.76	2.30
40385	TO-5	350	5	15	9.50	6.90	5.75

DIODES

TUNNEL DIODES FOR SWITCHING AND MICROWAVE APPLICATIONS SMALL SIGNAL TYPES GERMANIUM

IP (typ): 5 to 100 mA

Type	Package	Ip nA (min)	Ip mA max)	C pF	1-99	100-999	1000-Up
40561	M	4.5	5.5	25	4.54	3.30	2.75
40566	M	4.75	5.25	15	7.43	5.40	4.50
40571	M	4.75	5.25	8	8.60	6.24	5.20
40562	M	9	11	25	4.54	3.30	2.75
40567	M	9.5	10.5	15	6.52	4.74	3.95
40572	M	9.5	10.5	8	7.01	5.10	4.25
40563	M	18	22	30	4.54	3.30	2.75
40568	M	19	21	20	7.01	5.10	4.25
40573	M	19	21	10	8.15	5.94	4.95
40564	M	45	55	40	4.54	3.30	2.75
40569	M	47.5	52.5	25	7.43	5.40	4.50
40574	M	47.5	52.5	12	10.75	7.80	6.50
40565	M	90	110	40	4.54	3.30	2.75
40570	M	95	105	25	10.75	7.80	6.50

DAMPER DIODES FOR TV HORIZ. DEFLECT. SYS. GERMANIUM

Type	Package	VRM V	Vr V	iFM A	1-99	100-999	1000-Up
40442	TO-3	200	40	10	.83	.60	.50
1N4785	TO-3	320	60	10	1.08	.78	.65

COMPEN. DIODES FOR TEMPERATURE AND VOLT VARIATIONS — GERMANIUM

Type	Package	I FM mA	If (AV) mA	VRM V	1-99	100-999	1000-Up
1N2326	A	200	100	—1	.55	.40	.33
40428	A	200	100	—0.5	.31	.23	.185

RECTIFIERS

SILICON DIFFUSED — JUNCTION TYPES

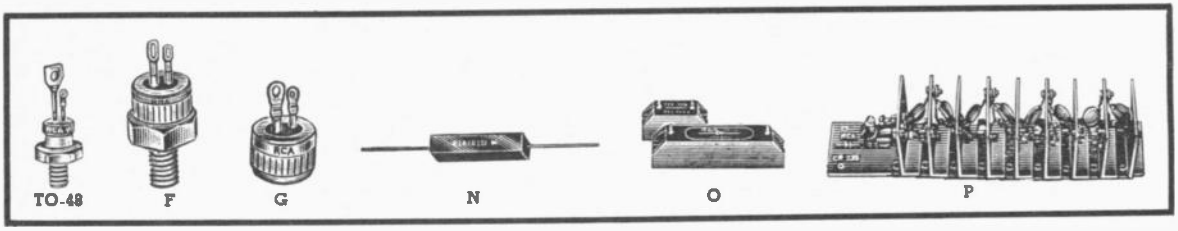
Type	Package	If (AU) A	If (AU) @ °C	VFM V	1-99	100-999	1000-Up
1N3754	A	0.125	65	1	.32	.23	.19
1N3755	A	0.125	65	1	.33	.24	.20
1N3756	A	0.125	65	1	.35	.26	.21
40265	A	0.125	65	1	.35	.25	.21
1N3563	B	0.3	75	1.2	.94	.69	.57
1N3196	B	0.4	75	1.2	.74	.54	.45
1N3256	B	0.4	75	1.2	.78	.57	.47
1N3193	B	0.5	75	1.2	.35	.26	.21
1N3194	B	0.5	75	1.2	.38	.28	.23
1N3195	B	0.5	75	1.2	.53	.39	.32
1N3253	B	0.5	75	1.2	.38	.28	.25
1N3254	B	0.5	75	1.2	.42	.30	.23
1N3255	B	0 5	75	1.2	.56	.41	.34
40495	B	0.5	65	1.5	.30	.22	.18
1N5214	B	0.6	75	1.2	.81	.59	.49
W5218	B	0.6	75	1.2	.85	.62	.51
1N537	DO-1	0.75	50	1.1	.50	.36	.30
1N538	DO-1	0.75	50	1.1	.53	.39	.32
1N539	DO-1	0.75	50	1.1	.60	.44	.36
1N540	DO-1	0.75	50	1.1	.68	.49	.41
1N547	DO-1	0.75	50	1.2	.96	.70	.58
1N1095	DO-1	0.75	50	1.2	.88	.64	.53
1N1763A	DO-1	0.75	75	1.2	.42	.30	.25
1N1764A	DO-1	0.75	75	1.2	.52	.38	.31
1N2858A	DO-1	0.75	75	1.2	.33	.24	.20
1N2859A	DO-1	0.75	75	1.2	.37	.27	.22
1N2860A	DO-1	0.75	75	1.2	.40	.29	.24
1N2861A	DO-1	0.75	75	1.2	.42	.30	.25
1N2862A	DO-1	0.75	75	1.2	.48	.35	.29
1N2863A	DO-1	0.75	75	1.2	.58	.42	.35
1N2864A	DO-1	0.75	75	1.2	.70	.51	.42
1N5211	B	0.75	75	1.2	.38	.28	.23
1N5212	B	0.75	75	1.2	.42	.30	.25
1N5213	B	0.75	75	1.2	.56	.41	.34
1N5215	B	0.75	75	1.2	.42	.30	.25
1N5216	B	0.75	75	1.2	.45	.33	.27
1N5217	B		75	1.2	.60	.44	.36
40266	DO-1	2	105	3	.29	.21	.175
40267	DO-1	2	105	3	.33	.24	.20

DIFFUSED JUNCTION TYPES STUD MOUNTED SILICON

If AV: above 2 to 40 A

1N1612	DO-4	5	135	50	1.08	.78	.65
1N1613	DO-4	5	135	100	1.24	.90	.75
1N1614	DO-4	5	135	200	1.90	1.38	1.15
1N1615	DO-4	5	135	400	3.71	2.70	2.25
1N1616	DO-4	5	135	600	5.36	3.90	3.25
1N1342B	DO-4	6	150	100	1.32	.96	.80
40108	DO-4	10	150	50	.99	.72	.60
40109	DO-4	10	150	100	1.16	.84	.70
40110	DO-4	10	150	200	1.57	1.14	.95
40112	DO-4	10	150	400	2.48	1.80	1.50
40113	DO-4	10	150	500	3.14	2.28	1.90
40114	DO-4	10	150	600	3.71	2.70	2.25
1N1199A	DO-4	12	150	50	1.24	.90	.75
1N1200A	DO-4	12	150	100	1.41	1.02	.85
1N1202A	DO-4	12	150	200	2.48	1.80	1.50
1N1204A	DO-4	12	150	400	4.46	3.24	2.70
4013	DO-5	18	150	500	3.63	2.64	2.20
40214	DO-5	18	150	600	4.21	3.06	2.55
W1198A	DO-5	20	150	600	7.01	5.10	4.25
1N1183A	DO-5	40	150	50	2.15	1.56	1.30
1N1184A	DO-5	40	150	100	2.48	1.80	1.50
1N1186A	DO-5	40	150	200	3.55	2.58	2.15
1N1189A	DO-5	40	150	500	7.43	5.40	4.50
1N1190A	DO-5	40	150	600	8.65	6.30	5.25

RCA Semiconductors



SILICON RECIFIER STACKS — HIGH VOLTAGE TYPES

Vrm (rep): 1265 to 12000 V

Type	Package	VRM V	Vr V	If A	VFM V	1-29	30-Up
CR101	O	1265	895	1	1.2	5.75	5.47
CR201	N	1900	1345	0.4	1.8	3.10	2.96
CR102	O	2530	1790	0.925	2.4	7.20	6.85
CR103	O	3165	2240	0.825	3	8.15	7.75
CR203	N	3165	2400	0.4	3	4.80	4.56
CR204	N	4800	3395	0.4	3.6	5.75	5.47
CR105	O	5065	3580	0.7	4.8	10.55	10.05
CR106	O	6330	4475	0.65	6	12.00	11.40
CR206	N	6330	4475	0.4	6	6.95	6.60
CR208	N	8000	5655	0.4	6	8.40	8.00
CR108	O	8230	5820	0.6	7.8	13.90	13.20
CR210	N	10000	7070	0.4	7.2	10.10	9.60
CR110	O	10130	7160	0.6	9.6	16.30	15.50
CR212	N	12000	8485	0.4	9	12.00	11.40

THYRISTORS

SILICON TRIACS — GRATED BIDIRECTIONAL

It (RMS): to 15 A

Type	Package	It (RMS) A	It (RMS) TC	Itsm A	1-99	100-999	1000-Up
40525		2.5	60°C	25	1.57	1.14	.95
40526	TO-5	2.5	60°C	25	1.62	1.18	.98
40527	modified	2.5	60°C	25	2.31	1.68	1.40
40528	three	2.5	70°C	25	1.57	1.14	.95
40529	1" leads	2.5	70°C	25	1.62	1.18	.98
40530		2.5	70°C	25	2.31	1.68	1.40
40531	D	2.5	60°C		1.73	1.26	1.05
40532	D	2.5	60°C		1.78	1.30	1.08
40533	D	2.5	60°C		2.48	1.80	1.50
40534	D	2.5	70°C		1.73	1.26	1.05
40535	D	2.5	70°C		1.78	1.30	1.08
40536	D	2.5	70°C		2.48	1.80	1.50
40429	TO-66	6	75°C	100	2.48	1.80	1.50
40430	TO-66	6	75°C	100	3.27	2.38	1.98
40502	E	6	75°C		2.64	1.92	1.60
40503	E	6	75°C		3.43	2.50	2.08
	TO-5						
40485	modified	6	75°C	100	2.48	1.80	1.50
40486	2-1" leads	6	75°C	100	3.27	2.38	1.98
40509	D	6	75°C		2.64	1.92	1.60
40510	D	6	75°C		3.43	2.50	2.08
40575	TO-66	15	70°C		3.27	2.38	1.98
40576	TO-66	15	70°C	100	4.92	3.58	2.98
	TO-5			100			
40431	modified	6	75°C	100	2.97	2.16	1.80
40432	2-1" leads	6	75°C	100	3.76	2.74	2.28
40511	D	6	75°C		3.14	2.28	1.90
40512	D	6	75°C		3.93	2.86	2.38

SILICON CONTROLLED RECTIFIERS

It (RMS): to 35 A It (AV): to 22 A

Type	Package	It A (RMS)	It A (AV)	Itsm A	1-99	100-999	1000-Up
2N3528	TO-8	2	1.3	60	1.62	1.18	.98
2N3529	TO-8	2	1.3	60	2.31	1.68	1.40
2N4102	TO-8	2	1.3	60	3.05	2.22	1.85
2N3228	TO-66	5	3.2	60	1.62	1.18	.98
2N3525	TO-66	5	3.2	60	2.31	1.68	1.40
2N4101	TO-66	5	3.2	60	3.05	2.22	1.85
40504	E	5	3.2		1.78	1.30	1.08
40505	E	5	3.2		2.48	1.80	1.50
40506	E	5	3.2		3.22	2.34	1.95
40553	TO-66	5	3.2	80	3.27	2.38	1.98
40554	TO-66	5	3.2	80	6.57	4.78	3.98
40555	TO-66	5	3.2	80	9.85	7.20	5.98
40378	H	7	4.5	80	1.62	1.18	.98
40379	H	7	4.5	80	2.31	1.68	1.40
40507	D	7	4.5		1.78	1.30	1.08
40508	D	7	4.5		2.48	1.80	1.50
2N3669	TO-3	12.5	8	200	3.27	2.38	1.98
2N3670	TO-3	12.5	8	200	4.92	3.58	2.98
2N4103	TO-3	12.5	8	200	9.90	7.20	6.00
2N685	TO-48	25	16	150	6.60	4.80	4.00
2N687	TO-48	25	16	150	7.43	5.40	4.50

Continued next Column

SILICON CONTROLLED RECTIFIERS (CONT'D)

Type	Package	IT A (RMS)	IT A (AV)	Itsm A	1-99	100-999	1000-Up
2N3873	G	35	22	350	10.48	7.60	6.35
2N3896	F	35	22	350	4.95	3.60	3.00
2N3897	F	35	22	350	5.36	3.90	3.25
2N3898	F	35	22	350	7.43	5.40	4.50
2N3899	F	35	22	350	10.73	7.80	6.50
2N689	TO-48	25	16	150	10.30	7.50	6.25
2N690	TO-48	25	16	150	10.50	8.70	7.25
2N5441	G	40		300	8.17	5.94	4.95
2N5442	G	40		300	11.47	8.34	6.95
2N5444	F	40		300	8.66	6.30	5.25
2N5445	F	40		300	10.51	8.70	7.25

SK REPLACEMENT SEMICONDUCTORS

For replacement purposes in line-and-battery-operated portable radios, phonographs, tape recorders, TV receivers, and af Amplifiers. *Description and application apply to both items. † Means drift-field. RF, IF amplifiers are applications of the SK3006, SK3007, SK3008, and SK3011.

SILICON CONTROLLED RECTIFIERS

Type		DC Output	Application	1-99
SK3016	PRV500	1 Amp		.48
SK3017A	PRV600	1 Amp	Color and Black and	.51
SK3030	PRV200	1 Amp	White TV, radio rec.,	.35
SK3031	PRV400	1 Amp	HI-FI, and amplifier	.44
SK3032	PRV800	1 Amp	equipment.	.61
SK3033	PRV1000	1 Amp		.81

TRANSISTORS

Type	Description	Application	NET
SK3003*		AF output, driver, and	.99
SK3004*	Ge, pnp, alloy	low-level amp. stages	.99
SK3005	Ge, pnp, alloy	RF, IF amps; converter	1.17
SK3006	Ge, pnp, †	RF, IF amps; converter stages of fm, AM/FM rec.	1.26
SK3007	Ge, pnp, †	. . . all wave receivers	1.26
SK3008	Ge, pnp, †	. . . stages in car and batteried receivers	1.23
SK3009	Ge, pnp, alloy	Output of car radios, hi-fi amp equipment	2.34
SK3010	Ge, npn, alloy	Class A V. Amp	1.26
SK3011	Ge, npn, alloy	Stnd. radio receivers	1.62
SK3012	Ge, pnp, alloy	Audio stages of car radio	4.38
SK3013	Ge, pnp, alloy	2 SK 3009 transistors	4.68
SK3014	Ge, pnp, †	Output stages of car radios; hi-fi amp mat.	3.15
SK3015	Ge, pnp, †	2 SK 3014 transistors	6.30
SK3018	Si, npn, planar	VHF-TV, FM tuners; TV-IF, FM-IF amps	1.35
SK3019	Si, npn, planar	UHF-TV oscillator	1.47
SK3020	Si, npn, planar	AF Amp, Driver	1.08
SK3021	Si, npn, diff.	AF otpt. stages in radios, TV receivers	1.71
SK3024	Si, npn, diff.	Pwr. tran. for driver stgs. in hi-fi, and amp & comm. equipment.	1.98
SK3025	Si, pnp, planar	Pwr. tran. for drive stgs. in hi-fi, and amp & comm. equipment.	2.70
SK3026	Si, npn, planar	Pwr. trans. for class A & B audio pwr. amp & stgs for hif-fi	1.80
SK3027	Si, npn, planar	Pwr trans for class B push-pull audio pwr. amps and hi-fi	3.15
SK3028	Si, npn, planar	Matched pair of SK3036 trans.	3.60
SK3029	Si, npn, planar	Matched pair of SK3037 trans.	6.30
SK3034	Ge, pnp, TO-3	Reflection circuits of solid state TV sets.	4.50
SK3035	Ge, pnp, TO-3	Reflection circuits of solid state TV sets.	5.49

INTEGRATED CIRCUITS

Type	Description	Application	NET
SK3022	TO-5, 10 lead	Wide band amplifier	3.96
SK3023	TO-5, 10 formed leads	Wide band amplifier	3.96

ECONOLINE MOLDED PLASTIC SMALL SIGNAL AMPLIFIERS—AUDIO TO 30 MHz

Type Number	hFE Min.	hFE Max.	Vceo	Pd mW	fT MHz	1-99	100-999	1000-9999
2N2711	30	90	18	200	120	.24	.15	.12
2N2712	70	225	18	200	120	.27	.18	.15
2N2923	90	180	25	200	120	.30	.20	.17
2N2924	150	300	25	200	120	.33	.22	.18
2N2925	235	470	25	200	120	.42	.27	.23
2N2926	35	470	18	200	120	.27	.19	.16
2N3391	250	500	25	200	120	.57	.36	.29
2N3391A	250	500	25	200	120	.60	.40	.32
2N3392	150	300	25	200	120	.30	.20	.17
2N3393	90	180	25	200	120	.30	.20	.17
2N3394	55	110	25	200	120	.27	.18	.15
2N3395	150	500	25	200	120	.42	.28	.23
2N3396	90	500	25	200	120	.39	.25	.21
2N3397	55	500	25	200	120	.36	.24	.20
2N3398	55	800	25	200	120	.36	.24	.20
2N3721	60	660	18	200	120	.27	.17	.13
2N3900	250	500	25	200	120	.51	.34	.28
2N3900A	250	500	25	200	120	.57	.38	.31

LARGE SIGNAL AMPLIFIERS & MEDIUM SPEED SWITCHES

Type Number	hFE Min.	hFE Max.	Vceo	Pd mW	fT MHz	1-99	100-999	1000-9999
2N2713	30	90	18	200	120	.39	.26	.21
2N2714	75	225	18	200	120	.42	.27	.23
2N3402	75	225	25	900	200	.42	.27	.23
2N3404	75	225	50	900	200	.63	.40	.33
2N3405	180	540	50	900	200	.78	.51	.43
2N3414	75	225	25	360	200	.36	.24	.20
2N3415	180	540	25	360	200	.39	.26	.21
2N3416	75	225	50	360	200	.57	.38	.31
2N3417	180	540	50	360	200	.72	.48	.40
2N3973	35	100	30	360	200	.45	.29	.24
2N3974	55	200	30	360	200	.48	.32	.26
2N3975	35	100	30	360	200	.39	.26	.21
2N3976	55	200	30	360	200	.42	.27	.23
2N4256	100	500	30	200	200	.66	.44	.35
2N4951	60	200	30	360	250	.48	.32	.24
2N4952	100	300	30	360	250	.51	.34	.26
2N4953	200	600	30	360	250	.57	.38	.29
2N4954	60	600	30	360	250	.42	.28	.21

HIGH FREQUENCY AMPLIFIERS AND OSCILLATORS — 262.5 KHz TO 100 MHz

Type Number	hFE Min.	hFE Max.	Vceo	Pd mW	fT MHz	1-99	100-999	1000-9999
2N3843	20	40	30	200	60	.42	.27	.23
2N3843A	20	40	30	200	60	.45	.29	.24
2N3844	35	70	30	200	90	.45	.29	.24
2N3844A	35	70	30	200	90	.45	.30	.25
2N3845	60	120	30	200	126	.45	.30	.25
2N3845A	60	120	30	200	126	.48	.32	.26
2N3854	35	70	18	200	100	.36	.23	.19
2N3854A	35	70	30	200	100	.36	.24	.20
2N3855	60	120	18	200	130	.36	.24	.20
2N3855A	60	120	30	200	130	.39	.26	.21
2N3856	100	200	18	200	140	.39	.26	.21
2N3856A	100	200	30	200	140	.42	.27	.23
2N3858	60	120	30	200	90	.33	.21	.18
2N3858A	60	120	60	200	90	.42	.27	.23
2N3859	100	200	30	200	90	.36	.23	.19
2N3859A	100	200	60	200	90	.45	.29	.24
2N3860	150	300	30	200	90	.39	.26	.21

HIGH-VOLTAGE INDICATOR DRIVERS

Type Number	hFE Min.	hFE Max.	Vceo	Pd mW	fT MHz	1-99	100-999	1000-9999
2N3877	20	250	70	200	....	.48	.32	.26
2N3877A	20	250	85	200	....	.54	.35	.29

DIFFERENTIAL AMPLIFIERS

Type	Polarity	Vcbo	Vceo	hFE (Min) @100uA	hFE/hFE2 (Min) (Max)	1-99	100-999	1000-9999
TD-100	NPN/NPN	60	30	120	0.9/1.0	3.00	2.00	1.50
TD-101	NPN/NPN	60	30	120	0.9/1.0	1.90	1.25	.95
TD-400	PNP/PNP	60	30	120	0.9/1.0	3.60	2.40	1.80
TD-401	PNP/PNP	60	30	120	0.9/1.0	2.40	1.60	1.20

COMPLEMENTARY PAIRS

Type	Polarity	Vcbo	Vceo	hFE (Min) @100mA	hFE (Min) @150mA	1-99	100-999	1000-9999
TD-600	NPN/PNP	60	30	120	150	3.30	2.20	1.65
TD-601	NPN/PNP	60	30	120	150	1.95	1.30	.95

DUAL TRANSISTORS

Type	Polarity	Vcbo	Vceo	hFE (Min) @1mA	hFE (Min) @10mA	hFE (Min) @150mA	1-99	100-999	1000-9999
TD-102	NPN/NPN	60	30	100	120	120	1.65	1.10	.85
TD-402	PNP/PNP	60	30	100	120	120	2.25	1.50	1.15
TD-602	NPN/PNP	60	30	100	120	120	1.95	1.30	.95

SPAT PNP CHOPPERS—SILICON

Junct. Temp. 140°C

Type	Case	Veb	—Veco (volts)	Pd @ 25°C	—Ic (mA)	1-99	100-999
2N2185	TO-18	30V	30	150mW	50	15.00	11.00
2N2280	TO-18	10V	6	150mW	50	4.50	3.30

SPAT PNP SWITCH & AMPLIFIERS—SILICON

Type	Case	Junction	—Vcb (volts)	—Vce (volts)	Pd @ 25°C	—Ic (mA)	1-99	100-999
2N861	TO-18	140°C	25	25	150mW	50	6.00	4.40
2N863	TO-18	140°C	15	15	150mW	50	4.50	3.30
2N865	TO-18	140°C	10	6	150mW	50	8.25	6.05

ECDC & MADT PNP HIGH SPEED SWITCHES—GERMANIUM

Type No.	Case	Junction Temp.	Vcb (volts)	Pt (mW)	Ic (mA)	1-99	100-999
2N501	TO-1	15	—	60mW	50	6.35	4.65
2N769	TO-18	12	—	35mW	100	6.75	4.95
2N779A	TO-18	15	—	60mW	100	3.50	2.55
2N976	TO-18	15	10	100mW	100	4.35	3.20
2N984	TO-18	15	10	60mW	100	1.00	.75
2N1499A	TO-9	20	—	60mW	100	1.40	1.05
2N1500	TO-9	15	—	60mW	50	6.95	5.10
2N1754	TO-9	13	—	50mW	100	1.35	.95
2N2048	TO-9	20	15	150mW	100	1.80	1.32
2N2400	TO-18	12	7	150mW	100	1.25	.95
2N2401	TO-18	15	10	150mW	100	1.45	1.05
2N2402	TO-18	15	12	150mW	100	2.25	1.65
2N3320	TO-18	15	10	75mW	100	3.50	2.60

MADT PNP COMMUNICATIONS TYPES—GERMANIUM

2N502	TO-9	85°C	20	60	100	2.90	2.15
2N502A	TO-9	100°C	30	75	100	3.45	2.50
2N588	TO-1	85°C	15	30	50	1.45	1.05
2N1726	TO-9	100°C	20	60	50	1.15	.85
2N1727	TO-9	100°C	20	60	50	1.00	.75
2N1728	TO-9	100°C	20	60	50	1.10	.80
2N1745	TO-9	100°C	20	60	50	1.80	1.32
2N1747	TO-9	100°C	20	60	50	1.00	.75
2N1748	TO-9	100°C	25	60	50	1.05	.80
2N1748A	TO-9	100°C	25	60	50	1.15	.85
2N1749	TO-9	100°C	40	75	10	1.45	1.05

MAT & SBT PNP SWITCH—GERMANIUM

Type No.	Case	Junction	Vcb (volts)	Pt (mW)	Pd @ 25°C	Ic (mA)	1-99	100-999
2N231	TO-24	85°C	4.5	4.5	9mW	3	1.15	.85
2N344	TO-24	85°C	5	5	20mW	5	3.45	2.50
2N345	TO-24	85°C	5	5	20mW	5	4.35	3.15
2N346	TO-24	85°C	5	5	20mW	5	5.85	4.25
2N393	TO-24	100°C	6	6	25mW	50	4.35	3.15

SEPT PLANAR LOW LEVEL—LOW NOISE AMPLIFIERS—SILICON

Type Number	Case TO-	Polarity	Vcbo	hFE @ Ic Min	hFE @ Ic Max.	hFE @ Ic µA	NF db (max.)	1-99	100-999
2N4383	5	NPN	40	100	500	10	2	1.35	.90
2N4384	18	NPN	40	100	500	10	2	1.35	.90
2N4385	5	NPN	40	40	500	10	3	.85	.56
2N4386	18	NPN	40	40	500	10	3	.85	.56
2N4412	5	PNP	40	100	500	10	2	2.00	1.35
2N4412A	5	PNP	60	100	500	10	2	2.15	1.45
2N4413	18	PNP	40	100	500	10	2	2.00	1.35
2N4413A	18	PNP	60	100	500	10	2	2.15	1.45
2N4414	5	PNP	40	40	500	10	2	1.25	.85
2N4414A	5	PNP	60	40	500	10	2	1.40	.95
2N4415	18	PNP	40	40	500	10	2	1.25	.85
2N4415A	18	PNP	40	40	500	10	2	1.40	.95

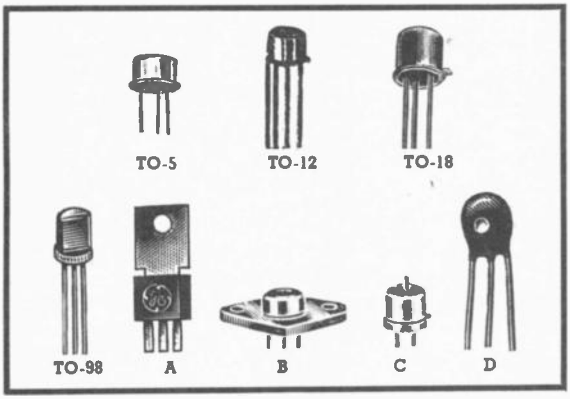
SEPT — NPN PLANAR EPITAXIAL HIGH SPEED — SILICON

Type	Case TO-	Pd (W)	BVcbo V	hFE @ Ic=150mA	Vce (max)	1-99	100-999
2N2218	5	0.8	60	40-120	0.4	1.07	.93
2N2219	5	0.8	60	100-300	0.4	1.07	.93
2N2219A	5	0.8	75	100-300	0.3	4.35	2.90

MADT PNP GERMANIUM TRANSISTORS FOR UHF

Type	Case	Junction Temp.	Vcb V	Pt mW	Ic mA	1-99	100-999
2N1742	TO-9	125°C	20	60	50	2.93	2.15
2N1744	TO-9	125°C	20	60	50	2.25	1.65
2N2360	TO-12	125°C	20	60	50	2.40	1.80
2N2362	TO-12	125°C	20	60	50	2.10	1.55
2N2398	TO-12	125°C	20	60	50	3.45	2.50
2N2399	TO-12	125°C	20	60	50	3.35	2.45

Semiconductors



ECONOMY SILICON PLANAR PASSIVATED NPN TRANS. TO-98

Type	hFE	hFE @ I Hz	Vceo	Ccfo pF	1-99	100-999	1000-Up
2N2711	30-90		18		.29	.20	.17
2N2712	75-125		18		.34	.23	.19
2N2714	75-225		18		.41	.27	.23
2N2923	115 typ.	90-180	25		.32	.21	.18
2N2924	155 typ.	150-300	25		.34	.23	.19
2N2926		35-470	18		.29	.20	.17
2N3390	400-800		25		.90	.60	.50
2N4424	180-540		40		.47	.32	.26
2N4425	180-540		40		.52	.35	.29
2N3391	250-500		25		.61	.40	.34
2N3391A	250-500		25		.70	.46	.39
2N3392	150-300		25		.29	.20	.17
2N3393	90-180		25		.29	.20	.17
2N3394	55-110		25		.27	.18	.15
2N3395	150-500		25		.45	.30	.25
2N3396	90-500		25		.41	.27	.23
2N3397	55-500		25		.38	.26	.21
2N3402	75-225	180	25		.41	.27	.23
2N3403	180-540	330	25		.43	.29	.24
2N3404	75-225	150	50		.61	.40	.33
2N3405	180-540	300	50		.77	.51	.43
2N3414	75-225	180	25		.36	.24	.20
2N3415	180-540	330	25		.38	.26	.21
2N3416	75-225	150	50		.56	.38	.31
2N3417	180-540	300	50		.72	.48	.40
2N5028	25-120		25		.68	.45	.38
2N3606	30 Min.		14		.29	.20	.17
2N5029	40-120		15		.50	.33	.28
2N3607	30 Min.		14		.23	.15	.13
2N5030	30 Min.		15		.43	.29	.24
2N3721		60-660	18		.29	.20	.17
2N3854	35-70		18		.34	.23	.19
2N3854A	35-70		30		.36	.24	.20
2N3855A	60-120		30		.38	.26	.21
2N3856	100-200		18		.38	.26	.21
2N3856A	100-200		30		.41	.27	.23
2N3858	60-120		30		.32	.21	.18
2N3859	100-200		30		.34	.23	.19
2N3860	150-300		30		.38	.26	.21
2N3858A	60-120		60		.41	.27	.23
2N3859A	100-200		60		.43	.29	.24
2N3877	20 Min.		70		.47	.32	.26
2N3877A	20 Min.		85		.52	.35	.29
2N3900	250-500		18		.59	.39	.33
2N3900A	250-500		18		.65	.44	.36
2N4951	60-200		30	5.2	.63	.42	.35
2N4952	100-300		30	5.2	.68	.45	.38
2N4953	200-600		30	5.2	.74	.50	.41
2N4954	60-600		30	5.2	.54	.36	.30
2N5172	100-500		25	7	.21	.14	.11
2N5174	40-600		75	4	.63	.42	.35
2N5175	55-160		100	4	.68	.45	.38
2N5176	140-300		100	4	.72	.48	.40
2N5232	250-500		50	2.7	.56	.38	.31
2N5232A	250-500		50	2.7	.61	.40	.34
2N5233	100-300		60	2.7	.38	.26	.21
2N5234	250-500		60	2.7	.41	.27	.23
2N5235	400-800		60	2.7	.47	.32	.26
2N5249	400-800		50	2 7	.88	.59	.49
2N5249A	400-800		50	2 7	.97	.65	.54
2N3605A	30 Min.		15	6.0	.43	.29	.24
2N3606A	30 Min.		15	6 0	.36	.24	.20
2N5027	25-120		25	8.0	.56	.38	.31

NEWARK CAN SUPPLY ALL GENERAL ELECTRIC SEMICONDUCTORS

SILICON GROWN DIFFUSED NPN TRANSISTORS — TO-5

Type	Max. Diss. MW	Min. BVcbo	hFE	Min.-Max. hFE	1-99	100-999	1000-Up
2N335	150	45	45	37-90	4.95	3.30	.90
2N335A	500	45	45	37-90	5.25	3.50	1.20
2N336	150	45	75	76-333	6.00	4.00	.90
2N338	125	45	75	99 typ.	5.50	3.65	1.05
2N478	200	15		40-100	3.60	2.40	

SILICON MESA PASSIVATED NPN POWER TRANSISTORS

Typical ft, 15 M Hz (†) @ 25°C Case temp. (#) Vcer.

Type	Fig.	Min. Volts Vceo	Min. Volts Vcex	Max. Watts 25°C	Dissip. @ 100°C Case	hFE	1-99	100-999	1000-Up
2N656	TO-5	60		0.8	4†	30- 90	2.03	1.35	1.15
2N657	TO-5	100		0.8	4†	30- 90	2.20	1.47	1.25
2N657A	TO-5	100		1.0	5†	30- 90	2.92	1.94	1.65
2N2106	TO-5	60#		1.0		12- 56	1.97	1.32	1.19
2N2107	TO-5	60#		1.0		30- 90	2.09	1.39	1.25
2N2108	TO-5	60#		1.0		75-200	2.10	1.40	1.26
2N2196	B	60#	80	2 0	10	30- 90	4.50	3.00	2.70
2N2197	B	60#	80	2 0	10	75-200	4.62	3.25	2.93
2N2201	B	100	120	2 0	10	30- 90	6.90	4.60	4.15
2N2726	TO-5	200#		1 0	5†	30- 90	5.40	3.60	3.24
2N2727	TO-5	200#		1 0	5†	75-150	5.60	3.75	3.37
D7A30	TO-5	40		1.0	5†	12- 38	1.01	.67	.57

NPN MESA POWER TRANSISTORS — Fig. A

Type	hFE Min. Max.	Vceo V	Max Bt @ 70°C (watts)	MHz ft	Ce Be pF	1-99	100-999	1000-Up
2N4054	30-90	300	4	28	6.0	1.20	.80	.64
2N4055	30-90	250	4	28	6.0	1.06	.71	.57
2N4056	30-90	200	4	28	6.0	.95	.63	.51
2N4057	30-90	150	4	28	6.0	.81	.54	.44

NPN PASSIVATED MESA POWER TRANSISTORS

Type	hFE Min. Max.	Vceo V	Max. Pt @ 100°C case	Max. Pt @ 25°C air	1-99	100-999
2N5048	15-60	50	50	3	30.00	20.00
2N5049	15-60	100	50	3	37.50	25.00

NPN—PLANAR EPITAXIAL POWER TRANSISTORS—Fig. A

Type	Min. VCEO	PD @ 70°C Tab	PD @ 50°C Amb.	hFE Min.	hFE Max.	hFE Min.	1-99	100-999	1000-Up
				200mA/1V					
D27C1	40	8	1.4	40		20	1.44	.96	.77
D27C2	40	8	1.4	25		10	1.35	.90	.72
D27C3	30	8	1.4	40		20	1.30	.87	.70
D27C4	30	8	1.4	25		10	1.21	.81	.65
				2nA/4.5V					
D28A5	25	4	1	75	225		.74	.50	.40
D28A6	25	4	1	180	540		.84	.55	.45
D28A9	40	4	1	75	225		.79	.53	.42
D28A10	40	4	1	180	540		1.01	.68	.54
D28A12	50	4	1	75	225		.86	.57	.46
D28A13	50	4	1	180	540		1.06	.71	.57
				100mA/20V					
D28D1	25	4	1	50	150	10	.77	.51	.41
D28D2	25	4	1	120	360	20	.88	.59	.47
D28D3	25	4	1	290		10	1.01	.68	.54
D28D4	40	4	1	50	150	10	.90	.60	.48
D28D5	40	4	1	120	360	10	1.04	.69	.55
D28D7	60	4	1	50	150	10	1.08	.72	.58
D28D10	75	4	1	120	360	10	1.21	.81	.65

MICROTAB PLANAR TRANSISTORS — Fig. D

These devices are ideally suited for applications where space is a controlling factor such as instruments or hybrid circuits.

Type	hFE Min. / Max.	Nearest Equiv.	1-99	100-999	1000-Up
	HIGH FREQUENCY AMPLIFIER NPN				
D26E-1	100/300 @ 10 uA	2N930	1.35	.90	.81
D26E-5	180/330 @ 100 uA	2N2484	.93	.62	.56
D26E-6	40/330 @ 100 uA		.75	.49	.44
	UHF AMPLFIIER NPN				
D26G-1	6 @ 100 MHz	2N918	1.02	.68	.62
	LOW-CURRENT SWITCH NPN				
D26B-1	20/60 @ 10 mA	2N2368	.75	.52	.47
D26B-2	40/120 @ 10 mA	2N2369	.83	.55	.50
	MEDIUM-CURRENT SWITCH NPN (Complement to the D30A series)				
D26C-1	30/90 @ 10 mA	2N2217-2222	.76	.51	.46
D26C-2	60/180 @ 10 mA	2N2217-2222	.80	.53	.48
D26C-3	140/280 @ mA	2N2217-2222	.85	.57	.51
	AMPLIFIER PNP (Complement to the D26C series)				
D30A-1	30/90 @ 10 mA	2N2907	1.16	.77	.69
D30A-2	60/180 @ 10 mA	2N2907	1.20	.80	.72
D30A-3	140/260 @ 10 mA	2N2907	1.28	.86	.77

ECONOMY GENERAL PURPOSE PNP AMPLIFIER — TO-5

Type	hFE	Vceo	Ft MHz	Cob pF	1-99	100-999	1000-Up
2N5354	40-120	—25	250	6.5	.43	.29	.24
2N5355	100-300	—25	250	6.5	.50	.33	.28
2N5356	250-500	—25	250	6.5	.52	.35	.29
2N5365	40-120	—40	250	6.5	.55	.37	.28
2N5366	100-300	—40	250	6.5	.60	.40	.30
2N5367	250-500	—40	250	6.5	.62	.42	.31
D29A12	250-500	—25	250	6.5	.58	.38	.29

GERMANIUM RATE GROWN NPN TRANSISTORS—Fig. C

(‡) Conversion gain at 1600 Hz. (#) Vcer @ R=10K.

Type	Max. Dissip. mW	Min. Vceo Volts	Power Gain at 455 KHz db	hFE	1-99	100-999	1000-Up
2N78	65	15	26.0-31.0	45-135	2.49	1.66	1.50
2N169	65	15#	24.0-31.0	34-200	1.59	1.06	......
2N169A	65	25#	27.0-31.0	34-200	2.42	1.61	......
2N1694	75	20	....	15-45	.99	.66	......

GERMANIUM ALLOY PNP TRANSISTORS

(*) VRT (**) BVceo † hfe min.

Type	Fig.	Max. Dissip. mW	Min. Volts BVcer	hFE	1-99	100-999	1000-Up
2N43A	C	240	30	34- 65	4.13	2.75	2.48
2N191	C	200	25	53-121	.90	.60	.50
2N241A	C	200	25	50-125	.98	.65	.55
2N319	TO-5	225	20	25- 42	.44	.29	.26
2N320	TO-5	225	20	34- 65	.59	.39	.35
2N321	TO-5	225	20	53-121	.65	.43	.39
2N322	TO-5	200	18	34- 65	.42	.28	.25
2N323	TO-5	200	18	53-121	.59	.39	.35
2N396A	TO-5	200	20**	30-150	.62	.41	.37
2N404	TO-5	150	24*	....	.42	.28	.24
2N404A	TO-5	150	35*	....	.58	.39	.31
2N414	TO-5	150	15**	30-120	.42	.29	.24
2N508	TO-5	200	16	100-200	.69	.46	.39
2N508A	TO-5	200	25	100-200	.81	.54	.44
2N524	TO-5	225	30	25- 42	.59	.39	.35
2N525	TO-5	225	30	34- 65	.80	.53	.48
2N526	TO-5	225	30	53- 90	1.00	.67	.59
2N527	TO-5	225	30	72-121	1.00	.67	.60
2N1097	TO-5	200	16	34- 90	.57	.38	.28
2N1175A	TO-5	200	25	70-140	1.35	.90	.80
2N1303	TO-5	150	25*	20 min.	.45	.30	.25
2N1305	TO-5	150	20*	40-200	.52	.35	.28
2N1307	TO-5	150	15*	60-300	.66	.44	.34
2N1414	TO-5	200	25	34- 65	.69	.46	.41
2N1415	TO-5	200	25	53- 90	.80	.53	.48
2N1925	TO-5	225	40	53- 90	1.56	1.04	.94
2N1926	TO-5	225	40	72-121	1.82	1.21	1.09

SILICON REFERENCE AMPLIFIER TRANSISTORS—TO-12

Type	Vceo	Max. Temp. Coeff. KT	Vref (V)	1-99	100-999	1000-Up
RA1	45	.02% 1°C	7.0 ± 10%	4.50	3.00	2.10
RA1A	45	.005% 1°C	7.0 ± 10%	7.95	5.30	4.75
RA1B	45	.002% 1°C	7.0 ± 10%	14.10	9.40	8.45
RA2	45	.02% 1°C	7.0 ± 5%	7.95	5.30	4.75

PLANAR SILICON-CONTROLLED SWITCHES (SCS)—TO-18

4-lead pkg. *Measured @ Vac=40V: RL=800 ohms; Rgc=10K. †Measured @ Vac=40V; RL=800 ohms.

Type	Anode Blk'g Voltage (V)	IF @ 25°C mA	Vgfa* (V)	Vgfc* (V)	1-99	100-999	1000-Up
3N81	65	200	.4 to .8	4 to .65	3.40	2.25	2.00
3N82	100	200	.4 to .8	4 to .65	4.95	3.30	2.95
3N83	70	50	....	.4 to .80	2.13	1.42	.99
3N84	40	175	....	.4 to .65	1.98	1.32	.99
3N85	100	175	....	4 to .65	3.30	2.20	1.98

ECONOMY SILICON UNILATERAL SWITCHES

Planar integrated triode thysistor for SCR triggers, frequency dividers, ring counters, and over-voltage sensors.

Type	Vacr Volts	IF Cont. mA	Vs Volts	1-99	100-999	1000-Up
2N4987	30	175	6-10	.84	.56	.41
2N4988	30	200	7.5-9.0	1.23	.82	.65
2N4989	30	200	7.5-8.2	1.73	1.15	.88
2N4990	30	175	7.0-9.0	.89	.59	.45

SILICON BILATERAL SWITCHES — TO-98

Planar integrated bilateral thyristor with good symmetry, and a monolithic structure. Ideal for low voltage SCR.

Type	IF Ce mA	Vs Volts	IB @ 5V µA	1-99	100-999	1000-Up
2N4991	175	6-10	1.0	.75	.50	.40
2N4992	200	7.5-9.0	0.1	1.35	.90	.71

PROGRAMMABLE UNIJUNCTION TRANSISTOR—TO-98

Designed so that by adding two outboard resistors, designer can select unijunction characteristics.

Type	IP @ 10V (uA)	VOUT Volts	IF cont. mA	1-99	100-999	100-Up
D13T1	2	6	150	.87	.58	.46
D13T2	.15	6	150	1.89	1.26	1.05

COMPLEMENTARY UNIJUNCTION — TO-18

Ultra stable and uniform unijunction for oscillators, timers and frequency dividers.

Type	Interbase Kohms	IEO @ 5V nA	Vebi (sat) @ 50 mA Volts	1-99	100-999	1000-Up
D5K2	5-15	100	1.5	2.55	1.70	1.40

SILICON UNIJUNCTION TRANSISTORS—TO-5, * TO-18

Type	Max. Ip µA	Max. Ieo µA	RBBO Ohms	1-99	100-999	1000-Up
2N489	12	2	4.7- 6.8	7.10	4.75	4.30
2N490	12	2	6.2- 9.1	7.80	5.20	4.70
2N491	12	2	4.7- 6.8	8.40	5.60	5.05
2N491A	12	2	4.7- 6.8	8.90	5.95	5.35
2N491B	6	5	4.7- 6.8	10.40	6.95	6.25
2N492	12	2	6.2- 9.1	9.90	6.60	5.95
2N492B	6	5	6.2- 9.1	11.90	7.95	7.15
2N494	12	2	6.2- 9.1	10.90	7.30	6.55
2N494C	2	0.02	6.2- 9.1	14.95	9.95	8.95
2N1671	25	12†	4.7- 9.1	2.95	1.97	1.80
2N1671A	25	12†	4.7- 9.1	3.20	2.13	1.95
2N1671B	6	5	4.7- 9.1	3.55	2.36	2.15
2N2160	25	12†	4.0-12.0	1.49	.99	.89
2N2646*	25	12	4.7- 9.1	1.05	.70	.60
D5E43*	2	1	4.7- 9.1	1.05	.70	.60
D5E44*	5	12	4.7- 9.1	.97	.65	.55

SILICON UPN DIFFERENTIAL AMPLIFIERS—TO-5

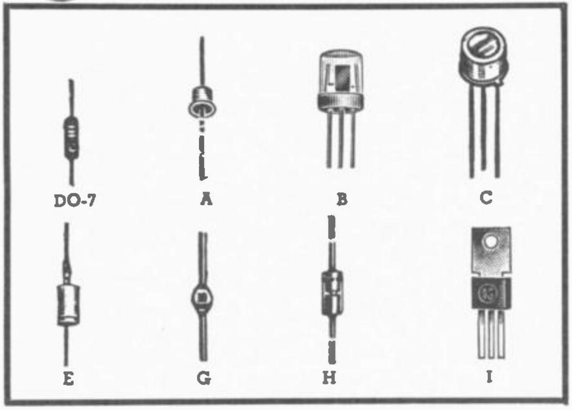
Type	Min. Vceo	hFE	hFE1/hFE2	Max. Icbo@Vcb nA	Volts	1-99	100-999
2N2480	40	30-350	0.8-1.0	50	60	12.75	8.50
2N2910	25	80 Min.	0.8-1.0		...	12.75	9.35
D12A8	30	30 Min.	0.6-1.0	25	30	5.65	3.75

DARLINGTON AMPLIFIERS — TO-98

*Can offer Pt=900 mW @ Tc=25°C using heatsink version.

Type*	Vceo	PTmW	hFE @ 5V, 2mA	Cebo	1-99	100-999	1000-Up
D16P1	12	400	2K-20K	8.5	.47	.32	....
D16P2	12	400	7K-70K	8.5	.52	.35	..
2N5305	25	400	2K-20K	8.5	.54	.36	.30
2N5306	25	400	7K-70K	8.5	.59	.39	.33
2N5307	40	400	2K-20K	8.5	.63	.42	.35
2N5308	40	400	7K-70K	8.5	.68	.45	.38

Semiconductors



POWER DARLINGTON AMPLIFIER — Fig. I

Type	Min. Vceo Volts	Watts Pd @ 70°C Tab	hFE 200mA/5V Min.	Max.	1-99	100-999	1000-Up
D28C1	30	4	10K	60K	.93	.63	.57
D28C2	30	4	40K	120K	1.01	.68	.54
D28C3	30	4	90K	....	1.15	.76	.61
D28C4	40	4	10K	60K	1.06	.71	.57
D28C5	40	4	40K	120K	1.17	.78	.63

SILICON SIGNAL DIODES — DO-7

Type	Min. Sat. Volts	Max. Rev. Cur., µA at Volts	Max. Fwd. Cur. mA at Volts	1-99	100-999	1000-Up
1N251	40	0.2 at -10	5 at 1.0	.65	.43	.22
1N914	100	0.025 at -20	10 at 1.0	.35	.24	.14
1N914A	100	0.025 at -20	20 at 1.0	.40	.26	.15
1N914B	100	0.025 at -20	100 at 1.0	.80	.54	.17
1N916	100	0.025 at -20	10 at 1.0	.52	.34	.16
1N3064	75	0.1 at -50	10 at 1.0	.67	.44	.23

SILICON SIGNAL MILI-HEATSINK DIODES—MHD PKG.

Type	Description	1-99	100-999	1000-Up
1N4531	MHD version of 1N914	.59	.39	.14

SILICON SIGNAL DOUBLE-HEATSINK DIODES — Fig. H

Recommended for new designs (+) Stabistor.

Type	Max. Vbr. Volts	Max. Fwd Cur., mA @ Volts	Max. Rev. Recovery, Nanosec	1-9	100-999	1000-Up
1N4148	DHD version of N914			.35	.24	.14
1N4151	DHD version of 1N3604			.75	.50	.19
1N4153	DHD version of 1N3606			.95	.62	.31
1N4154	DHD version of 1N4009			.37	.23	.18
1N4156+	30	10 @ 1.58v	......	.75	.50	.33
1N4157+	30	10 @ 2.32v	......	1.04	.69	.39
1N4305	DHD version of 1N3063			.60	.40	.17
1N4446	DHD version of 1N914A			.40	.26	.15
1N4448	DHD version of 1N914B			.80	.54	.17
1N4606	85	200 @ 1.0v	15	1.27	.83	.78
1N4608	85	450 @ 1.0v	15	1.44	.94	.89
1N4830+	30	10 @ 2.35v	....	.93	.62	.36

SELECTED SILICON SIGNAL DIODES

Rev. recov. with If at 10 mA, Vr @ —6 volts and load resistance at 100 ohms. 2 nanosec. (#) Millivolts.

Type	Fig.	Max. Fwd. V @ Cur., mA	1-99	100-999	1000-Up
1N3604	DO-7	1.0 at 50	.83	.56	.32
1N3605	DO-7	880# at 20	.72	.48	.43
1N3606	DO-7	880# at 20	1.00	.67	.60
1N4009	DO-7	1.0 at 30	.42	.28	.19

SELECTED GERMANIUM SIGNAL DIODES —DO-7

(*) point contact

Type	PRV Volts	Application	1-99	100-999	1000-Up
1N34*	75	Gen Pur.	.22	.15	.10

Continued Next Column

CON'T SELECTED GERMANIUM SIGNAL DIODES

Type	PRV Volts	Application	1-99	100-999	1000-Up
1N34A*	75	Gen Pur.	.22	.15	.10
1N60	30	Video Det.	.18	.12	.08
1N63*	125	High Volt.	.30	.20	.14
1N64	25	Video Det.	.27	.18	.12
1N69*	75	Gen. Pur.	.30	.20	.14
1N87A	30	Video Det.	.18	.12	.08
1N90*	75	Gen. Pur.	.27	.18	.12
1N116*	75	Low Leak	.29	.19	.13
1N191*	90	Computer	.21	.14	.10
1N279	39	High Cond.	.27	.18	.12
1N281	75	High Cond.	.18	.12	.08
1N541	45	A.M. Det.	.20	.13	.09

GERMANIUM TUNNEL DIODES — Fig. A

Switching, 2 milli-µsecs; self-resonant frequencies cover the S band. For the TD-1 thru TD-5A types the Peak point voltage is 65 mU typical; valley point, 355 mU typical. Forward voltage, 500 mV typical. Peak point current ±10% except, (*) ±2.5% (‡) —G in mhos x 10-3. ** Gallium arsenide.

Type	Cur. mA Ip	Iv	Max. pF	1-99	100-999	1000-Up
1N3712(TD-1)	1.0	0.18	10	3.30	2.20	2.00
1N3713(TD-1A)	1.0*	0.14	5	5.00	3.30	3.00
1N3714(TD-2)	2 2	0.48	25	2.90	1.95	1.75
1N3716(TD-3)	4.7	1.04	50	2.06	1.38	1.24
1N3717(TD-3A)	4.7*	0.60	25	3.90	2.60	2.35
1N3718(TD-4)	10.0	2.20	90	2.52	1.68	1.51
1N3719(TD-4A)	10.0*	1.40	50	3.90	2.60	2.35
1N3720(TD-5)	22.0	4.80	150	3.34	2.22	2.00

LOW-COST GENERAL-PURPOSE TUNNEL DIODES—Fig. A

Electrically and mechanically interchangeable with 1N3712 series execpt reverse polarity. (‡) —G in mhos x 10-3.

Type	Cur. mA Ip	Iv	Max. pF	1-99	100-999	1000-Up
TD-710	0.5±10%	0.10	5	1.25	.83	.75
TD-712	1.0±10%	0.18	10	1.12	.75	.68
TD-713	1.0±2.5%	0.14	5	1.62	1.08	.98
TD-714	2.2±10%	0.48	25	1.08	.72	.65
TD-715	2.2±2.5%	0.31	10	1.56	1.04	.94
TD-716	4.7±10%	0.90	50	1.05	.68	.62
TD-717	4.7±2.5%	0 60	25	1.50	1.00	.91
TD-718	10.0±10%	2.20	90	1.05	.68	.62
TD-719	10.0±2.5%	1.40	50	1.50	1.00	.91

GERMANIUM TUNNEL DIODES— ULTRA HIGH SPEED SWITCHING—Fig. G

Type	Current mA. Ip 10%	Iv	Max. pF	Typ. Rise Time in p/sec.	1-99	100-999
TD-251	2.2	0.31	3.0	430	7.50	5.00
TD-251A	2 2	0.31	4.0	160	12.00	8.00
TD-252	4.7	0.60	4.0	320	7.50	5.00
TD-252A	4.7	0.60	1.0	74	12.00	8.00
TD-253	10.0	1.40	9.0	350	6.00	4.00
TD-253A	10.0	1.40	5.0	190	9.00	6.00
TD-253B	10.0	1.40	2.0	68	12.00	8.00
TD-254A	22.0	3.80	4.0	64	12.00	8.00
TD-256A	100	17.50	6.0	22	12.00	8.00

GERMANIUM BACK DIODES — Fig. A

Subminiature axial package. *Vfl equal to 90 mV (±10 mU). †At Ifl2 equal to 3 Ifl.

Type	Fwd. Rating Ifl* mA	V2†	Max. Rev. Peak Point Cur. mA	Min. Rev. Voltage Vrl. mV	1-99	100-999
BD-1	10.0	120	1.0	440	5.00	3.30
BD-2	5.0	130	0.5	420	5.00	3.30
BD-3	2.0	170	0.2	400	3.00	2.00
BD-4	1.0	170	0.1	380	5.00	3.30

PHOTO TRANSISTOR LIGHT DETECTOR—Fig. C

Type	Vceo-Vcbo (v)	1-99	100-999	1000-Up
L14A502	45	6.00	4.00	3.60

ECONOMY PHOTO-DARLINGTON AMPLIFIER—Fig. B

Type	BVceo	Sensitivity	1-99	100-999	1000-Up
L14B	12 V Min.	250 µA/Watt Min.	1.45	.97	.68

LIGHT ACTIVATED SILICON CONTROLLED SWITCH — Fig. B (.230 x .225")

Type	PRV (V)	Ifwd (mA)	1-99	100-999	1000-Up
LIV/LASCS	40	170	3.15	2.10	1.89

LIGHT—ACTIVATED SCR'S — FIG. C

Max. required gate signal to fire from direct electrical supply is 0.8V 220 uA @ 25°C. Tj.

Type	PRV & PRV & Vbo (V)	Max. Idc @ °C	1-99	100-999
L8U	25	.44A @ 25° amb	4.50	3.00
L8F	50	.44A @ 25° amb	4.90	3.25
L9U	25	.44A @ 25° amb	4.95	3.30
L9F	50	.44A @ 25° amb	5.40	3.60

GERMANIUM LOW CURRENT RECTIFIERS — DO-3

Max. peak 1-Hz surge, 25 amps. aver.

Type	PRV Volts	Max. Idc mA @ 55°C	Max. Rev. Cur., mA	Max. Drop Volts @ Full Load	1-99	100-999	1000-Up
1N91	100	150	1.35	.22	.90	.60	.50
1N92	200	100	0.95	.19	1.95	1.30	1.15
1N93	300	75	0.6	.18	2.70	1.80	1.60

SILICON SUBMINIATURE GLASS RECTIFIER DIODES—DO-7

Meet military requirements. Max. full load drop is at 25°C. Max. oper. temp. 175°C for 1N645 series, 200° for 1N3544 series. *Full hz ave. † @ 150°C ‡ @ 175°C.

Type	PRV Volts Repetitive	PRV Volts Transient	Max. Idc mA at 25°C	Max. Rev. Cur. µA at 100°C*	1-99	100-999
1N645	225	275	400	15	1.40	.93
1N647	400	480	400	20	1.80	1.20
1N648	500	600	400	20	1.95	1.30
1N649	600	720	400	25	2.50	1.65

SILICON LOW CURRENT FLANGELESS RECTIFIERS—Fig. E

Type	PRV Volts	Max. Idc mA	Max. Idc Amb. °C	Max. Full Load Drop V.	Max. Full Load Drop At °C	1-99	100-999	1000-Up
1N2610	100	850	25	.5	150	1.02	.68	.38
1N2611	200	850	25	.5	150	1.14	.76	.43
1N2613	400	850	25	.5	150	1.71	1.14	.56
1N2615	600	850	25	.5	150	2.30	1.53	.83

SILICON LOW CURRENT RECTIFIERS—DO-3

Type	PRV Volts	Max. Idc mA	Max. Idc Amb. °C	Max. Full Load Drop V.	Max. Full Load Drop At °C	1-99	100-999	1000-Up
1N440	100	300	50	1.5	25	.66	.44	.35
1N440B	100	750	50	1.5	25	.66	.44	.35
1N443	400	300	50	1.5	25	.98	.65	.52
1N443B	400	750	50	1.5	25	.98	.65	.52
1N536	50	750	50	1.1	25	.45	.30	.23
1N538	200	750	50	1.1	25	.53	.35	.27
1N540	400	750	25	1.1	25	.68	.45	.36
1N547	600	750	25	1.1	25	.96	.64	.51
1N1095	500	750	50	1.1	25	.77	.51	.41
1N1096	600	750	50	1.1	25	.96	.64	.51
1N1492	600	750	25	1.2	25	.96	.64	.51
1N1692	100	600	50	1.2	25	.45	.30	.24
1N1693	200	600	50	1.2	25	.48	.32	.26
1N1695	400	600	50	1.2	25	.66	.44	.35
1N1696	500	600	50	1.2	25	.72	.48	.38

1-AMP GLASS PACKAGED SILICON RECTIFIER — Fig. G

All diffused structure; storage temperature, —65°C to +175°C

Type	PRV Volts	Fwd. Cur. Io	Max. ½ Hz. Surge	Max. V Drop @25°C	1-99	100-999	1000-Up
A14F	50	1.0A	50A	1.0V	.37	.25	.19
A14A	100	1.0A	50A	1.0V	.42	.28	.22
1N5059/A14B	200	1.0A	50A	1.0V	.46	.31	.22
A14C	300	1.0A	50A	1.0V	.54	.36	.26
1N5060/A14D	400	1.0A	50A	1.0V	.56	.37	.26
A14E	500	1.0A	50A	1.0V	.68	.45	.34
1N5061/A14M	600	1.0A	50A	1.0V	.75	.50	.35
1N5062/A14N	800	1.0A	50A	1.0V	1.12	.75	.52

STUD-MOUNTED SILICON LOW CURRENT RECTIFIERS—Fig. I

Max. temp. 150°C. (*) 170°C (†) 155°C.

Type	PRV V.	Idc Max. Cur.	Idc Case °C	Load Drop V.	Load Drop At	1-99	100-999
1N1115*	100	1.5A	85	.65	150° C	1.05	.70
1N1117*	300	1.5A	85	.65	150° C	1.43	.95
1N1119†	500	1.3A	85	.65	150° C	1.80	1.20
1N1120†	600	1.3A	85	.65	150° C	2.40	1.60

SILICON MEDIUM CURRENT DIODES-FAST RECOVERY—Fig. I

††3 microseconds max. recovery time; 150°C Stud.
†200 Nanoseconds max. recovery time; 100°C case
#100 Nanoseconds max. recovery time; 135°C case; § @ 25°C

Type	PRV Volts Repetitive	PRV Volts Transient	Max. Idc Amps	Max. Peak I-cy. Surge Amps	Max. Drop Full Load V.	1-99	100-999
IN3891†	200	....	12	150	1.4§	6.97	4.65

SILICON MEDIUM CURRENT RECTIFIERS — DO-4

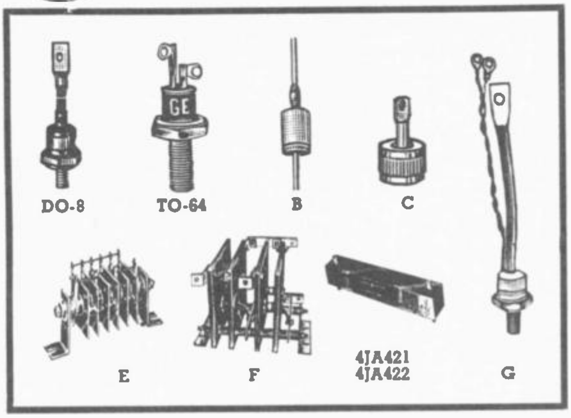
Ins. kit with all but A40 and A44. Max. oper. temp.; 200°C except (§) 175°C.

Type	PRV Volts Repetitive	PRV Volts Transient	Max. Idc Amps	Max. 1hz Amps	Max. Drop V.	1-99	100-999
1N250C§	220	......	20	350	.6	2.78	1.85
1N1184	100	......	35	500	.65	2.40	1.60
1N1186	200	......	35	500	.65	3.45	2.30
1N1187	300	......	35	500	.65	4.72	3.15
1N1188	400	......	35	500	.65	5.85	3.90
1N1190	600	......	35	500	.65	6.90	4.60
1N1199A	50	100	12	240	.55	1.24	.83
1N1200A	100	200	12	240	.55	1.41	.94
1N1202A	200	350	12	240	.55	2.62	1.75
1N1341A	50	100	6	150	.64	1.12	.75
1N1346A	400	600	6	150	.64	3.96	2.64
1N1348A	600	800	6	150	.64	5.48	3.65
1N1614	200	350	5	150	.64	1.90	1.27
1N1615	400		5	150	.64	3.75	2.50
IN2154	50	100	25	400	.6	2.38	1.59
IN2155	100	200	25	400	.6	3.00	2.00
IN2156	200	350	25	400	.6	4.38	2.92
IN2157	300	450	25	400	.6	5.25	3.50
IN2158	400	600	25	400	.6	5.92	3.95
IN2159	500	700	25	400	.6	6.15	4.10
IN2160	600	800	25	400	.6	6.30	4.20
IN3208§	50	....	15	250	1.5	1.73	1.15
IN3209§	100	....	15	250	1.5	1.77	1.18
IN3212§	400	....	15	250	1.5	2.90	1.93
A40F§	50	....	15	300	.75	1.73	1.15
A40B§	200	....	15	300	.75	1.82	1.21
A40M§	600	....	15	300	.75	4.20	2.80
A44B§	200	....	15	300	.75	1.16	.77
A44C§	300	....	15	300	.75	1.28	.85

PARAMETER SYMBOLS

BVcbo — DC breakdown voltage, collector to base; **BVceo** — DC breakdown voltage, collector to emitter; **BVcer** — DC breakdown voltage, resistor between base and emitter; **BVebo** — DC breakdown voltage, emitter to base junction; **Cob** — collector to base; **Coe** — collector to emitter; **f** — frequency; **fhfb** — small signal short circuit forward current transfer ratio; **ft** — gain bandwidth; **hFB** — common base; **hFC** — common collector; **hFE** — common emitter; **Ib, Ic, Ie** — DC currents into base, collector, or emitter terminal, **Ic** — collector current; **Icbo** — DC collector current; **Iceo** — DC collector current, with open-circuit base; **Ie** — emitter current; **If** — DC forward current; **Ir** — reverse current; **Iv** — valley point current; **Ls** — total series inductance; **N** — region of a device where electrons are the majority carriers; **NF** — noise figure; **P** — region of a device where holes are the majority carrier; **Pc** — average continuous collector power dissipation; **P** — power output; **Qsh** — stored base charge; **RE** — rectification efficiency (voltage); **Rs** — small signal series resistance; **Ta** — operating temperature (ambient); **Tj** — junction temperature; **VP** — peak point voltage; **Vr** — DC reverse voltage; **W** — watt; **X** — unspecified general parameter.

Semiconductors



SILICON HIGH CURRENT RECTIFIER DIODES — DO-8

Max. Idc, 100 amps at 130°C, stud, single phase. Max. 1-Hz surge, 1600 amps. Max. operating temp., 200°C.

Type	PRV Volts Repetitive	PRV Volts Transient	Max. Fwd. Drop at 100A, ave. 1-ph. 130°C	1-99	100-499
1N3291	400	525	0.6 volt	14.00	11.60

SILICON-CONTROLLED AVALANCHE RECTIFIER DIODES

Self-protection against voltage transients. Can dissipate considerable power in reverse direction. Can be series operated at high voltage often without equalizing resistors.

Type	PRV	Min. Aval. V @ 25°C	Max. Idc.	1-99	100-999
A7E	500	600	500mA*	1.95	1.30
1N4529	1000	1250	35A‡	13.50	9.00
1N4530	1200	1500	35A‡	17.25	11.50

*310 W, peak transient reverse surge, ‡12KW.

LOW CURRENT SCR'S

(§) at 25° junction. (*) at 125°C junction. (†) at 150°C junction.

Type	Fig.	PRV & Vbo Volts	Max. Irms Amps.	Max. Irms Temp. °C	Max. Req. Gate Sig. V	Max. Req. Gate Sig. Cur.	1-99	100-999
2N2322	TO-5	25	1.6	87 case	0.8	200μA§	2.25	1.50
2N2323	TO-5	50	1.6	87 case	0.8	200μA§	2.47	1.65
2N2324	TO-5	100	1.6	87 case	0.8	200μA§	4.05	2.70
2N2325	TO-5	150	1.6	87 case	0.8	200μA§	5.92	3.95
2N2326	TO-5	200	1.6	87 case	0.8	200μA§	7.80	5.20
2N2328	TO-5	300	1.6	87 case	0.8	200μA§	12.00	8.00
2N2322A	TO-5	25	1.6	87 case	0.6	20μA§	3.24	2.16
2N2323A	TO-5	50	1.6	87 case	0.6	20μA§	3.60	2.40
2N2324A	TO-5	100	1.6	87 case	0.6	20μA§	5.76	3.84
2N2326A	TO-5	200	1.6	87 case	0.6	20μA§	11.07	7.38
2N2345	TO-5	50	1.6	58 case	0.8	20μA§	9.15	6.10
2N2346	TO-5	100	1.6	58 case	0.8	20μA§	13.35	8.90
2N2348	TO-5	200	1.6	58 case	0.8	1.0mA§	18.90	12.60
C6U	TO-5	25	0.6	25 Amb.	0.8	1.0mA§	1.57	1.05
C6F	TO-5	50	0.6	25 Amb.	0.8	1.0mA§	1.65	1.10
C6A	TO-5	100	0.6	25 Amb.	0.8	1.0mA§	1.87	1.25
C6G	TO-5	150	0.6	25 Amb.	0.8	1.0mA§	1.98	1.32
C6B	TO-5	200	0.6	25 Amb.	0.8	1.0mA§	2.07	1.38
C611U	......	25	1.6	104 case	0.8	1.0mA§	2.10	1.40
C611F	..	50	1.6	104 case	3.0	1.0mA§	2.20	1.45
C611A	....	100	1.6	104 case	0.8	1.0mA§	2.40	1.60
C611G	....	150	1.6	104 case	0.8	1.0mA§	2.50	1.67
2N1595	TO-5	50	1.6	88 case	0.8	10 mA§	2.25	1.50
C15F	TO-64	50	7	70 stud	2.5	25 mA§	1.87	1.25
C15G	TO-64	150	7	70 stud	2.5	25 mA§	2.17	1.45
C15B	TO-64	200	7	70 stud	2.5	25 mA§	3.75	2.50
2N1772A	TO-64	100	7	115 stud	2	8 mA†	9.00	6.00
2N1773	TO-64	150	6	70 stud	2	8 mA*	6.97	4.65
2N1774A	TO-64	200	7	115 stud	2	8 mA†	13.50	9.00
2N1776A	TO-64	300	7	115 stud	2	8 mA†	18.37	12.25
2N1777A	TO-64	400	7	115 stud	2	8 mA†	23.62	15.75
C20F	......	50	7.4	80 stud	1.5	25 mA§	1.77	1.18
C20A	......	100	7.4	80 stud	1.5	25 mA§	1.92	1.28
C20B	......	200	7.4	80 stud	1.5	25 mA§	1.98	1.32
C20C	......	300	7.4	80 stud	1.5	25 mA§	2.64	1.76
C20D	......	400	7.4	80 stud	1.5	25 mA§	3.00	2.00
C22A	C	100	7.4	80 stud	1.5	25 mA§	1.62	1.08
C22B	C	200	7.4	80 stud	1.5	25 mA§	1.68	1.12
C22C	C	300	7.4	80 stud	1.5	25 mA§	2.34	1.56
C22D	C	400	7.4	80 stud	1.5	25 mA§	2.70	1.80

2.0-AMPERE SILICON LOW-CURRENT SCR'S

Type	PRV & Vbo	Max. Ida Amp.	Max. Temp. °C Oper.	Max. Temp. °C Stor.	Max. Req'd Gate Signal @ 25°C Tj	1-99	100-999	1000-Up
C106A1	100	4.0	110°	125°	0.8V,200μA	1.13	.75	.64
C106B1	200	4.0	110°	125°	0.8V,200μA	1.28	.85	.72
C106F1	50	4.0	110°	125°	0.8V,200μA	1.05	.70	.59
C106Y1	30	4.0	110°	125°	0.8V,200μA	.90	.60	.49

SILICON MEDIUM CURRENT CONTROLLER RECTIFIERS TO-64 AND FIG. C*

Type	Vbo Volts	A.	At °C Stud	Gate Signal V.	Gate Signal mA	Gate Signal Tj	1-99	100-999
2N681	25	25	18	3	40	25°C	3.00	2.00
2N682	50	25	57	3	25	125°C	3.60	2.40
2N683	100	25	57	3	25	125°C	4.72	3.15
2N685	200	25	57	3	25	125°C	5.92	3.95
2N686	250	25	57	3	25	125°C	6.30	4.20
2N687	300	25	57	3	25	125°C	6.75	4.50
2N688	400	25	57	3	25	125°C	8.25	5.50
2N689	500	25	57	3	25	125°C	10.12	6.75
2N692	800	25	57	3	25	125°C	27.75	18.50
2N3649	50	25	40	Fast Turnoff of 15 u sec		25°C	9.82	6.55
2N3650	100	25	40			25°C	10.72	7.15
2N3651	200	25	40			25°C	15.30	10.20
2N3652	300	25	40			25°C	23.10	15.40
2N3653	400	25	40			25°C	28.05	18.70
2N1846	200	16	25	3.5	50	100°C	5.32	3.55
2N1847A	250	25	40	3.5	80	25°C	6.00	4.00
2N1850A	500	25	40	3.5	80	25°C	9.60	6.40
C37B	200	16	60	3.5	80	25°C	5.32	3.55
C38D	400	35	57	3	40	25°C	13.50	9.00
C40B	200	25	57	guar. 12 μsec or less turn off time			17.40	11.60
2N3658	400	25	40	Designed specifically for fast turn-off of 10μ sec. For inverter applic.			29.25	19.50
C30B	200	25	70	1.5	25	25°C	5.57	3.71
C31B	200	25	70	1.5	9	25°C	6.12	4.08
C30C	300	25	70	1.5	25	25°C	7.40	4.95
C30D	400	25	70	1.5	25	25°C	7.70	5.13
C31D	400	25	70	1.5	9	25°C	8.48	5.65
C32A*	100	25	70	1.5	25	25°C	4.55	3.05
C32B*	200	25	70	1.5	25	25°C	5.40	3.60
C32C*	300	25	70	1.5	25	25°C	7.05	4.70
C32D*	400	25	70	1.5	25	25°C	7.44	4.96
2N5204	600	35	18	Designed For Power Switch.		25°C	21.00	14.00
2N5205	800	35	18			25°C	30.60	20.40

HIGH CURRENT SCR'S — FIG. G

Type	Vbo Volts	Max. Irms A	Max. Irms @° Stud	V Gate Signal	1-24	25-99
C50A/2N1911	100	110	60	3	25.90	19.80
C180E	500	235	80	3	176.00	149.00
C180N	800	235	80	3	292.00	248.00

TRIAC—BI-DIRECTIONAL TRIODE SWITCHES

Gate Signal @ 25°C Tj is ±3V @ ±50mA

Type	VBV (V)	Fig.	Load Current @ Temp.	1-99	100-999
SC35F	± 50	. .	3A@80°C Case	2.36	1.57
SC35A	±100	. .	3A@80°C Case	2.52	1.68
SC35B	±200	. .	3A@80°C Case	2.70	1.80
SC35D	±400		3A@80°C Case	3.39	2.26
SC36F	± 50	C	3A@80°C Case	1.91	1.27
SC36A	±100	C	3A@80°C Case	2.07	1.38
SC36B	±200	C	3A@80°C Case	2.25	1.50
SC36D	±400	C	3A@80°C Case	2.94	1.96
SC40F	± 50	.	6A@75°C Case	2.64	1.76
SC40A	±100		6A@75°C Case	2.84	1.89
SC40B	±200		6A@75°C Case	3.03	2.02
SC40D	±400	.	6A@75°C Case	3.86	2.57
SC40E	±500	.	6A@75°C Case	4.31	2.87
SC41F	± 50	C	6A@75°C Case	2.19	1.46
SC41A	±100	C	6A@75°C Case	2.39	1.59
SC41B	±200	C	6A@75°C Case	2.58	1.72
SC41E	±500	C	6A@75°C Case	3.86	2.57
SC45F	± 50		10A@75°C Case	3.38	2.25
SC45A	±100	. .	10A@75°C Case	3.65	2.43
SC45B	±200		10A@75°C Case	3.93	2.62
SC45D	±400	.	10A@75°C Case	4.98	3.32
SC45E	±500	.	10A@75°C Case	5.64	3.76
SC46F	± 50	C	10A@75°C Case	2.93	1.95
SC46A	±100	C	10A@75°C Case	3.20	2.13
SC46B	±200	C	10A@75°C Case	3.48	2.32
SC46D	±400	C	10A@75°C Case	4.53	3.02
SC46E	±500	C	10A@75°C Case	5.19	3.46

TRIAC—BI-DIRECTIONAL TRIAC SWITCHES (CONT'D)

Type	VBV (V)	Fig.	Load Current @ Temp.	1-99	100-999
SC50 F	± 50		15A@75°C Case	3.50	2.33
SC50 A	±100		15A@75°C Case	3.75	2.50
SC50 B	±200		15A@75°C Case	4.02	2.68
SC50 D	±400		15A@75°C Case	5.82	3.88
SC50 E	±500		15A@75°C Case	8.50	5.67
SC51 F	± 50	C	15A@75°C Case	3.05	2.03
SC51 A	±100	C	15A@75°C Case	3.30	2.20
SC51 B	±200	C	15A@75°C Case	3.57	2.38
SC51 D	±400	C	15A@75°C Case	5.37	3.58
SC51 E	±500	C	15A@75°C Case	8.05	5.37

STANDARD TRIAC POWER CONTROL ASSEMBLIES

Type	VRMS	Max. Amps.	Description	1-99
S100A1	120	6	Basic	6.90
S100A3	120	10	Variable	7.45
S100A4	240	10	Voltage	9.85
S100B1	120	6	Ext. Large	7.80
S100B3	120	10	Variable	8.35
S100B4	240	10	Voltage	10.70
S100C1	120	6	Ext. Large	8.80
S100C3	120	10	Variable Voltage	9.30
S100C4	240	10	with RFI	11.70
			Suppression	
S100D1	120	6	Combined	8.20
S100D3	120	10	and	8.70
S100D4	240	10	Variable Voltage	11.20
			Static Switch	
S100E1	120	6	Blower	8.80
S100E3	120	10	Speed Control	9.30
S100E4	240	10	with set	11.70
			low speed	
S100F1	120	6	Basic	8.20
S100F3	120	10	Variable Voltage	8.70
S100F4	240	10	with RFI	11.20
			Suppression	
S100G1	120	6	AC	5.70
S100G3	120	10	Static	6.25
S100G4	240	10	Switch	8.65

ZERO-VOLTAGE-SWITCHING AC POWER CONTROLLERS

Type	VPMS (60Hz)	Min-(Max)	Line Voltage (Peak)	Power Dissipation (Max. Watts)	1-99
S200A1	120	4 2-10	200	15.0	22.10
S200A2	240	4 2-10	400	17.8	23.20
S200A3	120	4.2-15	200	21.8	24.40
S200A4	240	4.2-15	400	23.6	26.10

DIAC — BI-DIRECTIONAL TRIGGER DIODE

For gate trigger of TRIA's or SCR's .*10 μ sec. duration, 120 Hz rep. rate.

Type	VBV (V) Min. Max.	IBR μA	Peak Current @ 50°C amb	1-99	100-999
ST2	±28 ±36	±200 Max.	±2A Max.*	.75	.50

LOW-COST 1-WATT SILICON ZENER DIODES—FIG. B

Type	Vzt @ Izt	Max. Dyn. Imp. Zzt. @ Izt.	Max. Izm mA @ 50°C Amb.	1-99	100-999	1000-Up
Z4XL6.2	6.2	9 ohm	123	.75	.50	.45
Z4XL7.5	7.5	12 ohm	101	.75	.50	.45
Z4XL9.1	9 1	15 ohm	83	.75	.50	.45
Z4XL12	12.0	24 ohm	63	.75	.50	.45
Z4XL14	14.0	30 ohm	54	.75	.50	.45
Z4XL16	16 0	40 ohm	47	.75	.50	.45
Z4XL18	18 0	50 ohm	43	.75	.50	.45
Z4XL20	20 0	60 ohm	38	.75	.50	.45
Z4XL22	22.0	72 ohm	34	.75	.50	.45

Ordering rectifier stacks: order by series type number (e.g. 4JA1011) and include required current voltage, transient voltage, max. ambient temp., phases, circuit configurations, and load. SCR series specify connection and/or supply circuit diagram.

RECTIFIER STACKS

FIGS. E AND F

GERMANIUM LOW-CURRENT STACKS

TYPE 4JA211

Small and lightweight, with excellent regulation. May be arranged in stacks of up to 12 fins for more than 160 various circuit configurations. Output up to 6 amps at 55° C ambient. Up to 630 PRV.

SILICON LOW-CURRENT STACKS

TYPE 4JA411, 4JA1011

High-temperature operation, up to 150° C. Ratings up to 18 amps at 25° C ambient, up to 3360 PRV. Offer high efficiency plus excellent regulation. Hundreds of stack combinations for a variety of circuit conditions. 4JA10011 35 amp. one-cycle surge rating.

SCR COMBINATION STACKS

Packaged building blocks include silicon controlled rectifiers, **compatible rectifiers, heat sinks, interconnections and all hardware.** Installation requires only mounting bolts and connections.

SERIES C3512 and 13, C4012 and 13, C1012 and 13, C1112 and 13, C1212 and 13

Rated up to 13.65 amps per fin free convection cooled, up to 23.5 amps per fin forced cooled at 25° C ambient. In two fin sizes, 3"x3: and 5"x5", and five SCR types.

SERIES C15014, C18015

Provide up to 102 amps per fin free convection cooled at 30° C ambient. Specially designed aluminum extrusion for maximum **heat dissipation when used with C150 or C180, SCR. Available in hundreds of circuit configurations.**

SILICON MEDIUM-CURRENT STACKS WITH 5" FIN

TYPE 4JA3512

Square fin-assembly for optimum use of 1N2154 series, 25-amp cell. Provides wide range of power applications with DC outputs up to 108 amps at 55° C ambient, up to 1800 PRV.

SILICON MEDIUM-CURRENT STACKS

TYPES 4JA2011, 4JA2511, 4JA3511

For wide range of power applications. Type 4JA2011 provides up to 32 amps at 55° C ambient, up to 1800 PRV. Type 4JA2511 gives up to 50 amps at 55° C ambient, up to 1800 PRV. Type 4JA3511 gives up to 65 amps at 55° C ambient, up to 1800 PRV.

SILICON HIGH-CURRENT STACKS

TYPE 4JA7012, 4JA7013

Lightweight stacks provide up to 165 amps DC at 40° C ambient up to 1000 PRV. Type 4JA7012 uses 5"x5"x1/8" flat copper fin heat sink. Type 4JA7013 has 7"x7"x3/8" flat aluminum fin.

RECTIFIER STACKS CONTINUED

TYPES 4JA7014, 4JA9015

Designed for free convection-cooled applications which require a maximum amount of current in a relatively small space. Fin is anodized aluminum,4" x 4" x 5".

TYPE 4JA9013

DC outputs up to 420 amps at 40° C ambient, up to 1000 PRV Free convection cooled with 7" x 7" x 3/8".

TYPES 4JA421, 4JA422 POTTED RECTIFIER CIRCUITS

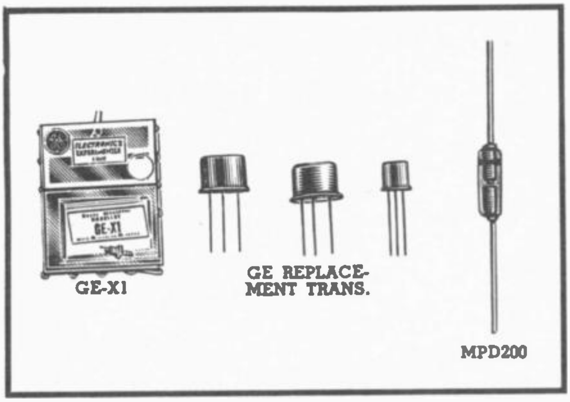
Rectangular design with solder lug. Available in wide variety of circuit configurations. Use Types 1N536-540, 1N1095 silicon cells.

Type	Current up to	Ambient Temp.	PRV. up to
4JA421	0.65 amp	25° C	10,000
4JA422	1.50 amps	25° C	2,000

TYPES A723 AND A725 HIGH VOLT SERIES

A7 Controlled Avalanche Rectifiers available in convenient preassembled, potted assemblies with wire lead terminals. Available up to 10,000 PRV. Up to 820 mA at 50°C ambient. Self-protected against normal voltage transients. Available in many circuit configurations. Type A723 is rectangular block series. A725 is axial lead cartridge series.

Semiconductors



THYRECTOR DIODES, TRANSIENT VOLTAGE SUPPRESSORS

Type	Max. RMS Input V.	Pk. Amps 0.1 ms	L"	1-49	50-999	1000-Up
6RS20SP1B1	30	20	1 3/8	.69	.52	.47
6RS20SP2B2	60	20	1 3/8	.80	.60	.54
6RS20SP3B3	90	20	1 3/8	.91	.69	.62
6RS20SP4B4	120	20	1 3/8	1.03	.78	.70
6RS20SP5B5	150	20	1 3/8	1.15	.87	.78
6RS20SP6B6	180	20	1 31/64	1.26	.95	.86
6RS20SP7B7	210	20	1 31/64	1.38	1.04	.94
6RS20SP9B9	270	20	1 39/64	1.62	1.22	1.10
6RS20SP10B10	300	20	1 39/64	1.73	1.31	1.18
6RS21SA1D1	25	30	1 1/2	1.87	1.33	1.20
6RS21SA2D2	50	30	1 1/2	2.00	1.45	1.30
6RS21SA3D3	75	30	1 5/8	2.20	1.63	1.43
6RS21SA4D4	100	30	1 3/4	2.38	1.70	1.55
6RS21SA5D5	125	30	1 3/4	2.55	1.85	1.65
6RS21SA6D6	150	30	1 7/8	2.75	1.97	1.78
6RS21SA7D7	175	30	2	2.90	2.10	1.90
6RS21SA8D8	200	30	2	3.10	2.25	2.04
6RS21SA9D9	225	30	2 1/8	3.30	2.40	2.17
6RS21SA20D20	500	30	2 15/16	5.25	4.30	4.05

SILICON MULTI-PELLET DIODES

Planar epitaxial passivated with tightly controlled conductance, controlled stored charge, and low leakage. Two, three or four pellets mounted in series in a subminiature double heatsink package. Useful as low voltage regulator diodes, amplifier non-linear bias elements, signal limiters or level shifting diodes in transistor logic circuits, and DC coupling devices in DC amplifiers and digital circuits such as multivibrators. Max. reverse current 30 volts at 25° C nA: 30. Min. breakdown at 5 uA V: MPD200—30; MPD300—60; MPD400—90.

Type	Forward Voltage		Stored Charge at 1 mA		NET		
	@0.010 mA	@100 mA	Min. pC	Max. pC	1-99	100-999	1000-Up
MPD200	0.90-1.00	1.60-1.76	75	400	1.21	.81	.38
MPD300	1.40-1.54	2.40-2.65	75	400	1.49	.99	.45
MPD400	1.82-2.01	3.16-3.49	60	300	1.62	1.08	.63

35 AMP SILICON CONTROLLED RECTIFIERS

Type	Amps.	1-99	100-999
C35U	35	3.00	2.00
C35F	35	3.60	2.40
C35A	35	4.72	3.15
C35B	35	5.92	3.95
C35D	35	8.25	5.50

UNIVERSAL REPLACEMENT TRANSISTORS

Highly dependable low cost transistors which are designed as general replacements for most types of transistors used in radio and Hi-Fi sets. Av. Wt., 2 oz.

Type	Use	Application	NET
GE-1	PNP	Mixer/oscillator converter.RF and IF amplifier	1.20
GE-2	PNP	AF Amplifier	1.02
GE-3	PNP	AF power amplifier	1.78
GE-4	PNP	AF high power amplifier	2.94
GE-5	NPN	Mixer/oscillator converter.RF and IF amplifier	1.68
GE-6	NPN	Mixer/oscillator converter.RF amplifier	1.83
GE-7	NPN	IF amplifier	1.77
GE-8	NPN	AF amplifier	1.29

(Continued next column)

UNIVERSAL REPLACEMENT TRANSISTORS (CONT'D)

Type	Use	Application	NET
GE-9	PNP	Mixer/oscillator converter.RF and IF amplifier	1.26
GE-9A	PNP	Mixer/oscillator converter, RF and IF amplifier, AM & FM	1.26
GE-10	NPN	AM Amplifier, Driver Output	1.20
GE-11	NPN	TV, FM, IF amplifier & UHF oscillator	1.53
GE-12	NPN	AF amplifier	2.34
GE-13-MP	PNP	AF amplifier	4.68
GE-14	NPN	AF amplifier	3.51
GE-15-MP	NPN	AF amplifier	7.02
GE-16	PNP	AF amplifier	3.15
GE-17	NPN	TV, RF, RF & oscillator	1.42
GE-18	NPN	Audio amplifiers, outputs & oscillators	1.46
GE-19	NPN	Audio amplifiers, outputs & oscillators	3.06
GE-20	NPN	RF-IF amplifiers, oscillators	1.10
GE-21	PNP	RF-IF amplifiers, oscillators	1.12
GE-22	PNP	RF-IF amplifiers (AM & FM), oscillators	1.03
GE-23	NPN	AF amplifiers, communications & hi-fi	2.52
GE-24-MP	NPN	AF amplifiers, communications & hi-fi.	5.04
GE-25	PNP	High-votlage horizontal & vertical deflection amplifiers	7.50
GE-FET-1	N. Chan.	Small-signal applications	2.25

GE-504A UNIVERSAL RECTIFIER—DO-3

A silicon rectifier with a 60 amp surge rating. PRV is 600 volts; max. Idc, 1amp. Shpg. wt., 2 oz.
Type GE504A. NET .... **.66**

EXPERIMENTAL/HOBBYIST ELECTRONIC COMPONENTS

Featuring electronic components for the experimenter, with schematic diagrams for building battery charger, tachometer, SGR ignition system, flashers, stereo amplifier, all-band receiver, plug-in speed control for tool or appliances, light dimmer, and other items.

Type	DESCRIPTION	Net
GE-X1	SILICON CONTROLLED RECTIFIER. 117-volt solid state switch. Controls up to 4.7 amps.	2.60
GE-X2A	LIGHT ACTIVATED POWER switch. It will conduct up to 1/4 ampere, up to 25 volts.	2.80
GE-X3	HIGH CURRENT SILICON CONTROLLED RECTIFIER. For up to 13 amps @ 50 PIV.	4.00
GE-X4	CONVENTIONAL HIGH CURRENT SILICON RECTIFIER. 20 amp rating. For up to 200 PIV.	1.60
GE-X5	HIGH SENSITIVITY SILICON CONTROLLED RECTIFIER. For special circuits up to 1.6 amps and 50 volts. Activated by extremely low signal power (a momentary sig. power of 200 micro watts or less).	2.30
GE-X6	PHOTO CONDUCTIVE CELL. Cadmium sulfide end-illuminated. Up to 250V peak. AC/DC.	1.40
GE-X7	REED SWITCH. Carries from 15 volt-amperes to micro-amps. External magnetic acuation.	.80
GE-X9	MED. SPEED, PNP TRANSISTOR. Germanium alloy. For medium powe ramplification and switching at low frequency.	.70
GE-X10	UNIJUNCTION TRANSISTOR. Three-terminal semiconductor. Has low value of firing current, stable negative resistance, stable firing current, high pulse current capability.	1.35
GE-X11	ZENER DIODE. Rated 8.2 volts at 1 watt.	1.80
GE-X13	DIAC—With schematic for building lamp dimmer or AC motor control.	1.60
GE-X16	SILICON CONTROLLED RECTIFIER — With schematic for building battery-operated fluorescent light.	3.45
2N107	AUDIO PNP TRANSISTOR. Alloy junction.	.75
	AUDIO PNP TRANSISTOR. Low voltage, high frequency transistor.	.75

GE SILICON AND GERMANIUM RECTIFIERS

Type	Replaced Types	PIV	Max. mA	NET
GE-504A	1N91	100	150	.66
	1N1692	100	600	
	1N1693	200	600	
	1N1695	400	600	
	1N1696	500	600	
GE-509	....	1000	1 Amp	.79

GENERAL ELECTRIC

GE SELENIUM RECTIFIERS FOR COLOR TV

Type	Description	NET
GECR-1	Focus Rect.	3.09
GECR-2	Boosted Boost	1.47
GECR-3	Convergence	.86

GE QUARTZ CRYSTALS FOR COLOR TV

Type	Resonant Frequency	Application	NET
GE-41	3579.545 kc	Color burst filter	3.36
GE-42	3579.545 kc	Color subcarrier oscillators	2.28

GE MANUALS

GE Controlled Rectifier Manual—Fourth Edition; detailed data.
52F674. NET **3.00**

GE Transistor Manual—Seventh Edition; full of information.
52F675. NET **2.00**

Electronic Components Hobby Manual. 199 pages, covers fundamentals, electrical theory, troubleshooting, device symbols and 35 projects for your car, entertainment, home and workshops.
52F678. NET **1.50**

GE ENTERTAINMENT TRANSISTORS

Type	Application Use	PcmW @ 25°C BVce	IcmA Tj°C	NET
2N107	AF PNP	50 / —6	—10 / 60	.75
2N404	SW PNP	120 / —24	—100 / 85	.54
2N508	AF OUT PNP	140 / —16	—100 / 86	.78
2N1415	AF SW PNP	200 / —25	—200 / 85	1.02
2N2160	OSC. Silicon Unijunction	450 / 30	50 / 85	1.65

GE CRYSTAL DIODES

Type	Reverse Working Volt. (Vdc)	Recur. Peak Fwd. Cur. (mA)	Avg. Fwd. Cur. (mA)	Fwd. Cur. at 1V (mA) Min.	Max.	NET
1N34AS	60	150	50	5	25	.33
1N60	25	150	50	. . .	. . .	.33
1N295	40	125	30	....	....	.33

SCHAUER SEMICONDUCTORS

● **NEW**
● **PLASTIC DIODES**
● **ZENER DIODE KIT**

$54.57 VALUE FOR ONLY $24.50

A 51-piece assortment of 1% tolerance, 1 watt reliable Schauer zener diodes covering the voltage range of 2.7 to 16.0V. Three diodes of each voltage are contained in reusable poly bags which are stored in a handy kit. Data sheet included. May be used over and over in laboratory prototypes as well as in precision test equipment. Close tolerances mean fixed impedances and temperature coefficients and permit voltage range tests for optimum design.

Kit SCH51 **24.50**

SILICON VARISTORS

Consists of two matched silicon junctions connected in parrallel and oppositely poled The junctions are molded into one small package with axial gold plated nickel leads. Surge: 25 amps peak 1/2 Hz; dissipation: 3/4 watt at 25°C.; TC of 2mv/°C. All have closely controlled forward conductance with log current characteristics.

Type	Forward Voltage Both Directions		1-99	100-499	500-999	1000-4999	5000-Up
SV1	.20 — .50 @ 10ua	.78 — .90 @ 100ma	.41	.35	.29	.24	.20
SV1-LR	.35 — .50 @ 10ua	.78 — .90 @ 100ma	.43	.37	.31	.26	.22
V64	.10 — .25 @ 0.1ua	.78 — .90 @ 100ma	.45	.39	.33	.28	.24

1-WATT ZENER DIODES

Type	Nominal Vzt V.	1-99	100-499	500-999	1000-4999	5000-Up
SZ2.4	2.4					
SZ2.7	2.7			10% Tolerance		
SZ3.0	3.0	.49	.38	.33	.29	.27
SZ3.3	3.3					
SZ3.6	3.6					
SZ3.9	3.9					
SZ4.3	4.3			5% Tolerance		
SZ4.7	4.7	.59	.47	.41	.37	.34
SZ.51	5.1					
SZ5.6	5.6			1% Tolerance		
SZ6.2	6.2	.89	.81	.76	.72	.69
SZ6.8	6.8					
SZ7.5	7.5					
SZ8.2	8.2			2% Tolerance		
SZ9.1	9.1	1.07	.97	.91	.86	.82
SZ10.0	10.0					
SZ11.0	11.0					
SZ12.0	12.0					
SZ13.0	13.0					
SZ15.0	15.0					
SZ16.0	16.0					

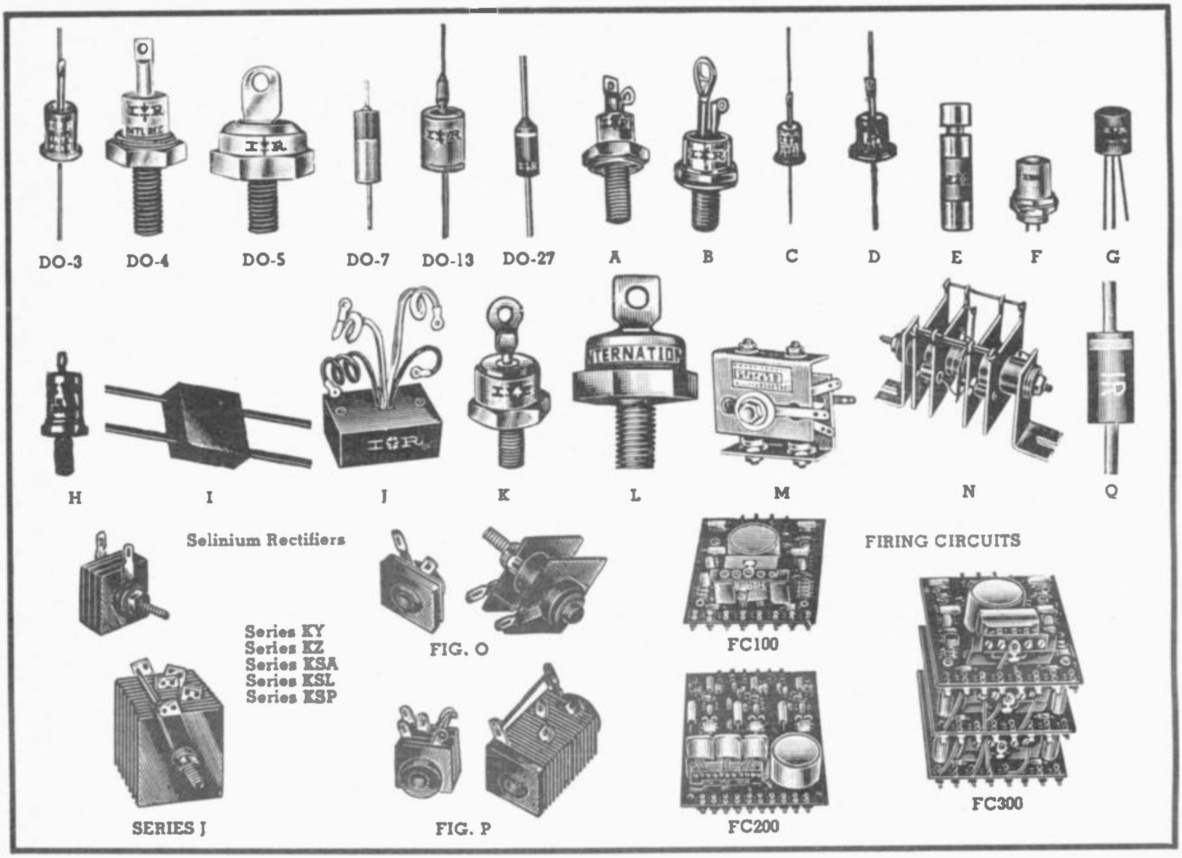
NOTE: Types shown are 10% tolerances, add suffix "A" for 5% and suffix 20%, 2%, 1% for other tolerances. For intermediate voltages, insert voltage and tolerances, ie: SZ6.3 (1%).

REFERENCE DIODES

Type	Forward Voltage Drop 10ua	10ma	100ma	1-9	100-499	500-999	1000-4999	5000-Up
SS1	.2 — .5	.04 — .72	90 max.	.33	.18	.16	.14	.12
SS1-2	.70 — 1.0	1.30 — 1.40	1.75 max.	.50	.39	.35	.32	.29

THIS SEMICONDUCTOR LISTING IS COMPLETE TO THE DATE OF PRINTING, AUGUST 15, 1968. BUT NEW ITEMS ARE CONTINUALLY BEING DEVELOPED AND ARE ADDED TO THE NEWARK STOCK. CHECK WITH THE NEWARK INDUSTRIAL DEPARTMENT FOR ANY NEW SEMICONDUCTORS NOT LISTED. ORDERS WILL BE BILLED TO YOU AT THOSE PRICES IN EFFECT AT TIME OF SHIPMENT.

International Rectifier Semiconductors



SUBMINIATURE GLASS SILICON ZENER DIODES

DO-7—250Mw—1N702—1N725 SERIES

These devices have ±10% tolerance. Add "A" to type number for ±5% tolerance.

Type	Ez Zener Volt @ Izt. Nom. volt	It test current mA	1-99	100-999	100 Mix
1N702	2.6	5			
1N703	3.4	5			
1N704	4.1	5			
1N705	4.8	5			
1N706	5.8	5		No Suffix	
1N707	7.1	5			
1N708	5.6	25			
1N709	6.2	25	1.00	.90	.80
1N710	6.8	25			
1N711	7.5	25			
1N712	8.2	25			
1N713	9.1	12			
1N714	10.0	12			
1N715	11	12			
1N716	12.0	12			
1N717	13.0	12		Suffix A	
1N718	15.0	12			
1N719	16.0	12			
1N720	18.0	12	1.00	.92	.85
1N721	20.0	4			
1N722	22.0	4			
1N724	27.0	4			
1N725	30.0	4			

DO-7—400 MW SILICON GLASS ZENER DIODES

These devices have ±10% tolerance. Add "A" to type number for ±5% tolerance.

Type	Va@Iz Nom. V.	Izt mA	1-99	100-999	100 Mix
1N746	3.3	20			
1N747	3.6	20			
1N748	3.9	20		No Suffix	
1N749	4.3	20	1.00	.90	.80
1N750	4.7	20			
1N751	5.1	20			
1N752	5.6	20			
1N753	6.2	20			
1N754	6.8	20			

DO-7—400 MW SILICON GLASS ZENER DIODES (CON'T)

Type	Va@Iz Nom. V.	Izt mA	1-99	100-999	100 Mix
1N755	7.5	20		Suffix A	
1N756	8.2	20	1.00	.92	.85
1N757	9.1	20			
1N758	10.0	20			
1N759	12.0	20			

DO-7—400Mw—1N957—1N973 SERIES

These devices have ±20% tolerance. Add "A" to type number for ±10% tolerance. Add "B" to type number for ±5% tolerance.

Type	Va@Iz Nom. V	Izt mA	1-99	100-999	100 Mix
1N957	7.5	16.5			
1N960	8.2	15.0		No Suffix	
1N961	10	12.5	1.00	.90	.80
1N966	11	11.5			
1N963	12	10.5			
1N964	13	9.5		Suffix A	
1N965	15	8.5			
1N968	20	6.2	1.00	.90	.80
1N969	22	5.6			
1N970	24	5.2			
1N971	27	4.6		Suffix B	
1N972	30	4.2	1.00	.95	.82
1N973	33	3.8			

DO-7—400 Mw GLASS 1N3510-1N3530 SERIES

These devices have ±5% tolerance.

Type	Vz @ Iz	Vz @ Iz Max. Ohms	Iz mA	1-99	100-999	100 Asst.
1N4370A	2.4	30	20	2.30	1.85	
1N4371A	2.7	30	20	2.30	1.85	
1N4372A	3.0	29	20	2.30	1.85	

SILICON ZENER DIODE LISTING CONTINUED NEXT PAGE

INTERNATIONAL RECTIFIER ZENERS ARE LIFETIME GUARANTEED

International Rectifier Semiconductors

SUBMINIATURE GLASS SILICON ZENER DIODES (CONT'D)

DO-3—750 MW SILICON ZENER DIODES

These devices have ±10% tolerance. Add "A" to type number for ±5% tolerance.

Type	Vz @ Iz	Vz @ Iz Max. Ohms	Iz mA	1-99	100-999	100 Mix
1N1508	4.7	13	30		No Suffix	
1N1509	5.6	11	26			
1N1510	6.8	3	22	2.75	2.10	2.45
1N1512	10	3.2	15		Suffix A	
1N1513	12	6.5	12			
1N1514	15	10.5	10	3.45	2.65	3.05

SILICON ZENER DIODES

DO-3 — 1 WATT

These devices have ±10% tolerance. Add "A" to type number 205 max length. These devices have ±10% tolerance. Add "A" suffix to type number for ±5% tolerance.

Type	Vz @ Iz	Vz @ Iz Max. Ohms	Iz mA	1-99	100-999	100 Asst.
1N1518	3.9	10	50			
1N1519	4.7	13	40		No Suffix	
1N1520	5.6	10.2	35			
1N1521	6.8	4.2	30	2.70	2.20	2.40
1N1523	10	4.0	20			
1N1524	12	6.0	15		Suffix A	
1N1525	15	13	13			
1N1526	18	25	10	3.50	2.75	3.00
1N1527	22	32	9			
1N1528	27	45	7			

1 WATT ZENER — FIG. Q.

Moisture resistant thermosetting polymer case .107 max diameter by .205 max. length. These devices have ±10% tolerance. Add "A" suffix to type number for ±5%.

Type No.	Vz (v)	Izt (ma)	Izt	1-99	100-999	100-Mix
1N4728	3.3	76	10			
1N4729	3.6	69	10			
1N4730	3.9	64	9			
1N4731	4.3	58	9			
1N4732	4.7	53	8			
1N4733	5.1	49	7			
1N4734	5.6	45	5			
1N4735	6.2	41	2			
1N4736	6.8	37	3.5			
1N4737	7.5	34	4.0			
1N4738	8.2	31	4.5			
1N4739	9.1	28	5.0			
1N4740	10	25	7			
1N4741	11	23	8			
1N4742	12	21	9		No Suffix	
1N4743	13	19	10			
1N4744	15	17	14	1.25	1.05	.93
1N4745	16	15.5	16			
1N4746	18	14	20			
1N4747	20	12.5	22			
1N4748	22	11.5	23			
1N4749	24	10.5	25			
1N4750	27	9.4	35		A Suffix	
1N4751	30	8.5	40			
1N4752	33	7.5	45	1.90	1.60	1.40
1N4753	36	7.0	50			
1N4754	39	6.5	60			
1N4755	43	6.0	70			
1N4756	47	5.5	80			
1N4757	51	5.0	95			
1N4758	56	4.5	110			
1N4759	62	4.0	125			
1N4760	68	3.7	150			
1N4761	75	3.3	175			
1N4762	82	3.0	200			
1N4763	91	2.8	250			
1N4764	100	2.5	350			

1 WATT FLANGELESS TYPE—DO-13

These devices have ±20% tolerance. Add "A" to type number for ±10% tolerance. Add "B" to type number for ±5% tolerance.

Type	Voltage @ Izt (Vz) Volts	Current (Izt) mA	Max. Impedance Zzt @ Izt Ohms	Zzk @ Izt Ohms	1-99	100-999	100 Mix
1N3016	6.8	37	3.5	700			
1N3017	7.5	34	4.0	700		No Suffix	
1N3018	8.2	31	4.5	700	2.45	2.05	2.25
1N3019	9.1	28	5.0	700			
1N3020	10	25	7	700		Suffix A	
1N3021	11	23	8	700	2.76	2.25	2.50
1N3022	12	21	9	700			
1N3024	15	17	14	700		Suffix B	
1N3025	16	15.5	16	700	3.20	2.25	2.10
1N3026	18	14	20	750			

1 WATT FLANGELESS TYPE—DO-13 (CON'T)

Type	Voltage @ Izt (Vz) Volts	Current (Izt) mA	Max. Impedance Zzt @ Izt Ohms	Zzk @ Izt Ohms	1-99	100-999	100 Mix
1N3027	20	12.5	22	750			
1N3028	22	11.5	23	750			
1N3029	24	10.5	25	750		No Suffix	
1N3030	27	9.5	35	750			
1N3031	30	8.5	40	1.000	2.45	2.05	2.25
1N3032	33	7.5	45	1.000			
1N3033	36	7.0	50	1.000			
1N3034	39	6.5	60	1.000		Suffix A	
1N3035	43	6.0	70	1.500			
1N3036	47	5.5	80	1.500	2.76	2.25	2.50
1N3037	51	5.0	95	1.500			
1N3038	56	4.5	110	2.000			
1N3039	62	4.0	125	2.000		Suffix B	
1N3040	68	3.7	150	2.000			
1N3041	75	3.3	175	2.000	3.20	2.25	2.70
1N3042	82	3.0	200	3.000			
1N3043	91	2.8	250	3.000			
1N3044	100	2.5	350	3.000			
1N3045	110	2.3	450	4.000		No Suffix	
1N3046	120	2.0	550	4.500	2.45	2.05	2.25
1N3047	130	1.9	700	5.000		Suffix A	
1N3048	150	1.7	1.000	6.000	2.76	2.25	2.50
1N3049	160	1.6	1.100	6.500		Suffix B	
1N3050	180	1.4	1.200	7.000	3.20	2.25	2.70
1N3051	200	1.4	1.500	8.000			

1 WATT ZENER VOLTAGE REGULATORS (FLANGELESS)—DO-13

These zener regulators are designed primarily for continuous feeding in automated assembly processes. All of the units are process-selected so that they may assure extremely sharp zener "knees" and excellent voltage regulation over the entire operating temperature range. These devices have ±20% tolerance. Add "A" to type number for ±10% tolerance.

Type	Vz @ Izt	Izt mA	Zzt @ Izt	1-99	100-999
1N3821	3.3	76	10		
1N3822	3.6	69	10	No Suffix	
1N3823	3.9	64	9		
1N3824	4.3	58	9	2.00	1.60
1N3825	4.7	53	8		
1N3826	5.1	49	7	Suffix A	
1N3827	5.6	45	5		
1N3828	6.2	41	2	2.50	2.00
1N3829	6.8	37	1.5		

1ZC SERIES 1 WATT FLANGLESS ZENERS—DO-13

Hermetically sealed. These devices have ±10% tolerance. Also available in 5% and 20% tolerance; add T5 for 5%; T20 for 20%.

Type	Vz Volts	Izt mA	Zzt (ohms)	1-99	100-999
1ZC3.9T10	3.9	50	210		
1ZC4.3T10	4.3	50	190		
1ZC4.7T10	4.7	40	175	"T10"	
1ZC5.1T10	5.1	40	160	1.34	1.02
1ZC5.6T10	5.6	35	145		
1ZC6.2T10	6.2	35	130		
1ZC6.8T10	6.8	30	120		
1ZC7.5T10	7.5	30	110		
1ZC8.2T10	8.2	25	100		
1ZC9.1T10	9.1	25	90		
1ZC10T10	10	20	80		
1ZC11T10	11	20	75		
1ZC12T10	12	15	65		
1ZC13T10	13	15	60	"T10"	
1ZC15T10	15	13	55		
1ZC16T10	16	13	50	1.12	.85
1ZC18T10	18	10	45		
1ZC20T10	20	10	40		
1ZC22T10	22	9	35		
1ZC24T10	24	9	30		
1ZC27T10	27	7	30		
1ZC30T10	30	7	25		

DO-4—3.5-WATT SILICON ZENER DIODES

Size: 1.160" overall L. 7/16" across hex flats. 10-32 stud mounting. These devices have ±10% tolerance. Add "A" to type number for ±5% tolerance.

Type	Vz @ Iz	Vz @ Iz Max. Ohms	Iz mA	1-99	100-999	100 Mix
1N1588	3.9	4.5	150		No Suffix	
1N1589	4.7	4.0	125			
1N1590	5.6	3.0	110	3.80	3.05	3.40
1N1591	6.8	0.9	100			
1N1592	8.2	1.5	80			
1N1593	10	2.5	70		Suffix A	
1N1594	12	3.0	50			
1N1595	15	5.5	40	4.55	3.65	4.05
1N1597	22	14	30			

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IOR International Rectifier Semiconductors

10 WATT SILICON ZENER DIODES—DO-4

Size: 1.160" overall L. x 7/16" across hex flats. 10-32 stud mounting with washer and nut. All these devices ±10% tolerance. Add "A" to type number for ±5% tolerance.
(*) indicates types stocked in 5% tolerance only.

Mfr.'s Type	Vz @ Iz	Zz @ Iz mA	Iz mA	1-99	100-999	100 Mix
1N1599	3.9	1.5	500			
1N1600	4.7	0.9	400		No Suffix	
1N1601	5.6	0.6	350			
1N1602	6.8	0.4	300	5.95	4.75	5.40
1N1603	8.2	0.6	250			
1N1604	10	1.0	200			
1N1605	12	2.0	170		Suffix A	
1N1606	15	2.9	140			
1N1607	18	4.0	110	8.00	6.40	7.10
1N1608*	22	6.0	90			
1N1609	27	10 0	70			

10 WATT ZENER VOLTAGE REGULATORS—DO-4

These devices have ±20% tolerance. Add "A" for ±10% tolerance. Add "B" for ±5% tolerance.
For reverse polarity add "R" to type number.

1N2970	6.8	1.2	370			
1N2971	7.5	1.3	335			
1N2972	8.2	1.5	305			
1N2973	9.1	2.0	275			
1N2974	10	3	250		No Suffix	
1N2975	11	3	230			
1N2976	12	3	210	3.00	2.40	2.68
1N2977	13	3	190			
1N2978	14	3	180			
1N2979	15	3	170			
1N2980	16	4	155			
1N2981	17	4	145		Suffix A	
1N2982	18	4	140			
1N2984	20	4	125	3.30	2.65	2.95
1N2986	24	5	105			
1N2987	25	6	100			
1N2988	27	7	95			
1N2989	30	8	85			
1N2991	36	10	70		Suffix B	
1N2992	39	11	65			
1N2993	43	12	60	4.25	3.30	3.80
1N2994	45	13	55			
1N2999	56	16	45			
1N3001	68	18	37			
1N3002	75	22	33			
1N3003	82	25	30		No Suffix	
1N3004	91	35	28	3.00	2.40	2.68
1N3005	100	40	25		Suffix A	
1N3007	110	55	23	3.30	2.65	2.95
1N3009	130	100	19		Suffix B	
1N3010	140	125	18	4.25	3.30	3.80
1N3011	150	175	17			
					No Suffix	
1N3012	160	16	200	3.40	2.70	3.00
					Suffix A	
1N3013	175	14	250	4.90	3.90	4.35
					Suffix B	
1N3015	200	12	300	7.75	6.20	6.90
1N3993*	3.9	2.0	640			
1N3996*	5.1	1.1	490		Suffix A	
1N3997*	5.6	1.0	445	7.20	5.75	......
1N3998*	6.2	1.1	405			

*All these devices have ±10% tolerance. Add "A" to type number for ±5% tol. 1N3993 thru 1N3998 have reverse polarity.

HIGH CURRENT RECTIFIERS — DO-7

Highly stable and rugged reference elements designed to meet the exacting requirements of elements and standards over a wide temperature range.

Type	Vz @ Izt	Zzt @ Izt	1-99	100-999
IN935	9.0	20	1.60	1.45
IN935A	9.0	20	1.80	1.60
IN935B	9.0	20	2.45	2.20
IN936	9.0	20	1.90	1.70
IN937	9.0	20	3.70	3.30
IN938A	9.0	20	5.20	4.70
IN938B	9.0	20	6.90	6.20
IN939	9.0	20	12.40	11.15

1N935 thru 1N939: ΔZ @ 0°, +25°, +75°C. 1N935B thru 1N939B: ΔVz @ —55°, +25°, +100°, +150 C. 1N935A thru 1N939A ΔVz @ —550, +25°, +100°C.

SILICON ZENER VOLTAGE REFERENCE ELEMENTS—DO-7

Type	Vz @ Izt	Zzt @ Izt	1-99	100-999
1N429	6.2	20	5.00	4.10
1N821	6.2	15	2.30	1.85

SILICON ZENER VOLTAGE REFERENCE ELEMENTS —DO 7 (CON'T)

Type	Vz @ Izt	Zzt @ Izt	1-99	100-999
1N821A	6.2	10	2.60	2.10
1N823	6.2	15	3.05	2.45
1N825	6.2	15	4.60	3.70
1N3498	6.2	15	9.00	7.00

* Izt=7.5 ma (bias current). DO-7 case, except 1N429.

Type	Vz @ Izt	Zzt @ Izt*	1.99	100-999
1N430*	8.4	11.0	15.50	12.40

Izt=10 ma (bias current). * 1N430 Fig. F.

AXIAL LEAD TOP HAT SILICON RECTIFIERS—DO-3

Oper. Temp. Range: —65 to 115°C. Max. DC output (@ 50°C) and reverse current rating (@ 100°C) are full cycle average values. (Fig. D on following page.)

Type	PRV	Maximum Amps DC	Maximum I. mA	1-99	100-999
IN1692	100	.600	0.5	.45	.30
IN1693	200	.600	0.5	.48	.32
IN1695	400	.600	0.5	.66	.44

TOP HAT RECTIFIERS

Hermetically sealed. Rated at 50°C. Fig. D. DO-1

Type	PRV	Maximum Amps DC	Maximum I. mA	1-99	100-999
SD94	400	.600	.2	.89	.60
SD95	500	.600	.2	.99	.67
SD92A	200	.750	.2	.68	.46
SD94A	400	.750	.2	.96	.64
SD95A	500	.750	.2	1.06	.71

AIAL LEAD TOP HAT SILICON RECTIFIERS — DO-3

Oper. Temp. Range: —65 to +165°C Max. DC output @ 50°C and reverse current (max.) rating @ 25°C) are full cycle average values.

Type	PRV	Maximum Amps DC	Maximum I. mA	1-99	100-999
10B1	100	1.3A	0.01	.50	.37
10B2	200	1.3A	0.01	.55	.40
10B4	400	1.3A	0.01	.80	.64
10B10	1000	1.3A	0.01	2.05	1.64

HIGH TEMPERATURE SILICON DIODES

Hermetically sealed; operating range —65° to +165°C. Very low voltage drop and leakage. Rating shown is for 50°C. At 150°C output is 250/175 mA.

Type	Fig.	PRV	Max. DC, mA Resist.	Max. DC, mA Capac.	1-99	100-999
IN536	D	50	750	550	.45	.30
IN538	D	200	750	550	.53	.35
IN540	D	400	750	550	.68	.45
IN547	D	600	750	550	.96	.64

10C SERIES SILICON RECTIFIERS—DO-13

Flangeless low leakage hermetically sealed, 1.3 amp. (1300 mA) type. Peak reverse voltage ratings to 1000 volts. Rated at 50°C.

Type	Peak Reverse Voltage Rating (V)	1-99	100-999
10C1	100	.32	.29
10C2	200	.35	.32
10C3	300	.38	.36
10C4	400	.42	.38
10C5	500	.47	.43
10C6	600	.52	.46
10C8	800	.75	.65
10C10	1000	1.70	1.20

MINIATURE SILICON RECTIFIERS—DO-27
1 AMP TYPE @ 75°C

Type	PRV	Maximum Amps DC	Maximum I. mA	1-99	100-999
5A2	200	1.0	0.20	.32	.28
5A3	300	1.0	0.10	.37	.32
5A5	500	1.0	0.05	.45	.38
5A6	600	1.0	0.05	.50	.44
5A8	800	1.0	0.05	.85	.75
5A10	1000	1.0	0.05	1.20	1.02

MINIATURE ENCAPSULATED 10D SERIES

Incorporate new diffusion and encapsulation techniques to provide higher current ratings for their size than any device in the field. Assure high efficient current operation. 150x.140" dia.

Type No.	DC OUTPUT PRV	IMA	I mA	1-99	100-999
1N2069/10D2	200	1000	.2	.32	.28
10D3	300	1000	.1	.37	.32
1N2070/10D4	400	1000	.05	.41	.35
1N2071/10D6	600	1000	.05	.50	.44
10D8	800	1000	.05	.85	.75
10D10	1000	1000	.05	1.20	1.02

SUBMINIATURE SILICON RECTIFIERS

.140 dia x .150 length encapsulated.

Type	PRV	Max. RMS Input	I Surge Amps	1-9	10-99	100-999
4D4	400	280	20	.55	.40	.31
4D6	600	420	20	.65	.55	.40
4D8	800	560	20	.75	.65	.55

Type	PRV	Max. RMS Input	I Surge Amps	1-99	100-999
8D4	400	280	40	.44	.40
8D6	600	420	40	.53	.48

1.5 AMPERE SILICON RECTIFIERS—PLASTIC DO-27 PACKAGE

Designed for industrial and consumer applications. Transfer-molding techniques are used to produce a moisture-resistant, high strength package capable of stable, long term operation.

Type	PRV	DC Volts	1-99	100-999
1N4816	50	50	.24	.20
1N4817	100	100	.28	.24
1N4818	200	200	.32	.28
1N4819	300	300	.37	.32
1N4820	400	400	.41	.35
1N4821	500	500	.45	.38
1N4822	600	600	.50	.44
1N5052	700	700	.70	.62
1N5053	800	800	.85	.75
1N5054	1000	1000	1.20	1.02

2 AMPERE SILICON RECTIFIERS—PLASTIC DO-27 PACKAGE

Type	PRV	DC Volts	1-99	1000-999
20A05	50	50	.45	.32
20A1	100	100	.50	.35
20A2	200	200	.55	.39
20A3	300	300	.60	.43
20A4	400	400	.70	.50
20A5	500	500	.80	.56
20A6	600	600	.90	.63
20A8	800	800	1.30	.91
20A10	1000	1000	1.60	1.10

SILICON POWER RECTIFIERS

3 AND 6 AMP SERIES STUD MOUNTED

10-32NF-2A Stud, with DO-4 Case. For commericial applications where temperature does not exceed 50°C. Add "R" to type no. for reverse polarity.

Type	PRV	RMS Input Volt Res. Load	1-99	10-99	100-999
3F20D	200	140	.93	.82	.74
3F40D	400	280	1.50	1.43	1.27
3F60D	600	420	3.51	3.16	2.84
3F80D	800	560	5.43	4.89	4.40
6F20D	200	140	1.45	1.31	1.16
6F40D	400	280	2.61	2.35	2.09
6F60D	600	420	3.30	2.97	2.67
6F100D	1000	707	6.63	5.97	5.37
Type	**PRV**	**Input**	**1-4**	**5-9**	**10-99**
6F80D	800	560	3.90	3.51	3.16

12 AMP. STUD-MOUNTED SILICON RECTIFIERS—DO-4

Oper. Temp. Range: —65°C to 190°C. Max. DC output (@ up to 150°C) and reverse current rating (@ 150°C base temp.) are full hz average values. Types listed may be used to replace 1N1199-1206 Series.

Type	PRV	Max. DC Output A.	Max. Rev. I mA	1-99	100-999
1N1199A	50	12.0	6.0	1.20	.80
1N1200A	100	12.0	6.0	1.32	.94
1N1201A	150	12.0	6.0	1.75	1.20
1N1202A	200	12.0	6.0	2.60	1.75
1N1203A	300	12.0	6.0	3.45	2.30
1N1206A	600	12.0	6.0	6.10	4.10

(Cont'd next column)

POWER RECTIFIERS (CONT'D)

15 AMPERE STUD MOUNTED (CONT'D)

1N3208-1N3212. Stud size: 1/4-28UNF-2A. Add "R" to type number for reverse polarity.

Type	PRV	1-99	100-999
1N3208	50	1.05	.75
1N3209	100	1.30	.90
1N3210	200	1.80	1.20
1N3211	300	2.35	1.60
1N3212	400	2.85	1.90

16 AMP. SILICON STUD-MOUNTED RECTIFIERS—DO-4

Oper. Temp. Range: —65°C to 190°C. Max. DC output (@ up to 150°C) and reverse current rating (@ 175°C base temp.) are full cycle average values.

JEDEC Type	Mfr's Type	PRV	Maximum DC Amps	Maximum I. mA	1-99	100-999
1N3616	16F10	100	16.0	2.5	1.54	1.05
1N3618	16F20	200	16.0	2.0	3.03	2.04
1N3620	16F40	400	16.0	1.5	4.90	3.15

40 AMPERE STUD MOUNTED SERIES

Stud size: 1/4-28UNF-2A. Add "R" to type number for reverse polarity.

JEDEC	Type	PRV	1-99	100-999
1N1183	40HF5	50	1.15	.80
1N1184	40HF10	100	1.45	1.05
1N1186	40HF20	200	2.00	1.40
1N1187	40HF30	300	2.55	1.85
1N1188	40HF40	400	3.05	2.20
	40HF50	500	3.85	2.80
....	40HF60	600	4.55	3.30
....	40HF80	800	7.05	5.05
....	40HF100	1000	9.90	7.20

150 AMPERE STUD MOUNTED SERIES

Stud size: 1/2-20UNF-2A glass to metal design. Add "R" to type number for reverse polarity.

JEDEC Type	Mfr's Type	PRV	1-99
1N3085	150L10	100	8.00
1N3086	150L20	200	14.00

*Max. peak reverse currents are approx. 50% higher than the respective 151K series.

250 AND 275 AMPERE STUD MOUNTED SERIES

Stud size: 3/4-16UNF-2A and DO-9 outline. Add "R" to type number for reverse polarity.

JEDEC Type	PRV	Amps	1-99
• 1N2055	100	250	13.90
1N4056	1000	275	79.50

COLOR TV RECTIFIERS

Used as a focus rectifier normally replacing the IV2.

Type	Description	1-4	5-9	10-99	100-999
61-8969	6,500 PRV	2.95	2.65	2.35	1.95

POWER RANGE SELENIUM RECTIFIERS

Wide range of rectifying application includes power supplies and voltage regulation, plate voltages and filament supply, plating and electrolysis, battery charging, relays, circuit breakers and numerous communication systems.

Type	Output Volts DC	Output Amps DC	AC Volts	Fig.	1-24	25-99
J29B04	0	0.4	36	C	1.70	1.40
J29B1	to	1.5	36	C	2.40	2.10
J29B5	29	4.8	36	C	7.00	5.90
J29B8	0	8.4	36	C	10.20	8.20
J29B17	to	17.0	36	C	19.30	16.40
J58B8	58	8.4	72	C	6.00	5.15
J116B04		0.4	144	C	8.90	7.50
J116B1	0	1.5	144	C	26.40	22.40
J116B5	to	4.8	144	C	37.10	31.40
J116B8	116	8.4	144	C	10.80	9.10
J135B1	0 to 135	1.5	180	C	10.86	9.19

For forced air cooling at 800 LFM, multiply all above ratings by three.

International Rectifier Semiconductors

IR-KLIP-SEL SURGE PROTECTORS

PREFERRED NON-POLARIZED STACK TYPES

.25 Amp Peak I

Type	Max. RMS	V. Cl.	1-9	10-99	100-999
KY5DPF	130	310	1.27	1.12	.97
KY6DPF	156	375	1.36	1.20	1.04
1 Amp Peak 1					
KZ5DPF	130	310	1.53	1.35	1.17
KZ6DPF	156	375	1.74	1.53	1.33

PREFERRED NON-POLARIZED CARTRIDGE TYPES

3 Amp Peak I

Type	Max. RMS	V. Cl.	1-9	10-99	100-999
KSA1DAF	26	63	1.04	.91	.79
KSA2DAF	52	125	1.24	1.09	.95
KSA5DAF	130	310	1.84	1.62	1.40
KSA6DBF	166	375	2.04	1.80	1.56
KSA9DBF	234	565	2.64	2.33	2.02
15 Amp Peak I					
KSL5DAF	130	310	5.95	5.25	4.55
KSL11DBF	286	735	10.28	9.07	7.86

MINIATURE SELENIUM RECTIFIERS

Single Plate Half Wave Rectifiers

Type	Max. DC MA	Max. RMS Volts	Dimensions: Plate Size	Dimensions: Fig.	Dimensions: Max. Depth	1-9	10-99	100-999
Q1H	65	36	.67"	O	7/16	.38	.29	.23
A1H	100	36	1"	O	7/16"	.43	.43	.30
M1H	500	36	2.0"	O	7/16"	.56	.56	.34
Full Wave Bridge Rectifiers								
Q1B	100	36	.67"	P	3/4"	.55	.41	.33
Q4B	100	130	.67"	P	1 5/16"	1.56	1.55	.94
A1B	180	36	1"	P	3/4"	1.22	1.22	.82
B1B	300	36	1.2"	P	3/4"	1.28	1.28	.86
C1B	600	36	1.5"	P	3/4"	1.46	1.46	1.00
M1B	1200	36	2"	P	3/4"	1.72	1.72	1.03

SILICON CONTROLLED RECTIFIERS

3 AMP JEDEC 2N1600-1604 TYPES

3-junction, hermetically sealed devices. **Gate excitation values shown are required to assure firing of all units. Notes: *JEDEC registered values. Oper. Temp. —65°C to +125°C.

Type	PRV	Max. Avg. Forward Current, Amps	Gate Excitation Requirements Max. @ 25°C: Volts	mA**	1-99	100-999
2N1602	200*	3*	3*	10*	9.45	6.30
2N1604	400*	3*	3*	10*	16.80	10.80

Fig. A—5 AMP JEDEC 2N1770-1774 TYPES

3-junction hermetically sealed devices. **Gate excitation values shown are required to assure firing of all units. Notes: *JEDEC registered values. Oper. Temp. —65°C to +125°C.

Type	PRV	Max. Avg. Forward Current, Amps	Gate Excitation Requirements Max. @ 25°C: Volts	mA**	1-99	100-999
2N1773	150*	4.7*	1.35	15	6.92	4.60
2N1774	200*	4.7*	1.35	15	8.12	5.40

Fig. A—5 AMP 2N1770A-1777A JEDEC TYPES

3-junction, hermetically sealed devices. **Gate excitation values shown are required to assure firing of all units. Notes: *JEDEC registered values. Oper. Temp. —65°C to +150°C.

2N1774A	200*	4.7*	1.35	15	13.45	8.95
2N1775A	250*	4.7*	1.35	15	15.50	10.45
2N1776A	300*	4.7*	1.35	15	18.35	12.20
2N1777A	400	4.7*	1.35	15	23.60	15.50

Fig. B—16 AMP. JEDEC 2N683-2N692 TYPES

3-junction hermetically sealed devices. **Gate excitation values shown are required to assure firing of all units. Notes: *JEDEC registered values Oper. Temp. —65°C to +125°C.

2N685	200*	16*	2.0	40	5.92	3.95
2N688	400*	16*	2.0	40	8.25	5.50
2N689	500*	16*	2.0	40	10.12	6.75
2N691	700*	16*	2.0	40	19.27	12.85
2N692	800*	16*	2.0	40	25.00	18.50

SILICON CONTROLLED RECTIFIERS CON'T

16 TO 150 AMPERE ALLOY DIFFUSED EPITAXIAL SCR'S

Type	PRV	Max. Fwd. Cur. Amps.	Gate Excitation Requirements: Volts	mA	1-99	100-999
16RC60	600	16	2	40	11.95	8.00

SCR FIRING CIRCUITS

IR's FC series of standardized SCR firing circuits provide hard-firing gate triggering pulse and eliminate SCR failure due to di/dt, false firing and interaction. Negative gate bias of 0.7V allows full utilization of SCR's dv/dt. Magnetic amplifier isolated gate signals permit use in full-wave DC or anti-parallel AC circuit applications. Dual wound transformers allow selection of input voltage. Units are suitable for firing all JEDEC SCR's rated 10 amps or more plus 40RCS series listed on this page. FC-100 is a single phase unit rated at 120/240 volts. Size: 5"x6"x2.54". FC-200 is a three phase unit rated at 240/480 volts. Size: 6"x9.5"x2". FC-300 is also a three phase unit rated at 240/480 volts. Size. 5"x6"x7.30".

Type	VA Input	% Average Conrtol V	% RMS Control V: AC	DC	1-9	10-24
FC-100	7	5-95		9-99	60.00	51.00
FC-200	18	4-96	8 2-93.4	9-97.5	130.00	110.00
FC-300	21	4-90	8-90	9-92	215.00	183.00

SILICON BRIDGE RECTIFIER ASSEMBLIES

Pre-engineered and completely assembled single phase bridge rectifier stacks. Sealed to withstand high temperature and humidity.

Type	PRV	Working Volts	Typical Volts	1-9	10-99
B12F30	300	105	65	14.80	12.35
B12F50	500	175	110	19.55	16.35
B70HB5	50	17.5	9.5	13.75	12.38
B70HB10	100	35	20	16.35	14.72
B70HB20	200	70	43	22.00	18.70
B70HB30	300	105	65	26.60	22.65
B70HB40	400	140	87	32.70	27.80
B70HB50	500	175	110	40.20	34.20

1.8 AMP MOLDED BRIDGES—FIG. D.

Type	PVR Max. Volts: Rep.	Trans.	RMS Inpt. Volts	DC Output Res. Load Volts	1-99	100-999
18DB2A	200	350	100	85	2.50	2.25
18DB3A	300	450	150	130	2.60	2.35
18DB4A	400	600	200	175	2.75	2.48
18DB5A	500	700	250	220	2.90	2.60
18DB6A	600	800	300	265	3.05	2.75
18DB8A	800	1000	400	355	3.60	3.24
18DB10A	1000	1250	500	445	5.40	4.85

10 AMP MOLDED BRIDGES—Fig. C

Type	Max. PVR Volts	RMS Inpt. Volts	DC Output: Res. Load Volts	Cap. Load Volts	1-99	100-999
2AFB05AP	50	18	15	18	4.05	3.25
2AFB1AP	100	35	30	35	4.30	3.45
2AFB2AP	200	70	60	70	5.15	4.15
2AFB3AP	300	105	90	105	5.55	4.50
2AFB4AP	400	140	120	140	6.50	5.30
2AFB5AP	500	175	150	175	8.00	6.40
2AFB6AP	600	420	360	420	9.95	8.00

INTERNATIONAL RECTIFIER

SILICON PLUG-IN TUBE REPLACEMENTS

Solid state rectifiers replace medium and high voltage tubes. Rugged construction, long life, no warm-up time, no filament supply required, low operating temperature. *High altitude types.

Type	Max. L."	Max. D."	Replaces Tube Types	1-9	10-99
ST-2/2631 ST-14	2.65	1.25	5Y3, 5AU4, 5AW4, 5AZ4 5T4, 5U4, 5V4, 5W4, 5Z4 5931, 6087, 6106	5.50	4.95
	2.65	1.25	5R4	7.95	7.10
ST-2A/ IN2632	1.50	1.25	5AU4, 5AW4, 5AZ4, 5T4 5U4, 5V4, 5W4, 5Y3, 5Z4	4.20	3.75

*ST-2 is rated at 750 MA. ST-14 is rated at 600 MA.

PLUG-IN SILICON RECTIFIERS

Oper. Temp. Range: —60° to +170°C. Max. DC output (@ 75 C) and reverse current rating (@ 100°C) are full cycle average values. Case dimensions are 1"x0.250" dia. approx. These units are plug-in replacements for JEDEC types 1N446-1N449.

Type	Fig.	PRV	Maximum DC Amps	Maximum I mA	1-99	100-999
IN1082	E	200	0.5	0.2	.75	.60
IN1083	E	300	0.5	0.2	.85	.68
5MA6	E	600	1.0	0.2	1.70	1.35
5MA8	E	800	1.0	0.2	2.70	1.95
5MA10	E	1000	1.0	0.2	3.40	2.40
25-2005	Snap-In Holder, quad				.90	.75

PHOTOCELLS AND SUN BATTERIES—FIG. B

Selenium cells are used extensively in light meters and other photographic and optical devices. Silicon cells have higher light conversion efficiency particularly in sunlight.

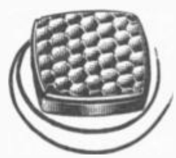
SELENIUM CELLS—FIG. B

Type B2M. $1/2$x$3/4$". 1-9 ...... 1.50 10-99 ... 1.35
Type B3M. In plastic case. 1-9 ..... 1.75 10-99 ... 1.55

SILICON CELLS—FIG. B

Type	Description	1-9	10-99
S1M	In molded plastic case	2.25	2.00
S3M	Contains 2 elements in series	3.95	3.51
S4M	Same as S1M but twice the current	3.95	3.51
S5M	High efficiency type	4.95	4.40

CADMIUM SULPHIDE PHOTO CELL—FIG. B



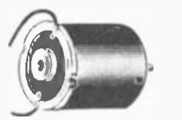
Type CS-120 "Light Sensitive" resistors for activating relays. For door-openers, burglar alarms, traffic and industrial counters, turning on lights, etc. Maximum voltage 120 AC or DC; 0.2 Watt. Shpg. wt., $1/4$ lb. Size: $1\frac{1}{8}$x$1\frac{1}{8}$x3/16".
Type CS-120. 1-99 .... 2.35
100-999 .... 1.57

Fig. B

PHOTO CELL KIT

DD-190. Special Value package contains four selenium photo cells with outputs from one-third to one-half volt and 0.5 to 3 milliamps in bright sunlight. Free 24 page manual included.
Type DD-190 .... 1-9 .... .99 10-99 .... .88

TYPE EP50 EXPERIMENTAL MOTOR



Experimental Motor has anti-friction bearings for operating directly from S4M or two S1M solar cells. The working voltage is from 0.35 to 1.50 volts.

Type	1-99	100-999
EP50	3.95	2.40

INTERNATIONAL RECTIFIER HANDBOOKS

RECTIFIER ENGINEERING HANDBOOK
Type HB-10. 125 pages of practical information on rectifier engineering data.
53F087. NET . 2.00

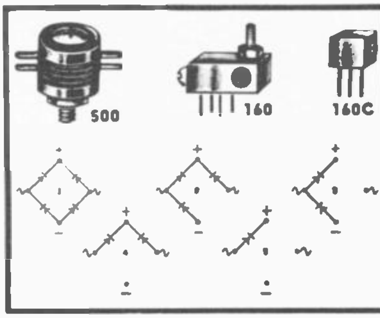
CONTROLLED RECTIFIER HANDBOOK
Type HB-40. 110 pages containing the basic theory on the principles and uses of SCR'S.
53F091. NET . 2.50

CONANT COLOR-CODED INSTRUMENT RECTIFIERS

Series 500. Designed for use in apparatus drawing up to 30 milliamps. Reverse voltage, 2.25 DC Disc diameter 500. Active area 15 square inches

Series 160 and 160-C. Designed for applications requiring better than average frequency response. Recommended for conventional circuits using meter movements drawing up to 5 milliamps. Disc dia., .166". Active area, .019 square inches

Mfrs. Type	Series	Body Color	Internal Circuit	No. of Term	Forward DC MA	Av. Output DC MA	NET
M	500	Yellow	1	4	60	30	2.06
HS	500	Black	3	3	60	30	1.50
T	500	Red	4	3	60	30	1.50
H	500	Green	5	2	60	30	1.18
B	160	Yellow	1	4	10	10	2.06
BHS	160	Black	3	3	10	5	1.50
BT	160	Red	4	3	10	5	1.50
BH	160	Green	5	2	10	5	1.18
B-C	160-C	Yellow	1	4	10	5	2.06



KLIXON

SELF-REGULATING COMPONENT OVENS

Statitemp Series. Provides a stable thermal environment .Temperature gain (defined as ratio of change in ambient temp. to change in control temp. at constantvoltage and component dissipation, as measured by the temp. depentent characteristic of the component) is 30:1 for 115°C. types, 15:1 for 80° models. Low power drain; unaffected by component current. Operate from 24VDC. Aver. wt. approx. 5 gms.

For temperature stabilization of DO-7 and DO-5 semi. components.

Stock No.	Type	Fits	Oper. Temp.	Watts	1-4	5-9	10-24	25-99
59F1085	3ST1-1	DO-7	115°	3.4	6.45	4.52	3.53	3.19
59F1086	3ST1-2	DO-7	80°	3.4	6.45	4.52	3.53	3.19
59F1087	4ST1-1	TO-5	115°	6.5	7.20	5.05	3.94	3.55
59F1088	4ST1-2	TO-5	80°	6.5	7.20	5.05	3.94	3.55
59F1089	5ST1-1	TO-18	115°	6.5	6.45	4.52	3.53	3.19
59F1090	5ST1-2	TO-18	80°	6.5	6.45	4.52	3.53	3.19

This Semiconductor listing is complete to the date of Printing, August 15, 1968. But new items are continually being developed and are added to the Newark stock. Check with Newark Industrial Dept. for any new Semiconductors not listed.

Sylvania Semiconductors

SILICON ALLOY DIODES—DO-7

Low leakage, excellent stability. Ratings at 25°C. * indicates MIL approval.

Type	PIV	Fwd. Cur @ I.O.U. (mA)	Reverse Current µa max.	1-99	100-999	1000-up
1N456	30	40	.025@-25V	.42	.28	.18
1N456A	30	100	.025@-25V	.42	.28	.18
1N457*	70	20	.025@-60V	.45	.30	.19
1N457A	70	100	.025@-60V	.45	.30	.19
1N458*	150	7	.025@-125V	.48	.32	.21
1N458A	150	100	.025@-125V	.48	.32	.21
1N459*	200	3	.025@-175V	.51	.34	.21
1N459A	200	100	.025@-175V	.51	.34	.21
1N461	30	15	.5 @-25V	.42	.28	.18
1N461A	30	100	.5 @-25V	.42	.28	.18
1N462	70	5	.5 @-60V	.44	.29	.19
1N462A	70	100	.5 @-60V	.44	.29	.19
1N463	200	1	.5 @-175V	.54	.36	.22
1N463A	200	100	.5 @-175V	.54	.36	.22
1N464	150	3	.5 @-125V	.53	.35	.21
1N464A	150	100	.5 @-125V	.53	.35	.21
1N482	40	100 @ 1.1V	.25 @-30V	.66	.40	.19
1N482A	40	100	.025@-30V	.69	.46	.19
1N483B	80	100	.025@-60V	.70	.47	.19
1N484	150	100 @ 1.1V	.25 @-125V	.70	.47	.22
1N484A	150	100	.025@-125V	.70	.47	.22
1N484B	150	100	.025@-125V	.70	.47	.22
1N485	200	100	.025@-175V	.90	.60	.24
1N485B	200	100 @ 1V	.025@-175V	.90	.60	.24
1N486A	250	200	.05 @-225V	.90	.60	.26
1N486B	250	200	.05 @-225V	.90	.60	.26
1N488	420	100 @ 1.1V	.25 @-380V	1.17	.78	.45
1N488A	420	100	.1 @-380V	1.78	1.19	.49
1N625	......	4 @ 1.5V	1.0 @-30V	.43	.29	.18
1N626	......	4 @ 1.5V	1.0 @-35V	.45	.30	.19
1N627	......	4 @ 1.5V	1.0 @-75V	.60	.39	.21
1N628	......	4 @ 1.5V	1.0 @-125V	.72	.47	.22
1N629	...	4 @ 1.5V	1.0 @-175V	.81	.54	.24
1N658	120	100	.05 @-50V	1.76	1.20	.27
1N659	......	6	.05 @-60V	.58	.39	.17
1N662*	80	10	1.0 @-10V	.92	.44	.24
1N663*	80	100	5.0 @-75V	1.20	.80	.26
1N816	6	100	.1 @-6V	.52	.35	.18
1N816W*	6	100	.1 @-6V	.52	.35	.18
D6623	70	100	.005@-60V	.48	.32	.21
D6623A	70	100	.001@-125V	.52	.35	.22
D6624A	150	100	.001@-125V	.56	.38	.23
D6625	200	100	.005@-175V	.57	.38	.23
D6625A	200	100	.001@-175V	.60	.40	.24

SILICON UHF MIXER DIODES

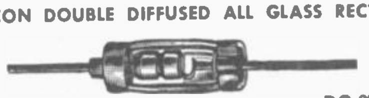
Type	Case	Piv	Back VDC	Fwd. mA	(µA max) Ir	1-99	100-999	1000-Up
1N82	DO-7	5	—3	25	3000@-3V	.60	.45	.25
1N82A	DO-7	5	—3	25	3000@-3V	.60	.42	.35
1N82AG	DO-7	5	—3	25	3000@-3V	.91	.71	.61

SILICON DIFFUSED EPOXY BULLET RECTIFIERS

Hi temperature; Hi conductance for general purpose. Ratings at 25°C.

Type	Case	PRV (V)	Max. DC output mA at 25°C	1-99	100-999	1000-Up
1N2069	DO-27	200	750	.45	.30	.22
1N2069A	DO-27	200	750	.50	.33	.25
1N2070	DO-27	400	750	.57	.38	.27
1N2070A	DO-27	400	750	.67	.45	.31
1N2071	DO-27	600	750	.72	.48	.33
1N2071A	DO-27	600	750	.75	.50	.35
1N2482	DO-27	200	750	.65	.43	.29
1N2483	DO-27	400	750	.69	.46	.31
1N2484	DO-27	600	750	.71	.47	.31
SR1692	DO-27	100	600	.61	.41	.27

SILICON DOUBLE DIFFUSED ALL GLASS RECTIFIER



DO-29

Case hermetically sealed. Will withstand extremely high reverse power transients. .350" x .150" Dia.

Type	Vr (v)	Io. (mA)	1-99	100-999	1000-Up
1N4383	200	10	.48	.38	.27
1N4384	400	10	.58	.41	.30
1N4385	600	10	.78	.54	.35
IN4585	800	10	1.20	.80	.65
1N4586	100	10	2.70	1.80	1.62

SILICON SUBMINIATURE GLASS RECTIFIER DIODES—DO-7

Type	PRV (v)	MAX Ido ma at 250°C	MAX FWD Volt Drop @25°C	1-99	100-999	1000-up
1N645	225	400	1.0	1.40	.80	.20
1N646	300	400	1.0	1.65	1.10	.27
1N647	400	400	1.0	1.70	1.10	.33
1N648	500	400	1.0	1.80	1.20	.40
1N649	600	400	1.0	2.25	1.40	.56

MINIATURE SILICON EPOXY RECTFIERS—DO-7

Ratings 1 amp at 75°C. Max 1 Hz surge I - 30 Amps. In .265" x .105" dia. case - 1" leads.

Type	PRV (v)	Io (ma)	1-99	100-999	1000-Up
1N4001	50	750	.45	.30	.27
1N4002	100	750	.49	.33	.30
1N4003	200	750	.60	.40	.36
1N4004	400	750	.67	.45	.41
1N4005	600	750	.81	.54	.49
1N4006	800	750	1.12	.75	.69
1N4007	1000	750	1.80	1.20	1.10

GERMANIUM POINT CONTACT DIODES

DO-7

For use in Audio, IF, RF & UHF range. *Indicates matched pair.

Type	PRV	Fwd. (mA)	1-99	100-999	1000-up
1N34A	75	50	.30	.23	.14
1N35*	75	225	1.58	1.21	.99
1N38A	120	50	.49	.38	.16
1N48	85	50	.30	.20	.14
1N54A	75	50	.42	.32	.17
1N55A	170	50	.40	.31	.14
1N60	30	50	.30	.23	.18
1N63	125	50	.36	.28	.22
1N67A	100	30	.28	.21	.14
1N90	75	30	.33	.22	.14
1N116	75	45	.49	.36	.13
1N120	70	25	.46	.36	.29
1N126A	75	30	.30	.24	.11
1N127A	125	30	.42	.28	.16
1N128	50	30	.32	.25	.12
1N191	90	30	.35	.28	.15
1N192	70	45	.34	.26	.14
1N198	100	30	.35	.28	.15
1N198A	100	30	.35	.28	.15
1N198B	100	30	1.03	.78	.64
1N294	70	50	.34	.26	.15
1N295	50	30	.35	.27	.15

GERMANIUM BONDED DIODES—DO-7

For general purposes and computer applications;. (*) indicates MIL approval.

Type	PIV (volts)	Ifwd (mA)	1-99	100-999	1000-up
1N98	100	60	.31	.24	.12
1N99	100	60	.50	.39	.16
1N100	100	60	.32	.27	.12
1N118	75	60	.23	.20	.13
1N270*	100	90	.32	.25	.11
1N276*	100	40	.31	.24	.12
1N277*	125	75	.34	.26	.14
1N279	35	80	.29	.22	.17
1N281	75	75	.31	.24	.14
1N283	25	100	.51	.40	.15
1N497	30	80	.39	.30	.14
1N498	60	80	.44	.35	.15
1N695	20	100	.30	.24	.14
1N770	30	40	.48	.38	.16
1N995	15	30	.60	.45	.18
1N3125	50	100	.51	.40	.32

MICROWAVE VIDEO DETECTORS

Type	Freq. Band	1-9	10-99	100-249
1N830	100 MHF	2.95	2.53	2.35
1N830A	1000 Hz	3.85	3.30	3.00
1N833	X	4.65	4.00	3.65
1N1611	X	4.30	3.68	3.40
1N1611A	X	9.15	7.85	7.35

SYLVANIA DIODES

MICROWAVE MIXER DIODES

MIXER DIODE CASES

*Indicates MIL. approval, + indicates comparative db noise figure where If amp noise equals 1.5.

Type	Freq. Band	+Noise (db)	1-9	10-99	100-999
1N21B	S	10.3	1.02	.88	.81
1N21BM	S	10.3	2.43	2.12	1.94
1N21BR	S	10.3	1.41	1.22	1.12
1N21BRM	S	10.3	3.07	2.64	2.45
1N21C	S	8.3	1.02	.88	.81
1N21D	S	7.3	2.10	1.80	1.65
1N21E	S	7.0	3.50	3.00	2.75
1N21WE*	S	5.5	4.35	3.72	3.40
1N21F	S	6.0	7.15	6.10	5.60
1N21FM	S	6.0	16.40	14.10	12.90
1N21G	S	5.5	11.90	10.40	9.35
1N23B	X	11.5	.67	.58	.54
1N23BR	X	11.5	1.02	.88	.81
1N23C	X	9.5	1.41	1.22	1.12
1N23CR	X	9.5	1.02	.88	.81
1N23D	X	7.8	2.10	1.80	1.65
1N23E	X	7.5	3.50	3.00	2.75
1N23ER	X	7.5	4.55	3.90	3.58
1N23F	X	7.0	7.15	6.10	5.60

Add suffix for desired type. Suffix "M" indicates — matched pair; Suffix "R" indicates — reverse line; Suffix "MR" indicates — matched reversed pair.

Type	Freq. Band	+Noise (db)	1-9	10-99	100-999
1N23FMR	X	7.0	18.60	16.00	14.60
1N23G	X	6.5	11.90	10.40	9.35
1N23WE	X	7.5	4.35	3.72	3.40
1N25	L	12.6	3.53	3.03	2.74
1N26	K	13.1	6.50	5.60	5.10
1N26B	K	11.0	27.25	23.70	21.75
1N26R	KU	12.0	9.90	8.50	7.80
1N53	KA	13.1	23.20	19.80	18.25
1N78A	KU	11.0	4.50	3.85	3.54
1N78B*	KU	10.0	5.00	4.30	3.93
1N78BR	KU	10.0	7.50	6.45	5.90
1N78R	KU	12.0	6.00	5.15	4.70
1N831	S	8.3	6.85	5.85	5.40
1N831A	S	7.0	10.90	9.35	8.60
1N831AM	S	7.0	27.30	23.50	21.50
1N832A	X	7.5	10.90	9.35	8.60
1N2510	X	9.5	18.20	15.60	14.30

HI SPEED SILICON EPITAXIAL PLANAR DIODES—DO-7

Rec. time 4n secs. except 1N251 & 1N252-150n secs. 1N3731-3n secs.

Type	PIV (V)	Avg. IFWD (ma)	1-99	100-999	1000-up
1N251	30	40	.65	.43	.18
1N252	20	40	.65	.43	.18
1N914	100	75	.45	.30	.18
1N914B	100	75	1.35	.90	.22
1N3605	40	50	.72	.48	.26

ERIE RECTIFIERS

FULL WAVE RECTIFIER ASSEMBLIES

Fig. A
- **Full Wave Bridge Rectifier Circuit**

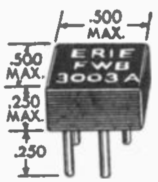
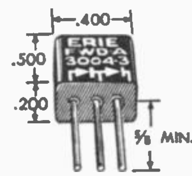


Fig. B
- **Full Wave Voltage Doubler Circuit**



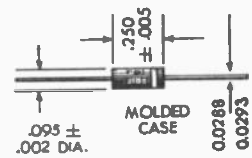


Fig. C

A miniature series of bridge and doubler modules designed for printed circuit applications. Double seal assures moisture resistance to environmental specs of MIL-STD-750A. FWB types (bridge rectifiers) measure ½x½x¼", with pin leads ¼" long; FWD types (doublers) measure .50x.40x.20" with ⅝" pin leads.

FULL WAVE BRIDGE RECTIFIERS—Fig. A

Type	PIV Wkng. Volt.	Rms Volts	Max. Fwd. Cur., 25°C.	1-99	100-999
FWB3001A	100	70	1.5A	1.80	1.45
FWB3002A	200	140	1.5A	1.86	1.50
FWB3003A	300	210	1.5A	1.90	1.60
FWB3004A	400	280	1.5A	2.00	1.75
FWB3005A	500	350	1.5A	2.25	1.80
FWB3006A	600	420	1.5A	2.50	1.90
FWB3008A	800	560	1.5A	2.75	2.30
FWB3010A	1000	700	1.5A	3.00	2.50

FULL WAVE DOUBLER RECTIFIERS—Fig. B

Type	PIV Wkng. Volt.	Rms Volts	Max. Fwd. Cur., 25°C.	1-99	100-999	1000-5000
FWDA3001A	100	35	.750A	.97	.69	.59
FWDA3002A	200	70	.750A	.98	.70	.60
FWDA3003A	300	105	.750A	.99	.71	.61
FWDA3004A	400	140	.750A	1.00	.72	.62
FWDA3005A	500	175	.750A	1.01	.73	.63
FWDA3006A	600	210	.750A	1.09	.78	.67
FWDA3008A	800	280	.750A	1.18	.84	.73
FWDA3010A	1000	350	.750A	1.57	1.12	.88

MINIATURE SILICON DIFFUSED RECTIFIERS — Fig. C

.75 AMP MAX. FWD. CURRENT

Type	PIV	Max. Ir @ 25°CR. µA	1-99	100-999	1000-5000
ED3001A	100	10	.45	.30	.21
ED3002A/1N2069	200	10	.50	.33	.22
ED3003A	300	10	.58	.39	.23
ED3004A/1N2070	400	10	.61	.45	.27
ED3005A	500	10	.64	.49	.28
ED3006A/1N2071	600	10	.66	.51	.29
ED3008A	800	10	.72	.57	.415
ED3010A	1000	10	.76	.61	.455

UNIVERSAL FULL WAVE BRIDGE RECTIFIERS

Type	Avalanche V/leg @ 100 µA	PIV Work. Volts	Max Applied rms V	1-99	100-999
FWBTS3001	120	100	70 V	1.70	1.25
FWBTS3002	250	200	140 V	1.75	1.30
FWBTS3003	350	300	210 V	1.85	1.40
FWBTS3004	450	400	280 V	1.95	1.50
FWBTS3005	550	500	350 V	2.05	1.60
FWBTS3006	650	600	420 V	2.15	1.70
FWBTS3008	850	800	560 V	2.60	2.10
FWBTS3010	1100	1000	700 V	3.00	2.50

SILICON MOLDED RECTIFIERS

1N4000 S SERIES

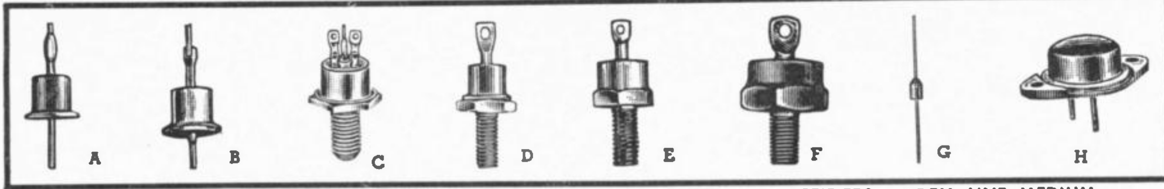
1.0 AMP MAX. FWD. CURRENT

Type	PIV Volts	Avalanche Volts	1-99	100-999	1000-5000
1N4001S	50	70	.41	.26	.18
1N4002S	100	120	.46	.31	.22
1N4003S	200	250	.51	.34	.23
1N4004S	400	450	.62	.46	.28
1N4005S	600	650	.68	.53	.31
1N4006S	800	850	.75	.60	.45
1N4007S	1000	1100	.81	.66	.51

ED 3100 SERIES

1.5 AMP MAX. FWD. CURRENT

Type	PIV Volts	Avalanche Volts	1-99	100-999	1000-5000
ED3100	50	70	.61	.36	.24
ED3101	100	120	.66	.41	.28
ED3102	200	250	.71	.44	.30
ED3104	400	450	.82	.56	.34
ED3106	600	650	.88	.63	.37
ED3108	800	850	.95	.70	.51
ED3110	1000	1100	1.01	.76	.57



SILICON RECTIFIERS, LOW POWER

Type	Fig.	PRV	Max. IDC Resistive Load	1-99	100-999
1N1217B	B	50	1.6A @ 140°C Case	.40	.25
1N1218B	B	100		.45	.30
1N1220B	B	200		.50	.33
1N1222B	B	400		.75	.50
1N1224B	B	600		.95	.65
1N1226B	B	800		1.39	.95
1N536	A	50	750 MA. @ 50°C Ambient	.40	.29
1N537	A	100		.45	.30
1N538	A	200		.50	.33
1N539	A	300		.60	.45
1N540	A	400		.75	.50
1N547	A	600		.95	.65
1N560	A	800	600 MA. @ 30°C Ambient	1.39	.95
1N561	A	1000		3.32	2.21
1N1095	A	500	750 MA. @ 35°C Ambient	.76	.51
1N1096	A	600	750 MA. @ 30°C Ambient	.93	.63
1N4816	G	50	1.5 Amp. @ 40°C Case	.24	.20
1N4817	G	100		.29	.24
1N4818	G	200	1.5 Amp @ 40°C Case	.33	.28
1N4819	G	300		.38	.32
1N4820	G	400		.42	.35
1N4821	G	500		.46	.38
1N4822	G	600		.52	.44
1N5052	I	700	1.5 Amp @ 40°C Ambient	.74	.62
1N5053	I	800		.89	.75
1N5054	I	1000		1.22	1.02
386-1AY	O	50	1.0 Amp @ 50°C Ambient	1.35	.90
1N5004	O	100		1.65	1.08
386-1CY	O	150		1.74	1.20
1N5005	O	200		1.85	1.26
386-1FY	O	300		2.40	1.62
1N5006	O	400		2.60	1.81
386-K	O	500		3.00	2.05
1N5007	O	600		3.55	2.40

SILICON RECTIFIERS, MEDIUM POWER

Type	Fig.	PRV	Max. IDC Resistive Load	1-99	100-999
1N1612R	D	50	5 Amp @ 150°C Case	1.07	.72
1N1613R	D	100		1.24	.83
1N1614R	D	200		1.90	1.27
1N1615R	D	400		3.71	2.48
1N1616R	D	600		5.36	3.58
1N1341R,A,RA	D	50	6 Amp @ 150°C Case	1.13	.75
1N1342R,A,RA	D	100		1.28	.85
1N1343R,A,RA	D	150		1.64	1.09
1N1344R,A,RA	D	200		2.15	1.43
1N1345R,A,RA	D	300		3.05	2.04
1N1346R,A,RA	D	400		3.96	2.64
1N1347R,A,RA	D	500		4.79	3.19
1N1348R,A,RA	D	600		5.78	3.85
1N1191R	F	50	18 Amp @ 140°C Case	1.65	1.10
1N1192R	F	100		1.72	1.15
1N1193R	F	150		2.10	1.40
1N1194R	F	200		2.48	1.65
1N1195R	F	300		3.88	2.59
1N1196R	F	400		4.95	3.30
1N1197R	F	500		5.94	3.96
1N1198R	F	600		7.01	4.68
1N1199R,A,RA	D	50	12 Amp @ 150°C Case	1.25	.83
1N1200R,A,RA	D	100		1.41	.94
1N1201R,A,RA	D	150		1.82	1.21
1N1202R,A,RA	D	200		2.48	1.65
1N1203R,A,RA	D	300		3.47	2.31
1N1204R,A,RA	D	400		4.46	2.97
1N1205R,A,RA	D	500		5.33	3.55
1N1206R,A,RA	D	600		6.19	4.13
1N248A,B	F	50	20 Amp @ 150°C Case	1.58	1.10
1N249A,B	F	100		1.65	1.15
1N250A,B	F	200		2.38	1.65
1N1183R	F	50	35 Amp @ 140°C Case	1.95	1.30
1N1183A,RA	F	50		2.14	1.43
1N1184R	F	100		2.40	1.60
1N1184A,RA	F	100		2.47	1.65
1N1185R	F	150		2.93	1.95
1N1185A,RA	F	150		3.10	2.07
1N1186R	F	200		3.45	2.30
1N1186A,RA	F	200		3.55	2.37
1N1187R	F	300		4.73	3.15
1N1187A,RA	F	300		4.95	3.30
1N1188R	F	400		5.85	3.90

SILICON RECTIFIERS — OEM LINE MEDIUM

Type	Fig.	PRV	Max. IDC Resistive Load	1-99	100-999
368A,AR	E	50	15 Amp @ 125°C Case	.79	.67
368B,BR	E	100		.83	.71
368C,CR	E	150		.93	.72
368D,DR	E	200		1.10	.77
368F,FR	E	300		1.31	.88
368H,HR	E	400		1.52	.99
368K,KR	E	500		1.79	1.16
368M,MR	E	600		2.05	1.42

FAST RECOVERY RECTIFIERS

Type	Fig.	PRV	Max. IDC Resistive Load	1-99	100-999
1N3879	E	50	6 Amp.	4.20	2.80
1N3880	E	100		4.65	3.10
1N3881	E	200		6.60	4.40
1N3882	E	300		9.90	6.60
1N3883	E	400		13.65	8.10

SILICON—RECTIFIERS, HIGH POWER

Type	Fig.	PRV	Max. IDC Resistive Load	1-99	100-999
IN1396	J	50	70 Amp @ 150°C Case	6.20	5.30
IN1397	J	100		7.65	6.50
IN1398	J	150		10.00	8.30
IN1399	J	200		12.40	10.00
IN1400	J	300		14.10	11.60
IN1401	J	400		15.20	12.70
IN1402	J	500		16.90	14.20
IN1403	J	600		19.90	16.50
1N3260R	K	50	160 Amp @ 125°C Case	8.00	6.85
1N3261R	K	100		9.05	7.75
1N3262R	K	150		11.80	10.33
1N3283R	K	200		15.35	13.10
1N3264R	K	250		17.60	14.60
1N3265R	K	300		18.45	15.20
1N3266R	K	350		19.25	15.95
1N3267R	K	400		20.05	16.70
1N3268R	K	500		22.25	18.45
1N3269R	K	600		26.10	21.50
1N3270R	K	700		29.40	24.30
1N3271R	K	800		32.55	26.95
1N3272R	K	900		35.80	29.40
1N3273R	K	1000		39.05	32.50
1N3274R	K	1200		42.50	35.70
1N3275R	K	1400		46.70	39.35
1N3276R	K	1600		51.45	43.55
1N4044R	K	50	275 Amp @ 120°C Case	13.50	11.75
1N4045R	K	100		20.50	16.25
1N4046R	K	150		23.90	19.00
1N4047R	K	200		28.50	21.90
1N4048R	K	250		30.50	23.50
1N4049R	K	300		32.90	25.25
1N4050R	K	400		36.00	27.50
1N4051R	K	500		44.50	34.50
1N4052R	K	600		52.75	40.75
1N4053R	K	700		59.00	45.50
1N4054R	K	800		67.50	52.75
1N4055R	K	900		72.50	58.00
1N4056R	K	1000		80.00	63.50

SILICON POWER TRANSISTORS—OEM LINE

Type	Fig.	Vce	Ic Max.	DC 1 Gain	1-99	100-999
151-04	M	40	6 Amp	11 Min. Vce=4V Ic=1.5A	5.65	4.45
151-06	M	60			8.50	6.65
151-08	M	80			11.40	8.80
151-10	M	100			14.40	11.20
151-12	M	120			16.25	12.50
151-14	M	140			18.30	14.10
151-16	M	160			20.60	15.80
151-18	M	180			23.20	17.90
151-20	M	120			26.20	20.10
151-22	M	220			29.60	22.70
151-24	M	240			34.20	25.85
151-26	M	260			38.90	29.40
151-28	M	280			44.10	33.50
151-30	M	300			50.00	38.00
152-04	M	40	6 Amp	18 Min. Vce=4V Ic=1.5A	6.55	5.10
152-06	M	60			9.60	7.50
152-08	M	80			12.70	9.90
152-10	M	100			15.85	12.35
152-12	M	120			18.70	14.40
152-14	M	140			21.00	16.20

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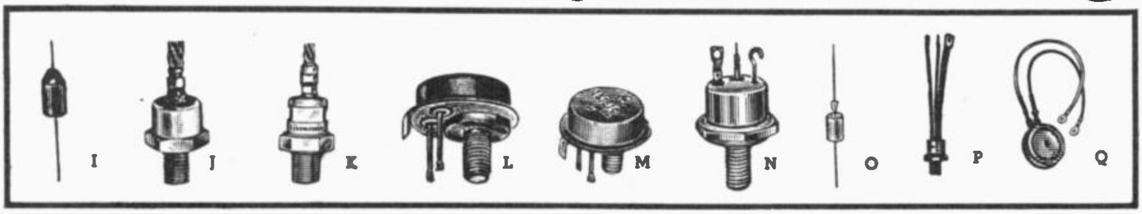

SILICON POWER TRANSISTORS—OEM LINE (CONT'D)

Type	Fig.	Vce	Ic Max.	DC I Gain	1-99	100-999
152-16	M	160	6 Amp	18 Min. Vce=4V Ic=1.5A	23.70	18.30
152-18	M	180			26.70	20.35
152-20	M	200			28.90	22.10
152-22	M	220			32.70	24.90
152-24	M	240			37.20	28.40
152-26	M	260			42.35	32.30
152-28	M	280			48.20	36.80
152-30	M	300			54.60	41.70
2N3429	C	50	7.5 Amp	10 Min. Ic=5A	29.10	21.70
2N3430	C	100			38.10	28.40
2N3431	C	150			51.10	37.80
2N3432	C	200			67.10	50.10
2N3433	C	250			89.10	66.60
					1-24	25-99
2N3470	....	50	10 Amp	100 Min. Ic=10A	44.10	29.10
2N3471	....	100			61.10	41.10
2N3472	....	150			83.10	55.10
2N3473	....	200			112.10	75.10
2N3474	....	50	10 Amp	400 Min. Ic=10A	73.10	48.10
2N3475	....	100			99.10	66.10
2N3476	....	150			132.10	88.10
2N3477	....	200			183.10	122.10
					1-99	100-999
153-04	C	40	7.5 Amp	15 Min. Ic=1.5A	5.65	4.45
153-06	C	60			8.50	6.65
153-08	C	80			11.40	8.80
153-10	C	100			14.40	11.20
153-12	C	120			16.25	12.50
153-14	C	140			18.30	14.10
153-16	C	160			20.60	22.70
153-18	C	180			23.20	17.90
153-20	C	200			26.20	20.10
153-22	C	220			29.60	22.70
153-24	C	240			34.20	25.85
153-26	C	260			38.90	29.40
153-28	C	280			44.10	33.50
153-30	C	300			50.00	38.00
154-04	C	40	7.5 Amp	25 Min. Ic=1.5A	6.55	5.10
154-06	C	60			9.60	7.50
154-08	C	80			12.70	9.90
154-10	C	100			15.85	12.35
154-12	C	120			18.70	14.40
154-14	C	140			21.00	16.20
154-16	C	160			23.70	18.30
154-18	C	180			26.70	20.35
154-20	C	200			28.90	22.10
154-22	C	220			32.70	24.90
154-24	C	240			37.20	28.40
154-26	C	260			42.35	32.30
154-28	C	280			48.20	36.80
154-30	C	300			54.60	41.70
2N3055	H	60	15 Amp	Pd @ 25 C 115 W	2.48	1.71
2N3232	H	60	7.5 Amp		1.49	1.03
2N3233	H	100	7.5 Amp		1.82	1.25
2N3235	H	55	15 Amp		2.48	1.71
2N3442	H	140	10 Amp		4.54	3.14
2N3236	H	90	15 Amp	Pd @ 25 C 150 W	4.13	2.85
2N3237	H	75	20 Amp		4.37	3.02
2N3238	H	80	15 Amp		3.96	2.74
2N3239	H	80	15 Amp		4.21	2.91
2N3771	H	40	30 Amp		4.13	3.00
2N3772	H	60	30 Amp		4.13	3.00
2N3773	H	140	30 Amp		7.43	5.40
163-04	N	40	20 Amp	15 Min. Vce=4V Ic=5A	14.60	11.35
163-06	N	60			18.60	13.40
163-08	N	80			20.60	14.85
163-10	N	100			22.60	16.30
163-12	N	120			25.60	18.45
163-14	N	140			28.60	20.60
163-16	N	160			31.60	22.75
163-18	N	180			34.60	24.90
163-20	N	200			37.60	27.10
163-22	N	220			40.85	29.55
163-24	N	240			44.40	32.20
163-26	N	260			48.25	35.10
163-28	N	280			52.45	38.25
163-30	N	300			57.00	41.70
164-04	N	40	20 Amp	25 Min. Vce=4V Ic=5A	19.50	14.15
164-06	N	60			21.60	15.60
164-08	N	80			23.60	17.00

Continued Next Column

SILICON POWER TRANSISTORS—OEM LINE CONT'D

Type	Fig.	Vce	Ic Max.	DC I Gain	1-99	100-999
164-10	N	100	20 Amp	25 Min. Vce=4V Ic=5A	25.60	18.45
164-12	N	120			28.60	20.60
164-14	N	140			31.60	22.75
164-16	N	160			34.60	24.90
164-18	N	180			37.60	27.10
164-20	N	200			40.60	29.30
164-22	N	220			43.85	31.65
164-24	N	240			47.35	34.20
164-26	N	260			51.15	36.95
164-28	N	280			55.25	39.90
164-30	N	300			59.70	43.10
2N1015	L	30	7.5 Amp	10 Min. Vce=4V Ic=2A	15.00	11.50
2N1015A	L	60			19.00	14.25
2N1015B	L	100			24.00	18.00
2N1015C	L	150			32.00	24.00
2N1015D	L	200			45.00	33.75
2N1015E	L	250			77.00	57.30
2N1015F	L	300			102.50	77.00
2N1016	L	30	7.5 Amp	10 Min. Vce=4V Ic=5A	16.00	12.00
2N1016A	L	60			20.00	15.00
2N1016B	L	100			28.00	19.50
2N1016C	L	150			32.00	24.00
2N1016D	L	200			50.00	37.50
2N1016E	L	250			89.00	68.50
2N2226	L	50	10 Amp	100 Min. Vce=6V	44.10	29.10
2N2227	L	100			61.10	41.10
2N2228	L	150			83.10	55.10
2N2[illegible]	L	200			112.10	75.10
2N22[illegible]0	L	50	10 Amp	Vce=6V 400 Min. Ic=10A	73.10	48.10
2N2231	L	100			99.10	66.10
2N2232	L	150			132.10	88.10
2N2233	L	200			183.10	122.10
2N2739	M	50	20 Amp	10 Min. Vce=4V Ic=10A	43.50	36.60
2N2740	M	100			53.80	45.10
2N2741	M	150			69.30	58.40
2N2772	M	200			104.50	87.30
2N2745	M	50	20 Amp	10 Min. Vce=4V Ic=15A	56.70	46.80
2N2746	M	100			73.80	61.20
2N2747	M	150			94.50	78.30
2N2748	M	200			120.60	100.80
2N2751	M	50	20 Amp	10 Min. Vce=4V Ic=20A	63.00	53.10
2N2752	M	100			81.70	68.40
2N2753	M	150			103.50	88.20
2N2754	M	200			132.50	111.60
2N2757	P	50	30 Amp	10 Min. Vce=4V Ic=10A	51.30	43.20
2N2758	P	100			66.60	55.80
2N2759	P	150			85.50	72.00
2N2760	P	200			109.90	91.80
2N2761	P	250			142.20	117.00
2N2763	P	50	[illegible]0 Amp	10 Min. Vce=4V Ic=15A	56.70	46.80
2N2764	P	100			73.80	61.20
2N2765	P	150			94.50	78.30
2N2766	P	200			120.60	100.80
2N2769	P	50	30 Amp	10 Min Vce=4V Ic=20A	63.00	53.10
2N2770	P	100			81.70	68.40
2N2771	P	150			103.50	88.20
2N2772	P	200			132.30	111.60
2N2775	P	50	30 Amp	10 Min. Vce=4V 25A	69.30	58.50
2N2776	P	100			89.10	75.30
2N2777	P	150			114.00	97.10
2N2778	P	200			145.60	122.85

25 AMPERE RMS TRANSISTOR CONTROLLED RECTIFIERS

Type	Vfb	1 Surge Pk. ½ Cyc. Surge	1-99	100-999
2N681	25	150 Amp	3.00	2.00
2N682	50		3.60	2.40
2N683	100		4.73	3.15
2N684	150		5.48	3.65
2N685	200		5.93	3.95
2N686	250		6.30	4.20
2N687	300		6.75	4.50
2N688	400		8.25	5.50

THYRISTOR SILICON CONTROLLED RECTIFIERS

Type	VBO	1 surge Pk. ½ Hz	1-24	25-99
250A	50	1600 Amp	24.80	19.20
250B	100		28.80	22.30
250C	150		33.40	25.80

Continued Next Page

THYRISTOR SILICON CONTROLLED RECTIFIERS (CON'T)

125 Amperes RMS

Available in flex leads, Fig. P (TO-94); or flag leads, not illus. Specify desired type.

Type	VBO	I surge Pk. ½ Hz	1-24	25-99
250D	200		38.00	29.40
250E	250		44.50	34.50
250F	300		50.50	39.20
250H	400		66.50	51.50
250K	500		80.50	62.50
250M	600		97.50	75.50
250P	700		120.00	94.00
250S	800	1600 Amp	145.00	112.00
250V	900		172.00	133.00
250Z	1000		210.00	155.00
250ZB	1100		248.00	190.00
250ZD	1200		286.00	215.00
250ZF	1300		320.00	245.00
250ZH	1400		370.00	275.00
250ZK	1500		410.00	305.00

THYRISTOR FAST SWITCHING

55 Amperes RMS

Available in flex leads, Fig. P; or flag leads, not illus. Specify desired type.

Type	VBO	I surge Pk. ½ Hz	1-24	25-99
2191A	50		23.50	18.50
2191B	100		27.00	21.50
2191C	150		32.00	24.50
2191D	200		36.00	28.00
2191E	250		40.00	32.00
2191F	300		48.00	38.00
2191H	400	1200 Amp	63.00	49.00
2191K	500		76.00	59.50
2191M	600		92.00	72.00
2191P	700		113.00	89.00
2191S	800		136.00	107.50
2191V	900		158.50	125.50
2191Z	1000		187.00	148.00

SILICON CONTROLLED RECTIFIERS

110 Amperes

2541A	50		47.50	36.00
2541B	100		52.00	40.00
2541D	200		66.00	52.00
2541F	300		86.00	68.00
2541H	400	1400 Amp	117.00	88.00
2541K	500		136.50	106.50
2541M	600		164.00	127.50
2541P	700		297.00	196.00
2541S	800		362.50	209.50

MEDIUM POWER SILICON RECTIFIER DIODES

5 Amperes

Type	Fig.	VBO	I surge Pk. ½ Hz	1-99	100-999
407A-AR	E	50		.64	.43
407B-BR	E	100		.67	.45
407C-CR	E	150		.74	.50
407D-DR	E	200	125 Amp	.85	.57
407F-FR	E	300		1.06	.71
407H-HR	E	400		1.15	.77
407K-KR	E	500		1.38	.93
407M-MR	E	600		1.71	1.15
10 Amperes					
408A-AR	E	50		.67	.45
408B-BR	E	100		.70	.47
408C-CR	E	150		.78	.52
408D-DR	E	200	175 Amp	.90	.60
408F-FR	E	300		1.11	.75
408H-HR	E	400		1.22	.82
408K-KR	E	500		1.45	.97
408M-MR	E	600		1.80	1.23
15 Amperes					
409A-AR	E	50		.71	.47
409B-BR	E	100		.74	.50
409C-CR	E	150		.82	.55
409D-DR	E	200	250 Amp	.95	.64
409F-FR	E	300		1.17	.78
409H-HR	E	400		1.28	.86
409K-KR	E	500		1.53	1.03
409M-MR	E	600		1.90	1.27
20 Amperes					
417A-AR	E	50		1.20	.80
417B-BR	E	100		1.56	1.05
417C-CR	E	150		1.89	1.26
417D-DR	E	200	350 Amp	2.12	1.42
417F-FR	E	300		3.31	2.22
417H-HR	E	400		3.86	2.59
417K-KR	E	500		4.60	3.08
417M-MR	E	600		5.52	3.70

Continued Next Column

MEDIUM POWER SILICON RECTIFIER DIODES

25 Amperes

Type	Fig.	VBO	I surge Pk. ½ Hz	1-99	100-999
418A-AR	E	50		1.46	.98
418B-BR	E	100		1.67	1.13
418C-CR	E	150		1.94	1.31
418D-DR	E	200	400 Amp	2.16	1.45
418F-FR	E	300		3.69	2.48
418H-HR	E	400		4.37	2.93
418K-KR	E	500		5.09	3.41
418M-MR	E	600		5.85	3.92
40 Amperes					
419A-AR	E	50		1.55	1.04
419B-BR	E	100		1.77	1.19
419C-CR	E	150		2.05	1.37
419D-DR	E	200	500 Amp	2.73	1.83
419F-FR	E	300		4.28	2.87
419H-HR	E	400		5.00	3.96
419K-KR	E	500		5.73	4.83
419M-MR	E	600		6.14	4.11
1.5 Amperes					
384C	E	150		.31	.26
384P	E	700	50 Amp	.74	.62
3 Amperes					
398C	E	150		.45	.35
398P	E	700	200 Amp	1.05	.82

THYRISTOR SILICON CONTROLLED RECTIFIERS

63 Amperes RMS

Available in flex leads, Fig. P (TO-94); or flag leads, not illus. Specify desired type.

Type	Volts	Amps I surge	Max. A. Irms	1-24	25-99
251A	50			18.60	14.60
251B	100			21.50	16.80
251C	150			25.10	19.60
251D	200			28.50	22.30
251E	250			32.00	25.00
251F	300			38.00	29.70
251H	400			50.15	39.25
251K	500	1200 Amp	63 Amp	60.25	47.15
251M	600			73.15	57.25
251P	700			89.70	70.20
251S	800			108.00	85.05
251V	900			126.00	99.50
251Z	1000			148.75	117.50
251ZB	1100			174.00	130.50
251ZD	1200			196.00	147.00
251ZF	1300			222.00	167.50
251ZH	1400			247.00	187.50
251ZK	1500			275.00	205.00

POW-R-DISC THYRISTOR SILICON CONTROLLED RECTIFIERS

Type	Fig.	Vfb	I surge Pk. ½ Hz	1-24	25-99
263A	Q	50		27.00	23.00
263B	Q	100		31.00	26.00
263C	Q	150		35.00	29.00
263D	Q	200		40.00	32.00
263E	Q	250		49.00	38.00
263F	Q	300		58.00	44.00
263H	Q	400	1600 Amp	74.00	58.00
263K	Q	500		91.00	67.00
263M	Q	600		105.00	81.00
263P	Q	700		131.00	102.00
263S	Q	800		157.00	121.00
263V	Q	900		188.00	145.00
263Z	Q	1000		222.00	172.00
263ZB	Q	1100		158.00	203.00
263ZD	Q	1200		291.00	237.00
263ZF	Q	1300		340.00	276.00
263ZH	Q	1400		390.00	316.00
263ZK	Q	1500		440.00	356.00

SILICON CONTROLLED RECTIFIERS—HIGH POWER

110 Amperes

Available in flex leads or flag type terminals. Specify desired type.

2N1792	....	50		24.80	19.20
2N1793	....	100		28.80	22.30
2N1794	....	150		33.40	25.80
2N1795	....	200		38.00	29.40
2N1796	....	250	1000 Amp	44.50	34.50
2N1797	....	300		50.50	39.20
2N1798	....	400		66.50	51.50
2N1799	....	500		80.50	62.50
2N1800	....	600		97.50	75.50
2N1801	....	700		120.00	94.00
2N1802	....	800		145.00	112.00

Continued Following Page

Westinghouse Semiconductors

SILICON CONTROLLED RECTIFIERS (CON'T)
HIGH POWER — 110 AMPERES

Type	Vfb	I surge Pk. ½ Hz	1-24	25-99
2N1803	900		172.00	133.00
2N1804	1000		210.00	155.00
2N1805	500		80.50	62.50
2N1806	600		97.50	75.50
2N1807	700		120.00	94.00
2N1909	25		19.50	15.10
2N1910	50	1000 Amp.	24.80	19.20
2N1911	100		28.80	22.30
2N1912	150		33.40	25.80
2N1913	200		38.00	29.40
2N1814	250		44.50	34.50
2N1815	300		50.50	39.20
2N1916	400		66.50	51.50

5 AMPERES POWER TRANSISTORS

Type	Vce Volts	1-99	100-999
1711-0402	40	22.20	14.80
1711-0405	40	27.00	18.00
1711-0602	60	24.00	15.95
1711-0605	60	30.00	20.00
1711-0802	80	28.50	19.00
1711-0805	80	33.50	23.00
1711-1002	100	32.00	22.00
1711-1005	100	37.00	26.50
1711-1202	120	35.50	25.00
1711-1205	120	41.00	30.00
1714-0402	40	3.25	2.50
1714-0405	40	5.00	3.50
1714-0602	60	5.00	3.75
1714-0605	60	6.50	4.50
1714-0802	80	6.00	4.75
1714-0805	80	8.00	5.75
1714-1002	100	8.00	6.00
1714-1005	100	9.50	7.25
1714-1202	120	10.00	8.00
1714-1205	120	11.50	9.00
1717-0402	40	23.50	15.50
1717-0405	40	30.00	20.00
1717-0602	60	28.00	19.00
1717-0605	60	34.00	22.50
1717-0802	80	34.00	22.50
1717-0805	80	37.50	25.00
1717-1002	100	37.50	25.00
1717-1005	100	41.50	27.50
1717-1202	120	41.50	27.50
1717-1205	120	45.00	31.00

10 AMPERES POWER TRANSISTOR

1723-0405	40	8.50	7.50
1723-0410	40	9.00	8.00
1723-0605	60	9.50	8.50
1723-0610	60	10.00	9.00
1723-0805	80	11.00	9.50
1723-0810	80	12.00	10.00
1723-1005	100	12.00	10.50
1723-1010	100	12.50	11.00

10 AMPERES POWER TRANSISTOR (CONT'D)

Type	Vce	1-24	25-99
1726-0405	40	33.00	22.80
1726-0410	40	39.50	27.50
1726-0605	60	39.50	27.50
1726-0610	60	46.00	32.00
1726-0805	80	46.00	32.00
1726-0810	80	53.00	36.50
1726-1005	100	53.00	36.50
1726-1010	100	61.00	42.00

25 AMPERES POWER TRANSISTOR

1768-0415	40	67.00	46.00
1768-0420	40	78.00	54.00
1768-0425	40	90.00	62.00
1768-0615	60	74.00	51.00
1768-0620	60	86.00	59.00
1768-0625	60	99.00	68.00
1768-0815	80	82.00	56.00
1768-0820	80	95.00	66.00
1768-0825	80	109.00	75.00
1768-1015	100	90.00	62.00
1768-1020	100	105.00	73.00
1768-1025	100	120.00	83.00

25 AMPERES POWER TRANSISTOR

Type	Vce	1-99	100-999
1763-0415	40	13.50	10.00
1763-0420	40	16.00	12.00
1763-0425	40	19.50	14.50
1763-0615	60	15.00	11.00
1763-0620	60	17.50	13.00
1763-0625	60	22.00	16.00
1763-0815	80	17.50	12.80
1763-0820	80	20.00	15.50
1763-0825	80	25.00	19.00
1763-1015	100	20.00	14.70
1763-1020	100	23.00	18.00
1763-1025	100	28.00	21.50

50 AMPERES POWER TRANSISTOR

1771-0440	40	150.00	103.00
1771-0450	40	165.00	114.00
1771-0460	40	175.00	122.00
1771-0640	60	165.00	113.00
1771-0650	60	180.00	125.00
1771-0660	60	195.00	135.00
1771-0840	80	180.00	124.00
1771-0850	80	200.00	140.00
1771-0860	80	215.00	150.00
1771-1040	100	200.00	135.00
1771-1050	100	220.00	150.00
1771-1060	100	230.00	160.00
1776-0440	40	108.00	75.00
1776-0450	40	119.00	82.00
1776-0460	40	130.00	90.00
1776-0640	60	119.00	82.00
1776-0650	60	130.00	90.00
1776-0660	60	144.00	99.00
1776-0840	80	130.00	90.00
1776-0850	80	144.00	99.00
1776-0860	80	157.00	108.00
1776-1040	100	144.00	99.00
1776-1050	100	157.00	108.00
1776-1060	100	175.00	120.00

MOLDED RECTIFIER ASSEMBLIES

All Cases are Single-Phase Full-Wave Bridge except Case 020, Single-Phase Half Wave Voltage Cartridge.

CASE 010 — 1.5 AMPERES

Type	PRV	1-24	25-99
MP010ABA	50	2.00	1.80
MP010ABB	100	2.25	2.05
MP010ABC	150	2.35	2.15
MP010ABD	200	2.50	2.25
MP010ABF	300	2.80	2.60
MP010ABH	400	3.00	2.70
MP010ABK	500	3.40	3.00
MP010ABM	600	3.80	3.35
MP010ABP	700	4.10	3.70
MP010ABS	800	4.60	4.20
MP010ABV	900	5.10	4.70
MP010ABZ	1000	5.60	5.20

CASE 011 — 2.0 AMPERES

MP011BBA	50	2.40	2.05
MP011BBB	100	2.85	2.40
MP011BBC	150	3.05	2.60
MP011BBD	200	3.25	2.85
MP011BBF	300	3.35	2.95
MP011BBH	400	3.50	3.15
MP011BBK	500	3.80	3.50
MP011BBM	600	4.30	4.00
MP011BBP	700	4.80	4.50
MP011BBS	800	5.30	5.00
MP011BBV	900	5.80	5.50
MP011BBZ	1000	6.30	6.00

CASE 012 — 4 AMPERES

Type	PRV	1-24	25-99
MP012FBA	50	2.55	2.15
MP012FBB	100	2.75	2.35
MP012FBC	150	3.05	2.65
MP012FBD	200	3.20	2.80
MP012FBF	300	3.60	3.20
MP012FBH	400	4.20	3.80
MP012FBK	500	4.70	4.30
MP012FBM	600	5.20	4.80
MP012FBP	700	5.70	5.30
MP012FBS	800	6.20	5.80
MP012FBV	900	6.70	6.30
MP012FBZ	1000	7.20	6.80

CASE 012 — 6 AMPERES

MP012HBA	50	3.15	2.75
MP012HBB	100	3.35	3.00
MP012HBC	150	3.85	3.50
MP012HBD	200	4.10	3.75
MP012HBF	300	4.60	4.25
MP012HBH	400	5.60	5.20
MP012HBK	500	6.10	5.70
MP012HBM	600	6.60	6.20

Contact NEWARK
For Latest Prices

CASE 013 — 12 AMPERES

Type	PRV	1-24	25-99
MP013LBA	50	3.95	3.55
MP013LBB	100	4.30	3.80
MP013LBC	150	4.70	4.00
MP013LBD	200	4.85	4.20
MP013LBF	300	5.50	4.80
MP013LBH	400	6.00	5.30
MP013LBK	500	6.55	5.85
MP013LBM	600	7.00	6.30

CASE 013 — 18 AMPERES

MP013PBA	50	8.25	7.25
MP013PBB	100	8.75	7.75
MP013PBC	150	9.25	8.25
MP013PBD	200	9.75	8.70
MP013PBF	300	10.75	9.60
MP013PBH	400	11.75	10.60
MP013PBK	500	12.75	11.55
MP013PBM	600	13.70	12.55

CASE 020 — 5 AMPERES

MP020UHK	5000	6.25	6.00
MP020UHM	6000	7.10	6.75
MP020UHP	7000	7.90	7.50
MP020UHS	8000	8.75	8.25
MP020UHV	9000	9.65	9.10
MP020UHZ	10000	10.50	9.95

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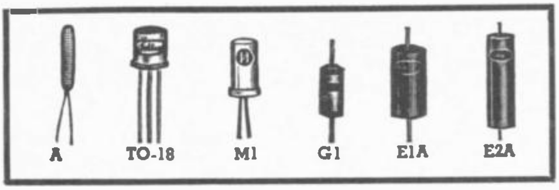


ZENER LOW VOLTAGE DIODES

Temp., —55 to +175°C. Ratings at 25°C. Er tol.: ±5%.

Type	Case	Er @ 20 mA (Volts)	Max. Ib (μa @ V)	Power (W)	1-99	100-999
HS-6	G1	.74	20@ .35	.5	1.30	.85
HS-7	E1A	1.40	20@ .7	1	3.50	2.10
HS-8	E1A	1.55	20@ .7	1	3.50	2.10
HS-14	E2A	3.10	20@1.4	1.75	6.00	3.70

200 MW ZENER "DOUBLE ANODE" DIODES—M-1 CASE

Rated at 25°C. Temp.: —65 to +200°C. Available in ±5% tol.

Type	Ez @ 5 ma Min.	Ez @ 5 ma Max.	Ib Max. μa	Ib Max. Eb	1-99	100 Mixed	100-999
1N471	3.0	3.9	50	1			
1N472	3.7	4.5	5	1			
1N473	4.3	5.4	5	1.5	4.75	4.30	3.80
1N474	5.2	6.4	5	1.5			
1N475	6.2	8.0	5	3.5			

150 MW GENERAL PURPOSE ZENER DIODES—M1 CASE

Rated @ 25°C. Ez 5V min., 7V max. Temp.: —55 to +100°C.

Type	Description	Max. Zx Ohms	1-99	100-999
RS-6	Single Anode	15	1.80	1.35

GENERAL PURPOSE 150 MW SILICON DIODES—M1 CASE

Max. power rating: 150 mw @ 25°C. Derate 1 mw/°C over 25°C. Oper. range: —65 to +150°C, except * —55 to +100°C. **Vf @ 0.015 ma. is 0.5V ±10%.

Type	Eb Max. V.	Ez Min. V.	If Min. mA	1-99	100 Mixed	100-999
1N138A	18	20	5	2.75	2.50	2.06
1N214	100	110	1.2	3.25	2.95	2.44
1N216	150	170	0.7	3.25	2.95	2.44
1N222	470	520	1.5	3.25	2.95	2.44
HB1*	6.8	7.5	17	......	......	.65
HB3*	36	40	2.7	......	......	.65

150 MW ZENER SINGLE ANODE DIODES—M1 CASE

Rated @ 25°C. Temp.: -65 to +150°C. Available in ±5% tol.

Type	Ez @ 2 mA Min.	Ez @ 2 mA Max.	Max. Rev. μA @ 25°C	Max. Rev. μA @ 100°C	Eb	1-99	100 Mixed	100-999
1N1315	11	14.5	0.5	5	10	2.88	2.65	2.30
1N1317	17	21	0.5	5	15	2.88	2.65	2.30

150 MW ZENER "DOUBLE ANODE" DIODES—M1 CASE

Rated @ 25°C. Temp.: —65 to +150°C. Available in ±5% tol.

1N225	7.5	10	0.5	5	6.8	4.70	4.30	3.75
1N226	9	12	0.5	5	8 2	4.70	4.30	3.75
1N227	11	14.5	0.5	5	10	4.70	4.30	3.75

200 MW ZENER LOW VOLTAGE SILICON DIODES—M1 CASE

Rated @ 25°C. Temp.: —65 to +150°C. AVA. ±5% and ±1%.

Type	Ez @ 5mA Min.	Ez @ 5mA Max.	Ib Max. μA	Ib Max. Eb	1-99	100 Mixed	100-999
1N465	2.0	3.2	75	1			
1N466	3.0	3.9	50	1			
1N467	3.7	4.5	5	1	3.25	2.90	2.45
1N468	4.3	5.4	5	1.5			
1N470	6.2	8.0	5	3.5			

250 MW ZENER GLASS DIODES—G1 CASE

Rated @25°C. Temp. range:—65° to +175°C. Tolerance: ±5%. Delete suffix "A" for 10% tolerance.

Type	Ez@5mA Min.	Ez@5mA Max.	Max. Z. @ 10 mA (Ohms)	1-99	100 Mixed	100-999
1N702A	2.0	3.2	60			
1N706A	5.2	6.4	20	1.75	1.55	1.50
1N707A	6 2	8.0	10			
1N762	5.2	6.4	18		10%	
1N763	6.2	8.0	7			
1N764	7.5	10	12	1.55	1.40	1.30
1N765	9	12	45			
1N766	11	14.5	55		5%	
1N767	17	18	70			
1N768	13.5	21	100	1.80	1.62	1.55
1N769	20	27	155			

250 MW GLASS ZENER DIODES—G1 CASE

Rated @ 25°C. These devices have ±5% tolerance. Delete suffix "A" from type number for±10%tolerance. *5%price same as above, 10% price is shown.

Type	Ez @ Iz Volts	Iz ma	1-99	100 Mixed	100-999
1N708A	5.6	25			
1N709A	6.2	25			
1N710A	6.8	25			
1N711A	7.5	25			
1N712A	8.2	25			
1N713A	9.1	12		5%	
1N714A	10	12			
1N715A	11	12	1.75	1.55	1.50
1N716A	12	12			
1N717A	13	12			
1N718A	15	12		10%	
1N719A	16	12			
1N720A	18	12	1.50	1.35	1.25
1N721A	20	4			
1N724A	27	4			
1N725A	30	4			
1N727A*	36	4	1.75	1.60	1.50
1N733A	62	2		5%	
1N735A	75	2	1.75	1.60	1.50
1N736A	82	2		10%	
1N737A	91	1	1.65	1.50	1.45
1N738A	100	1		5%	
1N740A	120	1	3.10	2.80	2.60
1N742A	150	1		10%	
			2.15	1.95	1.85

SILICON TUNNEL DIODES—TO-18

Hermetically sealed TO-18 package, with weldable gold plated Kovar leads. Used for many small signal applications.

Type	I @ 25°C (mA)	1-99	100-999
1N2928	2.50	12.50	9.40
1N2930	15.0	11.10	8.30
1N2931	25.0	11.10	8.30

400 MW GLASS ZENER DIODES—G1 CASE

Rated @25°C. Temp. range: —65° to +175°C. ±5% Ez tolerance. Also available in ±10% tolerance.

Type	Ez@Iz (V)	Iz mA	Max. Zx @ Iz	Ohms Zz	1-99	100-999 Mix	100-999
1N957B	6.8	18.5	4.5	700			
1N958B	7.5	16.5	5.5	700			
1N959B	8.2	15	6.5	700	2.75	2.55	2.20
1N961B	10	12.5	8.5	700			
1N963B	12	10.5	11.5	700			
1N965B	15	8.5	16.0	700			
1N968B	20	6.2	25	750			
1N969B	22	5.6	29	750			
1N971B	27	4.6	41	750	2.75	2.55	2.20
1N972B	30	4.2	49	1000			
1N976B	43	3.0	93	1500			
1N984B	91	1.4	400	3000			
1N985B	100	1.3	500	3000			
1N986B	110	1.1	750	4000	3.45	3.15	2.75
1N992B	200	0.65	2500	8000			

400 MW GLASS ZENER DIODES—G1 CASE

Rated @25°C. Tol.: ±5%. Temp. range: —65° to +175°C. Delete suffix "A" from type number for ±10% tolerance.

Type	Ez@Iz= 20mA V.	Ib @ Eb= —IV @25°C (uA)	Ib @ Eb= —IV @ 150°C (uA)	1-99	100-999 Mix	100-999
1N746A	3.3	10.0	30			
1N749A	4.3	2.0	30		5%	
1N750A	4.7	2.0	30			
1N751A	5.1	1.0	20	1.75	1.55	1.50
1N752A	5.6	1.0	20			
1N753A	6.2	0.1	20			
1N754A	6.8	0.1	20		10%	
1N756A	8.2	0.1	20			
1N757A	9.1	0.1	20	1.50	1.35	1.10
1N758A	10.0	0.1	20			
1N759A	12.0	0.1	20			

PNPN SILICON CONTROLLED RECTIFIERS—TO-5 CASE

Type	Vf (off)	Vr	Pk. Current	1-99	100-999
2N1595	50	50	100 ma	2.15	1.45
2N1596	100	100	100 ma	2.60	1.75

200mA SILICON CONTROLLED RECTIFIERS

Type	Reverse & Frwd. V.	1-99	100-999
2N877	30 volts	3.00	2.00
2N878	60 volts	3.30	2.20
2N886	60 volts	9.25	6.20

1.6 AMP SILICON CONTROLLED RECTIFIERS

Type	Reverse Wkg. Voltage	1-99	100-999
2N2323	50	2.50	1.65

Centralab-Hoffman Semiconductors

CENTRALAB

1.5 WATT
LITTLE GIANT
MICROMINIATURE SILICON ZENER REGULATORS

Electrical specifications @ 25° Air Ambient. All are ±5% Tol. Operating temp.: —65°C to +175°C. Power dissipation: —1.5 Watts @ 30°C Air Ambient, leads heat sinked 3/8" from the body of the diode. Power derating: —10.4mW/°C above 30°C. Available in voltages to 200 volts on special order.

JEDEC Type	Vz@Izt Volts	Izt mA	Ir@Vr µA	Vr Volts	1-99	100-999 Mix	100-999
1N4467	12	21.0	.2	9.6	2.15	1.95	1.70
1N4469	15	17.0	.05	12.0			
1N4475	27	9.5	.05	21.6			

400 mW LOW VOLTAGE ZENER REGULATORS-G1-CASE

Max power dissipation: 400mW @ 50°C ambient (derate 3.2 mW/C above 50°C ambient.) Operating and storage temp. —65°C to 175°C. Standard types ± 10% tol.; A, ±5% tol.

Type	Nominal Zener Voltage Vz@20mA (vlts)	1-99	100-999 Mix	100-999
1N4370	2.4	1.75	1.55	1.30
1N4370A	2.4	2.45	2.20	1.85
1N4371	2.7	1.75	1.55	1.30
1N4371A	2.7	2.45	2.20	1.85
1N4372	3.0	1.75	1.55	1.30
1N4372A	3.0	2.45	2.20	1.85

400MW ZENER REGULATORS—G1 CASE

Rated @ 25°C.

Type	Ez @ IZ (V)	IZ (mA)	Ohms @ IZ	1-99	100 mixed	100-999
1N961A	10	12.5	8.5	2.20	2.00	1.65
1N966A	16	7.8	17.0			
1N969A	22	5.6	29			

TEMPERATURE COMPENSATED ZENER REFERENCE DIODES

Electrical characteristics at 7.5 ma except ‡ at 10 ma. *Symmetrical types, meet specifications in both polarities.

Type	Case	Nom. Volt ±5%	Temp. Range °C	Max. Dyn. Z Ohms	1-99	100 Mixed	100-999
1N429	M1	6.2	—55—+100	20	5.40	4.85	4.10
1N821	G1	6.2	—55—+100	15	2.55	2.40	1.90
1N823	G1	6.2	—55—+100	15	3.35	3.00	2.50
1N935	G1	9.0	0—+75	20	2.15	1.95	1.60
1N936	G1	9.0	0—+75	20	2.55	2.30	1.90
1N936B	G1	9.0	—55—+150	20	3.85	3.45	2.90
1N938	G1	9.0	0—+75	20	6.40	5.75	4.80
1N938A	G1	9.0	—55—+100	20	7.00	6.30	5.20
1N938B	G1	9.0	—55—+150	20	9.20	8.30	6.90
1N430‡	M3	8.4	—55—+100	15	16.00	14.40	12.35
1N430A‡	M3	8.4	—55—+100	15	24.00	21.60	18.70

MICROMINIATURE SILICON TUNNEL DIODES

Designed for switching applications where space limitations are a major factor. Hermetically sealed DO-17 axial leaded package. Contaminant free construction. No epoxy paste or varnishes. Meets MIL-S-19500 and MIL-STD-750 requirement. Max. operating range: —65°C to +150°C.

Type	Max. Fwrd. current If (max.) @ 25°C (mA)	Max. Rev. current Ir (max.) @ 25°C (mA)	1-99	100-999
1N4395	1.0	2.0	8.15	6.10
1N4396	2.0	4.0	8.15	6.10

SILICON UNI-TUNNEL DIODES—TO-18 CASE

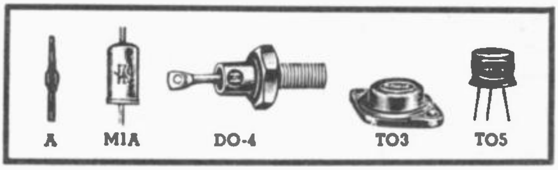
Electrical characteristics @ 25°C. Typ. temp. coeff. 0.1 mv/°C @ If min. and 1.3 mv/°C @ Ir max. Typ. Ls 4 mµH with 3/32" leads. Typ. Vr 0.8 @ 1 mg. Temp: —65 to +200°C.

Type	Min. If @ .25V (mA)	Max. Ratings Diss. (mw)	If (mA)	Ir (mA)	1-99	100-999
HU-5	0.5	.9	2.5	1	7.50	5.70
HU-100	10.0	18.0	50.0	20	7.50	5.70

NPN PHOTO DUO-DIODE—TYPE 1N2175

The 1N2175 is a sub-miniature, symmetrically diffused silicon photo readout device. The two junctions are symmetrical so that either diode terminal can be biased either positively or negatively. Due to this unique design, AC or DC bias voltage can be used. The small size and high light sensitivity of this unit makes it particularly useful in high speed readout of punched cards.

Type 1N2175. 1-99 ....11.50 **100-999** 8.00



ONE WATT ZENER REGULATORS—DO-13 CASE

Temp. range: —65 to +175°C. Suffix "A" indicates ±5% tol., no suffix, ±10%.

Type	Ez @ Iz	Iz mA	1-99	100 Mixed 10/Type	100-999
1N1766	6.2	100	2.60	2.35	2.05
1N1766A	6.2	100	2.85	2.55	2.25
1N1767	6.8	100	2.60	2.35	2.05
1N1767A	6.8	100	2.85	2.55	2.25
1N1768	7.5	100	2.60	2.35	2.05
1N1769	8.2	100	2.60	2.35	2.05
1N1770	9.1	50	2.60	2.35	2.05
1N1771A	10	50	2.85	2.55	2.25
1N1772	11	50	2.60	2.35	2.05
1N1773	12	50	2.60	2.35	2.05
1N1773A	12	50	2.85	2.55	2.25
1N1775	15	50	2.60	2.35	2.05
1N1775A	15	50	2.85	2.55	2.25
1N1776	16	50	2.60	2.35	2.05
1N1777	18	50	2.60	2.35	2.05
1N1777A	18	50	2.85	2.55	2.25
1N1778	20	15	2.60	2.35	2.05
1N1779	22	15	2.60	2.35	2.05
1N1780	24	15	2.60	2.35	2.05
1N1781	27	15	2.60	2.35	2.05

ONE WATT ZENER REGULATORS — DO-13 CASE

Type	Ez @ Iz	Iz mA	1-99	100 Mixed	100-999
1N3016B	6.8	37	3.25	3.00	2.60
1N3029B	24	10.5			
1N3031B	30	8.5			

10 WATT* ZENER REGULATORS—DO-4 CASE

*@ 55°C. Other specifications @ 25°C. Temp. range: —65° to +175°C. ±10% Ez tolerance Except "B" suffix which indicates 5% tol. Top terminal positive with respect to stud, reverse polarity and other Ez tolerance, available on special order.

Type	Ez @ Iz	Iz mA	1-99	100 Mixed	100-999
1N1807	8.2	1000	4.50	4.05	3.60
1N1360	24	150	4.50	4.15	3.60
1N1370	62	50			

Type	Ez @ Iz	Iz mA	1-99	100 Mixed	100-299
1N2976B	12	210	4.15	3.80	3.30
1N2997B	51	50			

1 WATT
LITTLE GIANT
MICROMINIATURE ZENER REGULATORS

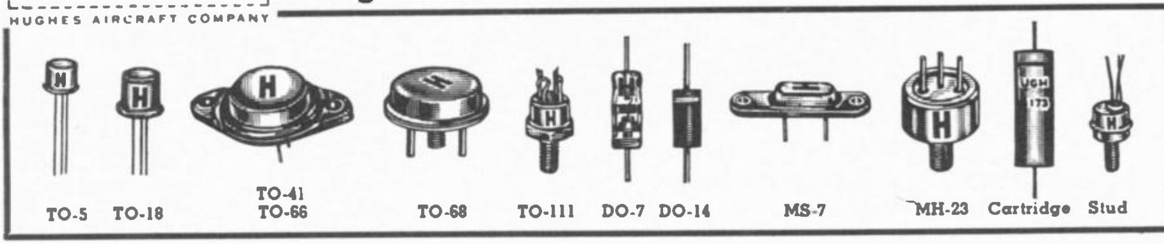
These devices have ±5% tolerance.

Type	Case	mA	Vz @ Izt	1-99	100-999
HW6.8B	G6	37.0	6.8	1.65	1.25
HW7.5B	G6	34.0	7.5	1.65	1.25
HW8.2B	G6	31.0	8.2	1.65	1.25
HW9.1B	G6	28.0	9.1	1.65	1.25
HW10B	G6	25.0	10.0	1.65	1.25
HW11B	G6	23.0	11.0	1.65	1.25
HW12B	G6	21.0	12.0	1.65	1.25
HW13B	G6	19.0	13.0	1.65	1.25
HW15B	G6	17.0	15.0	1.65	1.25
HW16B	G6	15.5	16.0	1.65	1.25
HW18B	G6	14.0	18.0	1.65	1.25
HW20B	G6	12.5	20.0	1.65	1.25
HW22B	G6	11.5	22.0	1.65	1.25
HW24B	G6	10.5	24.0	1.65	1.25
HW27B	G6	9.5	27.0	1.65	1.25
HW30B	G6	8.5	30.0	1.65	1.25
HW33B	G6	7.5	33.0	1.65	1.25
HW36B	G6	7.0	36.0	1.65	1.25
HW39B	G6	6.5	39.0	1.65	1.25
HW43B	G6	6.0	43.0	1.65	1.25
HW47B	G6	5.5	47.0	1.65	1.25
HW51B	G6	5.0	51.0	1.65	1.25
HW56B	G6	4.5	56.0	1.65	1.25
HW62B	G6	4.0	62.0	1.65	1.25
HW68B	G6	3.8	68.0	1.65	1.25
HW75B	G6	3.3	75.0	1.65	1.25
HW82B	G6	3.0	82.0	1.65	1.25
HW91B	G6	2.8	91.0	1.65	1.25

HUGHES

HUGHES AIRCRAFT COMPANY

Hughes Aircraft Semiconductors



SILICON CAPACITORS — DO-7

Type	Cap. µµf	Max. Volts	Cap. Range	Min. Q @ 50 MHz	1-99	100-999
1N950	35	130	6.88	7	4.00	3.00
1N952	70	60	20-170	7	3.70	2.90
1N953	100	25	46-240	7	3.00	2.25
1N954	35	25	14-88	7	2.00	1.50
1N955	50	25	22-120	7	2.00	1.50

SILICON PLANAR EPITAXIAL DIODES

Double heat sink construction. Dumet leads. (300Mw Diss.)
Fast Recovery—Typ 2-4 nano Sec.

Type	PIV	If (ma)	Irev (µa)	@V	1-99	100-999
HDS-50	75	250	.100	50	.90	.55
HDS-51	75	150	.100	50	.50	.30
HDS-52	75	75	.100	50	.40	.25
HDS-100	100	250	.050	50	1.75	1.00
HDS-110	100	150	.050	50	.75	.40
HDS-120	100	75	.050	50	.60	.35

SILICON ULTRA FAST COMPUTER DIODES—DO-7

Rated at 25°C. Max. Rev. Recovery time to 1 mA in 0.5 Nano Sec
Min. fwd. I @ IVDC (mAdc): 2, except (*) 5.

Type	Max. Rev. Cur. @ -5VDC µA @ 25°C	100° C	Min. BV @ 100 VDC (Adc)	1-99	100-999
*HD-5000	0.2	2	20	2.85	2.14
*HD-5001	1	10	20	2.55	1.91
HD-5004	1	20	15	.90	.68

SILICON PLANAR EPITAXIAL DIODES HDS

2 nansecond recovery. HDS is double stud—.160"x.075". Ratings @ 25°C.

Type	BV (V) @ 100 µA	Min FD. Current @ IV mA	Max. Reverse Current µA	@ V	1-99	100-999
1N625	30	4 @ 1.5	.10	20	.44	.30
1N626	50	4 @ 1.5	1.0	35	.48	.34
1N811	20	1	1.0	10	.70	.53
1N815	15	100 @ 1.5	.5	5	.91	.68
1N906	20	10	.1	20	.98	.74
1N914	100	10	.025	20	.45	.30
1N915	65	50	.025	20	1.00	.75
1N916	100	10	.025	50	.67	.44
1N4009	35 @ 5	30	.1	25	.44	.22
1N4150	50	10	.10	10	2.00	1.25
1N4151	50	50	.05	50	.80	.40
1N4152	30	.10 @ .55	.05	30	1.00	.55
1N4153	50	.10 @ .55	.05	50	1.00	.60
1N4154	25	30 @ 1	.10	25	.44	.22

Type	BV	Min. Fwd. I @ IV (mA)	Max. Rev. I mA	@ V	1-99	100-999
1N4444	50	.10 @ .55	.05	50	1.44	.72
1N4446	75	20 @ 1	.025	20	.50	.30
1N4448	75	100 @ 1	.025	20	.80	.45
1N4450	30	1.0 @ .64	.05	30	1.30	.70

DO-7—GERMANIUM ULTRA FAST SWITCHING, HIGH CONDUCTANCE DIODES COMPUTER TYPE

Type	Piv (v) @ 100 µA	Min. Fd. current IV(Ma)	R.E. %	Trr (Ns)	1-99	100-999
1N695	20	100	....	......	.77	.58
1N695A	25	100	....	6	.98	.74
1N995	15	10@.5	....	......	.60	.45
1N3287	6	100	....	......	.36	.27
1N3666	80	200	....	30	.70	.53
HD1811	30	100@.75	60	9	.77	.58
HD1842	6	100	60	6	.49	.37
HD1870	15	100@.7	75	3.5	.98	.74
HD1872	6	100	75	3.5	.63	.47

GERMANIUM DIODES—DO-7

Ratings for table below are 25°C. IFWD @ + IV.

Type	Min. PIV (V)	Min. Fwd. (mA) @ ±1 V	Max. Rev. I(R) (µA)	@ V(R) (V)	1-99	100-999
1N67A	100	4	50	50	.58	.44
1N90	75	5	500	50	.33	.22
1N95	75	10	800	50	.50	.33
1N96	75	20	800	50	.59	.44
1N96A	75	40	500	50	.59	.44
1N98A	100	40	100	50	.48	.38
1N99	100	10	50	50	.45	.34
1N100	100	20	50	50	.50	.39
1N100A	100	40	50	50	.50	.39
1N116	75	5	100	50	.53	.40
1N118	75	20	100	50	.60	.46
1N270	80	200	100	50	.32	.25
1N273	100	30	20	20	.68	.51
1N276	60	40	100	50	.31	.24
1N277	100	100	250	50	.34	.26
1N281	60	100	500	50	.31	.24
1N771B	100	400	500	100	1.28	.96
1N775	70	100	250	50	.58	.44
1N777	70	100	125	50	.66	.50
1N3125	55	5 @ .40	10	40	.80	.60

SILICON RECTIFIERS

1-AMP SILICON RECTIFIERS

Type	PIV	Max. DC Voltage Drop	8 ms NR Surge (Amps)	Irev uA	1-99	100-999
1N4001	50	1.6V	30	10	.36	.24
1N4002	100	1.6V	30	10	.36	.24
1N4003	200	1.6V	30	10	.43	.29
1N4004	400	1.6V	30	10	.52	.35
1N4005	600	1.6V	30	10	.68	.45
1N4006	800	1.6V	30	10	.95	.63
1N4007	1000	1.6V	30	10	1.55	1.05

.25 AMP SILICON RECTIFIERS, LOW POWER DO-14

Type	PIV	Max. DC V Drop	8 Ms Surge	Irev (mA)	1-99	100-999
1N4253	1500	3.5 V	6.3 A	.001	1.89	1.42
1N4254	1500	3.5 V	6.3 A	.001	1.80	1.35
1N4255	2000	3.5 V	6.3 A	.001	2.70	2.03
1N4256	2500	3.5 V	6.3 A	.001	3.60	2.70
1N4257	3000	3.5 V	6.3 A	.001	4.20	3.15

.50 AMP SILICON RECTIFIERS, MEDIUM POWER, DO-14

Type	PIV	Max. DC Voltage Drop	8 ms Surge	Irev (mA)	1-99	100-999
1N4250	800	1.2 V	30 A	.010	1.10	.83
1N4251	1000	1.7 V	5 A	.010	1.75	1.31
1N4252	1200	1.7 V	5 A	.010	1.50	1.13

1 AMP SILICON RECTIFIERS

Type	PIV	Max. DC Voltage Drop	8 ms NR Surge (Amps)	Irev uA	1-99	100-999
1N4245	200	1.2 V	25 A	.025	.38	.29
1N4246	400	1.2 V	25 A	.025	.46	.35
1N4247	600	1.2 V	25 A	.025	.56	.42
1N4248	800	1.2 V	25 A	.025	1.11	.83
1N4249	1000	1.2 V	25 A	.025	1.11	.83

2 AMP MINIATURE, AXIAL SILICON RECTIFIERS

Type	PIV	Max. DC Voltage Drop	8 ms NR Surge (Amps)	Irev uA	1-99	100-999
1N5170	30	1.2 V	200	25	.36	.27
1N5171	50	1.2 V	200	25	.46	.35
1N5172	100	1.2 V	200	25	.50	.38
1N4517	200	1.2 V	200	25	.57	.43
1N5173	300	1.2 V	200	25	.65	.49
1N5174	400	1.2 V	200	25	.81	.61
1N5175	500	1.2 V	200	25	.90	.68
1N5176	600	1.2 V	200	25	1.13	.85
1N5177	800	1.2 V	200	25	2.00	1.50
1N5178	1000	1.2 V	200	25	2.50	1.88

Hughes Aircraft Semiconductors

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SILICON RECTIFIERS (CON'T)

3 AMP MINIATURE, AXIAL SILICON RECTIFIERS

Type	PIV	Max. DC Voltage Drop	8 ms NR Surge (Amps)	Irev uA	1-99	100-999
1N4139	50	1.2 V	200	25	.55	.37
1N4140	100	1.2 V	200	25	.60	.40
1N4141	200	1.2 V	200	25	.67	.45
1N4142	400	1.2 V	200	25	.97	.65
1N4143	600	1.2 V	200	25	1.31	.88
1N4144	800	1.2 V	200	25	3.91	2.61
1N4145	1000	1.2 V	200	25	6.01	4.61
1N4146	1200	1.2 V	200	25	8.41	5.61

6-AMP DO-4 STUD MOUNTED SILICON RECTIFIERS

Type	PIV	Max Fd V Drop	Ir @ PIV (mA)	1-99	100-999
1N3987	700	1.5	1.0 @ 150°C	8.25	6.19
1N3988	800	1.5	0.8 @ 150°C	9.10	6.83
1N3989	900	1.5	0.7 @ 150°C	11.05	8.29
1N3990	1000	1.5	0.7 @ 150°C	12.00	9.00

12 AMP DO-4 STUD MOUNTED SILICON RECTIFIERS

Type	PIV	Max Fd V Drop	Ir @ PIV (mA)	1-99	100-999
1N3670	700	....	....	6.75	5.15
1N3671	800	....	....	7.90	5.70
1N3672	900	....	....	8.50	6.20
1N3673	1000	....	....	9.10	6.50

SILICON BRIDGE RECTIFIER ASSEMBLIES

Bridges, vacuum tube replacements, fuse clip types, special purpose, space, missile, commercial and other rectifier types also available.

10 W. SILICON VOLTAGE REGULATOR DIODES — DO-4

Type	Voltage (Vz or Ez) Min.	Nom.	Max.	D.C. Test Current (Iz) (mA)	1-99	100-999
1N1351	....	10	....	500	4.90	3.68
1N1352	....	11	....	500	4.90	3.68
1N1353	....	12	....	500	4.90	3.68
1N1354	....	13	....	500	4.90	3.68
1N1355	....	15	....	500	4.90	3.68

Note: 1N1356 thru 1N1375R also available. Lower power 1N702-726, 1N746-1N759A, 1N957-1N981B also available.

FLIP CHIPS

For switching, logic, computer, rectifier, VHF, UHF, audio, and general purpose micro-electronic usage.

SILICON PLANAR EPITAXIAL

Flip-Chips, .027" Square and Up

Type	Eq. EIA Type	Application	1-99	100-999
GAD2000	IN3602	Switching Diode	.80	.40
GAD2002	IN917	Switching Diode	.50	.25
GAD2014	IN914	Switching Diode	.80	.40
GAD2015	IN4149	Switching Diode	.90	.45
GAD3000	IN3602	Dual Switching Diode	1.20	.60
GAD5000	IN898	Core Driver	.95	.48
GAD5002	IN4824	Core Driver	.60	.30
GAD5003	IN483	GP Diode & Rect.	1.10	.55
GAD6000	IN459A	GP Diode & Rect.	1.25	.63
GAD6001	IN458A	GP Diode & Rect.	1.05	.53
GAT1200	2N2369	NPN Switch	1.10	.55
GAT1215	2N915	VHF Amplifier	1.20	.60
GAT1216	2N916	VHF Amplifier	1.30	.65
GAT1222	2N2222	GP Amplifier	3.10	1.55
GAT1226	2N2222	GP Amplifier	1.18	.59
GAT2605	2N2605	PNP Switch	3.00	1.50
GAT2484	2N2484	NPN High Gain Amp.	2.40	1.20
GAT1918	2N918	UHF Amplifier	2.30	1.15

FIELD EFFECT TRANSISTORS

MOS-"P" Channel, Enhancement Mode, Discretes and Arrays.

Type	Application and General Description	1-99	100-999
HRN1020	GP Ins. Gate Amplifier	5.25	3.55
HRN1030	GP Ins. Gate Amplifier	4.80	3.25
HRN8318D	GP Gate Diode Protected Switch	4.30	2.80
HRN8338D	GP Gate Diode Protected Switch	4.80	3.25
HRN8346D	AGC Gate Diode Protected Ampl.	9.25	7.15
HRN8348D	Gate Protected (Relay)	12.00	8.50
HRM1306	Dual Universal J-K Flip Flop	18.00	12.50
HRM2206	Eight Channel Switch	27.50	20.50
HRM2302	A1-D and D/A Conv. El.	68.50	40.00
HRM2304	Triple 3-Input, Dual 2-Nor Gate	25.00	18.00
HRM2306	Dual Universal J-K Flip Flop Synchronovs	18.00	12.50
HRM3203	Six Channel Switch Gate Diode Protected	28.00	21.00
HRM8013	4 Channel Multiplexer with Drive Logic	55.00	38.40
HRM8014D	GP Quad Gate Diode Protected	19.50	15.00
HRM8047	Binary Element and J-K Flip Flop	5.25	3.80
HRM8068	Dual DPDT Analog Switch with Drive Logic	55.00	38.40
HRM2047	8 Bit D/A Conv. with Resister Network	110.00	78.50

FIELD EFFECT TRANSISTORS (CON'T)

Type	Application and General Description	1-99	100-999
HRM2050	10 Bit D/A Convertor	250.00	180.00
HRM0030	1024 Bit Read Only Memory	75.00	52.00
HRM0053	2048 Bit Read Only Memory	130.00	99.00
HRM0054	4096 Bit Read Only Memory	205.00	165.00
HRM0036	16x16 Memory Plane Read and Write Cap.	65.00	42.00
HRM2026	Dual 25 Bit Shift Register dynamic	19.80	14.50
HRM2027	Dual 50 Bit Shift Register dynamic	32.50	24.20
HRM2042	Dual 64 Bit Shift Register dynamic	35.00	27.00
HRM2028	Dual 100 Bit Shift Register dynamic	68.50	51.25
HRM2049	Variable Length Shift Register 64 Bits dynamic	55.00	43.50
HRM2031	Dual 16 Bit Register Static	62.25	35.00
HRM2040	21 Bit Static Register	25.50	17.80
HRM2051	12 Bit Serial in, Par. out	38.00	24.50
HRM2046	BCD to 7 Segment Decoder	38.75	23.50
HRM2061	BCD to Decimal Decoder	42.00	26.50
HRM2032	Differential Digital Analyzer	87.50	55.00
HRM2041	Dual Adder-Subtractor	12.00	7.50
HRM F/2	Low Cost Freq. Divider	.85	.71

TRANSISTORS

PNP SILICON TRANSISTORS—GENERAL PURPOSE ALLOY LOW SATURATION RESISTANCE, HIGH BREAKDOWN VOLTAGE, —65C° to 160°C (TO-5)

Type	Diss. (mW)	BV CBO (V)	BV EBO (V)	hfe min	hfe max	1-99	100-999
2N327A	385	-50	-20	9	22	2.25	1.49
2N328A	385	-50	-20	18	44	3.00	2.00
2N329A	385	-50	-20	36	88	4.50	3.00
2N1034	275	50	20	9	22	2.70	1.80
2N1228	400	-15	-15	14	typ	2.95	2.25
2N1229	400	-15	-15	30	typ	3.10	2.33
2N1234	400	-110	-110	14	typ	18.50	14.00
2N1623	400	-50	-20	25	typ	1.94	1.21
2N2551	400	-150	-150	15	45	29.75	22.31

SILICON NPN PLANAR TRANSISTORS, SMALL SIGNAL

400 mW Type	Case	hFE min	hFE max	BV CBO	min fT MHz	Application	1-99	100-999
2N2523	TO-46	40	120	60	45	Amplifier	3.75	2.50
2N2524	TO-46	100	300	60	45	Amplifier	5.40	3.60
2N3340	TO-46	40	....	30	70	Switch	4.80	2.40
2N2518	TO-46	40	100	125	175	High-Volt	10.80	8.30
2N2519	TO-46	80	200	80	200	High-Volt	6.45	4.30
2N2515	TO-46	40	100	80	175	Med-Volt	8.12	6.13
2N2516	TO-46	80	200	80	200	Med-Volt	8.79	6.76
2N2520	TO-46	18	90	60	150	Med-Volt	10.30	7.93
2N2521	TO-46	36	90	60	175	Med-Volt	10.70	8.24
2N2522	TO-46	76	333	60	200	Med-Volt	4.35	2.90
2N2459	TO-46	40	80	100	135	Med-Volt	9.62	7.40
2N2460	TO-46	70	130	100	200	Med-Volt	10.50	8.08
2N2461	TO-46	120	180	100	225	Med-Volt	12.90	9.90
2N2462	TO-46	170	230	60	250	Med-Volt	13.20	10.10

PNP transistors are available as specific complementary types upon request for above NPN types.

PNP SILICON PLANAR TRANSISTORS—GENERAL PURPOSE

Temperature: -65 to +200°C. Case style TO-5, except (*) TO-18. †Mil-Types available.

Type	Diss mW	BVcbo @ -100 A	BVebo @ -1mA	BVceo @ -10mA	hFE	1-99	100-999
2N1131†	750	-50	-5	-35	20-45	5.00	3.75
2N1132†	750	-50	-5	-35	30-90	5.85	4.39
2N1991	750	-30	-5	-20	15-60	3.95	2.96

GERMANIUM PNP HIGH POWER TRANSISTORS

Type	Case	BVcbo	Ic	hFE	Vce SAT Volt	1-99	100-999
2N538	Stud	80	2A	20-50	0.6	5.40	3.60
2N538A	Stud	80	2A	20-50	0.6	5.70	3.80
2N539	Stud	80	2A	30-75	0.6	7.35	4.90
2N539A	Stud	80	2A	30-75	0.6	7.65	5.10
2N540	Stud	80	2A	45-113	0.6	7.80	5.20
2N2266	Stud	100	5A	25-75	0.75	10.35	6.90
2N2267	Stud	120	5A	25-75	0.75	11.85	7.90
2N4242	TO-3	80	5A	40-08	0.2	2.25	1.50
2N4244	TO-3	40	5A	40-80	0.2	1.47	.98
2N4247	TO-3	40	5A	60-120	0.2	1.62	1.08
2N574	Stud	60	10A	9-22	0.2	13.50	9.00
2N574A	Stud	80	10A	9-22	0.2	16.20	10.80
2N575	Stud	60	25A	10	0.5	16.90	11.25
2N575A	Stud	80	25A	10	0.5	20.25	13.50
2N1157	Stud	60	40A	10	0.8	21.60	14.40
2N1157A	Stud	80	40A	10	0.8	25.95	17.30
2N2730	TO-68	80	65A	15	0.45	23.50	15.65
2N2731	TO-68	60	65A	15	0.45	17.50	11.65
2N2732	TO-68	40	65A	15	0.45	11.25	7.50
2N3611	TO-3	40	3A	35-70	0.6	1.15	.78
2N3612	TO-3	60	3A	35-70	0.6	1.30	.88
2N3613	TO-3	40	3A	60-120	0.6	1.25	.85

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GERMANIUM PNP HIGH POWERED TRANSISTORS (CONT'D)

Type	Case	BVcbo	Ic	hFE	Vce SAT Volt	1-99	100-999
2N3614	TO-3	60	3A	60-120	0.6	1.40	.94
2N3615	TO-3	80	3A	30-60	0.6	1.65	1.10
2N3616	TO-3	100	3A	30-60	0.75	1.95	1.30
2N3617	TO-3	80	3A	45-90	0.75	1.88	1.25
2N3618	TO-3	100	3A	45-90	0.2	2.37	1.58
2N4243	MS-7	60	5A	40-80	0.2	1.88	1.25
2N4245	MS-7	80	5A	60-120	0.2	2.70	1.80
2N4246	MS-7	60	5A	60-120	0.2	2.16	1.44
2N2733	MT-23	80	65A	15	0.45	23.00	15.35
2N2734	MT-23	60	65A	15	0.45	17.00	11.35
2N2735	MT-23	40	65A	15	0.45	10.75	7.20

SILICON NPN DIFFERENTIAL AMPLIFIERS TO-78 CASE

6 Lead Type	PD mW	BVcbo Volt	Icbo Nano A	hFE @ Ic min	hFE @ Ic max.	μA	hFE1 hFE2	1-99	100-999
2N2639	600	45	10	50	300	10	10%	22.00	14.70
2N2640	600	45	10	50	300	10	20%	10.00	6.60
2N2642	600	45	10	100	300	10	10%	24.00	16.00
2N2643	600	45	10	100	200	10	20%	12.00	8.00
2N2722	600	45	10	50	250	1	10%	15.00	10.00

SILICON NPN DUAL TRANSISTORS — TO-78 CASE

								1-99	100-999
2N2641	600	45	10	50	300	10	....	4.50	3.00
2N2644	600	45	10	100	300	10	....	5.00	3.50
2N2913	600	45	10	60	240	10	....	3.10	2.10
2N2914	600	45	10	150	600	10	....	3.50	2.30

SILICON NPN DARLINGTON AMPLIFIERS TO-18

Type	PD mW	BVcbo	Icbo mA	hFE2 min	hFE2 max.	hFE2 Ic mA	Vce2	fT MHz	1-99	100-999
2N2723	500	80	10	2000	10000	10	5	150	14.40	9.60
2N2724	500	80	10	7000	50000	10	5	175	15.00	10.00
2N2725	500	80	10	2000	10000	.1	5	200	18.00	12.00

SILICON POWER TRANSISTORS — NPN

Type	Case	Ic	hFE	Vce SAT	BVcbo Volts	Vbe SAT	1-99	100-999
2N4862	TO-46	2A	50-150	.20V	140	1.2V	12.00	10.00
2N4863	TO-5	2A	50-150	.20V	140	1.2V	10.00	8.00
2N4864	TO-66	2A	50-150	0.2 V	140	1.2V	13.00	11.00
2N2657	TO-5	5A	40-120	0.5 V	80	1.5V	26.00	17.35
2N2658	TO-5	5A	40-120	0.5 V	100	1.5V	32.40	21.60
2N3469	TO-5	5A	100-300	0.5 V	35	1.5V	13.50	9.00

SILICON POWER TRANSISTORS-NPN (CONT'D)

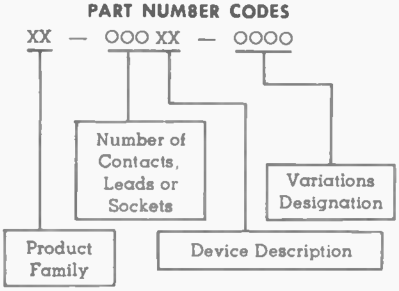
Type	Case	Ic	hFE	Vce SAT	BVcbo Volts	Vbe SAT	1-99	100-999
2N2697	Stud	5A	40-120	0.5 V	80	1.5V	34.00	22.75
2N2698	Stud	5A	40-120	0.5 V	100	1.5V	40.50	27.00
2N2632	TO-62	5A	40-120	0.25V	90	1.2V	46.00	30.85
2N2633	TO-62	5A	40-120	0.25V	120	1.2V	62.00	41.20
2N2634	TO-62	5A	40-120	0.25V	150	1.2V	79.00	52.65
2N2877	TO-111	5A	20-60	0.25V	80	1.2V	32.40	21.60
2N2878	TO-111	5A	40-120	0.25V	80	1.2V	40.50	27.00
2N2879	TO-111	5A	20-60	0.25V	100	1.2V	40.50	27.00
2N2880	TO-111	5A	40-120	0.25V	100	1.2V	48.60	32.40
2N3744	TO-111	5A	20-60	0.25V	60	1.2V	32.40	21.60
2N3745	TO-111	5A	20-60	0.25V	80	1.2V	34.30	22.85
2N3746	TO-111	5A	20-60	0.25V	100	1.2V	42.40	28.25
2N3747	TO-111	5A	40-120	0.25V	60	1.2V	37.80	25.20
2N3748	TO-111	5A	40-120	0.25V	80	1.2V	42.40	28.25
2N3749	TO-111	5A	40-120	0.25V	100	1.2V	52.50	33.65
2N3750	TO-111	5A	100-300	0.25V	60	1.2V	46.80	31.30
2N2811	TO-61	10A	20-60	0.5 V	80	1.2V	57.00	38.00
2N2812	TO-61	10A	40-120	0.5 V	80	1.2V	72.00	48.00
2N2813	TO-61	10A	20-60	0.5 V	120	1.2V	75.00	50.00
2N2814	TO-61	10A	40-120	0.5 V	120	1.2V	90.00	60.00
2N4150	TO-5	10A	40-120	0.6 V	100	1.5V	50.00	33.30
2N4070	TO-41	10A	40-120	0.6 V	120	1.5V	25.00	16.00
2N4071	TO-41	10A	40-120	0.6 V	120	1.5V	50.00	33.50
2N3055	TO-3	15A	20-70	1.1 V	100	1.8V	4.95	3.42
2N3771	TO-3	15A	15-60	2.0 V	50	2.7V	4.95	3.42
2N3772	TO-3	10A	15-60	1.4 V	100	2.2V	4.95	3.42
2N3773	TO-3	8A	15-60	1.4 V	160	2.2V	7.84	5.20
2N3597	TO-63	10A	40-120	0.5 V	60	1.5V	78.30	52.20
2N3599	TO-63	10A	40-120	0.5 V	80	1.5V	94.50	63.00
2N3598	TO-63	10A	40-120	0.5 V	100	1.5V	110.00	73.80
2N3149	Hex Stud	50A	10	1.5 V	80	2.5V	320.00	240.00
2N3150	Hex Stud	50A	10	1.5 V	100	2.5V	360.00	270.00
2N3151	Hex Stud	50A	10	1.5 V	150	2.5V	400.00	340.00
2N4865	Hex Stud	70A	10-40	2.5 V	100	2.5V	220.00	175.00
2N4866	Hex Stud	70A	10-40	2.5 V	140	2.5V	295.00	240.00

SILICON POWER TRANSISTORS—NPN—2 AMP

Type	Case	Ic	hFE	Vce SAT	BVcbo Volts	Vbe Sat	1-99	100-999
HST5001	TO-46	2A	50-150	0.35V	60	1.2V	2.25	1.50
HST5002	TO-46	2A	50-150	0.35V	80	1.2V	4.50	3.00
HST5003	TO-46	2A	50-150	0.35V	100	1.2V	5.00	3.75
HST5004	TO-46	2A	50-150	0.35V	140	1.2V	7.00	5.00
HST5005	TO-46	2A	50-150	0.35V	180	1.2V	9.00	7.00
HST5006	TO-46	2A	30-	0.35V	60	1.2V	1.25	1.00
HST5007	TO-46	2A	30-	0.35V	80	1.2V	3.00	2.50
HST5008	TO-46	2A	30-	0.35	100	1.2V	2.75	2.00
HST5009	TO-46	2A	30-	0.35	140	1.2V	5.00	3.50
HST5010	TO-46	2A	30-	0.35	180	1.2V	7.00	5.00
HST5011	TO-46	2A	120	0.35	60	1.2V	8.00	4.30
HST5012	TO-46	2A	120	0.35	80	1.2V	9.00	6.00
HST5013	TO-46	2A	120	0.35	100	1.2V	10.00	7.50
HST5014	TO-46	2A	120	0.35	140	1.2V	12.00	8.00
HST5015	TO-46	2A	120	0.35	180	1.2V	15.00	10.00

TEXAS INSTRUMENT

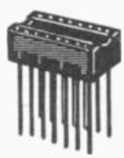
PART NUMBER CODES



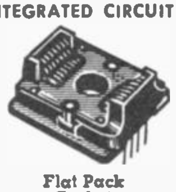
DEVICE DESCRIPTION CODE

IC = Integrated Circuit Packaging Systems
FP = Flat Pak Socket
TB = Test oBards for Flat Paks and Dual In-Nine Devices
WP = Wrap Type Termination Socket
ST = Solder Tail Termination Socket
DC = Discrete Component Platform
IP = Interconnection Plug

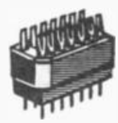
INTEGRATED CIRCUIT CONNECTOR SYSTEM



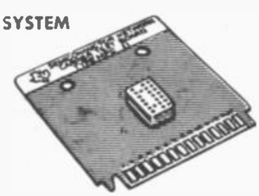
Wire Wrap Socket



Flat Pack Socket



Plug



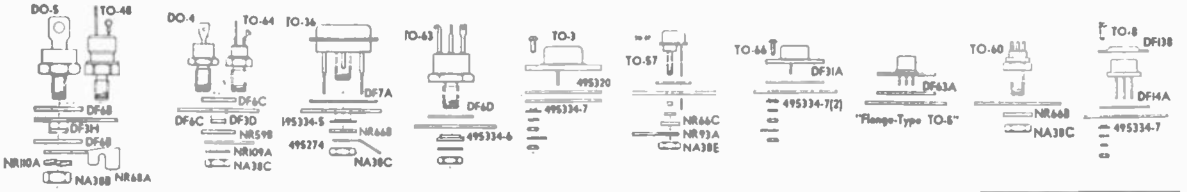
Test Board

Ser. No.	Type IC-	Replaces	Term.	Descrip.	1-99	100-999
58F350	014WP-7611	MPC-17A	14	Wire Wrap	.99	.78
58F351	016WP-7613	MPC-17B	16	Wire Wrap	1.19	.94
58F352	014WP-7510	MPC-14A	14	Wire Wrap	2.95	2.50
58F353	016WP-7502	MPC-5A	16	Wire Wrap	3.54	3.00
58F354	014ST-7519	....	14	Solder Tail	.65	.48
58F355	016ST-7520	....	16	Solder Tail	.78	.58
58F356	014ST-7506	MPC-9A	14	Solder Tail	1.20	.90
58F357	016ST-7507	MPC-9B	16	Solder Tail	1.40	1.05
58F358	014DC-7518	....	14	Discrete Comp. Platform	1.45	1.25
58F359	014IP-7512	MPC-16	14	Intercon. Plugs	4.15	3.30
58F360	016IP-7508	MPC-12	16	Intercon. Plugs	4.50	3.55
58F361	014FP-7500	MPC-1A	14	Flat Pak	3.70	2.85
58F362	014FP-7607	MPC-3	14	Flat Pak	4.70	3.85
58F363	014TB-7703	MPC-11	14	Test Boards	5.95	5.10
58F364	016TB-7702	MPC-8	16	Test Boards	6.80	5.90
58F365	014TB-7700	MPC-2	14	Test Boards	5.95	5.10

Semiconductors Mounting Hardware

RCA

MOUNTING HARDWARE FOR INDUSTRIAL SEMICONDUCTOR DEVICES



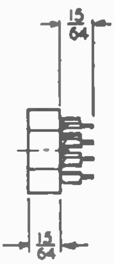
Stock No.	Pkg. Outline	Part No.	Description	No. Parts in Pkg.	Per Pkg.
58F311	DO-4 & TO-64	NA38C	Nut	25	.38
58F318		NR109A	Lock Washer	25	.27
58F303		DF6C	Insulator-Mica	50	.68
58F300		DF3D	Insulator-Teflon*	25	.81
58F313		NR59B	Connector	25	.59
58F310	DO-5 & TO-48	NA38B	Nut	25	.52
58F319		NR110A	Lock Washer	25	.30
58F316		NR68A	Connector	25	1.44
58F301		DF3H	Insulator-Teflon*	25	.89
58F302		DF6B	Insulator-Mica	50	.85
58F320	TO-1 & TO-18	SA2100	Heat Sink Clip	100	1.15
58F321	TO-3	495320	Insulator-Mica	100	2.40
58F325		495334-7(2)	Washer-Nylon	100	1.64
58F309	TO-5 Flange	DF63A	Insulator-Mica	100	1.70
58F306	TO-8	DF13B	Mounting-Clamp	25	1.09
58F307		DF14A	Insulator-Mica	100	1.96
58F325		495334-7(2)	Washer-Nylon	100	1.64

*DuPont Registered Trademark.

Stock No.	Pkg. Outline	Part No.	Description	No. Parts In Pkg.	Per Pkg.
58F311	TO-36	NA38C	Nut	25	.38
58F314		NR66B	Washer	25	.27
58F322		495274	Connector	25	.54
58F323		495334-5	Bushing-Delrin*	25	1.72
58F305		DF7A	Insulator-Mica	25	.92
58F317	TO-57	NR93A	Connector	50	.94
58F315		NR66C	Washer	50	.44
58F312		NA38E	Nut	50	.68
58F311	TO-60 (7/16 Dbl. Ended Stud)	NA38C	Nut	25	.38
58F314		NR66B	Washer	25	.27
58F304	TO-63	DF6D	Insulator-Mica	100	1.62
58F324		495334-6	Insulator-Teflon*	100	11.14
58F308	TO-66 (TO-8 Diamond TO-8 with Ears Small TO-3)	DF31A	Insulator-Mica	100	1.77
58F325		495334-7	Washer-Nylon	100	1.64

ALCON

INTEGRATED CIRCUIT SOCKET



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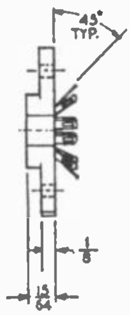

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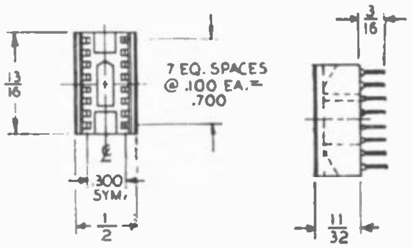
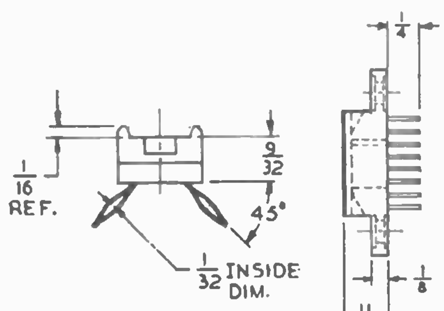


51-16002

Top View

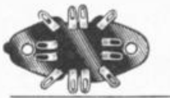
Side View



51-16001

Top View

Side View



LOW COST TO-5 SOCKET

Molded phenolic base with up to 16 leads (.125" spacing) for TO-5 can integrated circuits. Brass Cad. plated terminals. W mntg. ears: 1 3/8x5/8x15/64; w/o, 5/8x5/8x15/64.

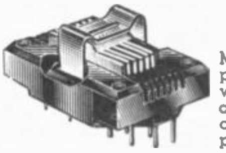
Stk. No.	Type	Terminals	1-49	50-99	100-249	250-499	500-Up
40F4046	51-13000	Solder	.36	.30	.25	.21	.18
40F4047	51-16000	Printed Cir.					

IN LINE SOCKET

Accepts any standard 14 or 16 lead dual-in-line integrated circuit. Molded phenolic base; phos. bronze cadmium plated terminals. 100" spacing. Size: solder term. with mntg. ears—1 7/16x13/16x9/32"; Printed cir. w/o mtng. ears — 13/16x1/2x9/32".

Stk. No.	Type	Terminals	1-49	50-99	100-249	250-499	500-Up
40F4048	51-16001	Solder	.40	.33	.27	.21	.20
40F4049	51-16002	Printed Cir.					

CAMBION



FLAT PACK HOLDERS

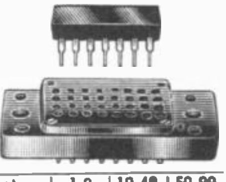
Accepts any std. 14-lead flat pack.

Molded diallyl base; raised platforms prevent moisture trapping. Available with .025" gold plated pins for soldering, or plug-in, or .025 square wire wrapped contacts. Size: 1.200" x .776" x .625" (less pins).

Stk. No.	Type No.	Contact Type	1-9	10-49	50-99
40F3996	3773-1	.025" dia. pin plug	2.40	2.25	1.95
40F3997	3774-1	.025" sq. wire wrap	3.15	2.80	2.50

IN-LINE SOCKETS

Molded diallyl — .100" contact spacing. Patented gold plated jacks with ribbon insert for use with .200" or .300" standard 14/16 flat pin modules. Size: 1.500" by .600"; molded height .275".

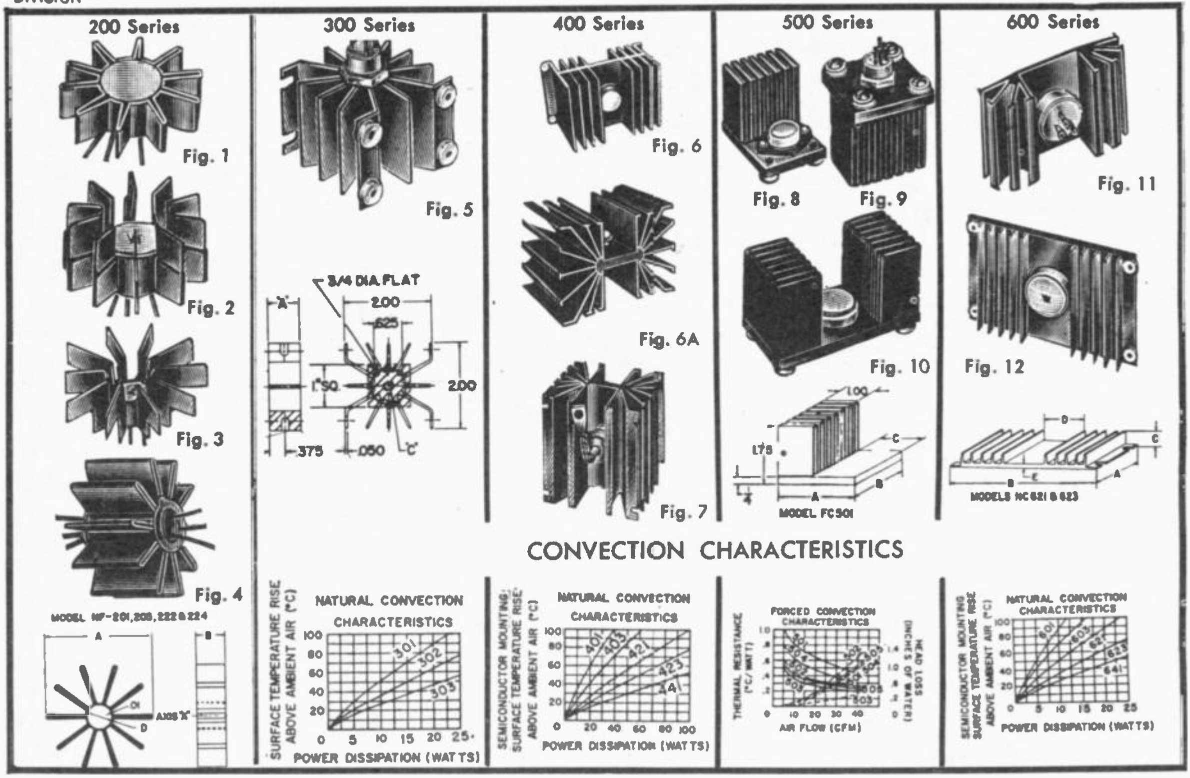


Stk. No.	Type No.	Socket Contact	1-9	10-49	50-99
40F3998	3793-2-0316	Solder Terminals	3.30	3.00	2.60
40F3999	3795-2-0316	Sol. Pot Terminals	4.60	4.20	3.70
40F4007	3797-2-0316	Wire Wrap Terms.	3.60	3.30	2.90
40F4008	3799-2-0316	.025 Pin Plug	3.30	3.00	2.60

To Serve You Better — Eleven Stocking Warehouses from Coast-to-Coast.
Use the Services of the NEWARK Facility Nearest You — See Front Cover.

Wakefield Semiconductor Cooling Units

DELTA DIVISION



200 SERIES FEATHERWEIGHT COOLERS

Flexfin design. Spring action provides contact of large area to assure repeatable thermal performance. Beryllium copper.

Stk. No.	Type	Fig.	Dia.	L	Fits Case Dia.	1-49	50-499	500-999	1000-4999
58F527	NF201	1	.64	.19	.161/.195	.27	.21	.16	.11
58F388	NF202	1	.49	20	.161/.195	.25	.20	.15	.10
58F528	NF203	2	.64	.38	.161/.195	.29	.22	.17	.12
58F387	NF204	1	.55	20	.275/.335	.25	.20	.15	.10
58F529	NF205	1	.72	.19	.275/.335	.27	.21	.16	.11
58F530	NF207	2	.72	.38	.275/.335	.29	.22	.17	.12
58F531	NF209	3	1.26	.44	.275/.335	.34	.29	.23	.18
58F441	NF211	1	.82	.19	.444/.524	.27	.21	.15	.10
58F442	NF213	2	.82	.38	.444/.524	.29	.22	.17	.12
58F443	NF215	3	1.38	.44	.444/.524	.34	.29	.23	.18
58F499	NF222	4	.64	.38	.161/.195	.38	.30	.24	.19
58F498	NF224	4	.72	.44	.275/.335	.38	.30	.24	.19

58F532. 160 tool for Models 201, 3, 4, 5, 7, 9 .... 1.50
58F389. 161 Installation tool for Models 211, 213, 215 .... 1.50

300 SERIES RADIAL RECTIFIER COOLERS

Radial fin coolers for rectifier or stud mounting transistor applications. Adaptable to stack arrangements. Uses standard teflon insulating washers. Accommodates press-fitted and stud-mounted rectifiers and transistors up to 11/16" hex case. Semiconductor mounting surface and one mounting foot unanodized. Type no. suffix indicates mtg. accommodations: see following page for key.

Stk. No.	Type	Fig.	H	W	D	1-49	50-99	100-249	250-499	500-999
58F497	NC301L	5	.75	2.00	2.00	1.55	1.30	1.05	.90	.80
58F496	NC301M	5	.75	2.00	2.00	1.55	1.30	1.05	.90	.80
58F495	NC301N	5	.75	2.00	2.00	1.55	1.30	1.05	.90	.80
58F494	NC301R	5	.75	2.00	2.00	1.55	1.30	1.05	.90	.80
58F444	NC301RR	5	.75	2.00	2.00	1.55	1.30	1.05	.90	.80
58F533	NC301K	5	.75	2.00	2.00	1.25	1.05	.85	.70	.63
58F493	NC302M	5	1.50	2.00	2.00	1.65	1.40	1.15	1.04	1.00
58F492	NC302N	5	1.50	2.00	2.00	1.65	1.40	1.15	1.04	1.00
58F491	NC302R	5	1.50	2.00	2.00	1.65	1.40	1.15	1.04	1.00
58F534	NC302K	5	1.50	2.00	2.00	1.35	1.15	.95	.80	.77
58F489	NC302NN	5	1.50	2.00	2.00	1.95	1.65	1.35	1.20	1.10
58F488	NC302RR	5	1.50	2.00	2.00	1.95	1.65	1.35	1.20	1.10
58F487	NC303N	5	3.00	2.00	2.00	1.90	1.60	1.33	1.26	1.22
58F486	NC303R	5	3.00	2.00	2.00	1.90	1.60	1.33	1.26	1.22
58F535	NC303K	5	3.00	2.00	2.00	1.60	1.35	1.10	.95	.85
58F485	NC303NN	5	3.00	2.00	2.00	2.20	1.85	1.50	1.39	1.33
58F484	NC303RR	5	3.00	2.00	2.00	2.20	1.85	1.50	1.39	1.33

400 SERIES NATURAL CONVECTION COOLERS

Optimum fin design provides many semiconductor applications. Model NC441 with cooling area of 400 sq. in. provides thermal resistance of .54° c/w @ 100 watts. Type NC-433 has 70°C. rise at 100W power dissipation. Type no. suffix refers to mounting specs: see chart on following page.

Stk. No.	Type	Fig.	H	W	D	1-49	50-99	100-249	250-499	500-999
58F500	NC401A	6	1.50	4.81	1.25	1.55	1.27	1.07	.92	.81
58F501	NC401B	6	1.50	4.81	1.25	1.55	1.27	1.07	.92	.81
58F449	NC401E	6	1.50	4.81	1.25	1.78	1.45	1.22	1.06	.92
58F502	NC401K	6	1.50	4.81	1.25	1.29	1.06	.88	.76	.67
58F503	NC403A	6	3.00	4.81	1.25	1.78	1.45	1.23	1.07	.95
58F504	NC403B	6	3.00	4.81	1.25	1.78	1.45	1.23	1.07	.95
58F451	NC403C	6	3.00	4.81	1.25	1.78	1.45	1.23	1.07	.95
58F505	NC403K	6	3.00	4.81	1.25	1.52	1.24	1.05	.90	.83
58F506	NC421A	6	3.00	4.81	2.63	2.51	2.05	1.73	1.49	1.37
58F507	NC421B	6	3.00	4.81	2.63	2.51	2.05	1.73	1.49	1.37
58F453	NC421C	6	3.00	4.81	2.63	2.51	2.05	1.73	1.49	1.37
58F508	NC421K	6	3.00	4.81	2.63	2.24	1.84	1.54	1.32	1.25
58F509	NC423A	6	5.50	4.81	2.63	3.66	2.98	2.52	2.26	2.17
58F510	NC423B	6	5.50	4.81	2.63	3.66	2.98	2.52	2.26	2.17
58F511	NC423K	6	5.50	4.81	2.63	3.40	2.77	2.33	2.13	2.05
58F331	NC433H	6A	5.50	4.37	3.00	5.40	4.30	3.60	3.20	3.00
58F332	NC433J	6A	5.50	4.37	3.00	5.40	4.30	3.60	3.20	3.00
58F333	NC433W	6A	5.50	4.37	3.00	5.40	4.30	3.60	3.20	3.00
58F334	NC433K	6A	5.50	4.37	3.00	4.90	3.90	3.26	2.90	2.60
58F461	NC441J	7	5.50	4.75	4.50	6.41	5.24	4.37	3.86	3.70
58F462	NC441W	7	5.50	4.75	4.50	6.41	5.24	4.37	3.86	3.70
58F521	NC441K	7	5.50	4.75	4.50	5.92	4.84	4.03	3.56	3.42

500 SERIES COPPERCOOL

For maximum performance under medium air pressure conditions. Semiconductors of any mounting style may be used. Type number suffix refers to mounting specifications: see chart on following page.

Stk. No.	Type	Fig.	H	W	D	1.49	50-99	100-249
58F512	FC501A	8	1.75	1.75	2.25	5.61	5.20	4.96
58F513	FC501B	8	1.75	1.75	2.25	5.45	4.86	4.64
58F514	FC501K	8	1.75	1.75	2.25	5.06	4.51	4.24
58F515	FC502A	10	1.75	3.50	1.75	8.03	7.47	7.13
58F516	FC502B	10	1.75	3.50	1.75	7.87	7.14	6.82
58F517	FC502K	10	1.75	3.50	1.75	7.48	6.71	6.33
58F463	FC503A	10	1.75	3.50	3.50	13.42	12.05	11.28
58F464	FC503B	10	1.75	3.50	3.50	13.26	11.88	11.11
58F522	FC503K	10	1.75	3.50	3.50	12.87	11.55	10.84
58F523	FC504K	9	1.75	1.75	1.75	4.76	4.53	4.38
58F524	FC505K	9	1.75	1.75	2.00	6.71	6.00	5.78

Wakefield Semiconductor Cooling Units

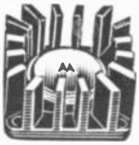
DELTA DIVISION

600 SERIES CIRCUIT BOARD COOLERS

Externally mounted applications. Models 601 and 603 especially designed to accommodate the TO-8. Models 621, 623 and 641 accept all standard transistor case styles and case sizes up to 1¼". Shpg. wt., 16 oz.

Stk. No.	Type	Fig.	H	W	D	1-49	50-99	100-249	250-499
58F536	NC601K	11	1.25	2.24	.56	1.10	.90	.70	.55
58F466	NC603T	11	2.00	2.24	.56	1.50	1.20	.95	.80
58F537	NC603K	11	2.00	2.24	.56	1.20	.95	.75	.60
58F348	NC-611	7a	.75	1.00	1.00	.90	.83	.76	.68
58F482	NC621A	12	1.50	4.81	.46	1.65	1.35	1.10	.95
58F481	NC621B	12	1.50	4.81	.46	1.65	1.35	1.10	.95
58F538	NC621K	12	1.50	4.81	.46	1.35	1.10	.90	.75
58F480	NC623A	12	3.00	4.81	.46	1.80	1.50	1.20	1.05
58F479	NC623B	12	3.00	4.81	.46	1.80	1.50	1.20	1.05
58F539	NC623K	12	3.00	4.81	.46	1.50	1.25	1.00	.85
58F467	NC641A	11	3.00	4.12	1.00	1.95	1.60	1.30	1.10
58F468	NC641B	11	3.00	4.12	1.00	1.95	1.60	1.30	1.10
58F540	NC641K	11	3.00	4.12	1.00	1.65	1.35	1.10	.90

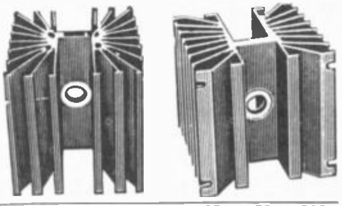
SERIES 680 CIRCUIT BOARD COOLERS



Provides optimum natural convection cooling per unit volume occupied above the circuit board. Mounting in any position is possible since it permits free air flow in any direction. All have 1.81" sq. base with 1.50" bwtn. mtg. holes. 1.3 to 1.9 oz.

Stk. No.	Type	Hght. (in.)	1-49	50-99	100-249	250-499
58F401 58F400 58F399	NC680-.5A NC680-.5B NC680-.5K	.50	.91	.85	.80	.76
58F398 58F397 58F396	NC680-.75A NC680-.75B NC680-.75K	.75	.92	.87	.84	.80
58F395 58F394 58F393	NC680-1.0A NC680-1.0B NC680-1.0K	1.00	1.06	1.00	.96	.92
58F392 58F391 58F390	NC680-1.25A NC680-1.25B NC680-1.25K	1.25	1.12	1.06	1.02	.97

GN and WN EXTRUSIONS



Hex Mounting: 1157 accepts 1⁵⁄₁₆" rectifiers, 1251 accepts 1¼" rectifiers, 1244 accepts 1⁵⁄₁₆" rectifiers, 1245 accepts 1¼" rectifiers, 1541 accepts 1¾" rectifiers. ¼-20 tapped mountings. 1.8 to 5.8 lbs.

Stk. No.	Type	H.	W.	D.	1-24	25-49	50-99	100-199
58F413	GN-1157-5-H	5.00	4.125	4.125	6.22	5.92	5.65	5.18
58F414	GN-1157-5-J	5.00	4.125	4.125	6.22	5.92	5.65	5.18
58F415	GN-1157-5-K	5.00	4.125	4.125	5.86	5.58	5.33	4.88
58F416	GN-1251-5.5-W	5.50	5.00	5.00	8.52	8.10	7.74	7.10
58F417	GN-1251-5.5-K	5.50	5.00	5.00	8.16	7.77	7.42	6.80
58F418	WN-1244-5-H	5.00	4.00	4.00	4.85	4.38	4.18	3.83
58F419	WN-1244-5-J	5.00	4.00	4.00	4.85	4.38	4.18	3.83
58F420	WN-1244-5-K	5.00	4.00	4.00	4.50	4.22	4.04	3.70
58F421	WN-1245-6-W	6.00	5.00	5.00	7.56	7.11	6.87	6.30
58F422	WN-1245-6-K	6.00	5.00	5.00	6.92	6.59	6.21	5.77
58F423	WN-1541-6-Z	6.00	6.25	6.25	10.36	9.86	9.42	8.63
58F424	WN-1541-6-Y	6.00	6.25	6.25	10.36	9.86	9.42	8.63
58F425	WN-1541-6-K	6.00	6.25	6.25	9.74	9.28	8.85	8.12
58F426	WN-1541-9-Z	9.00	6.25	6.25	14.82	14.11	13.47	12.35
58F427	WN-1541-9-Y	9.00	6.25	6.25	14.82	14.11	13.47	12.35
58F428	WN-1541-9-K	9.00	6.25	6.25	14.08	13.41	12.80	11.73

SERIES MN KING SIZE HEAT SINKS AND INSERTS

Designed to mount and cool multicell 240/650 amp rectifiers as large as 3½"x3½" square plate types. MN-2159 inserts for added heat dissipation. 3.1 to 11 lbs.

Stk. No.	Type	Dimensions (in.)	1-9	10-24	25-49	50-99
58F409	MN2131-3.5K	3.5x9.25x6.75	8.16	7.42	6.80	6.53
58F408	MN2131-6K	6.0x9.25x6.75	13.78	12.53	11.50	11.02
58F407	MN2131-12K	12.0x9.25x6.75	24.86	22.60	20.72	19.90
58F406	MN2159-3.5K	3.5x3.37x3.43	2.00	1.82	1.67	1.60
58F405	MN2159-6K	6.0x3.37x3.43	3.22	2.93	2.68	2.58
58F404	MN2159-12K	12.0x3.37x3.43	6.16	5.60	5.13	4.93
58F403	109	1.5x7.5x1.5	Fiberglass Mtg. bkt.			.95 ea

MOUNTING DIMENSIONS AND SPECIFICATIONS

● Type Number Suffix Denotes Mounting ● Double Suffix Denotes 2 Mountings

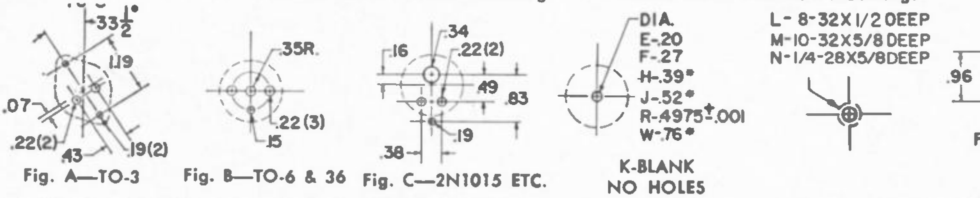
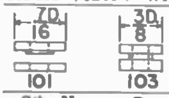


Fig. A—TO-3 Fig. B—TO-6 & 36 Fig. C—2N1015 ETC. K-BLANK NO HOLES Fig. T—TO-8

EXTRUSION 3-FT. LENGTHS ± ¼"

Stk. No.	Type	For Cooler Type	W.	Dpth.	1-4	5-9	10-24
58F429	300	NC-301-303	2.00	2.00	6.60	5.50	4.95
58F430	400	NC-401-403	4.81	1.25	8.50	7.15	6.30
58F431	420	NC-421-423	4.81	2.63	14.00	12.10	10.45
58F432	440	NC-441	4.75	4.50	22.55	18.25	17.05
58F433	600	NC-601-603	2.24	.56	3.55	3.00	2.75
58F434	620	NC-621-623	4.81	.46	6.30	5.50	4.65
58F435	640	NC-641	4.12	1.00	8.25	7.15	6.30
58F436	1157	GN-1157-5	4.12	4.12	28.05	24.20	21.15
58F437	1251	GN-1251-5.5	5.00	5.00	35.45	30.50	26.95
58F438	1244	WN-1244-5	4.00	4.00	28.25	24.20	21.15



TEFLON INSULATORS

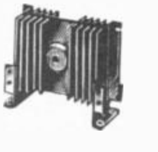
Insular heat sinks from chasis, eliminating mica insulators between sink and semiconductor. ⅛ to 3½ oz.

Stk. No.	Type	For Type	Reqd.	NET
58F519	101	501	3	.09 pr.
		502, 503, 504, 505	4	
58F518	103	301	2	.05 ea.
		401	3	
		302, 303, 403, 421, 431	4	
		423, 433, 621, 623, 641	4	
58F469	105	441, 1244, 1245, 1541	4	.20 ea.
58F412	107	Same as 103	2	.20 ea.

NYLON INSULATOR FASTENER

Stk. No.	Type	For Type	1-499	500-999	1000-2499	2500-4999
58F158	100	140, 141, 142 2 Rgd.	.04	.028	.024	.02
58F159	102AN	Same as 103	.07	.058	.05	.041
58F160	104	Same as 103	.05	.041	.035	.029
58F161	106	Same as 105	.07	.058	.05	.042

VERTICAL MTG. BRACKETS



Meet vibration of Mil 202B. NC401 & 403 use #111, NC421 & 423 use #113. Two brackets required per sink. To insulate use teflon insulator #103. Shpg. wt., 10 oz.

Stk. No.	Type	1-99	100-499
58F525	111	.18	.14
58F526	113	.20	.17

TYPE 120 THERMAL COMPOUND

For use between semiconductor and heat sink.

Stk. No.	Type	Quan.	1-199	200-Up
58F470	122	2 oz.	1.95	1.40
			1-49	50-Up
58F471	128	8 oz.	5.10	3.55
			1-4	5-9
58F402	1280	5 lb.	30.00	22.50

THERMALLY CONDUCTIVE ADHESIVE

Type 152. High conductivity adhesive used: As general adhesive, for bonding semi-conductors to chassis heat sinks, fabricating heat sinks or thermal linds, for permanent bonding of all materials with highly thermal conductive interface. Porous and nonporous surfaces. Excellent dielectric strength. Bond shear strength, 1" overlap psi, 30 immersion in water unaffected. Temp. range —70°F to +300°F.

Stk. No.	Type	Size	1-9	10-24	25-49	50-99
58F345	152-1	1 oz.	2.25	2.00	1.85	1.75
58F386	152-2	7½ oz.	5.00	4.75	4.50	4.25

DELTA DIVISION

Wakefield Semiconductor Cooling Units, Ovens

● NEW MODEL 292 HEAT-SINK FOR TO-92 TRANSISTOR

Type 292. Heat-Sink accomodates most TO-92 plastic transistors for heat dissipation. Finish: black immersion. Natural convection characteristics show that for power dissipation of .20 watts: collector lead temperature rise above ambient is 18°C. Made of type 6061-T6 Aluminum.

Stock No.	Type	Size	Packages of 100			
			1-4	5-9	10-24	25-49
58F162	292A	.60	1.80	1.70	1.54	1.35

TYPE 296 HEAT SINK FOR TO-5 TRANSISTORS


NC-296-1A


NC-296-2A


NC-296-3A


NC-296-4A

Model 296. Heat Sink snaps onto TO-5 transistors, uses minimum amount of PC board layout space. Finish: prepainted black. Material: 6061T6 aluminum, Use type 120 thermal joint compound.

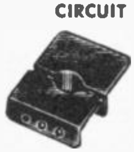
Stock No. Black	Type	Dim "A"	Packages of 100			
			1-4	5-9	10-24	25-49
58F163	296-1A	¼"	2.65	2.37	2.14	1.89
58F164	296-2A	½"	2.34	2.13	1.90	1.69
58F165	296-3A	¾"	2.95	2.69	2.40	2.15
58F166	296-4A	1"	3.50	3.10	2.80	2.50

SNAP-ON CIRCUIT BOARD HEAT SINKS

Series 140 supplements the Series 200 Featherweight Heat Sinks. Types 140, 141, and 142 fit popular press fit diodes and SCR's as well as JEDEC TO-8. Case dia. ranges from .480 to .505. Provides thermal resistance as low as 10° c/w. Material: highest thermally conductive aluminum. Finish: black anodize is standard. Wt.: 140—.14 oz.; 141—.20 oz.; 142—.42 oz.

Stock No.	Type	Size	1-499	500-999	1000-2499	2500-4999
58F376	140	1.035 x .520 x .930	.14	.12	.105	.095
58F377	141	1.035 x .520 x 1.415	.155	.135	.12	.11
58F378	142	1.035 x .520 x 3.00	.185	.175	.165	.159

CIRCUIT BOARD COOLER FOR TO-5 TRANSISTORS



Type 150. Ideal for use where space is limited. Requires only 0.375 in.² area. In applications permitting 1⅜" height above the circuit board, this lightweight, economical Cooler has good performance characteristics with TO-5 cases: case rise 34°C @ 1 w with natural finish. Wt.: .10 oz.

Stock No.	Type	Size	1-499	500-999	1000-2499	2500-4999
58F379	150	1.375 x 1.00 x .375	.061	.051	.041	.036

THERMAL CLAMP FOR TO-1 CASES

Type 255. For push/pull driver or low power output applications. Gives retention of cases to chassis or heat sink. 2 cases can be mounted. 3°C/w per TO-1 transistor or 1½° C/w for both. Mtg. ctr.; .687, tols. ±.001 or ±.005. Material: 1100 aluminum alloy. Finish: none. Wt.: .10 oz.

Stock No.	Type	Size	1-499	500-999	1000-2499	2500-4999
58F380	255	1.726 x .375 x .476	.063	.053	.043	.038

SERIES 258 THERMAL LINK

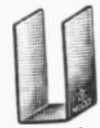
Thermal Link for fused glass diode. Copper solder points are isolated from, but bonded to the aluminum U-form. Dielectric coating extends down the legs to provide long creepage path. 100% tested at 1000V hypot. Incr. cur. rating: 3 to 5 times. Screw mounted. Wt.: .05 oz.

Stk. No.	Type	Size	1-24	25-49	50-99	100-499
58F335	258	.50 x .34 x .25"	1.00	.95	.90	.85

SERIES 630 HEAT SINKS FOR TYPES TO-3 AND TO-66 STYLE TRANSISTORS


NC-631

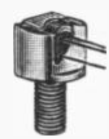

NC-632

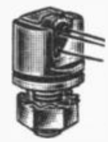

NC-633

Series NC-630. Provides maximum cooling per unit cost. Units are pierced for TO-66 and TO-3 style transistors. Hole pattern suf. —3 for TO-3 and —66 is TO-66. Material type 1100-H14 aluminum with natural finish.

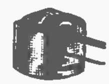
Stock No.	Type	Size	Each				
			1-99	100-499	500-999	1000-2499	2500-4999
58F167	NC-631-3B	1"	.07	.047	.042	.038	.034
58F168	NC-631-66B	1"	.07	.047	.042	.038	.034
58F169	NC-632-3B	2"	.10	.072	.065	.058	.051
58F170	NC-32-66B	2"	.10	.072	.065	.058	.051
58F171	NC-633-3B	3"	.14	.094	.084	.075	.066
58F172	NC-633-66B	3"	.14	.094	.084	.075	.066

THERMAL RETAINERS FOR TO-5 CASES


254S


254S1


254T


254P
254D

The TO-5 case style, including the Kovar header type is best heat sinked at the bottom face of the flange, and all Series TR-254 Heat Sink provide this preferred method. All five types intended as thermal links from transistor case to a cooler or chassis member acting as the heat sink. Type 254-SI has built-in electrical insulation. Material: Type 254-SI; 6061-T6 aluminum with gold irridite finish.

Stock No.	Types	Weight Oz.	1-99	100-499	500-999	1000-2499	2500-4999
58F381	254-S	.25	.18	.15	.135	.12	.11
58F382	254-S1	.25	.25	.21	.19	.17	.155
58F383	254-T	.20	.20	.17	.15	.135	.125
59F384	254-P	.45	.13	.115	.105	.095	.085
58F385	254-D	.20	.21	.18	.16	.145	.135

SERIES 170 INSULATING WAFERS

For TO-3 transistors. Features thermally conductive dielectric coating providing excellent thermal path between the case and heat sink. Shipped on a carrier holding 40 wafters. Scored fo rfast, easy breakoff from the carrier.

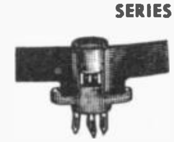
Stock No.	Type	Finish Description	Each		
			1-999	1M-2499	2500-4999
58F178	170	Hard Coat	.12	.095	.08
58F177	170	Delta Coate 151H	.11	.085	.07

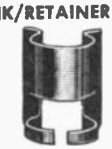
THERMAL SPRING RETAINERS FOR TO-18 CASES

2 TO-18 spring retainers bonded together with Delta Bond to obtain electrical separation and to provide equalized case temp. Copper finish. Cadm. plated. Weights: .014 to .018 oz.

Stk. No.	Type	Size	1-49	50-99	100-249	250-499	500-999
58F343	259-1	.355 x .230 x .187	.40	.35	.30	.28	.25
58F344	259-2	.565 x .230 x .187	.40	.35	.30	.28	.25

SERIES 257 HEAT-SINK/RETAINER


TYPE 257-S


TYPE 257-R

257-S is a retainer and heat sink. 257-R is a TO-5 retainer. Allows separate mountings of TO-5 transistor and socket. 257-S—.005 oz. 257-R—.003 oz.

Stk. No	Type	Size	100 Pcs. Per Pkg.			
			1-4	5-9	10-24	25-49
58F336	257-S	1⁷⁄₁₆ x ½ x ⁵⁄₁₆"	4.90	3.90	2.90	2.40
58F337	257-R	½ x ⁵⁄₁₆"	4.70	3.70	2.70	2.20

WAKEFIELD

SERIES 256 BRASS CLIPS

Type 256-ST　Type 256-DT　Type 236-D

Clips as electrostatic shields and/or thermal retainers. For one or two plastic transistors. .20" dia. Dual clip maintains 2 transistors at the same temperature.

Stock No.	Type	Dia. x Length	Packages of 100 1-9	10 24	25-49	50-99	100-Up
58F173	256-ST	.20" x .16"	2.00	1.63	1.45	1.30	1.15
58F174	256-DT	.20" x .31"	2.10	1.73	1.55	1.40	1.25
58F175	256-D	.20" x .31"	2.00	1.63	1.45	1.30	1.15

You Can Depend on NEWARK For Complete Stocks — Lowest Prices — Fastest Service and the Latest in Industrial Electronics

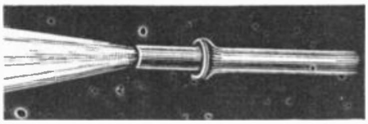
● NEW SERIES 260 CUP CLIPS

Cup clip for TO-5 and TO-18 case style transistors. Epoxy insulated (E) are economical. Beryllium Oxide insulated (B) are for application requiring low stray capacity to the heat sink. Non-insulated cup clips (no suffix) are soldered together with 63/37 tin lead alloy. Max. Temp. 300°F. all are for TO-5 units except (*) for TO-18. Beryllium copper cups with brass bases.

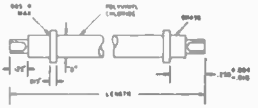
Stock No.	Type	Base	1-24	25-49	50-99	100-249
58F178	260P5	Plain	.20	.17	.16	.15
58F179	*260P18	Plain	.20	.17	.16	.15
58F180	*260P18B	Plain	2.05	1.70	1.55	1.45
58F181	*2602TH18	Tap 2-56	.49	.42	.40	.37
58F182	*2602TL18E	Tap 2-56	.70	.62	.57	.53
58F183	*2602TH18B	Tap 2-56	2.30	1.95	1.75	1.60
58F184	2604T5	Tap 4-40	.49	.42	.40	.37
58F185	2604T5E	Tap 4-40	.70	.62	.57	.53
58F186	2604T5B	Tap 4-40	2.35	2.00	1.80	1.65
58F187	*2604SH18E	Stud 4-40	.79	.73	.71	.68
58F188	2606SH5B	Stud 6-32	2.45	2.15	1.95	1.75
58F189	26010SH5B	Stud 10-32	2.45	2.15	1.95	1.75

BAUSCH & LOMB

FIBER OPTICS "LIGHT WIRES"



Permits transmission of light beams around corners and thru intricate bends. Numerous applications exist in aerospace R & D, photography, electro-optics, automation, and production systems. Extremely useful in optimizing photocell performance by channelling light onto photosensitive surfaces; may be used as "transmission lines" for modulated light signals, eliminating the need for complex, delicate systems of lenses and prisms. Each "wire" is made of a bundle of 100 to 1,000,000 tiny 40μ diam.) fibers; each fiber consists of a core covered with a cladding of slightly lower index of refraction — light is channelled from one end of the bundle to the other by a process of total internal reflection. Because of this core/clad combination, dirt, oil, tar, and most other contaminants will have practically no adverse effect on light transmission. To provide mechanical protection, the bundles are encased in PVC or crush resistant aluminum tubing and furnished with brass end fittings. Will transmit the visible and near-infrared portions of the spectrum, but are not practical in the UV region. Temp. range: —40 to +200°F.



PVC SHEATHING

Type	"A" Bundle Dia.	Min. Bend Radius	"B" +.000 —.003	"C" +.000 —.005	"D" Sheath O.D.
32-01	1/16"	1/2"	.128	.185	1/8"
32-02	3/32"	3/4"	.166	.216	5/32"
32-03	1/8"	1"	.216	.278	7/32"

1/16" BUNDLE DIAMETER—PVC SHEATHING

Stk. No.	Type	Length	1-9	10-99	100-up
99F900	32-01-03	3"	6.00	5.40	4.80
99F901	32-01-06	6"	6.25	5.62	5.00
99F902	32-01-12	12"	6.50	5.85	5.20
99F903	32-01-18	18"	6.75	6.08	5.40
99F904	32-01-24	24"	7.00	6.30	5.60
99F905	32-01-30	30"	7.25	6.52	5.80
99F906	32-01-36	36"	7.50	6.75	6.00
99F907	32-01-48	48"	8.00	7.20	6.40
99F908	32-01-60	60"	8.50	7.65	6.80

3/32" BUNDLE DIAMETER—PVC SHEATHING

Stk. No.	Type	Length	1-9	10.99	100 Up
99F948	32-02-03	3"	6.25	5.62	5.00
99F949	32-02-06	6"	6.50	5.85	5.20
99F950	32-02-12	12"	7.00	6.30	5.60
99F951	32-02-18	18"	7.50	6.75	6.00
99F952	32-02-24	24"	8.00	7.20	6.40
99F953	32-02-30	30"	8.50	7.65	6.80
99F954	32-02-36	36"	9.00	8.10	7.20
99F955	32-02-48	48"	10.00	9.00	8.00
99F956	32-02-60	60"	11.00	9.90	8.80
99F957	32-02-72	72"	12.00	10.80	9.60

1/8" BUNDLE DIAMETER—PVC SHEATHING

Stk. No.	Type	Length	1-9	10-99	100-up
99F909	32-03-06	6"	6.75	6.08	5.40
99F910	32-03-12	12"	7.50	6.75	6.00
99F911	32-03-18	18"	8.25	7.45	6.60
99F912	32-03-24	24"	9.00	8.10	7.20
99F913	32-03-30	30"	9.75	8.77	7.80
99F914	32-03-36	36"	10.50	9.45	8.40
99F915	32-03-48	48"	12.00	10.80	9.60
99F916	32-03-60	60"	13.50	12.15	10.70
99F917	32-03-72	72"	15.00	13.50	12.00

CRUSH RESISTANT ALUMINUM TUBING

Type	"A" Bundle Dia.	Min. Bend Radius	"B" +.000 —.003	"C" +.000 —.005	"D" Sheath. O.D.
32-13	1/8"	1 3/4"	.216	.321	.275
32-14	3/16"	2"	.279	.427	.381
32-15	1/4"	2 1/2"	.342	.500	.463

1/8" BUNDLE DIAMETER—ALUMINUM TUBING

Stk. No.	Type	Length	1-9	10-99	100-up
99F918	32-13-06	6"	7.25	6.52	5.80
99F919	32-13-12	12"	8.00	7.20	6.40
99F920	32-13-18	18"	8.75	7.87	7.00
99F921	32-13-24	24"	9.50	8.55	7.60
99F922	32-13-30	30"	10.25	9.22	8.20
99F923	32-13-36	36"	11.00	9.90	8.80
99F924	32-13-48	48"	12.50	11.25	10.00
99F925	32-13-60	60"	14.00	12.60	11.20
99F926	32-13-72	72"	15.50	13.95	12.40

3/16" BUNDLE DIAMETER—ALUMINUM TUBING

Stk. No.	Type	Length	1-9	10-99	100 Up
99F958	32-14-06	6"	9.00	8.10	7.20
99F959	32-14-12	12"	9.50	8.55	7.60
99F960	32-14-18	18"	10.00	9.00	8.00
99F961	32-14-24	24"	10.75	9.67	8.60
99F962	32-14-30	30"	12.00	10.80	9.60
99F963	32-14-36	36"	15.00	13.50	12.00
99F964	32-14-48	48"	20.00	18.00	16.00
99F965	32-14-60	60"	25.00	22.50	20.00
99F966	32-14-72	72"	30.00	27.00	24.00

1/4" BUNDLE DIAMETER—ALUMINUM SHEATHING

Stk. No.	Type	Length	1-9	10-99	100-up
99F927	32-15-06	6"	14.00	12.60	11.20
99F928	32-15-12	12"	16.00	14.40	13.80
99F929	32-15-18	18"	18.00	16.20	14.40
99F930	32-15-24	24"	20.00	18.00	16.00
99F931	32-15-30	30"	22.00	19.80	17.60
99F932	32-15-36	36"	25.00	22.50	20.00
99F933	32-15-48	48"	30.00	27.00	24.00
99F934	32-15-60	60"	40.00	36.00	32.00
99F935	32-15-72	72"	50.00	45.00	40.00

EXPERIMENTAL KIT

Special kit for experimenters, designers and engineers. Explore first-hand the wide range of applications for Fiber Optics. Kit contains four standard light wires (1 each 32-01-06, 32-02-12, 32-03-18, and 32-13-24) plus ten feet of continuous light wire, 12 ferrules, and crimping tool, for fabricating custom-made light wires of any desired length.

99F947. NET **40.00**

Photocells & Fiber Optics

RAYTHEON

1/4" GLASS VIAL PHOTOCELLS

Are hermetically sealed in glass cases and are available with cadmium selenide and cadmium sulfide sensors. Rugged mechanical construction, small size and light weight provide ease in mounting. Wide range of characteristics and high voltage capability provide a low noise, completely ohmic light dependent variable resistor, useful over a wide range of voltage and illumination. Cadmium selenide cells, having faster switching speeds are especially suitable for chopper and other control or switching applications requiring operation up to one kilocycle per second. Color response covers the visual light range and extends well into the infra-red. Cadmium sulfide cells, having a lower temperature coefficient, are especially suitable where stability over a wide temperature range is required. The improved temperature stability and more linear response to illumination makes this type particularly good for applications requiring better stability in hostile environments.

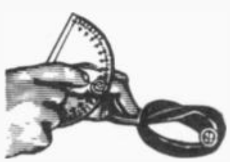
Type	Sensitive Material	Resistance @ 100 ft. C (ohms)	Min. Off Resistance	Response Time Rise	Response Time Fall	Maximum Voltage	Power Diss. Max.	1-9	10-24
CK1201	CdSe	150	100 Meg.	3 ms	60 ms	50v	75 mw	1.75	1.65
CK1202	CdSe	300	100 Meg.	3 ms	60 ms	50v	75 mw		
CK1203	CdSe	500	100 Meg.	3 ms	60 ms	100v	100 mw		
CK1204	CdSe	750	100 Meg.	3 ms	60 ms	100v	100 mw		
CK1205	CdSe	1000	100 Meg.	2 ms	40 ms	200v	200 mw		
CK1206	CdSe	1250	100 Meg.	2 ms	40 ms	200v	200 mw		
CK1207	CdSe	10000	1000 Meg.	1 ms	5 ms	200v	200 mw		
CK1221	CdS	600	1 Meg.	3 ms	1.7 sec.	50v	50 mw	1.50	1.35
CK1222	CdS	1000	10 Meg.	3 ms	1.5 sec.	50v	75 mw		
CK1223	CdS	1500	10 Meg.	3 ms	1.5 sec.	50v	75 mw		
CK1224	CdS	2000	100 Meg.	3 ms	1.5 sec.	100v	100 mw		
CK1225	CdS	2500	100 Meg.	2 ms	1.0 sec.	100v	100 mw		
CK1226	CdS	25000	100 Meg.	1.5 ms	.6 sec.	300v	100 mw		

PHOTOCELLS TO-5 PACKAGE

Same as above, but hermetically sealed in a metal case.

Type	Sensitive Material	Resistance @ 100 ft. C (ohms)	Min. Off Resistance	Response Time Rise	Response Time Fall	Maximum Voltage	Power Diss. Max.	1-9	10-24
CK1241	CdSe	150	100 Meg.	3 ms	60 ms	50v	75 mw	2.20	1.90
CK1242	CdSe	300	100 Meg.	3 ms	60 ms	50v	75 mw		
CK1243	CdSe	500	100 Meg.	3 ms	60 ms	100v	100 mw		
CK1244	CdSe	750	100 Meg.	3 ms	60 ms	100v	100 mw		
CK1245	CdSe	1000	100 Meg.	2 ms	40 ms	200v	200 mw		
CK1246	CdSe	1250	100 Meg.	2 ms	40 ms	200v	200 mw		
CK1247	CdSe	10000	1000 Meg.	1 ms	5 ms	200v	200 mw		
CK1261	CdS	600	1 Meg.	3 ms	1.7 sec.	50v	50 mw		
CK1262	CdS	1000	10 Meg.	3 ms	1.5 sec.	50v	75 mw		
CK1263	CdS	1500	10 Meg.	3 ms	1.5 sec.	50v	75 mw		
CK1264	CdS	2000	100 Meg.	3 ms	1.5 sec.	100v	100 mw		
CK1265	CdS	2500	100 Meg.	2 ms	1.0 sec.	100v	100 mw		
CK1266	CdS	25000	100 Meg.	1.5 ms	.6 sec.	300v	100 mw		

POLY-OPTICS



PREMIUM-GRADE IMAGE GUIDES

These synthetic fiber optic devices have fiber arrays which are coherent at either end and are capable of transmitting images, as shown. The .003" fiber image guides resolve 333 lines per inch, and the .010" fiber version resolves 100 lines per inch. Jacketing is neoprene. All units are tipped with metal ferrules, and are carefully polished for maximum optical efficiency. These durable devices can be twisted, knotted and subjected to indefinite flexure without fiber breakage or transmission degradation, and are useful for remote, flexible transfer of images of all kinds.

Stk. No.	Type No.	Image Format	Fiber Dia.	Length	1-4	5-19	20-99
99F975	3042	1/4x1/4"	.003"	2'	152.00	123.50	95.00
99F976	3044	1/4x1/4"	.003"	4'	168.00	136.50	105.00
99F977	3062	3/8x3/8"	.003"	2'	264.00	2.14.50	165.00
99F978	3064	3/8x3/8"	.003"	4'	296.00	240.50	185.00
99F979	3142	1/4x1/4"	.010"	2'	76.00	61.75	49.50
99F980	3144	1/4x1/4"	.010"	4'	84.00	68.25	52.50
99F981	3162	3/8x3/8"	010"	2'	100.00	81.25	62.50
99F982	3164	3/8x3/8"	.010"	4'	112.00	91.00	70.00
99F983	3182	1/2x1/2"	.010"	2'	140.00	113.75	87.50
99F984	3184	1/2x1/2"	.010"	4'	164.00	133.25	102.00

COMMERCIAL GRADE PLASTIC—FIBER OPTIC LIGHT GUIDE

Plastic light guides have numerous applications: photo control, switching, counting, non-explosive light source, dial lighting, light indicators, etc. Temperatures to 190°F can be withstood and exposure to humidity does not cause degradation. Termination is easily accomplished with a razor blade. Jacketing is polyethylene because of its moisture resistance and flexure characteristics. Line losses can be as low as 10% when using end treatment compound shown below. Transmission has been reported as high as 25 to 30% at 10 feet depending on termination methods.

Type No.	No./Size Of Fibers	I.D./O.D.	AREA (Sq. In.)
PF-0716	7/16	.038/.087"	.0014
PF-1916	19/16	.080/.120"	.0038
PF-3716	37/16	.112/.152"	.0074

Stk. No.	Type No.	Per Foot 5-49	50-99	100-499	500-999
37F325	PF-0716	.45	.36	.27	.21
37F326	PF-1916	.60	.48	.36	.29
37F327	PF-3716	1.04	.83	.62	.50

END TREATMENT COMPOUND

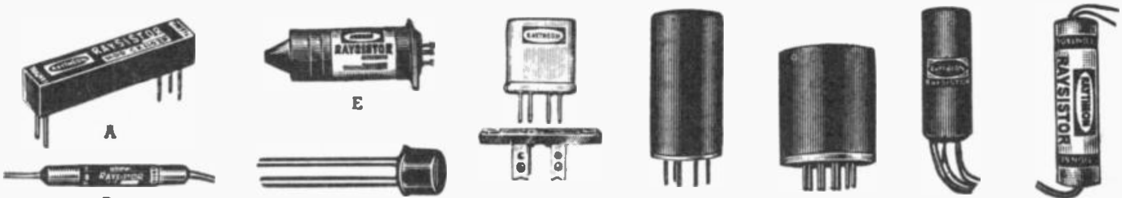
Specially prepared optical end treatment compound will, when light guide ends are dipped, perform within 2% of polished units.

99F985. 1/2 Oz. Size. EACH 2.75
99F986. 1 1/2 Oz. Size. EACH 6.25

Raysistors & Photoconductive Cells

RAYTHEON

RAYTHEON RAYSISTORS



• Ideal replocement for Switches — Relays — Potentiometers

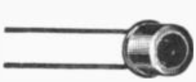
Four terminal optoelectronic device which performs a variety of control functions, providing noise-free control of AC or DC signals over a wide dynamic range without transients or contact (or wiper) chatter. Since there are no moving parts, the Raysistor is exceptionally rugged and has inherently long life in typical applications as variable resistors, solid state switches, relays and voltage or signal isolators. Unit operates on the principle of controlled light acting on a photoresistive element. No electrical or mechanical connection exists between the control and signal circuit. * With Socket.

Model	Fig.	Control Lamp Voltage	Control Lamp Current (MA)	Signal — Photocell Resistance in Ohms On Max.	Signal — Photocell Resistance in Ohms Off 50V Min.	Volt Max.	Max Power (MW)	Typical Switching Time (Seconds) On	Typical Switching Time (Seconds) Off	1-9	10-24	25-99
CK1101	B	120[2]	1-3[3]	1000	10^7	60	75	.0012	.060	11.00	9.00	7.50
CK1101P	A									10.75	8.80	7.35
CK1102	B	0-1	0-50	700	10^6	60	50	.020	.300	11.00	9.00	7.50
CK1102P	A									10.75	8.80	7.35
CK1103	B	0-5	0-175	150	10^6	60	50	.020	.800	11.00	9.00	7.50
CK1103P	A									10.75	8.80	7.35
CK1104	B	0-25	0-37	150	10^6	60	50	.010	.450	11.00	9.00	7.50
CK1104P	A									10.75	8.80	7.35
CK1105	E	120	3.0	10K	10^6	300	250	.030	2	24.50	20.00	16.70
CK1108	E	0-6.0	0-200	250	10^6	300	250	.030	1.0	24.50	20.00	16.70
CK1111	B	120[2]	1-3[3]	30K	2.5×10^7	300	75	.002	.105	11.00	9.00	7.50
CK1111P	A									10.75	8.80	7.35
CK1112	B	0-10	0-17	700	10^6	60	50	.030	.400	11.00	9.00	7.50
CK1112P	A									10.75	8.80	7.35
CK1114	C	0-1	0-15	850	10^6	60	50	.018	.060	8.75	7.15	6.00
CK1115	C	0-4	0-53	200	10^7	200	100	.020	.300	8.75	7.15	6.00
CK1116	C	0-4	0-12	350	10^7	200	100	.010	.300	9.35	7.75	6.60
CK1121*	D	0-5	0-55	150	10^7	200	100	.004	.250	4.00	3.25	2.75
CK1122*	D	0-10	0-17	1000	10^7	200	100	.030	.225	4.00	3.25	2.75
CK1123*	D	0-25	0-36	150	10^7	200	100	.010	.300	4.00	3.25	2.75
CK1124*	D	150[2]	.1-1.5	3000	10^7	200	100	.005	.100	4.00	3.25	2.75
CK200[illegible]*	D	0-25	0-37	40	10^6	100	100	.030	.300	5.00	4.05	3.50
CK2[illegible]*	D	0-10	0-17	225	10^7	150	100	.035	.250	4.60	3.85	3.35
CK2006*	D	0-12	0-17	1500	10^6	150	100	.040	1.5	4.60	3.85	3.35
CK2008	A	120B	1-3C	300	10^7	150	100	.0015	.060	11.60	9.60	8.10
CK2009	C	0-4	0-55	135	10^7	200	100	.020	.300	9.60	7.75	6.60
CK2011	E	0-120	0-25	300	10^6	250	250	.050	.700	27.00	25.00	20.20
CK2015*	D	0-25	0-37	1500	10^8	200	100	.015	.075	4.60	3.85	3.35
CK2016*	D	150J	.2-1.2	1000	10^6	150	100	.010	.250	4.60	3.85	3.35
CK2018*	D	0-5	0-55	150	10^9	200	100	.010	.175	4.00	3.25	2.75
CK2019*	D	0-10	0-17	1000	10^6	150	100	.040	1.5	4.60	3.85	3.35
CK2020*	D	0-10	0-17	1500	10^6	150	100	.040	1.5	8.00	6.50	5.50
CK2021*	D	0-10	0-17	500	10^7	150	100	.040	.250	8.00	6.50	5.50
CK2028*	D	0-25	0-37	200	10^6	100	100	.050	1.5	6.00	5.25	4.75
CK2029	I	0-10	0-35	2000	10^8	250	250	.020	.160	18.00	14.00	11.00
CK2030	E	0-10	0-17	700	10^7	250	250	.040	.450	24.50	20.00	16.70
CK2031										9.60	7.75	6.60
CK2032	I	0-10	0-17	420	10^7	250	250	.040	.250	18.00	14.00	11.00
CK2033	F	0-10	0-17	Tracking 3500	10^7	200	100	.050	1.5	5.90	5.50	4.65
CK2034	H	0-25	0-37	300	10^6	100	100	.060	1.4	8.00	6.50	5.50
CK2035	I	120	1-3C	1000	10^7	250	200	.010	.125	18.00	14.00	11.00
CK2036	H	0-10	0-17	3000	10^7	200	100	.040	.250	8.00	6.50	5.50
CK2037	C	0-4	0-55	1000	10^6	200	100	.040	1.5	8.75	7.15	6.00
CK2042	G	0-10	0-17	1500	10^6	150	100	.050	1.5	7.90	7.50	6.25
CK2043	G	0-25	0-37	300	10^6	150	100	.040	1.3	7.90	7.50	6.25
CK2046	C	0-1	0-17	350	10^6	100	100	.030	.090	9.60	7.75	6.60
CK2051*	D	0-10	0-17	2000	10^6	200	100	.040	.350	4.00	3.25	2.75
CK2052*	D	0-25	0-37	300	10^6	200	100	.018	1.2	4.00	3.25	2.75
CK2053*	D	0-5	0-55	1250	1	200	0.1	.020	1.2	4.00	3.25	2.75
CK2071		0-4	0-55	1000	10	200	100	.075	.675	8.75	7.15	6.00
CK2072		0-4	0-17	1800	10	200	100	.015	.250	9.35	7.75	6.60

THE RAYSISTOR — APPLICATIONS. Complete twenty-seven page book fully covering Raytheon Raysistors—applications, technical specifications, advantages. Generous use of charts and schematics. Size: 8½ x 11". Shpg. wt., 4 oz.
53F049. NET .... **.35**

RAYTHEON PHOTOCELL

Hermetically-sealed solid-state light dependent resistor using a cadmium selenide photosensitive material designed for use in optoelectronic control circuitry. Fast switching speed suitable for chopper and other control and switching appliances requiring operation up to one kilocycle. Coupled with a high voltage capability, provides a very low noise variable resistor which is ohmic over a wide range of voltage and illumination. The TO-5 package permits use of standard mounting hardware.

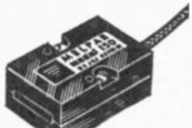


Type	Resistance in Ohms On at 100 ft. Cdles. Typ.	On at 100 ft. Cdles. Max.	Off at 100 V Typ.	Off at 100 V Min.	Volt. Max.	Max. Pwr. (MW)	Response Time at 100 ft. cdles. Off to 10K Typ.	Off to 10K Max.	On to 10 meg. Typ.	On to 10 meg. Max.	1-9	10-24
EM1502	750	1250	10^9	10^8	200	100	0.5ms	1.5ms	15ms	50ms	2.20	1.90

Readers, Choppers, Oscillators & Solar Cells

MELPAR, INC.

PHOTOELECTRIC READER



Consists of light source, lens and photocell. Utilizes the advantages of detection by reflected light. Lamp, 6v at 0.2 amp; dc recommended; nominal life 10,000 hr at 5.4v. Photocell; nominal input, 20vdc. Max. input, 300 vdc. 50 mv max. dissipation. Nom. response: 7250 angstroms, std. Maximum counting rate on std. unit; 300 counts per second. Versatile; counts, cues, sorts and inspects. Features small size (0.6 cu. in.), and insensitivity to ambient light.

Stk. No.	Description	1-3	4-9	10-24	25-49	50-Up
99F850	150 Reader	24.50	21.00	18.50	17.00	16.00

Replacement lamp for 150. 99F871 .... .75

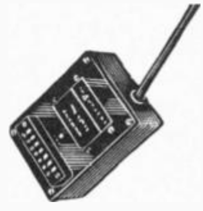
MODEL 200 PHOTOELECTRIC READER

Companion to the 150, designed for use in automatic control systems where target detection at ranges from 1" to 100' is required. See specifications above.

Stk. No.	Description	1-9	10-24	25-49	50-Up
99F851	200A Reader	36.95	32.95	29.95	28.95

Replacement lamp for 200. 99F872 .... .75

PHOTOELECTRIC CONTROL UNITS



Transistorized photoelectric control units provide high reliability at low cost for automatic control systems using the companion photoelectric readers 150, and 200A. These control units feature long life, ease of maintenance and highly simplified installation. In one compact unit are contained a power supply, amplifier and controlled switching.

Model 155A. Control unit companion to the 150 photoelectric reader. Input power: 115V, 60HZ, 6W. The control relay is SPDT, 115V 1A non-inductive. The maximum operating rate is 1000/Min. Complete with 5' cord. Case size: 4" x 2 7/8" x 1 1/2".

Model 205A. Control unit companion to the 200A photoelectric reader. Input power: 115V, 60HZ, 17W. The control relay is SPDT, 115V 1A non-inductive. Maximum operatnig rate: 1000/Min. 5' cord included. Case size: 6 1/4" x 3 3/4" x 2".

Stk. No.	Type	1-3	4-9	10-24	25-49	50-Up
99F852	155A	44.95	39.95	36.95	34.95	33.95
99F853	205A	49.95	43.95	39.95	37.95	36.95

SERIES LIGHT L10 CHOPPER

Economical light chopper used for light beam modulation, pulsing, scanning, sweeping, and control. Exclusive features: Compact size, jeweled bearing, lower power input, wide angle of excursion (up to 20°), optical quality, high reflectivity and replaceable mirror and bearings. Specifications: Input power: Sine wave, 1 1/2 v. (typical). Power consumption: 25 milliwatts. Mirror finish: aluminized front surface or optical mirror. Mirror size, 1 Cm². Frequency to 500 Hz std. Size 1 29/32" x 1 15/32" x .8".

Stk. No	Description	1-3	4-9	10-24	25-49	50-Up
99F854	L10 Chopper	55.95	47.95	38.95	33.95	29.95

TUNING FORK OSCILLATORS

A combination of tuning fork and high gain amplifier circuit which generates a sq. wave output with the application of dc voltage. Accuracy: ± @ 0 to 65°C std., —40° to +100° operational. Input voltage: 12VDC. Output: Square wave, approx. 50% p-p min. of output voltage into 10K external load. The terminals are solder hooks which can be cut off to pin for printed circuit mounting. Typical applications: lab. std., test equipment, motor control, timers, etc. Stable, rugged and reliable.

The 10HDN6 is 1 29/32" x 1 15/32" x 1 21/32".
All others are 1 29/32" x 1 15/32" x .4".
* Divided to 60HZ from 480 HZ.

Stk. No.	Model	HZ	1-9	10-24	25-49	50-Up
99F855	10HDN6	60*	89.95	74.00	66.00	64.00
99F856	10N4	400	59.95	47.00	40.00	38.00
99F857	10N10	1000	59.95	47.00	40.00	38.00
99F858	10N24	2400	59.95	47.00	40.00	38.00

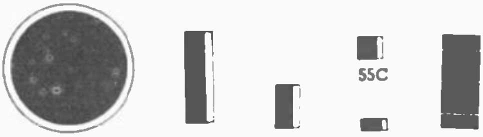
MEL-INK PERMANENT MARKING COMPOUND

Typical uses include identifying nomenclature on printed circuit boards, sheet metal chassis, and most components. Non-conducting.

Type M-300. Hard-setting epoxy with a viscosity suitable for machine and hand stamping, as well as silk screening. Prevents smearing of stamped information on completion of the curing cycle. Excellent solvent resistance.

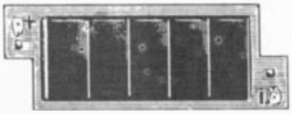
Type	Stk. No.	Color	Stk. No.	Color	Lbs. 1-48	Lbs. 49-96
M-300	99F869	Black	99F870	White	10.00	9.00

CENTRALAB SILICON CELLS



2A 52C 51C 55C 58C N120CG

SILICON SOLAR MODULES



Output measured with tungsten source with a color temp. of 2800°K at a light level corresponding to 100-mw/cm² of sunlight. Cell temperature is at 28°C.

Type	Max. Dim.	Current @ 2V	1-99
HSSP-2-40	2.5x1"	42 ma	5.50

ENCAPSULATED READOUT CELLS

EA7

Output—1250 ft. — candles color temp. 2800°K, 55°C into 1000 ohm load resist. Dark reverse current—1V, 55°C, 1 ft.-candle max. Size: .5x.08". Active area: 13x .05". Oper. Temp.: —65°C to +150°C. 2" leads.

Type	Output mv min.	Output μa min.	Dark Rev. μa max.	1-99	100-999
EA7E1	300	300	5	6.75	5.10
EA7E2	300	300	10	6.00	4.50
EA7E3	250	250	10	5.10	3.80

HIGH EFFICIENCY SOLAR CELLS

Speed of response 10 microseconds or less, depending on load resistance. Light source: a solar simulator with spectral distribution of space sunlight as determined by F. S. Johnson of NRL with intensity equiv. to 140 mw/cm² earth orbit sunlight. Size: 0.4 x 0.8"; active area, 0.28 sq. in.

Type	Output (mv)	Output (mA)	Power (mW)	1-9	100-999
N120CG-8L	430	45.5	19.6	3.85	3.25
N120CG-9L	430	51.5	22	4.35	3.65
N120CG-10L	430	56.9	24.5	5.05	4.25
N120CG-11L	430	62.7	27	7.45	6.25

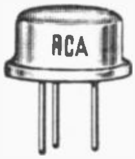
STANDARD SOLAR CELLS

Operating and storage temp. range —65°C to +175°C. Speed of response 10 microseconds or less depending on load resistance. Spectral response 0.4 to 1.15 microns, peak at 0.85 microns. Measured at tungsten light source with a color temp. of 2800° K @ a light level which corresponds to 100 mw/CM² of sunlight as correlated by means of a standard solar cell. Cell test temp. is 28°C.

Type No.	Nominal Dim. (inches)	Active Area (sq. in.)	Load Output mA	1-99	100-999
2A	1.125 dia.	.79	127.0	7.50	6.00
52C	0.2x0.8	.12	20.0	3.60	2.80
51C	0.2x0.4	.06	9.3	2.50	2.00
55C	0.2x0.2	.03	4.6	1.50	1.20
58C	0.2x0.1	.014	2.2	1.00	.80
110C	0.4x0.4	.14	21.4	1.90	1.50
58C-L	0.2x0.1	.014	2.2	1.25	1.05
110C-L	0.4x0.4	.14	21.4	2.15	1.75

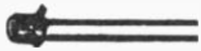
RCA

BROAD-AREA CADMIUM-SULFIDE (CdS) PHOTOCELLS



TO-8

SQ2520



SQ2535

7163

GLASS-METAL TYPES

1" DIAMETER

Type	Max. DCV or Peak AVC	Power Dissipation Watt Cont. Service	Resistance at 2 Foot-candles Ohms	1-99	100-999	1000-Up
7163	600	0.75	17,000	1.21	.88	.73
4448	600	0.75	14,000	1.32	.96	.80
4404	600	0.75	9,000	1.32	.96	.80
4453	600	0.75	7,000	1.28	.93	.77
4403	350	0.75	3,000	1.21	.88	.73

½"-DIAMETER TYPES (Modified TO-8 Case)

Type	Max. DCV or Peak AVC	Power Dissipation Watt Cont. Service	Resistance at 2 Foot-candles Ohms	1-99	100-999	1000-Up
SQ2521	250	0.35	8,000	1.54	1.12	.93
SQ2520	200	0.35	700	1.49	1.08	.90
SQ2556	200	0.35	850	1.44	1.05	.87

¼" — DIAMETER TYPES (Modified TO-5 Case)

Type	Max. DCV or Peak AVC	Power Dissipation Watt Cont. Service	Resistance at 2 Foot-candles Ohms	1-99	100-999	1000-Up
SQ2534	300	.075	8,000,000	1.65	1.20	1.00
SQ2529	300	.075	900,000	1.65	1.20	1.00
SQ2508	300	.075	58,000	1.90	1.38	1.15
SQ2519	300	.075	10,000	1.08	.78	.65
SQ2536	150	.075	3,800	1.13	.82	.68
SQ2554	150	0.075	2,800	1.13	.82	.68
SQ2555	200	0.075	20,000	1.17	.85	.71

1/5" — DIAMETER TYPE (Modified TO-18 Case)

Type	Max. DCV or Peak AVC	Power Dissipation Watt Cont. Service	Resistance at 2 Foot-candles Ohms	1-99	100-999	1000-Up
SQ2535	200	0.03	26,000	1.13	.82	.68

BROAD-AREA CADMIUM-SULFO-SELENIDE PHOTOCELLS

GLASS-METAL TYPES

¼" DIAMETER TYPES (MODIFIED TO-5 CASE)

Type	Max. DC or Peak AVC	Power Dissipation Watt Cont. Service	Resistance at 2 Foot-candles Ohms	1-99	100-999	1000-Up
SQ2544	60	0.05	2,400	1.90	1.38	1.15
SQ2544V1	110	0.2	6,000	1.90	1.38	1.15

1/5" — DIAMETER TYPE (Modified TO-18 Case)

Type	Max. DC or Peak AVC	Power Dissipation Watt Cont. Service	Resistance at 2 Foot-candles Ohms	1-99	100-999	1000-Up
SQ2543	75	0.2	8,000	2.06	1.50	1.25

GENERAL ELECTRIC

PHOTOCONDUCTIVE CELLS

Hermetically sealed after evacuation and back filled with dry air to reduce the moisture content to approx. .015%. Cells come in three basic sizes, four power ratings, and multiple resistance ratings. Wide range enables the designer to select a maximum power dissipation of 75, 250, 300 or 600 mw. By using cells to operate many devices directly, amplifying stages can be eliminated and overall circuits greatly simplified. Cells have very high sensitivity and spectral response peaks in the visible light range. Near maximum response obtained over large portion of the spectral region. Al₁ are in glass-metal packages. Have flexible leads and small size to dissipation ratio. No external shields required. May be used for annunciators, anemometers, camera aperture control. * Dia. excludes flange.

Type	Wave Light. Spec. Res.	Max. pwr. dis. mw	Max. Appl. Volts	Resistance @2('-C)	Resistance @100('-C)	Amb. Temp. Rng. C.	Max. dia*	1-249	250-up
A-33	5500 ± 700Ang.	75	30	6300Ω	360Ω	—40° to +65°	.330"	1.34	.96
A33P1	5500 Amg.	50	30	6300Ω	360Ω	—40° to +65°	.330"	.75	.54
A-35	5500 ± 700Ang.	75	50	12000Ω	900Ω	—40° to +65°	.330"	1.34	.96
A-36M1	5500 ± 700Ang.	75	60	30000Ω	1000Ω	—40° to +65°	.330"	1.67	1.20
B-46	6100 ± 600Ang.	250	60	1250Ω	100Ω	—40° to +65°	.510"	1.42	1.02
B-425	6100 ± 600Ang.	250	250	9100Ω	400Ω	—40° to +65°	.510"	1.42	1.02
†C-425P1*	7300 ± 600Ang.	50	250	15000Ω	600Ω	—40° to +65°	.470"	.75	.54
†B425P1	6100Ang.	200	250	9100Ω	400Ω	—40° to +65°	.510"	.75	.54
B430	6100 ± 500Ang.	250	300	15000Ω	600Ω	—40° to +65°	.470"	1.42	1.02
B1035M1	6100Ang.	600	350	12000Ω	500Ω	—40° to +65°	1.120"	1.47	1.06
B1035M2	6100Ang.	600	350	5500Ω	300Ω	—40° to +65°	1.120"	1.47	1.06
B-1035M3	6100 ± 500Ang.	600	350	2750Ω	200Ω	—40° to +65°	1.120"	1.47	1.06

† Plastic encapsulated (not hermetically sealed). * cadmium-selenide device.

PHOTOCONDUCTIVE CELL-LAMP COMBINATION

Photoconductor-lamp combination includes cadmium-sulfide (PL5C1 is cadmium-selenide) photoconductive cell and a variable illumination source enclosed in a light-tight package. Photoconduction is controlled by varying the voltage to the light source. Intended to be used for circuit isolation as a potentiometer free of moving-contact noise, and for low-level switching.

Stk. No.	Type	Lamp Volts Current	Max. Volts	Resistance 20% V	Resistance 90% V	Temp.	1-249	250-up
22F1707	PL5B	5V-60Ma.	250	40 Kr	200 r	—40° - +65°	4.18	3.00
22F1708	PL5C	5V-60Ma.	200	20 Kr	220 r	—40° - +65°	4.18	3.00

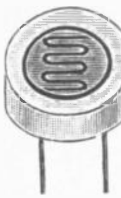
DRY REED SWITCH

Contains a pair of magnetic overlapping, contact bearing cantilever reeds sealed in a glass tube filled with dry inert gas. Life expectancy 20 million cycles. Operating temperature —65° to 150°C. Shock without false operation. 40G's, except DR100, 15G's. Length, with leads 3.21", Dia. .215". Contacts; normally open. Max. voltage 250 Volts.

Type	Contact resist.	Contact material	Max. current	1-49	50-Up
DR100	150 Mohm	Diffused Gold	0.25 amp	1.00	.80
DR101	50 Mohm	Diffused Gold	3.0 amp	.75	.80
DR113	50 Mohm	Rhodium Plate	3.0 amp	1.45	1.13
DR121	150 Mohm	Rhodium over Gold	0.25 amp	1.25	1.00
DR123	150 Mohm	Rhodium over Gold	0.25 amp	1.25	1.00
DR125	150 Mohm	Diffused Gold	0.25 amp	1.00	.80
DR138	100 Mohm	Copper & Diffused Gold	0.25 amp	2.43	1.95
DR145	150 Mohm	Rhodium over Gold	0.25 amp	1.25	1.00
DR120	50 Mohm	Tungsten	3.0 amp	5.00	4.00

VACTEC Photo Cells

VT100



VT100E

VT200

VT300

CdS AND CdSe VT PHOTOCONDUCTIVE CELLS

Cells ideal for circuit board mounting. Second digit indicates spectral peak 0=CdS5650A, 1=CdSe7350A, 2=CdS5150A, 3=CdS5500A (for high speed switching), 4=CdSe6750A, example: VT312 is type 1CdSe-7350A. All have a maximum voltage of 300 except (*) 200 and (†) 100. (**) indicates the minimum dark resistance (inohms) 5 seconds after 2 Ft-C.

VT-100 (NON-HERMETIC. MAX. POWER: 200 mW.)

Stock No.	Type	2 Ft-C Res. in K ohms	Min. Res. **2 Ft-C.	1-99	100-999
61F1016	VT-10L*	1.6	100K		
61F1017	VT-101*	3	300K		
61F1018	VT-101H*	6	1 meg		
61F1019	VT-102L	9	5 meg		
61F1020	VT-102	16	5 meg		
61F1021	VT-103L	32	10 meg		
61F1022	VT-103	66	20 meg		
61F1023	VT-104	136	50 meg	.79	.53
61F1024	VT-111*	2.3	500K		
61F1025	VT-111H*	4.6	1 meg		
61F1026	VT-112L	9.2	5 meg		
61F1027	VT-112	22	50 meg		
61F1028	VT-113L	44	100 meg		
61F1029	VT-113	60	100 meg		
61F1030	VT-121*	3	300K		
61F1031	VT-121H*	6	1 meg		

Stock No.	Type	2 Ft-C Res. in K Ohms	Min. Res. ** 2 FT-C.	1-99	100-999
61F1032	VT-122L	9	5 meg		
61F1033	VT-122	16	5 meg		
61F1034	VT-123L	32	10 meg		
61F1035	VT-123	66	20 meg		
61F1036	VT-124	136	50 meg		
61F1037	VT-132*	10	5 meg		
61F1038	VT-133L*	14	5 meg		
61F1039	VT-133*	28	10 meg	.79	.53
61F1040	VT-14L*	.6	100 K		
61F1041	VT-141*	1.2	500 K		
61F1042	VT-141H*	2.4	1 meg		
61F1043	VT-142L	4.8	1 meg		
61F1044	VT-142	7	5 meg		
61F1045	VT-143L	14	10 meg		
61F1046	VT-143	28	10 meg		

VT-100E (EPOXY ENCAPSULATED. 200 mW MAXIMUM POWER)

Stock No.	Type	2 Ft-C Res. in K ohms	Min. Res. **2 Ft-C.	1-99	100-999
61F1047	VT-101E†	3.3	300 K		
61F1048	VT-101HE†	6.6	1 meg		
61F1049	VT-102LE	9.9	1 meg		
61F1050	VT-102E	17.6	1 meg		
61F1051	VT-111E*	2.5	500 K	.95	.63
61F1052	VT-111HE*	5.0	1 meg		
61F1053	VT-112LE	10.0	5 meg		
61F1054	VT-112E	24.2	20 meg		
61F1030	VT-121E†	3.3	300 K		

Stock No.	Type	2 Ft-C Res. in K ohms	Min. Res. **2 Ft-C.	1-99	100-999
61F1056	VT-121HE†	6.6	1 meg		
61F1057	VT-122LE	9.9	1 meg		
61F1058	VT-122E	17.6	1 meg		
61F1059	VT-133LE*	15.4	5 meg		
61F1060	VT-133E*	30.8	5 meg	.95	.63
61F1061	VT-14LE*	.66	100 K		
61F1062	VT-141E*	1.32	500 K		
61F1063	VF-141HE*	2.64	1 meg		
61F1064	VT-142LE*	5.3	1 meg		

VT-200 (50mW MAXIMUM POWER. TO-18 HERMETICALLY SEALED.)

Stock No.	Type	Clairex Equival.	2 Ft-CRes. in K Ohms	Min. Res. **	1-99	100-999
61F1065	VT-201†	....	4.3	500 K		
61F1066	VT-202†	CL905L	8	750 K		
61F1067	VT-202H†	....	15	1 meg		
61F1068	VT-204L	CL905N	88	10 meg		
61F1069	VT-204	CL905	110	20 meg		
61F1070	VT-205	CL905H	1000	200 meg		
61F1071	VT-211†	....	2.3	500 K	1.26	1.05
61F1072	VT-211H†	CL603AL	3.5	1 meg		
61F1073	VT-212L†	CL903L	6	5 meg		
61F1074	VT-213L†	....	16	10 meg		
61F1075	VT-213	....	22	50 meg		
61F1076	VT-213H	CL903AN	32	50 meg		
61F1077	VT-214L	CL903N	64	100 meg		
61F1078	VT-214	CL903	140	200 meg		

Stock No.	Type	Clairex Equival.	2 Ft-C Res. in K Ohms	Min. Res. **	1-99	100-999
61F1079	VT-223H	CL902L	65	5 meg		
61F1080	VT-224	CL902N	500	50 meg		
61F1081	VT-225	CL902	1000	200 meg		
61F1082	VT-232†	CL905HL	100	50 meg		
61F1083	VT-233L†	....	150	50 meg		
61F1084	VT-233†	....	350	100 meg		
61F1085	VT-234†	CL905HN	700	200 meg	1.26	1.05
61F1086	VT-235	CL905H	1400	200 meg		
61F1087	VT-241†	CL604L	2	500 K		
61F1088	VT-241H†	....	4	1 meg		
61F1089	VT-242L†	CL604M	8	1 meg		
61F1090	VT-242†	CL904N	15	10 meg		
61F1091	VT-242H†	CL904	30	10 meg		

Note: Series CL600's have all glass packages.

VT-300 (MAXIMUM POWER: 125 mW. TO-5 HERMETICALLY SEALED)

Stock No.	Type	Clairex Equival.	2 Ft-CRes. in K Ohms	Min. Res. **	1-99	100-999
61F1092	VT-30L*	....	1.8	100 K		
61F1093	VT-301*	CL705L	3	200 K		
61F1094	VT-301H*	....	6	1 meg		
61F1095	VT-302L	....	10	1 meg		
61F1096	VT-302	....	16	5 meg		
61F1097	VT-303L	CL705HL	32	10 meg		
61F1098	VT-303	....	70	10 meg		
61F1099	VT-304	CL705	144	50 meg		
61F1100	VT-305	....	1000	200 meg	1.26	1.05
61F1101	VT-311L*	CL703L	2.1	500 K		
61F1147	VT-311	....	4.2	1 meg		
61F1102	VT-312H	CL703M	30	50 meg		
61F1103	VT-313L	CL703A	60	100 meg		
61F1104	VT-314	CL703	140	200 meg		
61F1105	VT-321H*	....	7.8	1 meg		
61F1106	VT-322L	CL702L	15.6	5 meg		
61F1107	VT-325	CL702	1000	200 meg		

Stock No.	Type	Clairex Equival.	2 Ft-CRes. in K Ohms	Min. Res. **	1-99	100-999
61F1108	VT-333L*	....	14	5 meg		
61F1109	VT-333*	CL705HL	28	10 meg		
61F1110	VT-34L*	CL704L	.6	100 K		
61F1112	VT-341*	....	1.2	500 K	1.26	1.05
61F1113	VT-341H*	....	2.4	1 meg		
61F1114	VT-342	CL704M	7	5 meg		
61F1115	VT-343L	....	14	10 meg		
61F1116	VT-343	CL704	28	10 meg		

DUAL ELEMENT CELLS—MAX. POWER: 50 mW EACH ½

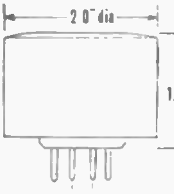
Stock No.	Type	Clairex Equival.	2 Ft-CRes. in K Ohms	Min. Res. **	1-99	100-999
61F1117	VT-302/2*	CL702L/2	16	5 meg		
61F1118	VT-303L/2*	CL702L/2	32	5 meg		
61F1119	VT-312/2*	....	5	1 meg	2.10	1.58
61F1120	VT-313L/2*	....	10	1 meg		
61F1121	VT-34L/2*	CL704L/2	1.5	100 K		
61F1122	VT-341/2*	....	3	200 K		

VT-500 (500 mW MAXIMUM POWER. TO-8 HERMETICALLY SEALED.)

Stock No.	Type	Clairex Equival.	2 Ft-CRes. in K Ohms	Min. Res. **	1-99	100-999
61F1123	VT-50L*	CL505L	1.3	100 K		
61F1124	VT-501*	....	2.6	200 K		
61F1125	VT-502L	CL505	8	1 meg		
61F1126	VT-502	....	16	5 meg	1.26	1.05
61F1127	VT-511H	....	4.6	1 meg		
61F1128	VT-512L	CL503	9.2	10 meg		
61F1129	VT-522L	CL502L	9	1 meg		

Stock No.	Type	Clairex Equival.	2 Ft-CRes. in K Ohms	Min. Res. **	1-99	100-999
61F1130	VT-522	....	18	5 meg		
61F1131	VT-523L	CL502	36	10 meg		
61F1132	VT-54L*	CL5M4L	.25	100 K	1.26	1.05
61F1133	VT-541*	....	.5	500 K		
61F1134	VT-542L	CL504	1.5	1 meg		
61F1135	VT-542	....	2	1 meg		

Note: CL504 and 502 have ½" all glass package.



● NEW PAM-1 PHOTOCELL AMPLIFIER MODULE

Specifications @ 25°C Ambient

Input: 30VDC (center tapped) ±15MA
Output: 3V/vW or 6V/ft. C.
Sensitivity: Below 0.001 footcandles
Linearity error: ....2% to 10 fc.
Photometric response: 3V/μW (with 1
Rise time: ....100 microseconds
Temp. Coefficient: ....—2%/°C
Ambient Temp.: ....—25°C to +65°C

PAM-1 consists of a matched selenium photocell and a high gain amplifier which provides a short-circuit load for the photocell, causing linear operation. The output voltage is determined by the externally connected feedback resistor. The spectral response matches the sensitivity of the eye, but has considerable UV response. Sensitivity is equal to silicon photodiodes and superior to most vacuum or gas phototubes. This sensitivity coupled with the high gain amplifier provides a significant power level from this device.
61F1136. NET **71.00**

VACTROL PHOTOCELL LAMP CONTROL MODULE

VT 6005

Package capable of circuit board mounting, for electronic amplifier use. Epoxy sealed metal enclosure. .100" standard lead centers. Minimum off-res: 100 megohms. Min. off Resis on VT12002N is 1 meg. Dia. 5/16". VT-6005 equal to the Clairex CLM4006; VT10030 like the CML5012.

Stock No.	Type	Max. on Ohms	Rise	Max. Lamp V	1-49	50-499	500-2499
61F1012	VT6005	50	60 ms	6	2.00	1.50	1.20
61F1013	VT10150	1.5K	115 ms	10	2.00	1.50	1.20
61F1014	VT10030	300	120 ms	10	2.00	1.50	1.20
61F1015	VT1.5040	400	130 ms	1.5	2.00	1.50	1.20
61F1150	VT12002N	200	8 ms	120	2.00	1.50	1.20
61F1151	VT120100N	1000	5 ms	120	2.00	1.50	1.20

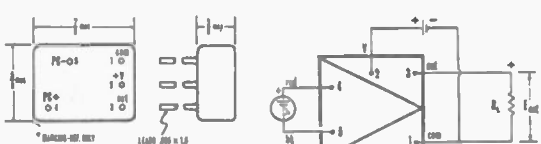
SELENIUM PHOTOVOLTAIC CELLS

Constructed of steel Selenium, molecular layers of CdS and CdO. #30AWG vinyl coated wire leads on unmounted cells. May tolerate 100°C. "L" in type indicates soldered leads. Type A — long-lived, most resistant to chemical fumes, more sensitive to shorter wavelengths; Type B — for higher current output and less fatigue. * indicates 100 Ft-C, 150 Ohms, 75°F, light source 28508K. ** means Epoxy (clear). *** Hermetic, glass to metal case.

Stock No.	Type	Case	Output Min. Microamp	1-9	10-99	100-999
61F1000	RX10LA	.375 Diam	20	1.50	1.20	1.00
61F1001	R1LA	1.13 Diam	220	2.25	1.90	1.65
61F1002	S1LA	44 x 1.69	80	1.60	1.20	1.05
61F1003	S100LA	.89 x 1.69	360	2.35	1.90	1.65
61F1004	S100LB	.89 x 1.69	360	2.35	1.90	1.65
61F1005	R10M1A	1¾ Diam	360	8.00	6.40	5.00

Stock No.	Type	Case	Output Min. Microamp	1-9	10-99	100-999
61F1006	R75EB**	2" Diam	400	15.00	12.00	10.00
61F1007	R75EA**	2" Diam	400	15.00	12.00	10.00
61F1008	RX80HA***	1.1" Diam	130	8.00	6.40	5.00
61F1009		1.1" Diam	130	8.00	6.40	5.00
61F1010	S100EA**	13/32 x 129/32"	360	7.50	6.00	4.65
61F1011	S100EB**	13/32 x 129/32"	360	7.50	6.00	4.65

● NEW PHOTOCELL VOLTAGE MULTIPLIER



Model PVM-1. This amplifier when used with any of the special Vactec photocells, converts it to a constant current source. Combination of cell and PVM makes a solid state equivalent of gas or vacuum phototube. Large voltage changes can be readily obtained with high load resistances. Frequency response from DC to 15KHz available with small area cells. Low supply voltage and current drain make this unit ideal for battery operation. Input: 3-15VDC @ 200μA, Output: 4μA/fc/In² active cell area, Response: up to 10 usec., Peak Spect. Range: 5750°A, Temp. range: —25°C to +65°C.

Stock No.	Type	1-9	10-99	100-999
61F1137	PVM-1	3.50	3.00	2.75

PHOTOCELLS FOR USE WITH PVM-1

All cells furnished with 6" #30 AWG lead wires. Cells less than 0.045" thick and are coated with clear epoxy. Other cell sizes available on request. Peak spectral response occurs at approx. 574 millimicrons of wavelength.

Stk. No.	Part #	Size	Active Area (in. sq.)	Prices 1-9	Prices 10-99
61F1138	ZRX5LB	.25"d	.05	1.65	1.30
61F1139	ZRX10LB	.375"d	.11	1.65	1.30
61F1140	ZRX15LB	.500"d	.16	1.70	1.40
61F1141	ZRX80LB	1.0"d	.52	2.05	1.65
61F1142	ZR5LB	1.375"d	1.18	2.65	2.10

Stk. No.	Part #	Size	Active area (in.sq.)	Prices 1-9	Prices 10-99
61F1143	ZR75LB	1.77"d	1.83	5.55	4.40
61F1144	ZR100LB	2.0"d	2.40	6.35	5.10
61F1145	ZS1LB	.44x.73"	0.31	1.75	1.30
61F1146	ZS100LB	.89x1.69"	1.35	2.60	2.10

● NEW ALL SOLID STATE VACTROL

The first light emitting diode/photoresistor control (LED-PC). The LED Vactrol utilizes a high efficiency light emitting diode to achieve high performance at a relatively low signal power. Operation with adequate resistance change down to 1 milliwatt of input power. Light-to-dark ratio of 1000:1 or greater. Operation at 75 milliwatts input power will permit a 40,000-hour life for the LED. No filaments to vibrate; high shock resistance. Available in TO-8 hermetically sealed enclosure or smaller axial configuration. Response time of photocell is proportional to input power. Vf for LED is 1.5VDC. Hermetically sealed model VT-005-8; axial configuration model VT-030-18A.

Stk. No.	Type	Maximum signal current for 1 killiohm cell resistance	Size	1-9	10-99
61F1148	VT-005-8	5 ma.	mod. TO-8	15.50	13.70
61F1149	VT-030-18A	20 ma.	.220 dia. x .250 axial		

Receiving Tubes

RCA — GE — SYLVANIA

Receiving Tubes May Be Assorted for Quantity Prices

Tube Type	Assorted 1-5	Assorted 6-49	Assorted 50-99	Not Asst. 100-Up
0Z4	1.42	1.28	1.14	1.03
0Z4A	1.62	1.46	1.30	1.17
0Z4G	1.22	1.10	.98	.88
1A3	3.32	2.99	2.66	2.39
1A5GT	2.00	1.80	1.60	1.44
1AD2	1.55	1.39	1.24	1.12
1AY2	1.30	1.17	1.04	.94
1BC2	1.62	1.46	1.30	1.17
1BH2	1.42	1.30	1.16	1.04
1DN5	2.20	1.98	1.76	1.58
1G3GT/1B3GT	1.70	1.53	1.36	1.22
1J3	1.37	1.24	1.10	.99
1K3/1J3	1.70	1.53	1.36	1.22
1L6	6.27	5.65	5.02	4.52
1N5GT	2.45	2.20	1.96	1.76
1R5	2.00	1.80	1.60	1.44
1S2A/DY87	1.27	1.15	1.02	.92
1S4	2.05	1.84	1.64	1.48
1S5	1.70	1.53	1.36	1.22
1T4	1.92	1.73	1.54	1.39
1U4	1.92	1.73	1.54	1.39
1U5	1.70	1.53	1.36	1.22
1V2	1.10	.99	.88	.72
1X2A	1.70	1.53	1.36	1.22
1X2A/1X2B	1.45	1.30	1.16	1.04
1X2B/1X2A	1.70	1.53	1.36	1.22
2A3	4.95	4.45	3.96	3.56
2AF4B/2DZ4	2.05	1.84	1.64	1.48
2AH2	1.70	1.53	1.36	1.22
2AS2	1.50	1.35	1.20	1.08
2AV2	1.42	1.28	1.14	1.03
2AX2	1.10	.99	.88	.79
2BJ2	2.10	1.89	1.68	1.51
2BJ2	1.55	1.39	1.24	1.12
2BN4A	1.77	1.60	1.42	1.28
2CN3A	1.62	1.46	1.30	1.17
2CW4	2.45	2.20	1.96	1.76
2CY5	2.00	1.80	1.60	1.44
2DS4	2.45	2.20	1.96	1.76
2DV4	3.22	2.90	2.58	2.32
2DZ4	Use 2AF4B/2DZ4			
2EG4	2.45	2.20	1.96	1.76
2EN5	1.60	1.44	1.28	1.15
2ER5	1.85	1.66	1.48	1.33
2FH5	1.85	1.66	1.48	1.33
2FQ5	Use 2GK5			
2FS5	2.42	2.18	1.94	1.75
2GK5/2FQ5A	2.10	1.89	1.68	1.51
2GU5	2.25	2.02	1.80	1.62
2HA5	1.92	1.73	1.54	1.39
2HQ5	1.92	1.73	1.54	1.39
3A2	2.75	2.47	2.20	1.98
3A3A/3B2	1.60	1.44	1.28	1.15
3AF4A/3DZ4	2.05	1.84	1.64	1.48
3AL5	1.35	1.21	1.08	.97
3AT2	1.52	1.37	1.22	1.10
3AU6	1.47	1.33	1.18	1.06
3AV6	1.47	1.33	1.18	1.06
3AW2	1.60	1.44	1.28	1.15
3AW3/3B2	Use 3A3A/3B2			
3BA6	1.17	1.06	.94	.85
3BC5	1.22	1.10	.98	.88
3BC5/3CE5	1.47	1.33	1.18	1.06
3BN4A	1.70	1.53	1.36	1.22
3BN6	2.15	1.93	1.72	1.55
3BU8	2.22	2.00	1.78	1.60
3BY6	1.50	1.35	1.20	1.08
3BZ6	1.47	1.33	1.18	1.06
3CA3	1:60	1.44	1.28	1.15
3CB6/3CF6	1:47	1.33	1.18	1.06
3CE5	Use 3BC5/3CE5			
3CF6	1.47	1.33	1.18	1.06
3CN3A	1:60	1.44	1.28	1.15
3CS6	1:85	1.66	1.48	1.33
3CU3	1:87	1.69	1.50	1.35
3CY5	1:95	1.75	1.56	1.40
3DG4	2:37	2.14	1.90	1.71
3DK6	1.47	1.33	1.18	1.06
3DT6A	1.47	1.33	1.18	1.06
3DZ4	Use 3AF4B/3DZ4			
3EA5	1.77	1.60	1.42	1.28
3EH7/XF183	1:27	1.15	1.02	.92
3EJ7/XF184	1.27	1.15	1.02	.92
3ER5	2.22	2.00	1.78	1.69
3FH5	1.62	1.46	1.30	1.17
3FS5	2.15	1.93	1.72	1.55
3GK5	2.10	1.89	1.68	1.51
3GS8/3BU8	2.00	1.80	1.60	1.44
3HM5/3HA5	1.92	1.73	1.54	1.39
3HQ5	2.37	2.14	1.90	1.71
3JC6A	2.00	1.80	1.60	1.44
3KT6	1.70	1.53	1.36	1.22
3Q4	1.67	1.51	1.34	1.21
3Q5GT	2.92	2.63	2.34	2.11
3S4	1.70	1.53	1.36	1.22
3V4	1.70	1.53	1.36	1.22
4AU6	1.47	1.33	1.18	1.06
4AV6	1.47	1.33	1.18	1.06
4BC8	2.00	1.80	1.60	1.44
4BL8/XCF80	1.20	1.08	.96	.86
4BN6	2.02	1.82	1.62	1.46
4BQ7A	2.22	2.00	1.78	1.60
4BS8	2.12	1.91	1.70	1.53
4BU8	2.22	2.00	1.78	1.60
4BU8/4GS8	2.05	1.84	1.64	1.48
4BZ6	1.47	1.33	1.18	1.06
4BZ7	2.45	2.20	1.96	1.76
4CB6	1.42	1.28	1.14	1.03
4CS6	1.70	1.53	1.36	1.22
4CY5	1.35	1.21	1.08	.97
4DE6	1.47	1.33	1.18	1.06
4DK6	1.47	1.33	1.18	1.06
4DT6A	1.17	1.06	.94	.85
4EH7/LF183	1.77	1.60	1.42	1.28
4EJ7/LF184	1.77	1.60	1.42	1.28
4ES8/XCC189	2.75	2.47	2.20	1.98
4EW6	1.45	1.30	1.16	1.04
4GK5	1.95	1.75	1.56	1.40
4GM6	1.10	.99	.88	.79
4GS8	Reference Only Use 4BU8/4GS8			
4GS8/4BU8	1.85	1.66	1.48	1.33
4GZ5	1.77	1.60	1.42	1.28
4HA5/PC900	1.17	1.06	.94	.85
4HA7	1.52	1.37	1.22	1.10
4HC7	1.52	1.37	1.22	1.10
4HM6	1.55	1.39	1.24	1.12
4HQ5	2.10	1.89	1.68	1.51
4HS8	1.67	1.51	1.34	1.21
4HT6	1.27	1.15	1.02	.92
4JC6A	2.15	1.93	1.72	1.55
4JD6	2.15	1.93	1.72	1.55
4JH6	1.70	1.53	1.36	1.22
4KE8	3.02	2.72	2.42	2.18
4LJ8	2.05	1.84	1.64	1.48
5AM8	2.45	2.20	1.96	1.76
5AN8	2.60	2.34	2.08	1.87
5AQ5	1.47	1.33	1.18	1.06
5AR4/GZ34	2.12	1.91	1.70	1.53
5AS4A	1.72	1.55	1.38	1.24
5AS8	2.20	1.98	1.76	1.58
5AT8	2.22	2.00	1.78	1.60
5AU4	2.07	1.87	1.66	1.49
5AV8	2.02	1.82	1.62	1.46
5AZ4	2.65	2.38	2.12	1.91
5B8	2.75	2.47	2.20	1.98
5BC3A	1.70	1.53	1.36	1.22
5BE8	1.55	1.39	1.24	1.12
5BK7A	2.07	1.87	1.66	1.49
5BQ7A	2.15	1.93	1.72	1.55
5BR8	2.45	2.20	1.96	1.76
5BT8	1.55	1.39	1.24	1.12
5BW8	1.60	1.44	1.28	1.15
5CG8	1.85	1.66	1.48	1.33
5CL8A	2.02	1.82	1.12	1.46
5CQ8	2.05	1.84	1.64	1.48
5CZ5	2.22	2.00	1.78	1.60
5DJ4	1.77	1.60	1.42	1.28
5EA8	2.30	2.07	1.84	1.66
5ES8/YCC189	2.75	2.47	2.20	1.98
5EU8	2.00	1.80	1.60	1.44
5EW6	1.70	1.53	1.36	1.22
5FG7	1.77	1.60	1.42	1.28
5FV8	1.62	1.46	1.30	1.17
5GH8	2.30	2.07	1.84	1.66
5GH8A	2.15	1.93	1.72	1.55
5GJ7	1.47	1.33	1.18	1.06
5GM6	1.62	1.46	1.30	1.17
5GX6	1.22	1.10	.98	.88
5GX7	1.80	1.62	1.44	1.30
5HA7	1.52	1.37	1.22	1.10
5HB7	1.70	1.53	1.36	1.22
5HG8	1.85	1.66	1.48	1.33
5HZ6	1.62	1.46	1.30	1.17
5J6	1.85	1.66	1.48	1.33
5JK6/5JL6	1.92	1.73	1.54	1.39
5KD8	1.25	1.12	1.00	.90
5KE8	2.90	2.61	2.32	2.09
5KZ8	1.27	1.15	1.02	.92
5LJ8	2.05	1.84	1.64	1.48
5T8	2.22	2.00	1.78	1.60
5U4G	1.12	1.01	.90	.81
5U4GB	1.12	1.01	.90	.81
5U8	1.92	1.73	1.54	1.39
5U9/LCF201	1.47	1.33	1.18	1.06
5V3A	2.07	1.87	1.66	1.49
5V4GA	2.15	1.93	1.72	1.55
5V6GT	1.85	1.66	1.48	1.33
5X8	2.07	1.87	1.66	1.49
5Y3GT	1.12	1.01	.90	.81
5Y4GA	1.22	1.10	.98	.88
5Y4GT	1.70	1.53	1.36	1.22
5Z3	2.22	2.00	1.78	1.60
6A7	4.00	3.60	3.20	2.88
6A8	3.55	3.19	2.84	2.56
6AB4	1.62	1.46	1.30	1.17
6AC5GT	2.92	2.63	2.34	2.11
6AC7	2.87	2.59	2.30	2.07
6AC10	2.05	1.84	1.64	1.48
6AD10	3.45	3.10	2.76	2.48
6AF3	1.55	1.39	1.24	1.12
6AF4/6AF4A	2.05	1.84	1.64	1.48
6AF6G	3.15	2.83	2.52	2.27
6AF9	1.77	1.60	1.42	1.28
6AF11	2.60	2.34	2.08	1.87
6AG5	1.70	1.53	1.36	1.22
6AG7	3.25	2.92	2.60	2.34
6AG9	2.82	2.54	2.26	2.03
6AG11	2.07	1.87	1.66	1.49
6AH4GT	1.62	1.46	1.30	1.17
6AH6	2.60	2.34	2.08	1.87
6AH9	2.37	2.14	1.90	1.71
6AK5/EF95	2.37	2.14	1.90	1.71
6AL3/EV88	1.30	1.17	1.04	.94
6AL5	1.12	1.01	.90	.91
6AL7GT	3.47	3.13	2.78	2.50
6AL11	2.07	1.87	1.66	1.49
6AM4	2.77	2.50	2.22	2.00
6AM8A	1.72	1.55	1.38	1.24
6AN4	3.07	2.77	2.46	2.21
6AN8A	1.97	1.78	1.58	1.42
6AQ5A	1.22	1.10	.98	.88
6AQ6	1.62	1.46	1.30	1.17
6AQ7GT	2.15	1.93	1.72	1.55
6AQ8/ECC85	1.50	1.35	1.20	1.08
6AR8	1.22	1.10	.98	.88
6AR11	2.42	2.18	1.94	1.75
6AS5	2.25	2.02	1.80	1.62
6AS8	1.47	1.33	1.18	1.06
6AS11	2.10	1.89	1.68	1.51
6AT6	2.55	2.29	2.04	1.84
6AT8A	1.20	1.08	.96	.86
6AU4GTA	2.22	2.00	1.78	1.60
6AU5GT	1.85	1.66	1.48	1.33
6AU6A	2.45	2.20	1.96	1.76
6AU8A	1.05	.94	.84	.76
6AV5GA	2.30	2.07	1.84	1.66
6AV6	2.60	2.34	2.08	1.87
6AV11	.87	.79	.70	.63
6AW7GT	2.20	1.98	1.76	1.58
6AW8A	2.15	1.93	1.72	1.55
6AX3	1.30	1.17	1.04	.94
6AX4GTB	1.37	1.24	1.10	.99
6AX5GT	1.77	1.60	1.42	1.28
6AX8	1.75	1.57	1.40	1.26
6AY3B	1.45	1.30	1.16	1.04
6AY11	2.25	2.02	1.80	1.62
6AZ8	2.75	2.47	2.20	1.98
6B8	3.42	3.08	2.74	2.47
6B10	1.82	1.64	1.46	1.31
6BA3	1.52	1.37	1.22	1.10
6BA6/EF93	1.20	1.08	.96	.86
6BA7	2.92	2.63	2.34	2.11
6BA8A	2.32	2.09	1.86	1.67
6BA11	2.15	1.93	1.72	1.55
6BC4	2.75	2.47	2.20	1.98

RCA — GE — SYLVANIA

Receiving Tubes May Be Assorted for Quantity Prices.

Tube Type	Assorted 1-5	Assorted 6-49	Assorted 50-99	Not Asst. 100-Up
6BC5/6CE5	1.62	1.46	1.30	1.17
6BC7	1.80	1.62	1.44	1.30
6BC8	2.07	1.87	1.66	1.49
6BD6	1.17	1.06	.94	.85
6BD11	2.77	2.50	2.22	2.00
6BE3/6BZ3	1.70	1.53	1.36	1.22
6BE6	1.42	1.28	1.14	1.03
6BF5	1.42	1.28	1.14	1.03
6BF6	1.42	1.28	1.14	1.03
6BF11	2.45	2.20	1.96	1.76
6BG6G	3.05	2.74	2.44	2.20
6BG6GA	3.07	2.77	2.46	2.21
6BH3	1.40	1.26	1.12	1.01
6BH6	1.62	1.46	1.30	1.17
6BH8	2.30	2.07	1.84	1.66
6BH11	2.15	1.93	1.72	1.55
6BJ3	1.40	1.26	1.12	1.01
6BJ6	1.62	1.46	1.30	1.17
6BJ7	1.47	1.33	1.18	1.06
6BJ8	2.00	1.80	1.60	1.44
6BK4B	3.77	3.40	3.02	2.72
6BK5	1.75	1.57	1.40	1.26
6BK7B	2.00	1.80	1.60	1.44
6BL7GTA	2.52	2.27	2.02	1.82
6BL8/ECF80	1.35	1.21	1.08	.97
6BM8/ECL82	1.45	1.30	1.16	1.04
6BN4A	2.00	1.80	1.60	1.44
6BN6	1.85	1.66	1.48	1.33
6BN8	1.85	1.66	1.48	1.33
6BN11	2.25	2.02	1.80	1.62
6BQ5/EL84	1.62	1.46	1.30	1.17
6BQ6GA/6CU6	2.05	1.84	1.64	1.48
6BQ6GTB/6CU6	2.22	2.00	1.78	1.60
6BQ7A	2.07	1.87	1.66	1.49
6BR8A	2.15	1.93	1.72	1.55
6BS3A	1.72	1.55	1.38	1.24
6BS8	2.22	2.00	1.78	1.60
6BU8	2.07	1.87	1.66	1.49
6BV8	1.50	1.35	1.20	1.08
6BV11	2.40	2.16	1.92	1.73
6BW4	1.37	1.24	1.10	.99
6BW8	1.67	1.51	1.34	1.21
6BW11	2.20	1.98	1.76	1.58
6BX7GT	2.95	2.65	2.36	2.12
6BY5GA	2.40	2.16	1.92	1.73
6BY6	1.70	1.53	1.36	1.22
6BY8	1.35	1.21	1.08	.97
6BZ6	1.35	1.21	1.08	.97
6BZ7	2.07	1.87	1.66	1.49
6BZ8	2.10	1.89	1.68	1.51
6C4	1.12	1.01	.90	.81
6C5	2.67	2.41	2.14	1.93
6C6	3.92	3.53	3.14	2.93
6C9	2.75	2.47	2.20	1.98
6C10	1.85	1.66	1.48	1.33
6CA4	1.47	1.33	1.18	1.06
6CA5	1.50	1.35	1.20	1.08
6CA7/EL34	2.67	2.41	2.14	1.93
6CB5A	4.67	4.21	3.74	3.37
6CB6A/6CF6	1.42	1.28	1.14	1.02
6CD6GA	2.90	2.61	2.32	2.09
6CE5	Use 6BC5/6CE5			
6CF6	Use 6CB6A/6CF6			
6CG3/6CD3	1.70	1.53	1.36	1.22
6CG7/6FQ7	1.17	1.06	.94	.85
6CG8A	1.77	1.60	1.42	1.28
6CH8	2.80	2.52	2.24	2.02
6CJ3	1.80	1.62	1.44	1.30
6CK3	1.70	1.53	1.36	1.22
6CK4	1.77	1.60	1.42	1.28
6CL3	1.75	1.57	1.40	1.26
6CL6	2.07	1.87	1.66	1.49
6CL8A	2.07	1.87	1.66	1.49
6CM3	2.45	2.30	1.96	1.76
6CM6	1.92	1.73	1.54	1.39
6CM7	1.62	1.46	1.30	1.17
6CM8	2.02	1.82	1.62	1.46
6CN7	2.22	2.00	1.78	1.60
6CQ4	1.77	1.60	1.42	1.28
6CQ8	1.85	1.66	1.48	1.33
6CR6	1.47	1.33	1.18	1.06
6CS6	1.47	1.33	1.18	1.06
6CS7	1.70	1.53	1.36	1.22
6CU5	1.77	1.60	1.42	1.28

Tube Type	Assorted 1-5	Assorted 6-49	Assorted 50-99	Not Asst. 100-Up
6CU6/6BQ6GA	2.05	1.84	1.64	1.48
6CU6/6BQ6GTB	Use 6BQ6GTB/6CU6			
6CU8	2.30	2.07	1.84	1.66
6CW4	2.45	2.20	1.96	1.76
6CW5/EL86	1.37	1.24	1.10	.99
6CX8	2.37	2.14	1.90	1.71
6CY5	2.00	1.80	1.60	1.44
6CY7	1.52	1.37	1.22	1.10
6CZ5	2.37	2.14	1.90	1.71
6D6	3.67	3.31	2.94	2.65
6D10	2.12	1.91	1.70	1.53
6DA4	1.85	1.66	1.48	1.33
6DB5	2.50	2.25	2.00	1.80
6DC6	1.92	1.73	1.54	1.39
6DC8/EBF89	1.52	1.37	1.22	1.10
6DE4	1.77	1.60	1.42	1.28
6DE6	1.47	1.33	1.18	1.06
6DE7	2.07	1.87	1.66	1.49
6DG6GT	1.92	1.73	1.54	1.39
6DJ8	See Spec. Purp. Tube Section			
6DK6	1.47	1.33	1.18	1.06
6DL5/EL95	1.47	1.33	1.18	1.06
6DM4A	1.67	1.51	1.34	1.21
6DN6	3.50	3.15	2.80	2.52
6DN7	2.00	1.80	1.60	1.44
6DQ4	1.22	1.10	.98	.88
6DQ5	3.92	3.53	3.14	2.83
6DQ6B	2.10	1.89	1.68	1.51
6DQ6B/6GW6	2.10	1.89	1.68	1.51
6DR7	2.30	2.07	1.84	.97
6DS4	2.45	2.20	1.96	1.76
6DS5	1.82	1.64	1.46	1.31
6DT5	1.77	1.60	1.42	1.28
6DT6A	1.35	1.21	1.08	.97
6DT8	1.87	1.69	1.50	1.35
6DV4	3.22	2.90	2.58	2.32
6DW4B	1.75	1.57	1.40	1.26
6DW5	1.92	1.73	1.54	1.39
6DX8/ECL84	1.45	1.30	1.16	1.04
6DZ4	2.05	1.84	1.64	1.48
6DZ7	4.35	3.91	3.48	3.13
6E5	2.82	2.54	2.26	2.03
6EA7	2.60	2.34	2.08	1.87
6EA8	1.77	1.60	1.42	1.28
6EB8	2.52	2.27	2.02	1.82
6EF4	3.80	3.42	3.28	2.95
6EH4A	4.10	3.69	3.28	2.95
6EH5	1.77	1.60	1.42	1.28
6EH7/EF183	1.92	1.73	1.54	1.39
6EH8	1.75	1.57	1.40	1.26
6EJ4A	4.25	3.82	3.40	3.09
6EJ7/EF184	1.77	1.60	1.42	1.28
6EM5	1.85	1.66	1.48	1.33
6EM7	2.60	2.34	2.08	1.87
6EQ7	1.47	1.33	1.18	1.06
6ER5	1.90	1.71	1.52	1.37
6ES5	1.42	1.28	1.14	1.03
6ES8	2.72	2.45	2.18	1.96
6ET7	2.00	1.80	1.60	1.44
6EU7	1.62	1.46	1.30	1.17
6EU8	1.85	1.66	1.48	1.33
6EV5	1.55	1.39	1.24	1.12
6EV7	1.62	1.46	1.30	1.17
6EW6	1.35	1.21	1.08	.97
6EW7	3.00	2.70	2.40	2.16
6EZ5	2.22	2.00	1.78	1.60
6EZ8	1.77	1.60	1.42	1.28
6F5	2.75	2.47	2.20	1.98
6F6	2.90	2.61	2.32	2.09
6F6GT	2.90	2.61	2.32	2.09
6F8G	4.22	3.80	3.38	3.04
6FA7	1.47	1.33	1.18	1.06
6FD6	1.77	1.60	1.42	1.28
6FD7	2.65	2.38	2.12	1.91
6FE5	1.70	1.53	1.36	1.22
6FG5	2.67	2.41	2.14	1.93
6FG7	2.07	1.87	1.66	1.49
6FH5	1.92	1.73	1.54	1.39
6FH8	2.02	1.82	1.62	1.46
6FJ7	1.87	1.69	1.50	1.35
6FM7	1.62	1.46	1.30	1.17
6FM8	1.42	1.28	1.14	1.03
6FQ5A	1.92	1.73	1.54	1.39
6FQ7	1.17	1.06	.94	.85
6FQ7/6CG7	1.17	1.06	.94	.85

Tube Type	Assorted 1-5	Assorted 6-49	Assorted 50-99	Not Asst. 100-Up
6FS5	2.05	1.84	1.64	1.48
6FV6	2.22	2.00	1.18	1.60
6FV8A	2.15	1.93	1.72	1.55
6FW5	1.92	1.73	1.54	1.39
6FY5/EC97	1.37	1.24	1.10	.99
6FY7	1.60	1.44	1.28	1.15
6G11	2.20	1.98	1.76	1.58
5GB5/EL500	1.90	1.71	1.52	1.37
6GC5	2.22	2.00	1.78	1.60
6GE5	1.92	1.73	1.54	1.39
6GF5	1.75	1.57	1.40	1.26
6GF7A	2.42	2.18	1.94	1.75
6GH8A	1.60	1.44	1.28	1.15
6GJ5A	2.80	2.52	2.24	2.02
6GJ7/ECF801	1.55	1.39	1.24	1.12
6GK5	2.07	1.87	1.66	1.49
6GK6	1.70	1.53	1.36	1.22
6GL7	2.90	2.61	2.32	2.09
6GM5	1.52	1.37	1.22	1.10
6GM6	1.62	1.46	1.30	1.17
6GN8	2.30	2.07	1.84	1.66
6GQ7	1.87	1.69	1.50	1.35
6GT5A	2.70	2.43	2.16	1.94
6GU5	2.05	1.84	1.64	1.48
6GU7	1.85	1.66	1.58	1.42
6GV8	2.30	2.07	1.84	1.66
6GV5	1.95	1.75	1.56	1.40
6GV8/ECL85	2.30	2.07	1.84	1.66
6GY8	1.95	1.75	1.56	1.40
6HB5	2.07	1.87	1.66	1.49
6LY8	1.55	1.39	1.24	1.12
6GW6	2.10	1.89	1.68	1.51
6GW6/6DQ6B	2.10	1.89	1.68	1.51
6GW8/ECL86	1.52	1.37	1.22	1.10
6GX6	1.45	1.30	1.18	1.04
6GX7	1.80	1.62	1.44	1.30
6GY5	2.30	2.07	1.84	1.66
6GY6	1.45	1.30	1.16	1.04
6GY8	1.77	1.60	1.42	1.28
6H6	2.45	2.20	1.96	1.76
6HA6	2.22	2.00	1.78	1.60
6HB5	2.10	1.89	1.68	1.51
8HB6	2.22	2.00	1.78	1.60
6HB6/6HA6	2.22	2.00	1.78	1.60
6HB7	2.00	1.80	1.60	1.44
6HE5	1.85	1.66	1.48	1.33
6HF5	3.65	3.28	2.92	2.63
6HF8	2.30	2.07	1.84	1.66
6HG5	1.47	1.33	1.18	1.06
6HG8/ECF86	1.85	1.66	1.48	1.33
6HJ8	1.55	1.39	1.24	1.12
6HK5	1.95	1.75	1.56	1.40
6HL8	1.52	1.37	1.22	1.10
6HM5	1.92	1.73	1.54	1.39
6HM5/6HA5	1.92	1.73	1.54	1.39
6HM6	1.47	1.33	1.18	1.06
6HQ5	2.25	2.02	1.80	1.62
6HR5	1.27	1.15	1.02	.92
6HR6	1.85	1.66	1.48	1.33
6HS5	3.87	3.49	3.10	2.79
6HS6	1.85	1.66	1.48	1.33
6HS8	2.15	1.93	1.72	1.55
6HZ6	1.50	1.35	1.20	1.08
6J5	2.05	1.84	1.64	1.48
6J5GT	2.05	1.84	1.64	1.48
6J6A	1.62	1.46	1.30	1.17
6J7	2.60	2.34	2.08	1.87
6J10/6Z10	Use 6Z10/6J10			
6J10	2.50	2.25	2.00	1.80
6J11	2.40	2.16	1.92	1.73
6JB6A	2.92	2.63	2.34	2.11
6JC6A	1.97	1.78	1.58	1.42
6JC8	1.52	1.37	1.22	1.10
6JD6	1.77	1.37	1.42	1.28
6JE6/6LQ6	Use 6LQ6/6JE6C			
6JE6A	4.25	3.82	3.40	3.06
6JE6B	4.25	3.82	3.45	3.06
6JE8	1.85	1.66	1.48	1.33
6JF6	3.10	2.79	2.48	2.23
6JG6A	3.25	2.92	2.60	2.34
6JH6	1.47	1.33	1.18	1.06
6JH8	2.37	2.14	1.90	1.71
6JK8	2.02	1.82	1.62	1.46
6JM6A	2.07	1.87	1.66	1.49

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Receiving Tubes May Be Assorted For Quantity Prices

Tube Type	Assorted 1-5	6-49	50-99	Not Asst. 100-Up
6JN6	1.02	1.73	1.54	1.39
6JN8	1.82	1.64	1.46	1.13
6JQ6	1.57	1.42	1.26	1.13
6JR6	3.00	2.70	2.40	2.16
6JS6B	3.65	3.28	2.92	2.63
6JT6A	2.47	2.23	1.98	1.78
6JT8	2.00	1.80	1.60	1.44
6JU6	3.17	2.86	2.54	2.29
6JU8	1.75	1.57	1.40	1.26
6JU8A	1.92	1.73	1.54	1.39
6JV8	2.20	1.98	1.76	1.58
6JW8/ ECF802	1.55	1.39	1.24	1.12
6JZ6	2.32	2.09	1.86	1.67
6JZ8	1.77	1.60	1.42	1.28
6K6GT	1.47	1.33	1.18	1.06
6K7	2.95	2.65	2.36	2.12
6K8	3.85	3.46	3.08	2.77
6K11/6Q11	1.82	1.64	1.46	1.31
6KA8	2.25	2.02	1.80	1.62
6KD6	3.85	3.46	3.08	2.77
6KD8	Use 6U8A/6KD8 Reference On			
6KE8	2.82	2.54	2.26	2.03
6KL8	1.47	1.33	1.18	1.06
6KM6	4.10	3.69	3.28	2.95
6KM8	1.72	1.55	1.38	1.24
6KR8	2.12	1.91	1.70	1.53
6KT6	1.65	1.48	1.32	1.19
6KT8	2.45	2.20	1.96	1.76
6KU8	2.40	2.16	1.92	1.73
6KV8	2.92	2.63	2.34	2.11
6KY8A	3.62	3.26	2.90	2.61
6KZ8	1.85	1.66	1.48	1.33
6L4	Refer to Manual 1D1020			
6L6	4.40	3.96	3.52	3.17
6L6GC	2.37	2.14	1.90	1.71
6L7	3.47	3.13	2.78	2.50
6LB6	8.15	7.70	7.34	6.93
6LB8	2.35	2.11	1.88	1.69
6LC8	2.10	1.89	1.68	1.51
6LE8	3.10	2.79	2.48	2.23
6LF8	2.07	1.81	1.66	1.49
6LH6A	3.15	3.02	2.72	2.45
6LJ6	3.77	3.40	3.02	2.72
6LJ8	2.05	1.84	1.64	1.48
6LM8	2.22	2.00	1.78	1.60
6LN8/LCF80	1.20	1.08	.96	.86
6LQ6/ 6JE6C	4.25	3.82	3.40	3.06
6LQ8	2.52	2.27	2.02	1.82
6LT8	1.35	1.21	1.08	.97
6LU8	2.37	2.14	1.90	1.71
6LX8/ LCF802	1.95	1.75	1.04	.94
6LY8	1.95	1.75	1.56	1.40
6MD8	2.42	2.18	1.94	1.75
6ME8	2.10	1.89	1.68	1.51
6MF8	2.37	2.14	1.90	1.71
6MJ8	2.10	1.89	1.68	1.51
6MK8	2.15	1.93	1.72	1.55
6MQ8	1.67	1.51	1.34	1.21
6M11	2.50	2.25	2.00	1.80
6N7	2.60	2.34	2.08	1.87
6N7GT	2.60	2.34	2.08	1.87
6Q7	2.95	2.65	2.36	2.12
6S4A	1.47	1.33	1.18	1.06
6S8GT	2.07	1.87	1.66	1.49
6SA7	2.95	2.65	2.36	2.12
6SA7GT	2.20	1.98	1.76	1.58
6SBY7	2.97	2.68	2.38	2.14
6SC7	2.45	2.20	1.96	1.76
6SF5	2.22	2.00	1.78	1.60
6SF7	3.15	2.83	2.52	2.27
6SG7	2.45	2.20	1.96	1.76
6SH7	2.67	2.41	2.14	1.93
6SJ7	2.07	1.87	1.66	1.49
6SK7	2.22	2.00	1.78	1.60
6SK7G	2.75	2.47	2.20	1.98
6SL7GT	1.77	1.60	1.42	1.28
6SN7GTB	1.55	1.39	1.24	1.12
6SQ7	2.22	2.00	1.78	1.60
6SR7	2.45	2.20	1.96	1.76
6T4	2.57	2.32	2.06	1.85
6T8A	1.85	1.66	1.48	1.33
6T9	2.02	1.82	1.62	1.46
6T10	2.12	1.91	1.70	1.53
6U5	3.70	3.33	2.96	2.66
6U8A/6KD8	1.55	1.39	1.24	1.12
6U9/ECF201	1.45	1.30	1.16	1.04

Tube Type	Assorted 1-5	6-49	50-99	Not Asst. 100-Up
6U10	1.82	1.64	1.46	1.31
6V4/EZ80	.75	.67	.60	
6V3A	2.27	2.05	1.82	1.64
6V6	3.17	2.86	2.54	2.29
6V6GTA	1.62	1.46	1.30	1.17
6W4GT	1.47	1.33	1.18	1.06
6W6GT	1.65	1.48	1.32	1.19
6X4	1.05	.94	.84.	.76
6X5GT	1.20	1.08	.96	.86
6X8A	1.70	1.53	1.36	1.22
6X9/ ECF200	1.45	1.30	1.16	1.04
6Y6G	Use 6Y6GA			
6Y6GA/ 6Y6G	2.22	2.00	1.78	1.60
6Y6GT	1.77	1.60	1.42	1.28
6Y9	1.47	1.33	1.18	1.06
624	Use 84/624			
6Z10/6J10	2.50	2.25	2.00	1.80
7A7	3.57	3.22	2.86	2.57
7AU7	1.35	1.21	1.08	.97
7C5	1.67	1.51	1.34	1.21
7C7	1.70	1.53	1.36	1.22
7EY6	1.67	1.51	1.34	1.21
7F7	3.75	3.37	3.00	2.70
7F8	4.12	3.71	3.30	2.97
7HG8/PCF86	1.37	1.24	1.10	.99
7N7	3.55	3.19	2.84	2.56
7V7	2.32	2.09	1.86	1.67
8AR11	2.17	1.96	1.74	1.57
8AU8	1.92	1.73	1.54	1.39
8AW8A	2.00	1.80	1.60	1.44
8B10	1.67	1.51	1.34	1.21
8BA8A	1.72	1.55	1.38	1.24
8BA11	2.00	1.80	1.60	1.44
8BH8	1.67	1.51	1.34	1.21
8BM11	1.85	1.66	1.48	1.33
8BN8	2.12	1.91	1.70	1.53
8BQ5	1.47	1.33	1.18	1.06
8BQ11	2.15	1.93	1.72	1.55
8BU11	2.27	2.05	1.82	1.64
8CG7/8FQ7	1.17	1.06	.94	.85
8CM7	1.35	1.21	1.08	.97
8CN7	1.52	1.37	1.22	1.10
8CS7	1.77	1.60	1.42	1.28
8CW5/XL86	1.27	1.15	1.02	.92
8CX8	2.20	1.98	1.76	1.58
8EB8	2.05	1.84	1.64	1.48
8EM5	1.85	1.66	1.48	1.33
8ET7	2.07	1.87	1.66	1.49
8FQ7/8CG7	1.17	1.06	.94	.85
8GJ7/PCF801	1.45	1.30	1.16	1.04
8GN8	2.07	1.87	1.66	1.49
8GU7	1.60	1.44	1.28	1.15
8JU8A	1.67	1.51	1.34	1.21
8JV8	2.15	1.93	1.72	1.55
8KA8	2.12	1.91	1.70	1.53
8LC8	2.12	1.91	1.70	1.53
8LT8	1.35	1.21	1.08	.97
9A8/PCF80	1.32	1.19	1.06	.95
9AU7	1.47	1.33	1.18	1.06
9BJ11	2.40	2.16	1.92	1.73
9BR7	1.57	1.42	1.26	1.13
9EA8	1.52	1.37	1.22	1.10
9GV8/XCL85				
9KC6	1.70	1.53	1.36	1.22
9KX6	2.07	1.87	1.66	1.49
9KZ8	1.47	1.33	1.18	1.06
9U8A	1.55	1.39	1.24	1.12
10AL11	2.27	2.05	1.82	1.64
10BQ5	1.27	1.15	1.02	.92
10C8	2.57	2.32	2.06	1.85
10CW5/LL86	1.27	1.15	1.02	.92
10DE7	2.22	2.00	1.78	1.60
10DR7	2.22	2.00	1.78	1.60
10DX8/ LCL84	1.37	1.24	1.10	.99
10EG7	2.17	1.96	1.74	1.57
10EM7	2.45	2.20	1.96	1.76
10EW7	2.20	1.98	1.76	1.58
10GF7A	2.37	2.14	1.90	1.71
10GK6	1.52	1.37	1.22	1.10
10GN8	2.22	2.00	1.78	1.60
10HF8	2.45	2.20	1.96	1.76
10JT8	2.07	1.87	1.66	1.49
10JY8	1.82	1.64	1.46	1.31
10KR8	2.12	1.91	1.70	1.53
10KU8	2.42	2.18	1.94	1.75

Tube Type	Assorted 1-5	6-49	50-99	Not Asst. 100-Up
10LB8	2.35	2.11	1.88	1.69
10LE8	2.95	2.65	2.36	2.12
10LW8	2.12	1.91	1.70	1.53
10LZ8	1.47	1.33	1.18	1.06
11AR11	2.05	1.84	1.64	1.48
11BQ11	2.05	1.84	1.64	1.48
11BT11	2.95	2.65	2.26	2.12
11CY7	1.80	1.62	1.44	1.30
11HM7	2.37	2.14	1.90	1.71
11JE8	1.92	1.73	1.54	1.39
11KV8	2.95	2.65	2.36	2.12
11LQ8	2.95	2.65	2.36	2.12
11Y9/LFL200	1.85	1.66	1.48	1.33
12AB5	1.92	1.73	1.54	1.39
12AC6	1.05	.94	.84	.76
12AD6	1.55	1.39	1.24	1.12
12AE6A	2.32	2.09	1.86	1.67
12AE10	1.55	1.39	1.24	1.12
12AF3	1.92	1.73	1.54	1.39
12AF6	1.57	1.42	1.26	1.13
12AL5	1.15	1.03	.92	.83
12AL8	3.07	2.77	2.46	2.21
12AL11	2.10	1.89	1.68	1.51
12AQ5	1.55	1.39	1.24	1.12
12AT6	1.20	1.08	.96	.86
12AT7/ ECC81	1.42	1.28	1.14	1.03
12AU6	1.27	1.15	1.02	.92
12AU7A/ ECC82	1.27	1.15	1.02	.92
12AV5GA	2.52	2.27	2.02	1.82
12AV6	.97	.88	.78	.70
12AV7	1.35	1.21	1.08	.97
12AW6	1.77	1.60	1.42	1.28
12AX3	1.50	1.35	1.20	1.08
12AX4GTB	1.35	1.21	1.08	.97
12AX7/ ECC83	1.35	1.21	1.08	.97
12AY3A	1.32	1.19	1.06	.95
12AY7	2.42	2.18	1.94	1.75
12AZ7A	1.62	1.46	1.30	1.17
12B4A	1.60	1.44	1.28	1.15
12BA6	1.05	.94	.84	.76
12BA7	2.95	2.65	2.36	2.12
12BD6	1.17	1.06	.94	.85
12BE3	1.52	1.37	1.22	1.10
12BE6	1.27	1.15	1.02	.92
12BF6	1.17	1.06	.94	.85
12BF11	2.17	1.96	1.74	1.57
12BH7A	1.57	1.42	1.26	1.13
12BK5	1.87	1.69	1.50	1.35
12BL6	1.85	1.66	1.48	1.33
12BN6	1.82	1.64	1.46	1.31
12BQ6GTB	2.10	1.89	1.68	1.51
12BQ6GTB/ 12CU6	2.22	2.00	1.78	1.60
12BR7	1.52	1.37	1.22	1.10
12BS3A	1.85	1.66	1.48	1.33
12BT3	1.42	1.28	1.14	1.03
12BV7	1.65	1.48	1.32	1.19
12BW4	1.67	1.51	1.34	1.21
12BY7A	1.60	1.44	1.28	1.15
12BZ6	1.20	1.08	.96	.86
12BZ7	2.07	1.87	1.66	1.49
12CA5	1.70	1.53	1.36	1.22
12CL3	1.75	1.57	1.40	1.26
12CN5	1.62	1.46	1.30	1.17
12CR6	1.47	1.33	1.18	1.06
12CU5/ 12C5	1.70	1.53	1.36	1.22
12CX6	1.37	1.24	1.10	.99
12D4	1.52	1.37	1.22	1.10
12DB5	1.30	1.17	1.04	.94
12DK6	1.15	1.03	.92	.83
12DQ6B	2.12	1.91	1.70	1.53
12DQ6B/ 12GW6	2.12	1.91	1.70	1.53
12DQ7	1.62	1.46	1.30	1.17
12DS7	2.70	2.43	2.16	1.94
12DT5	1.55	1.39	1.24	1.12
12DT8	2.00	1.80	1.60	1.44
12DW7	1.52	1.37	1.22	1.10
12DY8	3.97	3.58	3.18	2.86
12DZ6	1.80	1.62	1.44	1.30
12ED5	1.35	1.21	1.08	.97
12EK6	1.77	1.60	1.42	1.28
12EQ7	1.37	1.24	1.10	.99

RCA — GE — SYLVANIA

Receiving Tubes May Be Assorted for Quantity Prices

Tube Type	Assorted 1-5	6-49	50-99	100-Up
12F8	1.62	1.46	1.30	1.17
12FK6	1.27	1.15	1.02	.92
12FM6	1.30	1.17	1.04	.94
12FQ8	2.60	2.34	2.08	1.87
12FV7	1.70	1.46	1.30	1.17
12FX5	1.62	1.53	1.36	1.22
12FX8A	1.92	1.73	1.54	1.39
12GC6	1.97	1.78	1.58	1.42
12GE5	2.05	1.84	1.64	1.48
12GJ5A	2.45	2.20	1.96	1.76
12GN7A	2.22	2.00	1.78	1.60
12GT5	2.67	2.41	2.14	1.93
12GW6/12DQ6B	2.12	1.91	1.70	1.53
12H6	2.22	2.00	1.78	1.60
12HE7	3.40	3.06	2.72	2.45
12HG7	2.22	2.00	1.78	1.60
12HL7	2.22	2.00	1.78	1.60
12J5GT	2.40	2.16	1.92	1.73
12J8	2.17	1.96	1.74	1.57
12JB6A	3.10	2.79	2.48	2.23
12JN6	1.95	1.75	1.56	1.40
12JN8	1.85	1.66	1.48	1.33
12JT6A	2.47	2.23	1.98	1.78
12K5	1.72	1.55	1.38	1.24
12K7GT	3.30	2.97	2.64	2.38
12KL8	1.22	1.10	.98	.88
12L6GT	1.77	1.60	1.42	1.28
12MD8	2.42	2.18	1.94	1.75
12R5	1.67	1.51	1.34	1.21
12SA7	2.95	2.65	2.36	2.12
12SC7	2.60	2.34	2.08	1.87
12SF5	1.92	1.73	1.54	1.39
12SF7	3.10	2.79	2.48	2.23
12SG7	2.35	2.11	1.88	1.69
12SH7	2.70	2.43	2.16	1.94
12SJ7	2.15	1.93	1.72	1.55
12SK7	2.22	2.00	1.78	1.60
12SK7GT	2.22	2.00	1.78	1.60
12SL7GT	2.07	1.87	1.66	1.49
12SN7GTA	1.70	1.53	1.36	1.22
12SQ7	2.22	2.00	1.78	1.60
12SQ7GT	2.22	2.00	1.78	1.60
12V6GT	2.22	2.00	1.78	1.60
12W6GT	2.22	2.00	1.78	1.60
12X4	1.12	1.01	.90	.81
13CW4	2.52	2.27	2.02	1.82
13DE7	2.00	1.80	1.60	1.44
13DR7	2.37	2.14	1.90	1.71
13EM7/15EA7	2.67	2.41	2.14	1.93
13FD7	2.52	2.27	2.02	1.82
13FM7	1.50	1.35	1.20	1.08
13GB5/XL500	1.85	1.66	1.48	1.33
13GF7A	2.35	2.11	1.88	1.69
13J10	Use 13Z10/13J10			
13V10	2.05	1.84	1.64	1.48
13Z10/13J10	2.52	2.27	2.02	1.82
14BL11	2.80	2.52	2.24	2.02
14BR11	2.65	2.38	2.12	1.91
14GT8	1.72	1.55	1.38	1.24
14JG8	1.55	1.39	1.24	1.12
15AF11	2.37	2.38	2.12	1.91
15BD11	2.65	1.10	.98	.88
15CW5/PL84	1.22	1.53	1.36	1.22
15DQ8	1.70	1.53	1.36	1.22
15FM7	1.70	1.53	1.36	1.22
15FY7	1.95	1.75	1.56	1.40
15KY8A	2.90	2.61	2.32	2.09
15LE8	3.82	2.61	2.32	2.09
16A8	1.70	1.53	1.36	1.22
16AQ3/XY88	1.35	1.21	1.08	.97
16GK6	1.52	1.37	1.22	1.10
16GY5	2.42	2.18	1.94	1.75
17AX3	1.30	1.17	1.04	.94
17AX4GTA	1.85	1.66	1.48	1.33
17AY3A	1.62	1.46	1.30	1.17

Tube Type	Assorted 1-5	6-49	50-99	Not Asst. 100-Up
17BE3/17BZ3	1.45	1.30	1.16	1.04
17BF11	2.27	2.05	1.82	1.64
17BH3	1.42	1.28	1.14	1.03
17BQ6GTB	2.60	2.34	2.08	1.87
17BS3A	1.67	1.51	1.34	1.21
17BZ3	Use 17BES/17BZ3			
17C5	Use 17CU5/17C5			
17C9	3.57	3.22	2.96	2.57
17CK3	1.47	1.33	1.18	1.06
17CT3	1.47	1.33	1.18	1.06
17CU5/17C5	1.35	1.21	1.08	.97
17D4	1.85	1.66	1.48	1.33
17DE4	1.82	1.64	1.46	1.31
17DM4A	2.30	2.07	1.84	1.66
17EW8	1.37	1.24	1.10	.99
17GE5	2.17	1.96	1.74	1.57
17GJ5	2.75	2.47	2.20	1.98
17GT5A	2.45	2.20	1.96	1.76
17GV5	2.10	1.80	1.68	1.51
17GW6/17DQ6B	2.12	1.91	1.70	1.53
17H3	1.37	1.24	1.10	.99
17JB6A	2.75	2.47	2.20	1.98
17JG6A	3.15	2.83	2.52	2.27
17JM6A	2.10	1.89	1.68	1.51
17JN6	1.95	1.75	1.56	1.40
17JZ8	1.77	1.60	1.42	1.28
17JT6A	2.47	2.23	1.98	1.78
17KV6	3.65	3.28	2.92	2.63
17DL8	Use 15KY8A			
17X10	2.25	2.02	1.80	1.62
18A5	1.95	1.75	1.56	1.40
18FW6A	1.22	1.10	.98	.88
18FX6A	1.47	1.33	1.18	1.06
18FY6A	1.47	1.33	1.18	1.06
18GD6A	1.47	1.33	1.18	1.06
19AU4GTA	2.00	1.80	1.60	1.44
19BG6GA	3.32	2.99	2.66	2.39
19CL8A	1.85	2.00	1.48	1.33
19EA8	2.22	2.00	1.78	1.60
19EZ8	2.25	2.02	1.80	1.62
19GQ7	1.90	1.71	1.52	1.37
19HR6	1.22	1.10	.98	.88
19HS6	1.20	1.08	.96	.86
19HV8	1.87	1.69	1.50	1.35
19J6	1.85	1.66	1.48	1.33
19JN8	1.60	1.44	1.28	1.15
19KG8	1.55	1.39	1.24	1.12
19T8	2.45	2.20	1.96	1.76
19X8	2.05	1.84	1.64	1.48
20AQ3/LY88	1.62	1.46	1.30	1.17
20EZ7	1.70	1.53	1.36	1.22
21GY5	2.32	2.09	1.86	1.67
21HB5A	2.37	2.14	1.90	1.71
21JV6	2.32	2.09	1.86	1.67
21JZ6	2.42	2.18	1.94	1.75
21KA6	2.22	2.00	1.78	1.60
21LR8	2.37	2.14	1.90	1.71
21LU8	2.37	2.14	1.90	1.71
22BH3A	1.55	1.39	1.24	1.12
22BW3	1.52	1.37	1.22	1.10
22DE4	1.85	1.60	1.48	1.33
22JF6	3.42	3.08	2.74	2.47
22JG6A	3.10	2.79	2.48	2.23
22JR6	3.00	2.70	2.40	2.16
22JU6	3.17	2.86	2.54	2.29
22KM6	4.10	3.69	3.28	2.95
23Z9	2.35	2.11	1.88	1.69
24JE6A	4.25	3.82	3.40	3.06
25AV5GA	2.82	2.54	2.26	2.03
25AX4GT	1.52	1.37	1.22	1.10
25BK5	1.70	1.53	1.36	1.22
25BQ6GTB/25CU6	2.20	1.98	1.76	1.58
25C5	1.47	1.33	1.18	1.06
25CA5	1.80	1.62	1.44	1.30
25CD6GB	2.87	2.59	2.30	2.07

Tube Type	Assorted 1-5	6-49	50-99	Not Asst. 100-Up
25DN6	2.97	2.68	2.38	2.14
25EC6	3.07	2.77	2.46	2.21
25EH5	1.62	1.46	1.30	1.17
25F5A	1.92	1.73	1.54	1.39
25L6GT	1.85	1.66	1.48	1.33
25W4GT	1.85	1.66	1.48	1.33
25Z6GT	1.92	1.73	1.54	1.39
27GB5/PL500	1.85	1.66	1.48	1.33
32ET5A	1.20	1.08	.96	.86
33GT7	3.47	3.13	2.78	2.50
33GY7A	3.02	2.72	2.42	2.18
33JV6	2.32	2.09	1.86	1.67
34GD5A	1.47	1.33	1.18	1.06
35B5	1.60	1.44	1.28	1.15
35C5	1.35	1.21	1.08	.97
35EH5	1.70	1.53	1.36	1.22
35GL6	1.45	1.30	1.16	1.04
35L6GT	1.92	1.73	1.54	1.39
35W4	.70	.63	.56	.50
35Y4	2.25	2.02	1.80	1.62
35Z4GT	1.27	1.15	1.02	.92
35Z5GT	1.35	1.21	1.08	.97
36AM3B	1.27	1.15	1.02	.92
38HE7	3.32	2.99	2.66	2.39
38HK7	3.27	2.95	2.62	2.36
40KD6	4.05	3.64	3.24	2.92
42	2.42	2.18	1.94	1.75
42KN6	3.60	3.24	2.88	2.59
43	3.60	3.24	2.88	2.59
50A1	3.40	3.06	2.72	2.45
50A5	2.92	2.63	2.34	2.11
50B5	1.47	1.33	1.18	1.06
50C5	1.27	1.15	1.02	.92
50DC4	1.20	1.08	.96	.86
50EH5	1.35	1.21	1.08	.97
50FE5	2.22	2.00	1.78	1.60
50FK5	1.10	.99	.88	.79
50HC6	1.20	1.08	.96	.86
50HK6	1.07	.97	.86	.77
50L6GT	1.77	1.53	1.36	1.22
50X6	2.92	2.63	2.34	2.11
50Y6GT	2.17	1.96	1.74	1.57
50Y7GT	2.12	1.91	1.70	1.53
60FX5	1.47	1.33	1.18	1.06
80	2.40	2.16	1.92	1.73
UABC80	1.73	1.63	1.56	1.47
84/6Z4	2.60	2.34	2.08	1.87
EM84/6FG6	1.67	1.51	1.34	1.21
ECL86/6GW8	1.52	1.37	1.22	1.10
PCF86/7HG8	1.47	1.33	1.18	1.06
EC97/6FY5	1.37	1.24	1.10	.99
117L7/M7GT	4.77	4.30	3.82	3.44
117N7GT	6.42	5.79	5.14	4.63
117Z3	2.25	2.02	1.80	1.62
117Z6GT	3.35	3.01	2.68	2.41
5879	2.37	2.14	1.90	1.71
6973	2.12	1.91	1.70	1.53
7025	1.55	1.39	1.24	1.12
7027A	3.37	3.04	2.70	2.42
7189	1.70	1.53	1.36	1.22
7199	2.22	2.00	1.78	1.60
7247	1.60	1.44	1.38	1.15
7355	1.55	1.39	1.24	1.12
7408	1.67	1.51	1.34	1.21
7543	1.62	1.46	1.30	1.17
7581A	2.27	2.05	1.82	1.64
7591A	1.40	1.26	1.12	1.01
7695	2.20	1.98	1.76	1.58
7734/6GE8	2.72	2.45	2.18	1.96
7868	2.37	2.14	1.90	1.71
8136	1.27	1.15	1.02	.92
8417	2.82	2.54	2.26	2.03
8425A/6AU6A	1.27	1.15	1.02	.92
8426A/12AU6	1.40	1.26	1.12	1.01

NEWARK CAN SUPPLY ALL TUBES AVAILABLE FROM STOCK
PHONE — WRITE — WIRE

Industrial & Special Purpose Tubes

Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer
AME	Amperex	GL	Genelex Gold Lion	RAY	Raytheon	THE	Thermosen
DUM	Dumont	MUL	Mullard	RCA	Radio Corporation of America	VIC	Victoreen
EIM	Eimac	10M	Mullard "10M"			WES	Westinghouse
GE	General Electric	NE	National Electr.	SYL	Sylvania		
		NU	National Union				

Tube Type	Mfg.	1-4	5-18	19-49	50-99
OA2	AME	1.32	1.28	1.19	1.12
OA2	GE	1.32	1.25	1.19	1.12
OA2	RAY	1.32	1.25	1.19	1.12
OA2	RCA	1.32	1.25	1.19	1.12
OA2	SYL	1.32	1.25	1.19	1.12
OA2	WES	1.32	1.25	1.19	1.12
OA2WA	RAY	3.35	3.20	3.00	2.86
OA2WA	RCA	3.35	3.20	3.00	2.86
OA2WA	WES	3.35	3.20	3.00	2.86
OA2WA	SYL	3.35	3.20	3.00	2.86
OA3	GE	1.54	1.46	1.38	1.30
OA3	SYL	1.54	1.46	1.38	1.30
OA3	RCA	1.54	1.46	1.38	1.30
OA3/VR75	WES	1.54	1.46	1.38	1.30
OA3A	RCA	1.54	1.46	1.38	1.30
OA3A/OA3	RAY	1.54	1.46	1.38	1.30
OA4G	GE	1.86	1.76	1.67	1.58
OA4G	RCA	1.86	1.76	1.67	1.58
OA5	SYL	6.96			
OB2	AME	1.37	1.30	1.24	1.16
OB2	GE	1.37	1.30	1.24	1.16
OB2	RAY	1.37	1.30	1.24	1.16
OB2	RCA	1.37	1.30	1.24	1.16
OB2	SYL	1.37	1.30	1.24	1.16
OB2	WES	1.37	1.30	1.24	1.16
OB2WA	SYL	2.40	2.28	2.12	2.00
OB2WA	RAY	2.40	2.28	2.16	2.04
OB2WA	RCA	2.40	2.28	2.16	2.04
OB2WA	WES	2.40	2.28	2.16	2.04
OB3	GE	2.35	2.23	2.12	2.00
OB3	SYL	2.35	2.23	2.12	2.00
OB3/VR90	WES	2.35	2.23	2.12	2.00
OC2	RAY	1.50	1.42	1.35	1.28
OC2	RCA	1.50	1.42	1.35	1.28
OC3	GE	1.50	1.42	1.35	1.28
OC3	RCA	1.50	1.42	1.35	1.28
OC3	SYL	1.50	1.42	1.35	1.28
OC3/VR105	WES	1.50	1.42	1.35	1.28
OC3A	RCA	1.50	1.42	1.35	1.28
OC3A/OC3	RAY	2.70	2.55	2.43	2.30
OC3W	TUN	6.65	6.28	5.98	5.65
OD3	GE	1.44	1.37	1.30	1.22
OD3	RCA	1.44	1.37	1.30	1.22
OD3	SYL	1.44	1.37	1.30	1.22
OD3/VR150	WES	1.44	1.37	1.30	1.22
OD3A	RCA	1.44	1.37	1.30	1.22
OD3A/OD3	RAY	1.35	1.28	1.22	1.15
OD3W	TUN	6.65	6.28	5.98	5.65
OE3	AME	7.25	6.85	6.52	5.80
OE3/85A1	AME	7.25	6.85	...	...
OG3	AME	2.30	2.19	2.07	1.95
VG1A/1	DUM	29.40	27.78	26.46	24.99
VG1A/2	DUM	26.25	24.81	23.62	22.31
VG1A/3	DUM	26.25	24.81	23.62	22.31
VG1A/4	DUM	26.25	24.81	23.62	22.31
1AD4	RAY	2.80	2.66	2.52	...
1AE4	RAY	4.50	4.25	4.05	3.83
1AG4	RAY	7.30	6.90	6.57	6.20
1AG5	RAY	2.05	1.94	1.84	1.74
1AH4	TUN	1.35	1.28	1.21	1.15
1AK4	RAY	7.30	6.90	6.57	6.20
1B85	VIC	10.55	9.35	8.10	...
1C21	RCA	4.15	3.94	3.74	3.52
1CP31-DH3-91	MUL	17.70	...		...
1DP1	NU	21.00	...		
1DP11	NU	21.00			...
1D21/SN4	SYL	7.30	7.10	6.90	
1EP1	RCA	26.25	24.81	23.63	22.31
1EP11	RCA	27.45	25.94	24.71	23.33
1L4	RCA	1.50	1.43	1.35	1.28
1P21	RCA	55.30	52.26	49.77	47.00
1P22	RCA	17.25	16.30	15.53	14.66
1P23	RAY	3.32	3.14	2.99	2.82
1P28	RCA	21.80	20.60	19.62	18.53
1P28A	RCA	27.30	25.80	...	...
1P29	RCA	8.45	7.99	7.61	
1P30	RAY	7.08	6.69	6.37	6.02
1P37	RCA	6.85	6.47	6.17	...
1P39	RCA	3.45	3.26	3.11	2.93
1P39	SYL	3.15	2.98	2.84	2.68
1P40	GE	5.05	4.77	4.55	4.29
1P40	RCA	5.05	4.77	4.55	4.29
1P41	RCA	6.15	5.81	5.54	5.23
1P42	RCA	16.20	15.31	14.58	13.77
1Z2	TUN	8.00	7.56	7.21	6.80
2-01C	EIM	18.00	17.10	...	...
2-25A	EIM	30.00	28.35	...	...

Tube Type	Mfg.	1-4	5-18	19-49	50-99
2-50A	EIM	36.50	35.31	...	...
2-450A	EIM	162.50	...	...	...
2AC15	THE	11.00	8.25	7.15	6.05
2AP1A	RCA	18.55	17.96	16.70	15.77
2AS15A	THE	10.00	9.00	8.00	7.00
2BP1	RCA	19.70	18.62	17.83	16.75
2BP1	SYL	33.00	31.19	29.70	...
2BP11	RCA	12.40	...	...	...
2BP11	SYL	33.00	31.19	29.70	...
2C39A	EIM	20.75	19.61	18.68	17.64
ML-2C39A	RAY	20.75	19.61	18.68	17.64
2C39A	RCA	20.75	19.61	18.68	17.64
2C39A	SYL	20.75	19.61	18.68	17.64
2C39A	GE	20.75	19.61	18.68	17.64
2C39A/V1	RCA	20.75	19.61	18.68	17.64
2C39B	GE	32.15	30.28	28.93	27.33
2C39WA	GE	23.00	21.74	20.70	19.55
2C39WA	RCA	20.75	19.61	18.68	17.64
ML-2C39WA	RAY	20.75	19.61	18.68	17.64
2C39WA	RCA	29.00	27.40	26.10	24.65
2C39WA	SYL	20.75	19.61	18.67	17.64
2C40	GE	30.80	29.11	27.72	26.18
2C40A	GE	35.10	33.17	31.59	29.84
2C40	RCA	34.00	32.39	39.69	30.60
2C40	SYL	29.30	27.69	26.37	24.90
2C43	GE	27.50	26.00	...	...
2C43	RCA	26.95	25.60	...	...
2C51	SYL	4.05	3.83	...	...
2C53	NU	9.15	8.85	8.40	...
2D21	AME	1.29	1.23	1.16	1.10
2D21	GE	1.29	1.23	1.16	1.10
2D21	RAY	1.29	1.23	1.16	1.10
2D21	RCA	1.29	1.23	1.16	1.10
2D21	SYL	1.29	1.23	1.16	1.10
2D21	WES	1.29	1.23	1.16	1.10
2D21W	RCA	2.90	2.76	2.61	2.47
2E24	RCA	7.00	8.62	6.30	5.95
WL-2E24	WES	6.80	6.43	6.12	5.78
2E26	RCA	3.95	3.73	3.56	3.36
2E26	SYL	3.95	3.73	3.56	3.36
2E31	RAY	7.30	6.90	6.57	6.20
2E32	RAY	7.30	6.90	6.57	6.20
2F21	RCA	300.00	...	...	...
2GK5	AME	1.93	1.82	1.74	1.64
2J42	SYL	102.00	...	...	...
RK2J55	RAY	325.00	...	...	...
2K25	RAY	43.00	...	...	...
2K26	RCA	68.00	...	...	...
2K28	RAY	88.00	...	...	...
2K48	RAY	122.00	...	...	...
2SM15A	THE	12.00	9.00	7.80	6.60
TBL2/400	AME	250.00	...	...	...
TKL2/500	AME	270.00	...	...	...
2X2A	GE	4.30	4.06	3.87	3.66
2X2A	RCA	4.20	3.97	3.78	3.57
2X2A	SYL	4.30	4.06	3.87	3.66
C3J/5632	GE	12.70	12.09	...	...
C3J/5632	NE	12.70	12.09	...	...
C3J/5632	RCA	12.70	12.09	...	...
C3J/5632	SYL	12.70	12.09	...	...
C3J/5632	WES	12.70	12.09	...	...
3-400Z	EIM	34.00	32.13	30.60	...
3-400Z/8613	EIM	34.00	...	...	...
3-500Z	EIM	34.00	...	...	...
3-1000Z/8164	EIM	78.00	...	...	...
3A4	RCA	1.25	1.19	1.13	1.06
3A5	RAY	2.03	1.93	1.83	1.73
3ACP1A	SYL	45.60	43.09	41.04	...
3ADP1	SYL	66.30	62.65	59.67	56.36
3AD1A	RCA	27.20	25.70	24.48	23.12
3SP1A	RCA	27.70	25.70	24.48	29.20
3AQP1	RCA	34.35	32.46	30.92	...
3ASP1	SYL	53.10	50.18	47.79	...
3AYP1	DUM	70.00	...	...	...
3B4	RAY	3.80	3.59	3.42	3.23
3B4WA	RAY	5.85	5.53	5.26	4.97
3BWA	RCA	5.85	5.53	5.26	4.97
3B22/1C	WES	10.85	10.25	9.76	9.22
3B24W	GE	11.25	10.69	...	...
RK3B24W	RAY	10.55	9.97	9.76	
RK3B24WA	RAY	Use RK3B24WB Reference Only			
3B25	Tung-S	9.15			
3B28	RCA	8.10	7.65	7.29	6.89
WL-3B28	WES	7.50	7.10	6.75	6.38
3BGP1	SYL	66.10	62.46	59.49	...
3BMP1	SYL	58.50	55.28	52.65	...
3BP1A	RCA	33.90	32.04	30.51	28.82

Industrial & Special Purpose Tubes

Tube Type	Mfg.	1-4	5-18	19-49	50-99
3BP1A	SYL	41.05	38.79	36.95	
3C23	GE	11.98	11.38	10.78	10.18
NL-3C23	NE	11.98	11.38	10.78	
3C23	RCA	11.98	11.38	10.78	10.18
3C23	WES	11.98	11.38	10.78	10.18
3C33	RCA	35.00	33.08	31.50	29.75
3CPN10A5/7815	EIM	25.50	23.90		
3CPN10A5	RAY	30.75	29.06	27.67	26.14
3CPN10A4/7815	RCA	30.75	29.06	27.67	26.14
3CW5000A1	SYL	290.00			
3CW5000A3	EIM	250.00			
3CW5000F1	EIM	270.00			
3CW5000F3	EIM	260.00			
3CX100A5/7289	EIM	26.50	25.27		
3CX100A5	RAY	30.75	29.06		
3CX2500A3	EIM	200.00			
3CX2500A3	SYL	200.00			
3CX2500F3	EIM	205.00			
3CX2500F3	SYL	205.00			
3CX3000A1	EIM	238.00			
3CX3000A1	SYL	238.00			
3CX3000F1	EIM	245.00			
3CX3000F1	SYL	245.00			
3D22A	RCA	37.00	34.97		
3E29	RCA	21.10	19.94	18.99	
3ER5	AME	1.85	1.75	1.67	1.57
3FP7A	SYL	45.90	43.39	41.31	
3GP1A	DUM	50.00			
3GK5	AME	1.93	1.82	1.74	1.64
NL-C3J/AL-NE	NE	18.40	17.39	16.56	
NL-C3J/L	NE	14.20	13.42	12.78	12.07
3CJL	RCA	14.20	13.42	12.78	12.07
3JP1	DUM	42.70	40.35		
3JP1	RCA	32.65	30.85	29.39	27.75
3JP1	SYL	32.65	30.85	29.39	27.75
3JP1	WAT	32.65	30.85	29.39	27.75
3JP1A	DUM	42.70	40.35		
3JP7	RCA	27.65	26.13	24.84	
3KP1	DUM	46.75			
3KP1	RCA	28.60	27.03	25.75	
3KP1	SYL	35.85	33.88	32.27	
3MP1	SYL	29.90			
3RP1	DUM	38.70			
3RP1	RCA	18.30	17.29	16.47	15.56
3RP1	SYL	27.05	25.56	24.35	22.99
3RP1A	DUM	40.70			
3RP1A	RCA	27.00	25.52		
3RP1A	SYL	34.45	32.56		
3RP7A	RCA	31.60	29.86	28.44	26.86
3SP1	SYL	51.90	49.05		
3WP1	DUM	41.00			
3WP1	RCA	35.90	33.93		
3WP1	SYL	40.85			
3WP2	DUM	41.00			
3WP2	SYL	40.85			
3WP11	RCA	37.80	35.72	34.02	32.13
3X2500F3/8251	SYL	Use 3CX2500F3			
3X3000A1/8238	SYL	Use 3CX3000A1			
3X3000F1/8239	RCA	215.00			
3X3000F1/8239	SYL	Use 3CX3000F1			
4-65A/8165	EIM	27.00	25.65		
4-65A	AME	27.00	25.65		
4-125A	AME	36.00	34.20	32.40	30.60
4-125A	EIM	36.00			
4-125A/4D21	RCA	36.00	34.20	32.40	30.60
4-250A	AME	46.50	44.18	41.85	39.53
4-250A	EIM	46.50	44.18	41.85	39.53
4-250A	RAY	46.50	44.18	41.85	39.53
4-250A/5D22	RCA	46.50	44.18	41.85	39.53
4-400A	AME	48.00	45.36		
4-400A/8438	EIM	48.00	45.60		
4-400A/8438	RCA	48.00	45.60		
4-1000A/8166	EIM	131.50			
4-1000A/8166	RCA	131.50			
4B24/3C	WES	11.80	11.15	10.62	10.03
4B32	AME	13.50	12.76	12.15	11.48
4B32	TUN	12.60	11.91	11.34	10.71
4CN15A	EIM	58.50	55.28	52.65	49.73
4CX250B/7203	AME	35.60	33.64	32.04	30.26
4CX250B/7203	EIM	35.00	33.08		
4CX250B/7203	RCA	35.00	33.08		
4CX250B/7203	SYL	35.00	33.08		
4CX250F/7204	AME	39.35	37.19		
4CX250F/7204	RCA	38.00	35.91		
4CX250F/7204	SYL	38.00	35.91		
4CX250K/8245	EIM	70.00	66.15		
4CX250K/8245	SYL	64.00	60.80		
4CX250R/780W	AME	44.50	42.50		
4CX250R/7580W	EIM	44.50	42.85		
4CX300A/8167	EIM	54.00	51.03		
4CX300A/8167	RCA	54.00	51.03		
4CX300A/8167	SYL	54.00	51.03		
4CX350A/8321	EIM	48.50	46.08		
4CX350F/8322	EIM	51.50	48.67		
4CX1000A/8168	EIM	200.00			

Tube Type	Mfg.	1-4	5-18	19-49	50-99
4CX1000A/8168	RCA	200.00			
4CX1000A/8168	SYL	200.00			
4CX1000K/8352	EIM	210.00			
4CX1500A	RAY	695.00			
4CX1500B/8660	EIM	205.00			
4CX3000A/8169	EIM	420.00			
4CX5000A/8170	EIM	495.00			
4CX5000A/8170	RCA	495.00			
4CX5000A/8170	SYL	495.00			
ML-4CX5000A/8170	RAY	495.00			
4CX10000D/8171	EIM	575.00			
4CX10000D/8171	RCA	575.00			
4CX10000D	RAY	550.00			
4CX15000A/8281	RCA	695.00			
4D21A	EIM	41.00			
4E27A/5-125B	EIM	45.00	42.53		
4E27A/5-125B	RCA	45.00	42.53		
4EH7	AME	1.78	1.68	1.60	1.51
4EJ7	AME	1.78	1.68	1.60	1.51
4GK5	AME	1.93	1.82	1.74	1.64
4KM70LA	EIM		5880.00 Each		
4KM100LA	EIM		9030.00 Each		
4KM150LA	EIM		11.550.00 Each		
4PR60B/8252	EIM	115.00			
4PR60B/8252	SYL	115.00			
4PR65A/8187	EIM	43.00	40.64		
4W300B8249	EIM	64.00	60.48		
4W200000A/8173	EIM	2300.00			
4W200000A/8173	SYL	2300.00			
4X150A/7034	AME	23.15	21.99		
4X150A/7034	RCA	23.15	21.99		
4X150A/7034	EIM	25.00	23.75		
4X150D/7035	AME	29.00	27.41		
4X150D/7035	EIM	29.00	27.41		
4X150D/7035	RCA	27.30	25.80		
4X500A	AME	38.50			
4X500A	RCA	128.50			
4X500A	SYL	127.50			
4X500A	EIM	127.50			
PI-4X500A	PEN	125.00			
5A6	RAY	6.65	6.28	5.98	
5ABP1	RCA	47.60			
5ABP1	SYL	48.75	46.07	43.88	
5ABP1	SYL	51.40	48.57	46.26	
5ABP1AM	DUM	53.00			
5ADP1	DUM	47.60			
5ADP1	RCA	47.60	44.98		
5ADP1AM	DUM	53.00			
5ADP2	SYL	51.40	48.57	46.26	
5ADP2	DUM	48.00			
5ADP7	DUM	48.00			
5ADP7	SYL	51.40	48.57	46.26	
5ADP7A	SYL	53.80	50.84		
5ADP11	DUM	48.00			
5ADP31	RCA	47.60	44.98	42.84	40.46
5AHP7AM	DUM	49.50	46.78		
5AHP7A	SYL	49.50	46.78		
5AMP1	DUM	62.00			
5AMP1A	DUM	62.00			
5AQP1A	SYL	57.30	54.15		
5AQP1A	DUM	61.00			
5AQP2A	DUM	61.00			
5AQP7A	SYL	57.30	54.15		
5AQP7A	DUM	61.00			
5AUP24	RCA	150.00			
5AUP24	RCA	127.00			
5BGP2A	SYL	95.95	90.67	86.36	
5BPG2M	DUM	80.50			
5BHP2A	SYL	101.30			
5BHP7A	SYL	101.30			
5BP1A	SYL	36.95	34.92		
5BP1A	RCA	38.85	36.71		
5BP1A	DUM	42.00			
5CBP2	DUM	72.50			
5CP1A	SYL	44.35	41.91		
5CP1A	RCA	37.10	35.06	33.39	31.54
5CP7A	DUM	52.40			
5CP11A	DUM	51.10			
5DBP1	DUM	105.00			
5FP4A	SYL	39.30	37.14		
5FP4A	RCA	36.05	34.07		
5FP7A	RCA	39.20	37.04		
5LP1A	DUM	55.00			
5R4GY	RCA	Reference Only: Use 5R4GYB			
5R4GYA	GE	2.05	1.94	1.84	1.74
5R4GYB	RAY	2.03	1.93	1.83	1.73
5R4GYB	RCA	2.03	1.93	1.83	1.73
5R4GYB	SYL	2.03	1.93	1.83	1.73
5R4GYB	WES	2.03	1.93	1.83	1.73
5R4WGA	RAY	9.65	9.12	8.69	8.20
5R4WGB	RAY	14.20	13.41	12.78	12.07
5UP1	RCA	21.10			
5UP1	SYL	31.65			
5UP7	RCA	25.70	24.29		
5UP31	RCA	21.80	20.60	19.62	18.53

Industrial & Special Purpose Tubes

Tube Type	Mfg.	1-4	5-18	19-49	50-99
5WP11	RCA	49.00	46.31	...	...
5Y3WGTA	SYL	4.05	3.83	3.64	...
5YP11	RCA	45.50	42.53	...	...
5ZP16	RCA	89.00	84.10	...	...
6AC7W	RCA	5.45	5.15	4.90	4.63
6AD4	SYL	3.40	3.21	3.06	2.89
6AGY7	RCA	2.80	2.65	2.52	2.38
6AH6WA	RAY	7.56	7.14	...	...
6AH6WA	RCA	7.60	7.18	...	...
6AJ5	SYL	3.85	3.64	3.46	3.27
6AJ5	RAY	3.85	3.64	3.46	3.27
6AJ8	10M	2.65	2.50	2.39	2.25
6AK5WB	TUN	5.45	5.15	4.90	4.63
6AK5WB	GE	5.70	5.39	5.13	4.85
6AK6	RCA	1.40	1.32	1.26	1.19
6AN5	RCA	4.20	3.97	...	...
6AN5	SYL	4.20	3.97	...	...
6AN5	GE	4.20	3.97	...	...
6AN5	RAY	4.20	3.97	...	...
6AN5WA	RAY	10.80	10.31	...	...
6AQ5A	10M	2.15	2.03	1.93	1.83
6AQ5A	AME	3.18	3.01	2.86	2.70
6AQ5A	MUL	1.23	1.16	1.11	1.05
6AQ5AMP	AME	3.13	2.96	2.82	2.66
6AR6	TUN	5.75	5.46	...	...
6AR6	RAY	5.75	5.46	...	...
6AR8	GE	2.42	2.18	1.94	1.75
6AS6	RAY	3.43	3.26	3.09	2.92
6AS6	RCA	3.43	3.26	3.09	2.92
6AS6	WES	3.43	3.26	3.09	2.92
6AS7G	RCA	4.93	4.68	4.44	4.19
6AS7GA	GE	4.93	4.68	4.44	4.19
6AU6A	10M	2.05	1.94	1.85	1.74
6AU8A	AME	1.05	.99	.92	.89
6AU6A	MUL	1.05	.99	.92	.89
6AU6WB/6136	SYL	2.70	2.57	2.43	2.30
6BF7W	SYL	4.90	4.63	4.41	4.17
6BL6	RAY	88.00	...	...	...
6BM6	RAY	88.00	...	...	...
6BQ5A	10M	2.15	2.03	1.93	1.83
6C4W	SYL	3.15	2.98	2.84	2.68
6C21	EIM	110.00	...	...	...
6C4W	GE	3.15	2.98	2.84	2.68
C6J/K	NE	28.30	26.69	...	...
6D4	GE	2.70	2.57	2.43	2.30
6D4	RCA	2.70	2.57	2.43	2.30
6D4	SYL	3.30	2.84	2.97	2.81
6DJ8	RCA	1.80	1.70	...	...
6DJ8	GE	1.80	1.70	...	...
6DJ8	SYL	1.80	1.70	...	...
6DJ8/ECC88	AME	1.90	...	...	...
6DJ8/ECC88	MUL	2.13	2.01	1.92	1.81
6EU7	10M	2.35	2.22	2.11	2.00
6F4	RCA	14.40	13.61	12.96	12.24
6GK5	10M	2.40	2.27	2.16	2.04
C6H-1	WES	29.10	27.50	26.19	27.74
6H6WGT	TUN	8.20	7.75	7.38	6.97
6J4	RCA	4.02	3.82	3.60	3.42
6J4WA	RCA	5.60	5.29	5.04	4.76
6J4WA	SYL	5.60	5.29	5.04	4.76
8J6/ECC91	10M	2.55	2.41	2.29	2.17
6J6A	10M	2.55	2.41	2.29	2.17
6J6A	AME	1.45	1.37	1.30	1.23
6J6A	MUL	1.45	1.37	1.30	1.23
6J6WA	RCA	5.35	5.08	4.82	4.55
C6J/5C21	RCA	28.10	26.70	...	...
NL-C6J/K-NE	NE	32.50	30.71	...	...
NL-C6J-KP	NE	29.45	27.83	26.50	...
6LGWGB	TUN	5.75	5.43	5.17	4.89
6Q5G	DUM	10.50	...	...	...
6SJ7WGT	SYL	2.70	2.55	2.43	2.30
6SJ7Y	RCA	2.15	2.03	1.93	1.83
6SL7WGT	SYL	3.15	2.99	...	...
GB6SN7WGT	SYL	2.35	2.22	2.11	2.00
6SN7WGTA	SYL	4.90	4.63	...	...
6SU7GTY....	TUN	4.90	4.63	4.41	4.17
6T8A	10M	2.80	2.65	2.52	2.30
6V6GTY	SYL	1.45	1.37	1.30	1.23
6T8A	10M	2.80	2.65	2.52	2.30
6X4W	RAY	1.60	1.52	...	...
6X4W	RCA	1.60	1.52	...	...
6X4W	SYL	1.60	1.52	...	...
6X4WA	SYL	2.85	...	...	...
6X5WGT	SYL	1.70	1.61	1.53	1.45
7AK7	SYL	8.15	7.70	7.33	8.30
7CP4	RCA	71.75	67.80	64.58	60.99
GL-7D21	GE	815.00	...	...	...
7MP7	SYL	71.30	67.38	...	...
7NP4	RCA	1085.00	...	...	...
7TP4	RCA	73.15	69.13	...	...
7UP7	SYL	60.85	57.50	54.77	...
7VP1	RCA	30.80	...	...	...
B8.700.67	AME	1.06	1.00	.95	.90
B8.700.86	AME	.32	.30	.29	.27
8D21	RCA	2165.00	...	...	...
8HP4	RCA	52.50	49.61	47.25	44.63
8KP4	SYL	44.00	41.58	39.60	...
8NP4	RCA	36.95	34.92	33.26	31.40
8QP4	RCA	50.65	47.86	45.59	43.05
9C25	RCA	2195.00	...	...	...
10SP4	RCA	99.35	...	...	...
10SP4	SYL	78.15	73.85	70.34	...
12A6	RCA	3.36	3.10	3.02	2.86
12AV6/HBC91	10M	1.95	1.84	1.76	1.66
12AT7WA	RAY	2.53	2.40	...	...
12AT7WA	RCA	2.53	2.40	2.28	2.15
12AT7WA	SYL	2.53	2.40	2.28	2.15
12AT7WB	RAY	2.52	...	...	...
12AT7WB	SYL	2.52	...	...	...
12AU7A	10M	2.20	2.08	1.98	1.87
12AX7A	10M	2.55	2.41	2.29	2.17
12DW7	10M	2.55	2.41	2.29	2.17
12DW7	MUL	1.53	1.45	1.37	1.29
12DW7	RCA	1.49	1.41	1.34	1.27
12SX7GT	RCA	2.53	2.39	2.28	2.15
12SY7	RCA	2.68	2.52	2.40	2.27
X-13	EIM	315.00	...	...	...
17DWP4	RCA	25.65	35.35	34.08	31.80
17DWP4	SYL	29.90	28.87	26.91	25.42
KY21A	EIM	41.00	38.75	36.90	...
NL-KY21A	NE	26.75	25.41	25.28	...
RX-21A	EIM	41.00	38.75	36.90	...
NL-RX21A	NE	25.75	24.35	...	...
25T	EIM	43.00	40.64	...	...
25T	SYL	43.00	40.64	...	...
26A6	RCA	3.70	3.50	3.33	3.15
26A7GT	RCA	7.70	7.28	6.93	6.55
26C8	RCA	3.05	2.88	2.74	2.59
26D6	RCA	3.05	2.88	2.74	2.59
ECC33	AME	3.18	3.01	2.86	2.70
ECC33	MUL	2.45	2.32	2.21	2.08
EL33/6AG6	MUL	2.00	1.89	1.80	1.70
EL34/6CA7	AME	2.68	2.55	2.41	...
EL34/6CA7	MUL	6.10	5.76	...	...
EL34/6CA7MP	AME	5.60	5.29	...	...
EL34/6CA7MP	MUL	6.18	5.87	...	...
EM34/6C7D	AME	2.95	2.79	2.66	2.51
GZ34/5AR4	AME	2.13	2.01	1.92	1.81
GZ34/5AR4	MUL	2.13	2.01	1.92	1.81
35T	EIM	47.00	44.42	...	...
EL37	AME	5.43	5.13	4.89	4.62
EL37	MUL	3.55	3.35	...	...
EL37MP	AME	11.63	10.99	10.47	9.89
EL37MP	MUL	7.70	7.28	6.93	6.55
EF50	AME	10.75	10.16	9.68	9.14
EF50	MUL	4.88	...	...	...
51AVP	AME	105.00	...	...	...
51AVP	AME	89.00	...	...	...
54AVP	AME	160.00	...	...	...
54AVP	AME	1050.00	...	...	...
E55L/8233	AME	13.25	12.52	11.92	11.26
VX55	VIC	34.58	...	...	...
56AVP	AME		295.00 NET		
56CVP	AME	350.00	...	...	...
56UVP	AME	550.00	...	...	...
57AVP	AME	645.00	...	...	...
V-58	EIM	315.00	...	...	...
58AVP	AME	555.00	...	...	...
58UVP	AME	198.00	...	...	...
60AVP	AME	1395.00	...	...	...
KT66	MUL	3.88	3.67	3.49	3.30
KT-66-MP	MUL	8.43	7.97	7.59	7.17
DM70/1M3	AME	1.65	1.56	1.49	1.40
Z70W/7709	AME		See 7709/Z70W		
Z70U/7710	AME		See 7710/Z70U		
Z71U/7711	AME		See 7711/Z71U		
CEM75K	DUM	43.85	...	...	...
CEM75N	DUM	38.25	...	...	...
CEM75P	DUM	38.25	...	...	...
75TH	EIM	43.00	40.64	38.70	36.55
75TL	EIM	43.00	40.64	38.70	36.55
EABC80	AME	1.88	1.78	1.69	1.60
EABC80/6AK8	10M	2.80	2.65	2.52	2.38
EABC80/6AK8	MUL	1.68	...	...	...
EC80/6Q4	AME	2.03	1.92	1.83	1.73
ECF80/6BL8	10M	3.05	2.88	2.74	2.59
ECF80/6BL8	AME	1.35	1.28	1.22	1.15
ECF80/6BL8	MUL	1.35	1.28	1.22	1.15
ECL/6AB8	AME	1.53	1.45	1.38	1.30
ECL80/6AB8	10M	2.65	2.60	2.47	2.34
ECL80/6AB8	MUL	2.95	2.79	2.66	2.51
EF80/6BX6	AME	2.28	2.15	2.05	1.04
EM80/6BR5	AME	1.80	1.70	1.62	1.53
EM84/6FG6	MUL	1.68	1.59	1.51	1.43
EZ80/6V4	AME	.75	.71	.67	.64
[illegible]0/6V4	MUL	.75	.71	.67	.64
PCF80/9A8	10M	3.25	3.07	2.92	2.76
PCF80/9A8	AME	1.33	1.26	1.20	1.13
PCF80/9A8	MUL	1.33	...	...	...
XCF80/4BL8	AME	1.20	1.13	1.08	1.02

 Newark-Minneapolis Electronic Corp., 336 Hoover St. N. E. Minneapolis, Minn. 55413

Industrial & Special Purpose Tubes

Tube Type	Mfg.	1-4	5-18	19-49	50-99
EC81/6R4	AME	6.08	5.75	5.47	5.17
ECC81/12AT7	10M	2.55	2.41	2.29	2.17
ECC81/12AT7	AME	1.43	1.36	1.29	1.22
ECC81/12AT7	MUL	1.43	1.36	1.29	1.22
ECH81/6AJ8	AME	1.38	1.30	1.24	1.17
ECH81/6AJ8	MUL	1.38	1.30	1.24	1.17
ECH81/6AJ8	10M	2.65	2.50	2.39	2.25
EM81/6DA5	AME	2.10	1.98	1.89	1.79
EY81/6R3	AME	1.85	1.75	1.67	1.57
EZ81/6CA4	MUL	1.23	1.16	1.11	1.05
EZ81/6CA4	AME	1.23	1.16	1.11	1.05
FG-81A	GE	Use GL-5728			
ECC82/12AU7	10M	2.20	2.08	1.98	1.87
ECC82/12AU7	AME	1.15	1.09	1.03	.97
ECC82/12AU7	MUL	1.15	1.09	1.03	.97
ECL82/6BM8	AME	1.45	1.38	1.31	1.23
ECL82/6BM8	MUL	1.45	1.38	1.31	1.23
ECL82/6BM8MP	MUL	3.40	3.21	3.06	2.89
PCF82/9U8	AME	2.28	2.15	2.05	1.94
UCL82/50BM8	AME	2.18	2.06	1.96	1.85
UCL82/50BM8MP	AME	3.40	3.21	3.06	....
83	RCA	1.98	1.80	1.70	1.61
ECC83/12AX7	10M	2.20	2.08	1.98	1.87
ECC83/12AX7	AME	1.25	1.18	1.12	1.06
ECC83/12AX7	MUL	1.25	1.18	1.12	1.06
ECH84/6JX8	AME	1.98	1.87	1.78	1.68
ECL84/6DX8	10M	2.85	2.69	2.56	2.42
ECL84/6DX8	AME	1.48	1.40	1.33	1.26
EL84/6BQ5	10M	2.15	2.03	1.93	1.83
EL84/6BQ5	AME	1.48	1.40	1.33	1.26
EL84/6BQ5	MUL	1.48	1.40	1.33	1.26
EL84/6BQ5MP	AME	2.58	2.44	2.32	2.19
EL84/6BQ5MP	MUL	3.43	3.24	3.08	2.92
EM84/6FG6	MUL	1.65	1.57	1.49	1.40
EY84/6374	MUL	2.48	2.36	2.23	2.11
LCL84/10DX8	AME	1.38	1.31	1.24	1.17
PL84/15CW5	10M	2.50	2.36	2.25	2.13
PL84/15CW5	AME	1.23	1.16	1.10	1.05
UL84MP/45B5	AME	1.40	1.32	1.26	1.19
UL84/45B5	AME	3.33	3.15	3.00	2.83
XL84/8BQ5	AME	1.38	1.30	1.24	1.17
85A1/0E3	AME	7.25	6.85	6.52	5.80
85A2/0G3	AME	2.30	2.19	2.07	1.95
ECC85/6AQ8	10M	2.40	2.27	2.15	2.04
ECC85/6AQ8	AME	1.50	1.42	1.35	1.28
ECC85/6AQ8	MUL	1.50	1.42	1.35	1.28
ECL85/6GV8	AME	2.30	2.18	2.07	1.96
HCC85/17EW8	AME	1.38	1.31	1.24	1.17
PCC85/9AQ8	AME	2.20	2.08	1.98	1.87
XCL85/9GV8	AME	1.70	1.61	1.53	1.45
XCL/6CM4	AME	2.68	2.43	2.34	2.21
EC86/6CM4	AME	2.68	2.53	2.41	2.28
ECC86/6GM8	AME	2.18	2.06	1.96	1.85
ECF86/6HG8	10M	3.10	2.93	2.79	2.64
ECF86/6HG8	AME	1.85	1.75	1.67	1.57
ECL86/6GW8	AME	1.53	1.46	1.38	1.31
ECL86/6GW8	MUL	1.53	1.46	1.38	1.31
EF86/6267	10M	See 6267/EF86			
EF86/6267	AME	1.40	1.32	1.26	1.19
EF86/6267	MUL	See 6267/EF86			
EL86/6CW5	AME	1.38	1.30	1.24	1.17
LCF86/5HG8	AME	1.85	1.75	1.67	1.57
PCF86/7HG8	10M	2.65	2.50	2.39	2.25
PCF86/7HG8	AME	1.38	1.30	1.24	1.17
PCF86/7HG8	MUL	1.38	1.30	1.24	1.17
PCF86/8HG8	10M	2.65	2.50	2.39	2.25
XL86/8CW5	AME	1.28	1.21	1.15	1.09
DY87/1S2A	AME	1.28	1.21	1.15	1.09
EM87/6HU6	AME	1.85	....	....	....
EC88/6DL4	AME	3.95	3.73	3.56	3.36
ECC88/6DL8	MUL	3.10	2.93	2.79	2.64
ECC88/6DJ8	AME	1.80	....	....	....
ECC88/6DJ8	MUL	2.13	2.01	1.92	1.81
EY88/6AL3	AME	1.30	1.23	1.17	1.11
KT88	GOL	6.95	....	....	....
KT88-MP	GOL	14.90	....	....	....
KT88	MUL	6.55	6.19	5.90	....
KT88-MP	MUL	13.80	13.04	12.42	11.73
XY88-16AQ3	AME	1.35	1.28	1.21	1.15
EBF89/6DC8	10M	2.65	2.50	2.38	2.25
EBF89/6DC8	AME	1.53	1.45	1.38	1.30
EBF89/6DC8	MUL	1.53	1.45	1.38	1.30
EF89/6DA6	10M	2.55	2.41	2.29	2.17
EF89/6DA6	AME	2.10	1.98	1.89	1.79
EF89/6DA6	MUL	1.43	1.36	1.29	1.22
90NB3/900V	AME	27.00	23.00	19.50	15.00
90BN4/900V	AME	27.00	23.00	19.50	15.00
90C1	AME	2.25	2.13	2.02	....
DA90/1A3	AME	3.33	3.15	3.00	2.83
DCC90/3A5	AME	4.60	4.35	4.14	3.91
EBC90/6AT6	AME	1.03	.98	.93	.88
EBC90/6AT6	10M	2.00	1.89	1.80	1.70
EBC90/6AT6	MUL	1.20	1.14	1.08	1.02
EC90/6C4	10M	2.85	2.69	2.56	2.42
EC90/6C4	MUL	.98	....	....	....
EC90/6C4	AME	.98	....	....	....
EH90/6CS6	AME	1.35	1.28	1.22	1.15
EH90/6CS6	MUL	1.35	1.28	1.22	1.15
EK90/6BE6	10M	2.10	1.98	1.89	1.79
EK90/6BE6	MUL	1.28	1.21	1.15	1.09
EK90/6BE6	AME	1.28	1.21	1.15	1.09
EL90/6AQ5	10M	2.15	2.03	1.93	1.83
EL90/6AQ5	MUL	1.00	.95	.90	.85
EL90/6AQ5MP	AME	Use 6AQ5MP			
EZ90/6X4	AME	.90	.85	.81	.77
EZ90/6Z4	MUL	.80	.76	.72	.68
HBC90/12AT6	AME	.98	.93	.88	.83
HBC90/12AT6	MUL	.98	.93	.88	.83
HZ90/12X4	AME	1.13	1.07	1.02	.96
DAF91/1S5	AME	1.53	1.45	1.38	1.30
DF91/1T4	AME	1.70	1.61	1.63	1.45
DK91/1R5	AME	1.80	1.70	1.62	1.53
EAA91/6AL5	MUL	.95	....	....	....
EB91/6AL5	10M	1.95	1.84	1.74	1.66
EBC91/6AV6	10M	1.95	1.84	1.74	1.66
EBC91/6AV6	AME	.88	.84	.79	.75
EBC91/6AV6	MUL	.88	.84	.79	.75
ECC91/6J6	10M	2.55	2.41	2.29	2.17
EF91/6AM6	MUL	1.55	1.47	1.40	1.32
HBC91/12AV6	10M	1.95	1.84	1.74	1.66
DAF92/1U5	AME	1.43	1.36	1.29	1.22
DF92/1L4	AME	1.63	1.54	1.47	1.30
DL92/3S4	AME	1.70	1.62	1.53	1.45
DL93/3A4	AME	3.68	3.48	3.31	3.13
EF93/6BA6	10M	2.00	1.89	1.80	1.78
EF93/6BA6	AME	1.05	1.00	.95	.89
EF93/6BA6	MUL	1.05	1.00	.95	.89
DL94/3V4	AME	1.48	1.40	1.33	1.26
EF94/6AU6	10M	2.05	1.94	1.84	1.75
EF94/6AU6	MUL	.98	.93	.88	.83
HF94/12AU6	AME	1.05	.99	.92	.89
DL95/3Q4	AME	1.68	1.59	1.51	1.43
ED95/6ER5	10M	2.40	2.27	2.16	2.04
ED95/6ER5	AME	1.90	1.80	1.71	1.62
ED95/6ER5	MUL	1.90	1.80	1.71	1.62
ED95/6ER5	MUL	1.78	1.68	1.60	1.51
EF95/6AK5	10M	3.25	3.07	2.92	2.76
EF95/6AK5	AME	2.25	2.14	2.03	1.91
EF95/6AK5	MUL	2.38	2.26	2.14	2.02
EL95/6DL5	10M	2.55	2.41	2.29	2.17
EL95/6DL5	MUL	1.48	1.40	1.33	1.26
EL95/6DL5	MUL	1.48	1.40	1.33	1.26
XC95/2ER5	AME	1.85	1.75	1.67	1.57
DL96/304	AME	2.28	2.15	2.05	1.94
EC97/6FY5	10M	2.35	2.22	2.11	2.00
EC97/6FY5	AME	1.38	1.30	1.24	1.17
EC97/6FY5	MUL	1.38	1.30	1.24	1.17
FG-97	GE	65.05	61.47	58.55	55.29
XC97/2FY5	AME	1.28	1.21	1.15	1.09
FG-98A	GE	77.00	72.77	69.30	65.45
100LB	AME	54.30	46.30	....	....
100TH	EIM	26.00	24.57	....	....
100TL	EIM	26.00	24.57	....	....
ML-102A	RAY	174.00	....	....	....
FG-105	GE	59.00	55.76	....	....
NL-FG-7105	NE	59.00	55.76	....	....
105	RCA	59.00	55.76	....	....
AX105/FG105	AME	53.33	50.40	48.00	....
NU-116	NU	15.00	14.18	13.50	12.75
NU-142	NU	40.00	37.80	36.00	34.00
150AVP	AME	74.00	....	....	....
150B2/6254	AME	2.55	2.41	2.29	2.17
150CIP	AME	4.50	....	....	....
150CVP	AME	90.00	....	....	....
150UVP	AME	225.00	....	....	....
FG-154	GE	108.00	....	....	....
EC157/8108	AME	155.30	....	....	....
EC158/8436	AME	155.30	....	....	....
NU-162P	NU	335.00	....	....	....
NU-170P	NU	2.50	2.36	2.25	2.13
PL-169A	RAY	53.00	50.09	47.70	45.05
FG-172	GE	129.00	....	....	....
175A	EIM	54.00	....	....	....
177A	EIM	38.00	....	....	....
177WA	EIM	41.00	....	....	....
EF183/6EH7	10M	2.60	2.46	2.34	2.21
EF183/6EG7	AME	1.93	1.83	1.72	1.62
EF183/6EH7	MUL	1.93	1.83	1.72	1.62
XF183/3EH7	AME	1.28	1.21	1.15	1.09
EF184/6EJ7	10M	2.60	2.46	2.34	2.21
EF184/6EJ7	MUL	1.78	1.68	1.60	1.51
EF184/6EJ7	AME	1.78	1.68	1.60	1.51
XF184/3EJ7	AME	1.28	1.21	1.15	1.09
ECC189/6ES8	10M	3.50	3.31	3.15	2.98
ECC189/6ES8	MUL	2.73	2.58	2.46	2.32
XCC189/4ES8	AME	2.75	2.60	2.48	2.34
195	EIM	425.00	....	....	....
207	RCA	400.00	....	....	....
VA-218	EIM	182.00	....	....	....
VA218B	EIM	171.00	....	....	....

Industrial & Special Purpose Tubes

Tube Type	Mfg.	1-4	5-18	19-49	50-99
VA-220C	EIM	150.00			
SK220C-F	SYL	155.00			
VA-220B, C,D,E,F,G	EIM	177.00			
VA221B,C,D,E,F,G,K	EIM	182.00			
VA221C	EIM	170.00			
SK221-B-K	SYL	170.00			
SK222B-G	SYL	170.00			
VA222A,B,C,D,E,F,G	EIM	182.00			
250R	EIM	42.00			
250TH	EIM	45.00			
250TL	EIM	45.00			
254W	EIM	34.00			
AX260	AME	150.00			
CR273/8008	RCA	60.00	56.70		
CR274/872A	RCA	60.00	56.70		
CR275/866A/3B28	RCA	22.00	20.79		
290	EIM	420.00			
ML-298A	RAY	3200.00			
300PC	AME	150.00			
Z303C	AME	11.00	11.00	11.00	9.15
304TH	EIM	83.00	78.44	74.70	70.55
304TH	SYL	83.00	78.44	74.70	70.55
304TL	EIM	83.00	78.44	74.70	70.55
304TL	SYL	83.00	78.44	74.70	70.55
SA309	SYL	20.40			
310PC	AME	150.00			
ML342A	RAY	1030.00			
ML1342AA	RAY	1300.00			
ML-356-5771	RAY	700.00			
ML-357B	RAY	390.00			
393A	GE	13.25	12.59		
NL-393A	NE	13.25	12.59		
400PC	AME	36.00			
407A	RCA	5.90	5.61	5.31	5.01
407A	SYL	5.90	5.61	5.31	5.01
408A	RCA	4.95	4.70	4.45	4.21
408A	SYL	4.95	4.70	4.45	4.21
GL-414	GE	294.00			
414	WES	280.00			
450TH	EIM	97.00			
450TL	EIM	97.00			
QKH456/7040	RAY	577.00			
481B	WES	10.90	10.30	9.81	9.27
EL-500/6GB5	AME	1.90	1.81	1.71	1.62
PL500/27GB5	AME	1.82	1.72	1.64	1.55
XL500/12GB5	AME	1.90	1.81	1.71	1.62
501R	AME	310.00			
Z502S	AME	19.40	19.40	19.40	15.50
CK512AX	RAY	4.15	3.92		
CK526AX	RAY	7.30	6.90		
QKK531	RAY	68.00			
QKK532	RAY	68.00			
CK533AX	RAY	4.20	3.97		
CD534AX	RAY	4.20	3.97		
QKK549	RAY	68.00			
Z550M/8453	AME	14.50	14.50	14.50	12.00
575A	GE	21.00	19.85	18.90	
575A	EIM	20.15	19.04		
NL-575A	NE	20.15			
575A	RCA	20.60	19.85	18.54	
575A	WES	20.15	19.04		
579B	RCA	20.50	19.48	18.45	
579B	SYL	20.50	19.48	18.45	
579B	WES	20.50	19.48	18.45	
CK587	RAY	14.60	13.80		
592/3-200A3	EIM	63.00	59.54		
NL-604	NE	11.80	11.15		
604	RAY	11.80	11.15		
604/7014	RCA	11.80	11.15		
NL-604L	NE	13.00	12.29		
NL-606L	NE	23.50	22.21		
NL-606	NE	21.40	20.32		
606/7016	WES	21.40	20.33		
NL-610/7723	NE	11.40	10.77	10.26	
NL-615	NE	10.05	9.50	9.05	8.54
615/7018	RCA	10.05	9.50	9.05	8.54
615/7018	WES	10.05	9.50	9.05	8.54
616	RAY	11.90			
NL-616	NE	11.90			
NL-616L	NE	14.30			
NL-617	NE	15.00			
NL-619	NE	10.00			
NL-623	NE	13.35	12.62	12.02	11.34
624	WES	79.00	74.66	71.10	67.15
627	RCA	27.50			
627	WES	27.50			
629	RCA	18.25	17.34		
629	WES	18.25	17.34		
NL-632B	NE	33.00	31.35	29.70	
632B	RCA	33.00	31.35	29.70	28.05
632C	WES	33.00	31.35	29.70	28.05
NL-635/7019	NE	13.00	12.29		
635/7019	RCA	13.00	12.29		
NL-635L/7020	NE	13.50	12.76		
NL-635P/6930	NE	14.15	13.37		
NL-649/5834	NE	12.40	11.72		
NL-660	NE	13.00	12.29		
NL-660L/7786	NE	13.50	12.76		
NL-664L	NE	27.50	25.99		
672A	GE	39.85	37.66		
672A	RCA	39.85	37.86		
672A	SYL	39.85	37.86		
672A	WES	39.85	37.86		
NL-673	NE	20.15			
673	EIM	20.15	19.04		
673	RCA	20.60	19.47	18.54	17.51
673	WES	20.15	19.04		
676	RCA	63.80			
677	RCA	63.80			
NL-677	NE	63.80			
678	GE	49.50	46.78	44.55	42.10
NL-678	NE	49.50	46.78	44.55	42.10
678	WES	49.50	46.31	44.55	44.10
710-6011	GE	12.70	12.06		
NL-710/6011	NE	12.70	12.06	11.43	
710/6011	RAY	12.70	12.06	11.43	
710/6011	RCA	12.00	11.34	10.80	
710/6011	SYL	12.00	11.34	10.80	
710L/7518	GE	14.00	13.33		
NL-710L/7518	NE	14.00	13.33		
710/7509A	WES	14.20	13.42	12.78	
NL-714	NE	10.00	9.50		
714/7021	RCA	10.00	9.50		
NL-716	NE	12.50	11.81		
716/6855	RCA	12.50	11.81		
SYK-720A-G	SYL	145.00			
SYK-720A-G	SYL	150.00			
NL-732	NE	120.00			
NL-734/5544	NE	22.50	21.26	20.25	19.13
NL-734L	NE	24.10			
740/6856	GE	20.80	19.66		
NL-740/6856	NE	23.25	21.97		
NL-740L/7022	NE	24.35	23.01		
NL-740P/6857	NE	24.35	23.01		
750TL	EIM	248.00			
760/6858	GE	28.10	26.70		
760	RAY	28.10	26.70		
NL-760	NE	28.10	26.70		
760L	NE	29.40	27.93		
760/6858	RCA	28.10	26.70		
NL-760P	NE	29.80	28.16		
760P/6859	GE	29.40	27.93		
NL-770L	NE	49.80	47.06		
NL-770P	NE	54.35	51.36		
ECCLL800/CKH8	RCA	6.50			
801A	RCA	15.40	14.55	13.86	
ECF801/6GJ7	AME	1.55	1.47	1.40	1.32
LCF801/5GJ7	AME	1.48	1.41	1.33	1.26
PCF801/8GJ7	AME	1.45	1.38	1.31	1.23
802	RCA	Refer to Manual 1D1020			
NL-803	NE	8.00			
Z803U/6779	AME	5.75	5.75	5.75	4.00
Z805U/7714	AME	7.50	7.50	7.50	5.45
807	AME	3.40	3.21	3.06	2.89
807	GE	3.90	3.68	3.51	3.32
807	RCA	3.80	3.59	3.42	3.23
WL-807	SYL	3.40	3.21	3.06	2.89
NL-809	WES	3.90	3.68	3.51	3.32
810	NE	16.25			
811A	RCA	28.00	26.46		
811A	RCA	7.75	7.32	6.98	6.59
811A	GE	7.75	7.32	6.98	6.59
812A	WES	7.75	7.32	6.98	6.59
812A	GE	7.45	7.04	6.71	6.33
813	RCA	7.20	6.80	6.48	6.12
813	RCA	23.75	22.44	21.38	
815	WES	24.30	23.09	21.37	
816	SYL	37.75	33.78	32.17	30.28
816	GE	3.80	3.59	3.42	3.23
816	RCA	4.10	3.87	3.69	3.49
WL-816	SYL	4.15			
827R	WES	3.90	3.70	3.51	3.40
828	RCA	615.00			
829B	RCA	33.80	31.94	30.40	28.73
829B	RCA	19.40	18.33	17.46	16.49
829B	GE	19.85	18.33	17.87	16.67
830B	WES	19.85	18.33	17.87	16.67
832A	RCA	15.55			
832A	RCA	16.30	15.40	14.67	13.86
833A	WES	16.65	15.74	14.99	14.55
833A	AME	69.25	65.44	62.33	58.86
WL-833A	RCA	67.90	64.17	61.11	57.72
836	WES	67.90	64.17	61.11	57.72
837	RCA	14.75	13.94	13.28	12.54
NL840/8754	NE	14.70	13.89	13.23	12.50
848	NE	8.75			
849	RCA	32.20	30.43	28.98	
857B	AME	231.00			
GL-857B	AME	240.00			
857B	GE	207.00			

Tube Type	Mfg.	1-4	5-18	19-49	50-99
857B	RCA	225.00	....	....	....
860	WES	218.00	....	....	....
866A	RCA	64.35	60.82	58.92	54.70
866A	GE	3.75	3.54	3.38	3.19
866A	RCA	3.75	3.54	3.38	3.19
866A	SYL	3.25	3.07	2.93	2.76
WL-866A	WES	3.75	3.54	3.38	3.19
866AX	AME	4.50	4.25	4.05	3.83
868	RCA	6.85	6.47	....	....
GL-869B	GE	123.50	....	....	....
869B	EIM	138.00	....	....	....
869BL	EIM	138.00	....	....	....
869B	RCA	155.00	....	....	....
869B	AME	155.00	....	....	....
NL-869B	NE	138.00	....	....	....
NL-869B	NE	138.00	....	....	....
869BL	AME	155.00	....	....	....
NL-872A	NE	9.90	9.36	8.91	....
872A	GE	9.90	9.36	8.91	8.42
872A	RCA	10.70	....	....	....
872A	NE	9.90	9.36	8.91	8.42
872AX	AME	10.85	10.25	9.77	9.22
ML-880	RAY	595.00	....	....	....
880	RCA	760.00	....	....	....
884	GE	2.28	2.17	2.05	1.94
884	RCA	2.28	2.17	2.05	1.94
884	SYL	2.28	2.17	2.05	1.94
889A	RCA	290.00	....	....	....
889RA	RCA	370.00	....	....	....
889RA/5667	SYL	435.00	....	....	....
ML-891	RAY	275.00	....	....	....
ML-891R	RAY	430.00	....	....	....
891R	RCA	430.00	....	....	....
892	GE	345.00	....	....	....
892	RCA	325.00	....	....	....
892	WES	315.00	....	....	....
ML-892	RAY	270.00	....	....	....
892A	RCA	425.00	....	....	....
EC900/6HA5	AME	1.93	1.82	1.74	1.64
LC900/3HA5	AME	1.93	1.83	1.74	1.74
NL-900	NE	8.40	7.93	....	....
PX900/4HA5	AME	1.15	1.09	1.04	.98
Z900T/5823	AME	3.45	3.26	3.11	2.40
902A	RCA	21.00	19.85	18.90	17.85
QKK910	RAY	305.00	....	....	....
917	RCA	9.55	9.02	8.60	8.12
918	RCA	6.85	6.47	....	....
NL-918/5560	NE	17.75	....	....	....
919	RCA	10.15	9.59	9.14	8.63
920	RCA	10.55	9.97	9.50	8.97
921	RCA	5.15	4.87	4.64	4.34
922	RCA	3.75	3.54	....	....
922	SYL	3.80	3.59	....	....
923	RCA	5.00	4.73	....	....
923	SYL	4.70	4.44	....	....
925	RCA	5.45	5.15	4.63	....
926	RCA	5.15	4.87	4.64	....
927	RCA	6.45	6.10	....	....
929	RCA	3.65	3.45	....	....
930	GE	5.30	5.01	4.77	4.51
930	RCA	5.30	5.01	4.77	4.51
931A	RCA	12.10	11.43	10.89	10.29
931A	WES	12.30	11.62	11.00	10.46
931-VA	RCA	12.75	12.05	....	....
934	RCA	5.65	5.34	....	....
935	RCA	15.35	14.51	13.82	....
945	RCA	32.20	30.43	28.98	....
NL-950	NE	6.75	....	....	....
955	RCA	7.05	6.70	....	....
959	RCA	13.85	13.16	....	....
QKK965	RAY	305.00	....	....	....
991	RCA	1.01	.95	.91	....
1000T	EIM	172.00	....	....	....
1000T	SYL	169.00	....	....	....
XP1000	AME	86.00	....	....	....
XP1002	AME	275.00	....	....	....
XP-1004	AME	350.00	....	....	....
ZZ1000/8228	AME	2.90	2.68	2.44	2.15
NL-1009A	NE	155.00	....	....	....
XP1010	AME	97.00	....	....	....
XP1011	AME	145.00	....	....	....
CK1005	RAY	1.35	1.28	1.22	1.15
CK1007	RAY	1.45	1.37	1.31	1.23
CK1020	RAY	20.69	19.55	....	....
XP1020	AME	585.00	....	....	....
C 1021	RAY	20.69	19.55	....	....
NL-1022A	NE	116.00	....	....	....
CK1026	RAY	4.80	4.54	....	....
JP1030	AME	106.00	....	....	....
ZM1030	AME	9.95	9.40	8.96	8.00
XP1031	AME	147.00	....	....	....
XP1032	AME	980.00	....	....	....
ZM1032	AME	9.95	9.95	9.95	8.00
CK1034	RAY	9.15	8.65	8.24	7.78
CK1038	RAY	9.15	8.65	8.24	7.78
XP1040	AME	595.00	....	....	....

Tube Type	Mfg.	1-4	5-18	19-49	50-99
CK1047	RAY	4.20	3.97	3.78	3.57
NL-1051A	NE	65.00	....	....	....
1051A	SYL	65.00	....	....	....
NL-1051AP	NE	65.00	....	....	....
1052A	SYL	99.00	93.56	89.10	84.15
NL-1052A	NE	99.00	93.56	....	....
NL-1052AP	NE	99.00	93.56	....	....
NL-1053B	NE	284.00	....	....	....
1061	SYL	65.00	61.43	....	....
NL-1061	NE	65.00	61.43	....	....
NL-1061P	NE	65.00	61.43	....	....
NL-1062	NE	99.00	93.56	....	....
NL-1062P	NE	99.00	93.56	....	....
NL-1063	NE	284.00	....	....	....
NL-1081	NE	75.00	....	....	....
NL-1081P	NE	76.20	....	....	....
NL-1082	NE	107.00	....	....	....
NL-1082P	NE	108.00	....	....	....
NL-1091	NE	75.00	....	....	....
NL-1091P	NE	76.20	....	....	....
NL-1092	NE	107.00	....	....	....
NL-1092P	NE	108.00	....	....	....
XP1110	AME	95.00	....	....	....
XP1111	AME	105.00	....	....	....
XP1112	AME	95.00	....	....	....
XP1113	AME	75.00	....	....	....
R1131C	SYL	21.00	20.41	19.44	....
R1168	SYL	26.95	....	....	....
1219-5670	SYL	3.70	....	....	....
1220/5654	SYL	3.05	....	....	....
1229	SYL	5.35	....	....	....
1236C	THE	13.00	12.50	10.40	9.10
1252/6U8A	SYL	2.00	....	....	....
1258	TUN	31.80	30.05	28.62	27.03
ME-1400	MUL	9.50	....	....	....
K1328	DUM	595.00	....	....	....
1500T	EIM	320.00	....	....	....
EM-1502	RAY	2.20	2.08	1.98	1.87
EM-1505	RCA	2.20	2.08	1.98	1.87
1612	RCA	5.77	5.48	....	....
1613	RCA	3.30	3.12	2.97	2.81
1614	RCA	4.93	4.68	4.43	4.19
1616	RCA	16.25	15.36	....	....
1619	RCA	6.23	5.91	....	....
1620	RCA	7.55	7.17	6.80	6.42
1621	RCA	3.85	3.66	....	....
1622	RCA	5.35	5.08	....	....
1624	RCA	10.25	9.69	9.23	8.71
1625	RCA	5.80	5.48	5.22	4.93
1629	RCA	2.04	1.94	1.84	1.74
PL1810-C	SYL	3.55	....	....	....
CK1900	RAY	8.00	....	....	....
CK1901/B5016	RAY	11.00	....	....	....
CK1902/B50911	RAY	15.75	....	....	....
CK1903	RAY	15.75	....	....	....
CK1904	RAY	16.25	....	....	....
CK1905	RAY	8.75	....	....	....
CK1906	RAY	8.75	....	....	....
CK1907	RAY	8.00	....	....	....
CK6844A	RAY	11.00	....	....	....
CK8037/5031	RAY	15.75	....	....	....
CK8421/5092	RAY	15.75	....	....	....
CK8422/5991	RAY	15.75	....	....	....
CK8650	RAY	8.00	....	....	....
CK8754	RAY	8.00	....	....	....
1946 ...	RCA	16.15	15.26	14.54	13.73
1947	RCA	47.00	44.42	42.30	39.95
1949	RCA	23.75	22.44	21.38	20.19
2020	RCA	85.00	80.33	76.50	72.25
2048	RCA	720.00	....	....	....
2050	GE	2.40	2.27	2.16	2.04
2050	RCA	2.37	2.25	2.13	2.01
2050	SYL	2.37	2.25	2.13	2.01
2050A	GE	2.03	1.92	1.83	1.73
2050A/2050	RAY	2.21	2.06	1.91	1.76
2050A	RCA	2.03	1.92	1.83	1.73
2050W	RAY	7.50	7.09	6.75	6.38
2050	WES	2 37	2.25	....	....
K2060	DUM	5300.00	....	....	....
2067	RCA	170.00	....	....	....
K2112	DUM	1260.00	....	....	....
K2216A	DUM	1300.00	....	....	....
K224/7702	DUM	2520.00	....	....	....
K225	DUM	1295.00	....	....	....
2399	TUM	14.30	13.51	12.87	12.16
SC2854	SYL	49.50	46.78	44.55	42.08
ZB3200	AME	520.00	....	....	....
NL-4031	NE	33.00	31.19	....	....
4037A	RCA	27.55	26.03	24.80	....
4055	RCA	32.90	31.09	29.61	27.97
R4330	SYL	29.10	27.50	26.19	24.74
R4340	SYL	60.50	57.17	54.45	51.43
4404	RCA	1.35	1.28	1.21	1.14
4409	RCA	5.30	5.01	4.77	4.51
4413	RCA	2.35	22.22	2.11	2.00
4415/S	RCA	1400.00	....	....	....

Industrial & Special Purpose Tubes

Tube Type	Mfg.	1-4	5-18	19-49	50-99
4416/S	RCA	1400.00			
4423	RCA	2.05	1.94	1.84	1.74
4425	RCA	2.05	1.94	1.84	1.74
4427	RCA	585.00			
4438	RCA	120.00			
4439	RCA	120.00			
4440	RCA	120.00			
4441	RCA	170.00			
4441A	RCA	350.00			
4448	RCA	1.35	1.28	1.21	1.15
4449A	RCA	1750.00			
4459	RCA	495.00			
4460	RCA	235.00			
4461	RCA	280.00			
4463	RCA	235.00			
4464	RCA	250.00			
4465	RCA	290.00			
4471	RCA	17.95	16.92	16.16	15.26
4472	RCA	24.60	23.25	22.14	20.91
4473	RCA	93.85	88.69	84.47	79.77
4482	RCA	785.00			
4486	RCA	1095.00			
4489	RCA	21.00	19.85	18.90	19.85
4491	RCA	40.60	38.37	36.54	34.51
4492	RCA	1650.00			
4493	RCA	1055.00			
4494	RCA	1055.00			
4495	RCA	1055.00			
4499	RCA	32.85	31.04	29.57	27.92
4500	RCA	430.00			
4503	RCA	470.00			
4510	RCA	40.95	38.70	36.86	34.81
4616	RCA	185.00			
4517	RCA	85.60	80.29		
4518	RCA	105.00			
4523	RCA	125.00			
4524	RCA	135.00			
4525	RCA	205.00			
4536A	RCA	2165.00			
4600A	RCA	345.00			
4604	RCA	9.00	8.51	8.10	7.65
4614	RCA	325.00			
4621	RCA	125.00			
4626	RCA	605.00			
4630	RCA	2670.00			
4631	RCA	103.50			
4632	RCA	1090.00			
4634	RCA	460.00			
4635	RCA	2500.00			
4636	RCA	525.00			
4637	RCA	105.00			
4638	RCA	700.00			
NL-4998	NE	19.98	18.85		
NL-5030	NE	10.50			
6032	NE	15.75			
NL-50911	NE	15.75	14.88	14.17	
GL-5513	GE	620.00			
CK-5517	RAY	4.20	3.97		
GL-5518	GE	1400.00			
ML-5530	RAY	450.00			
ML-5530H	RAY	450.00			
ML-5531	RAY	795.00			
ML-5541	RAY	690.00			
5544	AME	44.40	41.96	39.96	37.74
GL-5544	GE	34.10			
5544	AME	48.75	46.06	43.87	41.44
GL-5549	GE	653.50			
GL-5550	GE	49.00			
NL-5550	NE	49.00			
5550	RCA	49.00			
5550/681	WES	49.00			
GL-5551A	GE	65.00			
5551A	RCA	65.00			
5551A/652	SYL	65.00			
5551A/652	WES	65.00			
5551A/652	NE	65.00			
GL-5552A	GE	99.00			
5552A	RCA	99.00			
5552A	SYL	99.00			
5552A/651	WES	99.00			
GL-5553	GE	245.00			
NL-5553	NE	245.00			
5553	SYL	245.00			
GL-5554	GE	215.00			
GL-5555	GE	316.00			
NL-5555	NE	316.00			
5555/653	WES	348.00			
GL-5556	GE	54.25			
5556	RCA	54.25			
5557	GE	9.50	9.02	8.55	
5557	WES	9.50	9.02	8.55	
5557/FG17	AME	11.10	10.49	9.99	
NL-5557/FG17/715	NE	9.50	9.02		
5558	GE	17.50	16.63		
5558	RCA	17.50	16.63		

Tube Type	Mfg.	1-4	5-18	19-49	50-99
NL-5558/FG32	NE	17.50	16.54		
5559	AME	23.00	21.73		
5559	GE	23.00	21.73		
5559	RCA	23.00			
NL-5559/FG57	NE	23.00			
5560	GE	33.00	31.25	29.70	
NL-5560/FG95	NE	33.00	31.25	29.70	
5560	RCA	33.00	31.25	29.70	
5560/FG95	SYL	33.00	31.25	29.70	
5561	RCA	59.00			
5563A	GE	51.25			
5563A	RCA	53.90			
NL-5563A	NE	50.00			
GL-5564	GE	935.00			
ML-5575-100	RAY	225.00			
5575/100/616	WES	225.00			
ML-5576/200	RAY	245.00			
5576/200	SYL	245.00			
5576/200	WES	245.00			
5581	RCA	5.30	5.01	4.77	4.51
5582	RCA	6.75	6.38	6.08	
5583	RCA	8.60	8.13	7.74	7.31
5586	AME	417.00			
ML-5604	RAY	570.00			
5604	WES	570.00			
5606A	DUM	322.00			
ML-5606	RAY	288.00			
5606	WES	288.00			
ML-5619	RAY	423.00			
GL-5630	GE	1940.00			
5636	GE	6.10	5.76	5.49	5.19
5636	RCA	6.10	5.76	5.49	5.19
5636A	SYL	6.10	5.76	5.49	5.19
CK5639	RAY	5.25	4.96	4.72	4.46
5639	RCA	5.25	4.96	4.72	4.46
5639A	SYL	5.25	4.96	4.72	4.46
5642	GE	3.53			
5642	RCA	3.53			
CK5643	RAY	6.37	6.02	5.73	5.41
5643	TUN	6.37	6.02	5.73	5.41
5651	AME	1.78	1.69	1.60	1.51
5651	GE	1.78	1.69	1.60	1.51
CK-5651	RAY	1.78	1.69	1.60	1.51
5651	RCA	1.78	1.69	1.60	1.51
5651A	RCA	1.78	1.69	1.60	1.51
5651	SYL	1.90	1.80	1.71	1.62
5651	WES	1.78	1.69	1.60	1.51
CK-5651WA	RAY	3.75	3.54	3.38	3.19
5651WA	RCA	6.60	6.24	5.94	5.61
5652	RCA	8.60	8.13	7.74	7.31
5653	RCA	5.35	5.06		
5653	RAY	2.80	2.66		
CK-5654	RAY	2.41	2.28	2.16	2.04
5654	RCA	2.41	2.28	2.16	2.04
5654	SYL	2.41	2.28	2.16	2.04
5654	TUN	2.41	2.28	2.16	2.04
5654/6AK5W	AME	2.45	2.33	2.23	2.08
5654/6AK5W	GE	2.41	2.28	2.16	2.04
5654/6AK5W	RAY	2.41	2.28	2.16	2.04
5654/6AK5W	RCA	2.41	2.28	2.16	2.04
5654/6AK5W	WES	2.41	2.28	2.16	2.04
5654/6AK5W/6096	RCA	2.45	2.33	2.23	2.08
CK5656	RAY	16.56	15.65		
5658	AME	595.00			
ML-5658	RAY	595.00			
5653	GE	2.20	2.08	1.98	1.87
5653	RCA	2.20	2.08	1.98	1.87
5665/C16J	GE	52.50	49.88		
5665/C16J	RCA	52.50	49.88		
5665/C16J	WES	52 50	49.88		
NL-5665/C16J	NE	52.50	49.88		
5666	AME	280.00			
ML-5666	RAY	280.00			
5667	AME	370.00			
ML-5667	RAY	370.00			
ML-5668	RAY	350.00			
5668	WES	350.00			
ML-5669	RAY	515.00			
5670	GE	2.45	2.33	2.21	2.08
5670	SYL	2.45	2.33	2.21	2.08
CK5670	RAY	2.45	2.33	2.21	2.08
CK5670WA	RAY	2.45	2.33	2.21	2.08
5670WA	RCA	2.45	2.33	2.21	2.08
5671	RCA	2110.00			
5672	RAY	2.27	2.16		
5672	RCA	2.27	2.16		
5672	TUN	2.27	2.16		
5675	RCA	6.90	4.24	6.21	5.87
CK5675	RAY	16.05	15.17	14.44	13.64
CK5676	RAY	3.05	2.90		
5676	TUN	3.05	2.90		
CK5678	RAY	2.27	2.11		
5678	RCA	2.27	2.11		
5678	TUN	2.27	2.11		
ML-5681	RAY	2175.00			

Industrial & Special Purpose Tubes

Tube Type	Mfg.	1-4	5-18	19-49	50-99
ML-5682	RAY	2625.00	....		....
NL-5684/C3J/A	NE	13.10	12.46	11.80	....
NL-5684-NE	NE	16.70	15.78	15.03	....
5684/C3J/A	RCA	13.10	12.46	11.80	....
NL-5684A/NE	NE	17.90	16.92	16.11	....
5685/C6JA	RCA	29.00	27.41	26.10	24.65
5686	NE	3.37	3.20	3.03	2.86
CK5686	RAY	3.37	3.20	3.03	2.86
5686	RCA	3.37	3.20	3.03	2.86
5687	GE	4.00	3.80	3.60	3.40
CK5687	RAY	4.00	3.80	3.60	3.40
5687	RCA	4.05	3.85	3.65	3.45
5687	SYL	4.05	3.85	3.65	3.45
5687WA	GE	5.70	5.42	5.14	4.85
CK5687WA	RAY	5.70	5.42	5.14	4.85
5691	GE	8.75	8.27	7.87	7.43
5691	RCA	8.75	8.27	7.87	7.43
5691	WES	8.75	8.27	7.87	7.43
5692	RCA	8.25	7.80	7.43	7.01
5692	GE	8.25	7.80	7.87	7.43
5692	SYL	8.25	7.80	7.43	7.01
5692	WES	8.25	7.80	7.43	7.01
5693	GE	6.60	6.24	5.94	5.61
5693	RCA	6.60	6.24	5.94	5.61
5693	WES	6.60	6.24	5.94	5.61
5696A	GE	1.95	1.84	1.75	1.66
5696	RCA	1.95	1.84	1.75	1.66
5696	SYL	1.95	1.84	1.75	1.66
CK5702	RAY	4.20	3.99	....	....
CK5702WA	RAY	6.48	6.15	....	....
CK5702WB	RAY	9.55	9.02	....	....
CK5703	RAY	3.05	2.88	....	....
CK5703WA	RAY	7.07	6.71	....	....
5703WA	TUN	7.07	6.71	....	....
CK5703WB	RAY	8.79	8.31	....	....
CK5704	RAY	5.10	4.82	4.59	4.34
CK5704WA	RAY	8.05	7.61	7.25	6.84
5713	RCA	700.00	....	....	....
5718	RCA	3.65	3.47	....	....
5718	SYL	4.02	3.80	....	....
5719	GE	3.15	2.98	2.83	2.68
5719	RCA	3.15	2.98	2.83	2.68
5719	SYL	3.60	3.40	3.24	3.06
GL-6720/FG-33	GE	34.75	32.84	31.27	29.54
RK5721	RAY	116.00	....	....	....
5722	SYL	8.35	7.87	7.52	7.10
GB5725	SYL	3.15	2.99	2.83	2.68
5725/6AS6W	RCA	3.12	2.95	2.81	2.65
5725	SYL	3.12	2.95	2.81	2.65
5725/6AS6W	SYL	3.12	2.95	2.81	2.65
5725/6AS6	GE	3.15	2.98	2.84	2.68
5725/6AS6W	RCA	3.12	2.95	2.81	2.65
5725	RAY	3.12	2.95	2.81	2.65
CK5725/6AS6W	RAY	3.12	2.95	2.81	2.65
5726	RCA	1.55	1.47	1.40	1.32
5726	SYL	1.55	1.47	1.40	1.32
5726/6AL5W	AME	1.70	....	....	....
5726/6AL5W	GE	1.55	1.47	1.40	1.32
CK5726/6AL5W	RAY	1.55	1.47	1.40	1.32
5726/6AL5W/6097	RCA	1.55	1.47	1.40	1.32
5726/6AL5W	RCA	1.55	1.47	1.40	1.32
5726/6AL5W	WES	1.55	1.47	1.40	1.32
5727	AME	2.90	2.76	2.61	2.47
5727	RCA	2.90	2.76	2.61	2.47
5727	SYL	2.90	2.76	2.61	2.47
5727/2D21W	AME	2.90	2.76	2.61	2.47
5727/2D21W	GE	2.90	2.76	2.61	2.47
5727/2D21W	RAY	2.90	2.76	2.61	2.47
5727/2D21W	RCA	2.90	2.76	2.61	2.47
5727/2D21W	SYL	2.90	2.76	2.61	2.47
5727/2D21W	WES	2.90	2.76	2.61	2.47
5734	RCA	22.05	20.95	19.83	....
5736	DUM	199.50	....	....	....
5736	SYL	205.00	....	....	....
5736	GE	195.00	....	....	....
WL-5736	WES	195.00	....	....	....
CK-5744WB	RAY	7.05	6.66	6.34	5.99
CK5744WA	RAY	8.96	8.47	8.06	7.62
5749	SYL	2.20	2.09	1.98	1.87
5749/6BA6W	GE	2.20	2.09	1.98	1.87
5749	RCA	2.20	2.09	1.98	1.87
5749/6BA6W	RCA	2.20	2.09	1.98	1.87
NL-5750	NE	6.75	....	....	....
5750	SYL	3.45	3.28	3.11	2.93
5750	RCA	3.45	3.28	2.11	2.93
5750	GE	3.45	3.28	3.11	2.93
5751	GE	2.55	2.42	2.30	2.17
CK-5751	RAY	2.55	2.42	2.30	2.17
5751	RCA	2.55	2.42	2.30	2.17
5751	SYL	2.55	2.42	2.30	2.17
CK-5751WA	RAY	2.55	2.42	2.30	2.17
5751WA	RCA	2.55	2.42	2.30	2.17
CK-5755	RAY	9.30	8.79	....	....
5762/7C24	GE	240.00	....	....	....
5762	RCA	230.00	....	....	....

Tube Type	Mfg.	1-4	5-18	19-49	50-99
5763	RCA	2.45	2.32	2.20	2.08
5763	SYL	2.45	2.32	2.20	2.08
5770	RCA	1780.00	....	....	....
GL-5779	GE	172.00	....	....	....
CK5783	RAY	4.19	3.96	3.77	3.56
5783	RCA	4.19	3.96	3.77	3.56
CK5783WA	RAY	7.07	6.68	6.36	6.01
CK5784WA	RAY	9.13	8.63	8.22	7.76
CK-5784WB	RAY	15.33	14.49	13.80	31.03
5786	RCA	310.00	....	....	....
CK-5787	RAY	5.00	4.73	4.50	4.25
CK-5787A	RAY	5.45	5.15	4.90	4.63
CK-5787WA	RAY	4.91	4.64	4.42	4.17
5796	GE	545.00	....	....	....
GL-5788	SYL	17.25	16.30	15.52	14.66
5800/VX-41A	VIC	30.25	....	....	....
5814A	GE	2.35	2.23	2.12	2.00
CK5814A	RAY	2.35	2.23	2.12	2.00
5814A	RCA	2.35	2.23	2.12	2.00
5814A	SYL	2.35	2.23	2.12	2.00
5814A	WES	2.35	2.23	2.12	2.00
CK5814WA	RAY	2.40	2.28	2.16	2.08
5814WA	RCA	2.40	2.28	2.16	2.04
5819	RCA	78.65	74.32	....	....
GL-5820A	GE	995.00	....	....	....
5820A	RCA	995.00	....	....	....
5820A/L	RCA	1800.00	....	....	....
5820A/R	GE	995.00	....	....	....
GL-5822A	GE	116.00	....	....	....
5822A	WES	116.00	....	....	....
5823	RCA	1.72	1.63	1.55	1.46
5823	SYL	1.72	1.63	1.55	1.46
5923	WES	1.72	1.63	1.55	1.46
5824	GE	3.60	3.40	3.24	3.06
5824	WES	3.60	3.40	3.24	3.06
5825	RCA	28.50	26.93	25.65	24.23
CK5829	RAY	4.20	3.97	3.78	3.57
CK5829WA	RAY	7.48	7.07	6.73	6.36
GL-5820	GE	540.00	....	....	....
5840	GE	5.35	5.08	4.82	4.55
CK5840	RAY	5.35	5.08	4.82	4.55
5840	RCA	5.35	5.08	4.82	4.55
5840A	SYL	5.35	5.08	4.82	4.55
5841	VIC	7.70	....	....	....
5842	AME	7.35	6.95	6.61	6.25
CK5842	RAY	7.35	6.95	6.61	6.25
AX5842	AME	8.70	8.22	7.83	7.39
5842/417A	RCA	7.35	6.98	6.62	6.25
CK5842WA	RAY	15.29	14.45	13.76	13.00
5844	GE	2.40	2.27	2.16	2.04
5844	RCA	2.40	2.27	2.16	2.04
5845	SYL	9.95	....	....	....
5947	AME	9.55	9.02	....	....
5847/404A	RCA	9.55	9.02	....	....
5855	GE	85.00	80.33	76.50	72.25
5855	SYL	85.00	80.33	76.50	72.25
5861/TDO3-10	MUL	37.50	....	....	....
5866	AME	24.30	22.96	21.87	20.66
5867	AME		Use 5867A		
5867A	AME	35.25	....	....	....
5867A	EIM	32.60	30.24	....	....
5868	AME	65.65	....	....	....
5869	AME	31.35	27.22	25.92	....
5870	AME	112.00	....	....	....
CK5876	RAY	10.25	....	....	....
5876	RCA		Use 5876A		
5876A	RCA	6.90	6.52	6.21	5.87
5877/22994	WES		Order 22994/5887		
5879	GE	2.20	2.08	1.98	1.87
CK5879	RAY	1.95	1.85	1.76	....
5879	SYL	1.95	1.85	1.76	....
5881	GE	3.10	2.93	2.73	2.64
5881	SYL	3.10	2.93	2.73	2.64
5881	WES	3.10	2.93	2.73	2.64
CK-5886	RAY	5.00	4.75	4.50	4.25
5887/22994	WES	19.95	....	....	....
CK-5889	RAY	21.65	20.46	....	....
5893	RCA	18.45	17.44	16.61	15.68
5894	AME	25.00	23.63	22.50	21.25
5895	AME	13.70	12.95	12.33	11.65
5896	GE	3.80	3.59	3.42	3.23
5896	RCA	3.80	3.59	3.42	3.23
5899	GE	5.50	5.20	4.95	4.63
5899	RCA	5.55	5.27	5.00	4.72
5899A	SYL	5.55	5.27	5.00	4.72
CK5902	RAY	4.80	4.56	4.32	4.08
5902	RCA	4.80	4.56	4.32	4.08
5902A	SYL	4.80	4.56	4.32	4.08
CK5902WA	RAY	8.72	8.24	7.85	7.41
5904	SYL	7.90	7.47	7.11	6.72
5915	RCA	1.62	1.54	1.46	2.77
5920	AME	3.25	3.07	2.76	1.38
5923	AME	291.50	....	....	....
5924A	AME	309.00	....	....	....
5931	SYL	6.80	....	....	....
5932	SYL	11.30	....	....	....

Industrial & Special Purpose Tubes

Tube Type	Mfg.	1-4	5-18	19-49	50-99
5933	SYL	12.35	....	....	....
5933WA	SYL	16.60	15.59	....	....
5946	RCA	145.00	....	....	....
5963	GE	1.40	1.32	1.26	1.19
CK5963	RAY	1.36	1.29	1.22	1.16
5963	RCA	1.36	1.29	1.22	1.16
5963	SYL	1.36	1.29	1.22	1.16
WL-5963	WES	1.36	1.29	1.22	1.16
5964	GE	1.55	1.47	1.40	1.32
5964	RCA	1.55	1.47	1.40	1.32
5965A	GE	1.90	1.80	1.71	1.62
5965	RCA	1.92	1.82	1.73	1.63
5965	SYL	1.92	1.82	1.73	1.63
5966	SYL	42.00	39.69	37.80	35.70
WL-5966	WES	42.00	39.69	37.80	35.70
CK5971	RAY	7.30	6.90	6.57	6.21
RK5976	RAY	68.00	....	....	....
NL-5992	NE	15.75	14.88	14.17	....
5998	TUN	12.95	12.24	11.65	11.01
6005	RCA	3.23	3.06	2.91	2.75
6005	SYL	3.23	3.06	2.91	2.75
6005	EIM	3.25	3.07	2.92	2.76
6005/6AQ5W	GE	3.23	3.06	2.91	2.75
6005/6AQ5W	RCA	3.23	3.06	2.91	2.75
6005/6AQ5W/6095	RCA	3.23	3.06	2.91	2.75
6007	AME	2.15	1.63	1.55	1.46
6008	AME	3.20	....	....	....
6012	GE	7.65	7.27	6.89	6.50
6012	RCA	7.65	7.27	6.89	6.50
6012	SYL	7.65	7.27	6.89	6.50
GL-6014/C1K	GE	11.80	11.15	10.62	10.03
NL-6014/5683/C1K	NE	11.80	11.15	....	....
6014/C1K	RAY	11.80	11.15	10.62	10.03
6014/C1K	RCA	11.80	11.15	10.62	10.03
6014/5683/C1K	WES	11.80	11.15	10.62	10.03
CK6021	RAY	3.50	3.33	3.15	2.98
6021	RCA	3.50	3.33	3.15	2.98
6021	GE	3.50	3.33	3.15	2.98
6021	SYL	3.50	3.33	3.15	2.98
CK-6021WA	RAY	8.72	8.24	7.85	7.41
CK6029	RAY	7.30	6.90	6.57	6.20
GL-6039	GE	2070.00	....	....	....
6046	GE	1.65	1.56	1.49	1.32
CK6072	RAY	3.90	3.71	3.51	3.32
6072	RCA	3.90	3.71	3.51	3.32
6072A	GE	4.10	3.87	3.69	3.49
CK6072A	RAY	3.90	3.71	3.51	3.32
6073	RCA	3.00	2.85	....	....
6073/0A2	RCA	3.35	3.17	3.01	2.85
6074	RCA	3.45	3.28	3.11	....
6074/0B2	RCA	3.70	3.50	3.33	3.15
6075	AME	277.50	....	....	....
6076	AME	305.00	....	....	....
6076	RCA	305.00	....	....	....
6079	AME	79.50	....	....	....
6080	GE	5.33	5.06	4.80	4.53
CK6080	RAY	5.33	5.06	4.80	4.53
6080	RCA	5.33	5.06	4.80	4.53
6080	SYL	5.33	5.06	4.80	4.53
6080	WES	5.33	5.06	4.80	4.53
CK6080WA	RAY	10.80	....	....	....
6080WA	RCA	10.80	....	....	....
6080WA	TUN	10.80	....	....	....
6082	RCA	5.60	5.32	....	....
6083	AME	22.50	....	....	....
6084	AME	3.30	3.12	2.97	2.81
6085	AME	3.30	3.12	2.97	2.81
6087/5Y3WGTB	GE	6.30	5.95	5.67	5.36
CK6088	RAY	3.35	3.17	3.02	2.85
6098/6AR6WA	TUN	13.45	12.71	12.10	11.43
6101	RCA	5.35	5.08	....	....
6101/6J6WA	RCA	5.35	5.08	....	....
6101	SYL	5.35	5.08	....	....
6111	GE	3.70	3.52	3.33	3.15
CK6111	RAY	3.70	3.52	3.33	3.15
6111	RCA	3.70	3.52	3.33	3.15
6111A	SYL	3.70	3.52	3.33	3.15
CK6111WA	RAY	8.72	8.24	7.83	7.41
6112	GE	4.10	3.87	3.69	3.49
CK6112	RAY	4.15	3.94	3.74	3.53
6112	RCA	4.15	3.94	3.74	3.53
6112A	SYL	4.15	3.94	3.74	3.53
CK6112WA	RAY	6.24	5.90	5.62	5.30
6130/3C45	RCA	25.75	....	....	....
6134	GE	5.95	5.62	5.36	5.06
6135	GE	2.50	2.36	2.25	2.13
6135	SYL	2.40	2.27	2.16	2.04
6136	RCA	2.70	2.57	2.43	2.30
6136	SYL	2.70	2.57	2.43	2.30
6136	GE	2.70	2.57	2.43	2.30
6146	AME	4.35	4.13	3.92	3.70
6146A	AME	4.35	4.13	3.92	3.70
6146A	GE	4.35	4.13	3.92	3.70
CK6146	RAY	4.35	4.13	3.92	3.70
6146A	RCA	4.30	4.06	3.87	3.66
CK6146B/8298A	RAY	5.20	4.94	4.68	4.42
CK6146A	RAY	5.20	4.94	4.68	4.42
6146A	SYL	4.35	4.13	3.92	3.70
6146A	WES	4.35	4.13	3.92	3.70
6146B	AME	5.20	4.94	4.68	4.42
6146B	SYL	5.20	4.94	4.68	4.42
6146B/8298A	WES	5.20	4.94	4.68	4.42
6146B/8298A	RCA	5.15	4.87	4.64	4.38
6146W	RCA	6.60	....	....	....
6155	AME	36.00	34.02	32.40	....
6155	RCA	36.00	34.02	32.40	....
6156	AME	44.85	42.38	40.36	38.13
6156	RCA	42.60	40.26	38.34	36.21
6159	RCA	4.75	4.49	4.28	4.04
6159	AME	4.75	4.49	4.28	4.04
6159A	SYL	4.80	4.56	4.32	4.08
6159B	RCA	5.05	4.77	4.55	4.29
6159W/7357	RCA	9.00	8.51	8.10	7.65
6161	GE	135.00	....	....	....
6161	RCA	135.00	....	....	....
6166	RCA	825.00	....	....	....
6166A/7007	RCA	975.00	....	....	....
ML-6166A/7007	RAY	1020.00	....	....	....
6173	RCA	15.20	....	....	....
CK6174	RAY	4.60	4.35	4.14	3.91
6181	RCA	1280.00	....	....	....
6186	RCA	3.85	3.66	....	....
6186	SYL	3.85	3.66	....	....
6186/6AG5WA	RCA	3.85	3.66	....	....
CK6189/12AU7WA	RAY	3.70	3.52	3.33	3.15
6189	RCA	3.70	3.52	3.33	3.15
6189	SYL	3.70	3.52	3.33	3.15
6189/12AU7WA	RCA	3.70	3.52	3.33	3.15
WL-6189/12AU7WA	WES	3.70	3.53	3.33	3.15
6197	RCA	2.30	2.19	2.07	1.96
6199	RCA	50.40	47.62	....	....
6201	AME	2.95	2.80	2.66	2.51
6201	RCA	2.95	2.80	2.66	2.51
6201	SYL	2.55	2.42	2.29	2.17
6201/12AT7WB	GE	2.55	2.42	2.29	2.17
CK6201/12AT7WA	SYL	2.95	2.80	2.66	2.51
CK6201/12AT7WA	RAY	2.95	2.42	2.66	2.51
6202	RCA	2.69	2.80	2.66	2.51
6202/6X4WA	GE	4.10	3.87	3.69	3.49
6203	GE	4.30	4.06	3.87	3.66
CK6205	RAY	5.35	5.06	4.81	4.55
6205	SYL	5.90	5.58	5.31	5.02
6206	RCA	7.25	6.85	6.52	6.16
6211	AME	3.20	3.08	2.88	2.72
6211A	GE	2.15	2.04	1.94	1.83
6211	RCA	2.15	2.04	1.94	1.83
CK6213	RAY	5.67	5.36	5.10	4.82
6216	GE	4.00	3.78	3.60	3.40
6217	RCA	82.80	....	....	....
6218	AME	8.65	8.17	7.78	7.35
6227	AME	3.95	....	....	....
GL-6228	GE	3696.00	....	....	....
CK6247	RAY	11.20	10.58	10.08	9.52
CK6247WA	RAY	21.55	20.36	19.39	18.32
GL6251	GE	2790.00	....	....	....
6252	AME	28.40	26.84	25.56	24.14
ML-6256	RAY	335.00	....	....	....
ML-6257	RAY	345.00	....	....	....
6257	SYL	330.00	....	....	....
ML-6258	RAY	380.00	....	....	....
6263A	RCA	13.55	12.80	12.20	11.52
6264A	RCA	14.35	13.56	12.92	12.20
CK6265	RAY	4.10	3.87	3.69	3.49
6267/EF86	10M	2.50	2.36	2.25	2.13
6267/EF86	AME	1.30	1.23	1.17	1.10
6267/EF86	MUL	1.30	1.23	1.17	1.10
6268	AME	41.00	....	....	....
6279	AME	47.65	44.93	....	....
GL-6283	GE	500.00	....	....	....
6291	DUM	63.00	59.54	....	....
6292	DUM	63.00	59.54	....	....
6293	RCA	4.90	4.63	4.41	4.17
6299	GE	58.25	....	....	....
6328	RCA	14.45	13.66	13.01	12.28
CK6336A	RAY	19.00	17.96	17.10	16.15
6336A	RCA	19.00	17.96	17.10	16.15
6339	AME	46.35	....	....	....
6342A	RCA	60.90	....	....	....
6350	RCA	1.85	1.76	1.67	1.57
6350	SYL	1.85	1.76	1.67	1.57
6360	RCA	Use 6360A			
6360	AME	6.90	6.53	6.21	5.87
6360A	AME	6.00	5.67	5.40	5.10
6362	DUM	133.00	....	....	....
6363	DUM	123.50	....	....	....
6364	DUM	161.00	....	....	....
6365	DUM	65.00	....	....	....
6366	DUM	175.00	....	....	....
6370	AME	16.50	15.59	14.85	14.03
6375	AME	8.40	7.94	7.56	7.14
6381	RCA	Prices on request only			
6386	GE	7.75	7.32	6.98	6.59

Industrial & Special Purpose Tubes

Tube Type	Mfg.	1-4	5-18	19-49	50-99
6386	RCA	7.75	7.32	6.98	6.59
6397	GE	8.30	7.84	7.47	7.06
CK6397	RAY	8.30	7.84	7.47	7.06
6405/1540	RCA	9.00	8.51	8.10	7.65
CK6414	RAY	3.65	3.45	3.28	3.10
6417	RCA	3.33	3.16	....	....
CK6418	RAY	3.20	3.02	2.88	2.72
CK6419	RAY	7.30	6.90	6.57	6.21
ML-6420	RAY	445.00	....	....	....
ML-6421	RAY	525.00	....	....	....
ML-6421F	RAY	545.00	....	....	....
ML-6422	RAY	450.00	....	....	....
ML-6423	RAY	525.00	....	....	....
ML-6423F	RAY	545.00	....	....	....
ML-6424	RAY	518.00	....	....	....
6425-F	SYL	645.00	....	....	....
ML6425	RAY	645.00	....	....	....
ML6425F	RAY	645.00	....	....	....
ML-6426	RAY	720.00	....	....	....
CK6438	RAY	9.15	8.65	8.24	7.78
6442	GE	39.00	....	....	....
ML-6442	RAY	39.00	....	....	....
6448	RCA	5675.00	....	....	....
6463	AME	3.50	3.33	3.15	2.97
6463	GE	1.90	1.81	1.71	1.62
6467	DUM	63.00	....	....	....
6472	RCA	16.20	15.31	....	....
CK6475	RAY	13.37	....	....	....
6476	RAY	13.37	....	....	....
6476A	SYL	14.95	....	....	....
6483	SYL	3.09	....	....	....
6485	GE	2.05	....	....	....
CK6485	RAY	2.05	....	....	....
6499	RCA	360.00	....	....	....
6508	AME	112.00	....	....	....
GL-6512	GE	310.00	....	....	....
GL-6513	GE	420.00	....	....	....
GL-6514	GE	575.00	....	....	....
CL-6515	GE	1160.00	....	....	....
CK6519	RAY	7.30	6.90	6.57	6.21
6521/R	RCA	725.00	....	....	....
6524	RCA	23.95	22.63	21.56	20.36
6528A	TUN	33.60	31.75	30.24	28.56
CK6528	RAY	21.55	20.47	19.40	18.32
6528	TUN	21.55	20.47	19.40	18.32
CK6533	RAY	13.25	12.52	11.92	11.26
6544	DUM	910.00	....	....	....
6549	EIM	39.00	....	....	....
CK6550	RAY	4.95	4.68	4.45	4.21
6550	RCA	4.59	4.36	4.13	3.90
6550	SYL	4.95	4.65	4.45	4.21
6550	TUN	4.95	4.65	4.45	4.21
6550MP	TUN	9.25	8.74	8.32	4.21
6550V1 MP	RCA	9.25	8.74	8.32	7.86
6570	RCA	10.55	9.97	8.50	7.86
ML-6576	RAY	900.00	....	....	....
6580	EIM	53.00	....	....	....
6617	AME	470.00	....	....	....
6618	AME	710.00	....	....	....
CK6626/0A2WA	RAY	3.35	3.16	3.01	2.85
6626/0A2WA	RCA	3.35	3.16	3.01	2.85
CK6627/0B2WA	RAY	2.35	2.22	2.11	2.00
6655A	RCA	58.10	54.90	....	....
CK6660/6BA6	RAY	1.01	.95	.91	.86
6660/6BA6	GE	1.01	.95	.91	.86
6660/6BA6	RCA	1.01	.95	.91	.86
6660/6BA6	WES	1.01	.95	.91	.86
6661	GE	1.35	1.28	1.22	1.15
CK6661/6BH6	RAY	1.34	1.27	1.21	1.14
6661/6BH6	RCA	1.34	1.27	1.21	1.14
6661/6BH6	SYL	1.34	1.27	1.21	1.14
6661/6BH6	WES	1.34	1.27	1.21	1.14
6662	GE	1.30	1.23	1.17	1.11
CK6662/6BJ6	RAY	1.29	1.22	1.16	1.10
6662/6BJ6	RCA	1.29	1.22	1.16	1.10
6662/6BJ6	WES	1.29	1.22	1.16	1.10
6663	GE	.95	.90	.86	.81
CK6663/6AL5	RAY	.92	.87	....	....
6663/6AL5	RCA	.92	.87	....	....
6663/6AL5	WES	.92	.87	....	....
6664	GE	1.15	1.09	1.04	.98
6664/6AB4	RCA	1.12	1.06	1.01	.95
6664/6AB4	WES	1.12	1.06	1.01	.95
6669	GE	1.10	1.04	.99	.94
CK6669/6AQ5	RAY	1.06	1.00	.95	.90
6669/6AQ5A	RCA	1.06	1.00	.95	.90
6669/6AQ5A	SYL	1.06	1.00	.95	.90
6669/6AQ5	WES	1.06	1.00	.95	.90
6676	GE	1.10	1.04	.99	.94
6676/6CB6A	RCA	1.06	1.00	.95	.90
WL-6676/6CB6A	WES	1.06	1.00	.95	.90
6677	GE	1.85	1.76	1.67	1.57
CK6677/6CL6	RAY	1.85	1.76	1.67	1.57
6677/6CL6	RCA	1.85	1.76	1.67	1.57
6677/6CL6	SYL	1.85	1.76	1.67	1.57
WL-6677/6CL6	WES	1.85	1.76	1.67	1.57

Tube Type	Mfg.	1-4	5-18	19-49	50-99
6678	GE	1.65	1.56	1.49	1.46
CK6678/6U8A	RAY	1.62	1.54	1.46	1.38
6678/6U8A	RCA	1.62	1.54	1.46	1.38
6678/6U8A	SYL	1.62	1.54	1.46	1.38
WL-6678/6U8A	WES	1.62	1.54	1.46	1.38
6679	GE	1.50	1.43	1.35	1.28
CK6679/12AT7	RAY	1.50	1.43	1.35	1.28
6679/12AU7	RCA	1.50	1.43	1.35	1.28
6679/12AT7	SYL	1.50	1.43	1.35	1.28
6679/12AT7	WES	1.50	1.43	1.35	1.28
6680	GE	1.25	1.18	1.13	1.06
CK6680/12AU7	RAY	1.22	1.16	1.10	1.04
6680/12AU7	RCA	1.22	1.16	1.10	1.04
6680/12AU7	WES	1.22	1.16	1.10	1.04
6680/12AU7	SYL	1.22	1.16	1.10	1.04
6681	GE	1.30	1.23	1.17	1.11
CK6681/12AX7	RAY	1.26	1.19	1.13	1.07
6681/12AX7	SYL	1.26	1.19	1.13	1.07
6681/12AX7	WES	1.26	1.19	1.13	1.07
6686	AME	5.70	....	....	....
6687	AME	3.50	....	....	....
6688	AME		Use 6688A		
CK6688	RAY	8.75	8.27	7.87	7.44
6688A	AME	6.80	6.43	6.12	5.78
6688A	RCA	6.80	6.43	6.12	5.78
CK6688A	RAY	8.75	8.27	7.87	7.44
6689	AME	3.85	3.64	3.46	3.27
6693	AME	33.45	31.61	30.11	28.43
ML-6696	RAY	1090.00	....	....	....
ML-6696A	EIM	1105.00	....	....	....
ML-6696A	RAY	1105.00	....	....	....
ML-6697	RAY	1320.00	....	....	....
ML-6697A	RAY	1330.00	....	....	....
6756	AME	765.00	....	....	....
6759	AME	315.00	....	....	....
CK6763	RAY	4.20	3.97	3.78	3.57
6771	GE	71.90	....	....	....
ML-6771	RAY	71.90	67.95	64.71	61.12
6775	EIM	52.00	....	....	....
6786	AME	255.00	....	....	....
CK6792	RAY	13.50	12.76	12.15	11.48
CK6802	RAY	11.43	....	....	....
6802	SYL	11.43	....	....	....
6806	RCA	6975.00	....	....	....
6807	GE	32.25	....	....	....
6808	GE	32.90	....	....	....
6809	GE	35.50	33.55	31.95	30.18
6810A	RCA	210.00	....	....	....
6814	RCA	5.90	5.58	5.31	5.02
6816	RCA	51.80	....	....	....
6829	GE	6.40	6.05	5.76	5.44
CK6829	RAY	6.10	5.76	5.49	5.19
6842	NU	14.30	13.51	12.87	12.16
NL-6844A	NE	11.00	10.40	....	....
6850	RCA	22.40	22.17	20.16	19.04
6861	RCA	995.00	....	....	....
GL6878	GE	3200.00	....	....	....
6879	SYL	13.37	12.63	12.03	11.36
6883	AME	5.40	5.10	4.86	4.59
CK6883	RAY	4.30	4.09	3.87	3.66
6883	RCA	4.25	4.02	3.83	3.61
6883B/8032/8552	RCA	5.30	5.01	4.77	4.51
6884	RCA	39.20	....	....	....
6887	RCA	1.40	1.32	1.26	1.19
6893	WES	4.50	4.25	4.05	3.83
6894	EIM	25.00	23.75	....	....
NL-6894	NE	25.00	23.63	....	....
6894	RCA	25.90	24.48	....	....
6895	EIM	25.00	23.63	22.50	21.25
NL-6895	NE	25.00	....	....	....
6895	RCA	25.90	24.48	....	....
6897	GE	33.60	31.75	....	....
6897	RCA	33.60	31.75	....	....
6935	DUM	140.00	....	....	....
6903	RCA	395.00	....	....	....
6907	AME	27.00	25.52	24.30	22.95
6909	RAY	11.43	....	....	....
6909	SYL	11.43	....	....	....
CK6910	RAY	13.37	....	....	....
6910	SYL	13.37	....	....	....
6911	DUM	145.00	....	....	....
6914	RCA		Prices On Request		
6914A	RCA		Prices On Request		
6922	AME	4.87	4.60	4.38	4.14
6922	RAY	4.87	4.60	4.38	4.14
6922/E88CC	RCA	4.87	4.60	4.38	4.14
6922	SYL	4.87	4.60	4.38	4.14
6923	AME	13.75	....	....	....
6935	DUM	140.00	....	....	....
6939	AME	12.00	11.34	10.80	10.20
6939	RCA	11.37	10.80	10.23	9.66
6942	GE	960.00	....	....	....
6953	RCA	7.70	7.28	6.93	....
6960	AME	186.00	....	....	....
6961	AME	262.00	....	....	....
6977	AME	2.50	....	....	....

Industrial & Special Purpose Tubes

Tube Type	Mfg.	1-4	5-18	19-49	50-99
6977	SYL	2.50	......	......	......
6979	AME	46.00	......	......	......
NL-6989-NE	NE	33.90	32.31	......	......
NL-6989/C6J/KL	NE	29.45	27.98	......	......
7007/6166A	GE	1020.00	......	......	......
NL-7007	NE	1020.00	......	......	......
NL-7009	NE	19.00	17.97	......	......
7016	WES	21.40	19.85	18.30	16.77
7018	WES	10.05	9.01	7.97	6.93
7019	WES	13.00	12.00	11.00	10.01
7025	MUL	1.40	1.32	1.26	1.19
7025	IOM	2.35	2.22	2.11	2.00
6933	DUM	1295.00	......	......	......
7034/4X150A		USE 4X150A/7034			
7035/4X150D		USE 4X150D/7035			
7037	NE	26.50	......	......	......
7038	GE	170.00	......	......	......
7038	RCA	175.00 EACH			
7038	SYL	170.00	......	......	......
7043	RCA	6.60	6.24	5.94	......
CK7044	RAY	3.18	2.01	2.86	2.70
7044	RCA	2.70	2.55	2.43	2.30
7044	SYL	2.70	2.55	2.43	2.30
7054	RCA	1.54	1.46	1.39	1.30
7055	RCA	1.00	.95	......	......
7056	RCA	.92	.87	.83	.78
7057	RCA	1.95	1.84	1.75	1.66
7058	RCA	1.26	1.19	1.13	1.07
7059	RCA	1.48	1.41	1.33	1.26
7060	RCA	1.75	1.66	1.58	1.49
7061	RCA	1.29	1.23	1.16	1.09
7062	AME	2.75	2.60	2.47	2.38
7064	DUM	60.20	56.89	54.18	51.17
7077	GE	40.50	38.27	36.45	34.43
7090	AME	250.00	......	......	......
7091	AME	425.00	......	......	......
7092	AME	125.00	......	......	......
NL-7094	NE	30.00	......	......	......
7094	RCA	38.15	36.05	34.34	32.40
7102	RCA	115.00	......	......	......
7117	RCA	13.10	......	......	......
7119	AME	2.95	2.48	2.30	2.03
7136	AME	38.00	35.91	34.20	32.30
GL-7151	GE	750.00	......	......	......
NL-7153	NE	14.50	13.70	......	......
7155	SYL	13.37	......	......	......
7167	GE	1.41	1.33	1.27	1.20
GL-7171	GE	60.00	56.70	54.00	51.00
NL-7171	NE	81.50	77.02	73.35	69.28
7183A	RCA	1025.00	......	......	......
7189	AME	1.55	1.46	1.40	1.32
7189A	AME	1.55	1.44	1.40	1.32
7189MP	AME	3.39	3.20	3.05	2.88
7189MP	MUL	3.48	3.29	3.13	2.96
7189A	GE	1625.00	......	......	......
7200	RCA	200.00	......	......	......
7203/4CX250B		USE 4CX250B/7203			
7204/4CX250F		USE 4CV250F/7204			
7211	EIM	75.00	70.88	67.50	63.75
7213	RCA	415.00	......	......	......
7214	RCA	440.00	......	......	......
7226	GE	315.00	......	......	......
7233	GE	2.50	2.36	2.25	2.13
7234	NU	15.65	15.35	......	......
7235	NU	10.00	9.80	9.65	......
7237	AME	227.25	......	......	......
7239	GE	7.65	7.23	6.89	6.51
CK7246	RAY	7.64	7.22	6.88	6.49
7247	IOM	2.55	2.41	2.29	2.17
7247	MUL	1.60	1.51	1.44	1.36
7255	WES	210.00	......	......	......
7258	RCA	1.82	1.72	1.64	1.55
7258	SYL	2.75	2.60	2.48	2.34
7262A	GE	215.00	......	......	......
7262A	RCA	215.00	......	......	......
7263A	GE	370.00	......	......	......
7263A	RCA	370.00 EA.			
7264	RCA	265.00	......	......	......
7265	RCA	380.00	......	......	......
7266	GE	36.75	......	......	......
7268A	DUM	1610.00	......	......	......
7271	RCA	35.00	33.08	31.50	29.75
7289	GE	26.90	25.42	24.21	22.87
ML-7289	RAY	30.75	29.06	27.67	26.14
7292	AME	425.00	......	......	......
7293A	RCA	1150.00	......	......	......
7293	GE	1050.00	......	......	......
7293A/R	GE	1050.00	......	......	......
7295	GE	1440.00	......	......	......
7295B	RCA	1440.00	......	......	......
7296	GE	51.45	48.62	......	......
7306A/5684/C3JA	WES	13.10	12.28	11.79	11.14
7307A/6011/710	WES	12.70	12.00	11.43	10.80
7308	AME	5.20	4.91	4.68	4.42
7308	RCA	5.20	4.91	4.68	3.83
7315	DUM	994.00	......	......	......

Tube Type	Mfg.	1-4	5-18	19-49	50-99
7315	RCA	925.00	......	......	......
7316	AME	1.40	1.32	......	......
7325	GE	170.00	......	......	......
7325	SYL	170.00	......	......	......
7326	RCA	405.00	......	......	......
7360	RCA	3.77	3.58	3.39	......
7377	AME	22.90	21.64	20.61	19.47
7378	AME	48.00	45.36	43.20	40.80
7391	GE	70.25	......	......	......
GL7399	GE	528.00	......	......	......
7412	RCA	See Semiconductors			
7457	RCA	63.90	60.39	57.51	54.32
7459	AME	280.00	......	......	......
7462	GE	40.50	38.27	36.45	34.43
7467	RCA	(Replaced by SQ2516)			
ML-7479A	RAY	920.00	......	......	......
ML-7480	RAY	1590.00	......	......	......
ML-7482	RAY	4455.00	......	......	......
7486	GE	40.50	38.27	35.26	34.43
7509A/7101	WES	14.20	13.41	......	......
7513	RCA	1320.00	......	......	......
7513/S	RCA	1400.00	......	......	......
7527	AME	47.25	44.65	40.18	35.72
7533	RCA	7.75	......	......	......
7534	AME	21.00	......	......	......
7551	RCA	3.37	3.20	3.03	......
7552	RCA	46.65	44.08	41.99	39.65
7553	RCA	55.80	52.73	50.22	47.43
7554	RCA	39.20	37.04	......	......
NL-7556A-NE	NE	19.60	18.52	......	......
7558	RCA	3.49	3.32	3.14	2.97
ML-7560	RAY	4455.00	......	......	......
7580	AME	40.75	38.51	36.67	34.64
7586	RCA	3.35	3.18	3.02	2.85
7587	RCA	5.20	4.94	4.68	4.42
7588	GE	105.35	......	......	......
7609	AME	37.50	......	......	......
7609	RCA	27.30	......	......	......
7625	GE	40.50	38.27	36.45	34.43
7629	GE	1700.00	......	......	......
7629A	RCA	1700.00	......	......	......
7629/A-R	GE	1700.00	......	......	......
7643	AME	4.95	4.68	4.45	4.21
7644	GE	68.00	......	......	......
7645	AME	12.50	......	......	......
7649	RCA	67.20	63.50	60.48	57.12
7650	RCA	240.00	......	......	......
7651	RCA	260.00	......	......	......
7664	DUM	280.00	......	......	......
GL-7669	GE	65.00	61.43	58.50	55.25
7669	WES	65.00	61.43	58.50	55.25
GL-7670	GE	77.20	72.95	69.48	65.62
GL-7671	GE	99.00	83.56	......	......
7671	WES	99.00	93.56	......	......
GL-7673	GE	245.00	......	......	......
NL-7673	NE	245.00	......	......	......
NL-7673P	NE	245.00	......	......	......
GL-7681	GE	155.00	......	......	......
7693	AME	3.95	......	......	......
7694	AME	3.95	......	......	......
7697	GE	170.00	......	......	......
7697	RCA	REFER TO MANUAL 1D1020			
7698	EIM	75.00	70.88	67.50	63.75
ML-7698	RAY	88.50	63.63	79.65	75.23
7699	AME	15.00	14.18	13.50	12.75
GL-7703	GE	170.00	......	......	......
7703	WES	190.00	......	......	......
7709/Z70W	AME	3.30	3.30	3.30	2.30
7710/Z70U	AME	1.95	1.95	1.95	1.35
7711/Z71U	AME	2.85	2.85	2.85	2.00
7717/6CY5	RCA	1.39	1.31	1.25	1.18
7720	GE	40.50	38.27	36.45	34.43
NL-7723-NE	NE	13.10	12.38	11.79	11.14
NL-7723-610	NE	11.40	10.77	10.26	9.69
7725	GE	13.50	12.76	12.15	11.48
7726	GE	16.30	15.40	14.67	13.86
7732	RAY	1.78	1.69	1.60	1.51
7735	RCA	120.00	......	......	......
7735A	GE	165.00	......	......	......
7735A	RCA	150.00	......	......	......
7735A	SYL	170.00	......	......	......
7735B	GE	170.00	......	......	......
7735B	RCA	175.00	......	......	......
7736	GE	850.00	......	......	......
7737	AME	8.36	......	......	......
7746	RCA	205.00	......	......	......
7753	AME	180.00	......	......	......
7764	RCA	130.00	......	......	......
7767	RCA	135.00	......	......	......
7768	GE	115.15	......	......	......
7784	GE	68.00	......	......	......
NL-7786-NE	NE	15.50	14.65	13.95	13.18
7788	AME	10.20	......	......	......
7800	AME	760.00	......	......	......
7804	AME	425.00	......	......	......
7805	AME	400.00	......	......	......

Industrial & Special Purpose Tubes

Tube Type	Mfg.	1-4	5-18	19-49	50-99
7806	AME	922.00			
7807	AME	665.00			
7815	GE	30.75	29.06	27.67	26.14
ML-7815	RAY	30.75	29.06	27.67	27.14
7841	GE	36.75	34.73	33.08	31.24
7842	RCA	63.90	60.39	57.51	54.32
7843	RCA	33.60	31.75	30.24	28.56
7850	RCA	240.00			
7854	AME	33.40	31.56	30.06	28.39
ML-7855	RAY	60.00	56.70	54.00	51.00
7860	DUM	135.00			
Z7866	GE	1975.00			
7870	RCA	120.00			
7887	SYL	6.70	6.32		
7888	SYL	5.25	4.99		
7895	RCA	3.35	3.18	3.02	2.85
7898	RCA	1.34	1.27	1.21	1.14
7899	AME	870.00			
Z7899	GE	1800.00			
7900	AME	306.25			
7905	RCA	3.85	3.68	3.47	3.27
7910	GE	85.75			
Z7911	GE	75.00			
7913	GE	127.40			
GLZ-7929 Plain	GE	370.00			
GLZ-7929 Red, Blue, Green	GE	3165.00			
NL-7977/4032	NE	33.00	31.19		
7893	AME	6.75			
7984	GE	5.35	5.06	4.82	
7986/5866A	AME	26.00	24.57	23.40	22.10
CK7994	RAY	17.05	16.11	15.35	14.49
CK7995	RAY	17.05	16.11	15.35	14.49
CK7996	RAY	14.00	13.23		
8000	RCA	26.25	24.81	23.63	22.31
8005	RCA	19.10			
8008	RCA	11.50	10.87	10.35	9.78
8008	SYL	10.85	10.25	9.76	9.22
NL-8008	NE	9.90	9.36	8.91	
8008	WES	11.80	11.15	10.62	10.03
8008AX	AME	10.85	10.25	9.77	9.22
8013A	RCA	19.55	18.47	17.60	16.62
8020(100R)	EIM	26.50	25.04		
8020	RCA	26.50	25.04		
8020AX	AME	24.00	22.68	21.60	20.40
8032	RCA	4.90	4.63	4.41	4.17
8035	SYL	11.10			
NL-8037/5031	NE	15.75			
8042	AME	10.16	8.51	8.10	
8051	RCA	605.00			
8053	RCA	105.00			
8054	RCA	120.00			
8055	RCA	170.00			
8056	RCA	5.00	4.75	4.50	4.25
8058	RCA	14.95	14.13	13.45	12.71
8062	DUM	135.00			
8068	GE	3.80	3.59	3.42	3.23
8072	RCA	19.70	18.62		
8077/7054	RCA	1.50	1.43	1.35	1.28
8078	AME	95.00	76.55	72.90	
8081	GE	41.65	39.36	37.49	35.40
8082	GE	41.65	39.36	37.49	35.40
8083	GE	41.65	39.36	37.49	35.40
NL8091	NE	22.50			
GL8092A	GE	1870.00			
8092A	RCA	1870.00			
8092A/R	GE	1870.00			
8092A/S	RCA	1870.00			
9093A	RCA	1250.00			
GL8093A	GE	1120.00			
8093A/R	GE	1120.00			
ML8094/199	RAY	335.00			
CK8096	RAY	21.52	20.34	19.37	18.29
8100	SYL	1.40	1.32		
8102	GE	1.55			
8106	GE	1.65	1.56	1.49	1.40
8117A	AME	35.25	33.31		
8118	AME	40.00	37.80	36.00	34.00
8121	RCA	27.95			
8122	RCA	31.50			
8124	DUM	690.00			
8134	RCA	275.00			
8134/V1	RCA	370.00			
8142	SYL	1.40	1.32	1.26	1.19
8143	SYL	1.40	1.32	1.26	1.19
8156	GE	3.89	3.68	3.50	3.31
8156	RCA	3.89	3.68	3.50	3.33
8163	AME	34.00			
8165/4-65A	RCA	27.00	25.65		
8166/4-1000A	RCA	131.50			
8166/4-1000A	SYL	131.50			
8166/4-1000A	EIM	131.50			
8167/4CX300A	RCA	54.00	51.03		
8167/4CX300A	SYL	54.00	51.03		
8168/4CX1000A	RCA	200.00			
8170/4CX5000	RCA	495.00			

Tube Type	Mfg.	1-4	5-18	19-49	50-99
ML-8170/4CX5000A	RAY	495.00			
ML8170W/4CX500R	RAY	495.00			
8171/4CX10000D	RCA	550.00			
ML-8171/4CX10000D	RAY	550.00			
8177	AME	33.05	31.23	29.75	28.00
8179	AME	180.00			
8203	RCA	3.80	78.44	3.42	3.23
8226	RCA	83.00	3.59	74.70	70.55
8228/ZZ10000	AME	2.90	2.68		
8233/E55L	AME	13.25	12.52	11.92	11.26
8236	TUNG	15.00	14.18	13.50	12.75
8239/3CX3000FL	RCA	245.00			
8254	AME	19.75			
8255	AME	4.95	4.68	4.46	4.21
8268	AME	185.00			
8269	AME	240.00			
8270	AME	86.75			
ML-8281/4CX1500A	RAY	695.00			
8281/4CX15000A	RCA	695.00			
8295/172	EIM	157.00			
8295A	EIM	163.00			
8298	WES	5.25			
8318A	SYL	1.54	1.46	1.39	1.31
8345	SYL	1.40	1.32	1.26	1.19
8346	SYL	1.40	1.32	1.26	1.19
8347	SYL	1.40	1.32	1.26	1.19
8348	AME	7.90			
8353	SYL	11.10			
8393	RCA	3.45	3.26	3.10	2.93
ML-8403	RAY	115.00			
8408	AME	13.15			
8416	AME	4.90	4.63	4.41	4.17
CK8421	RAY	15.75	14.88	14.18	
NL-8421/5092	NE	15.75	14.88	14.17	
CK8422	RAY	15.75	14.88	14.18	13.39
NL-8422/59991	NE	15.75	14.88	14.17	
NL-8423/6091	NE	19.00			
8423	EIM	164.00			
8438/4-400A			USE 4-400A/8436		
8453/Z550M	AME	14.50	14.50	14.50	12.00
C-8458	AME	8.30	7.84	7.47	7.06
8462	RCA	35.00	33.08	31.50	29.75
8475A	SYL	1.54	1.46	1.39	1.31
8477A	SYL	1.54	1.46	1.39	1.31
8480	RCA	760.00			
8480/V1	RCA	1140.00			
8482	AME	78.00	73.71	70.20	66.30
8484	GE	170.00			
8484	SYL	170.00			
GL-8500	GE	500.00			
8501	RCA	1045.00			
NL-8502/4021	NE	33.00	31.19		
8502	GE	250.00			
8507	GE	215.00			
8507A	RCA	215.00			
D-8509	AME	27.50	25.99	24.75	23.38
8511	GE	315.00			
8521	RCA	605.00			
8532/6J4WA	RCA	5.60	5.29	5.04	4.76
8541	GE	310.00			
8567	RCA	910.00			
8571	RCA	310.00			
8572	GE	215.00			
8572	RCA	215.00			
8573	GE	275.00			
8573	RCA	275.00			
8575	RCA	315.00			
8582A	SYL	1.54	1.46	1.39	1.31
8596	RCA	105.00			
8604	GE	310.00			
8627	RCA	14.15	13.37	12.73	12.03
8628	RCA	5.00	4.73	4.50	4.25
8632	NU	20.00	18.90	18.00	17.00
8643	AME	30.75	29.06	27.68	26.14
8644	RCA	370.00			
8645	RCA	475.00			
8650	RAY	8.00			
8673	RCA	1800.00			
8674	RCA	1800.00			
8673/S	RCA	1800.00			
8674/S	RCA	1800.00			
8685	RCA	1440.00			
8748	RCA	1975.00			
8749	RCA	1975.00			
8775	RCA	1800.00			
8791	RCA	148.00			
8792	RCA	215.00			
8793	RCA	555.00			
8794	RCA	645.00			
9001	RCA	5.38	5.11	4.84	4.57
9002	RCA	4.14	3.93	3.73	3.52
9003	RCA	5.38	5.08	4.84	4.57
9005	RCA	8.05	7.61	7.25	6.84
9006	RCA	2.70	2.55	2.43	2.30
NL-50911	NE	13.75	14.88	14.17	13.39

RCA Industrial & Special Purpose Tubes

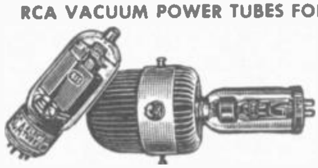
INDUSTRIAL RECEIVING-TYPE PREMIUM TUBES

PREMIUM TUBES. For critical industrial and other equipment requiring exceptional stability of tube characteristics, long tube life, and reliable performance. RCA Premium Tubes, superior to their corresponding commercial prototypes, are subjected to special test and controls on critical characteristics, environmental test (such as shock, fatigue, vibration, altitude) and also to special life test.

Type	Prototype	1-4	5-18	19-49	50-99
0A2WA	0A2, 6073, 6073/0A2	3.35	3.20	3.00	2.86
0B2WA	0B2, 6074, 6074/0B2	2.40	2.28	2.16	2.04
5R4GYB	5R4GY	2.03	1.93	1.83	1.73
6AU6WB	6AU6A, 6AU6WA, 6136	2.70	2.57	2.43	2.30
6J6WA	6J6, 6099, 6101, 6101/6J6WA	5.35	5.08	4.82	4.55
6X4W	6X4	1.60	1.52	...	...
12AT7WA	12AT7/ECC81, 6201	2.53	2.40	2.28	2.15
5651A	5651	1.78		...	...
5651WA	5651, 5651A	6.60		...	...
5654	6AK5, 6AK5W, 5654/5W, 5654/6096, 6096	2.41	2.28	2.16	2.09

Type	Prototype	1-4	5-18	19-49	50-99
5670	2C51, 5670WA	2.45	2.33	2.21	2.08
5691	6SL7GT	8.75	8.27	7.87	7.43
5692	6SN76TB	8.25	7.80	7.43	7.01
5693	6SJ7	6.60	6.24	5.94	5.61
5726	6AL5, 6AL5W, 5726/5W, 5726/6097, 6097	1.55	1.47	1.40	1.32
5727/2D21W	5727, 2021, 2021W	2.90	2.76	2.61	2.47
5749	6BA6, 5749/6W	2.20	2.09	1.98	1.87
5751	5751WA, 5751W1	2.55	2.42	2.30	2.17
5814A	5814, 5814WA, 5815WB	2.35	2.23	2.12	2.00
6005	6AQ5A, 6005/5A, 6005/6095, 6095	3.23	3.06	2.91	2.75
6080WA	6AS7G, 6080	10.80	...	...	...
6186/6AG5WA	6AG5, 6AG5WA, 6186	3.85	3.66	...	...
6189	12AU7, 6189/7A	3.70	3.52	3.01	3.15
6626/OA2WA	0A2, 0A2WA, 6073, 6073/DA2	3.35	3.16	3.33	2.85
8532/6J4WA	6J6, 6J4WA, 6J4WB	5.60	5.29	5.04	4.76

RCA VACUUM POWER TUBES FOR CW APPLICATIONS—TYPICAL CLASS C TELEGRAPHY SERVICE (CCS)



891R

6146A

6161

7650

RCA manufactures one of the world's largest lines of power tubes. The complete line ranges from small, low-power, glass-envelope types to huge, super-power, ceramic-metal types.

Type	Description	Filament or Heater Vollts/Amp	1-4	5-18	19-49	50-99
2C39A	Lighthouse	6.3/1	20.75	19.71	18.68	17.64
2C39A/V1	Lighthouse	6.3/1	20.75	19.71	18.68	17.64
2C39WA	Lighthouse	5.0/1.0	29.00	27.41	26.10	24.65
2C40	Lighthouse Triode	6.3/0.75	29.30	27.69	26.37	24.90
2C43	Lighthouse Tri.	6.3/0.9	26.95	25.60	...	...
2E24	Quick Heating BeamPowerTube	6.3f/0.65	7.00	6.62	6.30	5.95
2E26	Beam Power	6.3/0.8	3.95	3.73	3.56	3.36
2K26	Klystron	...	68.00	61.43	58.50	65.25
4-125A/4D21	Beam Power	5f/6.5	36.00	...		...
4-250A/5D22	Beam Power	5f/14.5	46.50	44.18	41.85	39.53
4E27A/5-125B	Beam Power	5f/7.5	45.00	42.53	.	.
4X500A	Beam Power	5f/12.2 to 13.7	128.50	...	.	...
9C25	Triode	6f/285	1735.00	.....	.	...
807	Beam Power	6.3/0.9	3.60	3.40	3.24	3.06
810	Triode	10f/4.5	28.60	27.03	.	....
811A	Triode	6.3f/4	7.75	7.32	6.98	6.59
812A	Triode	6.3f/4	7.20	6.80	6.48	6.12
813	Beam Power	10f/5	23.75	22.44	21.38	
827R	Pentode	7.5f/25	615.00			...
828	Beam Power	10f/3.25	33.80	31.94	30.40	28.73
829B	Twin Beam Power	6.3/2.25 12.6/1.125	19.85	18.33	17.87	16.67
832A	Twin Beam Power	6.3/1.16 12.6/0.8	16.30	15.40	14.67	13.86
833A	Triode	10f/10	67.90	64.17	61.11	57.72
837	Pentode	12.6/0.7	14.70	13.89	13.23	12.50
845	Triode	10f/3.25	32.20	30.43	28.98	...
891R	Triode	22f/60	430.00	....		...
892	Triode	22f/60	345.00	....	...	...
892R	Triode	22f/60	425.00	... ...	..	..
1624	Beam Power	2.5/2	10.25	9.69	9.23	8.71
1625	Beam Power	12.6/0.45	5.80	5.48	5.22	4.93
4604	Quick Heating Beam Power	6.3f/0.65	9.00	8.51	8.10	7.65
4621	Cermolox For RF Pulse App.	6.3/3.2	125.00	... .	.	.
4626	Modulator	6.3	605.00	... ...	......	....
4630	Modulator	22	2670.00	....	..	...
4631	Cermolox for RF Pulse App.	6.3	103.50	...	....	....
4632	Cermolox	5.5/31	1090.00	..	.	. .
4634	Modulator	6.3	460.00	.... ..	.....	...
4635	Cermolox Tube	22	2500.00	....	.	...
4636	Beam Power	6.3	525.00	... .		...
4637	Cermolox Tube	6.3	105.00	... ...	. ..	...
4638	Regulator	5.5	700.00	.. ....	.....	.. ....

Type	Description	Fillament or Heater Volts/Amp	1-4	5-18	19-49	50-99
5556	Triode	4.5f/1.1	54.25	....	....	...
5671	Triode	11f/285	2110.00	....	.... ..	. ....
5713	Triode	3.3/11.5	700.00	....	... ...	...
5762/7C24	Triode	12.6f/29	230.00	......	....	....
5770	Triode	11f/285	1780.00	.... ..	. ...	....
5771	Triode	7.5f/170	700.00	....	....	......
5786	Triode	11f/12.5	310.00	......	....	......
5946	Triode	6.3/3.4	145.00	.	....	...
6076	Tetrode	6.3f/32.5	305.00	... ...	..... .	...
6146A	Beam Power	6.3/1.25	4.35	4.13	3.92	3.70
6146B/8298A	Beam Power	6.3/1.125	5.20	4.94	4.68	4.42
6146W	Beam Power	6.3/1.25	6.75	6.38	6.08	5.74
6155	Beam Power	5f/6.5	36.00	34.02	32.40	...
6159B	Beam Power	26.5/0.3	5.05	4.77	4.55	4.29
6159W	Beam Power	26.5/0.3	9.00	8.51	8.10	7.65
6161	Triode	6.3/3.4	135.00	......	....	....
6166	Beam Power	5f/168	785.00	. ...	....	. ...
6166A/7007	Beam Power	5f/168	950.00	..	....	......
6181	Beam Power	120 max./1.6	1280.00	.. .	. ....	. . . .
6448	Beam Power	1.35/1000	5675.00	......	.. ...	.. ..
6524	TwinBeamPower	6.3/1.25	23.95	22.63	21.56	20.36
6806	Beam Power	1.35f/1000	6975.00	...	....	.
6816	Cermolox Tube	6.3/2.1	51.80	....	....	....
6850	Twin Beam Power	12.6/0.625	22.40	22.17	20.16	19.04
6883	Beam Power	12.6/0.625	4.25	4.02	3.83	3.61
6883B/8032A/8552	Beam Power	12.6/0.562	5.30	5.01	4.77	4.51
6884	Cermolox Tube	26.5/0.52	39.20	... ...	. .....	.... .
6897	Lighthouse Triode	6.3/1.03	33.60	31.75	... ...	....
7094	Beam Power	6.3/2.85	38.15	36.05	34.34	32.40
7203/4CX250B	Beam Power	6/2.6	35.60	33.64	....	....
7213	Cermolox	5.5/17.3	415.00	.. ..	....	....
7214	Cermolox For RF Pulse App.	5.5/17.3	440.00	.....	. ...	....
7271	Beam Power	13.5/1.25	35.00	33.08	31.50	29.75
7457	Cermolox	6.3/3.2	63.90	60.39	57.51	54.32
7649	Cermolox For RF Pulse App.	6.3/3.2	67.20	63.50	60.48	57.12
7650	Cermolox Tube	6.3/7.5	240.00	.....	....	....
7651	Cermolox For RF Pulse App.	6.3/7.5	260.00	.....	.. ...	....
7842	Cermolox Tube	6.3/3.2	63.90	60.39	57.51	54.32
7843	Cermolox	26.5/0.52	33.60	31.75	30.24	28.56
8000	Triode	10f/4.5	26.25	24.81	23.63	22.31
8005	Triode	10f/3.25	19.10	... ...	....	....

Industrial & Special Purpose Tubes RCA

RCA VACUUM POWER TUBES FOR CW APPLICATIONS—TYPICAL TELEGRAPHY SERVICE (CCS) Cont'd.

Type	Description	Filament or Heater Volts/Amp	1-4	5-18	19-49	50-99
8072	Beam Power	13.5/1.3	19.70	18.62	......	......
8121	Beam Power	13.5/1.3	27.95	......	......	......
8122	Beam Power	13.5/1.3	31.50	......	......	......
8165/4-65A	Beam Power	6/3.2 to 3.8	27.00	25.65	......	......
8166/ 4-1000A	Beam Power	7.5f/20 to 22.7	131.50	......	......	......
8167/ 4CX300A	Beam Power	6.0 3.2	54.00	51.03	......	......
8168/ 4CX1000A	Beam Power	6.0/8.1 to 9.9	181.00	......	......	......
8170/ 4CX5000A	Beam Power	7.5/73 te 78	495.00	......	......	......
8171/ 4CX10000D	Beam Power	7.5/ 78	550.00	......	......	......

Type	Description	Filament or Heater Volts/Amp	1-4	5-18	19-49	49-50
8226	Cermolox	6.3/3.2	83.00	78.43	74.70	70.55
8239/ 3X3000F1	Triode	7.5/49 to 54	245.00	......	......	......
8281/ 4CX15000A	Beam Power	6.3/152 to 168	695.00	......	......	......
			48.00	45.60		
8438/4-400A	Beam Power	5/14.5	48.00	45.36	......	......
8462	Beam Power	2.9f/4.6	35.00	33.08	31.50	29.75
8501	Cermolox Tube	4.5/125	1045.00	......	......	......
8596	Cermolox	6.3/3.2	105.00	......	......	......
8791	Cermolox Tube	6.3	148.00	......	......	......
8792	Cermolox Tube	5.5	215.00	......	......	......
8793	Cermolox Tube	5.7	555.00	......	......	......
8794	Cermolox Tube	5.7	645.00	......	......	......

RECTIFIERS

MERCURY VAPOR TYPES—HALF-WAVE RECTIFIERS

Type	Max. Plate or Anode Rate @ 60 cps: Condensed Mercury °C	PIV	Peak Amp.	AV. Amp.	Fault Amp.†	1-4	5-18	19-49	50-99
575A	20 to 50 20 to 60	15000 10000	6 7	1.5 1.75	100 100	20.60	19.85	18.54	......
615/ 7018	35 to 80	2000	10	2.5	250	10.05	9.55	9.05	8.54
673	20 to 50 20 to 60 20 to 50* 20 to 60*	15000 10000 15000* 10000*	6 7 10* 10*	1.5 1.75 2.5* 2.5*	100 100 100* 100*	21.00	19.84	......	......
816	20 to 60	7500	0.5	0.125	5	3.80	3.59	3.42	3.23
857B	25 to 60	22000 10000	40 40	10 10	400 400	225.00		..	......
866A	20 to 60 20 to 70 20 to 80	10000 5000 2500	1 1 2	0.25 0.25 0.5	20 20 20	3.75	3.54	3.38	3.19
869B	30 to 40 30 to 50 30 to 60	20000 15000 10000	10 10 10	2.5 2.5 2.5	100 100 100	155.00	..		
872A	20 to 60 20 to 70	10000 5000	5 5	1.25 1.25	50 50	10.70			..
5558	35 to 60 35 to 80	5000 2000	15 15	2.5 2.5	200 200	17.50	16.63		
5561	....	3000 10000	40 16	6.4 4.0	....	59.00	..		
6894	....	20000 15000 10000	8.3 8.3 8.3	1.8 1.8 1.8	100 100 100	25.70	24.29	22.50	21.25
6895	20 to 50 20 to 55 20 to 60	20000 15000 10000	8.3 8.3 8.3	1.8 1.8 1.8	....	25.00	23.63	22.50	21.25
8008	20 to 60 20 to 70	10000 5000	5 5	1.25 1.25	.50 .50	11.50	10.89	10.35	9.78

GAS TYPES—HALF WAVE TYPES

Following Low-and-Intermediate Power Rectifiers and Detector Diodes are available: 5R4GYB, 6X4W, 83, 2076/5R4GYB, 5642, 5726, 5726/6AL5W, 5726/6AL5W/6097, 5896, 6202, 6663/6AL5, 6887, 7055, 9005, 9006.

Type	Max. Plate or Anode Rat.—For Supply Freq. of 60 cps‡: Temp. Range Condensed Mercury °C	Peak Inverse Volts	Peak Amp.	Av. Amp.	Fault Amp. (†)	1-4	5-18	19-49	50-99
3B28	—75 to +90°a	10000 5000	1 2	0.25 0.5	20 20	8.10	7.65	7.29	6.89

(†) Duration of 0.1 second max. (a) Ambient temp.

VACUUM TYPES—HALF WAVE TYPES

Type	Anode Bearings: Peak Inverse Volts	Peak Amp.	Av. Amp.	1-4	5-18	19-49	50-99
2X2A	12500	0.06	0.0075	.4.30	4.06	3.87	3.66
579B	20000	0.27	0.025	20.50	19.48	18.45	......
836	5000	1	0.25	14.75	13.94	13.28	12.54
1616	6000	0.8	0.13	16.25	15.36	......	......
5825	60000	0.04	0.002	28.50	26.93	25.65	24.23
8013A	40000	0.15	0.02	19.55	18.47	17.60	16.62
8020	40000	1.5	0.1	26.50	25.04	...	......

MERCURY VAPOR—FULL WAVE RECTIFIER

Type	Max. Plate or Anode Rat.—For Supply Freq. of 60 cps: Temp. Range Condensed Mercury °C	PIV	Peak Amp.	AV. Amp.	Fault Amp. (†)	1-4	5-18	19-49	50-99
604/7014	0 to 90	900	10	2.5	150	11.80	11.15	..	......

† Duration of 0.1 second, max.

RCA VACUUM AND GAS PHOTODIODES

VACUUM PHOTODIODES

Side-On Types

Type	Spectral Resp.	Luminous Sensitivity (2870°K) µAmp/Lumen	Max. Anode Dark Cur'nt at 22°C µAmp	1-4	5-18	19-49	50-99
1P39	S-4	52	0.005	3.15	2.98	2.84	2.68
917	S-1	20	0.005	9.55	9.02	8.60	8.12
919	S-1	20	0.005	10.15	9.59	9.14	8.63
925	S-1	20	0.0125	5.45	5.15	4.63	...
929	S-4	52	0.0125	3.65	3.45	....	......
934	S-4	30	0.005	5.65	5.34	.	..
935	S-5	35	0.0005	15.35	14.51	13.82	.
5653	S-4	45	0.25	5.35	5.06	.. ...	...
6570	S-1	30	0.013	10.55	9.97	9.50	.

Side-On Cartridge Types

Type	Spectral Resp.	Luminous Sensitivity	Max. Anode Dark Cur'nt	1-4	5-18	19-49	50-99
922	S-1	20	0.005	3.75	3.54		.
926	S-3	6.5	0.005	5.15	4.87	4.64	..

Side-On Non-Directional Types

Type	Spectral Resp.	Luminous Sensitivity	Max. Anode Dark Cur'nt	1-4	5-18	19-49	50-99
7043	S-4	45	0 0125	6.60	6.25	5.94	. .

SIDE-ON COMPOSITE ANODE TYPE

Type	Spectral Resp.	Luminous Sensitivity	Max. Anode Dark Cur'nt	1-4	5-18	19-49	50-99
5652	S-4	45	0.01	8.60	8.13	7.74	7.31

HEAD-ON COMPOSITE ANODE TYPE

Type	Spectral Resp.	Luminous Sensitivity	Max. Anode Dark Cur'nt	1-4	5-18	19-49	50-99
1P42	S-9	37	0.005	16.20	15.31	14.58	13.77

GAS PHOTODIODES

Side-On Types Except (*) Side-On Cartridge (†) Head-On

Type	Spectral Resp.	Luminous Sensitivity (2870°K) µAmp/Lumen	Max. Gas Amplification Factor	1-4	5-18	19-49	50-99
1P29	S-3	40	9.0	8.45	7.99	7.61	...
1P37	S-4	135	5.5	6.85	6.47	6.17	
1P40	S-1	135	10 0	5.05	4.77	4.55	4.29
868	S-1	90	8.0	6.85	6.47	.	. .
918	S-1	150	10.5	6.85	6.47		. ..
923	S-1	135	10.0	5.00	4.73		. .
927	S-1	125	10.0	6.45	6.10	...	. .
930	S-1	135	10.0	5.30	5.01	4.77	4.51
4409	S-4	135	5.5	5.30	5.01	4.77	4.51
5581	S-4	135	5.5	5.30	5.01	4.77	4.51
5583	S-4	135	5.5	8.60	8.13	7.74	7.31
6405/ 1640	S-1	35	2.5	9.00	8.51	8.10	7.65
6953	S-1	200	10.0	7.70	7.28	6.93	...
921	S-1*	135	10.0	5.15	4.87	4.64	4.34
5582	S-4*	120	5.5	6.75	6.38	6.08	.
1P41	S-1†	90	8.5	6.15	5.81	5.54	5.23

SIDE-ON TWIN-UNIT TYPE

Type	Spectral Resp.	Luminous Sensitivity 2870 K) Amp/Lumen	Max. Gas Amplification Factor	1-4	5-18	19-49	50-99
920	S-1	100	9	10.55	9.97	9.50	8.97

RCA Industrial & Special Purpose Tubes

THYRATRONS

HIGH-POWER TRIGGER TUBES

TRIODES (Mercury-Vapor Types)

Tube Type	Temp. Range	Peak Anode Volts	Peak Anode Amps.	1-4	5-18	19-49	50-99
3C23	—40 to +80α	1250	6	11.98	11.38	10.78	10.18
627		2500	2.5	27.50			
676		750	77**	63.80			
677		10000	16**	63.80			
710/ 6011	—40 to +80	1500	30**	12.70	12.06	11.43	
714/ 7021	—40 to +80	1250	3	10.00	9.50		
760/ 6858	—40 to +80	1500	77**	28.10	26.70		
5557	40 to 60	5000	1				
	40 to 80	2500	2				
	40 to 90	1250	3	9.50	9.02	8.55	
5559	40 to 80	1000	15**	23.00	21.73		
5563A	25 to 50	20000	6.4				
	25 to 55	15000	10				
	25 to 50*	20000*	11.5*				
	25 to 55*	15000*	11.5*	53.90			

TETRODE (GAS TYPE)

Tube Type	Range Temp.	Peak Anode Volts	Peak Anode Amp.	1-4	5-18	19-49	50-99
3D22A	—75 to 90α	650	8	37.00	34.97		

α Ambient Temp.

TRIODES (Gas Types)

Tube Type	Range Temp.	Peak Anode Volts	Peak Anode Amps.	1-4	5-18	19-49	50-99*
6130/ 3C45	—50 to +90α	3000	35	19.85			
C1K/ 6014	—55 to +70α	1000	8	11.80	11.15	10.62	10.03
C3J/ 5632	—55 to +75α	900	30	12.70	12.07		
C3JA/ 5684	—55 to +75α	1000	30	13.10	12.46	11.80	
C3JL	—55 to +75α	900	30	14.20	13.42	12.78	12.07
C6J/ 5C21	—55 to +75α	750	77	28.10	26.70		
C6JA/ 5685		1000	77	29.00	27.41	26.10	24.65
C16J/ 5665	—55 to +75α	1000	100	52.50	49.88		

TETRODES (Mercury-Vapor Types)

105		10000	16	59.00	55.76	53.10	50.15
632B	40 to 80	1500	30	33.00	31.35	29.70	28.05
672A	40 to 80	2500	40**	39.85	37.86		
5560	40 to 80	1000	15**	33.00	31.25	29.70	

** Cathode α Ambient Temp. † Quadrature operation

LOW AND INTERMEDIATE-POWER TRIGGER TUBES

TRIODES

Tube Type	Heater Volts/Amp.	Peak Anode Volts	Average Cathode Amp.	1-4	5-18	19-49	50-99
6D4	6.3/0.25	±450	0.025	2.70	2.57	2.43	2.30
884	6.3/0.6	±350	0.075	2.28	2.17	2.05	1.94

COLD-CATHODE TYPE POWER TRIGGER TUBES

Tube Type	Peak Anode Volts	Average Cathode Amp.	1-4	5-18	19-49	50-99
0A4G	±225	0.025	1.86	1.76	1.67	1.58
IC21		0.025	4.15	3.94	3.74	3.52
5823	±200	0.025	1.72	1.63	1.55	1.46

TETRODES

Tube Type	Heater Volts/Amp.	Peak Anode Volts	Avg. Cathode Amp.	1-4	5-18	19-49	50-99
2D21	6.3/0.6	+ 650 —1300	0.1	1.29	1.23	1.16	1.10
2D21W	6.3/0.6	+ 650 —1300	0.1	2.90	2.76	2.61	2.47
2050	6.3/0.6	+ 650 —1300	0.1	2.37	2.25	2.13	2.01
2050A	6.3/0.6	+ 650 —1300	0.1	2.03	1.92	1.83	1.73
5663	6.3/0.15	± 500	0.020	2.10	2.00	1.89	1.79
5696	6.3/0.15	± 500	0.025	1.95	1.84	1.75	1.66
5727	6.3/0.6	+ 650 —1300	0.1	2.90	2.76	2.61	2.47
5727/ 2D21W			For Data See Mil. Spec.				
6012	6.3/2.6	+ 650 —1300	0.5	7.65	7.23	6.89	6.50

RCA CATHODE-RAY TUBES AND SPECIAL-PURPOSE KINESCOPES

OSCILLOGRAPH-TYPE CATHODE-RAY TUBES

Flat-Faceplate Types

Type	Anode Volts	Deflection Factor VDC/" DJ1 & DJ2	DJ3 & DJ4	1-4	5-18	19-49	50-99
1EP1	1000	210-310	240-350	26.25	24.81	23.63	22.31
1EP11	1000	210-310	240-350	27.45	25.94	24.71	23.33
3RP1A	2000	146-198	104-140	27.00	25.52		
3RP7A	2000	146-198	104-140	31.60	29.86	28.44	26.86
3WP1	2000	83-101	57-70	35.90	33.93		
3WP11	2000	83-101	57-70	37.80	35.72	34.02	32.13
4499	2000	84-106	67-83	40.60	38.37	36.54	34.51

Curved-Faceplate Types

Type	Anode Volts	DJ1 & DJ2	DJ3 & DJ4	1-4	5-18	19-49	50-99
2AP1A	1000	195-266	167-225	18.55	17.96	16.70	15.77
2BP1	1000	115-105	74-100	19.70	18.62	17.73	16.75
3AP1A	1500	91-137	87-131	27.70	25.70	24.48	23.12
3AQP1	1000	73-99	26-35	34.35	32.46	30.92	29.20
3KP1	2000	100-136	76-104	28.60	27.03	25.75	
3RP1	2000	146-198	104-140	18.30	17.29	16.47	15.56
5BP1A	2000	70-96	64-88	38.85	36.71		
5UP1	2000-	56-77	46-62	25.70	24.29		
5UP7	2000	57-77	46-62	21.80	20.60	19.62	18.53
5UP31	2000	56-77	46-62	21.10			
7VP1	3000	93-123	75-102	30.80			
902A 2" Dia.	600 P1	110-166	96-141	21.00	19.85	18.90	17.85

FLYING-SPOT CATHODE-RAY TUBES

Type	Face-Plate	Anode Volts	Deflection Angle Approx.	1-4	5-18	19-49	50-99
5AUP24	Flat	27000	40°	150.00			
5ZP16	Flat	27000	40°	89.00	84.10		

PROJECTION KINESCOPES

Type	Face Plate	Anode Volts	Deflec. Angle Approx.	1-4	5-18	19-49	50-99
5AZP4	Curved	36000	50°	135.00			
7NP4	Curved	75000	35°	1,085.00			
4486	Curved	75000	35°	1,095.00			

POST-DEFLECTION ACCELERATOR

Flat-Faceplate Types except (*) Curved-Faceplate

Type	Post Acel. Volts	Deflection Factor Volts dc/in. DJ1 & D2	DJ3 & DJ4	1-4	5-18	19-49	50-99
5ABP1	4000	53-72	36-48	47.60			
5ADP1	4000	53.4-66.6	40.6-50	47.60	44.98		
5ADP31	4000	53.4-66.6	40.6-30	47.60	44.98	42.84	40.46
4490* 7" Dia. P31	6000	133-153	99-115	40.60	38.37	36.54	34.87
4491* 8" Dia. P31	6000	107-29	88-101	40.95	38.70	36.86	34.81
4510	3000	69-91	57-73	32.65	30.85	29.39	27.75
3JP1*	4000	170-230	125-170	27.65	26.13	24.84	
3JP7*	4000	170-230	125-170	21.00	19.85	18.90	19.85
4489*	6000	130	102	37.10	35.06	33.39	31.54
5CP1A*	4000	78-106	66-90				

SPECIAL-PURPOSE KINESCOPE—TRANSCRIBER KINESCOPE

Type	Face-Plate	Anode Volts	Deflection Angle Approx.	1-4	5-18	19-49	50-99
5WP11	Flat	27000	50°	49.00	46.31		

VIEW-FINDER KINESCOPE

5FP4A	Curved	6000	53°	36.05	34.07		

Industrial & Special Purpose Tubes RCA

RCA CATHODE-RAY TUBES AND SPECIAL-PURPOSE KINESCOPES (Cont'd)

MONITOR KINESCOPES

Type	Face-Plate	Anode Volts	Deflection Angle Approx.	1-4	5-18	19-49	50-99
7CP4	Curved	6000	57°	71.75	67.80	64.58	60.99
7TP4	Curved	10000	50°	73.15	69.13	......	......
8HP4	Curved	11000	90°	52.50	49.61	47.25	44.63
8NP4	Curved	16000	90°	36.95	34.92	33.26	31.40
8QP4	Curved	16000	90°	50.65	47.86	45.59	43.05
10SP4	Curved	14000	50°	99.35		...	...
17DWP4	Curved	18000	70°	25.65	24.24	23.08	21.80
21EYP4	Curved	18000	72°	31.85	30.10	28.67	27.07

MAGNETIC FOCUS & DEFLECTION TYPE

Type	Face-plate	Anode Volts	Deflection Angle Approx.	1-4	5-10	19-49	50-99
5FP7A	Curved	7000	53°	39.20	37.04	. .	....

MONOSCOPE

Type	Description	NET
2F21	Indian Head Pattern types for supplying signal to test video performance of TV transmitters and receivers	300.00

RCA PHOTOMULTIPLIER TUBES


927


929


931A


6342A


6810A

(**) RCA's New Bialkali Versions (*) Ruggedized

SIDE-ON TYPES

Tube Type	Dia. Tube (inches)	Spec-tral Resp.	Anode Luminous Sen. @22°C Amp/Lumen	Anode-Dark-Current Input (22°C) hA	1-4	5-18	19-49	50-99
1P21	1⅛	S-4	80	10	55.30	52.26	49.77	47.00
1P22	1⅛	S-8	1	8.1	17.25	16.30	15.53	14.66
1P28	1⅛	S-5	20	5	21.80	20.60	19.62	18.53
1P28A	1⅛	S-5	20	5	27.30	25.80	...	...
931A	1⅛	S-4	20	50	12.10	11.43	10.89	10.29
4471	1⅛	S-4	20	50	17.95	16.92	16.16	15.26
4472	1⅛	S-4	20	50	24.60	23.25	22.14	20.91
4473	1⅛	S-4	20	10	93.85	88.69	84.47	79.77
6328	1⅛	S-4	...	...	14.45	13.66	13.01	12.28
6472	1⅛	S-4	.	...	16.20	15.31	...	...
7117	1⅛	S-4	..	...	13.10	...	...	...
7200	1⅛	S-19	40	18	200.00	...	...	...
8571	½	S-4	75	3.8	310.00	...	...	...

HEAD-ON TYPES

Tube Type	Dia. Tube (inches)	Spec-tral Resp.	Anode Luminous Sen. @22°C Amp/Lumen	Anode-Dark-Current Input (22°C) hA	1-4	5-18	19-49	50-99
2020	2	S-11	1	3.8	85.00	80.33	76.50	72.25
2060	1½	S-11	45	8.6	47.20	44.60	42.48	41.72
2061	2	S-11	......	.	55.80	52.73	50.22	47.43
2062	2	S-11	120	9.6	54.35	51.36	48.92	46.20
2063	2	S-11	......	...	105.00	...	...	...
2064B	3	S-11	......	...	125.00	...	...	...
2065	5	S-11	......	...	155.00	...	...	...
2067*	1½	S-11	20	2.6	155.00	...	...	...
4438*	1½	S-11	27	21	120.00	...	...	...
4439	1½	S-11	27	21	120.00	...	...	...
4440*	1½	S-11	27	21	120.00	...	...	...
4441	1½	S-11	27	21	170.00	...	...	...
4441A*	1½	S-11	27	21	350.00	...	...	...
4459	2	S-20	280	34	495.00	...	...	...
4460*	¾	S-11	1.8	1.2	235.00	...	...	...
4461*	1½	S-11	2	1	280.00	...	...	...
4463	2	S-20	5	2.1	235.00	...	...	...
4464	3	S-20	5	2.1	250.00	...	...	...
4465	5	S-20	5	2.1	290.00	...	...	...
4516**	¾	.	27	1.4	185.00	...	...	...
4517**	1½	...	33	0.8	105.00	...	...	...
4518**	2	.	33	0.24	105.00	...	...	...
4522**	5	...	2300	2.2	1025.00	...	...	...
4523**	2	......	27	1	125.00	...	...	...
4524**	3	..	27	2.2	150.00	...	...	...
4525**	5	..	27	3.2	205.00	...	...	...
4526**	...	..	15	2	750.00	...	...	...
5819	2	S-11	100	23	78.65	74.32	...	...
6199	1½	S-11	45	8.6	50.40	47.62	...	...
6217	2	S-10	100	28	82.80	...	...	...
6342A	2	S-11	48	4.3	60.90	...	...	...
6655A	2	S-11	120	100	58.10	54.90	...	...
6810A	2	S-11	3000	160	210.00	...	...	...
6903	2	S-13	90	59	395.00	...	...	...
7102		S-1	0.65	260	115.00	...	...	...
7264	1½	S-11	4200	2500	265.00	...	...	...
7265	2	S-20	600	36	380.00	...	...	...
7326	2	S-20	5.5	3.7	405.00	...	...	...
7746	2	S-11	130	91	205.00	...	...	...
7764	2	S-11	0.28	2.7	130.00	...	...	...
7767	¾	S-11	3.4	1.9	135.00	...	...	...
7850	¾	S-11	1900	800	240.00	...	...	...
8053	2	S-11	19	6.7	105.00	...	...	...
8054	2	S-11	19	6.7	120.00	...	...	...
8055	3	S-11	19	6.7	170.08	...	...	...
8575	5	......	300	1.5	315.00	...	...	...
8575V1**	2	......	......	......	320.00	...	...	
8644	¾	S-20	12	0.6	370.00	...	...	
8645		S-20	12	0.6	475.00	..	...	

RCA Industrial & Special Purpose Tubes

RCA INDUSTRIAL RECEIVING-TYPE NUVISTOR TUBES

• High Reliability • Low Drain • Low Noise • Small Size

Type	Heater Volts/MA	Transcond. µmhos	Max. Plate Dissip. Watts	Nuvistor Base	1-4	5-18	19-49	50-99
7586	6.3/135	11500	1	5-Pin	3.35	3.18	3.02	2.85
7587	6.3/150	10600	2.2	5-Pin	5.20	4.94	4.68	4.42
7895	6.3/135	9400	1	5-Pin	3.35	3.18	3.02	2.85
8056	6.3/135	7500	0.45	5-Pin	5.00	4.73	4.50	4.25
8058	6.3/135	12400	1.5	5-Pin	14.95	14.13	13.45	12.71
8203	6.3/160	6000	1.5	5-Pin	3.80	3.59	3.42	3.23
8393	13.5/ 60	11500	1	5-Pin	3.45	3.28	3.10	2.93
8627	6.3/150	13000	2.5	5-Pin	14.15	13.37	12.73	12.03
8628	6.3/100	3100	0.3	5-Pin	5.00	4.73	4.50	4.25

CAMERA TUBES — VIDICONS

FEATURES

- **Resolution—Up to 1100 TV lines limiting resolution or 60% response to 400 TV lines.**
- **Spectral Response—Panchromatic with high sensitivity in all chrome channels**
- **Highest sensitivity and lowest lag of any commercial vidicons**
- **Clean pictures—Due to stringent spot critieria**

RCA Type Application Notes

4478—low-cost vidicons for non-critical closed circuit applications

7038, 7735B—broadcast-quality pick-up for studio and closed-circuit applications

8507A—separate mesh variant of the 7735B featuring high resolution and high signal uniformity . . . primarily for military and industrial applications

RCA Type Application Notes

8572—separate mesh variant of 7038 featuring high resolution and signal uniformity; for broadcast film cameras

4493—live color pick-up in TK-42

4494, 4495—transistorized camera

8480/V1, 8134/V1—for color film pick-up in transistorized TK-27 . . . no other tube type will do

VIDICONS FOR BROADCAST-STUDIO FILM-PICKUP SERVICE

MAGNETIC FOCUS-AND-DEFLECTION TUBES

1" — DIAMETER TYPES

Type	Typical Face-plate Illum. Footcandles	Typical Signal-Output Current µAmp	Limiting Resolution TV Lines	Net Each
7038	100	0.3	750	175.00
8572	100	0.3	1000	215.00
1½" — DIAMETER TYPE				
8051	50	0.5	1500	575.00

ELECTROSTATIS-FOCUS, MAGNETIC-DEFLECTION TUBES

1" — DIAMETER TYPE

Type	Typical Face-plate Illum. Footcandles	Typical Signal-Output Current µAmp	Limiting Resolution TV Lines	Net Each
8134/V1	1	0.265	700	370.00
1½" — DIAMETER TYPES				
8480	50	0.5	1400	760.00
8480V1	50	0.5	1400	1140.00

VIDICONS FOR LIVE TELEVISION AND INDUSTRIAL SERVICE

MAGNETIC FOCUS-AND-DEFLECTION TUBES

1" — DIAMETER TYPES (Except * ½")

Type	Typical Face-plate Illum. Footcandles	Typical Signal-Output Current µAmp	Limiting Resolution TV Lines	Net Each
4427	0.4	0.08	400	585.00
4478	1	0.12 min.	650	93.00
7262A	1	0.2	750	215.00
7735	1	0.15 min	700	120.00
7735A	1	0.15 min.	700	150.00
7735B	1	0.275	750	170.00
8507A	1	0.2	1100	215.00
8573	1	0.2	1000	275.00

ELECTROSTATIC-FOCUS, MAGNETIC-DEFLECTION TUBES

1" — DIAMETER TYPES

Type	Typical Face-plate Illum. Footcandles	Typical Signal-Output Current µAmp	Limiting Resolution TV Lines	Net Each
4493	Trio for Chroma channels of color cameras		500	1055.00
4494			500	1055.00
4495			500	1055.00
8134	1	0.265	700	275.00

VIDICONS FOR SPACE, MILITARY, AND INDUSTRIAL SERVICE

MAGNETIC FOCUS-AND-DEFLECTION TUBES

1" — DIAMETER TYPE

Type	Typical Face-plate Illum. Footcandles	Typical Signal-Output Current µAmp	Limiting Resolution TV Lines	1-4
4500	1	0.4	600	430.00
1½" — DIAMETER TYPE				
8521	1	0.2	1500	605.00

ELECTROSTATIC-FOCUS MAGNETIC-DEFLECTION TUBE

1½" — DIAMETER TYPE

Type	Typical Face-plate Illum. Footcandles	Typical Signal-Output Current µAmp	Limiting Resolution TV Lines	1-4
8480	10	0.5	1400	760.00

RUGGEDIZED ELECTROSTATIC-FOCUS MAGNETIC-DEFLECTION TUBES

1" — DIAMETER TYPES

Type	Typical Face-plate Illum. Footcandles	Typical Signal-Output Current µAmp	Limiting Resolution TV Lines	1-4
4482	1	0.3	700	705.00
8567	1	0 2	700	910.00

RUGGEDIZED MAGNETIC FOCUS-AND-DEFLECTION TUBES

1" — DIAMETER TYPES

Type	Typical Face-plate Illum. Footcandles	Typical Signal-Output Current µAmp	Limiting Resolution TV Lines	1-4
2048	10	0.3	750	720.00
7263A	1	0 2	750	370.00
4503	1	0.2	1000	470.00

IMAGE ORTHICONS FOR MILITARY AND INDUSTRIAL SERVICE

2" — DIAMETER TYPES

Type	Typical Face-plate Illum. Footcandles	apllitude Resp. at 400 TV Lines Per Cent	typ. Signal-to-No Radio Bandwidth 4.5 MHz	Net Each
8685	7.5×10^{-2}	25	30:1	1440.00

3" — DIAMETER TYPES

Type	Typical Face-plate Illum. Footcandles	Amplitude Resp. at 400 TV Lines Per Cent	Typ. Signal-to-No Radio Bandwidth 4.5 MHz	Net Each
7629A	4×10^{-3}	50	32:1	1700.00

VIDICONS

For TV film studio pickup service and closed-circuit TV applications. Available in deflection and focus methods, ruggedized or non--ruggedized tubes, conventional or low power "dark heaterrs", photo--conductive surfaces, and tube size.

Industrial & Special Purpose Tubes RCA

CAMERA TUBES — IMAGE ORTHICONS

Use RCA BIALKON Image Orthicons when replacing your present Image Orthicons

Type	Replaces
8673	OS20F, VOS20H, 75PC12, P809, V909, 1854, 4513, 6474, 6474/1854, M7050L, 7294, 7294/E, 7513, 7513/L, Z7888, 8093, 8093A, 8093A/E, 8093A/L, and 8093B
8673/S	4513/S, 7513/S, 7513/V1, and 7513/V2
8674	OS40F, VOS40H, 75PC11, P807, P807E, V907, 4415, 4415V1, 4416, 7293, 7293A, 7293A/L, 7293B, and 7293E

Type	Replaces
8674/S	P851, P852, 4415/S, and 4416/S
8685	8685
8748	VOS25H, P812, P822, P822E, V922, 7389, 7389A, 7389B, 7389B/L, 7389C, and 9565
8749	VOS50H, P811, P811/E, V911, 7295, 7295A, 7295B, 7295B/E, 7295B/L, 7295C, and 9564
8775	OS40, P816, 4401, 4401V1, 4414, 4414/7611, 5820, 5820A, 5820A/E, 5820A/L, 5820B, 5820E, 7611, and Z7899

LONG-LIFE BIALKALI PHOTOCATHODE IMAGE ORTHICONS

Superior Color — Black & White TV Pickup

- **High sensitivity over the visible spectrum**
- **Electronically conducting glass target**
- **Improved "anti-ghost" image section**
- **Field mesh connection**

Type 8673. High capacitance target assembly and designed specifically for color or black & white telecasting at the light levels available in color TV studios.

Type 8673 (Black & White) **1800.00**
Type 8673/S (Color) 1800.00

Type 8674. Has higher sensitivity than 8673 and is intended for color and black & white studio or remote TV pickup at light levels available in black and white TV studios.

Type 8674 (Black & White) **1800.00**
Type 8674/S (Color) 1800.00

RCA 8685 IMAGE ORTHICONS

For Portable, Broadcast, Scientific or Industrial TV Pickup Service

- **2" Diameter—Ideal for compact TV cameras**
- **Bialkali Photocathode—High sensitivity over the entire visible spectrum**
- **Electronically conducting glass target achieves non-sticking pictures and long life**
- **Constant sensitivity and resolution throughout tube life**
- **Separate field mesh connection**
- **Low power "dark-heater" requires only 0.6 watts**

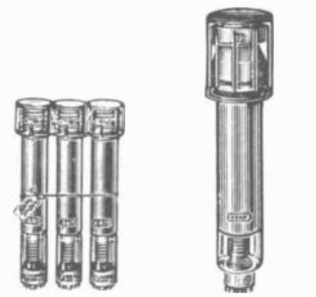
Elimination of infrared response prevents color masking by the infrared — allows gray-scale rendition of colors in realistic tonal graduations. Specifically designed to operate with 16mm film camera optics.

Type 8685 .... **1440.00**

RCA CAMERA TUBES

A broad choice of tube design features are available: field or non-field mesh design; glass, thin-film semiconductive, or special long-life targets; precision construction; anti-ghost image section design; microdamp construction; tube size; and matched sets for color pickup.

ORTHICONS



For Color Pickup at Black-and-White Studio Lighting Levels

Unmatched Picture Quality in Black and-White Pickup

IMAGE ORTHICONS FOR LIVE BLACK-AND-WHITE TELEVISION

3" — DIAMETER TYPE (Except *2")

Type	Typical Sens. at Knee lm/ft^2 (fc)	Amplitude Response at 400 TV Lines Per Cent	Typical Signal-to-Noise Ratio	Net Each
8685*	7.5×10^{-2}	25	30:1	1440.00
5820A	1.2×10^{-2}	60	45:1	995.00
5820A/L	1.2×10^{-2}	60	45:1	1800.00
8673	1.2×10^{-2}	55	45:1	1800.00
8674	8×10^{-3}	60	40:1	1800.00
8775	1×10^{-2}	50	45:1	1800.00

4½" — DIAMETER TYPES

Type	Typical Sens. at Knee lm/ft^2 (fc)	Amplitude Response at 400 TV Lines Per Cent	Typical Signal-to-Noise Ratio	Net Each
7295B	3×10^{-2}	75	35.5dB (min.)	1440.00
7389B	5×10^{-2}	75	37.5dB (min.)	1440.00
8748	5×10^{-2}	75	37.5dB (min.)	1975.00
8749	3×10^{-2}	75	35.5dB (min.)	1975.00

IMAGE ORTHICONS FOR LIVE COLOR TELEVISION

3" — DIAMETER TYPES (MATCHED TRIOS FOR COLOR)

Type	Typical Sens at Knee lm/ft.^{2} (fc)	Amplitude Resp. at 400 TV Lines Per Cent	Typ. Signal-To-Noise Ratio	Net Each
4416/S	1×10^{-2}	55	37:1	1400.00
8673/S	1.2×10^{-2}	55	45:1	1800.00
8674/S	8×10^{-3}	60	40:1	1800.00

3" — DIAMETER TYPES

Type	Typical Sens at Knee lm/ft.^{2} (fc)	Amplitude Resp. at 400 TV Lines Per Cent	Typ. Signal-To-Noise Ratio	Net Each
8673	1.2×10^{-2}	55	45:1	1800.00
8674	8×10^{-3}	60	40:1	1800.00
4½" — DIAMETER TYPES FOR LUMINANCE CHANNEL				
4492	2.5×10^{-2}	75	37dB (min.)	1650.00
4536	4×10^{-2}	55	39.5dB (min.)	2165.00

MAKE NEWARK YOUR DEPENDABLE SOURCE FOR ALL ELECTRONIC COMPONENTS

Whether ordering in quantity for production or in small lots for specialized use, make Newark your headquarters for every electronic component. — Get the exact part you need from an inventory of over 70,000 units! Top Quality, Lowest Prices, Fastest Service.

RCA Industrial & Special Purpose Tubes

3 Major Advantages of RCA BIALKALI PHOTOCATHODE TUBES For Upgrading Systems Capabilities

1. Higher Quantum Efficiency
2. Lower Dark Current
3. Improved Pulse Height Resolution

RCA-8575 Photomultiplier Tube featuring Bialkali Photocathode Construction.

Directly Interchangeable Replacement Types For Most Popular Sizes from 3/4" to 5"

New Type	Replaces	Nom. Size	Description	Anode Luminous Sensitivity 2870°K (A/lm)	Anode Dark Current (A)	Q.E. @ 3600-4000°A	EACH
4516	RCA-7767	3/4"	Head-on type having fast time characteristics. For use in probes, and biological tracer studies.	27	2×10^{-10} @ 7A/lm	24%	185.00
4517	RCA-6199	1½"	Head-on, flat-face types having small size for use in portable scintillation counters.	33	3×10^{-10} @ 7A/lm	24%	85.60
4518	RCA-6342A	2"	Head-on, flat-face types. Especially useful for fast coincidence scintillation counting.	380	3×10^{-10} @ 7A/lm	24%	105.00
4523	RCA-8053	2"	Head-on, flat-face types having venetian-blind dynode structure. For general scintillation counting applications.	80	5×10^{-10} @ 13A/lm	24%	125.00
4524	RCA-8054	3"	Head-on, flat-face types having venetian-blind dynode structure. For general scintillation counting applications.	80	1×10^{-9} @ 13A/lm	24%	150.00
4525	RCA-8055	5"	Head-on, flat-face types having venetian-blind dynode structure. For general scintillation counting applications.	80	1.5×10^{-9} @ 13A/lm	24%	205.00
and the standard of the industry RCA-8575		2"	Head-on type having an in-line electrostatically focused dynode structure, very low noise, and fast time characteristics.	2500	1×10^{-9} @ 200A/lm	28%	315.00

Other RCA Photomultipliar Tubes are listed on page 169.

INDUSTRIAL RECEIVING-TYPE TUBES OPERATIVE FROM BATTERIES OR BATTERY CHARGER SYSTEMS

Nominal-6-V Storage-Battery Types

Type	Heater Volts/mA	Max. Plate Dissipation Watts	Transconductance µmhos	1-4	5-18	19-49	50-99
6360	6.3/820 12.6/410	14	3300	4.95	4.68	4.45	....
6660/ 6BA6	6.3/300	3.3	4400	1.01	.95	.91	.86
6661/ 6BH6	6.3/150	3.3	4600	1.34	1.27	1.21	1.14
6662/ 6BJ6	6.3/150	3.3	3600	1.29	1.22	1.16	1.10
6663/ 6AL5	6.3/300	PIV = 275 V Io(av) = 10 mA		.92	.87	....	....
6664/ 6AB4	6.3/150	2.9	10900	1.12	1.06	1.01	.95
6669/ 6AQ5A	6.3/450	12	4100	1.06	1.00	.95	.90
6676/ 6CB6A	6.3/300	2.3	8000	1.06	1.00	.95	.90
6677/ 6CL6	6.3/650	8.5	11000	1.85	1.76	1.67	1.57
6678/ 6U8A	6.3/450	3T 3P	8500T 5200P	1.62	1.54	1.46	1.38
6679/ 12AT7	12.6/150 6.3/300	2.8	5500	1.50	1.43	1.35	1.28
6680/ 12AU7A	12.6/150 6.3/300	3	2200	1.22	1.16	1.10	1.04
6681/ 12AX7A	12.6/150 6.3/300	1.1	1600	1.26	1.19	1.13	1.07
7717/ 6CY5	6.3/200	.....	8000	1.39	1.31	1.25	1.18
7905	6.3/650	10	6700	3.85	3.68	3.47	3.27

Nominal-12-V Storage-Battery Types

Type	Heater Volts/mA	Max Plate Dissipation Watts	Transconductance µ m hos	1-4	5-18	50-99	19-49
7054	13.5/275	5	11500	1.54	1.46	1.39	1.30
7055	13.5/155	PIV = 350 V Io(av) = 10 mA		1.00	.95	....	....

Nominal-12-V Storage Battery Types (Cont'd)

Type	Heater Volts/mA	Max. Plate Dissipation Watts	Transconductance µmhos	1-4	5-18	19-49	50-99
7056	13.5/150	2	6200	.92	.87	.83	.78
7057	13.5/180	2.2	6800	1.95	1.84	1.75	1.66
7058	13.5/155	1	1650	1.26	1.19	1.13	1.07
7059	13.5/195	2.5T 2.8P	8500T 5200P	1.48	1.41	1.33	1.26
7060	13.5/280	2.5T 3P	4900T 7000P	1.75	1.66	1.58	1.49
7061	13.5/210	9	4200	1.29	1.23	1.16	1.09
7167	13.5/90	2	8000	1.41	1.33	1.27	1.20
7258	13.5/210	2.8T 2.3P	4500T 7800P	1.82	1.72	1.64	1.55
7551	13.5/360	10	5300	3.37	3.20	3.03	....
7898	13.5/150	2.75	5500	1.34	1.27	1.21	1.14
8077/ 7054	13.5/275	0.575	11500	1.50	1.43	1.35	1.28
8156	13.5/300	15	7600	3.89	3.68	3.50	3.33

Nominal-24-V Storage-Battery Types

Type	Heater Volts/mA	Max. Plate Dissipation Watts	Transconductance µmhos	1-4	5-18	19-49	50-99
6082	26 5/600	13	7000	5.60	5.32	....	....

Dry-Cell-Battery Types

Type	Heater Volts/mA	Max. Plate Dissipation Watts	Transconductance µ m hos	1-4	5-18	19-49	50-99
1L4	1.4/50	.....	1025	1.50	1.43	1.35	1.28
3A4	2.8/100 1.4/200	2	1900	1.25	1.19	1.13	1.06
3A5	2.8/110 1.4/220	1	1800	2.03	1.93	1.83	1.73
1619	2 5/2000	15	4500	6.23	5.91	....	....
5642	1 25/200	PIV = 10 kV Io(av) = 0.25 mA		3.53	....	....	....
5672	1 25/50	0.065	650	2.27	2.16	....	....
5678	1.25/50		1150	2.30	2.27	2.11	....

NOTE T: These values are for triode sections.
NOTE P: These values are for pentode sections.

CATHODE

Tube Type	1-4	5-18	19-49	50-99
Z803U/6779	5.75	5.75	5.75	4.00
6779/Z803U	5.75	5.75	5.75	4.00
8453/Z550M	14.50	14.50	14.50	12.00

TWIN TETRODE

Tube Type	1-4	5-18	19-49	50-99
5894	25.00	23.63	22.50	21.25
5894-B	26.50	25.04	23.85	22.53
6146-B	5.15	4.87	4.64	4.38
6252	28.40	26.84	25.56	24.14
6360A	6.00	5.67	5.40	5.10
6907	27.00	25.52	24.30	22.95
6939	12.00	11.34	10.80	10.20
7377	22.90	21.64	20.61	19.47
7699	15.00	14.18	13.50	12.75
7854	33.40	31.56	30.06	28.39
8118	40.00	37.80	36.00	34.00
8458	8.30	7.84	7.47	7.06
8509	27.50	25.99	24.75	23.38
8643	30.75	29.06	27.68	26.14

THYRATRON

Tube Type	1-4	5-18	19-49	50-99
2D21	1.29	1.23	1.16	1.10
AX105/FG105	53.33	50.40	48.00	
AX260	150.00			
5544	44.40	41.96	39.96	37.74
5545	48.75	46.06	43.87	41.44
5557/FG17	11.10	10.48	8.88	
5559	23.00			
5727	2.90	2.76	2.61	2.47
5869	31.35	27.22	25.92	
5870	112.12			
6268	41.00			
6279	47.55	44.93	42.79	
6786	255.00			
8482	78.00	73.71	70.20	66.30

VOLTAGE REGULATOR

Tube Type	1-4	5-18	19-49	50-99
OA2	1.26	1.19	1.13	1.07
OB2	1.32	1.28	1.19	1.12
90C1	2.25	2.13	2.02	
150B2/6354	2.55	2.41	2.29	2.17
6354/150B2	2.55	2.41	2.29	2.17

YOU CAN DEPEND ON NEWARK FOR EVERYTHING IN INDUSTRIAL ELECTRONICS ELEVEN STOCKING WAREHOUSES FROM COAST-TO-COAST

TRIODE

Tube Type	1-4	5-18	19-49	50-99
833A	69.25	65.44	62.33	58.86
ZB3200	520.00			
5658	595.00			
5667	370.00			
5842	7.35	6.95	6.61	6.25
5866	24.30	22.96	21.87	20.66
5867A	35.25			
5868	65.65			
5920	3.25	3.07	2.93	2.76
5923	291.50			
5924A	309.00			
6085	3.30	3.12	2.97	2.81
6201	2.95	2.80	2.66	2.51
6211	3.20	3.08	2.88	2.72
6463	3.50	3.33	3.15	2.97
6922	4.87	4.60	4.38	4.14
6960	186.00			
6977	2.50			
7062	2.75	2.60	2.47	2.38
7092	125.00			
7119	2.95	2.48	2.30	2.03
7237	227.25			
7308	5.20	4.91	4.68	4.42
7316	1.40	1.32		
7459	280.00			
7643	4.95	4.68	4.45	4.21
7753	180.00			
7800	760.00			
7804	425.00			
7805	400.00			
7806	922.50			
7807	665.00			
7899	870.00			
7900	306.25			
7986/5866A	26.00	24.57	23.40	22.10
8108/EC157	155.30			
8254	19.75			
8268	185.00			
8416	4.90	4.63	4.41	4.17

UHF TRIODE

Tube Type	1-4	5-18	19-49	50-99
TBL2/400/8119	250.00			
TBL2/500/8120	270.00			
8163	34.00			
8177	1250.00			
8255	4.95	4.68	4.46	4.21

BEAM DEFLECTION TUBE

Tube Type	1-4	5-18	19-49	50-99
6218	8.65	8.17	7.78	7.35

BEAM POWER TUBE

6159	4.80	4.56	4.32	4.08
8042	10.16	8.51	8.10	

INDICATOR

Tube Type	1-4	5-18	19-49	50-99
ZM1030	9.95	9.95	9.95	8.00
ZM1032	9.95	9.95	9.95	8.00

AMPLIFIER

Tube Type	1-4	5-18	19-49	50-99
6687	3.50			
7737	8.36			

RECTIFIER

Tube Type	1-4	5-18	19-49	50-99
857B	240.00			
866AX	4.50	4.25	4.05	3.83
869B	155.00			
869BL	155.00			
872AX	10.85	10.25	9.76	9.22
6693	33.45	31.61	30.11	28.43
7136	38.00	35.91	34.20	32.30
8008AX	10.85	10.25	9.77	9.22
8020AX	24.00	22.68	21.60	20.40
8270	86.75			

VOLTAGE REFERENCE TUBE

Tube Type	1-4	5-18	19-49	50-99
OE3	7.25	6.85	6.52	6.16
OE3/85A1	7.25	6.85		
OG3	2.30	2.19	2.07	1.95
OG3/85A2	2.30	2.19		
85A1/OE3	7.25	6.85		
85A2/OG3	2.30	2.19		
5651	1.78	1.69	1.60	1.51
8228/ZZ/1000	2.90	2.78	2.61	2.47

SPECIAL INDUSTRY TUBES

Tube Type	Description	1-4	5-18	19-49	50-99
Z70U/7710	Submin. Cold Cathode	1.95	1.95	1.95	1.35
Z70W/7709	Submin. Cold Cathode	3.30	3.30	3.30	2.30
Z71U/7711	Submin. Cold Cathode	2.85	2.85	2.85	2.00
Z303C	Cold Cathode Dec. Counter	11.00	11.00	11.00	9.15
Z502S	Cold Cathode Dec. Counter	19.40	19.40	19.40	15.50
Z550M/8453	Cold Cathode	14.50	14.50	14.50	12.00
Z803U/6779	Cold Cathode	5.75	5.75	5.75	4.00
Z805U/7714	Cold Cathode	7.50	7.50	7.50	5.45
Z900T/5823	Min. Glow Disch. Triode	3.45	3.45	3.45	2.40
ZM1030	Bi-Quin. Num Indic. (Red)	9.95	9.95	9.95	8.00
ZM1032	Bi-Quin. Num Indic. (Clear)	9.95	9.95	9.95	8.00
B8.700/67	Socket for Z550M	1.06	1.00	.95	.90
B8.700.86	Socket for 6GB5, 8233, 8278, 8458	.32	.30	.29	.27

PENTODE

Tube Type	1-4	5-18	19-49	50-99
E55L/8233	13.25	12.52	11.92	11.26
5654/6AK5W	2.45	2.33	2.23	2.08
5847	9.55	9.02		
6007	2.15	1.63	1.55	1.46
6008	3.20			
6083	22.50			
6084	3.30	3.12	2.97	2.81
6227	3.95			
6375	8.40	7.94	7.56	7.14
6686	5.70			
6688	6.80	6.43	6.12	5.78
6688A	6.80	6.43	6.12	5.78
6689	3.85	3.64	3.46	3.27
7189	1.55	1.46	1.40	1.32
7534	21.00			
7693	3.95			
7694	3.95			
7737	8.36			
7788	10.20			
8233	13.25	12.52	11.92	11.26

TETRODE

Tube Type	1-4	5-18	19-49	50-99
4-65A	27.00	25.65		
4-125A	36.00			
4-250A	46.50	44.18	41.85	39.53
4-400A	48.00	45.36		
4CX250B/7203	35.60	33.64	32.04	30.26
4CX250R/7580W	44.50	42.50		
4X150A/7034	23.15	21.99		
4X500A	127.50			
6155	36.00	34.02	34.02	32.40
6156	44.85	42.38	40.36	38.13
6883B/8032A/8552	5.40	5.10	4.86	4.59
7378	48.00	45.36	43.20	40.80
7527	47.25	44.65	42.52	40.16
7609	29.35			
8179	180.00			

Industrial & Special Purpose Tubes

GL-7038

GL-5551A GL-6808 GL-7629 A/R

ANTI-MICROPHONIC IMAGE ORTHICONS

Tube Type	Description	1-4
5820A/R	Anti-Microphonic	995.00
7293A/R	Close Spacing—Anti-Microphonic	1050.00
7295	4½" Tube—Anti-Microphonic	1440.00
7629A/R	Anti-Microphonic	1700.00
Z7866	Anti-Microphonic — extra long life — color	1975.00
8092A/R	Anti-Microphonic	1870.00
8093A/R	Anti-Microphonic	1120.00

IMAGE ORTHICONS

Tube Type	Target	Field Mesh	Sig/Noise	1-4
5820A	Glass	NO	50:1	995.00
7293	Glass	YES	50:1	1050.00
GL-7629A	Magnesium-Oxide	NO	40:1	1700.00
GLZ7888	Glass/Long Life	YES	65:1	1800.00
GLZ7899	Glass/Long Life	NO	65:1	1800.00
GL8092A	Magnesium-Oxide	YES	40:1	1870.00
GL-8093A	Glass	YES	55:1	1120.00

IGNITRONS—RESISTANCE WELDING CONTROL SERVICE

Tube Type	Size	Length	Diameter	1-4	5-18	19-49	50-99
GL-5550	A	9⅟16"	29/64"	49.00	....	....	....
GL-5551-A	B	13"	2¾"	65.00	....	....	....
GL-7669*	B	8 11/16"	2¾"	65.00	61.43	58.50	55.25
GL-5552-A	C	14"	4¼"	99.00	....	....	....
GL-7671*	C	9½"	4¼"	99.00	93.56	....	....
GL-7681**	J-C	17½"	4¼"	155.00	....	....	....
GL-5553-B	D	19½"	5⅝"	245.00	....	....	....
GL-7673*	D	12 13/16"	5⅝"	245.00	....	....	....
GL-7151	E	19¾"	9⅛"	750.00	....	....	....
GL-5554		17"	4"	215.00	....	....	....
GL-5555		17 15/16"	5½"	316.00	....	....	....
GL-5564		31¼"	9"	935.00	....	....	....
GL-5822-A	C	14¼"	4¼"	116.00	....		....

*Coaxial; **Jumbo

IGNITRONS—POWER RECTIFIER SERVICE

Tube Type	Ave. I Amps	Length	Diameter	1-4	5-18	19-49	50-99
GL-5554	100	17"	4⅛"	215.00	....	....	....
GL-6512	.10	17"	4⅛"	310.00	....	....	....
GL-5555	200	17 15/16"	5¾"	316.00	....	....	....
GL-6513	200	17 15/16"	5¾"	420.00	....	....	....
GL-5788	200	19¼"	5¾"	545.00	....	....	....
GL-6514	200	19¼"	5¾"	575.00	....	....	....
GL-5564	400	31¼"	9⅛"	935.00	....	....	....
GL-6515	400	31¼"	9⅛"	1160.00	....	....	....
GL-6878	675	30½"	13⅛"	3200.00	....	....	....
GL-5630	50	22 3/16"	5¾"	1940.00	....	....	....
GL-6228	150	42"	9"	3696.00	....	....	....
GL-5779	10	8¼"	2½"	172.00	....	....	....

IGNITRONS—CAPACITOR DISCHARGE SERVICE

	Ave. I Amps	Length	Diameter	1-4	5-18	19-49	50-99
GL-7171		8¾"	2 1/32"	60.00	56.70	54.00	51.00
GL-7703		7⅝"	2¼"	170.00	....	....	....

VIDICONS

Tube Type	Description	1-4
GL-7038	For film pickup applications . . . monochrome or color . . a direct replacement for the 6198A	170.00
GL-7038v	For use in Chroma channel of the GE Model PE24 camera.	170.00
GL-7325	High sensitivity for live pickup . . . lower lag at low light . . . ideal for industrial use	170.00
GL-7735A	Highest sensitivity, lowest lag at low light levels . . . for studio or remote pickup	165.00
GL-7735B	Hightest sensitivity, lowest lag at low light levels, for studio or remote pickup, has higher resolution.	170.00
GL-7697	For cameras with automatic sensitivity control . . similar to 7735A	170.00
GL-7226	Low heater power . . . for transistorized cameras . . . good live pickup	315.00
GL-7262A	Low heater rating of 0.6 watt . . . excellent sensitivity and low lag at low light	215.00
GL-7263A	Specially designed to withstand severe shock, vibration and high humidity	370.00
GL-8484		170.00
GLZ-7911	Designed for televising live scenes in educational, commercial, industrial and closed circuit television applications, high sensitivity and low lag photoconductive surface.	75.00
GLZ-7929	Replacement tube for chroma channels RCA TK 42 cameras	370.00
	Color matched set: red, blue, green	3165.00
GL-8134	Replacement tube for RCA closed circuit TV cameras	275.00
GL-8134V	For use in chroma channels RCA TK 27 cameras	370.00
GL-8507	Separaie Field Mesh 7735A	215.00
GL-8541	For transistorized cameras . . . similar to GL-8507 except 0.6 watt rating . .high sensitivity, low lag	310.00
GL-8572	Broadcast film pickup Sep. field mesh of 7038.	215.00
GL-8572v	Luminance Channel GE Camera Model PE240	215.00
GL-8604	Similar to 8572, except low heater power.	310.00
GL-8573	Live industrial—high sensitivity, short length, low heater power. Sep. field mesh.	275.00

PLANAR TRIODE TUBES

Type	Max. Plate Diss.-Watts w/cooling	Tested Max. Freq Mc.	1-4	5-18	19-49	50-99
2C39B	100	2500	32.15	30.38	28.93	27.33
2C40A	6.5	3000	35.10	33.17	31.59	29.84
6299	2.0	3000	58.25	....	....	....
6442	8.0	5000	39.00	....		
7289	100	3000	26.90	35.42	24.21	22.87
7815	10.0	3000	30.75	29.06	27.67	26.14
3CX100A5	100	2500	26.90	....	....	....
6771	6.25	4000	71.90	....	....	....

THYRATRONS

Type	Peak Forward Anode Volts	Peak Inverse Anode Volts	Average Cathode Amperes	1-4	5-18	19-49	50-99
GL-3C23	1,250	1,250	1.5	11.98	11.38	10.78	10.18
6D4	350	350	.025	2.70	2.57	2.43	2.30
2D21	650	1,300	0.1	1.29	1.23	1.16	1.10
FG-97	1,000	1,000	0.5	65.05	61.47	58.55	55.29
FG-172	2,000	2,000	6.4	129.00	....	....	....
GL-393-A	1,250	1,250	1.5	13.25	12.59	....	....
GL-414	3,000	3,000	5.0	294.00	....	....	....
GL-672-A	2,500	2,500	3.2	39.85	37.66	....	....
GL-678	10,000	15,000	1.6	49.50	46.78	44.55	42.10
2050	....	....	....	2.40	2.27	2.16	2.04
2050-A	650	1,300	0.1	2.03	1.92	1.83	1.73
GL-5544	1,500	1,500	3.2	34.10	....	....	....
GL-5557 (FG17)	2,500	5,000	0.5	9.50	9.02	8.55	....
GL-5559 (FG57)	1,000	1,000	2.5	23.00	21.73	....	....
GL-5560 (FG95)	1,000	1,000	2.5	33.00	31.35	29.70	....
GL-5632 (C3-J)	9,000	1,250	2.5	12.70	12.09	....	....
GL-5665 (C16-J)	1,000	1,250	0.02	52.50	49.88	....	....
GL-5720 (FG-33)	1,000	1,000	2.5	34.75	32.84	31.27	29.54
5727 (2D21-W)	650	1,300	0.1	2.90	2.76	2.61	2.47
GL-5855	1,500	1,500	18	85.00	80.33	76.50	....
GL-6011/710	1,000	1,250	2.5	12.70	12.06	....	....
6012	650	1,300	0.5	7.65	7.27	6.89	6.50
GL-6014 (C1K)	1,000	1,250	1	11.80	11.15	10.62	10.03
GL-6807	1,500	1,500	6.4	32.25	....	....	....
GL-6808	1,500	1,500	6.4	32.90	....	....	....
GL-6809	1,500	1,500	6.4	35.50	33.55	31.95	30.18
GL-7518 (710-L)	1,000	1,250	2.5	14.00	13.49	12.78	....
GL-7725	3,500	3,500	2.5	13.50	12.76	12.15	11.48

Special Purpose Tubes, Sockets, Finger Stock

GENERAL ELECTRIC

CERAMIC TUBES

Tube Type	1-4	5-18	19-49	50-99
6897	33.60	31.75	....	....
7077	40.50	38.27	36.45	34.43
7266	36.75	......	......	....
7296	51.45	48.62	......	....
7462	40.50	38.27	36.45	34.43
7486	40.50	38.27	36.45	34.43

Tube Type	1-4	5-18	19-49	50-99
7588	105.00	....	....	....
7625	40.50	38.27	36.45	34.43
7644	68.00	......	....	....
7720	40.50	38.27	36.45	34.43
7768	115.15	.	....	....
7784	68.00	....	....	....

Tube Type	1-4	5-18	19-49	50-99
7841	36.75	34.73	33.08	31.24
7910	85.75	......	......	....
7913	127.40	....	......	....
8081	41.65	39.36	37.49	35.40
8082	41.65	39.36	37.49	35.40
8083	41.65	39.36	37.49	35.40

5-STAR HIGH RELIABILITY TUBES

5-Star Tube Type	Replaces Tube Type	Tube Function and Application	MIL-E-1 Specification	1-4	5-18	19-49	50-99
5654	6AK5	Sharp-cutoff RF pentode	5654M/6AK5W	2.45	2.33	2.21	2.08
5670	2C51	Medium-mu twin triode; general purpose	5670	2.45	2.33	2.21	2.08
5725	6AS6	Dual-control pentode; gated amplifier or mixer	5725/6AS6W	3.15	2.98	2.84	2.68
5726	6AL5	Twin-diode; detector or low-current rectifier	5726/6AL5W	1.55	1.47	1.40	1.32
5727	2D21	Thyratron; grid-controlled rectifier or pulse modulator	5727/2D21W	2.90	2.76	2.61	2.47
5749	6BA6	Remove cutoff RF pentode	5749/6BA6W	2.20	2.09	1.98	1.87
5750	6BE6	Pentagrid converter	5750/6BE6W	3.45	3.28	3.11	2.93
5751	12AX7	High-mu twin triode; AF voltage amplifier	5751, 5751WA, 5751W(1)	2.55	2.42	2.30	2.17
5814-A	12AU7	Medium-mu twin triode; general purpose	5814-W, 5814WB	2.35	2.23	2.12	2.00
5840	....	Sharp-cutoff RF pentode	5840, 6205	5.35	5.08	4.82	4.55
5844	....	Medium-mu twin triode; computer service	5844 (Sig. C.)	2.40	2.27	2.16	2.04
5899	....	Semi-remote-cutoff RF pentode	5899M, 6206M	5.50	5.20	4.95	4.63
5963	....	Medium-mu twin triode; computer service	5963 (Navy)	1.40	1.32	1.26	1.19
5965A	....	Medium-mu twin triode; computer service	....	1.90	1.80	1.71	1.62
6005	6AQ5	Beam power amplifier	6005M/6AQ5W	3.25	3.07	2.92	2.76
6046	25LG-GT	Beam power amplifier; relay energizer	....	1.65	1.56	1.49	1.32
6072-A	12AY7	Medium-mu twin triode; AF preamplifier	6072-A	4.10	3.87	3.69	3.49
6087	5Y3GT	Twin diode; full wave rectifier	5Y3WGTB (Navy)	6.30	5.95	5.67	5.36
6111	....	Medium-mu twin triode; general purpose	6111	3.70	3.52	3.33	3.15
6112	....	High-mu twin triode; AF voltage amplifier	6112	4.10	3.87	3.69	3.49
6136	6AU6	Sharp-cutoff RF pentode	6AU6WB	2.70	2.57	2.43	2.30
6201	12AT7	High-frequency twin triode; RF amplifier or oscillator	12AT7WA, 12AT7WB (Navy)	2.55	2.42	2.29	2.17
6202	6X4	Twin diode; full wave rectifier	6X4WA	4.10	3.87	3.69	3.49
6203	....	Twin diode; full wave rectifier	6203	4.30	4.06	3.87	3.66
6211A	....	Medium-mu twin triode· computer service	6211 (Navy)	2.35	2.22	2.12	2.00
6386	....	Medium-mu remote-cutoff twin triode; RF amplifier or mixer	6386 (Navy)	7.75	7.32	6.98	6.59
6463	....	Medium-mu twin triode; computer service	....	1.90	1.81	1.71	1.62
6829	5965	Medium-mu twin triode; general purpose	6829M	6.40	6.05	5.76	5.44

COMMUNICATION TUBES

Type	Replaces Tube Type	Allowable V Variation	1-4	5-18	19-49	50.99
6660	6BA6	±20%	1.05	.99	.94	.89
6661	6BH6	±20%	1.35	1.28	1.22	1.15
6662	6BJ6	±20%	1.30	1.23	1.17	1.11
6663	6AL5	±20%	.95	.90	.86	.81
6664	6AB4	±20%	1.15	1.09	1.04	.98
6669	6AQ5A	±20%	1.10	1.04	.99	.94
6676	6CB6A	±20%	1.10	1.04	.99	.94
6677	6CL6	±20%	1.85	1.76	1.67	1.57
6678	6U8A	±20%	1.65	1.56	1.49	1.46
6679	12AT7	±20%	1.50	1.43	1.35	1.28
6680	12AU7	±20%	1.25	1.18	1.13	1.06
6681	12AX7	±20%	1.30	1.23	1.17	1.11

BROADCAST POWER TUBES

Transmitting Triodes, Tetrodes, Metal Ceramic Tetrodes and Power Rectifiers

Tube Type	Description	Max Plate Input (W)	1-4
GL-7D21	Tetrode	3000	815.00
GL-5513	Triode	3600	620.00
GL-5518	Triode	12,000	1400.00
GL-5549	Triode	10,000	853.50
GL-6039	Triode	16,000	2070.00
GL-6251	Tetrode	50,000	2790.00
GL-6283	Metal Ceramic Tetrode	1600	500.00
GL-6942	Tetrode	2500	960.00
GL-7399	Metal Ceramic Tetrode	9000	520.00
GL-8500	Metal Ceramic Tetrode	2000	500.00
GL-857B	Mercury Rect.	10 amp.	207.00
GL-869B	Mercury Rect.	2.5 amp.	123.50

MAKE NEWARK YOUR ONE DEPENDABLE SOURCE FOR EVERYTHING IN INDUSTRIAL ELECTRONICS

EIMAC PRODUCTS

PREFORMED CONTACT FINGER STOCK (AVAILABLE IN 3' LENGTHS ONLY)

*Double sided

Stk. No.	Type	Width	NET	Stk. No.	Type	Width	NET
28F977	CF-100	$1\frac{7}{32}$"	5.35	28F836	CF-600*	$2\frac{1}{4}$"	8.60
28F834	CF-200*	$1\frac{3}{16}$"	6.20	28F837	CF-700	$1\frac{7}{32}$"	5.80
28F978	CF-300	$3\frac{1}{32}$"	5.80	28F838	CF-800	$2\frac{3}{32}$"	5.80
28F835	CF-400*	$1\frac{11}{32}$"	7.70	28F839	CF-900	$3\frac{1}{64}$"	5.35
28F979	CF-500	$1\frac{3}{8}$"	6.20				

HEAT DISSIPATING CONNECTORS

Size indicates conductor diameter.

Stk. No.	Type	Size	NET	Stk. No.	Type	Size	NET
28F980	HR-1	.055	1.70	28F983	HR-6	.370	1.45
28F981	HR-2	.065	1.70	29F002	HR-7	.130	2.00
28F982	HR-3	.075	1.70	29F003	HR-8	.578	2.00
29F000	HR-4	.105	1.45	29F004	HR-9	.572	2.80
29F001	HR-5	.130	1.45	29F005	HR-10	.514	2.80

CHIMNEYS FOR AIR SYSTEM SOCKETS

Stk. No.	Type	NET	Stk. No.	Type	NET
38F997	SK-406 FOR 4-400A-4-250A 4-125A-4006	6.50	38F991	SK-806 FOR 4CX1000A	8.50
38F998	SK-506 FOR 4-100A-4006	12.00	38F259	SK-906 FOR 4X500A	15.00
38F999	SK-606 FOR 4X150A/4006 4X150A&D 4X250B 4X250F-4CX250B	.75			

VACUUM SWITCHES AND COILS

Stk. No.	Type	NET	Stk. No.	Type	NET
38F261	VS-2	31.00	38F263	24V coil	11.00
38F262	12V coil	11.00	28F984	VS-5	42.00

AIR SYSTEM SOCKETS

Stk. No.	Type	NET	Stk. No.	Type	NET
38F992	SK-300, FOR 4CX5000A	103.00	38F248	SK-710 FOR 4CX300A	36.40
38F993	SK-410, FOR 4-400A	9.00	38F249	SK-740, FOR 4CN15A 4CX300A	10.70
38F994	SK-510, FOR 4-1000-A-4001	9.00	38F250	SK-760 FOR 4CN15A-4CX300A	10.70
38F995	SK-600, FOR 4X250F-4X150A/400 4X150D-4X250B 4CX250B-4W300B	12.00	38F251	SK-770, FOR 4CN-15A, 4CX300A Screen pin grounded	10.70
38F996	SK-610, FOR 4X150D-4X150A/4011 4CX250B-4X250B 4X250F-4W300B	13.80	38F990	SK800B FOR 4CX1000A	54.00
38F247	SK-700 4CX300A	36.40	38F252	SK-810B FOR 4CX1000A	56.00
			38F253	SK900, FOR 4X500A	68.50

Special Purpose & Industrial Tubes

DIODES AND RECTIFIERS

Type	Description	1-4	5-18	19-49	50-99
2-01C	Diode, 5V, .3A Fil. 1kV max. peak inverse v.	18.00	17.01	....	....
250R	As above exc. 5V, 10.5A Fil. 60kV max. inv. v. 250 MA avg. 2.5A peak pl. current.	42.00	....	....	....
575A	Half wave mercury-vap. rect. 5V 11.5A fil.	20.15	19.04	....	....
673	Half wave mercury-vap. rect. 5V 11.5A fil.	20.15	19.04	....	....
869B	Half wave mercury-vap. rect. 5V 21A fil.	138.00	....	....	....
869BL	Half wave mercury-vap. rect. 5V 21A fil.	138.00	....	....	....
6894	Half wave mercury-vap. rect. 5V 11A fil.	25.00	23.63	....	....
8020/100R	As 250R exc. 5V, 6.5A Fil. 40kV max. inv. v. 100MA avg. 1.5A peak pl. curr.	26.50	25.04	....	....
KY21A	Grid controlled mercury vapor-rect. 2.5V, 10A Fil. 750 MA avg. 3 peak pl. curr.	41.00	38.75	36.90	....
RX21A	Half-wave mercury vapor-rect. 2.5V, 10A Fil. 750 MA avg. 3A peak pl. curr.	41.00	38.75	36.90	....

TRIODES

Type	Description	1-4	5-18	19-49	50-99
2C39A	High mu, ceramic-metal plan. triode 100W pl. diss. 6.3V 1A Fil. 1000V max. pl.	20.75	19.61	18.68	17.64
2C39WA	Suited for use in grid-isolated VHF and UHF circuits.	29.00	27.40	26.10	24.65
3-400Z/8163	Small 0-bias pwr. triode providing 1kW pep as a low distortion class B linear.	34.00	....	....	....
3-500Z	Larger version of 3-400Z	34.00	32.13	30.60	....
3-1000Z/8164	Larger vers. of 3-400Z. 7 5V 21A Fil. No bias with plate v. below 3000V.	78.00	....	....	....
3CPN10A5/7815	High mu ceramic-metal planar triode for pulse serv. to 3 GC 6V 1A Fil.	26.50	25.27	....	....
3CX100A5/7289	Improved version of 2C39.	25.50	23.90	....	....
3CX2500A3/8161	Ceramic Med.-mu pwr. triode, forced air cooled. 7500W output up to 110MHz with 4000 plate v. 7.5V 54A Fil. 2500W plate diss.	200.00	....	....	....
3CX2500F3/8251	Same as 3CX2500A3 exc. flexible leads to simplify grid & fil. conn. Ceramic type.	205.00			
3CX3000A1	Ceramic-metal replacement for discontinued glass metal type 3X3000A1	210.00	....	....	....
3CX3000F1	Ceramic-metal replacement for discontinued glass metal type 3X3000FI	220.00	....	....	....
6C21	Pulse-modulator triode. Radiation and forced air cooled. 8.2V 18A Fils. 30kV max. pl. v. 15A max. pulse pl. curr., 300W pl. diss.	110.00	....	....	....
100TH	High-mu pwr. triode. Full ratings to 40 MHz 5V, 6.3A Fil. 100W plate diss.	26.00	24.57	....	....
304TH	Med.-mu pwr. triode. Up to 1200W class C with 53W drive. No forced air below 40 MHz 5 or 10V, 25 or 12.5A. Fil. 3000V max. on pl. 300W pl. diss.	83.00	78.44	74.70	70.55
304TL	Low-mu version of 304TH.	83.00	78.44	74.70	70.55
450TH	High-mu pwr. triode, up to 1800W class C with 46W drive, cooled by pl. radiation and convection. Ratings to 40 MHz 7.5V 12A Fil. 6000V max. on pl. 450W pl. diss.	97.00	....	....	....
450TL	Low-mu version of 450TH.	97.00	....	....	....
592/3-200A3	Med.-mu pwr. triode. Ratings to 150 MHz. Cooled by radiation and forced air. 10V 5A Fil. 3500V max. on plate 200W plate dissipation.	63.00	59.54	....	....
750TL	Med.-mu pwr. triode. 7.5V 23A Fil. 10kV max. on plate. 750W plate dissipation.	248.00	....	....	....
25T	Med.-mu triode. Full Ratings 60 MHz 6.3V 3A Fil. 2000V max. pl. v. 25W plate diss.	43.00	40.64	....	....
35T	High-mu triode. Full Ratings to 100MHz 5V 4A Fils. 2000 max. pl. v. 35W plate diss.	47.00	44.42	....	....
1000T	High-mu pwr. triode. 3000W class C 60W drive. Forced air cooled. 7.5V 16.5A Fil.	172.00	....	....	....
5867A	Pwr. triode, 350 W PL .Diss. 5V. 15A. fil.	32.00	....	....	....
6696A	Hi Pwr. triode,, 60 KW PL. Diss. 13V. 220A fil.	1105.00	....	....	....
7211	Same mech. as 2C39 but 1/3 larger elect. 6.3V 1.3A Fil. 100W pl. diss.	75.00	70.88	67.50	63.75
7289/3CX100A5	Same as 3CX100A5.	26.50	25.27	....	....
7698	Same as 7211 except has no air cooler on anode.	75.00	70.88	67.50	63.75
7815/3CPN10A5	Same as 3CPN10A5.	25.50	23.90	....	....

TETRODES & PENTODES

Type	Description	1-4	5-18	19-49	50-99
4-65A/8165	Pwr. tetrode. Full Ratings to 150MHz 6V 3.8 Fil. 3kV max. on pl. 65W pl. diss.	27.00	25.65	....	....
4-125A/4D21	Rad. beam pwr. tetrode. Ratings to 120 MHz 375W class C with 2.5W drive. 5V 7A Fil. 3000V max. on pl. 125W plate dissipation.	36.00	34.20	32.40	30.60
4-250A/5D22	Compact pwr. tetrode. Forced air cooled. Full Ratings to 110 MHz 1kW Class C with 2.5W drive. 5V 14.5A Fil. 4000V max. on pl. 250W pl. diss.	46.50	44.18	41.85	39.53
4-400A/8438	Compact pwr. tetrode. Forced air cooled. Full Ratings to 110 MHz 1100W Class C with 6 W drive. 5V 14.5A Fil. 4000 V max. on pl. 400 W pl. diss.	48.00	45.60	....	....
4-1000A/8166	Rad. beam pwr. titiode. Forced air cooled. Ratings to 110 MHz 3400W Class C with 15W drive. 7.5V 21A Fil. 6000V max. on pl. 1000W pl. diss.	131.50	....	....	....
4CX250B/7203	Compact pwr. tetrode. Air cooled. 6V 3A Fil. 2000V max. on plate. 250W pl. diss.	35.60	33.82	....	....
4CX250K/8245	Compact pwr. Tetrode. Coaxial construc. for cavity oper. Forced air cooled. Ratings to 500 MHz. Useful to 1500 MHz 6V 3A Fil. 2kV max. on pl. 250W pl. diss.	70.00	66.15	....	....
4CX250R/7580W	Rugged compact pwr. tetrode. Forced air cooled. Ratings to 500 Mc. 6V 3A Fil. 2000V max. on plate. 250W plate dissipation.	44.50	42.85	....	....
4CX300A/8167	Pwr. tetrode. Air cooled. 6V 3A Fil. 2500V max. on pl., 300W pl. diss.	54.00	51.03	....	....
4CX350A/8321	Like 4CX250B but higher gain and power. Ratings to 500 MHz. Forced air cooled. 6V 3.6A Fil. 2000V max. on plate. 350W pl. diss.	48.50	46.08	....	....
4CX350F/8322	Same as 4CX350A/8321 except has 26.5V 800 MA Fil.	51.50	48.67	....	....
4CX1000A/8168	Pwr. tetrode. Forced air cooled. Excellent high gain and low distortion Ratings to 110 MHz 6V 10A Fil. 3000V max. on plate. 1000W pl. diss.	200.00	....	....	....
4CX1000K/8352	Ident. to 4CX1000A, but gives better UHF performance to over 400 Mc.	210.00	....	....	....
4CX1500B/8660	Best for low I.M. distortion linear 6V F.I. 3KU plate.	205.00	....	....	....
4CX3000A/8169	Pwr. tetrode. Ratings to 150 MHz 10V 48.5A Fil. 3KW pl. diss.	420.00	....	....	....
4CX5000A/8170	High pwr. tetrode. Forced air cooled. 16KW class C with 150W drive. Ratings to 110 MHz 7.5V 78A Fil. 7500V max. on pl. 5000W pl. diss.	495.00	....	....	....
4CX10000D/8171	Electrically ident. to 4CX5000A/8170, but larger anode radiator to reduce cooling air requir. or permit up to 10KW pl. diss.	575.00	....	....	....
4E27A/5-125B	Pwr. pentode with neutralization requir. simplified or eliminated. Ratings to 75 MHz 375W class C with 2W drive. 5V 7.5A Fil. 4kV max. on pl. 125W pl. diss.	45.00	42.75	....	....
4PR60B/8252	Pulse mod. tetrode. Replaces 715C and 5D21. Supersedes 4PR60A. 300KW pulse pwr with less than 1KW drive. 26V 2A Fil. 20kV max. on pl. 60W pl. diss.	115.00	....	....	....
4PR65A/8187	Tetrode for pulse mod., amp., or osc. 6V 3.8A Fil. 15kV max. on pl. 65W pl. diss.	43.00	40.64	....	....
4X150A/7034	Compact pwr. tetrode. Air cooled. 6V 3A Fil. 2kV max. on pl. 250W pl. diss.	23.15	21.99	....	....
4X500A	Pwr. Tetrode for VHF. 500 W. PL. Diss. 5V. 14A. fil.	127.50	....	....	....
7203/4CX250B	Identical to 4CX250B/7203.	35.60	33.82	....	....

UHF-TV POWER AMPLIFIER KLYSTRON

Type	Description	1-4	5-18	19-49	50-99
4KM70LA	4 cavity, 12.5 KW output, for channels 14 to 36.	5880.00	....	....	....
4KM100LA	4 cavity, 25 KW output, for channels 14 to 36.	9030.00	....	....	....
4KM150LA	4 cavity, 50 KW output, for channels 14 to 36.	11550.00	....	....	....

● NEW VARIAN MICROWAVE TUBES

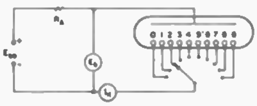
Type	NET	Type	NET	Type	NET
X-13	315.00	VA-218B	171.00	VA-221B,C,D,E,F,G,K	182.00
V-58	385.00	VA-220B,C,D,E,F,G	177.00	VA-222A,B,C,D,E,F,G	182.00
VA-218	182.00				

National Electronics Special Purpose Tubes

READOUT TUBES

Cold cathode neon glow discharge tubes for in-line display of numbers, letters or symbols Red-orange neon glow has best readability even under high ambient light. Simplicity, ruggedness and long life for effective display at low cost. Readout tubes are the only active display that will not fade with age. Manufactured under license from Burroughs Corp. Std. Life 90 day warranty. Long life 2 years warranty.

NL-840



Tube Fundamental Circuit

NL-950

MINIATURE — 0.3" NUMERAL HEIGHT

Type No.	Ionization Voltage	Cat. Current Peak (Max.)	Supply Voltage (Ebb)	Type	Socket	Display	Oz.	1-4	5-18	19-49	50-99
NL-7977/4032	170 Vdc	2.0 ma	170V, 250V, 300V	Long Life	RTS-3	Numeral 0-9	.14	33.00	31.19	...	...
NL-7009	170 Vdc	2.0 ma	170V, 250V, 300V	Std. Life	RTS-3	Numeral 0-9	.14	19.00	17.97	...	...
NL-8502/4021	120 Vdc	2.0 ma	120V	Std. Life - Low Voltage	RTS-3	Numeral 0-9	.14	33.00	31.19	...	...
NL-4988	170 Vdc	2.0 ma	170 VDC	Min. Long-Life Rect.	RTS-32	Numeral 0-9	.2	19.95	18.85	...	...
NL-4081	170 Vdc	2.0 ma	170V, 250V, 300V	Long Life	RTS-3	Symbol ±	.14	33.00	31.19	...	...

SOLDER IN — .5" NUMERAL HEIGHT

Type No.	Ionization Voltage	Cat. Current Peak (Max.)	Supply Voltage (Ebb)	Type	Socket	Display	Oz.	1-4	5-18	19-49	50-99
NL950	170 Vdc	15 ma	170V, 250V, 300V	Long Life	None	Numeral 0-9	....	6.75	...	...	...
NL5750	170 Vdc	15 ma	170V, 250V, 300V	Long Life	None	Dec. Points	....	6.75	...	...	...

STANDARD — 0.6" NUMERAL HEIGHT

Type No.	Ionization Voltage	Cat. Current Peak (Max.)	Supply Voltage (Ebb)	Type	Socket	Display	Oz.	1-4	5-18	19-49	50-99
NL-803	170 Vdc	3.5 ma	170V, 250V, 300V	Long Life	RTS-11	Numeral 0-9	.5	8.00	...	...	...
NL-840	170 Vdc	3.5 ma	170V, 250V, 300V	Long Life	RTS-11	Numeral 0-9	.5	8.00	...	...	...
NL-900	170 Vdc	3.5 ma	170 VDC	Long Life	RTS-14	Numeral 0-9	.3	8.40	7.93	...	...
NL-8422/5091	170 Vdc	3.5 ma	170V, 250V, 300V	Long Life - Rectangular end view	RTS-4, 10	Numeral 0-9	.3	15.75	14.88	14.17	...
NL-8421/5092	170 Vdc	3.5 ma	170V, 250V, 300V	Long Life - Wide Angle	RTS-1, RTS-2	Numeral 0-9	.4	15.75	14.88	14.17	...
NL-6844A	170 Vdc	4.0 ma	170V, 250V, 300V	Std. Life	RTS-1, RTS-2	Numeral 0-9	.4	11.00	10.40	...	...
NL-5992	170 Vdc	3.5 ma	170V, 250V, 300V	Long Life - Rectangular end view	RTS-4, 10	Symbol ±	.3	15.75	14.88	14.17	...
NL-50911	170 Vdc	3.5 ma	170V, 250V, 300V	Long Life - Wide Angle	RTS-1, RTS-2	Symbol ±	.4	15.75	14.88	14.17	...

SUPER — 0.8" NUMERAL HEIGHT

Type No.	Ionization Voltage	Cat. Current Peak (Max.)	Supply Voltage (Ebb)	Type	Socket	Display	Oz.	1-4	5-18	19-49	50-99
NL-8423/6091	170 Vdc	4.5 ma	170V, 250V, 300V	Long Life Wide Angle	RTS-1, RT-2	Numeral 0-9	.6	19.00	...	...	...
NL-7153	250 Vdc	5.0 ma	170V, 250V, 300V	Std. Life	RTS-1, RT-2	Numeral 0-9	.6	14.50	13.70	...	...

LARGE —1.375" NUMERAL HEIGHT

Type No.	Ionization Voltage	Cat. Current Peak (Max.)	Supply Voltage (Ebb)	Type	Socket	Display	Oz.	1-4	5-18	19-49	50-99
NL-8091	170 Vdc	6.5 ma	170V, 250V, 300V	Long Life Wide Angle	RTS-5	Numeral 0-9	1.7	22.50	...	...	...

JUMBO — 2" NUMERAL HEIGHT

Type No.	Ionization Voltage	Cat. Current Peak (Max.)	Supply Voltage (Ebb)	Type	Socket	Display	Oz.	1-4	5-18	19-49	50-99
NL-7037	200Vdc	10 ma	200,250,300	Long Life Wide Angle	RTS-5	Numerial 0-9	3	26.50	...	...	...

SOCKETS FOR ABOVE

Stock No.	Type	NET EACH	Stock No.	Type	NET EACH	Stock No.	Type	NET EACH
28F668	RTS-1	.90	28F671	RTS-5	1.25	28F695	RTS-10	.90
28F672	RTS-2*	.75	28F692	RTS-6	.85	28F696	RTS-11	.40
28F669	RTS-3	1.00	28F693	RTS-8	.90	28F697	RTS-14	.40
28F670	RTS-4	.90	28F694	RTS-9	.90	28F698	RTS-32	1.50

SPECIAL PURPOSE INDUSTRIAL TUBES

FULL WAVE RECTIFIER

Tube Type	1-4	5-18	19-49	50-99
NL-604	11.80	11.15	...	...
NL-604L	13.00	12.29	...	...
NL-606	21.40	20.32	...	...
NL-606L	23.50	22.21	...	...
NL-872A	9.90	9.36	8.91	...

HIGH VOLTAGE HALF WAVE RECTIFIER

Tube Type	1-4	5-18	19-49	50-99
NL-RX21A	25.75	24.34		
NL-575A	20.15	...	...	...
NL-673	20.15	...	...	...
NL-6894	25.00	23.63	...	...
NL-6895	25.00	...	...	...
NL-8008	9.90	9.36	8.91	...

HALF WAVE RECTIFIER

Tube Type	1-4	5-18	19-49	50-99
NL-610/7723	11.40	10.77	10.26	...
NL-615	10.05	9.50	9.05	8.54
NL-623	13.35	12.62	12.02	11.34
NL-635/7019	13.00	12.29	...	...
NL-635L/7020	13.50	12.76	...	...
NL-635P/6930	14.15	13.37	...	...
NL-649/5834	12.40	11.72	...	...
NL-660	13.00	12.29	...	...
NL-660L/7786	13.50	12.76	...	...
NL-664L	27.50	25.99	...	...
NL-5558/FG32	17.50	16.54	...	...
NL-7723-Ne	13.10	12.38	11.79	11.14
NL-7786-Ne	15.50	14.65	13.95	13.18

IGNITRON

Type	1-4	Type	1-4
NL-1009A	155.00	NL-1051AP	65.00
NL-1022A	116.00	NL-1061	65.00
NL-1081	75.00	NL-1061P	65.00
NL-1081P	76.20	NL-1052A	99.00
NL-1082	107.00	NL-1052AP	99.00
NL-1082P	108.30	NL-1062	99.00
NL-1091	75.00	NL-1062P	99.00
NL-1091P	76.20	NL-1053B	284.00
NL-1092	107.00	NL-1063	284.00
NL-1092P	108.30	NL-5553B	245.00
NL-5550	49.00	NL-7673	245.00
NL-5555	316.00	NL-7673P	245.00
NL-1051A	65.00		

HIGH VOLTAGE RECTIFIER

5.0 Amperes D.C.—20 Amperes Peak. Long life mercury vapor.

Tube Type	1-4	5-18	19-49	50-99
NL-869B	138.00	...	...	...

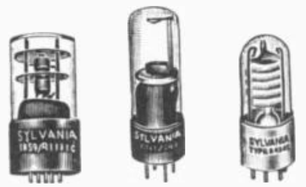
HIGH VOLTAGE THYRATRON

Tube Type	1-4	5-18	19-49	50-99
NL-KY21A	26.75	25.41	25.28	...
FG-105	59.00	55.76	...	...
NL-678	49.50	46.78	44.55	42.10
NL5563A	50.00	...	...	...

THYRATRON

Tube Type	1-4	5-18	19-49	50-99
NL-C3J/L	14.20	13.42	12.78	12.07
NL-C3J/AL-Ne	18.40	17.39	...	...
NL-3C23	11.98	11.38	10.78	...
NL-C6J/K-Ne	32.50	30.71	...	...
NL-C6J/KP	29.45	27.83	26.50	...
NL-393A	13.25	12.59	...	...
NL-632B	33.00	31.35	29.70	...
NL-710/6011	12.70	12.06	11.43	...
NL-710L/7518	14.00	13.33	...	...
NL-714	10.00	9.50	...	...
NL-716	12.50	11.88	...	...
NL-677	63.80	...	...	...
NL-732	120.00	...	...	...
NL-735/5544	22.50	21.26	20.25	...
NL-740/6856	23.25	21.97	...	...
NL-740L/7022	24.35	23.01	...	...
NL-740P/6857	24.35	23.01	...	...
NL-760	28.10	26.70	...	...
NL-760P	29.80	28.16	...	...
NL-770L	49.80	47.06	...	...
NL-770P	54.35	51.36	...	...
NL-5557/FG17/715	9.50	9.02	8.55	...
NL-5559/FG57	23.00	...	...	...
NL-5560/FG85	33.00	31.35	29.70	...
NL-5632/C3J	12.70	12.07	...	...
NL-5665/C16J	52.50	49.88	...	...
NL-5684/C3J/A	13.10	12.46	11.80	...
NL-5684-Ne	16.70	15.78	15.03	...
NL-5684A-Ne	17.90	16.92	16.11	...
NL-6014/C1K	11.80	11.15	...	...
NL-6989/C6J/KL	29.45	27.98	...	...
NL-6989-Ne	33.90	32.21	...	...
NL-7556A-Ne	19.60	18.52	...	...

Industrial & Special Purpose Tubes



POWER AMPLIFIER

Tube Type	1-4	5-18	19-49	50-99
2C39A	20.75	19.61	18.68	17.64
2C39WA	20.75	19.61	18.67	17.64
2C40	29.30	27.69	26.37	24.90
2E26	3.95	3.73	3.56	3.36
3CX3000A1	2.38	....	....	....
4X500A	127.50	....	....	....
25T	43.00	40.64	....	....
304TH	83.00	78.44	....	....
304TL	83.00	78.44	....	....
807	3.40	3.21	3.06	2.89
5667(889RA)	435.00	....	....	....
5763	2.45	2.32	2.20	2.08
5881	3.10	2.93	2.79	2.64
6146A	4.35	4.13	3.92	3.70
6146B/8298A	5.20	4.94	4.68	4.42
6159A	4.80	4.56	4.32	4.08
6257	330.00	....	....	....
6550	4.95	4.65	4.45	4.21

THYRATRON

2D21	1.29	1.23	1.16	1.10
6D4	2.70	2.57	2.43	2.30
672A	39.85	37.86	....	....
884	2.28	2.17	2.05	1.94
2050	2.37	2.25	2.13	2.01
5560/FG95	33.00	31.35	29.70	....
GB5696	1.95	1.84	1.75	....
5727	2.90	2.76	2.61	2.47
5727/2D21W	2.90	2.76	2.61	2.47
5796	17.25	16.30	15.52	14.66
5823	1.72	1.63	1.55	1.46
6012	7.65	7.27	6.89	6.50

VOLTAGE REGULATOR

Tube Type	1-4	5-18	19-49	50-99
OA2	1.32	1.25	1.19	1.12
OA3	1.54	1.46	1.38	1.30
OB2	1.37	1.30	1.24	1.16
OB2WA	2.40	2.28	2.16	2.04
OB3	2.35	2.23	2.12	2.00
OC3	1.50	1.42	1.35	1.28
OD3	1.44	1.37	1.30	1.22

STROBOTRONS

1D21/SN4	7.30	7.10	6.90	....
SA309	20.40	....	....	....

GLOW MODULATOR

R1131C	21.00	20.41	19.44	....
R1116B	26.95	25.47	24.26	22.91

DUO-TRIODE

Tube Type	1-4	5-18	19-49	50-99
6BF7W	4.20	3.97	3.78	3.57
6SL7WGT	3.15	2.99	....	....
6SN7WGT	2.35	2.22	2.11	2.00
12AT7WA	2.53	2.40	2.28	2.15
GB407A	5.90	5.61	5.31	5.01
5670	2.45	2.33	2.21	2.08
GB5687	4.05	3.85	3.65	3.45
5692	8.25	7.80	7.43	7.01
5751	2.55	2.42	2.30	2.17
5814A	2.35	2.23	2.12	2.00
6021	3.50	3.33	3.15	2.98
6080	5.33	5.06	4.80	4.53
6111	3.70	3.52	3.33	3.15
6112	4.15	3.94	3.74	3.53
GB6201	2.55	2.42	2.29	2.17
6350	1.85	1.76	1.67	1.57
6679/12AT7	1.50	1.43	1.35	1.28
6680/12AU7	1.22	1.16	1.10	1.04
6681/12AX7	1.26	1.19	1.13	1.07
6922	4.87	4.60	4.38	4.14
6977	2.50	....	....	....
7044	2.70	2.55	2.43	2.30
7887	6.70	6.32	....	....
7888	5.25	4.99	....	....

PENTODE

Tube Type	1-4	5-18	19-49	50-99
6SJ7WGT	2.70	2.55	2.43	2.30
6V6GTY	1.45	1.37	1.30	1.23
7AK7	8.15	7.70	7.33	6.93
GB408A	4.95	4.70	4.45	4.21
5879	1.95	1.85	1.76	....
GB6136	2.70	2.57	2.43	2.30

KLYSTRONS

SK-221A	180.00	....	....	....
SK221B-K	170.00	....	....	....
SK-220A	175.00	....	....	....
SK-220B-G	165.00	....	....	....

PENTODE

Tube Type	1-4	5-18	19-49	50-99
6AH6WA	7.60	7.18	....	....
6AJ5	3.85	3.64	3.46	3.27
5636	6.10	5.76	5.49	5.19
5639	5.25	4.96	4.72	4.46
GB5654	2.41	2.28	2.16	2.04
GB5725	3.12	2.95	2.81	2.65
5902	4.80	4.56	4.32	4.08
5932	11.30	....	....	....
5933	12.35	....	....	....
5933WA	16.60	15.59	....	....
GB6005	3.23	3.06	2.91	2.75
6661/6BH6	1.34	1.27	1.21	1.14
6669/6AQ5A	1.06	1.00	.95	.90
6677/6CL6	1.85	1.76	1.67	1.57
6678/6U8A	1.62	1.54	1.46	1.38

DUODIODE

Tube Type	1-4	5-18	19-49	50-99
5R4GYB	2.03	1.93	1.83	1.73
5Y3WGTA	4.05	3.83	3.64	....
GB5726	1.55	1.47	1.40	1.32
5963	1.36	1.29	1.22	1.16
5965	1.92	1.82	1.73	1.63

SUBMINIATURE TRIODE

Tube Type	1-4	5-18	19-49	50-99
6AD4	3.40	3.21	3.06	2.89
5718	3.65	3.47	....	....
5719	3.15	2.98	2.83	2.68
5904	7.90	7.47	7.11	8.72

DIODE

Tube Type	1-4	5-18	19-49	50-99
5651	1.90	1.80	1.71	1.62

TETRODE

Tube Type	1-4	5-18	19-49	50-99
7167	1.41	1.33	1.27	1.20

PHOTO TUBES

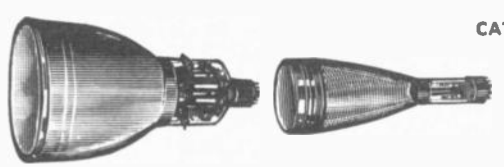
Type	Max. Anode V.	Spec. Range A.U.	Vacuum or Gas	Cathode Resp.	Sensitivity a Lumen O Cycle	1-4	5-18	19-49	50-99
1P39	250	3000-6700	V	S4	45	3.15	2.98	2.84	2.68
922	500	4000-12000	V	S1	20	3.80	3.59	....	....
923	90	4000-12000	G	S1	135	4.70	4.44	....	....

SYLVANIA DECADE COUNTER TUBES

Type	Input Freq. (Kpps)	Base	Bulb	1-4	5-18	19-49	50-99
8035/CT4251	0-50	13 Pin*	T9	11.10	....	....	....
6476A	0-4	Mod. Duo Decal**	T11	14.95	....	....	....
6802	0-4	Octal.	T9	11.43	....	....	....
6879	0-5	7 Pin Min.	T5½	13.37	12.63	12.03	11.36
6909	0-100	Octal	T9	11.43	....	....	....
6910	0-100	Mod. Duo Decal**	T11	13.37	....	....	....
7155	0-100	7 Pin Min.	T5½	13.37	....	....	....
8353	0-4	13 Pin*	T9	11.10	....	....	....

**Uses Sylvania 7460-0008 socket   *Uses Sylvania 70-780-1 socket

NEWARK CAN SUPPLY ALL SYLVANIA TUBES



CATHODE RAY TUBES

Line width measured at the center face by the shrinking raster method at the current or brightness specified. Reference MIL-E-1, Par. 4.12.6.1. The brightness shown for 3" and 5" round tubes is for 2"x2" raster size. Useful scan is limited on this axis to a value less than full screen dimension. All voltages are measured with respect to cathode.

Type	Shape	Anode (KV)	Length	1-4	5-18	19-49	50-99
2BP1*	Circle	2.75	7⅝"	31.60	29.86	28.44	...
3ACP1A	Circle	2.2	10"	43.40	41.01	39.06	36.89
3ADP1	Circle	3.3	10"	61.60	58.21	55.44	52.36
3ASP1	Rectangle	3.0	8 15/16"	49.45	46.73	44 51	....
3BGP1	Rectangle	2.75	9¼"	63.70	60.20	57.33	....
3BMP1	Circle	2.2	10"	55.95	52.87	50.35	47.56
3KP1*	Circle	2.75	11½"	31.60	29.86	28.44	....
3MP1	Circle	2.75	9⅛"	28.00	26.46	25.20	23.80
3RP1*	Circle	2.75	9⅛"	27.05	25.56	24.35	22.99
3SP1	Rectangle	3	9⅛"	47.95	45.31	....	....
3WP1*	Circle	2.75	11½"	38.40	36.29	....	....
5ABP1	Circle	2.86	16¾"	48.75	46.07	43.88	....
5ADP1	Circle	6.6	16¾"	48.75	46.07	43.88	....
5ADP2*	Circle	2.86	16¾"	48.75	46.07	43.88	....
5ADP7	Circle	2.86	16¾"	48.75	46.07	43.88	....

Type	Shape	Anode (KV)	Length	1-4	5-18	19-49	50-99
5ADP7A	Circle	2.86	16¾"	53.80	50.84	....	....
5AHP7A	Circle	11	11⅛"				
5AMP1A	Circle	6.6	17⅝"	70.05	66.20	63.05	59.54
5AQP1A	Circle	—	16¾"				
5AQP7A	Circle	—	16¾"				
5BGP2	Circle	2.2	17¼"	95.95	90.67	86.36	....
5BHP2A	Circle	2.2	18¼"	101.30	....	....	....
5BHP7A	Circle	2.2	18¼"	101.30	....	....	....
5FP4A	Circle	8.8	10⅝"	39.30	37.14	....	....
5UP1	Circle	2	14¾"	31.65	....	....	....
7UP7	Circle	—	13¼"	60.85	57.50	54.77	....
8KP4	Rectangle	18	11 15/16"	44.00	41.58	39.60	....
10SP4	Circle	22	16⅝"	78.15	73.85	70.34	....
17DWP4	Rectangle	22	19 3/16"	29.90	28.26	26.91	25.42
SC2854	Circle	11	11⅛"	49.50	46.78	44.55	42.08

Special Purpose Tubes

SYLVANIA

GOLD BRAND TUBE TYPES

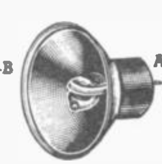
Features exceptional stability, maximum uniformity, extreme physical ruggedness, 10,000 hour design life. For critical commercial and industrial service. These qualities are designed and built in.

GB Replacement	Prototype	1-4	5-18	19-49	50-90
GBOA2WA	OA2	3.35	3.20	3.00	2.86
GBOB2WA	OB2	2.40	2.28	2.16	2.04
GB5Y3WGTA	5Y3GT	4.05	3.83	3.64	.. ..
GB1252/6U8A	6U8A	2.00	......	......	..
GB6J4WA	6J4	5.60	5.29	5.04	4.76
GB6SL7WGT	6SL6GT	3.15	2.99	......	......
GB6SN7WGT	6SN7GT	2.35	2.22	2.11	2.00
GB6X4WA	6X4	2.85	......	..	..
GB6X5WGT	6X5GT	1.55	1.46	1.39	1.32
GB7AK7	....	8.15	7.70	7.33	6.93
GB407A	407A	5.90	5.61	5.31	5.01
GB408A	408A	4.95	4.70	4.45	4.21
GB5654	6AK5	2.41	2.28	2.16	2.04
GB1219/5670	Replacement for 2C51 & 5670	3.70	......	......	. ...
GB1220/5654	.. ..	3.05	......	......	......
GB5670	2C51	2.45	2.33	2.21	2.08
GB5687	5687	4.00	3.80	3.60	3.40

GB Replacement	Prototype	1-4	5-18	19-49	50-99
GB5725	6AS6	3.15	2.99	2.83	2.68
GB5726	6AL5	1.55	1.47	1.40	1.32
GB5727	2D21	2.90	2.76	2.61	2.47
GB5749	6BA6	2.20	2.09	1.98	1.87
GB5750	6BE6	3.45	3.28	3.11	2.93
GB5751	12AX7	2.55	2.42	2.30	2.17
GB5814A	12AU7	2.35	2.23	2.12	2.00
GB5931	5U4G, GB	6.80	.. ..	......	......
GB5932	6L6G, GA, GB, GC	11.30	......	......	......
GB5933	807	12.35	......	......	......
GB6005	6AQ5	3.23	3.06	2.91	2.75
GB6080	6AS7G, GA	5.33	5.06	4.80	4.53
GB6101	6J6	5.35	5.08	......	......
GB6135	6C4	2.40	2.27	2.16	2.04
GB6136	6AU6	2.70	2.57	2.43	2.30
GB6186	6AG5	3.85	3.66	......	......
GB6189	12AU7	3.70	3.52	3.33	3.15
GB6201	12AT7	2.55	2.42	2.29	2.17

AMGLO INDUSTRIAL FLASHTUBES

U-35-B



ARA-400

H-88.0

HD-2

MT55

ST-25

FLASHTUBES

Flashtubes ideal for aircraft strobe beacons, photographic speedlight. etc. Operating volt: 450-900. Max. Input: 125 joules/ flash. Max. Power: 10 watts. Output: 4500 Lumen sec at 125 joules; 10 joules—1 million lumens.

Stk. No.	Type	Description	1-9	10-49
62F2200	H-88-0	Tube only	10.00	9.00
62F2201	H-88-T	With Trig. Band	10.55	9.55
62F2202	H-88-B4	With 4 Pin Plug In-Base	14.50	13.25

U-35 SERIES STROBOSCOPIC TUBES

Use 1-2 MFD for high flashing rates and 2-4 MFD at rates to 30 per second. Volt: 300-600 VDC. Max. Joules/Flash — 50 Joules. Trigger coil ST-25. Min. self-ion. V: 1500.

Stk. No.	Type	Description	1-9	10-49
62F2207	U-35-O	Tube only	8.15	7.35
62F2208	U-35-T	With Trig. Band	8.70	7.80
62F2209	U-35-B	As above Mounts in 78S6 socket	9.25	8.35
62F2210	U-35-BS	Similar to U-35-B Silver stripe to facilitate trig.	9.75	8.75

FLASHTUBE MANUAL

AMGLO FLASHTUBE. Second Edition. Engineering manual containing circuits, design-data and other useful information on design of strobe lighting systems.

62F2206 NET **2.00**

— NATIONAL UNION —

PENTODE REGULATORS

Type	1-4	5-18	19-49	50-99
6842	14.30	13.51	12.87	12.16
7234	15.65	15.35	......	......
NU116	15.00	14.18	13.50	12.75

TRIODE AMPLIFIERS

2C53	9.15	8.85	8.40	. ...
7235	10.00	9.80	9.65	...
8632	20.00	18.90	18.00	17.00

MINIATURE CATHODE RAYS

[illegible]P1	20.00	18.90	18.00	17.00
NU142P	40.00	37.80	36.00	34.00
NU170P	53.00	50.09	47.70	45.05

REFERENCE DIODES

NU162	2.50	2.36	2.25	2.13

HD SERIES REFLECTIVE BASE FLASHTUBES

Ultra high efficiency, increase in reflector working area. Neoprene mounting. Xenon filled pyrex tube with pyrex cover for up to 100,000 flashes.

Stock No.	Type	Description	Max. Inpu'	1-9	10.49
62F2203	HD-1	U-shaped	50J/ 450V	12.00	10.80
62F2204	HD-2	1-turn Helical	150J/ 450V	15.00	13.50
62F2205	HD-2A	2-turn Helical	200J/ 900V	16.85	15.15

POWER SUPPLIES

TAC-101. Trig Box. 12000 V output. External trig. & Scope trig. outputs.
62F2219. EACH **49.95**

TRIGGER TRANSFORMERS

Stk. No.	Type	Application	1-9	10-49	50-99
62F2221	ST25	For V-35/H-38 HD Series	2.95	2.65	2.35
62F2220	MT55	4 lead output 24KV peak	5.95	5.45	4.35

ENERGY STORAGE CAPACITORS

CE52545C. 525 MFD. 450 Volt. 53 Joules storage.
62F2215. 1-9............**14.50** **10-49** **12.35**

CE10045C. 100 MFD at 450 VDC. 10 Joules storage.
62F2216. 1-9............**8.00** **10-49** **6.50**

THERMOSEN

KALOTRONS

Tube Type	1-9	10-24	25-99	100-249
2AS15A	10.00	7.50	6.50	5.50
2AC15	11.00	8.25	7.15	6.05
2SM15	12.00	9.00	7.80	6.60
1236C	13.00	12.50	10.40	9.10

VICTOREEN

COUNTER TUBE—BETA/GAMMA

Tube Type	1-4	5-18	19-49	50-99
1B85	10.55	.....	. .	

CORONA DISCHARGE

Tube Type	1-4	5-18	19-49	50-99
5841	7.70	....	....	....

ELECTROMETER TETRODE

Tube Type	1-4	5-18	19-49	50-99
5800	30.25	. .....	....	.... .

FLAT FIELD REFLECTOR ASSEMBLIES

Aluminum construction 86% reflective efficiency. 4-pin plug-in base (78S4 socker). T in part no. denotes ST-25 trigger coil in bases. Uses H-88 tube, 350-600 VDC. 150 Joules max. input.

ARA400SD-H88-P4. Flat field Semi-diffused finish for photographic or industrial use. Reflector dia: 4-1/32" depth, 3-7/8". Voltage 350-600 VDC. Tube used: H-88.
62F2211. 1-9 ....**21.00** **10-49** **18.90**

ARA-400-S-H-88-TP4. 4" Reflector with trigger coil & bright fin. for stroboscopic use where "hot spot" is desired.
62F2212. 1-9 . **24.00** **10-49** . **21.60**

ARA-400-S-H-88-P4. As above without trigger coil.
62F2213. 1-9 . . . .**21.00** **10-49** **18.90**

ARA300SD-88-TP4. 3" Reflector with trigger coil. Semi-diffused finish for use as a many wheel balancer type of equipment.
62F2214. 1-9 ....**23.25** **10-49**... ... . .**20.95**

HD-TUBE REFLECTOR

Type **AR365SD.** Reflector for HD-Series Tubes. Step Reflector design provides 60 beamwidth. 6¾" Dia. x 2⅛" deep.
62F2222 1- 9 ... .**8.80**
10-49 ... . .**7.90**

RAYTHEON

Special Purpose Tubes

INDUSTRIAL TUBES

Tube Type	1-4	5-18	19-49	50-99
0A2	1.32	1.25	1.19	1.12
0B2	1.37	1.30	1.24	1.16
0B2WA	2.40	2.28	2.12	2.00
0C2	1.50	1.42	1.35	1.28
2D21	1.29	1.23	1.16	1.10
6AS6	3.43	3.26	3.09	2.92
2050A/2050	2.21	2.06	1.91	1.76
CK5651	1.78	1.69	1.60	1.51
CK5654	2.41	2.28	2.16	2.04
CK5670	2.45	2.33	2.21	2.08
CK5686	3.37	3.20	3.03	2.86
CK5687	4.00	3.80	3.65	3.45
CK5751	2.55	2.42	2.30	2.17
CK5814A	2.35	2.23	2.12	2.00
CK5879	1.95	1.85	1.76	...
CK5902	4.80	4.56	4.32	4.08
CK6021	3.50	3.33	3.15	2.98
CK6080	5.33	5.06	4.80	4.53
CK6146	4.35	4.13	3.92	3.70
CK6146A	4.35	4.13	3.92	3.70
CK6265	4.10	3.87	3.69	3.49
CK6414	3.65	3.45	3.28	3.10
CK6661/6BH6	1.34	1.27	1.21	1.14
CK6678/6U8A	1.62	1.54	1.46	1.38
CK6679/12AT7	1.50	1.43	1.35	1.28
CK6680/12AU7	1.22	1.16	1.10	1.04
CK6681/12AX7	1.26	1.19	1.13	1.07
CK6146B/8298A	5.20	4.94	4.68	4.42
0A2WA	3.35	3.20	3.00	2.86
0A3A/0A3	1.54	1.46	1.38	1.30
0B3A/0B3	2.35	2.23	2.12	2.00
0C3A/0C3	2.70	2.55	2.43	2.30
0D3A/0D3	1.44	1.37	1.30	1.22
1AD4	2.80	2.66	2.52	...
1AE4	4.50	4.25	4.05	3.82
1AG4	7.30	6.90	6.57	6.20
1AG5	2.05	1.94	1.84	1.74
1AK4	7.30	6.90	6.57	6.20
2E32	7.30	6.90	6.57	6.20
3B4	3.80	3.59	3.42	3.23
3B4WA	5.85	5.53	5.26	4.97
RK3B24W	10.55	9.97		
RK3B24WA	10.95	10.40	9.87	...
5A6	6.65	6.28	5.98	...
5R4WGA	9.65	9.12	8.69	8.20
5R4WGB	14.20	13.41	12.78	12.07
6AH6WA	7.56	7.14		
6AK5W	2.41	2.28	2.16	2.04
6AN5	4.20	3.97		
6AN5WA	10.80	10.31		
6AR6	5.75	5.46	...	...
6X4W	1.60	1.52	...	...
12AT7WA	2.53	2.40	...	
CK512AX	4.15	3.92		
CK526AX	7.30	6.90		

INDUSTRIAL TUBES (Cont.)

Tube Type	1-4	5-18	19-49	50-99
CK533AX	4.20	3.97	...	...
CK534AX	4.20	3.97	...	...
CK587	14.60	13.80	...	...
CK1005	1.35	1.28	1.22	1.15
CK1020	20.69	19.55	...	...
CK1021	20.69	19.55	...	...
CK1026	4.80	4.54	...	...
CK1034	9.15	8.65	8.24	7.78
CK1038	9.15	8.65	8.24	7.78
CK1047	4.20	3.97	3.78	3.57
CK1061	(Use CK5878A)			
CK5517	4.20	3.97	...	...
CK5639	5.25	4.96	4.72	4.46
CK5613	6.37	6.02	5.73	5.41
CK5651WA	3.75	3.54	3.38	3.19
CK5654/6AK5W	2.41	2.28	2.16	2.04
CK5656	16.56	15.65	...	...
CK5670WA	2.45	2.33	2.21	2.08
CK5672	2.27	2.16	...	...
CK5675	16.05	15.17	14.44	13.64
CK5676	3.05	2.90	...	...
CK5678	2.27	2.11	...	...
CK5687WA	5.70	5.42	5.14	4.85
CK5702WA	6.48	6.15	...	...
CK5702WB	9.55	9.02	...	...
CK5703WA	7.07	6.71	...	...
CK5703WB	8.79	8.31	...	...
CK5704	5.10	4.82	4.59	4.34
CK5704WA	8.05	7.61	7.25	6.84
CK5725/6AS6W	3.12	2.95	2.81	2.65
CK5726/6AL5W	1.55	1.47	1.40	1.32
CK5727/2D21W	2.90	2.76	2.61	2.47
CK5744WA	7.05	6.66	6.34	5.99
CK5744WB	8.96	8.47	8.06	7.62
CK5751WA	2.55	2.42	2.30	2.17
CK5783	4.19	3.96	3.77	3.56
CK5783WA	7.07	6.68	6.36	6.01
CK5784WA	9.13	8.62	8.22	7.76
CK5787	5.00	4.73	4.50	4.25
CK5787A	5.45	5.15	4.90	4.63
CK5787WA	4.91	4.64	4.42	4.17
CK5814WA	2.40	2.28	2.16	2.09
CK5829	4.20	3.97	3.78	3.57
CK5829WA	7.48	7.07	6.73	6.36
CK5840	5.35	5.08	4.82	4.55
CK5842	7.35	6.95	6.61	6.25
CK5842WA	15.29	14.45	13.76	13.00
CK5876	10.25	9.69	9.22	8.71
CK5886	5.00	4.75	4.50	4.25
CK5889	21.65	20.46	...	...
CK5902WA	8.72	8.24	7.85	7.41
CK5971	7.30	6.90	6.57	6.21
CK6021WA	8.72	8.24	7.85	7.41
CK6029	7.30	6.90	6.57	6.20
CK6072	3.90	3.71	3.51	3.32
CK6080	5.33	5.06	4.08	4.53

INDUSTRIAL TUBES (Cont.)

Tube Type	1-4	5-18	19-49	50-99
CK6080WA	10.80	...	...	...
CK6088	3.35	3.17	3.02	2.85
CK6111	3.70	3.52	3.33	3.15
CK6111WA	8.72	8.24	7.83	7.41
CK6112	4.15	3.94	3.74	3.53
CK6112WA	6.24	5.90	5.62	5.30
CK6174	4.60	4.35	4.14	3.91
CK6189/12AU7WA	3.70	3.52	3.33	3.15
CK6201/12AT7WA	2.95	2.80	2.66	2.51
CK6205	5.35	5.06	4.81	4.55
CK6213	5.67	5.36	5.10	4.82
CK6247	11.20	10.58	10.08	9.52
CK6247WA	21.55	20.36	19.39	18.32
CK6336A	19.00	17.96	17.10	16.15
CK6397	8.30	7.84	7.47	7.06
CK6418	3.20	3.02	2.88	2.72
CK6419	7.30	6.90	6.57	6.21
CK6438	9.15	8.65	8.24	7.78
CK6476	14.95	...	...	...
CK6485	2.05	...	...	...
CK6528	21.55	20.47	19.40	18.32
CK6533	13.25	12.52	11.92	11.26
CK6550	4.95	4.68	4.45	4.21
CK6626	3.35	3.16	3.01	2.85
CK6627	2.35	2.22	2.11	2.00
CK6688	8.75	8.27	7.87	7.44
CK6688A	8.75	8.27	7.87	7.44
CK6763	4.20	3.97	3.78	3.57
CK6792	13.50	12.76	12.15	11.48
CK6802	11.43	...	...	...
CK6829	6.10	5.76	5.49	5.19
CK6883	4.30	4.09	3.87	3.66
CK6909	11.43	...	...	...
CK6910	13.37	...	...	...
CK6922	4.87	4.60	4.38	4.14
CK7246	7.64	7.22	6.88	6.49
5R4GYB	2.03	1.93	1.83	1.73
CK8421	15.75	14.88	14.18	13.39
CK8422	15.75	14.88	14.18	13.39
CK8520	(Use CK587)			

KLYSTRONS

Tube Type	1-4	5-18	19-49	50-99
RK2K25	43.00			
RK2K28	88.00			
RK2K48	122.00			
QKK531	68.00			
QKK532	68.00			
QKK549	68.00			
QKK910	305.00			
QKK965	305.00			
RK5976	68.00			

MICROWAVE POWER TUBES

CK5656	16.56	15.65		
CK5963	1.36	1.29	1.22	1.16
CK6072A	3.90	3.71	3.51	3.32

● NEW DATAVUE INDICATOR TUBES

Raytheon Datavue numerical indicator tubes are reliable, in-line visual digital readout tubes, which display singly the numerals 0 through 9 and preselected symbols such as + and — signs. Datavue tubes are gas-filled, cold-cathode tubes employing the famous principle of the neon glow lamp. The numeric tube consists of 10 individual metallic cathodes formed in the shape of the numerals 0 to 9 and one common anode.

The cathode and anode are connected to base pin terminals. A DC voltage applied between the anode and one cathode causes the cathode to glow. Only the selected number is visible. The life expectancy in dynamic operation is 200,000 hours or more. Available in end or side mount.

Type	Mount	Socket No.	1-99	100-499
CK1900	End	9 Pin Min	8.00	5.60
CK1901	Side	CK1822	11.00	9.70
CK1902	Side	CK1822	15.75	13.40
CK1903	Side	CK1818	15.75	13.40
CK1904	Side	CK1818	16.25	13.90
CK1905	End	CK1810	8.75	6.20
CK1906	End	CK1810	8.75	6.20

Type	Mount	Socket No.	1-99	100-499
CK1907	End	CK1829	5.60	4.95
CK6844A	Side	CK1822	9.70	8.80
CK8037	Side	CK1822	13.40	11.00
CK8421	Side	CK1822	13.40	11.00
CK8422	Side	CK1818	13.40	11.00
CK8650	End	CK1806		
CK8754	End	CK1829	5.60	4.95

SOCKETS FOR DATAVUE TUBES

Stock No.	Type	1-99	100-Up
29F006	CK1806	.30	.22
29F007	CK1807	.40	.30
29F008	CK1810	.30	.22
29F009	CK1818	.70	.45

Stock No.	Type	1-99	100-Up
29F010	CK1821	.80	.55
29F011	CK1822	.70	.45
29F012	CK1825	.80	.55
29F013	CK1829	.30	.22

MACHLETT


ML-6697


ML-5530


ML-7289


ML-102A


ML-7007

Type	1-4	5-18	19-49	50-99
ML2C39A	20.75	19.61	18.68	17.64
ML2C39WA	20.75	19.61	18.68	17.64
ML3CPN10A5	30.75	29.06	27.67	26.14
ML3CX100A5	30.75	29.06		

Type	1-4	5-18	19-49	50-99
ML-4CX5000A	495.00			
ML-4CX10000D	550.00			
ML-4CX15000A	695.00			

Type	1-4	5-18	19-49	50-99
ML102A	174.00			
ML5575/100	225.00			
ML5576/200	245.00			
ML8094/199	335.00			
ML298A	3200.00			
ML342A	1030.00			
ML342AA	1300.00			
ML356/5771	700.00			
ML357B	390.00			
ML880	595.00			
ML891	275.00			
ML891R	430.00			
ML892	270.00			

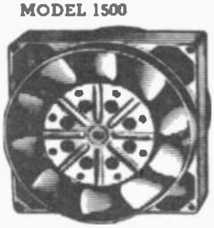
Type	1-4	5-18	19-49	50-99
ML5530	450.00			
ML5530H	450.00			
ML5531	795.00			
ML5541	690.00			
ML5604	570.00			
ML5606	288.00			
ML5619	423.00			
ML5658	595.00			
ML5666	280.00			
ML5667	370.00			
ML5668	350.00			
ML5669	515.00			
ML5681	2175.00			
ML5682	2625.00			
ML6166A/7007	1020.00			
ML6256	335.00			
ML6257	345.00			
ML6258	380.00			
ML6420	445.00			
ML6421	525.00			
ML6421F	545.00			
ML6422	450.00			
ML6423	525.00			
ML6423F	545.00			
ML6424	518.00			
ML6425	645.00			
ML6425F	675.00			

Type	1-4	5-18	19-49	50-99
ML6426	720.00			
ML6442	39.00			
ML6576	900.00			
ML6696	1090.00			
ML6696A	1105.00			
ML6697	1320.00			
ML6697A	1330.00			
ML6771	71.90	67.95	64.71	61.12
ML7007	1020.00			
ML7289	30.75	29.06	27.67	26.14
ML7479A	920.00			
ML7480	1590.00			
ML7482	4455.00			
ML7560	4455.00			
ML7698	88.50	83.63	79.65	75.23
ML7815/ 3CPN10A5	30.75	29.06	27.67	26.14
ML7855	60.00	56.70	54.00	51.00
ML8403	115.00			

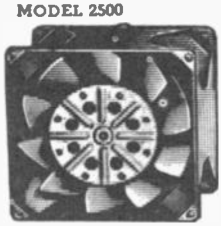
Type	1-4	5-18	19-49	50-99
ML-8170/4CX5000A	495.00			
ML-8170W/4CX5000R	705.00			
ML-8171/4CX10000D	550.00			
ML-8281/4CX15000A	695.00			

PAMOTOR MINIATURE AXIAL FANS

MODEL 1500



MODEL 2500



MODEL 3000

Long life—20,000 + operational hours. Continuous Duty at 45°C without maintenance. Higher air delivery at greater static pressures. All metal construction. Impedance protected 50-60-400-cycle operation. Universal 4⅛" mounting on all 4½" models. Conforms to applicable portions of Mil Specs. All fans shown below are U.L. Listed.

3½" INDUCTION TYPES

Stk. No.	Mod.	Cap.	V.	Hz.	CFM	RPM	W.	Weight	1-9	10-24	25-49
57F1000	3000	4 mfd	115	50/60	58/65	2800/3200	14/15	1 lb. 2 oz.	19.00	17.20	15.45

4½" INDUCTION TYPES

Stk. No.	Mod.	Cap.	V.	Hz.	CFM	RPM	W.	Weight	1-9	10-24	25-49
57F1004	1000A	6 mfd	115	50/60	100/125	2900/3400	25	2 lb. 10 oz.	29.95	26.95	23.95
57F1006	1100	.75 mfd	115	400	100	3200	33	2 lb. 10 oz	39.95	35.95	31.95
57F1011	2000	4 mfd	115	50/60	116/130	2900/3500	25	2 lb. 1 oz.	29.95	26.95	23.95

4½" SHADED-POLE TYPES

S.ock No.	Mod.	V.	Hz.	CFM	RPM	W.	Weight	1-9	10-24	25-49	50-99	100-249
57F1015	1500	115	50/60	90/105	2850/3400	27/25	2 lb. 10 oz	15.35	13.95	12.55	11.16	10.46
57F1017	1550	220	50/60	90/105	2850/3400	27/25	2 lb. 10 oz					
57F1019	2500	115	50/60	95/115	2850/3400	27/25	2 lb. 1 oz.					
57F1021	2550	220	50/60	95/115	2850/3400	27/25	2 lb. 1 oz.					

6" DIA.SHADED-POLE TYPES

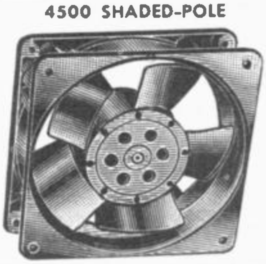
Stk. No.	Mod.	V.	Hz.	CFM	RPM	W.	Weight	1-9	10-24	25-49	50-99	100-249
57F1023	7500	115	60	250	3250	40	2 lb., 12 oz.	31.45	29.95	26.95	23.95	22.45
57F1024	7550	220	50	220	2700	36	2 lb., 12 oz.					

ACCESSORIES

7500; †1000A, 1110 @ 1500.

Stk. No.	Type	Description	1-499	Stk. No.	Type	Description	1-499
57F1030	5501	Brackets (2)	.20 pr.	57F1034	5505	Plug & Cord	.60
57F1031	5502	Filter	1.60 ea.	57F1035	5506*	Finger Guard	.85
57F1032	5503	Scrn. Assbly	1.60 ea.	57F1036	5507†	Finger Guard	.85
57F1033	5504	Finger Guard	.85 ea.	57F1037	5509*	Air Straightner	3.50

4500 SHADED-POLE



Model 4500. Low-noise level provides 115 cfm with less than 37.5 dB SIL. Operates over range of 105 to 125 VAC at dual frequency of 50/60 Hz. Input Power; 20 watts. Size: 4$\frac{11}{16}$x4$\frac{11}{16}$x1½". U.L. Listed. Wt. 1 lb., 4 oz.

Stk. No.	1-9	10-29	25-49	50-99	100-249
57F1025	12.05	10.95	9.85	8.95	8.55

Model 4550. Same as 4500, except 220 V.

Stk. No.	1-9	10-29	25-49	50-99	100-249
57F1026	12.05	10.95	9.85	8.95	8.55

Model 4506. Same as 4500, except high temperature ball bearing model.

57F1027	21.95	19.95	17.90	15.90	14.95

Model 4800. A UL approved fan that's less than 20 db Sil. Designed for applications in Hi-Fi/stereo equipment, TV, office copying machines, etc., where noiseless operation is of prime concern.

57F1028	13.95	12.65	11.40	10.15	9.55

Model 4700. A low cost skeleton fan designed to save you space and weight. 115V, 60Hz, 65 cfm, 2800 rpm, 21 watts. U L Listed. Sz. 4⅛" dia. x 1½"; wt. 1 lb.

57F1029	12.05	10.95	9.85	8.95	8.55

IMC MAGNETICS CORP.

THE "BOXER" — U.L. APPROVED CONSTRUCTION

Aerodynamically designed impeller delivers 115 cfm free air from any operating position, 15% more than comparable fans. Only 3⅝" square and 1½" deep with rugged all-metal frame for greater heat dissipation and longer fan life. Has heavy duty terminals, easily accessible. Can be resoldered as often as desired. Shock and vibration proof mounting. Bearings lubricated for life. **Two models: Boxer Standard and Boxer Ball Bearing for longer life.** Shpg. wt. 2 lbs.

"IMC Boxer Fan"

STANDARD BOXER U.L. APPROVED

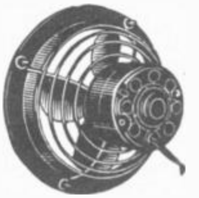
Stk. No.	Type	1-9	10-24	25-49	50-99	100-249
60F1600	WS2107FL	13.95	12.55	11.20	9.85	9.15
60F1603	Brng. BS2107FL	21.85	21.65	19.95	17.55	16.90

LOW SPEED BOXER U.L. APPROVED

Stk. No.	Type	1-9	10-24	25-49	50-99	100-249
60F1625	WS2107FL-2	15.35	14.45	13.10	11.65	10.90
60F1628	Brng. BS2107FL-2	22.25	21.65	19.95	17.55	16.90

● *NEW IMC MINI BOXER FAN*

Model MWS2107F. A New IMC bearing design that assures constant lubricant flow, extra long life, and cool, quiet operation. Provides a low profile cooling, and meets a wide variety of custom cooling and circulating requirements. Only 3⅝" square and 1½" in depth with a unit weight of 1.6 lbs. Mini Boxer Fan can be mounted inside of the unit around utilizing the flanges at either end. No filter or screen kits available. phase, 60 hz. Supplied with mounting kit. See (accessories) for screen and filter kits.



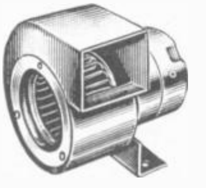
FE Series Fans

Stk. No.	VAV	HZ	Watts	Amps	RPM	CFM	1-9	10-24	25-49	50-99	100-249
60F1642	115	60/50	19	0.24	3300	46/38	14.40	13.00	11.65	10.30	9.61

HI FI BOXER

Model WS2107-9. Very low noise level for hi-fi equipment. Free air delivery 50 cfm; will exhaust avg. enclosure 10-30 times per minute. Metal housing resists breakage and acts as efficient heat sink. Impeller aerodynamically efficient 5-blade design. 115 VAC, 1 phase, 60 hz. Supplied with mounting kit. See (accessories) below for screen and filter kits.

60F1639. NET. **14.85**



B Series Blower

ACCESSORIES

Stk. No.	Type	Description	NET	Stk. No.	Type	Description	NET
60F1623	69-74	Plug & Cord	.60	60F1606	69-94*	Filter Kit	3.15
60F1624	65-175	Finger Guard	.75	60F1607	69-95*	Screen Kit	1.85
60F1637	69-93	Slim Line Filter	1.50	60F1638	69-93-1†	Slim Line Screen	1.50
60F1643	69-79-1	Mounting Brackets	.50				

* With mounting brackets † Mounted directly to cabinets, or using mounting brackets.

IMCair PROPELLER FANS

For applications where high air flow and low noise operation is required. Precision-built shaded pole motor. Flush mounting with shaft in any operating position. All single phase. Size: Model FE8, F18, 10" dia. x 2½" deep—5$^{13}/_{16}$" with motor clearance. Models FE6, F16 8⅛" dia. x 2" deep—4½" with motor clearance. For operation from 115 volt, 50-60 cycles. Shpg. wt. Models FE6 and F16: 3 lbs. Models FE8 and F18: 5½ lbs.

Stock No.	Type	cfm	Amps	1-4	5-9	10-24	25-49	50-99
60F1613	FE6 Exhaust	205	.6	15.25	13.75	12.85	12.25	11.45
60F1614	F16 Intake	225	.6	15.25	13.75	12.95	12.25	11.45
60F1615	FE8 Exhaust	485	1	26.35	24.75	23.75	21.05	19.75
60F1616	F18 Intake	485	1	26.35	24.75	23.75	21.05	19.75

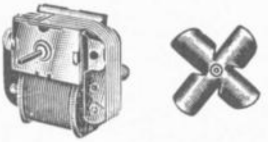
IMCair CENTRIFUGAL BLOWERS — Models B2 and B3

Designed for applications where low air flows are required at relatively high pressures. Compactly designed, metal housings will not distort under heat. Continuous duty operation, single phase shaded pole motor with bearing life of 10,000 hours at 125° F. Size: B2, ⅞" h. x 4¾" w. x 3½" d. B3, 5⅝" h. x 5⅞" w. x 5" d. For operation from 115 volts, 50-60 cycles. Shpg. wt.: B2, 2½ lbs.; B3, 3½ lbs.

Stock No.	Blower Type	cfm	Amps	1-4	5-9	10-24	25-49	50-99
60F1617	B2	24	0.45	13.75	12.75	11.90	11.40	10.90
60F1618	B3	87	0.5	26.35	24.75	23.75	22.75	21.80

BARBER-COLMAN

TUBE COOLING FAN



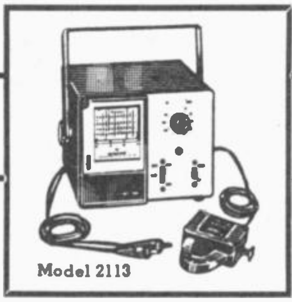
Model DYAB6167-3. High speed motor and fan for cooling power tubes and boosting current ratings of vacuum capacitors. Shaded Pole motor is not radio interfering. Size: 2$^{19}/_{32}$x2⅜x1⅝". Shaft ⅛" dia. For 110v. 50-60 cycles AC. Wt. 1 lb.

Stock No.	1-9	10-24	25-49	50-Up
28F998	6.50	5.62	5.36	4.09

Chart Recorders-Accessories rustrak

"200" SERIES RECORDER

Single Channel



Model 2113

Dual Channel

STANDARD FEATURES

- Tear-off or Reroll
- Sliding Access Window
- Chart Advance Thumbwheel
- Diecast Aluminum Construction

SINGLE CHANNEL RECORDERS

Automatic chart recorders records information every 2 seconds, at 1" per hour. Inkless, dry writing galvanometer movement. Sliding access window. Chart advance thumbwheel. Full 31-day chart reroll or tear off capability. Quick review and rewind. Strong, die cast aluminum construction. Changed scale and name plate. Drive mechanism for 115V., 60 Hz. Size: 5⅝ x 3⅝ x 4⅛". Shpg. wt. 5½ lbs.

DC MICROAMMETERS MODEL 288

Stk. No.	Range	Ohms	Net
62F2150	0-10μa	5700.	130.50
62F2151	0-50μa	5400.	114.50
62F2152	0-100μa	4600.	109.50

DC MILLIAMMETERS MODEL 288

Stk. No.	Range	Ohms	Net
62F2153	0-1ma	100.	99.50
62F2154	5-0-.5	100	104.50

DC MILLIVOLTMETER MODEL 288

Stk. No.	Range	Ohms	Net
62F2155	0-10mv	10	109.50
62F2156	0 25mv	12.5	109.50
62F2157	0-100mv	100	99.50

AC VOLTMETERS

Stk. No.	Type	Range	Net
62F2158	288R	0-150V	110.00
62F2159	293	70-135V	110.00
62F2160	293A	70-135V; 140-270V	115.00
62F2161	239B	70-135V; 140-270V; 280 540V	120.00
62F2162	2186	105-125V; 210-250V	150.00
62F2163	2186A	105-125V; 210-250V 420-500V	160.00

SINGLE CHANNEL AC CURRENT

Stk. No.	Type	Range	Net
62F2164	2118	0-1 amp AC 0-5 amp AC	117.00

AC VOLTAGE AND CURRENT

Model 2113. Records voltage or current or both alternatel. Voltage ranges 0-150V, 0-150V, 0-300V, 0-600V. Current ranges from 0-15 amps, 0-30 amps, 0-60 amps, 0-150 amps. Voltage clip leads and clamp-on transducer attached. Includes all features of series 200 above. Available with 1 RPM motor only.
62F2165. NET 215.00

TEMPERATURE RECORDERS
MODEL 2122 PYROMETER

Miniature pyrometer is complete with 6 ft. wire thermocouple. Accuracy: 2% of span. Cold junction compensation for thermocouples from +60 to +125°F. Push-button calibration. (F o u r switch ranges: 0-400°F, 0-800°F, 0-1200°F + 0-2400°F. Shpg. wt. 7 lbs.
62F2166. NET 175.00

MODEL 2133 PYROMETER

Thermistor Probe Recorder. Self contained recording instrument which produces a high resolution, accurate recording of temperatures. Used with thermistor probes. Standard 1" per hr. 105-130V. 60 cycles. Accuracy 2% of span. Stability 0.5% of span. Temp. range from +32°F to 212°F. Temp. span 25°F minimum 100° maximum. S P E C I F Y TEMPERATURE RANGE DESIRED. Allow two weeks delivery. Shpg. wt. 7 lbs
62F2167. NET 195.00

THERMISTOR PROBES FOR MODEL 2133

Stk. No.	Type	Description	Each
62F2168	1331	Flex Lead Vinyl Head	13.50
62F2169	1332	Str. Tubular Shaft 304 SST	21.00
62F2170	1333	Extended Disc 304 SST	25.00
62F2171	1334	Flex Lead Disc Plastic Backed 304 SST	21.00

MODEL 2155
THERMOCOUPLE RECORDER

Single range ±2% accuracy of full scale. Supplied with appropriate probe. Temperature span **0-500°F** (I/C Type J) 0-1000°F (C/A Type K) other ranges can be supplied to order
62F2172. 0-500° **NET** 148.00
62F2173. 0-1000° **NET** 148.00

MODEL 2144
NICKEL WIRE PROBE RECORDER

Temperature recorder utilizing a nickel wire sensor. Temp. range from —100°F to +600°F. Span 100°F min./600°F max. Accuracy +2.5% of span ±0.5% of full scale. Standard unit supplied with Type 1442 probe and a 15 ft. extension cable. Interchangeable probes available. SPECIFY TEMP. RANGE WHEN ORDERING. ALLOW TWO WEEKS FOR DELIVERY.
62F2174. NET 199.00

NICKEL WIRE PROBES FOR 2144

Stk. No.	Type	Description	Net
62F1974	1442	Probe, Flex Surface	12.00
62F1338	1441	Probe, Tubular 304 SST	39.50

PRESSURE RECORDERS

MODEL 2162. S i n g l e channel, records pressure of gases and liquids using C-type bourbon tube. 115 VAC/60 Hz.

Stock No.	Range	Each
62F2175	0-50 PSI	110.00
62F2176	0-100 PSI	110.00
62F2177	0-300 PSI	110.00

DUAL CHANNEL RECORDERS

Model 291. Same as single channel recorders, but contain two galvanometers for reading from separate signal source on same chart paper. Shpg. wt., 5½ lbs.

Stk. No.	Chan. 1	Chan. 2	OHM	NET
62F2178	)-1ma DC	0-1ma DC	100	143.50
62F2179	)-50μa DC	)-50μa DC	5400	167.50
62F2180	)-100μa DC	)-100μa DC	4600	158.50

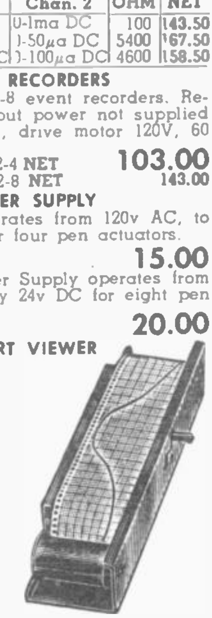
EVENT RECORDERS

Series 292-4 and -8 event recorders. Require 24V DC input power not supplied for pen actuators, drive motor 120V, 60 Hz.
62F2181. Model 292-4 **NET** 103.00
62F2182. Model 292-8 **NET** 143.00

POWER SUPPLY

Model 921-4. Operates from 120v AC, to supply 24v DC for four pen actuators.
62F2183. NET 15.00
Model 921-8 Power Supply operates from 120v AC to supply 24v DC for eight pen actuators.
62F2184. NET 20.00

CHART VIEWER



Now view 12" spans of recording chart paper at one time! Model 168 accommodates strip-chart papers from 1⅞" to 3" wide. Easily rotates in either direction through use of clutch mechanism Standard mandrel takes chart paper with ⅝" I D. core. Sets on non-skid, marproof pads. Very compact: 14" long x 3½" wide. Weight: 3½ lbs.
62F1972. NET 38.50

ACCESSORIES FOR CHART RECORDERS

EXTRA GEAR TRAIN UNITS
Can be interchanged in field in seconds

Stk. No.	Description	NET
62F1320	¼ inch per hour	5.00 Ea.
62F1321	½ inch per hour	
62F1322	1 inch per hour	
62F1256	2 inches per hour	
62F1257	3 inches per hour	
62F1258	6 inches per hour	
62F1259	10 inches per hour	
62F1323	12 inches per hour	
62F1260	15 inches per hour	
62F1261	30 inches per hour	
62F1324	60 inches per hour	

CHART PAPER
(63 Foot Roll)

Stock No.	Style Description	NET
62F1262	A-50 Divisions	2.25
62F1263	B-75 Divisions	
62F1289	C-65 Divisions	
62F1244	D-20 (Dual Chan.)	
62F1329	EE Event	
62F1968	F-15 (Dual Chan)	
62F2185	G-20 Divisions	
62F2186	H-40 Divisions	
62F2187	I 30 Divisions	
62F2188	K-60 Divisions	
62F2189	L-80 Divisions	

RACK MOUNTING PANELS

Stk. No.	Rack Mntg. Panel	Each
12F1280	2 unit	15.00
12F1287	3 unit	15.00
12F1288	4 unit	15.00

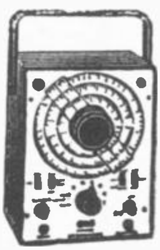
RCA Test Equipment

TRANSISTORIZED AUDIO SIGNAL GENERATOR SINE SQUARE WAVE OUTPUT

WV504A. Idealy suited for service, industrial laboratory, and educational applications. Frequency range extends from 20 to 200,000 Hz. Stable signal with an amplitude variation not exceeding ± 1.5 db. Total harmonic distortion of sine wave less than 0.25%. Can be used in a wide variety of applications including the direct measurements of frequency response characteristics of audio amplifiers, and testing speakers and enclosures. In addition instrument can be used of LC combinations and in determining the frequency or speed of vibrating or rotating bodies. Includes attached, shielded output cable, simple one scale dial. Complete with instruction manual. Size: 7¾x5¾x4¾. Shpg. 3 lbs.

62F1656. Factory wired and tested. NET.... **95.00**

RF SIGNAL GENERATOR WITH SWEEP FEATURES

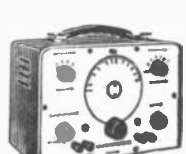


Model WR-50B. Designed for maintenance. troubleshooting and instructional purposes. Provides an accurate source of CW or amplitude-modulated signals from 85 KHz to 40 MHz. Suited for aligning and signal tracing AM, FM, Hi-Fi and Citizens' Band and amateur radio receivers. A 400 Hz output provides a practical means for checking audio amplifier circuits. Built-in crystal calibrating oscillator circuit with front panel crystal socket. Permanently attached shielded RF output cable. Built-in DC blocking capacitors. Two-step RF attenuator switch plus a continuously variable attenuator control. Vernier tuning. Sweep output is provided at 455 KHz and 10.7 MHz for sweep alignment both AM and FM IF circuits. A return-trace blanking circuit is included to provide a zero reference line. Width 5⅜", height 7¾", depth 4¾", weight 5 lbs.

62F086. Model WR-50B. Factory wired and tested. NET **65.00**

62F089. Model WR-50B(K). As above KIT FORM. NET **45.00**

AUDIO SIGNAL GENERATOR SINE/SQUARE WAVE OUTPUT



Model WA-44C. For measurement of frequency response characteristics of audio amplifiers, and testing of loudspeakers and enclosures or finding impedance of LC combinations. Switch selection for sinewave or squarewave output. Simple one-scale dial. Separate 60 Hz line frequency output for intermodulation distortion measurements. Wide frequency range, 20 Hz to 200,000 Hz. Less than ½ of 1% distortion over the audio-frequency range. Operated from a 50/60 Hz, 105-125 volt source; covers in four bands a range from 20 Hz to 200,000 Hz. The circuit of the sine-wave function consists of a "Bridged-T" oscillator with a cathode follower output stage. The square-wave output is developed by using the sine-wave oscillator output to drive a clipping and shaping circuit. Produces a stable signal with an amplitude variation of not more than ±1.5 dB. Total harmonic distortion is limited to 0.5% over the range of 30 Hz to 15 KHz. Width 10 11/16" height 7", depth 6⅛". Weight 10 lbs. With instruction booklet.

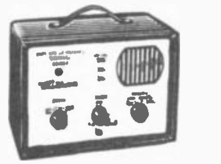
62F013. Model WA-44C. Factory wired and tested. NET **98.50**

STEREO FM SIGNAL SIMULATOR

Model WR-52A. Designed to generate signals required for service, alignment, and maintenance of mono and stereo FM receivers and multiplex adaptors. Provides the following signals. Composite stereo output for either right or left channel; FM stereo output for either channel, 100 MHz FM carrier is adjustable to permit selection of a quiet point in the FM band, RF deviation is adjustable 0-75 KHz; Monaural FM output (a switch is provided to disable the 19 KHz oscillator for low-distortion mono output); 100 MHz sweep output to check receiver RF/IF alignment (sweep rate is 60 Hz, sweep width is adjustable 0-750+KHz; Audio signals of 400 Hz, 1 and 5 KHz. Crystal-controlled 19 KHz and 38 KHz signals for multiplex circuit adjustments; 67 and 72 KHz output signals for SCA trap circuit adjustments; special internal test signal to check phase adjustment of stereo signal. Direct unterminated cable is used with composite stereo and audio signal outputs, and a terminated cable for RF output to 75 or 300 ohm antenna input. Complete with connecting cables. Size 13½x10x8"; shpg. wt., 21 lbs.

62F1785. Factory wired and tested. NET.............. **248.00**

COLOR-BAR/DOT-CROSSHATCH GENERATOR



Model WR-64B. Produces time-tested color bar signals needed for adjusting and troubleshooting color TV circuits as well as dot and crosshatch patterns for adjusting convergence in color receivers, and for adjusting linearity and overscan in both color and black and white receivers. Crystal-controlled RF Oscillator for stable picture carrier. Crystal-controlled synchronizing pulses. Crystal-controlled sound carrier for accurate adjustment of receiver fine tuning. Fixed number of dots and lines for ease in checking overscan. PATTERN control (Color-Bar/Dot/Crosshatch). CHROMA control to check receiver color sync-lock action. FUNCTION control with OFF—STANDBY—PATTERN—PATTERN + SOUND positions. Convenient panel switches for shorting out the red, blue, or green guns of the color picture tube. Complete with RF output cable, cable-carrying bracket attachment, three leads for connection to red, blue, and green grid connections, and instruction booklet. Width 13½", height 10". depth 8", weight 13¼ lbs.

62F085. Model WR-64B. Factory wired and tested. NET...... **129.00**

CRYSTAL-CALIBRATED MARKER GENERATOR

Model WR-99A. Supplies a fundamental frequency RF carrier of crystal accuracy for use in aligning and trouble-shooting TV (color and black and white) and FM receivers and other electronic equipment operating in the range of 19 to 260 MHz in 8 bands on fundamental frequencies. Built-in crystal calibrator, heterodyne detector, amplifier and speaker provides calibrating beates at 1 MHz or 10 MHz intervals throughout entire tuning range which is covered by 8 bands. A built-in 4.5 Mc crystal provides necessary accuracy for alignment of intercarrier-if amplifier and discriminators. At least 0.1 volt output VFO ranges; 0.05 volt crystal frequencies, into a termination of 90 ohms. Provides signals for adjusting vertical or horizontal linearity. Precision matched impedance/resistance pad attentuator, 0-60 dB in 5 db steps. Special modulation input available for re-transmission. Provision for use as Heterodyne Frequency Meter. Provides dual markers 4.5 MHz apart for bandwidth checks and RF alignment. Triple markers for sound-if alignment and bandwidth checks. Adjustable dial pointer for accurate registration with crystal-calibration check points. With RF output cables and instruction booklet. Wt. 21 lbs.

62F054. Model WR-99A. Factory wired and tested. NET...... **256.50**

TELEVISION/FM SWEEP GENERATOR

Model WR-69A. For visual alignment of both TV and FM receivers. Has preset switch positions for all VHF TV channels, the FM broadcast band, and TV video, chrominance, and IF frequencies. VHF output is on fundamental frequencies only; no beat notes or harmonics are used. Exceptionally good linearity is provided by a precision vibrator capacitor. Continuously adjustable sweep width and flat output make for accurate sweep response displays. Special sample-voltage terminal on panel permits use with marker-adder units in alignment. Dual-piston attentuator provides smooth even attentuation over 60 dB range for TV and FM channels and 70 dB range for IF and video. IF/Video output frequency continuously tunable from 50 KHz to 50MHz in 6 ranges. Sweep-frequency bandwidth continuously adjustable from 50 KHz to 20 MHz on IF/Video and FM; 12 MHz max. on TV channels. Return trace blanking. Two continuously adjustable bias voltages, 0 to —12 volts, available on front panel. Width 13⅝", height 10", depth 7". With Instruction Booklet and Cables. Weight 16 lbs.

62F071. Model WR-69A. Factory wired and tested. NET..... **295.00**

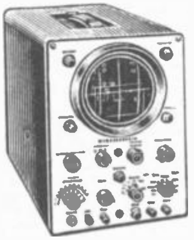
RF/IF/VF MARKER ADDER

Model WR-70A. For RF, IF, and video sweep alignment of both color and black and white TV receivers. Provides sharp, easy-to-read markers for alignment. A choice of four different marker shapes is available, permitting use of marker type best suited to the response curve. Designed for use with conventional marker and sweep generators and the WR-59 and WR-69 series TV sweep generators. Marker signal is added to the sweep-response curve after the sweep signal is taken out of the receiver under test. Eliminates or reduces distortion of sweep curve by the marker. Permits trap alignment without marker "suckout." Hi-Q markers — high in amplitude, narrow in width. Power supply voltage stabilized for rock-steady trace display. With instruction booklet and four coaxial cables. Wt. 8 lbs.

62F072. Model WR-70A. Factory wired and tested. NET.... **87.00**

5" OSCILLOSCOPE

- **Flat response from 10 cps to 4.5 Mc**
- **Solid State Power Supply**



Model WO-91C. Reliable, heavy duty, precision instrument especially suited for use in production and servicing both black and white and color TV receivers, monitors, broadcast equipment, TV distribution systems, hi-fi systems and communications equipment. A multi-scale graph screen makes peak to peak voltage measurements as easy as with a VTVM. Applications include waveforms analysis, square wave testing, and observation of circuit and vacuum tube characteristics. A 2-stage sync separator makes it easy to check TV horizontal and vertical sweep synchronization. Has Solid State power supply. Complete with WG-300B Direct/Low cap. probe and cable, ground cable, alligator clip, clip insulator, green-graph screen, instruction book. Size: 9x13½x16½". Ship. wt., 35 lbs.

62F056. NET **269.00**

SUPER PORTABLE OSCILLOSCOPE

Model WO-33A. This 3" Oscilloscope is the "all purpose" scope. All bandwidth you need for servicing color TV, video broadcast monitors and cameras; and for square-wave testing of audio and ultrasonic equipment. All the gain you need for low-level audio work. With vertical amplifier in narrow-band position. Sensitivity is 3 RMS millivolts/inch; bandwidth within —3dB, 20 Hz to 150 KHz. Wide band position: sensitivity 100 rms millivolts/inch; bandwidth within —3dB. 5.5 Hz to 5.5 MHz. Sweep circuit; sawtooth range from 15 Hz to 75Hz sync; external, ± internal; line sweep —160° adjustable phase; sync range to 4.5 MHz. Size: 6½x8¾x10¼". Shipping wt. 16 lbs.

62F049. Model WO-33A. **NET.** **139.00**
62F048. Model WO-33A(K). **NET.** **108.00**

COLOR PICTURE TUBE TESTER

Model WT-115A. Designed specifically for testing TV color picture tubes, tests each gun for emission quality interelectrode leakage, and shorts. Readily portable large, 3-color, sensitive meter with two scales: Red/green "quality" scale, with reference marks from 0 to 10, separate yellow scale to indicate interelectrode leakage. Sensitive meter and cut-off adjustment control for evaluating the true emission of each gun. Neon shorts indicator. AC line-voltage adjustment for accurate measurements. Test procedure includes 2-minute and 4-minute tests for determining warm-up performance of tube. Tests color picture tube in-set or out-of-set. Built-in cable and socket assembly. Wt. 8 lbs.

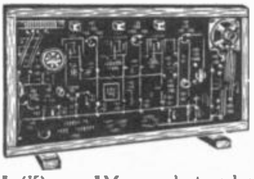
62F1780. Model WT-115A. NET **75.00**

TV BIAS SUPPLY KIT

Model WG-307B (K). Provides three output voltages, and is designed for use in servicing and aligning color and black and white TV receivers. Three separate output voltages, adjustable from 0 to —15 volts are provided for application in RF, IF, and AGC bias circuits. Ship. wt., 2 lbs.

62F027. NET **11.95**

TRANSISTOR RADIO DYNAMIC DEMONSTRATOR KITS

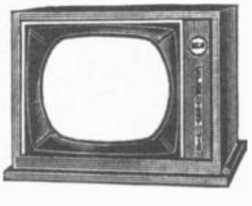


- **Special silver-plated spring connectors provide mechanical and electrical connection . . . assure easy component installation.**
- **Inherent operational simplicity assures ease of service checks and tests . . . exceptionally easy component substitution.**

The RCA WE-93A (K) and WE-92A (K) are AM superheterodyne transistor radio receivers converted into kit form for educational and instructional purposes. Once assembled they become actual operating AM receivers. Designed to provide the student with easy-to-follow, step-by-step instruction, the RCA Transistor Radio Dynamic Demonstrators are extremely easy to assemble. No previous kit assembly experience is required. The circuit diagram is drawn in an easily understood manner. The wiring diagram on the reverse side helps avoid mistakes. Ship. wt. 22 lbs.

62F1782. Model WE-93A (K). 12 x 24". **NET.** **39.00**
62F1783. Model WE-92A (K). 24 x 48". **NET.** **69.50**

● NEW RCA MARK II COLOR TEST JIG



Model 10J102. May be used with associated cables for servicing RCA 90° rectangular receiver chasis, as well as round receivers manufactured within the past ten years. An automatic degaussing assembly gives you the same quality feature found in all late model RCA TV color chassis. Rubber channeled hand holds. Rugged, cobalt gray baked enamel finish cabinet is completely assembled, and ready for operation.

99F2001. Model 10J102. **NET** **99.50**

MODEL 10J102 CABLES

Model 13B111. Kinescope socket etxension cable for use with CTC17 and CTC19 Color TV Chassis to connect to the RCA Color Test Jig. 11A1015A.
57F2003. NET. **4.80**

Model 13B112. Deflection yoke extension cable for use with CTC17 and CTC19 Color TV Chassis to connect to RCA Color Test Jigs.
57F2004. NET. **1.75**

Model 13B113. Kinescope socket extension cable, for use with CTC17 and CTC19 series color TV receivers to extend Kinescope Socket Cable.
57F2005. NET. **4.05**

Model 212096. RS coaxial cable with female connectors on each end. With WR70A.
58F2000. NET. **10.05**

Model 220X1. Kinescope socket extension cable for use with color TV receivers using 70° deflection picture tube.
57F2007. NET. **3.90**

Model 221X1. Deflection yoke extension cable for use with RCA 600 and 700 Color TV Receivers (CTC4 and CTC5). Can also be used as Convergence Magnet Extension Cable when servicing CTC7, CTC9, CTC10, CTC11, CTC12, CTC15, CTC16, and CTC20 Chassis.
57F2008. NET. **1.85**

Model 228X1. Deflection yoke extension cable for use with CTC-7, -9, -10, -11, -12, -15, -16, -20 series Color TV chassis.
57F2009. NET. **2.75**

Model 13A100. High voltage extension cable. Same use as Model 228X1. Except not for CTC-7, -9 and -10.
57F2002. Model 13A100. **NET.** **2.50**

Model 205W1. Degaussing coil for demagnetizing color TV kinescope and chassis. With 110 V power cord and plug.
57F2006. Model. 205W1. **NET.** **13.10**

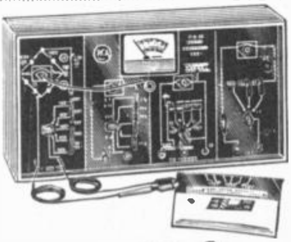
Model 10J113. Picture Tube Socket Adapter is designed to adapt the base of the 90° color tube to accept picture tube as used in RCA Color TV Receivers.
57F2012. NET. **5.43**

Model 10J112. Deflection Yoke Adaptor and Extension Cable, may be used for servicing RCA 21" TV. chasis with Mark II Color Test Jig.
57F2011. NET. **4.20**

Model 10J111. An RCA automatic degaussing coil. Extension cable, provides for connecting the automatic degaussing circuitry of the RCA TV chassis.
57F2010. NET. **2.75**

Model 10J118. Deflection Cable Kit. For modification of RCA No. 11A1015-A color Test Jig to provide universal use and improved performance in servicing RCA Color Chassis, designed for either 21" round or later 19", 21" or 25" rectangular picture tubes.
57F2013. NET **3.31**

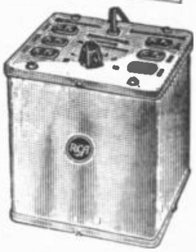
V-O-M DYNAMIC DEMONSTRATION KIT



Model WE-95A (K). A dynamic aid for teaching the principles of meter and metering circuits an actual test instrument that can be used to test and service. Size: 12x24x5¾". Shpg. wt. 10 lbs.

62F1781. NET **45.00**

TV ISOTAP



Model WP-25A. Speeds up servicing (especially useful in service shop for duplicating various line-voltage conditions found in homes), prevents damage to test equipment. May be used as a high-medium-low voltage isolation transformer. Supplies outputs of 130, 115, & 105AC volts at max. load. Tapped to match line voltage from 105 to 130 in 5 volt steps. Ship. wt.: 13 lbs.

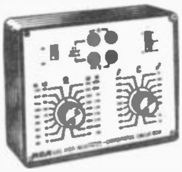
62F047. NET. **27.50**

RCA Test Equipment

• NEW "CHRO-BAR" SOLID-STATE COLOR BAR GENERATOR

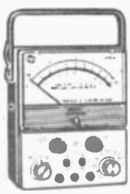
Model WR-502A. A solid-state, battery operated color bar generator, designed to provide the test signals required for adjusting convergence, color-phasing, matrixing, purity, and linearity of color television receivers. Patterns generated include color bars, dots, crosshatch, vertical lines, horizontal lines, and blank raster. The crystal calibrated solid-state circuitry is especially designed to provide stable patterns with no flicker. The instrument includes switches for killing the color guns of the picture tube. Leads are provided to the tube socket. A 4.5 MHz sound carier is added to the color pattern in the "PATTERN & SOUND" function. Size: 6½" x 7" x 4". Shpg. wt. 5 lbs.
62F2301. NET **168.00**

• NEW RESISTANCE/CAPACITANCE BOX



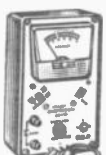
Model 412A. Provides a convenient selection of standard resistor and capacitor values availiable separately or in series/parallel RC combinations. Has 36 resistors ranging in value from 15 to 10 meg, from 18 capacitors with values ranging from 100pf to .22mf. Size: 7" x 5½" x 3⅜". Shipping weight: 2 lbs.
62F2302. NET **30.00**

● NEW IN-CIRCUIT/OUT-OF-CIRCUIT TRANSISTOR TESTER



Model WT-501A. Tests both low and high power transistors, and has both NPN and PNP sockets to allow convenient transistor matching for complimentary symmetry applications. Tests out-of-circuit transistors for DC beta from 1 to 1000, collector-to-base leakage as low as 2 microamperes, and collector-to-emitter leakage from 20 μa to 1 amp. Spectial low-impedance circuitry assures reliable in-circuit testing. Collector current adjustable from 20 microamperes to 1 ampere in four ranges, permitting most transistors to be tested at rated current level. A complete DC Forward Current Transfer Ratio Curve can be plotted. Three color-coded test leads are provided for in-circuit testing, and for out-of-circuit testing of transistors that will not fit into the panel sockets. Batteries are not included. Size: 6⅞" x 5¼" x 3⅛". Shipping weight: 3 lbs.
62F1655. NET **66.75**

• NEW TRANSISTOR/DIODE CHECKER



Model WC-506A. A compact, battery operated instrument providing quick, simple, checks of relative gain and leakage levels of out-of-circuit transistors. Tests PNP and NPN types. Panel switch provides checking high leakage types. Includes a transistor socket, color coded test leads, and a large meter with a single red/green scale. Also checks diode front/back ratio. Size: 3¾" x 6¼" x 2". Shpg. wt. 1 lb.
62F2303. NET **18.00**

PHASE CHECKER

- **Sound powered.**
- **Permits dynamic check of output phasing.**

Model WG-360A. Checks the phasing of low frequency and mid-range speakers in hi-fi, stereo, and PA systems. One of the principal applications for the WG-360A is in checking the phasing between the speaker assemblies of the left and right-hand channels in stereo systems. Provides an overall dynamic check on phasing, including everything from input source to soundwave output from speakers. Size: 5½x6¾x5". Ship. wt., 5 lbs.
62F1784. NET **14.95**

RF MODULATOR

Model WG-304B. Checks frequency of TV receivers. Permits modl. of rf marker signal. Size: 7x5½x4½".
62F028. NET **18.00**

VIDEO MULTIMARKER

Model WG-295C. Seven absorption markers at preset frequencies for marking video response curves in color TV receivers. Size: 7x5½x4½". Ship. wt., ½ lb.
62F044. NET **32.50**

PROBES AND RESISTORS

WG411A

WG410A

Model WG-289. High voltage probe. For use with WV-77A, WV-77B, WV-77C, WV-97A, WV-87A, and WV-87B, WV-98B, WV-98C, Volt-Ohmysts. Ship. wt., ½ lb.
62F020. NET 13.50

Model WG-297. Simliar to above, for use with RCA model WV-77E (K), WV-38A, WV-38A (K). Shpg. wt., 8 oz.
62F057. NET 13.50

Model WG-206. Megohm multiplier resistor. For VTVM's having 11 megohm input. Shipping wt., 2 oz.
62F082. NET 3.50

Model WG-210. Megohm resistor. Multiplies 5,000 volt DC range of 20,000 ohms per volt VOM's by a factor of 10.
62F083. NET 3.50

Model WG-211. Megohm resistor. Multiplies 250 volt DC range of 20,000 ohms per volt VOM's by a factor of 100.
62F084. NET 3.50

Model WG-299D. DC/AC Ohms probe and cable. For use with Volt-ohmysts except WV-77E and WV-77E (K).
62F061. NET 9.00

Model WG-354A. Capacitance-type voltage divider probe. The WG-354A used with the WG-300B probe and cable extends the range of oscilloscopes so that signal pulse amplitudes up to 5000 volts can be observed.
62F067. NET 11.00

Model WG-350A. Probe for use with WO-33A for demodulation and signal tracing of radio/TV, RF, and IF signals.
62F092. NET 5.25

Model WG-302A. RF/IF/VF signal tracing probe. "Slip-on" type high frequency probe designed for use with WG-300A and B to permit visual signal tracing for rapid isolation of trouble in radio receivers and in TV IF and video stages.
62F064. NET 9.00

Model WG-351A. Crystal diode probe for extending RF measuring capability of the WV-77C. WV-77E and WV-77E (K).
62F059. NET 5.25

Model WG-300B. Direct/low capacitance probe and cable. For use with RCA WO-91A, & B WO-88A and WO-78B scopes.
62F062. NET 11.00

Model WG-301-A. Crystal diode probe. Slip on type used with WG-299 to increase frequency range to 250 Mc.
62F063. NET 8.25

Model WG-410A. DC/AC Ohms Probe and Cable. A single-unit probe and cable equipped with a sliding switch to permit changing the probe characteristics. It is identical to WG-299D with the exception of the connector.
62F1665 .NET 9.00

Model WG-411A. Slip-on High Voltage Probe. For use with WG-410A or WG-299D Probes. It extends dc voltage range to 50,000 volts when used with WG-206 multiple resistor.
62F1658. NET 13.50

Model WG-415A. Video Detector. Used during chroma bandpass alignment and chroma board troubleshooting.
62F1659. NET 13.50

Model WG-416A. I. F. Test Block. Includes 180-ohm detector and I. F. transformer loading circuit. The output connects directly to vertical amplifier of an oscilloscope.
62F1660. NET 15.25

Model WG-417A. Sound Detector Test Block. Used during peak alignment of sound takeoff transformer and the audio-driver transformer as a detector probe for VTVM.
62F1661. NET 11.50

Model WG-418A. Mixer Grid Matching Pad. Used to couple output of both sweep and signal generators to mixer grid.
62F1662. NET 13.50

Mode 1419A. Tuner I.F. Input Head. A matching pad used to couple sweep generators to the I F. input jack.
62F1663. NET 11.50

Model WG 420A. Sound Detector Probe(solid state). Low capacitance detector for alignment of ratio detector trans.
62F1664. NET 21.75

ADAPTERS

Model WG-352A. Diode Probe. For use with RCA VOM in rf applications from 100kHz to 100MHz. Provides output which can be read directly from the meter scales.
62F1650. NET. **2.95**

Model WG-356A Balanced RF Diode Probe. For use with oscilloscope for checking the bandpass and gain characteristics of VHF TV rf preamplifiers. Frequency range: Up to 250 MHz.
62F1651. NET. **3.95**

WG357A IF Diode Probe. Unbalanced detector demodulator for use with an oscilloscope in displaying the sweep output from an if/video sweep generator. Usable up to 100 MHz Also used to observe the rf/if response of individual amplifier stages.
62F1652. NET. **3.95**

WG-361A Current Measuring Adaptor. For use with any VTVM having a 0.5 VDC range. 6 current ranges: 0-50 μA, 0-500 μA 0-5 MA, 0-50 MA, 0-0.5 Amp, 0-5 Amp.
62F1653. NET. **4.95**

RCA

● NEW BATTERY OPERATED TRANSISTERIZED VOLTOHMYST

WV-500A. Solid-State, battery operated, completely portable voltmeter that's ideal for service, industrial and lab application. 7 overlapping resistance ranges measure 0.2 ohm to 1000 megohms. 8 over lapping dc voltage ranges measure 0.02 to 1500 V (includes special 0.5 dc range), ac P-P voltages of complex waveforms from 0.5 to 4200 V, and ac (rms) voltages from 0.1 to 1500 V. Input impedance of all dc ranges is 11 megohms. Supplied with dc/ac ohms probe and cable, slip on alligator clip, for probe. Complete with instructions. 6⅞"x5¼"x3⅛" Wt. 3.5 lbs.

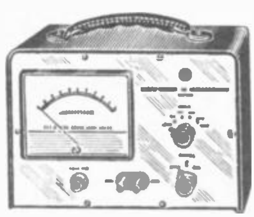
62F154 NET **75.00**

VOLT-OHM MILLIAMMETER

Model WV-38A. Extra large 5¼" meter. Protected meter movement. Has an input resistance of 20,000 Ω/V on DC; 5,000 Ω/V on AC; ±3% of full scale on DC, ±5% of full scale AC. Regular scales: 2.5, 10, 50, 250, 1000, 5000 VAC/VDC; 50 µ amp, 1, 10, 100, 500 mA, 10 amp (DC); plus extra scales of 250 mV and 1 volt DC. Resistance ranges 0-20 meg Ω in 3 ranges. Size 5¼"x6⅞"x3⅛". Ship. wt., 4 lbs.

62F052. Model WV-38A. **NET.** **52.00**
62F051. Model WV-38A(K). As above, kit. **NET.** **38.00**
62F053. Model WG-270A. Carrying case. **NET.** **5.25**

ULTRA-SENSITIVE DC MICROAMMETER

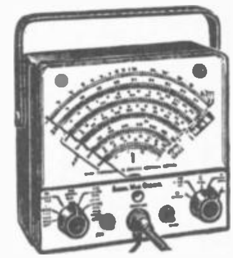


- **Six direct-current ranges for measuring current from 0.0002 to 1000 microamperes.**
- **Voltage drop for full scale deflection only 0.5 volts.**
- **Low Drain Tubes**

Model WV-84C. Application: a battery operated vacuum tube microammeter designed for measuring minute direct currents, for making current and voltage measurements in electrolysis and corrosion investigations, and for checking currents in light meters, ultra-violet and infrared detectors, and spectrophotometric devices. When used as a voltmeter, suited to measurements in circuits where loading is a critical factor. Size: 8¾x10¾x6½". Ship. wt, 10 lbs.

62F006. NET **110.00**

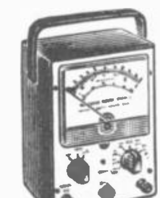
SENIOR VOLTOHMYST



Model WV-98C. Provides direct reading of peak-to-peak voltages of complex waveforms found in video, sync, and deflection circuits. Measures 0.2 to 4200 volts in 7 overlapping ranges, RMS values of sine waves from 0.1 — 1500 VDC, 0.2 Ω to 1000M Ω Input resistance: 11 megohms. Freq. response: 30Hz to 250 MHz with WG-301A Crystal Diode Accessory probe ±1db. to 30 Hz to 3 MHz (1.5 and 5 VAC ranges). Electronic protection against burnout. Size: 7 x 6½ x 3¾". Shpg. wt. 8 lbs.

62F060. Model WV-98C. **NET.** **88.50**
62F074. Model WV-98C(K). As above, kit. **NET.** **57.95**

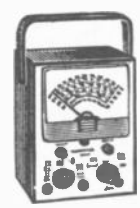
AC VACUUM-TUBE VOLTMETER



Model WV-76A. A high-sensitivity ACVTVM for hi-fi and other audio applications. Designed for measuring AC voltages from 0.0002 volt to 500 volts over the frequency range of 10 Hz to 1.5 MHz. Offers nine overlapping AC voltage ranges from 10 millivolts to 100 volts full scale. Provides approximately 38 dB gain throughout the frequency range from 10 Hz to 500 KHz with probe in "Low-Cap" position and 10 Hz to 1.5 Hz with probe in "Direct" position. Probe and cables are supplied. In "Direct" position probe measures up to 100 volts; in "Low-Cap" position, probe can be used to measure up to 500 volts or +56 dB. Size: 5⅜x7⅜x4¾". Ship. wt. 6 lbs.

62F088. Model WV-76A. **NET.** **90.00**

VOLTOHMYST



Model WV-77E. Flat frequency response ±5% from 40 Hz to 5MHz on the 1.5, 5 and 15 volt RMS ranges and the 4, 14, and 40 volt peak-to-peak ranges. Measures DC from 0.02 volt to 1500 volts, RMS AC from 0.1 volt to 15,000 volts, and resistance from 0.2 ohm to 1000 megohms—all in seven overlapping ranges. Full-scale accuracy is ±3% on DC and ±5% on AC. Fuse in ohms circuit prevents burnout. Ultra-slim probes and extra-flexible cables are included. Instruction sheet is provided. Wt. 5 lbs.

62F075. Model WV-77E. **NET.** **52.00**
62F076. Model WV-77E(K). As above, kit. **NET.** **38.00**

POWER LINE MONITORS

Models WV-120A and WV-503A. Designed for use where it is important to know power-line voltage at all times. Provides a continuous accurate indication of the AC line voltage without the inconvenience of handling probes and switches or the necessity of switching to one of several scales to select the proper meter reading. Used in conjunction with a variable isolation transformer, both monitors can be used on AC powerlines with frequencies from 25 to 400 hz, and feature 2% accuracy at center scale. Shpg Wt. 2½ lbs

62F1657. Model WV-120A. 120 volts. **NET** **18.50**
62F058. Model WV-503A. 240 volts. **NET** **18.50**

WV503A **WV-120A**

ELDARADO

MODEL 225 10MHZ FREQUENCY METER

Ideal as the measurement tool in applications such as tachometry (rpm); motor and engine speeds, crystal checking (frequency); and production frequency work. The 1 millisecond gate time provides display of the most significant digits of the signal reading i nkHz. The 1 second gate time provides resolution to 1 Hz by shifting three decades to the left. The internal 1 MHz oscillator may be monitored on a jack on the rear panel. 5 digits visual storage. Frequency Range: dc to 10 MHz (to over 15 MHz typical). Accuracy: ±1 count, ±time base stability. Power Requirements: 115 Vac ±10%, 50-400 Hz, 8 watts. Temperature: 0°C to 50°C operation. —55 C to +80°C storage. Gate Times: 1 ms or 1s with automatic reset. Display: 5 long life indicators with display storage and decimal point. Size: 2x5x6 4" (HxWxD). Weight: 3 lbs.

62F1025. NET **395.00**
62F1026. Accessory panel mounting kit. **NET** **10.00**

Test Equipment

Model 630-M

HIGH IMPEDANCE VOLT-OHM-MICROAMMETER

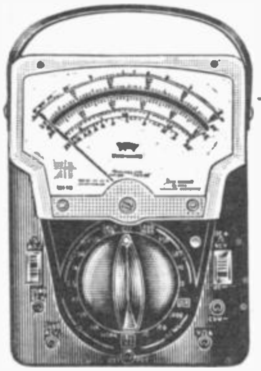
Model 630-M. The input impedance of a VTVM with the convenience of a VOM. The 630-M's sensitivity is derived from the singular achievement of its basic 0-1 DC micro-ampere movement. The 630-M incorporates no amplifiers, has no zero drift, no warm-up, and no power requirements. 1,000,000 ohms per volt, DC for greater accuracy on high resistance circuits. 20,000 ohms per volt AC 1 u-a Suspension Meter Movement: no pivots, bearings, or rolling friction. Extremely rugged. Greater sensitivity and repeatability. 61 ranges, usable with frequencies through 100 hz. Temperature compensated. ±1½% DC accuracy, ±3% AC. Current measurements from 20 nanoamperes. Voltage measurements from 5 mv. VDC: 0-.6-3-12-60-300 at 500,000 ohms/volt. 0-.3-1.5-6-30-150 at 1,000,000 ohms/volt. 0-1200 at 125,000 ohms/volt. 0-6-600 at 250,000 ohms/volt. VAC: 0-3-12-60-300-1200 at 10,000 ohms/volt. 0-1.5-6-30-150-600 at 20,000 ohms/volt. DB: —20 to +63 in 10 ranges. DC MICROAMPERES: 0-1 at 300 MV. 0-60-600 at 300 MV. 0-120 at 600 MV. DC MILLIAMPERES: 0-6-60-600 at 300 MV. 0-1.2-12-120-1200 at 600 MV. DC AMPERES: 0-6 at 300 MV. 0-12 at 600 MV. OHMS: 0-1K-10K-100K (4.4-44-440 at center scale). MEGOHMS: 0-1-10-100 (4400-44,000-440,000 ohms center scale.) Shpg. wt. 5 lbs.

62F1776. NET **220.00**

HIGH ACCURACY VOLT-OHM-MILLIAMMETER

Model 630-APLK. Transistorized Electronic Switching Circuit guards against accidental burnouts! Comprehensive overload protection. Polarity reversing switch and suspension Meter Movement. One selector switch minimizes chance of incorrect settings. Transistorized overload sensing device does not load circuit under test, eliminating possibility of damaging circuit components. Rugged 0-50 microampere suspension type movement. Diode network across meter protects against instantaneous transient voltages. Automatically checked by using X100K ohms range. One 20 position range switch turns in either direction to obtain desired range. Special meter shorting feature on "OFF" position for high damping when moving tester. Accuracy ±1½% on DC, ±3% AC. Flush mounted controls, jacks and meter. DC VOLTS: 0-2.5-10-50-250-1,000-5,000 at 20,000 ohms/volt 0-0.25 at 100 microamperes. AC VOLTS: 0-3-10-50-250-1,000-5,000 at 5,000 ohms/volt. DC MICROAMPERES 0-100 at 250 Mv. DC MILLIAMPERES: 0-10-100-1,000 at 250 Mv. DC AMPERES: 0-10 at 250 Mv. Ohms: 0-1,000-10,000 (4.4-44 at center scale). Megohms: 0-1-100 (4,400-440,000 at center scale). Output Volts (AC): 0-3-10-50-250 at 5,000 ohms/volt: jack with condenser in series with AC ranges. Case: Molded, fully insulated; 3$^{11}/_{32}$" x 5½" x 7½". Shpg. wt., 5 lbs.

62F1777. NET **105.00**

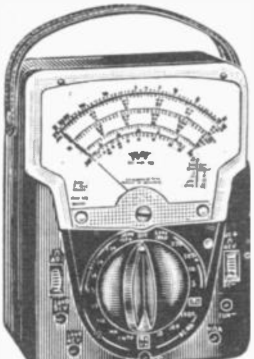


Model 630 APLK

VOLT-OHM-MILLIAMMETER

Model 630-PLK. Transistorized relay circuit provides protection from burn-outs; overload sensing device does not load circuit under test. Life of transistor circuit battery is nearly that of shelf life. Automatically checked by using X100K ohms range. 20 position range switch turns in either direction. Patented Bar-Ring Movement provides self-shielding; not affected by stray magnetic fields; usable with frequencies through 500 hz Sensitivity: 20,000 ohms VDC, 5,000 ohms VAC. Resistors directly connected to switch to form a simplified unit. Jacks located on lower corners of panel, permitting greater accessibility to control knob. Banana type leads for low-contact resistance at jacks. Leads are 50 inches long, test prods with removable alligator clips. DC Volts: 0-2.5-10-50-250-1,000-5,000 at 20 000 ohms/volt; 0-0.25 at 100 microamperes. AC Volts: 0-3-10-50-250-1,000-5,000 at 5,000 ohms/volt. Decibles: —20 to +11 +21, +35, +49, +61, +75; "O" DB at 1 MW on 600 ohm line. DC Microamperes: 0-100 at 250 Mv. DC Milliamperes: 0-10-100-1000 at 250 Mv. DC Amperes: 0-10 at 250 Mv. Ohms: 0-1000-10,000 (4.4-44 at center scale). Megohms: 0-1-100- (4,400-440,000 at center scale). Output Volts (AC): 0-3-10-50-250-1000 at 5000 ohms/volt; jack with condenser in series with AC ranges. ±2% DC, ±3% AC accuracy. Size: 3$^{11}/_{32}$"x5½"x7½". Shipping weight 5 pounds.

62F1775. NET **93.00**



Model 630-PLK

DE LUXE, EASY-TO-READ VOMS!

Model 630-PL. Volt-Ohm-Milliammeter Instant vision, wider spread scales. Outstanding linear ohm scale; low reading 0.1 ohm; high to 100 megs. One switch selects any range; reduces wrong settings, burnouts. Useable with frequencies through 500Kc. DC polarity reversing switch. High sensitivity. Accuracy: ±2% DC; ±3% AC. Ranges —V DC: 0-2.5-10-50-250 at 160 Microamperes V AC: 0-3-10-50-250-1000-5000 at 50 ohms/V; DB: —20 to +11, +21, +35, +49, +61, +75; "O" DB at 1 MW on 600-ohm line; DCua: 0-100 at 250 MV. DC MA: 0-10-100-1000 at 250 MV; DC Amp.: 0-10 at 250 MV; ohms 0-10000-10,000 (4.4-44 at cir scale); megohms: 0-1-100 (4400-440,000 at cir scale): V AC output: 0-3-10-50-250-1000 at 5000 ohms/V, jack w. condenser in series with AC ranges. Case-molded fully insul. Leads, alligator clips, rubber feet, batteries, 3$^{11}/_{32}$x5½x7½. Shpg. wt. 4½ lbs.

62F241. NET **61.00**

Model 630-APL. Volt Ohm- Milliammeter. Labtype featuring ½% resistors, mirrored scales. ±1½% DC accuracy. Other features same as 630PL.

62F242. NET **71.00**

Model 630-PL

VOLT-OHM-MILLIAMMETER

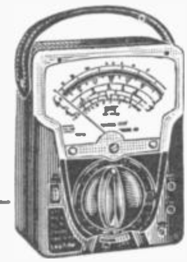
Model 630. Reads DC volts to 6,000 in six ranges at 20,000 ohms/volt. AC volts in corresponding ranges at 5000 ohms/volt. DC current ranges are: 0-60 microamperes. 0-1.2-12-120 mils. 0-12 amps. Measures ohms 0-1.000-10,000 and megohms 0-1-100. Also reads db from —20 to +77 in six ranges. One switch selects any range. 5½" scale; 50 microamp movement. Resistors are precision wire-wound or carbon film. With batteries test leads. 3$^{7}/_{32}$" x5½"x7½". ±2% DC, ±3% AC accuracy. Shipping weight 4½ lbs.

62F212. NET **61.00**

Deluxe Model 630-A. Laboratory version of Model 630 VOM above. Has same ranges and sensitivity, but comes equipped with 4⅜" mirror scale and knife-edge pointer. ±1½% DC, ±3% AC accuracy.

62F211. NET **71.00**

Model 630



Model 630-NS

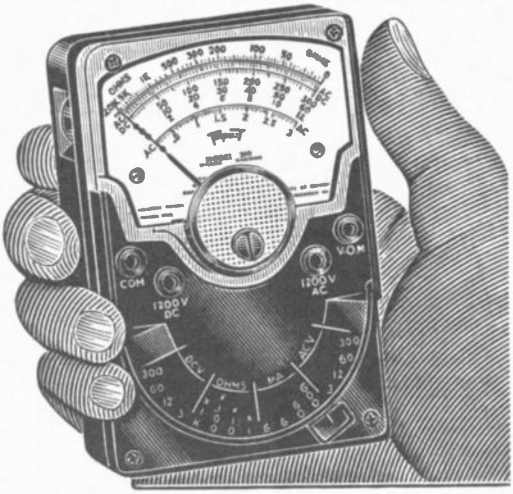
200,000 OHMS/VOLT-OHM-MILLIAMMETER

Model 630-NS. Has 62 ranges. 200,000 ohms per volt DC for greater accuracy on high resistance circuits .20,000 ohms. per volt AC. Suspension Meter Movement. Molded insulated case. DC Volts: 0-0.6-3-12-60-300--1200 at 100,000 Ohms/Volt 0.3-1.5-6-30-150-600 at 200,000 Ohms/Volt. 0-0.150 at 60 microamperes AC Volts: 0-3-12-60-300-1200 at 10,000 Ohms/Volt. 0-1.5-6-30-150-600 at 2000 Omhs/ Volt. Accuracy ±1½° DC, ±3% AC. 3$^{11}/_{32}$x5½x7½". Wt. 5 lbs.

62F168. NET **110.00**

Model 630-NA. As above except 10,000 and 20,000 ohms/V DC and 5000 and 10,000 ohms/V AC. 70 ranges.

62F228. NET **93.00**



HAND-SIZE VOM
20,000 OHMS/VOLT DC SCALE

Model 310. Complete miniaturized VOM with selector range switch. An interchangeable test prod fits into tester top, becoming common probe and freeing one of your hands for other work. Self-shielded for use in magnetic field. Unbreakable plastic meter window. Rugged, high-torque, bar-ring instrument. Standard sensitivity, 20,000 ohms per volt DC and 5,000 ohms per volt AC. Accuracy, 3% DC, 4% AC. RANGES: VDC 0-3-12-60-300-1,200 (at 20,000 ohms per volt). VAC 0-3-12-60-300-1,200 (at 5,000 ohms per volt). OHMS: 0-20,000-200,000. MEGHOMS: 0-2-20. DC MICROAMPERES: 0-600 at 250 millivolts. DC MILLIAMPERES: 0-6-60-600 at 250 millivolts. CASE: molded, fully insulated, 2¾"x4¼"x1⁵⁄₁₆". Complete with leads, battery, and instruction manual. Shipping weight 2 lbs.
62F230 .... **44.00**

Model 310-C Type II. Same as model 310, but has 15,000 ohms per volt on AC, 600 volt ranges in place of 1200v. range of 310. Also features taut-band meter movement. Lever range switch, reversing switch for DC. Range switch fully enclosed. 14 oz.
62F292. NET 56.00
62F231. No. 369. Carrying case for above. **NET** 4.20

AC CLAMP-ON AMMETER ADAPTER FOR 310 VOM

Model 101

Model 10

Model 10. Checks all line loads instantly, accurately, safely—without breaking the circuit or interrupting work. Easy range switch. RANGES: 0-6-12-30-60-120-300. Clips around single wire to read AC amperes direct. Use with Adapter 101 to divide instantly two-conductor cords. A lever securely locks the Model 10 to Model 310 when used in combination. Model 10 can be left attached to Model 310 when the latter tester is used as an AC-DC VOM only. The only necessary change is to remove the lead plug from the Model 310 VOM jack and insert it in the jack provided in the Model 10 housing. Case is black molded plastic with engraved white markings. Ideal for checking wiring circuits, motor loads, appliance loads. Its use expanded with leads below.
62F235. NET **20.00**

No. 611. Long lead attachment for using Model 10 as clamp-on ammeter with any VOM having a 3-volt AC scale at 5,000 ohms per volt, such as 630, 630-A, 630-NA, 630-PL, 630-APL, 631, etc.
62F236. NET **3.20**

No. 311. Long lead to separate No. 10 from No. 310 for easy reading in awkward spots.
62F237. NET **3.20**

No. 101. Line Separator dividing 2 conductor cords and increasing No. 10 sensitivity 10X & 20X.
62F238. NET **8.00**

Model 379. Carrying case for No. 310 and No. 10 in combination.
62F239. NET **8.00**

VOM AND CLAMP-ON AMMETER SET

Model 100. Complete set includes Model 310 VOM, Model 10 Clamp-on Ammeter Adapter, Model 101 Line Separator, Model 379 Leather Case, and Model 311 Leads.
62F249. NET **78.00**

LAB VOM WITH 7" MIRROR SCALE SUSPENSION MOVEMENT

Model 800. 70 ranges with 1½% DC accuracy including DC Polarity Reversing Switch. Overload protection; temperature, frequency compensated. Long mirror scale easily read, preventing misreadings due to parallax. DC volts at 20,000 and 10,000 ohms per volt, AC at 10,000 and 5,000 ohms per volt. 3% AC accuracy to 1200 volts. RANGES: DC volts: 0-.6-3-12-60-300-1200-6000 at 10,000 ohms per volt. 0-.3-1.5-6-30-150-600-3000 at 20,000 ohms per volt. 0-.120 at 60 microamperes. AC volts: 0-3-12-60-300-1200-6000 at 5,000 ohms per volt. 0-1.5-6-30-150-600-3000 at 10,000 ohms per volt. DB: —20 to +70 in 12 ranges. DC MICROAMPERES: 0-60-600 at 120 MV. 0-120 at 240 MV. DC MILLIAMPERES: 0-6-60-600 at 120 MV. 0-1.2-12-120-1200 at 240 MV. DC AMPERES: 0-6 at 120 MV. 0-12 at 240 MV. OHMS: 0-1K-10K-100K (4.4-40-440 ohms at center scale. Case: 7½"x6¼"x3⅞". Shipping weight 7 lbs.
62F291. NET **110.00**

VACUUM TUBE VOLTMETER

Model 850. Long 7" easy-to-read scale. For transistor circuits, .5 DCV range. Hi-stability: meter connected in cathode circuit of 12AU7. Accurate within ±3% on AC or DC. Ohms accurate within ±3% of full scale based on DC scale. Line voltage: 115 VAC 50-60 cycles. Grounded plug. RANGES: 8 DCV ranges: 0-.5-1.5-5-15-50-150-500-1500. 7 AC RMS volts ranges: 0-1.5-5-15-50-150-500-1500. Seven peak-to-peak volts ranges: 0-4-14-140-400-1400-4000. Seven resistance ranges: 0-100-10,000-100,000-1 Meg- 10- Meg. 100- Meg. 1000 Meg-ohms. FREQUENCY RANGE: 15 hz to 3 Mhz (Up to 250 with accessory diode probe available extra). INPUT IMPEDANCE: DCV 11 megohms; ACV minimum of .83 megohms. Case: Molded black case completely insulated. 7⅝"x6⁷⁄₁₆"x3¾". Shpg. wt., 7 lbs.
62F290. NET **93.00**

VTVM AND VOM TEST METER

Model 631. Two fundamental units at the price of a single tester. Combines wide range testing facilities of 2 testers in one compact unit. Molded compartment houses resistors, rectifier, etc. By using VOM for general testing, and VTVM when needed, the unit makes a VTVM with long battery life. 5½" meter. Adjusted to 50 microamperes at 250 MV. Has good temperature compensation. VOM ranges AC-DC volts: 0-3-12-60-300-1200 at 20,000 ohms/volt DC, 5,000 ohms/volt AC. Microamps 0-60 at 250 MV; DC milliamperes: 0-1.2-12-120-1200 at 250 MV. DC ampere ranges: 0-12 at 250 MV. DB ranges: —20. +11, +23, +37, +21. +63; Ohms: 0-1500-15000; Megohms: 0-1.5-150; Output Condenser in series with AC volts: VTVM ranges-DC volts 0-1.2-6-30-120. With 2-22½ volt Burgess leads. Accuracy: ±3% DC, ±4% AC, ±4% VTVM. Alligator clips, rubber feet. 3¹¹⁄₃₂x5½x7½". Shpg. wt., 4 lbs.
62F227. NET **82.00**

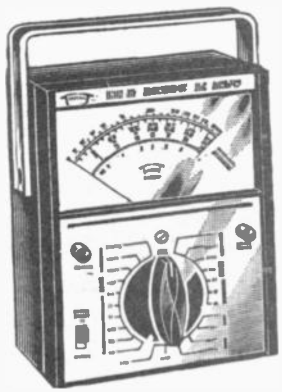
Test Equipment

● *NEW* **SOLID-STATE VOM.**

Model 601. Lightweight, portable, battery operated all solid state V-O-M with push-button function switches and field effect transistorized circuitry providing 11 megohm impedance on all AC and DC ranges. The 601 has an accuracy of ±2% of full scale on DC and ±3% on AC. Frequency response on AC ranges is 50 to 50K Hz. It also permits the operator to have at his disposal 7 conventional and 7 low power ohms ranges. The "Low Power Ohms" feature is designed to prevent electrical damage to IC's. In circuit resistance measurements can be easily made without the usual diode or transistor loading. In use, 75mv is applied across the device under test and max power applied is .1 mW. A total of 52 selections including "off" and "battery check" can be accomplished using the single range switch. The unit is furnished complete with batteries and leads. Ranges: Volts, AC & DC, 0-.1-.3-1-3-10-30-100-300-1000, (plus 0-.01-.03 AC); Ohms, 1-10-100-1k-10k-100k-1meg (10Ω center scale); Current, 0-10-100uA-1mA-10mA; Size: 6½x5⅛x3⅛". Shipping Wt. 4¼ lbs.

62F1768. NET **125.00**

MODEL 600 SOLID STATE VOLT-OHMMETER



Model 600TVO. Lightweight and transisorized test instrument which has the portability of a VOM with the high input impedance of a VTVM, wide freqency ranges and low cost battery power. Features include: a brushed aluminum front panel with black range markings; molded case of high impact material; a carrying handle of extruded aluminum which doubles as a stand; removable back permits easy access to the working circuitry. One compact probe is used for all functions. The probe has a built-in switch which places a resistor in series with the instrument on DC voltage readings. The easily readable meter is 5" wide, Typical battery life is 4000 hours, in normal operation. Battery complement consists of: 3—1.5 V batteries (1 D, 2 AA) and 1—9 V transistor battery. Batteries included. Frequency range: 15 hz to 2 Mhz. 11 Megohm resistance on all DC ranges except .4 and .8. AC impendance is minimum of .75 megohms. Plug-in ground lead insures good grounding of the circuit under test. Ranges: DC—0-0.4-0.8-1.6-4-8-16-40-160-400-1600; AC—0-4-8-16-40-160-400-800; Resistance—0-1,000-10,000-100,000-1 Meg.—10 Meg. Size: 3 3/16" x 5⅛" x 6½". Weight: 2½ lbs.

62F1769. NET. **82.00**

COMPACT VOM

Model 666-R. Pocket size VOM. 1,000 ohms-per-volt sensitivity on both AC and DC voltage ranges. Has flush-mounted 3" microammeter. Scale, 2 9/32" long at top arc. Ranges: DC and AC volts, 0-10-50-250-1,000-5,000 at 1,000 ohms per volt; DC ma. 0-10-100; DC amps, 0-1; ohms, 0-3,000-300,000; megs, 0-3. Complete with batteries, test leads, banana plugs, and alligator clips 3 1/16 x 5⅞ x 2 9/16". Shpg. wt. 2¼ lbs.

62F209. NET. **44.00**

Look To NEWARK To Fill Your Test Equipment Needs

● *NEW* **TRANSISTOR ANALYZER**

Model 3490A. Tests DC beta, AC beta at 1kHz, leakages, alpha, reach thru voltage, saturation voltage, floating potential. The 3490's flexibility allows both plotting of characteristic curves and setting up of nearly any type of test. It features 3 independent power supplies, collector currents to 30A., input currents to 3A., separate input and collector meters, variable tetrode voltage, continuous coverage without skips, and free transistor tabulation. Also tests zener diodes, scr's etc. Wood case, 18x15x8". Shpg. Wt., 30 lbs.

62F202. NET **441.00**

SIGNAL GENERATOR

Model 3432A. Shielded for AM-FM radio, monochrome and color TV servicing. Complete frequency coverage in 7-calibrated ranges from 160 KC to 110 MC on fundamentals (220 MC using harmonics) with no skips. Circuit selector provides internally modulated signal variable from 0 to 100% at 400 cycles; variable amplitude of external modulation 40 to 15,000 cycles; unmodulated signal and variable audio at 400 cycles. Cathode follower output. 3-position step type attenuator for R-F selection. For 115 volts 50-60 cycles AC. Size: 15 11/32x11 1/32x6¼". Shpg. Wt. 12 lbs.

62F200 NET **144.00**

POWER AND SIGNAL TRANSISTOR TESTER

Model 2590. Provides for testing ICEO (at 9.5v); ICBO (at 9.5v) and BETA (at 3v) on both NPN and PNP transistors. Checks leakage and forward currents of Diodes. Etched aluminum natural finish front panel. Banana plugs for connecting to tester jacks at the other end. SCALES—0-1 MA for Signal Transistor ICEO; 0-100 MA for Power Transistor ICEO; 0-500 UA for Signal Transistor ICBO; 0-1 MA for Power Transistor ICBO; 5-100 Beta Range. 115 volts, 50-60 hz. AC. 11⅝x8⅝x5⅛. Shpg. wt., 9 lbs.

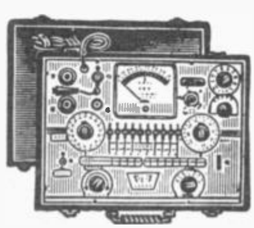
62F289. NET **71.00**

● *NEW* **TUBE ANALYZER**

Model 3444A. This tester measures true Gm without any extra compensating factors. In addition it offers a combination of unique test advantages as follows: Checks plate current cutoff. Checks gas under operating conditions. Checks rectifiers under load. Checks thyratron firing voltage and grid current. Checks dual section tubes with only one lever movement. Provides shorts and leakage measurements from 0-10 megohms. Provides cutoff measurements on voltage amplifiers. Accepts all base configurations. No adaptors necessary. Case-wood, gray leatherette covered, 15x18x7. Hinged, removable lid, accessory storage compartment, and removable roll chart. Shipping Weight, 30 lbs.

62F274 NET **470.00**

FLEXIBLE TUBE TESTER

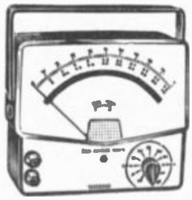


Model 3414. Rejects burned out tubes without waiting for filament to heat. Full range filament voltages from 0.65V to 117V in 23 steps. Quick-change roll chart included. Neon indicator shorts test. Sockets: 8 prong octal, 8 prong loctal, 7 prong miniature, 9 pin subminiature. Aluminum panel. For 117 VAC. 50-60 cycles. Size: 15⅞x11½x6½". Shpg. wt. 14 lbs.

62F206. NET **132.00**

TRIPLET

825 PORTABLES



Model 825. For general testing. Feature self-shielded Triplett BAR-RING magnet with a suspension movement. Overload protection diodes on DC Model. Wire-wound ±.05% accuracy resistors. Accuracy is ±1/2 of 1% of full scale deflection in horizontal position at 77F. Scale length is 6.84", features anti-parallax mirror and knife-edge pointer. Brushed aluminum panel. Heavy, molded black case 7½x6¼x3⅞".

DC VOLTMETER. 0-.5-1-2-5-10-20-50-100-200 volts at 50,000 Ohms Per Volt. 0-500 at 20,000 Ohms Per Volt. 0-1000 at 10,000 Ohms Per Volt.
62F1772. NET **220.00**

DC MILLIAMP/AMMETER. 0-1-2-5-10-20-50-100-200-500 milliamps at 50 millivolts. 0-1-2-5-10 amperes at 50 millivolts.
62F1773. NET **185.00**

DC MICRO/MILLIAMMETER. 0-20-50-200-500 microamps at 300 to 500 millivolts. 0-1-2-5-10-20-50 milliamps at 500 millivolts
62F1774. NET **196.00**

CARRYING CASES AND REPLACEMENT LEADS

Model 639. Black cowhide leather case. Space for tester and accessories. For Models 630, 630-A, 630-M, 630-NA, 630-NS, 630-PL, 630-APL, 630-PLK, and 631.
62F213. NET **12.60**

Model 639-P. Same as 639, but lined with ⅜" sponge rubber padding for maximum protection of tester.
62F234. NET **17.90**

Model 639-N. Black Leather case with center cover flaps, permits complete access to tester without removal from case. For Models 630, 630-A, 630-NA, 631, 630-PL, 630-APL, 630-NS, 630-M, and 630-PLK.
62F233. NET **12.60**

Model 669. Black leather case with strap handle, space for tester, leads, accessories. For 666-R.
62F210. NET **8.40**

T-79-127. Rubber replacement leads for Models 630, 630-A, 666-R, 630-PL, 630-APL, 630-PLK, 630-NA, 630-NS, 630-M, and 631.
62F245. NET **3.20**

T-79A-153. Replacement leads for Model 310 and 310C.
62F246. NET **3.20**

LIQUID CARBONIC

ULTRASONIC LEAK DETECTOR

- **Translates ultrasonic sounds in the 36,000 to 44,000 cps range into audible sounds**
- **Probe and circuit case each operate on a 9 volt battery — life expectancy up to 1 year.**
- **Highly mobile . . . carries anywhere easily! Well suited for leak detection in hard-to-reach areas.**
- **Main circuit case weighs just 14 ozs.**
- **Detector effective up to 75 feet.**

Pressure turbulance sounds created by leak are detected, translated and amplified into audible signals. A 6 inch tubular probe locates the source of the leak, pinpointing it by changes in the sound level. Probe does not react to sounds from above, below or to the rear. Only frontal sounds activate the unit. The compact and lightweight amplifier unit may be carried in shirt pocket. A volume control is located on top of the unit for easy adjustment. The highly sensitive microphone in the unit responds to sound from 36 to 44 kilocycles per second. Detector incorporates dual transistorized circuit. There is a self-contained power supply in the circuit and, because of the low drain, gives approximately 100 hours of continuous operation. The Ultrasonic Detector is extremely effective in checking equipment using gas, under pressure, at high temperatures. Can also be used to locate mechanical difficulties in pipes involving valve action or bearing irregularities in moving machinery; for determining restrictions in pipes where fluid is moving; or any other disturbances causing sound in the 36-44 kilocycle range The detector is effective up to 75 feet from sound source. Probe and circuit case are in long wearing aluminum case. Entire unit includes headset, amplifier, probe and connecting cables. Two batteries power unit (not included). Narrow field adapter (not included) is used when it is necessary to pin point difficult to locate leaks. Shipping weight 2 lbs.

99F990. 1-4 **EACH**....29.95 5-9, **EACH**..24.95 10-up, **EACH**...19.95

99F991. Narrow Field Adapter for above unit, **EACH** 5.00

BATTERIES (2 required)

49F188. Burgess 2U6. **EACH** .... .48

49F368. Eveready 216. **EACH** .... .48

Receiver Probe

Narrow Field Adapter

SIMPLE A-B-C OPERATION

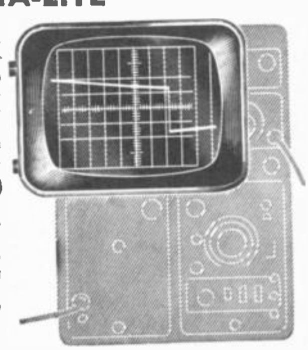
1. Insert cable plug into rear jack of probe—plug at other end of cable into jack on top of amplifier. Plug headphones into amplifier.
2. Depress red "detect" button.
3. Rotate volume control unit the sound is heard.
4. Move probe back and forth. Sounds or leaks can then be pin-pointed. From changes in sound level heard through headphone, detection of leak is determined quickly, easily!

POMONA

● *NEW* CRT 30 KV TEST PROBE

Test probe featuring a built-in voltmeter. Easy to make high voltage adjustments; unit is small enough to fit in tool box or caddy. Ground the test probe instrument by attaching alligator clip to chassis, contact test probe tip to high voltage anode, read voltage from the built-in meter, and adjust as required. No batteries. Range: 30,000 volts DC. Sensitivity: 20,000 ohms/volt (50 ua) movement. Accuracy: ±3% full scale. Multiplier Resistance: 600 Megohms ±2%. Handle is made of high impact thermo plastic. Probe: high impact polystyrene. Length: 14¾" overall. Wt. 8 ounces.
34F887. NET **19.95**

EDNA-LITE



Model OS-STV-2. Stereoamic Oscilloscope Image Expander attaches simply, quickly to all standard 5" lab type oscilloscopes, including Tektronix. Hewlitt-Packard etc. Supplied complete with mounting bezel. Size: 8x8x6". Shpg. wt., 9 lbs.
62F097. NET **99.00**

Model OS-STV-CC. Storage Case for Image Expander. Completely portable. Made of durable fibre with extra metal protected corners. Size: 9⅝x3⅜x7⅛". Shipping wt. 5 lbs.
62F099. NET **14.95**

Temperature Meters and Controllers

Y S I

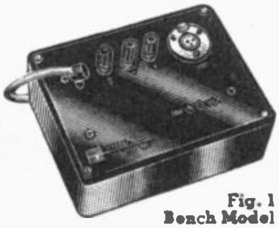


Fig. 1
Bench Model

THERMIVOLT THERMILINEAR THERMOMETER

Composed of circuitry necessary to convert Thermilinear Component No. 44018 or 700 Series Probe resistance into a DC analog voltage. Voltage conditioned to have direct numeric correspondence with temperature. When applied to proper digital recorders it results in direct reading thermometer. In either bench or basic circuitry models. 2¼x6¾x5¼" (Fig. 1); 1$^{15}/_{16}$x5⅜x2" (Fig. 2); Weight: 1¾ lbs. (Fig. 1), 1 lb. (Fig. 2); Power: 115/120V, 50/60 HZ, 5 watts max.

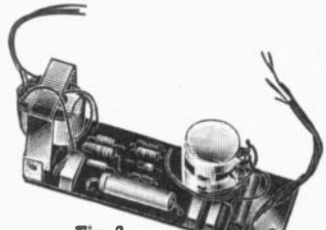


Fig. 2
Basic Circuitry Model

Stock Number	Bench Model	Net	Stock Number	Basic Model	Net	Accuracy	Range	Sensitivity	Output
29F230	741-1	130.00	29F238	751-1	95.00	±0.4°C	0 to 100°C	1MV/°C	0 to 100 MV
29F231	741-10		29F239	751-10		±0.4°C	0 to 100°C	10MV/°C	0 to 1 V
29F232	742-1		29F240	752-1		±0.25°C	—5 to +45°C	1MV/°C	—5 to +45 MV
29F233	742-10		29F241	752-10		±0.25°C	—5 to +45°C	10MV/°C	—50 to +450 MV
29F234	743-1		29F242	753-1		±0.35°C	—30 to +50°C	1MV/°C	—30 to +50 MV
29F235	743-10		29F243	753-10		±0.35°C	—30 to +50°C	10MV/°C	—300 to +500 MV
29F236	744-1		29F244	754-1		±0.35°C	30 to 100°F	1MV/°C	30 to 100 MV
29F237	744-10		29F245	754-10		±0.35°C	30 to 100°F	10MV/°C	0.300 to 1 V

YSI SERIES "700" INTERCHANGEABLE PROBES

701 707 709 705 703 710

Electrically equivalent to Thermivolt Thermilinear Thermometer (See YSI thermistors). If a 700 Series Prope is to be used as a substitute for the component, it is necessary to acquire a resistors composite as a separate item.

Stock No.	Type	Application	Material	Lead	Max. Temp.	Time Const.	Net
29F246	701	GENERAL PURPOSE. Esophageal or rectal temperature in humans and larger lab animals. Often buried for sub-soil readings. Most rugged, least expensive probe.	Vinyl tip	10. ft.	212°F 100°C	7 Sec.	30.00
29F247	703	TUBULAR. For rugged duty in liquid immersion use. Fast response oral or rectal probe. Immersible only to cap.	Stainless steel	10. ft.	212°F 100°C	3.4 Sec.	43.50
29F248	709	ATTACHABLE SURFACE TEMPERATURE. Easy to tape on skin or flat surface for reading. Good for heat loss or compression efficiency study of piping system.	Stain. steel cup, epoxy backed	10. ft.	212°F 100°C	1.7 Sec.	39.50
29F249	710	TUBULAR WITH FITTING. Readings in pipes or inside closed vessels.	Stainless steel	10. ft.	212°F 100°C	3.4 Sec.	50.00
29F250	705	AIR TEMPERATURE. For test rooms, incubators, remote air readings or to monitor gas streams, etc.	Stainless steel	10. ft.	212°F 100°C	0.3 Sec.	50.00
29F251	707	GENERAL PURPOSE. (Non-immersible.) Can be potted in place suitable for leaf and other surface temperatures.	Epoxy tip	10. ft.	212°F 100°C	0.5 Sec.	43.50

RESISTORS

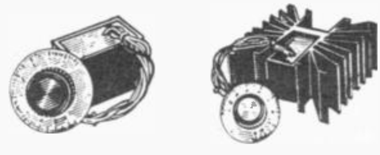
Stock Number	Type	Temperature Range	Each	Stock Number	Type	Temperature Range	Each
29F252	44301	0 to 100°C	4.80	29F254	44303	—30 to +50°C	4.80
29F253	44302	—5 to +45°C	4.80	29F255	44304	30 to 100°F	4.80

PAK-TRONICS TEMPERATURE CONTROLLERS

WHERE TO USE CONTROLLERS

- OIL AND WATER BATHS • OVENS
- INCUBATORS
- HEAT EXCHANGERS
- PLASTIC MOULDERS AND EXTRUDERS
- TEXTILES • PRINTING PRESSES
- VULCANIZING
- CHROMATOGRAPHY
- TEST CHAMBERS • HUMIDIFIERS

Universal Lab Model



"Mini" Temp. Controls

UNIVERSAL LAB MODEL

Compact solid state unit features a selection of interchangeable temperature ranges from —20°C to +425°C. All control circuiting and temperature probes operate at low voltage levels to provide maximum safety. Size: 4½x7x7". Shpg. wt. 10 lbs.

Controllers—Order Temp. Kits Separately

Stk. No.	Type	Current	Power	Volts	NET
62F1000	201	15 Amps	1800 W.	120 AC	145.00
62F1001	202	15 Amps	3600 W.	240 AC	155.00

TEMPERATURE RANGE KITS

Each kit contains a plug-in sensing probe, plug-in range cord, 3" knob and dial plate calibrated to match temperature control of range card and a calibrating resistor. Order one or more range kits for complete temperature range versatility.

Stock No.	Type	Range	Accuracy	Prop. Band	EACH
62F1002	260	+15 to +115 C	±.050 C	10° to 5° C	50.00
62F1003	261	0 to 260 C	±.25 C	13° to 52° C	55.00
62F1004	262	—20 to +425 C	±.25 C	13° to 52° C	80.00

"MINI-TEMP" CONTROLLER

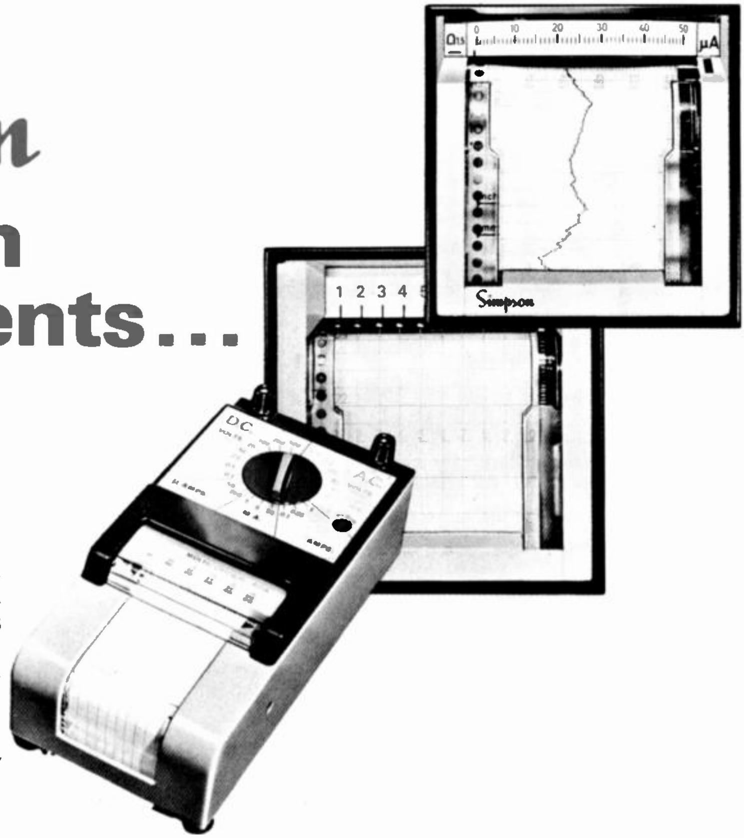
For OEM applications, small and compact units for behind panel mounting. Solid state sealed epoxy module gives environmental protection. Fail safe operation, heat automatically shuts off if probe wires open. Dual voltage, units operate on either 120 VAC or 240 VAC, 60 Hz. Internal power supply has regulated voltage and is temperature compensated providing maximum control stability. Temperature range is 100°F to 700°F with ±½°F control accuracy; proportional band is fixed at 20°F. Included is a calibrated dial and knob for direct temperature setting; wire wound probe ¼" dia., 6" long with 12" leads; indicating lamp and calibrating resistor. Power Watts: **Model 1211-1000 @ 120V, 2000 @ 240V; 1215-4800 @ 120V, 9600** @ 240V. Size: 211-1⅜x3x2⅜". (1 lb.); 1215-6¼x6¼x3" (3 lbs.).

Stock No.	Type	Amps	1-4	5-9	10-24	25-49	50-99
62F1005	1211	8.3	64.00	60.80	57.60	54.40	51.20
62F1006	1215	40.0	110.00	104.50	99.00	93.50	88.00

Newark stocks

Simpson

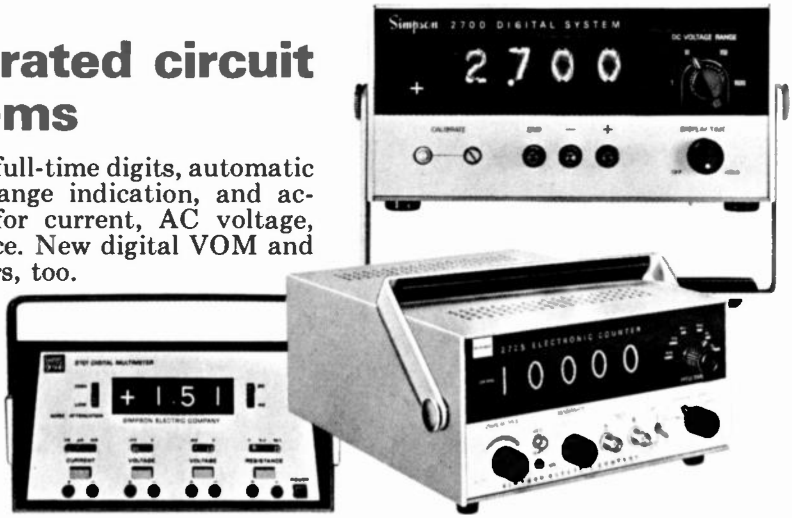
precision instruments...



miniature chart recorders

New model 2755 has 10 event channels in just 3¾″ x 3¾″ of panel space! Records for over a month without changing chart paper. Uses dependable inkless recording system. Matching model 2750 is available in a wide selection of ranges, using rugged Taut Band movements. New model 605 has 24 *switch selected* ranges.

. . . SEE PAGE 194



integrated circuit digital systems

New Simpson 2700 has 4 full-time digits, automatic polarity selection, overrange indication, and accepts plug in modules for current, AC voltage, resistance and capacitance. New digital VOM and digital frequency counters, too.

. . . SEE PAGE 193

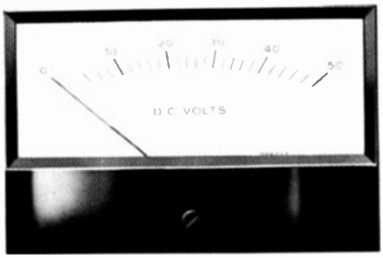
multi-range lab standards

Long-term accuracy combined with switch selected ranges. 1700 series offers convenience and low cost-per-range.

. . . SEE PAGE 193

largest panel meter selection!...

Simpson has more stock styles...



New Designer Series has 40% longer scale lengths.

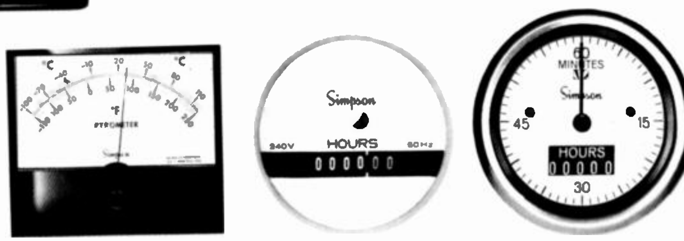
Stacking edgewise meters are the ultimate in compactness.

Original WIDE-VUE® meters in five sizes . . . 1½" to 8".

...more stock sizes

...more stock ranges

7 PAGES OF SIMPSON METERS—PAGES 225-231



Segmental, elapsed time, temperature, frequency . . . Simpson has stock models for virtually any application.

260®
Shock-proof overload-protected movements give 260® VOMs *stay* accurate dependability. Choose from a selection of models, including the GOOF-PROOF 260-5P.

world's largest selling VOMs...

160
Handi-VOM®
Full-size VOM accuracy and sensitivity . . . in a hand-size package.

313
Solid State VOM
11 Megohm DC input impedance, and it's battery operated.

SEE PAGES 193-199

NEW 2700 DIGITAL MEASURING SYSTEM

The new Simpson 2700 digital system has an outstanding combination of features. Basic unit has 4 DC voltage ranges capable of precise measurements from 0.0001 to 1000.0 volts. Plug-in units for DC current, AC voltage, resistance, and capacitance measurements will be available as soon as they are announced by the manufacturer. Convenience features include push-button front panel calibration check and automatic polarity selection (with indication). The 2700 is small and light weight, and its components and well-engineered design assure reliability. The circuit utilizes Integrated Circuits, and field-effect-transistor input. The four read-out lights are of long-life (200,000 hours) design. Accuracy is within ±0.05%, ±1 digit. Adjustable display time permits reading rates up to 5 per second. Ranges of basic unit: (DC voltage), 0-1.00-10.00-100.00-1000.0 volts full scale. Size: 4x8¼x11 inches. Shipping Weight: 9 lbs.

62F2267. NET **615.00**

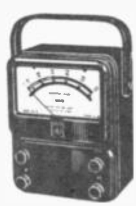
NEW LOW COST SECONDARY STANDARDS

These portable precision instruments are available in a wide variety of ranges to suit almost any requirement. Scales are hand drawn, individually calibrated, and easy to read. Parallax errors are eliminated by Knife edge pointers, painted black on one side and read against a mirror. All units are temperature compensated. They have hand-polished, hardened steel pivots and spring-backed, jeweled bearings. Units also feature a convenient handle and a rugged phenolic case. Size, all units: 5¼"x3½"x7". Shipping Weight: 3 lbs.

MODEL 9 DC INSTRUMENTS

Annular, self-shielded movements offer excellent linearity and freedom from errors caused by nearby magnetic fields. Shunts are milled from a single section of maganin for wide-range temperature stability. Multiple range units have a binding post for selection of each range. Accuracy of all DC models is 0.5% of full scale.

MODEL 10 AC INSTRUMENTS



All Model 10 portables use the Simpson magnetically damped repulsion-attraction iron vane movement. The movement, designed to provide essentially linear deflection through the upper 80% of the scale, has excellent damping and an extremely rapid response time. These characteristics make possible rapid, accurate readings. Model 10 portables are RMS—reading. They are within rated accuracy (1% of full scale, 0.25% on 60 Hz) over the frequency range of 25-125 Hz, except for the milliammeters and ammeters which are 25-500 Hz.

MODEL 9 DC AMMETERS

Stock No.	Type No.	Range	NET
62F2252	12740	0-5	66.00
62F2253	12750	0-15	66.00
62F2254	12760	0-30	66.00
62F2255	12770	0-50	66.00
62F2256	12780	0-100	71.80
MODEL 10 AC AMMETERS			
62F2257	12990	0-5	60.50
62F2258	13000	0-15	60.50
62F2259	13010	0-30	60.50
62F2260	13020	0-50	60.50
MODEL 9 DC MULTI-RANGE UNITS			
62F2261	12880	0-25-250MA	77.00
62F2262	12730	0-2.5-10-25A	88.00
62F2263	12792	0-5-20-50A	88.00
62F2264	13160	0-150-300-600V	99.00

AC/DC WATTMETERS

Stock No.	Type No.	Max @ 150V	Max @ 300V	Max Amp	NET
62F2265	13170	100 W	200 W	1.5	82.50
62F2266	13230	250-500 W	500-1000 W	3.75/7.5	104.50

NEW 2701 DIGITAL VOM

The new Simpson 2701 digital volt-ohm-milliameter displays AC and DC voltage in six ranges, AC and DC current in 9 ranges, and resistance in 7 ranges . . . all at the touch of a button. Even unskilled personnel can make fast, accurate measurements with this VOM. Simply set the magnitude switch. Then press the button—reading appears as a three digit number, complete with polarity sign and decimal point. No errors; no time-consuming scale interpolation. Like all Simpson VOM's, the new 2701 is built for rugged dependability and maximum convenience. Solid state circuitry assures minimum maintenance problems. Decimal point automatically switches over three decade ranges. The Adjust-A-Vue handle folds down to use as a stand. The 2701 is replacing conventional VOM's in many laboratories, test bench, and production line applications. Ranges and specifications are as follows: AC and DC volts, 0.01 mV to 600V in 6 ranges. AC/DC current, 100 nanoamperes to 999 milliamps in 7 ranges. Resistance, 10 ohms to 999 megohms in 8 ranges. Accuracy: ±0.2% of full scale. Has built-in noise attenuation (high and low ranges). Size: 5½"x10"x10". Shipping weight: 16 pounds.

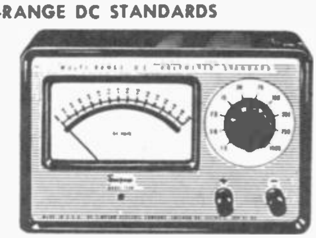
62F2268. NET **835.00**

NEW PRECISION MILLI OHMMETER

Model 1699. This instrument was designed to accurately measure low values of resistance. It determines the value of an unknown resistance by comparing it with a known standard internal resistance. The usual low-resistance measurement errors are avoided by using test leads terminating in Kelvin Clips coupled with a unique circuit which has separate current and volatge paths. This results in ±1% of full scale accuracy—even on the 0-0.05 ohm range. Ranges: 0-0.05-0.1-0.25-0.5-1.0-5.0-10.0-50.0 ohms. Size: 11⅜"x7⅜"x3¼". Shipping weight: 6 Pounds.

62F1189. NET **175.00**

NEW MULTI-RANGE DC STANDARDS



Designed for long-term accuracy under maximum usage. Spring loaded jewels and hardened pivots insure high shock resistance and low friction. The combination of a self-shielded, deep-core movement and a steel case makes these instruments impervious to magnetic fields. These standards use a knife edge pointer and a mirrored scale. A Rotary switch with solid silver contacts proivdes range-change in models 1700, 1702, 1703 and 1704 so that only 2 binding posts are necessary. On the Model 1701 ammeter a separate set of binding posts is provided for each range. All 1700 series standards are temperature compensated from 15°C to 35°C. They also feature ±0.5% accuracy. Scales are individually drawn and calibrated by hand. Each unit measures 11⅜"x7⅜"x3¼", and weighs 5 to 8 pounds. Shipping weight per unit: 9 pounds.

Model 1700. DC voltmeter. Ranges: 0-1.5-3-7.5-15-30-75-150-300-750-1500.
62F1183. NET **180.00**

Model 1701. DC ammeter. Ranges: 0-0.75-1.5-3-7.5-15-30-75.
62F1184. NET **190.00**

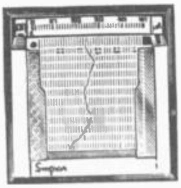
Model 1702. DC milliammeter. Ranges: 0-1.5-3-7.5-15-30-75-150-300-750-1500.
62F1185. NET **180.00**

Model 1703. DC microammeter. Ranges: 0-75-150-300-750-1500.
62F1186. NET **185.00**

Model 1704. DC millivoltmeter. Ranges: 0-30-75-150-300-750-1500.
62F1187. NET **185.00**

Simpson Chart Recorders

• NEW MINIATURE STRIP CHART RECORDERS



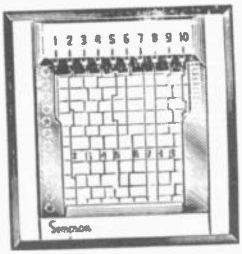
Model 2750. These chart recorders mount in less panel space than a 4½" meter. Mounting bracket is supplied with recorder and requires only one 3.6"x3.6" cut-out. In addition to recording, an edgewise scale gives clear visual readout. Uses specially formulated paper which requires no ink. The paper take-up reel is built-in. Optional snap-on window provides direct paper feedout. Two built-in chart speeds are switch selected. Synchronous motor uses 115 VAC, 60 Hz. Accuracy is 1.5%. Shpg. Wt. 4½ lbs. Supplied with line cord, panel mounting bracket, glass window with metal frame, and 2 rolls of chart paper.

Stk. No.	Range	Net
62F2274	0-10 Microamperes DC	167.00
62F2275	0-50 Microamperes DC	153.00
62F2276	0-100 Microamperes DC	147.00
62F2277	0-500 Microamperes DC	142.00
62F2278	0-1 Milliampere DC	140.00
62F2279	0-1/0-1 MA, Dual Channel DC	148.00
62F2280	0-50 Millivolts DC	142.00
62F2281	0-150 Volts AC	148.00

ACCESSORIES FOR 2750 AND 2755 RECORDERS

Stk. No.	Description	Net
62F2282	Portable carrying handle	6.35
62F2283	Plastic window for direct paper feedout	2.00
62F2284	Gear unit for 30/180 mm/hr speeds	7.50
62F2285	Gear unit for 60/360 mm/hr speeds	7.50
62F2286	Gear unit for 100/600 mm/hr speeds	7.50

• NEW MINIATURE 10 CHANNEL EVENT RECORDER



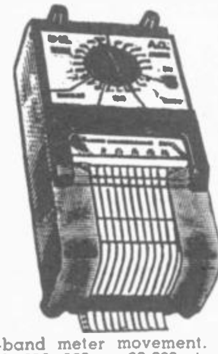
Model 2755. Simultaneously records the on/off status (rather than magnitude) of 10 separate sources. Inkless, pressure sensitive chart paper continuously passes the 10 recording pens. Any function which is convertible to an electrical value can be recorded. Input signals for each of the 10 pens are connected to the corresponding numbered terminals on the rear of the instrument. The paper moves at a precisely known rate of speed. All 10 channels record simultaneously and continuously. This makes it possible to determine the exact time an event took place. The normally furnished chart speed is 20 mm/hr. which can be increased 6 times at the flick of a switch. Other gear assemblies are available left and below for chart speeds up to 600 mm/hr. After data has been recorded on the chart, it is visible in the window for 76.2 mm of travel. It is then wound on the built-in take-up reel. The standard drive motor voltage is 117 VAC, 60 Hz. Size: 3.78" x 9" x 3.78". Shipping weight: 5 lbs.

62F2288. NET 175.00

Stk. No.	Type No.	Description	Box of 10-Net
62F2289	22310	30 Div., 20 mm/hr	18.00
62F2290	22311	50 Div., 20 mm/hr	
62F2291	22312	30 Div., 30 mm/hr	
62F2292	22313	50 Div., 30 mm/hr	
62F2293	22314	30 Div., 60 mm/hr	
62F2294	22315	50 Div., 60 mm/hr	
62F2295	22316	30 Div., 100 mm/hr	
62F2296	22317	50 Div., 100 mm/hr	

604 "MULTICORDER" RECORDING MULTIMETER

- 22 Ranges—AC and DC
- Three Chart Speeds
- Inkless Recording



604

Accurately measures and permanently records a wide range of voltage and current values. The ideal instrument for university and industrial research labs, and other situations where permanent records of varied measurements are needed. Inkless recording using fast sequential impressions on pressure-sensitive paper—no pen-and-ink maintenance problems. Three chart speeds: 1"/3"/12" per hr.; impressions made every 2 sec. High torque, shock-proof taut-band meter movement. Ranges: DC volts: 0-.1, 5, 2.5, 10, 25, 100, 250, 500, at 20,000 ohms/v. AC volts; 0-10, 25, 100, 250, 500 at 5000 ohms/v. DC microamperes: 0-50, 250; DC ma: 0-1, 5, 25; DC amps: 0-1, .25, 1.0. AC current: 0-2 ma. Chart drive: self-starting synchronous motor, operates from 115 VAC 60 cps. Chart paper width, 2.3". Unique marking system indicates range in use, avoids confusion. Accuracy of recording: ±2.5% F.S. AC response flat from 15-10,000 cps. Temp. deviation: 1% of reading per 10°C., max. Size: 9¾x4¾x4. Complete with No. 7500 test leads and two rolls of chart paper. Wt. 5½ lbs.

62F1689. NET **200.00**

ACCESSORIES FOR 604 & 605

Type 02612. Additional Chart Paper.
62F1690. Per roll. **NET** 2.50
Box of 10. **NET** 19.50

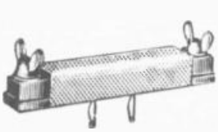
Type 0682. Special Gear Unit, 30/60/90 in./hr.
62F1691. NET 30.00

• NEW MULTICORDER 605

The 605 multicorder has dependable inkless recording. Low-cost chart paper has specially formulated hard wax surface, which will not blur or fog with age. Trace is made with fast sequential impressions. High torque taut-band movements are shockproof, for accurate recording and visual readout. These multi-range recorders, with three built-in chart speeds, eliminate the need for separate instruments. One switch selects the range desired with both the measured value permanently recorded. The 605 has 24 ranges. Ranges: DC millivolts: 0-12-30-60. DC volts: 0-3-15-60-300-600. AC volts: 0-6-30-150-300-600. DC uA: 0-600. DC mA: 0-1.5-3-6-30-150. DC amperes: 0-1.2-6. AC mA: 0-3-15-60-300. AC amps: 0-1.2-6. Accuracy: 2.5% of full scale. Identical in all other respects to the Model 604 at left.

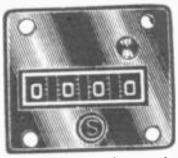
62F2287. NET **235.00**

• NEW 100 MILLIVOLT SHUNTS



Stock No.	Type No.	Amperes	Net
62F2297	6526	5	15.00
62F2298	6527	25	15.00
62F2299	6528	50	15.00
62F2300	6531	100	15.00

• NEW ELECTRO-MECHANICAL COUNTERS MODELS 103-104



Four-Digit Counters, conservatively rated at 10 Counts per second. The white-on-black numbers can be read easily from wide angles, and are reset to 0000 with a single push-button control. The black matte finish bezel is made from tough thermosetting materials which withstand high impacts. These counters are built to operate under actual field conditions of vibration, humidity, and extreme temperatures. Minimum pulse duration is 50 millisec. "on" and 50 millisec. "off." Size (HWD), 1.84" x 2.14" x 2.28".

Stk. No.	Type	Voltage	1-9	10-24	25-50	50 Up
55F4853	103	117 VAC	15.95	14.36	13.56	12.76
55F4854	104	6 VDC				
55F4855	104	12 VDC				

260 VOM SERIES 5

- New Ruggedness From Spring Back Jewels • Greater Repeatability
- Diode Overload Protection • Higher Accuracy ±2% DC ±3% AC
- Input Protected With an Internal 1 Amp Fuse • Taut Band

Simpson 260. Volt-Ohm-Milliammeter. Handier, more sensitive, more accurate. Polarity Reversing Switch for faster, easier DC measurements. Full-Wave Bridge Rectifier System gives more accurate VAC measurements. Easy access to all components. Ranges—VDC (20,000 ohms-per-volt); 0-250 MV, 0-2-5 V, 0-10V, 0-50V, 0-250V, 0-1000V, 0-5000V, VAC (5000 ohms-per-volt): 0-2.5V, 0-10V, 0-50V, 0-50V, 0-250V, 0-1000V, 0-5000V; VAF (0.1 uf internal series capacitor): 0-2.5V, 0-10V, 0-50V, 0-250V; DB Vol. (0 DB to 1 MW across 600-ohm line): —20 to +10DB, —8 to +22DB, +6 to 36DB, 20 to 50DB; 600-ohm line): —20 to 10DB, —8 to 22DB, 6 to +36DB, +20 to +50DB; DC Resistance: 0-2000 ohms (12 ohms center), 0-2000,000 ohms (1200 ohms center); Direct Current: 0-50 μa, 0-1 MA, 0-10 MA, 0-100 MA, 0-500 MA, 0-10 amp. Size: 5"x7"x3⅛". 3½ lbs. with Leads.

62F300. NET **62.00**

62F305. 260 Series 5M. As above but mirror scale. **NET** 64.00

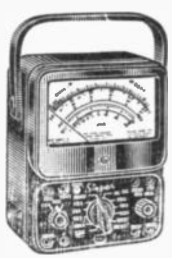
Model 260-5MRT. As above but with roll-top case and mirrored scale.
62F2269. NET 70.00

ROLL-TOP SIMPSON 260 RT

Lightweight, carry-anywhere unit, same as Model 260 above, but has bakelite roll-top cover and convenient test-lead compartment. Shipping weight, 9 lbs. Note: "Add-A-Tester" adapters (listed below) cannot be used with the roll top model.
62F303. NET **68.00**

See Simpson accessory listing for cases and test leads for above units

OVERLOAD PROTECTED 260-SP—TAUT BAND



A virtually "goof-proof" overload protected version of the world famous 260 VOM. The 260-5P incorporates electronic circuit protection which senses overload conditions and trips a protective relay. The entire tester is protected — even when 110 volts is applied to the 1 milliamp or 50 milliamps range, no damage is caused. No chance of "fooling" this protection, either as with some other "burnout proof" V.O.M.'s. It can't be reset — even momentarily — until the overload has been removed. A "must" for labs, schools, shops or wherever mortality rate of V.O.M.'s is apt to be high. Complete with test leads and operator's manual. Size: 5¼ x 7 x 3⅛. Wt. 9½ lbs.

62F1191. NET **94.00**

Model 260-5PRT. Roll top case and taut-band meter movement.
62F2270. NET 100.00

270-3 INCREASED ACCURACY VOM

- **Taut-band Movement**
- **Knife-edge Pointer**
- **Temperature Compensated**
- **Mirror Scale**

30-range multi-scale instrument. Includes all of the excellent features of the world-famous 260, plus a mirrored scale; knife-edge pointer; and printed circuit. It offers dependability and repeatability, ruggedness, and the higher accuracy necessary for many production and laboratory applications. The instrument has an easy-to-read 4½" meter at top of front panel. 3 operating controls and 8 circuit jacks are located directly below the meter. 7 DC voltage ranges (at 20,000 ohms per volt) are: 0-250 MV, 2.5V, 10V, 50V, 250V, 1000V, and 5000V. 6 AC ranges (at 5,000 ohms per volt) include: 0-2.5V, 0-10V, 0-50V; 0-250V. 0-1000V, and 0-5000V. 4 AF output voltages with 0.1μf internal series capacitor are 0-2.5V, 0-10V, 0-50V, 0-250V. Three resistanceranges: 0-2000 ohms center), 0-200,000 ohms (1200 ohms center), and 0-20 megohms (120,000 ohms center. 4 volume levels include —20 to +10 db., —8 to +22 db., +6 to +36 db., and +20 to +50 db. Variable resistance to ohmmeter circuit is used to compensate for aging of internal batteries. Heavy bakelite case is black with reinforced walls for maximum durability. Entire instrument slips inand out of case in one piece. Size: 5¼x7x3⅛". Shpg. wt., 4.2 lbs.

62F380. NET **75.00**

Model 261. Same as 270, but with pivot-and-jewel movement.
62F309. NET 70.00

270-3RT ROLL TOP VOM

Same as Model 270 above. but has safety bakelite roll top case.
62F381. NET 81.00

250 LOW MILLIVOLT DROP VOM

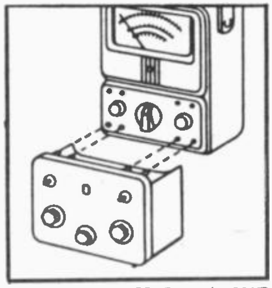
- **FITS 260 LINE ADAPTERS AND ACCESSORIES**
- **TAUT-BAND MOVEMENT**

Perfect VOM for transistor circuitry. Model 250 contains all of the built-in features of Simpson's well-known model 260. and includes low millivolt drop on current ranges. Has provision for using the entire line of "add-a-tester" aadpters, high voltage probes, and other 260 series accessories. Ranges: DC volts: 0-50, 0-2050 mv; 0-2.5, 10, 250, 500, 1000 volts at 20K-ohms/v.; AC volts 0-2.5, 10- 50, 250, 500, 1000 volts at 5,000 ohms/v. DC microamperes: 0-50 (with both 50 and 250 mv drop); DC ma: 0-1, 10, 100, 500 (50 mv drop); DC amps; 0-10 (50 mv drop). AC volts: 0-2.5, 10, 50, 250, 500, 1000; DB (1 mw into 600 ohms ref. level): —20 to +10; —8 +50. Resistance: 0-2K, 200K. 20 meg-to +22; +6 to +36; +20 to ohms. Self-shielding, diode-protected, taut-band movement. Complete with test leads and operator's manual. Size: 5¼x7x3⅛". Wt. 3½ lbs.

62F1692. NET **68.00**

"ADD-A-TESTER" ADAPTERS FOR 260 SERIES

- **Self-powered, Self-contained — Just Plug In**



657 Milliohmmeter. Measures resistances from .001 to 1.0 ohms, independent of contact resistance. Won't overheat small resistors.
62F393. NET **51.00**

650 Transistor Tester. Beta ranges: 0-10, 50, 250, ±5%; ICO: 0-100 μa, ±3% acc. (better acc. when used with 270 VOM.)
62F382. NET. **41.00**

651 DC VTVM. Measures 0-.5, 1, 2.5, 5, 10, 25, 50, 100, 250, 500 VDC, ±3% (±2% with 270). Input impedance greater than 10 megohms.
62F383. NET. **48.00**

652 Temperature Tester. Temperature ranges: —50°F to +100°F, and +100°F to +250°F. Accuracy: with 260 ±2% (nominal). Three lead positions provided. Thermistor sensing element. Size: 3⅝"x5$\frac{5}{16}$"x2⅞". Shipping weight: 1 lb.
62F384. NET **46.00**

653 AC Ammeter. Ranges: 0-0.25/1/2.5/12.5/25 amperes. Accuracy: ±1%, with 260 ±5% nominal. Frequency range: 50 cycles to 300 cycles. Case size: 3⅝x5$\frac{5}{16}$x2⅞". Shpg. wt. 1 lb.
62F385. NET **28.00**

654 Audio Wattmeter. Load ranges: 4, 8, 16, 600 oms. Wattage: Continuous 25 watts (8,600 ohms), 50 watts (4, 16 ohms); intermitten: 50 watts (8,600 ohms), 100 watts (4, 16 ohms). Accuracy: ±5%, with 260 ±10% nominal. Direct reading scale from 17 microwatts to 100 watts. Size: 3⅝"x5$\frac{5}{16}$"x2⅝". Shipping weight: 1 lb.
62F386. NET **30.00**

661 DC Ammeter. Multi-range, excellent accuracy of reading. Applications: automotive accessories (servicing), automotive electrical system, DC supplies, industrial.
62F1194. NET **30.00**

Simpson Test Equipment

SIMPSON 160 "HANDI-VOM"

This compact version of the world-famous 260 gives you the ranges, conveniences, and sensitivity of a full-sized VOM in a palm-sized package. Self-shielded taut-band movement assures high accuracy and freedom from influence of external magnetic fields. Recessed range switch never gets in the way. With diode overload protection, and polarity reversing switch — may be safely operated by inexperienced personnel or students. Low DC voltage ranges make this tester ideal for solid state R&D and troubleshooting. Ranges: DCV: 0-1/4, 1, 2.5, 10, 50, 250, 500, 1000 at 20,000 ohms per volt; ACV: 0-2.5, 10, 50, 250 500, 1000 at 5000 ohms/V; DC microamps: 0-50; DC ma: 0-1, 10, 100, 500; DB: —20 to +10, —8 to +22, +6 to +36, +20 to +50 ("O" reference: 1 mw into 600 ohms); resistance: x1, x10, x100, x1000, x10K (30 ohms center-scale). Accuracy: ±3% FS on DC ranges, ±4% on AC. AC frequency response is flat within +1 DB 30-1 mhz on the 2.5 and 10V ranges, to 150 khz on the 50V range, and to 50 khz on the 250V range. Size, only 4 9/16 x 3 5/16 x 1 3/4; wt., 12 oz. With leads.

62F1723. NET. **53.00**

MICRO-TESTERS

"MIDGETESTER" VOLT-OHMMETER

Model 355

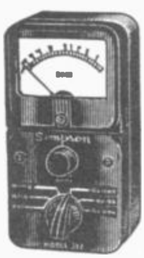
Model 355. VOM, ideal for radio, appliance and TV servicemen. Sensitivity 10,000 ohms per volt on both AC/DC. Accuracy 3% on DC, 5% on AC of full scale voltages. Ranges: AC/DC volts 0-3, 12, 60, 300, 1200; Ohms 0-10K, 100K, 1 meg, 10 meg. Compactness and sensitivity made possible by 100-micro-amp self-shielded core meter movement. Sturdy, polished styrene case. Size 2 3/4x4 1/2x1". Complete with set of probe leads and instruction manual. Shpg. wt., 1 lb.

62F335. NET **50.00**

370 AC AMMETER

Built-in current transformer. Measures current drain of appliances, motors, heating elements, radios. etc. Ranges: 0-1-2.5-5-10-25 amperes. Bakelite case, 3x5 7/8x2 1/2". 60 Hertz application. Less leads. Wt. 3 lbs.

62F319. NET **37.00**



Model 372

372 WIDE-RANGE OHMMETER

0.2 ohm—50 megohms. Ohms adjuster compensates for battery variation. 85 micro-amp. sensitivity. Range: 0-500-5000-50,000-500,000 oms & 0-5-50 megaohms. 3x5 7/8x2 1/2". Batteries & leads. 3 lbs.

62F318. NET **37.00**

373 PORTABLE DC MILLIAMMETER

General purpose tester. Valuable in many applications such as plate and screen grid measurements on vacuum tubes. Accuracy ±3% of full scale. Provides DC current measurements from 1 to 1,000 MA Ranges: 0-1, 5, 10, 25, 50. 100, 250, 1000 milliamperes, 3x5 7/8x2 1/2". Shpg. wt. 3 lbs.

62F323. NET **37.00**

Model 390

390 AC VOLT-AMP-WATTMETER

For measuring AC/DC volts, AC amps, and AC watts with one meter. Built for continuous full-load operation. Tests power consumption on all types of appliances. Ranges: 0-150-300 ACV; 0-3-15 amps.;0-300-600-1500-3000 W. 60 Hz operation, 3" meter. 3x5 7/8x2 1/2". With plugs and leads. Wt., 4 lbs.

62F317. NET **65.00**

374 DC MICROAMMETER

Basic movement sensitivity 50 microamperes with self contained shunts for all other ranges. Can be used with external resistors or multipliers as a high sensitivity voltmeter at 20,000 ohms per volt. Can be shorted out of circuit by use of "short" selector knob. 0-50, 100, 250, 500, 1000 μa. 3x5 7/8x2 1/2". Shpg. wt., 3 lbs.

62F361. NET **37.00**

Model 240-3

Model 362

Model 387

240-3 COMPACT AC-DC VOM

Designed for radio testing. Sensitivity 1000 ohms-per-volt on AC and DC Ranges: DCV, 0-15-150-300-750-3000; ACV, 0-15-150-750-3000; ma, 0-15-150-750; ohms 0-3000 (center scale 30), 0-300,000 (center scale 3,000). Accuracies: DC volts +3% F.S.; AC volts ±5% F.S.; DC Resistance ±3% of arc from absolute value of resistance measured. Complete with testleads and operator's manual. Black bakelite case. 3x5 7/8x2 1/2". Shpg. wt., 3 lbs.

62F313. NET **43.00**

362 LOW OHMMETER

Two ranges. Very accurate readings from 0.1 to 25 ohms. Ideal to check motor armatures and fields; switch and relay contact resistances; shorts between generator windings and grounds; shorts in TV and radio chassis wiring; industrial electrical equipment. Accuracy ±3% full scale. Complete with test leads. Shpg. wt., 3 lbs.

62F368. NET **37.00**

378 AC MILLIAMMETER

(Self-contained current transformer.) Five separate ranges make it suitable for a wide variety of testing; 0-5, 25, 100, 250, 1000 ma. 3x5 7/8x2 1/2". Shpg. wt.. 3 lbs.

62F365. NET **37.00**

379 BATTERY TESTER

Provides accurate indications of the condition of all standard flashlight; Transistor-Radio andl Hearing Aid batteries. With leads. 3x5 7/8x2 1/2". Shpg. wt. 3 lbs.

62F366. NET **37.00**

APPLIANCE TESTER
387 DC MILLIVOLTMETER

Checks safety thermocouples on gas-fired units—Furnaces — Boilers—Heaters—Hot Water Heaters—Dryers—Refrigerators. Gas unit servicing faster, accurate, simply place the probe across the thermocouple terminals and test for the correct value. Ranges are 10, 30, 100, 300 and 1000 millivolts. Accuracy 3% fullscale from 50° to 120° F. 3x5 7/8x2 1/2". With leads and operator's manual. Shpg. wt., 3 lbs.

62F367. NET **37.00**

371 AC VOLTMETER

Designed primarily for testing voltages applied to motors, heating equipment and many other industrial applications. Accuracy: ±3% of full scale. 0-150, 0-300, 0-600 volts. Size: 3x5 7/8x2 1/2". Shpg. wt., 3 lbs.

62F360. NET **37.00**

375 DC AMMETER

Provides a complete range from a fraction of an amp to 2.5 amps without the necessity of using auxiliary external shunts. 0-1, 2.5, 5, 10, 25 amps. 3x5 7/8x2 1/2". Wt., 3 lbs.

62F362. NET **37.00**

SAVE WORK! Make Newark your Complete, 1-Point Stock Source!

SAVE TIME! At Newark—fast, efficient service always!

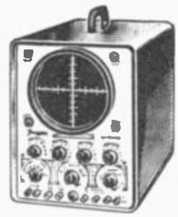
SAVE MONEY! Quantity Prices Competitive with Manufacturer!

OSCILLOSCOPES AND CAPACITOR CHECKER

466 5" PORTABLE OSCILLOSCOPE

A small, handy scope designed to take on practically any radio-TV service job. Vertical amplifier: ±1 db 15c to 100kc; 6 db down at 250 kc, usable to 1 mc. Maximum vertical deflec. sensitivity: 30 mv/inch. Sweep range: 15c to 80 kc. Maximum input voltage: 400 v. peak. Calibrating voltage (at 117.5 VAC source voltage) 1 v. peak-to-peak, ±10%. Horizontal amplifier has flat response within ±1 db, 15c to 20 kc; down 6 db at 100 kc. Maximum horizontal deflection sensitivity is 0.7 volt/inch. Sensitivity with Z-axs (intensity) modulation: 20 volts rms extinguishes beam. Input resistance (with attenuator set at x1) 0.1 megohm (with attenuator at x100) 0.5 megohm input capacitance, 40 mmf. Operates from 117 VAC 50/60 cycle, 50 watts. Supplied complete with input cable No. 0100 and operator's instruction manual. Unit weighs 19 lbs.; shpg. wt. 40 lbs. Size: 7⅞"x12"x 16⅛".

62F347. NET **190.00**



458 7" COLORSCOPE

- **Response Flat ±1 db to 4.5 MHz**
- **Better than 40mv/in Vertical Sensitivity**

Specially designed for color TV trouble-shooting. Frequency response is flat within ±1 db to 4.5 mhz under wideband operation; color burst frequencies are faithfully displayed with greater than 40 mv (rms)/inch vertical sensitivity. On narrow band operation; response is flat within ±2 db, 10 to 300,000 hz; sensitivity greater than 15 mv/inch. Has horizontal sweep to 250 khz, and 1v p-p calibrating voltage. Seven-inch CRT is a boon for the myopic. With vernier and compensated decimal step attenuator; provision is made for Z-axis modulation. 105/125 VAC, 50/60 cycle. Size, 11x16½x14½"; wt., 29 lbs., shpg. wt. 38 lbs. Complete with operator's manual.

62F339. NET **420.00**

383A "CAPACOHMETER" CAPACITOR CHECKER

- **In-Circuit check, under load conditions**
- **Pulse technique detects marginal units**

In-circuit capacitor leakage tester utilizes a pulse technique to detect many "marginal" capacitors. Measures the leakage resistance of defective paper, micro or ceramic capacitors; indicates directly the capacitance of good ones over a range of 10.0 mf to 10.0 mf. All measurements are made under load conditions. Avoid tedious adjustment of bridge circuitry and balancing controls. Borderline capacitors which cause costly "callbacks" are detected immediately with the pulse test. Operates from 105/125 VAC, 50-60 cycle. Comes complete with test leads. Shpg. wt. 12 lbs.

62F345. NET **139.00**

VACUUM TUBE VOLTMETERS

● NEW SOLID STATE VOM

Model 313. New concept in VOMs, has input impedance of a VTVM combined with convenience features of a battery operated VOM. So stable, it's rarely necessary to touch the zero or ohms adjustment knob. Saves the time and frustration of calibration after each range change. The FET input handles large overloads without damage, and the taut-band meter movement is varistor protected from even 200, 000% overloads. The 313 uses just 1 9-volt transistor radio battery for over 300 hours of operation. A switch allows the battery condition to be checked instantly, and a "power on" indicator is provided. Another feature you'll like is the large, 7 inch scale, designed for fast accurate readouts. Rugged construction combined with built-in frequency and temperature compensation gives the 313 Simpson's famous "stay accurate" dependability. Ranges: AC and DC volts: 0-0.3-1-3-10-100-300-1000. DC milliamps: 0-0.1-1-10-100-1000. Resistance: Rx1, x10, x100, x1k, x10k, x100k, x1Meg, 10 ohm center scale. Accuracy: ± 3% of full scale on both AC and DC. Input impedance: 11 megohms on all ranges. Supplied with leads, istlating probe, battery, and manual. Sizes: 7¾" x 6¾" x 3¾". Shipping weight: 5 lbs.

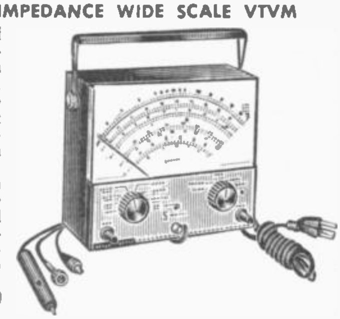
62F2273. NET **100.00**

715 HIGH SENSITIVITY AC VTVM

Sensitivity: 10 millivolts full scale on lowest range. Input impedance: Minimum of one megohm at 1 KC. Frequency response: flat within one decibel between 10 cps and 400 KC. Meter scale provides DB markings on both the voltage range positions. AC rms volts 0-0.1, 0.03, 0.1, 0.3, 1.0, 3.0, 10, 30, 100 and 300. Decibels: total range, —52 to +52 DBM (at Zero DBM, reading is one millivolt across 600 ohms). Scale reads —12 DB to +2 DB. Accuracy on all ranges: ±5% of full scale. Unit requires 110-125 VAC, 50-60 cycles. 7½"W x 5½"H x 3"D. Gray hammertone finish. Complete with operator's manual, and shielded input cable. Shpg. Wt. 3 lbs.

62F1182. NET **80.00**

312 EXTRA HIGH IMPEDANCE WIDE SCALE VTVM

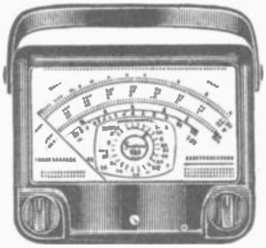


The input resistance of this instrument is 16 megohms, not 11 megs as in most other VT-VM's. 40% higher input impedance means 40% less circuit loading and correspondingly greater accuracy in readings. Extra-large, easy to read seven-inch scale. Has 500 mv scale to meet today's solid state testing requirements. Specially designed circuit protects the meter against burn-out. Voltage ranges DC-0-500 mv, 0-1.5; 5, 15, 50, 150, 500. 1500 volts at 16 megohms input resistance; AC RMS; 0-1.5, 5, 15, 50, 150, 500, 1500 volts at 1 meg minimum input impedance; peak-to-peak; 0-4, 14, 40, 400, 1400, 4000 volts. Resistance ranges: R x 1, x 10, x 100, x 1K, x 10K, x 100K, x 1 meg. 10 ohms center scale. Accuracies are ±3% of full-scale value on all voltage ranges, ±3% of arc on resistance. Frequency responce is flat ±3% from 51 cps to 3 megacycles on AC voltage ranges through 150 volts; with special RF probe, range can be extended to 250 mc. Operates from 105/125 VAC, 50/60 cycles. Modern smartly designed case measures 7¾ x 6¾ x 3⅜". Comes complete with No. 0150 AC/ohms/DC probe and operator's manual. Wt. 4¾ lbs.

62F1688. NET **93.00**

Simpson VOMs & Temperature Meters

● NEW 269-3 TAUT-BAND VOM

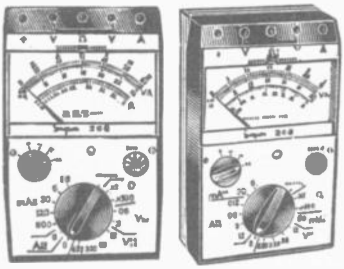


- **Taut-band meter movement**
- **2% DC accuracy, 3% on AC**
- **Overload protection on all ranges**
- **Mirrored scale eliminates parallax**

New, improved version of the ever-popular 269-2. Has a self-sheilded taut band meter movement that gives better repeatability, plus faster pointer action. This new meter movement is combined with a new mirror scale; and knife-edge pointer, eliminating parallax errors. Large, readable scale is over 6" long. Accuracy is ±2% DC and ±3% AC, with new range coverage too. One switch selects all 27 ranges. Battery replacement is quick and easy with the snap-on compartment. And the new 269-3 is protected from overloads with a replaceable 1.5 ampere fuse at the input, and a varistor at the meter movement. Sensitivity is 100k ohms/volt on DC and 5k ohms/volt on AC. The available ranges are as follows: DC volts: 0-1.6-8-40-160-400-800-1600-4000, AC volts: 0-3-8-40-160-400-800, DC microamps: 0-16-160, DC milliamps: 0-1.6-16-160, DC amps: 0-1.6-8, DB scale, (1Mw-600 ohms): —12 to +45.5 in 4 ranges. Resistance: 0-200-20k-200k-2meg-20meg-200 meg. Comes compelte with No. 00115 test leads, 4000 volt DC probe extension, and comprehensive operator's manual. Size: 6"x7¼"x3". Shipping Weight: 5 pounds.

62F330. NET ... **95.00**

● NEW HAND-SIZE VOMS



Models 208 and 209. Hand-size VOM's feature built-in AC current ranges. Separate inputs for voltage and current make volt-amp measurements as easy as flipping the range switch. Four lead input also makes it convenient to measure a DC voltage and its AC component. For continuity checks both models have light-up indicators for quick "yes" or "no" answers. One linear scale is used for all current and voltage ranges for clear and easy readouts. Shock-proof core magnet movement which is unaffected by stray magnetic fields. DC accuracy is ±1.5% of full scale. AC accuracy is ± 2.5% o ffull scale. Sensitivity of the 208 is10,000ohms/volt on both AC and DC; the 209 has a sensitivity of 1666 ohms/volt ranges. Range: **Model 208** — DC volts 0-0.6-3-12-60-300-600; AC volts 0-12-60-300-600; DC ma. 0-.6-6-30-120-600; DC amps 0-3; AC ma. 0-.6-6-30-120-600; AC amps 0-3; Ohms R x 1, x 100(28cntr). **Model 209** — DC volts 0-3-12-60-300-600; AC volts 0-12-60-300-600; DC ma 0-6-30-120-600; DC amps 0-3-12; AC ma 0-6-30-120-600; AC amps 0-3-12; Ohms R x 1 x 100(44cntr.). Size: (both units), 6" x 3⅝" x 1 11/16". Shipping weight, 1½ lbs.

62F2250. NET Model 208 ... **72.50**

62F2251. NET Model 209 ... **68.00**

255 VOM WITH TEMPERATURE SCALE

Ideal for heating and utility servicemen. This tester includes the VOM functions of the popular model 260, as well as providing a temperature measurement range of +100 to +1050°F. Has low millivolt drop on the DC ranges; ideal for checking transistorized equipment. DC ranges: 0-50, 0-250 millivolts; 0-2.5, 0-10, 0-50, 0-250, 0-1000 volts; 0-50 microamperes (with both 50 and 250 mv drop); 0-1, 0-10, 0-100, 0-500 MA with 50 mv drop. AC ranges: voltage: 0-2.5, 0-10, 0-50, 0-250, 0-1000; amps: adapter available to read to 500 amps. Resistance ranges: 0-2K, 0-200, 0-20 megohms. Diode-protected taut-band movement. Complete with test leads, 5 ft. thermocouple lead and operator's manual. Size: 5¼ x 7 x 3⅛"; wt. 3½ lbs.

62F1693. NET. ... **90.00**

263 DUAL SENSITIVITY 7" VOM

Dual sensitivity Volt-Ohm-Milliameter with accuracies of +1½% DC and 3% AC (of full scale). Overlapping ranges offer greater accuracy expressed as a percentage of reading. Diode overload protection prevents meter movement burn-out even on 200,000% overload. External battery compartment makes battery replacement easier. Uses 1½ volt alkaline battery to insure greater stability on low ohms scale. Ranges: DC volts: 0.15-.75-3-7.5-30-75-300-750-3000 @ 20k ohms/volt, 0-0.3-1.5-6-15-60-150-600-1500-6000 @ 10k ohms/volt. AC volts: 0-2.5-7.5-30-150-750 @ 10k ohms/volt, 0-5-15-60-300-1500 @ 5k ohms/volt. DC current: 0-75ua-150ua-.75ma-7.5ma-75ma-750ma-1.5ma-15ma-150ma-.15a-7.5a-15a. DB scale: —20 to +75.5 in 10 ranges. Resistance: 0-500-5k-50k-500k-5meg ohms. Accuracy: 1½%, (2½%, 3000, 6000 ranges). Size: 6" x 7¼" x 4". Shipping weight, 5 pounds.

62F1193. NET ... **94.00**

TEMPERATURE METERS

388-3L THERM-O-METER

The Therm-o-meter measures the temperature of air, gases, liquids, or solids by means of thermocouple type leads from —50°F to +1000°F. Both Fahrenheit & Centigrade readings can be made in 15 to 30 sec. and up to a distance of 7½'. A selector switch on the 388-3L connects any one of the three leads into the meter circuit. The lead wires are small enough to pass through a closed door and gasketing. The meter movement is self-shielding. A compensator circuit automatically corrects room temperature effects from 60 to 100° F. With one general purpose lead, battery, and operator's manual. 7 15/16x6x2 15/16". Shipping weight. 4 lbs.

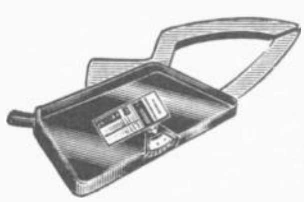
62F350. NET ... **80.00**

DUAL RANGE THERM-O-METER

Model 389-3L may be used to measure temperatures of gases, liquids, or solids in many fields; frozen food packaging, ice manufacturing, freezer storage, refrigeration, photo processing, air conditioning, and numerous others. Using the three leads, readings may be made in three different locations at once. There are two ranges. A low from —50°F. and a high from 100°F to 250°F. Accuracy is within 3°F in any position, near center of scale within 2°F or better. Compensation for room temperature effects. Large easy to read 7" meter. Self shielded core magnet, minimizes heavy electrical interference. Includes **sensing probes with thermistors, tip and 15' lead, and batteries.** Black bakelite case. 7 15/16x6x2 15/16". Wt., 6 lbs.

62F391. NET ... **75.00**

● NEW MODEL 150 CLAMP



Allows AC current measurements to be made wtihout breaking the circuit being tested. Just clamp onto one of the leads, no need to disconnect the circuit. The AMP CLAMP is easy to use with your Simpson 260, or any other VOM having a 5000 ohms/volt AC volt range of 0-2.5 or 0-3. Just plug it in. Readout is on the VOMs AC volt scale. Rugged construction, using top quality materials, assures long life and depenable operation. Ranges: when used with 0-2.5 AC volt range: 0-5-10-25-50-10-250 AC Amperes. When used with a O-3 AC volt range: 0-6-12-30-60-120-300 AC Amperes. VOM sensitivity required: 5000 Ohms/Volt. Leads have banana type plugs which match the inputs on Simpson and other makes of VOMs. Shpg. Wt.: 2 lbs.

62F2271. NET ... **30.00**

62F2272. Case For Amp-Clamp **NET** ... **8.00**

Test Equipment and Accessories Simpson

ACCESSORIES FOR SIMPSON TEST EQUIPMENT


4299 Microtester Ever-Redy Carrying Case


Model 0805 Ever-Redy Carrying Case


Model 5262 Ever-Redy Carrying Case


7500 Banana Plugs & Alligator Clips for 260-3


0190 General Purpose Thermocouple Leads

CARRYING CASES

Model 1818. Leather carrying case for models 250, 260, 261, and 270.
62F301. NET 11.00
Model 0805. Ever-Redy carrying case for Models 250, 260, 261, 270, and 303. Leather.
62F302. NET 13.00
Model 5262. Ever-Redy carrying case for Models 262, 267, 268, 269, 388-3L, 389-3L. Vinyl.
62F329. NET 13.00
Model 6355. Ever-Redy carrying case for Model 355. Leather.
62F354. NET 5.50
Model 4299. Ever-Redy carrying case for all Microtesters. Leather.
62F326. NET 10.50
Model 8073. For 385-3L-Ever-Redy. Leather.
62F1733. NET 11.00
Model 2225. Carrying Case for Model 160 "HANDI-VOM".
62F1682. NET 10.00
Model 4236. Ever-Redy Vinyl Case for Models 250, 251, 260, 270 and 303.
62F1683. NET 15.00
Model 0577. Vinyl Case for 312 high-impedance VTVM Models 313, 312.
62F1684. NET 16.00
Model 02611. Ever-Redy Carrying Case for Model 604 "Multi-corder" Recording Multimeter.
62F1685. NET 27.00
Model 0249. Roll Top Safety Case for 260-4, 261, 263, 270.
62F1737. NET 11.00
Model 0549. New Utility Vinyl Case.
62F1697. NET 19.00
Model 0574. Probe Case.
62F1696. NET 5.50

PROBES—Miscellaneous Type

Model 0073. High Frequency. For Model 303.
62F342. NET 10.75
Model 0731. 311 VTM. High Frequency.
62F1745. NET 16.00
Model 0732. 311 VTVM High Voltage.
62F1746. NET 16.00
Model 7594. 311 VTVM DC-AC Ohms.
62F1747. NET 11.00
Model 0155. High Voltage. For Model 312 VTVM.
62F1695. NET 16.00
Model 0152. High Frequency. For Model 312 VTVM.
62F1694. NET 10.75

METER SAFE/GUARD

Model 12621. Fast, easy to install. Provides meter movement protection for series 1, 2, 3, or 4, 260 (or any other 20,000 ohm per volt VOM). Prevents electrical damage to the meter movement, regardless of the polarity, even with currents of as much as 200 milliampers applied. Use with AC or DC. Has low leakage, sharp knee characteristics.
62F1698. NET **1.95**

LEADS

Model 2055. Probe Tip Leads for 160 "HANDI-VOM".
62F1686. NET 3.00
Model 7500. Banana Plugs and Alligator Clip. For Model 260. Series 3, 4, 261. 270
62F370. NET 2.75
Model 7538. Banana Plugs and Test Prods. For Model 260 Series 3, 267, and 268.
62F325. NET 3.25
Model 8600. Test Prods. For Model 355.
62F353. NET 3.00
Model 0010. 15 foot Thermistor Lead. For Model 385-3L and 389-3L
62F396. NET 7.50
Model 0216. 30 foot Thermistor Lead. For model 385-3L, 389-3L.
62F397. NET 9.00
Model 0190. General Purpose Thermocouple. For Model 388-8L.
62F352. NET 6.50
Model 0187. Surface Temperature Thermocouple (1000° F MAX.) For Model 388-3L.
62F351. NET 10.75
Model 8381. Test Prods and Elbow Terminals. For Models 230, 240, 260-2, 372.
62F369. NET 3.25
Model 8379. Test Prods and Spade Terminals. For all Micro-testers.
62F399. NET 3.25
Model 8375. Alligator Clips and Elbow Terminals. For Models 230, 240, 260-2, and 372.
62F1725. NET 2.75
Model 8376. Alligator Clips and Spade Terminals. For 370, 371, 373, 374, 375 ,376, 377, 378.
62F343. NET 2.75
Model 8463. Combination Test Prods with Removable Alligator Clips and Elbow Terminals. For 262, 269.
62F1726. NET 3.25

TEMPERATURE TEST LEADS AND PROBES

Model 0789. Free Air Temp. Probe. For Model 385-3L, 389-3L. 652-3L, 260 Adaptor.
62F308. NET 11.00
Model 0790. Surface Temperature Probe. For Models 385-3L, 389-3L, 652-3L, 260 Adapter.
62F398. NET 7.50

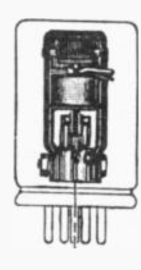
PROBES—High Voltage Types

Model 0150. DC/AC Ohms. For Model 312 VTVM.
62F1699. NET 10.75
Model 0074. 30.000 volts. For Model 303.
62F341. NET 16.00
Model 0507. 10,000 V. For 260 Series 3, 4, 4M, 261, 267, 270-2.
62F1727. NET 16.00
Model 0508. 25,000 V. For 260 Series 3, 1, 4M, 251, 267, 270-2.
62F346. NET 16.00
Model 0509. 50,000 V. For 260 Series, 3, 4, 4M, 261, 267, 270-2.
62F1729. NET 16.00
Model 0158. 30KV@10K/V. 15V@20K/V. The #0141 is for the New 263 Dual Sensitivity VOM.
62F1748. NET 16.00
Model 0119. 16,000 volts. For 269 Series-2.
62F1731. NET 16.00
Model 0157. 40,000 volts. For 269 Series-2.
62F1749. NET 16.00

JAMES COMMERCIAL CHOPPER

Model C-1800. Commercial type chopper for modulating low level micro-volt and millivolt signals. For use in DC amplifiers, recorders, experimental analog instrumentation and comparitors. Non-resonant reed assembly insures stable operation over environmental changes of temperature, vibration and shock experienced in test and control equipment. Its residual noise and drift have been minimized by careful material selection and advance techniques. Chopper is designed to maintain operational specifications with considerable driving frequency variations. SPDT with 150 ±15 degree closure. Drive is 6.3 volts RMS at 50-70 hz., octal base. Noise less than 8 mv. RMS into 1 megohm. Size 1½" dia by 2½".
62F405. NET **13.50**
Lots of 10 and Up 12.50
Model C1201. 9- pin DPDT.
63F115. NET **42.00**

- 50 to 70 Hz
- S.P.D.T.
- Long Life



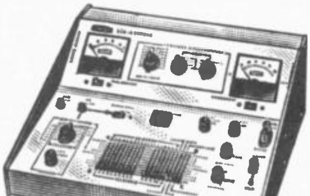
Beckman® Electronic Test Instrumentation

INTEGRATED CIRCUIT TEST INSTRUMENTS

● *NEW* MODEL 997 AUTOMATIC IC TESTER

The Model 997 automatic integrated circuit tester is ideally suited for production testing of all major families of digital IC's as well as other similar devices. It is fully automatic with all internal programming supplied. Output signals are compatible with most automatic IC handlers. The total test time for one device is less than 100 milli-seconds. The 977 will check most digital devices with up to 10 inputs and 6 outputs. Additionally, it removes all power from the device except when testing, thus preventing accidental burn-out of the device. All power supplies are short-circuit proof. Also featured are strobed outputs after all changes of state are made which eliminate chance of test error. Size: (HWD), 19½" x 13½" x 14". Shpg. wt. 20 lb. Uses adapters below—2 required.

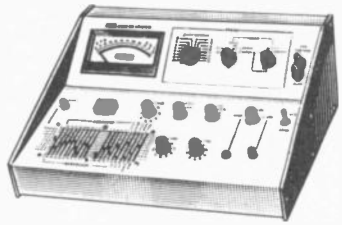
99F1258. NET **3995.00**



● *NEW* MODEL 998 LINEAR IC TESTER

The 998 linear integrated circuit tester provides the user with the most important considerations sought in the testing of linear integrated circuits. The 998 tests all important DC parameters including input offset voltage, input offset current, bias current, input voltage range, open loop gain, supply current, and power dissipation. In addition, device output voltage limits, output current capabilities, equivalent input noise voltage and output resistance may be measured. As opposed to "Go-No Go" testers, the 998 gives the exact value of the parameter under test. When used in conjunction with an oscilloscope and function generator, the transfer function of the device being tested may be graphically displayed. This enables the 998 to be used as a production IC tester. Size: 16½" x 7" x 12¼". Shpg. Wt. 10 lbs. Requires 1 adapter, see below.

99F1259. NET **945.00**



● *NEW* MODEL 999 DIGITAL IC TESTER

The 999 provides the user with every important consideration sought in an Integrated Circuit Tester. It tests input threshold levels, output current (both high and low levels), short-circuit output currents, input forward current, fan out, power dissipation and current drain from supply, noise immunity and truth tables. As opposed to complicated "Go-No Go" testers, the Beckman Model 999 gives the exact value of the parameter to be tested. Checks the whole Integrated Ciruit family, use for RTL, RCTL, DTL, modified DTL, TTL, LPDTL, CML, and ECL. A basic knowledge of integrated circuits is the only prerequisite to quick set-up and operation of the Model 999. Expensive and lengthy programming is eliminated. Size: (HWD), 7"x16½"x12¼". Shipping weight: 10 lbs. Requires 1 adapter, see below.

99F1260. NET **595.00**

SOCKET ADAPTERS FOR IC TESTERS

- **99F1261.** Type C-1. 14 Pin DIL, **NET** **14.50**
- **99F1262.** Type C-2. 16 Pin DIL, **NET** **14.50**
- **99F1263.** Type C-3. 8 Pin TO-5, **NET** **14.50**
- **99F1264.** Type C-4. 10 Pin TO,-5, **NET** **14.50**
- **99F1265.** Type C-5. 12 Pin TO-5, **NET** **14.50**
- **99F1266.** Type C-6. 14 Pin TO-5, **NET** **14.50**
- **99F1267.** Type C-7. ¼"x¼" 14 Pin FP, **NET** **14.50**
- **99F1268.** Type C-8. ⅛"x¼" 14 Pin FP, **NET** **14.50**

● *NEW* MODEL 6210A ACCUMULATOR

For direct counting, where control or alarm signals are not required. Counts and displays a running total of random events, counting events that occur as rapidly as 200,000 per second—or as slowly as you require. The model 6210 can "see" separate input pulses only 5 microseconds apart, and as short as 2.5 microseconds. Sensitivity: 100mV, 1V, and 10V, selectable at front panel; optional sensitivity of 10 mV, 0.1V, and 1V. Impedance: 100 kohms, shunted by 50 pf. AC overload: 150 Vrms. DC overload: 600V. Power: 115V rms ±10%, 50 to 400 Hz, 20 watts. Size: 7" high, 8½" wide, 10" deep. Shipping weight: 20 lbs. Rack and wall mount adapters on following page.

99F1269. NET **595.00**

● *NEW* MODEL 6215A PRESET CONTROLLER

The model 6215 preset controller is used whenever an output is desired at a pre-selected count. Generates an output signal and relay contact closure whenever the accumulated count coincides with the preselected number you set on the decade switches (from 1 to 9,999). At the same time that coincidence occurs, the controller will enter one of three modes of operation (internally selectable): Reset—accumualtor resets to zero and continues to count up to 200 kHz, without losing counts!); Hold—count is latched until manually reset; Limit—controller continues to count until manually reset. A BCD printer output is available at a rear panel connector. Size: 7" high, 8½" wide, 10" deep. Shipping weight: 20 pounds. Rack and wall mount adapters on following page.

99F1270. NET **795.00**

● *NEW* 6220A DUAL PRESET CONTROLLER

The model 6220 dual preset controller is similar to the model 6215, but includes a second group of four decade switches. Thus, two separate outputs are available at two separate counts. Reset, hold, or limit modes may be selected for either preset number. Logic signals and relay outputs at each level of coincidence, and a BCD output of the reading are provided on the back panel. Size: 7" high, 8½" wide, 10" deep. Shipping weight: 20 lbs. Rack and wall mount adapters on following page.

99F1271. NET **895.00**

● *NEW* MODEL 6225A EPUT METER

The model 6225 is a simplified EPUT meter for making frequency measurements from 3 Hz to 200kHz. Furnished with a four-digit glow-tube display. Utilizing an overflow lamp, this instrument actually indicates readings to 19,999. The display includes an illuminated, automatically positioned decimal point, and an appropriate legend, (Hz and kHz). A four-line BCD output for recording purposes is also available. The 6225 uses the power line frequency as a reference (60 hz). This results in an instrument with a basic stability of approximately ±0.1%. This EPUT meter has a totally enclosed, driptight cabinet, and is extremely rugged and functional. Size: 7" high, 8½" wide, 10" deep. Shipping weight: 25 pounds. Rack and wall mount adapters on following page.

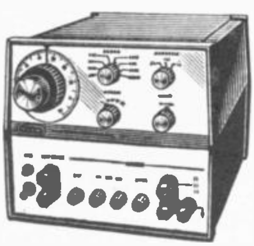
99F1272. NET **675.00**

● NEW MODEL 6235A PRESET EPUT METER

The model 6235 EPUT meter is an extremely useful instrument for industrial measurements. When a standard electronic counter is used to measure the output of a transducer, the reading displayed on the instrument is shown in Hz. or pulses per second. To derive the units you want, it is necessary to multiply the displayed count by a conversion factor. With the 6235, this multiplication step is eliminated. A set of four decade switches — and a multiplier selector — permit you to set a conversion factor before the measurement is made. The counter then multiplies the incoming signal by the preset conversion factor — and displays the results in terms of units you have selected. The 4 decade switches permit selecting any number from 00.01 to 99.99 — and then using the multiplier selector to multiply the setting by 1, 10, or 100. This gives a total preset range of from 0.01 to 9,999. Basically, the 6235 is a 200kHz frequency counter with provisions for externally controlling the time base from 10M to 99.99ms (x multiplier). With 100 mV sensitivity and input attenuators, a wide variety of transducers can be used. Using a 4-digit display with overflow, the 6235 counts to 19,999. Size: 7" x 8½" x 10". Shpg. wt.: 15 lbs. Rack and wall mount adapters below.

99F1273. NET **950.00**

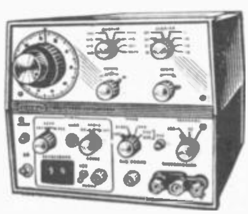
● NEW MODEL 9010 FUNCTION GENERATOR



The 9010 provides three basic signal waveforms: sinusoidal, square, and triangular. All outputs are available simultaneously at the front panel. The frequency is continuously variable from 0.005 Hz to 1 MHz in 8 ranges. In addition to the simultaneous outputs, a selectable, 30-volt output is provided with continuously variable level and DC offset controls. All outputs are short circuit proof. The simultaneous 5-volt square wave output is designed to drive digital integrated circuits. An output sync pulse is provided for precise triggering. The frequency of the Model 9010 function generator can be externally voltage controlled over a very linear 20/1 frequency range. The circuits have been conservatively designed for long life at ambients up to 55°C. Accuracy: 1% of full scale 0.005Hz to 100kHz, 2% of full scale 100kHz to 1MHz. Stability: ±0.05% per 10 minutes, ±0.25% per 24 hours. Amplitude response: 0.1 dB to 100kHz, 0.5 dB 100kHz to 1MHz. Time symmetry: 1% below 0.1 Hz and above 100 kHz. 0.5% above 0.1 Hz and below 100 kHz. Size: (HWD) 7" x 8" x 10". Shipping weight: 13 lbs. Rack and wall mount adapters below.

99F1274. NET **545.00**

● NEW MODEL 9030 MULTIPLE WAVE FUNCTION GENERATOR



The model 9030 function generator supplies sinusoidal, square, triangular and sawtooth waveforms over a continuously variable frequency range from 0.0005 Hz to 1MHz. All outputs are availiable in both phases at levels up to 30 V with ±5V offset capacity. A three-step attenuator allows reductions by factors of 10. The output impedance remains constant at 50 ohms. 8 auxiliary outputs including negative, positive, and bi-polar square waves are availiable simultaneously at BNC connectors on the rear panel. Gated, burst, and phase-lock modes of operation suppliment the normal mode. In the gated mode, the instrument produces an integral number of cycles in response to an external gating signal. In the burst mode, from 1 to 99 signal cycles can be generated upon receipt of a trigger input. (Burst and gated functions are also controlled by a front-panel pushbutton.) In the phase lock mode, the instrument is synchronized in frequency and phase with an external signal. Synchronization is possible from 10HZ to 1MHz. Phase control allows adjustment of generator phase angle. Size: (HWD), 7" x 8" x 10". Shipping weight: 13 pounds. Rack and wall mount adapters below.

62F1279. NET **895.00**

● NEW MODEL 9024 SINE WAVE OSCILLATOR

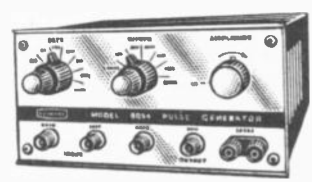
The model 9024 sine wave oscillstor is a portable instrument that produces low-distortion, sine-wave signals in the 10Hz to 10MHz range. The output is adjusted by a three-step attenuator and a vernier control, providing continuous adjustment from 10 millivolts to 10 volts. The output impedance is 50 ohms. Frequency selection is made by three rotary switches, a multiplier, and a vernier control. These controls simplify the process of setting up the instrument for a desired frequency, and additionally yield better resolution than the conventional rotary dial. To increase the utility of the sine wave oscillator, a square wave output of the same frequency as the sine wave output is supplied. The square wave output is compatible with digital integrated circuit logic levels. All circuits are precision designed for extended but stable operation at ambient temperatures up to 45° Centigrade. All semi-conductor devices are of silicon type. Power requirements: 120 VAC, ± 10%, 48 to 400 Hz, 8 watts. Size: (HWD), 3"x6"x5.2". Shipping weight: 4 pounds.

99F1275. NET **325.00**

Rack and wall mount brackets for Series 6200 and Series 9000.

99F1276. Single Rack. **NET** **25.00**
99F1277. Dual Rack. **NET** **40.00**
99F1278. Wall mounting bracket. **NET** **25.00**

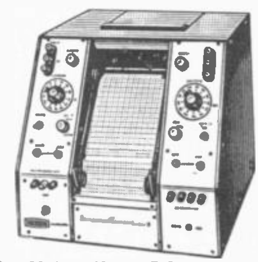
● NEW MODEL 9054 PULSE GENERATOR



The model 9054 pulse generator features a wide frequency range of 1Hz to 10Hz, with controllable pulse duration. Pulse widths from 50 ns to 50 ms are provided. Two continuously adustable signal outputs are availiable. The main output delivers buffered +5 V pulses to a 50 ohm load. Similarly, the secondary output delivers +2.5 V pulses to a 50 ohm load. Additionally, a +12 V sync output is provided. All outputs can be shorted indefinitely without damage. The output of the 9054 may be inhibited by a DC-coupled +3V external gate. A gated input occuring during a pulse period is not effective until the pulse has completed its cycle; operation resumes immediately upon removal of the inhibit gate. This insures that incomplete pulses never occur during gated operation. An external triggering signal of 3 V p-p produces synchronized output pulses. Operation is possible with trigger rates up to 10 MHZ. The Model 9054 pulse generator contains an easily-accessible printed-circuit board capable of driving more than 60 medium power DTL, TTL, or RTL gates. Power requirements: 120 VAC ± 10%, 48 to 400 Hz, 8 watts, nominal. Size: (HWD), 3"x6"x5.2". Shpg. Wt. 4 lbs. Rack and wall mount adapters below.

99F1280. NET **295.00**

● NEW TYPE K DYNOGRAPH RECORDER



The type K Dynograph recorder is an ideal solid state instrument for the research laboratory, for production testing, and for equipment evaluation and maintenence. Number of channels: 2. Sensitivity: 2mV/div to 10 V/div. Measurement range: 2 mV/div. to 500 Volts/div. Chart speeds: off, 1, 5, 20, and 100mm per sec. Chart speed accuracy: Within 1% or less. Input impedance: 50 meg at 2-20 mV/div, 2.5 meg at .05-10 V/div. Response time: 6msec, 10%-90% of 40mm. DC linearity: within 0.5 to 1% of 40mm. Zero suppression: ±40/div minimum. Zero line stability: less than 0.1 mm/hr. Total drift 0.25 mm/8 hrs. or less, after 30 minute warm-up. Event markers: left: Operated by internal 1 pulse/sec timer. Timer on-off switch supplied. Right: Operated by contact closure external to recorder. Event marker manual coding: Marker button on front panel for manual coding of left event marker. Channel width: 50mm each channel. Power requirements: 115 Volts, 60 Hz, 100 watts maximum. Size: 12" x 13" x 14". Includes kit of accessories. Shpg. wt. 44 lbs.

99F1281. NET **1575.00**

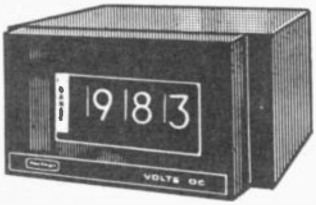
Chart Paper for above recorder. 275' roll.

99F1282. NET **9.00**

Beckman Electronic Test Instrumentation

PANEL MOUNTED INSTRUMENTS

● NEW MODEL 4025/4026 VOLTAGE AND CURRENT PANEL METER



Models 4025 and 4026 Voltage and Current Meters are panel-mounted instruments that convert analog voltage into an equivalent digital number. The result is displayed as a direct decimal readout on three glow tubes. This readout, with 0.1% resolution and accuracy, eliminates the need for interpolation. Models 4025 and 4026 can be used in the same manner as conventional panel meters. This digital concept provides linearity, accuracy, stability, and reading speed unmatched by analog meters. The Model 4026 provides isolation between it's analog and digital sections. This is achieved by pulse transformer-coupling and shielding the power transformer secondary windings. Up to 500 V can be applied. The buffered outputs featured on the Model 4026 provide output data lines compatible with RTL, TTL, AND DTL logic forms. Model 4025 is directly compatible with RTL logic levels. Normal input range of each instrument is 0 to 0.999 volts. Overrange to 1.800 volts, and underrange to —0.199 volts are also standard. Minus input voltages are indicated by their 9's complement values. The most significant digit is displayed by an overrange indicator. Each instrument is calibrated at the factory on the standard 0-100mV range. By selecting one of ten possible combinations of resistors supplied with the unit, the following ranges are available:

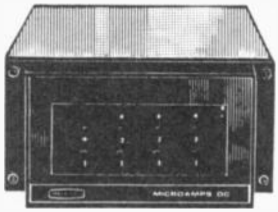
DC Voltage	DC Current
0-100 mV @ 10kΩ	0-10 uA @ 10kΩ
0-1V @ 100kΩ	0-100 uA @ 991Ω
0-10V @ 1 MΩ	0-1 mA @ 99Ω
0-100V @ 1 MΩ	0-10 mA @ 10Ω
0-1000V @ 1 MΩ	0-100 mA @ 1Ω

Accuracy: ±0.1% of 1,000 count full scale, ± 1 digit. Conversion rate: 1.5 per second, minimum 1 per 10 seconds with internal capacitor changes. Size: (HWD), 3"x6"x5.2". Shipping weight: 3.75 lbs.

99F1250. Model 4025. **NET** **345.00**

99F1251. Model 4026. **NET** **395.00**

● NEW MODEL 4027 ANALOG-TO-BINARY CONVERTER



The Model 4027 Analog-to Binary converter, converts analog voltage or current into an equivalent binary number. The result is displayed on storage-type neon lamps. The 4027 has a ±1000 count bi-polar capability with a range of 100mV (or 10μA) full scale with an over-range of 24 counts. Standard zero setting is at mid-span (1024 counts). However, zero may be calibrated to any part of the positive zero span. A buffered PRINT COMMAND pulse of 60 μsec duration is generated at the end of each conversion to synchronize accessories. External control of the conversion process is availiable. Different operating ranges are availiable by using one of 10 combinations of the resistors supplied. (See 4025/4026 above for ranges available.) Size: (HWD), 3"x6"x5.5". Shipping weight: 4 pounds.

99F1252 NET **450.00**

● NEW 4034 DIGITAL FREQUENCY METER

The Model 4034. Frequency meter measures frequencies up to 1MHz. The result is displayed on 4 digital glow tubes. A total of 9,999 counts can be stored, and on the next count, an OVERFLOW indicator lights. The register resets to 0000 and again counts to 9999, representing a total of 19,999. Six gate periods ranging from 1 millisecond to 100 seconds are availiable. A GATE indicator illuminates for the duration of the gate period. The 4034 can also be μsec to measure time intervals. Accurate timing pulses from 10 μsec to 100 sec in decade steps are availiable. External pulses up to 1 MHz may be substituted. Readings may be taken at the measurement rate, delayed 400 milliseconds, or held indefinitely. Buffered BCD 1-2-4-8 form output. Size: (HWD), 3"x6.05"x7.18". **Shipping wt. 4.5 lbs.**

99F1253. NET **450.00**

● NEW MODEL 4038 ACCUMULATOR

The Model 4038 accumulator totalizes repetitive, recurrent, or random events occurring during a programmed interval. It displays the total on four digital glow tubes. It totalizes input counts of any rate up to 1 MHz. A total of 9,999 fills the register, and on the next count, an OVERFLOW indicator lights. The register returns to 0000 and again counts to 9999, representing a total of 19,999. 1-2-4-8 BCD outputs are buffered and short-circuit proof. Fot applications requiring more 19 999 events, a second 4038 may be connected to receive a CARRY output from the first accumulator. The second accumulator thus counts the number of times the first accumulator "spills over". Other accumulators may be similarly connected, with each one increasing the capacity by a factor of 10^4. Minimum pulse width: 200 nsec. Impedance: 20K shunted by 50pf. Sensitivity: 0.5 volts pp. AC overload: 150V rms, DC over-load: 600V. Power requirements: 120V rms ±10%; 50 to 400 Hz; 15 watts. Size: (HWD), 3"x6.05"x5.78". Shipping weight: 4.5 pounds.

99F1254. NET **425.00**

● NEW MODEL 4050 DIGITAL CLOCK

Six-digit in-line glow tube digital display gives real time or system time in seconds, minutes, and hours with precision accuracy. The clock operates from a 60 Hz line source, or an external timing standard, and converts the input signal into standard time format for display and electrical output. Buffered 1-2-4-8 BCD outputs covering tenths-of-seconds to hours are available at a rear connector. A 100 μsec print command is selectable from any BCD time output. Inputs are provided for programming or controlling the clock from a remote location. These include set, reset, hold, run, and set speed control lines. Accuracy is slaved to the power line frequency tolerance which is usually about 86,400 Hz/24 Hrs. with a deviation of ± 0.02 Hz. Max input frequency: 500kHz. Size: (HWD), 3"x5"x6.05". Shipping weight: 3.75 pounds.

99F1255. NET **375.00**

● NEW MODEL 4060 BINARY-TO-DECIMAL CONVERTER

The model 4060 converts binary numbers, up to 13 bits plus sign, to an equivalent BCD number. It converts positive numbers, negative numbers in one's compliment, or negative numbers in two's compliment form. Four glow tubes and sign indicator provide a decimal readout of up to 8191 counts. The 4060 is designed for positive true logic inputs but by changing one strap it will accommodate negative-true logic. The conversion cycle may be initiated from an external source, triggered internally at the line frequency, or recycled as programmed. The conversion rate is 1 μsec per bit and 4 μsec for control. The 4060 is compatible with DTL, TTL, or RTL gates. Outputs are buffered and short-circuit proof. Size: 3"x6.05"x7.18". Shipping weight: 4.5 pounds.

99F1256. NET **495.00**

● NEW MODEL 4070 DIGITAL COMPARATOR

The Model 4070 Digital Comparator compares incoming BCD data with 2 preselectable limits. Incoming information can be up to 4 decades in 8-4-2-1 form. Each of the preset values is selected by means of 4 front-panel decimal switches. Relay and logic outputs from the comparator indicate whether the input BCD data is less than the preset limits, or equal to or greater than the preset limits. Front-panel indicators, (LO IN HI), provide a direct visual display of the comparison states. Typically, the command that initiates the comparison process is the PRINT output of the associated digital device. The comparison process is the PRINT output of the associated digictal device. The comparison process requires less than 100 μsec. The comparison result is stored until a subsequent COMPARE command is received. Inputs: 16-line BCD, compare command, auxiliary inverter. Size: (HWD), 3.4"x6.05"x5.78". Shipping Weight: 4.5 lbs.

99F1257. NET **475.00**

PORTABLE TRANSISTOR TESTER

Model 870. Features two units in one. Measures large signal DC Beta on power transistors as well as small signal AC Beta on low and medium power transistors. Has variable collector voltage. Collector test current is variable up to 2 amps, permitting Beta measurements on power transistors rated at 5 amps or more. Tech Spec: Beta ranges 0-100 & 0-300, extendable to 600. Beta test collector voltage variable from 0-5 volts. Accuracy within 5% for both AC & DC Beta. Requirements—115 volts AC, 40 watts. Ic variable, 5 ma up to 2 amps. Vce variable, 0-5 volts. Input sensitivity of A-C bridge circuit amplifier is 50 milli-volts peak-to-peak or 17.6 millivolts Rms for full deflection of meter. Size: 7⅞x11¾x14½". Shpg. wt., 22 lbs.

62F149. NET **395.00**

DYNAMIC BETA IN-CIRCUIT TRANSISTOR TESTER

Model 890. Unique circuit measures AC Beta with equal accuracy in or out of circuit. Measures parameters: AC Beta; Rin (transistor input resistance); Z Ohms (base-emitter circuit impedance); Ic. Measures AC Beta, Ic and Icbo out-of-circuit. In-circuit AC Beta measurement accuracy ±5% (150 ohms minimum circuit impedance). Portable and completely self-contained. Utilizing on AC bridge principal with the transistor input circuit elements as one arm of the bridge, the total impedence is nulled. With the circuit impedances as low as 150 ohms, this effectively removes these elements from the circuit. Useful for incoming inspection of transistorized products and sub-assemblies. Beta Ranges: 0-50, 0-100, 0-200. Furnished complete with test cable. AC Test Signal: Variable 1000 HZ sine wave-calibration setting at 5 ua, 100 mv, protected against overload. Portable carrying. 6½"H, 9"D, 10¾"W. Wt. 8 lbs.

62F102. NET **215.00**

PORTABLE LAB TUBE TESTER

Model 539C. Industrial and laboratory portable Gm tube tester. Tube sockets: 4, 5 6, 7-pin, octal, loctal, 7, 9, and 10-pin miniature, 7-pin inline and 8-pin miniature. Compactron, Novar, 5 and 7-pin Nuvistor. Socket savers provided for 7 and 9-pin and octal. Gm ranges: 60,000; 30.000; 15,000; 6000; 3000; 600 micromhos. Rectifier diode and VR ranges. Inter-element leakage indicated on meter or neon lamp, sensitivity: 50 megohms. Test voltages: filament, 0-117 VC in 20 steps; signal, .025, 0.5, 1, 2.5 RMS; plate, 66 and 150 VDC; screen, 56 and 130 VDC; fixed bias variable 0 to —40 VDC. Self bias terminals on panel. Roll chart has data for latest industrial and entertainment tubes. Gas test measures grid current detecting the most minute amount of gas in a tube. Cathode reserve can be determined to indicate future life of the tube. Three 1% accuracy Hickok meters: Gm. VR voltage and leakage; line voltage; twin range bias meter. Size 16¾Wx18⅜Lx7½"D. For 105/125 VAC, 50/400 HZ, 40 watts. Black leatherette, portable case. Shpg. wt., 35 lbs.

62F133. NET **595.00**

HIGH SPEED GM TUBE AND TRANSISTOR TESTER

Model 6000A. Tests all the new tubes including Compactrons, Novars, Nuvistors, and 10-pin headers. A high speed, extremely accurate tester. Instant line adjust and automatic short indication. Covers 3,000 to 15,000 µmhos in 3 ranges. Shows gas evaluation. Able to determine the reserve capacity of tubes which could cause trouble in the future. A filament continuity button to check for open filaments. Filament voltage from 0.6 to 117 volts in 19 steps. Complete with removable socket plate that accommodates practically all tubes in use today. (7-pin, octal, loctal, 7- and 9-pin noval, Novar, Compactron, Nuvistors, 10-pin "headers.") Inter-element leakage registered instantly on 5 neon lamps, identifying elements involved. Red leatherette portable case size: 16¾"x11¾"x7½". Panel gold anodized For 105-125 VAC, 60 HZ, 40 watts. Shpg. wt., 21 lbs.

62F171. NET **279.50**

LABORATORY OSCILLOSCOPE

Model 770A. 5" wide-band and general purpose oscilloscope. Calibrated 4Mhz DC vertical amplifier with 8-step and vernier attenuator. Three operational modes of internal sweep generator: free-running, driven, and automatic. Eighteen direct reading calibrated sweep rates from 0.5 sec/div to 1 usec/div. 5 times sweep magnifier, accuracy within ±3%. Model has vertical and horizontal deflection systems and incorporates sweep magnification on internal sweep functions. Internal calibrating signal provides 60 hz square wave. Flat-faced, post-accelerated CRT. Illuminated, calibrated graticule. Works with 105-125 volts, 50/60 hz; 130 watts furnished complete with operating manual. 60 hz line sweep adjustable over about 180°. Shipping weight, 53 lbs.

62F1760. NET **675.00**

WIDE BAND SERVICE TECHNICIAN'S OSCILLOSCOPE

Model 677. Has calibrated screen with full astigmatic correction to facilitate use in both waveform and peak to peak observations and measurements. Has preset horizontal and vertical sweep positions. Vertical amplifier has frequency response flat to within 3 db from 5 hz to 4.5 Mhz. Sensitivity 40 MVRMS. Horizontal amplifier has response within 3 db from 5 hz to 350 khz. Power input: 117VAC, 50/60 hz, 90 watts fused. Size: 14"x9½"Wx18½"D. Shpg. wt., 36 lbs.

62F1750. NET **249.50**

INDUSTRIAL AND COMMUNICATIONS TUBE TESTER

Model 752A. Portable mutual conductance tube tester providing fast and accurate evaluation of an electron tube. Tests VR tubes for firing point, regulating voltage, and current range. Takes 4, 5, 6, 7, 9, and 10-pin miniature, 7-pin in-line and 8-pin round subminiature acorn, Compactron, Novar 5 and 7-pin Nuvistor tubes. Gm ranges: 0-1500; 3000; 6000; 15,000; 30,000 micromhos. Inter-element leakage indicated on meter, sensitivity 10 megohms Test voltages: Filament, 0-117 VAC in 19 steps; signal, 0.25, 0.5, 1.25, 2.5 VAC; plate, 75 and 150 VDC; screen 56 and 130 VDC; Grid bias variable 0 to —40 VDC; extra negative supply, —40 VDC; diode test, 20 V RMS; 0Z4 test; 287 V RMS. Cathode activity/life test. Dual section tubes tested without setup change. Self-bias test jacks on panel. Bias and line fusing. Illuminated meter and roll chart. Roll chart lists over 1600 types. Power requirements: 105-125 volts 50-60HZ, 40-70 watts. Complete with leads and instructions. Size: 16¾Hx18⅜Wx7½"D. Shpg. wt., 27 lbs.

62F198. NET **385.00**

AM-FM SWEEP AND MARKER GENERATOR

Model 288AX. Provides the necessary signal voltages for servicing AM and FM receivers as well as TV receivers A crystal controlled 100khz and 1000khz oscillator provides an accurate frequency standard. A wide choice of frequency ranges, sweep widths and methods of modulation plus a new ultrasonic range of 35khz to 110 khz, make this a versatile generator. High output voltage permits visual stage by stage alignment of IF stages, limiter, and discriminator on both AM and FM receivers. Power and voltage measurements, as well as determination of resonance in alignment work, are materially aided by a self-contained decibel meter with range of —10 to +38 db. Sweep synchronizing voltage is brought out to front panel. Output control; vernier control w/decade steps of 1, 10, 100 Pwr. requirements: AC 110v, 50-70 hz Complete w/crystal, cable assm. meter leads instruction book, 16x13x7". Wt., 33 lbs.

62F1752. NET **385.00**

HICKOK ADAPTER

Model CA-4. Adapter for testing compactrons, 10-pin "headers," 9-pin novars and Nuvistors. For use with all current Hickok manual tube testers. Wt., 6 lbs.

62F101. NET **59.50**

HICKOK Digital Test Equipment

FULLY TRANSISTORIZED DIGITAL MEASURING SYSTEM

MAIN FRAME

Contains digital display system and power supply. Model DMS-3200A. The main frame contains the digital display system, power supplies, and an access port for plug-ins of the DP series. A three-digit display makes maximum use of the high accuracy capability of the analog-to digital converters in the system. The display is fully electronic, using Nixie display tubes. Integrated circuits along with discreet transistors constitute the all solid state circuitry, providing high reliability and long life. Counter has a response of 5 Mhz, assuring reliable count and readout of input pulse trains. A self-contained power supply furnishes all operating voltages for the main frame circuitry as well as plug-in units. All critical voltages zener-regulated. A combination of sturdy die-cast front and rear panels along with heavy-duty extruded aluminum side sections provides a rugged but lightweight housing. Both top and bottom sections can be removed for access to all components and printed circuit boards. Front panel carrying handles help make it an ideal portable instrument. Flip-down stand for improved viewing angle. Size (HWD): 6⅞ x 9⅝ x 12⅞". Wt.; 10 lbs.
62F1761. NET **375.00**

SHOWN WITH DP-100 DC VOLTMETER

Model DMS-3200P. Same features as the DMS-3200A plus, non-blinking display through use of buffer-storage circuitry. Rear panel switch selects either buffered or unbuffered display mode. Also includes printer output. 10-line decimal data is provided on a rear-panel connector along with decimal location, polarity, wrong polarity indication, over-range indication and print command data. Outputs are fully buffered and can be used to operate an external printer, such as the HICKOK PR-4900 Digital Printer or to drive other interface equipment.
62F1550. NET **450.00**

PLUG-IN MODULES

- **Add plug-in modules for variety of applications**
- **Slips into main frame for one unit convenience**

Model DP-100. Voltmeter plug-in provides digital display of DC voltages from 0.1 millivolt to 1000 volts when used with DMS-3200A Main Frame. Accurary specification of ±0.1% F. S. No loss in accuracy for up to 60% over range. Five ranges: 0.00 to 99.9 millivolts; .000 to .999 volts; 0.00 to 9.99 volts; 00.0 to 99.9 volts; 000.0 to 999 volts. Excellent AC rejection for accurate and rapid 100 millisecond reading time. Photo chopper stabilization assures no drift or zero offset. Size: 3"H x 8¼"W x 10"D. Shpg. Wt. 3½ lbs.
62F1762. NET **175.00**

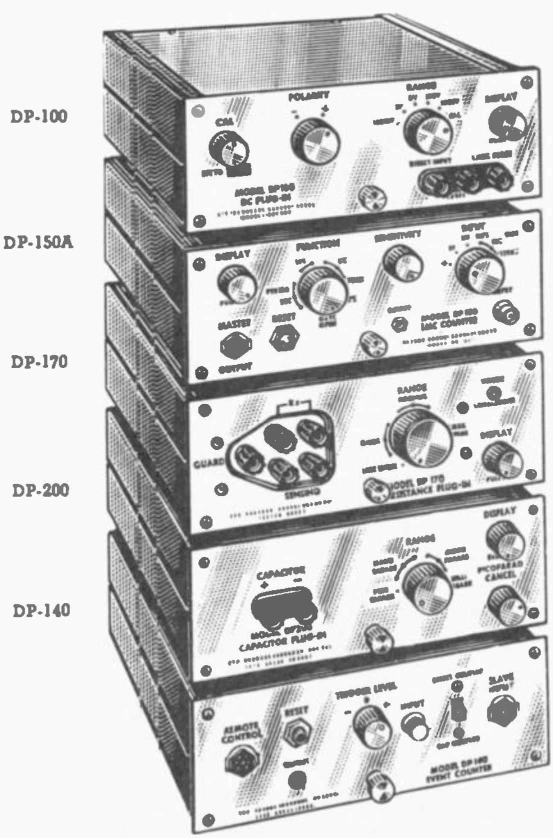
Model DP-150A. 1 Mhz Counter plug-in. Provides a digital display of both frequency and period measurements when used with DMS-3200A Main Frame. Sine waves, square waves, pulses, or other complex waveforms, with frequencies of 00.1 hz up to 1.0 Mhz and periods of 0.1 msec. to 999 sec. may be measured thru infinite scaling. Provisions for event totalizing and manual reset. Input: 1 megohm shunted with 40 pf, overload protected. Has provisions for internal check at 1 hz, 1Khz, 100Khz. Incorporated I'Cs and descreet components. Accuracy: ±.005%. Size and weight same as above.
62F1763. NET **230.00**

Model DP-170. Ohmmeter Plug-in, when used with the DMS-3200A Main Frame, provides digital display of resistance measurements from .001 ohms to 1,000 megohms. Accuracy 0.1%. Four terminals are provided so that lead resistance does not cause inaccuracies on extremely low measurements. In addition a guard terminal is provided so that spurious leakages in components are automatically balanced out. Size and weight same as DP-100.
62F1764. NET **275.00**

Model DP-200. Capacity meter plug-in when used with the DMS-3200A Main Frame; provides digital display of capacity measurements form 1 pf to 9,999 mf. In eight ranges. 000. to 999 pf, 0.00 to 9.99 nf; 0.00 to 9.99 mf; 00.0 to 99.9 mf; 000. to 999. mf; and 0.00 to 9.99 millifarads. Accuracy 0.1%. Size and weight same as above.
62F1765. NET **275.00**

Model DP-140. Event counter and slave plug-in unit. As an event counter the DP-140/DMS-3200A permits display of a totalized count of events in production counting applications. Random events can be converted to pulses and counted and displayed with this system. The count can be returned to 000 at any time. As a slave plug-in, a multi-pin connector on the panel of the DP-140 permits it to be driven from a DMS-3200A/DP-150A combination. When operated in this way, decimal point location is automatically positioned properly and readout is directly in hz and Khz. Sensitivity: 100mv minimum. Includes an interconnection cable. Size: same as above. Weight: 2¾ lbs.
62F1766. NET **90.00**

PLUG-IN MODULES

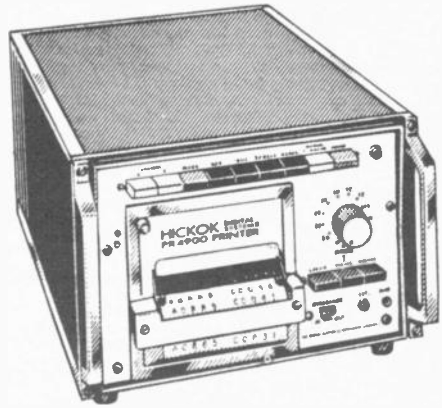


NEW HICKOK PLUG-INS WILL BE AVAILABLE AS ANNOUNCED

● NEW HICKOK MODEL PD 4900 IC DIGITAL PRINTER

The type PR 4900 Digital Printer provides print-out of up to 10 columns of digital information from one or two independent sources. The unit is a companion to the HICKOK DMS-3200A Digital Measuring System; however it may be used with **any** device which provides ten-line decimal or BCD coded data outputs. The printer is complete with integrated circuit, all solid state electronics permitting it to operate directly from low-voltage, low-level logic outputs. Both circuit boards and print wheel mechanisms are in modular plug-in form, thus providing the user with a variety of column, channel, and input code options. Options may be changed in the field if desired. Operation of the unit is simple and a number of function selections are available to the operator. Inputs may be taken from Two independent sources simultaneously or singly as preselected by a front panel push-button switch. The print command is also selected by the operator, permitting him to choose print command as external, manual, automatic, or at calibrated time intervals switched from the front panel in 36 steps from 10 seconds to 120 minutes. Maximum print rate from external command pulses is one line per second. Basic ten-line decimal logic is standard for the printer input. However, by adding the appropriate decoding board, BCD 1248 or 1224 codes may be used to drive the unit. Print is either by pressure sensitive paper, or by inked impression on standard paper. A replaceable ink cartridge provides 250,000 lines of printing on standard 3½" adding machine type paper rolls. The printing mechanism slides out from the front of the unit to permit changing of paper rolls and ink cartridges with ease. The PR 4900 Digital Printer is electrically compatible with the DMS 3200P Main Frame component of HICKOK'S DMS-3200A Digital Measuring System. Therefore the two units can simply be connected by a standard P300-3 cable to make the combination operational. A "P" type DMS Main Frame must be used since only that model supplies printer outputs.

● MAY BE USED WITH ANY DEVICE WHICH PROVIDES TEN-LINE DECIMAL OR BCD CODED DATA OUTPUTS



SPECIFICATIONS AND FEATURES

- gives 4-digit prinout of DMS System thru printout of "overrange" or "overspill" digit.
- also useable with other sources having digital outputs; input logic level compatible with those of many commonly used test instruments of other manufacturers.
- accuracy identical to input device used.
- eliminates need for a second printer—prints data from two independent sources simultaneously.
- operator can select print command source from front panel
  "AUTO"—prints each time source takes a reading
  "TIMER"—prints on a preset time interval basis
  "EXTERNAL"—printing actuated by remote control pulse
  "MANUAL"—prints each time button is pressed.
- single channel units easily changed to dual channel units in the field through the use of plug-in additions.
- easily read printed characters .10" wide x .16" high.
- pressure sensitive paper option permits printing without ink
- "slide-out" printer mechanism makes paper and ink replacement a simple, front-panel task.
- low-voltage, low-power data inputs permit operation directly from standard logic circuitry; data input—parallel entry, 10 line decimal (or BCD with decode board), positive logic "0" state must be less than +0.4 V and greater than —4.0 V "1" state must be greater than +0.9 V but less than +4.0 V. Nominal source requirement 1V at 200μA. Print Command: activated on positive going portion of +2.0V or —4.0V pulse. Minimum rise time (positive going portion) 10V/usec.
- data source inhibited during print cycle, 1.5V holdoff signal.
- rapid transfer time—17 milliseconds.
- Small size: 9⅝"W x 6⅞"H x 14⅜"D, incl. handles and feet.
- lightweight, only 21 pounds.
- low power requirements—115/230 VAC ±10% 50/60 Hz, 35 watts.

MODELS AND ACCESSORIES

Model PR 4900-04. SINGLE CHANNEL INPUT, 4-COLUMN PRINTER. Three columns of digit data and one column of code data (polarity, overrange, and decimal point location). 10 line decimal input to digit columns, code input to code columns. Less ink, paper, and connecting cable.
62F1551. NET **760.00**

Model PR 4900-05. Same as above but with additional digit column (prints "overspill" of fourth digit).
62F1552. NET **870.00**

Model PR 4900-44. Same as PR 4900-04 but with dual channel input capacity. Two sets of 4-column printout from 2 independent sources.
62F1553. NET **1040.00**

Model PR 4900-55. Dual channel input, dual 5 column printer. A dual channel version of model PR 4900-05.
62F1554. NET **1290.00**

Model P 100. Fourth digit plug-in assembly. Use to field convert PR 4900-04 to PR 4900-05.
62F1555. NET **130.00**

Model P-104. Second channel plug-in assembly. 4-column, use to field convert PR 4900-04 to PR 4900-44.
62F1556. NET **300.00**

Model P 105. Second channel plug-in assembly, 5-column, use to convert PR 4900-05 to PR 4900-55.
62F1557. NET **440.00**

Model P 220. Decode board plug-in. Use to convert any PR 4900 Printer to accept BCD 1248 code inputs instead of ten-line decimal. (Four column printers will give 3-digit print-out. Five column printers will give 4-digit printout. Code columns require separate input signal coding.
62F1561. NET **140.00**

Model P 230. BCD 1224 decode board plug-in. Same as P 220 but for use with 1224 code.
62F1562. NET **150.00**

Model P 300-3. Interconnecting cable, 3 foot. Cable with connectors used to connect PR 4900 printer with DMS Digital Measuring System main frame.
62F1558. NET **35.00**

Type P 401. Ink cartridge.
62F1559. NET **10.50**

Type P 402. Print-Out paper, (ink imprint), roll.
62F1560. NET **1.00**

Voltage Regulators & Paraformer

PARAFORMER—A NEW CONCEPT IN A.C. POWER CONDITIONING

Provides voltage regulation and noise attenuation of over 50DB over a frequency range of 0 to 1 MHz. As shown by Equation #1, electromotive force, and hence the transfer of electrical energy can be achieved in two ways: (1) by flux coupling, or (2) by parametric coupling. Existing passive devices such as transformers and ferroresonant transformers depend almost exclusively on the flux coupling term of Equation #1. However, Wanlass Electric has now invented a new component, the ParaformerTM, which operates exclusively on the basis of parametric coupling and consequently is a device in which the flux coupling or mutual inductance is zero. (Thus, all energy is passed by the i dL/dt term of Equation #1.)

$$E = \frac{d}{dt}(Li) = \underbrace{\frac{Ldi}{dt}}_{\text{Flux Coupling Term}} + \underbrace{i\frac{dL}{dt}}_{\text{Parametric Coupling Term}}$$

The advantages are listed below in Table 1.

TABLE I

	Transformer	Ferroresonant Transformer	Paraformer
Line voltage regulation	None	±1%	±½%
Line filtering (noise)	No	Slight	Over 50 db
Load filtering (noise)	No	Slight	Over 50 db
Overload protection	No	Partial	Yes
Low line protection	None	None	Yes

As noted from Table 1, the ParaformerTM is inherently a line voltage regulator and line power filter. In fact, the Paraformer's most useful property appears to be its ability to prevent line voltage fluctuations from reaching the load. As will be noted from the above table, such fluctuations (noise, distortions, etc.) are atenuated by over 50 db for frequencies from a few cycles per second up to 1 megacycle per second.

Designed specifically for OEM applications. 60 & 400 Hz in ratings from 60VA to 1000 VA.

	60Hz	400Hz
A.C. Input:	115VAC ±10% (Nominal 10, 60Hz (50-150VAC)	115VAC ±10% (Nominal) 10, 400Hz (50-150VAC)
A.C. Output:	117VAC, 60Hz, 1 Phase	117VAC, 400Hz, 1 Phase
Regulation:	±0.5% Line; ±2.0% Load	±1% Line; ±2.5% Load

Having noted the outstanding advantages of the ParaformerTM, it is perhaps appropriate to note the simplicity of the device.

Input  Output

FIGURE 1

As shown in Figure 1, the Paraformer consists only of a primary winding, a secondary winding, a magnetic core and an AC capacitor. No other components are used. After reviewing the symbol, it is perhaps important to restate that the ParaformerTM is not a ferroresonant transformer. The mechanism for energy transfer is entirely different and most of the basic characteristics are entirely different.

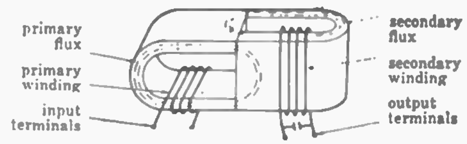
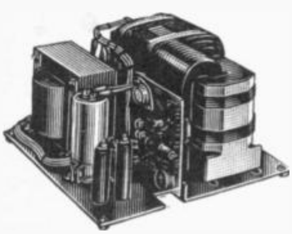


FIGURE 2

Note that the geometry is such that the primary flux does not link the secondary winding and that the secondary flux does not link the primary winding. (Accordingly, the classical flux coupling is zero). However, note that the primary flux does modulate the reluctance associated with the secondary flux and hence the primary does modulate the inductance of the secondary. This modulation can be achieved only by transferring electrical power from the primary to the secondary. This power in turn sustains the secondary oscillations and delivers power to the load. It is this unique parametric power transfer mechanism that makes the ParaformerTM a revolutionary new component.



PEC-60

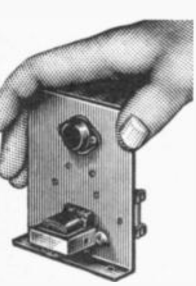
60Hz. UNITS

Stock No.	Type	Power Rating	Dimensions H. x W. x L.	Wt. Lbs.	1-9	10-24	25-49	50-99
99F1364	PEC-60	60-VA	3½x4x6½"	10	95.00	90.25	85.50	80.75
99F1365	PEC-150	150VA	5½x4⅝x14⅛"	21	150.00	142.50	135.00	127.50
99F1366	PEC-500	5000VA	7x5⅞x17"	50	225.00	213.75	202.50	191.25
99F1367	PEC-1000	1000VA	7x8x20"	85	425.00	403.75	382.50	361.35

400Hz. UNITS

Stock No.	Type	Power Rating	Dimensions H. x W. x L.	Wt. Lbs.	1-9	10-24	25-49	50-99
99F1368	PEC4-75	75VA	6x4⅞x9"	7	105.00	99.75	94.50	89.25
99F1369	PEC4-500	500VA	6¼x4⅞x13"	30	275.00	261.25	247.50	233.75
99F1370	PEC4-1000	1000VA	7x⅞x17"	58	475.00	451.25	427.50	403.75

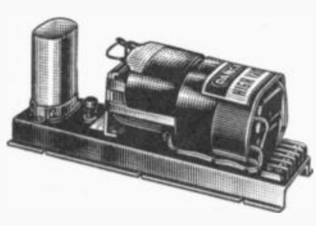
A.C. VOLTAGE REGULATORS



MODEL CVR-120

Solid state regulated A.C. power. All solid state Economy type voltage regulator completely static — priced considerably lower than ferroresonant type constant voltage transformers. Small size and light weight (approximately 10% of comparably rated units). Line and load regulated. Frequency and power factor insensitive. Peak regulated— (ideal for D.C. power supply pre-regulator applications). A.C. input: 100 to 130 volts, 47 to 420 Hz, 1 phase, A.C. output—Peak: 135 volts. RMS: 105 volts typical at 130 volts input and full load. Power capability: 120 VA. Regulation technique: Peak clipping. Line regulation (peak); ±1% for ±10% line change. Load regulation (peak): ±1% for no load to full load change. Operating temperature: up to 40°C. ambient at ful load —higher temp. with derating. Input & output terminations: self leads. Size: 4"w. x 4½"h. x 2½"d. Wt. 10 oz.

Stk. No.	Type	Power	1-9	10-24	25-49	50-99
99F1350	CVR-120	120V	23.00	21.85	20.70	19.50



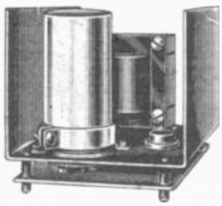
MODEL VVR-1500

All static variable inductor type AC voltage regulators — frequency insensitive. Designed to replace ferroresonant type constant voltage transformers and silicon controlled rectifier type AC Regulators. High reliability — no SCR's or other solid state devices in power circuits; ideal for remote and unattended locations. Provides load and line regulation. True RMS regulation with RMS sensor and closed loop control. Ideal source for high starting loads and all linear loads. Provides line transient suppression by inherent characteristics of series inductor in the line. Produces no spikes or conducted RFI. AC input: 105-130 volts, 47-63 Hz, 1 phase. AC output: 120 volts RMS—1.5 KVA (Maximum 1.8 KVA at 80% duty cycle). Regulation: line—±1% for 105 to 130 V. line change. Load—±1% for 400 W. to 1500 W. load change (±1% for no load to full load with optional ballast inductor). Inherent short circuit protection. Inherently suppresses 200 volt transients protecting both regulator and load being powered. Oper. temp.: 0°C to 55°C up to 85°C (with 200 CFM of forced air cooling). Efficiency: Over 90% at full load. Size: 10" w. x 10" l. x 4.5" h. Wt. 32 lbs.

Stk. No.	Type	Power	1-9	10-24	25-49	50-99
99F1351	VVR-1500	1500VA	150.00	142.50	135.00	127.50

WANLASS

REGULATED D.C. POWER SUPPLIES



Type 60-OEM-2

D.C. power supplies in ratings of 30, 60 or 120 watts furnished in 4 discreet models in each power rating, which by means of transformer taps and a voltage adjustment potentiometer facilitates selection of any output voltage between 3.6 and 60 V.D.C. A.C. Input: 105-125V, 57-63Hz, 1 phase (47-440 Hz with derating). Regulation: ±1% for ±10% line changes ±1% for no load or for full load. Ripple: 0.1% +10MV RMS. Protection: Automatic short circuit protection. Grounding: Floating output; either + or — may be grounded. Construction: Open chassis type for Original Equipment Manufacturers' Systems.

Type 30-OEM Power— 30 Watts Size—5x5x 5". Shpg. Wt.— 5 lbs.
Type 60-OEM Power— 60 Watts Size—7x5x 7". Shpg. Wt.— 7 lbs.
Type 120-OEM Power—120 Watts Size—7x5x10". Shpg. Wt.—12 lbs.

Stock No.	Type	Voltage Range	1-9	10-24	25-49	50-99
99F1352	30-OEM-1	3.6-9V.	40.00	38.00	36.00	34.00
99F1353	30-OEM-2	9-17V.				
99F1354	30-OEM-3	17-30V.				
99F1355	30-OEM-4	30-60V.				
99F1350	60-OEM-1	3.6-9V.	50.00	47.50	45.00	42.50
99F1357	60-OEM-2	9-17V.				
99F1358	60-OEM-3	17-30V.				
99F1359	60-OEM-4	30-60V.				
99F1360	120-OEM-1	3.6-9V.	75.00	71.25	67.50	63.75
99F1361	120-OEM-2	9-17V.				
99F1362	120-OEM-3	17-30V.				
99F1363	120-OEM-4	30-60V.				

PILLAR CORPORATION

STATIC A.C. POWER CONTROLLER

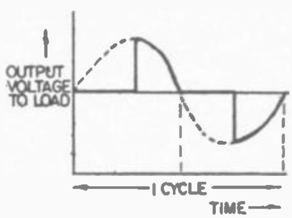


FIGURE I

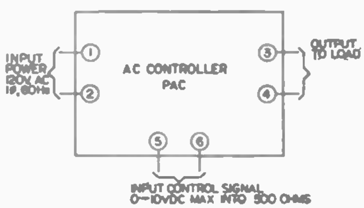


FIGURE II

Terminal connectors are standard on all "PILLAR" Power-Pac

Features:
- **All solid state AC power controlled**
- **Rugged design fully protected**
- **Ample overload capacity**
- **High surge rating**
- **Variable voltage DC available with additional rectifiers**

The basic A.C. CONTROLLER-PAC is an all static power controller, designed for operation on 120V-240V, 60 hz. Power supplied by means of phase controlled solid state switches Static power switching and control elements employed to provide a reliable and efficient power switch or proportional power controller.

Figure I and II indicate the principle of operation. Input control signal may be derived by means of a simple relay closure, a potentiometer setting, or an isolated low level D.C. control signal. At full input power, a 60 hz sine wave is impressed upon the load; at lower power levels, output wave is like SCR phase controller.

Completely self contained in a single compact package, measuring 7$\frac{15}{16}$" x 6$\frac{3}{4}$" x 3$\frac{3}{8}$" for 15 amp models and 7$\frac{11}{16}$" x 6$\frac{3}{4}$" x 6$\frac{3}{4}$" for 30 amp models. Line power and load connections, as well as input control connections, are the only external terminations necessary for the operation. Full rated up to 40°C, derated at .25A/°C over this temp.

APPLICATIONS

ON-OFF. Control of 60 Hz voltage to load. Particularly suited to replace power relays or contactors where repetitive operations or very severe environmental conditions cause maintenance and "short life" problems. See C-1 Control.

PROPORTIONAL. Control of 60 Hz voltage. Provides variable speed control of AC motors, (Universal or permanent split capacitor) for fan, blower or pump applications. Controls lighting level of incandescent lamps. Adjusts power levels on electric heater elements. The power set command is either a manually or remotely adjusted two-watt potentiometer. The output faithfully follows potentiometer setting. See C-3 Control.

CLOSED LOOP. Control of 60 Hz power. Applications include: Temperature Control for electric heating. Unit accepts 0-5MA instrument signal from any selected temperature set point controller. Line Regulators for power supplies to compensate for line voltage or load variations. "Feed back" signal for control need only be conditioned to provide 0-5MA for full control range requried. See C-4 Control.

FOUR MOUNTING HOLES 0.281" dia. between centers are 4" and 7¼". Mounting feet available to allow proper ventilation, and must be used, if unit is operated on a bench top.

CONTROL CONFIGURATIONS

C-1 INPUT CONTROL. Simple relay or contact closure, not isolated from AC line. Contact rating required of input switch is 2 mA with less than 50 mA peak requirement. Apply to terminals 5 and 6.

C-1 OUTPUT POWER. From 0 to 98% of input V when input control switch is closed. Apply to term. 3 and 4.

C-3 INPUT CONTROL. Potentiometer adjustment with potentiometer, rated, 2 W, use 500K ohms for 120V & 1 meg ohms for 240V. Pot to be wired as variable resistor and applied across terminals 5 and 6.

C-3 OUTPUT POWER. Output V comes onto load as a function of input potentiometer setting. Load applied across terminals 3 and 4.

C-4 INPUT CONTROL. Complete isolation is provided for the input control signal from both the power line and the load. The load presented to the input control signal is 2000 ohms and 0 to 5 MA will provide a full range of output from 0 to 95% of input voltage. Control signal is applied across terminals 5 and 6.

C-4 OUTPUT POWER. Output voltage is continuously variable with input control signal. Output is reduced to zero with 0 MA control signal and 5 MA produces 95% of input voltage.

120V-60 HZ INPUT
15 AMP RMS

Stock No.	Type/ Controller	1-9	10-24	25-Up
35F2300	120ACC015/C1	47.00	44.65	38.95
35F2301	120ACC015/C3	56.00	53.20	47.60
35F2310	120ACC015/C4	88.00	83.60	74.80

30 AMP RMS

Stock No.	Type/ Controller	1-9	10-24	25-Up
35F2302	120ACC030/C1	73.00	69.35	62.05
35F2303	120ACC030/C3	86.00	81.70	73.10
35F2311	120ACC030/C4	113.00	107.35	96.05

240V-60 HZ INPUT
15 AMPS RMS

Stock No.	Type/ Controller	1-9	10-24	25-Up
35F2304	240ACC015/C1	65.00	61.75	55.25
35F2305	240ACC015/C3	74.00	70.30	62.90
35F2312	240ACC015/C4	116.00	110.20	98.60

30 AMP RMS

Stock No.	Type/ Controller	1-9	10-24	25-Up
35F2306	240ACC030/C1	105.00	99.75	89.25
35F2307	240ACC030/C3	118.00	112.10	100.30
35F2313	240ACC030/C4	150.00	142.50	127.50

35F2308. Legs for Bench Mtg. 15 amp **NET.** **3.35**

35F2309. Legs for Bench Mtg. 300 amps **NET** **3.35**

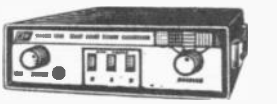
B&K Test Equipment

COLOR GENERATOR

Model 1245. For quick and easy checking and adjustment of: convergence, demodulator alignment, color sync, color fit, horizontal and vertical size, linearity and overscan. Small, lightweight solidstate. Dots only one raster line high and .25μ sec. wide. Free of retrace lines. Station quality waveforms for obsolescence protection and least convergence time through minimizing needs for brightness, contrast and fine tuning readjustment. Precise waveforms permit accurately setting color of killer control without a B&W telecast. Built-in gun killer works on any picture tube. Output is at RF with more than 5,000 μ V of signal on Channel 3, 4 or 5. This generator provides crystal-controlled keyed rainbow color bar display; dot crosshatch horizontal line and vertical line patterns. Size 2⅞" x 8½" x 8⅞". For 105-125 VAC 60 Hz. Shpg. wt., 3 lbs.

62F561. NET **134.95**

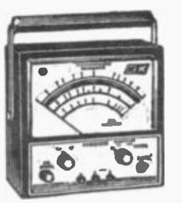
COLOR GENERATOR



Model 1242. Output is at RF with more than 5,000 microvolts of signal on Channels 3 and 4 (factory-tuned to Channel 3). The generator has a transformer-type power supply with zener and power transistor regulation. A pilot light indicates power on. The transistorized generator provides gun killer controls that will work with any picture tube. Size of generator is 2" x 6¾" x 9¾". Generator has cable compartment for all leads. Operates from 105-125 VAC, 60 Hz. Shipping weight, 2½ lbs.

62F596 NET **99.95**

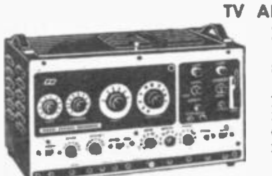
DYNAMIC TRANSISTOR ANALYST



Model 161. In-circuit testing for AC Beta. With same procedure, 161 makes out-of-circuit test; including: Icbo (current leakage) and front-to-back conduction of diodes and rectifiers. Special circuitry protects all parts, even if leads are connected incorrectly. 7" mirrored meter insures accurate readings on three separate scales. Two ranges check AC Beta from 2 to 500. For leakage tests, Icbo range is 0 to 5000 microamps, on an expanded scale. Just flick a switch to find out if an unknown is an NPN or PNP type. Included with analyst is the new edition of Howard Sams Transistor Specification Handbook. Entire package comes with: personalized handle, test leads, and B&K Basic Transistor Course/instruction manual. For 117 VAC, 60 hz. Size 7⅛" x 7¼" x 3⅝". Shpg. wt., 6 lbs.

62F597 NET **89.95**

TV ANALYST



Model 1076. Provides RF and IF test pattern signals to trouble shoot. Check resolution, bandwidth, shading and contrast capabilities with test pattern in flying spot scanner. 4.5 mc, 400 cycle FM modulated sound signal. Sync signal adjustable to ±50 volts. Sweep pulses; yolk and transformer test; high voltage indicator. White dot, crosshatch and color bar patterns for color sets. Bias supply and AGC keying pulse. 17"x10¼"x10". Shpg. wt., 30 lbs. For 105-125 VAC 60 Hz.

62F555. NET **329.95**

B & K CAPACITOR ANALYST

Model 801. Measures capacitance and leakage resistance both in-circuit and out-of-circuit. Designed to operate on 105-125 volts 60 cycle AC, but will operate from 90 to 140VAC after a 2 min. warm-up. Can detect "shorts" in normal circuits where the capacitor tested is shunted by more than 25 ohms. Detects "Opens" in circuits where the capacitor tested is more than 25 pfd or shunting resistance is more than 50 ohms. Unique circuit determines how capacitor stores energy and returns it to the circuit. Spots marginal electrolytics that need replacement and predicts the life expectancy of electrolytic capacitor of 3 volts or more. Meter movement is protected against overloads. Easy to test low-voltage transistor circuit capacitors as well as those in vacuum-tube circuits. Electrolytic tests up to 2000 mfd, using a balanced bridge. One knob makes it easy to select the desired function and range. Simplified internal design, easily portable. Size: 5½"x12¾"x6¾". Weight, 8¾ lbs.

62F588. Model 801. NET **109.95**

DYNAMIC MUTUAL CONDUCTANCE TUBE TESTER

- Multiple socket selection
- Simplified switch selection

Model 707. Provides multiple socket selection to quick check most TV and radio tubes. Simplified switch selection. Includes provisions for future new sockets. Tests all types of tubes. Automatic compensation for line voltage variation. 4½" meter with "Replace-Good" scale. Lists common tube types on socket panel. Complete reference chart in cover. 7, 9, and 10 pin straighteners on panel. Checks each section of multi-section tubes separately. Tests for all shorts, grid emission, leakage and gas. Grid emission test is adjustable, with sensitivity to over 100 megohms. Makes quick "life" test. Professional, dynamic mutual conductance tube tester that combines multiple-socket speed with high Gm accuracy. Size: 16⅛" x 15¾" x 5⅞". For 105-125 V., 50-60 Hz. A.C. Shpg. wt., 15½ lbs.

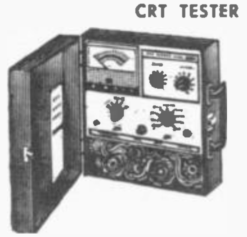
62F589 .... **189.95**

DYNA-JET TUBE TESTER

Model 606. This multiple socket design has reduced the number of settings for testing each tube from 17 required in many other types of testers to only 4. You can test for all shorts, grid emissions, leakage and gas; and check cathode emission the accurate way—under simulated load conditions! With the really portable Model 606, you won't reject the good tubes, and you'll quickly find the bad ones, reducing call backs, selling more tubes, and increasing service profit. You'll find "tough dogs" and weak tubes with the exclusive adjustable grid emission test, which has the sensitivity of over 100 megohms. Molded tube sockets have phosphor bronze contacts for long, trouble-free life. Simplified heater voltage setting with power-on indicator. Each section of a multiple section tube is checked. Size 11" x 8½" x 4⅞". Operates from 105-125v., 50-60 Hz. A.C. Shipping wt. 8 lbs.

62F562. NET **79.95**

CRT TESTER AND REJUVENATOR



Model 465. Tests and rejuvenates black & white and color TV picture tubes without removing tube from set. Provides correct filament voltage (0-13 v.) for all tubes. Tests and rejuvenates all hi G-2 and low G-2 tubes including those requiring a G-2 voltage as low as 25 volts. Tests new rectangular color tubes. Corrects each color gun separately. Uses DC on all tests. 4½" meter and neon bulb indicators for easy reading. Leatherette 10½"x11½"x4½" luggage type case. For 117 VAC, 50/60 Hz. Shpg. wt., 6½ lbs.

62F563. NET **89.95**

"PROFESSIONAL" VTVM

Model 177. DC Volts: ±0-0.5, 1.5, 5, 15, 50, 500, 1500. AC Volts: (RMS) 0-0.5, 1.5, 5, 15, 50, 150, 500, 1500. AC Volts: (peak-to-peak) 0-4, 14, 40, 140, 400, 1400, 4000. Response: ±1db, 40 Hz to 3 mHz. Resistance: Full Scale: 1K, 10K, 100K ohms; 1, 10, 100, 1K, 10K, 100K megohms. Mid-scale: 10, 100, 1K ohms; 1, 10 megohms. Input Resistance: 11 meg (1 meg in probe). Accuracy: ±3% full scale DC, & 5% full scale AC. Zero center scale. Single AC/OHMS/DC test probe with switch and ground lead. VTVM has metal case and carrying case with handle. Operates on 117V 50/60 Hz. Size: 7⅛ x 7¼" x 3⅝". Shpg. wt., 7 lbs.

62F598. NET **79.95**

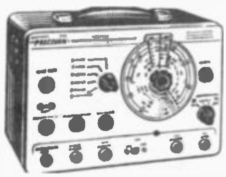
VOLT OHM MILLIAMMETER

Model 120. The most comprehensive unit of its type ever offered in its price range. It features 61 ranges and functions specifically designed for use in industry, laboratories, maintenance shops and schools. 20,000 ohms per volt DC. 5000 ohms per volt AC. Rugged 50 microamp meter: ±2% accuracy. Extra-low resistance and voltage ranges. Wide frequency response AC and db ranges. Mirrored scale, burn-out proof meter. Size: 7"x 5⅜"x3⅛". Shpg. wt., 4 lbs.

62F564. NET **59.50**

Precision Apparatus Test Equipment

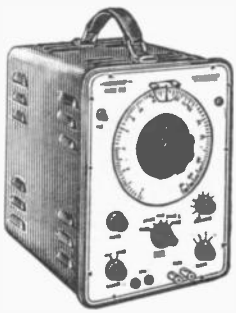
SWEEP GENERATOR WITH MARKER ADDER



Model E-410C. A wide range, frequency modulated signal source combined with complete Marker Adder circuitry. Designed for the alignment and maintenance of TV, FM and other high frequency wide-band receivers and circuits. Sweep generator solves marker visibility and overloading problems by incorporating built-in Marker Adder circuitry. Allows Absolute control of marker width and amplitude. Frequency coverage; Band A: 3 to 7 MHz. Band B: 6 to 15 MHz. Band C: 13 to 35 MHz. Band D: 33 to 90 MHz. Band E: 80 to 216 MHz. Band E_s. 400 to 1080 MHz. Internal blanking. Automatic gain control provides flat output over entire band. Extra shielding prevents radiation leakage. Operates 117 VAC 50/60 standard. 220 VAC, 50/60 Hz also available. Furnished with a 4.5 mc crystal and 5 output cables. 13" x 8½" x 7". Shipping weight: 15 lbs.

63F073. NET **189.95**

WIDE RANGE SINE AND SQUARE-WAVE GENERATOR



Model E-310. Used for amplifiers, PA, transmitter modulation response tests, input and output impedance measurements, ultrasonic voltage source, and loudspeaker resonance tests. All tubes pre-aged to assure long term stability of calibration. Logarithmic, etched dial scale with Vernier and Fast tune dials provides accurate resetability. Frequency Range: Sine and square waves from 5 Hz to 600 kHz in 5 decimal bands. Output Level: Sine Wave, 10 V. RMS into 600 ohms; Square Wave, 10 V. P-P, 4 position step attenuator and continuous amplitude control. Calibration Accuracy: ±2% or 1 Hz. Distortion: Less than 1% from 5 kHz to 600 kHz. Supply Voltage: 117 VAC 50/60 Hz standard; 220 V. AC 50-60 Hz. available. Heavy-gauge, steel case, blue-grey ripple and aluminum panel and tuning dial. 11½"x9"x11¼". Ship. wt. 24 lbs.

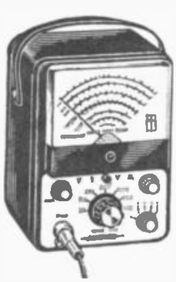
63F065. NET **199.95**

MULTI-BAND SIGNAL MARKING GENERATOR

Model E-200C. Exceptionally stable and accurate, this general purpose RF signal generator serves in conjunction with PRECISION Sweep Signal Generators or other similar sweep signal generators. Frequency coverage: 88 kc to 440 mc (to 110 mc on fundamental). 6½" brushed aluminum dial: direct reading in 10 bands up to 440 mc —1% accuracy. 0-1000 point vernier scale: direct reading to 1 part in 1000 for hand-calibration & frequency spotting. Circuit: 6AU6 in stable ECO circuit; 6U8 sine-wave audio oscillator-modulator; 5Y3 full wave rectifier. 400-cycle sine wave audio oscillator. Dual-shielded RF attenuators. Four types of signals: Unmodulated RF; 400 cps; Modulated RF; Externally modulated RF; 400 cps audio output. Bulit-in AVC-AGC bias substitution. 117V AC. 50/60 Hz. 13"x 11½"x6⅝". Weight: 16 lbs.

63F066 NET **149.95**

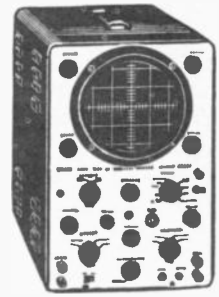
VACUUM TUBE VOLTMETER



Model V75. For general use in schools, labs, production lines, radio-TV and appliance service shops. Polarity reversal switch for time saving diode leakage checks and other work in semiconductor circuitry. Transit switch position for meter movement protection. Built in battery eliminator. No ohmeter battery required. Single high-impact Cycolac Dual Purpose Uni-Probes for withstanding rugged production service, and lab use. Inherent protection from its vacuum tube insures no harm from application of a wrong input voltage. DC Volts: ±0-1.5, 5, 15, 50, 500, 1500. AC V. (RMS) 0-1.5, 5, 15, 50, 150, 500, 1500. Resistance: Full Scale 1000; 10,000; 100,000, 1, 10, 100, 1,000 Megohm. Mid-scale 10, 100, 1000, 10,000. 100,000 ohm, 1 meg. 10 meg. Accuracy: ±5% full scale AC and ±3% full scale DC. Operates on 117 V. 50/60 Hz. Dimensions: 7½"x5⅜"x4¼". Weight: 6 lb.

63F067. NET **59.95**

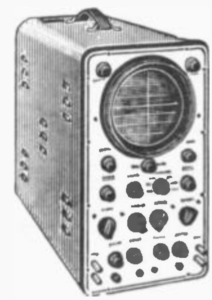
DC TO 5 MHz WIDE BAND OSCILLOSCOPE



Model S-55A. Features both DC and AC coupling, 5 sweep ranges to 500 KHz, built-in regulated calibration voltage, automatic synchronization and an illuminated screen graticule. High sensitivity DC push-pull vertical amplifier circuitry and large cathode ray tube screen area, adapts the system to rapid TV and FM alignment procedures, and provide low-distortion display of non-sinusoidal waveforms. Especially applicable to labs, schools, production lines, and service shops. Vertical amplifiers (3-stage, push-pull) sport the following sensitivities: DC: 70 millivolts/inch; AC: 25 millivolts/inch. Frequency response (Sine wave): DC — within 3 db from DC to 4.5 MHz; within 5 db at 5 MHz. AC — within 3 db from 1 Hz to 4.5 MHz; within 5 db at 5 MHz. Intensity modulation: Input on front panel. Blanking on negative signal excursion. For 117 VAC 50/60 Hz. 17¼"13⅜"x8¾". Ship. wt., 30 lbs.

63F074. NET **199.95**

WIDE BAND OSCILLOSCOPE



Model ES-550B. For general purpose use for lab., schools, production line, and service shop; for color and b&w TV servicing. For multiplex alignment and solid state and vacuum tube equipment. Has 5mc wide vertical frequency response and 5" scope screen, 3-position vertical & horizontal step attenuator, freq. compensated: x100, x10, x1., response: 10 Hz. to 5 mHz. 3000-V. intensifier anode potential: amplified Auto-Sync Circuit. Four-way sync selection (internal neg., internal pos., external, and line) Direct-reading P-P voltage calibrator permits oscilloscope tube used as vacuum-tube voltmeter. Vertical pattern reversing switch, linear multi-vibrator sweep circuit 10 Hz to 100 kHz; automatically synchronized 30 Hz & 7875 Hz. sweep for TV sync-pulse analysis; amplified sweep retrace blanking. Built-in 60 Hz. phasing & blanking controls. Vertical sensitivity: 10 mv RMS for 1" display. Power input: 117 VAC 60 Hz standard; High contrast filter-type illuminated graticule. Dimensions: 18½" x14½"x8¼". Shipping weight 47 lbs.

63F068. NET **289.95**

PROBE SET FOR MODEL ES550B

Model SPS. Oscilloscope probes including high impedance low capacity, crystal demodulating, isolating, and direct probe. Shipping wt. 5 lbs.

63F069. NET **29.95**

VOLT-OHM-MILLIAMMETER

Model 120. For general use in schools, laboratories, production lines, and radio-TV and appliance service-shops. Has 61 ranges (+ & —) Extra-high 6000 V. range, Extra-low ohms, current and voltage range, Mirrored, No-Parallax scale standard without extra cost. Transit meter movement protection Polarity reversing switch. DC V. (20,000 ohms/V.) 0-0.3, 1.2, 3, 12, 60, 300, 600, 1200. 6000. AC V. (5,000 ohms/V.) 0-1.2, 3, 12, 60, 300, 600, 1200, 6000. AC Output Ranges: 0-1.2, 3, 12, 60, 300, 600 V. (Built-in 600 V. blocking capacitor) Response: ±1 db from 15 Hz —100 kHz, useable response beyond 500 kHz on low voltage ranges. DB Scales: 8 wide-frequency db ranges —20 to +77 db; Resistance Full-scale 200, 2000, 200,000 ohms. DC Polarity reversing switch for ease of measurement and quick front-to-back diode check. Precision 1% Multipliers and shunts: extra wide-vision meter with polished nirrored scale. Complete with batteries, test leads and technical manual. 7"x5⅜"x3⅛". Weight: 4 lbs.

63F070. NET **59.50**

63F075. NET. LC-3 carrying case **8.95**

ACCESSORIES FOR MODEL V-75

Model AV-2A. High-Voltage Probe. Increases DC voltage range up to 50,000 volts. Shipping wt. 1 lb.

63F071. NET **12.95**

Model AV-1A. R. F. Probe Increases frequency range up to 250 mHz. Shipping wt. 1 lb.

63F072. NET **7.95**

SENCORE Test Equipment

STANDARD TEST EQUIPMENT

IN-CIRCUIT TRANSISTOR TESTERS

Model TR139. In-circuit tester measures—AC gain and leakage. Checks all transistors, diodes and rectifiers either in or out of cricuit. Safe guard device protects meter from damage. No set up books or manual required. PNP and NPN types of transistors can be checked at a flick of a switch. Vinyl covered steel case. Chrome panel with 6" meter. Beta range: 2-Infinity; Icbo range: 0-5000 microamps. Size: 9x7¼x6". Wt. 8 lbs.

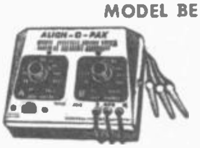
62F478. NET **89.50**

● *NEW!* TR15A IN-CIRCUIT TRANSISTOR TESTER

Similar to TR139 but has 4½" meter. In-circuit tester that measures the AC gain (Beta) and leakage (Icbo) of transistors, diodes, and rectifiers without disconnecting a single lead. Special circuitry protects even the most delicate transistors and diodes, even if the leads are connected incorrectly. Beta range, 2 to infinity; Icbo, 0 to 5000 microamps. All steel, vinyl covered case—5"x7⁹⁄₁₆"x3¹⁄₁₆". Wt. 4½ lbs.

62F749. NET **64.50**

MODEL BE113 DUAL TV BIAS SUPPLY



Model BE113. Single or two separate 0 to 20 volts DC bias supplies without interaction. Well filtered; effectively pure DC with less than ¹⁄₁₀ of 1% ripple-calibration accuracy better than equivalent battery tolerance. Size: 4x2x2". Wt. 1 lb.

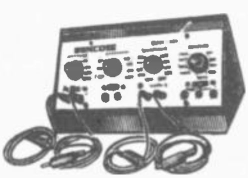
62F1452. NET **14.95**

TR-115 TRANSISTOR CHECKER

Test transistors for leaks, opens and shorts. (Out of circuit only) Ratio check as well as Beta, good-bad. Equivalent check data for Japanese type and all American made transistors. Size: 5"x4½"x2½". Shipping wt., 2 lbs.

62F735. NET **24.95**

HANDY "75"



Model RC-146. Seventy-five frequently used values of carbon resistors, capacitors, electrolytics, power resistors, universal selenium and silicon rectifiers for fast on the spot substitution. Power resistors of 20 watts from 2.5 to 15,000 ohms and a .5 amp silicon and selenium rectifier. Size 10¼"x4"x4". Wt., 3½ lbs.

62F732. NET **49.95**

MODEL RC145. Same as above but with 53 frequently used values. Weight, 3 pounds.

62F1453. NET **34.95**

TC142 MIGHTY MITE V

Model TC142. Checks over 3000 tube types (including foreign, Novars, compactrons, Nuvistors, and the latest 10 pin types) for gas condition and grid leakage up to 100 megohms. Also checks cathode current at operating levels and shorts or leakage up to 150,000 ohms between all elements. Streamlined steel case, 10"x9"x3½". Wt. 9 lbs.

62F427. NET **79.50**

FS-134 FIELD STRENGTH METER

Completely transistorized, battery powered portable. Frequency of 50-100MHz, 160-230MHz, 460MHz, 900-MHz (channel 2-channel 83) Sensitivity Zero adjustment nullifies noise. Input 75 ohms (300 with matching 0-6db. Band width 500KHz 4" logarithmic scale calibrated in 60 db range, 2-2000 MV range. Other controls include fine tuning, audio level, calibration. Indicates FM and AM signals. Size: 10x9x5". Shpg wt., 9 lbs.

62F743. NET **199.50**

5" OSCILLOSCOPE

Direct vert. peak to peak volt readout off of front panel. Vert. amplifier freq. response 10 Hz to 5.2 megahertz, ±1db at .055 microseconds, sensitivity of .017 volts rms per inch deflection. Horz .req. 3db from 10 hertz to 650 KHz., sweep to 500KHz in 5 ranges. High input impedence Z of 27 megohms shunted by 9pf. External inputs for horz. sweep and ext. sync. Also has horz. retrace, sync stability control and standby switch. All steel case with brushed chrome front panel. 11"x9"x15½", 22 lbs., 100 watts, 60 cycle, AC.

62F747. NET **199.50**

FE14 FIELD EFFECT VOLT-OHM METER

Featuers all of the advantages of a VTVM with the complete portability of a VOM. Input resistance: 15 megohms on DC and 10 megohms on AC. Current measurements up to one amp. Zero center scale as low as one half volt. Ranges: DC Volts: 0 to 1, 3, 10, 30, 100, 300, and 1000 full scale. AC Volts: (Rms) 0 to 1, 3, 10, 30, 100, 30,0 and 1000 full scale (Peak to Peak) 0-2.8, 8.4, 28, 84, 280, 840 and 2800 full scale. Ohms: 0-1000, 10K, 100K, 10 meg, and 1000 meg. D.C. current: 0-100ua, 1ma, 10ma, 100ma, and lamp. Mirrored scale. Unbreakable steel vinyl covered case with brushed chrome panel. Size: 7½x5¼x3¹⁄₁₆". Wt. 4 lbs.

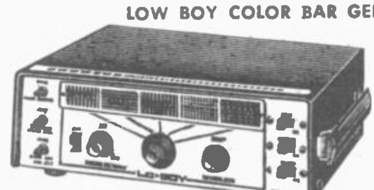
62F1451. NET **69.95**

Model 39A19. High Voltage probe (for above) extends 300 Volt range to 30KV.

62F1456. NET **9.95**

COLOR TV TEST EQUIPMENT

LOW BOY COLOR BAR GENERATOR



Model CG10. Compact design provides 10 standard RCA type color bar patterns, full crosshatch, 10 vertical and 14 horizontal, and adjustable white dots. Interlace control stops dot bounce. All-silicon solid state construction for low warm-up time; eliminates need for internal timer controls (brought out to front of panel for operator adjustment.) Uses long life C cells with regulated output; permits wear down from 12V to 9V with full circuit response. Vinyl finished steel case. Weight 7 pounds.

62F745. NET **89.95**

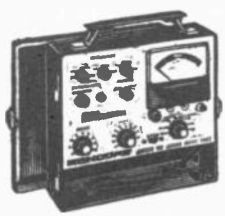
62F1455, Model CG12—AC operated. **NET** **109.95**

CG141 DELUXE COLOR GENERATOR

Model CG141. Provides all standard patterns, including RCA type, crosshatch, adjustable white dots and single cross for simplified static and dynamic convergence. Crystal controlled, 4.5 MHz, for fine tuning of sound carrier. "Temp Control" maintains a controled operating temperature, regardless of environmental temperature ."Snap Turner eliminates interference between channels and co-channels. Color gun interrupters on front panel. Positive and negative picture phase with 7 volts peak to peak. All steel, vinyl covered case. Size: 10"x9"x3½". Wt. 9 lbs.

62F746. NET **149.95**

CR143 DELUXE CRT TESTER

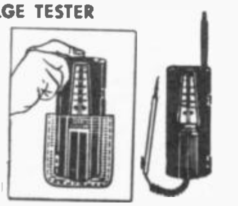


Model CR143. Tracking check is computed right on the face of the meter. All standard tests, shorts, emission test with pure DC, and life test. Rejuvenation and shorts removeable is accomplished with automatic control. Three step rejuvenations. Line adjust provided. All controls calibrated in actual DC volts. Complete with chrome panel and rugged all steel vinyl case with spacious lead compartment. Size: 10x9x3½". Wt. 11 lbs.

62F422. NET **99.50**

Amprobe Test Equipment

● NEW VOLTPROBE VOLTAGE TESTER



Type VT-100. Designed for convenient use for all residential and commercial circuits indicating nominal voltage levels from 115-550 VAC, 115-750 VDC. Voltage levels are shown "Thermometer Style", visual readout. Automatically shows correct DC polarity. Compact. Only 6" x 2¼" x ¾" Shpg. Wt. 5 oz.

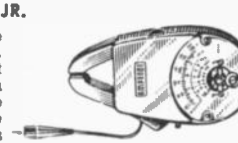
62F986. NET **9.50**

AMPROBE SNAP-AROUND VOLT-AMP-OHMMETERS

The most popular and asked for tools of their type. Only one volt or amp range is revealed in its unbreakable plastic window at any one time. Rotary scale eliminates guesswork and reading errors. Currents may be measured instantly and accurately. Pointer-lock freezes needle at the reading with the flick of a switch. Allows you to take readings in darkness or hard to see areas and then read away from the conductor. A valuable tool in balancing circuits, tracing faults and grounds, and diagnosing operating troubles without shutting down equipment. Built-in 25 ohm mid scale ohmmeter on RS-3 and RS-1000. Accuracy within ±3% FS. One hand operation. With VL-11 leads and case.

Stk. No.	Type	Volts	Amps	Net
62F659	RS-1	0-150/600 AC	0-6/15/40/100 AC	44.85
62F706	RS-2	0-150/300 AC	0-6/15/40/100 AC	44.85
62F658	RS-3	0-150/300/600 AC	0-6/15/40/100/300 AC	58.50
62F707	RS-300	0-150/300/600 AC	0-6/15/40/100/300 AC	53.50
62F708	RS-1000	0-150/300/600 AC	0-15/40/100/300/ 1000 AC	77.50

AMPROBE JR.



The only voltage testers in their price class that also measures amperage. They are precision instruments that **measure instantly and accurately on a calibrated scale ±3% full scale (not just an indication). Amperage ranges to 100 amps and voltage scales to 600 volts are available. Price includes Test Leads, Less case.**

Stk. No.	Type	Ranges	Net
62F963	Y25	0-25 Amps A.C. 0-125/250 Volts A.C.	24.50
62F964	Y50	0-50 Amps A.C. 0-125/250 Volts A.C.	
62F966	Y525	0-25 Amps A.C. 0-150/600 Volts A.C.	
62F967	Y550	0-50 Amps A.C. 0-150/600 Volts A.C.	
62F968	Y500	0-100 Amps A.C. 0-150/600 Volts A.C.	
62F969	P-1	Carrying case for above models	3.25

AMPROBE JR. YO MODELS AND KITS

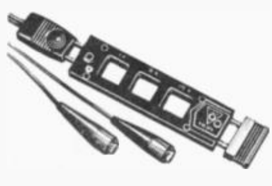
The only voltage testers in their price class that measure voltage, current and resistance; furnished with test leads. Also comes as Amprobe Jr. Test-Master Kit consisting of a specially designed carrying case containing the YO Amprobe Jr., an Amprobe A-45L Energizer, battery attachment and test leads. The New YO precision instruments measure instantly and accurately on a calibrated scale. Ohm-meter range: 25 ohms mid-scale; frequency: 60 cycles A.C. (*Indicates Test-Master Kits).

Stk. No.	Type	Ammeter Range	2 Voltage Ranges	Net
62F951	YO 550	0-50	0-150/600	29.50
62F952	YO 500	0-100	0-150/600	
62F957	TM-YO 550*	0-50	0-150/600	39.85
62F958	TM-YO 500*	0-100	0-150/600	

Type P-1. Carrying case for above "YO" models and also "Y" models listed elsewhere on this page.

62F969. NET **3.25**

ENERGIZER



Model A-45L. Permits current readings on permanently wired low-current equipment by simplifying series connection. Increases ammeter sensitivity 5x or 10x for more precise reading directly at outlets by splitting double conductor line cords while equipment is connected to line. Cap.: 10 amps. With pouch.

62F977. NET **7.25**

TEST MASTER KITS

TM-43A In "U" Case

TM-63 In "A" Case

Compact. Neat. Holds instruments in carrying case. All contain the popular RS-3 rotary scale Amprobe, with various combinations of accessory items to suit your needs. Features snap-lock and carrying handles.

Model TM 33A. Contains one RS-3, Deca-Tran A-50-1, Energizer A-45L, VLK-311 Extendo Leads and U case.

62F661. NET **98.50**

Model TM 43A. Contains RS-3, Deca-Tran A50-1, Phase Sequence adaptor PSA-1, Energizer A-45L, VLK-311 Extendo in U case.

62F983. NET **107.85**

Model TM 53. Contains RS-3, Phase Adaptor PSA-1, Energizer A-45L in V case.

62F984. NET **76.85**

● NEW MODEL TM-63

Includes Model RS-3, VLK 311 "Extendo Leads", A45L energizer with pointer-lock that freezes pointer. Rotary scale with unbreakable magnifier reveals voltage or amperage at a glance. Impact resistant, light weight, with "A" case.

62F985. NET **69.85**

Model "A" Case. Designed to hold either RS-1, RS-2, RS-3 or RS-300 as well as Energizer A-45L and Extendo Leads VLK311. Comes with Model TM-63 as standard.

62F987. NET **6.85**

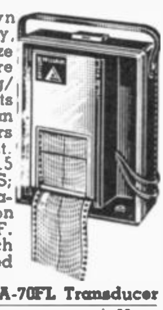
● NEW EXTENDO-LEADS

Model VLK311. Permits you to take voltage readings without someone to hold the instrument while test probes are applied to the circuit. For use with RS series except RS-1000. Contains leads, alligator clips, adapter clamp. Comes with TM-63 as standard.

62F988. NET **3.95**

Turn this — into this

AMPROBE RECORDERS



Rugged, compact instruments in their own carrying case. Designed for high accuracy, dependability, and ease of operation. Small size and easy loading plus a unique design feature permits them to be used either as monitoring/recording devices or as indicating instruments making these recorders extremely versatile. Can be used as round the clock trouble shooters without the need for an operator to be present. Power requirements: 115VAC, 60 cycles, 2.5 watts. Accuracy: AC amps and volts ±3% FS; AC expanded scale volts ±1.25% FS; Temperature ±3°F on +20°F to +100°F; ±4°F on —50°F to +20°F; ±5°F on +50°F to 250°F. Chart Speed is 12"/hr. Supplied with 1 roll each of the necessary strip charts. Other chart speed available. Weight 20 oz.

**With A60FL Transducer ***With A-70FL Transducer

Stk. No.	Type	Description	Range	Net
62F678	LAA81	Ammeter***	0-10/50/250/500 Amps AC	114.85
62F679	LAA82	Ammeter**	0-5/25/100/250 Amps AC	109.85
62F680	LAV2X	Voltmeter	95-130/190-260 V., AC	103.85
62F686	LAVA82	Voltmeter/ Ammeter**	95-130/190-260 V., AC 0-5/25/100/250 Amps, AC	153.85
62F980	LAVA83	Voltmeter/ Ammeter***	95-130/190-260/380-520 V., AC 0-10/50/250/500 Amps, AC	174.85
62F674	ADV220	Motor Volt Adapter	Permits Rec. Mtr. to operate on 220 V., AC	4.85

STRIP CHARTS FOR RECORDERS

Perforated and printed 2 colors. Individually boxed 30' rolls.

Stk. No.	Type	Description	Net
62F704	830AV600	Use with model LAV8600.	1.50 per roll
62F689	850A	Use with models LAA81, LAA82, LAVA81, LAVA82, LAVA83, LAVA84.	
62F690	835X3A	Use with models LAV2X, LAV3X, LAVA81, LAVA82, LAVA83, LAVA84.	
62F691	823T1	Use with model LT8100 (—50°F/+100°F).	
62F692	833T2	Use w/model LT8100 (+50°F/+250°F).	

Test Equipment

SPRAGUE TEST EQUIPMENT

MODEL M-3 COMPACT CAPACITOR ANALYZER

Handy instrument outmodes troublesome methods of checking capacitors with ammeters, voltmeters, and wattmeters, and then referring to charts to establish results of different meter readings. A twist of the dial tells you whether capacitors are good or bad, giving you actual capacitance and power factor measurements by the accurate, Wein Bridge method. Safe operation assured by automatic discharge of capacitor when test switch is released. For use on 110-125 VAC, 50-60 hz. Rugged steel case finished in blue. Shpg. wt.6 lbs.
62F628. NET. **39.95**

MODEL TO-6 TEL-OHMIKE

Capacitor analyzer measuring up to 2000 mf in five overlapping ranges. 1.35 AC test voltage for use with capacitors in transistorized circuits. 10,000 Megohm at 30 volts for low-voltage check and 50,000 megohm at 150 volts for high voltage check. Electrolytics checked directly on 4-range Ma. scale (0-60Ma) Magic eye tube for balancing. 3-ranges of DC polarization, variable to 600VDC. Instant discharge automatically protects the user. Charcoal-gray panel with white designations. 8⅞x14⅝x6⅛". For operation from 115VAC 50-60 Hz. Shpg. wt. 13 lbs.
62F632. NET **99.50**

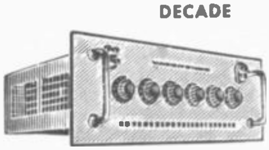
AMPHENOL

● NEW MILLIVOLT COMMANDER

An all-transistor voltmeter designed with the needed low ranges for servicing transistorized equipment. Presents direct and accurate read-out from 100 millivolts to 1,000 volts DC, full scale and from 10 millivolts to 300 volts RMS AC, full scale, with accuracy of ±2% on DC range and ±3% on AC range. Uses the field effect transistor to maintain the constant high impedance found in a vacuum-tube voltmeter. Input Impedance of 10.6 megohms. Battery life is in excess of 1,000 hours. Requires no warm-up. Size: 9¼"x5¾"x6⅜". Shpg. Wt. 5 lbs. with batteries.
62F1020. NET **99.95**

CLAROSTAT TEST EQUIPMENT

POWER RESISTOR RACK-MOUNTED DECADE



Model 250. Provides a power resistor of any required ohmage. From 1 ohm to 999,999 ohms in 1 ohm increments. Each decade value having a power rating of 225 watts max. or 1000 volts D.C. or 660 volts A.C. max. Used as standard resistances in active circuits or as a means of determining resistances and circuit under operating conditions. Ohmages selected by six front panel dials. Two sets of identical terminals, current and resistance terminals provide front and rear hook-up. Overall length, 19" long x 13¼" deep x 7" high. Weight, 18½ lbs. approximate.
99F1450. NET **150.00**

POWER RESISTOR DECADE

Model 240C. This handy power resistor box permits changing resistance values in a working circuit at the flip of a switch. Saves time and work in developing new circuits where some values are unknown. Ideal for checking voltage regulation of power supplies, since load can be varied over a wide range. Handles any value from 1 to 999,999 ohms, in steps of 1 ohm. Power rating is 225 watts. Maximum voltage should not exceed 1,000 VDC or 660 VAC. Housed in ventilated metal cabinet. Size: 13" x 8½" x 5¾". Shpg. wt. 11 lbs.
62F730. NET. **110.00**

PRECISION RESISTANCE DECADE BOX

Used whenever accurate steps of resistance values are required. Two-piece molded housing. Temp. coefficient less than 100 ppm. Temp. 40°C. at rated current. Accuracy 1% except 260-1 5%. Approx. shpg. wt. 3 oz. per individual unit.

Stk. No.	Type	Total Res. of Decade	Max. Current	NET
62F723	260-1	0.9	1 amp	3.95
62F724	260-2	9.0	350 ma	3.95
62F725	260-3	90	100 ma	3.95
62F726	260-4	900	35 ma	3.95
62F727	260-5	9K	10 ma	3.95
62F728	260-6	90K	3.5 ma	3.95
62F729	260-7	900K	1.0 ma	3.95

MILLEN TEST EQUIPMENT

GRID-DIP METER

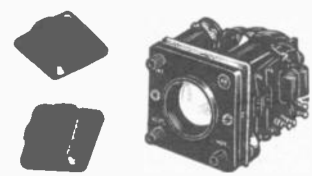
Model 90651. Uses the calibrated RF oscillator principle. 2" meter reads oscillator grid current. Common use: To find resonant freq of non-energized tuned circuits. Other uses: Receiver tuned circuit align., determination of transmitter tuned circuit freq. with power off, oscillating detector. Range: 1.7-300 MHz. 105-125 v., 60 Hz with polypropylene carrying case which protects coils/probes and meter. 1⅜x5⅛x3⅞". Wt., 4¼ lbs.
97F220. NET **78.50**
97F221. 90651-C. Case only 5.47
Type 46721. Link probe. 220 KHz to 65 MHz.
97F231. NET. 2.22
97F232. 46702 coil. 925-2000 KHz.
97F233. 46703 coil. 500-1050 KHz.
97F234. 46704 coil. 325-600 KHz.
97F235. 46705 coil. 220-350 KHz.
97F238. 46706 coil. 165-225 KHz.
All coils listed above. NET EACH.... **9.40**

BEZELS AND FILTERS FOR CR TUBE

Made of black molded phenolic. With green plastic filter scale and hardware. Wt. ½ lb.

No.	Type	For	NET
97F290	80071	1" CR Tube	1.90
97F282	80072	2" CR Tube	2.28
97F283	80073	3" CR Tube	5.42
97F284	80075	5" CR Tube	10.50

1" OSCILLOSCOPE



90901. A miniature panel mounting basic cathode ray oscilloscope. Uses a 1CP31 CRT. Vertical deflection sensitivity of 1.7 volts r.m.s. per mm deflection or 4.7 volts peak to peak per mm deflection. Horizontal sensitivity is 2.5 volts r.m.s. per mm deflection or 6.9 volts peak to peak per mm deflection. The 1CP31 is a fixed focus tube so no focus control is required. Intensity and centering controls but no amplifiers, sweep, or power supply. Size 2⅞x2¾x3⅛". Shpg. wt., 1 lb.
97F285. Less CR Tube. **NET**......... **26.40**
1CP31. Tube. To be used with 90901.
NET 17.70

POWER SUPPLY FOR OSCILLOSCOPE

90202. Especially for use with model 90901. Input: 117 volts 50/60 Hz. Output: 750 volts DC at 3 ma. and 6.3 volts AC at 600 ma. Octal plug for input and output. Entire assembly is encapsulated. Size: 1⅞x2⅛x4⅝". high. Wt., 1¾ lbs.
97F291. NET. 26.30

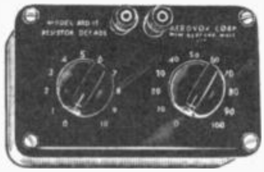
CATHODE RAY TUBE SHIELDS

No.	Type	For Tubes	NET
97F286	80042	2BP1	8.32
97F287	80043	3DP1 & 3BP1	11.00
97F288	80045	5BP1, 5GP1, 5HP1, 5NP1	24.70
97F289	80055	5CP1	24.70

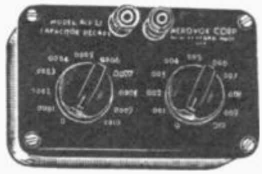
AEROVOX DECADE BOXES

• Provide Accurate Standards of Resistance, Capacitance & Inductance

Type ALD-42



Type ARD-15



Type ACD-23

Type ARD-41

All units provide accurate standards of resistance, capacitance, and inductance. Ideal for laboratory and experimental use. Decade boxes of the highest quality are available in ranges most needed for electronic and electrical laboratories for a price below that of equivalent quality standards. Boxes are available in 11 units; 4 resistance decades, 3 capacitance decades, and 4 inductance decades. Face plates are black with white numerals for maximum legibility. Heavy duty construction of seamless, drawn steel and gray enamel housing insure trouble free operation and unimpaired accuracy. Resistance model ARD-41 is housed in special high impact plastic case which is capable of rugged handling.

In "Use" column of the following table, C indicates the Capacitance Decade Box, L the Inductance Decade Box, and R the Resistance Decade Box. Except for ALD-42 the Capacitance Decade Boxes have operating ranges of 400 to 20,000 cps. ALD-42 has a range of 400 to 5,000 cps. The new decade box, ARD-41, has a range of 0 to 1.1 megohms in 1 ohm steps, combining all the three other resistance decades into one compact box. Multiple-dial Capacitance Decade Boxes have the highest value multiplier to the left so that readings are instantly visible.

CAPACITANCE

Stock No.	Mfr. Type	Use	Dielectric	Dials	Range	Steps	Accuracy ± 1st Dial	Accuracy ± 2nd Dial	Rating 1st Dial	2nd Dial	NET
62F1300	ACD-13	C	Mica	2	0 to .011 mfd.	0.0001 mfd.	3%	3%	600 VDC 220 VAC	600 VDC 220 VAC	19.50
62F1301	ACD-23	C	Oil-Paper	2	0 to 1.1 mfd.	0.01 mfd.	3%	3%	600 VDC 220 VAC	600 VDC 220 VAC	23.25
62F1302	ACD-33	C	Oil-Paper	1	0 to 10.0 mfd.	1.0 mfd.	3%	3%	600 VDC 220 VAC	....	28.50

INDUCTANCE

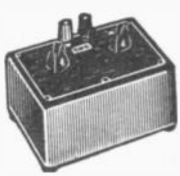
Stock No.	Mfr. Type	Use	Dielectric	Dials	Range	Steps	Accuracy 1st Dial	Accuracy 2nd Dial	Rating 1st Dial	2nd Dial	NET
62F1303	ALD-12	L	Toroidal	1	0 to 10 mh.	1.0 mh.	2%	......	250 MaDC	....	29.90
62F1304	ALD-22	L	Toroidal	1	0 to 100 mh.	10.0 mh.	2%	......	79 MaDC	....	29.90
62F1305	ALD-32	L	Toroidal	1	0 to 1.0 hy.	100.0 mh.	2%	......	25 MaDC	....	32.40
62F1306	ALD-42	L	Toroidal	1	0 to 10.0 hy.	1.0 hy.	2%	......	8 MaDC	....	35.50

RESISTANCE

Stock No.	Mfr. Type	Use	Dielectric	Dials	Range	Steps	Accuracy 1st Dial	Accuracy 2nd Dial	Rating 1st Dial	2nd Dial	NET
62F1307	ARD-15	R	Wire-Wound	2	0 to 110 ohms	1.0 ohm	5%	3%	1.0 Amp.	0.5 Amp.	22.85
62F1308	ARD-23	R	Wire-Wound	2	0 to 11 K	100 ohm	3%	3%	100 Ma.	50 Ma.	22.50
62F1309	ARD-31	R	Carbon Deposited	2	0 to 1.1 meg	10 K ohm	1%	1%	5 Ma.	2 Ma.	23.80
62F1310	ARD-41	R	Wire-Wound & Metal Film	6	0 to 1.1 meg	1.0 ohm	1%	1%	1st Dial 2 Ma. 2nd Dial 5 Ma. 3rd Dial 15 Ma.	4th Dial 50 Ma. 5th Dial 150 Ma. 6th Dial 500 Ma.	44.95

CORNELL-DUBILIER TEST EQUIPMENT

CDC



CDA

CDE

RDA

CDT

CAPACITOR AND RESISTOR DECADES

CDE decade instrument boxes provide a reliable and accurate source of precision selected values for breadboarding and substitution. Featuring common size heat and shock-resistant phenolic individual boxes, direct-reading value ranges, six-way molded nylon terminal posts, and calibration chart for capacitance boxes, these handy units are widely used in electronic and electrical application work. Size: 3 13/16x5x3⅝, weight 2 lbs.

Stock No.	Model	Max. Cap. Mfd.	Steps Mfd.	1-9	10-Up
62F629	CDA-2	0.011	0.0001	15.37	13.98
62F645	CDB-3	1.1	0.01	17.28	15.80
62F646	CDC-3	10 0	1.0	28.61	26.20
62F647	CDE	150	10	17.00	15.80

Stock No.	Model	Res. Ohms	Steps Mfd.	1-9	10-Up
62F655	RDA	1-110	1	19.82	18.15
62F656	RDB	100-11K	100	21.87	19.99
62F654	RDC	10K-1meg	10K	19.64	17.95

CDT TANTALUM BOX

CDT decade capacitors provide a reliable source of precision selected capacitance for substitution purposes in a wide variety of applications. Features CDE capacitors, smooth range selection, & heat- and shock-resistant phenolic cases. Capacitance tol: ±5% (10-100 mfd.), ±10% (100-1000 mfd.). Capacitor Dielectric: Polarized Tantalum Foil—10-100 mfd. Plain; 100-1000 mfd. etched. Max. Voltage: 50 VDC Polarized. Capacitance, mfd.: Min.—10; Max.—1100; Step—10. 2 Rotary Switches. Shpg. wt. 7 lbs.

62F638. NET 139.54

EICO® Test Equipment & Kits

SOLID STATE ELECTRONIC KITS

Create with your own hands a wide variety of electronic devices. Easy to build electronic kits that require no technical knowledge or experience to enjoy building. All kits are completely professional. Only the complexity has been reduced. Kits feature: solid state circuitry, printed circuit boards and step by step instructions for easy assembly. Projects are expandable by adding kits together. Your imagination is the only limitation.

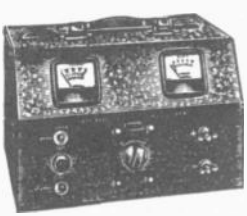
Stock No.	Type	Kit Description	NET
63F017	EC-100	Electronic Siren	4.95
63F018	EC-101	Electronic Buglar Alarm	6.95
63F019	EC-102	Electronic Fire Alarm	6.95
63F020	EC-200	Electronic Intercom	5.95
63F021	EC-300	Audio Power Amplifier	5.95
63F022	EC-400	Electronic Metronome	3.95
63F023	EC-500	Tremolo	9.95
63F024	EC-600	Electronic Light Flasher	3.95
63F025	EC-700	Electronic "Mystifier"	4.95
64F026	EC-800	Photo Cell Nite Lite	4.95
63F027	EC-900	Power Supply	8.95
63F028	EC-1000	Electronic Code Osc.	2.50
63F029	EC-1200	AM Wireless Mike	9.95
63F030	EC-1400	Solid-State FM Radio	9.95
63F031	EC-1500	Solid-State AM Radio	8.95
63F032	EC-1100	FM Wireless Mike	9.95
63F033	EC-2100	Electronic "Eye"	8.95
63F034	EC-2200	Electronic Touch Switch	8.95
63F035	EC-1600	Electronic Bongos	7.95
63F036	EC-1900	Treasure Finder (Metal Locator)	9.95
63F037	EC-2000	Electronic Organ	9.95

MODEL 1064K BATTERY ELIMINATOR AND CHARGER KIT

Delivers smooth, undistorted DC necessary for servicing transistorized equip., or for any application where minimum ripple, is essential. Two DC voltage ranges: 0-8v. and 0-16v. Automatic switching of appropriate ammeter range as you select either of the 2 voltage ranges. Separate volt meter and dual-range ammeter for more accurate reading. 105-125v. AC, 50/60 Hz; 150 watts. Grey steel cabinet. Size· 8½x5¾x7½". Same current, ripple ratings as Model 1060. Wt. 16 lbs.
62F870. NET **49.95**

Model 1064. As above but Factory wired.
62F871. NET **64.95**

MODEL 1060-K BATTERY ELIMINATOR AND CHARGER KIT



Battery substitute for operation and servicing of battery operated transistorized, also "hybrid" and vac.-tube equip. Separate output ammeter and voltmeter. Has extra low ripple filter. Output 0-8V, @ 10 amps continuous, 0-16V @ 6 amps continuous. 0.3% ripple @ 2 amps. Size: 8¾"x10½"x7¾". With instructions, less leads 18 lbs.
62F852. NET **45.95**

Model 1060. As above but Factory wired and tested.
62F853. NET **59.95**

MODEL 1020K POWER AND BIAS SUPPLY KIT

Power supply includes power transformer, full-wave silicon diode rectifier circuit, heavy R-C filtering, plus two power transistors in a unique cascaded filter circuit. Ripple is reduced to 1/200 of 1% at full load. Provides continuously variable output voltage to 30 volts monitored by a dual range voltmeter (0-6, 0-30 VDC). Max. load current varies from 150 ma. in the 1-12V range to 300 ma. in the 24-30V range. Uses include hum-free operation of sensitive transistor radios, hearing aids, preamp, instruments. As a variable bias supply for transistors or tubes in circuit development; to offset AVC and AGC voltages in the alignment of TV and radio receivers or to cut off the color burst amplifier in color TV adjustment. Grey case. Size: 5x4x5½". Wt. 5 lbs.
62F856. NET **25.95**

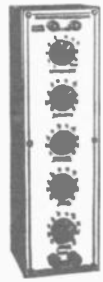
Model 1020. As above but Factory wired.
62F857. NET **34.95**

SOLID STATE POWER SUPPLY

Model 1025 is completely transistorized, very low ripple, portable DC power. Monitored by a dual range voltmeter (0-6, 0-30 VDC), and 500 ma millampmeter. Maximum load current varies from 150 ma in the 0-12V range to 300 ma in the 24-30V range. Maximum ripple (120cps) at full load is only 0.005%. Fuse: ½ amp. will blow in case of short circuit to protect unit. Power Requirements: 117V, 60cps. Size: 3¾" h x 8"w x 4¾" d. Weight 5 lbs.

62F910. Model 1025K Kit. **NET** **34.95**
62F911. Model 1025 Wired. **NET** **49.95**

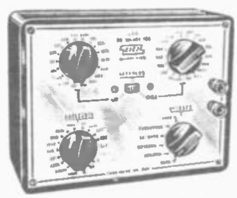
1171-K RESISTANCE DECADE BOX KIT



Permits changing resistance in a working circuit at the flip of a switch. May be used alone or in conjunction with the model 950-K RC bridge. Supplies resistance values from 0 to 99,999 ohms. Uses ½% resistors. Separate comparator position and binding posts permit instant substitution. Steel case, 3½x12x3". With diagrams, instructions and all parts; less solder and leads. Wt., 3 lbs.
62F795. Kit. NET **24.95**

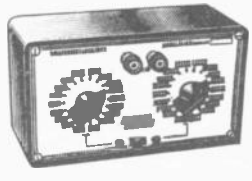
Model 1171. As above but Factory wired.
62F802. NET **39.95**

R-C COMBINATION BOX KIT



Model 1140-K. Combines Model 1100-K and Model 1120-K in one box for selection of either R alone, C alone, or series or parallel combinations of R and C (1350 combinations). Includes all EIA resistance values from 15 ohms to 10 megohms and all EIA capacitance values from .0001 to 0.22 mfd. Min. accuracy ±10%; resistors 1 watt carbon and capacitors silver-mica or molded / impregnated plastic, most rated at 600 volts. May be substituted in operating circuit to determine RC combination value, or just R or C value, needed for optimum performance. 5-way jack top binding posts. Satin-aluminum front panel. Shipping weight, 3 lbs.
62F860. NET **15.95**
62F861. Model 1140. Wired and tested. **NET** **24.95**

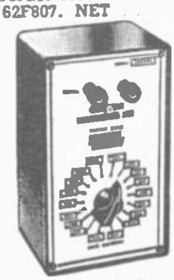
MODEL 1100-K EIA RESISTANCE SUBSTITUTION BOX KIT



Permits rapid substitution of a wide range of EIA resistance values in an operating circuit to determine the resistance required for best performance . . . determines the value of unmeasurable resistors. 36 EIA 1 watt, 10% resistors, arranged in Hi and Lo decades give resistance ranges of 15 ohms-10 megs in decade multiples of 15, 22, 33, 47, 68 and 100 ohms 5-way jack-top binding posts for connection of practically any type of test lead. Molded black bakelite cabinet with 2 color deep etched aluminum panel. With all parts, less solder and leads. Size 3¾x6½x3½". Wt., 2 lbs.
62F808. NET **9.95**

Model 1100W. As above but Factory wired.
62F807. NET **14.95**

1120K CAPACITOR SUBSTITUTION BOX



Enables rapid substitution of a wide range of RETMA capacitance values from .0001 to 0.22 mfd. in an operating circuit to determine value needed for optimum performance and to find value of badly damaged or illegible capacitors. Minimum accuracy 10%. Convenient 5-way, jack top binding posts. Size: 3¾" high x 6½" wide x 3½" deep. Shipping weight, 2 lbs. Less leads.
62F840. NET **7.95**

Model 1120W. As above but Factory wired.
62F841. NET **12.95**

MODEL 1180-K CAPACITANCE DECADE BOX KIT

Has a range of 100 mmf to 111 mfd. Features ±1% silver mica condensers. High quality ceramic wafer switches, low-loss dielectric terminal board and 5-way binding posts. Rated at 500 VDC. Steel cabinet 9x3½x3½". Less solder and leads. Shpg. wt., 3 lbs.
62F797 NET **19.95**

Model 1180. As above but Factory wired.
62F798. NET **29.95**

TRANSISTOR AND CIRCUIT TESTER KIT

Model 680K. Transistor and circuit tester providing accurate measurement of basic transistor and diode characteristics required for quality testing, plus VOM facilities. Measures: DC current 0-50 ua, 0-500 ua, 0-5 ma, 0-50 ma, 0-500 ma; DC voltage 0-5 V, 0-50 V; resistance 0-2K (12 ohms center scale), 0-200K (1200 ohms center scale), 0-20 megohms (120K center scale); ICBO and ICEO for signal and power transistors; DC beta 2-30, 20-300; AC beta (indirectly). Overall accuracy: 3%. 3½" clear plastic face 50 ua meter. Polished bakelite case and brushed aluminum panel. 6¾Hx5¼Wx3"D. Uses 4 size AA. 1 size C batteries. With instructions. Shpg. wt., 3 lbs.

62F881. NET **34.95**

Model 680. As above, factory wired and tested.
62F882. NET 49.95

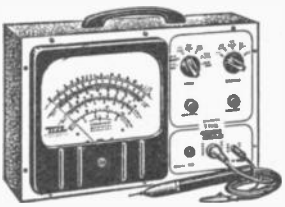
MODEL 235K VTVM KIT

Excellent for servicing all FM, AM, mono/color TV, and precision electronic equipment; especially qualified for the exacting measurements found in solid-state circuitry. Measures as little as 0.01 v on large easy-to-read 6" meter on its' ½ volt scale. Both peak-to-peak and RMS AC voltages are read on separate scales in 7 overlapping ranges up to 4.2KV. Frequency response: 30Hz to 3MHz. High input impedance (more than 11 megohms) assures negligible circuit loading in precision DC voltage measurements from 0.0. volt to 1.5KV in 8 overlapping ranges. Features: ceramic switches to assure non-arcing at all inputs, 1% tol. resistors, zero center for TV-FM sound detector alignment, and others. 8½" x 7½" x 5". 9 lbs.

62F906. NET **49.95**

Model 235. As above but factory wired and tested.
62F907. NET 69.95

MODEL 249-K DELUXE PEAK-TO-PEAK VTVM KIT



Has the same ranges and exclusive design features as the Eico Model 232 including the 1% precision resistors, external calibration, zero center for alignment purposes, one zero adjustment for all functions and ranges, and readability of a large 7½" meter. Satin finish etched panel with contrasting knobs. Complete with all parts less solder. Size: 8½x 13x5". For 110-120 V. 50/60 hz. AC. Shpg. wt., 10 lbs. With Uni-Probe.

62F813. NET **39.95**

Model 249. As above but factory wired and tested. Ready to use.
62F814. NET 59.95

MODEL 250K AC VTVM AND AMPLIFIER KIT

Model 250K. High sensitivity, wide-band AC VTVM and AMPLIFIER of laboratory accuracy and quality. It measures AC voltage from 100 microvolts to 300 volts in 12 ranges. A function selector switch on the panel converts the instrument to a wide-band amplifier with a gain of 60 db on the 1 MV range, and a maximum output of 5 volts RMS. Stabilized power supply incorporate voltage regulator; DC-biased filaments and hum-adjust pot. Voltmeter voltage ranges: 1, 3, 10, 30, 100, 300 RMS m.v. and 1, 3, 10, 30, 100, 300 RMS volts. Max. Hum and Noise. —40 db @ 2 mv in. Amplifier max. output v. 5 RMS v. Power Req. 105-125 VAC, 50/60 hz. 15 watts drain. Grey steel cabinet. Kit complete with instructions. Size: (HWD) 8½"x5¾"x7" Wt., 9 lbs.

62F874. Model 250K. Kit. **NET** **59.95**
62F875. MODEL 250. Factory wried and tested. **NET** 89.95

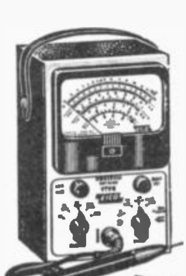
MODEL 565-K 20,000 OHMS/VOLT MULTIMETER KIT

New extra-sensitive kit featuring 31 different full scale ranges. AC-DC and output volts: 0-2.5, 10, 50, 250, 1000, 5000 (DC at 20,000 ohms per volt, AC at 1,000 ohms per volt). DC current: 0-100 microamps, 10 ma, 100 ma, 500 ma, 10 amp. Ohms: 0-2000, 200,000, 20 meg. 5 db ranges: —12 to +55. Large 4½" meter with 50 microamp D'Arsonval movement. 6¾x5¼x3". With batteries less leads Wt., 3 lbs.

62F773. NET **25.95**

Model 565. As above, but factory wired.
62F774. NET 34.95

MODEL 232-K PEAK-TO-PEAK VTVM KIT



Features high circuit stability and accuracy. Uses 1% precision resistors throughout. Directly measures p-p voltage of complex and sine waves on scales of 0-4, 14, 42, 140, 420, 1,400 and 4,200 volts. Resis. ranges: 0-1,000 megs in 7 steps. 7 non-skip ranges on the 4 functions of: +DC volts, —DC volts, AC volts, Ohms. Frequency response: 30 Hz to 3 mc. Up to 250 mc with PRF-11 probe. DC-RMS sine voltage ranges: 0-1.5-5-15-50-150-500-1,500 volts. 4½" meter in a burnout-proof circuit. Zero center for TV-FM discriminator alignment. Input impedance 11 Megohms Calibrates without removal of cabinet. Complete with all parts, less solder. Compact in size: 8½x5x5". For 110-120 V. 50-60 Hz AC. Kit complete with instructions. Wt., 5 lbs. With Uni-Probe, ground lead and battery.

62F811. NET **34.95**

Model 232. As above but factory wired and tested. Ready to use.
62F812. NET 49.95

MODEL 567K VOM KIT

Engineered for maximum versatility not only for the high voltages used in vacuum tube circuits, but its 0.25 volt range, makes it ideal for use in semi-conductor circuits. 4½" 50uA sensitive meter is protected against accidental overload damage. DC voltage measurements can be made from 0.005 to 5000v, while DC cvurrent can be read 1 uA to 10 amperes: AC voltages read to 5000V from 10 to 50,000 Hz with dB range from —12 to +55dB. Black bakelite case. 6¾x5¼x3". 3 lbs.

62F908. NET **34.95**

Model 567. As above but factory wired and tested.
62F909. NET 44.95

UTILITY TESTER KIT MODEL 540-K

- **Neon lamp AC leakage test circuit**
- **Multi-range AC/DC voltmeter**

A versatile instrument that can be used as a multi-range AC/DC voltmeter, an ammeter, an ohmmeter, a wattmeter, and a leakage detector. 3½" meter. All voltage ranges (0-7.5-15-150-300 volts) and current range (0-15 amps) are AC/DC. 0-1000 direct reading ohms. Neon lamp ac leakage test circuit permits continuity check of resistors between 1000 ohms and 2 megohms and capacitors above .0005 mfd. Direct reading of power line voltage up to 300 volts AC/DC. Panel outlet permits metering current up to 15 amps drawn by any appliance. Provides "good-bad" readings on 6 or 12 volt storage batteries. Size: 3¾x6½x3½". With instructions. 3 lbs.

62F846. NET **15.95**

Model 540. As above, factory wired and tested.
62F847. NET 19.95

MODEL 566-K 1000 OHMS/VOLT MULTIMETER KIT

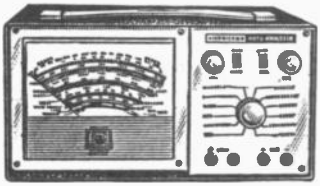
High-efficiency instrument with 38 full scale ranges. AC-DC and output volts: 0 to 1, 5, 10, 50, 100, 500 and 5000 with 1,000 ohms per volt sensitivity on both AC and DC ranges. AC/DC current: 0-1 ma, 10 ma, 0.1 amp, 1 amp. Ohms: 0-5,000, 100,000, 1-meg. 6 db ranges: —20 to +69. Large 4½" 400 μa D'Arsonval meter movement. Features new low minimum battery-drain ohm ranges. Dual rectifier has separate low and high voltage calibration in AC ranges. High-impact bakelite case, 6¾x5¼x3". With instructions, battery, less leads, less solder. Shpg. wt., 3 lbs.

62F775. NET **19.95**

Model 566. As above, but factory-wired and tested. Wt., 3 lbs.
62F776. NET 27.95

EICO® Test Equipment & Kits

888 SOLID STATE UNIVERSAL ENGINE ANALYZER KIT



• **Tunes Up and Trouble-Shoots Any Car or Boat**

Totally portable, compactly self contained, self powered engine analyzer. Useful for all 6- or 12-volt; 4, 6, or 8 cylinder engine; negative or positive ground. Checks storage battery, generator, alternator, voltage regulator, alternator diodes, starter, starter solenoid, distributor, points, condenser, ignition coil, spark plugs, dwell angle, carburetor, all electrical wiring and accessories. Includes dwell angle meter function, tachometer function and voltmeter function with 2 accurate scales for 0-3.2 V and 0-16 V. Ammeter and ohmeter function are also offered. Requires 4 "D" batteries, a sturdy metal cabinet ,and a "how to use" manual with both test and calibration leads. 5¾ x 11½ x 5". Weight 6 lbs.

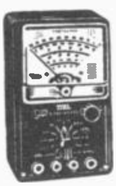
62F902. Model 888K. Kit. **NET** **49.95**
62F903. Model 888. As above, factory wired & tested. **NET** **69.95**

MODEL 955K IN-CIRCUIT BRIDGE-TYPE CAPACITOR TESTER

Permits out-of-circuit or in-circuit short check with shunt res. as low as 1 ohm. Reliable up to 2000uf 60 hz test freq. **Max.** test volt 6.3 v AC (open leads), dec. with dec. imp. Open test of capacitors as small as 15 uuf with inst. adjusted normally. For in-circuit testing, shunt res. may be as low as 35 ohms for capacitors above 250mmf (7K ohm at 15uuf). Capacity Meas.: From 0.1 to 50uf ±10% accuracy at any point on the capacity dial in either in-circuit or out-of-circuit meas. Oper. freq. of the bridge is 60 hz. Line Voltage: 105 to 130 v. AC, 60 hz 8 w drain. Dim: 8½"x5¾x"x6". With instructions less solder. Shpg. wt., 6 lbs.

62F883. Model 955K. Kit. **NET** **24.95**
62F884. Model 955. Wired & Tested. **NET** **39.95**

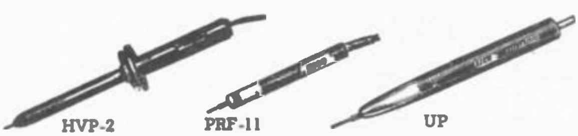
MODEL 536K 1000 OHMS/VOLT MULTIMETER KIT



1000 ohms/volt multimeter kit with extra-extended ranges from 0 to 1 volt up to 0-5000 volts, 31 different full scale ranges. AC-DC volts: 0 to 1, 5, 10, 50, 100, 500, 5000. DC current: 0-1 ma, 10 ma; 0.1 amp, 1 amp. Ohms: 0-5,000, 100,000, 1 meg. 6 db ranges: —20 to +69. Large 3" 400 μa meter movement. Low minimum battery-drain ohm ranges. Dual rectifier has separate low and high voltage calibration in AC ranges. High-impact bakelite case, 6¼x3¾x2¾". With instructions and battery less solder and leads. Shpg. wt. 3 lbs.

62F778. NET **16.95**
Model 536. As above, but factory-wired and tested. Wt., 2 lbs.
62F777. NET **22.95**
Type 610. Test lead kit for above.
35F929 .NE T **1.90**

TEST PROBES



MODEL HVP-2 HIGH VOLTAGE PROBE

HV probe extends range of VTVM's and VOM's to 30,000 volts.

62F850. With 1090 meg. multiplier resister for use with Models 235, 232, 249 or other 11 meg. VTVM's. Less connector—use Amphenol MC1F for EICO VTVM's.
NET **8.95**

VTVM PROBES

Model PRF-11. An RF probe for all VTVM's listed. ½ lb.

62F816. Kit. **NET** **4.50**

62F817. Wired. **NET** **5.95**

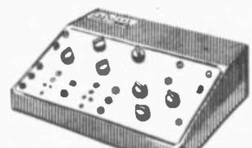
MODEL UP UNI-PROBE

Dual-Purpose AC/DC/Ohms Probe. Supplied less series isolating resistor or connector. Use 1 meg. for all VTVM's except 221, use 15 meg. for 221. VTVM's except 221 take MCIF connector; 221 must be modified.

62F864. Kit. **NET** **5.95**

62F865. Wired. **NET** **7.95**

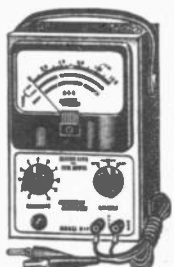
• *NEW* 443K SEMI-CONDUCTOR CURVE TRACER KIT



Tests diodes, rectifiers, signal and power transistors. Adapts to any general purpose oscilloscope and displays the D. C. characteristics of semiconductor devices. Allows direct readout of most wanted data, in determining the usefulness and technical application for circuit designers and service technicians. Specifications: diode and rectifier forward voltage test; 2 ranges (O-lma) and (0-100ma), maximum 1 Amp forward current. 2 ranges (lua/Div), (10ua/Div), (100ua/Div), Peak Inverse Voltage (PIV). 5 ranges (1volt/Div), (10volts/DIV) (50volts/Div), and (100volts/Div); (200 volts/Div); PIV test voltages are variabel from 0-1000 volts. Transistor tests; family of 4 curves, BETA- 6 volts at 10 ma collector current maximum. For signal transistors 6 volts at 1 Amp. collector current maximum. 6 volts at 1 Amp. collector current maximum for power transistors. All solid state printed circuit construction. Shpg. wt. 10 lb.

62F752. Model 443K Kit. **NET** **69.95**
62F753. Model 443 Wired and Tested. **NET** **99.95**

MODEL 944-K FLYBACK TRANSFORMER & YOKE TESTER KIT

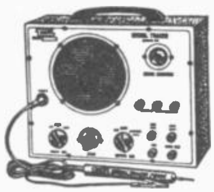


• **Checks inductive windings on chokes, transformers, coils, relays!**

Quickly and accurately troubleshoots horizontal circuits of TV receivers. Allows positive check of flybacks and yokes, in or out of the set. Has three separate colored "Good-Bad" scales on a large easy to read 4½" meter which operates on the extremely sensitive grid-dip principle. Shows up a single shorted turn. Checks inductive windings on many transformers, chokes, coils, solenoids, relays, etc. May be used as a proportional AC ohmmeter. Gray wrinkle steel case. 7x5x4". With all parts, 105-125 V. 60 hz. AC. 5 lbs.

62F832. Kit. Complete with instructions. NET **29.95**
62F833. Model 944. As above, but wired and tested. **NET** **39.95**

DELUXE MODEL 147-K MULTI-SIGNAL TRACER KIT



Transformer operated for isolation and safety. High gain RF and low gain audio with both visual and aural monitors, magic eye indicator and 5" PM speaker. Calibrated wattmeter circuit (fused) reveals abnormal total wattage consumption, open, or intermittent filament circuit, etc. Permits RF, IF and AF signal tracing in FM, AM and TV sets. Noise localizer circuit. Size 8x10x4¾". 105-125 volts AC, 50-60 hz., 40 watts. Kit. Complete with instructions. Shpg. wt. 10 lbs.

62F809. NET **34.95**
Model 147. As above, but factory wired and tested.
62F810. NET **49.95**

• *NEW* PSI SIGNAL INJECTOR PROBE

Pocket size, cordless, pen-type instrument generates and injects a signal covering the audio, IF and RF spectrum. Detects defective circuits fast. All solid state. Frequency: IKC approximately, with harmonics to 30MC. Output Impedance: 10K ohm. Supply Voltage: Uses two "AAA" 1.5V batteries. Battery Life: 2,000 hours normal use. Size: 5⅝" long x ½" O.C. Weight one ounce

62F754. PSIK Kit. **NET** **5.95**
62F775. PSI Wired. **NET** **9.95**

Test Equipment EICO

MODEL 965 FARADOHM BRIDGE/ANALYZER

Model 965. Nine-range low-voltage (0.45 VAC) capacitance-resistance bridge safely measures even 1-volt electrolytics. Capacitance range 5 pf-5000 µf; resistance range .5 ohm-500 megs. Metered bridge balance, leakage test voltage (6 DC VTVM ranges; 1.5-500V), leakage current (11 DC VTAM ranges: 0.15 µA 15 mA). DC VTVM (10 megohm input Z) and DC VTAM (75 mu drop) both externally usable. Electronically filtered leakage test supply with less than 8.5% ripple and V/A metering is ideal for transistor/diode testing supplying transistor circuit breadboards, or as a transistor battery eliminator. Complete overload protection. Requires 115 VAC, 60hz, 32 watts. 8½x12x9"; wt. 18 lbs.

62F782. Model 965. Wired and tested. NET **175.00**

Model 965

MODEL 369-K TV/FM SWEEP MARKER GENERATOR KIT

The EICO 369 feeds sweep signal only to i.f. strip being aligned. At the output end of the circuit a demodulator cable picks off the signal, demodulates it, and feeds the demodulated signal to a mixer stage inside the generator where the markers are added. It means that a TV technician can align TV and FM i.f. strips faster and more accurately. Five Ranges: 75-220 Mhz; 36-95 Mhz; 16-42 Mhz; 6-16 Mhz and 3-7.5 Mhz. All five ranges are fundamentals and tuning the desired frequency is simplified by a 6:1 vernier dial and a 330° scale. Output impedance is 50 ohms. A 6BQ7-A sweep oscillator and rf output cathode follower, a 12AT7 variable and crystal marker oscillator, a 12AX7 blanking diode and first agc amplifier, a 6DR7 second agc amplifier and agc series regulator. For 110-120v A.C. Shpg. wt. 18 lbs.

62F894. NET **99.95**

62F895. Model 369. Factory wired. **NET** 149.95

Model 369-K

MODEL 667-K DYNAMIC TUBE AND TRANSISTOR TESTER KIT

A mutual conductance tester with a peak emission test to give a single reading of tube quality. Spots bad transistors by gain and leak tests. Tests 5 & 7-pin Nuvistors; 7 & 8-pin subminiature, 7, 9, 10-pin miniature, octal, loctal, electronary and VR tubes; compactrons, novars, and pilot lights. 4½" meter indicates leakage betwen elements or Beta current amplifications of NPN, PNP transistors. Multi-circuit lever switch sets up plate, screen, and voltage controls. 13 pushbuttons alternate element setup of tube. Steel case. 12" x 15" x 4½". Wt. 22 lbs.

62F889. NET **89.95**

62F890. Model 667. Factory wired. **NET** 139.95

Model 667-K

MODEL CRU UNIVERSAL CRT TEST ADAPTER

In conjunction with testers 667 and 628. Tests black and white (& color CRT's,) 70, 90 & 110°. Checks tubes without removal from set. Complete with 4-foot interconnecting test cable.

62F891. NET **9.95**

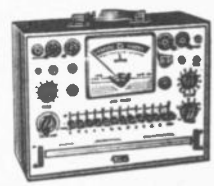
MODEL 628-K TUBE TESTER KIT

Simple test set-up procedure for checking emission, shorted elements, open elements, and continuity. 13 individual lever-type element switches for complete flexibility. 4½" meter with 3-color REPLACE-WEAK-GOOD scale, 0 to 100 scale for matching. Tests 7-9- and 10-pin miniatures, octal, loctal, 5- and 7-pin nuvistors novars, and compactrons. Types tested include series string, magic eye VR's. Adapter available for testing CRT's, both color and black and white. New 3-column wide roll chart for extra tube listing capacity. Snap-out chart window. Pilot light test socket (contact type). Line adjust control. Type of Tube Merit Test: Cathode conductance (emission). Tube Merit Indicator: Size (HWD): 9½" x 12½" x 4¼". Shpg. wt., 11 lbs.

62F892. NET **59.95**

62F893. Model 628. Factory wired. **NET** 79.95

Model 628-K



TEST ADAPTER KIT

Adapts Models 628 and 667 tube testers for testing 4, 5, 6 or 7 pin tubes. (Older types).

62F765. Model 615K Kit. NET **5.95**

62F766. Model 615. Factory Wired. **NET** 11.95

MODEL 377-K AUDIO GENERATOR KIT

Sine wave coverage from 20-200,000 Hz in 4 ranges individually calibrated on panel. Complete square wave coverage from 60-50,000 Hz (5% round-off at 50 kc), read on same scales as sine wave. Response ±1.5 db from 60 Hz to 150 hz. Wien bridge-type oscillator for high power output. Continuously variable power output: 100 mw into rated load (10 volts across 1,000 ohm load). Rated load impedance. 1000 ohm resistance. Distortion only 1%. Hum less than 0.4% of output. All bridge resistors 1% accurate. Uses: 1-6X5, 1-6SJ7, 2-6K6, 1-6SN7, 105-125 v., 50-60 Hz. Calibration accuracy: ±3% or 1 cps. Aluminum panel, gray steel case, 11⅛x7⅝x7⅛". Shpg. wt., 13 lbs.

62F769. NET **39.95**

62F770. NET Factory wired. 54.95

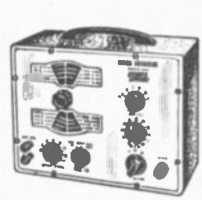
Model 377-K

324-K RF SIGNAL GENERATOR KIT

For IF-RF alignment signal tracing, trouble-shooting of AM, FM and TV. Marker generator for alignment of hi freq. TV IF's. Extended fundamental freq. range from 150 Mhz to 145 Mhz in 6 bands. 7th calibrated harmonic band from 111 to 435 Mhz. Colpits RF oscillator, directly plate-modulated by cathode follower. With all parts; full instructions. 8x10x4¾". 10 lbs.

62F838. NET **32.95**

62F839. NET Factory wired. 44.95



Model 324-K

MODEL 378K AUDIO GENERATOR KIT

Extreme versatility and positive error elimination are now yours for any application where a stable, accurate audio sine wave must be used. Precisely metered output controlled by 8 position decade and fine attenuators. Highly accurate, switch - selected frequencies from 1hz to 110 Khz in 1 hz steps. Positive setting detent switches need no interpretation. Frequencies accuracy: ±5%. Distortion less than 0.1% (20hz-20kc). Output voltage ranges: 0-3, 10v into hi-z (10k min.); 0-.003, .01, .03, .1, .3, IV into ext. 600Ωload—or with int. load into ext. hi-z. Output meter accuracy ±5% of full scale. Power requriements: 120V, 50/60 hz, 40 Watts. Size: (HWD); 8½" x 12½" x 9". Weight, 16 pounds.

62F900. Kit. NET **59.95**

Model 378. As above, factory wired & tested.

62F901. NET 79.95

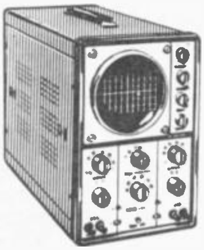
Model 378-K

Make NEWARK Your One Dependable Source for Everything in Electronics
To Serve You Better — Eleven Stocking Warehouses from Coast-to-Coast

Test Equipment and Kits

EICO

• *NEW* MODEL 465 PROFESSIONAL OSCILLOSCOPE



DC-to- 8MHz (useable to 10MHz). High gain vertical and horizontal AC/DC-coupled amps. Flat-face 5" CRT reduces parallax. V/H amplifier sensitivity: .05 volt P-P/CM. (DC-to-8MHz, +1, —5db). Push-pull amplification minimizes distortion. Coupled design eliminates low-frequency phase shift. Zener-diode controlled voltage calibration source. Accelerating potential is 1400 V. Sweep range selection from 10 hz to 100 Khz in four overlapping ranges. Pre-set TV-V and TV-H sweep positions (30cps and 7875cps.) Vertical amplifier: Freq. from dc to 8MHz (+1 —5db). Horizontal amplifier: Frequency from DC to 1MHz, +1 —3db. Sweep ranges: 10 to 100, 100 to 1K, 1K to 10K, 10K to 100Kcps; TV-VERT position (30cps) and TV-HOR position (7875cps.) Intensity Modulation Input: 3Vrms; Imp. 2.2 megohms. Size: (HWD) 12¾ x 8½ x 17½. Shpg. wt. 27 lbs.

62F750. Model 465K. Kit. **NET** **179.95**
62F751. Model 465. Wired. **NET** **249.95**

MODEL 427K GEN. PURPOSE 5" OSCILLOSCOPE KIT

The Model 427K gen. purpose oscilloscope; 4-position frequency compensated vertical input attentuator. Internal zener-diode calibration voltage. Astigmatism, Focus and Intensity Controls on panel. Sharp, clean trace free of blooming. Instantaneous, drift free V & H positioning. Vert. amp. direct-coupled and pushpull throughout (6 stages in 3-push-pull pairs). Vert. Amp: +1, —3db from DC to 500kc, —6db at 1 Mc; sensitivity 10my P-P or 3.5mv rms/cm. Horiz. Amp: +1, —3db from 2 cps to 450kc; sensitivity 0.5 v P-P or 0.18 v rms per cm. Sweep Circuit: Recurrent sweeps from 10 cps to 100 kc in 4 overlapping ranges: min ratio of forward sweep time to retrace time 15:1 sync may be int pos. int neg. 60 hz or ext. Power Req: 105-125 v 60 hz 55W drain. Dim: 12½x8½x16⁷⁄₁₆". Kit is complete with all parts instructions and diagrams. Shpg. wt. 23 lbs.

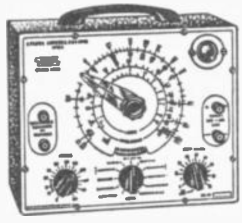
62F885. NET **99.95**
62F886 .Model 427. Factory wired and tested........ **139.95**

MODEL 435K DC WIDEBAND 3" OSCILLOSCOPE KIT

Dc to 4.5Mc flat response for reproduction of 3.58 Mc. sync burst and oscillator signal in color television servicing. Distortionless V&H trace and retrace blanking. Directly coupled push-pull vertical amplifier, eliminating low frequency shift and distortion in wave forms. Zener diode control of square wave calibration. Sweep range 10 cps. to 100Kc. in four ranges with vernier adjustment. Automatic sync limiter and amplifier. V-amp +1 —3 db from Dc to 4.5 Mc response and 18Mv/Cm RMS (50MvP-P) sensitivity Input 1 megohm shunted by 35 pf Square wave 200 Mv P-P ±5%. Vert. attenuator 1, 10,100 and 1000 positions. 3V blanking at 2.2 megohms. Sawtooth output 10V at 10 to 100 Kc P-P Variable output impedance to 300 ohms. 9 tubes plus silicon diode and Zener diode with WX5013P1 3" anti-bloom CRT. 8½x 5¾x12⅝". Shpg. wt., 18 lbs. Model 435K.

62F779. NET. **119.95**
Model 435. As above, but factory wired and tested.
62F780. NET **169.95**

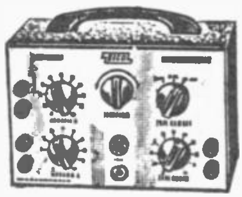
MODEL 950-K RC BRIDGE/R-C-L COMPARATOR KIT



Measures and tests all resistors from 0.5 ohm to 500 megohms, and all capacitors from 10 mmfd to 5000 mfd Comparator Range for comparison of resistance, capacitance and inductance with a complementary component as a standard; has wide range of 400:1. Has continuously variable 0-500 volts DC source for capacitor leakage testing. For 110 volts, 60 cycles AC. In rugged steel case; 10x8x4¾". With all parts; less solder and leads. Wt. 9 lbs.

62F794. NET **29.95**
62F799. Model 950. As above, wired and tested. **NET**........ **39.95**

MODEL 488K ELECTRONIC SWITCH KIT



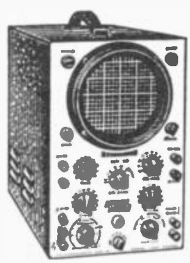
Allows simultaneous observation of 2 patterns on a single scope screen. Direct comparison of voltage and current amplitudes, waveforms, frequencies and phase relationship. Separate amplitude control for each pattern. Continuously variable with negligible phase distortion. Positioning control permits superimposing. Each of the 3 switching rate ranges is continuously variable. Low: 10-100 hz. Med.: 50-400 hz. Hi: 250-2000 hz. Sinussoidal frequency response of 0-30,000 hz (useful to 300,000 hz at —2 db. 400 v. peak-to-peak maximum input. Input imped. of 100,000 ohms. Output imped. 50,000 ohms. With all parts except leads. Size: 6x8x6". Shpg. wt., 7 lbs.

62F830. Kit form. **NET** **29.95**
Model 488. As above but factory wired.
62F831. NET **49.95**

SCOPE PROBES

Demodulator Probe. Shpg. wt., ¼ lb.
62F824. Model PSDK Kit. **NET**........ **4.50**
62F825. Model PSD Wired. **NET**........ **6.95**
Low-Capacity Probe. Shpg. wt., ¼ lb.
62F826. Model PLCK Kit. **NET** **4.50**
62F827. Model PLC Wired. **NET** **6.95**
Direct Probe. Shpg. wt., ¼ lb.
62F828. Model PDX Kit. **NET**........ **3.50**
62F829. Model PD Wired. **NET** **4.95**

5" OSCILLOSCOPE KIT 460-K



Tops for color, black and white use. +1 —3db from DC to 4.5 mc., usable to 10 mc., featuring DC amplifiers. Vert. Sens. 25 mv/in. push pull thru-out. Sweep freq.: 10 cps to 100 kc, low sweep with ext. condenser. Automatic sync limiter and amp. eliminates sync voltage adjustment. 60 cps variable phase sine sweep. Pre-set TV V&H Filter screen with variable illumination. 4 freq. compensated attenuator positions up to 1000:1 on either direct or capacitive coupled input On front: int. mod., saw tooth output, 60 cps, ext. sync., ext. cap. jacks. For 105-125 v. Shpg. wt., 28 lbs.

62F842. NET **99.95**
Model 460. As above, but factory wired and tested.
62F843. NET **149.95**

SHURITE

COLD ZONE TESTER

Model 8380-RT. Place thin, flat resistance bulb inside any type of cooling equipment; close the door on the polyethylene ribbon lead; allow the bulb temp. to stabilize; and get a directing from —40°F to 120°F. Red pointer; 2⅛" scale arc, readable to ±2°; accuracy within standards of ±5°. Tester comes in gray vinyl case, 5"x5"x4½". Complete with 8 foot thin, fast responding bulb and 7½ volt standard battery.

55F693. NET **20.05**

EXTRA RESISTANCE BULBS

Model SA-309. Plastic, moisture-sealed 8' polyethylene ribbon lead.
55F689. NET **4.50**

Model SA-162. Copper clad element, 14 ft. polyethylene ribbon lead, and spade terminals. Interchangeable with SA-309.
55F690. NET **6.50**

LIGHTING LEVEL INDICATOR

Model 7902-FC. Handy pocket-size meter, 3¼"x2⅛"x1⅛", for checking lighting level of various work areas. Simply place meter on working surface, and it quickly shows if the light level is adequate for efficient operation, or if eye strain or fatigue may result because the level is too high or too low. Also usd by custodial maintenance staffs, lamp and fixture manufacturers, and others concerned with providing suitable lighting. With certain modifications the indicator has applications in some phases of photography. The light meter was developed in colaboration with utility members of Edison Electric Institute for their light promotion courses.

55F696. NET **9.75**

H. H. Smith Test Leads, Prods and Adapters

ALL-PURPOSE TEST LEAD KIT

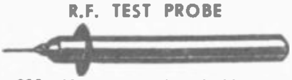
Type 610. 48" of 5000 volt heavy duty rubber covered test lead wire. Plastic handles with solderless prods. Other end supplied with standard #204 banana plugs which are interchangeable with the phone tips, alligator clips, or spade lugs which are supplied. Shpg. wt., 6 oz.
35F929. NET **1.90**

SOLDERLESS TEST PROD— THREADED TYPE

Type 302. Wire fits through handle and body of plug then wrapped around screw portion and tightened with knurled nut provided. Brass, nickel plated tip with 4" molded plastic handle. Shpg. wt., 3 oz.

Stk. No.	Type	Color	Net
35F930	302	Red	.30
35F638	302	Black	.30

R.F. TEST PROBE



Type 630. Heavy insulated fibre probe. Large inside diameter enables use of coax cable or 1N34 crystal for R.F. Probes. Heavy duty removable tip. Shpg wt., 3 oz.

Stk. No.	Type	Color	Net
35F931	630	Red	.72
35F639	630	Black	.72

PHONO NEEDLE TEST PRODS

Type 318. Brass, nickel plated body with steel nickel plated needle. Removable chuck for replacing broken needles. Red or Black machined handle. 5½" long, ⅜" dia. Wt., 3 oz.
35F906. BLACK. **NET** .... **.33**
35F907. RED. **NET** .... .33
Type 317. As above with red or black molded plastic handle. 4" long, ⅜" dia. Wt., 3 oz.
35F939. Black. **NET** .... .30
35F940. Red. **NET** .... .30

ALLIGATOR CLIP TEST LEAD

Type 647. Heavy duty lead wire with steel, cadmium plated clips. Clips have handles of molded Butyrate in red and black. Elbows are in corresponding red and black of molded Thermosetting plastic. Safe and easy to use. Prices are per pair.
35F860. NET **1.30**

HIGH TENSION TEST LEADS

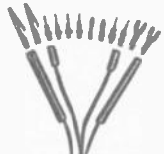
Sturdy attractive test leads with heavy duty probes, and 48" of quality high tension kinkless test lead wire. Fibre handles. Test lead wire is heavy type with .248 outside diameter. Voltage breakdown is 22,000V. Shpg. wt., 3 oz.
Type 620. With Phone Tips.
Type 622. With Alligator Clips.

Stk. No.	Type	NET
35F928	620	2.20
35F941	622	2.40

● NEW CROCODILE CLIP TEST LEAD

Model 675. Steel cadium plated clips. Boot is made of vinyl plastic. Has molded thermosetting, plastic elbow. Brass nickel-plated tip jack.
35F863. Red. **NET** **1.20**
35F864. Black. **NET** 1.20

UNIVERSAL TEST LEADS



Fifty leads in one! One lead can make any required test lead combination. All parts adapt into prod handle or tip handle. Shpg. wt., 3 oz.
39F087. No. 699. .... **3.00**

SOLDERLESS TIP TEST LEADS

Plastic handles colored red and black. 4" long, ⅜" diameter. Flexible kinkless rubber covered wire leads 50" long also colored red and black. Shpg. wt. 3 oz.
39F872. No. 600. Phone tips **1.05**
39F873. No. 601. Spade lugs 1.05
39F874. No. 602. Alligator clips 1.10

SOLDERLESS TEST PROD

Molded Butyrate handle, type 3 class (MIL-L-P349A). Brass, nickel plated plug; rating of 12 amps AC for 10°C temp. rise. Threaded type. Wire fits through handle and body of plug.

Stk. No.	Type	Color	Overall	NET
35F680	303R	Red	6¾"	.33
35F681	303B	Black	6¾"	.33

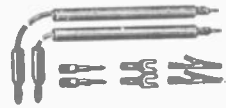
HEAVY DUTY TEST PRODS

Model 319. This threaded type prod has a large diameter well which will enable soldering of heavy duty wire directly into plug. Body is nickel plated brass. The handle is made of 4" molded plastic. The overall size is 5$^{3}/_{16}$". Shipping wt. 3 oz.
35F908. Red. **NET** .... **.30**
35F909. Black. **NET** .... .30

Model 329. A threaded type prod with a large diameter well to enable soldering of heavy duty wire directly into plug. Body is nickel plated brass. Handle is 5½" machined plastic. Overall size is 6$^{11}/_{16}$". Shipping weight 4 oz.

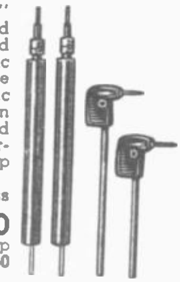
Stk. No.	Type	Color	Each	10-99	100-Up
35F842	329	Red	.33	.30	.28
35F843	329	Black	.33	.30	.28

TEST LEAD KIT



Type 611. Kit supplied with one pair of test leads. One end test prods, other end ins. banana plugs. Needle tip prods. Fittings: Two each: phone tips, alligator clips, spade lugs.
35F682. NET **1.90**

METER TIP TEST LEAD

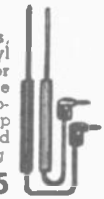


Test leads with 50" of rubber covered kinkless test lead wire. Molded plastic fingergrip tips on one end and 4" plastic test prod handles on other end. Supplied in two types: solderless tip or needle tip prod handles.
35F932. 625 Solderless Prods. per pr. **1.50**
35F933. 626 Needle Tip Prods. per pr. 1.50

METER TEST LEADS

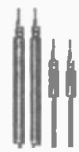
Type 685. Solderless prod with banana meter tip. Body of nickel plated brass. Price per pair.
35F862. NET **1.70**

"SLIM JIM" TEST LEADS



Type 698. Long slim probes, fully insulated with vinyl tubing to prevent shock or shorting. Perfect for those hard to get at spots. Supplied with molded meter tip ends and 50" rubber coated kinkless lead wire. Shpg wt., 5 oz.
35F934. NET **1.35**

SOLDERLESS TEST LEADS

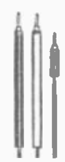


Type 603. The insulated handles and insulated plugs are both of the solderless type construction. Flexible kinkless rubber covered leads are 50" long. This type offers convenience at a low price, in addition to safety. Shpg. wt., 5 oz
35F936. NET **1.35**

SLIM HANDLE TEST LEADS

Type 670. Slim red and black tenite handles only $^{5}/_{16}$" O.D. with solder type phone tips on other end. Flexible, kinkless rubber covered wire 50" long. An extremely sturdy, but low cost serviceable and safe pair of leads. Shpg. wt., 5 oz.
35F937. NET .... **.85**

SLIM HANDLE TEST LEAD



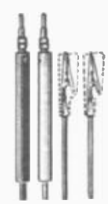
Type 678. Fibre handles colored red and black with O.D. only ¼", with insulated tips. Flexible, kinkless rubber covered wire only 50" long. Threaded phone tips. Perfect for testing in cramped space. Shpg. wt., 4 oz.
35F938. NET **1.26**

ALLIGATOR CLIP TEST LEAD PAIR

Heavy duty test lead wire with Cadmium plated steel alligator clips on both ends. Prices are per pair. Average shpg. wt. 4 oz.

Stk. No.	Type	Length	NET
35F942	604	12"	.72
35F943	605	24"	.75
35F944	606	36"	.78
35F945	607	48"	.81

ALLIGATOR CLIP TEST LEADS



Type 672. Heavy duty test leads with steel, cadmium plated clips. Lead comes in re-usable clear plastic hinged box and with 50 in. of extra-flexible rubber-covered kinkless wire. Prices are per pair.
35F861. NET **1.26**

Weston Portable Meters

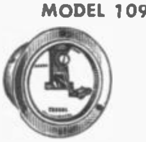
ALTERNATING CURRENT PORTABLE

Model 433. Self-shielded permanent magnet moving iron type. Accurate within 0.75 of 1%. 5½" mirror scale and knife edge pointer. 7½ x 3¼ x 3⅝". Shpg. wt. 5 lbs.

AC AMMETERS. Stand. Freq. 25-500 hz

Stk. No.	Range	Scale Div.	NET
62F1345	50/20/5	100	178.00
62F436	5	100	113.00
62F437	10/5	100	130.00
62F438	10/5/1	100	178.00
62F1131	30/7.5/3	150	178.00
62F1099	3/1.5/0.75	150	178.00
AC VOLTMETERS. Stand. Freq. 25-125 hz			
62F439	150	150	120.00
62F1105	150/75	150	122.00
62F441	300/150	150	122.00
62F442	600/300/150	150	143.00
62F1097	10/5	150	122.00
62F1096	750/300/150	100	143.00
AC MILLIAMMET'S. Std. Freq. 25-1000 hz			
62F1095	100/50	100	135.00
62F1094	500/250	100	135.00

MODEL 1092 SENSITROL RELAY



Operates on low input. Can be set close to any DC value from 0-50 micro-amps at drop of 0-100 millivolts. Can be connected to make on either increasing or decreasing current-zero right to left. Handles 100 milli-amps at 120 VAC or DC w/o chatter. Once set, will repeat within narrow limits (±0.2 microamps attainable). 3½" rd. flush case—1½" D. Wt., 3 ozs.

62F1093. NET **30.40**

● NEW ILLUMINATION METER

Model 756-9901002. Portable instrument for light measurements requiring a high degree of accuracy over broad range of light values. All types of lighting, regardless of color composition, can be read directly — no correction factors are necessary. The VISCOR filter corrects for color, the COSINE filter, for angle of incidence. Calibration is by direct comparison to accurate reference standard lamps. This model is supplied in a sturdy leather carrying case with a compartment for the light target. Range: 0-20/100/500 foot-candles.

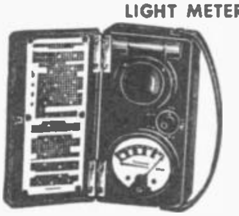
62F1400. NET **536.00**

● NEW SUNLIGHT ILLUMINATION METER

Model 756-9901003. Incorporates ranges of 0-120/1200/12000 foot-candles. Requires only 1 PHOTONIC cell equipped with a quartz filter so that ultra-violet portion of spectrum is included in the light measured. Includes carying case.

62F1401. NET **515.00**

LIGHT METER



Model 614 Foot-Candle Meter. Any type of commercial lighting can be measured dircetly. Photoelectric cell is mounted on a hinge, so that it will pick up measurements from a wall or ceiling without unnecessary moving of the meter. Ranges: 0 to 100 —0 to 250 and 0 to 500 foot candles each with a separate scale. With Viscor and cosine correction filters. Size: 7x3⅜x2½". Shpg. wt., 2 lbs.

62F474. NET **194.00**

DIRECT CURRENT PORTABLE

Model 931. Compact, light weight and accurate (within 0.5 of 1%). Hand calibrated mirror scale and knife-edge pointer. Self shielded permanent magnet moving coil type. Scale length, 4.04". Black bakelite case with handle. Size: 5½ x 5 x 3¼". Shpg. wt., 4 lbs.

Stock No.	Range	Scale Div.	NET
DC VOLTMETERS—1000 ohms/volt			
62F1100	75/30/75	150	129.00
62F431	750/300/150	150	129.00
DC VOLTMETERS 5000 ohms/volt			
62F1121	75/30/7.5	150	144.00
62F1132	300/150/3	150	144.00
62F1122	750/300/150	150	144.00
DC AMMETERS			
62F1133	10/5/1	100	130.00
62F432	30/15/3	150	130.00
62F1145	50/25/10	100	130.00
DC MILLIAMMETERS			
62F1134	15/1.5/0.15	150	141.00
62F1102	150/15/1.5	150	126.00
62F435	1500/150/15	150	126.00
62F1101	3000/300/30	150	126.00

POCKET CLAMP AC VOLT-AMMETER

Model 749. Measures AC current and voltage without breaking circuit. Accommodates conductors up to 1" round or 1¾x⅜" rectangular. Features: core magnet shock mounted mechanism with spring back jewels, large smooth action trigger; shatter-proof wraparound plastic window, 0-6, 15, 30, 60, 150 and 300 amperes. Shpg. wt. 2½ lbs.

62F481. NET **57.75**

62F482. Type 9886. Plug in adapter for above **7.00**

● NEW LOW LEVEL ILLUMINATION METER

Model 8791-9901001. Transforms light energy directly into electrical energy which is then measured as foot-candles on a linear scale. Power is self-contained and supplied by 2 commonly available 2.7v batteries (included). Full scale sensitivity: 0.5 to 100 foot-candles. Range: 0.5/2/10/20/50/100. Accuracy within 5% of full scale. 8" x 7" x 8" approx. Shpg. wt. 4 lbs.

62F1402. NET **495.00**

LIGHT MEASURING INSTRUMENTS

Model 703. Type 7 Sightmeter. Handy pocket-size sightmeter for industrial and office use. Pocket size for convenience in using and carrying. Will function accurately in any position. Range is 0 to 100 foot candles (with Viscor and cosine correction filter). 1 lb.

62F467. NET **81.50**

Model 703-3A. As above, but 0-75 foot-candles and unfiltered.

62F1124. NET **61.50**

Model 9959. Leather carry. case for above.

62F125. NET **4.00**

Model 9924. Multiplier disk (x10). Extends range to 10 times normal full scale value. Not usable with cosine corrected instruments.

62F1137. NET **2.75**

PORTABLE METERS

Model 901. Features a curved, shadow reducing, wide angle window that is non-breakable and specially treated against **electrostatic effects. Self-**shielded permanent magnet moving coil type. Accurate within 0.25 of 1%. Has 5½" hand calibrated mirror scale and knife edge pointer. Size: 7½x3¼x3⅝". Wt. 5 lbs.

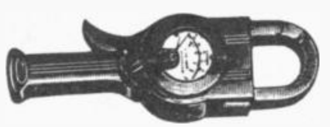
Stock No.	Range	Scale Div.	NET
DC VOLTMETER—5000 ohms/volt			
62F1136	750/300/150/ 75/30/15/3	150	232.00
DC AMMETER			
62F1344	50mv/20/5/2	100	211.00
DC MILLIAMMETERS			
62F1146	1000/500/200/ 100/50/20/10	100	219.00

Model 904. Same as Model 901, except 0.5 of 1% accuracy, Radial vane, Moving Iron type.

AC VOLTMETERS. Stnd. Freq. 50-450 cps.

Stock No.	Range	Scale Div.	NET
62F1143	750/300/150/ 75/30/15/7.5/3	150	315.00
AC AMMETERS. Std. Freq. 25-1000 cps.			
62F1149	50/20/10/5/2/1	100	275.00

AC CLAMP VOLT-AMP & AMP METERS



Model 633. Ideal maintenance tool for on-the-job testing. Measures AC current through any given conductor (up to 2" diameter) without **breaking the circuit. Accuracy within 3%. Insulated for 750-volt** service. **13⅝x4¾x2½". Shipping weight,** 4½ lbs.

62F1111. Type A-1. 500-250-100-50-25-10 **amps. NET** **158.00**

62F1112. Type A-2. 1000-500-250-100-25-10 **amps. NET** **158.00**

62F1113. Type A-3. 2000-1000-500-250-100-50 **amps. NET** **158.00**

Type VA-1. 1000-250-100-25-10 amps. 700-350-175 volts.

62F1118. NET **167.00**

LEATHER CARRYING CASE for above units.

62F1119. NET **16.00**

● NEW PORTABLE MULTI-RANGE

Model 401. Features an optical pointer system for sensitivity gain and freedom from parallax. As a d-c voltmeter, it provides sensitivity approaching that of an electronic voltmeter, but without circuitry, thus insuring immunity from noise signals. Designed to provide 100,000 ohms on all ranges from 0.1 to 300 volts. Measures current within 2 microamperes. Accuracy is 0.5% and is complemented by true flat scale presentation. A light diamond with centered black hairline projected onto a translucent scale, thus enabling precise readings. 7.16" x 7.2" x 8.76". Shpg. wt. 7.2 lbs.

Type 401-1900001. DC volts.
62F1403. NET **185.00**

Type 401-4900001. DC ma/ua.
62F1404. NET **190.00**

Weston Panel Meters and Instruments

MODEL 80 VOM

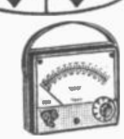
For portable or bench service, 1% VOM. Ranges: DC volts, 5KV/1KV/250/100/50 25/10/2.5/1/.25 (at 20K ohms/volt): AC volts, 5KV/1KV/500/250/50/10/2.5 (at 5000 ohms/volt) DC current, 10/1 amps 100/10/1ma/50ua; ohms. 5 ranges from 2K to 20 meg-ohms; DB scales, —10 tc +10DB .1% accuracy on ohms and DC scales; AC scales, 1.5%; 1 & 5KV scales, 2% DC and 2.5% AC.

62F1085. Type 80-9008001. **NET** **96.00**

MODEL 81 DC VOLTMETER

Ranges: 1000/250/100/50/25/10/5/2.5/1/.25 at 20,000 ohms/volt. Accuracy is ± 1% (except ± 2% on 1000 volt range).

62F1086. Type 81-9008102. **NET** **79.00**



Models 911 & 912. Easy to read 7.2" mirro-back scale. Precision metal film resistors. Accuracy: ±1% of FS on DC Voltmeters (±2% of FS on 300 and 1000 volts DC) ±2% of FS value on rectifier type AC voltmeters (±3% on 1000 volt range). Front clear-plastic. 7½x6½x2⅜". steel case.

Model 911. DC-VM. Range: 1000/300/100/30/10/3/1 volts @ 20,000 ohms/V.

62F1229. NET **81.00**

Model 911. DC Ammeter. 1/3/10 amps, 10/30/100/300 milliamps.

62F1230. NET **81.00**

Model 911. DC Milliameter. .1/.3/1/3/10/30/100 milliamps.

62F1231. NET **81.00**

Model 912. AC-VM. Range: 3/10/30/100/300/1000 V @ 5000 ohms/V.

62F1232. NET **93.00**

MODEL 980 MARK II ANALYZER

20,000 ohm/dcv vom. Accuracy 2% dc, 3% ac. Ranges: ACV 1.6, 8, 40, 160, 400, 1600 at 1,000 ohm/v. DCV 1.6, 8, 40, 160, 400, 800, 4000 at 20,000 ohm/v. DC ma 1.6, 8, 80, 800. DB —15 to 54 DC Amps 8. DC Mics: 80. Ohms: 5 decade ranges 1K to 10 meg full scale. 25 ohms to 250K center scale. Shpg. wt., 3 lbs.

62F476. NET **61.00**

Combination cover and stand. Stores all ests leads.

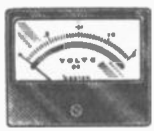
62F1142. NET **6.50**

MODEL 432 WATTMETER

Alternating current at freq. from 25 to 125 hz. Current ranges self contained up to 300 V 50 amp. Current circuit at 5 amp, 60 hz 65 watt. Size: 3¼ x 5 x 5¼". Shipping wt. 3¼ lbs. (*) For low power factor use.

Stk. No.	Type 432-	Normal Volts	Normal Amps	Watts Max.	Watts Min.	NET
62F1346	9901001	150/75	1	150	75	245.00
62F1347	9901011	300/150	50	15 kw	7.5 kw	245.00
62F1348	9902007	300/150	10/5	3/1.5 kw	1.5/.75 kw	245.00
62F1349	9902013	300/150	5/2.5	1500/750	750/375	265.00
62F1470	9902009*	..	.	300/150	150/75	282.00
62F1471	9902010*	.	....	600/300	.300/150	282.00
62F1472	9902007	300/150	10/5	3/1.5 kw	1.5/.75 kw	245.00
62F1473	9902004	300/150	5/2.5	1500/750	750/375	245.00
62F1474	9901015	300/150	5	1.5 kw	75 kw	265.00

1941-T TAUT BAND



Super-sensitive, dependable taut band movements. Available with black bakelite (illus.) or clear plastic front; screw-driver zero adjust. 4½" type with knife edge pointer and mirror scale has ±1% accuracy. All types require 1.91" behind center scale panel. Shpg. wt. 12 ozs.

4½" DC MILLIAMMETERS—1% ACC.

Range	Resistance	Plastic Front	Bakelite Front	1-9	10-24	25-49
0-1	12.5	55F3244	55F3250			
0-2	4.9	55F5140	55F5141			
0-5	3.0	55F3245	55F3251			
0-10	2.4	55F3246	55F3252			
0-20	2.4	55F5142	55F5143			
0-50	2	55F3247	55F3253	28.00	25.20	22.40
0-100	1	55F3248	55F3254			
0-200	0.5	55F5144	55F5145			
0-500	0.2	55F3249	55F3255			

4½" DC MICROAMMETERS—1% ACC.

Range	Resistance	Plastic Front	Bakelite Front	1-9	10-24	25-49
0-100	950	55F3237	55F3241	31.50	28.35	25.20
0-200	350	55F3238	55F3242	31.00	27.90	24.80
0-500	40	55F3239	55F3243	29.25	26.32	23.40

4½" DC VOLTMETERS—1% ACC.

Range	Resistance	Plastic Front	Bakelite Front	1-9	10-24	25-49
0-2		55F3260	55F3265			
0-5		55F5120	55F5121			
0-10		55F3261	55F3266			
0-15		55F5122	55F5123			
0-30	1000 Ohms/Volt	55F5124	55F5125	29.00	26.10	23.20
0-50		55F3262	55F3267			
0-100		55F5126	55F5127			
0-150		55F3263	55F3268			
0-200		55F5128	55F5129			
0-300		55F5130	55F5131			
0-500		55F3264	55F3269			

4½" DC AMMETERS—1% ACC.

Range	Resistance	Plastic Front	Bakelite Front	1-9	10-24	25-49
0-1	50	55F3256	55F3258			
0-2	40	55F5132	55F5133			
0-5	50	55F3257	55F3259	28.00	25.20	22.40
0-10	50	55F5134	55F5135			
0-20	40	55F5136	55F5137			
0-30	60	55F5138	55F5139			

MOUNTING BEZELS

For recess mounting. Made for meters with clear plastic fronts only. Flat enamel finish in basic black. For panels of ⅛-³⁄₁₆". Comes with hardware template.

Stk. No.	Type	Description	1-9	10-24	25-49
55F2898	1984870	Half Bezel for 1931/2/4/6/8	1.65	1.49	1.32
55F2899	1984880	Half Bezel for 1941/2/4/6/8	1.70	1.53	1.36

WESTON SERIES 1209 PROJECTED MOVING SCALE PANEL METERS

DC MILLIAMMETERS

Range	Resis. (Ohms)	Black Background Type No.	Black Background Stk. No.	White Background Type No.	White Background Stk. No.	1-9	10-24	25-49
1	21	1209-4912001	55F3106	1209-4911001	55F3111	65.25	58.73	52.20
2	8.6	1209-4912002	55F3107	1209-4911002	55F3112	65.25	58.73	52.20
5	3.96	1209-4912005	55F3108	1209-4911005	55F3113	65.25	58.73	52.20
20	2.2	1209-4912020	55F3109	1209-4911020	55F3114	65.25	58.73	52.20
50	2.0	1209-4912050	55F3110	1209-4911050	55F3115	67.00	60.30	53.60

DC MICROAMMETERS

Range	Resis. (Ohms)	Black Background Type No.	Black Background Stk. No.	White Background Type No.	White Background Stk. No.	1-9	10-24	25-49
50	5700	1209-5912050	55F3116	1209-5911050	55F3121	72.50	65.25	58.00
100	1160	1209-5912100	55F3117	1209-5911100	55F3122	70.50	63.45	56.40
200	231	1209-5912200	55F3118	1209-5911200	55F3123	68.75	61.88	55.00
500	73	1209-5912500	55F3119	1209-5911500	55F3124	67.00	60.30	53.60
50-0-50	1160	1209-5912003	55F3120	1209-5911003	55F3125	70.50	63.45	56.40

DC MILLIVOLTMETERS

Range	Resis. (Ohms)	Black Background Type No.	Black Background Stk. No.	White Background Type No.	White Background Stk. No.	1-9	10-24	25-49
50*	5	1209-9912050	55F3104	1209-9911050	55F3105	67.00	60.30	53.60

DC VOLTMETERS

Range	Ohms/V	Black Background Type No.	Black Background Stk. No.	White Background Type No.	White Background Stk. No.	1-9	10-24	25-49
1	1000	1209-1912001	55F3126	1209-1911001	55F3133			
2	1000	1209-1912002	55F3127	1209-1911002	55F3134			
5	1000	1209-1912005	55F3128	1209-1911005	55F3135			
10	1000	1209-1912010	55F3129	1209-1911010	55F3136	68.25	61.43	54.60
50	1000	1209-1912050	55F3130	1209-1911050	55F3137			
100	1000	1209-1912100	55F3131	1209-1911100	55F3138			
500	1000	1209-1912500	55F3132	1209-1911500	55F3139			

*Adjusted for standard 0.065 ohm (5 ft.) shunt leads.

- Large Scale in a Small Package
- Self-Shielded "Cormag" Movement
- 1% Accuracy
- Eliminates Parallax Errors
- Self-Illuminated

This moving-scale instrument provides an 8" meter scale in only 2½ inches of panel width. Optical system projects moving scales onto a coated window. These meters may be read at oblique angles without paralax errors associated with pointer type meters. Standard #44 pilot lamps are easily replaced from front of panel. All units feature ±1% accuracy and employ Weston "Cormag" self-shielded movements. Scales have 100 divisions. Size: 3 x 2⅜ x 4²⁷⁄₆₄".

Weston Panel Meters


PLASTIC


BAKELITE

PIVOT-JEWEL PANEL INSTRUMENTS 1900 SERIES

1900 Series is an integrated line of AC and DC panel instruments providing selected sizes, scales and ranges. All instruments are provided with zero correctors. Specially treated Alnico 5 magnets provide long term reliability. Spring back jewels with locking nuts for fine adjustment. 3½" size has scale length (100° arc) of 2.7". 4½" size (100° arc) has 3.9" scale length. Lance pointers on all models. 2% accuracy.

DC VOLTMETERS CORE MAGNET 2% Acc. SELF SHIELDING

Range	Model 1931, 3½" Plastic	Model 1931, 3½" Bakelite	1-9	10-24	25-49
0-2	55F4900	55F4908	18.75	16.88	15.00
0-5	55F4901	55F4909			
0-10	55F2913	55F4910			
0-15	55F2914	55F4911			
0-25	55F4902	55F4912			
0-30	55F2915	55F4913			
0-50	55F2916	55F4914			
0-100	55F2917	55F4915			
0-150	55F2918	55F4916			
0-200	55F4903	55F4917			
0-300	55F2919	55F4918			
0-500	55F2920	55F4919			

Range	Model 1941, 4½" Plastic	Model 1941, 4½" Bakelite	1-9	10-24	25-49
0-2	55F4904	55F4920	20.00	18.00	16.00
0-5	55F4905	55F4921			
0-10	55F2934	55F4922			
0-15	55F2935	55F4923			
0-25	55F4906	55F4924			
0-30	55F2936	55F4925			
0-50	55F2937	55F4926			
0-100	55F2938	55F4927			
0-150	55F2939	55F4928			
0-200	55F4907	55F4929			
0-300	55F2940	55F4930			
0-500	55F2941	55F4931			

DC AMMETERS (Self Contained)

Range	Model 1931 Plastic	Model 1931 Bakelite	1-9	10-24	25-49
0-1	55F4932	55F4936	17.75	15.98	14.20
0-2	55F2910	55F4937			
0-5	55F2911	55F4938			
0-10	55F2912	55F4939			
0-20	55F4933	55F4940			
0-25	55F4934	55F4041			
0-30	55F4935	55F4942			

Range	Model 1941 Plastic	Model 1941 Bakelite	1-9	10-24	25-49
0-1	55F4943	55F4948	19.00	17.10	15.20
0-2	55F2931	55F4949			
0-5	55F2932	55F4950			
0-10	55F4944	55F4951			
0-20	55F4945	55F4952			
0-25	55F4946	55F4953			
0-30	55F4947	55F4954			

DC AMMETERS (External Shunt Type)

Range	Model 1931 Plastic	Model 1931 Bakelite	1-9	10-24	25-49
0-100	55F4955	55F4957	17.75	15.98	14.20
0-200	55F4956	55F4958	17.75	15.98	14.20

Range	Model 1941 Plastic	Model 1941 Bakelite	1-9	10-24	25-49
0-100	55F4959	55F4961	19.00	17.10	15.20
0-200	55F4960	55F4962	19.00	17.10	15.20

External Shunt or Shunt Leads Not Included.

DC MILLIAMMETER 2% Acc.

Range	Model 1931 Plastic	Model 1931 Bakelite	1-9	10-24	25-49
0-1	55F2904	55F4969	17.75	15.98	14.20
0-2	55F4963	55F4970			
0-5	55F4964	55F4971			
0-10	55F4965	55F4972			
0-20	55F4966	55F4973			
0-50	55F2906	55F4974			
0-100	55F2907	55F4975			
0-200	55F4967	55F4976			
0-300	55F4968	55F4977			
0-500	55F2908	55F4978			

Range	Model 1941 Plastic	Model 1941 Bakelite	1-9	10-24	25-49
0-1	55F2925	55F4984	19.00	17.10	15.20
0-2	55F4979	55F4985			
0-5	55F4980	55F4986			
0-10	55F2926	55F4987			
0-20	55F4981	55F4988			
0-50	55F2927	55F4989			
0-100	55F2928	55F4990			
0-200	55F4982	55F4991			
0-300	55F4983	55F4992			
0-500	55F2929	55F4993			

DC MICROAMMETERS

Range	Model 1931 Plastic	Model 1931 Bakelite	1-9	10-24	25-49
0-50	55F2900	55F4998	22.50	20.25	18.00
0-100	55F2901	55F4999	21.10	18.90	16.80
0-200	55F2902	55F5000	20.25	18.23	16.20
0-500	55F2903	55F5001	19.00	17.10	15.20
25-0-25	....	....	....	....	....
50-0-50	55F4995	55F5003	21.00	18.90	16.80
100-0-100	55F4996	55F5004	20.25	18.23	16.20
500-0-500	55F4997	55F5005	17.75	15.98	14.20

Range	Model 1941 Plastic	Model 1941 Bakelite	1-9	10-24	25-49
0-50	55F2921	55F5010	23.75	21.38	19.00
0-100	55F2922	55F5011	22.00	19.80	17.60
0-200	55F2923	55F5012	21.25	19.13	17.00
0-500	55F2924	55F5013	20.25	18.23	16.20
25-0-25	55F5006	55F5014	23.75	21.38	19.00
50-0-50	55F5007	55F5015	22.00	19.80	17.60
100-0-100	55F5008	55F5016	21.25	19.13	17.00
500-0-500	55F5009	55F5017	19.00	17.10	15.20

AC VOLTMETERS (Rectifier type)

Range	3% Acc. 1932		1-9	10-24	25-49
0-5	55F5102	55F5105	24.25	21.83	19.40
0-10	55F5103	55F5106			
0-15	55F5104	55F5107			
0-150	55F2944	55F5108			

Range	2% Acc. 1942		1-9	10-24	25-49
0-5	55F5109	55F5111	25.50	22.95	20.40
0-10	55F5110	55F5112			
0-15	....	....			
0-150	55F2945	55F5113			

Volume Level Indicators—Type 30

			1-9	10-24	25-49
Scale A	55F5114	55F5115	30.50	27.45	24.40
Scale B	....	....	....	....	....

			1-9	10-24	25-49
Scale A	55F5116	55F5118	31.75	28.58	25.40
Scale B	55F5117	55F5119	31.75	28.58	25.40

AC AMMETER — 2% Acc. 25-500 Cycles

Range			1-9	10-24	25-49
0-1	55F2956	55F5061	17.25	15.53	13.80
0-2	55F5051	55F5062			
0-3	55F5052	55F5063			
0-5	55F2952	55F5064			
0-10	55F5053	55F5065			
0-15	55F5054	55F5066			
0-20	55F5055	55F5067			
0-25	55F5056	55F5068			
0-30	....	....			
0-50	55F5057	55F5069			
*0-100	55F5058	55F5070			
*0-200	55F5059	55F5071			
*0-300	55F5060	55F5072			

Range			1-9	10-24	25-49
0-1	55F2962	55F5078	18.75	16.43	14.60
0-2	55F2963	55F5079			
0-3	....	....			
0-5	55F2964	55F5080			
0-10	55F2965	55F5081			
0-15	....	....			
0-20	55F5073	55F5082			
0-25	55F5074	55F5083			
0-30	55F5075	55F5084			
0-50	55F5076	55F5085			
*0-100	55F5077	55F5086			
*0-200	....	....			
*0-300	....	....			

*Amp range for use with External Model 605; current transformer not supplied.

WESTON

PIVOT-JEWEL PANEL INSTRUMENTS 1900 SERIES (Cont.)

AC MILLIAMMETER — 2% Acc. 25-500 Cycles

0-10	55F5087	55F5090	17.25	15.53	13.80
0-50	55F2947	55F5091			
0-100	55F2948	55F5092			
0-200	55F5088	55F5093			
0-250	55F5089	55F5094			
0-500	55F2949	55F5095			

0-10	55F5096	55F5098	18.25	16.43	14.60
0-50	55F2959	55F5099			
0-100	....	....			
0-200	55F5097	55F5100			
0-250	....	....			
0-500	.	55F5101			

AC VOLTMETER — 2% Acc. 25-125 Cycles

Range	Model 1934, 3½" Plastic	Model 1934, 3½" Bakelite	1-9	10-24	25-49
0-3	55F5018	55F5024	18.25	16.43	14.60
0-7.5	55F5019	55F5025			
0-10	55F5020	55F5026			
0-15	55F2954	55F5027			
0-25	55F5021	55F5028			
0-30	.....	.....			
0-50	55F5022	55F5029			
0-100	.	.			
0-150	55F5023	55F5030			
0-300	55F2956	55F5031			
0-500	. . .	. .			

Range	Model 1944, 4½" Plastic	Model 1944, 4½" Bakelite	1-9	10-24	25-48
0-3	55F5032	55F5040	19.00	17.10	15.20
0-7.5	55F5033	55F5041			
0-10	55F5034	55F5042			
0-15	55F2966	55F5043			
0-25	55F5035	55F5044			
0-50	55F5036	55F5045			
0-30	55F5037	55F5046			
0-100	55F5038	55F5047			
0-150	55F2967	55F5048			
0-300	55F2968	55F5049			
0-500	55F5039	55F5050			

TRIPLET

G/P SERIES PORTABLE INSTRUMENT FOR SCHOOL OR LAB

DC MILLIVOLTMETER

55F4209	0-50-100-250	30.40

DC VOLTMETERS

Stk. No.	Ranges	NET
55F4199	0-1-5-25	33.90
55F4200	0-25-100-500	34.70
55F4201	0-6-60-600	34.70

DC OHMMETERS 320-G/P

Stk. No.	Descrip. and Range	NET
55F4217	0-1K-100K (in. 1.5V battery, test leads)	37.50

WATTMETER 360-G/P

55F4220	0-150 Watts (Max. 150 volts 2 amperes)	55.10

DC MICROAMMETERS

Stk. No.	Ranges	NET
55F4202	0-10-50-250	64.80

DC MILLIAMMETERS

Stk. No.	Ranges	NET
55F4205	0-.25-1-5	33.00
55F4206	0-25-100-500	33.00
55F4207	0-1-10-100	33.00

DC AMMETERS

55F4208	0-1-5-25	30.80

MILLAMETERS AND AMMETERS AC IRON VANE TYPE 330-G/P

Stk. No.	Descrip. and Range	NET
55F4214	0-1 Ampere	25.70
55F4215	0-5 Ampere	25.70
55F4216	0-25 Ampere	25.70

Now you can make all types of electrical measurements right in your own lab or shop set-up. Five-way binding posts. Rugged case and movement construction safeguards against rough handling. Overload protection of all models, guards against electrical damage from misuse. Case dim. 4¼"x3⅞x4¼".

STANARD PANEL METERS

METER DIMENSIONS (All Shpg. Wts. 1 lb.)

Mfr's. Type	Flange Shape	Flange Size	Body Dia.	Body Depth	Scale Length
327T	Square	3x3"	2¾"	1"	2.49"
321T	Round	3½" Dia.	2¾"	15/16"	2.49"
331S	Round	3½" Dia.	2¾"	15/16"	2.22"

327-T

321-T—331-S

D.C. MILLIAMMETERS

Range	Model 327T	1-24	25-49	50-Up
0-1	55F596	17.50	14.00	13.13
0-10	55F522	17.50	14.00	13.13
0-25	55F523	17.50	14.00	13.13
0-50	55F524	17.50	14.00	13.13
0-100	55F526	17.50	14.00	13.13
0-500	55F531	17.50	14.00	13.13

Range	Model 321T	1-24	25-49	50-Up
0-1	55F1227	17.50	14.00	13.13
0-10	55F1229	17.50	14.00	13.13
0-25	55F1230	17.50	14.00	13.13
0-50	55F1231	17.50	14.00	13.13
0-100	55F1233	17.50	14.00	13.13
0-500	55F1238	17.50	14.00	13.13

D.C. MICROAMMETERS

Range	Model 327T	1-24	25-49	50-Up
0-20	55F630	31.50	25.20	23.63
0-50	55F631	22.50	18.00	16.88
0-100	55F632	21.00	16.80	15.75
0-200	55F633	19.50	15.60	14.63
0-500	55F634	18.50	14.80	13.88
50-0-50	55F2092	22.50	18.00	16.88

Range	Model 321T	1-24	25-49	50-Up
0-20	55F1241	31.50	25.20	23.63
0-50	55F1242	22.50	18.00	16.88
0-100	55F1243	21.00	16.80	15.75
0-200	55F1244	19.50	15.60	14.63
0-500	55F1251	18.50	14.80	13.88
50-0-50	55F2090	22.50	18.00	16.88

D.C. AMMETERS

Range	Model 327T	1-24	25-49	50-Up
0-1	55F580	18.00	14.40	13.50
0-5	55F582	18.00	14.40	13.50
0-10	55F583	18.00	14.40	13.50
0-25	55F585	18.00	14.40	13.50
0-30	55F586	18.00	14.40	13.50
0-50	55F587	18.00	14.40	13.50

D.C. AMMETERS

Range	Model 321T	1-24	25-49	50-Up
0-1	55F1246	18.00	14.40	13.50
0-5	55F1248	18.00	14.40	13.50
0-10	55F1249	18.00	14.40	13.50
0-25	55F1245	18.00	14.40	13.50
0-30	55F1252	18.00	14.40	13.50
0-50	55F1253	18.00	14.40	13.50

D.C. MILLIVOLTMETERS

Range	Model 327T	1-24	25-49	50-Up
0-50	55F672	18.00	15.30	14.40
0-100	55F673	18.00	15.30	14.40

Range	Model 321T	1-24	25-49	50-Up
0-50	55F674	18.00	15.30	14.40
0-100	55F675	18.00	15.30	14.40

D.C. VOLTMETERS

0-10	55F593	19.00	15.20	14.25
0-15	55F541	19.00	15.20	14.25
0-25	55F542	19.00	15.20	14.25
0-50	55F543	19.00	15.20	14.25
0-100	55F544	19.00	15.20	14.25
0-150	55F545	19.00	15.20	14.25
0-500	55F547	19.00	15.20	14.25

D.C. VOLTMETERS

Range	Model 321T	1-24	25-49	50-Up
0-15	55F1200	19.00	15.20	14.25
0-25	55F1202	19.00	15.20	14.25
0-50	55F1203	19.00	15.20	14.25
0-100	55F1204	19.00	15.20	14.25
0-150	55F1205	19.00	15.20	14.25
0-500	55F1209	19.00	15.20	14.25

A.C. VOLTMETERS

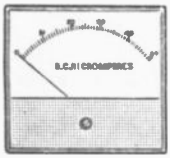
Range	Model 331S	1-24	25-49	50-Up
0-10	55F1255	17.00	13.60	12.75
0-150	55F1258	18.00	14.40	13.50
0-250	55F1283	18.00	14.40	13.50
0-300	55F1259	18.00	14.40	13.50

A.C. AMMETERS

Range	Model 331S	1-24	25-49	50-Up
0-1	55F496	17.00	13.60	12.75
0-5	55F497	17.00	13.60	12.75
0-10	55F1269	17.00	13.60	12.75
0-15	55F1328	17.00	13.60	12.75
0-25	55F1270	17.00	13.60	12.75
0-30	55F498	17.00	13.60	12.75
0-50	55F1272	17.00	13.60	12.75

NEWARK SAVES YOU TIME AND MONEY

Triplett Panel Meters



G SERIES PANEL INSTRUMENTS

Three sizes; 2½", 3½", and 4¼" models with black molded plastic cases and clear molded plastic fronts. An all new meter design that features flexibility and interchangeability, with optional mounting bezel for behind panel mounting. Self shielded, exact, reliable—DC instruments have the famous Triplett BAR-RING movements—more torque, faster response, greater ruggedness. Provides a dominant scale with plenty of dial area for multiple scales. DC Scale lengths: 4½ in., 4.035", 3½ in., 3.163", 2½ in., 2.536". AC Scale lengths: 4½ in., 3.43", 3½ in., 2.688", 2½ in., 2.155".

DC VOLTMETER 1000 OHMS/V

Range	Model 220-G 2½"	1-24	25-49	50-Up	Model 320-G 3½"	1-24	25-49	50-Up	Model 420-G 4½"	1-24	25-49	50-Up
0-10	55F4100	18.00	14.40	13.50	55F4104	19.00	15.20	14.25	55F4108	20.00	16.00	15.00
0-50	55F4101				55F4105				55F4109			
0-150	55F4102				55F4106				55F4110			
0-300	55F4103				55F4107				55F4111			

DC MILLIVOLTMETERS

Range	Model 220-G 2½"	1-24	25-49	50-Up	Model 320-G 3½"	1-24	25-49	50-Up	Model 420-G 4½"	1-24	25-49	50-Up
0-50	55F4112	17.00	13.60	12.75	55F4113	18.00	14.40	13.50	55F4114	19.00	15.20	14.25

DC MICROAMMETERS (PIVOT & JEWEL) (+ SUSPENSION TYPE)

Range	Model 220-G 2½"	1-24	25-49	50-Up	Model 320-G 3½"	1-24	25-49	50-Up	Model 420-G 4½"	1-24	25-49	50-Up
0-50	55F4116	21.50	17.20	16.13	55F4121	22.50	18.00	16.88	55F4126	23.50	18.80	17.63
0-100	55F4117	20.00	16.00	15.00	55F4122	21.00	16.80	15.75	55F4127	22.00	17.60	16.50
0-200	55F4118	18.50	14.80	13.39	55F4123	19.50	17.60	14.63	55F4128	20.50	16.40	15.38
50-0-50	55F4119	......	......	.. ..	55F4124	22.50	18.00	16.88	55F4129	..	...	....

DC MILLIAMMETERS

Range	Model 220-G 2½"	1-24	25-49	50-Up	Model 320-G 3½"	1-24	25-49	50-Up	Model 420-G 4½"	1-24	25-49	50-Up
0-1	55F4130	16.50	13.20	12.38	55F4136	18.00	14.40	13.50	55F4142	19.00	15.20	14.75
0-5	55F4131				55F4137				55F4143			
0-10	55F4132				55F4138				55F4144			
0-50	55F4133				55F4139				55F4145			
0-100	55F4134				55F4140				55F4146			
0-500	55F4135				55F4141				55F4147			

DC AMMETER

Range	Model 220-G 2½"	1-24	25-49	50-Up	Model 320-G 3½"	1-24	25-49	50-Up	Model 420-G 4½"	1-24	25-49	50-Up
0-1	55F4148	17.00	13.60	12.75	55F4152	18.00	14.40	13.50	55F4156	19.00	15.20	14.75
0-5	55F4149				55F4153				55F4157			
0-10	55F4150				55F4154				55F4158			
0-50	55F4151				55F4155				55F4159			

AC VOLTMETERS

Range	Model 230-G 2½"	1-24	25-49	50-Up	Model 330-G 3½"	1-24	24-49	50-Up	Model 430-G 4½"	1-24	24-49	50-Up
0-150	55F4161	17.00	13.60	12.75	55F4165	18.00	14.40	13.50	55F4169	19.00	15.20	14.25
0-300	55F4163				55F4167				55F4171			

AC AMMETERS

Range	Model 230-G 2½"	1-24	25-49	50-Up	Model 330-G 3½"	1-24	25-49	50-Up	Model 430-G 4½"	1-24	25-49	50-Up
0-5	55F4172	16.00	12.80	10.20	55F4177	17.00	13.60	12.75	55F4182	18.00	14.40	13.50
0-10	55F4173				55F4178				55F4183			
0-25	55F4174				55F4179				55F4184			
0-30	55F4175				55F4180				55F4185			
0-50	55F4176				55F4181				55F4186			

AC MILLIAMMETERS

Range	Model 230-G 2½"	1-24	25-49	50-Up	Model 330-G 3½"	1-24	25-49	50-Up	Model 430-G 4½"	1-24	25-49	50-Up
0-10	55F4187	16.00	12.80	10.20	55F4191	17.00	13.60	12.75	55F4195	18.00	14.40	13.50
0-100	55F4188				55F4192				55F4196			
0-250	55F4189				55F4193				55F4197			
0-500	55F4190				55F4194				55F4198			

2½" DC MICROAMMETERS (Suspension Type)

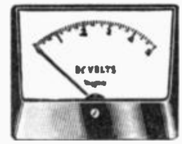
Range	Model 220-G 2½"	1-24	25-49	50-Up
0-5	55F4222	41.50	33.20	31.13
0-10	55F4223	35.50	28.40	26.63
0-20	55F4224	30.50	24.40	22.88
0-50	55F4225	24.00	19.20	18.00
0-100	55F4226	21.50	17.20	16.13
0-200	55F4227	20.50	16.40	15.38
0-500	55F4228	20.00	16.00	15.00
0-1000	55F4229	19.50	15.60	14.63
50-0-50	55F4119	21.50	17.20	16.13
100-0-100	55F4231	20.50	16.40	15.38
500-0-500	55F4232	19.50	15.60	14.63

4½" DC MICROAMMETERS (Suspension Type)

Range	Model 420-G 4½"	1-24	25-49	50-Up
0-5	55F4233	43.50	34.80	32.63
0-10	55F4234	37.50	30.00	28.13
0-20	55F4235	32.50	26.00	24.38
0-50	55F4236	26.00	20.80	19.50
0-100	55F4237	23.50	18.80	17.63
0-200	55F4238	22.50	18.00	16.88
0-500	55F4239	22.00	17.60	16.50
0-1000	55F4240	21.50	17.20	16.13
50-0-50	55F4129	23.50	18.80	17.63
100-0-10	55F4242	22.50	18.00	16.88
500-0-500	55F4243	21.50	17.20	16.13

"Wide-Vue" Panel Meters Simpson

All have self-shielded type movement. DC Ammeters up to 50 amps are self-contained. All meters are accurate ±2% of FS .Model 1227 and model 1257 mount in 2.17" dia. hole. Models 1329, 1349, and 1359 mount in 2.75" dia. holes. Plastic Covers for maximum protection of meter face. Average shpg. wt., 1 lb.



DC VOLTMETERS — Self-Shielding type Movements

Range Volts	Approx. Resis.	Model 1227 2½"	1-9	10-24	25-49	50 up	Model 1327 3½"	1-9	10-24	25-49	50-up	Model 1329 4½"	1-9	10-24	25-49	50-up
0-5		55F1143					55F1146					55F1166				
0-8		....					55F1147					55F1167				
0-10		55F1500					55F1550					55F1600				
0-15	1000	55F1501					55F1551					55F1601				
0-25	Ohms	55F1502					55F1552					55F1602				
0-30	per	55F1503	18.15	16.34	15.43	14.52	55F1553					55F1603				
0-50	Volt	55F1504					55F1554	18.90	17.01	16.07	15.12	55F1604	20.70	18.63	17.60	16.56
0-100		55F1505					55F1555					55F1605				
0-150		55F1506					55F1556					55F1606				
0-200		....					55F1148					55F1168				
0-250		....					55F1149					55F1169				
	2000	....	......	......	......	......	....					....				
0-500	Ohms	55F1508	18.90	17.01	16.07	15.12	55F1558	19.65	17.69	16.70	15.72	55F1608	21.30	19.17	18.11	17.04
0-750	per	55F1144	23.10	20.79	19.64	18.48	55F1164	19.65	17.69	16.70	15.72	55F1170	21.30	19.17	18.11	17.04
0-1000	Volt	55F1145	23.55	21.20	20.02	18.84	55F1165	24.45	22.01	20.78	19.56	55F1171	26.10	23.49	22.19	20.88

DC AMMETERS — Self-Shielding type Movements

Range Amps.	Ohms	Model 1227 2½"	1-9	10-24	25-49	50-up	Model 1327 3½"	1-9	10-24	25-49	50-up	Model 1329 4½"	1-9	10-24	25-49	50-up
0-1	.050	55F1172					55F1559					55F1609	16.09	17.69	16.70	15.72
0-1.5	.033	55F1173					55F1181					55F1191	19.65	17.69	16.70	15.72
0-2	.025	55F1174					55F1560					55F1610	18.15	16.34	15.43	14.52
0-3	.0166	55F1175					55F1561					55F1611				
0-5	.010	55F1512					55F1562					55F1612				
0-10	.005	55F1513					55F1563					55F1613				
0-15	.0033	55F1176					55F1564					55F1614				
0-25	.0020	55F1177	17.40	15.66	14.79	13.92	55F1565	18.15	16.34	15.43	14.52	55F1615				
0-30	.0017	55F4852					55F1182					55F1192				
0-50	.001	55F1178					55F1566					55F1616	19.65	17.69	16.70	15.72
0-100*	10.0	55F1179					55F1183					55F1193				
0-150*	10.0	55F1180					55F1184					55F1194				
0-200*	10.0	....					55F1185					55F1195				
0-300*	10.0	....					55F1186					55F1196				
0-500*	10.0	....					55F1187					55F1197				

*Require external shunt

DC MILLIVOLTMETERS

Range Ma.	Ohms	Model 1227 .94"	1-9	10-24	25-49	50-Up	Model 1327 1.12"	1-9	10-24	25-49	50-Up	Model 1329 2.00"	1-9	10-24	25-49	50-Up
0-50	10	55F1637	17.25	15.53	14.66	13.80	55F1638	18.00	16.20	15.30	14.40	55F1639	19.65	17.69	16.70	15.72

DC MILLIAMMETERS — Self-Shielding type Movements

Range Ma.	Approx. Resis. Ω	Model 1227 2½"	1-9	10-24	25-49	50-up	Model 1327 3½"	1-9	10-24	25-49	50-up	Model 1329 4½"	1-9	10-24	25-49	50-up
0-1	43	55F1517					55F1567					55F1617				
0-3	2.0	55F1198					55F2501					55F2506				
0-5	2.0	55F1518					55F1568					55F1618				
0-10	10.0	55F1519	17.10	15.39	14.54	13.68	55F1569	17.70	15.93	15.05	14.16	55F1619	18.90	17.01	16.07	15.12
0-15	6.6	55F1199					55F2502					55F2507				
0-20	5.0	....					55F2503					55F2508				
0-25	4.0	55F1520					55F1570					55F1620				
0-50	2.0	55F1521					55F1571					55F1621				
0-100	1.0	55F1522					55F1572					55F1622				
0-150	.66	55F1523					55F1573					55F1623				
0-200	.5	55F1524					55F1574					55F1624				
0-250	.4	55F2500	17.40	15.66	14.79	13.92	55F1575	18.15	16.34	15.43	14.52	55F1625	19.65	17.69	16.70	15.72
0-300	.33	55F1526					55F1576					55F1626				
0-500	.2	55F1527					55F1577					55F1627				
0-750	.13	....					55F2504					55F2509				
0-1000	.05	....					55F2505					55F2510				

DC MICROAMMETERS — Self-Shielding type Movements

Range Microamp.	Approx. Resis. Ω	Model 1227 2½"	1-9	10-24	25-49	50-Up	Model 1327 3½"	1-9	10-24	25-49	50-Up	Model 1329 4½"	1-9	10-24	25-49	50-Up
0-50	1800	55F1529	22.05	19.85	18.74	17.64	55F1579	22.50	13.50	19.13	18.00	55F1629	24.30	21.87	20.66	19.44
0-100	1800	55F1530	19.65	17.69	16.70	15.72	55F1580	20.70	18.63	17.60	16.56	55F1630	22.45	20.66	19.51	18.36
0-200	1100	55F1531	18.00	16.20	15.30	14.40	55F1581	18.90	17.01	16.07	15.12	55F1631	20.70	18.63	17.60	16.56
0-500	90	55F1532	17.70	15.93	15.05	14.16	55F1582	18.60	16.74	15.81	14.88	55F1632	20.10	18.09	17.09	16.08
25-0-25	1800	....	......	......	......	......	55F2512	22.65	20.39	19.25	18.20	55F2516	24.45	22.50	20.78	19.56
50-0-50	1800	55F1533	20.10	18.09	17.09	16.08	55F1583	20.70	18.63	17.60	16.56	55F1633	23.10	20.79	19.64	18.48
100-0-100	1100	55F4850	18.15	16.34	15.43	14.52	55F2513	19.05	17.15	16.19	15.24	55F2517	21.00	18.90	17.85	16.80
500-0-500	43	55F4851	17.25	15.53	14.66	13.80	55F2514	18.00	16.20	15.30	14.40	55F2518	19.05	17.15	16.19	15.24

DC GALVANOMETERS

Top-quality Simpson panel meters meet exacting requirements. Models 1227 and 1327 Wide-Vue type with 2.5" and 3.04" scale length respectively and self-shielding type movement. Model 27 has Iron-Vane type external movement. When ordering for use on steel panel, specify panel thickness and add $1.65 for recalibration. Model 27 scale length 1.8". All are accurate within 2% F.S., have rect. faces. Range 50-0-50. Average shipping wt., 1 lb.

Sensitivity-Microamps	Res. Ohms	Model 1227 2½"	1-9	10-24	25-49	50-Up	Model 1327 3½"	1-9	10-24	25-49	50-Up
500-0-500	43	55F1548	17.10	15.39	14.54	13.68	55F1598	18.00	16.20	15.30	14.40
75-0-75	1800	55F1549	18.60	16.74	15.81	14.88	55F1599	20.10	18.09	17.09	16.08

Simpson Wide Vue Panel Meters

These panel meters have 25% fewer parts thus reducing chance of failure; built to conform to Simpson's rigid quality and performance standards. Performance tested for equivalent of 30 years of actual use without a single failure. Higher sensitivity with lower resistance; high accuracy with better repeatability. Accuracy ±2%. Spade pointer with case construction of molded black phenolic base with high temp. black plastic cover. Supplied with mounting and terminal hardware. Shipping weight: 6 oz. (1227 T), 8 oz. (1327 T), 10 oz. (1329 T).

DC MICROAMMETERS

Range Microamps	Ohms. Res.	2½" Model 1227 T Stk. No.	1-9	10-24	25-49	50-up	3½" Model 1327 T Stk. No.	1-9	10-24	25-49	50-up	4½" Model 1329 T Stk. No.	1-9	10-24	25-49	50-up
5	5750	.....					55F4329	42.00	37.80	35.70	33.60	55F4331	44.45	40.10	37.87	35.64
10	4900	55F2223	35.40	31.86	30.90	28.32	55F2228	36.90	33.21	31.37	29.52	55F2233	39.90	35.91	33.92	31.92
15	1960	55F2224	32.10	28.89	27.29	25.68	55F2229	33.00	29.70	28.05	26.40	55F2234	36.00	32.43	30.60	28.80
25	1960	55F2225	30.45	27.41	25.88	24.36	55F2230	31.95	28.76	27.16	25.56	55F2235	34.65	31.19	29.45	27.70
50	1100	55F2226	22.05	19.85	18.74	17.64	55F2231	24.95	21.01	20.78	19.56	55F2236	26.65	23.63	22.31	21.00
100	500	55F2227	21.75	19.58	18.49	17.40	55F2232	22.50	20.25	19.13	18.00	55F2237	24.75	22.30	21.04	19.80
200	234	55F4328	20.40	18.36	17.34	16.32	55F4330	21.15	19.04	17.98	16.92	55F4332	23.40	21.06	19.89	18.72

You Can Depend on NEWARK For Complete Stocks — Lowest Prices

Range Microamps	Ohms. Res.	8" Model 728 T Stk. No.	1.9	10-24	25-49	50-up
25	1960	55F4333	40.05	36.05	34.04	32.04
50	1100	55F4334	35.25	31.73	29.96	28.20
100	500	55F4335	34.05	30.65	28.94	27.29

AC VOLTMETERS — Magnetically Damped Movements

Range Volts	Approx. Resis.	Model 1257 2½"	1-9	10-24	25-49	50-up	Model 1357 3½"	1-9	10-24	25-49	50-up	Model 1359 4½"	1-9	10-24	25-49	50-up
0-5	33	....	...	...	...	...	55F2524	17.25	15.52	14.66	13.80	55F2531	19.35	17.42	16.45	15.48
0-10	133	55F1534	16.50	14.85	14.03	13.20	55F1584	17.25	15.52	14.66	13.80	55F1634	19.35	17.42	16.45	15.48
0-15	300	55F4800	16.50	14.85	14.03	13.20	55F2525	17.25	15.52	14.66	13.80	55F2532	19.35	17.42	16.45	15.48
0-25	833	55F2522	16.50	14.85	14.03	13.20	55F2526	17.25	15.52	14.66	13.80	55F2533	19.35	17.42	16.45	15.48
0-50	3,333	55F2523	16.50	14.85	14.03	13.20	55F2527	17.25	15.52	14.66	13.80	55F2534	19.35	17.42	16.45	15.48
0-100	16,666	55F4801	16.50	14.85	14.03	13.20	55F2528	....	....	....	....	55F2535	19.35	17.42	16.45	15.48
0-150	25,000	55F1535	17.25	15.53	14.66	13.80	55F1585	18.00	16.20	15.30	14.40	55F1635	19.65	17.69	16.71	15.72
0-250	41,166	55F4802	17.25	15.53	14.66	13.80	55F2529	18.60	16.74	15.81	14.84	55F2536	19.65	17.69	16.77	15.72
0-300	50,000	55F1536	17.25	15.53	14.66	13.80	55F1586	18.60	16.74	15.81	14.84	55F1636	19.65	17.69	16.71	15.72
0-500	83,333	55F4803	17.25	15.53	14.66	13.80	55F2530	23.55	21.20	20.02	18.04	55F2537	25.20	22.68	21.42	20.16

*Require external current trans.

ACC AMMETERS — Magnetically Damped Type Movements

Range	Approx. Resis.	Model 1257	1-9	10-24	25-49	50-up	Model 1357	1-9	10-24	25-49	50-up	Model 1359	1-9	10-24	25-49	50-up
0-1	.287	55F2580	15.60	14.04	13.26	12.48	55F1537	16.50	14.85	14.03	13.20	55F1587	19.20	17.28	16.32	15.36
0-1.5	.185	55F2581	15.60	14.04	13.26	12.48	55F2588	16.50	14.85	14.03	13.20	55F2595	19.20	17.28	16.32	15.36
0-2	.115	....	....	....	....	....	55F2589	16.50	14.85	14.03	13.20	55F2596	19.20	17.28	16.32	15.36
0-3	.027	....	....	....	....	....	55F2590	16.50	14.85	14.03	13.20	55F2597	19.20	17.28	16.32	15.36
0-5	.012	55F2582	15.60	14.04	13.26	12.48	55F1538	16.50	14.85	14.03	13.20	55F1588	19.20	17.28	16.32	15.36
0-10	.0031	55F2583	15.60	14.04	13.26	12.48	55F1539	16.50	14.85	14.03	13.20	55F1589	19.20	17.28	16.32	15.36
0-15	.0022	55F2584	15.60	14.04	13.26	12.48	55F1540	16.50	14.85	14.03	13.20	55F1590	19.20	17.28	16.32	15.36
0-25	.0003	55F2585	16.35	14.72	13.90	13.08	55F1541	17.10	15.39	14.54	13.68	55F1591	19.65	17.69	16.70	15.72
0-50	.0006	55F2586	16.35	14.72	13.90	13.08	55F1542	17.10	15.39	14.54	13.68	55F1592	19.65	17.69	16.70	15.72
0-75	.0005	....	....	....	....		55F1008	18.60	16.74	15.81	14.88	55F1009	21.15	19.04	17.98	16.92
0-100*	.012	....	....	....	....		55F2591	16.50	14.85	14.03	13.20	55F2598	19.20	17.28	16.32	15.36
0-150*	.012	....	....	....	....		55F2592	16.50	14.85	14.03	13.20	55F2599	19.20	17.28	16.32	15.36
0-200*	.012	....	....	....	....		55F2593	16.50	14.85	14.03	13.20	55F2600	19.20	17.28	16.32	15.36
0-300*	.012	55F2587	15.60	14.04	13.26	12.48	55F2594	16.50	14.85	14.03	13.20	55F2601	19.20	17.28	16.32	15.36

RF AMMETERS — Self Shielding Meter Movements

Range Amps	Approx. Resis.	Model 1337 3½" case	1-9	10-24	25-49	50-Up	Model 1339 4½" case	1-9	10-24	25-49	50-Up
0-1	.343	55F2242	21.00	18.90	13.85	16.80	55F2245	24.00	21.60	20.40	19.80
0-1.5	.200	55F2243	21.00	18.90	13.85	16.80	55F2246	24.00	21.60	20.40	19.80
0-3	.08	55F2244	21.00	18.90	13.85	16.80	55F2247	24.00	21.60	20.40	20.40

AC MILLIAMMETERS — Magnetically Damped Movements

Range Ma.	Approx. Resis.	Model 1257	1-9	10-24	25-49	50-up	Model 1357	1-9	10-24	25-49	50-up	Model 1359	1-9	10-24	25-49	50-up
0-50	80	....	....	....	....	....	55F2539	16.50	14.85	14.03	13.20	55F2543	19.65	17.69	16.70	15.72
0-100	20	....	....	....	....	....	55F2540	16.50	14.85	14.03	13.20	55F2544	19.20	17.28	16.32	15.36
0-250	5	....	....	....	....	....	55F2541	16.50	14.85	14.03	13.20	55F2545	19.20	17.28	16.32	15.36
0-500	.9	55F2538	15.60	14.04	13.26	12.48	55F2542	16.50	14.85	14.03	13.20	55F2546	19.20	17.28	16.32	15.36

AC VOLTMETERS — RECTIFIER TYPE

Rectifier type instruments accurate to ±3%. Models 1247, and 1257 mount in 2.17" dia. holes. Models 1347, and 1357 mount in 2.73" dia. hole. Models 1349, and 1359 mount in 2.75" dia. holes. Cover is clear methyl methacrylate. Avg. Shpg. wt.: 1 lb.

Range Volts	Approx. Res./Ohms	Model 1247 2½"	Net	Model 1347 3½"	1-9	10-24	25-49	50-up	Model 1349 4½"	1-9	10-24	25-49	50-up
0-5	2000 Ohms	55F712	21.75	55F2602	24.75	22.28	21.04	19.80	55F2607	24.75	22.28	21.04	19.80
0-10	per	55F713	21.75	55F2603	24.75	22.28	21.04	19.80	55F2608	27.45	24.71	23.33	21.96
0-15	Volt	....	....	55F2604	24.75	22.28	21.04	19.80	55F2609	27.45	24.71	23.33	21.96
0-50		....	....	55F2605	24.75	22.28	21.04	19.80	55F2610	27.45	24.71	23.33	21.96
0-150		55F714	21.75	55F1543	24.75	22.28	21.04	19.80	55F1593	27.45	24.71	23.33	21.96
0-300		55F715	21.75	25F2606	24.75	22.28	21.04	19.80	55F2611	27.45	24.71	23.33	21.96

WIDE VUE VOLUME LEVEL INDICATORS — DECIBEL METERS

Self shielding meter movement. Zero power level: 6 MW. 500 ohm line.

Reference Level (ohms)	Resis.	Model 1247 2½"	1-9	10-24	25-49	50-up	Model 1347 3½"	1-9	10-24	25-49	50-up	Model 1349 4½"	1-9	10-24	25-49	50-up
600	5000	55F2519	24.30	21.87	20.66	19.44	55F1545	25.80	23.22	21.93	20.64	55F1595	26.70	24.03	22.70	21.36

VOLUME LEVEL INDICATORS — VU METERS

Scale	VU Range	Model 1247 2½"	1-9	10-24	25-49	50-up	Model 1347 3½"	1-9	10-24	25-49	50-up	Model 1349 4½"	1-9	10-24	25-49	50-up
A	—20 to	55F716	28.80	23.49	22.19	20.88	55F1546	29.55	26.60	25.12	20.70	55F2520	32.10	28.89	27.29	25.68
B	+3	....	....	....	....	....	55F1547	29.55	26.60	25.12	20.70	55F2521	32.10	28.89	27.29	25.68

1½" WIDE-VUE PANEL INSTRUMENTS

1212 and 1214 have the Simpson self-shielded movement (calibrations not affected by stray magnetic fields). 1212 accurate to 2% of full scale. 1214 accurate of 3% of full scale at 25°C. Both models mount in 1.50" dia. holes. Size: 1.76"x1.76"x1.32". Scale length is 1.5" at 90° Arc (38.1 mm). Standard calibration either magnetic or non-magnetic panel with lance type pointer. Base constructed of molded black phenolic plastic with high temperature cover. All models are supplied complete with the necessary mounting and terminal harware. 8-32 studs are used for terminals. Average shipping weight, 3½ oz.

MODEL 1212 1½" DC VOLTMETERS

Range	Div.	Ohms/ Volt	Stock No.	1-9	10-24	25-49	50-up
0-5	50	1000	55F436	16.95	15.25	14.41	13.56
0-10	50	1000	55F437				
0-15	75	1000	55F438				
0-25	50	1000	55F439				
0-30	60	1000	55F440				
0-50	50	1000	55F441				
0-100	50	1000	55F442				
0-150	75	1000	55F443				

MODEL 1212 1½" DC MILLIVOLTMETERS

0-50	50	10	55F446	14.10	12.69	11.99	11.28

MODEL 1212 1½" DC AMMETERS

0-1	50	.050	55F447	16.95	15.25	14.41	13.56
0-2	40	.025	55F448				
0-3	60	.0166	55F449				
0-5	50	.010	55F466				
0-10	50	.005	55F467				

MODEL 1214 1½" AC VOLTMETERS—RECTIFIER TYPE

0-5	50	1000	55F468	23.40	21.06	19.89	18.72
0-10	50	1000	55F469				
0-150	75	1000	55F470				
0-300	60	2000	55F471				

1½" VU METERS

Range	Model 1214	1-9	10-24	25-49	50-up
A-Scale	55F472	23.70	21.33	20.15	18.96

MODEL 1212 1½" DC MICROAMMETERS

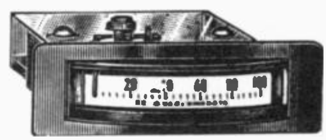
Range	Div.	Ohms	Stock No.	1-9	10-24	25-49	50-up
0-50	50	2000	55F473	21.30	19.17	18.11	17.04
0-100	50	2000	55F474	19.05	17.15	16.19	15.24
0-200	40	1000	55F475	17.25	15.53	14.66	13.80
0-500	50	200	55F476	16.95	15.25	14.41	13.56
25-0-25	....	2000	55F477	21.45	19.31	18.23	17.16
50-0-50	....	2000	55F478	19.20	17.28	16.32	15.36
100-0-100	....	1000	55F479	17.40	15.66	14.79	13.92
500-0-500	....	46	55F480	16.50	14.85	14.03	13.20

MODEL 1212 1½" DC MILLIAMMETERS

0-1	50	46	55F481	16.35	14.72	13.90	13.08
0-5	50	23	55F482				
0-10	50	2.2	55F483				
0-15	75	2.2	55F484				
0-25	50	6.0	55F485	16.95	15.25	14.41	13.56
0-50	50	3.0	55F486				
0-100	50	1.5	55F487				
0-150	75	1.0	55F488				
0-200	40	.75	55F489				
0-250	50	.60	55F490				
0-300	60	.50	55F491				
0-500	50	.30	55F492	15.45	13.90	13.12	12.35

EDGEWISE PANEL METERS

Core magnet meter movement. Self shielded. Needs ½ the panel area of usual 2½" meter; yet comparable scale length (1⅞). Complete mtg. hardware. DC acc.: 2% of full scale. Standard scale — Black numbers on a white background. Dustproof, molded lucite case. Accurate comparative readings by mounting meters side by side. Saves space—makes every square inch count. Quick, simple mounting. Meters are supplied complete with mounting hardware. Terminals: Solder (ammeters, stud). Shpg. wt., 5 ozs.



MODEL 1522

Range DC	Stock No.	1-9	10-24	25-49	50-up
0-10 volts	55F2628	20.10	18.09	17.09	16.08
0-15 volts	55F2629				
0-50 volts	55F1122				
0-150 volts	55F1123				
0-5 amperes	55F1125	21.15	19.04	17.98	16.92
0-25 amperes	55F2632				
0-1 milliamperes	55F1126	19.80	17.82	16.83	15.84
0-10 milliamperes	55F1127				

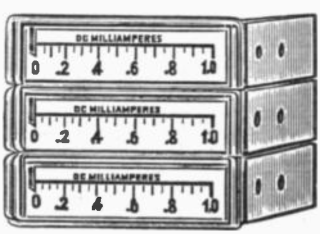
MODEL 1522—CONTINUED

Range DC	Stock No.	1-9	10-24	25-49	50-up
0-25 microamperes	55F2641	29.70	26.73	25.25	23.70
0-50 microamperes	55F1130	25.95	23.36	22.06	20.76
0-100 microamperes	55F1131	23.40	21.06	19.89	18.72
0-200 microamperes	55F2642	21.15	19.04	17.98	16.92
0-500 microamperes	55F2643	20.55	18.50	17.47	16.44

MODEL 1542

VU Meter "A" scale	55F1132	33.00	29.70	28.05	26.40
0-150 AC volts Rect. 1000 Ohms per volt	55F1141	25.65	23.09	21.80	20.52

EDGEWISE PANEL METERS STACK HORIZONTALLY OR VERTICALLY



New miniature edgewise panel meter features unique Self-Shielding core magnet which eliminates the need for protruding barrel. Sharp, modern, extremely compact. Meter scale extending nearly full width and height of meter. Optimum scale display area allowing for easy-to-read numerals.

DC VOLTMETERS

Range	App. Res.	1921 1½"	1-9	10-24	25-49	50-up	1622 2½"	1-9	10-24	25-49	50-up
0-10	5000/v.	55F4300	21.30	19.17	18.11	17.04	55F4314	22.65	19.47	18.11	17.04
0-15	5000	55F4301					55F4315				
0-25	5000	55F4302					55F4316				
0-50	5000	55F4303					55F4317				
0-150	5000	55F4304					55F4318				
0-500	....	....	....	....	....	....	55F4319	22.80	20.52	19.38	18.74

DC MILLIAMMETERS

0-1	18	55F4306	21.00	18.90	17.85	16.80	55F4320	22.50	20.25	19.38	18.00
0-5	2	55F4307					55F4321				
0-10	5	55F4308					55F4322				
0-25	2	55F4309	22.05	19.85	18.74	17.64	55F4323	23.40	21.06	19.89	18.72
0-50	1	55F4310					55F4324				
0-100	.5	55F4311					55F4325				
0-500	.1	55F4312					55F4326				

DC MILLIVOLTMETERS

0-50	400/v.	55F4313	22.35	20.12	19.00	17.88	55F4327	23.70	21.33	20.15	18.96

DC MICROAMMETERS

Range	Approx. Resis.	Model 1921 1½"	1-9	10-24	25-49	50-up
0- 25	7760	55F4336	27.45	24.71	23.33	21.96
0- 50	2020	55F4337	27.15	24.43	23.08	21.72
0-100	1060	55F4338	24.30	21.87	20.66	19.44
0-200	310	55F4339	22.35	20.12	19.00	17.88
0-500	63	55F4340	21.75	19.58	18.49	17.40

Range	Approx. Resis.	Model 1622 2½"	1-9	10-24	25-49	50-up
0- 25	7760	55F4341	28.65	25.79	24.35	22.92
0- 50	2020	55F4342	28.35	25.52	24.10	22.68
0-100	1060	55F4343	25.80	23.22	29.93	20.64
0-200	310	55F4344	23.70	21.33	20.15	18.96
0-500	63	55F4345	22.95	20.66	19.51	18.36

AC VOLTMETERS—RECT. TYPE

Range	Approx. Ohms	Model 1941 1½"	1-9	10-24	25-49	50-up
0-150	5000	55F4346	26.70	24.03	22.70	21.36

Range	Approx. Ohms	Model 1642 2½"	1-9	10-24	25-49	50-up
0-150	5000	55F4347	27.90	25.11	23.72	22.32

Simpson Panel Meters

"DESIGNER" SERIES

Model 523

Breaking away from traditional panel-meter styling, these instruments have space-saving rectangular faces. On crowded panels, where height is limited, a clean, crisp, uncluttered design is presented. Rugged, dependable pivot-and-jewel movements provide ± 2% full-scale accuracy. Knife-edge pointers permit extra-precise readings. All models come in molded black phenolic cases with glass windows, and are supplied with all necessary mounting and terminal hardware. Dimensional data: Model 523 (3½" nominal width) requires only 2.438" panel height, and occupies 1.811" behind-panel depth; scale length is 62 mm. Model 524 (4½" nom. width) is 2.84" high and 1.811" behind-panel; scale length 90 mm. Shipping wt.: 11½ oz. for Model 523, 12 oz. for Model 524.

Range	Model 523 3½ Inch	1-9	10-24	25-49	50-Up	Model 524 4½ Inch	1-9	10-24	25-49	50-Up
DC MICROAMMETERS										
0-25	55F717	27.90	25.11	23.72	22.32	55F723	30.75	27.68	26.14	24.60
0-50	55F718	22.50	20.25	19.13	18.00	55F724	24.30	21.87	20.66	19.44
0-100	55F719	20.70	18.63	17.60	16.56	55F725	22.95	20.66	19.51	18.36
0-200	55F720	18.90	17.01	16.65	15.12	55F726	20.70	18.63	17.60	16.56
50 0-50	55F721	20.70	18.63	17.60	16.56	55F727	23.10	20.79	19.64	18.48
100-0-100	55F722	19.05	18.15	16.19	15.24	55F728	21.00	18.90	17.85	16.80
DC MILLIAMMETERS										
0-1	55F729	17.70	15.93	15.05	14.16	55F731	18.90	17.01	16.07	15.12
0-100	55F730	18.15	16.34	15.43	14.50	55F732	19.65	17.67	15.85	14.92
DC AMPERES										
0-10	55F733	18.15	16.34	15.43	14.52	55F734	19.65	17.69	16.70	15.72
DC VOLTS										
0-15	55F735	18.90	17.01	16.07	15.12	55F739	20.70	18.63	17.60	16.56
0-30	55F736	18.90	17.01	16.07	15.12	55F740	20.70	18.63	17.60	16.56
0-50	55F737	18.90	17.01	16.07	15.12	55F741	20.70	18.63	17.60	16.56
0-150	55F738	18.90	17.01	16.07	15.12	55F742	20.70	18.63	17.60	16.56
AC AMPERES										
Range	Model 553 3½ Inch	1-9	10-24	25-49	50-Up	Model 554 4½ Inch	1-9	10-24	25-49	50-Up
0-5	55F743	16.50	14.85	14.03	13.20	55F751	19.20	17.28	16.32	15.36
0-10	55F744	16.50	14.85	14.03	13.20	55F752	19.20	17.28	16.32	15.36
0-50	55F745	17.10	15.39	14.54	13.68	55F755	19.65	17.69	16.70	15.72
AC VOLTS										
0-150	55F746	18.60	16.74	15.81	14.88	55F756	19.65	17.69	16.70	15.72
0-300	55F747	18.60	16.74	15.81	14.88	55F763	19.65	17.69	16.70	15.72
VU METER										
Range	Model 543 3½ Inch	1-9	10-24	25-49	50-Up	Model 544 4½ Inch	1-9	10-24	25-49	50-Up
"A" Scale	55F748	29.55	26.60	25.12	23.64	55F764	32.10	28.80	27.29	25.68

RUGGED SEAL CONTACTLESS METER RELAYS

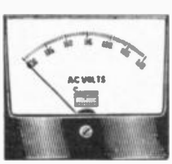
Set points are adjusted thru external, front-panel gear drive. Set points are indicated by pointers. Sensing is accomplished by an infinite life lamp and photoconductors. A solid-state switching circuit and DPDT slave relay are internally provided for each control point. Control relays open in event of power failure.

Slave relays will switch 10 amps at 115 VAC, resistive load. Meter is unaffected by control point setting. Calibration accuracy is ±2% of full scale. Control point differential: within 0.5% of full scale. DC power for control circuitry is provided by an external power supply furnished with each double control relay; operates from 115 V, 50-500 Hz AC; single control models have self-contained power supply. Average shipping wt., 1 lb.

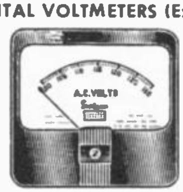
	3½" Model 3323XA				4½" Model 3324XA				4"x6" Model 3326XA			
	Single Control		Double Con rol		Single Control		Double Control		Single Control		Double Control	
Range	Stk. No.	NET	Stk. No.	NET	Stk. No.	NET	Stk. No.	NET	Stk. No.	NET	Stk. No.	NET
DC MICROAMMETERS												
0-50	55F749	116.55	55F753	112.20	55F2467	119.85	55F757	150.00	55F761	123.15	55F765	153.30
0-100	55F750	113.10	55F754	143.25	55F2462	116.40	55F758	146.55	55F762	119.70	55F766	149.85
0-200	....	....	....	....	55F2463	116.40	55F759	146.55	....	....	....	....
0-500	....	....	....	....	55F2464	116.40	55F760	146.55	....	....	....	....
DC MICROAMMETERS (TAUT BAND)												
	3½" Model 3323TXA				4½" Model 3324TXA				4 x 6" Model 3326TXA			
Range	Single Control		Double Control		Single Control		Double Control		Single Control		Double Control	
0-10	55F4804	134.70	55F4808	164.85	55F4812	138.00	55F4816	168.15	55F4820	141.30	55F4824	171.45
0-25	55F4805	124.80	55F4809	154.95	55F4813	128.10	55F4817	158.25	55F4821	131.40	55F4825	161.55
0-50	55F4806	119.85	55F4810	150.00	55F4814	123.15	55F4818	153.30	55F4822	126.45	55F4826	156.60
0-100	55F4807	116.55	55F4811	146.70	55F4815	119.80	55F4819	150.00	55F4823	123.00	55F4827	153.15
DC MILLIAMMETERS												
0-1	55F769	111.90	55F770	142.20	55F2465	115.20	55F771	145.50	55F772	118.50	55F773	148.80
DC MILLIVOLTMETERS												
0-50	55F774	112.20	55F775	142.50	55F2466	115.50	55F776	145.80	55F777	118.80	55F778	149.10
AC AMMETER												
0-5	....	....	....	....	55F781	127.05	55F782	157.35	....	....	....	....

SEGMENTAL VOLTMETERS (Expanded Scale 100-130 AC Volts)

Model 1347C



Model 1349C



Model 49C

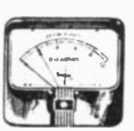
Units used primarily in monitoring AC line voltages. Operating Frequency: 20-2000 cps. Accuracy: ±.5% of center scale value at 25°C, and 60 cps sine wave. Sen.: 160 to 100 ohms/volt end scale values. Decreases as voltage increases. Av. Shpg. wt., 1 lb.

Stock No.	Scale Length	1-9	10-24	25-49	50-up
MODEL 1347C—3½" RECT. WIDE VIEW					
55F1006	3 14"	54.45	49.50	46.28	43.56
MODEL 1349C—4½" RECT. WIDE VIEW					
55F2659	3 93"	54.75	49.28	46.54	43.80
MODEL 49C—4½" RECT. STANDARD					
55F1007	3.5"	54.45	49.50	46.28	43.56

MULTI-RANGE MODEL 1349

Stk. No.	Model	Scale Length	1-9	10-24	25-49	50-up
55F245	1349	3.93"	67.65	60.89	57.50	54.12

FRONT ADJUSTABLE METER RELAYS SINGLE CONTACT TYPE MODEL 29XA



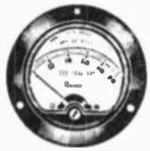
D'Arsonval Type Relays. Externally adjusted limit setting contacts are non-lock and intended for circuits w/external lock provisions or for light duty non-lock applications. Accuracies: ± 2% of full scale. Contacts: Gold Alloy. For use @ 15VDC, 10ma max., on resistive or diode protected inductive loads. Size: 2.75" D., body, 5" L. Av. shpg. wt. 1 lb.

Stk. No.	Range	Description	Ohms	1-9	10-24	25-49	50-up
55F2653	0-50	DC Microammeter	5200	58.95	53.06	50.11	47.16
55F2654	0-100	DC Microammeter	1800	56.40	50.76	47.94	45.12
55F2655	0-200	DC Microammeter	1000	52.80	47.52	44.80	42.24
55F2656	0-500	DC Microammeter	280	52.05	46.85	44.24	41.64
55F2657	0-1	DC Milliammeter	140	50.85	45.77	43.22	40.68
55F2658	0-50	DC Millivoltmeter	10	51.00	45.90	43.35	40.80

LABORATORY QUALITY "JEWELED BEARING" PANEL METERS

Model 27

Model 29



Model 25

All DC meters have the Simpson self-shielded movement (Calibration not affected by stray magnetic fields or magnetic mounting.) *External Multipliers, Model 183, are furnished on 3½" and 4½" DC meters 1000 volts and higher. All others are self-contained. DC ammeters are self-contained for ranges up to and including 50 amperes. † Higher ranges DC ammeters (50MV) listed are calibrated for 5 ft. leads and require external shunts. Accuracy: ±2% of full scale; Scale Length: Model 25 & 27—2.5" (63.7mm), Model 29—3.9" (99.0mm). Average shpg. wt. 1 lb.

DC VOLTMETERS SELF SHIELDED MOVEMENT

Range	Model 27 3½" Rect.	Model 25 3½" Rnd.	1-9	10-24	25-49	50-Up	Model 29 4½" Rect.	1-9	10-24	25-49	50-Up
0-5	55F039	55F1010	18.90	17.01	16.07	15.12	55F167	20.70	18.63	17.60	16.56
0-10	55F041	55F1012	18.90	17.01	16.07	15.12	55F168	20.70	18.63	17.60	16.56
0-15	55F042	55F1013	18.90	17.01	16.07	15.12	55F251	20.70	18.63	17.60	16.56
0-25	55F038	55F1014	18.90	17.01	16.07	15.12	55F169	20.70	18.63	17.60	16.56
0-30	55F080	55F1112	18.90	17.01	16.07	15.12	55F145	20.70	18.63	17.60	16.56
0-50	55F043	55F1015	18.90	17.01	16.07	15.12	55F183	20.70	18.63	17.60	16.56
0-100	....	....		....	....	....	55F252	20.70	18.63	17.60	16.56
0-150	55F045	55F1017	18.90	17.01	16.07	15.12	55F170	20.70	18.63	17.60	16.56
0-250	55F046	55F1018	18.90	17.01	16.07	15.12	55F253	20.70	18.63	17.60	16.56
0-300	55F047	55F1019	18.90	17.01	16.07	15.12	55F184	20.70	18.63	17.60	16.56
0-500	55F050	55F1020	19.65	17.69	16.70	15.72	55F185	21.30	19.17	18.11	17.04
0-1000*	55F051	55F1021	24.45	22.00	20.78	19.56	55F186	26.10	23.49	22.18	20.88
0-1500*	55F052	55F1022	24.75	22.28	21.04	19.80	55F187	26.40	23.76	22.44	21.12
0-2000*	55F053	55F1023	25.35	22.82	21.55	20.28	55F254	27.00	24.30	22.95	21.60
0-2500*	55F037	....	25.65	23.09	21.80	20.52	55F200	27.30	24.57	23.21	21.84
0-3000*	55F054	55F1025	25.95	23.36	22.06	20.76	55F255	27.60	24.84	23.46	22.32
0-5000*	55F055	55F1026	26.70	24.03	22.70	21.36	55F201	28.35	25.52	24.10	22.68

DC MICROAMMETERS SELF-SHIELDED MOVEMENT

Range	Model 27 3½" Rect.	Model 25 3½" Rnd.	1-9	10-24	25-49	50-Up	Model 29 4½" Rect.	1-9	10-24	25-49	50-Up
0-50	55F071	55F1031	22.50	20.25	19.13	18.00	55F176	24.30	21.87	20.66	19.44
0-100	55F072	55F1032	20.70	18.63	17.60	16.56	55F177	22.95	20.66	19.51	18.36
0-200	55F073	55F1033	18.90	17.01	16.07	15.12	55F178	20.70	18.63	17.60	16.56
0-500	55F074	55F1034	18.60	16.74	15.81	14.88	55F179	20.10	18.09	17.09	16.08
25-0-25	55F075	55F1035	22.65	20.38	19.25	18.12	55F163	24.45	22.00	20.78	19.56
50-0-50	55F076	55F1036	20.70	18.63	17.60	16.45	55F164	23.10	20.79	19.64	18.48
100-0-100	55F077	55F1037	19.05	17.15	16.19	15.24	55F165	21.00	18.90	17.85	16.80
500-0-500	55F078	55F1038	18.00	16.20	15.30	14.40	55F166	19.05	17.15	16.19	15.24

DC MILLIAMMETERS SELF-SHIELDED MOVEMENT

Range	Model 27 3½" Rect.	Model 25 3½" Rnd.	1-9	10-24	25-49	50-Up	Model 29 4½" Rect.	1-9	10-24	25-49	50-Up
0-1	55F000	55F1040	17.70	15.93	15.04	14.16	55F171	18.90	17.01	16.07	15.12
0-5	55F001	55F1041					55F257				
0-10	55F002	55F1042					55F204				
0-25	....	55F1043	18.15	16.34	15.43	14.52	55F188	19.65	17.69	16.70	15.72
0-50	55F004	55F1044					55F258				
0-100	55F005	55F1045					55F172				
0-150	55F006	55F1046					55F173				
0-200	55F007	55F1047					55F174				
0-250	55F008	55F1048					55F206				
0-300	55F009	55F1049					55F207				
0-500	55F010	55F1050					55F189				
0-1000	55F011	55F1051					55F208				

DC AMMETERS — Self contained Shunt through 50 amps

†Require External Shunt

Range	Model 27 3½" Rect.	Model 25 3½" Rnd.	1-9	10-24	25-49	50-Up	Model 29 4½" Rect.	1-9	10-24	25-49	50-Up
0-1	55F060	55F1055	18.15	16.34	15.43	14.52	55F209	19.65	17.69	16.70	15.72
0-1.5	55F083	55F1115					55F238				
0-2	55F061	55F1056					55F259				
0-3	55F062	55F1057					55F260				
0-5	55F063	55F1058					55F210				
0-10	55F064	55F1059					55F211				
0-15		...					55F239				
0-25	55F065	55F1060					55F261				
0-30	55F4828	55F4829					55F4830				
0-50	55F068	55F1061					55F212				
0-75†	55F085	55F1117					55F240				
0-100†	55F086	55F1118					55F241				
30-0-30	55F066	55F1062	19.20	17.28	16.32	15.36	55F262	18.15	16.34	15.43	14.52
50-0-50	55F067	55F1063	19.20	17.28	16.32	15.36	55F263	18.15	16.34	15.43	14.52

DC MILLIVOLTMETERS SELF-SHIELDED MOVEMENT

Range	Model 27 3½" Rect.	Model 25 3½" Rnd.	1-9	10-24	25-49	50-Up	Model 29 4½" Rect.	1-9	10-24	25-49	50-Up
0-50	55F1000	55F1002	18.00	16.20	15.30	14.40	55F1004	19.65	17.69	16.70	15.72
0-100	55F1001	....	18.00	16.20	15.30	14.40	55F1005	19.65	17.69	16.70	15.72

VOLUME LEVEL METERS

Self Shielding Meter Movement. Type A scale stressing level in VU for monitoring. Imp. is 3900 at "O" V.U. deflection. Average shpg. wt., 1lb.

Stk. No.	Model	Scale	Overall Depth	Overall Width	1-9	10-24	25-49	50-Up
55F160	47	2.6"	3.24"	3.00"	29.55	26.60	25.12	23.64
55F161	142	3½"	2.28"	4.25"	32.10	28.89	27.29	25.68
55F162	142,as above, illum. face				35.10	31.59	29.84	28.08

Simpson Panel Meters

Model 77

WATTMETERS — DYNAMOMETER TYPE

Self contained, dynamometer-type. Measure DC and single-phase AC power to 250 cps. Normally calibrated for non-magnetic panels. Available in magnetic panel calibration. Frequency range of 25-125 cycles. Mount in 2¾" holes. Scale length: 2.3 inches. Accuracy 2% of full scale. Shpg. wt. 1 lb.

MODEL 77—3½" RECTANGULAR METER

Stk. No.	Range	Max. Amps	Max. Volts	1-9	10-24	25-49	50-Up
55F226	0-75	1.0	150	36.90	33.21	31.37	29.52
55F227	0-150	2.0	150				
55F228	0-300	4.0	150				
55F229	0-750	10.0	150				
55F1137	0-600	4.0	300	40.05	36.05	34.04	32.04
55F230	0-1500	10.0	300				
55F1138	0-3000	20.0	300				

MODEL 79—4½" RECTANGULAR METER

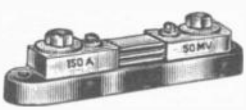
Stk. No.	Range	Max. Amps	Max. Volts	1-9	10-24	25-49	50-up
55F232	0-75	1.0	150	45.90	41.31	39.06	36.72
55F233	0-150	2.0	150				
55F234	0-300	4.0	150				
55F235	0-750	10.0	150				
55F1139	0-600	4.0	300	49.05	44.15	41.69	39.24
55F236	0-1500	10.0	300				
55F1140	0-3000	20.0	300				

3½" ELAPSED TIME PANEL METERS

Widely used by research labs, manufacturing plants, broadcasting stations, etc., to keep life and performance records based on operating time. Meters use self-starting synchronous motors. They indicate up to 99999.9, then recycle and begin again at 00000.0. Model 55-3½" round. Model 57-3½" rectangular. Case depth for all models: 2⁹⁄₁₆".

Stk. No.	Type	Range	1-9	10-24	25-49	50-Up
55F2472	55ET	120V-60	25.35	22.82	21.55	20.28
55F2473	55ET	230V-60	25.65	23.09	21.80	20.52
55F2474	57ET	120V-60	25.35	22.28	21.55	20.28
55F2475	57ET	230V-60	25.65	23.09	21.80	20.52

EXTERNAL PORTABLE SHUNTS FOR DC AMMETERS



Adjusted for a 50 millivolt drop for use with switchboard and panel meters where external shunts are required. Price includes 5" leads. Shpg. wt. 1 lb.

Stk. No.	Mfr's. No.	Amps	1-9	10-24	25-49	50-Up
55F294	6700	1	11.10	9.99	9.44	8.88
55F295	6703	5				
55F264	6704	10				
55F265	6705	15				
55F296	6707	25				
55F297	6708	30				
55F266	6709	50				
55F267	6711	75				
55F2569	6713	100				
55F2570	6715	200				

SWITCHBOARD SHUNTS

Stk. No.	Mfr's. No.	Amps	1-9	10-24	25-49	50-Up
55F268	6500	100	11.10	9.99	9.45	8.88
55F2571	6503	150	12.00	10.80	10.20	9.60
55F2572	6504	200	12.00	10.80	10.20	9.60
55F2573	6506	300	12.00	10.80	10.20	9.60
55F298	6508	500	17.25	15.33	14.66	13.80

CURRENT TRANSFORMERS FOR AC AMMETERS

Inserted one turn primary type for use with switchboard and panel ammeters where external transformers are required.

Stk. No.	Mfr's. No.	Pri.	Sec.	1-9	10-24	25-49	50-Up
55F269	1293	50 amps	5	27.00	24.30	22.95	21.60
55F2575	1306	75 amps	5	19.80	17.82	16.83	15.84
55F270	1297	100 amps	5	16.35	14.72	13.90	13.08
55F2576	1298	150 amps	5	14.55	13.10	12.37	11.64
55F2577	1299	200 amps	5	14.55	13.10	12.37	11.64
55F2578	1300	300 amps	5	16.35	14.72	13.90	13.08
55F2579	1301	500 amps	5	19.80	17.82	16.83	15.84

● NEW ELAPSED TIME METERS

106

105

Give accurate time readout, even under severe conditions of vibration, temperature, and varying voltage. Stop and start positively and quickly to eliminate erros. Operate on 15% low voltage and a temperature as low as —40°C. Shpg. Wt. 1 lb.

Stk. No.	Type No.	Operating Voltage	NET
55F4831	105	120 VAC, 60 Hz.	15.00
55F4832	105	240 VAC, 60 Hz.	15.00
55F4833	106	6 VDC	20.00
55F4834	12 volt adapter for model 106		1.00
55F4835	24 volt adapter for model 106		1.00

● NEW MODEL 183 MULTIPLIER SERIES

AC VOLTS—166 OHMS/VOLT

Stk. No.	Range	Resistance	Drop	Meter Drop	NET
55F4836	0-500	58,333 Ohms	350	150	7.80
55F4837	0-600	75k Ohms	450	150	9.00
55F4838	0-750	100k Ohms	600	150	9.90
55F4839	0-1000	141 666 Ohms	850	150	11.85

DC VOLTS—2000 OHMS/VOLT

Stk. No.	Range	Resistance	Meter Sens. µA	NET
55F4840	0-500	1 Meg	500	6.45
55F4841	0-750	1.5 Meg	500	6.90
55F4842	0-1000	2 Meg	500	6.90
55F4843	0-1250	2.5 Meg	500	6.90
55F4844	0-1500	3 Meg	500	7.35
55F4845	0-2000	4 Meg	500	7.35
55F4846	0-2500	5 Meg	500	7.50
55F4847	0-3000	6 Meg	500	7.50
55F4848	0-4000	8 Meg	500	7.95
55F4849	0-5000	10 Meg	500	8.85

MODEL 29 AND MODEL 3324 4½" PYROMETERS

Model 29

Model 3324

Simpson now presents two versions: Standard bakelite Model 29 and Model 3324 Rugged Seal for extreme conditions. Models compensated for ambient temperature changes and include copper circuit compensation. Also calibrated for use with iron constantan thermocouples. Pyrometers of —150 to +250°F (—100 to +120°C) are calibrated for 5 ohm thermocouple resistance. All other units are calibrated for 10 ohm thermocouple resistance. Furnished with an external adjustable series resistor to permit use of lower resistance thermocouples in the field. Shpg. wt.: ½ lb.

Model 29 Stk. No.	Range °F	Range °C	Sens. MA	1-9	10-24	25-49	50-Up
55F700	—150 to +250	—100 to +120	.20	36.30	32.67	30.85	29.04
55F701	0 to 300	—20 to +150	.20	36.30	32.67	30.85	29.04
55F702	0 to 500	—20 to +260	.35	36.30	32.67	30.85	29.04
55F703	0 to 750	—20 to +400	.30	36.30	32.67	30.85	29.04
Model 3324							
55F704	—150 to ±250	—100 to +120	.20	49.50	44.55	42.08	39.60
55F705	0 to 300	—20 to +150	.20	49.50	44.55	42.08	39.60
55F706	0 to 500	—20 to +260	.35	49.50	44.55	42.08	39.60
55F707	0 to 750	—20 to +400	.30	49.50	44.55	42.08	39.60

THERMOCOUPLES

All thermocouples are iron-constantan, calibrated to 5 or 10 ohms, ±1% per table.

TYPES 21221 and 21224. Iron constantan thermocouple wire in stainless steel overbraid for rugged service application where flexing or abrasion could cause deterioration of standard units. **TYPES 21222 and 21223.** Glass cloth overbraid. Suited for most general purpose use or for permanent mounting in protected sheaths or conduit. Shipping weight: ¼ lb.

Stock No.	Mfr. No.	Resistance	1-9	10-24	25-49	50-Up
55F708	21221	5 ohms	14.10	12.69	11.99	11.28
55F709	21222	10 ohms	4.95	4.46	4.21	3.96
55F710	21223	10 ohms	4.20	3.78	3.57	3.36
55F711	21224	10 ohms	25.65	23.09	21.80	20.52

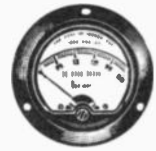
METER MODIFICATION SERVICE

NEWARK can now accept modification orders on most of the Simpson meter listed in this catalog.

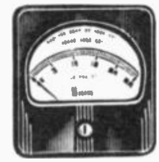
Call or Write your nearest NEWARK office for details.

LABORATORY QUALITY AC INSTRUMENTS

Manufactured to high standards of accuracy to insure long life and excellent performance. All instruments listed below have moving iron vane type movements—no rectifiers are used. Reasonable accuracy with any waveform; with sinusoidal input the accuracy is guaranteed to ± 3% of full scale. External resistors furnished with meters having a range of 500 volts or higher. All models mount in 2¾" holes. Other dimensions same as DC counterparts. Mounting template and hardware furnished with all meters. Average shipping weight, 1 lb.



Model 55



Model 57, 59

AC VOLTMETERS

Range	Model 57 3½" Rect.	Model 55 3½" Rnd.	1-9	10-24	25-49	50-Up	Model 59 4½" Rect.	1-9	10-24	25-49	50-Up
0-1.5	....	....	17.25	15.53	14.66	13.80	55F281	19.35	17.42	16.45	15.48
0-5	55F109	55F1066					55F215				
0-10	55F111	55F1067					55F190				
0-15	55F112	55F1068					55F180				
0-25	55F272	55F1641					....	....	....	....	....
0-50	55F113	55F1069					55F216	19.35	17.42	16.45	15.48
0-150	55F115	55F1071	18.60	16.74	15.81	14.88	55F181	19.65	17.69	16.70	15.72
0-250	55F273	55F1642					....	....	....	....	....
0-300	55F116	55F1072					55F191	19.65	17.69	16.70	15.72
0-500	55F117	55F1073	23.55	21.20	20.02	18.84	55F192	25.20	22.68	21.42	20.16
0-750	55F274	55F1643	25.50	22.96	21.68	20.40	....	....	....	....	....
0-1000	55F275	55F1644	27.30	24.57	23.21	21.84	....	....	....	....	....

AC MILLIAMMETERS

Range	Model 57 3½" Rect.	Model 55 3½" Rnd.	1-9	10-24	25-49	50-Up	Model 59 4½" Rect.	1-9	10-24	25-49	50-Up
0-50	55F100	55F1076	16.50	14.85	14.03	13.20	55F218	19.20	17.28	16.32	15.36
0-100	55F101	55F1077					55F213				
0-250	55F102	55F1078					55F214				
0-500	55F103	55F1079					55F199				

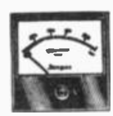
†Require External Transformer

AC AMMETERS

Range	Model 57 3½" Rect.	Model 55 3½" Rnd.	1-9	10-24	25-49	50-Up	Model 59 4½" Rect.	1-9	10-24	25-49	50-Up
0-1	55F130	55F1085	16.50	14.85	14.03	13.20	55F182	19.20	17.28	16.32	15.36
0-1.5	....	....					55F193				
0-2	55F131	55F1086					55F256				
0-3	55F132	55F1087					55F194				
0-5	55F133	55F1088					55F195				
0-10	55F134	55F1089					55F196				
0-15	55F156	55F1119					55F282	19.35	17.42	16.45	15.48
0-25	55F135	55F1090	17.10	15.39	14.54	13.68	55F197	19.65	17.69	16.70	15.72
0-50	55F136	55F1091	17.10	15.39	14.54	13.68	55F219	19.65	17.69	16.70	15.72
0-75†	55F157	55F1120	16.50	14.85	14.03	13.20	55F283	19.20	17.28	16.32	15.36
0-100†	55F158	55F1121	16.50	14.85	14.03	13.20	55F284	19.20	17.28	16.32	15.36

SQUARE RUGGED AND SEALED METERS

Metal cased panel instruments are ideal for use in field test equipment or wherever rigorous environmental conditions are encountered. They are completely sealed, commerically ruggedized, glass window, metal cased and shielded, not affected by steel panel mounting. The movement shielded by steel enclosure will not be affected by magnetic panel materials or stray R.F. Accuracy: ±2% F.S. @ 25° and 60 cy. Sine Wave. For durability and long service life the meters are of metal construction Scale Length: Size 3½"=2.9" (74 mm); Size 4½"=3.9" (101 mm); Size 4"x6"=4.7" (120 mm). Average shpg. wt. 1 lb.

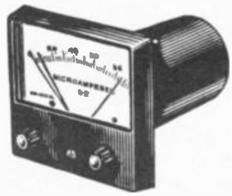


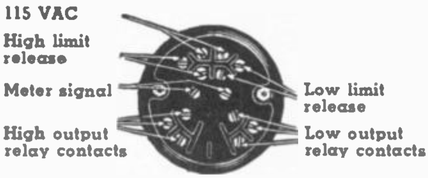
3½", 4½" Models

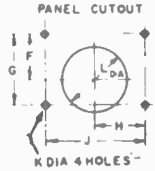
Range	Full Scale Accuracy	Model 3323 3½ Inch					Model 3324 4½ Inch					Model 3326 4x6 Inch				
		Stk. No.	1-9	10-24	25-49	50-Up	Stk. No.	1-9	10-24	25-49	50-Up	Stk. No.	1-9	10-24	25-49	50-Up
0-1.5 DC Volts	2%	55F4034	22.95	20.66	19.51	18.36	55F4053	25.05	22.55	21.29	20.04	55F4072	27.30	24.57	23.21	21.84
0-10 DC Volts	2%	55F4035	22.95	20.66		18.36	55F4054	25.05	22.55		20.04	55F4073				
0-15 DC Volts	2%	55F4036	22.95	20.66		18.36	55F4055	25.05	22.55		20.04	55F4074				
0-25 DC Volts	2%	55F4037	22.95	20.66		18.36	55F4056	25.05	22.55		20.04	55F4075				
0-50 DC Volts	2%	55F4038	22.95	20.66		18.36	55F4057	25.05	22.55		20.04	55F4076				
0-100 DC Volts	2%	55F4039	22.95	20.66		18.36	55F4058	25.05	22.55		20.04	55F4077				
0-500 DC Volts	2%	55F4040	22.95	20.66		18.36	55F4059	25.05	22.55		20.04	55F4078				
0-5 DC Amperes	2%	55F4041	23.40	21.06	19.89	18.72	55F4060	25.35	22.82	21.55	20.28	55F4079	28.05	25.25	23.84	22.44
0-10 DC Amperes	2%	55F4042	23.40	21.06	19.89	18.72	55F4061	25.35	22.82	21.55	20.28	55F4080	28.05	25.25	23.84	22.44
0-1 DC Milliamps	2%	55F4043	22.05	19.85	18.74	17.64	55F4062	24.00	21.60	20.40	19.20	55F4081	26.85	24.17	22.82	21.48
0-100 DC Milliamps	2%	55F4044	23.70	21.33	20.15	18.96	55F4063	25.35	22.82	21.55	20.28	55F4082	28.05	25.25	23.84	22.44
0-50 DC Microamps	2%	55F4045	29.70	26.73	25.25	23.76	55F4064	31.80	28.62	27.03	25.44	55F4083	34.65	31.19	29.45	27.72
0-100 DC Microamps	2%	55F4046	27.00	24.30	22.95	21.60	55F4065	28.95	26.06	24.61	23.16	55F4084	32.10	28.89	27.29	25.68
Range	**Accuracy**	**Model 3343**					**Model 3344**					**Model 3346**				
0-150 AC Volts	2%	55F4047	27.60	24.84	23.46	22.08	55F4066	29.25	26.33	24.86	23.40	55F4085	32.10	28.89	27.29	25.68
0-300 AC Volts	2%	55F4048	27.60	24.84	23.46	22.08	55F4067	29.25	26.33	24.86	23.40	55F4086	32.10	28.89	27.29	25.68
0-1 AC Amperes	2%	55F4049	34.50	31.05	29.33	27.60	55F4068	36.00	32.40	30.60	28.80	55F4087	39.00	35.10	33.15	31.20
0-5 AC Amperes	2%	55F4050	34.50	31.05	29.33	27.60	55F4069	36.00	32.40	30.60	28.80	55F4088	39.00	35.10	33.15	31.20
0-1 AC Milliamps	2%	55F4051	27.30	24.57	23.21	21.84	55F4070	28.95	26.06	24.61	23.16	55F4089	34.50	31.05	29.33	27.60
0-100 AC Microamps	2%	55F4052	28.95	26.06	24.61	23.16	55F4071	30.15	27.14	25.63	24.12	55F4090	32.85	29.57	27.92	26.28

api Meter Relays

COMPACK OPTICAL METER RELAY CONTROLLER

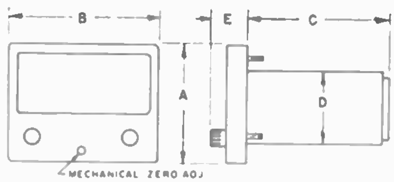






	503-K	603-K
A	4.27 Max.	4.36 Max.
B	4.71 Max.	5.75 Max.
C	5.500 Max.	5.500 Max.
D	2.79 Max.	2.79 Max.
E	1.39 Max.	1.39 Max.
F	2.020 ±.010	2.150 ±.010
G	3.560 ±.005	3.000 ±.005
H	2.00 ±.010	2.625 ±.010
J	4.000 ±.005	5.250 ±.005
K	.161 ±.005	.161 ±.005
L	2.82 ±.01	2.82 ±.01

- Solid state circuitry, fail-safe wiring
- Taut Band movements in most ranges
- Fully continuous reading
- Complete package—no external components
- Unaffected by ambient light
- Gear drive-slip clutch set pointers



CONTROL DESCRIPTIONS

ON-OFF CONTROLS

Models 503-KH (Single set point) and 503-KD (Double set point). Compacks packaged complete with power supply, control circuitry and load relays coupled to an Optical Meter Relay. Screw type terminal connections are at rear of meter barrel. (ill.) All circuit components wired fail safe below set point on KH and between set points on KD. Units easily converted from automatic on-off control to push button reset latching circuit. SPDT relay contacts-load rating: 5 A. resistive at 115 VAC. Dial arc: 4". *Taut Band movement.

‡ AC Load Compack Meter range is 47 Ma AC, matching secondary of current transformers (below). Dial reads 0-150% Load. Operates with any transformer listed. Use to monitor or control by measuring motor lead. Be sure to order appropriate transformer for each unit. Above 50 Amps. two transformers are required; the full load range plus a 5 amp. unit (55F4622) to step down between the large transformer and the meter. Wt. 2 lbs.

ON-OFF TEMPERATURE CONTROL

Models 603-KH (single set point) and 603-KD (double set point). Same circuit description as 503-KH & KD with addition of electrical cold junction compensation, automatic thermocouple break protection & copper error correction. Medium resistance thermocouple actuated pyrometers. Taut Band. Damped against vibration. Dual Fahrenheit-Centigrade mirrored scales. Dial arc 5". Adjustable for thermocouples 0-10 ohms. For control or alarm applications. Wt. 2 lbs.

TIME PROPORTIONING-TEMPERATURE CONTROL

Model 603-KTP. Compensation and Thermocouple break protection same as 603-KH & KD but control circuit provides proportional control from relay output. Ratio of relay on time to "off" time proportional to deviation from set point. PR Band approx. 3%. Time cycle settable to 5, 10, or 15 seconds. Capable of straight line control better than ±1 degree F. Taut Band, damped against vibration. Wt. 2 lbs.

COMPACKS

503-KH SINGLE SET POINT

Stock No.	Range	1-9	10-24	25-49
55F4500	*10 μa DC	139.00	125.10	118.15
55F4501	*50 μa DC	121.00	108.90	102.85
55F4502	*100 μa DC	116.00	104.40	98.60
55F4503	1 ma DC	109.00	98.10	92.65
55F4504	*10 mv DC	120.00	108.00	102.00
55F4505	50 mv DC	111.00	99.00	94.35
55F4506	‡AC load	114.00	102.60	96.90
55F4507	*50 μa AC	126.00	113.40	107.10
55F4508	1 ma AC	113.00	101.70	96.05

503-KD DOUBLE SET POINT

Stock No.	Range	1-9	10-24	25-49
55F4509	*10 μa DC	164.50	147.60	139.40
55F4510	*50 μa DC	146.00	131.40	124.10
55F4511	*100 μa DC	141.00	126.90	119.85
55F4512	*50/0/50 μa DC	141.00	126.90	119.85
55F4513	*5/0/5 μa DC	164.00	147.60	139.40
55F4514	1 ma DC	134.00	120.60	113.90
55F4515	*10 mv DC	145.00	130.50	123.25
55F4516	50 mv DC	136.00	122.40	115.60
55F4517	‡AC load	139.00	125.10	118.15
55F4518	*50 μa AC	151.00	135.90	128.35
55F4519	1 ma AC	138.00	124.20	117.30

TRANSFORMERS FOR AC LOAD COMPACK (‡)—SPECIFY RANGE

Stk. No.	Prim. Range (Amps)	Each
55F4621	3	7.50
55F4622	5	7.50
55F4623	7.5	7.50
55F4624	10	7.50
55F4625	15	7.50
55F4626	25	7.50
55F4627	30	7.50

Stk. No.	Prim. Range (Amps)	Each
55F4628	50	7.50
55F4642	75	17.50
55F4643	100	17.50
55F4644	150	17.50
55F4645	200	17.50
55F4646	250	17.50
55F4647	300	17.50

COMPACKS

Range F°	Range C°	TC	Type	603-KH High set point Stock No.	1-9	10-24	25-49	603-KD Double set point Stock No.	1-9	10-24	25-49
0/300	0/150	I/C	J	55F4520	138.00	124.20	117.30	55F4526	163.00	146.70	138.55
0/500	0/260	I/C	J	55F4521	135.00	121.50	114.75	55F4527	160.00	144.00	136.00
0/750	0/400	I/C	J	55F4522	135.00	121.50	114.75	55F4528	160.00	144.00	136.00
0/1000	0/500	I/C	J	55F4523	135.00	121.50	114.75	55F4529	160.00	144.00	136.00
0/1200	0/650	I/C	J	55F4648	135.00	121.50	114.75	55F4649	160.00	144.00	136.00
0/1500	0/800	C/A	K	55F4524	132.00	118.80	112.20	55F4530	157.00	141.30	133.45
0/2500	0/1370	C/A	K	55F4525	132.00	118.80	112.20	55F4531	157.00	141.30	133.45

MODEL 603KTP TIME PROPORTIONING TEMPERATURE CONTROL

Stock No.	Range F°	Range C°	TC	Type	1-9	10-24	25-49
55F4532	0/300	0/150	I/C	J	166.00	149.40	141.10
55F4533	0/500	0/260	I/C	J	164.00	147.60	139.40
55F4534	0/750	0/400	I/C	J	164.00	147.60	139.40
55F4535	0/1000	0/500	I/C	J	164.00	147.60	139.40
55F4536	0/2500	0/1370	C/A	K	161.00	144.90	136.85

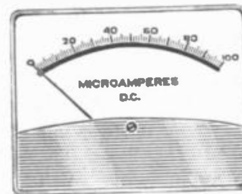
50 MILLIVOLT SHUNTS-COMMERCIAL TYPE

Stk. No.	Amps DC	1-9	10-24	25-49
55F4650	1	15.00	12.75	12.00
55F4651	5	15.00	12.75	12.00
55F4652	10	15.00	12.75	12.00
55F4653	25	15.00	12.75	12.00
55F4654	50	15.00	12.75	12.00
55F4655	75	15.00	12.75	12.00
55F4656	100	15.00	12.75	12.00
55F4657	150	15.00	12.75	12.00
55F4658	250	15.00	12.75	12.00

SUPER CALIBRATED TAUT BAND PANEL METERS

This listing offers the largest available selection of Taut Band meters in two different calibration types: 0.5% Tracking and 1% Accuracy. Choice of 4½ in. or 5½ in size. All have high sensitivity self shielding bar ring movements, Taut Band suspension, frictionless design allows near perfect repeatability. Easily converted from front panel mount to recessed Stylist mount with bezel kit.

STYLIST. Crisp clean lines for easier readings. Panel hides bottom third of meter, increasing dial area.



PANELIST. Features rugged anti-static plastic case. Standard meter dimensions.

TRACKING VS ACCURACY

Most electronic meter applications require better tracking (electrical linearity) instead of full scale accuracy. Tracking is a meter's ability to divide a full scale indication. Example: a 100 micro-amp. 1% tracking meter with a 100 division scale. Used in a VTVM may require 102 micro-amps to indicate full scale. Exactly ½ that full scale indication (51 micro-amps) should put the pointer at 50 divisions ±1 and 25.5 micro-amps at 25 divisions ±1. Tracking is more important in any application where zero or full scale indication is electrically set; tachometers, pH meters, thermistor bridge temp. meters, etc. Meters with good full scale accuracy are used for absolute measurements like volts, amps, thermocouple temp. readings, etc. 502-1 & 602-1 are 1% accuracy. 502-II and 602-II are 0.5% tracking, 2% accuracy. All have mirrored scales and knife edge pointers.

METER DIMENSIONS

Model	Height	Width	Barrel Dia.	Barrel Depth	Model	Height	Width	Barrel Dia.	Barrel Depth
502	4.15"	4.60"	2.79"	1.85"	503	4.27"	4.71"	2.79"	1.86"
602	4.25"	5.62"	2.79"	1.85"	603	4.36"	5.75"	2.79"	1.86"

PANELIST—.5% TRACKING 2% ACCURACY

Range DC	Ohms	502-11	1-9	10-24
10 μa	4300	55F4587	54.50	46.32
20 μa	2900	55F4588	39.50	33.57
50 μa	1000	55F4589	33.50	28.47
100 μa	1050	55F4590	32.00	27.20
5/0/5 μa	4300	55F4591	55.00	46.75
50/0/50 μa	1050	55F4592	32.50	27.62
500 μa	210	55F4593	31.00	26.35
1 Ma	100	55F4594	31.00	26.35
10 MV	40	55F4595	37.00	31.45

Range DC	Ohms	602-11	1-9	10-24
10 μa	4300	55F4596	56.00	47.60
20 μa	2900	55F4597	41.00	34.85
50μa	1000	55F4598	35.00	29.75
100μa	1050	55F4599	33.50	28.47
5/0/5 μa	4300	55F4600	56.50	48.02
50/0/50 μa	1050	55F4601	34.00	28.90
500 μa	210	55F4602	32.25	27.41
1 Ma	100	55F4603	32.25	27.41
10 MV	40	55F4604	38.50	32.72

PANELIST—1% ACCURACY

DC Range	Ohms	502-1	1-9	10-24
10 μa	4300	55F4569	49.50	42.07
20 μa	2900	55F4570	34.50	29.32
50 μa	1000	55F4571	28.50	24.22
100 μa	1050	55F4572	27.00	22.95
5/0/5 μa	4300	55F4573	50.00	42.50
50/0/50 μa	1050	55F4574	27.50	23.37
500 μa	210	55F4575	26.00	22.10
1 Ma	100	55F4576	26.00	22.10
10 MV	40	55F4577	32.00	27.20

DC Range	Ohms	602-1	1-9	10-24
10 μa	4300	55F4578	51.00	43.35
20 μa	2900	55F4579	36.00	30.60
50μa	1000	55F4580	30.00	25.50
100μa	1050	55F4581	28.50	24.22
5/0/5 μa	4300	55F4582	51.50	43.77
50/0/50 μa	1050	55F4583	29.00	24.65
500 μa	210	55F4584	27.50	23.37
1 Ma	100	55F4585	27.50	23.37
10 MV	40	55F4586	33.50	28.47

STYLIST BEZEL KITS

With addition of bezels, Panelist Models 502 and 602 become respectively, Stylist Models 1502 and 1602.

Panel Cutout: 1502 (4.81x2.78") 1602 (5.86x3.14")

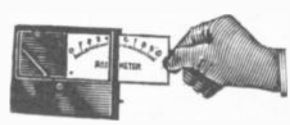
55F4633. Model 1502 ..... **For 502—1, II** **1.25**

55F4634. Model 1602 ..... **For 602—1, II** **1.50**

MOD METER

1% tracking movements in all DC ranges. 2% on AC. Scales slide quickly into a sealed capsule which accurately positions scale and seals the movement from contamination. Makes possible a drastic reduction in meter inventory. Use multiplier resistors, current shunts, or transformers to produce an infinite number of voltmeters and ammeters from just 3 or 4 Mod-Meters. Accepts either plain or mirrored scales, choice below. 47 maAC meter requires use of AC trans. on facing page.

Detailed lettering instructions are enclosed. Meters supplied with 100 division blank scales and will operate with any of scales listed. A lettering kit below allows production of finished scales in 10 minutes. Rugged taut band construction. Black phenolic cases.



Model 503-S

Stock No.	Range	1-9	10-24
55F4666	0-1 MA DC	30.25	25.71
55F4667	500/0/500 μa DC	31.00	26.35
55F4668	0/1/ MA AC	34.50	29.32
55F4672	0/47 Ma AC	31.50	26.77
55F4673	0/100 μa DC	32.00	27.20
55F4674	50/0/50 μa DC	36.50	31.02
55F4675	0/50/ μa DC	35.00	29.75
55F4676	0/10 μa DC	31.50	26.77
55F4677	10/0/10 μa DC	32.00	27.20
55F4669	0/50 MV DC	33.00	28.05
55F4670	50/0/50 MV DC	53.00	45.05
55F4671	0/10 MV DC	39.50	33.57

Model 603-S

Stock No.	Range	1-9	10-24
55F4678	0/1 MA DC	32.00	27.20
55F4679	500/0/500 μa DC	31.50	26.77
55F4680	0/1 MA AC	36.00	30.60
55F4684	0/47 Ma AC	33.00	28.05
55F4685	0/100 μa DC	33.50	28.47
55F4686	50/0/50 μa DC	38.00	32.30
55F4687	0/50 μa DC	36.00	30.60
55F4688	0/10 μa DC	33.00	28.05
55F4689	10/0/10 μa DC	33.50	28.47
55F4681	0/50 MV DC	34.50	29.32
55F4682	50/0/50 MV DC	54.50	46.32
55F4683	0/10 MV DC	40.50	34.42

503-S (SCALES)

Divisions	Stk. No. Plain	1-9	10-24	Stk. No. Mirror	1-9	10-24
40	55F4690	1.50	1.225	55F4700	2.00	1.70
50	55F4691	1.50	1.225	55F4701	2.00	1.70
60	55F4692	1.50	1.225	55F4702	2.00	1.70
70	55F4693	1.50	1.225	55F4703	2.00	1.70
75	55F4694	1.50	1.225	55F4704	2.00	1.70
80	55F4695	1.50	1.225	55F4705	2.00	1.70
100	55F4696	1.50	1.225	55F4706	2.00	1.70
150	55F4967	1.50	1.225	55F4707	2.00	1.70
Blank	55F4968	1.50	1.225	55F4708	2.00	1.70
Arc	55F4699	1.50	1.225	55F4709	2.00	1.70
20/0/20*	55F4740	1.50	1.225	55F4745	2.00	1.70
25/0/25*	55F4741	1.50	1.225	55F4746	2.00	1.70
30/0/30*	55F4742	1.50	1.225	55F4747	2.00	1.70
50/0/50*	55F4743	1.50	1.225	55F4748	2.00	1.70

* For use with O-center meter.

Model 603-S (SCALES)

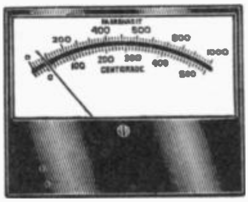
Divisions	Stk. No. Plain	1-9	10-24	Stk. No. Mirror	1-9	10-24
40	55F4710	1.50	1.225	55F4720	2.00	1.70
50	55F4711	1.50	1.225	55F4721	2.00	1.70
60	55F4712	1.50	1.225	55F4722	2.00	1.70
70	55F4713	1.50	1.225	55F4723	2.00	1.70
75	55F4714	1.50	1.225	55F4724	2.00	1.70
80	55F4715	1.50	1.225	55F4725	2.00	1.70
100	55F4716	1.50	1.225	55F4726	2.00	1.70
150	55F4717	1.50	1.225	55F4727	2.00	1.70
Blank	55F4718	1.50	1.225	55F4728	2.00	1.70
Arc	55F4719	1.50	1.225	55F4729	2.00	1.70
20/0/20*	55F4730	1.50	1.225	55F4735	2.00	1.70
25/0/25*	55F4731	1.50	1.225	55F4736	2.00	1.70
30/0/30*	55F4732	1.50	1.225	55F4737	2.00	1.70
50/0/50*	55F4733	1.50	1.225	55F4738	2.00	1.70

* For use with O-center meter.

Russell Ind. Multiple Dial Marking Kit #DM-1. Stk. No. 30F427. NET 4.95

api Panel Meters — Recorders

MODEL 503 PYROMETER 2% ACCURACY



Thermocouple pyrometers are medium resistance, have automatic bi-metal cold junction correction and copper error compensation. External resistor adjusts for varying thermocouple resistance up to 10 ohms. Mirror scale reading in Fahrenheit and Centigrade. I/C is Iron Constantan; Cu/c—Copper Constantan; C/A—Chromel alumel. Knife edge pointers. Dial arc is 4". Phenolic case. See table for dimensions. Shpg. wt.: 1 lb.

Stock No.	Range F°	Range C°	TC	Type	NET
55F4605	—75/+225	—60/+110	I/C	J	36.75
55F4606	0/300	0/150	I/C	J	35.75
55F4607	0/500	0/260	I/C	J	34.00
55F4608	0/750	0/400	I/C	J	34.00
55F4609	0/1000	0/500	I/C	J	33.50
55F4610	0/1500	0/800	C/A	K	33.50
55F4611	0/2000	0/1100	C/A	K	29.50
55F4612	0/2500	0/1370	C/A	K	29.50

MODEL 603-1 PYROMETER 1% ACCURACY

Same as Model 503 but with a larger case, 1% accuracy.

55F4613	0/300	0/150	I/C	J	46 75
55F4614	0/500	0/260	I/C	J	46.75
55F4615	0/750	0/400	I/C	J	46.75

MODEL D-1 PORTABLE PYROMETER

Pocket size thermocouple actuated pyrometers designed for checking laboratory ovens, oil baths, appliances, refrigerators, air conditioners, solder pots, furnaces, etc. Features Taut Band frictionless meter, highy resistant to shock. Mirrored dial reads in F° and C° Movements have bi-metal cold junction correction and copper error compensation. Tough vinyl covered case has aluminum trim (5½x3¾"). Supplied complete with plastic handled chromel constantin needle probe, 3 ft. leads. Shpg. wt.: 1 lb.

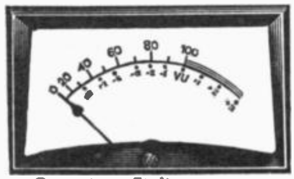
Stock No.	Temperature Range F°	Temperature Range C°	Each
55F4616	—100/+600	—70/+310	47.50
55F4617	0/300	0/150	47.50
55F4618	0/500	0/260	47.50
55F4619	0/750	0/400	47.50
55F4620	0/1000	0/500	47.50

MODEL B PYROMETER

For checking temperature of solder pots, furnaces, ovens, ranges, refrigerators and other asppliances! Meter has rugged taut band movement. Dials calibrated in both Fahrenteit and Centigrade. Sealed phenolic case, mirrored 5" dial with knife pointer, glass kindow. Complete with wood grain case, 5' thermocopule, 8½x6½; wt. 3 lbs.
Thermocouples: Iron Constantan (I/C), Chromel-Constantan (CR/C), and Chromel Alumel (C/A).

Stock No.	Thermo-Couple	Temperature Range F	Temperature Range C	NET
55F4636	I/C	0/300	0/150	53.65
55F4637	I/C	0/500	0/260	52.15
55F4638	I/C	0/750	0/400	57.15
55F4635	Cu/C	—100/1000	—100/500	56.25
55F4640	C/A	0/1500	0/800	57.75
55F4641	C/A	0/2500	0/1370	53.50

STYLIST VU METERS



Model 361 and Model 561. VU Meters, for measuring amplitude of audio signals. Two scales, **Type A** scale; for recording uses. **Type B** scale emphasizing percent modulation for broadcasting. One piece Stylist case mounts thru rectangular panel cutout. Illuminated from behind thru a lucite window at top of case. 6 volt illumination bracket is included. Conforms to ASA C16.5-1954 specs.

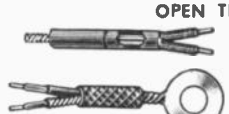
MODEL 361

Stk. No.	Scale	Type	Size	1-9	10-14
55F4662	A	361	3¹¹⁄₃₂" x 1⅞"	31.00	26.35
55F4663	B	361			

MODEL 561

Stk. No.	Scale	Type	Size	1-9	10-14
55F4664	A	561	4¹³⁄₁₆" x 2¾"	30.60	26.00
55F4665	B	561			

OPEN THERMOCOUPLES



5' thermocouples. I/C: Iron & Constantan 20 gauge solid, fiberglass insulated. C/A: Chromel Alumel, 14 gauge ceramic asbestos insulation. Cu/c: Copper-Constantan, 20 gauge, fiberglass insulation.

Stk. No.	Model	Type	Ohms	1-9	10-24
55F4659	2055-12	J-I/C	1.79	3.90	3.30
55F4660	2056-1	T-Cu/c	1.49	3.90	3.30
55F4661	2054-7	K-C/A	0.74	6.00	5.10

● *NEW* MODEL 110 MINIATURE GRAPHIC RECORDER

- **Use Panel Mounting or Portable**
- **Built in Chart Reader**
- **Taut Band**

Model 110. Features frictionless taut band movement inkless, and meter recorder with built in access window, disengageable clutch for intergral chart reading. All units are temperature compensated. Drive design eliminates paper tearing and hangup. Standard chart speed is 1 inch per hour; 63 foot chart provides 31 day record. Optional conversion kits allow higher speeds. Use with shunts multiplier resistors, current transformers for voltage, current readings, 2% D.C. accuracy; 3% on AC. Use portable or panel mounted.

Pyrometer (0/300°F to 0/2500°F) models are thermo couple actuated, have cold junction and copper error compensation. Adjustable for up to 10 ohms, lead resistance 2% accuracy.

Operates on 115 VAC, 3 watts panel cut is 4.375 x 4.06". Size 4¼" wide x 4" high x 7½" deep.

MODEL 110 MINIATURE RECORDERS

Stock No.	Range	1-9	10-24
55F4750	1MA DC	92.00	82.80
55F4751	100MA DC	100.00	90.00
55F4752	10MA DC	118.00	106.20
55F4753	50/0/50MA DC	100.00	90.00
55F4754	50MV DC	95.00	85.50

THERMOCOUPLE

Stock No.	Range	Type	Material	1-9	10-24
55F4755	0/300°F	J	I/C	155.00	139.50
55F4756	0/500°F	J	I/C	145.00	130.50
55F4757	0/750°F	J	I/C	135.00	121.50
55F4758	0/1000°F	J	I/C	135.00	121.50
55F4759	0/2500°F	K	C/A	135.00	121.50

PANEL MOUNTING KIT

Stk. No.	Model No.	Description	Net
55F4760	1125-188	Mounting Kit	12.00

RECORDING PAPER

Stock No.	Paper	Zero Left	Stock No.	Zero Center	Stock No.	Zero Right	NET
55F4768	40 Div	1606-4	55F4771	1606-13	....	....	2.50
55F4769	50 Div	1606-10	55F4772	1606-14	55F4773	1603-3	
55F4769	60 Div	1606-8	....	....	....	....	
55F4770	75 Div	1606-5	....	....	....	....	

Auto Transformers

STACO® INCORPORATED

STACO VARIABLE AUTOTRANSFORMERS

Wide selection of autotransformers designed to deliver variable output voltages with high efficiency, reliability, and minimum maintenance. The optimum core and coil design used in these transformers result in higher current ratings and greater overload capabilities. Units are designed to deliver output voltages of zero to line voltage, or zero to 17% above line voltage. Terminals permit connection for increasing voltage in either clockwise or counterclockwise rotation of knob. Regulation is substantially independent of the load; zero wave form distortion. Moderate temperature rise. Precious metal plating of the commutator surface eliminates oxidation and deterioration. All units are designed for 50/60Hz operation unless otherwise noted. *60Hz only at over-voltage, factory connection for line voltage output. **60Hz operation only.


A


B

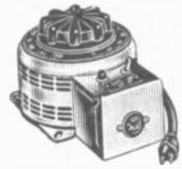

C


D


E


F


G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120 VOLT SINGLE PHASE PANEL MOUNTING

Stk. No.	Type	Old Type #	Fig.	Volts	Amps	KVA	Size	Lbs.	1-6	7-12	13-24	25-49
5F300	121	100BU	A	*0-132	1.25	.165	2 13/16x2 31/32	3	10.00	10.00	8.50	8.00
5F301	171	175BU	A	*0-132	1.75	.23	2 13/16x2 31/32	3	10.25	10.25	8.70	8.20
5F302	251	250BU	A	*0-132	2.5	.33	3¼x3¼x3 15/16	3.5	11.25	11.25	9.55	9.00
5F303	371	375BU	B	*0-120/140	3.75	.53	3¾x3¾x3¼	5	15.75	13.40	13.40	12.60
5F304	501	451	B	0-120/140	5.0	.70	3¾x3¾x3 5/16	5	16.00	13.60	13.60	12.80
5F305	.751	500BU	C	0-120/140	7.5	1.05	5 11/16x5	10	20.00	17.00	17.00	16.00
5F306	1010	1000	D	0-120/140	10.0	1.4	5 5/16x5x4 3/16	11	20.50	17.45	17.45	16.40
5F307	1210	1200	D	**0-120	12.5	1.4	5 5/16x5x4 3/16	11	22.50	19.15	19.15	18.00
5F308	1510	T1500U	E	0-120/140	15.0	2.1	6⅛x6⅝x4⅜	20	38.50	32.75	32.75	30.80

240 VOLT SINGLE PHASE PANEL MOUNTING

Stk. No.	Type	Old Type #	Fig.	Volts	Amps	KVA	Size	Lbs.	1-6	7-24	25-49
5F309	1020	... ...	D	0-240/280	3.5	.98	5 5/16x5x4 3/16	11	23.50	20.00	18.80
5F310	1520	T1520U	E	0-240/280	9.5	2.7	6⅛x6⅝x4 13/16	23	38.50	32.75	30.80

120 VOLT SINGLE PHASE MODELS WITH CORD & RECEPTACLE

All models housed in rugged cases include pilot light, switch, fuse, line cord, plug, and matching receptacle.

2 PF Models are equipped with 2-wire cords, plugs, and receptacles.

3 PN Models are equipped with 3-wire grounded cords, plugs, and receptacles.

Stk. No.	Type	Old Type #	Fig.	Volts	Amps	KVA	Size	Lbs.	1-12	13-24	25.49
5F311	2PF121	PA-1	F	**0-132	1.25	.165	3⅞x3⅞x3½	3.5	18.50	15.75	14.80
5F312	2PF1010	2PF1000	F	0-120/140	10 0	1.4	6⅞x5x4 7/16	12.5	28.50	24.25	22.80
5F326	3PN1010	3PN1000	G	0-120/140	10.0	1.4	5 5/16x5x4 3/16	12	32.50	27.65	26.00
5F313	3PN2210	3PN2500B	H	0-140	22.0	3.0	10¾x7⅝x4⅛	23	79.00	67.15	63.20

240 VOLT SINGLE PHASE MODELS WITH CORD & RECEPTACLE

All models housed in rugged cases include pilot light, switch, fuse, line cord, plug, and matching receptacle.

2 PF Models are equipped with 2-wire cords, plugs, and receptacles.
3PN models equipped with 3 wire cords, plugs and receptacles.

Stk. No.	Type	Fig.	Volt	Amps	KVA	Size	Lbs.	1-12	13-24	25-49
5F314	2PF1020	G	0-280	3.5	.98	6⅞x5x4 7/16	12.5	33.00	28.05	26.40
5F327	3PN1020	G	0-280	3.5	.98	8⅞x5x4 7/16	12	37.00	31.45	29.60

STACO DELUXE LINE

Exclusive line of variable transformers feature diode-protected meters (to guard against accidental burnout): insulated banana jacks on all metered units: easy to read, bold type facilitates accurate measurements. Positive stops are built into all control knobs to insure against internal damage and to assure no loss of index on the calibrated dials. Circuit breakers are employed to avoid the inconvenience and cost of fuse replacement, with the exception of the E171, which is fused. Enclosures are tamper-proof and movements are accurate within 2%. Pilot lights are provided with each unit at no extra cost. Efficiency is as high as 98%, and under maximum-output-voltage conditions at rated current, better than 5% regulation can be attained. Convenience outlets on most units add versatility to your work area. Conservative ratings allow continuous operation with a 10% to 17% output voltage above input. Available are variable autotransformers for every industrial, classroom, or laboratory application. Ammeter, voltmeter, or wattmeter, or a combination of all these are available. A selector switch is provided for use with dual scale meters to assure greater accuracy in meter readings. All units are supplied with a ventilated case, constructed of extruded aluminum and baked epoxy painted 18-gauge steel. The front panel is aluminum with permanently etched legends. The convenient carrying handle is anodized, rugged extruded aluminum. All units are designed to meet UL and CSA standards of safety.


E1010VAW


E171

Note: Types E501V, E501VA, E501VAW, E1010V, E1010VA, E1010VAW have both a convenience AC and DC output of 10% of the output current rating of the unit. Outputs are available at banana receptacles. EJ401V, EJ901V have 120VDC isolated output at full rated current available at banana receptacles. All convenience outlets provide 120VAC at 10 AMPS minimum.

Stk. No.	Mfr. Type	50/60 Hz Volts Current AC Input	AC Output Volts	Output Amps	Max. KVA	Size	Wt. Lbs.	NET
5F315	E171	120V, 10A	0-132	1.75	.23	5⅞x9 9/16x3⅝	9	25.50
5F316	E501	120V, 10A	0-120/140	5.0	0.7	7⅜x11 13/16x4⅞	13	31.75
5F317	E501V	120V, 10A	0-120/140	5.0	0.7	7⅜x15 7/16x5⅞	15	60.00
5F318	E501VA	120V, 10A	0-120/140	5.0	0.7	11¼x12 9/16x5⅞	19	94.50
5F319	E501VAW	120V, 10A	0-120/140	5.0	0.7	11¼x14 9/16x5⅞	20	156.00
5F320	E1010	120V, 15A	0-120/140	10.0	1.4	7⅜x11 13/16x5⅞	19	40.50
5F321	E1010V	120V, 15A	0-120/140	10.0	1.4	7⅜x15 7/16x5⅞	21	73.20
5F322	E1010VA	120V, 15A	0-120/140	10.0	1.4	11¼x12 9/16x5⅞	24	114.00
5F323	E1010VAW	120V, 15A	0-120/140	10.0	1.4	11¼x14 9/16x5⅞	25	184.00
5F324	EJ401V	120V, 10A	0-140*	4.0	.56	9½x12 15/16x6⅜	30	89.50
5F325	EJ901V	120V, 10A	0-140*	9.0	1.25	11¼x14 9/16x6⅝	36	105.00

Suffix V=Voltmeter; A=Ammeter; W=Wattmeter. (*) Isolated output.

Constant Voltage Transformers

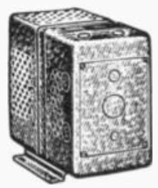


Fig. A


Fig. B

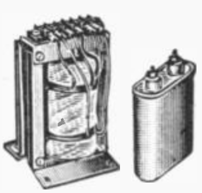
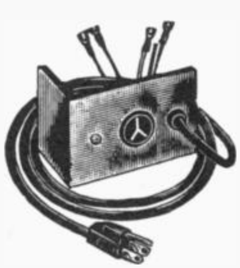


Fig. C


Fig. D


Adapter Kits

CVS HARMONIC NEUTRALIZED TYPE TRANSFORMERS

Contain less than 3% total rms harmonic content in the output. For all AC applications where harmonics can affect operation. Features built-in harmonic neutralizing circuits. No filters required. Regulation is ±1% for an input range of ±15% of nominal voltage. (*) 95-130/175-235/190-260. (**) 190-260/380-520. (***) an input range of 95-130/190-260. (†) 95-130.

60 HERTZ SINGLE PHASE

No.	Type	V Out.	VA	Lbs.	Fig.	Adapt.	Size Inches	1-4	5-9	10-49
5F1100	23-13-030-2†	118	30	8	A	d	6 1/8x5 3/16x4	28.35	25.52	24.10
5F987	23-13-060-2†		60	10	A	d	6 13/16x5 3/16x4	33.60	30.24	28.56
5F1102	23-23-060-2**		60	10	A	d	6 15/16x5 3/16x4	36.75	33.08	31.24
5F988	23-22-112-2***		120	14	A	d	8 1/8x5 3/16x4	43.05	38.75	38.59
5F1103	23-23-112-2**		120	14	A	d	8 1/8x5 3/16x4	46.20	41.58	39.27
5F943	23-22-125***		250	28	A	b	9 5/8x7 7/16x5 3/8	58.80	52.92	49.98
5F1104	23-23-125**		250	29	A	b	9 5/8x7 7/16x5 3/8	63.00	56.70	53.55
5F944	23-22-150***		500	45	A	c	12 7/16x6 7/16x9 1/16	91.35	82.22	77.65
5F1105	23-26-150**	118/236	500	46	A	c	12 7/16x6 7/16x9 1/16	97.65	87.89	83.00
5F467	23-25-175*		750	54	A	c	16 13/16x6 7/16x9	126.00	113.40	107.10
5F945	23-25-210*		1000	72	A	...	17 7/8x6 7/16x9	153.30	137.97	130.31
5F1106	23-26-210**		1000	72	A	....	17 7/8x6 7/16x9	153.30	137.97	130.31
5F468	23-25-215*		1500	128	B	...	9 5/16x9 1/32x10 11/16	204.75	184.28	174.04
5F993	23-25-220*		2000	140	B	....	19 7/8x9 1/32x10 11/16	278.25	250.42	236.51
5F1107	23-26-220**		2000	148	B	....	19 7/8x9 1/32x10 11/16	278.25	250.43	236.51
5F994	23-25-230-3*		3000	194	B	....	21 7/8x9 1/32x10 11/16	373.80	336.42	317.73
5F1108	23-26-230**		3000	196	B	...	21 7/8x9 1/32x10 11/16	373.80	336.42	317.73
5F1127	23-25-250*		5000	335	B	...	20 13/16x9 1/32x10 11/16	583.80	525.42	496.23
5F1128	23-26-250**		5000	342	B	...	20 13/16x9 1/32x10 11/16	583.80	525.42	496.23
5F469	23-28-275**		7500	502	B	...	20 13/16x9 3/8x11 1/32	867.30	780.57	737.21

50 HERTZ SINGLE PHASE

No.	Type	V Out.	VA	Lbs.	Fig.	Adapt.	Size Inches	1-4	5-9	10-49
5F414	23-13-560-2†	118	60	11	A	d	7 1/4x5 13/16x4	38.85	34.97	33.02
5F415	23-23-560-2**		60	11	A	d	7 1/4x5 13/16x4	42.00	37.80	35.70
5F416	23-22-612***		120	21	A	b	8 3/4x7 7/16x5 3/8	49.35	44.42	41.95
5F417	23-22-625***		250	35	A	c	11 3/16x6 7/16x9	67.20	60.48	57.12
5F418	23-22-650***		500	53	A	c	13x6 7/16x9	105.00	94.50	89.25
5F419	23-25-710*	118/236	1000	120	B	....	18 7/8x9 1/32x10 11/16	176.40	158.76	149.94
5F420	23-25-720*		2000	170	B	....	20 5/8x9 1/32x10 11/16	320.25	288.23	272.21
5F421	23-25-730*		3000	227	B	....	26 1/16x9 1/32x10 11/16	429.25	386.33	364.86

400 HERTZ SINGLE PHASE

No.	Type	V Out.	VA	Lbs.	Fig.	Adapt.	Size Inches	1-4	5-9	10-49
5F1109	43-13-060†	118	60	5	C	....	5 3/4x3 3/8x2 3/4	42.00	37.80	35.70
5F1110	43-13-112†		120	7	C	....	5 3/4x3 3/8x2 3/4	57.75	51.98	49.09
5F1111	43-13-125†		250	11	C	...	7 13/16x4 5/8x3 3/4	78.75	70.88	66.94
5F1112	43-13-150†		500	13	C	...	7 13/16x4 5/8x3 3/4	98.70	88.83	83.90
5F1113	43-13-210†		1000	20	C	....	8 5/8x6x5	133.35	120.02	113.35

ELECTRONIC POWER TYPES

Available in electronic-power component types providing a regulated source of plate and filament voltages. The CVF series provides 6.0 or 6.3 volts of output regulated within ±1% over line variations of ±15%. The series CVE series, a combination of the plate and filament types, regulates within ±3%. Both series, which include filaments with stabilized voltage supplies, operates reliably, feature long component life, and need less servicing than competitor's materials. Fig. D.

CVE PLATE — FILAMENT SERVICE 60 HERTZ

Stk. No.	Type	Rectifier Tube	D.C. Input V to filter	Filament Windings 6.3	Filament Windings 5.0 V	Volt Range	Lbs.	Dimensions Inches	1-4	5-9	10-49
5F486	7104	5Y3	275v D.C. @ 50 M.A.	2.5 amps C.T.	2A	100-130	6	3 1/8x4 13/16x3 3/16	14.04	12.64	11.23
5F487	7106	5Y3	385v D.C. @ 110 M.A.	3.0 amps C.T.	2A	100-130	8	3 1/8x4 13/16x3 15/16	17.28	15.55	13.82
5F488	7107	5U4	380v D.C. @ 250 M.A.	No. 1:40 amps No. 2:80 amps unregulated	3A	100-130	19	4 1/2x7x4 7/8	32.40	29.16	25.92

50 HERTZ

Stk. No.	Type	Rectifier Tube	D.C. Input V to filter	Filament Windings 6.3	Filament Windings 5.0 V	Volt Range	Lbs.	Dimensions Inches	1-4	5-9	10-49
5F489	71B04	5Y3	175v D.C. @ 50 M.A.	2.5 amps C.T.	2A	100-130	6	3 1/8x4 13/16x3 5/16	16.20	14.58	12.96
5F490	71MB04					180-250	6	3 1/8x4 13/16x3 5/16	16.20	14.58	12.96
5F491	71B06		385v D.C. @ 110 M.A.	3.0 amps C.T.	2A	100-130	10	3 1/8x4 13/16x4 5/16	19.44	17.50	15.55
5F492	71MB06					180-250	10	3 1/8x4 13/16x4 5/16	19.44	17.50	15.55

CVF — FILAMENT SERVICE 60 HERTZ

Stk. No.	Type	Voltage Rating Reg. Out.	Voltage Rating Input Range	Out. Cap. amps	VA	Wt. Lbs.	Dimension Inches	1-4	5-9	10-49
5F973	20-01-015	6.0V	95-130	2.50	15	4	4 5/8x3 1/2x2 5/8	16.80	15.12	14.28
5F717	20-06-015	6.0V	95-130	2.50	15	3	2 11/32x4 3/16x2 7/16	15.75	14.18	13.39
5F974	20-03-015	6.3V	95-130	2.38	15	4	4 5/8x3 1/2x2 5/8	16.80	15.12	14.28
5F482	20-02-015	6.3V	95-130	2.38	15	4	2 7/16x4 3/4x3 3/8	23.10	20.79	19.64
5F718	20-04-015	6.3V	95-130	2.38	15	3	2 11/32x4 3/16x2 7/16	15.75	14.18	13.39
5F976	20-04-030	6.3V	....	5.0	32	6	3 1/8x4 13/16x3 1/8	17.85	16.07	15.17
5F977	20-04-065	6.3V	95-130X	10.0	63	8	3 1/8x4 13/16x3 11/16	23.10	20.79	19.64
5F978	20-04-095	6.3V	190-260	15.0	95	11	3 1/8x4 13/16x4 11/16	27.30	24.57	23.21
5F980	20-04-116	6.3V	......	25.0	158	23	4 1/2x7x5 11/16	39.90	35.91	33.92

50 HERTZ

Stk. No.	Type	Voltage Rating Reg. Out.	Voltage Rating Input Range	Out. Cap. amps	VA	Wt. Lbs.	Dimension Inches	1-4	5-9	10-49
5F483	20-02-515	6.3V	95-130	2.38	15	4	4 5/8x3 1/2x2 5/8	18.90	17.01	16.07
5F484	20-04-530	6.3V	95-130X190-260	5.0	32	7	3 1/8x4 13/16x3 5/16	21.00	18.90	17.85
5F485	20-04-565	6.3V	95-130X190-260	10.0	63	9	3 1/8x4 13/16x4 1/16	26.25	23.63	22.31

CORD/RECEPTACLE ADAPTER KITS

Used when input and output receptacle is preferred.

Stk. No.	Type	Circuit	Adapter Code	NET
5F160	999-005	2-wire	b	2.50
5F997	999-019	3-wire	b	3.25
5F161	999-009	2-wire	c	3.75
5F998	999-020	3-wire	c	3.75
5F957	999-104	2-wire	d	3.75
5F958	999-105	3-wire	d	3.75

Transformers & Power Supplies

SOLA ELECTRIC SB
DIVISION OF SOLA BASIC INDUSTRIES

TYPE CVN NORMAL HARMONIC TYPE TRANSFORMERS

CVN type transformers provide the same ±1% regulation as the sinusoidal series. Contain an average of 20% rms harmonic content and are especially recommended for electrical loads not affected by harmonics, such as solenoids, relays, filaments, and where rectification is required. †indicates 95-130. (*) indicates 95-130/175-235/190-260. (**) indicates an input voltage of 190-260/380-520. (***) indicates 95-130/190-260. (††) indicates 190-260.

60 HERTZ

Stock No.	Type	Output Volts	Cap VA	Dimensions Inches	Adapter Kit Code	Fig.	lbs.	1-4	5-9	10-49
5F989	20-10-015†	118	15	4 5/8x3 1/2x2 5/8	....	C	4	16.80	15.12	14.28
5F470	20-11-015†	118	15	2 7/16x4 3/4x3 3/8	...		4	23.10	20.79	19.64
5F719	20-14-015†	118	15	2 11/32x4 5/16	....	A	3	15.75	14.18	13.39
5F953	20-14-030†	118	30	2 11/32x4 5/16	...	A	5	17.85	16.07	15.17
5F981	20-13-030-2†	118	30	5 7/8x5 3/16x4	d	D	7	23.10	20.79	19.64
5F982	20-13-060-2†	118	60	6 11/32x5 3/16x4	d	D	10	28.35	25.52	24.10
5F954	20-14-060†	118	60	3 1/8x4 13/16	.	A	8	24.15	21.74	20.53
5F955	20-14-112†	118	120	3 1/8x4 13/16	..	A	11	32.55	29.30	27.67
5F983	20-13-112-2†	118	120	7 3/8x5 3/16x4	d	D	12	37.80	34.02	32.13
5F471	20-21-112-2††	236	120	7 3/8x5 3/16x4	d	D	13	37.80	34.02	32.13
5F984	20-13-115†	118	150	8 3/4x7 7/16x5 3/8	b	D	22	45.15	40.64	38.38
5F472	20-22-125***	118	250	11 1/16x6 7/16x6 15/16	c	D	25	55.65	50.09	47.30
5F473	20-23-125**	118	250	11 1/8x6 7/16x6 15/16	c	D	25	55.65	50.09	47.30
5F474	20-22-150***	118	500	12 5/16x6 7/16x6 15/16	c	D	36	87.15	78.44	74.08
5F477	20-26-150**	118x								
		236	500	12 5/16x6 7/16x6 15/16	c	D	37	93.45	84.11	79.43
5F479	20-22-210***	118	1000	15 1/8x6 7/16x6 15/16	.	D	48	144.90	130.41	123.17
5F990	20-25-220*		2000	20x9 1/32x10 11/16	..	B	128	263.55	237.20	224.02
5F991	20-25-230*	118x	3000	22x9 1/32x10 11/16	..	B	170	357.00	321.30	303.45
5F720	20-27-250**	236	5000	21x12 5/8x14 3/8	.	B	290	555.45	499.91	472.13
5F480	20-26-310**		10000	21x29 7/16x14 3/8	..		590	1048.95	944.06	891.61

50 HERTZ

Stock No.	Type	Output Volts	Cap VA	Dimensions Inches	Adapter Kit Code	Fig.	lbs.	1-4	5-9	10-49
5F266	2J-10-515†	118	15	4 5/8x3 1/2x2 5/8	..	C	5	18.90	17.01	16.07
5F481	20-13-530-2†	118	30	6 5/32x5 3/16x4	d	D	6	26.25	23.63	22.31
5F267	20-14-530†	118	30	3 1/8x4 13/16x	.	A	6	21.00	18.90	17.85
5F268	20-13-560-2†	118	60	6 9/16x5 3/16x4	d	D	11	32.55	29.30	27.67
5F269	2J-14-560†	118	60	3 1/8x4 13/16x	.	A	9	27.30	24.57	23.21
5F270	2J-13-612†	118	120	8 3/4x7 7/16x5 3/8	b	D	22	43.05	38.75	36.59
5F271	20-13-615†	118	150	9 1/16x7 7/16x5 3/8	b	D	25	51.45	46.31	43.73
5F273	20-22-625***	118	250	11 7/16x6 7/16x6 15/16	c	D	28	64.05	57.65	54.44
5F274	20-23-625-1**	118	250	11 7/16x6 7/16x6 15/16		C	28	64.05	57.65	54.44
5F276	20-22-650***	118	500	12 13/16x6 7/16x6 15/16	c	D	41	99.75	89.78	84.79
5F278	20-26-650**	118x								
		236	500	12 13/16x6 7/16x6 15/16	c	D	42	107.10	96.39	91.04
5F280	20-22-710***	118	1000	18 7/16x9 1/32x10 11/16	-	B	125	166.95	150.26	141.91
5F281	20-25-720*	118x								
		236	2000	20 3/4x9 1/32x10 11/16	..	B	144	303.45	273.11	257.93

FIG. E. FIXED CONSTANT VOLTAGE DC POWER SUPPLIES

Will withstand high transient overload without damage or output voltage drop. Output regulation ±1% or less over 100-130v. input range. 1% repple except 281200 and 281250 which are ½%. Load regulation less than 4% from 20% to full load. Efficiency approx. 75%. Output impedance approx. .5 ohm. Mounted on standard 19x5¼x9¾" rack panel. Input 100-300, 60 hz. AC.

Stock No.	Type	Volts	Amps	VA	Load Regulations 20% F.L.	50% F.L.	PANEL HT.	WT.	1-4	5-9	10-24
5F1114	281513-2	6	10	60	9	7	3½	27	105.00	94.50	84.00
5F152	282123	6	15	90	9	7	5¼	38	115.00	103.50	92.00
5F1115	281514-2	12	5	60	7	5	3½	18	105.00	94.50	84.00
5F153	282124	12	10	120	9	5	5¼	31	120.00	108.00	96.00
5F1116	281515-2	18	5	90	5	4	3½	20	110.00	99.00	88.00
5F155	282125	18	10	180	7	5	5¼	45	145.00	130.50	116.00
5F924	281024-1	24	6	144	5	4	5¼	30	105.00	94.50	84.00
5F156	282126	24	10	240	6	4	5¼	48	125.00	112.50	100.00
5F1117	281203-1	24	15	360	7	5	7	64	155.00	139.50	124.00
5F157	282127	24	25	600	7	5	8¾	72	202.00	181.80	161.60
5F1118	28626	28	8	224	6	4	5¼	42	120.00	108.00	96.00
5F158	282128	28	15	420	7	5	7	55	195.00	175.50	156.00
5F925	281048	48	4	192	3.5	2.5	5¼	32	110.00	99.00	88.00
5F1119	281561	48	10	480	4	2	5¼	48	155.00	139.50	124.00
5F159	282129	48	20	960	4	2.5	8¾	95	250.00	225.00	200.00
5F926	281125	125	2	250	2 5	1.5	5¼	44	125.00	112.50	100.00
5F927	281150	150	2	300	2	1.5	5¼	48	130.00	117.00	104.00
5F928	281200	200	1	200	3	2	5¼	39	110.00	99.00	88.00
5F929	281250	250	1	250	3	2	5¼	45	115.00	103.50	92.00

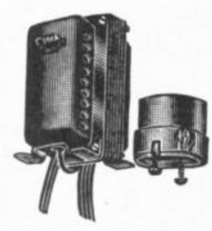


FIG. A


FIG. B


Fig. C


Fig. D

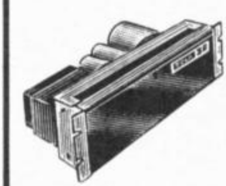


Fig. E

CV MULTI-TAP TRANSFORMER

112 rectifier outputs from one transformer with live regulation of ±1% or less. Eliminates tandem-hook-ups and special transformers for proto-typing, lab work, and short production runs.

A power source to both AC and DC outputs. Typical AC outputs (Regulated): 3.;4,27.2, 24.0, 22.0, 1.4, 36.0, 14.9, 13.4, 12.6, 11.6, 10.8.

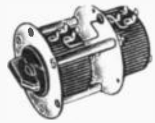
Stock No.	Type	VA RATING	AC Volts	Dimensions	Lbs.	1-4	5-9	10-49
5F964	73-13-040	40	9.3-28.9	4 1/4x6 5/16x3 5/8	6	27.82	25.04	23.65
5F965	73-13-075	75	10.3-30.0	4 1/4x6 9/16x3 5/16	8	36.38	32.74	30.92
5F966	73-13-115	150	10.8-31.4	4 3/4x8 5/8x5 5/8	13	50.29	45.26	42.75
5F967	73-13-122	225	10.1-30.1	5 5/8x9 5/8x4 1/4	18	62.06	55.85	52.75
5F968	73-13-130	300	10.2-30.8	5 1/2x9 5/8x5 3/8	22	72.76	65.48	61.85
5F969	73-13-145	450	9.4-30.2	6 5/8x9 5/8x5	30	100.58	90.52	85.49

Superior Transformers

POWERSTAT VARIABLE VOLTAGE TRANSFORMERS

Type 146-246

Type 10B



Type 10B-2, 12-2

Type 116B, 117B, 216B

Type 21, 22

SERIES 146-246 HIGH-CURRENT VARIABLE TRANSFORMERS

Rated over 4 KVA, constant impedance load. 146 types are for 120VAC. 50/60 cycle input, deliver 30 amps to constant Z loads (35 amps without overvoltage). Type 246. 120 VAC 50/60 Hz input, delivers 15 amps up to 150 V; 240 V input, delivers 19 amps to 240 V. Size: 9$\frac{11}{16}$"wx10$\frac{17}{32}$" deep, except *11" deep. † requires T6053 choke. Feature POWERKOTE coils.

Stk. No.	Type	Volts	Phase	KVA	Lbs.	1-5	6-24	25-99
5F1232	146	0-120	single	4.2	38	98.00	88.20	83.30
5F1234	246	0-240	single	4.6	38	98.00	88.20	83.30

SERIES 10B

Type 2PF10 is encased, all others open. Type 10B is single unit, 10B-2 is two-gang for either 240V, single-phase or 120V, †3-phase operation. 10B-3 is 3-gang, wye connected for 240V, 3-phase operation. *60 cps. #50/60 Hz. All rated 1.75 amps, 2.25 amps when mounted on metal panel except 2PF10 1.0 amp.

Stk. No.	Type	Volts	KVA	Lbs.	Dia. x Lt.	1-11	12-99
5F893	2PF10	0-132*	.132	3.3	3½x3⅜"	21.00	17.85
5F800	10B	0-120#	.27				
		0-132*	.30	2.4	$2\frac{9}{16}$x$2\frac{1}{16}$"	11.00	9.35
Stk. No.	Type	Volts	KVA	Lbs.	Dia. x Lt.	Ea.	2.49
5F775	10B-2	0-240#	.54				
		0-264*	.59				
		0-120#†	.47				
		0-132*†	.51	5.6	3⅞x5⅛"	31.00	26.35
5F724	10B-3	0-240*	.94	8.3	3⅞x8⅛"	50.00	42.50

SERIES 12

Current ratings: (all types) .9a on metal panel, otherwise .75a (constant-Z load); .7a on metal panel, otherwise .5a (constant-current load). Size: same as types 10B, 10B-2, 10B-3 respectively. All are for 250 V 50-2000 Hz input except *480 V.

Stk. No.	Type	Volts	Phase	KVA	1-11	12-99
5F1229	12	0-240	single	0.22	17.00	14.45
					Ea.	2-49
5F1230	12-2	0-480	1-series*	0.43		
		0-240	3-delta	0.37	45.00	38.25
5F1231	12-3	0-480	3-Y*	0.75	71.00	60.35

SERIES 21

Open construction. 21-2 is 2-gang, 21-3 is 3-gang. 120V, single phase except † 120V 3-phase and ‡ 240V 3-phase. 50/60 cycle except #60 Hz. Rating 5 amps (constant-Z local), exc. *4.5A. 16 lbs.

Stk. No.	Type	Volts	KVA	Depth	Dia.	1-5	6-24	25-99
5F809	21	0-120	0.78					
		0-140*	0.63	$4\frac{13}{16}$"	5⅞"	....	16.00	14.40

Shpg. wt. 5F776, 12 lbs.; 5F725, 17 lbs.

Stk. No.	Type	Volts	KVA	Dept.	Dia.	Ea.	2-49
5F776	21-2	0-240	1.6				
	*	0-280	1.3				
		0-120†	1.4				
	*	0-140‡	1.1	9"	5⅞"	45.00	38.25
5F725	21-3	0-240‡	2.7				
	*	0-280‡#	2.2	$12\frac{7}{16}$"	5⅞"	72.00	61.20

22 SERIES POWERSTAT VARIABLE TRANSFORMERS

Zero wave-form distortion, open construction, back-of-panel mounting. Operating frequency: 50-2000 hz. Shpg. wt.; Type 22-2, 12 lbs., Type 22-3, 17 lbs. †1 phase series. *3 phase Open Delta. Δ3 phase Wye. All have POWERKOTE coils.

Stk. No.	Type	Volts	KVA	Depth	Dia.	1-11	12-99
5F895	22	0-240	0.54	$4\frac{13}{16}$"	5⅞"	24.00	21.60
		0-280	0.63				

Stk. No.	Type	Volts	KVA	Depth	Dia.	Each	2-49
5F896	22-2	0-480	†1.1				
		0-560	†1.3				
		0-240	*0.94				
		0-280	*1.1	9"	5⅞"	55.00	46.75
5F897	22-3	0-480	Δ1.9				
		0-560	Δ2.2	$12\frac{7}{16}$"	....	87.00	73.95

SERIES 116B-117B

All 120V input except #240V. "U" types uncased for panel mtg.—all others encased for wall or bench mtg. Types ending in -2 are 2-gang, those ending in -3 are 3-gang. D—Delta-wired, Y—Wye-wired. S—Series-wired. All units are plug-in except those with "T" or "U" suffix, which are for permanent installation. Type NEMA std. 3-blade plug; 2PF or no suffix, std. 2 blade plug; approx. 5½ deep per gang, 4⅝" dia., Series 116B rated 10A, 117B rated 12A, const. curent leads. All 50/60 cps., except 116T-3, 116BU-3 and 117B units, 60 Hz. All models feature POWEFKOTE All above rated 1.8 KVA; all 60 Hz. 12 lbs.

Stk. No.	Type	Volts	Phase	KVA	1-11	12-99
5F801	116B	0-140	1	1.4	29.00	24.65
5F857	3PN116B	0-140	1	1.4	34.00	28.90

Shpg. wt. for 116BT-2, 24 lbs.; 116BT-3, 36 lbs.; 116BU-2, 21 lbs.; 116BU-3, 30 lbs.

Stk. No.	Type	Volts	Phase	KVA	Ea.	2-49
5F777	116BT-2	0-280#	1S	2.8		
		0-240#	1S	2.4		
		0-140	3D	2.4		
		0-120	3D	2.1	69.00	58.65
5F790	116BT-3	0-280#	3Y	4.8		
		0-240#	3Y	4.2	98.00	83.30
5F733	116BU-2	0-280#	1S	2.8		
		0-240#	1S	2.4		
		0-140	3D	2.4		
		0-120	3D	2.1	55.00	46.75
5F736	116BU-3	0-280#	3Y	4.8		
		0-240#	3Y	4.2	77.00	65.45

Stk No.	Type	Volts	Phase	KVA	1-11	12-up
5F807	116BU	0-140		1.4		
		0-120		1.2	21.00	18.90

Shpg. wt. of above: 11 lbs. All single phase.

Stk. No.	Type	Volts	Phase	Lbs.	1-5	6-24	25-99
5F839	117B-T	0-120	1		30.00	27.00	25.50
				12	1-11	12-99	
5F739	2PF117B	0-120	1		34.00	28.90	....
5F740	3PN117B	0-120	1		37.00	31.45	....

All above rated 1.8 KVA; all 60 Hz. 12 lbs.

Stk. No.	Type	Volts	Phase	KVA	Ea.	2-49
5F741	117BT-2	0-240#	1S	3.6		
		0-120	3D	3.1	74.00	62.90
5F742	117BT-3	0-240#	3Y	6.2	104.00	88.40

Above all 60 cps. Shpg. wt. 24 lbs., for 117BT-2; 36 lbs., for 117BT-3.

Stk. No.	Type	Volts	Phase	KVA	1-5	6-24	25-99
5F743	117BU	0-120	1S	1.8	23.00	20.70	19.55

All 60 cps. Shpg. wt., 24 lbs.

Stk. No.	Type	Volts	Phase	KVA	Ea.	2-49
5F746	117BU-2	0-240#	1S	3.6		
		0-120	3D	3.1	60.00	51.00
5F749	117BU-3	0-240#	3Y	6.2	83.00	70.55

All 60 cps. Max. for const.-cur. load KVA shown max for const.-imp. load.

SERIES 216B

"U" types uncased for panel mtg.—all others encased for wall or bench mtg ; KVA shown max. for const.-imp. load. #Max KVA at max. output veltage. **Input 120V. ##Input 240V. ‡Input 480V. All units approx. 6" deep per gang. 4⅝" dia. With POWERKOTE coils. Shpg. wt., 12 lbs.

Stk. No.	Type	Volts	Phase	KVA	1-11	12-99
5F802	216B	0-280##	1	1.2	33.00	28.05
		0-280**	1	#.42	39.00	33.15

Stk. No.	Type	Volts	Phase	KVA	1-5	6-24	25-99
5F872	216B-U	0-280**	1	#.42			
		0-280##	1	.98			
		0-240##	1	.84	25.00	22.50	21.25

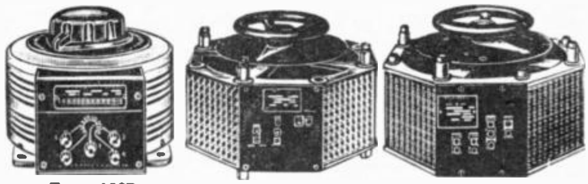
Shpg. wt. 11 lbs.

Superior Variable Transformers

"POWERSTAT" VARIABLE TRANSFORMERS

An autotransformer of toroidal core design with a movable brush-tap riding on the Gold-plated bared portion of the winding.. Delivers from 0 to or above line voltage. Operating temp. rise is less than 50°C above ambient. Special Gold plated plating and polishing process produces a glass-smooth commutator surface which is forever free of oxides.

(F) with fuses in the output brush leads and terminal boards enclosed. Knock-outs in enclosures permit wiring with BX or equivalent. (T) terminal boards enclosed. (2PF) parallel blade plug. (3PN) standard 3-blade plug. (-2) 2-gang. (-3) 3-ganged. Single phase except where otherwise noted. All 136-236 and 1156-1256 units have POWERKOTE coils for greater stability.



Type 136B
Type 236B
Type 1156D
Type 1256D

136B SERIES

22 Amps output except #44A; 120V input except (°) 240V 50/60 hz. except (+) 60.

Stk. No.	Type	Volts	KVA	Lbs.	1-5	6-24	25-99
5F812	136B	0 140	3.1	25			
		0-120	2.6	25	62.00	55.80	52.70

Stk. No.	Type	Volts KVA	Lbs.	1-11	12-99
5F696	2PF136B	Same as 136B	27	80.00	68.00
5F699	3PN136B	Same as 136B	27	80.00	68.00

Stk. No.	Type	Description	Lbs.	1-5	6-24	25-99
5F694	136BT	Same as 136B	26	68.00	61.20	57.80
5F695	F136B	Same as 136B	26	72.00	64.80	61.20

Stk. No.	Type	Volts	Phase	KVA	Lbs.	Ea.	2-49
5F778	136B-2	0-140	1P#	6.2	52	139.00	118.15
		0-120	1P#	5.3	52		
		0-280°	1S	6.2	52		
		0-240°	1S	5.3	52		
		0-140	3D	5.3	52		
		0-120	3D	4.6	52		
5F619	F136B-2	Same as 136B-2			53	164.00	139.40
5F792	136B-3+	0-280°	3Y	10.7	76		
		0 240°	3Y	9.1	76	212.00	180.20

236B SERIES

Max output amps 10 50/60 hz except (°) 60 only.

Stk. No.	Type	Output Inp. V.	V.	Max. KVA.	Wt. Lbs.	1-5	6-24	25-99
5F813	236B	120	0-280	1.2	25			
		240	0-280	2.8	25			
		240	0-240	2.4	25	62.00	55.80	52.70

Stk. No.	Type	Output Inp. V.	V.	Max. KVA.	Wt. Lbs.	1-11	12-99
5F624	2PF236B	.. ..	Same as 236B		27	72.00	61.00

Stk. No.	Type	Description	Wt. Lbs.	1-5	6-24
5F623	F236B	Same as 236B	26	68.00	57.80

Stk. No.	Type	Phase	In. V.	Output Volts	Max. KVA.	Wt. Lbs.	Ea.	2-49
5F782	236B-2	1 series	240	0-560	2.4	52	144.00	122.40
		1 series	480	0-560	5.6	52		
		1 series	480	0-480	4.8	52		
		3 delta	120	0-280	2.1	52		
		3 delta	240	0-280	4.8	52		
		3 delta	240	0-240	4.2	52		

SERIES 1256D

Max. amps. output 28.0 txcept (+) 56.0 50/60 hz all one phase; 1256D-2P Parallel, 1256D-2S series.

Stk. No.	Type	In. V.	Output Volts	Max. KVA	Wt. Lbs.	Ea.	2-49
5F806	1256D	240	0-280	7.8	79	147.00	124.95
5F780	1256D-2P+	240	0-280	15.7	160	325.00	276.25

SERIES 1156D

Max. amps output 50.

Stk. No.	Type	Phase	In. V.	Output Volts	Max. KVA.	Wt. Lbs.	Ea.	2-49
5F808	1156D	1	120	0-140	7.0	79	147.00	124.95
5F779	1156D-2S	1	240	0-280	14.0	152	305.00	259.25
5F794	1156D-3Y	3 WYE	240	0-280	24.2	225	536.00	455.00

PARALLELING CHOKE

Stk. No.	Type	Application	1-5	6-24
5F635	T5000	For 136B-2 and 236B-2	22.00	18.70

Input 240V. ‡ 480V. † Max., const. Imp.

SERIES 217B

Stk. No.	Type	Volts	Phase	KVA	Lbs.	1-5	6-24	25-99
5F681	2PF217B	0-240##	1S	1.2	12	38.00	32.80	
5F856	217BT	0-240##	1S	1.2	12	34.00	30.60	28.90
5F685	217BU	0-240##	1S	1.2	11	27.00	24.30	22.95

Stk. No.	Type	Volts	Phase	KVA	Lbs.	Ea.	2-49
5F683	217B-2	0-480†	1S	3.4			
		0-240##	3D	2.9	24	82.00	69.70
5F684	217B-3	0-480†	3Y	5.4	36	116.00	98.60

TRANSFORMER REPLACEMENT BRUSHES

Stk. No.	Type	Series	1-5	6-24	25-99
5F703	RB-10B	10B	1.50	1.35	1.28
5F704	RB-21	21	1.50	1.35	1.28
5F705	RB-116	116	2.00	1.80	1.70
5F707	RB-216	216	2.00	1.80	1.70

Stk. No.	Type	Series	1-5	6-24	25-99
5F709	RB-1126	1126	4.50	4.05	3.82
5F710	RB-1226	1226	4.50	4.05	3.82
5F711	RB-136	136	2.50	2.25	2.13
5F712	RB-236	236	2.50	2.25	2.13

Stk. No.	Type	Series	1-5	6-24	25-99
5F713	RB-1156	1156	4.50	4.05	3.83
5F714	RB-1156-B	1156C	4.50	4.05	3.83
5F715	RB-1256	1256	4.50	4.05	3.83
5F716	RB-1256-B	1256C	4.50	4.05	3.83

METERED KNOB ASSEMBLIES FOR BACK OF PANEL MOUNTED UNITS

Can be combined with standard cataloged POWERSTAT variable transformers that are designed or adaptable for back panel mounting. Easily adapted for retrofitting existing installations. Large functionally designed knob turns freely while meter remains stationary. Accurate voltmeter insensitive to stray magnetic fields. Consists of metered knob, mounting screws and complete wiring and installation instructions.

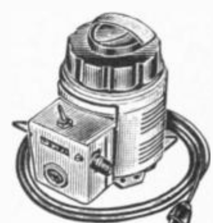
VS150—Where 120 volt duty is required. Has 0-150 meter scale.

VS300—Where 240 volt duty is required. Has 0-300 meter scale.

Stk. No.	Type	1-11	12-99
6F118	VS150	38.00	32.30
6F119	VS300	32.00	27.20

You Can Depend on NEWARK For Complete Stocks — Lowest Prices

METERED KNOB POWERSTAT® VARIABLE TRANSFORMERS



Designed for back-of-panel or general utility mounting. Excellent for use in laboratories, and inspection and test applications where voltage must be controlled without the necessity of installing a separate way of measuring voltage. Have knobs which include a stationary direct-reading voltmeter; Accuracy of ±3% of full scale. 240 volt types have 0-300 volt scales. 120 volt types have 0-150 volt scales.

Stk. No.	Type	Input Volts	Output Volts	Output Constant Current Load Max. Amps	Max. KVA	1-11	12-99
VS116B — VS216B SERIES — 12 LBS.							
6F120	VS116B	120	0-120	10.0	1.2	63.00	53.55
6F121	VS216B	240	0-240	3.5	0.84	67.00	56.95
VS126, VS226 SERIES — 18 LBS.							
6F122	VS126	120	0-120	15	1.8	89.00	75.65
6F123	VS226	240	0-240	7.5	1.8	78.00	66.30
VS136B, VS236B SERIES — 26 LBS.							
6F124	VS136B	120	0-120	22	2.6	114.00	94.31
6F125	VS236B	240	0-240	10	2.4	106.00	90.70

Superior Transformers

POWERSTAT 400/800 HZ TRANSFORMERS


5-1262


5-1264

For high-frequency uses in air-craft, ships, missiles, and in-dustry. Single- and three-phase 400/800 hz, manual and motor-driven air-cooled 28-120-, and 480-v models in 56 VA to 7.3 KVA ratings. Operate at —55° to +40° ambient at full rated load (reducing to +80°C); al-titudes to 50,000 ft.: up to 95% rel. humidity; vibration, shock and inclination per MIL-T-17113; corrosion resistance per QQM-115-A and other military specs. Manual units knob-op-erated, but screw-driver slot method of turning optional for HS and HMQ single phase. Open construction unless specified * enclosed. † indi-cates square frame construc-tion. Specify mtg. when order-ing.

FOR 28, 115, 120- AND 240-VOLT SINGLE-PHASE SERVICE

Stk. No.	Type	Line Volt.	Output Volts	Output Amps.	Wt. Lbs.	1-5	6-24	25-99
5F860	3HS02UK	28	0-28	2.0	0.9	45.00	40.50	38.25
6F152	5-1258	115	0-28	2.5	1.0	91.00	81.90	77.35
6F153	5-1262	115	0-28	8.0	2.0	107.00	96.30	90.95
6F154	5-1264	115	0-5	6.0	1.0	120.00	108.00	102.00
6F155	5-1266	115	0-5	12.0	1.0	128.00	115.20	108.80
5F864	1HS01UK	120	0-120/140	1.0	1.3	40.00	36.00	34.00
6F156	1HMQ03UK†	120	0-120/140	3.0	2.8	48.00	43.20	40.80
6F157	1HMQ07UK†	120	0-120/140	7.5	3.8	54.00	48.60	45.70

FOR 240-VOLT THREE-PHASE SERVICE

Stk. No.	Type	Output Volts	Output Amps.	Wt. Lbs.	NET EACH	2-49
5F878	2HL15UK-3Y	0-240/280	15.0	41.0	295.00	265.50

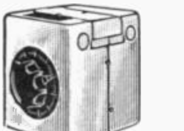
VARIABLE TRANSFORMER WITH ISOLATED SECONDARY

Powerstat type LW-136B is a double wound assembly. The one phase unit can be con-nected for either 120-volt or 240-volt, 50/60 cycle input; source of 0-30 volts isolated output; either a 120-volt or 240-volt line corrector; or either a 120-volt or 240-volt limited range "buck-boost" variable trans-former. The three-phase, three-gang unit can be connected for either 240-volt or 480-volt, 60 hz input or source of 0-60 volts isolated output; either a 240-volt or 480-volt line corrector; or either a 240-volt or 480-volt limited range "buck-boost" variable transformer. Gray enamel finish. Shpg. wt., LW136B—25 lbs. LW136B-3—77 lbs. Features POWERKOTE coils.

MODEL LW136B—FOR 50/60 HZ, 1-PHASE SERVICE

Stk. No.	Line Volt.	Output Volts	Output Amps	KVA	1-5	6-24	25-99
5F881	120	0-30	25	.75	89.00	80.10	75.65
	120	15-0-15	35	.52			
	240	0-30	25	.75			
	240	15-0-15	35	.52			
	120	105-135	35	4.7			
	107-137	120	35	4.2			
	240	225-255	35	8.9			
	226-256	240	35	8.4			

EN TYPE VARIABLE TRANSFORMERS



Deliver continuously adjustable voltage from AC power lines. Wide flexibility in application and mounting position. May be bench, floor, wall, front-of-panel or back-of-panel mounted. Rugged enclo-sures are dust-tight for operator and unit protection but also easily removable for easy inspection. Single units below. 6$^{13}/_{16}$Hx5¾Wx6"D. Wt., 15 lbs.

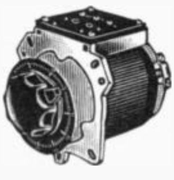
Stk. No.	Mfr. Type	Input V.	Input Freq.	OUTPUT V.	OUTPUT Amp.	OUTPUT KVA	1-5	6-24	25-99
5F835	EN116B	120	50/60	0-140	8	1.1	42.00	37.80	35.70
5F836	EN117B	120	60	0-120	14.5	1.7	44.00	39.60	37.40

MULTI-PURPOSE POWERSTAT

Type 5-1011. Miniaturized for 400/1600 hz, 1 phase service has connections for use as limited range variable transformer, low voltage output variable transformer, and line corrector. As limited ranae vari-able transformer with 115-volt input, may connect for output of 83-113 V, 2.6 amp., 0.29 max. KVA; 98-130 V, 2.6 amp. 0.34 max. KVA; or 116-149 V, 2.6 amp., 0.39 max. KVA. As low voltage output variable trans-former with 115 V, input may connect for an output of 0-26 V, 2.6 amp., 0.068 max. KVA. As line corrector may connect to cor-rect to output of 115 volts, 2.6 amp., 0.30 max. KVA from input of 90-113 volts, 104-133 volts or 117-149 volts. Only 1$^{13}/_{16}$" in dia., 2$^{11}/_{16}$" depth behind panel. Wt., 1 lb.

5F894. NET. **54.00**

40 VOLT POWERSTATS



Meets high current, low voltage power supply applications. Manual type with open construction. Input: 40 V, 60 hz. Output: 0-40 V. POWERKOTE coils.

Stk. No.	Type	Max. Amps.	Max. KVA	1-11	12-99	
5F754	10B-40	7	.28	14.00	11.90	
				1-5	6-24	25-99
5F755	21-40	18	.72	19.00	17.10	16.15
5F756	116BU40	25	1.0	27.00	24.30	22.95

SUPERIOR TYPE UC1MB VOLTBOX


Type UC1MB

Type UC1MB. Voltbox. For AC variable voltage testing up to 10 amps. Has Power-stat, direct reading voltmeter. Input: 120 volts, 50/60 hz. Output: 0-140 volts, 1.4 KVA. Includes renewable fuse, 6-foot cord-plug. Size: 7⅞x8½". Sh. wt., 17 lbs.

Stk. No.	Type	1-5	6-24	25-99
5F820	UC1MB	84.00	75.60	71.40

SUPERIOR POWERSTAT VARIABLE VOLTAGE TRANSFORMERS

Rotation of brush tap delivers a continuously-adjustable volt-age from AC power lines over range from zero to or above line voltage. Manual and motor-driven, open and enclosed air-cooled types are available for 120, 240 and 480 volt, 25, 50/60 cycle, single and three phase service in rating from 1.8 KVA to 2.1 KVA. Current rating available over entire range of output voltage. Zero waveform distortion, negligible main-tenance, gold-alloy plated commutator, excellent regulation, POWERKOTE coils. ††Uncased.

FOR 120 VOLT, 50/60 Hz SINGLE-PHASE

Stk. No.	Mfr's Type	OUTPUT Volts	OUTPUT Amps.	OUTPUT KVA	Wt. lbs.	1-5	6-24	25-99
5F766	126	0-140	15	2.1	15	44.00	39.60	37.40
5F767	126U††	0-140	15	2.1	14.5	39.00	35.10	33.15
5F768	226	0-280	7.5	2.1	15	44.00	39.60	37.40
5F769	226U††	0-280	7.5	2.1	14.5	39.00	35.10	33.15

FLEXIFORMER PACKAGED TRANSFORMER PRIMARY

Model TP150. This transformer is a self-contained toroidal primary coil incased in durable high impact plastic; the cen-ter opening permits hand-winding the proper number of secondary turns for the desired turns ratio. The primary consists of a strip-wound silicon-steel core having a coil of 400 turns of copper wire. Input rating: 120V, 50/60 hz at 150VA. As a current transformer, maximum primary current is 400A. With 5-way binding posts for connections. Size, 6 x 5¾ x 4⅜"; shpg. wt., 6 lbs.

5F770. 1-11 NET **30.00**

12-99 NET **25.50**

Model TP1000. Similar to above, except rated 1000VA at 120V 50/60 hz. Maxi-mum input voltage: 175V, 60c; 145V, 50c.

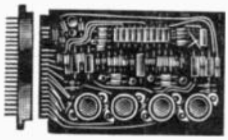
5F645. 1-11 NET **100.00**

12-49 NET **85.00**

SAVE WORK! Make Newark your Complete 1-Point Stock Source!

Superior Regulators & Transformers

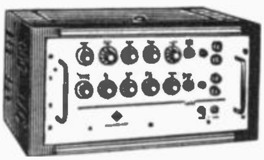
TRANSLATOR MODULES



Plug-in printed circuit board with logic capability for stepping motor in increments of 1.8°. Requires 30V, center-tapped dc supply with max. ripple of 5%. Depending on regulation of power supply, voltage may have to be varied to maintain rated voltage to motor. The units can be triggered by a 10-15 V negative change of voltage with min. pulse width of 50 msec. Input imped. 500Ω. STM1800V is similar to STM1800 but with built-in oscillator adjustable to drive motor to speeds from 4 steps/sec. up to max. motor speed. Dropping resistors are needed with all motors. Shpg. wt. 1 lb.

Stock No.	Type Number	Each
5F750	STM1800	65.00
5F751	STM1800V	75.00

SLO-SYN PRESET INDEXERS



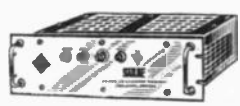
2SP1800-4

2SP1800B-4

SLO-SYN Preset Indexers are used for controlling indexing operations in applications using bifilar SLO-SYN motors for positioning. They automatically provide correct switching sequence needed to drive motors the required number of steps and have provisions for actuating external equipment needed to perform related operations. Dials on control panel can be set to provide desired number of steps. May be operated in any ambient temp. from 0°C to +40°C. Dropping resistor required. Shpg. wt. 19 lbs. except * 63 lbs. and † 64 lbs.

Stk. No.	Type	Count Range	Input Amp.	Each
5F752	SP1800B-3	0-999	1.25	780.00
5F753	SP1800B-4	0-9,999	1.25	830.00
5F757	SP1800B-5	0-99,999	1.25	895.00
5F758	2SP1800-3*	0-999	1.4	1,250.00
5F898	2SP1800-4†	0-9,999	1.4	1,530.00

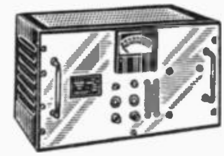
IES SERIES VOLTAGE REGULATOR



Regulates output voltage through controlled firing of inverse parallel pair of SCR's connected in the shunt leg of an autotransformer. Solid state circuitry and smaller, lighter units are featured. No vacuum tubes, motors, blowers or relays are used. Wide operating frequency range: 50 or 60 hz ±10%. Maintains output voltage within 100 millivolt rms band for any combination of input voltage and load current changes and for changes in load power factor from 1.0 to 0 lagging. Distortion will not exceed 3%. Speed of response instantaneous for most applications. Time constant response: 30 milliseconds. Operated at ambient temperatures from 0 to 50°C. Temperature coefficient: 0.01%/°C; output voltage will change 0.01% for a degree C change. Mounted in cabinet. All except Type IES9115 have cabinets which can also be rack mounted by removing the feet. Provisions for remote sensing. Also features a removable plug-in circuit board. High VA efficiency (up to 95%). Includes an overcurrent protection circuit which senses the magnitude of flowing current in SCR leg and removes gate drive from SCR's when current exceeds pre-set magnitude.

Stock No.	Type	Max. Output Amps	Rated Output KVA	Shpg. Wt. Lbs.	Each	2-49
6F126	IES91005	4.4	0.5	57	370.00	314.50
6F127	IES9101	8.7	1.0	72	430.00	365.50
6F128	IES9103	26.1	3.0	136	660.00	561.00
6F129	IES9106	52.2	6.0	181	820.00	697.00
6F130	IES9115	130	15.0	382	1740.00	1479.00
6F131	IES9203	13	3.0	126	750.00	637.50
6F132	IES9206	26.1	6.0	171	860.00	731.00
6F133	IES9215	65	15.0	372	1740.00	1479.00

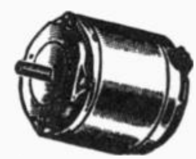
ELECTRO-MECHANICAL TRANSISTORIZED SERIES



Type EMT. Motor driven "Powerstat" variable transformer, detector circuit & auxiliary transformer. No critical adjustments. Operating sensitivity adjustable to within ±1%. 50/60 hz AC service. Cabinet mntg. except rack (*) & wall (**). 1 phase except 3 phase (***).

Stock No.	Type	Max. Output Amps	Rated Output KVA	Shpg. Wt. Lbs.	Each	2-49
6F106	EMT4102B	20.0	2.3	90	495.00	420.75
6F107	EMT4106C	57.0	6.6	135	575.00	488.75
6F108	EMT4106CR*	57.0	6.6	135	550.00	467.50
6F109	EMT4106CW**	57.0	6.6	135	575.00	488.75
6F110	EMT4112B	114.0	13.0	135	575.00	488.75
6F111	EMT4112BR	114.0	13.0	135	550.00	467.50
5F815	EMT4115B	144.0	16.6	300	735.00	624.75
5F819	EMT4207B	36.0	8.3	200	630.00	535.00
5F832	EMT4228C	130.0	29.9	350	790.00	671.50
6F112	EMT6210YB***	33.0	13.1	460	1110.00	943.50
6F113	EMT6220YB***	63.0	25.1	460	1260.00	1071.00
6F114	EMT6245YB***	145.0	57.8	975	1695.00	1440.75

SLO-SYN SYNCHRONOUS/STEPPING MOTORS



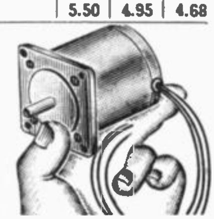
Standard Types. Rugged bi-directional motors that can be used either as AC constant-speed motors or DC stepping motors. Rated for continuous duty at 40°C max. Types with suffix P1, P2, etc. have planetary gear speed reduction assemblies mounted on motor to lower speed and increase torque; assemblies are in dustproof enclosure, employ nylon gears. Types with RC suffix have built-in phase shift network for single-phase operation; other units operate from 2-phase current, require external RC network for 1-phase use (see below for components). Avg. shpg. wt., 6½ lbs.

Stk. No.	Type	Speed (RPM)	Max. Amps	Torque (oz.-in)	1-5	6-24	25-99
6F134	SS25	72.000	0.1	25	52.00	46.80	44.20
6F143	TS50	200.000	0.3	50	69.00	62.10	58.65
6F144	TS52*	200.000	0.2	50	69.00	62.10	58.65
5F847	SS50	72.000	0.3	50	46.00	41.40	34.10
5F849	SS50P1	16.6	0.3	120	69.00	62.10	58.65
6F116	SS50P2	3.32	0.3	600	69.00	62.10	59.65
5F844	SS15C	72.900	0.4	150	55.00	49.50	46.75
5F836	SS150P2	3.323	0.4	2000	78.00	70.20	66.30
5F637	SS150P3	.665	0.4	2000	88.00	79.20	74.80
5F638	SS150P4	.133	0.4	2000	98.00	88.20	83.30
5F639	SS150P5	.027	0.4	2000	108.00	97.20	91.80
5F641	SS150-P2RC	3.323	0.4	2000	100.00	90.00	85.50
5F642	SS150-P3RC	665	0.4	2000	110.00	99.00	93.50

All types above for 120V. 50/60 hz. except *240 V. 50/60 hz.

COMPONENT PARTS FOR SINGLE PHASE AC OPERATION

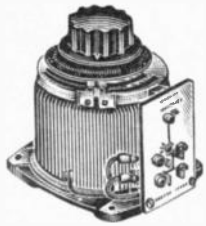
Stk. No.	Type	Description	1-5	6-24	25-99
5F845	R-SS50/SS150	Auxiliary resistor for above 250 ohms 25 watts	1.50	1.35	1.28
5F846	C-SS150	Auxiliary capacitor for above 3.75 mfd. 330 VAC	4.50	4.05	3.83
5F848	C-SS50	Capacitor for SS50 2.6 mfd.	5.50	4.95	4.68



Bifilar Type Synchronous Stepping Motors. Used as a DC stepping device in a wide variety of control functions, automatic and semi-automatic. Maintenance-free; well suited for use in remotely-operated applications, where access for regular servicing is not possible. 200 Steps/Rev. except †72 steps. Avg. shpg. wt., 1½ lbs.

Stk. No.	Type	DC Volts	Amps/Winding	1-5	6-24	25-99
5F1218	SS25-1002	5.9	0.88	82.00	73.80	69.70
5F1219	SS25-1001	11.8	0.44	82.00	73.80	69.70
6F138	TS50-1001†	3.0	4.0	97.00	86.30	82.45
6F139	SS50-1009	5.5	1.3	76.00	68.40	64.60
6F140	SS250-1002	9.0	1.55	105.00	94.50	89.25
6F141	SS250-1027	4.6	3.1	105.00	94.50	89.25
6F142	SS400-1021	5.3	3.4	145.00	130.50	123.25

Voltage Regulation & Control Devices



G-E "VOLT-PAC" VARIABLE TRANSFORMER

Provides continuously adjustable output voltage. Handles short duration current surges up to 10 times rated current and overload current up to 2 times rated current for approximately ¼ hour without overheating. Maximum output currents applicable up to 100% voltage. Core consists of high grade strip wound silicon steel, plus moulded phenolic winding form to insulate coil from form. Types for 50-60 cycles, except (*) for 60 cycles only. Cased units with enclosed terminal boards, plug-and cord-set units, motor-operated units, multiple-core units, three-phase units, and automatic control units are available through Newark.

120V INPUT — UNCASED, SINGLE CORE

All units provide 0-140V overvoltage output except * 0-132V, † no overvoltage, 0-120V only. "Max. amps": output into constant-Z load at or below 120V; at overvoltage "rated" current should not be exceeded. Uncased, with exposed terminals.

Stock No.	Type No.	Max. Amps.	Rated Amps.	Shpg. Wt.	1-9	10-24	25-99	100-Up
5F1000	9T92A1	3.2	2.5	2½	11.00	9.90	8.91	8.03
5F1002	9T92Y5	6.5	4.5	4½	16.00	14.40	12.96	11.68
5F1003	9T92Y7	10.8	7.5	9¾	20.00	18.00	16.20	14.60
5F1007	9T92Y8†	13.0	10.0	9¾	21.00	18.90	17.01	15.33
5F1005	9T92Y9	11.5	9.0	9¾	21.00	18.90	17.01	15.33
5F1008	9T92Y10†	14.5	11.5	9¾	23.00	20.70	18.63	16.79
5F1009	9T92Y27	19.0	15.0	17	39.00	35.10	31.59	28.47
5F1011	9T92Y28	21.7	18.0	17	49.00	44.10	39.69	35.77
5F1025	9T92Y37	34.0	30.0	30	93.00	83.70	75.33	67.89
5F1026	9T92Y38	37.0	37.0	30	114.00	102.60	92.34	83.22
5F1027	9T92Y49	55.0	50.0	60	140.00	126.00	113.40	102.20
5F1028	9T92Y50	60.0	60.0	60	215.00	193.50	174.15	156.95

120/240V INPUT — UNCASED SINGLE CORE

Similar to above. 0-280V overvoltage output. except * 240V input, 0-240V output only.

Stock No.	Type No.	Max. Amps.	Rated Amps.	Shpg. Wt.	1-9	10-24	25-99	100-Up
5F1017	9T92Y12*	5.8	4.0	9¾	25.00	22.50	28.25	18.25
5F1015	9T92Y13	5.0	4.0	9¾	25.00	22.50	20.25	18.25
5F1018	9T92Y14*	6.8	5.0	9¾	26.00	23.40	21.06	18.98
5F1019	9T92Y29	10.1	7.0	17	37.00	33.30	29.97	18.98
5F1021	9T92Y30	11.0	8.5	17	49.00	44.10	39.69	35.77
5F1029	9T92Y39	14.0	14.0	16	93.00	83.70	75.33	67.89
5F1030	9T92Y40	16.0	16.0	30	114.00	102.60	92.34	83.22
5F1031	9T92Y51	33.0	30.0	60	140.00	126.00	113.40	102.20
5F1032	9T92Y52	35.0	35.0	60	215.00	193.50	174.15	156.95

120V INPUT — CASED, SINGLE CORE

Identical to units at left, except enclosed (terminals exposed).

Stock No.	Type No.	Max. Amps.	Rated Amps.	Shpg. Wt.	1-9	10-24	25-99	100-Up
5F1004	9T92Y7G2	10.8	7.5	10½	25.00	22.50	20.25	18.25
5F1006	9T92Y9G2	11.5	9.0	10½	26.00	23.40	21.06	18.98
5F1010	9T92Y27G2	19.0	15.0	18¾	44.00	39.60	35.64	32.12
5F1012	9T92Y28G2	21.7	18.0	18¾	54.00	48.60	43.74	39.42
5F1033	9T92Y37G2	34.0	30.0	30	99.00	89.10	80.19	72.27

240V INPUT — UNCASED, TRIPLE CORE

Similar to units at left, but triple core for tandem or 3-phase operation. 0-280V output; uncased, exposed terminals.

Stock No.	Type No.	Max. Amps.	Rated Amps.	Shpg. Wt.	1-9	10-24	25-99	100-Up
5F1034	9T92Y19	10.8	7.5	30	67.50	63.75	60.00	56.25
5F1035	9T92Y33	19.0	15.0	51	124.20	117.30	110.40	103.50
5F1036	9T92Y34	21.7	18.0	51	157.50	148.75	140.00	131.25

120V INPUT — SINGLE CORE PLUG-IN TYPE

Cord-and-plug input, standard 2-blade socket output, except * output accepts standard grounding plug. Fully enclosed.

Stock No.	Type No.	Max. Amps.	Rated Amps.	Shpg. Wt.	1-9	10-24	25-99	100-Up
5F1037	9T92Y90	10.8	7.5	11	27.00	24.30	21.87	19.71
5F1038	9T92Y86*	10.8	7.5	11	31.00	27.90	25.11	22.63
5F1039	9T92Y91	11.5	9.0	11	28.00	25.20	22.68	20.44
5F1040	9T92Y87*	11.5	9.0	11	33.00	29.70	26.73	24.09

AC VOLTAGE STABILIZERS

Static-magnetic transformer-type units provide voltage maintained within ± 1% while input fluctuates ±15%. Unfiltered output waveform is relatively flat-topped, with 15-20% harmonic content; filtered types provide near-sinusoidal output, maximum harmonic content 3%. All units are for single-phase, 60 cycle AC only; stabilized output 118V except as noted. Completely enclosed, with enclosed terminals, except units rated below 250 V-A have insulated cable leads.

Unfiltered Types. All have 118V output except * 118/236V.

Stock No.	Type	Rated V-A	Input Volts	Wt., Lbs.	1-4	5-9	10-24	25-49
5F1041	9T91Y4070	15	95-130	5	17.30	15.40	14.36	13.49
5F1042	9T91Y4090	30	95-130	6	17.30	15.40	14.36	13.49
5F1043	9T91Y4110	60	95-130	7	22.80	20.29	18.92	17.78
5F1044	9T91Y4130	120	95-130	15	31.40	27.95	26.06	24.49
5F1045	9T91Y4140	250	95-130	24	52.40	46.64	43.44	40.87
5F1046	9T91Y4142	250	190-260	24	52.40	46.64	43.44	40.87
5F1047	9T91Y4150	500	95-130	37	82.20	73.16	68.23	64.12
5F1048	9T91Y4152	500	190-260	37	82.20	73.16	68.23	64.12
5F1049	9T91Y4155	500	380-520	37	82.20	73.16	68.23	64.12
5F1050	9T91Y4170	1000	95-130	55	126.00	112.14	104.58	98.28
5F1051	9T91Y4172	1000	190-260	55	126.00	112.14	104.58	98.28
5F1052	9T91Y4183*	2000	95-130/175-235/190-260	95	253.00	225.17	209.99	197.34
5F1053	9T91Y4184	2000	190-260/380-520	95	249.00	221.61	206.67	194.22

Harmonic Filtered Types. 118V output.

Stock No.	Type	Rated V-A	Input Volts	Wt., Lbs.	1-4	5-9	10-24	25-49
5F1054	9T91Y7140	250	95-130	36	54.00	48.15	44.90	42.20
5F1055	9T91Y7150	500	95-130	43	84.90	75.56	70.47	66.22
5F1056	9T91Y7170	1000	95-130	80	130.00	115.70	107.90	101.40
5F1057	9T91Y7172	1000	190-260	80	130.00	115.70	107.90	101.40

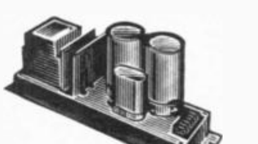
Cord/Receptacle Types. Standard 2-blade plug and cord input, socket output. 118V output.

Stock No.	Type	Rated V-A	Volts Input	Wt. Lbs.	1-4	5-9	10-24	25-49
5F1058	9T91Y4090G19	30	95-130	7	18.90	16.82	15.69	14.74
5F1059	9T91Y4110G19	60	95-130	7	24.20	21.54	20.09	18.88

Filament Types. Current-limiting characteristic protects tube filaments from surges. Unenclosed. Output: 6.3V, unfiltered.

Stock No.	Type	Rated V-A	Input Volts	Wt. Lbs.	1-4	5-9	10-24	25-49
5F1060	9T91Y367	15	95-130	2	14.30	12.73	11.87	11.15
5F1061	9T91Y369	31.5	95-130/190-260	2½	16.30	14.51	13.53	12.71
5F1062	9T91Y370	63	95-130/190-260	3	21.30	18.96	17.68	16.61

REGULATED DC POWER SUPPLIES



Furnish fixed DC output voltage within ± 1% tolerance while input AC voltage varies ± 15%. All units feature rugged magnetic and semiconductor circuitry and are designed for chassis or standard 19" rack mounting. Short-circuit current is limited to approximately twice the rated value. Can be installed with either polarity grounded. Input voltage range: 97-130VAC, 60 cps, 40°C ambient. Output ripple level 1% rms max. Efficiency 70-85% for normal output levels; efficiency may decrease for unusually low output levels.

Stock No.	Type	Output V	Output A	Wt. lbs.	1-4	5-9	10-24
5F1063	9T66Y51	12	5.0	16	140.00	126.00	112.00
5F1064	9T66Y53	12	15.0	25	170.00	153.00	136.00
5F1065	9T66Y987	24	2.5	16	121.00	108.90	96.80
5F1066	9T66Y988	24	6.0	25	143.00	128.70	114.40
5F1067	9T66Y989	24	10.0	28	166.00	149.40	132.80
5F1068	9T66Y990	24	20.0	45	217.00	195.30	173.60
5F1069	9T66Y83	28	8.0	25	159.00	143.10	127.20
5F1070	9T66Y93	48	4.0	25	133.00	119.70	106.40
5F1071	9T66Y94	48	10.0	35	182.00	163.80	145.60
5F1072	9T66Y980	125	2.0	26	143.00	128.70	114.40
5F1073	9T66Y981	150	2.0	28	151.00	135.90	120.80

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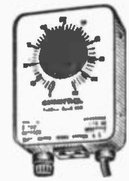
Power Controls and Transformers

OHMITE

● *NEW* OHMITROL SOLID-STATE POWER CONTROLLERS



Power controls are adaptable to a variety of applications because the built-in trimmer sets the starting point of the control voltage anywhere between 0 and 70 volts for 1KW models; 0-200 on 2KW models. Infinitely smooth control is obtained from start to full line voltage. Two-way terminals accept quick connectors or soldering. Output is RFI filtered. Component models mount with 3/8"-32 bushing on aluminum panel for heat sink. Portable models are self-contained. Sizes: component models $1\frac{3}{4}$"sq. x 1" behind panel; portable models: $4\frac{1}{4}$L x $3\frac{1}{4}$W x $1\frac{13}{16}$D. On-Off switch at end of control knob rotation.

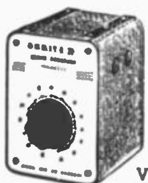
COMPONENT MODELS

Stock No.	Type No.	Input 60 Hz	Trimmer Range	Output	1-9	10-24	25-Up
5F162	PCA-1000	120 VAC	0 - 70 V.	0-120 VAC	17.14	15.43	13.71
5F163	PCA-1020	240 VAC	0 - 200 V.	0-240 VAC	22.40	20.16	17.92
5F164	PCD-1000	120 VAC	0 - 70 V.	0-120 VDC pulsating	31.84	28.66	25.47
5F165	PCD-1020	240 VAC	0 - 200 V.	0-240 VDC pulsating	36.70	33.30	29.36

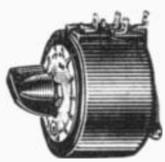
PORTABLE MODELS

Stock No.	Type No.	Input 60 Hz	Trimmer Range	Output	1-9	10-24	25-Up
5F166	PCA-1001	120 VAC	0 - 70 V.	0-120 VAC	25.36	22.83	20.29
5F167	PCA-1021	240 VAC	0 - 200 V.	0 240 VAC	32.56	29.30	20.05
5F168	PCD-1001	120 VAC	0 - 70 V.	0-120 VDC pulsating	42.56	39.30	34.05
5F169	PCD-1021	240 VAC	0 - 200 V.	0-240 VDC pulsating	48.40	43.56	38.72

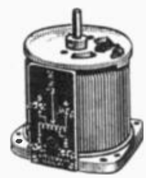
"V.T." VARIABLE TRANSFORMERS



VT02E in Case



VT1, VT02, VT3



VT8

VT4

VT20

Six sizes for a wide range of electrical ratings. Deliver full rated current at any brush setting. Have overvoltage feature, except those marked "No Overvoltage", and high-current low-voltage to meet transistorized power supplies and high current applications.
All units single phase except Two-in-Tandem. All may be used to over 400 hz. Screw terminals and solder lugs on all models except types VT1, VT02, and VT3 which have solder lugs and accept push on connectors and have 3/8-32 threaded bushings for single mount. Shafts may be extended from the brush or base side. VT20 has a collet shaft lock for repositioning without scoring shaft. Dials on overvoltage models calibrated for overvoltage and normal line connection. Knob, dial mounting hardware supplied.

SINGLE TRANSFORMERS—UNCASED

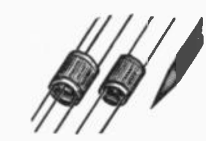
Stk. No.	Type	Input Volts	Hz	Max. Out Amps	Max. Out Volts	Description	Size	Wt. Lbs.	1-9	10-24	25-49	50-99
5F562	VT1	120	60	1.0	0-120/132	Basic 1.0A model	$2\frac{7}{8}$"D.x$2\frac{11}{16}$"L.	1.5	9.00	8.10	7.65	7.20
5F563	VT1N	120	60	1.2	0-120	No overvoltage	$2\frac{7}{8}$"D.x$2\frac{11}{16}$"L.	1.5	9.00	8.10	7.65	7.20
5F650	VT02	120	60	1.75	0-120/132	Basic 1.75A model	$2\frac{7}{8}$"D.x$3\frac{5}{16}$"L.	2.25	10.00	9.00	8.50	8.00
5F570	VT02N	120	60	2.0	0-120	No overvoltage	$2\frac{7}{8}$"D.x$3\frac{5}{16}$"L.	2.25	10.00	9.00	8.50	8.00
5F571	VT2LN	40	60	5	0-40	Hi-amps, Low-volts	$2\frac{13}{16}$"D.x3"L.	2.4	12.25	11.03	10.41	9.80
5F586	VT3	120	60	2.6	0-120/132	Basic 2.6A model	$2\frac{7}{8}$"D.x$3\frac{11}{16}$"L.	3.0	11.50	10.35	9.78	9.20
5F587	VT3N	120	60	3.0	0-120	No overvoltage	$2\frac{7}{8}$"D.x$3\frac{11}{16}$"L.	3.0	11.50	10.35	9.78	9.20
5F651	VT4	120	50	3.5	0-120/140	Basic 3.5A model	$3\frac{9}{16}$"D.x$4\frac{13}{16}$"L.	5.25	15.00	13.50	12.75	12.00
5F572	VT4LN	40	50	12.0	0-40	High-amps, Low-volts	$3\frac{9}{16}$"D.x$4\frac{13}{16}$"L.	5.25	17.25	15.53	14.66	13.80
5F577	VT4N	120	50	4.75	0-120	No overvoltage	$3\frac{9}{16}$"D.x$4\frac{13}{16}$"L.	5.25	15.00	13.50	12.75	12.00
5F652	VT8	120	50	7.5	0-120/140	Basic 7.5A model	$4\frac{7}{8}$"D.x$5\frac{11}{16}$".	10.25	20.00	18.00	17.00	16.00
5F573	VT8LN	40	50	22	0-40	High-amps, low-volts	$4\frac{7}{8}$"D.x$5\frac{11}{16}$".	10.25	22.25	20.03	18.91	17.80
5F576	VT8N	120	50	10	0-120	No overvoltage	$4\frac{7}{8}$"D.x$5\frac{11}{16}$".	10.25	20.00	18.00	17.00	16.00
5F574	VT20	120	50	20	0-120/140	Basic 20A model	$7\frac{1}{2}$"W.x$8\frac{1}{16}$"D.x$5\frac{5}{8}$"H.	22	55.00	49.50	46.75	44.00
5F581	VT20N	120	50	25	0-120	No overvoltage	$7\frac{1}{2}$"W.x$8\frac{1}{16}$"D.x$5\frac{5}{8}$"H.	22	55.00	49.50	46.75	44.00
5F588	VT20H	240	50	9	0-240/280	Basic 240 V. Input	$7\frac{1}{2}$"W.x$8\frac{1}{16}$"D.x$5\frac{5}{8}$"H.	22	57.25	51.53	48.66	45.80
5F589	VT20HN	240	50	11	0-240	No overvoltage	$7\frac{1}{2}$"W.x$8\frac{1}{16}$"D.x$5\frac{5}{8}$"H.	22	57.25	51.53	48.66	45.80

SINGLE TRANSFORMERS—CASED

Stk. No.	Type	Input Volts	Hz	Max. Out Amps	Max. Out Volts	Description	Size	Wt. Lbs.	1-9	10-24	25-49	50-99
5F654	VT02E	120	60	1.4	0-132	Fixed Mtg.	$3\frac{3}{8}$"W.x$2\frac{1}{2}$"D.x$4\frac{1}{4}$"H	2.8	15.50	13.95	13.18	12.40
5F659	VT02F	120	60	1.75	0-132	Portable	$3\frac{3}{8}$"W.x$2\frac{1}{2}$"D.x$4\frac{1}{4}$"H.	3.2	17.50	15.75	14.88	14.00
5F578	VT4FC	120	50	3.5	0-140	3 wire type ASA cord	$4\frac{7}{8}$"W.x$4\frac{1}{2}$"D.x$6\frac{1}{4}$"H.	7.8	26.00	23.40	22.40	20.80
5F579	VT8FC	120	50	7.5	0-140	Same as VT4FC	$5\frac{17}{32}$"W.x$5\frac{1}{4}$"D.x$7\frac{3}{8}$"H.	13.8	31.00	27.90	26.35	24.80
5F580	VT8GC	120	50	6.0	0-120/140	Same as VT4FC	$5\frac{5}{16}$"W.x$5\frac{1}{4}$"D.x$7\frac{3}{8}$"H.	14.2	34.50	31.05	29.33	27.60
5F582	VT8G	120	50	6 0	0-120/140	Laboratory Portable	$5\frac{5}{16}$"W.x$5\frac{1}{4}$"D.x$7\frac{3}{8}$"H.	14.2	31.00	27.90	26.35	24.80
5F575	VT20B	120	50	20	0 120/140	Basic protective enclosure. Fixed mtg	$7\frac{5}{8}$"W.x$8\frac{1}{8}$"D.x$6\frac{1}{8}$"H.	22.5	61.00	54.90	51.85	48.80

SPRAGUE

TRIGATE PULSE TRANSFORMERS
FOR LOW-COST SCR CIRCUIT APPLICATORS



For SCR triggering applications where excellent low cost performance is required. Balanced pulse characteristics and energy transfer from primary to secondary and tertiary windings. Min. saturation effect. Fast secondary and tertiary windings. Min. saturation effect. Fast pulse rise time and increased current capability to prevent SCR di/dt failure. Transformer leads polyuretiane insulated magnet wire. May be soldered directly to terminals or other circuit componenis without need for removal of wire insulation. For operation over temp. range of —10°C to +70°C.

TYPE 11Z TRIGATE PULSE TRANSFORMERS

Stock No.	Type	Turns Ratio	Max LL (μH)	Max CC (Pf)	1-14	15-49	50-99	100-249	250 499	500-999
60F288	11Z12	1:1	3	800	2.45	1.93	1.26	.91	.84	.77
60F289	11Z13	1:1:1	3	800	2.73	2.15	1.41	1.02	.94	.86
18F2987	11Z14	2:1	10	1300	3.33	2.61	1.71	1.24	1.14	1.05
18F2938	11Z15	2:1:1	15	1300	3.68	2.84	1.89	1.37	1.26	1.16
18F2989	11Z16	5:1	1500	400	3.61	2.84	1.86	1.34	1.24	1.14

HORIZONTAL PLUG-IN TYPES

Stock No.	Type	Turns Ratio	Max LL (μH)	Max CC (Pf)	1-14	15-49	50-99	100-249	250-499	500-999
18F2940	11Z2000	1:1	3	800	4.20	3.30	2.16	1.56	1.44	1.32
18F2941	11Z2001	1:1	12	2000	4.31	3.39	2.22	1.60	1.48	1.36
18F2942	11Z2003	2:1	10	1300	5.18	4.07	2.67	1.93	1.78	1.63
18F2943	11Z2004	5:1	1500	400	4.66	3.66	2.40	1.73	1.60	1.47
18F2944	11Z2100	1:1:1	3	800	4.90	3.85	2.52	1.82	1.68	1.54
18F2945	11Z2101	1:1:1	12	1400	5.01	3.94	2.58	1.86	1.72	1.58
18F2946	11Z2103	2:1:1	15	1300	6.13	4.82	3.15	2.28	2.10	1.93
18F2947	11Z2104	5·1:1	1500	400	5.60	4.40	2.88	2.08	1.92	1.76

Chicago-Stancor Transformers

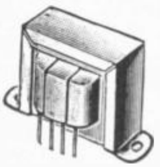


Fig. A

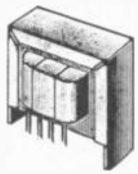


Fig. A-1

Fig. C

Fig. NV

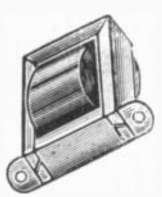


Fig. D.

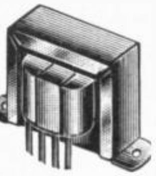


Fig. E

TRANSISTOR INPUT TYPES

Stock No.	Mfr's. Type	Imp. in Ohms Pri.	Imp. in Ohms Sec.	Max. Pri. Ma. DC	Power Watts	Mtg. Ctrs.	Fig.	Each, Boxed 1-9	Each, Boxed 10-24	Each, Boxed 25-49	Each, Boxed 50-99	Bulk Packed 100-249	Bulk Packed 250-499
1F427	TA-1	600CT	.0	20	.05	1⅜	A	2.62	2.36	2.23	2.10	1.57	1.43
1F670	TA-18	30CT	50000		.15	25/32	A-1	4.57	4.12	3.89	3.66	2.48	2.26
1F671	TA-47	1000CT	200000CT	. . .	.30	1⅜	A	4.39	3.95	3.73	3.51	2.37	2.16

TRANSISTOR INTERSTAGE TYPES

Stock No.	Mfr's. Type	Imp. in Ohms Pri.	Imp. in Ohms Sec.	Max. Pri. Ma. DC	Power Watts	Mtg. Ctrs.	Fig.	Each, Boxed 1-9	Each, Boxed 10-24	Each, Boxed 25-49	Each, Boxed 50-99	Bulk Packed 100-249	Bulk Packed 250-499
1F428	TA-2	100CT	10CT	100	.25	1 13/16	A	2.47	2.23	2.10	1.98	1.42	1.30
1F429	TA-3	100	1000CT	100	.25	2	A	2.45	2.21	2.09	1.96	1.47	1.35
1F430	TA-4	500CT	5000CT	12	.03	2	A	3.47	3.13	2.95	2.78	2.01	1.83
1F672	TA-19	100CT	10CT	—	.15	25/32	A-1	4.92	4.43	4.18	3.94	2.67	2.44
1F674	TA-24	500CT	50000	—	.15	25/32	A-1	4.39	3.95	3.73	3.51	2.37	2.16
1F675	TA-27	1200	20000CT	—	.15	25/32	A-1	4.39	3.95	3.73	3.51	2.37	2.16
1F676	TA-28	1500	500CT	—	.15	25/32	A-1	4.39	3.95	3.73	3.51	2.37	2.16
1F677	TA-30	5000CT	7500CT	—	.15	25/32	A-1	4.40	3.96	3.74	3.52	2.39	2.18
1F678	TA-31	5000CT	10000CT	—	.15	25/32	A-1	4.39	3.95	3.73	3.51	2.37	2.16
1F679	TA-32	5000CT	80000CT	—	.15	25/32	A-1	4.39	3.95	3.73	3.51	2.37	2.16
1F680	TA-34	10000	200CT	—	.15	25/32	A-1	4.65	4.18	3.95	3.72	2.52	2.30
1F681	TA-35	10000	2000CT	—	.15	25/32	A-1	4.39	3.95	3.73	3.51	2.37	2.16
1F682	TA-36	10000	3000CT	—	.15	25/32	A-1	4.39	3.95	3.73	3.51	2.37	2.16
1F683	TA-38	500CT	150CT	—	.15	25/32	A-1	4.46	4.02	3.79	3.57	2.42	2.22
1F684	TA-46	100000	1500CT	—	.30	1⅜	A	4.39	3.95	3.73	3.51	2.37	2.16

TRANSISTOR DRIVER TYPES

*Tri-Filar Wound, 1:1:1 Impedance Ratio—50 ohms per winding.

Stock No.	Mfr's. Type	Imp. in Ohms Pri.	Imp. in Ohms Sec.	Max. Pri. Ma. DC	Power Watts	Mtg. Ctrs.	Fig.	Each, Boxed 1-9	Each, Boxed 10-24	Each, Boxed 25-49	Each, Boxed 50-99	Bulk Packed 100-249	Bulk Packed 250-499
1F431	TA-5	1000	200CT	10	.05	1 1/16	A	5.98	5.39	5.08	4.79	3.24	2.95
1F432	TA-6	2000	200CT	5	.05	1 1/16	A	6.41	5.77	5.45	5.13	3.47	3.16
1F433	TA-7	100	100CT	100	.5	2⅜	A	2.52	2.27	2.15	2.02	1.43	1.31
1F443	TA-16	20	36CT	400	1.0	1¾	A	2.52	2.27	2.15	2.02	1.48	1.35
1F821	TA-59	500CT	200CT	50	.5	1¾	A	2.94	2.64	2.50	2.36	1.70	1.56
1F822	TA-61	——	——	—	—	2	S	3.46	3.12	2.94	2.77	1.93	1.76
1F823	TA-63*	20,000CT	2000CT	—	.300	1⅜	A	5.77	5.20	4.90	4.61	3.13	2.85

TRANSISTOR OUTPUT TYPES

Stock No.	Mfr's. Type	Imp. in Ohms Pri.	Imp. in Ohms Sec.	Max. Pri. Ma. DC	Power Watts	Mtg. Ctrs.	Fig.	Each, Boxed 1-9	Each, Boxed 10-24	Each, Boxed 25-49	Each, Boxed 50-99	Bulk Packed 100-249	Bulk Packed 250-499
1F437	TA-10	2000CT	16/8/4	—	.2	1⅜	A	6.60	5.94	5.61	5.28	3.67	3.35
1F438	TA-11	48CT	16/8	275	5	2⅞	A	4.98	4.48	4.23	3.99	2.78	2.53
1F440	TA-12	20CT	8	500	10	2	A	2.45	2.21	2.09	1.96	1.47	1.35
1F439	TA-14	24CT	16/4†	200	10	3⅞x2¾		16.04	14.44	13.64	12.84	8.99	8.19
1F685	TA-20	350CT	4/12	—	.15	25/32	A-1	5.03	4.53	4.27	4.03	2.73	2.49
1F686	TA-21	500CT	4/8/16	—	.15	25/32	A-1	4.61	4.15	3.92	3.69	2.50	2.28
1F687	TA-23	600CT	4/8/16	—	.15	25/32	A-1	5.03	4.53	4.27	4.03	2.73	2.49
1F689	TA-25	1250	4/12	—	.15	25/32	A-1	4.39	3.95	3.73	3.51	2.37	2.16
1F691	TA-33	10000CT	4/8/16	—	.15	25/32	A-1	4.65	4.18	3.95	3.72	2.52	2.30
1F693	TA-39	100CT	4/8/16	—	.30	1⅜	A	4.59	4.13	3.90	3.68	2.56	2.34
1F694	TA-40	160	4/8/16	—	.30	1⅜	A	4.83	4.35	4.11	3.87	2.62	2.39
1F695	TA-41	400CT	4/8/16	—	.30	1⅜	A	4.39	3.95	3.73	3.51	2.37	2.16
1F696	TA-42	500CT	4/8/16	—	.30	1⅜	A	4.39	3.95	3.73	3.51	2.37	2.16
1F697	TA-43	700CT	4/8/16	—	.30	1⅜	A	4.59	4.13	3.90	3.68	2.56	2.34
1F698	TA-44	2500	4/8/16	—	.30	1⅜	A	4.81	4.33	4.09	3.85	2.61	2.38
1F699	TA-45	3000	4/8/16	—	.30	1⅜	A	4.45	4.01	3.78	3.56	2.47	2.25
1F824	TA-62	25	4	400	4	2⅜	A	2.64	2.38	2.25	2.12	1.52	1.39

UNIVERSAL TYPE TRANSISTOR POWER TRANSFORMERS—PRIMARY 117 VOLT 60 HZ AC

*Tapped primary to obtain lower secondary voltages.

Stk. No.	Mfs. Type	Output 1 V AC	Output 1 DCMa	Output 2 V AC	Output 2 DCMa	Base Area	Fig.	Each, Boxed 1-9	Each, Boxed 10-24	Each, Boxed 25-49	Each, Boxed 50-99	Bulk Packed 100-249	Bulk Packed 250-499
1F441	TP-1	13 or 18	900	13 or 18	900	3x2½	C	6.16	5.55	5.24	4.93	3.55	3.24
1F825	TP-2*	10/20CT/40CT	100	....	......	2 13/16x1⅝	A	4.98	4.48	4.23	3.99	2.70	2.46
1F826	TP-3*	10/20CT/40CT	300	....	......	3¾x2	A	6.68	6.01	5.68	5.35	3.62	3.30
1F827	TP-4*	10/20CT/40CT	1000	....	......	2⅝x3	C	11.21	10.09	9.53	8.97	6.05	5.52

TRANSISTOR POWER SUPPLY — PRIMARY 117 VOLT 60Hz.

Stk. No	Type	Secondary #1		Secondary #2		Fig.	1-9	10-24	25-49	50-99	100-249	250-499
1F044	P-8193	17/18	600		....	NV	10.97	9.87	9.32	8.78	6.09	5.55
1F045	P-8194	36	300	36	300	NV	18.48	16.64	15.71	14.79	10.23	9.32
1F046	P-8197	50CT	1.0		.	C	6.46	5.81	5.49	5.17	3.71	3.38
1F828	P-8196	80CT	1.2DC		....	C	8.42	7.58	7.15	6.74	4.84	4.42
1F047	P-8198	54CT	0.5	6.3	0.5	C	5.99	5.34	5.09	4.70	3.44	3.13

LOW CURRENT CONTROL TRANSFORMERS

Versatile series of low current control transformers suited for pilot lamps, miniature relays, low current-low voltage power supply application. Pimaries 117 volt, 50-60 hz. Three isolated 12-volt secondaries (one with a center tap). Can be series or parallel connected.

Stock No.	Type	Amperes Ea. Sec.	Size H x W x D	Fig.	Wt.	1-9	10-24	25-49	50-99	Bulk Packed 100-249	Bulk Packed 250-499
1F146	P-8361	.10	1¾x2 x1½"	D	.36	3.73	3.36	3.17	2.99	2.14	1.95
1F147	P-8362	.15	2 x2⅜x1¾"	D	.60	3.85	3.47	3.28	3.08	2.23	2.03
1F148	P-8363	.25	2⅜x2⅞x1¾"	D	.85	4.04	3.63	3.44	3.24	2.34	2.13
1F149	P-8364	.50	2⅜x2⅞x2⅛"	D	1.25	4.68	4.22	3.98	3.74	2.69	2.45

MINIATURIZED CONTROL TRANSFORMERS

Primary: 117 volts, 60 hz. Wire lead term. Types P-8390 to 93 have 12 V secondaries. Types P-8394 to 97 have 24 V C.T.

Stock No.	Type	Amperes Ea. Sec.	Size H x W x D	Fig.	Wt.	1-9	10-24	25-49	50-99	Bulk Packed 100-249	Bulk Packed 250-499
1F950	P-8390	.150	1¼x2⅛x1¼	E	.25	3.27	2.95	2.78	2.62	....	....
1F951	P-8391	.350	1⅜x2⅜x1⅜	E	.35	3.39	3.06	2.89	2.72	....	....
1F952	P-8392	.700	1⅝x2⅞x1½	E	.60	3.54	3.19	3.01	2.84	....	....
1F953	P-8393	1.200	2x3¼x1⅝	E	.85	4.47	4.03	3.80	3.58	....	....
1F954	P-8394	.085	1¼x2⅛x1¼	E	.25	3.57	3.22	3.04	2.86	....	....
1F955	P-8395	.200	1⅜x2⅜x1⅜	E	.35	3.72	3.35	3.17	2.98	....	....
1F956	P-8396	.400	1⅝x2⅞x1½	E	.60	3.87	3.49	3.29	3.10	....	....
1F957	P-8397	.700	1⅝x3¼x2	E	.85	4.80	4.32	4.08	3.84	....	....

Chicago-Stancor Transistor Transformers

AUTO RADIO TRANSISTOR FILTER CHOKE

Similar to Fig. A-1, but with 4 vert. mtg. tabs.

Stock No.	Mfg. Type	Inductance @ DCMA	DC Res. In Ohms	RMS V Insulation	Mtg. Ctrs.	1-9	10-24	25-49	50-99	100-249	250-499
1F721	TC-2	11 mhy @ 1000 ma	.75	1000	1¼x7/16	1.59	1.43	1.35	1.27	.92	.84

"8400" SERIES POWER TRANSFORMERS

All units have low temp. rise, well within limits set by EIA. PM types are Fig. M. PC types are Fig. C. PS types are Fig. S. PA types are Fig. A. Provide 260 VDC to condenser input filter.

Stock No.	Mfr's. Type	Plate V.	CT Ma.	Rect. V.	Rect. A.	Fil. V. CT	Fil. A.	Mtg. Ctrs.	Wt. Lbs.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F000	PC-8401	470	40	5.0	2.0	6.3CT	2.0	2 x1 9/16	2¼	6.15	6.10	5.76	5.42	3.90	3.56
1F001	PM-8401	470	40	5.0	2.0	6.3CT	2.0	2 x2½	2¼	7.45	6.70	6.33	5.97	4.28	3.90
1F002	PC-8402	480	55	5.0	2.0	6.3CT	2.0	2 x1 11/16	2½	6.46	5.81	5.49	5.17	3.72	3.39
1F003	PM-8402	480	55	5.0	2.0	6.3CT	2.0	2 x2½	2½	7.29	6.56	6.20	5.83	4.18	3.81
1F004	PC-8403	500	70	5.0	2.0	6.3CT	2.5	2 x2 1/16	3¼	7.73	6.96	6.57	6.19	4.45	4.05
1F005	PM-8403	500	70	5.0	2.0	6.3CT	2.5	2 x2½	3¼	8.02	7.22	6.82	6.42	4.61	4.21
1F006	PC-8404	520	90	5.0	2.0	6.3CT	3.0	2¼x2¼	4	8.69	7.83	7.40	6.96	5.00	4.56
1F007	PM-8404	520	90	5.0	2.0	6.3CT	3.0	2¼x2 13/16	4	9.07	8.17	7.71	7.26	4.98	4.54
1F008	PC-8405	540	120	5.0	3.0	6.3CT	3.5	2½x2 9/16	5	11.33	10.20	9.64	9.07	6.27	5.71
1F009	PM-8405	540	120	5.0	3.0	6.3CT	3.5	2½x3⅛	5	11.80	10.62	10.03	9.44	6.54	5.96

Designed for use with choke input filter. VR tube regulated supply, speaker field in filter, or higher voltage with condenser input filter. †has two 6.3 V @ 3.0 A Wdgs.

Stock No.	Mfr's. Type	Plate V.	CT Ma.	Rect. V.	Rect. A.	Fil. V. CT	Fil. A.	Mtg. Ctrs.	Wt. Lbs.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F010	PC-8406	650	40	5.0	2.0	6.3CT	2.0	2 x1 11/16	2½	7.32	6.59	6.22	5.86	4.22	3.84
1F011	PM-8406	650	40	5.0	2.0	6.3CT	2.0	2 x2½	2½	7.51	6.76	6.38	6.01	4.32	3.93
1F012	PC-8407	650	55	5.0	2.0	6.3CT	2.0	2 x2 1/16	3¼	7.59	8.84	6.46	8.08	4.38	4.00
1F013	PM-8407	650	55	5.0	2.0	6.3CT	2.0	2 x2½	3¼	7.79	7.02	8.63	6.24	4.59	4.18
1F014	PC-8408	680	70	5.0	2.0	6.3CT	2.5	2¼x2⅛	3¾	9.34	8.41	7.95	7.47	5.37	4.90
1F015	PM-8408	680	70	5.0	2.0	6.3CT	2.5	2¼x2 13/16	3¾	9.34	8.41	7.94	7.48	5.60	5.11
1F016	PC-8409	700	90	5.0	2.0	6.3CT	3.0	2¼x2⅜	4½	11.53	10.38	9.81	9.22	5.54	5.04
1F017	PM-8409	700	90	5.0	2.0	6.3CT	3.0	2¼x2 13/16	4½	9.98	8.98	8.48	7.98	5.81	5.30
1F018	PC-8410	720	120	5.0	3.0	6.3CT	3.5	2½x2 7/16	5½	11.05	9.95	9.39	8.84	6.35	5.79
1F019	PM-8410	720	120	5.0	3.0	6.3CT	3.5	2½x3⅛	5½	11.80	10.62	10.03	9.44	6.78	6.18
1F020	PC-8411	750	150	5.0	3.0	6.3CT	4.5	2¾x2 13/16	5¾	15.18	13.67	12.91	12.15	8.41	7.66
1F021	PM-8411	750	150	5.0	3.0	6.3CT	4.5	2¾x3 7/16	5¾	16.91	15.22	14.37	13.53	9.38	8.54
1F022	PC-8412	800	200	5.0	3.0	6.3CT	5.0	3 x2 13/16	8¼	15.81	14.23	13.44	12.65	9.08	8.27
1F023	PM-8412	800	200	5.0	3.0	6.3CT	5.0	3 x3¾	8¼	16.06	14.46	13.66	12.85	9.22	8.40
1F024	PC-8413	800	250	5.0	4.0	6.3CT	5.0	3 x3 5/16	10	17.08	15.37	14.51	13.67	9.82	8.94
1F025	PC-8414†	1200	200	5.0	3.0	6.3CT	3.0	3 x3 1/16	8¼	18.87	16.99	16.04	15.10	10.84	9.87
1F764	PC-8422	650	150	5.0	3.0	6.3CT	5.0	2½x2 9/16	5.8	12.04	10.84	10.23	9.63	6.91	6.30
1F814	PM-8422	650	150	5.0	3.0	6.3CT	5.0	2½x3⅛	5.8	12.81	11.53	10.88	10.25	7.35	6.69

For use with 6AX5, 6X4, or selenium rectifiers. *Half wave.

Stock No.	Mfr's. Type	Plate V.	CT Ma.	Rect. V.	Rect. A.	Fil. V. CT	Fil. A.	Mtg. Ctrs.	Wt. Lbs.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F026	PS-8415	125*	15	......	......	6.3	0.6	2	¾	2.97	2.68	2.53	2.38	1.76	1.61
1F027	PS-8416	250	25	......	......	6.3	1.0	2⅜	1	3.55	3.19	3.02	2.84	2.04	1.86
1F035	PA-8421	125*	50	......	......	6.3	2.0	3⅛	1½	4.65	4.18	3.95	3.72	2.58	2.35
1F028	PC-8417	440	50	......	......	25.2	0.5	2 x1 9/16	2¼	8.11	7.30	6.89	6.49	4.67	4.25
1F029	PC-8418	460	50	......	......	6.3	2.5	2 x1 9/16	2¼	5.88	5.30	5.00	4.70	3.38	3.08
1F030	PM-8418	460	50	......	......	6.3	2.5	2 x2½	2¼	5.99	5.40	5.10	4.80	3.56	3.24
1F031	PC-8419	480	70	......	......	6.3	3.0	2 x1 13/16	2½	6.74	6.07	5.72	5.39	3.88	3.54
1F032	PM-8419	480	70	......	......	6.3	3.0	2 x2½	2½	6.92	6.23	5.89	5.54	3.99	3.63
1F033	PC-8420	520	90	......	......	6.3	4.0	2 x2¼	3½	7.86	7.08	6.68	6.29	4.35	3.96
1F765	PM8420	520	90	......	......	6.3	4.0	2¼x2 13/16	3½	8.24	7.42	7.01	6.59	4.73	4.32

POWER TRANSFORMERS WITH SPECIAL OR COMBINATION FILAMENT WINDINGS

Stock No.	Mfr's. Type	Plate Supply A.C. Volts	Plate Supply D.C.	Rect. Fil. Volts	Rect. Fil. Amps	Other Volts	Wdgs. Amps.	Mtg. Ctrs.	Wt. Lbs.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F766	P-6348	240-0-240	60	......	......	6.3CT	2.75	1 15/16	2.3	7.32	6.59	6.22	5.86	3.96	3.61
1F767	P-8177	300-0-300	120	5.0	3.0	6.3CT	3.0	2¾x2¾	5¾	11.85	10.67	10.08	9.48	7.04	6.42
1F067	P-8174	250-0-250	20	......	......	6.3/6.3	6/1.2	2 13/16	1½	6.46	5.81	5.49	5.17	3.58	3.26
1F068	P-8175	300-0-300	70	5.0	3.0	6.3CT	3.0	2¼x2¼	4	10.04	9.04	8.54	8.04	5.97	5.44
1F069	P-8176	350-0-350	110	5.0	2.0	6.3CT	3.0	2¾x3	5½	13.44	12.10	11.43	10.76	7.98	7.26
1F055	P-6011	350-0-350	70	5.0CT	3.0	6.3CT	2.5	2⅞x3⅜	3.5	9.18	8.27	7.80	7.34	5.27	4.80
1F058	P-6014	375-0-375	150	5.0CT	3.0	6.3	5.0	3⅛x3¾	6	12.82	11.54	10.89	10.26	....	.. ..
1F076	P-6315	370-0-370	275	5.0CT	3.0	6.3CT	7.0	3x3¾	9.5	18.54	16.69	15.76	14.83	10.65	9.70
1F082	P-6143	440-0-440	130	5.0	3.0	6.3CT	3.5	2¾x2 13/16	7	15.23	13.71	12.94	12.18	8.74	7.96
1F815	P-8359	190/160-0				6.3	0.6								
		160/190	70	......	......	6.3CT	3.0	2x1⅞	2.8	9.96	8.97	8.46	7.97	5.39	4.91
1F816	P-8360	437-0-437				6.3	3.0								
			185	5.0	3.0	6.3	4.0	4x4½	9.5	19.63	17.67	16.68	15.70	10.87	9.90
1F817	P-5059	337-0-337													
			200	5.0CT	3.0	6.3CT	5.0	3¾x4⅛	9.6	16.55	14.90	14.06	13.24	9.51	8.66

SILICON OR SELENIUM RECTIFIER TRANSFORMERS (FIG. BV)

Stock No.	Mfr's. Type	Rect. Circ.	Out. Resis. Induc. Load Max. DC V	Amps	Out Capacitative Load Max. DC V	Amps	Shpg. Wt. Lbs.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F378	RT-201	CT	11.2	2.0	13.8	2.0	2.5						
		Bridge	23.0	1.25	30.0	1.25	2.5	8.74	6.07	5.73	5.40	3.63	3.32
1F379	RT-202	CT	11.1	4.0	14.7	4.0	3.8						
		Bridge	24.3	2.0	33.0	2.0	3.8	9.19	8.28	7.82	7.36	5.05	4.60
1F380	RT-204	CT	12.0	8.0	14.5	8.0	6.1						
		Bridge	24.0	4 0	32.4	4.0	6.1	11.94	10.75	10.15	9.56	6.52	5.93
1F381	RT-206	CT	11.5	12.0	14.4	12.0	9.1						
		Bridge	24.0	6.0	32.0	6.0	9.1	15.67	14.11	13.31	12.53	9.32	8.49
1F382	RT-208	CT	11.4	15.0	14.8	15.0	12.6						
		Bridge	23.7	8.0	32.5	8.0	12.6	21.27	19.15	18.08	17.02	11.74	10.69
1F383	RT-2012	CT	11.4	22.5	14.3	22.5	20.5						
		Bridge	23.5	12.0	33.0	12.0	20.5	36.12	32.51	30.71	28.90	20.50	18.66
1F384	RT-408	Bridge	44.0	8.0	63.0	8.0	26.5	55.64	50.08	47.30	44.52	31.33	28.52


TC-2

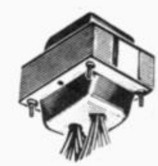


Fig. M
PM Types

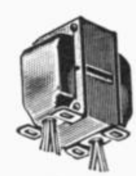


Fig. C
PC Types

Complete on-the-shelf stock of Chicago-Stancor transformers at Newark, ready for immediate delivery!

Factory Competitive O.E.M. prices!

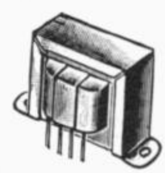


Fig. A
PA Types

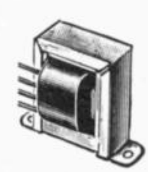
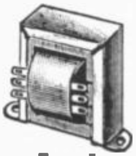


Fig. S
PS Types

Chicago-Stancor Transformers

CONTROL TRANSFORMERS

Typical applications: Automatic assembly equipment, relays, solenoids, small motors, speed changers, control valves for fluids and gases, fans and blowers, electronic tubes, lighting signal lamps, etc.



Type A

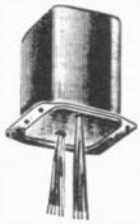
Type B

Stock No.	Mfr's. Type	Primary	Secondary Parallel	Secondary Series	VA Rat.	Mtg. Type	Shpg. Wt.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F197	P-6375	115V/230V 50/60 CPS on all	6V @ 2A	12V @ 1A	12	A	1.0	4.04	3.63	3.44	3.24	2.25	2.05
1F818	P-6376		6V @ 4A	12V @ 2A	24	A	1.5	4.73	4.26	4.03	3.79	2.73	2.49
1F819	P-6377		12V @ 4A	24V @ 2A	48	A	2.5	5.89	5.31	5.01	4.71	3.39	3.10
1F820	P-6378		12V @ 8A	24V @ 4A	96	B	4.5	9.57	8.62	8.14	7.66	5.50	5.01
1F198	P-6379		12V @ 16A	24V @ 8A	192	B	8.0	15.68	14.12	13.33	12.54	8.68	7.90

POWER TRANSFORMERS

Shielded against magnetic and electrostatic fields by one piece drawn steel cases. Vac. impreg. coils, compound filled under heat and pressure to resist moisture. Cores are high grade, non-aging silicon steel. All transformers are guaranteed to operate at rated values with EIA heat rise standards. For operation from 110-120 volts, 50-60 cps. AC. Type PCC-250 has 2nd fil. 5 Volts/2 amp.

Type PSR
Type PSC



Type PCC
Type PCR

CASE STYLES AND DIMENSIONS

Case	Width x Height x Depth	Case	Width x Height x Depth
F8	2 11/16x3½x2⅞"	F10D	3 5/16x4 11/16x3 11/16"
F8D	2 11/16x3¾x2⅞"	F11	4⅛x5 5/16x4 9/16"
F9	3x4x3¼"	F12	4 13/16x6 1/16x5 5/16"
F10	3 5/16x4 7/16x3 11/16"	S9	3x3⅞x3¼"

CONDENSER INPUT POWER TYPES

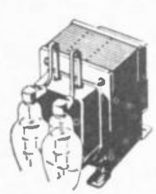
Stock No.	Mfr. Type	Description	AC VCT	AC Ma.	Rect. V	Rect. A	Fil. VCT	Fil. A	Wt. Lbs.	Case	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
4F001	PCC-40	Wire Leads	450	40	5	2	6.3	2	3¼	F8	11.69	10.52	9.94	9.35	6.32	5.76
4F021	PSC-40	Solder Lugs	450	40	5	2	6.3	2	3¼	F8D	17.76	15.99	15.10	14.21	9.84	8.96
4F002	PCC-55	Wire Leads	540	55	5	2	6.3	2	3½	F8	13.50	12.15	11.48	10.81	7.47	6.80
1F887	PSC-55	Solder Lugs	540	55	5	2	6.3	2	3½	F8D	20.51	18.46	17.43	16.41	11.08	10.09
4F003	PCC-60	Wire Leads	600	60	5	2	6.3	3	4½	F9	13.94	12.54	11.85	11.16	7.73	7.03
4F024	PSC-70	Solder Lugs	670	70	5	2	6.3	3	4½	F9	20.60	18.54	17.51	16.48	11.42	10.40
4F006	PCC-105	Wire Leads	690	105	5	2	6.3	3.5	6½	F10	16.23	14.61	13.80	12.98	8.99	8.19
1F800	PSC-150	Solder Lugs	740	150	5	3	6.3*	4/1	11½	F11	36.51	32.86	31.04	29.21	20.96	19.08
1F801	PCC-200	Wire Leads	770	200	5	3	6.3	4.5/1	12	F11	28.05	25.25	23.85	22.44	16.11	14.67
4F029	PSC-200	Solder Lugs	770	200	5	3	6.3	4.5/1	12	F11	37.21	33.49	31.63	29.77	21.37	19.45
4F010	PCC-250	Wire Leads	800/160	250	5	6/2	6.3	7	15	F12	32.07	28.87	27.26	25.66	17.76	16.16

*Has extra 6.3V. CT @ 1A. WDG

CHOKE INPUT POWER TYPES

Stock No.	Mfr. Type	Description	AC VCT	AC Ma.	Rect. V	Rect. A	Fil. VCT	Fil. A	Wt. Lbs.	Case	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
4F061	PSR-55	Solder Lugs	700	55	5	2	6.3	2	3¼	F8D	19.30	17.37	16.41	15.44	10.43	9.50
4F041	PCR-55	Wire Leads	700	55	5	2	6.3	2	3¼	F8D	13.48	12.14	11.46	10.78	7.29	6.64
1F803	PCR-70	Wire Leads	850	70	5	2	6.3	3	4½	F9	15.10	13.59	12.83	12.08	8.36	7.62
1F804	PSR-70	Solder Lugs	850	70	5	2	6.3	3	4½	F9D	21.18	19.07	18.00	16.94	11.72	10.67
4F044	PCR-105	Wire Leads	900	105	5	2	6.3	3.5	6½	F10	16.36	14.72	13.91	13.09	9.07	8.25
4F064	PSR-105	Solder Lugs	900	105	5	2	6.3	3.5	6½	F10D	23.13	20.82	19.66	18.51	13.28	12.09
1F802	PCR-300	Wire Leads	1100/740/150	300	5	6	6.3	1/5	17½	F12	38.76	34.89	32.95	31.00	21.48	19.55

PLATE TRANSFORMERS



Type PT

Type PC

Fig. CD

DC output rated at load terminals of single section reactor-input filter with full-wave mercury vapor rectification. Primary is 117 AC volts. Sec. 50/60 cy ACV: 2400 CT. Shipping wt., 13 lbs. 4x5⅓x4¾".

Stock No.	Type	DCV	DCMA CCS	DCMA ICAS	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
4F403	PT-8311	1000	225	280	23.24	20.92	19.75	18.59	13.81	12.58

DC output rated at load terminals of single section reactor input filter, ICAS with single section capacitor input filter. All primary are 117V AC. *Capacitor input rating is for intermittent duty. †Secondary CT must be grounded.

Stock No.	Type	Sec. ACV†	DC Output V	DC Output MA	Type Filter	Size	Shpg. Wt.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
4F404	PC-8301	830CT	300 425	200 160	Reactor Input *Capacitor Input	3⅛x3⅞x3½	4.8	9.73	8.76	8.27	7.78	5.59	5.10
1F805	PC-8303	1330CT	500 750	250 200	Reactor Input *Capacitor Input	3¾x4⅞x4⅜	9.6	17.74	15.97	15.07	14.19	10.18	9.27
4F405	PC-8304	1500CT	600 850	265 200	Reactor Input *Capacitor Input	3¾x4⅞x4⅞	11.5	18.62	16.76	15.83	14.90	11.06	10.07
4F406	PC-8305	1840CT	750 1000	250 200	Reactor Input *Capacitor Input	3¾x4x5	11.9	20.76	18.68	17.65	16.61	11.93	10.86

SILICON RECTIFIER POWER TRANSFORMERS — WT. 7 LBS.

Stock No.	Type No.	Sec. No. 1 V	Sec. No. 1 DCMA	Sec. No. 2 V	Sec. No. 2 Amps	Sec. No. 3 V	Sec. No. 3 Amps	Mtg. Ctrs.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F808	RP-400	400CT	400	6.3	3.0	6.3	3.0	2¾x3 1/16	16.31	14.68	13.86	13.05	9.02	8.21
1F809	RP-600	300CT	600	6.3	2.5	6.3	2.5	2¾x3 1/16	16.03	14.43	13.62	12.83	8.89	8.10
1F810	RP-800	200CT	800	6.3	2.0	6.3	2.0	2¾x2 15/16	15.95	14.36	13.57	12.76	8.85	8.06
1F811	RP-1600	100CT	1600	6.3	1.5	6.3	1.5	2¾x2 11/16	14.85	13.37	12.63	11.88	8.23	7.50
1F812	RP-2000	80CT	2000	6.3	1.5	6.3	1.5	2¾x2 13/16	15.45	13.91	13.13	12.36	8.56	7.79
1F813	RP-2500	60CT	2500	6.3	1.5	6.3	1.5	2¾x2 11/16	18.32	16.49	15.57	14.66	9.90	9.01

Fig. CD — BIAS SUPPLY TRANSFORMERS

Hgih Voltage Type. Size 3⅛x3⅞x3⅞". Shpg. wt., 4.9 lbs.

Stock No.	Type	AC volts @ 200 DC ma.	Rectifier Fil. Volts	Rectifier Fil. Amps	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F062	P-6317	400/340/260/180 CT	5.0	3.0	15.78	14.21	13.41	12.62	8.74	7.96

Chicago-Stancor Transformers

TYPE F — FILAMENT TRANSFORMERS

Primaries: 115/230 volts, 50-60 Hz.

Stk. No.	Type	Secondary Volts	Secondary Amps.	Insulation Volts RMS	WxDxH	Wt. Lbs.	Each, Boxed 1-9	10-24	25-49	50-98	Bulk Packed 100-249	250-499
4F082	F-210	2.5CT	10	5000	2⅞x2 11/16x3¾"	3	16.22	14.60	13.79	12.98	8.47	7.72
4F085	F-54	5.0CT	4	2500	2½x2⅜x3 3/16"	2¼	11.70	10.53	9.95	9.36	6.25	5.69
4F089	F-520HB	5.0CT	20	10000	4 9/16x4⅛x5 5/16"	13	38.79	34.92	32.98	31.04	18.64	16.97
4F097	F-615	6.3CT	1.5	2500	2¼x2⅛x2 11/16"	1	16.06	14.46	13.66	12.85	8.68	7.90
1F879	F-63	6.3CT	3	2500	2½x2⅜x3 1/16"	2	11.94	10.75	10.15	9.56	6.33	5.77
1F880	F-65	6.3CT	5.5	2500	2⅞x2 11/16x3¾"	3	14.69	13.23	12.49	11.75	8.14	7.42
1F881	F-610	6.3CT	10	2500	3¼x3x4¼"	5	21.78	19.61	18.52	17.43	12.07	10.99
4F296	F-725	7.5CT	25	2500	4 9/16x4⅛x5 5/16"	12	36.66	32.99	31.16	29.33	21.05	19.16

FILAMENT TRANSFORMERS

All have 117V, or 117/107V primaries except + which has 6.3 volt primary; * electrostatic shield.

Stk. No.	Type	Sec. V	Amps	Size	Fig.	Lbs.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F093	P-4026	2.5	1.5	2⅞x1½x1⅝"	A	¾	3.66	3.29	3.11	2.93	1.98	1.81
1F100	P-6133*	2.5 CT	5	2 11/16x3 1/16x2¼"	S	1½	5.04	4.54	4.29	4.04	2.83	2.58
1F101	P-3024*	2.5 CT	10	3 3/16x2⅝x2⅝"	C	2½	6.16	5.55	5.24	4.93	3.55	3.24
1F102	P-3060	2.5 CT	10	3½x2⅞x2½"	NV	2½	8.47	7.63	7.21	6.78	4.88	4.45
1F333	P-6454	2.5 CT	10.0	3⅝x2½x3⅛"	S	2½	5.14	4.62	4.37	4.12	2.96	2.70
1F095	P-6467	5.0 CT	3.0	3 5/16x2x2"	A	1½	4.02	3.62	3.41	3.22	2.18	2.00
1F336	P-3026	5.0 CT	3.0	2⅝x2⅝x2⅝"	C	2 1/10	6.48	5.83	5.52	5.19	3.73	3.40
1F096	P-3062*	5.0 CT	6.0	2½x2½x3⅛"	NV	2⅓	6.11	5.50	5.20	4.89	3.51	3.21
1F334	P-6455	5.0 CT	6.0	3 1/16x2¼x2⅝"	S	2	5.72	5.15	4.87	4.58	3.11	2.83
1F335	P-5000*	5.0 CT	6 0	2½x3x3 5/16"	C	3 1/10	7.26	6.54	6.18	5.81	4.17	3.80
1F104	P-6135	5.0 CT	10	3⅛x2½x2⅞"	NV	3	6.62	5.96	5.63	5.30	3.94	3.59
1F097	P-6468*	5.0 CT	30 0	3 9/16x3⅞x4 1/16"	C	4⅓	17.66	15.90	15.01	14.13	10.15	9.24
1F376	P-6492	5.0 CT	30 0	4¾x3¾x3⅞	C	7½	14.74	13.27	12.53	11.80	8.77	7.99
1F375	P-6465	6.3 CT	0.6	1⅜x2⅜x1⅜"	A	4/10	2.47	2.23	2.09	1.97	1.42	1.30
1F539	P-8190	6.3	1.2	2x3¼x1¾"	A	1	3.41	3.07	2.91	2.73	2.35	2.14
1F540	P-8191+	6.3	1.2	2x3¼x1¾"	A	1	4.01	3.61	3.40	3.21	1.85	1.69
1F105	P-6134	6.3 CT	1.2	1⅝x2¾x1¾"	A	1	2.63	2.37	2.24	2.11	1.52	1.39
1F138	P-6462	6.3	3.0	3⅝x2⅝x3"	S	2	7.26	6.54	6.18	5.81	3.93	3.58
1F106	P-5014*	6.3 CT	3	3⅛x2½x2½"	NV	2	5.50	4.95	4.68	4.40	3.17	2.90
1F123	P-6466	6.3 CT	3	2x3 5/16x2"	A	1½	3.99	3.59	3.39	3.19	2.20	2.01
1F098	P-4019*	6.3 CT	4.0	2⅝x3 3/16x2⅝	C	2¾	6.44	5.80	5.47	5.15	3.71	3.38
1F107	P-3064*	6.3 CT	6	3⅛x2½x2⅞"	NV	2½	6.38	5.75	5.43	5.11	3.68	3.35
1F139	P-6456	6.3 CT	6 0	2¼x3⅝x2½"	A	2	4.72	4.25	4.02	3.78	2.72	2.48
1F108	P-6308*	6.3 CT	10	3½x2⅞x2⅞"	NV	3½	8.08	7.28	6.87	6.46	4.65	4.24
1F109	P-6309*	6.3 CT	20	4⅝x3¾x3"	NV	7	12.31	11.08	10.47	9.85	7.08	6.45
1F110	P-5015*	7.5 CT	4	3⅛x2½x2⅞"	NV	3	6.27	5.65	5.33	5.02	3.45	3.14
1F337	P-6138*	7.5 CT	8.0	3⅛x2⅞x3⅞"	NV	4 7/10	9.47	8.52	8.05	7.57	5.44	4.95
1F048	P-8380	10.0 CT	3.0	2¼x3¾x2⅜"	A	1.6	5.31	4.78	4.51	4.25	2.86	2.60
1F112	P-5016*	10.0 CT	4	3½x2⅞x2⅝"	NV	3½	7.42	6.68	6.31	5.94	4.27	3.90
1F141	P-6458*	10 0 CT	5.0	3 1/16x2½x2⅞"	NV	3	5.88	5.30	5.00	4.70	3.27	2.99
1F119	P-6139*	10 0 CT	8 0	3⅞x3⅛x3⅛"	NV	5	9.49	8.54	8.07	7.59	5.45	4.97
1F142	P-6461	10.0 CT	10 0	3⅞x3¼x3⅝	C	5	10.64	9.57	9.05	8.52	6.33	5.77
1F120	P-8130	12 6 CT	2 0	2x3¼x2"	A	1½	4.35	3.92	3.70	3.48	2.41	2.20
1F944	P-8180	25.2 CT	1.0	2⅛x3¼x2"	A	1.4	4.10	3.69	3.48	3.28	2.28	2.08
1F882	P-8358	12 6 CT	3.0	3⅝x2⅛x2¼"	A	2	5.31	4.78	4.51	4.25	2.86	2.61
1F116	P-6469	25 2	1 0	2x3¼x2"	A	1½	4.06	3.66	3.46	3.25	2.20	2.01
1F883	P-8357	25.2 CT	2.0	4x2¼x2⅝"	A	2¼	8.55	5.90	5.57	5.24	3.63	3.32
1F945	P-8388	25.2 CT	2.8	2¼x4x2⅝"	A	2.2	6.60	5.94	5.61	5.28	3.80	3.46
1F946	P-8389	6.3	1.0	1½x2⅞r2⅜"	A	0.6	2.79	2.52	2.38	2.24	1.41	1.29

FILAMENT TRANSFORMERS WITH MULTIPLE SECONDARY

Stk. No.	Type	Secondary Volts	Secondary Amps.	RMSV Insul.	Pri. V.	Fig.	Ht.	Base Area	Wt. Lbs.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F884	F-6430	6.3 CT 6.3 CT	3.0 3.0	2500 2500	117	C	3⅛	2½x3⅞	3	7.14	6.43	6.09	5.71	4.11	3.74

TUBE CHECKER MULTI-TAPPED FILAMENT TRANSFORMER

Stock No.	Type No.	Secondary Volts	Primary Volts	Height	Base Area	Mtg. Ctrs.	Wt.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F885	P-1834-3	1.1/1.4/1.5/2.0/2.5/3.0/3.3/4.0/5.0/6.3/7.5/12/20/25/30/35/50/70/85/110/117	105/115/125	2⅝	4x2½	3 9/16	2.4	14.40	12.96	12.24	11.52	7.15	6.52

CATHODE RAY TUBE POWER TRANSFORMERS

Stock No.	Type No.	Plate Supply AC Volts	DCMA	Other Windings Volts	Other Windings Amps	Mtg. Type	Size	Wt.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F310	P-8179	1600 half wave	3.0	6.3/5/2.5 6.3/5/2.5	1.0 3.0	M	3x2½x3⅜	3.5	13.96	12.57	11.87	11.17	7.54	6.87
1F090	P-8150	1550 half wave	1.5	....	....	SC	3x2½x3 1/16	2	10.99	9.89	9.34	8.79	5.94	5.42
1F091	P-8151	2400 half wave	5.0	2.5	2.0	C	3 9/16x3⅞x4 5/16"	7	16.27	14.65	13.83	13.02	9.34	8.51

TV BOOSTER TRANSFORMER

Stock No.	Type	Plate Supply AC Volts	DCMA	Filament Volts	Filament Amps	Ht.	Base Area	Mtg. Ctrs.	Fig.	1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F525	P-8181	150 half wave	25	6.3CT	0.5	2	2 7/16x1¾	2	VE	4.23	3.81	3.59	3.38	2.42	2.21

PCF SERIES POWER CIRCUIT TRANSFORMERS

Stock No.	Type No.	Pri. Volts	Sec. Volts	Sec. Amps	V-A Cap	Wt.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F886	PCF-2025	230	115	.25	25	2	7.47	6.73	6.35	5.98	4.04	3.68


Type F

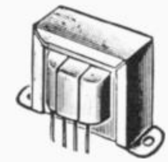


Fig. A

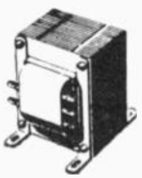


Fig. NV

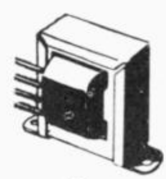


Fig. S

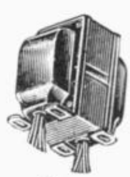


Fig. C


Fig. VE

Chicago-Stancor Filters & Chokes

FILTER REACTORS

Stock No.	Mfr. Type	Description	Hy.	mA	Ohm	Type	Case	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
4F101	RC- 1540	Wire Leads	15	40	475	SC	F6	6.19	5.57	5.26	4.95	3.44	3.13
4F103	RC- 1555	Wire Leads	15	55	380	SC	F6	7.09	6.38	6.02	5.67	3.93	3.58
4F104	RC- 1085	Wire Leads	10	85	175	SC	F7	7.42	6.68	6.31	5.93	4.12	3.76
4F414	RS- 1085	Solder Lugs	10	85	175	SC	F7	9.96	8.97	8.46	7.97	5.53	5.03
1F889	RS- 1585	Solder Lugs	15	85	285	SC	F7D	11.27	10.15	9.57	9.01	6.25	5.69
4F108	RC- 8150	Wire Leads	8	150	100	SC	F9	12.60	11.35	10.71	10.08	6.98	6.35
4F111	RC-12200	Wire Leads	12	200	140	SC	F-10	13.64	12.28	11.60	10.92	7.85	7.14
1F888	RC- 1055	Wire Leads	10	55	230	SC	F6	6.52	5.87	5.54	5.22	3.61	3.29
4F123	RS- 1555	Solder Lugs	15	55	380	SC	F6	9.84	8.86	8.36	7.87	5.33	4.86
4F121	RS- 1540	Solder Lugs	15	40	475	SC	F6	8.66	7.79	7.36	6.93	4.81	4.38
4F127	RS-12105	Solder Lugs	12	105	170	SC	F8D	13.26	11.94	11.27	10.61	8.25	7.52
4F415	RC-12105	Wire Leads	12	105	170	SC	F8D	13.19	11.87	11.21	10.55	7.57	6.90
4F416	RC-12150	Wire Leads	12	150	150	SC	F9D	15.13	13.62	12.86	12.10	8.68	7.90
4F129	RS-12150	Solder Lugs	12	150	150	SC	F9D	14.36	12.93	12.20	11.49	8.25	7.52
4F131	RS-12200	Solder Lugs	12	200	140	SC	F10D	18.84	16.96	16.01	15.07	10.82	9.85
4F130	RS- 8200	Solder Lugs	8	200	85	SC	F10D	15.27	13.75	12.98	12.22	8.51	7.75
1F890	RC- 8200	Wire Leads	8	200	85	SC	F10D	14.27	12.84	12.13	11.42	8.19	7.46
1F891	RC- 8300	Wire Leads	8	300	60	SC	F11	21.94	19.75	18.65	17.56	12.62	11.49

HIGH CURRENT FILTER CHOKES

Inductance values rated at 1 volt RMS, 60 Hz. May be used with rectifier Power Transformers.

Stock No.	Type No.	mhys	DC Amps	DC Ohms	Insul Test V.RMS	Mtg. Ctrs.	Fig.	Wt.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F893	C-2685	35	2.0	.75	1500	2 3/16x2"	NH	1.9	4.35	3.92	3.70	3.48	2.59	2.36
1F894	C-2686	25	4.0	.425	1500	2 13/16x2 1/8"	NH	3.4	7.59	6.84	6.46	6.08	4.22	3.84
IF049	C-2687	10	8.0	.15	1500	3 1/8x2 1/2"	NH	5.3	9.95	8.96	8.45	7.96	5.53	5.03
1F895	C-2688	10	12.5	.11	1500	3 7/16x2 3/8"	NH	5.9	11.55	10.40	9.83	9.24	6.41	5.83

SMOOTHING CHOKES

Stk. No.	Type	Hys.	mA	Ohms	Size	Fig.	Lbs.	1-9	10-24	25-49	50-99	100-249	250-499
1F896	C-2708	0.32	600	10	1 15/16x3 3/16x2"	A	1.3	3.84	3.46	3.27	3.07	2.14	1.95
1F897	C-2343	0.75	300	32	1 5/8x2 7/8x1 1/2"	A	0.7	2.14	1.93	1.82	1.72	1.15	1.05
1F176	C-2328	0.8	375	25	2 1/4x3 3/4x2"	A	1.5	4.54	4.09	3.85	3.63	2.46	2.24
1F510	C-2326	1.0	300	43	2 1/4x3 3/4x2 1/4"	A	1.7	3.60	3.24	3.06	2.89	2.07	1.90
1F533	C-2327	1.5	200	85	5/8x2 7/8x1 1/2"	A	0.7	2.41	2.17	2.05	1.93	1.35	1.24
1F898	C-2707	2.0	15	70	1 1/4x2 1/8x1 1/8"	A	0.4	1.90	1.71	1.61	1.52	1.07	.98
1F509	C-2325	2.0	200	60	2 1/4x3 3/4x2 1/4"	A	1.8	3.60	3.24	3.06	2.89	2.07	1.90
1F165	C-2304	2.3	150	60	2x3 1/4x1 3/4"	A	1.0	2.83	2.55	2.40	2.27	1.58	1.45
1F164	C-2303	2.5	130	100	2x3 1/4x1 3/4"	A	1.0	2.79	2.52	2.38	2.24	1.57	1.43
1F899	C-2706	2.6	310	50	3 3/16x2 5/8x3 1/4"	C	4.0	7.92	7.13	6.74	6.34	4.56	4.15
1F177	C-2334	2.8	300	60	2 5/8x2 1/4x4"	A	2.5	6.79	6.11	5.77	5.44	2.70	2.46
1F167	C-2309	3	150	90	2 1/4x3 3/4x2 1/4"	A	1.7	3.33	3.01	2.84	2.68	1.95	1.79
1F150	C-1110	4	175	100	3 3/16x2 5/8x2 5/8"	C	2.4	5.93	5.34	5.04	4.75	3.41	3.12
1F153	C-1703	4	250	60	3 1/2x2 7/8x3 3/16"	NV	4.2	7.94	7.15	6.75	6.36	4.60	4.20
1F173	C-1412	4.0	250	60	3x3 1/2x3 5/8	C	4.3	8.77	7.89	7.55	7.02	5.04	4.59
1F156	C-1706	4.5	50	300	1 3/8x2 3/8x1 3/8"	A	0.5	1.64	1.48	1.40	1.31	.94	.86
1F151	C-1411	4.5	200	80	3 5/8x3x3 1/8"	C	3.5	7.12	6.41	6.05	5.70	4.10	3.73
1F900	C-1723	4.5	50	325	1 3/8x2 3/8x1 3/8"	A	0.5	2.04	1.84	1.73	1.63	1.18	1.08
1F166	C-2305	5	100	300	2 11/16x2 3/4x2 3/16"	SC	1.5	4.55	4.10	3.87	3.64	2.56	2.34
1F152	C-1646	5	200	90	4x3 1/4x3 3/8"	C	4.5	8.73	7.87	7.43	6.99	5.01	4.57
1F157	C-1707	7	50	550	1 3/8x2 3/8x1 3/8"	A	0.5	1.92	1.73	1.63	1.53	1.10	1.01
1F171	C-1421	7.0	140	165	2 5/8x2 5/8x3 3/16"	C	2.5	5.67	5.11	4.82	4.54	3.36	3.06
1F160	C-1710	7	150	200	2 5/8x4x2 1/4"	A	2.2	4.65	4.19	3.96	3.72	2.78	2.53
1F338	C-1414	7.5	400	60	4 3/4x4x5 1/8"	C	11.8	20.12	18.11	17.11	16.10	11.96	10.89
1F169	C-1355	8.0	75	290	2 3/16x1 3/4x2 1/16	L	1.0	3.30	2.97	2.81	2.64	1.86	1.70
1F159	C-1709	8	85	250	2x3 1/4x2"	A	1.4	2.97	2.68	2.53	2.38	1.73	1.58
1F154	C-2308	8	300	80	4 3/4x4x3 7/8"	C	7.8	15.61	14.05	13.27	12.49	8.97	8.17
1F901	C-1722	8.0	300	80	4 5/8x3 3/4x3 1/2"	NV	7.3	13.19	11.87	11.21	10.55	7.57	6.90
1F172	C-1721	8.5	200	120	3 1/8x3x3 7/8"	NV	4.4	9.43	8.49	8.01	7.55	5.43	4.94
1F163	C-1001	10.5	110	225	2 5/8x4x2 1/4"	A	2.3	4.52	4.07	3.85	3.62	2.64	2.41
1F175	C-2318	12.0	30	400	1 3/8x2 3/8x1 3/8"	A	0.5	2.42	2.18	2.06	1.94	1.32	1.21
1F158	C-1708	13	65	500	2x3 1/4x1 3/4"	A	1.0	2.94	2.64	2.50	2.36	1.64	1.50
1F162	C-1002	15	75	400	2 1/4x3 3/4x2 1/4	A	1.7	3.47	3.13	2.95	2.78	2.01	1.83
1F170	C-1420	16.0	80	360	2 5/8x2 5/8x3 3/16"	C	2.5	6.21	5.59	5.27	4.97	3.57	3.25
1F902	C-1003	16.0	50	580	2x3 1/4x1 3/4"	A	1.0	2.62	2.36	2.23	2.10	1.57	1.43
1F178	C-1515	20.0	15	900	1 5/8x2 7/8x1 1/2	A	0.7	2.86	2.58	2.44	2.29	1.64	1.50
1F903	C-2345	350	5	5600	2x3 1/4x1 3/4"	A	1.0	4.34	3.91	3.69	3.47	2.40	2.19

SWINGING CHOKES

Stk. No.	Type	Hys.	DCMA	Ohms	Size	Fig.	Lbs.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F781	C-1402	12.0-2.0	25-250	60	3x3 1/2x3 5/8"	C	4.3	8.91	8.02	7.58	7.13	4.94	4.50
1F063	C-1718	13.5-3.5	15-150	130	2 5/8x2 1/2x3 3/16	C	2.3	5.91	5.32	5.02	4.73	3.40	3.11
1F064	C-1400	12.0-2.0	17.5-175	100	2 5/8x2 5/8x3 3/16"	C	2.4	6.46	5.81	5.49	5.17	3.72	3.39
1F065	C-1645	12.0-2.0	20-200	90	3 1/4x3 3/8x4"	C	4.5	8.63	7.77	7.33	6.90	4.95	4.51
1F066	C-2307	20.0-4.0	30-300	80	4x3 7/8x4 3/4"	C	7.9	15.24	13.72	12.95	12.19	8.75	7.97

AC-DC CHOKES

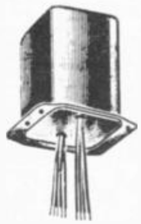
Stk. No.	Type	Hys.	mA	Ohms	Size	Fig.	Lbs.	1-9	10-24	25-49	50-99	100-249	250-499
1F191	C-1080	3.5	50	200	1 5/8x2 7/8x1 1/2"	A	0.7	2.01	1.81	1.71	1.61	1.16	1.06
1F194	C-1279	8.5	50	400	1 5/8x2 7/8x1 1/2"	A	0.7	2.04	1.84	1.73	1.63	1.18	1.08

COMMERCIAL GRADE AUDIO FILTERS

Stock No.	Type No.	Application	Inductance in henries	Max. DCV	Fig.	Mtg. Ctrs.	Wt.	1-9	10-24	25-49	50-99	100-249	250-499
1F405	C-2317	Splatter Sup. Filter	0.048-0.9	300ma	—	2 1/2x2	2.3	7.31	6.58	6.21	5.85	4.21	3.83

PLATE MODULATION TRANSFORMERS

Stk. No.	Type	Sec.	Pri.	mA-Pri.	mA-Sec.	Watts	Fig.	Lbs.	1-9	10-24	25-49	50-99
1F403	A-3812	4000	10,000CT	32	50	5	A	0.7	3.08	2.78	2.62	2.47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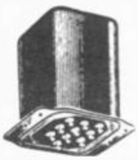
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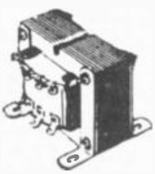


Fig. BH


Fig. D

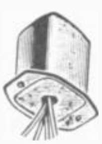


Fig. TD

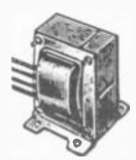


Fig. NV

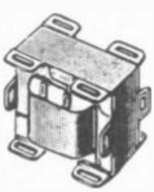


Fig. L

Chicago - Stancor Transformers

HIGH-FIDELITY OUTPUT TRANSFORMER

Frequency r¹sponse: ±1db 20 to 20,000 Hz.

Stock No.	Type No.	Pri. Imp. in Ohms	Sec. Imp. Ohms	Audio Watts	Mtg. Ctrs.	Fig.	Wt.	Each Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F904	A-8053	5000 CT	16/8	50	2¾x3$\frac{1}{16}$	C	6.5	17.90	16.11	15.22	14.33	10.28	9.35
1F905	A-8056	6600 CT	16/8	50	2¾x3$\frac{1}{16}$	C	6.5	17.93	16.14	15.25	14.35	10.29	9.37
1F906	A-8054	9000 CT	16/8	50	2¾x3$\frac{1}{16}$	C	6.5	17.93	16.14	15.25	14.35	10.29	9.37
1F907	A-8072	7600 CT	16/8/4	25	2¾x3$\frac{1}{16}$	C	6.5	21.42	19.28	18.21	17.14	11.55	10.52

SINGLE PLATE TO VOICE COIL TRANSFORMERS

Stock No.	Type No.	Imp. - Ohms Pri.	Sec.	DC Ma.	Audio Watts	Mtg. Type	Mtg. Ctrs.	Shpg. Wt.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F276	A-3332	2,000	3.2	50	3	A	1¾	0.4	1.73	1.56	1.47	1.39	1.02	.93
1F265	A-3876	2,000	4	60	5	A	2	0.4	1.84	1.65	1.57	1.48	1.07	.98
1F260	A-3328	4,000	3.5	10	3	A	1¾	0.4	1.79	1.61	1.52	1.43	1.03	.94
1F266	A-3877	5,000	4	40	5	A	2	0.4	1.84	1.66	1.57	1.48	1.10	1.01
1F340	A-8092	5,000	3-4	50	8	A	2⅜	0.5	2.74	2.47	2.34	2.19	1.49	1.36
1F908	A-3337	5,000	6-8	40	10	S	2⅜	1.0	2.89	2.61	2.46	2.32	1.70	1.56
1F339	A-3310	5,000	500/15/8/4	55	20	C	2	2.5	7.70	6.93	6.55	6.16	4.27	3.90
1F267	A-3878	7,000	4	30	5	A	2	0.4	1.92	1.73	1.63	1.53	1.10	1.01
1F909	A-2313	7,000	8	40	10	A	2$\frac{13}{16}$	1.0	3.36	3.03	2.85	2.69	1.87	1.71
1F261	A-3329	8,000	3.5	10	3	A	1¾	0.4	1.86	1.67	1.58	1.48	1.07	.98
1F268	A-3879	10,000	4	30	5	A	2	0.4	1.87	1.69	1.60	1.50	1.09	1.01
1F341	A-3881	15,000	4	10	5	A	2	0.4	2.39	2.15	2.03	1.92	1.38	1.26
1F910	A-3327	25,000	4	5	5	A	2	0.4	2.36	2.13	2.01	1.89	1.36	1.24
1F940	A-8070	1,000	4.0	90	4	A	2	0.4	2.79	2.52	2.38	2.24	1.03	.94

PUSH-PULL PLATES TO VOICE COIL

Stk. No.	Type	Fig.	Impedance - Ohms Primary	Secondary	Watts	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F911	A-8098	C	2,000 CT	32/16/8	15	10.64	9.58	9.05	8.52	6.32	5.76
1F912	A-3800	C	5,000 CT	500/250/15/8/4	30	8.55	7.[illegible]	7.26	6.85	4.92	4.48
1F913	A-3304	C	10,000.7,000 CT	500/15/8/4	25	8.06	7.25	6.85	6.45	4.46	4.06
1F914	A-2312	A	14,000 CT	4	10	3.67	3.30	3.12	2.93	2.12	1.93
1F915	A-3496	A	14,000 CT	4	5	3.68	3.32	3.13	2.94	1.98	1.81
1F206	A-8094	A	4,000 CT	32/16/8	7.5	5.45	4.91	4.64	4.36	3.22	2.93
1F776	A-3872	SC	5,000 CT	15/8/4	18	5.75	5.17	4.89	4.60	3.30	3.01
1F777	A-3831	A	10,000 CT	8/4/2	5	3.47	3.13	2.95	2.78	2.01	1.83
1F778	A-3335	S	10,000 CT	6-8/3.2-4	10	3.93	3.54	3.34	3.15	2.19	2.01
1F780	A-3857	A	25,000 CT	4	5	3.05	2.74	2.59	2.45	1.70	1.56
1F222	A-3802	C	3,800/3,300 CT	500/250/8/4	75	19.75	17.78	16.79	15.80	11.33	10.32
1F275	A-3801	C	6,600 CT	500/250/15/8/4	35	10.88	9.79	9.26	8.71	6.25	5.69
1F409	A-3311	C	10,000 CT	500/15/8/4	25	8.13	7.32	6.91	6.51	4.40	4.01
1F225	A-3839	SC	10,000 CT	2,000 & 15/8/4	10	6.37	5.74	5.42	5.10	3.67	3.35
1F226	A-3885	C	9,000 CT	500/250/15/8/4	35	10.89	9.81	9.27	8.72	6.26	5.70
1F227	A-8093	A	10,000 CT	3-4	10	2.86	2.58	2.44	2.29	1.59	1.46

UNIVERSAL OUTPUT TRANSFORMERS

Match any voice coil to rated primary ohms.

Stk. No.	Type	Pri. Ohms	Watts	Fig.	Ctrs.	Lbs.	1-9	10-24	25-49	50-99	100-249	250-499
1F250	A-3856	4000 to 14,000	4	Q	2"	½	3.52	3.17	3.00	2.82	2.04	1.86
1F252	A-3850	4000 to 14,000	8	J	2"	¾	4.21	3.79	3.58	3.37	2.42	2.22

FIG. J. TUBE TO LINE

A-3841 Secondaries, 500 ohms; A-3250 500/333/200/125/50 ohms. A-3841 10W., 1.5 lbs., A-3250, 5W., 1 lb.

Stk. No.	Type	Use	Primary	Size	1-9	10-24	25-49	50-99
1F283	A-3841	Sgl Plate	7000/6000/5000/4000/2500	2$\frac{11}{16}$x3$\frac{5}{16}$x2¼"	6.55	5.90	5.57	5.24
1F296	A-3250	Sgl/PP Pl	20000/10000/5000	2x3¼x1¾"	5.09	4.58	4.33	4.07

LINE TO VOICE COIL

Stk. No.	Type	Fig.	Impedance - Ohms Primary	Sec.	Watts	Size	Lbs.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F366	A-8101	Q	500	6-8/3.2	5	2⅜x1⅜x1⅞"	½	2.22	2.00	1.89	1.78	1.31	1.20
1F369	A-3818	J	1,500/1,000/500	15/8/4	25	3⅝x2¼x3⅛"	2½	6.13	5.52	5.21	4.91	3.52	3.22
1F370	A-8104	J	3,000/2,000/1,500/ 1,000/500	16/8/4	10	2$\frac{15}{16}$x1¾x2$\frac{5}{16}$"	1½	5.25	4.72	4.46	4.21	2.91	2.66
1F280	A-7947	Q	2,000, 1,500, 1,000, 500	6-8/3.2	8	1⅝x2$\frac{13}{16}$x1$\frac{9}{16}$"	¾	3.62	3.26	3.08	2.90	2.08	1.90

25 VOLT LINE TO VOICE COIL TRANSFORMERS

Stk. No.	Type	Pri. Imp.	Sec. Imp.	Watts	Mtg. Ctrs.	Each Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F389	A-8095	125/250/500/ 1000/2000	8/4	5/2.5/1.25/ .62/.31	2"	3.19	2.88	2.72	2.56	1.91	1.74
1F390	A-8096	78/156/312 625/1250	16/8/4	8/4/2/1/ 0.5	2"	4.67	4.21	3.96	3.73	2.59	2.36
1F345	A-6088	156/312/625/ 1250/2500/5000	8	4/2/1/ .5/.25/.12	2⅜"	3.40	3.06	2.89	2.72	1.86	1.61

OUTPUT TRANSFORMERS

Stk. No.	Type No.	Typical Output Tubes	Impedance Ohms Primary	Secondary	DC Pri.	Pwr. Watts	Mtg. Type	Wt. Lbs.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F916	PCO-150A	P-P 6V6's, 6F6's	12,000CT	600/150/16/8/4	200	15	SC	5	16.88	15.20	14.35	13.50	9.34	8.51
1F917	COC-1	Sgl. 6L6, 6V6	5,000	600/150/16/8/4	55	5	SC	2¼	9.96	8.97	8.46	7.97	5.39	4.91

70.7 VOLT TO VOICE COIL TRANSFORMERS

Stock No.	Type No.	Power Steps In Watts	Impedance In Ohms Pri.	Sec.	Mtg. Type	Mtg. Ctrs.	Shpg. Wt.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F373	A-8102	8/4/2/1/0.5	625/1,250/2,500/ 5,000/10,000	16/8/ 4	J	2	0.7	4.37	3.93	3.71	3.50	2.42	2.22
1F126	A-8105	5/2.5/1.25/ .62/.31	1000/2000/4000/ 8000/16,000	8/4	Q	2	0.4	3.57	3.22	3.03	2.85	2.06	1.89
1F344	A-8084	4/2/1/.5/.25/ .12	1250/2500/5000/ 10000/20000/40000	8	A	2⅜	.07	3.64	3.28	3.10	2.92	1.86	1.61

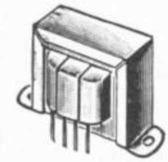


Fig. A

Fig. C

Fig. SC

Order Chicago-Stoncor Transformers from Newark's Complete On-The-Shelf Stock . . . at Factory Competitive O.E.M. Prices! Ready for Immediate Shipments

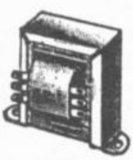


Fig. J

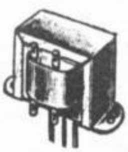


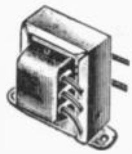
Fig. Q

Chicago-Stancor Transformers

CARBON MIKE or LINE to SINGLE GRID

†Has Dual primary—when properly connected, the 200 and 500 ohm sections are center tapped.

Stock No.	Type	Use	Pri.	Sec.	Size	Wt.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F285	A-4705	SB Mic	200/70	80,000	1⅜x2⅜x1⅜"	½	4.15	3.73	3.52	3.33	2.25	2.05
1F288	A-4351†	Mic or Line	500/333/200/.25/50	89,000	2¹¹⁄₁₆x2¼x1½"	1¼	6.01	5.41	5.11	4.81	....	....



Type VE

MICROPHONE OR LINE TO LINE TRANSFORMERS

Sec. 500/333/200/125/50. Size: 3¼x1¾x2" high. Mtg. Ctrs. 2¹³⁄₁₆

Stk. No.	Type	Primary	Watts	Fig.	Wt.	1-9	10-24	25-49	50-99	100-249	250-499
1F763	A-4350	500/333/200/125/50	10	Q	1.0	5.28	4.76	4.49	4.23	2.86	2.61

INTERCOM TRANSFORMERS

St. No.	Type	Use	Pri. Imp.	Sec. Imp.	Fig.	Ht.	Wt. (lb.)	1-9	10-24	25-49	50-99	100-249	250-499
1F311	A-4744	Input	4Ω	25KΩ	VE	1⅜"	0.5	2.56	2.30	2.17	2.05	1.48	1.35
1F399	A-4748	Input	45 or 50Ω	50KΩ	A	1³⁄₁₆"	0.4	3.55	3.19	3.02	2.84	....	....

DRIVER TRANSFORMERS

St. No.	Type	Pri. Imp.	Pri. ½ Sec.	Pri. D.C.	Mgt.	Fig.	Lbs.	1-9	10-24	25-49	50-99	100-249	250-499
1F221	A4702	1500 to 5000Ω	5:1	80 ma	2x1¹¹⁄₁₆	C	2.5	6.49	5.85	5.52	5.20	3.74	3.41
1F406	A4713	10,000Ω	2:1	30 ma	2⅜	A	.7	2.75	2.48	2.35	2.20	1.59	1.46
1F407	A4723	10,000Ω	3:1	30 ma	2⅜	A	.7	2.81	2.53	2.39	2.25	1.63	1.49
1F220	A4752	10,000Ω	2/1.5/1:1	40 ma	2¹⁵⁄₁₆	A	1.2	3.90	3.51	3.32	3.12	2.24	2.04

Fig. C

AUDIO TRANSFORMERS

1F302 (Type A-53) Interstage type; 7000-20,000 ohm plate impedance to 1G. Remainder Push Pull Inputs: One 7000-15,000 ohm plate impedance to 2 G maximum primary DC 10MA.

Stk. No.	Type No.	Ratio	Size	Fig.	Mtg. Ctrs.	Lbs.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F302	A-53	1:3	1⅜x2⅜x1½	A	2"	½	2.58	2.33	2.19	2.06	1.49	1.36
1F918	A-53C	1:3	1⅜x2⅜x1⅜	A	2	½	3.02	2.72	2.57	2.41	1.69	1.54
1F294	A-52C	1:2	1⅜x2⅜x1⅜	A	2	¼	2.83	2.55	2.40	2.27	1.64	1.50
1F291	A-63C	1:3	1⅝x2⅞x1½	A	2⅜	¾	3.55	3.19	3.02	2.84	1.97	1.80
1F300	A4711	1:1	1⅝x2⅞x1½	A	2⅜	¾	4.24	3.82	3.60	3.39	2.36	2.15

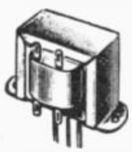


Fig. Q

PHOTOFLASH TRANSFORMER

Stock No.	Type No.	Application	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-499
1F086	P-6425	Power transformer for AC powered Electronic flash circuits	1¼	4.59	4.13	3.90	3.68	2.54	2.32
1F087	P-6426	Trigger Coil for 450V flash	⅛	2.03	1.83	1.72	1.62	1.09	1.00

STEP-DOWN TRANSFORMERS

Type SD. For operating 115 volt equipment from 230 volts, 50-60 cycles AC for source, "Sealed in Steel" corrosion-proof. With 8 ft. cord, plug, standard receptacle on case.

Stk No.	Type	Watts	Lbs.	Size	1-9	10-24	25-49	50-99	100-249	250-499
4F141	SD-50	50	2¾	3½x3½x2⅞"	9.54	8.59	8.11	7.64	4.95	4.51
4F142	SD-100	100	4¼	4⁵⁄₁₆x4⁷⁄₁₆x3¹¹⁄₁₆"	11.22	10.10	9.54	8.98	6.42	5.85
4F143	SD-150	150	7	5¼x5⁵⁄₁₆x4⁹⁄₁₆"	16.55	14.90	14.07	13.24	9.61	8.75
4F144	SD-250	250	8¾	5¼x5⁵⁄₁₆x4⁹⁄₁₆"	18.70	16.83	15.90	14.96	10.82	9.85
4F145	SD-500	500	14½	5⅞x6¹⁄₁₆x5⁵⁄₁₆"	24.45	22.01	20.79	19.56	14.28	13.01
4F146	SD-1000	1000	22½	6½x7¹⁄₁₆x6⅛"	40.45	36.41	34.39	32.36	23.35	21.26

Type SD

ISOLATION TRANSFORMERS

Primary: 50/60 cycles.

Stock No.	Type No.	Input Voltage	Output Voltage	Watts	Lbs.	Size	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F919	IS-50	105/115/125	125/115/105	50	5	3¹¹⁄₁₆x3⁵⁄₁₆x4¹¹⁄₁₆	18.34	16.51	15.59	14.68	8.00	7.29
1F920	IS-100	105/115/125	125/115/105	100	8½	4⁹⁄₁₆x4⅛x5⁵⁄₁₆	25.12	22.61	21.36	20.10	13.92	12.68
1F921	IS-250	105/115/125	125/115/105	250	18¼	5⁵⁄₁₆x4¹³⁄₁₆x6¹⁄₁₆	35.30	31.77	30.01	28.24	20.96	19.08

Fig. KA

STEPUP-STEPDOWN AUTOTRANSFORMERS

Type PSU. Designed specifically for use with air conditioners in converting a 208 volt unit to a 230 volt line. 60 cycle operation, 208 v/230 v, 230 v/208 v. Converting from 230 volt unit to a 208 volt line is done by a simple connection inside outlet box. Unit is for air conditioners using 1 to 2 hp motors.

Stock No.	Type No.	Size	Mtg. Ctrs.	Mtg. Type	Wt. Lbs.	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
1F922	PSU-3000	4x4½x6	2½x3¾	PSU	10	26.30	23.67	22.36	21.04	15.12	13.77

230 TO 115 VOLT STEP-DOWN AUTOFORMERS

Fig. KA. Reduce 230 VAC to 115V 50/60 cyc. Std. Fem. receptacle on shell, UL-approved 6-ft. cord and plug included. RMS test insulation 1500V.

Stk. No.	Type	Watts	Size	Lbs.	1-9	10-24	25-49	50-99	100-249	250-499
1F320	P-6287	40	3½x2½x2⅝"	2¼	9.30	8.37	7.91	7.44	4.98	4.54
1F321	P-5062	80	3½x3⅜x2¹³⁄₁₆"	4	10.01	9.00	8.50	8.00	5.58	5.09
1F322	P-5063	100	3⅞x3⅝x3⅛"	4½	11.64	10.48	9.90	9.32	6.47	5.90
1F323	P-5064	150	4¼x3⅝x3⁷⁄₁₆"	5¼	12.60	11.34	10.71	10.08	7.32	6.67
1F324	P-5065	300	4¹¹⁄₁₆x4¼x3¾"	9	16.25	14.62	13.81	13.01	9.33	8.50
1F325	P-6141	500	4¹¹⁄₁₆x5¼x3¾"	14	21.53	19.37	18.30	17.22	12.80	11.65

Fig. TE

STRAIGHT ISOLATION TRANSFORMERS

Heavy duty. Maintain rated wattage. Good pri-sec. isolation: Switched 105-115-125V., 50/60-cy., pri. taps; std. AC recptcl. 115-V sec. P-6415: test TV and radio recvrs.; 105, 115, 125V output recptcl., 117V. 60 cyc. pri.

Stk. No.	Type	Watts	Fig.	Size	Lbs.	1-9	10-24	25-49	50-99	100-249	250-499
1F923	P-6161	250	KA	4¹¹⁄₁₆x5½x3¾"	14.2	26.27	23.65	22.33	21.02	15.08	13.73
1F924	P-6125	1000	....	7⅛x7¾x5⅝"	35	98.07	88.27	83.36	78.46	....	....
1F315	P-6160	100	KA	4¹¹⁄₁₆x3¾x3¾"	7	19.07	17.17	16.21	15.26	10.77	9.81
1F316	P-6415	350	KC	5⅜x4½x5¾"	17	30.42	27.38	25.85	24.34	18.08	16.46
1F317	P-6410	50	....	3⁹⁄₁₆x2¹⁵⁄₁₆x3⅛"	4	9.34	8.41	7.95	7.47	5.37	4.90
1F319	P-6298	500	KA	7⅝x6⅛x7⅝"	28.0	67.41	60.66	57.29	53.92	39.03	35.52
1F404	P-6371	175	TE	5⁵⁄₁₆x4⁹⁄₁₆x5¼"	9	24.33	21.91	20.68	19.47	13.96	12.71
1F043	P-6411	15		1⅞x3¼x2"	1.0	4.01	3.61	3.41	3.21	2.30	2.09

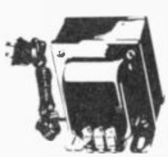
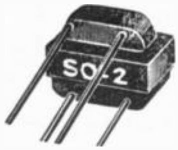


Fig. KC

"SUB-OUNCERS"



Tiny transformers for use in hearing aids, pocket radios, etc. Measure only 23/32x7/8x19/32"H. Weight .03 lb. each. Frequency response, ±3 db. 200-5,000 cps.

**Indicates split winding.

Stock No.	Type	Application	Pri. Imp.	Sec. Imp.	1-24	25-99	100-Up
3F390	SO-1	Input	200, 50	250,000, 62,500	3.60	3.06	2.88
3F391	SO-2	Inter.	10,000	90,000	3.30	2.81	2.64
3F392	SO-3	Plate to line	10,000, 25,000	200, 500	3.30	2.81	2.64
3F394	SO-5	Reactor 50 hy 1 ma DC	2,675 ohms DC res		3.00	2.55	2.40
3F396	SO-7	transis. Int.	20,000, 30,000	800, 1200	3.00	2.55	2.40
3F397	SO-8	transis. to PP	10,000	2,000CT	3.60	3.06	2.88
3F398	SO-9	PP transis to VC	500CT	3.2	3.60	3.06	2.88
3F399	SO-10	transis. to VC	2,000, 4,000CT	8/16	3.60	3.06	2.88
3F595	SO-11	transis. Inters	400 CT 500 CT	400** 500**	4.20	3.57	3.36
3F596	SO-12	transis. Inters	400 CT 500 CT	120** 150**	4.20	3.57	3.36
3F597	SO-13	transis. Inters	400 CT 500 CT	40** 50**	4.20	3.57	3.36
3F598	SO-14	transis Inters	80 CT 100 CT	32** 40**	4.20	3.57	3.36
3F532	SO-CH	Mtg. Channel for any SO			.30	.26	.24

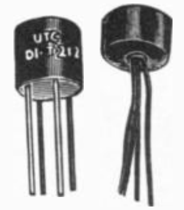
SUB-SUBOUNCER UNITS

Size: 43/64x3/4x7/16". Weight .02 lb. Impedance ratios are constant; these units can be used for other impedances if in same ratios. Units may be used reversed.

Stock No.	Type	Application	Pri. Imp.	Sec. Imp.	1-24	25-99	100-Up
3F375	SSO-1	Input	200 50	250,000 62,500	4.50	3.83	3.60
3F376	SSO-2	Inter. 3:1	10,000	90,000	4.80	4.08	3.84
3F377	SSO-3	Pl. to Line	10K/25K	200/500	4.20	3.57	3.36
3F378	SSO-4	Out	30K	50	3.90	3.32	3.12
3F379	SSO-5	React. 50 hy at 1 mil ac	4400 ohms dc Res.		3.90	3.32	3.12
3F381	SSO-7	Transis Inter	20,000 30,000	800 1,200	3.30	2.81	2.64
3F382	SSO-8	Transis to PP	10,000	2,000CT	3.90	3.32	3.12
3F383	SSO 9	Transis. to VC	10,000	16	3.00	2.55	2.40
3F384	SSO 10	Transis. to VC	10,000	3.2	3.00	2.55	2.40
3F385	SSO-11	Transis. Output	500-600	50-60	3.00	2.55	2.40
3F386	SSO-12	Transis. Output	1K-1200	50-60	3.00	2.55	2.40
3F387	SSO-13	Xtal to Transis.	200,000	1,000	4.50	3.83	3.60
3F388	SSO-14	Transis. Inter	10,000 25,000	200CT 500CT	4.20	3.57	3.36
3F389	SSO-15	Transis Inter	20,000 30,000	800CT 1,200CT	4.20	3.57	3.36
3F599	SSO-16	Output	1.2K 1.5K	3.2/4	3.00	2.55	2.40
3F326	SSO-17	Out. or driver	10K 12K	500CT 600CT	3.30	2.81	2.64
3F328	SSO-19	Match	500CT	600CT	3.30	2.81	2.64
3F329	SSO-20	Output	1.5K CT	600CT	3.30	2.81	2.64
3F332	SSO-21	Xtal/chopper	200K CT	1,000CT	4.80	4.08	3.84
3F333	SSO-22	Inter	10K CT 12K CT	1,500CT 1,800CT	3.90	3.32	3.12
3F334	SSO-23	Reactor	8 Hys. @ 2 ma		3.00	2.55	2.40
3F335	SSO-24	Reactor	3.5 Hys. @ 2 ma		3.00	2.55	2.40
3F336	SSO-25	Transis Inter	10K CT 12K CT	10K CT 12K CT	5.10	4.34	4.08
3F337	SSO-26	Transis Inter	40K CT 50K CT	400SPT 500SPT	5.10	4.34	4.08
3F533	SSO-CH	Mtg. Channel for any SSO			.30	.26	.24

DI-T TRANSISTOR TRANSFORMERS

Meet MIL-T-27B-TF4RX



DI-T. Smaller than the DO-T Deci-Ouncers. Power ratings and other characteristics identical to DO-T's, except frequency response is approximately ±2 db, 260-20khz. Hermetically sealed; rated for Class R (105°C max. operating) temp. conditions. Size 5/16D x 1/4"H, wt. 1/15 oz.

DI-T200. As above, with uninsulated leads spaced on .1" radius for printed circuit boards. Size 5/16D x 3/8"H., wt. 1/15 oz.

Stock No.	Type No.	Application	Primary Impedance	Secondary Impedance	1-24	25-99	100-Up
3F422	DI-T1	Interstage	20K/30K	800/1200	6.00	5.10	4.80
3F125	DI-T2	Output	600/500	60/50	5.40	4.59	4.32
3F126	DI-T3	Output	1200/1000	60/50	5.40	4.59	4.32
2F642	DI-T5	Output	1200	3.2	5.40	4.59	4.32
3F127	DI-T8	Reactor	2.5Hy @ 2 ma		4.80	4.08	3.84
3F128	DI-T9	Output	10K/12K	500/600CT	6.60	5.61	5.28
3F129	DI-T10	Driver	10K/12.5K	1.2K/1.5KCT	6.60	5.61	5.28
3F130	DI-T11	Driver	10K/12.5K	2K/2500CT	6.60	5.61	5.28
3F131	DI-T19	Output	300CT	600	6.00	5.10	4.80
3F132	DI-T20	Output	500CT	600	6.00	5.10	4.80
3F474	DI-T21	Output	900CT	600	6.00	5.10	4.80
3F133	DI-T22	Output	1500CT	600	6.00	5.10	4.80
3F134	DI-T23	Interstage	20K/30KCT	800/1200CT	6.90	5.87	5.52
3F495	DI-T25	Interstage	10K/12KCT	1.5K/1.8KCT	7.20	6.12	5.76
3F496	DI-T26	Reactor	4.5Hy @ 2 ma		5.70	4.85	4.56
3F497	DI-T27	Reactor	.9Hy @ 2ma		4.80	4.08	3.84
3F498	DI-T28	Reactor	.1Hy @ 4 ma		4.80	4.08	3.84
3F499	DI-T36	Isol or Int	10K/12KCT	10K/12KCT	7.50	6.38	6.00
2F643	DI-T37	Isol. or Int.	2K/2.5KCT	3K/10K split	7.80	6.63	6.24
2F644	DI-T38	Interstage	10K/12KCT	2K/2.4K split	7.80	6.63	6.24
2F645	DI-T41	Int. or Out.	400/500CT	400/500 split	7.50	6.38	6.00
2F646	DI-T43	Interstage	400/500CT	40/50 split	7.50	6.38	6.00
2F647	DI-T44	Interstage	80/100CT	32/40 split	7.50	6.38	6.00
2F990	DI-T51	Interstage	2K/2.5KCT	2K/2.5K split	7.80	6.63	6.24
2F991	DI-T52	Interstage	4K/5KCT	8K/10KCT	7.80	6.63	6.24
3F531	DI-TSH	Hypermalloy shield for DI-T's			.90	.77	.72
2F648	DI-T225	Interstage	80/100CT	32/40 split	8.40	7.14	6.72
2F649	DI-T230	Output	300CT	600CT	7.20	6.12	5.76
2F650	DI-T235	Interstage	400/500CT	40/50 Split	8.40	7.14	6.72
2F651	DI-T240	Interstage	400/500CT	400/500 split	8.40	7.14	6.72
2F652	DI-T245	Output	500/600CT	50/60CT	6.90	5.87	5.52
2F653	DI-T250	Output	500CT	600CT	7.20	6.12	5.76
2F654	DI-T255	Output	1K/1200CT	50/60CT	6.90	5.87	5.52
2F655	DI-T260	Output	1500CT	600CT	7.20	6.12	5.76
2F656	DI-T265	Isol. or Int.	2K/2500CT	8K/10K split	8.70	7.40	6.96
2F657	DI-T270	Output	10K/12KCT	500/600CT	7.80	6.63	6.24
2F658	DI-T273	Output	10K/12.5KCT	1200/1.5KCT	7.80	6.63	6.24
2F659	DI-T276	Interstage	10K/12KCT	2K/2400CT	7.80	6.63	6.24
2F660	DI-T278	Interstage	10K/12.5KCT	2K/2.5K split	8.70	7.40	6.96
2F661	DI-T283	Isol. or Int.	10K/12KCT	10K/12KCT	8.40	7.14	6.72
2F662	DI-T288	Interstage	20K/30KCT	800/1200CT	8.10	6.89	6.48
2F663	DI-T204	Split induct.	Ser. .1 hy	Par. .025 hy	6.00	5.10	4.80
2F664	DI-T208	Split induct.	Ser. .9 hy	Par. .2 hy	6.00	5.10	4.80
2F665	DI-T212	Split induct.	Ser. 2.5 hy	Par. .6 hy	6.00	5.10	4.80
2F666	DI-T216	Split induct.	Ser. 4.5 hy	Par. 1.1 hy	6.90	5.87	5.52
2F992	DI-T200SH	Hypermalloy shield for DI-T200's			.75	.64	.60

"OUNCER" AUDIOS

Famous one ounce audio transformers represent the acme in compact quality transformers. High fidelity from 30-20,000 cps. Maximum output level +8 db at 6.3 mw. Application. Input and Mixing, Interstage and Output Transformers. Fully impregnated and sealed in a drawn aluminum housing. Size: 7/8" dia. x 13/16". Wt. 1 oz.

Stock No.	Type	Primary	Secondary	1-24	25-99	100-Up
3F360	0-1	50, 200-250, 500-600	50,000	7.80	6.63	6.24
3F361	0-2	50, 200-250, 500-600	50,000 CT	7.80	6.63	6.24
3F362	0-3	7.5-30	50,000	7.50	6.38	6.00
3F363	0-4	15,000	60,000	6.60	5.61	5.28
3F365	0-6	15,000	95,000 CT	7.50	6.38	6.00
3F366	0-7	15,000-4MA	95,000 CT	7.50	6.38	6.00
3F367	0-8	15,000	50, 200-250, 500-600	7.80	6.63	6.24
3F368	0-9	15,000-4MA	50, 200-250, 500-600	7.80	6.63	6.24
3F369	0-10	30,000 CT PP to line	50, 200-250, 500-600	8.40	7.14	6.72
3F370	0-12	50, 200-250	50, 200-250, 500-600	7.80	6.63	6.24
3F372	0-14	200	1/2 megohm	7.50	6.38	6.00
3F373	0-15	10,000	1 megohm	7.50	6.38	6.00
3F374	0-16	250CT	50,000	10.20	8.67	8.16
3F322	0-19	10,000/2 500 (split) 4 Ma	4,000/1,000 (split)	7.80	6.63	6.24
3F157	0-18	10K/2.5K (split) 4 Ma	2000/500 (split)	7.80	6.63	6.24
2F678	0-20	1500CT 8 Ma	500/125 split	6.30	5.36	5.04
2F993	0-25	600/150 split	2000/500 split	8.10	6.89	6.48
3F136	0-30	500/125 split 20 Ma	500/125 split	8.10	6.89	6.48
3F138	0-32	500/125 split 20 Ma	50/12.5 split	8.10	6.89	6.48
3F325	0-17	Mumetal shield, slip fit over ouncer		1.50	1.28	1.20
2F754	0-BR	Mounting bracket for Ouncers		.21	.18	.17

Transformers

DO-T TRANSISTOR TRANSFORMERS

Provides unprecedented power handling capacity, reliability, plus ultra small size. Hermetically sealed, metal cased to MIL-T-27B-TF4RX. Greater power rating, ±2 db, 200 cps —20KC. Low distortion. Anchored leads stand 10 lb. pull test; tinned and insulated copper conductors. For transistor use only. Size: $1\frac{3}{32}$" long; $\frac{4}{16}$" diameter. Weight $\frac{1}{10}$ oz.

Stock No.	Mfr's. Type	Application	Primary Impedance	Secondary Impedance	1-24	25-99	100-Up
3F550	DO-T1	Inter.	30,000/20,000	1200/800	6.00	5.10	4.80
3F551	DO-T2	Out.	600/500	60/50	5.40	4.59	4.32
3F552	DO-T3	Out.	1200/1000	60/50	5.40	4.59	4.32
3F553	DO-T4	Out.	600	3.2	5.40	4.59	4.32
3F554	DO-T5	Out.	1200	3.2	5.40	4.59	4.32
3F555	DO-T6	Out.	10,000	3.2	6.00	5.10	4.80
3F556	DO-T7	Input	200,000	1000	9.30	7.91	7.44
3F557	DO-T8	Inductor	3.5 hys at 2 ma, 560 ohms		4.80	4.08	3.84
3F660	DO-T9	Out.	10,000/12,000	500/600CT	6.60	5.61	5.28
3F661	DO-T10	Driver	10,000/12,500	1200/1.5KCT	6.60	5.61	5.28
3F662	DO-T11	Driver	10,000/12,500	2K/2500CT	6.60	5.61	5.28
3F663	DO-T12	Out.	150/200CT	12/16	5.70	4.85	4.56
3F664	DO-T13	Out.	300/400CT	12/16	5.70	4.85	4.56
3F665	DO-T14	Out.	600/800CT	12/16	6.00	5.10	4.80
3F666	DO-T15	Out.	800/1070CT	12/16	6.00	5.10	4.80
3F667	DO-T16	Out.	1000/1330CT	12/16	6.00	5.10	4.80
3F668	DO-T17	Out.	1500/2000CT	12/16	6.00	5.10	4.80
3F669	DO-T18	Out.	7500/10,000CT	12/16	6.30	5.36	5.04
3F670	DO-T19	Out.	300CT	600	6.00	5.10	4.80
3F671	DO-T20	Out.	500CT	600	6.00	5.10	4.80
3F672	DO-T21	Out.	900CT	600	6.00	5.10	4.80
3F673	DO-T22	Out.	1500CT	600	6.00	5.10	4.80
3F674	DO-T23	Inter.	20K/30KCT	800/1200CT	6.90	5.87	5.52
3F675	DO-T24	Input	200,000CT	1000CT	9.90	8.42	7.92
3F676	DO-T25	Inter.	10K/12KCT	1.5K/1800CT	7.20	6.12	5.76
2F669	DO-T26	Inductor	6 hys @ 2 ma 2100 ohms		5.70	4.85	4.56
3F658	DO-T27	Inductor	1.25 hy. at 2 ma DC 100 ohm		4.80	4.08	3.84
3F254	DO-T28	Inductor	3 Hy @ 4 Ma. DC 25 ohm.		4.80	4.08	3.84
3F218	DO-T29	Out.	120/150CT	3.2/4	5.70	4.85	4.56
3F219	DO-T30	Out.	320/400CT	3.2/4	5.70	4.85	4.56
3F225	DO-T31	Out.	640/800CT	3.2/4	6.00	5.10	4.80
3F226	DO-T32	Out.	800/1000CT	3.2/4	6.00	5.10	4.80
3F227	DO-T33	Out.	1060/1330CT	3.2/4	6.00	5.10	4.80
3F228	DO-T34	Out.	1600/2000CT	3.2/4	6.00	5.10	4.80
3F229	DO-T35	Out.	8000/10,000CT	3.2/4	6.30	5.36	5.04
3F255	DO-T36	Isol.	10K/12KCT	10K/12KCT	7.50	6.38	6.00
3F236	DO-T37	Isol.	2000/2500CT	8K/10K Split	7.80	6.63	6.24
3F237	DO-T38	Inter.	10K/12KCT	2K/2.4K Split	7.80	6.63	6.24
3F238	DO-T39	Inter.	20K/30KCT	1K1.5K Split	7.80	6.63	6.24
3F239	DO-T40	Inter.	40K/50KCT	400/500 Split	8.40	7.14	6.72
2F670	DO-T41	Inter.	400/500CT	400/500 Split	7.50	6.38	6.00
3F251	DO-T42	Inter.	400/500CT	120/150 Split	7.50	6.38	6.00
3F252	DO-T43	Inter.	400/500CT	40/50 Split	7.50	6.38	6.00
3F253	DO-T44	Inter.	80/100CT	32/40 Split	7.50	6.38	6.00
2F671	DO-T45	Inter.	1000/1250CT	16K/20K split	7.80	6.63	6.24
2F672	DO-T46	Input	100,000CT	500 CT	9.60	8.16	7.68
2F673	DO-T47	Isol.	9000/10,000CT	9K/10KCT	8.10	6.89	6.48
2F674	DO-T48	Inter.	8000/10,000CT	1200/1.5KCT	7.80	6.63	6.24
2F675	DO-T49	Spt. induct. Ser. 20 hy Par. 5 hy			7.80	6.63	6.24
2F676	DO-T50	Spt. induct. Ser. .075 hy Par .018 hy			5.70	4.85	4.56
2F994	DO-T51	Inter.	2K/2.5KCT	2K/2.5K split	7.80	6.63	6.24
2F995	DO-T52	Inter.	4K/5KCT	8K/10K CT	7.80	6.63	6.24
2F833	DO-T53	Input	400/500 CT	4K/5K CT	7.80	6.63	6.24
2F834	DO-T54	Inter.	40K/50K CT	4K/5K CT	8.70	7.40	6.96
2F677	DO-T400	Pri. 28 v. 380-1 Kc.		6.3V/60 ma	6.60	5.61	5.28
2F996	DO-T410	Pri. 28 v. 380-1 Kc.		2-6.3V/30 ma	7.80	6.63	6.24
2F997	DO-T420	Pri. 28 v. 380-1 Kc.		28V/10 ma	7.80	6.63	6.24
3F659	DO-TSH	Hipermalloy shield for DO-T's			.90	.77	.72

● NEW DO-T 200 SERIES

Same construction and characteristics as DO-T except have uninsulated, solid leads of .016 gold plated Dumet wire for soldering or welding. Leads are spaced on.1" radius circle, conforming to TO-5 pattern for printed circuit use. .350 dia. x 9/16" h. Wt. $\frac{1}{8}$ oz.

Stock No.	Type No.	Primary Impedance	Secondary Impedance	1-24	25-99	100-Up
2F835	DO-T255	1K/1.2K CT	50/60	6.90	5.87	5.52
2F836	DO-T275	10K/12K CT	1.5K/1.8K CT	7.80	6.63	6.24
2F837	DO-T277	10K/12K CT	2K/2.4K split	8.70	7.40	6.96
2F838	DO-T278	10K/12.5K	2K/2.5K CT	8.70	7.40	6.96
2F839	DO-T283	10K/12K CT	10K/12K CT	8.70	7.40	6.96
2F840	DO-T288	20K/30K CT	800/1.2K CT	8.70	7.40	6.96
2F841	DO-T297	200,000 CT	1000 CT	10.80	9.18	8.64
2F842	DO-T200Sh	Hipermalloy Shield for DO-T200'S		.75	.64	.60

Type LS-HYBRID AND REPEAT COILS

High eff. low wave-form distortion, uniform freq. response. Electrostatic shielding $3\frac{1}{8}$ x $2\frac{5}{8}$ x $3\frac{1}{4}$". Wt. 3 lbs.

2[illegible]831	LS-68	600/150 split	2 split 600/150	27.00	22.95	21.60
3F549	LS-140	500/600 split	500/600 split	27.00	22.95	21.60
3F290	LS-141	3 sets of Bal. Wdgs. 500/600 CT		24.00	20.40	19.20

HIGH LEVEL MATCHING TRANSFORMER

Type LS-33. Primary impedance; 50, 125-150, 200, 250, 333, 500/600. Max. level, 20 watts. In LS-2 case. LxWxH: $4\frac{7}{16}$ x $3\frac{1}{2}$ x $4\frac{3}{16}$".

Stk. No.	Wt. Lbs.	1-24	25-99	100-Up
3F235	7.5	24.00	20.40	19.20

PIL ULTRAMINIATURE AUDIO TRANSFORMERS & INDUCTORS

These transformers and inductors incorporate the same construction as the DO-T units. PIL units are hermetically sealed to MIL-T-27B, are metal encased. Grade 4. All units terminated in insulated, tinned solid copper leads. Split winding inductors; inductance values shown are for 0 ma dc. $\frac{23}{64}$ D. x $\frac{1}{4}$" H. Actual wt. 1/20 oz.

Stock No.	Type	Pri Imp	Sec Imp	1-24	25-99	100-Up
2F825	PIL-50	500 CT	500 CT	7.20	6.12	5.76
2F826	PIL-70	10K CT	500 CT	7.50	6.38	6.00
2F827	PIL-75	10K CT	2K CT	7.50	6.38	6.00
2F828	PIL-5†	Ser. .09 hy; par. .022 hy		6.00	5.10	4.80
2F829	PIL-8†	Ser. .26 hy; par. .06 hy		6.00	5.10	4.80
2F830	PIL-12†	Ser. .66 hy; par. 16 hy		6.00	5.10	4.80

PIP TRANSISTOR PULSE TRANSFORMERS

Meets Mil. Spec. MIL-T-21038B-TP6RX. Subminiature, hermetically sealed metal case. Checked in transistor test circuit to give required pulse width. Size: $\frac{5}{16}$" dia. x $\frac{3}{16}$" height. Wt. 1/20 oz.

Stock No.	Type	Width μ sec.	Rise time	Imp. Out	1-24	25-99	100-Up
2F550	PIP-1	.05	.02	50			
2F551	PIP-2	.1	.025	50			
2F552	PIP-3	.2	.03	100			
2F553	PIP-4	.5	.05	100			
2F554	PIP-5	1.0	.08	100			
2F555	PIP-6	2.0	.10	100			
2F556	PIP-7	3.0	.20	100	6.00	5.10	4.80
2F557	PIP-8	5.0	.30	200			
2F558	PIP-9	10.0	.35	200			
2F704	PIP-10	.1	.01	140/50			
2F705	PIP-11	1	.02	280/100			
2F706	PIP-12	5	.05	560/100			
2F998	PIP-SH	Hipermalloy shield for PIP's			.90	.77	.72

MINIATURE WIDE APPLICATION PULSE TRANSFORMERS

Hermetically sealed to MIL-T-21038B-TP7SX by vacuum molding and suited for service from —70° C to +130° C. Wound core structure. Where minimum rise time is important use next lower type.

3F081	H45	.05	.022	250	7.35	6.25	5.88
3F082	H46	.10	.024	250	7.35	6.25	5.88
3F083	H47	.20	.026	500			
3F084	H48	.50	.03	500			
3F085	H49	1	.04	500			
3F086	H-50	2	.05	500	6.60	5.61	5.28
3F087	H51	3	.10	500			
3F088	H-52	5	.13	1000			
3F089	H-53	7	.28	1000			
3F090	H-54	10	.30	1000			
2F707	H-55	16	.75	1000	6.90	5.87	5.52
2F708	H-56	20	1.25	1000			
2F709	H-57	25	2.	1000			
2F633	H-60	.05	.016	50			
2F634	H-61	.1	.016	50			
2F635	H-62	.2	.022	100	6.60	5.61	5.28
2F636	H-63	.5	.027	100			
2F637	H-64	1	.033	100			
2F638	H-65	2	.066	100			
2F639	H-66	3	.087	100	7.50	6.38	6.00
2F640	H-67	5	.097	200			
2F641	H-68	10	.14	200			

MILITARY STANDARD TRANSFORMERS

TYPE W. Freq. response ± 2 db, 300 cps to 10KC. 600 ohms split winding provides for 600 ohms CT and 150 ohms. Size: $1\frac{5}{8}$ x $1\frac{5}{8}$ x $2\frac{3}{8}$". Wt. $\frac{2}{3}$ lb. Type W-786 Electrostatic shielding.

TYPE N. Primaries are 105/115/125V. 54/66 cyc.

TYPE W-AUDIO-MEETS MIL SPEC. MIL-T-27B—TF1RX

Stk. No.	Type	Pri. Ohms	Sec. Ohms	1-24	25-99	100-Up
2F562	W-786	600 split	600 split	15.30	13.01	12.24
2F563	W-787	7600/4800	600 split	13.95	11.86	11.16
2F565	W-789	15K CT	600 split	13.95	11.86	11.16

TYPE N-FILAMENT-MEETS MIL. SPEC. MIL-27B-TF4RX

Stk. No.	Type	Secondary	Wt. Lbs.	1-24	25-99	100-Up
2F572	N-587A	6.3V- 2A	$1\frac{1}{2}$	13.50	11.48	10.80
2F573	N-588A	6.3V- 5A	$2\frac{3}{4}$	15.00	12.75	12.00
2F574	N-589A	6.3V-10A	5	19.50	16.58	15.60

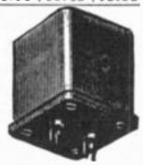
MINIDUCTORS

MIL-T-27B-TF5RX

Hi Q in miniature form. Ideal for transistor use and printed circuits. High temp. stability (—55°C to 100°C). ML-0 to 4, MO-.1 to 1 are medium low frequencies—400 cyc., MM and MW for medium frequencits and MH for high frequencies. ML case 7/16 x 31/64 x 9/16". Wt. 1/5 oz. MM and MH cases 7/16"D x 1/4"H. Wt. .07 oz. MO case 3/4"" x 1 1/16" x 13/16"H. Wt. 1 oz. MW case 29/32"D x 13/32"H. Wt. 1/4 oz.

Stk. No.	Type	Ind. @ 0 ma	DC MA	1-24	25-99	100-Up
TYPE MH						
3F029	MH-1	.6 Mhy	90	8.10	6.89	6.48
3F038	MH-2	1.5 Mhy	57	8.10	6.89	6.48
3F039	MH-3	2.5 Mhy	44	8.40	7.14	6.72
3F147	MH-4	6 Mhy	28	8.40	7.14	6.72
3F148	MH-5	10 Mhy	22	8.70	7.40	6.96
3F149	MH-6	15 Mhy	18	8.70	7.40	6.96
3F159	MH-7	25 Mhy	14	9.00	7.65	7.20
3F312	MH-8	40 Mhy	11	9.00	7.65	7.20
TYPE ML						
2F880	ML-0	.15 Hy	12			
3F183	ML-1	.25 Hy	9			
3F184	ML-2	.4 Hy	7			
3F185	ML-3	.7 Hy	5			
3F186	ML-4	1.4 Hy	3	8.40	7.14	6.72
3F187	ML-5	2.5 Hy	1			
3F188	ML-6	4.0 Hy	.7			
3F189	ML-7	6.0 Hy	.6			
3F194	ML-8	10 Hy	.5			
3F195	ML-9	25 Hy	.3	8.70	7.40	6.96
3F196	ML-10	60 Hy	.2	9.90	8.42	7.92
TYPE MM						
3F197	MM-1	3 Mhy	50	7.50	6.38	6.00
3F198	MM-2	5 Mhy	40	7.50	6.38	6.00
3F199	MM-3	8 Mhy	30	7.80	6.63	6.24
3F247	MM-4	12.5 Mhy	25	7.80	6.63	6.24
3F248	MM-5	20 Mhy	20	8.10	6.89	6.48
3F249	MM-6	30 Mhy	16	8.10	6.89	6.48
3F306	MM-7	60 Mhy	11	8.40	7.14	6.72
3F309	MM-8	120 Mhy	8	8.40	7.14	6.72
TYPE MO						
2F801	MO-.1	.1 Hy	55			
2F680	MO-.15	.15 Hy	45			
2F681	MO-.3	.3 Hy	28	9.30	7.91	7.44
2F682	MO-.5	.5 Hy	23			
2F683	MO-1	1 Hy	16			
2F684	MO-2	2 Hy	6			
2F685	MO 5	5 Hy	5	9.60	8.16	7.68
2F686	MO 7.5	7.5 Hy	4.5			
2F687	MO-20	20 Hy	2.7			
2F688	MO 50	50 Hy	1.4	9.90	8.42	7.92
2F689	MO-100	100 Hy	1.1	9.90	8.42	7.92
TYPE MW						
2F802	MW-.05	.05 Hy	25	7.20	6.12	5.76
2F803	MW-.10	.10 Hy	18	7.50	6.38	6.00
2F804	MW-.25	.25 Hy	11	7.50	6.38	6.00
2F690	MW-.5	.5 Hy	8	7.80	6.63	6.24
2F691	MW-.75	.75 Hy	7	8.40	7.14	6.72
2F692	MW-1	1.0 Hy	6	8.70	7.40	6.96
2F693	MW-1 2	1 2 Hy	5	9.30	7.91	7.44
2F694	MW-2	2 Hy	4	10.80	9.18	8.64
2F695	MW-3	3 Hy	3.5	11.70	9.95	9.36
2F696	MW-5	5 Hy	3	13.50	11.48	10.80

VARIABLE INDUCTORS



Variable units for use in tuned audio circuits. Adjustment of set screw on side of case permits change in inductance of +85% to —45% of mean value shown. In die-cast case. Size: 1 11/32x1 1/4x1 7/16". Current rating shown is max. MADC. Weight, 5 1/2 oz.

Stk. No.	Type	DC MA	Hys.	1-24	25-99	100-Up
3F404	VIC-5	35	.053			
3F405	VIC-6	30	.084	6.60	5.61	5.28
3F406	VIC-7	25	.13			
3F407	VIC-8	21	.21			
3F408	VIC-9	18	.34	6.90	5.87	5.52
3F409	VIC-10	15	.54			
3F410	VIC-11	12	.85			
3F411	VIC-12	10	1.3			
3F412	VIC-13	8	2.2	7.20	6.12	5.76
3F413	VIC-14	7	3.4			
3F414	VIC-15	6	5.4	7.50	6.38	6.00
3F416	VIC-17	4	13	7.50	6.38	6.00
3F418	VIC-19	3	33	7.80	6.63	6.24
3F419	VIC-20	2	52	8.40	7.14	6.72

TVC HERMETIC VARIDUCTORS

TVC Inductors are identical to the HVC units below but provide taps at 30% and 50% of total turns. Manufactured and guaranteed to MIL-T-27B by full environmental testing. Ideal for oscillator circuits impedance matching, and phase inversion where high Q and adjustable inductance are required. Dimensions: 1 1/8 x 25/32 x 1 9/32". Approximate weight: 2 ounces.

Stock No.	Type	Min. Hys.	Mean Hys.	Max. Hys.	DC Ma	1-24	25-99	100-Up
3F163	TVC-1	.002	.006	.02	100			
3F164	TVC-2	.005	.015	.05	60			
3F165	TVC-3	.011	.040	.11	40	11.10	9.44	8.88
3F166	TVC-4	.03	.1	.3	30			
3F167	TVC-5	.07	.25	.7	20			
3F168	TVC-6	.2	.6	2	15			
3F169	TVC-7	.5	1.5	5	10			
3F175	TVC 8	1.1	4	11	7	11.70	9.95	9.36
3F176	TVC-9	3	10	30	5			
3F177	TVC-10	7	25	70	3.5	12.90	10.97	10.32
3F178	TVC-11	20	60	200	2	14.10	11.99	11.28
3F179	TVC-12	50	150	500	1 5	15.30	13.01	12.24

HVC HERMETIC VARIDUCTORS

Variable inductors with higher "Q" and wider inductance ranges . . . plus hermetic sealing to MIL-T27B specs. Screw adjustment on top permits inductance changes from —70% to +200% of mean value. DC current shown is maximum recommended. All 1 1/8x25/32"x1 9/32". Weight, 2 ounces.

Stock No.	Mfr's. Type	Min. Hys.	Mean Hys.	Max. Hys.	DC Ma	1-24	25-99	100-Up
3F534	HVC-1	002	006	.02	100			
3F535	HVC-2	.005	.015	.05	60			
3F536	HVC-3	.011	040	.11	40	9.00	7.65	7.20
3F537	HVC-4	.03	.1	3	30			
3F538	HVC-5	.07	.25	7	20			
3F539	HVC-6	.2	.6	2	15			
3F540	HVC-7	.5	1.5	5	10			
3F541	HVC-8	1.1	4.0	11	7	9.60	8.16	7.68
3F542	HVC-9	3.0	10	30	5			
3F543	HVC-10	7.0	25	70	3.5	9.90	8.42	7.92
3F544	HVC-11	20	60	200	2	10.80	9.18	8.64
3F545	HVC-12	50	150	500	1.5	12.00	10.20	9.60

UTC HIGH Q TOROID INDUCTORS

The MQ series are ideal for audio, carrier and supersonic fields. Laboratory adjusted to 1% tolerance, inductance is virtually independent of frequency, temperature and vibration. Low hum pickup. Shielded case affords high permeability. Hermetically sealed to meet MIL-T-27B. Case similar to HVC above.

‡Indicates inductances expressed in mhy.

No.	Type	Hy	Ma.	Size	Oz.	1-24	25-99	100-Up
2F805	MQA-5	50‡	100	1 19/32x1 1/16x2 1/32"	4	8.70	7.40	6.96
3F502	MQA-6	70‡	80	1 19/32x1 1/16x2 1/32"	4	9.00	7.65	7.20
3F503	MQA-7	120‡	60	1 19/32x1 1/16x2 1/32"	4	9.30	7.91	7.44
3F504	MQA-8	.2	50	1 19/32x1 1/16x2 1/32"	4	9.60	8.16	7.68
3F505	MQA-10	.5	30	1 19/32x1 1/16x2 1/32"	4	10.20	8.67	8.16
3F506	MQA-11	.7	25	1 19/32x1 1/16x2 1/32"	4	10.50	8.93	8.40
3F507	MQA-12	1	20	1 19/32x1 1/16x2 1/32"	4	10.80	9.18	8.64
3F508	MQA-13	1.5	17	1 19/32x1 1/16x2 1/32"	4	11.10	9.44	8.88
3F509	MQA-14	2.5	13	1 19/32x1 1/16x2 1/32"	4	11.40	9.69	9.12
3F510	MQA-15	4	10	1 19/32x1 1/16x2 1/32"	4	12.00	10.20	9.60
3F511	MQA-17	10	7	1 19/32x1 1/16x2 1/32"	4	13.80	11.73	11.04
3F514	MQB-5	.5	60	2 9/16x1 3/16x2 13/16"	14	14.10	11.99	11.28
3F515	MQB-6	1	40	2 9/16x1 3/16x2 13/16"	14	14.40	12.24	11.52
3F516	MQB-7	2	30	2 9/16x1 3/16x2 13/16"	14	14.70	12.50	11.76
3F521	MQB-8	3.5	22	2 9/16x1 3/16x2 13/16"	14	15.00	12.75	12.00
3F527	MQE-7	100‡	35	1 1/16x1/2x1 7/32"	1.5	8.40	7.14	6.72
2F743	MQE-9	.25	22	1 1/16x1/2x1 7/32"	1.5	8.70	7.40	6.96
2F744	MQE-10	.4	17	1 1/16x1/2x1 7/32"	1.5	9.00	7.65	7.20
3F529	MQE-11	0.6	14	1 1/16x1/2x1 7/32"	1.5	9.00	7.65	7.20

OSCILLOSCOPE TRANSFORMER

Type H-198. Highly shielded scope transformer in hermetically sealed Mil-T-27BTF4RX specs. 800. 1600 & 2400 V. plate windings (no CT) supply approx. 1000, 2000 or 3000 V. DC at 5 ma. allowing great flexibility in application. Has 1.25 V. .2A rect. fil. winding connected to one end of HV winding. Separate 6.3 V. .6A fil. winding insulated to withstand anode voltages. Pri. 115V 50/60 cycle. Case similar to SM. Size 3 1/16x2 5/8x4 1/4".

Stk. No.	Type	Wt.	1-24	25-99	100-Up
3F078	H-198	4.5	27.00	22.95	21.60

Transformers & Filters

HERMETICALLY SEALED COMPONENTS

Hermetically sealed audio units that meet MIL-T-27B-TF4RX specifications. Units in RC-25 case are 1 13/32x61/64x1 7/16" Mtg. (slot center) 1 1/8 to 17/32", and weigh 2 oz.; RC-50 case units are 1 5/8x1 5/8x 2 5/16", weight 1/2 lb. Response ±2 db. § center tapped (*split).

MINIATURE AUDIO UNITS IN RC-25 CASE

Stock No.	No.	Uses	Pri. Ohms	Sec. Ohms	Response in Cycles	1-24	25-99	100-up
3F450	H-1	Mike, pick-up, line to grid	50,200§					
3F453	H-4	Sgl.-pl.	500§	50,000	50-10,000	9.00	7.65	7.20
		Sgl.-g. DC in pri.	15,000	60,000	200-10,000	7.80	6.63	6.24
3F454	H-5	Sgl. pl.-PP g.	15.000	95,000§	50-10,000	8.40	7.14	6.72
3F455	H-6	As above, with DC in pri.	15,000	95,000 split	200-10,000	10.20	8.67	8.16
3F456	H-7	Single or PP plates to line	20,000§	150/600*	200-10,000	9.60	8.16	7.68
3F457	H-8	Mix/Match	150/600*	600§	50-10,000	9.00	7.65	7.20
3F460	H-11	Inductor 300 hy @ 0 DC, 50 hy @ 3 ma DC 6000 ohms				7.50	6.38	6.00
2F721	H-13	Tr. Inters	10K/2.5K*	2K/.5K*	100-10,000	9.00	7.65	7.20
2F722	H-14	Tr. Inters	10K/2.5K*	4K/1K*	100-10,000			
2F723	H-15	Tr. to line	1,500 CT*	500/125*	100-10,000			

COMPACT AUDIO UNITS IN RC50 CASE

3F487	H-19A	Bal. line to grid 1:14	250§ 500§/	50,000§ 100,000§	30-20,000	16.50	14.03	13.20
2F724	H-20	Plate or PP to PP grids	15,000 split	80.000 split	30-20,000	15.90	13.52	12.72
2F725	H-25	Mixing or trans to line	500§	500/125 split	40-20,000	15.00	12.75	12.00
2F726	H-26	Transistor Interstage	10K/2.5K split	2K/500 split	40-20,000	15.00	12.75	12.00


RC25


RC50


SM


BMI

UTC INTERSTAGE AND LINE FILTERS

Mtet MIL-F-18327B specs. BMI and BML types are band-pass units. HMI and HML types are high-pass units. LMI types are low-pass units. Filters with I in type number are interstage, input imp., 10,000 ohms, L in type number are line units. All housed in hermetically sealed cases, shielded to reduce hum pick-up. Base area. 1 3/16x1 11/16". Mtg. ctrs., 3/4x1 1/4". Ht.: BMI, LMI, BML, 1 5/8" HMI, HML, LML, 2 1/2". Average weight, 8 ounces.

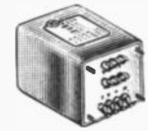
Stock No.	Type	Freq.	1-24	25-99	100-Up
3F477	BMI-60	60	30.00	25.50	24.00
3F558	BMI-100	100			
3F559	BMI-120	120			
3F478	BMI-400	400			
3F479	BMI-1000	1000			
3F566	BMI-10000	10000			
2F806	HMI-100	100	31.50	26.78	25.20
3F567	HMI-200	200	31.50	26.78	25.20
3F573	BML-1000	1000	30.00	25.50	24.00
2F729	BML-400	400	30.00	25.50	24.00
3F481	LMI-200	200	31.50	26.78	25.20
3F574	LMI-400	400			
3F575	LMI-500	500			
3F576	LMI-800	800			
3F577	LMI-1000	1000			
2F807	LMI-2000	2000			
3F482	LMI-3000	3000			
3F580	LMI-4000	4000			
3F581	LMI-5000	5000			
3F484	HML-200	200	39.00	33.15	31.20
3F583	HML-300	300			
3F584	HML-500	500			
2F808	LML-8000	8000	31.50	26.78	25.20
2F809	LML-2500	2500			
2F810	LML-3000	3000			
3F590	LML-4000	4000			

BPM MINIFILTERS

Same characteristics as larger units, with slightly lower attenuation and operating levels. MIL-F-18327B. Input and output 10,000 ohms. Case similar to SM above Size: 3/4x3/4x1 1/8". Wt. 1 oz.

2F730	BPM-400	400	27.00	22.95	21.60
3F037	BPM-1000	1000			
2F811	BPM-10000	10000			


H-97


H-94


H-141

TRANSISTOR INVERTER TRANSFORMERS

Highly efficient, small size transistor inverter transformers. Hermetically sealed to MIL-T-27BTF4SX specs. Optimum results at approximately 1000 Hz. DC output shown is for 12/14 or 24/28 V battery. With 6/7 V battery, current ratings are same but output voltages are halved. Shpg. wts. H-97, 3/8 lbs.; H-98, 2/3 lbs.; H-99, 1 3/4 lbs.; H-100 2 1/2 lbs.

Stock No.	Type No.	DC V	Ma	Size (inches)	1-24	25-99	100-Up
2F731	H-97	250	60	1 5/16x1 5/16x1 3/4	16.50	14.03	13.20
2F732	H-98	375	100	1 5/8x1 5/8x2 3/8	17.40	14.79	13.92
2F733	H-99	425	175	2 1/16x2 1/16x3 1/8	22.20	18.87	17.76
2F734	H-100	550	200	2 3/4x2 3/8x2 13/16	22.20	18.87	17.76

TRANSISTOR SUPPLY TRANSFORMERS

Hermetically sealed, metal cased to MIL-T-27B. Primary 115 V 50/60 Hz, tapped on H-143 to give dual voltages shown. Shpg. wt. approx. 1 lb., except H-143; 4 1/2 lbs.

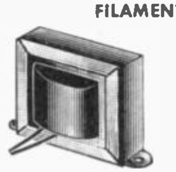
Stock No.	Type	Secondary Volts	Secondary Amps	Size (Inches)	1-24	25-99	100-Up
2F812	H-141	20CT	0.3	1 15/16x1 13/16x 2 7/16	10.80	9.18	8.64
2F813	H-142	20CT	0.6	1 15/16x1 13/16x 2 3/4	13.50	11.48	10.80
2F814	H-143	17/21 1/2 17/21 1/2	1.5 1.5	3 1/16x2 5/8x4 1/4	19.80	16.83	15.84

UNIVERSAL SUPPLY TRANSFORMERS

High reliability units for many applications. Metal cases hermetically sealed to MIL-T-27B. Pri. 115V 50/60 hz with taps to modify sec. V ± 6%, and +12%. (†) Approx. DCV when used with typical silcon rectifier circuits.

Stock No.	Type	Sec. DC Range†	Wt. Lbs.	1-24	25-99	100-Up
2F815	H-915	6V/.085A-53V/.025A	3/8	13.50	11.48	10.80
2F816	H-925	6V/.28A-53V/.085A	2/3	14.10	11.99	11.28
2F817	H-935	6V/1.52A-53V/.48A	1 3/4	15.60	13.26	12.48
2F818	H-94	6V/3.8A-53V1.2A	4 1/2	22.50	19.13	18.00
2F819	H-95	6V/9A-53V/3A	8 1/2	30.00	25.50	24.00
2F820	H-96	6V/23A-53V/7.5A	21	54.00	45.90	43.20
2F821	H-965	12V/1.9A-106V/0.6A	4 1/2	22.50	19.13	18.00

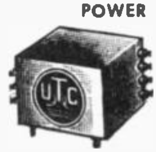
FILAMENT/TRANSISTOR TRANSFORMERS



Type FT Channel Frame. Primary: 115 volts 50/60 Hz. Test Volts RMS: 1500 All units are low temperature rise, vacuum-sealed against humidity with special impregnating materials to prevent corrosion and electrolysis. Approximate weight 2 lbs. FT13, FT14, FT15 & FT16 have taps on primary to modify nom. sec. V. ±6%, +12%.

Stock No.	Type No.	Secondary Volts	Secondary Amps	Mtg. Ctrs.	1-24	25-99	100-Up
3F295	FT2	6.3 VCT	1.2	2 3/8"	4.50	3.83	3.60
3F296	FT4	6.3 VCT	3	2 13/16"	5.10	4.34	4.08
3F297	FT6	5 CT	3	3 1/8"	5.70	4.85	4.56
3F298	FT8	6.3 CT	8	3 9/16"	6.30	5.36	5.04
3F299	FT10	24 CT or 12	2 4	3 9/16"	6.90	5.87	5.52
2F702	FT13	26 VCT	.04	1 3/4"	5.70	4.85	4.56
2F703	FT14	26 VCT	.25	2 3/8"	5.70	4.85	4.56
2F822	FT15	48VCT	1	3 9/16"	7.80	6.63	6.24
2F823	FT16	11VCT 5.5 VCT	2 1/2 5	3 1/8"	7.80	6.63	6.24

POWER LINE ISOLATION TRANSFORMERS



Ultrashielded hermetically sealed units. Less than 1/10th mmfd. effective capacity between primary and secondary permits isolation formerly obtained only from battery power. Separate terminal for each shield. Input and output terminals on opposite sides of case. Primary & secondary—115 V 50/60 Hz.

Stock No.	Type No.	Watts Mil.	Watts Ind.	Wt. Lbs.	1-24	25-99	100-up
2F735	HIT-1	50	60	5 1/2	33.00	28.05	26.40
2F736	HIT-15	120	150	13	39.00	33.15	31.20
2F737	HIT-2	160	200	15 1/2	48.00	40.80	38.40
2F738	HIT-3	400	480	35	69.00	58.70	55.20
Primary & Secondary — 115 V. 400 Cycles							
2F753	HIT-450	80	100	5 1/2	33.00	28.05	26.40

A — G-1 G-2 G-3 G-4 — G-5 G-7 thru G-12

Fig. A—ULTRA COMPACT "A" SERIES

Excellent shielding Max. level 7 db. For top or bottom mtg. Size 1½x1½x2". ‡Indicates split winding. Wt. ½ lb.

Stock No.	Type	Pri. Imped.	Sec. Imped.	±2 db.	1-24	25-99	100-Up
3F340	A-10	50, 125-150, 200-250, 333, 500-600	50,000‡	20-20,000	15.00	12.75	12.00
3F341	A-11	50, 200, 500	50,000 CT	20-20,000	12.00	10.20	9.60
3F342	A-12	50, 125-150, 200-250, 333, 500-600	80,000‡	20-20,000	13.50	11.48	10.80
3F354	A-15	10 000/2 500‡	2000/500‡	40-20,000	10.80	9.18	8.64
3F344	A-16	15,000	60,000	20-20,000	11.40	9.69	9.12
3F345	A-18	15 000	80,000pp‡	20-20,000	13.20	11.22	10.56
3F346	A-19	15,000, 8 ma DC Pri.	80,000pp‡	40-20,000	12.00	10.20	9.60
3F347	A-20	Same as A-10 Pri.	Same as Pri.	10-50,000	14.40	12.24	11.52
3F348	A-21	50, 200-250, 500-600	Same as Pri.	30-30,000	12.00	10.20	9.60
3F355	A-22	500 CT	500/125‡	40-20,000	9.90	8.42	7.92
2F824	A-23	500 CT	16/4‡	40-20,000	9.90	8.42	7.92
3F349	A-24	15 000‡	50,125-150 200-250, 333, 500-600	20-40,000	14.70	12.50	11.76
3F350	A-25	15,000	Same as above	40-20,000	12.00	10.20	9.60
3F351	A-26	30,000‡ P to P	Same as above	20-40,000	15.30	13.01	12.24
3F352	A-27	100 000‡	Same as above	30-20,000	13.50	11.48	10.80
3F079	A-34	25,000/6250‡	500/125‡	30-20,000	10.20	8.67	8.16
3F080	A-35	10,000/2500‡	500/125‡	30-20,000	9.90	8.42	7.92
3F098	A-37	500/125‡	50/12.5‡	40-20,000	9.60	8.16	7.68
2F739	A-39	500/150‡	2000/500‡	20-20,000	11.70	9.95	9.36
2F740	A-43	600/150‡	600/150‡	20-30,000	14.70	12.50	11.76
2F741	A-30	Audio inductor 250 hys @ 5 ma 65 hys @ 10 ma.			10.20	8.67	8.16
3F357	A-32	Filter inductor 60 hys @ 15 ma, 15 hys. @ 30 ma.‡			7.50	6.38	6.00
2F742	A-42	Inductor † Series 4 hys @ 50 ma Par. 1 hy @ 100 ma			6.60	5.61	5.28
3F050	A-40	Transformer, 115V 60 cycle to two 6.3V CT .2A secs.			9.90	8.42	7.92
2F832	A-48	Hybrid. 3 500/600 ohm windings.			18.00	15.30	14.40
3F358	A-33	Mumetal shield slip fit over A case			3.00	2.55	2.40

UNIVERSAL MODULATION TRANSFORMERS

Stock No.	Type	Watts	Fig.	1-24	25-99	100-Up
3F170	S-18	12	G-3	8.40	7.14	6.72
3F171	S-19	30	G-4	9.90	8.42	7.92

UNIVERSAL OUTPUTS—TO LINE AND VOICE COIL

All have secondary impedance: 500, 15, 8, 2 ohms

Stock No.	Type	Primary Imped.	W.	Fig.	1-24	25-99	100-Up
3F190	S-14	2500, 4000, 7,000, ,10,000	10	G-2	7.20	6.12	5.76
3F191	S-15	PP tubes: 4000, 5000, 10,000	12	G-2	7.80	6.63	6.24

"S" SERIES SIZE AND WEIGHT

Case	HxWxD	Lbs.	Case	HxWxD	Lbs.
G-1	1 7/8x2 11/16x1 3/4"	1	G-8	4 5/8x5 3/8x5 3/8"	12
G-2	2 15/16x3 5/16x1 13/16"	1½	G-9	5 7/8x5 3/8x6 3/4"	21
G-3	2 1/2x3 5/8x2 5/32"	2	G-10	5 7/8x6 1/8x6 5/8"	24
G-4	2 15/16x4 1/8x2 5/16"	3	G-11	5 7/8x6 19/32x7 3/8"	31
G-5	3 3/4x3 1/8x4 1/2"	4½	G-12	10 1/4x7 3/8x9 1/4"	52
G-7	4 5/8x4 5/8x5 1/2"	8			

PLATE AND FILAMENT TRANSFORMERS

Stock No.	Type	Ratings	Fig.	1-24	25-99	100-Up
3F031	S-40	H.V.; 1050-850 CT at 250 ma. Rect. fil. 5V-3A, fil. No. 1, 6.3 VCT-3A; fil. No. 2, 6.3 VCT-3A.	G-7	19.50	16.58	15.60
3F032	S-41	H.V.; 1200 CT at 200 ma. Rect. fil. 5V-3A; fil. No. 1, 7.5 V tapped 6.3 V-3A; fil. No. 2, 6.3 VCT-2A.	G-7	19.50	16.58	15.60
3F033	S-42	H.V.; 1200-1050 CT at 300 ma. Rect fil.; 5V-6A; fil. No. 1, 7.5 V tapped 6.3 V-3A; fil. 6.3 VCT-3A.	G-8	21.00	17.85	16.80

PLATE TRANSFORMERS

Stock No.	Type	High VAC	DCMA	Fig.	1-24	25-99	100-Up
3F040	S-44	1150-1050 CT	500	G-9	27.00	22.95	21.60
3F041	S-45	1800-1500 CT	200	G-8	22.50	19.13	18.00
3F043	S-47	3000-2500 2000 CT	300	G-10	36.00	30.60	28.80
3F044	S-48	Same as above	500	G-11	42.00	35.70	33.60
3F045	S-49	4200-3600-3000 CT	300	G-11	39.00	33.15	31.20
3F046	S-50	6000-5000 CT	300	G-12	66.00	56.10	52.80

FILTER, SWINGING AND AUDIO CHOKES

**Audio. M=Millihenries, A=Amperes. ‡Swinging.

Stock No.	Type	Hnry.	Ma.	Ohms	Test V.	Fig.	1-24	25-99	100-Up
3F100	S-23**	300	5	5000	1500	G-2	4.80	4.08	3.84
3F104	S-27	25	75	350	1500	G-4	5.40	4.59	4.32
3F106	S-29	6	175	90	1500	G-4	5.40	4.59	4.32
3F107	S-30‡	20/4	175	90	1500	G-4	5.40	4.59	4.32
3F108	S-31	6	225	100	2700	G-5	7.50	6.38	6.00
3F109	S-32‡	20/4	225	100	2700	G-5	7.50	6 38	6.00
3F110	S-33	8	300	100	4000	G-7	9.90	8.42	7.92
3F111	S-34‡	20/4	300	100	4000	G-7	10.50	8.93	8.40
3F112	S-35	8	400	60	5000	G-8	12.90	10.97	10.32
3F114	S-37	8	550	60	6000	G-8	16.50	14.03	13.20
3F115	S-38‡	20/4	550	60	6000	G-8	16.50	14.03	13.20
3F095	S-80‡	45/-10M	1 75A	.5	500	G-1	4.50	3.83	3.60
3F096	S-81‡	100/-8M 25/2M	2 5A 5A	.6 .15	1500	G-3	6.60	5.61	5.28

FILAMENT TRANSFORMERS—105-115 V PRIMARIES

Stock No.	Type	Sec. (CT)	Sec. Amps	Insulation V.	Fig.	1-24	25-99	100-Up
3F000	S-53	2.5	10	1,500	G-3	6.90	5.87	5.52
3F002	S-55	6.3	3	1,500	G-3	6.00	5.10	4.80
3F004	S-57	2.5	10	10,000	G-5	9.90	8.42	7.92
3F005	S-58	2.5	20	10,000	G-5	10.50	8.93	8.40
3F007	S-60	5-5.25	22	10,000	G-7	15.00	12.75	12.00
3F008	S-61	6 3/7.5	10	3,000	G-5	12.00	10.20	9.60
3F009	S-62	10	10	3,000	G-5	10.20	8.67	8.16
3F010	S-63	11, 12 14	10	5,000	G-7	15.00	12.75	12.00

TRANSISTOR FILAMENT SUPPLY TRANSFORMERS

Primary 115 V, 50/60 cycles, tapped on S-77 for dual sec. voltages

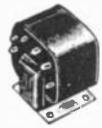
Stock No.	Type No.	Sec. V RMS	Sec. A RMS	Fig.	1-24	25-99	100-Up
3F140	S-75	6.3 6.3	.6 .6	G-1	6.60	5.61	5.28
3F141	S-76	12.6 12.6	2 2	G-4	9.90	8.42	7.92
3F142	S 77	17 21.5 17/21.5	1.5 1.5	G-5	11.40	9.69	9.12

MULTIPLE FILAMENT TRANSFORMERS

Insulation, 3000 V. G-5 case.

Stock No.	Type	Fil. 1 V	Fil. 1 A	Fil. 2 V	Fil. 2 A	1-24	25-99	100-Up
3F026	S-70	6.3CT	5	6.3CT	5	11.40	9.69	9.12

400-CYCLE FILAMENT TRANSFORMERS



Combine smallness of size and lightness of weight with the maximum possible reliability. These versatile midgets are suitable for either ground or airborne use applications. Molded specifically to meet MIL-T-27B-TF5SX specifications. Primary, 105/115 volts, 380-1000 cycles per second. Secondary, 6.3 volts, center tap.

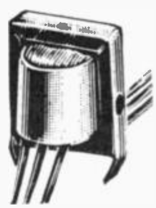
Stock No.	Type	Sec. Amp.	L x W x H	Wt. Lbs.	1-24	25-99	100-Up
3F071	H-101	3.5	1 25/32x1 21/32x2"	.3	15.60	13.26	12.48
3F073	H-103	10	2 5/16x2 1/8x2 1/2"	.8	21.00	17.85	16.80

TM Thordarson Transformers

KEY TO APPLICATION OF TRANSFORMERS BELOW

A-Imput J-Interchange D-Driver S-Output to line

MAH



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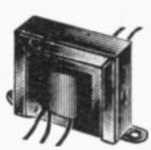

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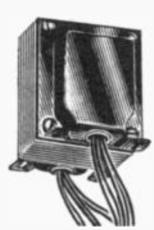
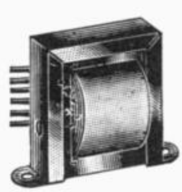


GGV



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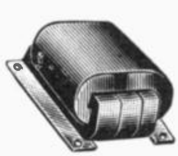


TYL

AUDIO TRANSISTOR TRANSFORMER — OPEN FRAME

(*) Split Center Tap Winding

Stock No.	Type	Mtg. Type	Impedance Pri.	Impedance Sec.	Use	Mtg. Cntrs.	Power MW	1-9	Each Boxed 10-24	Each Boxed 25-49	Each Boxed 50-99	Bulk Packed 100-249	Bulk Packed 250-499
5F1500	TR-303	BAV	30	120*	D	2	4W	3.78	3.40	3.21	3.02	1.91	1.75
5F1501	TR-225	MAH	80CT	32*									
			100CT	40*	J	....	250	4.10	3.69	3.48	3.28	....	....
5F1503	TR-64	BAH	100	100CT	D	1 3/4	500	4.41	3.97	3.75	3.53	....	....
5F1504	TR-65	BAH	100	200CT	D	1 3/4	500	3.78	3.40	3.21	3.02	1.62	1.49
5F1505	TR-257	BAH	100	1000CT	J	2	1W	5.05	4.54	4.28	4.03	1.46	1.33
5F1506	TR-246	BAH	200CT	2000CT	J	1 3/8	200	5.05	4.54	4.28	4.03	....	....
5F1507	TR-224	MAH	400CT	40*									
			500CT	50*	J	....	250	41.0	3.69	3.48	3.28	....	....
5F1509	TR-222	MAH	400CT	400*									
			500CT	500*	J	....	250	4.10	3.69	3.48	3.28	....	....
5F1511	TR-5	BCH	490CT	150CT	D	1 3/16	150	4.41	3.97	3.75	3.53	2.40	2.19
5F1512	TR-11	BCH	500CT	50	D, S	1 3/16	150	4.41	3.97	3.75	3.53	2.62	2.39
5F1514	TR-66	BAH	500CT	200CT	D	1 3/4	500	3.78	3.40	3.21	3.02	1.68	1.54
5F1515	TR-37	MAH	500CT	500CT	S	....	50	4.41	3.97	3.75	3.53	....	....
5F1516	TR-1	BAH	500CT	500CT	D, S	1 3/8	300	4.41	3.97	3.75	3.53	2.22	2.02
5F1517	TR-259	BAH	500CT	5000CT	J	2	1W	5.05	4.54	4.28	4.03	....	....
5F1518	TR-295	BAH	600CT	10	J	1 3/8	50	3.78	3.40	3.21	3.02	1.55	1.42
5F1520	TR-423	BAH	600	600	D, J	1 5/32	200	4.35	3.91	3.69	3.47	....	....
5F1522	TR-459	BAH	600CT	600CT	J	1 3/8	200	4.35	3.91	3.69	3.47	....	....
5F1523	TR-445	BAH	600CT	1200CT	J	1 3/8	200	4.35	3.91	3.69	3.47	....	....
5F1524	TR-205	MAH	1000	50									
			1200	60	S	....	100	3.15	2.83	2.67	2.51	....	....
5F1525	TR-238	BAH	1000	200CT	D	1 1/16	1	6.93	6.23	5.88	5.53	....	....
5F1526	TR-4	BCH	1500	500CT	D, S	1 3/16	150	4.41	3.97	3.75	3.53	2.34	2.13
5F1527	TR-213	MAH	1500CT	600CT	J, S	....	100	3.15	2.83	2.67	2.51	....	....
5F1528	TR-260	BAH	2000CT	200CT	D	1 1/16	100	5.05	4.54	4.28	4.03	....	....
5F1529	TR-421	BAH	2000CT	500CT	J	1	600	4.35	3.91	3.69	3.47	....	....
5F1530	TR-413	BAH	2500	2500CT	J	1	200	4.35	3.91	3.69	3.47	....	....
5F1532	TR-407	BAH	4000CT	600CT	J	1	600	4.35	3.91	3.69	3.47	....	....
5F1534	TR-454	BAH	4000CT	600*	D, J	1 3/8	1.5W	4.35	3.91	3.69	3.47	....	....
5F1536	TR-3	BCH	5000CT	10000CT	D, J	1 3/16	150	4.41	3.97	3.75	3.53	2.34	2.13
5F1538	TR-38	MAH	6000	5000CT	D, J	....	50	4.41	3.97	3.75	3.53	....	....
5F1541	TR-23	BCH	10000	200CT	D, S	1 3/16	150	4.41	3.97	3.75	3.53	....	....
5F1542	TR-207	MAH	10000CT	200CT									
			25000CT	500CT	J	....	100	4.10	3.69	3.48	3.28	....	....
5F1543	TR-210	MAH	10000	500CT									
			12500	600CT	D, S	....	100	3.15	2.83	2.67	2.51	....	....
5F1547	TR-7	BCH	10000	2000CT	J	1 3/16	150	4.41	3.97	3.75	3.53	2.34	2.14
5F1551	TR-419	BAH	10000CT	10000CT	J	1	100	4.35	3.91				
5F1552	TR-216	MAH	10000CT	10000CT						3.69	3.47	....	....
			12000CT	12000CT	....	....	100	4.73	4.26	4.02	3.79	....	....
5F1553	TR-25	BCH	15000	200CT	J, S	1 3/16	150	4.41	3.97	3.75	3.53	....	....
5F1554	TR-200	MAH	20000	800									
			30000	1200	J	....	100	3.15	2.83	2.67	2.51	....	....
5F1559	TR-261	BAH	20000CT	2000CT	D	1 3/8	200	5.05	4.54	4.28	4.03	3.10	2.83
5F1560	TR-406	BAH	25000	600	J	1	100	4.35	3.91	3.69	3.47	....	....
5F1566	TR-26	BCH	50000	500CT	A, D	1 3/16	150	4.41	3.97	3.75	3.53	....	....
5F1567	TR-400	BAH	50000	600	A, J	1	100	4.35	3.91	3.69	3.47	....	....
5F1572	TR-28	BAH	200000	1000	A	1 3/8	300	4.41	3.97	3.75	3.53	....	....
5F1574	TR-36	BAH	500000	200CT	A	1 3/8	300	4.41	3.97	3.75	3.53	2.35	2.14

INVERTERS DC TO AC

Converters of low voltage DC to high voltage AC or DC power. Ideally suited for powering all types of battery operated equipment. Complete instructions supplied with each transformer.

Stock No.	Type	Mtg. Type	DCV Supply	Output Voltage	Power Watts	Mtg. Cntrs.	Each Boxed 1-9	Each Boxed 10-24	Each Boxed 25-49	Each Boxed 50-99	Bulk-Packed 100-249	Bulk-Packed 250-499
5F1575	TR-70	GGV	12	117V@60CPS	50	1 5/8x2	18.90	17.01	16.10	15.12	....	....
5F1576	TR-71	GGV	12	117V@60CPS	110	2 9/16x2 1/2	25.20	22.68	21.42	20.16	....	....
5F1577	TR-287	TYL	28	110/115/125V @400CPS	60	1 7/8x1 3/8	12.15	13.61	12.83	12.10	....	....

MINIATURE TRANSFORMERS

Top efficiency miniature transformers. Designed for a wide range of civilian and government applications. Used by many manufacturers of hearing aids and a variety of miniature electronic devices where maximum efficiency is necessary. Ideal for original equipment and for replacement.

Stock No.	Type	MT3 Type	Impedance Primary	Impedance Secondary	Mtg. Cntrs.	Power MW	1-9	10-24	25-49	50-99
5F1620	MIT-184	BAH	30/7.5	50000	1 3/8	3	7.24	6.52	6.16	5.80
5F1621	MIT-166	BAH	600/250/50	600/250/50	1 1/16	12	6.30	5.67	5.35	5.04
5F1622	MIT-182	BAH	600/250/50CT	50000	1 3/4	3	7.24	6.52	6.16	5.80
5F1623	MIT-183	BAH	600/250/50CT	50000CT	1 3/4	3	7.24	6.52	6.16	5.80
5F1626	MIT-189	BAH	15000	600/250/50CT	1 3/8	8	4.26	3.83	3.61	3.40
5F1628	MIT-187	BAH	15000	95000CT	1 3/8	3	4.26	3.83	3.61	3.40
5F1632	MIT-191	BAH	30000CT	600/250/50CT	1 3/8	8	4.26	3.83	3.61	3.40

MINIATURE AUDIO INDUCTORS

Stock No.	Type	Series Connected Inductance-Henrys	Series Connected MADC	Series Connected Resistance-Ohms	Mfg. Type	1-9	10-24	25-49	50-99
5F1635	MIT-140	3.5	2	160	MAH	3.47	3.12	2.94	2.77
5F1636	MIT-139	8	2	650	MAH	3.47	3.12	2.94	2.77
5F1638	MIT-145	50	1	2675	MAH	2.84	2.56	2.42	2.28
5F1639	MIT-194	300/50	0/3	6000	BAH	4.26	3.83	3.61	3.40

OUTPUT-TRANSISTOR TO VOICE COIL

Stock No.	Type	Mfg. Type	Impedance Pri.	Impedance Sec.	Mfg. Cntrs.	Power Watts	Each, Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
5F1584	TR-191	BAH	24CT	4/8	2 13/16	8	5.05	4.54	4.28	4.03	2.35	2.14
5F1586	TR-304	BAH	25	4	2 3/8	4	3.78	3.40	3.21	3.02	...	...
5F1587	TR-58	BAH	32CT	3.5/8/16	2 13/16	10	4.41	3.97	3.75	3.53	2.35	2.14
5F1592	TR-60	BHV	48CT	3.2/8/16	2 3/8	10	4.41	3.97	3.75	3.53	2.17	1.99
5F1593	TR-111	BAH	100CT	4/8/16	1 3/8	.3	5.05	4.54	4.28	4.03	2.54	2.32
5F1598	TR-265	BAH	250CT	4/8/16	1 3/8	.2	5.05	4.54	4.28	4.03	2.60	2.37
5F1600	TR-22	BAH	400CT	4/8	3/8	.3	4.41	3.97	3.75	3.53	...	...
5F1601	TR-27	BCH	500CT	3.2	13/16	.15	4.41	3.97	3.75	3.53	...	...
5F1602	TR-102	BCH	500CT	4/8/16	13/16	.15	5.05	4.54	4.28	4.03	2.48	2.26
5F1603	TR-220	MAH	500CT	3.2	...	25	3.45	3.10	2.92	2.75	...	...
5F1605	TR-103	BCH	600CT	4/8/16	13/16	15	5.05	4.54	4.28	4.03	2.70	2.46
5F1606	TR-115	BAH	700CT	4/8/16	1 3/8	3	5.05	4.54	4.28	4.03	2.54	2.32
5F1607	TR-29	BCH	825CT	3.4	13/16	.15	4.41	3.97	3.75	3.53	...	...
5F1612	TR-221	MAH	2000-4000CT	8/16 4/8/16	...	.25	3.45	3.10	2.92	2.75	...	...
5F1616	TR-203	MAH	10000	16	...	.1	3.15	2.83	2.67	2.51	...	...
5F1617	TR-202	MAH	10000	4/8/16	...	.1	3.15	2.83	2.67	2.51	...	...
5F1618	TR-109	BCH	10000CT	6	13/16	.15	5.05	4.54	4.28	4.03	2.50	2.28

*Split CT Winding.

TRANSISTOR BLOCKING OSCILLATOR-CONVERTERS

Designed specifically for use in single transistor blocking oscillator circuits. The DC output voltage of TR-464 is rated for a quadruple rectifier circuit and may vary some due to bias.

Stock No.	Type	DC Supply Voltage	DC Output Voltage	Output Current in Micro Amps	Mtg Type	1-9	10-24	25-49	50-99
5F1581	TR-462	3	1000 (½ Wave)	25	BAH	6.30	5.67	5.35	5.04

(TRANSISTOR CONVERTER (Mobile or Fixed Power Supply)

Secondaries: 280 V DC @ 150 MADC, 12.6V AC @ 3 Amps (117 Volt Pri. only)

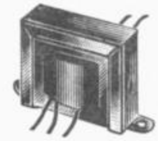
Stock No.	Type	Primaries	Type Mtg.	1-9	Each, Boxed 10-24	25-49	50-99	Bulk Packed 100-249	250-499
5F1582	TR-294	12.6 Volts DC or 117V AC @ 60 Cycles	GGV	18.90	17.01	16.10	15.12	9.03	8.23

POWER TRANSFORMERS (*)400-80-0-80-400

Stock No.	Type	Plate Supply Volts	Plate Supply MADC	Rectifier Fil. Volts	Rectifier Fil. Amps	Other Fil. Volts	Other Fil. Amps	Mtg. Type	Each Box 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
5F1896	22R39	125-0-125	25	...	...	6.3	1	BAV	3.78	3.40	3.21	3.02	2.02	1.84
5F1897	24R10	220-0-220	50	6.3	.6	25.2	.5	GGV	10.40	9.50	8.97	8.44	4.63	4.21
5F1899	24R11	230-0-230	50	...	...	6.3	2.5	AGF	6.30	5.67	5.35	5.04	3.53	3.21
5F1900	24R11U	230-0-230	50	...	...	6.3	2.5	GGV	7.88	7.09	6.69	6.30	3.35	3.06
5F1901	24R00	240-0-240	40	5	2	6.3CT	2	AGF	7.88	7.09	6.69	6.30	4.24	3.87
5F1902	24R19	240-0-240	55	5	2	6.3CT	2	AGF	9.45	8.50	8.02	7.55	4.15	3.78
5F1905	24R12U	240-0-240	70	...	...	6.3	3	GGV	7.88	7.09	6.69	6.30	3.95	3.61
5F1906	24R90	250-0-250	20	6.3	.6	6 3	1.2	FGV	6.30	5.67	5.35	5.04	3.55	3.23
5F1907	22R00	250-0-250	40	5	2	6.3CT	2	AGF	9.45	8.50	8.02	7.55	...	...
5F1909	24R09U	250-0-250	70	5	2	6.3CT	2.5	GGV	9.45	8.50	8.02	7.55	4.41	4.01
5F1910	26R31U	260-0-260	90	...	...	6.3	4	GGV	9.45	8.50	8.02	7.55	4.32	3.93
5F1913	26R53	268-0-268	260	5	3	6.3	8	GGV	20.79	18.71	17.67	16.63	8.16	7.44
5F1916	24R20U	270-0-270	120	5	3	6.3CT	3.5	GGV	12.60	11.34	10.71	10.08	6.23	5.67
5F1918	25R03	300-0-300	60	5	2	6.3CT	3	TAV	21.26	19.13	18.11	17.00	...	...
5F1919	22R02	300-0-300	70	5	2	6.3CT	3	AGF	9.45	8.50	8.02	7.55	...	...
5F1920	22R04	300-0-300	90	5	2	6.3CT	3.5	AGF	9.45	8.50	8.02	7.55	5.58	5.08
5F1921	22R05	300-0-300	120	5	3	6.3CT	5	AGF	15.75	14.17	13.38	12.59	6.99	6.36
5F1922	22R05U	300-0-300	120	5	3	6.3CT	5	GGV	15.75	14.17	13.38	12.59	6.96	6.34
5F1923	24R01	325-0-325	40	5	2	6.3CT	2	AGF	7.88	7.09	6.69	6.30	4.28	3.90
5F1924	24R08	325-0-325	55	5	2	6.3CT	2	AGF	10.40	9.50	8.97	8.44	4.56	4.15
5F1929	24R02	350-0-350	70	5	2	6.3CT	2.5	AGF	9.45	8.50	8.02	7.55	5.55	5.06
5F1930	24R02U	350-0-350	70	5	2	6.3CT	2.5	GGV	9.45	8.50	8.02	7.55	5.32	4.86
5F1932	24R04U	350-0-350	90	5CT	3	2.5CT	3.5	GGV	10.40	9.50	8.97	8.44	...	...
5F1935	24R05U	350-0-350	120	5	3	6.3CT	4.7	GGV	10.40	9.50	8.97	8.44	...	...
5F1936	22R07	350-0-350	200	5	3	6.3CT	6	AGF	18.90	17.01	16.10	15.12	...	...
5F1937	22R87	350-0-350	200	5	3	6.3CT	8	GGV	15.75	14.17	13.38	12.59	...	...
5F1941	24R24	370-0-370	275	5CT	3	6.3CT	7	AGF	18.90	17.01	16.10	15.12	10.57	9.62
5F1942	24R06	375-0-375	150	5	3	6.3CT	4.7	AGF	15.75	14.17	13.38	12.59	9.31	8.48
5F1943	24R06U	375-0-375	150	5	3	6.3CT	4.7	GGV	15.75	14.17	13.38	12.59	8.34	7.60
5F1945	24R66	400-0-400	30	5	2	6.3	1.2	GGV	12.60	11.34	10.71	10.08	...	...
5F1946	24R45	400-0-400	140	5	3	6.3CT	4	GGV	12.60	11.34	10.71	10.08	...	...
5F1947	24R07	400-0-400	200	5	3	6.3CT	5	AGF	15.75	14.17	13.38	12.59	9.15	8.33
5F1948	24R07U	400-0-400	200	5	3	6.3CT	5	GGV	15.75	14.17	13.38	12.59	9.01	8.21
5F1949	24R03	400-0-400	250	5	4	6.3CT	5	GGV	15.75	14.17	13.38	12.59	9.79	8.87
5F1950	25R11	*	250	5/5	6/2	6.3CT	7	TAV	21.26	19.13	18.11	17.00	...	...
5F1951	22R35	400-0-400	340	5	6	6.3CT	7	GGV	31.50	28.35	26.77	25.20	...	...
5F1954	24R25	440-0-440	130	5	3	6.3CT	3.5	GGV	15.75	14.17	13.38	12.59	6.30	5.74
5F1956	22R36	600-0-600	200	5	3	6.3	5	GGV	31.50	28.35	26.77	25.20	...	...

INTERSTAGE TRANSFORMERS

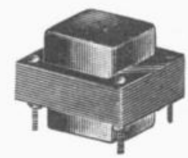
Stock No.	Type	Impedance in Ohms Primary	Impedance in Ohms Secondary	Unb. Pri. MADC	Mfg. Type	Mfg. Centers	1-9	Each Boxed 10-24	25-49	50-99	Bulk Packed 100-249	250-499
5F1969	25A46	500*	500*	20	RTV	1 1/16	9.45	8.50	8.02	7.55	...	...
5F1970	25A69	500*	150*	20	UTV	1 5/32x1 5/32	11.34	10.21	9.69	9.08	...	...
5F1972	20A16	7000—15000	28000—60000CT	10	BAH	2	4.14	3.73	3.52	3.32	2.32	2.11
5F1974	25A64	10000*	2000*	8	UTV	1 5/32x1 5/32	12.60	11.34	10.71	10.08	...	...
5F1978	20A45	10000	90000	10	BAH	2	3.15	2.83	2.67	2.51	1.48	1.34



BAH

TAV

FGV



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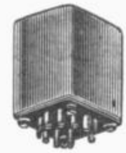
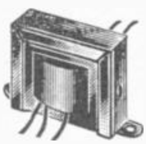


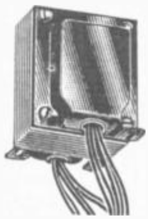
UTV

TM Thordarson Transformers



BAH

LAV



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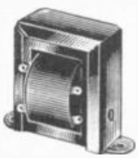

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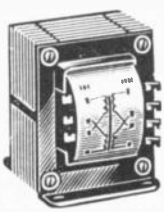

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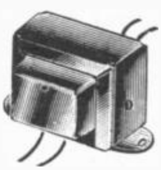


BGH

TTV

LOW VOLTAGE RECTIFIER TRANSFORMERS 50/60 CYCLES

Primary Voltage 115 except (††)110/120.

Stock No.	Type	Secondary AC Voltage	Secondary AC Amps	Mtg. Type	Mtg. Centers	Each Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
5F2047	23V103	6.3/13/19.5/26	3	LAV	2¼x2 3/16	9.45	8.50	8.02	7.55	......	......
5F2049	23V116	10/20CT/40CT	.1	BAH	2⅜	5.05	4.54	4.28	4.03	2.67	2.43
5F2050	23V117	10/20CT/40CT	.3	BAH	3⅛	6.30	5.67	5.35	5.04	3.59	3.28
5F2051	23V118	10/20CT/40CT	.75	BAH	3 9/16	10.40	9.50	8.97	8.44	6.01	5.47
5F2053	23V113	12/13.5/15/16.5/18	20								......
		12/13.5/15/16.5/18	20	LAV	2¾x4½	50.50	45.45	42.92	40.40	......	
5F2054	23V100	17/18	3	LAV	1⅝x2⅜	7.88	7.09	6.69	6.30	......	......
5F2057	23V105††	24/27/30/33/36	8	LAV	3x3 5/16	25.20	22.68	21.42	20.16	......	......
5F2058	23V112	24/26/28/30	15	LHV	3¾x4 9/16	37.80	34.02	32.13	30.24	......	......
5F2059	23V102	36/36	3/3	LAV	3x3 1/16	18.90	17.01	16.10	15.12	10.16	9.25
5F2060	23V119	10/20CT/40CT	1	GGV	2x2¼	10.40	9.50	8.97	8.44	......	......

MULTI-TAPPED-LOW VOLTAGE RECTIFIER

Stock No.	Type	Secondary AC..Volts	Recom. Capacitor	Mtg. Type	Mtg. Centers	Each Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
5F2061	23V60	11.7 to 29.4	1000 MFD								
		11.1 to 28.5	500 MFD	AH	2x2⅛	9.45	8.50	8.02	7.55	5.01	4.57
5F2062	23V61	12.2 to 29.7	2000 MFD								
		12.2 to 29.7	1000 MFD	AJ	2¼x2⅜	9.45	8.50	8.02	7.55	5.01	4.57
5F2063	23V62	11.7 to 29.2	4000 MFD								
		11.8 to 29.2	2000 MFD	FA	2½x2⅞	15.75	14.17	13.38	12.59	6.47	5.89
5F2064	23V63	12.0 to 29.8	6000 MFD								
		12.0 to 29.6	3000 MFD	HA	2¾x3¼	18.90	17.01	16.10	15.12	9.25	8.42
5F2065	23V64	12.2 to 29.7	7500 MFD								
		12.1 to 29.2	4000 MFD	KA	2 15/16x3¾	25.20	22.68	21.42	20.16	11.65	10.61

SILICON RECTIFIER POWER TRANSFORMERS

Stock No.	Type	Secondary Volts	Secondary MADC	Secondaries 6.3V @	Secondaries 6.3V @	Mtg. Type	Mtg. Centers	Each Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
5F2068	24R105	30-0-30	2500	1.5A	1.5A	GGV	2¾x2 11/16	18.90	17.01	16.10	15.12	8.93	8.44
5F2070	24R104	40-0-40	2000	1.5A	1.5A	GGV	2¾x2 13/16	18.90	17.01	16.10	15.12	8.50	7.73
5F2072	24R103	50-0-50	1600	1.5A	1.5A	GGV	2¾x2 11/16	18.90	17.01	16.10	15.12	8.16	7.44
5F2074	24R102	100-0-100	800	2A	2A	GGV	2¾x2 15/16	18.90	17.01	16.10	15.12	8.78	8.00
5F2076	24R101	150-0-150	600	2.5A	2.5A	GGV	2¾x3 1/16	18.90	17.01	16.10	15.12	8.82	8.04
5F2078	24R100	200-0-200	400	3A	3A	GGV	2¾x3 1/16	18.90	17.01	16.10	15.12	8.95	8.14

LOW VOLTAGE CONTROL

Stock No.	Type	VA Out	Primary Voltage	Secondary Voltage	Secondary Amps	Mtg. Type	Mtg. Centers	Each Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
5F2021	23V50	12	115/230	6 or 12	2 or 4	BHV	2⅜	6.30	5.67	5.35	5.04	2.23	2.03
5F2022	23V51	24	115/230	6 or 12	4 or 2	BHV	2 13/16	6.30	5.67	5.35	5.04	3.36	3.07
5F2023	23V160	24	115	24	1	BGH	2 13/16	6.30	5.67	5.35	5.04	....	....
5F2024	23V52	48	115/230	12 or 24	4 or 2	BHV	3⅛	12.60	11.34	10.71	10.08	3.36	3.07
5F2025	23V53	96	115/230	12 or 24	8 or 4	CHV	2⅜x2¼	12.60	11.34	10.71	10.08	5.46	5.02

ISOLATION TRANSFORMERS 50/60 CYCLES

Stock No.	Type	VA Out	Primary Voltage	Sec. Volt	Mtg. Type	Mtg. Centers	Each Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
5F2026	23V17	35	115	115	BAH	3⅛	5.67	5.10	4.81	4.53	3.06	2.79
5F2027	23V80	40	115/230	115	BAH	3⅛	6.93	6.24	5.89	5.55	....	....
5F2029	23V18	80	115	115	GGV	2½x2 5/16	12.60	11.34	10.71	10.08	5.11	4.65
5F2031	23V49	150	115	115	GMV	3x2 9/16	25.20	22.68	21.42	20.16	......	......
5F2032	23V74	150	115/230	115	GGV	2½x3	18.90	17.01	16.10	15.12	......	......
5F2033	25V19	250	105/115/125	115**	TMV*	3½x5⅜	47.25	42.52	40.15	37.79	16.91	15.41
5F2034	23V28	500	105/115/125	115	GMV	4⅝x4¼	63.00	56.70	53.55	50.40	38.84	35.26
5F2035	23V88	1200	110/120	110/120	GMV	3⅝x6⅝	75.60	68.04	64.26	60.48	......	......

*Complete with tap switch. **Or 125/115/105 with 115 V. Primary.

CHOKES

Stock No.	Type	Inductance Henrys	Inductance MADC	DC Ohms	Volts RMS	Mtg. Centers	Mtg. Type	Each Boxed 1-9	10-24	25-49	50-99	Bulk Packed 100-249	250-499
5F2080	26C40	1.5	10	95	2500	1¾	BAH	2.08	1.88	1.78	1.68	1.13	1.04
5F2081	20C43	20	15	900	2500	2⅜	BAH	4.08	3.68	3.48	3.28	1.62	1.49
5F2082	20C51	35	15	1850	2500	2	BAH	2.07	1.86	1.73	1.65	1.28	1.16
5F2084	20C52	8	40	450	2500	2	BAH	2.07	1.86	1.73	1.65	1.28	1.16
5F2088	20C66	9	50	500	2500	2⅜	BAH	3.15	2.83	2.67	2.51	......	......
5F2093	20C48	8	80	250	2500	2 13/16	BAH	2.82	2.54	2.40	2.26	1.72	1.56
5F2094	20C53	12	80	375	2500	2 13/16	BAH	3.15	2.83	2.67	2.51	1.62	1.49
5F2096	20C06	10	90	270	1000	2 13/16	BAH	4.70	4.23	4.09	3.76	2.27	2.08
5F2100	20C09	9	125	250	1000	3⅛	BAH	4.70	4.23	4.09	3.76	2.27	2.08
5F2103	20C54	8	150	145	2700	2x1¾	GGV	5.05	4.54	4.28	4.03	3.33	3.04
5F2105	26C41	1.5	200	90	2500	2⅜	BAH	2.52	2.27	2.14	2.02	1.33	1.23
5F2106	26C94	2	200	60	2500	3⅛	BAH	5.04	4.53	4.37	4.02	2.05	1.88
5F2107	20C49	4.5	200	58	2500	3⅝	BAH	4.08	3.68	3.48	3.28	...	...
5F2112	20C96	8.5	200	120	3000	3½x2¼	LAV	9.45	8.50	8.02	7.55	5.39	4.90
5F2117	26C77	.7	290	30	1500	2⅜	BAH	2.52	2.27	2.14	2.02	1.13	1.04
5F2118	26C44	1	300	60	2500	2 13/16	BAH	3.78	3.40	3.21	3.02	......	......
5F2119	26C91	2.8	300	60	2500	3 9/16	BAH	5.04	4.53	4.37	4.02	2.67	2.43
5F2123	20C107	7.5	400	60	5000	3x3 13/16	GTV	18.90	17.01	16.10	15.12	9.81	8.94
5F2124	26C81	.32	600	10	1500	2 13/16	BAH	3.78	3.40	3.21	3.02	2.11	1.93
5F2125	20C00	.035	2A.	.75	1500	2 13/16x2	LHH	5.05	4.54	4.28	4.03	2.57	2.34
5F2126	20C01	.025	4A.	.425	1500	2 13/16x2⅛	LHH	10.10	9.09	8.58	7.99	4.18	3.81
5F2127	20C03	.01	12.5A	.11	1500	3 7/16x2⅜	LHH	10.10	9.09	8.58	7.99	5.60	5.78

Thordarson Transformers

TM

SINGLE PLATE TO PUSH PULL GRIDS

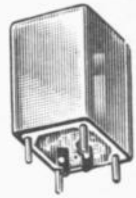
Stock No.	Type	Turns Ratio	Pri. MADC	Mtg. Type	Mtg. Centers	Dimension HxWxD			1-9	Each Boxed 10-24	Each Boxed 25-49	Each Boxed 50-99	Bulk-Packed 100-249	Bulk-Packed 250-499
5F1988	20D77	2.5:1	30	FGV	2 3/8	2 3/8	2 7/8	2 1/8	6.30	5.67	5.35	5.04	......	......
5F1989	20D76	5.2:1	15	BAH	2	1 3/8	2 3/8	1 1/4	9.45	8.50	8.02	7.55	......	......
5F1991	20D89	3:1	40	BAH	2 3/8	1 5/8	2 13/16	1 1/2	6.30	5.67	5.35	5.04	1.61	1.49

OUTPUT—TUBE TO LINE OR LINE MIXER

Stock No.	Type	Impedance Pri.	Impedance Secondary	Pri. MADC	Watts	Mtg. Type	1-9	Each Boxed 10-24	Each Boxed 25-49	Each Boxed 50-99	Bulk Packed 100-249	Bulk Packed 250-499
5F2016	25S12	15000**	50/125 150/200 250/333 500-600	0*	031	UTV	15.75	14.17	13.38	12.59		

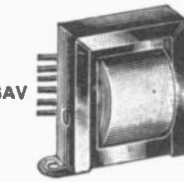
OUTPUT—SINGLE PLATE TO LINE OR VOICE COIL

Stock No.	Type	Impedance Pri.	Impedance Secondary	Pri. MADC	Watts	Mtg. Type	1-9	Each Boxed 10-24	Each Boxed 25-49	Each Boxed 50-99	Bulk Packed 100-249	Bulk Packed 250-499
5F1993	24S50	2000	3.5	55	5	BAH	1.50	1.35	1.27	1.20	.97	.89
5F1994	24S51	5000	3.5	40	5	BAH	1.50	1.35	1.27	1.20	1.00	.91
5F1998	25S52	7-10000	3.5	30	5	BAH	1.80	1.62	1.53	1.44	1.00	.91
5F1999	25S96	7000	4/8/16	40	10	BAH	2.25	2.02	1.91	1.80	1.63	1.47
5F2002	24S84	10000	3.5	30	3	BAV	2.25	2.02	1.91	1.80	......	......
5F2004	24S54	15-20000	3.5	10	5	BAH	1.80	1.62	1.53	1.44	1.19	1.09
5F2005	24S99	25000	3.5	5	5	BAH	2.25	2.02	1.91	1.80	1.23	1.12



UTV

RTV



BAV

MICROPHONE, PICKUP OR LINE TO GRID

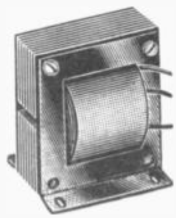
Stock No.	Type	Application	Impedance In Ohms Primary	Impedance In Ohms Secondary	Mtg. Type	1-9	Each Boxed 10-24	Each Boxed 25-49	Each Boxed 50-99	Bulk Packed 100-249	Bulk Packed 250-499
5F1958	20A00	Line to S. or PP Grids	600/500CT	60000CT	BAH	3.78	3.40	3.21	3.02	......	......
5F1959	25A28	Mike, Pickup or Line to S. or PP Grids	600/500/250, 200/50	50000CT	RTV	9.45	8.50	8.02	7.55	......	......
5F1964	MIT154	Mike or Line to Grid	600/250/50	250000	BAH	6.30	5.67	5.35	5.04	......	......
5F1967	20A04	Voice Coil to Grid	6/3	38400	BAH	3.45	3.10	2.92	2.75	1.90	1.78

*Shielded for —90DB Hum Reduction; 1½ spade bolt mountings. **Split CT Winding.

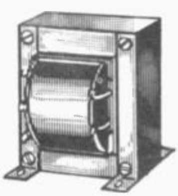
FILAMENT TRANSFORMERS WITH SINGLE SECONDARY

Stock No.	Type	Secondary Volts	Secondary Amps	Test Volts RMS	Mtg. Centers	Mtg. Type	1-9	Each Boxed 10-24	Each Boxed 25-49	Each Boxed 50-99	Bulk Packed 100-249	Bulk Packed 250-499
5F2129	21F00	2.5CT	5	2500	2 3/8	BAV	6.30	5.67	5.35	5.04	......	......
5F2130	21F01	2.5CT	10	2500	2 13/16	BAV	7.88	7.09	6.69	6.30	......	......
5F2131	21F32†	2.5CT	10	2500	2x1 3/4	GGV	7.88	7.09	6.69	6.30	3.52	3.21
5F2132	21F02	2.5CT	10	10000	2x1 3/4	CAV	7.88	7.09	6.69	6.30	......	......
5F2133	21F03	5.0CT	3	2500	2 3/8	BAV	7.88	7.09	6.69	6.30	......	......
5F2135	21F37	5.0CT	6	2500	2x2	LHV	7.48	6.73	6.35	5.98	3.46	3.17
5F2136	21F04	5.0CT	8	2500	2x1 3/4	CAV	7.88	7.09	6.69	6.30	4.11	3.75
5F2137	21F20	5.0CT	15	10000	2 1/2x3	CAV	11.34	10.21	9.64	9.08	6.72	6.12
5F2138	21F67	5.2CT	24	1500	2 1/2x3/16	LAV	13.86	12.47	11.07	11.07	......	......
5F2139	21F75	6.0CT/6.3CT	11	3000	2 1/4x2 7/16	LAV	7.88	7.09	6.69	6.30	......	......
5F2140	21F21	6.3	.6	2500	2	BAH	2.52	2.27	2.14	2.02	1.40	1.29
5F2141	21F08	6.3CT	1	2500	2	BAV	2.52	2.27	2.14	2.02	1.51	1.37
5F2142	21F09	6.3CT	1.2	2500	2 3/8	BAH	2.52	2.27	2.14	2.02	1.51	1.37
5F2143	26F60	6.3	1.2	5000	2 13/16	BAH	4.11	3.70	3.49	3.29	2.33	2.11
5F2144	25F67†	6.3CT	1.5	2500	1 1/2x2 3/8	TTV	31.50	28.35	26.77	25.20	......	......
5F2145	21F10	6.3CT	3	2500	2 13/16	BAH	4.30	3.90	3.65	3.44	2.18	1.99
5F2146	21F107	6.3CT	3	2500	2x1 3/4	LHV	5.67	5.10	4.81	4.53	3.14	2.87
5F2188	21F83	25.2CT	2	1500	3 9/16	BAH	5.67	5.10	4.81	4.53	......	......
5F2149	21F11	6.3CT	6	2500	2x1 3/4	CAV	6.30	5.67	5.35	5.04	4.57	4.16
5F2150	21F96	6.3CT	8	2500	3 9/16	BAH	6.30	5.67	5.35	5.04	......	......
5F2151	21F12	6.3CT	10	2500	2x2	CAV	7.88	7.09	6.69	6.30	5.48	4.99
5F2153	21F77	6.3CT	20	2500	2 1/2x3	GGV	13.86	12.47	11.77	11.07	......	......
5F2154	21F45	7.5CT	4	2500	2x2 1/8	LHV	7.88	7.09	6.69	6.30	3.42	3.11
5F2155	21F62	7.5CT	8	2500	2 1/2x2 3/8	LAV	10.08	9.07	8.56	8.06	5.40	4.92
5F2156	21F18	10.0CT	5	2500	2x1 3/4	CAV	7.58	6.82	6.44	6.06	5.40	4.92
5F2157	21F68	10CT/11CT/12CT	11	3000	2 3/4x2 9/16	LAV	13.86	12.47	11.77	11.07	......	......
5F2158	26F67	12.6CT	2	2500	2 13/16	BAH	4.11	3.70	3.49	3.29	2.39	2.18
5F2159	21F81	12.6CT	3	2500	3 1/8	BAH	5.67	5.10	4.81	4.53	2.84	2.59
5F2160	21F52	12.6/25.2	7/3.5	2500	2 1/4x2 5/8	GGV	15.75	14.17	13.38	12.59	......	......
5F2161	26F68	24.0	1	2500	2 13/16	BAH	6.93	6.24	5.89	5.55	......	......
5F2162	21F97	24CT/12	2/4	1500	3 9/16	BAH	6.30	5.67	5.35	5.04	......	......
5F2163	21F51	25.2	1	2500	2 13/16	BAH	5.05	4.54	4.28	4.03	2.18	1.99
5F2164	21F100	26.0CT	.04	2500	1 3/4	BAH	5.67	5.10	4.81	4.53	......	......
5F2165	21F101	26.0CT	.25	2500	2 3/8	BAH	5.67	5.10	4.81	4.53	......	......
5F2166	21F27	26.5CT	.6	7500	2 13/16	BAH	6.30	5.67	5.35	5.04	......	......
5F2167	21F82	26.5CT	1	1500	2 13/16	BAH	5.67	5.10	4.81	4.53	......	......

FGV



CAV



LHV

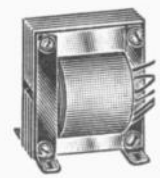
OUTPUT—SINGLE PLATE TO LINE OR VOICE COIL

Stock No.	Type	Impedance Pri.	Impedance Secondary	Pri. MADC	Watts	Mtg. Type	1-9	Each Boxed 10-24	Each Boxed 25-49	Each Boxed 50-99	Bulk Packed 100-249	Bulk Packed 250-499
5F1993	24S50	2000	3.5	55	5	BAH	1.89	1.70	1.60	1.51	1.06	.97
5F1994	24S51	5000	3.5	40	5	BAH	L.89	1.70	1.60	1.51	1.09	1.00
5F1998	24S52	7-10000	3.5	30	5	BAH	2.20	1.98	1.87	1.76	1.09	1.00
5F1999	24S96	7000	4/8/16	40	10	BAH	2.52	2.27	2.14	2.02	1.78	1.60
5F2002	24S84	10000	3.5	30	3	BAV	2.52	2.27	2.14	2.02	......	......
5F2004	24S54	15-20000	3.5	10	5	BAH	2.20	1.98	1.87	1.76	1.30	1.19
5F2005	24S99	25000	3.5	5	5	BAH	2.52	2.27	2.14	2.02	1.34	1.23

OUTPUT—PUSH PULL PLATES TO LINE OR VOICE COIL

Primary Impedance (*) 5000/7000CT and (†) 7000/10000CT

Stock No.	Type	Impedance Pri.	Impedance Secondary	Pri. MADC	Watts	Mtg. Type	1-9	Each Boxed 10-24	Each Boxed 25-49	Each Boxed 50-99	Bulk Packed 100-249	Bulk Packed 250-499
5F2007	24S119	6000CT	4/8/16/500	100	30	GGV	9.45	8.50	8.02	7.55	5.14	4.67
5F2008	24S57	6,600CT	4/8/16/250/500	150	35	GGV	10.08	9.07	8.56	8.06	6.20	5.65
5F2009	24S58†		3.5/8/16/500	60	25	GGV	10.08	9.07	8.56	8.06	4.42	4.04
5F2010	24S56	10000CT	2/4/8	75	8	BAH	4.73	4.26	4.02	3.79	1.99	1.81



LAV

TM Thordarson Transformers

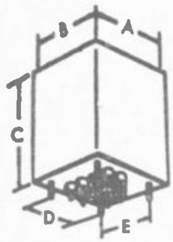
TM

AUTOFORMERS 50/60 HERTZ

Stock No.	Type	Inductance Henrys	Inductance MADC	DC Ohms	Volts Rms	Mtg. Type	Mtg. Centers	Each Boxed 1-9	Each Boxed 10-24	Each Boxed 25-49	Each Boxed 50-99	Bulk Packed 100-249	Bulk Packed 250-499
5F2039	23V21	100	———	220/250	110/125	GMV	$2\frac{1}{2}$x$1\frac{3}{4}$	12.60	11.34	10.71	10.08	6.42	5.86
5F2041	23V22	150	———	220/250	110/125	GMV	2x$2\frac{1}{2}$	12.60	11.34	10.71	10.08	7.26	6.61
5F2043	25V13	250	———	220/250	110/125	TMV	$2\frac{1}{2}$x$4\frac{3}{4}$	22.05	19.84	18.73	17.64	....	....

MILITARY STANDARD TRANSFORMERS

These transformers bear government classification and part numbers as shown below. Dimensions, mounting centers, terminal arrangements, and markings are all in accordance with government specifications. All units will meet the requirements of Grade 4 MIL-T-27B specifications for Class R operation. Input, Output, and Interstage Transformers are 300 to 10000 CPS; Maximum Altitude 50000 ft. Case style AJ.



MIL-T-27B

DIMENSIONS

	AH	AJ	EA	EB	FA	GA	HA	JB
A	$1\frac{5}{16}$	$1\frac{5}{8}$	$1\frac{15}{16}$	$1\frac{15}{16}$	$2\frac{5}{16}$	$2\frac{3}{4}$	$3\frac{1}{16}$	$3\frac{9}{16}$
B	$1\frac{5}{16}$	$1\frac{5}{8}$	$1\frac{13}{16}$	$1\frac{13}{16}$	$2\frac{1}{16}$	$2\frac{3}{8}$	$2\frac{5}{8}$	$3\frac{1}{16}$
C	$1\frac{3}{4}$	$2\frac{3}{8}$	$2\frac{3}{4}$	$2\frac{7}{16}$	$3\frac{1}{8}$	$3\frac{13}{16}$	$4\frac{1}{4}$	$3\frac{7}{8}$
D	$1\frac{1}{4}$	$1\frac{3}{16}$	$1\frac{3}{8}$	$1\frac{3}{8}$	$1\frac{11}{16}$	$2\frac{1}{8}$	$2\frac{19}{64}$	$2\frac{5}{8}$
E	$1\frac{1}{4}$	$1\frac{3}{16}$	$1\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{7}{16}$	$1\frac{3}{4}$	$1\frac{55}{64}$	$2\frac{1}{8}$

OUTPUT — *SPLIT CENTER TAP — BALANCED WINDINGS

Stock No.	Type	MIL-T-27B Classification	MIL-T-27B Part No.	Primary Impedance	Secondary Impedance	Max. Power Level	1-9	10-24	25-49	50-99
5F1832	27S01	TF4RX16AJ002	MS-90001-2	*600 ohms CT	4/8/16 ohms	2 watts	18.90	17.01	16.10	15.12
5F1834	27S03	TF4RX13AJ002	MS-90005-2	4800/7600	4/8/16 ohms	2 watts	15.75	14.17	13.38	12.59

FILAMENT TRANSFORMERS

Stock No.	Type	MIL-T-27B Classification	MIL-T-27B Part No.	Secondary Volts	Secondary Amps.	Insulation Volts RMS	Case Size	1-9	10-24	25-49	50-99
5F1854	27F42	TF4RX01JB008	MS-90022-2	6.3	10	2,500	JB	16.53	14.88	14.05	13.43
5F1857	27F45	TF4RX01KB013	MS-90025-2	5.0	10	10,000	KB	25.20	22.68	21.42	20.16

NSV-2

POWER TRANSFORMERS — REACTOR INPUT

Stock No.	Type	MIL-T-27B Classification	MIL-T-27B Part No.	Secondary A-C Volts	Secondary D-CMA	D-DV Output	Case Size	1-9	10-24	25-49	50-99
5F1858	27R86	TF4RX03HA001	MS-90026-2	200-100-0-100-200	70	385	HA	47.25	42.52	40.15	38.09

MINIATURE TRANSISTOR TRANSFORMER

Designed and built to meet MIL-T-27B Grade 4 specifications. Freq. range: 100-20000 Cycles.

Key to application of Transistor Transformers at right

A—Input

D—Driver

J—Interstage

M—Mixing or Matching

P—Pulse Applications

S—Output

Stock No.	Type	MIL-T-27B Class.	Case Type	Impedance Primary	Impedance Secondary	Application	Pwr. MW	1-9	10-24	25-49	50-99
5F1640	MIT-241	TF4RX17YY	RAV-6	400/500CT	400/500*	J, S, P	500	7.88	7.09	6.69	6.30
5F1643	MIT-220	TF4RX17YY	RAV-6	500CT	600	S, M	500	6.30	5.67	5.35	5.04
5F1650	MIT-211	TF4RX13YY	RAV-6	10000/12500	2000/2500CT	D, J	100	6.93	6.24	5.89	5.55
5F1655	MIT-202	TF4RX17YY	RAV-6	500/600	50/60	S, M	100	5.67	5.10	4.81	4.53
5F1662	MIT-201	TF4RX13YY	RAV-6	20000/30000CT	800/1200CT	D, J	100	6.30	5.67	5.35	5.04
5F1664	MIT-229	TF4RX17YY	RAV-6	120/150CT	3.2/4	S	500	6.30	5.67	5.35	5.04
5F1669	MIT-204	TF4RX17YY	RAV-6	600	3.2	S, M	100	5.67	5.10	4.81	4.53
5F1671	MIT-246	TF4RX16YY	RAV-6	100000CT†	500CT	A	25	7.88	7.09	6.69	6.30
5F1673	MIT-224	TF4RX16YY	RAV-6	200000CT	1000CT	A	25	10.08	9.07	8.56	8.06
5F1677	MIT-234	TF4RX13YY	RAV-6	1600/2000CT	3.2/4	S	500	6.30	5.67	5.35	5.04
5F1685	MIT-227	TF4RX20YY	RAV-6	.5H @ 11MADC		Ind.	......	5.05	4.54	4.28	4.03
5F1689	MIT-300	....	....	High permeability cover, shield							
			RAV-6	20-30DB shielding		Shd.	.....	6.30	5.67	5.35	5.04
5F1690	MIT-271	TF4RX17YY	RAV-4	400/500CT	400/500*	J, S, P	500	7.88	7.09	6.69	6.30
5F1692	MIT-252	TF4RX13YY	RAV-4	1500CT	600	S	500	6.30	5.67	5.35	5.04
5F1696	MIT-266	TF4RX20YY	RAV-4	.5H @ 6MADC		Ind.	......	4.54	4.09	3.86	3.64

†Static Shielded; *Split Winding

LINE ISOLATION TRANSFORMERS

380 to 1500 Cycles. Meet MIL-T-27B, Class R specifications. Applicable to communications, lighting and equipment systems requiring isolation. All units are static shielded.

Stock No.	Type	MIL-T-27B Classification	Pri. Volt	Sec. Volt	VA Output	MIL Case	1-9	10-24	25-49	50-99
5F1817	27V42	TF4RX01YY	115	115CT*	2	NSV-2	12.60	11.34	10.71	10.08
5F1818	27V41	TF4RX01EB	115	115CT*	40	EB	18.90	17.01	16.10	15.12
5F1819	27V40	TF4RX01GA	115	115CT*	150	GA	18.90	17.01	16.10	15.12

RAV-7

PULSE TRANSFORMERS — TRANSISTOR TYPE

Built to meet MIL-T-2103B specifications. All have $\frac{5}{16}$ Diameter and $\frac{9}{16}$ Height. RAV-7 Case.

Stock No.	Type	MIL-T-21038B Classification	Turns Ratio	Coupling Circuit Pulse Width Micro-Sec.	Coupling Circuit Rise Time (Micro-Sec.)	Coupling Circuit Impedance in/out	1-9	10-24	25-49	50-99
5F1820	PUL-39	TP6RX4410CZ	4:4:1	.05	.017	50/50	7.08	6.37	6.01	5.66
5F1821	PUL-40	TP6RX4410CZ	4:4:1	.10	.024	50/50	7.08	6.37	6.01	5.66
5F1822	PUL-41	TP6RX4410CZ	4:4:1	.20	.035	100/100	7.08	6.37	6.01	5.66
5F1824	PUL-43	TP6RX4410CZ	4:4:1	1.0	.150	100/100	7.08	6.37	6.01	5.66

AL-1
AL-3

ALIGNAIRE INDUCTORS—VARIABLE

Ideally suited for hard to align or frequently changed circuits. Applicable to mid-audio tuned freq. circuits. Case type AL-1—$1\frac{7}{32}$x$1\frac{1}{8}$x$\frac{25}{32}$ except * case type AL-3—$1\frac{7}{16}$x$1\frac{7}{32}$x$1\frac{11}{32}$ (not illus.).

Stock No.	Type	MIL-T-27B	Induct. Hy. Max.	Induct. Hy. Min.	Max. MADC	Resis. Ohms	Mtg. Centers	1-9	10-24	25-49	50-99
5F1879	27C211*	TF3RX20YY	.628	.187	20	36	$1\frac{3}{16}$x$\frac{29}{32}$	7.08	6.37	6.01	5.66
5F1880	27C184	TF4RX20YY	.700	.070	20	22	$\frac{27}{32}$	9.45	8.50	8.02	7.55
5F1882	27C213*	TF3RX20YY	1.57	.467	13	94	$1\frac{3}{16}$x$\frac{29}{32}$	7.08	6.37	6.01	5.66
5F1883	27C185	TF4RX20YY	2.00	.200	16	55	$\frac{27}{32}$	9.45	8.50	8.02	7.55
5F1892	27C187	TF4RX20YY	30.0	3.00	5	945	$\frac{27}{32}$	10.50	9.50	8.97	8.44
5F1895	27C190	TF4RX20YY	500	50	1.5	15500	$\frac{27}{32}$	12.60	11.34	10.71	10.08

Thordarson MIL-T-27B Transformers

TM

INPUT-INTERSTAGE-DRIVER

Designed and built to meet all the requirements of MIL-T-27B specifications. Both Transistor and tube type transformers may be used at slightly different impedances. All encased except **molded.

Stock No.	Type	MIL-T-27B Class.	Case Type	Impedance Primary	Impedance Sec.	Application	Power MW	1-9	10-24	25-49	50-99
5F1701	27A20	TF4RX10YY	NSV-2	500CT/ 200CT/50	50000	Line to grid	3.2	9.45	8.50	8.02	7.55
5F1703	27A186	TF4RX17YY	NSV-2B	600	600	Tr. Interstage	150	8.10	7.29	6.88	6.48
5F1707	27D39**	TF5RX13ZZ	M3	10000CT	500CT	Driver	50	7.48	6.73	6.35	5.98
5F1708	27D37**	TF5RX13ZZ	M3	10000CT	1200CT	Driver	50	7.48	6.73	6.35	5.98

†Shielded for —70 DB hum reduction; *Split C.T. Winding

MOLDED TOROID INDUCTORS

Toroid wound coils built to meet MIL-T-27B, TF5RX20ZZ specifications. High Q plus or minus 2% inductance tolerance. Easily stacked for multiple coil applications. Molded case. Case TM.

No. Stock	Type	Induct. MH	Resis. Ohms	Case — Mtg. Type TM Diameter	Height	Hole Dia.	1-9	10-24	25-49	50-99
5F1749	TOR-776	2	.56	1 5/16	23/32	.173	6.93	6.24	5.89	5.55
5F1750	TOR-777	3	.70	1 5/16	23/32	.173	6.93	6.24	5.89	5.55
5F1752	TOR-779	5	.90	1 5/16	23/32	.173	6.93	6.24	5.89	5.55
5F1753	TOR-755	10	2.1	1 1/16	1/2	.144	6.93	6.24	5.89	5.55
5F1754	TOR-781	10	1.3	1 5/16	23/32	.173	6.93	6.24	5.89	5.55
5F1758	TOR-761	50	11	1 1/16	1/2	.144	6.93	6.24	5.89	5.55
5F1759	TOR-786	50	5.5	1 5/16	23/32	.173	6.93	6.24	5.89	5.55
5F1760	TOR-764	100	23	1 1/16	1/2	.144	6.93	6.24	5.89	5.55
5F1763	TOR-790	250	33	1 5/16	23/32	.173	6.93	6.24	5.89	5.55
5F1765	TOR-793	500	63.5	1 5/16	23/32	.173	6.93	6.24	5.89	5.55
5F1767	TOR-774	1000	260	1 1/16	1/2	.144	6.93	6.24	5.89	5.55
5F1770	TOR-799	3000	370	1 5/16	23/32	.173	6.93	6.24	5.89	5.55
5F1772	TOR-7103	10000	1100	1 5/16	23/32	.173	10.50	9.45	8.92	8.40

ENCASED SHIELDED TOROID INDUCTORS

High grade toroid wound coils built to meet MIL-T-27B, TF4RX20YY specifications.

Stock No.	Type	Induct. MH	Resis. Ohms	Case Type	Case Size Length	Height	Width	1-9	10-24	25-49	50-99
5F1773	TOR-7136	100	18	TH3	1 7/32	1/2	1 1/16	10.50	9.45	8.92	8.40

CONVERTER-EPOXY MOLDED TOROID-DC to DC

Ideally suited for powering all kinds of battery operated equipment, these transistor power supply transformers give a wide range of voltage and power from which to choose. Complete instructions included. All case Type TM1.

Stock No.	Type	DC Supply Voltage	DC Output Voltage	Power Output In Watts	Mtg. Hole Diameter	H.	Dia.	1-9	10-24	25-49	50-99
5F1790	TR-274	12.6	500/250	125	3/16	1 3/8	2 3/4	25.20	22.68	21.42	20.16
5F1792	TR-276	28	250/125	20	7/64	9/16	1 5/16	25.20	22.68	21.42	20.16
5F1793	TR-280	28	450/225	90	11/64	1	2	25.20	22.68	21.42	20.16
5F1794	TR-282	28	600/300	120	3/16	1 3/8	2 3/4	25.20	22.68	21.42	20.16

CONVERTER-ENCASED—DC to DC

Stock No.	Type	MIL-T-27B Classificaton	DC Supply Voltage	DC Output Voltage	Power Output In Watts	Case Type	1-9	10-24	25-49	50-99
5F1795	27R20	TF4RX09AH	12/14 or 24/28	250	15	AH	19.22	17.30	16.34	15.38
5F1796	27R21	TF4RX09AJ	12/14 or 24/28	375	37.5	AJ	19.22	17.30	16.34	15.38

LOW VOLTAGE RECTIFIER TRANSFORMERS

Dual Secondary—Tapped Primary. Primary 115 Volts 50/60 Cycles. For transistor supply, bias supply, battery chargers and similar applications. Built to MIL-T-27B specifications.

Stock No.	Type	MIL-T-27B Classification	Military DC Range	Industrial DC Range	MIL Case	Mtg. Centers	1-9	10-24	25-49	50-99
5F1799	27V61	TF4RX02AJ	6V-.22A to 53V-.07A	6V-.028A to 53V-.085A	AJ	1 3/16x1 3/16	13.86	12.47	11.78	11.10
5F1800	27V62	TF4RX02FA	6V-1.2A to 53V-.4A	6V-1.52A to 53V-.48A	FA	1 11/16x1 7/16	15.75	14.17	13.38	12.59
5F1801	27V63	TF4RX02HA	6V-3A to 53V-1A	6V-3.8A to 53V-1.2A	HA	2 19/64x1 55/64	20.79	18.71	17.67	16.63

60 Cycles Silicon rectifiers, bias, and filament supply, and all 60 cycle low voltage power supply applications. All units constructed to MIL-T-27B, Grade 4, Class R specifications.

Stock No.	Type	MIL-T-27B	Volts Primary	Secondary Volts	Secondary Amps	Approx. DC Volts Res. or Ind. Load Full Wave	Bridge	MIL Case	1-9	10-24	25-49	50-99
5F1802	27V67	TF4RX02EB	117	20CT	.3	8	16.5	EB	11.03	9.93	9.38	8.83
5F1803	27V97	TF4RX02NA	105/115/125	30CT	2.5	12.5	25	JA	31.50	28.35	26.77	25.20

400 Cycles. These units meet MIL-T-27B. Grade 4, Class R specifications.

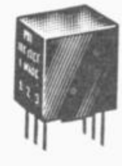
Stock No.	Type	MIL-T-27B	Volts Primary	Secondary Volts	Secondary Amps	Approx. DC Volts Res. or Ind. Load Full Wave	Bridge	MIL Case	1-9	10-24	25-49	50-99
5F1806	27V35	TF4RX02EA	105/115/125	26CT	1.5	10.7	21.5	EA	18.90	17.01	16.10	15.12
5F1807	27V34	TF4RX02FA	105/115/125	26CT	3	10.7	21.5	FA	18.90	17.01	16.10	15.12
5F1808	27V87	TF4RX02GA	105/115/125	35CT	3	14.5	29	GA	18.90	17.01	16.10	15.12
5F1809	27V88	TF4RX02FA	105/115/125	70CT	1	30	60	FA	18.90	17.01	16.10	15.12

MULTI SHIELDED-LINE ISOLATION

50/60 Cycles. Units have been specifically designed for critical circuitry where minimum coupling capacity is imperative and battery-isolation is desired.

Stock No.	Type	MIL-T-27B	Pri. Volt	Volt Sec.	VA Output Military	VA Output Industrial	MIL Case	1-9	10-24	25-49	50-99
5F1810	27V47	TF2RX011GA	115	115	25	30	GA	37.80	34.02	32.13	30.24
5F1814	27V52	TF4RX01YY	115	115	160	200	YY-75	50.50	45.45	42.92	40.40

TM-1

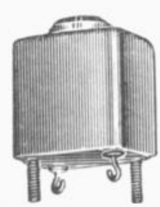


M3

TH-3

NSV2

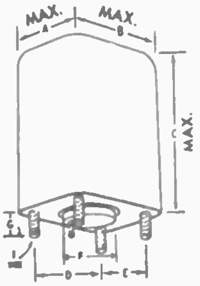
RAV-7



AL-1

Triad Transformers

Case	Size A	B	C	D	E	G	I	Wt. lbs.
AH	1 5/16	1 5/16	1 3/4	1 1/4		3/8	6-32	4 oz.
AJ	1 5/8	1 5/8	2 3/8	1 5/16	1 5/16	3/8	6-32	9 oz.
EA	1 13/16	1 15/16	2 3/4	1 3/8	1 1/4	3/8	6-32	1
FA	2 1/16	2 5/16	3 1/8	1 11/16	1 7/16	3/8	6-32	1 1/2



TYPE HS-HSM HERMETICALLY SEALED TRANSFORMERS

HS-HSM series transformers are designed to meet MIL-T-27B requirements. Equip. using these transformers need not be re-designed to submit for MIL. approval. These transformers are permanently marked with electrical and environmental data as specified in MIL-T-27B. All are "Climatite" treated. Avg. wt. 10 oz.

TYPE HS AND FILAMENT TRANSFORMERS 50/60 HERTZ

Stk. No.	Type	MIL Type	Pri. Volts	Sec. Volts	Sec. Amp.	Case	1-9	10.24	25-49	50-99	100-249	250-up
3F836	HSM-225	TF4RX01EA	105-115-125	6.3CT	2	EA	22.47	20.22	18.20	16.93	15.91	15.11
3F737	HSM-230	TF4RX01FA	105-115-125	24CT	0.8	FA	17.35	15.62	14.06	13.08	12.30	11.69

TYPE HS TRANSFORMERS 380/1500 HERTZ (*Center Tapped)

Stk. No.	Type	MIL Type	Primary A.C. Volts	Fil. Volts	Fil. Amps	Case	1-9	10-24	25-49	50-99	100-249	250-up
3F738	HS-436	TF4RX01AH	115	6.3CT	1	AH	11.75	10.58	9.52	8.85	8.32	7.90
3F739	HS-425	TF4RX01YY	105-115-125	6.3CT	2	AJ-2	16.34	14.71	13.24	12.31	11.57	10.99
3F740	HS-427	TF4RX01EA	105-115-125	6.3CT	5	EA	21.19	19.07	17.16	15.96	15.00	14.25
3F741	HS-438	TF4RX01EA	105-115-125	24CT	1.5	EA	20.59	18.53	16.68	15.51	14.58	13.85
3F742	HS-433	TF4RX01FA	105-115-125	6.3CT6.3	5	FA	23.34	21.01	18.91	17.59	16.53	15.70
3F745	HS-443	TF4RX01YY	105-115-125	12.6CT,12.6	0.8	AJ-2	18.69	16.82	15.14	14.08	13.24	12.58
3F719	HS-442	TF4RX01EA	57.5-99.7-115-120	12.6CT,12.6	2	EA	22.34	20.11	18.10	16.83	15.82	15.03

TYPE HS AND JAF AUDIO TRANSFORMERS

CASE X

Stk. No.	Type	Mil. Type	Application	Primary Imp.	Secondary Imp.	Freq. Resp.	1-9	10-24	25-49	50-99	100-249	250-up
3F339	HS-14	TF1QX10YY	input	600-250-150-62.5	117,600 CT	20-20,000	25.59	23.03	20.73	19.28	18.12	17.21
4F443	HS-27	TF1QX15YY	interstage	20K CT/5000	60K CT/15K	20-20,000	24.72	22.25	20.03	18.63	17.51	16.63
4F444	HS-52	TF1QX13YY	output	20K CT/5000	600-250-150-62.5	20-20.000	26.27	23.64	21.28	19.79	18.60	17.67
4F445	JAF-15	TF1QX10YY	plate to grid	15,000	1 meg	350-5000	14.57	13.11	11.80	10.97	10.31	9.79
4F446	JAF-33	TF1QX21YY	Hi Imp Isol	5000 CT	5000 CT	60-15,000	16.49	14.84	13.36	12.42	11.67	11.09

TYPE HS ISOLATION TRANSFORMERS — 115 V., 380/1500 HERTZ

Stk. No.	Type No.	Mil. Type	Current	Volt-Amperes	Wt., lbs.	1-9	10-24	25-49	50-99	100-249	249-up
3F359	HS-470	TF4RX01EA	.35A	40	1.5	17.97	16.17	14.55	13.53	12.72	12.08
3F594	HS-472	TF4RX01GA	1.39A	160	3.1	22.09	19.88	17.89	16.64	15.64	14.86

TYPE R COMBINED PLATE AND FILAMENT TRANSFORMERS—Primary 115 Volts, 50-60 Hertz

All types are "Climatite" treated for protection against moisture and for elimination of lamination chatter. Hold temp. rise below 55°C. Only copper foil static shields, grounded to the case and core, are used. Leads are UL approved. All connection data permanently marked on case.

CASE Z

Stock No.	Type No.	Plate Supply AC V	Plate Supply DC Ma	Rect. Fil. Volts	Rect. Fil. Amp.	Other Fil. Volts	Other Fil. Amp.	Mtg. Dim. MW	Mtg. Dim. MD	1-9	10.24	25-49	50-99	100-249	250-up
3F942	R-4A	500CT	40	. ...	....	6.3CT	2	1 3/4	1 7/8	6.65	5.99	5.39	5.01	4.71	4.47
3F943	R-5A	600CT	65	. ..	....	6.3CT	2.7	2	1 11/16	7.77	6.99	6.29	5.85	5.50	5.23
3F944	R-6A	480CT	50	5	2	6.3CT	2	2	1 11/16	8.03	7.23	6.51	6.05	5.69	5.41
3F945	R-7A	600CT	50	5	2	6.3CT	2	2	1 11/16	8.22	7.40	6.66	6.19	5.82	5.53
3F946	R-8A	500CT	75	5	2	6.3CT	2.5	2	2 3/16	8.65	7.79	7.01	6.52	6.13	5.82
3F948	R-10A	525CT	90	5	2	6.3CT	5	2 1/4	2 1/2	10.09	9.08	8.17	7.60	7.14	6.78
3F949	R-11A	700CT	90	5	3	6.3CT	3.5	2 1/4	2 5/8	10.77	9.69	8.72	8.11	7.62	7.24
3F950	R-20A	700CT	200	5	3	6.3CT	8	2 3/4	3 1/4	15.95	14.36	12.92	12.02	11.30	10.74
3F696	R-72A	800CT	140	5	3	6.3CT	4	2 3/4	2 1/2	12.20	10.98	9.88	9.19	8.64	8.21
4F441	R-22A	320/380CT	70	......	......	6.3CT	.6	2	1 11/16	7.90	7.11	6.40	5.95	5.59	5.31

TYPE TY AUDIO TRANSISTOR TRANSFORMERS

CASE A

Stk. No.	Type	Prim. Imped.	Size	Mtg. Ctrs.	Sec. Imped.	Output Watts	1-9	10-24	25-49	50-99	100-249	250-up
2F921	TY32X	200 CT	1 3/16x1 5/8x1"	1 3/8	2,000 CT	.2	3.77	3.39	3.05	2.84	2.67	2.54
2F923	TY34X	400 CT	1 3/16x1 5/8x1"	1 3/8	2,000 CT	.2	3.60	3.24	2.92	2.72	2.56	2.43
2F924	TY35X	500 CT	3/8x1 9/32x1 1/16	1 1/16	150 CT	.1	3.17	2.85	2.57	2.39	2.25	2.14
2F934	TY45X	500 CT	1 3/16x1 5/8x1"	1 3/8	16/8/4	.2	4.12	3.71	3.34	3.11	2.92	2.77
2F937	TY49X	500 CT	1 3/8x2 3/8x1 3/8"	2	5 000 CT	.3	3.98	3.58	3.22	2.99	2.81	2.67
2F939	TY51X	2,000 CT	5/8x1 9/32x1 1/16"	1 1/16	200 CT	.05	4.50	4.05	3.65	3.39	3.19	3.03
2F940	TY52X	20,000 CT	1 3/16x1 5/8x1"	1 3/8	2,000 CT	.1	5.63	5.07	4.56	4.24	3.99	3.79
2F943	TY56X	10,000	1 3/16x1 5/8x1"	1 3/8	2,000 CT	.05	3.77	3.39	3.05	2.84	2.67	2.54
2F944	TY57X	250 CT	1 3/16x1 5/8x1"	1 3/8	16/8/4	.2	4.07	3.66	3.29	3.06	2.88	2.74

TYPE TY OUTPUT AND DRIVER TRANSISTOR TRANSFORMERS—HIGH LEVEL

NOTE: LAST LETTER OF MFR. TYPE NUMBER FOR ITEMS IN THIS SECTION DENOTES CASE STYLE

Stock No.	Type No.	Pri. Match. Imped.	Pri. Cur. MA	Sec. Match. Imped.	Max. Level	Size	1-9	10-24	25-49	50-99	100-249	250-up
2F959	TY-29X	24 CT	500	8/4	8 W	1 15/16x3 5/16x1 3/4"	4.95	4.46	4.01	3.73	3.51	3.33
2F949	TY-30X	100 CT	100	8/4	2 W	1 3/16x2 1/16x1 1/4"	3.32	2.99	2.69	2.50	2.35	2.23
2F950	TY-31X	200 CT	50	8/4	2 W	1 3/16x2 1/16x1 1/4"	3.25	2.93	2.64	2.46	2.31	2.19
2F952	TY-53X	200 CT	10	400 CT	.6 W	1 15/16x3 5/16x1 3/4	4.20	3.78	3.40	3.16	2.97	2.82
2F953	TY-61X	100	100	100 CT	.5 W	1 5/8x2 13/16x1 1/2"	3.49	3.14	2.83	2.63	2.47	2.35
2F954	TY-63X	48 CT	275	16/8	5 W	1 13/16x3 5/16x1 3/4	4.83	4.35	3.92	3.65	3.43	3.26
2F955	TY-64X	32 CT	575	16/8/4	10 W	1 15/16x3 5/16x1 3/4"	4.95	4.46	4.01	3.73	3.51	3.33
2F956x	TY-65Z	32 CT	575	6K/4K/3K	10 W	2 5/16x2 7/8x2"	4.52	4.07	3.66	3.40	3.20	3.04
2F957x	TY-66A	6 CT	5A	6K/4K/3K	40 W	3 15/16x3 9/32x3 3/8"	10.22	9.20	8.28	7.70	7.24	6.88
2F958	TY-67A	6 CT	5A	16/8/4	40 W	3 15/16x3 9/32x3 3/8"	9.89	8.90	8.01	7.45	7.00	6.65

xModulation Transformers

TYPE TY TRANSISTOR DRIVER TRANSFORMERS — SPLIT SECONDARY

Stock No.	Type	Turns Ratio	DC Res. Pri.	DC Res. Ea. Sec.	Max. Pri. DC.Ma	Power level	Min. Pri. Induct	1-9	10-24	25-49	50-99	100-249	250-up
4F450	TY-160X	6:1.1	45	3.6	50	3-5W	3.5H	5.47	4.92	4.43	4.12	3.87	3.68

Triad Transformers

TYPE TY DC-TO-AC TRANSISTOR TRANSFORMERS

"Red Spec"

Stock No.	Mfr. Type	DCV Pri.	Secondary (115 VAC)	Dimensions (HWD, in.)	Mtg. Dim. MW	Mtg. Dim. MD	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-up
3F651	TY-468	28	400cps 60W.	$1\frac{7}{8}$x$2\frac{1}{4}$x2	$1\frac{7}{8}$"	$1\frac{3}{8}$"	½	13.35	12.02	10.82	10.06	9.46	8.99
3F652	TY-75A	12	60cps 115W.	$3\frac{7}{8}$x$3\frac{9}{32}$x$3\frac{1}{2}$	$2\frac{1}{2}$"	$2\frac{3}{8}$"	5	16.54	14.89	13.40	12.46	11.71	11.12
3F653	TY-76A	12	60cps 60W.	$3\frac{1}{16}$x$2\frac{21}{32}$x$2\frac{5}{8}$	2"	$1\frac{11}{16}$"	3	10.67	9.60	8.64	8.04	7.56	7.18

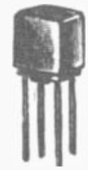
(*) 1" mtg. ctrs., $1\frac{3}{32}$"x$\frac{5}{8}$"x$\frac{3}{4}$"D.

MINIATURE AUDIO—"TRIJETS"

Stock No.	Type	Application*	Pri. Imp.	Sec. Imp.	Resp.	1-9	10-24	25-49	50-99	100-249	250-up
3F917	T-31X	Line to line	600/250/50	600/250/50	50-15000	4.20	3.78	3.40	3.16	2.97	2.82
3F918	T-33X	Hi-imp. line to line	5000 CT	5000 CT	60-15000	4.90	4.41	3.97	3.69	3.47	3.30

TYPE SP "RED SPEC" TRANSISTOR TRANSFORMERS

Type SP. Designed especially for use in transistorized and printed circuit applications, these units come in tough epoxy-molded cases, weigh 1/10 oz.! Incorporate .020" dia. strong nickel-alloy leads spaced on standard 1/10" grid ctrs. to fit printed circuit boards. Base dimensions: .310x.410". Lead length: ¾". Meet MIL-T-27B specs. *SP-66 is an output-isolation transformer. Shpg. wt., 1 oz.



SP-310 Magnetic Shielding Case

Type SP. All models have tough epoxy-molded case, weigh only 1/10 oz.! .02" dia. nickel-alloy leads are ¾" long, no stripping or tinning. Base size, .310 x .410"; height, .465". Operating voltage, 150 VDC. Meet MIL-T-27B spec. *Model SP-66 is an output-isolation transformer. Shpg. wt., 1 oz.

Stock No.	Type	MIL-T-27B Designation	Pri. Imp.	Sec. Imp.	Pwr. M.W.	1-9	10-24	25-49	50-99	100-249	250-up
INPUT	Response: ± 2 db, 230 cps-50 kc @ 25 mw., 100 cps-50 kc @ 1 mw.										
3F011	SP-4	TF5SX16ZZ	200K CT	1K CT	10	10.50	9.45	8.51	7.91	7.44	7.07
3F012	SP-5	TF5SX16ZZ	50K CT	1K CT	25	9.95	8.96	8.06	7.50	7.05	6.70
INTERSTAGE	Response: ± 2 db, 200 cps-50 kc @ 40 mw., 100 cps-50 kc @ 1 mw.										
3F016	SP-15	TF5SX13ZZ	10K	1.5K	50	8.99	8.09	7.28	6.77	6.36	6.04
DRIVER	Response: ± 2 db, 175 cps-50 kc.										
3F017	SP-20	TF5SX13ZZ	10K	1.2K	50	8.72	7.85	7.07	6.58	6.19	5.88
3F018	SP-21	TF5SX13ZZ	10K	2K	50	8.77	7.89	7.10	6.60	6.20	5.89
OUTPUT	Response: ± 2 db. 250 cps-50 kc @ 50 mw., 150 cps-50 kc @ 1 mw.										
4F437	SP-32	TF5SX17ZZ	500	50	50	6.87	6.18	5.56	5.17	4.86	4.62
3F257	SP-33	TF5SX17ZZ	1K	50	50	7.10	6.39	5.75	5.35	5.03	4.78
3F279	SP-48	TF5SX13ZZ	7.5K CT	12	50	7.78	7.00	6.30	5.86	5.51	5.23
3F281	SP-50	TF5SX17ZZ	500 CT	600	50	7.62	6.86	6.17	5.74	5.40	5.13
3F283	SP-52	TF5SX13ZZ	1.5K CT	600	50	7.98	7.18	6.46	6.01	5.65	5.37
3F291	SP-65	TF5SX13ZZ	8K CT	3.2	50	7.50	6.75	6.08	5.65	5.31	5.04
3F292	SP-66	TF5SX13ZZ	10K CT*	10K CT	50	8.48	7.63	6.87	6.39	6.00	5.74
CHOKES											
3F294	SP-107	TF5SX20ZZ	1.25 hy. @ 2 ma.	....	....	5.98	5.38	4.84	4.50	4.23	4.02
3F216	SP-108	TF5SX20ZZ	3.5 hy. @ 2 ma.	....	....	6.22	5.60	5.04	4.69	4.41	4.19
3F318	SP-310	Magnetic Shielding Case		....	....	.84	.80	.76	.70	.67	.63

TYPE TY EPOXY MOLDED TOROIDAL TYPES

Type TY. Compact, hermetically sealed, very high efficiency. Single-hole mounting and peripheral terminals permit ready stacking for easy series—parallel connection if increased output is desired. Meet MIL-T-27B, Grade 5, Class R specs. DC Source Volts: *12.6, #28. Av. Shpg. wt., 1¼ lb.

Epoxy Molded Toroidal

Stock No.	Mfr. Type	DCV from Rectifier	Max. DC Ma.	D.xH. (in.)	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-up
4F438	†TY-68S	250/125	65	$1\frac{11}{32}$x$1\frac{3}{4}$	.2	7.52	6.77	6.09	5.66	5.32	5.05
3F633	*TY-78	250/125	100	$1\frac{3}{4}$x $\frac{11}{16}$	.35	14.72	13.25	11.93	11.09	10.42	9.90
3F634	*TY-79	300/150	200	$1\frac{3}{4}$x1	.35	14.72	13.25	11.93	11.09	10.42	9.90
3F635	*TY-80	325/162.5	150	$1\frac{3}{4}$x1	.35	15.94	14.35	12.92	12.02	11.30	10.74
3F636	*TY-81	375/187.5	200	2 x1	.50	15.19	13.67	12.30	11.44	10.75	10.21
3F637	*TY-82	450/225	150	2 x1	.50	14.72	13.25	11.93	11.09	10.42	9.90
3F638	*TY-83	500/250	250	$2\frac{3}{4}$x$1\frac{3}{8}$	.85	21.17	19.05	17.15	15.95	14.99	14.24
3F639	*TY-84	600/300	200	$2\frac{3}{4}$x$1\frac{3}{8}$	1.00	21.57	19.41	17.47	16.25	15.28	14.52
2F966	*TY-86	425/212.5	350	$2\frac{3}{4}$x$1\frac{3}{8}$	1.00	21.80	19.62	17.66	16.42	15.43	14.66
3F640	#TY-88	250/125	80	$1\frac{5}{16}$x $\frac{9}{16}$	.25	13.02	11.72	10.55	9.81	9.22	8.76
3F641	#TY-92	450/225	200	2x1	.50	15.50	13.95	12.56	11.68	10.98	10.43

(†) Open type.

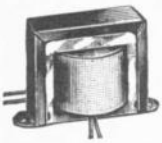
EC AND EK SERIES TOROIDS

EC Series

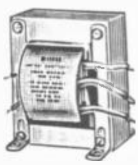
EC SERIES. Powdered nickel alloy cores. Units closely approach perfect induction with high "Q", high stability with induction level and temp. High res. to shock and vibration. Coils held to 2% inductance tol. Supplied in molded epoxy to meet MIL-T-27B. Size: $1\frac{5}{16}$ dia. x $\frac{23}{32}$" ht. Shpg. wt., 1½ lbs. EK series comes with plastic coated leads. Size: $1\frac{11}{16}$D. x ⅞H.

Stk. No.	Type No.	Ind.	Approx. Ohms	DC-ma for 5% ind. drop	1-9	10-24	25-49	50-99	100-249	250-up
4F015	EC-001A	1 mh	.40	520	5.72	5.15	4.64	4.32	4.06	3.86
4F016	EC-002A	2 mh	.56	368	5.68	5.11	4.60	4.28	4.02	3.82
4F017	EC-003A	3 mh	.70	300	5.93	5.34	4.81	4.47	4.20	3.99
4F036	EC-010A	10 mh	1.30	165	6.20	5.58	5.02	4.67	4.39	4.17
4F038	EC-020A	20 mh	1.85	116	6.27	5.64	5.08	4.72	4.44	4.22
4F039	EC-030A	30 mh	2.85	95	5.92	5.33	4.80	4.46	4.19	3.98
4F051	EC-050A	50 mh	5.50	74	6.38	5.74	5.17	4.81	4.52	4.29
4F053	EC-100A	100 mh	13.00	52	6.92	6.23	5.61	5.22	4.91	4.66
4F054	EC-200A	200 mh	23.00	37	6.72	6.05	5.45	5.07	4.77	4.53
4F055	EC-250A	250 mh	33.00	33	6.80	6.12	5.51	5.12	4.81	4.57
4F058	EC-500A	500 mh	72.00	23	6.93	6.24	5.62	5.23	4.92	4.67
4F060	EC-700A	700 mh	68.00	19.5	7.08	6.37	5.73	5.33	5.01	4.76
4F076	EC-1000A	1000 mh	134.00	16.5	7.25	6.53	5.88	5.47	5.14	4.88
4F078	EC-2000A	2000 mh	220.00	11.6	7.65	6.89	6.20	5.77	5.42	5.15
4F079	EC-3000A	3000 mh	370.00	9.5	7.97	7.17	6.45	6.00	5.64	5.36
4F236	EC-5000A	5000 mh	780.00	7.4	8.32	7.49	6.74	6.27	5.89	5.60
4F238	EC-10,000A	10000 mh	1100.00	5.2	9.60	8.64	7.78	7.24	6.81	6.47
4F439	EK-100	100 mh	4.4	82	5.92	5.33	4.80	4.46	4.19	3.98
4F440	EK-1000	1000 mh	45.0	26	7.15	6.44	5.80	5.39	5.07	4.82

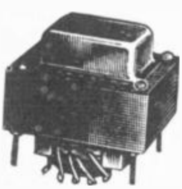
Transformers



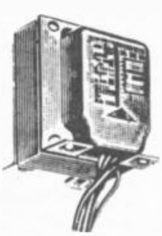
Case X



Case U



Case C



Case A

G-22

TYPE F FILAMENT TRANSFORMERS, SINGLE SECONDARY—Primary 115 volts, 60 Hertz

Stk. No.	Type No.	Secondary Volts	Secondary Amperes	Test Volts	Mtg. MW	Dim.. In. MD	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-over
3F720	F-1X	2.5CT	3	1500	2 3/8		.68	3.55	3.19	2.87	2.67	2.51	2.38
3F722	F-3X	2.5CT	10	3000	3 1/8		1 3/4	4.98	4.48	4.03	3.75	3.53	3.35
3F723	F-5U	2.5CT	10	7500	2	1 7/8	2.2	6.38	5.74	5.17	4.81	4.52	4.29
3F724	F-7X	5 CT	3	1500	2 13/16		1 1/4	4.00	3.60	3.24	3.01	2.83	2.69
3F958	F-13X	6.3	.6	1500	2		.37	2.67	2.40	2.16	2.01	1.89	1.80
3F959	F-14X	6.3CT	1.2	2500	2 3/8		3/4	3.17	2.85	2.57	2.39	2.25	2.14
3F960	F-16X	6.3CT	3	2500	2 13/16		1 1/4	3.98	3.58	3.22	2.99	2.81	2.67
3F961	F-18X	6.3CT	6	1500	3 9/16		2 1/4	5.88	5.29	4.76	4.43	4.16	3.95
3F775	F-18A	6.3CT	6	1500	2	1 11/16	2 1/2	7.05	6.35	5.72	5.32	5.00	4.75
3F776	F-21A	6.3CT	10	1500	2 1/4	2	3 1/2	9.00	8.10	7.29	6.78	6.37	6.05
2F532	F-45X	24CT	1	1500	2 13/16		1.3	3.77	3.39	3.05	2.84	2.67	2.54
3F777	F-22A	6.3CT	20	2000	2 1/2	3	7	12.50	11.25	10.13	9.42	8.85	8.41
3F778	F-25X	12.6CT	1.5	1500	2 13/16		1 1/4	3.75	3.38	3.04	2.83	2.66	2.53
3F996	F-26X	12.6CT	2.5	1500	3 1/8		1.55	4.15	3.74	3.37	3.13	2.94	2.79
3F779	F-40X	26.8CT	1	1500	2 13/16		1 1/4	3.38	3.04	2.74	2.55	2.40	2.28
3F726	F-41X	25.2CT	2	1500	3 9/16		2 1/4	4.82	4.34	3.91	3.64	3.42	3.25
3F626	F-12X	5 CT	8	2500	3 9/16		2 1/2	6.05	5.45	4.91	4.57	4.30	4.09
3F628	F-15U	5 CT	15	3000	2 1/4	2 3/16	3 1/4	9.32	8.39	7.55	7.02	6.60	6.27
3F629	F-20U	6.3/6CT	11	3000	2 1/4	2 7/16	4	9.82	8.84	7.96	7.40	6.96	6.61
3F631	F-28U	7.5/6.3CT	25	3000	3	3 1/16	7 1/2	18.07	16.26	14.63	13.61	12.79	12.15
3F632	F-29U	12/11/10CT	11	3000	2 3/4	2 9/16	6.5	12.51	11.26	10.13	9.42	8.76	8.32
4F435	F-42A*	12.6CT	2.5	1500	2 1/4	2	3.7	7.40	6.66	5.99	5.57	5.24	4.98

*Dual Secondary

SOLID STATE RECTIFIER/PRI. 117 VAC., 50-60 Hz. — For Delco 50 & 100 W. Amps.

Stk. No.	Type	Sec. V.	Sec. Amp.	Test V.	Mtg. MW	Dim. In. MD	Wt. lbs.	1-9	10-24	45-49	50-99	100-249	250-up
4F451	R-82B	70	3.5	1500	3 3/4	3	8 1/4	13.93	12.54	11.29	10.50	9.87	9.38
4F453	R-206B	68	1.25	1500	3 1/8	2 1/2	4 3/4	10.48	9.43	8.49	7.90	7.43	7.06

TYPE F UNIVERSAL RECTIFIER TRANSFORMERS—Primary 60 Hertz

Stk. No.	Type No.	Pri-Volts	Secondary AC Volts	Secondary Amps RMS	Rectifier Circuit HW Volts DC	Rectifier Circuit FWB Volts DC	Mtg. Dim. MW	Mtg. Dim. MD	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-over
3F984	F-47U	115	17-18	3	6-7	13-14	1 5/8	2 3/8	3.2	8.07	7.26	6.53	6.07	5.71	5.42
3F962	F-48U	115	17-18	6	6-7	13-14	2 1/2	2 11/16	5.5	9.97	8.97	8.07	7.51	7.06	6.71
3F985	F-49U	115	36 36	3	13	26	3	3 1/16	9.75	16.39	14.75	13.28	12.35	11.61	11.03
3F963	F-60U	115	6.5-13-19.5-26	3	9	18	2 1/4	2 1/16	3.5	7.10	6.39	5.75	5.35	5.03	4.78
3F986	F-61U	115	24-27-30-33-36	3	13	26	2 1/2	2 11/16	5.65	10.17	9.15	8.23	7.65	7.19	6.83
3F965	F-64U	115	7-8-9	7		5-6-7	2 1/4	2 1/16	3 5	8.79	7.91	7.12	6.62	6.22	5.91
3F990	F65U	110-120	0-140 150-160	.75	60	115	2 1/2	2 13/16	5.8	10.17	9.15	8.24	7.66	7.20	6.84
3F987	F-67U	110-120	24-27-30 33-36	8	13	26	3	3 5/16	10 3/4	19.52	17.57	15.81	14.70	13.82	13.13
3F623	F-79U	115	24-26-28-30	15	11.4	22.8	3 3/4	4 9/16	18 1/2	28.19	25.37	22.83	21.23	19.96	18.96
3F624	F-80U	115 tap.	18 18	20-20	—	13	2 3/4	4 1/2	25	47.08	42.37	38.13	35.46	33.33	31.66
3F625	F-84AC	230-115	12-12	10-10	—	8.5	3	3 5/8	12.5	22.60	20.34	18.31	17.03	16.01	15.21

TYPE F LOW VOLTAGE RECTIFIER TRANSFORMERS—50-60 Hertz

Stk. No.	Type	Pri. Volts	Secondary AC Voltage	Secondary AC Amps	Case Dim. H	Case Dim. W	Case Dim. D	Wt.	1-9	10-24	25-49	50-99	100-249	250-up
3F620	F-90X	115 Tapped	10-20CT-40CT	.1	1 5/8	2 13/16	1 5/8	3/4	3.77	3.39	3.05	2.84	2.67	2.54
3F621	F 91X	115 Tapped	10-20CT-40CT	.3	2 9/32	3 11/16	2	1 1/2	4.45	4.01	3.61	3.36	3.16	3.00
3F622	F-92A	115 Tapped	10-20CT-40CT	1	3 3/16	2 21/32	3	3 1/4	7.73	6.96	6.26	5.82	5.47	5.20

TYPE R POWER TRANSFORMERS FOR PREAMPLIFIERS, VTVM, etc. — Primary 115 volts, 60 Hertz

Stk. No.	Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Fil. Windings Volts-Amps.	Mtg. Dim.-In. MW	Mtg. Dim.-In. MD	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-over
3F930	R-68A	800 CT	30	5V.-2A, 6.3-1.2A, 6.3V.-1.2A.	2	2 3/16	3	9.77	8.79	7.91	7.36	6.92	6.57
2F534	R-2C	135	15	6.3V-.9A		1 1/4		6.35	5.72	5.15	4.79	4.50	4.28
3F932	R-3A	500 CT	20	6.3V.CT.-2A.	1 3/4	1 3/4	1 3/4	6.83	6.15	5.54	5.15	4.84	4.60
2F533	R-108A	500 CT	75	5V.-2A, 6.3-2.5	2	1 11/16	2 4	7.82	7.04	6.34	5.90	5.55	5.27
3F933	R-29A	230 CT	40	6.3V.-1.5A.	1 3/4	1 5/8	1 3/4	5.92	5.33	4.80	4.46	4.19	3.98
3F934	R-30X	135	50	6.3V.-1.5A.	3 1/8		1 1/2	5.45	4.91	4.42	4.11	3.86	3.67
3F935	R-54X	115	15	6.3V.-.6A.	2 3/8		1	2.72	2.45	2.21	2.06	1.94	1.84

TRANSFORMERS FOR CATHODE RAY TUBES — Primary 115 Volts — 50-60 Hertz

Stk. No.	Type	Plate Supply AC Volts	Plate Supply DC Ma	Filament Windings Volts and Amperes	HxWxD	1-9	10-24	25-49	50-99	100-249	250-up
3F853	R-43C	1600	3	6.3/5/2.5V., 1A 6.3/5/2.5V, 3A	2 3/8x3 1/16x2 9/16	12.49	11.24	10.12	9.41	8.85	8.41
4F264	R 41C	440-0-440-1250	125/5	6.3V-.6A, 2.5V-1.75A 2.5V-1.75A, 5.0V-3.0A	3 1/4x4 3/16x3 1/2	15.97	14.37	12.93	12.02	11.30	10.74
4F265	R-83A	800 CT 650	70 3	6.3CTV.-3.5A. 6.3V.-.6A. 1.25V-.3A.	3 19/32x2 31/32x3 3/4	18.59	16.73	15.06	14.01	13.17	12.51

LOW FREQUENCY TRANSFORMERS — 30 TO 500 Hertz

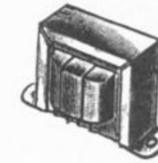
One half of primary balanced to other half in both inductance and "Q". Cores specially treated to eliminate noise in microvolt range of input signals.

Stock No.	Type	Primary Imp. in Ohms	Secondary Imp. in Ohms	Size	Weight	1-9	10-24	25-49	50-99	100-249	250-up
2F535	G-19	1000 CT.	1000 CT.	2 3/4Hx1 5/8x2"	5 1/4 oz.	25.11	22.60	20.34	18.92	17.78	16.89
4F255	G-21	200000 CT.	12500 CT.	2 3/4Hx1 5/8x2"	5 1/4 oz.	31.69	28.52	25.67	23.87	22.44	21.32
4F256	G-22	50000 CT.	800000 CT.	2 3/4Hx1 5/8x2"	1 lb.	38.12	34.31	30.88	28.72	27.00	25.65
4F436	G-57	18000 CT.	500/333/233/200/125/67 1/2/50/17	1 3/4Hx7/8x1 1/16"	2 3/4 oz.	19.62	17.66	15.89	14.78	13.89	13.20

TYPE "A" LOW LEVEL OUTPUT TRANSFORMERS

These audio components are designed to fill demands in public address, amateur, and replacement equipment, and offer absolute maximum of performance possible in the size allowed. Mtg. Centers: Type A-31X, 2"; Type A-51X, 1¾". Type A-53X, 2⅜". Type A-65J has split Secondary Winding.

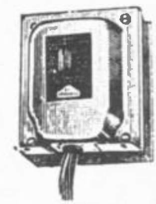
Stock No.	Type No.	Application	Freq. Resp.	Pri. Imp.	Sec. Imp.	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-up
2F536	A-31X	Plate to Grid	100-10,000	10,000	90,000 CT	.45	3.90	3.51	3.16	2.94	2.76	2.62
3F782	A -51X	Plate to line	200-8000	7000	50	.21	3.33	3.00	2.70	2.51	2.36	2.24
3F783	A-53X	Single or p.p. Plate to line	70-7,000	18000 CT	600/250/50	.6	4.08	3.67	3.30	3.07	2.89	2.75
2F537	A-55J	Plate to line	30-15,000	15,000	600/250/50	.35	9.47	8.52	7.67	7.13	6.70	6.37
2F538	A-65J	Plate to line	30-15,000	15,000 CT	600CT/150	.35	9.69	8.72	7.85	7.30	8.86	8.52



CASE X

TYPE "A" INPUT TRANSFORMERS, Line or Microphone to Grid

Stk. No.	Type No.	Application	Freq. Resp.	Pri. Imp.	Turn Ratio	Mtg. Dim. MW	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-Up
3F766	A-1X	Line or sgle btn mike to grid.	100-15,000	100	1:31.4	1¾	.21	2.97	2.67	2.40	2.23	2.10	2.00
3F619	A-3X	Line or db mike to grid	200-10,000	400CT	1:22.1	1¾	.21	3.32	2.99	2.69	2.50	2.35	2.23
3F689	A-4X	Line to grid.	100-20,000	500CT/333 200CT/125 67.5CT/50	1:12	1¾	.21	4.15	3.74	3.34	3.13	2.94	2.79
3F690	A-5X	Sgle btn mike to pp grids-Hi-gain.	100-15 000	100	1:833	2⅜	.6	4.28	3.85	3.47	3.23	3.04	2.89



CASE A

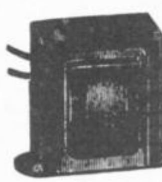
TYPE "C" SMOOTHING FILTER REACTORS

Stk. No.	Type No.	Inductance Henries	Current Ma.	Resistance Ohms	Test Volts RMS	Mtg. Dim. MW	Mtg. Dim. MD	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-up
3F753	C-30X	50	15	3500	1500	2		.42	3.00	2.70	2.43	2.26	2.12	2.01
3F754	C-1X	15	20	1000	1000	1¾		.21	2.35	2.12	1.91	1.78	1.67	1.59
3F952	C-3X	10	50	500	1500	2⅜		.75	2.75	2.48	2.23	2.07	1.95	1.85
4F430	C-4X	4	50	360	1500	2		.35	2.30	2.07	1.86	1.73	1.63	1.55
3F755	C-5X	12	75	390	1000	2 13/16		1.00	3.28	2.95	2.66	2.47	2.32	2.20
3F757	C-7X	10	90	270	1000	2 13/16		1.3	3.48	3.13	2.82	2.62	2.46	2.34
2F539	C-9X	4	90	100	1500	2 13/16		1.0	2.90	2.61	2.35	2.19	2.06	1.96
3F954	C-11X	6	110	160	1500	3⅛		1.5	3.62	3.26	2.93	2.72	2.56	2.43
3F758	C-10X	9	125	250	1000	3⅛		1.6	4.13	3.72	3.35	3.12	2.93	2.78
3F956	C-14X	6	200	150	1500	3 9/16		2.3	4.75	4.28	3.85	3.58	3.37	3.20
3F760	C-14A	6	200	150	1500	2	1 11/16	2.5	6.48	5.83	5.25	4.88	4.59	4.36
3F761	C-16A	10	200	150	2500	2¼	2⅜	4.5	8.25	7.43	6.69	6.22	5.85	5.56
3F762	C-15X	4	250	100	1500	3 9/16		2.3	4.58	4.12	3.71	3.45	3.24	3.08
4F431	C-17X	1.5	300	40	1500	3⅛		1.6	3.77	3.39	3.05	2.84	2.67	2.54
3F764	C-20A	6	400	60	3000	3	3⅜	10.5	13.65	12.29	11.06	10.29	9.67	9.19
4F432	C-27X	0.7	290	30	1500	2⅜		.75	2.50	2.25	2.03	1.89	1.78	1.69
4F452	C36X	.5	300	30	1500	2	......	.5	2.42	2.18	1.98	1.82	1.71	1.62
3F765	C-40X	.32	600	10	1500	2 13/16		1.3	3.15	2.84	2.56	2.38	2.24	2.13
3F734	C-47U	3-.075	1A-2A	3-.75	1500	2¼	2 11/16	4.6	7.60	6.84	6.16	5.73	5.39	5.12
3F735	C-48U	.08-.02	2 5A-5A	.61-.155	1500	2½	3 1/16	6.75	9.55	8.60	7.74	7.20	6.77	6.43
2F540	C-49U	.032-.008	5A-10A	.19-.05	1500	2¾	3 1/16	8.0	14.69	13.22	11.90	11.07	10.41	9.89

NOTE: Last Letter of Manufacturer Type Number for Items on This Page Denotes Case Style

TYPE "M" MODULATION TRANSFORMERS

Stock No.	Type No.	Matching Impedence Primary	Matching Impedence Secondary	Freq. Resp.	Sec. Ma.	Output Watts	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-up
3F1045	M-4Z	5000 (Autoformer)	6750 4(vc)	300-3000	100 (tot.)	10	.67	4.17	3.75	3.38	3.14	2.95	2.80
3F1046	M-1X	10,000 CT.	5000-8000-10,000	300-3000	50	5	.45	3.48	3.13	2.82	2.62	2.46	2.34
3F1047	M-3X	10,000 CT.	3000-5000-8000	300-3000	100	20	1.6	5.77	5.19	4.67	4.34	4.08	3.88

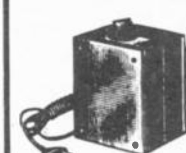


CASE Z

TYPE "N" ISOLATION TRANSFORMERS—50/60 HERTZ

Stock No.	Type No.	V. A. Output	Input Volts	Output Volts	Mtg. Dim. MW	Mtg. Dim. MD	Wt. Lbs.	1-4	5-24	25-49	50-99	100-249	250-over
4F433	N-5M*	250	230	115	2½	3	7.0	13.30	11.97	10.77	10.02	9.42	8.95
3F750	N-51X	35	115	115	3⅛	......	1.7	4.73	4.26	3.83	3.56	3.35	3.18
3F603	N-68X	50	230/115	115	3⅛	......	1.7	5.88	5.29	4.76	4.43	4.16	3.95
3F751	N-53M	85	115	115	2¼	2⅜	4.7	12.83	11.55	10.40	9.67	9.09	8.64
3F604	N-54M	150	115	115	2½	3	7.0	14.83	13.35	12.02	11.18	10.51	9.98
2F541	N-55M	250	115	115	3	3⅞	11.0	22.67	20.40	18.36	17.07	16.05	15.25
2F542	N-57M	500	115	115	3½	5⅛	23.75	52.33	47.10	42.39	39.42	37.05	35.20
3F605	N-67A	150	230/115	115	2½	3	7.0	11.55	10.40	9.36	8.70	8.18	7.77

* Autoformer



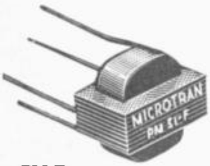
CASE M

TYPE "S" STANDARD OUTPUT TRANSFORMERS

Stock No.	Type	Tubes Used	Primary Imped.	DC-Ma.	Audio Watts	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-up
3F1049	S-12X	25L6, 50L6, 35A5, 50B5 etc.	2500	50	2-3	.21	2.37	2.13	1.92	1.79	1.68	1.60
3F1052	S-3X	6V6, 7C5, 6AQ5, 25A6, 71, etc.	5000	40	3-5	.45	2.60	2.34	2.11	1.96	1.84	1.75
3F1056	S-5X	6V6 7C5, 6AQ5, 25A6, 71, etc.	5000	50	5-8	1.0	3.32	2.99	2.69	2.50	2.35	2.23
3F1058	S-7X	6K6, 7B5, 6F6, 1Q5, 31, 33, 41, 42 etc	7500	30	3-5	.45	2.60	2.34	2.11	1.96	1.84	1.75
3F1066	S-15X	P p -6V6, 7C5 6K6, 6F6 etc.	10 000 CT.	35	7-10	.6	3.27	2.94	2.65	2.46	2.31	2.19
2F543	S-28X	Single plate to line or speaker.	7500	40	5	1.0	4.72	4.25	3.83	3.56	3.35	3.18
3F1067	S-19Z	P p -6V6, 7C5 6K6 6F6, etc.	10,000 CT.	50	10-14	1.25	4.22	3.80	3.42	3.18	2.99	2.84
2F544	S-20Z	Single tube to 3-4 ohm voice coil.	2000	50	2-3	.21	2.40	2.16	1.94	1.80	1.69	1.61
4F434	S-29X	Single plate to line or speaker.	5000	45	5	1.0	4.77	4.29	3.86	3.59	3.37	3.20

CASE U

MICROTRAN Transformers

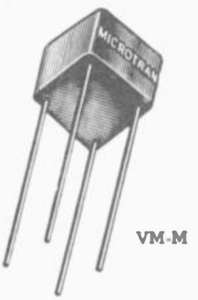


PM-F

Open Frame With Leads

VM-FPB

UM-M



VM-M

PM-M

MM-H

PM SERIES "PICO MINIATURE" TRANSFORMERS

For use in impedance matching applications. Frequency response ±2 db 300 hz to 100 khz. PM-F types are open-frame construction with leads, resin impregnated, MIL type TF6RX; size .406 x .250 x .375", wt., .05 oz. PM-M types are epoxy molded, with gold-plated leads on .1" centers for printed circuit applications, Mil type TF5RX, size .410 x .4655 x .310", wt., .1 oz.

Stock No.	Type	Impedance Primary	Impedance Secondary	Power Level M.W.	1-9	10-49	50-99	100-249
7F881	PM13-M	25,000	1000/250 Split	40	10.20	9.18	8.50	6.80
5F1250	PM17-M	10,000 C.T.	10,000 C.T.	50	9.15	8.24	7.63	6.10
7F882	PM19-M	10,000 C.T.	2000 C.T.	50	9.00	8.10	7.50	6.00
7F883	PM21-M	10,000	2000/500 Split	50	9.15	8.24	7.63	6.10
5F1251	PM25-M	10,000	1200/300 Split	50	9.30	8.37	7.75	6.20
7F885	PM31-M	2500	2500 C.T.	50	8.55	7.70	7.13	5.70
7F886	PM33-M	1500 C.T	600	50	8.40	7.56	7.00	5.60
7F887	PM34-M	600 C.T.	600 C.T.	50	8.55	7.70	7.13	5.70
7F888	PM36-M	500	500/125 Split	50	9.00	8.10	7.50	6.00
7F890	PM39-M	Audio Choke 6 Hy.			7.65	6.89	6.38	5.10
7F891	PM40-F	Audio Choke 3.5 Hy.			4.05	3.65	3.38	2.70
7F892	PM40-M	Audio Choke 3.5 Hy.			7.20	6.48	6.00	4.80

UM SERIES "ULTRA MINIATURE" TRANSISTOR TRANSFORMERS

Frequency response ±2 db 300 to 10,000 hz. UM-F types are open frame, with wire leads, MIL TF-6RX, 3/8 x 3/8 x 11/32", wt. .08 oz. UM-M types are molded, 1/2"H x 1/2"D, MIL TF5RX, wt., .14 oz.

Stock No.	Type	Impedance Primary	Impedance Secondary	Power Level	1-9	10-49	50-99	100-249
5F1252	UM21-M	100,000	1000	70 mw	7.20	3.51	6.00	4.80
5F1253	UM23-F	20,000	1.200 C.T.	300 mw	3.90	6.48	3.25	2.60
7F878	UM28-F	Choke 10 hy. (Odc)		650	3.75	3.38	3.13	2.50
5F1254	UM29-M	600 C.T.	600 C.T	400 mw	6.30	5.67	5.25	4.20
7F897	UM30-M	Choke 1.5 hy. (Odc)		100	4.80	4.32	4.00	3.20
7F898	UM31-M	10,000 C.T.	1200 C.T.	500 mw	7.20	6.48	6.00	4.80
5F1255	UM32-F	1500 C.T.	600	500 mw	4.35	3.92	3.63	2.90
7F899	UM32-M	1500 C.T.	600	500 mw	5.85	5.27	4.88	3.90
5F1256	UM34-M	10,000 C.T.	600 C.T.	500 mw	6.90	6.21	5.75	4.60
7F987	UM35-M	15,000 C.T.	15,000 C.T.	300 mw	7.05	6.35	5.88	4.70
7F989	UM36-M	20,000 C.T.	80 C.T.	500 mw	6.75	6.08	5.63	4.50
7F990	UM37-F	10,000	2000 C.T.	500 mw	4.50	4.05	3.75	3.00
7F991	UM37-M	10,000	2000 C.T.	500 mw	6.00	5.40	5.00	4.00
7F992	UM39-F	2500 C.T.	600 C.T.	500 mw	4.50	4.05	3.75	3.00
7F993	UM39-M	2500 C.T.	600 C.T.	500 mw	6.00	5.40	5.00	4.00

VM SERIES "VERI-MINIATURE" TRANSISTOR TRANSFORMERS

Frequency response ±2 db 200 hz to 10 khz. VM-M types are epoxy molded, with 1" leads, for printed circuit applications; Mil TF5RX; 9/16 x 9/16 x 1/2", wt. 1/4 oz. VM-FPB types are plug-in tab mounted channel construction, with wire leads; Mil TF6RX; 15/32 x 17/32 x 7/16", wt. .2 oz.

Stock No.	Type	Impedance Primary	Impedance Secondary	Power Level	1-9	10-49	50-99	100-249
5F1257	VM1-M	50	600 (1.5ma)	15	5.55	5.00	4.63	3.70
7F995	VM10-M	2500 (1.5ma)	2500 C.T.	3	6.90	6.21	5.75	4.60
5F1258	VM5-FPB	50,000	600 (1.0 ma)	5	4.65	4.19	3.88	3.10
7F858	VM14-FPB	600 C T. (7ma)	600 C.T.	15	4.50	4.05	3.75	3.00
7F347	VM14-M	600 C.T. (7ma)	600 C.T.	15	7.35	6.08	5.63	4.50
7F998	VM17-M	10,000 C.T.	5000 C.T.	5	6.75	6.62	6.13	4.90

MM SERIES "MICRO MINIATURE" TRANSFORMERS

MM-M types are epoxy molded with PC pin leads, Mil TF5RX, 7/8 x 25/32 x 17/32", wt., 1/2 oz. MM-H types are hermetically sealed, with solder hooks; Mil TF4RX; 15/16"D x 11/16"H, wt. 3/4 oz. MM-FB types are open frame with channel, 63/64" mtg. ctrs. x 15/32"H, wire leads, Mil type TF6RX, wt. .38 oz. All types frequency response flat ±2 db 200 hz-15 khz except (*) 200 hz-10 khz, (†) 150 hz-10 khz.

Stock No.	Type	Impedance Primary	Impedance Secondary	Oper. Level DBM	1-9	10-49	50-99	100-249
7F999	MM1-FB	200/50	250,000/62,500	2.5	4.50	4.05	3.75	3.00
7F180	MM2-FB	10,000	90,000	MW	4.80	4.32	4.00	3.20
7F631	MMT1-FB	600	600	22	3.90	3.51	3.25	5.70
7F182	MMT4-H	50,000 C.T.	600 C.T.	20	8.55	7.69	7.13	2.60
7F183	MMT4-M	50,000 C.T.	600 C.T.	20	9.75	8.77	8.13	6.50
5F1259	MM5-M	4700 ohms		20	8.10	7.29	6.75	5.40
5F1260	MM6-FB	100,000		20	4.20	3.78	3.50	2.80
7F184	MMT7-FB	25,000	1200 C.T.	20	4.50	4.05	3.75	3.00
5F1261	MMT7-M	25,000		20	9.60	8.64	3.88	6.40
5F1262	MMT8-FB	50,000 C.T.		20	4.65	4.19	8.00	3.10
7F185	MMT8-M	50,000 C.T.	1200 C.T.	20	9.75	8.77	8.13	6.50
7F637	MMT9-FB	600 C.T.	1200 C.T.	22	4.20	3.78	3.50	2.80
7F877	MMT9-M	600 C T.	1200 C.T.	22	8.85	7.96	7.38	5.90
7F639	MMT11-FB	4000 C.T.	600 C.T.	28	4.35	3.92	3.63	2.90
5F1263	MMT11-H	4000 C.T.	600 C.T.	28	7.80	7.02	3.75	5.20
5F1264	MMT17-FB	10,000 C.T.	200 C.T.	20	4.50	4.05	6.50	3.00
7F186	MMT18-FB	25,000 C.T.	1200 C.T.	20	4.65	4.19	3.88	3.10
7F187	MMT18-M	25,000 C.T.	1200 C.T.	20	9.75	8.77	8.13	6.50
7F855	MMT21-FB	4000 C T.	600/150 Split	28	4.65	4.19	3.88	3.10
7F188	MMT21-M	4000 C T.	600/250 Split	28	9.75	8.77	8.13	6.50
7F189	MMT25-FB	7500 C.T.	600 C.T.	22	4.35	3.92	3.63	2.90
7F190	MMT25-M	7500 C.T.	600 C.T.	22	9.00	8.10	7.50	6.00
7F335	MMT26-FB	300 C.T.	600 C.T.	22	4.20	3.78	3.50	2.80
5F1265	MMT26-H	600 C.T.	600 C.T.	22	7.65	6.89	6.38	5.10
7F191	MMT26-M	25,000 C.T.	600 C.T.	22	8.85	7.97	7.38	5.90
5F1266	MMT27-FB	10,000 C.T.	600 C.T.	20	4.50	4.05	3.75	3.00
5F1267	MMT28-FB	500 C.T.	1500 C.T.	20	4.65	4.19	3.88	3.10
7F193	MMT29-FB	10,000 C.T.	10,000 C.T.	20	4.65	4.19	3.88	3.10
7F194	MMT29-M	10,000 C T.	10,000 C.T.	20	9.75	8.77	8.13	6.50
5F1268	MMT31-M	2000 C.T.	500 C.T.	28	9.45	8.51	7.88	6.30
7F197	MMT35-FB	10,000 C.T.	150/37.5 Split	20	4.80	4.32	4.00	3.20

Transformers MICROTRAN

SM & SMT SERIES SUB-MINIATURE AUDIO & TRANSISTOR TRANSFORMERS

Open frame construction, with mounting channel (1 5/32" mtg. ctrs.). Height, 19/32", wt. 3/4 oz. MIL TF6RX. Frequency response ±2 db from 200 hz to 15 khz, except (*) 80-10,000 hz, (•) 100-10k hz.

Stock No.	Type	Impedance Primary	Impedance Secondary	Pri. Unbal. DCMA	Oper. Level DBM	1-9	10-49	50-99	100-249
7F772	SM1-FB*	200/50	250,000/62,500	0	6	4.35	3.91	3.63	2.90
7F773	SM2-FB†	10,000	90,000	0	8	3.90	3.51	3.25	2.60
7F771	SMT1-FB	600	600	9	23	3.90	3.51	3.25	2.60
7F904	SMT9-FB	600 C.T.	1200 C.T.	18	23	4.20	3.78	3.50	2.80
5F901	SMT17-FB	10,000CT	200CT	6	20	4.80	4.32	4.00	3.20
7F744	SMT19-FB	2500	2500 C.T.	5	26	4.65	4.18	3.88	3.10
7F907	SMT26-FB	600 C.T.	600 C.T.	18	23	4.50	4.05	3.75	3.00

SM-M

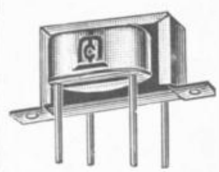
M & MT SERIES MINIATURE AUDIO AND TRANSISTOR TRANSFORMERS

M-A types are aluminum cased, MIL TF3RX, .875D x 1 3/16" H, wt. 1 1/4 oz. M-FB types are open frame with mtg. channel (1 3/8" ctrs.), MIL TF6RX, wt. 1 oz. M-M 1 5/32 x 7/8", MIL TF5RX, wt. 1 3/4 oz. M-AG types have compression sealed ceramic terminals in MIL-T-27B AG case, TF4RX. M-H 1 7/10 x 1 5/16, 1 1/4 oz.

Stock No.	Type	Impedance Primary	Impedance Secondary	Pri. Unbal. DCMA	Oper. Level DBM	1-9	10-49	50-99	100-249
7F909	M1-A	50/250/600 C.T.	50,000	0	5	8.10	7.29	6.75	5.40
7F910	M1-AG	50/250/600 C.T.	50,000	0	5	9.90	8.91	8.25	6.60
7F600	M1-FB	50/250/600 C.T.	50,000	0	5	5.10	4.59	4.25	3.40
5F902	M1-H	50/250/600 C.T.	50,000	0	5	9.00	8.10	7.50	6.00
5F903	M2-FB	50/250/600 C.T.	50,000 C.T.	0	5	5.25	4.73	4.38	3.50
5F904	M2-H	50/250/600 C.T.	50,000 C.T.	0	5	9.45	8.51	7.88	6.30
5F905	M3-FB	7.5/30	50,000	0	5	4.95	4.46	4.13	3.30
5F906	M5-FB	15,000	60,000	4	14	3.75	3.38	3.13	2.50
5F907	M6-FB	15,000	95,000	0	5	4.65	4.19	3.88	3.10
5F908	M6-H	15,000	95,000	0	5	8.55	7.69	7.13	5.70
7F915	M7-H	15,000	95,000 C.T.	4	11	8.85	7.97	7.38	5.90
7F607	M8-FB	15,000	50/250/600 C.T.	0	8	5.10	4.59	4.25	3.40
7F917	M9-FB	15,000	50/250/600 C.T.	4	21	4.20	3.78	3.50	2.80
5F909	M9-M	15,000	50/250/600 C.T.	4	21	10.50	9.45	8.75	7.00
5F910	M11-FB	50,000	50/250/600 C.T.	0	5	5.10	4.59	4.25	3.40
5F911	M12-A	50/250 C.T.	50/250/600 C.T.	0	8	7.80	7.02	6.50	5.20
7F920	M12-FB	50/250 C.T.	50/250/600 C.T.	0	8	4.95	4.46	4.13	3.30
5F912	M12-H	50/250 C.T.	50/250/600 C.T.	0	8	9.30	8.37	7.75	6.20
5F913	M12-M	50/250 C.T.	50/250/600 C.T.	0	8	10.50	9.45	8.75	7.00
5F914	M14-FB	200	1/2 megohm	0	9	4.65	4.19	3.88	3.10
5F915	M15-AG	10,000	1 megohm	0	11	9.30	8.37	7.75	6.20
5F916	M15-FB	10,000	1 megohm	0	11	4.50	4.05	3.75	3.00
7F657	MT1-FB	600	600	10	23	3.60	3.24	3.00	2.40
5F917	MT1-H	600	600	10	23	7.80	7.02	6.50	5.20
5F918	MT2-FB	100	10 C.T./40 C.T.	100	27	4.20	3.78	3.50	2.80
7F664	MT9-FB	600 C.T.	1200 C.T.	4	23	4.35	3.92	3.63	2.90
7F929	MT10-FB	25,000	600	3	22	3.90	3.51	3.25	2.60
5F919	MT12-FB	2,000	3.4 10	....	32	3.90	3.51	3.25	2.60
7F670	MT18-FB	25,000 C.T.	1,200 C.T. 6	....	32	4.35	3.92	3.63	2.90
5F920	MT20-FB	50,000 C.T.	1200/300 Split	3	20	4.65	4.19	3.88	3.10
7F672	MT21-FB	4,000 C.T.	600/150 Split	3	32	4.50	4.05	3.75	3.00
5F921	MT22-FB	600/150 Sp.	1,200 C.T.	4	23	4.50	4.05	3.75	3.00
5F922	MT24-FB	2,500	600 C.T	10	32	3.90	3.51	3.25	2.60

M-A

MM-M



FB

LOW LEVEL CHOPPER INPUT TRANSFORMERS

Transfers 30 to 500 cps. Transducer or thermocouple signals to instrument amplifiers. Signal range .5 μv to .5 volts. 3 mu-metal shields give 90 db magnetic shielding. 1 3/8Dx1 25/32Hx1/2 M.C. Wt., 5 oz.

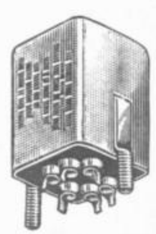
Stk. No.	Type	Turns Ratio Full Pri. to Full Sec.	Turns Ratio 1/2 Pri. to Full Sec.	Ind. of Full Pri. @ 60 hz	Imp. of Full Pri. @ 60 hz	1-9	10-49	50-99	100-249
7F819	M8025	1:7.7	1:15.4	17.5 HY	6,600	13.80	12.42	11.50	9.20
7F820	M8026	1:3.2	1.6.4	60 HY	22,500	13.80	12.42	11.50	9.20
7F939	M8052	1:4.53	1:9.06	90 HY	34,000	14.25	12.83	11.88	9.50
7F322	M8053†	1:0.5	1:1	140 HY	53,000	13.65	12.28	11.38	9.10

†sec. is center tapped

DC TO DC CONVERTER TRANSFORMERS—SWITCHING TYPE

Open frame with channel and leads; MIL designation TF6RX09ZZ. 1 11/16 x 1 3/16 x 27/32.

Stk. No.	Type	Input DCV	Output mw	Bridge Output DCV	Bridge Output DCuA	1-9	10-49	50-99	100-249
7F320	M8072	2.7	190	480	400	7.20	6.48	6.00	4.80

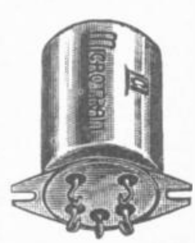


M-AG

DC TO DC CONVERTER TRANSFORMERS—BLOCKING OSCILLATOR

Laminated Series—400 Hz. Open frame figure—FB. MIL designation TFNRX09YY. *Typical.

Stk. No.	Type	Input* DCV	Input* Ma. DC	Output* DCV	Output* μa DC	L	W	H	1-9	10-49	50-99	100-249
7F317	M8050	3	20	1000	25	1 11/16"	1 3/16"	27/32"	6.30	5.67	5.25	4.20
7F944	M8074	3	45	535	90	1 11/16"	1 3/16"	27/32"	5.10	4.59	4.25	3.40
7F318	M8073	4	2-15	425-500	50	3/8"	3/8"	3/8"	5.25	4.73	4.38	3.50



M-H

DC TO DC CONVERTER TRANSFORMERS

Switching type. Epoxy molded with terminals and clearance hole for mounting. MIL designation TF5RX09Z. Clearance hole .170 except * .140.

Stk. No.	Type	Input DCV	Output	Bridge Output DCV	Bridge Output DCMa.	D in.	H In.	1-9	10-49	50-99	100.249
7F947	M8114	28	50	28	1750	2 1/8	1 1/4	16.05	14.45	13.38	10.70
7F948	M8115*	13.8	5	500	10	1 1/4	3/4	12.30	11.07	10.25	8.20
7F949	M8116	13.8	50	70	700	2 1/8	1 1/4	16.05	14.45	13.38	10.70
7F951	M8118	28	50	70	700	2 1/8	1 1/4	16.05	14.45	13.38	10.70

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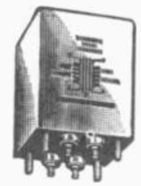

Fig. A

Fig. B

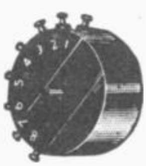

Fig. C

Fig. D

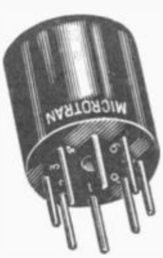

Fig. E

QG-F

POWER SUPPLY TRANSFORMERS

For silicon rectifier circuitry, and filament applications. MIL designation. TF4RX01. Hermetically sealed per MIL -T-27B. All Figure A except *Fig. B, Primary 105/115/125V.

60 Hz.

Stk. No.	Type	Secondary A.C.V.	Secondary RMS Amp.	MIL Case	1-9	10-49	50-99	100-249
7F900	M8042	6.3 C.T.	.6	AJ	12.00	10.80	10.00	8.00
7F902	M8086	6.3 C.T.	6.0	GA	18.90	17.01	15.75	12.60
7F905	M8087	12.6 C.T.	3.0	GA	18.90	17.01	15.75	12.60
7F169	M8022	18.5 C.T.	3.0	JB	22.80	20.52	19.00	15.20
7F312	M8045	28 C.T.	.6	FA	18.00	16.20	15.00	12.00
7F874	M8023	35 C.T.	3.0	KA	26.10	23.49	21.75	17.40
7F914	M8090	40 C.T.	.3	EA	18.00	16.20	15.00	12.00
7F916	M8091	40 C.T.	.75	GB	18.45	16.61	15.38	12.30
7F170	M8046	49 C.T.	2.5	LA	29.70	26.73	24.75	19.80
7F314	M8056	80 C.T.	.6	HA	22.20	19.98	18.50	14.80

400 Hz.

Stk. No.	Type	A.C.V.	RMS	MIL Case	1-9	10-49	50-99	100-249
7F171	M8063	2.85 C.T.	045	YY	10.50	9.45	8.75	7.00
7F172	M8064	6.3 C.T.	6	AH	11.10	9.99	9.25	7.40
7F921	M8075*	6.3 C.T.	.3	YY*	9.75	8.75	8.13	6.50
7F923	M8076	12.6 C.T.	.3	AH	11.70	10.53	9.75	7.80
7F316	M8039	12.6/12.6C.T.	.8/.8	AJ	18.00	16.20	15.00	12.00
7F927	M8038	12.6/12.6/12.6	.3/.3/.3	AJ	18.60	16.47	15.25	12.20
7F173	M8018	18.5 C.T.	1	EA	16.50	14.85	13.75	11.00
7F174	M8019	18.5 C.T.		FA	18.00	16.20	15.00	12.00
7F304	M8065	26 C.T.	1.5	EA	16.35	14.72	13.63	10.90
7F305	M8066	26 C.T.	3	FA	25.50	22.95	21.25	17.00
7F931	M8079	26 C.T.	4	HA	26.85	24.17	22.38	17.90
7F175	M8067	30 C.T.	1.5	FB	21.90	19.71	18.25	14.60
7F710	M8020	35 C.T.	3	GA	24.00	21.60	20.00	16.00
7F176	M8068	40 C.T.	.2	AJ	13.20	11.88	11.00	8.80
7F933	M8041	50 C.T.	.25	AH	11.10	9.99	9.25	7.40
7F935	M8080	50 C.T.	.20	AJ	13.80	12.42	11.50	9.20
7F308	M8070	65 C.T.	.170	AH	11.25	10.13	9.38	7.50
7F941	M8081*	65 C.T.	.030	YY*	9.75	8.78	8.13	6.50

ISOLATION/POWER TRANSFORMERS

Electrostatic shielding. MIL designation TF4X01. All Fig. A except Fig. B, Primary 115 Volts.

60 Hz.

Stk. No.	Type	Output Voltage	Current RMS Amps.	V.A. Rating	MIL Case	1-9	10-49	50-99	100-249
7F952	M8094	115 C.T.	.0085	1	AH	12.30	11.07	10.25	8.20
7F953	M8095	115/12.6/12.6 C.T.	.030/.25/.25	3.5/3.15/3.15	EA	18.90	17.01	15.75	12.60
7F955	M8078	115 C.T..	.9	100	KA	28.10	26.19	24.25	19.40

*26V Primary

400 Hz.

Stk. No.	Type	Output Voltage	Current RMS Amps.	V.A. Rating	MIL Case	1-9	10-49	50-99	100-249
7F956	*M8082	12.6/12.6 C.T.	.15/.15	1.9/1.9	YY*	10.50	9.45	8.75	7.00
7F323	*M8058	115 C.T.	.017	2	YY*	9.60	8.64	8.00	6.40
7F958	M8083	115/12.6/12.6 C.T.	.030/.25/.25	10 total	AJ	18.60	16.74	15.50	12.40
7F324	M8059	115 C.T.	.35	40	EB	14.70	13.23	12.25	9.80
7F325	M8060	115 C.T.	1.3	150	GA	26.40	23.76	22.00	17.60
7F177	M8061	115 C.T.	2.6		JA	36.30	32.67	30.25	24.20
7F178	M8062	115 C.T.	4.4		KA	43.50	39.15	36.25	29.00

FILTER INDUCTORS

MIL designation TF4RX04. All Figure A. Test volt: 1500.

Stk. No.	Type	Series Conn. Henrys	Series Conn. Amps.	Parallel Conn. Henrys	Parallel Conn. Amps.	MIL Case	1-9	10-49	50-99	100-249
7F961	M8098	3.5	.050	.875	.10	AH	9.90	8.91	8.25	6.60
7F962	M8099	1.0	.15	.25	.30	AJ	12.90	11.61	10.75	8.60
7F964	M8101	.32	.6	.08	1.2	FB	16.65	14.99	13.88	11.10
7F965	M8102	.2	1.0	.05	2.0	JA	21.60	19.44	18.00	14.40
7F966	M8103	.07	2.5	.0175	5.0	JA	24.00	21.60	20.00	16.00

400 HZ TOROIDAL POWER TRANSFORMERS

MIL designation TF5SX01ZZ. Figure C. Epoxy molded/Pri. 115 volts 400 Hz.

Stk. No.	Type	Secondary Volts	Secondary ma	V.A.	OD in.	H in.	Wt. oz.	1-9	10-49	50-99	100-249
7F969	M8106	28 C.T.	320	9	1 5/32	1 1/8	2	15.30	13.77	12.75	10.20
7F970	M8107	28 C.T.	710	20	1 1/2	1 1/4	4	15.90	14.31	13.25	10.60
7F971	M8108	56 C.T.	160	9	1 5/32	1 1/8	2	15.60	14.04	13.00	10.40
7F972	M8109	56 C.T.	356	20	1 1/2	1 1/4	4	16.20	14.58	13.50	10.80
7F973	M8110	115 C.T.	78	9	1 5/32	1 1/8	2	15.90	14.31	13.25	10.60
7F974	M8111	115 C.T.	170	20	1 1/2	1 1/4	4	16.50	14.85	13.75	11.00

ULTRA-MINIATURE TOROIDAL INDUCTOR — QEL&QEM SERIES

Epoxy molded. Leads .02" x 2" gold plated nickel alloy. QEL frequency range 1 KHZ to 300 KHZ—accuracy ±2%. QEM frequency range: 3KHZ to 500 KHZ—accuracy, .±2% 450D x .285 Wt. .02 oz. Fig. D.

Stk. No.	Type	Mhys.	DCR	μμF	1-9	10-49	50-99	100-249
7F975	QEL5-M	5	7.3	35	8.40	7.56	7.00	5.60
7F976	QEL10-M	10	15.8	45	8.55	7.70	7.13	5.70
7F977	QEL25-M	25	32	50	9.00	8.10	7.50	6.00
7F978	QEL50-M	50	69	50	9.15	8.24	7.63	6.10
7F979	QEM2-M	2	6.2	35	8.40	7.56	7.00	5.60
7F980	QEM5-M	5	15.9	45	8.85	7.97	7.38	5.90
7F981	QEM10-M	10	19	50	9.00	8.10	7.50	6.00

TOROIDAL INDUCTORS — QGL & QGM SERIES

Two constructions: QG-F—open frame wax dipped 5/8D. x 9/32. QG-M—epoxy molded. 7/8D. x 3/8.

Stk. No.	Type	Mhys.	DCR	μμF	1-9	10-49	50-99	100-249
7F859	QGL50-M	50	28	40	7.85	6.35	5.88	4.70
7F[illegible]	QGL100-F	100	50	42	4.95	4.46	4.13	3.30
7F984	QGL100-M	100	50	42	7.20	6.48	6.00	4.80
7F985	QGM1-M	1	1.4	22	7.05	6.35	5.88	4.70
7F179	QGM1-F	1	1.4	22	4.80	4.32	4.00	3.20
7F198	QGM5-M	5	6	28	7.20	6.48	6.00	4.80

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TOROIDAL INDUCTOR — FIG. QIL-F SERIES

Frequency range to 20 KHZ—Accuracy ±2%. Construction: open frame—wax dipped. Wt. 3/4 oz. 1" D.x9/32".

Stk. No.	Type	Mhy.	DCRΩ	uuF	1-9	10-49	50-99	100-249
7F061	QIL100-F	100	22	49	4.20	3.78	3.50	2.80
7F062	QIL500-F	500	95	55	4.80	4.32	4.00	3.20

Fig. QIL-F

DCM SERIES

Frequency response: 200-15,000 Hz +2db. Wt. 5 oz. Fig. PC. Open Frame plug in printed circuit.

Stk. No.	Type	Pri. Imp.	Sec. Imp.	Pri. D.C. Ma.	1-9	10-49	50-99	100-249
7F063	DCM1-PC	25000 C.T.	1200 C.T.	2	4.95	4.46	4.13	3.30
7F064	DCM2-PC	15000 C.T.	15000 C.T.	3	5.10	4.59	4.25	3.40
7F065	DCM3-PC	15000 C.T.	600 C.T.	3	4.80	4.32	4.00	3.20
7F066	DCM4-PC	10000 C.T.	5000 C.T.	4	4.95	4.46	4.13	3.30
7F067	DCM5-PC	10000	2500/625 split	2	4.95	4.46	4.13	3.30
7F068	DCM6-PC	10000 C.T.	1500 C.T.	4	4.65	4.19	3.88	3.10
7F069	DCM7-PC	5000 C.T.	80000 C.T.	6	5.25	4.73	4.38	3.50
7F070	DCM8-PC	4000 C.T.	1200 C.T.	6	4.50	4.05	3.75	3.00
7F071	DCM9-PC	4000 C.T.	600 C.T.	6	4.35	3.92	3.63	2.90
7F072	DCM10-PC	4000	600/150 split	3	4.80	4.32	4.00	3.20
7F073	DCM11-PC	2500 C.T.	2500 C.T.	8	4.50	4.05	3.75	3.00
7F074	DCM12-PC	2500	2500/625 split	4	4.80	4.32	4.00	3.20
7F075	DCM13-PC	2500 C.T.	625 C.T.	8	4.35	3.92	3.63	2.90
7F076	DCM14-PC	2500 C.T.	200 C.T.	8	4.20	3.78	3.50	2.80
7F077	DCM18-PC	600 C.T.	50000 C.T.	16	4.65	4.19	3.88	3.10
7F078	DCM19-PC	600	8000/2000 split	8	4.80	4.32	4.00	3.20
7F079	DCM20-PC	600 C.T.	200 C.T.	16	4.05	3.65	3.38	2.70
7F080	DCM21-PC	600 C.T.	600 C.T.	16	4.05	3.65	3.38	2.70
7F081	DCM22-PC	250 C.T.	600 C.T.	25	4.05	3.65	3.38	2.70

Stk. No.	Type	Hy Oma dc	Hy rated current conditions	DCR	1-9	10-49	50-99	100-249
7F082	DCM51-PC	10	5 hy-3 ma	300	3.60	3.24	3.00	2.40
7F083	DCM52-PC	5	2 hy-5 ma	155	3.30	2.97	2.75	2.20
7F084	DCM53-PC	2.5	1 hy-7 ma	75	3.15	2.84	2.63	2.10

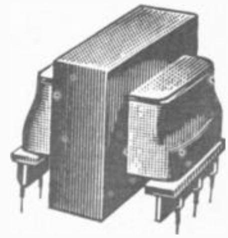


Fig. PC

LOW LEVEL/MICROPHONE INPUT TRANSFORMERS

Double mu-metal shielded except * (Fig. D) single mu-metal shield and electrostatic shield. † Octal plug-in

Stk. No.	Type	Pri. Imp.	Sec. Imp.	Freq. Resp.	H(in)	Dia. (in.)	Wt. (oz.)	1-9	10-49	50-99	100-249
7F085	M8027*	200	40000	50-20000	2 3/4	1 3/16x7/8	2	9.00	8.10	7.50	6.00
7F086	M8030†	200/50 C.T.	50000	20-20000	2 1/8	1 1/8 D.	6	13.50	12.15	11.25	9.00
7F087	M1-S	50/250 C.T./600 C.T.	50000	20-20000	1 17/32	1 1/16 D.	3	10.95	9.86	9.13	7.30

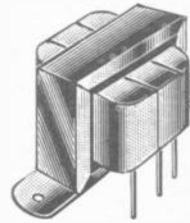


Fig. FB

60 HZ CONTROL AND POWER SUPPLY TRANSFORMERS

For relays, silicon rectifier circuitry, and filament applications. Figure FB except (*) Figure K.

		Secondary		Dimensions			Mounting				
Stk. No.	Type	ACV	RMS Amp	L (in)	W (in)	H (in)	Centers	1-9	10-49	50-99	100-249
7F088	M8242	6.3 C.T.	.6	2 3/8	1 3/8	1 1/2	2	3.75	3.38	3.13	2.50
7F089	M8243	6.3 C.T.	2.0	3 1/4	1 5/8	1 15/16	2 13/16	4.50	4.05	3.75	3.00
7F090	M8286	6.3 C.T.	6.0	3 11/16	2 1/8	2 1/4	3 1/8	5.55	5.00	4.63	3.70
7F091	M8287	12.6 C.T.	3.0	3 11/16	2 1/8	2 1/4	3 1/8	5.55	5.00	4.63	3.70
7F092	M8247*	12/12	4.0/4.0	4 1/8	3 1/8	3 3/4	3 7/16x2 1/2	12.15	10.94	10.13	8.10
7F093	M8244*	12.6 C.T./12.6	2.0/2.0	3 3/8	2 7/8	3 3/32	2 13/16x2 1/2	7.95	7.16	6.63	5.30
7F094	M8222*	18.5 C.T.	3.0	3 3/8	2 1/2	3 3/32	2 13/16x2 1/2	7.20	6.48	6.00	4.80
7F095	M8288*	26 C.T.	2.5	3	2 3/4	2 3/4	2 1/2x2 1/2	7.05	6.35	5.88	4.70
7F096	M8245	28 C.T.	.6	3 1/4	2 1/8	1 15/16	2 13/16	5.55	5.00	4.63	3.70
7F097	M8255*	30 C.T.	2.5	3 3/4	2 3/4	3 15/32	3 1/8x2 1/4	8.25	7.43	6.88	5.50
7F098	M8223*	35 C.T.	3.0	4 1/8	3	3 3/4	3 7/16x2 3/8	12.45	11.21	10.38	8.30
7F099	M8289	40 C.T.	.1	2 3/8	1 3/8	1 1/2	2	3.75	3.38	3.13	2.50
7F151	M8290	40 C.T.	.3	2 13/16	1 5/8	1 5/8	2 3/8	4.50	4.05	3.75	3.00
7F152	M8291	40 C.T.	.75	3 11/16	2 1/8	2 1/4	3 1/8	5.55	5.00	4.63	3.70
7F153	M8246*	49 C.T.	2.5	4 1/2	3 1/4	4 1/32	3 3/4x2 1/2	8.70	7.83	7.25	5.80
7F154	M8224*	70 C.T	1.0	3 3/4	2 3/4	3 15/32	3 1/8x2 1/4	8.25	7.43	6.88	5.50
7F155	M8256*	80 C.T.	.6	3	2 5/8	2 3/4	2 1/2x2 3/8	7.05	6.35	5.88	4.70

Fig. D

60 HZ ISOLATION AND POWER TRANSFORMERS

Center tap permits use in either F.W. Bridge or F.W.C.T. circuitry. Electrostatic shielding.

Stk. No.	Type	In. V	Output V	Rms. Amp.	Mtg. Cntrs.	Fig.	1-9	10-49	50-99	100-249
7F156	M8294	115	115 C.T.	.0085	1 3/4	FB	3.90	3.15	3.25	2.60
7F157	M8295	115	115 C.T./12.6 C.T./12 6	.030/.25/.25	2 3/8	FB	5.25	4.73	4.38	3.50
7F158	M8296	115	115 C.T.	.35	3 9/16		7.20	6.48	6.00	4.80
7F159	M8278	115	115 C.T.	.9	3 1/8x2 3/4	K	12.45	11.21	10.38	8.30

FILTER INDUCTORS FOR LOW VOLTAGE SOLID STATE CIRCUITRY

		Series Conn.		DCR	Parallel Conn.							
Stk. No.	Type	Hys.	Amps.	Ohms	Hys.	Amps.	Mtg. Centers	Fig.	1-9	10-49	50-99	100-249
7F160	M8198	3.5	.050	200	.875	.10	1 3/4	FB	2.85	2.57	2.38	1.90
7F161	M8199	1.5	.15	65	.25	.30	2	FB	3.00	2.70	2.50	2.00
7F162	M8200	.5	.3	30	.125	.6	2 3/8	FB	3.30	2.97	2.75	2.20
7F163	M8201	.32	.6	16	.08	1.2	2 13/16	FB	4.20	3.78	3.50	2.80
7F164	M8202	.2	1.0	4	.05	2.0	2 13/16x2 1/8	K	9.60	8.64	8.00	6.40
7F165	M8203	.07	2.5	.84	.0175	5.0	3 1/8x2 1/2	K	11.25	10.13	9.38	7.50
7F166	M8204	.022	4.0	.4	.0055	8.0	2 13/16x2 1/2	K	10.95	9.86	9.13	7.30
7F167	M8205	.022	5.0	.2	.0055	10	3 3/4x2 1/2	K	13.20	11.88	11.00	8.80

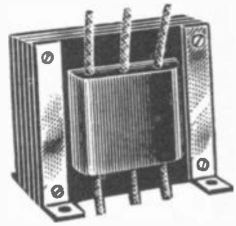


Fig. K

STANDARD MIL-T-27B CASES

Case	—Case Dimensions—			—Mounting Dimensions—		
Symbol	L	W	H	ML	MW	F
AF	3/4	3/4	1 1/8	*1 3/16	—	4-40x3/8
AG	1	1	1 3/8	*1 1/8	—	6-32x3/8
AH	1 5/16	1 5/16	1 3/4	S:1 1/4	—	6-32x3/8
AJ	1 5/8	1 5/8	2 3/8	1 3/16	1 3/16	6-32x3/8
EA	1 15/16	1 13/16	2 3/4	1 3/8	1 1/4	6-32x3/8
EB	1 15/16	1 13/16	2 7/16	1 3/8	1 1/4	6-32x3/8
FA	2 5/16	2 1/16	3 1/8	1 11/16	1 7/16	6-32x3/8
FB	2 5/16	2 1/16	2 1/2	1 11/16	1 7/16	6-32x3/8
GA	2 3/4	2 3/8	3 13/16	2 1/8	1 3/4	6-32x3/8
GB	2 3/4	2 3/8	2 13/16	2 1/8	1 3/4	6-32x3/8
HA	3 1/16	2 5/8	4 1/4	2 19/64	1 55/64	8-32x3/8
HB	3 1/16	2 5/8	3 3/16	2 19/64	1 55/64	8-32x3/8

Case	—Case Dimensions—			—Mounting Dimensions—		
Symbol	L	W	H	ML	MW	F
JA	3 9/16	3 1/16	4 7/8	2 5/8	2 1/8	8-32x3/8
JB	3 9/16	3 1/16	3 7/8	2 5/8	2 1/8	8-32x3/8
KA	3 15/16	3 3/8	5 1/4	3	2 7/16	10-32x1/2
KB	3 15/16	3 3/8	4 5/16	3	2 7/16	10-32x1/2
LA	4 3/16	3 11/16	5 9/16	3 5/16	2 11/16	10-32x1/2
LB	4 3/16	3 11/16	4 1/2	3 5/16	2 11/16	10-32x1/2
MA	4 11/16	4	6	3 11/16	3	1/4-20x5/8
MB	4 11/16	4	4 15/16	3 11/16	3	1/4-20x5/8
NA	5 1/16	4 5/16	6 13/16	4 1/16	3 5/16	1/4-20x5/8
NB	5 1/16	4 5/16	5 1/2	4 1/16	3 5/16	1/4-20x5/8
OA	5 1/2	4 1/2	6 3/4	3 3/4	3	1/4-20x5/8

*Not in conformance with MIL-T-273. S:2 studs in diagonal.

Collins Toroidal Coils

MOLDED PLASTIC TYPE MPF

Molded in high temperature resin. All have tinned brass terminals. Excellent Q characteristics. Normally used in the range of 1 Khz to 5 Mhz. Useful for filters. oscillators, and turned transformers. Mounts with 3-48 screw. Tapped hole. Ambient temperature range: —55°C to +105°C. Size: 0.738"H. x 0.688"L. x 0.375"W.

TYPE MPF-050 TOROIDS—FOR FREQUENCIES UP TO 30 KHZ (SUBMINIATURE)

VALUES OF INDUCTANCE IN 20% INCREMENTS ARE AVAILABLE FROM 5mh TO 3H.

Stk. No.	Coil Desig. Type	INDUCTANCE @ 1 VOLT RMS	Qmin	RdcΩ ±20%	Minimum Self Res. Freq.	Imax. MA	1-9	10-24	25-49	50-99	100-249
39F2500	MPF-050-1B	5 MH±1.5% @ 7khz	67 @ 10khz	2.3	360 khz	79.7	5.95	4.76	4.05	3.57	2.85
39F2504	MPF-050-5B	10 MH±1 % @ 5khz	67 @ 10khz	4.9	242 khz	50.1	5.95	4.76	4.05	3.57	2.85
39F2508	MPF-050-9B	20 MH±1 % @ 4khz	67 @ 10khz	11.2	165 khz	31.5	5.95	4.76	4.05	3.57	2.85
39F2510	MPF-050-11B	30 MH±1 % @ 3khz	67 @ 10khz	14.3	133 khz	31.5	5.95	4.76	4.05	3.57	2.85
39F2513	MPF-050-14B	50 MH±1 % @ 2khz	67 @ 10khz	25.0	100 khz	25.0	5.95	4.76	4.05	3.57	2.85
39F2517	MPF-050-18B	100 MH±1 % @ 2khz	67 @ 10khz	49.0	69 khz	15.7	7.20	5.76	4.90	4.32	3.46
39F2526	MPF-050-27B	500 MH±1 % @ 1khz	55 @ 7khz	290	29 khz	6.2	7.20	5.76	4.90	4.32	3.46
39F2530	MPF-050-31B	1.0 HY±1 % @ 400hz	44 @ 5khz	520	20 khz	4.9	8.83	7.06	6.00	5.30	4.24
39F2532	MPF-050-33B	1.5 HY±1 % @ 400hz	44 @ 5khz	780	16 khz	3.9	8.83	7.06	6.00	5.30	4.24
39F2536	MPF-050-37B	3.0 HY±1 % @ 400hz	30 @ 4khz	1700	11 khz	2.5	9.75	7.80	6.63	5.85	4.68

MOLDED PLASTIC MP-206 TOROIDS—FOR FREQUENCIES UP TO 20 KHZ

Commonly called the Wedding Ring. Excellent Q characteristics compatible with size and weight requirements of portable and airborne equipments. Molded in hi-temp resin. Terminals are tinned brass. Mounts with 6-32 screw. Tapped hole. Ambient temp. range. —55°C. to 105°C. Normally used in the range of 1 Khz to 20 Khz. Dia.: 1$\frac{1}{16}$" ±$\frac{1}{64}$. Thickness: ½" ±$\frac{1}{64}$".

VALUES OF INDUCTANCE IN 20% INCREMENTS ARE AVAILABLE FROM 5mh TO 3h.

Stk. No.	Coil Desig. Type	INDUCTANCE @ 1 VOLT RMS	Qmin	RdcΩ ±20%	Minimum Self Res. Freq.	Imax. MA	1-9	10-24	25-49	50-99	100-249
39F2658	MP-206-1B	5 MH±1.5% @ 5khz	130 @ 10khz	0.92	320 khz	254	6.18	4.94	4.20	3.71	2.96
39F2662	MP-206-5B	10 MH±1.5% @ 5khz	130 @ 10khz	2.1	221 khz	160	6.18	4.94	4.20	3.71	2.96
39F2664	MP-206-7B	15.0 MH±1 % @ 3khz	130 @ 10khz	3.3	176 khz	127	6.18	4.94	4.20	3.71	2.96
39F2665	MP-206-8B	17.5 MH±1 % @ 3khz	130 @ 10khz	3.5	167 khz	127	6.18	4.94	4.20	3.71	2.96
39F2666	MP-206-9B	20 MH±1 % @ 3khz	130 @ 10khz	3.7	151 khz	127	6.18	4.94	4.20	3.71	2.96
39F2667	MP-206-10B	24 MH±1 % @ 3khz	130 @ 10khz	5.2	136 khz	100	6.18	4.94	4.20	3.71	2.96
39F2668	MP-206-11B	30 MH±1 % @ 3khz	130 @ 10khz	5.8	120 khz	100	6.18	4.94	4.20	3.71	2.96
39F2671	MP-206-14B	50 MH±1 % @ 2khz	130 @ 10khz	9.4	91 khz	80	6.18	4.94	4.20	3.71	2.96
39F2672	MP-206-15B	60 MH±1 % @ 2khz	110 @ 6khz	13.0	83 khz	63	6.18	4.94	4.20	3.71	2.96
39F2674	MP-206-17B	86 MH±1 % @ 2khz	110 @ 6khz	19.5	68 khz	50	6.18	4.94	4.20	3.71	2.96
39F2675	MP-206-18B	100 MH±1 % @ 2khz	110 @ 6khz	21	64 khz	50	6.18	4.94	4.20	3.71	2.96
39F2677	MP-206-20B	150 MH±1 % @ 1khz	110 @ 6khz	33	51 khz	40	6.18	4.94	4.20	3.71	2.96
39F2679	MP-206-22B	200 MH±1 % @ 1khz	110 @ 6khz	46	44 khz	40	6.85	5.48	4.66	4.11	3.29
39F2680	MP-206-23B	240 MH±1 % @ 1khz	110 @ 6khz	51	41 khz	32	6.85	5.48	4.66	4.11	3.29
39F2681	MP-206-24B	300 MH±1 % @ 1khz	110 @ 6khz	57	35 khz	32	6.85	5.48	4.66	4.11	3.29
39F2684	MP-206-27B	500 MH±1 % @ 1khz	85 @ 4khz	90	27 khz	25	6.85	5.48	4.66	4.11	3.29
39F2688	MP-206-31B	1 HY±1 % @ 400hz	75 @ 3khz	213	18 khz	16	8.50	6.80	5.78	5.10	4.08
39F2870	MP-206-33B	1.5 HY±1 % @ 400hz	75 @ 3khz	326	15 khz	12.5	8.50	6.80	5.78	5.10	4.08
39F2871	MP-206-35B	2.0 HY±1 % @ 400hz	30 @ 3khz	475	13 khz	10	8.50	6.80	5.78	5.10	4.08
39F2872	MP-206-37B	3.0 HY±1 % @ 400hz	30 @ 3khz	750	11 khz	8	8.50	6.80	5.78	5.10	4.08

TYPE MIC TOROIDS

Meets MIL-T-27B Grade 4, Class R. For almost any application requiring a high Q microminiature inductor. Essentially no external magnetic field and no capacitive coupling to nearby circuitry. Automatic machine insertion. Insulation resistance is 10,000 megohms minimum at 100 v DC. 100 v RMS dielectric strength. Ambient temperature range is —55°C to +85°C. Inductance change with temperature is ±2% overrange of —20°C to ±85°C. AC and DC saturation—Ultra linear to high excitation levels.

Stk. No.	Type	Induct.	1-9	10-24	25-49	50-99	100-249
39F2817	MIC-1	1 MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2818	MIC-2	1.2 MH@10khz	4.93	3.94	3.35	2.95	2.36
28F2819	MIC-3	1.5 MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2820	MIC-4	1.75MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2821	MIC-5	2.0 MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2822	MIC-6	2.4 MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2823	MIC-7	3.0 MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2824	MIC-8	3.6 MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2825	MIC-9	4.3 MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2826	MIC-10	5.0 MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2827	MIC-11	6.0 MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2828	MIC-12	7.2 MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2829	MIC-13	8.6 MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2830	MIC-14	10 MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2831	MIC-15	12 MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2832	MIC-16	15 MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2833	MIC-17	17.5 MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2834	MIC-18	20 MH@10khz	4.93	3.94	3.35	2.95	2.36

Stk. No.	Type	Induct.	1-9	10-24	25-49	50-99	100-249
39F2835	MIC-19	24MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2836	MIC-20	30MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2837	MIC-21	36MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2838	MIC-22	43MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2839	MIC-23	50MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2840	MIC-24	60MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2841	MIC-25	72MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2842	MIC-26	86MH@110khz	4.93	3.94	3.35	2.95	2.36
39F2843	MIC-27	100MH@10khz	4.93	3.94	3.35	2.95	2.36
39F2844	MIC-28	120MH@ 5khz	4.93	3.94	3.35	2.95	2.36
39F2845	MIC-29	150MH@ 5khz	4.93	3.94	3.35	2.95	2.36
39F2846	MIC-30	175MH@ 5khz	4.93	3.94	3.35	2.95	2.36
39F2847	MIC-31	200MH@ 5khz	4.93	3.94	3.35	2.95	2.36
39F2848	MIC-32	240MH@ 5khz	4.93	3.94	3.35	2.95	2.36
39F2849	MIC-33	300MH@ 5khz	4.93	3.94	3.35	2.95	2.36
39F2850	MIC-34	360MH@ 5khz	4.93	3.94	3.35	2.95	2.36
39F2851	MIC-35	430MH@ 5khz	4.93	3.94	3.35	2.95	2.36
39F2852	MIC-36	500MH@ 5khz	4.93	3.94	3.35	2.95	2.36

TYPE MIH MICRO INDUCTORS

These inductors may be used in most applications requiring a high Q and miniature size. Hermetically sealed tall TO-5 type transistor case. Standard inductance values are available in 20% increments from 1μH to 1 MH for frequencies to 10 MHz.

Stk. No.	Type	Induct. @ khz	1-9	10-24	25-49	50-99	100-249
39F2875	MIH-1	1.0 μH±20%@2500	4.93	3.94	3.35	2.95	2.36
39F2876	MIH-7	10.0 μH±10%@1000	4.93	3.94	3.35	2.95	2.36
39F2877	MIH-13	33.0 μH±10%@1000	4.93	3.94	3.35	2.95	2.36
39F2878	MIH-15	47.0 μH±5%@500	4.93	3.94	3.35	2.95	2.36
39F2879	MIH-19	.10μH±5%@500	4.93	3.94	3.35	2.95	2.36

Stk. No.	Type	Induct. @ khz	1-9	10-24	25-49	50-99	100-249
39F2880	MIH-26	.20MH±3%@500	4.93	3.94	3.35	2.95	2.36
39F2881	MIH-30	.30MH±3%@250	4.93	3.94	3.35	2.95	2.36
39F2882	MIH-36	.51MH±3%@250	4.93	3.94	3.35	2.95	2.36
39F2883	MIH-40	.75MH±3%@250	4.93	3.94	3.35	2.95	2.36
39F2884	MIH-43	1.00MH±3%@250	4.93	3.94	3.35	2.95	2.36

Collins Toroidal Coils and Filters

MOLDED PLASTIC TYPE MP-254 TOROIDS—FOR FREQUENCIES UP TO 8KC

Molded Plastic Type MP-254. Features exceptional Q below 5KC. Useful for critical filters, oscillators and tuned transformers in the above range. Provides filters of sharp characteristics and highest power capabilities. Molded in hi-temp resin. Tinned brass terminals. Mounts with 8-32 screw. Tapped hole. 2" dia., 1" thk. Values of inductance in 20% increments are available from 20Mh to 36th.

Stock No.	Coil Desig. Type	Inductance @ 1 Volt RMS	Q min	R dc Ω ±20%	Minim. Self. Res. Freq.	I max. MA	1-9	10-24	25-49	50-99	100-249
39F2695	MP-254-1B	20 MH±2.5%@2khz	155 @ 3.5khz	1.01	100khz	642	11.25	9.00	7.65	6.75	5.40
39F2697	MP-254-3B	30 MH±1.5%@2khz	155 @ 3.5khz	1.5	81khz	510	11.25	9.00	7.65	6.75	5.40
39F2700	MP-254-6B	50 MH±1.5%@2khz	155 @ 3.5khz	2.5	62khz	404	11.25	9.00	7.65	6.75	5.40
39F2701	MP-254-7B	60 MH±1.5%@2khz	155 @ 3.5khz	3.2	56khz	320	11.25	9.00	7.65	6.75	5.40
39F2704	MP-254-10B	100 MH±1.5%@1khz	147 @ 3khz	5.5	43khz	254	11.25	9.00	7.65	6.75	5.40
39F2708	MP-254-14B	200 MH±1 %@1khz	147 @ 3khz	9.9	30khz	201	12.08	9.66	8.21	7.25	5.80
39F2710	MP-254-16B	300 MH±1 %@1khz	125 @ 2khz	15.0	24kl.z	160	12.08	9.66	8.21	7.25	5.80
39F2713	MP-254-19B	500 MH±1 %@400hz	125 @ 2khz	25.0	18khz	127	12.08	9.66	8.21	7.25	5.80
39F2717	MP-254-23B	1.0HY±1 %@400hz	105 @ 1.5khz	56.0	13khz	80	12.08	9.66	8.21	7.25	5.80
39F2721	MP-254-27B	2.0HY±1 %@400hz	79 @ 1khz	100	9.0khz	63	13.28	10.62	9.03	7.97	6.37
39F2723	MP-254-29B	3.0HY±1 %@100hz	79 @ 1khz	155	7.0khz	50	13.28	10.62	9.03	7.97	6.37
39F2726	MP-254-32B	5.0HY±1 %@100hz	66 @ 800khz	250	5.5khz	40	13.28	10.62	9.03	7.97	6.37
39F2730	MP-254-36B	10 HY±1 %@100hz	51 @ 600hz	560	3.7khz	25	15.70	12.56	10.67	9.42	7.54
39F2734	MP-254-40B	20 HY±1 %@100hz	43 @ 500hz	1000	2.6khz	20	15.70	12.56	10.67	9.42	7.54

MOLDED PLASTIC TYPE MP-930 TOROID—FOR FREQUENCIES UP TO 10 KHZ

Provides higher Q, power level and stability, with only slight increase in weight and volume. For use in frequency range of 500 hertz to 10kh3. Molded in hi-temp resin. Tinned brass terminals. Ambient temp. range: —55°C. to +105°C. Mounts with 6-32 screw. Tapped hole. 1$\frac{5}{16}$"D.x$\frac{7}{32}$" Thk. Values of inductance in 20% increments are available from 5mh to 17.5h.

Stock No.	Coil Desig. Type	Inductance @ 1 Volt RMS	Q min	R dc Ω ±20%	Minim. Self. Res. Freq.	I max. MA	1-9	10-24	25-49	50-99	100-249
39F2770	MP-930-1B	5 MH±2.5%@ 5khz	115 @ 7khz	0.6	255khz	402	5.90	4.72	4.01	3.54	2.83
39F2774	MP-930-5B	10 MH±1.5%@ 5khz	115 @ 5khz	1.07	172khz	320	5.90	4.72	4.01	3.54	2.83
39F2776	MP-930-7B	15 MH±1.5%@ 2khz	115 @ 5khz	1.65	139khz	254	5.90	4.72	4.01	3.54	2.83
39F2778	MP-930-9B	20 MH±1.5%@2khz	115 @ 5khz	1.89	127khz	254	5.90	4.72	4.01	3.54	2.83
39F2780	MP-930-11B	30 MH±1 %@2khz	115 @ 5khz	2.93	95khz	201	5.90	4.72	4.01	3.54	2.83
39F2783	MP-930-14B	50 MH±1 %@2khz	115 @ 5khz	6.0	72khz	127	5.90	4.72	4.01	3.54	2.83
39F2784	MP-930-15B	60 MH±1 %@2khz	115 @ 5khz	6.61	65khz	127	5.90	4.72	4.01	3.54	2.83
39F2787	MP-930-18B	100 MH±1 %@1khz	105 @ 4khz	10.6	50khz	100	5.90	4.72	4.01	3.54	2.83
39F2789	MP-930-20B	150 MH±1 %@1khz	105 @ 4khz	16.5	40khz	80	5.90	4.72	4.01	3.54	2.83
39F2791	MP-930-22B	200 MH±1 %@1khz	105 @ 4khz	23.9	34khz	63	5.90	4.72	4.01	3.54	2.83
39F2783	MP-930-24B	300 MH±1 %@1khz	93 @ 3khz	37	28khz	50	5.90	4.72	4.01	3.54	2.83
39F2795	MP-930-26B	430 MH±1 %@1khz	93 @ 3khz	44.2	23khz	50	5.90	4.72	4.01	3.54	2.83
39F2796	MP-930-27B	500 MH±1 %@400hz	93 @ 3khz	60.2	21khz	40	5.90	4.72	4.01	3.54	2.83
39F2800	MP-930-31B	1.0HY±1 %@400hz	73 @ 2khz	107	15khz	31.5	7.23	5.78	4.91	4.34	3.47
39F2804	MP-930-35B	2.0HY±1 %@400hz	58 @ 1.5khz	240	10khz	20	7.23	5.78	4.91	4.34	3.47
39F2806	MP-930-37B	3.0HY±1 %@100hz	58 @ 1.5khz	372	8khz	16	7.23	5.78	4.91	4.34	3.47
39F2809	MP-930-40B	5.0HY±1 %@100hz	42 @ 1khz	605	6.0khz	12.5	9.35	7.49	6.35	5.61	4.49
39F2813	MP-930-44B	10 HY±1 %@100hz	30 @ 800hz	1085	4.3khz	10.0	10.45	8.36	7.13	6.28	5.03

HERMETICALLY SEALED CRYSTAL FILTERS

Fig. A

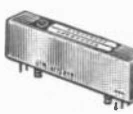


Fig. B

Fig. C

Crystal filters (Fig. A and Fig. B) are designed for use in communications and other narrow band applications. Dimensions: (Fig. A) 2$\frac{13}{16}$" long x $\frac{15}{16}$" wide x 1" high; (Fig. B) 2$\frac{23}{32}$" long x ½" wide x .758" high.

Monolithic crystal filters (Fig. C) are small, light weight and cold-welded in flat packs 1.59" long x .73" high x .36" high. They exhibit excellant aging and temperature characteristics.

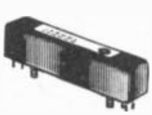
Stock Number	Part Number	Fig.	Band Width	Ohms In/Out	1-4	5-24
39F2885	526-7073-000	A	300 Hz @ 6 db	2000	39.95	35.95
39F2886	526-7466-009	B	300 Hz @ 6 db	100000	53.95	48.95
39F2887	526-7881-010	C	3 KHz @ 6 db	250	39.95	35.95
39F2888	526-7881-020	C	6 KHz @ 6 db	500	39.95	35.95
39F2889	526-7881-030	C	12 KHz @ 6 db	960	39.95	35.95

HYBRID THIN FILM CIRCUITS

Microelectronic system of tantalum thin film elements and active semiconductor chip devices. Tantalum film gives stability for uses in high speed computer logic, digital frequency synthesizers, I.F. and R.F. stages and special digital and analog circuitry. Encased in 1" x 1" x .155" hermetically sealed ceramic case. Instructions furnished.

Stk. No.	Type	Description	1-4	5-24	25-49
39F2890	351-2017-010	BCD to 7 bar decoder & lamp driver	103.40	93.05	88.40
39F2891	351-2019-010	Binary to BCD convrtr.; 4 BCD outputs	87.55	78.80	74.80
39F2892	351-7050-010	500 kHz I.F. amp with AGC	71.10	64.00	60.80
39F2893	351-7058-020	AC Op. amp w/stabilized	71.55	64.40	61.20
39F2894	351-7059-010	4 188B output level translators	147.40	132.70	126.05
39F2895	351-7060-010	4 188B input level translators	175.45	157.90	150.00
39F2896	351-7194-010	2 sense amp w/cycle times to 1.2 usec	105.55	95.00	90.25
39F2897	351-7261-010	10 MHz line drive	93.55	84.20	80.00
39F2898	351-7262-010	90 ohm ternary line terminator 10 MHz	99.10	89.20	84.75

MECHANICAL FILTERS



Provide high adjacent channel separation because of steep skirted selectivity with a flat topped frequency response. Temperature range of operation —40°C to +85°C with only 2 to 10 PPM/°C frequency variation. Dimensions: FA, FC and Z types 2.5" long x .528" wide x .6" high in molded phenolic case, epoxy sealed; J types .775" diameter x 2¾" high in hermetically sealed metal case.

Stk. No.	Type	Nominal Bandw. (KHz)	Max. Bandw. (KHz) at 60db	1-4	5-24
39F2899	F455FA-05	0.5 @ 6db	2.5	43.00	41.00
39F2900	F455FA-08	0.8 @ 8db	4.0	43.00	41.00
39F2901	F455FA-15	1.5 @ 6db	3.5	42.50	40.50
39F2902	F455FA-21	2.1 @ 6db	5.3	25.00	25.00
39F2903	F455FA-27	2.7 @ 6db	6.5	27.00	27.00
39F2904	F455J-05	0.5 @ 3db	2.5	58.00	55.00
39F2905	F455J-15	1.5 @ 6db	3.5	43.50	41.50
39F2906	F455J-21	2.1 @ 6db	5.3	43.00	41.00
39F2907	F455FC-60	6.0 @ 6db	25.9	16.74	12.90
39F2908	F455Z-16	1.7 @ 3db	5 (USB)	45.00	41.95

AEROVOX Capacitors

TYPE AFH TWIST PRONG ELECTROLYTICS

Designed for filter audio bypass applications in radio-TV and amplifier equipment. Also used in many industrial applications. Manufactured to exceed requirements of EIA Spec. RS-154. 85°C operation; high purity aluminum foil throughout; moisture-resistant seal. For use over a wide temperature range with minimum change capacitance. Positive lugs on bakelite base. Can serve as common negative terminal with twist lugs for upright mounting on metal chassis. Bakelite metal mounting washers furnished. Shpg. wt., 4 oz.

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-249
SINGLE SECTION — 15V							
60F300	1-02	1000	1x1½"	1.68	1.10	.86	.68
60F302	1-04	3000	1⅜x2"	2.81	2.00	1.56	1.24
SINGLE SECTION — 25V							
16F822	1-08	500	1x1½"	1.68	.96	.75	.59
16F823	1-10	1000	1⅜x2"	2.34	1.42	1.11	.89
SINGLE SECTION — 50V							
60F304	1-13-05	500	1x1½"	1.75	1.05	.81	.65
60F305	1-14	1000	1⅜x2"	2.48	1.64	1.28	1.01
60F306	1-14-50	1500	1⅜x2"	2.90	2.05	1.60	1.28
SINGLE SECTION — 150V							
60F307	1-21	100	1x1½"	1.32	.81	.63	.51
16F824	1-24-01	150	1⅜x2"	1.42	1.06	.83	.66
60F308	1-24-25	200	1⅜x2"	1.62	1.14	.89	.72
60F309	1-24-75	300	1⅜x2"	1.85	1.34	1.05	.84
16F825	1-24-85	500	1⅜x2½"	2.28	1.73	1.34	1.08
SINGLE SECTION — 450V							
60F310	1-50	20	1x1½"	1.19	.79	.62	.50
60F311	1-51	30	1x1½"	1.29	.88	.68	.55
60F312	1-52	40	1x1¾"	1.35	.96	.75	.59
16F826	1-53	50	1x2½"	1.55	1.05	.81	.65
60F313	1-55	80	1⅜x2"	2.01	1.46	1.13	.90
60F314	1-55-20	100	1⅜x2½"	2.28	1.62	1.25	1.00
16F827	1-55-25	125	1x⅜x3"	2.61	1.85	1.44	1.14
DUAL SECTION — 150V							
60F319	2-20-50	125-100	1⅜x2"	2.31	1.30	1.01	.80
60F320	2-23	200-200	1⅜x2"	2.64	1.62	1.25	1.01
DUAL SECTION — 450V							
60F321	2-47	10-10	1x1½"	1.25	.88	.68	.55
60F322	2-51	20-20	1x2"	1.68	1.06	.83	.66
60F324	2-54	30-30	1⅜x2"	2.01	1.36	1.06	.85
60F326	2-57	40-40	1⅜x2"	2.28	1.55	1.21	.97
TRIPLE SECTION — 450V							
60F327	3-31	10-10-10	1x1¾"	1.71	1.07	.83	.66
60F328	3-36	20-20-20	1⅜x2"	2.38	1.47	1.14	.91
60F329	3-44	40-40-40	1⅜x2½"	3.23	1.98	1.54	1.23
QUADRUPLE SECTION — 450V							
60F330	4-10	10-10-10-10	1⅜x2"	2.21	1.38	1.07	.86
60F331	4-14	20-20-20-20	1⅜x2"	3.10	1.73	1.34	1.08

TYPE HCB HIGH CAPACITY LOW VOLTAGE ELECTROLYTICS

Polarized aluminum electrolytics in heavy duty bakelite cases for resistance to moisture, oil and dirt. Temperature range —40°C to 85°C. Wt., 4 oz.

Stock No.	Mfd.	Size	1-9	10-24	25-49	50-99	100-249
12 WVDC—18 VOLT SURGE							
60F491	2000	1 7/16x2¾"	3.36	2.88	1.30	1.30	1.15
60F492	4000	1 7/16x3⅜"	4.60	3.95	2.30	1.78	1.58
60F494	10000	1 13/16x4⅜"	7.82	6.70	3.90	3.02	2.68
18 WVDC—25 VOLT SURGE							
60F496	2000	1 7/16x2¾"	3.47	2.97	1.74	1.34	1.19
60F498	6000	1 13/16x3⅜"	5.62	4.82	2.81	2.17	1.93
25 WVDC—40 VOLT SURGE							
60F499	1000	1 7/16x2¾"	3.19	2.73	1.59	1.23	1.02
60F506	4000	1 13/16x3⅜"	5.58	4.79	2.79	2.15	1.91
50 WVDC—75 VOLT SURGE							
60F508	500	1 7/16x3⅜"	3.33	2.85	1.66	1.28	1.14
60F509	1000	1 7/16x3⅜"	4.25	3.65	2.13	1.64	1.46
60F510	2000	1 13/16x3⅜"	5.06	4.34	2.53	1.95	1.73
60F511	4000	2 1/16x4⅜"	7.32	6.27	3.66	2.82	2.51
150 WVDC—185 VOLT SURGE							
60F512	1000	1 13/16x4⅜"	6.44	5.52	3.22	2.48	2.21

TYPE PRS DANDEE MINIATURE ALUMINUM ELECTROLYTICS

Compact, electrolytic tubular capacitors furnished in aluminum cans with cardboard insulating sleeves. Designed for compact assemblies in T.V.'s or radios. Shpg. wt: 4 oz.

Stk. No.	Type	Mfd.	V	D x L	1-24	25-49	50-99	100-249	250-499
16F600	1900	8	700	15/16x2¾"	1.91	1.46	1.14	.91	.78
16F602	1915	16	700	1 1/16x3⅜"	2.31	1.75	1.36	1.09	.94
16F604	1860	10	600	15/16x2¾"	1.95	1.49	1.16	.92	.79
16F606	1880	16	600	15/16x3¼"	2.28	1.73	1.34	1.07	.91
16F663	1700	1	450	7/16xx1¼"	.73	.56	.43	.35	.31
16F656	1705	2	450	9/16x1¼"	.76	.57	.44	.35	.31
16F611	1710	4	450	9/16x1½"	.76	.57	.45	.36	.31
16F612	1715	8	450	11/16x1⅝"	.83	.62	.51	.41	.35
16F613	1720	10	450	11/16x1⅞"	.86	.65	.51	.41	.35
16F614	1725	12	450	13/16x1½"	.89	.67	.55	.44	.38
16F615	1730	16	450	13/16x1¾"	.92	.70	.58	.46	.40
16F616	1735	20	450	13/16x2"	1.02	.79	.62	.50	.43
16F828	1740	30	450	15/16x2⅛"	1.12	.84	.68	.55	.47
16F618	1750	40	450	15/16x2½"	1.19	.91	.70	.57	.50
16F664	1760	50	450	15/16x3¼"	1.39	1.07	.83	.66	.57
16F657	1770	60	450	1 1/16x3"	1.55	1.17	.91	.73	.63
16F659	1790	100	450	1 1/16x3¾"	2.11	1.29	1.00	.80	.69
16F623	1550	4	250	7/16x1¼"	.66	.49	.41	.33	.29
16F624	1555	8	250	9/16x1⅜"	.76	.56	.45	.36	.31
16F627	1570	20	250	11/16x1⅝"	.89	.67	.55	.44	.37
16F665	1575	30	250	11/16x2"	.95	.72	.58	.46	.40
16F628	1580	40	250	13/16x1¾"	1.02	.76	.63	.51	.44
16F629	1400	4	150	7/16x1¼"	.66	.46	.36	.29	.24
16F829	1410	10	150	9/16x1⅜"	.69	.50	.39	.31	.26
16F632	1430	16	150	9/16x1½"	.76	.54	.42	.33	.29
16F633	1440	20	150	9/16x1⅝"	.79	.55	.43	.34	.30
16F635	1460	30	150	11/16x1½"	.86	.61	.47	.37	.32
16F636	1470	40	150	11/16x1¾"	.89	.64	.50	.40	.34
16F637	1480	50	150	13/16x1¾"	.92	.65	.51	.41	.35
16F830	1490	60	150	13/16x1¾"	.99	.69	.54	.43	.37
16F661	1500	80	150	13/16x2"	1.06	.75	.58	.46	.40
16F667	1510	100	150	13/16x2¼"	1.16	.81	.64	.51	.44
16F668	1520	150	150	15/16x2⅜"	1.25	.89	.69	.56	.48
16F831	1530	200	150	15/16x2⅞"	1.46	1.02	.80	.64	.55
16F832	1540	300	150	1 1/16x3"	1.68	1.10	.86	.68	.58
16F638	1320	10	50	7/16x1¼"	.66	.46	.36	.29	.24
16F639	1340	25	50	7/16x1¼"	.69	.48	.37	.30	.25
16F640	1350	50	50	11/16x1½"	.79	.56	.44	.35	.31
16F641	1360	100	50	11/16x1¾"	.92	.65	.51	.41	.35
16F672	1370	150	50	13/16x1¾"	1.02	.72	.56	.45	.39
16F673	1380	250	50	11/16x1½"	1.16	.88	.70	.56	.48
16F833	1390	500	50	1 1/16x2¼"	1.58	1.21	.95	.76	.65
16F642	1250	10	25	7/16x1¼"	.66	.46	.36	.29	.24
16F834	1257	20	25	7/16x1¼"	.66	.47	.36	.30	.30
16F835	1260	25	25	7/16x1¼"	.66	.48	.37	.30	.25
16F644	1265	50	25	7/16x1⅜"	.73	.52	.40	.32	.28
16F645	1270	100	25	9/16x1⅝"	.89	.63	.48	.40	.34
16F646	1280	250	25	13/16x1¾"	1.12	.86	.67	.54	.46
16F647	1290	500	25	13/16x1¾"	1.52	1.18	.91	.73	.63
16F836	1295	1000	25	1 1/16x2⅛"	2.18	1.67	1.41	1.23	1.06
16F837	1200	100	15	9/16x1⅜"	.83	.57	.44	.35	.31
16F838	1210	250	15	11/16x1⅝"	1.02	.76	.63	.51	.44
16F839	1220	500	15	13/16x1¼"	1.16	.87	.70	.56	.48
16F840	1230	1000	15	15/16x1½"	1.52	1.18	.91	.74	.84
16F841	1240	2000	15	15/16x1¼"	2.11	1.39	1.07	.86	.74
16F842	1100	100	6	7/16x1¼"	.79	.55	.43	.34	.30
16F843	1110	250	6	9/16x1⅜"	.89	.69	.54	.43	.37
16F844	1120	500	6	11/16x1½"	1.02	.79	.62	.50	.43
16F845	1130	1000	6	11/16x2⅛"	1.25	.94	.76	.61	.52
16F846	1140	1500	6	13/16x2"	1.39	1.07	.84	.67	.57
16F847	1145	2000	6	13/16x2⅜"	1.52	1.19	.92	.74	.64

TYPE PRS—DUAL SECTION

Stk. No.	Type	Mfd.	V	D x L	1-24	25-49	50-99	100-249	250-499
16F700	2350	8-8	450	13/16x1¾"	1.12	.87	.73	.58	.51
16F702	2380	16-16	450	13/16x2¼"	1.49	1.17	.90	.73	.63
16F848	2390	20-20	450	15/16x2½"	1.65	1.26	.98	.78	.67
16F849	2400	30-30	450	1 1/16x2¾"	1.98	1.55	1.21	.97	.84
16F706	2420	40-40	450	1 1/16x3¾"	2.21	1.71	1.42	1.13	.98
16F708	2290	30-30	250	13/16x1⅞"	1.42	.97	.75	.61	.52
16F710	2165	20-20	150	13/16x1¾"	1.09	.84	.65	.52	.44
16F713	2175	30-30	150	13/16x1⅝"	1.19	.89	.69	.56	.48
16F716	2195	40-40	150	13/16x2"	1.19	.92	.74	.58	.50
16F715	2200	50-30	150	13/16x2"	1.29	.95	.74	.58	.51
16F717	2230	80-40	150	13/16x2½"	1.45	1.03	.80	.64	.55
16F719	2245	100-100	150	15/16x2¾"	2.11	1.24	.97	.77	.66

TYPE PRS—TRIPLE SECTION

Stk. No.	Type	Mfd.	V	D x L	1-24	25-49	50-99	100-249	250-499
16F850	3500	20-20-20	150	15/16x1¾"	1.66	1.25	.97	.78	.67
16F731	3600	40-20-20	150	15/16x1¾"	1.74	1.29	1.00	.80	.69
16F732	3650	40-40-20	150	15/16x1⅞"	1.79	1.33	1.03	.83	.72
16F851	3675	40-40-40	150	15/16x2"	1.83	1.38	1.07	.97	.74
16F735	3750	50-30-20	150	15/16x1⅞"	1.79	134	1.05	.84	.72
16F736	3800	80-40-20	150	15/16x2¼"	1.91	1.43	1.11	.89	.77

TYPE CRE ULTRA MINIATURE ELECTROLYTICS

Ultra miniature tubular aluminum cased electrolytics with tinned copper leads. Ideal for use in by-pass, filters and coupling applications. Temp range: —30°C to +85°C. All welded construction and high purity ingredients insure low leakage, long shelf life. Furnished with heat shrinkable mylar tubing. SIZE: Diameter x length.

B—1/4x1/2	D—5/16x11/16	F—3/8x13/16	H—3/8x1 1/4
C—1/4x11/16	E—3/8x11/16	G—3/8x15/16	J—3/8x1 1/2

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249	250-Up
3 WVDC								
60F335	CRE212A	25	B	.75	.37	.29	.23	.19
60F338	CRE223A	100	D	.84	.61	.47	.38	.31
60F340	CRE233A	250	G	.96	.61	.47	.38	.31
6 WVDC								
60F343	CRE300A	1	B	.81	.38	.30	.24	.20
60F344	CRE302A	3	B					
60F346	CRE304A	5	B					
60F348	CRE307A	10	B					
60F349	CRE309A	15	B					
60F351	CRE312A	25	C	.81	.38	.30	.24	.20
60F353	CRE317A	50	D	.84	.55	.43	.34	.28
12 WVDC								
60F361	CRE401A	2	B	.84	.41	.32	.25	.21
60F363	CRE406A	8	B					
60F364	CRE409A	15	C					
60F366	CRE412A	25	C	.84	.55	.43	.34	.28
60F369	CRE423A	100	F	1.05	.61	.47	.38	.31
60F370	CRE431A	200	H	1.23	.71	.55	.44	.36
60F371	CRE433A	250	J	1.32	.71	.55	.44	.36
15 WVDC								
60F372	CRE450A	1	B	.84	.42	.32	.26	.21
60F373	CRE451A	2	B					
60F374	CRE452A	3	B					
60F375	CRE453A	4	B					
60F376	CRE454A	5	B					
60F377	CRE455A	6	B					
60F378	CRE456A	8	B					
60F379	CRE457A	10	B					

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249	250-Up
15 WVDC (Cont'd.)								
60F380	CRE459A	15	C	.87	.42	.32	.26	.21
60F381	CRE461A	20	C	.87	.42	.32	.26	.21
60F382	CRE462A	25	D	.87	.55	.43	.34	.28
60F383	CRE463A	30	D	.90	.55	.43	.34	.28
60F384	CRE464A	35	E	.93	.55	.43	.34	.28
60F385	CRE467A	50	E	.96	.61	.47	.38	.31
60F386	CRE470A	75	F	1.02	.61	.47	.38	.31
60F387	CRE473A	100	G	1.08	.61	.47	.38	.31
60F388	CRE478A	150	H	1.17	.65	.51	.41	.33
60F389	CRE481A	200	J	1.26	.72	.56	.45	.37
25 WVDC								
60F390	CRE600A	1	B	.84	.41	.32	.25	.21
60F391	CRE601A	2	B	.84	.41	.32	.25	.21
60F392	CRE602A	3	B	.84	.42	.33	.26	.22
60F393	CRE603A	4	B	.84	.43	.33	.27	.22
60F394	CRE604A	5	B	.84	.43	.33	.27	.22
60F395	CRE605A	6	C	.84	.43	.33	.27	.22
60F396	CRE606A	8	C	.87	.43	.34	.27	.22
60F397	CRE607A	10	C	.87	.44	.34	.27	.22
60F398	CRE609A	15	D	.87	.55	.43	.34	.28
60F399	CRE611A	20	E	.90	.61	.47	.38	.31
60F400	CRE612A	25	E	.93	.61	.47	.38	.31
60F402	CRE614A	35	F	.99	.61	.47	.38	.31
60F403	CRE617A	50	G	1.08	.61	.47	.38	.31
60F404	CRE620A	75	H	1.17	.64	.50	.40	.33
60F405	CRE623A	100	J	1.26	.66	.52	.41	.34
50 WVDC								
60F406	CRE750A	1	B	.84	.41	.32	.25	.21
60F407	CRE751A	2	B	.84	.41	.32	.25	.21
60F408	CRE753A	4	C	.84	.43	.33	.27	.22
60F409	CRE754A	5	C	.87	.43	.33	.27	.22
60F411	CRE756A	8	D	.90	.59	.46	.37	.30
60F412	CRE757A	10	D	.90	.59	.46	.37	.30
60F414	CRE761A	20	F	.90	.61	.47	.38	.31
60F513	CRE764A	35	H	1.02	.63	.49	.39	.32
60F415	CRE767A	50	J	1.11	.65	.50	.40	.33
100 WVDC								
60F416	CRE904A	5	E	.90	.60	.46	.37	.31
60F419	CRE907A	10	G	.93	.60	.47	.38	.31
60F421	CRE911A	20	J	.96	.63	.49	.39	.32
150 WVDC								
60F423	CRE953A	4	E	.87	.63	.49	.39	.32
60F424	CRE954A	5	E	.93	.63	.49	.39	.32
60F425	CRE957A	10	H	.96	.63	.49	.39	.32

TYPE AEP PLUG-IN ELECTROLYTIC

Hermetically sealed, aluminum can with 4-pin octal base mounting. Commercial equivalent of Type CE51's, 2's, & 3's as listed in MIL C62A. Size: 1 3/32x2 1/2" except (*) 1 3/8x2 1/2", (†) 1 3/8x3 1/2", (††) 1 3/8x 4 1/4", (**) 1 3/8x3". Av. Shpg. wt., 5 oz.

Single Element Units

Stock No.	Type	Mfd.	WVDC	1-24	25-49	50-99
16F220	AEP400P*	2000	15	3.42	1.70	1.49
16F200	AEP4D	20	150	2.28	1.20	1.05
16F222	AEP8D	40	150	2.34	1.22	1.07
16F201	AEP2J	10	450	2.34	1.24	1.09
16F223	AEP3J	15	450	2.40	1.28	1.12
16F202	AEP4J	20	450	2.43	1.32	1.16
16F203	AEP6J	30	450	2.52	1.34	1.17
16F204	AEP8J	40	450	2.76	1.36	1.19
16F205	AEP16J†	80	450	3.24	1.50	1.31
16F206	AEP2L††	10	600	2.85	1.42	1.24

Stk. No.	Type	Mfd.	WVDC	1-24	25-49	50-99
Dual Element Units						
16F207	AEP44D	20-20	150	2.46	1.12	.98
16F208	AEP88D	40-40	150	2.55	1.17	1.02
16F209	AEP22J	10-10	450	2.58	1.36	1.19
16F210	AEP44J*	20-20	450	2.91	1.42	1.24
16F219	AEP88J**	40-40	450	3.30	1.64	1.44
Triple Element Units						
16F211	AEP444D	20-20-20	150	2.61	1.30	1.14
16F212	AEP88D4A	40-40/20	150/25	2.67	1.23	1.07
16F213	AEP222J	10-10-10	450	2.79	1.38	1.21
16F214	AEP22J4A	10-10/20	450/25	2.70	1.24	1.08
16F216	AEP444J**	20-20-20	450	3.30	1.54	1.35
16F224	AEP822J**	40-10-10	450	3.24	1.59	1.39
Quadruple Element Units—with ground lug						
16F217	AEPG444D4A*	20-20-20/20	150/25	2.88	1.42	1.24
16F225	AEPG2222J*	10-10-10-10	450	3.12	1.54	1.35

TYPE K323Z METALLIZED POLYCARBONATE CAPACITORS

Hermetically sealed Polycarbonate film provides high capacitance stability. Self-heals in the rare case of dielectric breakdown. Operating temperature: —65°C to +125°% of full rating. Standard tolerance is 20%. Other tolerances available on special order.

Stk. No.	Mfd.	Size	1-24	25-49	50-99	100-249
100 VDCW						
16F300	.015	.175x5/8"	2.10	1.40	1.23	.98
16F301	.022	.175x5/8"	2.10	1.40	1.23	.98
16F302	.033	.195x11/16"	2.18	1.42	1.24	.99
16F303	.047	.235x5/8"	2.16	1.44	1.26	1.01
16F304	.068	.235x11/16"	2.19	1.46	1.28	1.02
16F305	.1	.235x13/16"	2.22	1.48	1.30	1.04
16F306	.15	.312x13/16"	2.22	1.48	1.30	1.04
16F307	.22	.312x13/16"	2.25	1.50	1.31	1.05
100VDCW (cont'd)						
16F308	.33	.400x13/16"	2.46	1.64	1.44	1.15
16F309	.47	.400x15/16"	2.58	1.72	1.51	1.20
16F310	.68	.400x1 1/8"	2.76	1.84	1.61	1.29
16F311	1.0	.400x1 9/16"	3.00	2.00	1.75	1.40
16F312	1.5	.562x1 1/8"	3.42	2.28	2.00	1.60
16F313	2.0	.562x1 5/16"	3.90	2.60	2.28	1.82
16F314	3.0	.562x1 13/16"	4.92	3.28	2.87	2.30
16F315	4.0	.670x1 13/16"	5.76	3.84	3.36	2.69
16F316	5.0	.670x2 1/16"	6.54	4.36	3.82	3.05

For Plastic Sleeve add suffix "P" and add .82 to unit price.

AEROVOX Capacitors

TYPE QE—COMPUTER GRADE ELECTROLYTICS

High reliability, long life, 65°C operating aluminum electrolyte capacitor for energy storage use. For computers, power supplies, industrial use in control and test equipment. Manufactured under controlled conditions with highest purity ingredients.
Hermetically sealed with pressure type safety vent. Low screw inserts and heat shrinkage mylar tubing keep overall size near to can size shown. Shipping weight 5-14 oz. depending on can size.

CASE SIZES

A1	1 3/8 x 1 3/8	B2	1 3/4 x 3 1/8	C3	2 x 4 5/8	D4	2 1/2 x 5 1/8
A2	1 3/8 x 2 1/8	B3	1 3/4 x 4 1/8	C4	2 x 5 1/8	D5	2 1/2 x 5 5/8
A3	1 3/8 x 3 1/8	B4	1 3/4 x 4 5/8	C5	2 x 5 5/8	E1	3 x 4 1/8
A4	1 3/8 x 4 1/8	B5	1 3/4 x 5 1/8	D1	2 1/2 x 3 1/8	E2	3 x 4 5/8
A5	1 3/8 x 4 5/8	C1	2 x 3 1/8	D2	2 1/2 x 4 1/8		3 x 5 1/8
B1	1 3/4 x 2 1/8	C2	2 x 4 1/8	D3	2 1/2 x 4 5/8	E4	3 x 5 5/8

Stk. No.	Type	Mfd.	Volt	Size	1-24	25-49	50-99
60F429	61QE2052M	11000	10	A4	3.16	1.91	1.52
60F430	61QE2058M	25000	10	C2	4.59	2.79	2.21
60F431	61QE2072M	1500	15	A1	2.53	1.60	1.28
60F432	61QE2073M	3100	15	A2	2.54	1.61	1.29
60F433	61QE2075M	6100	15	A3	2.90	1.76	1.40
60F434	61QE2076M	9200	15	A4	2.97	1.81	1.44
60F435	61QE2079M	14000	15	C1	3.88	2.37	1.88
60F438	61QE2088M	35000	15	D2	6.80	4.10	3.24
60F439	61QE2120M	950	25	A1	2.53	1.60	1.28
60F440	61QE2121M	1900	25	A2	2.54	1.61	1.29
60F441	61QE2123M	3800	25	A3	2.88	1.76	1.40
60F442	61QE2124M	5800	25	A4	3.21	1.95	1.54
60F443	61QE2127M	8900	25	C1	3.91	2.39	1.90
60F444	61QE2131M	13000	25	C2	4.83	2.93	2.32
60F446	61QE2136M	22000	25	D2	6.89	4.15	3.28
60F447	61QE2140M	33000	25	E1	9.10	5.47	4.32
60F449	61QE2165M	27000	35	E2	11.06	6.62	5.20
60F450	61QE2171M	2400	40	A3	2.88	1.76	1.40
60F451	61QE2175M	5600	40	C1	3.85	2.35	1.87
60F455	61QE2192M	470	50	A1	2.56	1.62	1.29
60F456	61QE2193M	940	50	A2	2.73	1.67	1.33

Stk. No.	Type	Mfd.	Volt	Size	1-24	25-49	50-99
60F457	61QE2195M	1850	50	A3	2.94	1.79	1.42
60F458	61QE2196M	2830	50	A4	3.40	2.06	1.63
60F459	61QE2199M	4300	50	C1	4.06	2.47	1.96
60F461	61QE2206M	8700	50	C4	6.09	3.67	2.89
60F462	61QE2208M	10900	50	D2	7.28	4.38	3.45
60F463	61QE2243M	950	75	A3	3.00	1.83	1.45
60F464	61QE2247M	2300	75	C1	3.91	2.39	1.90
60F465	61QE2256M	5800	75	D2	6.20	3.75	2.97
60F466	61QE2268M	1000	100	A4	3.37	2.05	1.62
60F468	61QE2274M	2400	100	C2	5.22	3.16	2.50
60F471	61QE2291M	520	150	A3	3.03	1.84	1.46
60F473	61QE2295M	1200	150	C1	4.33	2.63	2.09
60F476	61QE2308M	4700	150	E1	11.26	6.74	5.29
60F478	61QE2315M	400	200	A3	3.33	2.02	1.60
60F479	61QE2319M	960	200	C1	5.56	3.35	2.64
60F482	61QE2340M	460	250	A4	3.49	2.12	1.68
60F483	61QE2343M	750	250	C1	4.54	2.75	2.18
60F485	61QE2363M	250	300	A3	3.21	1.95	1.54
60F488	61QE2430M	340	450	C2	5.86	3.54	2.79
60F489	61QE2436M	570	450	D2	8.51	5.10	4.01
60F490	61QE2437M	850	450	E1	11.59	6.93	5.44

METALLIZED MYLAR "WRAP & FILL" CAPACITORS

Type V146Z. Light weight, high insulation resistance, long stable life. For use in printed assemblies and light weight portable and airborne equipment of all types. Can be mounted in banks using a minimum amount of space. Self-healing and are of instrument quality. All leads are solder-coated copper-weld wire. Tolerance: ±10%.

100 VDCW @ 85°C 50 VDCW @ 125°C

Stk. No.	Cap.	H. x W. x L.	1-24	25-49	50-99	100-249
16F378	.1	.125x .234x9/16	1.06	.66	.53	.42
16F379	.15	.156x .265x9/16	1.15	.72	.58	.46
16F380	.22	.156x .250x11/16	1.34	.84	.67	.53
16F381	.33	.203x .312x11/16	1.58	.99	.79	.63
16F382	.47	.250x .359x11/16	1.78	1.11	.89	.70
16F383	.68	.218x .328x15/16	2.21	1.38	1.10	.87
16F384	1.00	.265x .375x15/16	2.93	1.83	1.46	1.16
16F385	1.50	.250x .250x1 1/4	3.79	2.37	1.90	1.50
16F386	2.00	.312x .468x1 1/4	4.70	2.94	2.35	1.86
16F387	3.00	.406x .562x1 1/4	6.67	4.17	3.34	2.64
16F388	4.00	.406x .562x1 3/8	8.30	5.19	4.15	3.29
16F389	5.00	.375x .593x1 3/4	9.79	6.12	4.90	3.88
200 VDCW @ 85°C 150 VDCW @ 125°C						
16F390	.01	.156x .203x7/16	.86	.54	.43	.34
16F391	.015	.156x .234x7/16	.86	.54	.43	.35

200 VDCW @ 85°C 150 VDCW @ 125°C

Stk. No.	Cap.	H. x W. x L.	1-24	25-49	50-99	100-249
16F392	.022	.203x .265x7/16	.88	.55	.44	.35
16F393	.033	.218x .281x7/16	.90	.56	.45	.36
16F394	.047	.171x .265x9/16	.91	.57	.46	.36
16F395	.068	.125x .250x11/16	.93	.58	.46	.37
16F396	.1	.187x .281x11/16	.94	.59	.47	.37
16F397	.15	.187x .312x11/16	1.02	.64	.51	.41
16F398	.22	.265x .375x11/16	1.11	.69	.55	.44
16F399	.33	.296x .484x11/16	1.26	.79	.63	.50
16F500	.47	.359x .546x11/16	1.47	.92	.74	.59
16F501	.68	.343x .515x11/16	1.77	1.11	.89	.71
16F502	1.0	.312x .468x1 3/16	2.19	1.37	1.10	.88
16F503	1.5	.406x .593x1 3/16	2.66	1.66	1.33	1.06
16F504	2.0	.343x .563x1 11/16	3.05	1.91	1.52	1.22
16F505	4.0	.562x .687x1 11/16	4.66	2.91	2.33	1.84
16F506	5.0	.484x .843x1 3/4	5.47	3.42	2.74	2.17

TYPE V146ZR

Same as V146Z above except tubular.

100 WVDC

Stk. No.	Size	Mfd.	1-24	25-49	50-99	100-249
16F1718	.170x11/16"	.1	1.06	.66	.53	.42
16F1719	.190x11/16"	.15	1.15	.72	.58	.46
16F1720	.215x11/16"	.22	1.34	.84	.67	.53
16F1721	.265x11/16"	.33	1.58	.99	.79	.63
16F1722	.315x11/16"	.47	1.78	1.11	.89	.70
16F1723	.280x1"	.68	2.21	1.38	1.10	.87
16F1724	.325x1"	1.0	2.93	1.83	1.46	1.16
16F1725	.340x1 1/4"	1.5	3.79	2.37	1.90	1.50
16F1726	.405x1 1/4"	2.0	4.70	2.94	2.35	1.86
17F1727	.500x1 1/4"	3.0	6.67	4.17	3.34	2.64
16F1728	.510x1 3/8"	4.0	8.30	5.19	4.15	3.29
16F1729	.510x1 3/4"	5.0	9.79	6.12	4.90	3.88

200 WVDC

Stk. No.	Size	Mfd.	1-24	25-49	50-99	100-249
16F1730	.200x9/16"	.047	.91	.57	.46	.36
16F1731	.200x11/16"	.068	.93	.58	.46	.37
16F1732	.234x11/16"	.1	.94	.59	.47	.37
16F1733	.265x11/16"	.15	1.02	.64	.51	.41
16F1734	.340x11/16"	.22	1.11	.69	.55	.44
16F1735	.390x11/16"	.33	1.26	.79	.63	.50
16F1736	.328x1"	.47	1.47	.92	.74	.59
16F1737	.390x1"	.68	1.77	1.11	.89	.71
16F1738	.500x1"	1.0	2.19	1.37	1.10	.88
16F1739	.515x9/16"	1.5	2.66	1.66	1.33	1.06
16F1740	.620x1 1/4"	2.0	3.05	1.91	1.52	1.22
16F1741	.656x1 11/16"	4.0	4.66	2.91	2.33	1.84
16F1742	.800x1 3/4"	5.0	5.47	3.42	2.74	2.17

TYPE PTT PEE-WEE ELECTROLYTIC

Miniature polycap electrolytic encased in polycap tubes with special Aerovox plastic end-fill which binds to the ceramic case. Operating temp. range is minus 30°C plus 65° C. Cap. at 25° is minus 10% plus 250%. *Sizes A: ¼x⅝". B: ¼x¾", C: ¼x⅞", D: 5/16x⅝", E: 5/16x¾", F: 5/16x⅞", G: 5/16x1", H: ⅜x¾", J: ⅜x⅞", K: ⅜x1", M: ⅜x1¼", N: ⅜x1⅜", O: ⅜x1½", P: 7/16x⅞".

3 VDCW

Stk. No.	Type	Cap. Mfd.	Size*	1-24	25-49	50-99	100-249
16F1142	PTT2	2	A	.42	.32	.25	.20
16F1144	PTT4	5	A				
16F1145	PTT5	8	A				
16F1146	PTT6	10	A				
16F1148	PTT8	20	B				
16F1149	PTT9	25	B				
16F1189	PTT11	40	B				
16F1190	PTT12	50	C				
16F1191	PTT13	100	H	.45	.36	.28	.23
16F1192	PTT14	200	K	.45	.36	.28	.23
16F1193	PTT15	250	K	.48	.36	.28	.23
16F1195	PTT17	500	O	.75	.39	.30	.23

6 VDCW

Stk. No.	Type	Cap. Mfd.	Size*	1-24	25-49	50-99	100-249
16F1196	PTT18	1	A	.42	.32	.25	.20
16F1197	PTT19	2	A				
16F1198	PTT20	3	A				
16F1199	PTT21	5	A				
16F1251	PTT23	10	A				
16F1254	PTT26	25	B				
16F1256	PTT28	40	C	.45	.32	.25	.20
16F1257	PTT29	50	E	.45	.32	.25	.20
16F1258	PTT30	100	G	.45	.36	.28	.23
16F1259	PTT31	200	K	.48	.36	.28	.23
16F1260	PTT32	250	M	.60	.36	.28	.23

10 VDCW

Stk. No.	Type	Cap. Mfd.	Size*	1-24	25-49	50-99	100-249
16F1261	PTT34	1	A	.42	.32	.25	.20
16F1262	PTT35	2	A				
16F1264	PTT37	5	A				

10 VDCW (Cont.)

Stk. No.	Type	Cap. Mfd.	Size	1-24	25-49	50-99	100-249
16F1265	PTT38	8	A	.42	.32	.25	.20
16F1266	PTT39	10	A				
16F1267	PTT40	15	B				
16F1268	PTT41	20	B				
16F1269	PTT42	25	E	.45	.32	.25	.20
16F1270	PTT43	30	E				
16F1271	PTT44	40	E				
16F1272	PTT45	50	F				
16F1273	PTT46	100	J	.46	.36	.28	.23
16F814	PTT102	150	K	.60	.36	.28	.23
16F815	PTT47	200	L	.75	.36	.28	.23

25 VDCW

Stk. No.	Type	Cap. Mfd.	Size	1-24	25-49	50-99	100-249
16F1274	PTT74	1	A	.42	.32	.25	.20
16F1275	PTT75	2	A				
16F1276	PTT76	3	A				
16F1277	PTT77	5	B				
16F1278	PTT78	8	B				
16F1279	PTT79	10	E				
16F1280	PTT80	15	E	.45	.32	.25	.20
16F1281	PTT81	20	H				
16F1282	PTT82	25	H				
16F1283	PTT83	30	H				
16F1284	PTT84	40	J	.45	.32	.25	.20
16F1285	PTT85	50	K	.45	.32	.25	.20
16F1286	PTT86	100	N	.66	.36	.28	.23
16F818	PTT124	150	T	.75	.36	.28	.23

50 VDCW

Stk. No.	Type	Cap. Mfd.	Size	1-24	25-49	50-99	100-249
16F1287	PTT87	1	A	.42	.32	.25	.20
16F1288	PTT88	2	A				
16F1289	PTT89	3	B				
16F1290	PTT90	5	C				
16F1291	PTT91	8	E	.45	.32	.25	.20
16F1292	PTT92	10	H				
16F1293	PTT93	15	H				
16F1294	PTT94	20	J				
16F1295	PTT95	25	K	.48	.32	.25	.20
16F820	PTT97	40	M	.75	.32	.25	.20
16F821	PTT98	50	N	.75	.32	.25	.20

TYPE V146XR AEROFILM "WRAP & FILL" MYLAR CAPACITORS

Aerovox V146XR capacitors offer high resistance to humidity and excellent stability with temperature where a metal case is not needed. Extremely small size makes these ideal for use in miniaturized circuits. Mylar wrapped, epoxy end filled.

Standard tolerance is ±10%. Power factor will not exceed 1% at 25°C. Operating temperature range of —65°C to 85°C at full voltage rating and to 125°C with derating. Extended foil construction. Leads are solder-coated Copper-Weld wire.

150 VOLTS

Stk. No.	Type	Mfd.	1-49	50-99	100-499
60F514	V146XR- 1	.01	.30	.24	.21
60F515	V146XR- 2	.015			
60F516	V146XR- 3	.022			
60F517	V146XR- 4	.033			
60F518	V146XR- 5	.047			
60F519	V146XR- 6	.68	.32	.25	.22
60F520	V146XR- 7	.1	.35	.28	.24
60F521	V146XR- 8	.15	.38	.31	.27
60F522	V146XR- 9	.22	.43	.34	.30
60F523	V146XR-10	.33	.45	.36	.32
60F524	V146XR-11	.47	.54	.48	.38
60F525	V146XR-12	.68	.59	.47	.41
60F526	V146XR-13	1.0	.76	.61	.53
60F527	V146XR-14	1.5	.97	.78	.68
60F528	V146XR-15	2.0	1.68	1.18	1.03

200 VOLTS

Stk. No.	Type	Mfd.	1-49	50-99	100-499
60F529	V146XR-16	.001	.31	.25	.22
60F531	V146XR-18	.0022			
60F532	V146XR-19	.0033			
60F533	V146XR-20	.0047			
60F534	V146XR-21	.0068			
60F535	V146XR-22	.01			
60F536	V146XR-23	.015			
60F537	V146XR-24	.022			
60F538	V146XR-25	.033			
60F539	V146XR-26	.047	.31	.25	.22
60F540	V146XR-27	.068	.33	.26	.23
60F541	V146XR-28	.1	.35	.28	.25
60F542	V146XR-29	.15	.39	.31	.27
60F543	V146XR-30	.22	.44	.36	.31
60F544	V146XR-31	.33	.47	.37	.33
60F545	V146XR-32	.47	.55	.44	.38
60F546	V146XR-33	.68	.60	.48	.42
60F547	V146XR-34	1.0	.85	.68	.60
60F548	V146XR-35	1.5	1.31	.97	.85
60F549	V146XR-36	2.0	1.52	1.22	1.06

400 VOLTS

Stk. No.	Type	Mfd.	1-49	50-99	100-499
60F550	V146XR-37	.001	.31	.25	.22
60F551	V146XR-38	.0015			
60F552	V146XR-39	.0022			
60F553	V146XR-40	.0033			
60F554	V146XR-41	.0047			
60F555	V146XR-42	.0068			
60F556	V146XR-43	.01			
60F557	V146XR-44	.015			
60F558	V146XR-45	.022	.32	.25	.22
60F559	V146XR-46	.033	.33	.26	.23
60F560	V146XR-47	.047	.35	.28	.24
60F561	V146XR-48	.068	.39	.31	.27
60F562	V146XR-49	.1	.43	.30	.20
60F563	V146XR-50	.15	.47	.37	.33
60F564	V146XR-51	.22	.50	.40	.35
60F565	V146XR-52	.33	.61	.49	.43
60F566	V146XR-53	.47	.78	.62	.54
60F567	V146XR-54	.68	1.00	.80	.70
60F568	V146XR-55	1.0	1.12	.90	.79
60F569	V146XR-56	1.5	1.48	1.18	1.03
60F570	V146XR-57	2.0	1.92	1.54	1.35

600 VOLTS

Stk. No.	Type	Mfd.	1-49	50-99	100-499
60F571	V146XR58	.001	.31	.25	.22
60F573	V146XR-60	.0022			
60F575	V146XR-62	.0047			
60F577	V146XR-64	.01			
60F579	V146XR-66	.022	.38	.30	.26
60F581	V146XR-68	.047	.43	.34	.30
60F583	V146XR-70	.1	.52	.41	.36
60F585	V146XR-72	.22	.86	.69	.60
60F587	V146XR-74	.47	1.25	1.00	.88
60F589	V146XR-76	1.0	1.97	1.57	1.38

AEROVOX Capacitors

V161 AEROFILM TUBULAR CAPS

High quality units in Polycap (Polyester Film) casing material which have high insulation resistance, low dielectric absorption and power factor. Relatively small capacitance change over 0° to 85°C. Epoxy end fill will not flow, soften, or melt at any operating temperature. Tolerance ±20%. Operating temp. —30° to +100°C. Aver. shpg. wt., 2 oz.

200 WVDC

Stock No.	Mfd.	D x L	1-24	25-49	50-99	100-249
16S1579	.01	9/32x1 5/16"	.15	.13	.11	.10
16F1580	.05	5/16x1 1/16"	.15	.13	.11	.10
16F1581	.1	3/8x1 1/4"	.21	.15	.13	.12
16F1582	.22	1/2x1 1/4"	.24	.18	.15	.14
16F1583	.25	1/2x1 1/4"	.27	.18	.15	.14
16F1584	33	1/2x1 1/2"	.33	.20	.16	.15
15F1585	1.0	13/16x1 7/8"	.57	.37	.31	.28

400 WVDC

Stock No.	Mfd.	D x L	1-24 .15	25-49	50-99	100-249
16F1586	.0068	9/32x1 5/16"	.15	.14	.12	.11
16F1587	.01	5/16x1"	.15	.14	.12	.11
16F1588	.02	5/16x1 1/16"	.15	.14	.12	.11
16F1589	.05	3/8x1 1/4"	.18	.15	.13	.12
16F1590	.1	1/2x1 1/4"	.21	.18	.15	.13
16F1591	.25	9/16x1 3/4"	.39	.24	.20	.18
16F1592	.5	11/16x2"	.69	.32	.27	.24
16F1593	1.0	7/8x2 1/8"	1.05	.53	.44	.40

600 WVDC

Stock No.	Mfd.	D x L	1-24	25-49	50-99	100-249
16F1594	.001	9/32x1 5/16"	.15	.14	.12	.11
16F1595	.005	5/16x1"	.15	.14	.12	.11
16F1596	.01	11/32x1 1/16"	.18	.14	.12	.11
16F1597	.02	3/8x1 3/16"	.18	.15	.13	.12
16F1598	.03	7/16x1 3/16"	.21	.15	.13	.12

Stock No.	Mfd.	D x L	1-24	25-49	50-99	100-249
16F1599	.05	1/2x1 1/4"	.24	.18	.15	.13
16F1600	.1	9/16x1 1/2"	.30	.21	.17	.16
16F1601	.2	23/32x1 5/8"	.48	.37	.31	.28
16F1602	.25	3/4x1 3/4	.54	.40	.33	.30
16F1603	.5	7/8x2 1/8"	.87	.53	.44	.40

TYPE P123ZN METALLIZED PAPER CAPACITORS

Hermetically sealed metal cased metallized paper capacitors. 50 VDCW units specifically designed for transistor applications and low voltage operations. Oper. temp.: —55°C to +100°C with no derating, up to 125°C derated to 75%. Standard tolerance of 50 VDCW±10%; 200, 400 & 600 VDCW, .01 and lower ±25%; .015 and up ± 20%. Other tol. and insulated sleeve available on special order.

50 WVDC

Stk. No.	Mfd.	Size	1-24	25-49	50-99	100-499
16F1536	.1	.195x1 5/16	1.68	1.16	1.03	.78
16F1537	.15	.235x1 5/16	1.71	1.18	1.05	.80
16F1538	.22	.312x1 3/16	1.74	1.20	1.07	.81
16F1539	.33	.312x1 1/8	1.80	1.24	1.10	.83
16F1540	.47	.312x1 3/16	1.86	1.28	1.14	.86
16F1542	1.0	.400x1 5/16	2.28	1.56	1.38	1.03
16F1544	2.0	.562x1 5/16	2.94	2.00	1.77	1.31
16F1545	3.0	.562x1 7/16	3.39	2.30	2.03	1.51
16F1546	4.0	.670x1 7/16	3.84	2.60	2.28	1.70

200 WVDC

Stk. No.	Mfg.	Size	1-24	25-49	50-99	100-499
16F1296	.0005	.175x1/2	1.11	.78	.70	.55
16F1297	.001	.175x1/2	1.11	.78	.70	.55
16F1298	.002	.175x1/2	1.11	.78	.70	.55
16F1347	.005	.175x1/2	1.11	.78	.70	.55
16F1348	.01	.175x1/2	1.11	.78	.70	.55
16F1349	.015	.195x5/8	1.11	.78	.70	.55
16F1350	.02	.195x5/8	1.11	.78	.70	.55
16F1351	.022	.195x5/8	1.11	.78	.70	.55
16F1352	.033	.235x5/8	1.14	.80	.72	.56
16F1354	.047	.235x1 1/16	1.17	.82	.73	.57
16F1355	.05	.235x1 1/16	1.20	.84	.75	.58
16F1356	.068	.312x1 3/16	1.20	.84	.75	.58
16F1357	.1	.312x1 3/16	1.23	.86	.77	.59
16F1358	.15	.312x1 1/8	1.26	.88	.79	.61
16F1360	.22	.312x1 1/8	1.26	.88	.79	.61
16F1361	.25	.312x1 1/8	1.38	.96	.86	.65
16F1362	.33	.400x1 1/8	1.38	.96	.86	.65
16F1363	.47	.400x1 1/8	1.47	1.02	.91	.69
16F1364	.5	.400x1 1/8	1.50	1.04	.93	.70
16F1365	.68	.500x1 1/8	1.53	1.06	.94	.71
16F1366	1.0	.562x1 1/8	1.68	1.16	1.03	.78
16F1367	1.5	562x1 5/8	2.49	1.70	1.50	1.13
16F1368	2 0	.562x1 7/8	2.49	1.70	1.50	1.13

400 WVDC—(Cont.)

Stk. No.	Mfd.	Size	1-24	25-49	50-99	100-499
16F1370	.001	235x1/2	1.11	.78	.70	.55
16F1371	.002	.235x5/8	1.11	.78	.70	.55
16F1372	.003	.235x1/2	1.14	.80	.72	.56
16F1373	.005	.235x5/8	1.17	.82	.73	.57
16F1374	.01	.235x5/8	1.17	.82	.73	.57
16F1376	.02	235x1 3/16	1.17	.82	.73	.57
16F1378	.033	.312x1 3/16	1.20	.84	.75	.58
16F1381	.05	.312x1 1/8	1.20	.84	.75	.58
16F1382	.068	.312x1 1/8	1.29	.90	.80	.62
16F1383	.1	.400x1 1/8	1.32	.92	.82	.63
16F1386	.22	.500x1 1/8	1.41	.98	.87	.67
16F1387	.25	.500x1 1/8	1.56	1.08	.96	.74
16F1388	.33	.562x1 3/8	1.56	1.08	.96	.74
16F1389	.47	.562x1 5/8	1.83	1.28	1.12	.84
16F1390	.5	.562x1 5/8	1.95	1.34	1.19	.89
16F1391	.68	.670x1 5/8	2.10	1.44	1.28	.96
16F1392	1.0	670x2 1/8	2.55	1.74	1.54	1.14
16F1394	2.0	1.000x1 7/8	3.87	2.62	2.31	1.70

600 WVDC

Stk. No.	Mfd.	Size	1-24	25-49	50-99	100-499
16F1397	.002	.235x5/8	1.14	.80	.72	.56
16F1398	.003	.235x5/8	1.20	.84	.75	.58
16F1399	.005	.235x5/8	1.20	.84	.75	.58
16F1435	.01	.235 1 3/16	1.20	.84	.75	.58
16F1437	.02	.312x1 3/16	1.23	.86	.77	.59
16F1438	.022	.312x1 3/16	1.23	.86	.77	.59
16F1441	.047	.400x1 3/16	1.26	.88	.79	.61
16F1442	.05	.400x1 3/16	1.32	.92	.82	.63
16F1443	.068	.400x1 1/8	1.32	.92	.82	.63
16F1444	.1	.400x1 1/8	1.38	.96	.86	.65
16F1446	.2	.562x1 3/8	1.62	1.12	1.00	.76
16F1447	.22	.562x1 3/8	1.62	1.12	1.00	.76
16F1451	.5	.670x1 7/8	2.14	1.46	1.29	.97
16F1453	1.0	.750x2 3/8	2.85	1.94	1.71	1.28
16F1455	2.0	1.000x2 3/8	4.44	3.00	2.64	1.94

P123ZNG METALLIZED PAPER CAPACITORS—GROUNDED CASE

Specifications as P123ZN but with grounded cases.

200 WVDC

Stk. No.	Mfd.	Size	1-24	25-49	50-99	100-499
16F1547	.0005	.175x7/16	.99	.66	.58	.42
16F1548	.001	.175x7/16	.99	.66	.58	.42
16F1550	.01	.175x7/16	.99	.66	.58	.42
16F1551	.02	195x9/16	.99	.66	.58	.42
16F1552	.05	.235x5/8	1.08	.72	.63	.45
16F1553	.1	.312x3/4	1.11	.74	.65	.46
16F1554	.25	.312x1 1/16	1.26	.84	.74	.53

600 WVDC

Stk. No.	Mfd.	Size	1-24	25-49	50-99	100-499
16F1555	.5	.400x1 1/16	1.38	.92	.81	.58
16F1558	.001	.235x9/16	1.02	.68	.60	.43
16F1559	.005	.235x9/16	1.08	.72	.63	.45
16F1561	.05	.400x3/4	1.20	.80	.70	.50
16F1563	.25	.562x1 5/16	1.56	1.04	.91	.65
16F1565	1.0	.750x2 5/16	2.73	1.82	1.59	1.14

CERAFIL CERAMIC CAPACITORS

MOLDED AXIAL LEADS

Ultraminiature ceramic capacitors. Meets MIL-C-11015C. Oper. temp. —55°C to +85°C or derate 50% to +125°C. Temp. Coeff. 100 volts applied +10 —35%. Power factor 2.5% max. Leads 1½ inch min. tinned copper. Below .01 mfd, 26 gauge .01 and above 22 gauge. Tolerance: ±20%. 100 VDCW. 300 VDCT. Aver. Shpg. wt., 4 oz.

Stk. No.	Type	Mfd.	Dia. x Lg.	1-24	25-49	50-99	100-499
16F1670	MC80V100AM	.00001	.087x.315	.47	.40	.31	.23
16F548	MC80V150AM	.000015	.087x.315				
16F1671	MC80V220AM	.000022	.087x.315				
16F1672	MC80V330AM	.000033	.087x.315				
16F1673	MC80V470AM	.000047	.087x.315				
16F1674	MC80V101AM	.0001	.087x.315				
16F1675	MC80V221AM	.00022	.087x.315				
16F1676	MC80V331AM	.00033	.087x.315				
16F1677	MC80V471AM	.00047	.087x.315				
16F1678	MC80V102AM	.001	.087x.315	.47	.40	.31	.23
16F558	MC80V152AM	.0015	.117x.495	.68	.57	.46	.34

Stk. No.	Type	Mfd.	Dia. x Lt.	1-24	25-49	50-99	100-499
60F636	MC80V222AM	.0022	.117x.495	.68	.57	.46	.34
60F637	MC80V332AM	.0033	.117x.495	.68	.57	.46	.34
60F638	MC80V472AM	.0047	.117x.495	.68	.57	.46	.34
60F639	MC80V682AM	.0068	.157x.495	.90	.81	.64	.48
16F1680	MC80V103AM	.01	.157x.495	.90	.81	.64	.48
16F1681	MC80V203AM	.02	.197x.495	1.65	1.38	1.10	.82
60F640	MC80V223AM	.022	.197x.495	2.75	2.28	1.83	1.38
60F641	MC80V333AM	.033	.237x.650	2.75	2.28	1.83	1.38
16F1682	MC80V503AM	.05	.237x.645				
16F1683	MC80V104AM	.1	.277x.745	4.93	4.10	3.29	2.47

CK MIL TYPE AXIAL LEADS

± 10% K

Stk. No.	Type	Mfd.	Dia. x Lg.	1-24	25-49	50-99	100-499
16F571	CK12AX100K	.00001	.087x.315	.59	.50	.39	.29
16F572	CK12AX220K	.000022					
16F573	CK12AX330K	.000033					
16F574	CK12AX470K	.000047					
16F575	CK12AX101K	.0001					
16F576	CK12AX221K	.00022					
16F577	CK12AX331K	.00033					
16F578	CK12AX471K	.00047					
16F579	CK12AX102K	.001	.087x.315	.59	.50	.39	.29
16F580	CK13AX222K	.0022	.117x.495	.85	.71	.58	.43
16F581	CK13AX332K	.0033	.117x.495	.85	.71	.58	.43
16F582	CK13AX472K	.0047	.117x.495	.85	.71	.58	.43
16F583	CK14AX103K	.01	.157x.495	1.13	1.01	.80	.60
16F584	CK15AX223K	.0033	.197x.495	2.06	1.73	1.38	1.03

± 20% M

Stk. No.	Type	Mfd.	Dia. x Lt.	1-24	25-49	50-99	100-499
16F585	CK16AX473K	.047	.237x.645	3.44	2.85	2.29	1.73
16F586	CK17AX104K	.1	.277x.745	6.16	5.13	4.11	3.09
16F587	CK12AX100M	.00001	.087x.315	.47	.40	.31	.23
16F590	CK12AX470M	.000047					
16F591	CK12AX101M	.0001					
16F592	CK12AX221M	.00022					
16F593	CK12AX331M	.00033					
16F596	CK13AX222M	.0022	.117x.495	.68	.57	.46	.34
16F597	CK13AX332M	.0033	.117x.495	.68	.57	.46	.34
16F598	CK13AX472M	.0047	.117x.495	.68	.57	.46	.34
16F599	CK14AX103M	.01	.157x.495	.90	.81	.64	.48
16F686	CK15AX223M	.022	.197x.495	1.65	1.38	1.10	.82
16F687	CK16AX473M	.047	.237x.645	2.75	2.28	1.83	1.38
16F688	CK17AX104M	.1	.277x.745	4.93	4.10	3.29	2.47

CORDWOOD TYPE MC70 AND MC705 CERAMIC TUBULARS

Operating temp. —55°C to +85°C. Derate 50% at +125°C. Temp. Coeff. varies with capacity Leads #26 Gauge Gold Plated Dumet 1½" min. for soldering or welding. Size: .250 x .100. Aver. Shpg. wt., 4 oz.

100 VDCW—Except (*) 50 VDCW

Stk. No.	Type	Cap.	1-24	25-49	50-99	100-499
60F644	MC70A100AK	10	.64	.55	.44	.34
16F945	MC70A120AK	12				
60F645	MC70A150AK	15				
16F946	MC70A180AK	18				
60F646	MC70A220AK	22				
60F647	MC70A330AK	33				
16F947	MC70B390AK	39				
60F648	MC70B470AK	47				
16F948	MC70B510AK	56				
60F649	MC70B560AK	56				
16F949	MC70B620AK	62	.64	.55	.44	.34
60F650	MC70C680AK	68				
16F950	MC70B750AK	75				
60F651	MC70C820AK	82				
16F951	MC70B910AK	91				
60F652	MC70C101AK	100				
16F952	MC70B121AK	120				
60F653	MC70C151AK	150				
16F953	MC70B181AK	180				
60F654	MC70C221AK	220				
60F655	MC70C331AK	330	.64	.55	.44	.34
16F954	MC70C391AK	390				
60F656	MC70D471AK	470				
60F657	MC70D561AK	560				
60F658	MC70E681AK	680				
60F659	MC70E821AK	820				
60F660	MC70E102AK	1000				
16F955	MC70C122AK	1200	1.46	1.25	.98	.74
60F661	MC70E152AK	1500	1.46	1.25	.98	.74
16F956	MC70C182AK	1800	1.46	1.25	.98	.74
60F662	MC70E222AK	2200	3.38	2.89	2.25	1.68
16F957	MC70C272AK	2700	3.38	2.89	2.25	1.68
60F663	MC70F332AK	3300	3.38	2.89	2.25	1.68
60F664	MC70F472AK	4700	3.38	2.89	2.25	1.68
60F665	MC70G562AM	5600	3.09	2.64	2.06	1.53
60F666	MC70G682AM	6800	3.09	2.64	2.06	1.53
60F667	MC70G822AM	8200	3.09	2.64	2.06	1.53
60F668	MC70G103AM	10000	3.09	2.64	2.06	1.53
60F669	MC70G153AM	15000	5.28	4.51	3.52	2.61
60F670	MC70G203AM	20000	5.28	4.51	3.52	2.61

TYPE P9SZN MICRO-MINIATURE METALLIZED PAPER CAPACITORS

Type P9SZN. Metallized paper miniature units offer small size, rugged construction and high reliability. Special construction offers strong lead connections and dipped resinous conformal coating provides good moisture barrier. Standard tolerance ±20%. Operating temperature —55°C to +125°C.

SIZE CHART

A—.217 x .473   B—.217 x .610   C—.256 x .610

200 WVDC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99	100-499
60F814	P95ZN1	.004	A	.41	.33	.25	.12
60F815	P95ZN2	.005	A				
60F816	P95ZN3	.01	A				
60F817	P95ZN4	.02	B	.51	.41	.31	.14
60F818	P95ZN5	.03	C				
60F819	P95ZN6	.04	C				
60F820	P95ZN7	.05	C				

400 WVDC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99	100-499
60F821	P95ZN8	.002	A	.41	.33	.25	.12
60F822	P95ZN9	.003	A	.41	.33	.25	.12
60F823	P95ZN10	.005	B	.51	.41	.31	.14
60F824	P95ZN11	.01	C	.51	.41	.31	.14

600 WVDC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99	100-499
60F825	P95ZN12	.00005	A	.41	.33	.25	.12
60F826	P95ZN13	.0001	A				
60F827	P95ZN14	.0002	A				
60F828	P95ZN15	.00025	A				
60F829	P95ZN16	.0003	A				
60F830	P95ZN17	.0005	A				
60F831	P95ZN18	.001	A				
60F832	P95ZN19	.002	C	.51	.41	.31	.14
60F833	P95ZN20	.003	C	.51	.41	.31	.14

CHIP CAPACITOR ENGINEERING KIT

Model AKC800. Facilitates development of hybrid circuits. Contains 125 chip capacitors in capitance values from 1pf to 100,000 pf. Three basic temperature characteristics. The featured Ceralam cap. can be soldered or welded directly into the circuitry. Includes four types with capacitance pf @ 25 VDC listed below.

Type ULA 102. 5 Each of 1.0±.5Mmf. & 10±20%. 10 Each, ±20% at values 50, 100, 500, 1000, 2200, 5000, 10,000 **Type ULA 302.** 5 Each, ±% at values 500, 2200, 22,000. **Type ULA 502.** 5 Each, ±20% at values 1000, 2200, 10,000, 100,000. **Type ULA 702.** 5 Each, ±20% at values 5000, 50,000.
16F959. NET Each per kit **59.95**

AEROVOX Capacitors

P8292ZN METALLIZED-PAPER CAPACITORS

Impregnated metallized paper. Modified plastic tubular type Duramite end-sealed capacitors in paper cases. Operating temp. —30° C to +100° C.

No.	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999
200 VOLTS							
16F473	.01	1/4x19/32"	.44	.26	.20	.18	.161
16F474	.02	1/4x21/32"	.44	.26	.20	.18	.162
16F475	.03	5/16x23/32"	.45	.26	.20	.18	.164
16F476	.05	5/16x23/32"	.45	.26	.20	.18	.165
16F477	.10	3/8x23/32"	.47	.28	.21	.19	.174
16F478	.25	1/2x23/32"	.68	.39	.30	.27	.248
16F479	.50	7/16x1 5/32"	.80	.47	.36	.32	.293
16F480	2.00	9/16x1 5/32"	1.07	.62	.48	.43	.392
16F481	3.00	5/8x1 21/32"	1.46	.85	.66	.58	.535
16F536	3.00	1 1/16x31/32"	1.80	1.20	1.05	.72	.660
16F537	4.00	1 3/16x1 15/16"	2.25	1.50	1.31	.90	.825
16F538	5.00	7/8x1 15/16"	2.70	1.80	1.58	1.08	.990
16F539	6.00	1 5/16x1 15/16"	3.45	2.30	2.01	1.38	1.265
16F540	8.00	1 5/16x2 3/8"	4.35	2.90	2.54	1.74	1.595
16F541	10.00	1x2 3/8"	4.80	3.20	2.80	1.92	1.760
400 VOLTS							
16F482	.01	5/16x23/32	.44	.26	.20	.18	.162
16F483	.02	3/8x23/32"	.45	.26	.20	.18	.164
16F484	.03	3/8x23/32"	.45	.26	.20	.18	.165
16F485	.05	7/16x23/32"	.47	.28	.21	.19	.174
16F486	.10	7/16x1 5/32"	.51	.30	.23	.20	.186
16F487	.25	9/16x1 5/32"	.74	.43	.33	.30	.273
16F488	.50	5/8x1 15/32"	.95	.55	.43	.38	.347
16F489	1.00	11/16x1 31/32"	1.32	.77	.60	.53	.485
16F490	2.00	7/8x2 3/8"	1.86	1.09	.84	.75	.683
16F542	3.0	1x2 7/8"	2.64	1.76	1.54	1.06	.968
16F543	4.0	1x3 3/8"	3.39	2.26	1.98	1.36	1.243
600 VOLTS							
16F491	.01	3/8"x23/32"	.78	.46	.37	.31	.29
16F492	.02	3/8x23/32"	.81	.47	.38	.32	.30
16F493	.03	7/16x23/32"	.84	.49	.39	.34	.31
16F494	.05	1/2x23/32"	.87	.51	.41	.35	.32
16F495	.10	7/16x1 5/32"	.93	.54	.43	.37	.34
16F497	.50	11/16x1 19/32"	1.32	.77	.62	.53	.48
16F498	1.00	1 3/16x2"	1.53	.89	.71	.61	.56
16F499	2.00	1x2 3/8"	2.31	1.35	1.08	.92	.85

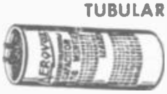
TYPE P 30M BATHTUBS

High-quality bypass capacitors recommended for applications where high reliability and superior performance is required. Units are Hyvol M impregnated for operation at temperatures from —55°C to +25°C. Standard tolerances +20% - —10%. Weight, 8 oz.

Available on special order with terminals on top or bottom.

Stk. No.	Mfd.	Volts	Size	1-9	10-24	25-49	50-99
Single Section							
16F053	.5	600	1 3/4x1x1"	2.19	1.83	1.46	1.10
16F055	1	600	2x1 3/4x1"	2.49	2.08	1.66	1.25
16F056	2	600	2x2x1 3/16"	2.97	2.48	1.98	1.49
16F067	.25	1000	1 3/4x1x7/8"	1.98	1.65	1.32	.99
16F068	.5	1000	2x1 3/4x7/8"	2.25	1.88	1.50	1.13
16F069	.75	1000	2x1 3/4x7/8"	2.91	2.43	1.94	1.46
16F070	1	1000	2x2x1 1/8"	2.91	2.43	1.94	1.46
16F896	.05	600	1 3/4x1x3/4"	1.62	1.35	1.08	.81
16F897	.1	600	1 3/4x1x3/4"	1.68	1.40	1.12	.84
16F898	.25	600	1 3/4x1x1 3/16"	1.92	1.60	1.28	.96
16F899	.75	600	2 1/16x1 1/4x7/8"	2.49	2.08	1.66	1.25
Dual Section							
16F058	.1-.1	600	1 3/4x1x3/4"	2.07	1.73	1.38	1.04
16F059	.25-.25	600	1 3/4x1x1"	2.55	2.13	1.70	1.28
16F900	.5-.5	400	2x1 3/4x7/8"	2.82	2.35	1.88	1.41

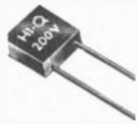
TUBULAR AC MOTOR START CAPACITORS



Types MSRP and MSRT. for use with any type of motor driven equipment. MSRP is bakelite cased, MSRT is cardboard insulated over round aluminum can.

Stk. No.	MSRT No.	Cap. Mfd.	Size	1-9	10-24	25-Up
110 VAC						
16F1636	162	108-120	1 3/8"x3 1/8"	1.06	.96	.88
16F1638	171	145-162	1 3/8"x3 1/8"	1.24	1.13	1.03
16F1639	198	161-180	1 3/8"x3 1/8"	1.25	1.14	1.06
16F1640	257	189-210	1 3/8"x3 1/8"	1.41	1.28	1.18
16F1644	210	324-360	1 3/4"x3 1/8"	1.97	1.79	1.64
16F1645	206	378-420	1 3/4"x3 1/8"	2.24	2.04	1.87
110-125 VAC						
16F901	800	88-108	1 7/16x2 3/4	.67	.65	.63
16F1618	801	108-130	1 7/16x2 3/4	.67	.65	.64
16F1621	803	161-193	1 7/16x2 3/4	.80	.78	.75
16F902	804	200-220	1 7/16x3 3/8	.96	.93	.90
16F1624	806	243-270	1 13/16x3 3/8	1.13	1.10	1.06
16F1622	824	189-227	1 7/16x3 3/8	.93	.91	.88
HEAVY DUTY 125 VAC						
16F1628	883	161-193	1 7/16"x3 3/8"	1.13	1.10	1.06
16F1630	886	243-292	1 13/16"x3 3/8"	1.52	1.47	1.43
16F1631	887	270-324	1 13/16"x3 3/8"	1.53	1.49	1.45

MIL-TYPE CK05-CK06 CAPACITORS



CK05 is .200 square by .100 thick. CK06 is .300 square by .100 thick. Molded for improved humidity protection and reliability. Tolerance is ±10% (K) or ±20% (M) as noted. 200VDCW. —55° to +150° to meet MIL-C-11015.

Stock No.	MMfd	Mil. No.	1-49	50-99	100-249	250-499	500-999
±10%							
60F671	10	CK05CW100K	.70	.63	.49	.46	.42
60F673	12	CK05CW120K					
60F674	15	CK05CW150K					
60F676	18	CK05CW180K					
60F677	22	CK05CW220K					
60F679	27	CK05CW270K					
60F680	33	CK05CW330K					
60F682	39	CK05CW390K					
60F683	47	CK05CW470K					
60F685	56	CK05CW560K					
60F686	68	CK05CW680K					
60F688	82	CK05CW820K					
60F689	100	CK05CW101K					
60F691	120	CK05CW121K					
60F692	150	CK05CW151K					
60F694	180	CK05CW181K					
60F695	220	CK05CW221K					
60F697	270	CK05CW271K					
60F698	330	CK05CW331K					
60F700	390	CK05CW391K					
60F701	470	CK05CW471K					
60F703	560	CK05CW561K					
60F704	680	CK05CW681K					
60F706	820	CK05CW821K					
60F707	1000	CK05CW102K					
60F709	1200	CK05CW122K	.72	.65	.50	.47	.43
60F710	1500	CK06CW152K					
60F712	1800	CK06CW182K					
60F713	2200	CK06CW222K					
60F715	2700	CK06CW272K					
60F716	3300	CK06CW332K					
60F718	3900	CK06CW392K					
60F719	4700	CK06CW472K					
60F721	5600	CK06CW562K	.78	.70	.55	.51	.47
60F722	6800	CK06CW682K					
60F724	8200	CK06CW822K					
60F725	10000	CK06CW103K					
±20%							
60F672	10	CK05CW100M	.58	.52	.47	.38	.35
60F675	15	CK05CW150M					
60F678	22	CK05CW220M					
60F681	33	CK05CW330M					
60F684	47	CK05CW470M					
60F687	68	CK05CW680M					
60F690	100	CK05CW101M					
60F693	150	CK05CW151M					
60F696	220	CK05CW221M					
60F699	330	CK05CW331M					
60F702	470	CK05CW471M					
60F705	680	CK05CW681M					
60F708	1000	CK05CW102M					
60F711	1500	CK06CW122M	.62	.56	.43	.40	.37
60F714	2200	CK06CW222M					
60F717	3300	CK06CW332M					
60F720	4700	CK06CW422M					
60F723	6800	CK06CW682K	.68	.61	.48	.44	.41
60F726	10000	CK06CW103K					

P30ZN METALLIZED BATHTUBS

Type P30ZN Aerolene impregnated metallized-paper capacitors. Operating temperature range —65°C. to +125°C. at full rating. Standard tolerance ±20%. Av. shpg. wt., 4 oz.

Stock No.	Cap. Mfd.	WVDC	1-24	25-49	50-99
16F1319	3.0	150	3.30	2.20	1.93
16F1320	4.0	150	3.96	2.64	2.31
16F1321	5.0	150	4.38	2.92	2.56
16F1322	6.0	150	4.56	3.04	2.66
16F1323	8.0	150	5.28	3.52	3.08
16F1324	10.0	150	6.09	4.06	3.55
16F1325	12.0	150	6.81	4.54	3.97
16F1326	15.0	150	8.25	5.50	4.81
16F920	.1	200	2.16	1.44	1.26
16F921	.25	200	2.40	1.60	1.40
16F922	.5	200	2.43	1.62	1.42
16F923	1.0	200	2.85	1.90	1.66
16F1336	2.0	400	5.04	3.36	2.94
16F1337	3.0	400	6.42	4.28	3.75
16F1338	4.0	400	7.80	5.20	4.55
16F1339	5.0	400	9.24	6.16	5.39
16F1342	.5	600	3.30	2.20	1.90
16F1343	1.0	600	4.35	2.90	2.55
16F1344	2.0	600	5.40	3.60	3.15
16F1345	3.0	600	7.05	4.70	4.10
16F1346	4.0	600	8.95	5.95	5.20

Capacitors AEROVOX

GENERAL PURPOSE DISC CAPACITORS

Type GPD General purpose disc ceramic capacitors ideal for by pass, filtering coupling applications.

Stk. No.	Type	Pf	Tolerance	Volts	T.C.	Dia. In.	1-49	500-999	250-499	50-99	100-249
16F853	GPDCOJ3R3K	3.3	10%	1000	NPO	5/16"	.15	.062	.052	.037	.035
16F854	GPDCOH4R7K	4.7	10%	1000	NPO	5/16"					
16F855	GPDCOH6R8K	6.8	10%	1000	NPO	5/16"					
16F857	GPDCOH100K	10	10%	1000	NPO	5/16"					
16F858	GPDU25150K	15	10%	1000	N750	5/16"					
16F859	GPDU2J200K	20	10%	1000	N750	5/16"					
16F861	GPDU2J250K	25	10%	1000	N750	5/16"					
16F862	GPDP3K330K	33	10%	1000	N1500	5/16"					
16F863	GPDX5F470K	47	10%	1000	X5F	5/16"					
16F864	GPDX5F500K	50	10%	1000	X5F	5/16"					
16F865	GPDX5F680K	68	10%	1000	X5F	5/16"					
16F866	GPDX5F820K	82	10%	1000	X5F	5/16"					
16F867	GPDX5F101K	100	10%	1000	X5F	5/16"					
16F868	GPDX5F151K	150	10%	1000	X5F	5/16"					
16F869	GPDX5F201K	200	10%	1000	X5F	5/16"					
16F870	GPDX5F221K	220	10%	1000	X5F	5/16"					
16F871	GPDX5F251K	250	10%	1000	X5F	5/16"					
16F872	GPDX5F331K	330	10%	1000	X5F	5/16"					
16F873	GPDX5F471K	470	10%	1000	X5F	5/16"					
16F875	GPDX5F501K	500	±10%	1000	X5F	5/16"	.15	.062	.052	.037	.035
16F876	GPDX5F681K	680	±10%	1000	X5F	3/8"	.15	.062	.052	.037	.035
16F877	GPDX5F821K	820	±10%	1000	X5F	3/8"	.15	.062	.052	.037	.035
16F878	GPDX5F102K	1000	±10%	1000	X5F	3/8"	.15	.062	.052	.037	.035
16F879	GPDX5F152K	1500	±10%	1000	X5F	7/16"	.15	.062	.052	.037	.035
16F880	GPDX5F202K	2000	±10%	1000	X5F	11/16"	.15	.077	.064	.046	.044
16F881	GPDX5F222K	2200	±10%	1000	X5F	11/16"	.15	.077	.064	.046	.044
16F883	GPDX5R332K	3300	±10%	1000	X5R	3/4"	.15	.094	.078	.056	.053
16F884	GPDX5R502K	5000	±10%	1000	X5R	3/4"	.15	.094	.078	.056	.053
16F886	GPDX5R822K	8200	±10%	1000	X5R	29/32"	.18	.155	.129	.093	.088
16F887	GPDX5S103K	10000	±10%	1000	X5S	29/32"	.18	.155	.129	.093	.088
16F888	GPDZ5U153P	15000	+100-0	1000	Z5U	29/32"	.24	.131	.109	.079	.074
16F889	GPDZ5U203P	20000	+100-0	1000	Z5U	29/32"	.36	.131	.109	.079	.074
16F891	GPDZ5V503P	50000	+100-0	1000	Z5V	29/32"	.42	.131	.109	.079	.074

MILITARY CERAMIC DISCS PER MIL-C-11015-C

These general purpose military ceramic discs are made in accordance with MIL-C-11015-C. Rated at 530 VDCW. Units identified by letter A as fifth digit are made to operate from —55° to +85°C. Those with letter B as fifth digit operate from —55°C to +125°C. Tolerances as noted in the table below. Av. shpg. wt., 2 oz.

Stock No.	MIL No.	Pf	Tol.	1-49	50-99	100-249	250-499	500-999
60F761	CK60BX2R2K	2.2	10%	.151	.113	.095	.068	.064
60F762	CK60BX3R3K	3 3	10%					
60F763	CK60BX4R7K	4 7	10%					
60F764	CK60BX6R8K	6 8	10%					
60F765	CK60BX100K	10	10%					
50F766	CK60BX150K	15	10%					
60F767	CK60BX220K	22	10%					
60F768	CK60BX330K	33	10%	.151	.113	.095	.068	.064
60F770	CK60BX470K	47	10%	.151	.113	.095	.068	.064
60F772	CK60BX680K	68	10%	.151	.113	.095	.068	.064
60F774	CK60BX101K	100	10%	.151	.113	.095	.068	.064
60F775	CK60BX101M	100	20%	.143	.107	.090	.064	.061
60F777	CK60BX151M	150	20%	.143	.107	.090	.064	.061
60F778	CK60AX221K	220	10%	.151	.113	.095	.068	.064
60F779	CK60AX221M	220	20%	.143	.107	.090	.064	.061
60F780	CK60AX331K	330	10%	.151	.113	.095	.068	.064
60F781	CK60AX331M	330	20%	.143	.107	.090	.064	.061
60F782	CK60AX471K	470	10%	.151	.113	.095	.068	.064
60F783	CK60AX471M	470	20%	.143	.107	.090	.064	.061
60F784	CK60AW681M	680	20%	.143	.107	.090	.064	.061

Stock No.	MIL No.	Pf	Tol.	1-49	50-99	100-249	250-499	500-999
60F786	CK60AW102M	1000	20%	.143	.107	.090	.064	.061
60F787	CK60AW152M	1500	20%	.143	.107	.090	.064	.061
60F788	CK61BX221K	220	10%	.151	.113	.095	.068	.064
60F791	CK61BX331M	330	20%	.143	.107	.090	.064	.061
60F793	CK61BX471M	470	20%	.143	.107	.090	.064	.061
60F794	CK61BX681K	680	10%	.151	.113	.095	.068	.064
60F796	CK61AW222M	2200	20%	.143	.107	.090	.064	.061
60F798	CK62BX821M	820	20%	.153	.115	.096	.069	.065
60F799	CK62BX102K	1000	10%	.171	.128	.107	.077	.073
60F800	CK62BX102M	10000	20%	.153	.115	.096	.069	.065
60F802	CK62BX152M	1500	20%	.153	.115	.096	.069	.065
60F803	CK62AX222K	2200	10%	.171	.128	.107	.077	.073
60F804	CK62AX222M	2200	20%	.153	.115	.096	.069	.065
60F805	CK62AW332M	3300	20%	.153	.115	.096	.069	.065
60F807	CK62AW682M	6800	20%	.153	.115	.096	.069	.065
60F809	CK63BX222K	2200	10%	.193	.145	.121	.087	.082
60F810	CK63BX222M	2200	20%	.168	.126	.105	.076	.071
60F811	CK63BX332K	3300	10%	.193	.145	.121	.087	.082
60F813	CK63AW103M	10000	20%	.168	.126	.105	.076	.071

TYPE P09—AEROVOX HYVOLS

Immersion-proof units in sturdy rectangular metal can. High voltage screw type pillar terminals fitted with soldering lugs. Intended for heavy-duty continuous service in transmitters, amplifiers, etc. Type MB bracket is supplied unless otherwise specified except on units with base sizes 3¾x 3 3/16" and 3¾x4 9/16" where type MS bracket is supplied. MSB bracket is available for all sizes on request. Standard tolerance +20 —10%. Average weight 5 pounds.

600 VOLT DC WORKING

Stk. No.	Mfd.	Size	1-9	10-24	25-49	50-99
16F230	.5	1 1/16x1 13/16x2¼"	3.39	2.83	2.26	1.70
16F231	1 0	1 1/16x1 13/16x2¼"	3.96	3.30	2.64	1.98
16F232	2 0	1 1/16x1 13/16x2⅞"	4.89	4.08	3.26	2.45
16F234	4 0	1 3/16x2½x3½"	6.45	5.38	4.30	3.23
16F235	8.0	1¼x3¾x3⅞"	7.50	6.25	5.00	3.75
16F236	10 0	1¼x3¾x4¾"	9.00	7.50	6.00	4.50
16F237	15.0	1¾x3¾x4¾"	12.09	10.08	8.06	6.05

1000 VOLT DC WORKING

Stk. No	Mfd.	Size	1-9	10-24	25-99	50-99
16F924	.1	1 1/16x1 3/16x1⅝"	3.93	3.28	2.62	1.97
16F925	.25	1 1/16x1 3/16x2¼"	4.11	3.43	2.74	2.06
16F238	1.0	2¼x1 13/16x1 1/16"	4.74	3.95	3.16	2.37
16F239	2.0	3⅞x1 13/16x3⅞"	5.25	4.38	3.50	2.63
16F240	4.0	1 1/16x2½x4¾"	6.30	5.25	4.20	3.15
16F926	5.0	1¼x3¾x3⅞"	8.70	7.25	5.80	4.35
16F242	8.0	4¾x3¾x1¼"	10.20	8.50	6.80	5.10
16F243	10.0	1¾x3¾x4¾"	11.40	9.50	7.60	5.70
16F927	15.0	2½x3¾x4¾"	15.75	13.13	10.50	7.88

1500 VOLT DC WORKING

Stk. No.	Mfd.	Size	1-9	10-24	25-49	50-99
16F248	1.0	1 1/16x1 13/16x2⅞"	5.10	4.25	3.40	2.55

2000 VOLT DC WORKING

Stk. No.	Mfd.	Size	1-9	10-24	25-49	50-99
16F928	.1	1 1/16x1 13/16x2⅛"	4.74	3.95	3.16	2.37
16F929	.25	1 1/16x1 13/16x2⅛"	4.89	4.08	3.26	2.45
16F257	.5	1 3/16x2½x3½"	5.22	4.35	3.48	2.61
16F258	2.0	1¾x3¾x3¼"	6.90	5.75	4.60	3.45
16F286	4.0	3¾x4 9/16x4"	9.60	8.00	6.40	4.80
16F930	5.0	2¼x3¾x4¾"	12.90	10.75	8.60	6.45
16F261	8.0	4¾x3¾x3 3/16"	16.20	13.50	10.80	8.10
16F931	10.0	3¾x4 9/16x5½"	19.50	16.25	13.00	9.75
16F932	15.0	3¾x4 9/16x6½"	26.54	22.00	17.60	13.20

3000 VOLT DC WORKING

Stk. No.	Mfd.	Size	1-9	10-24	25-49	50-99
16F269	.1	1 1/16x2½x2"	5.61	4.68	3.74	2.80

5000 VOLT DC WORKING

Stk. No.	Mfd.	Size	1-9	10-24	25-49	50-99
16F278	.1	2¼x3¾x2¾"	13.50	11.25	9.00	6.75
16F279	.25	2½x3¾x3⅞"	15.60	13.00	10.40	7.80
16F933	.5	2¼x3¾x4½"	17.85	14.88	11.90	8.93
16F281	1.0	3¾x4 9/16x4⅜"	25.20	21.00	16.80	12.60
16F934	2.0	3¾x4 9/16x6"	38.70	32.35	25.80	19.35

SPRAGUE
THE MARK OF RELIABILITY

Ceramic Capacitors

HIGH-K TYPES

Designed for By-Pass and Coupling applications where additional capacitance will not affect circuit operation. Combine small electrical value with high voltage rating in smallest physical size 5HK-S15 thru 5HK-P10, 5HK-2S20 500 WVDC. All other 5HK are 1000 WVDC. Capac. Tol.: GMV. Size: ½x½x⅜₁₆".

SINGLE UNITS

Stock No.	Mfr's. No.	Capacitance µF	1-99	100-499	500-999	1000-9999
18F1575	5HK-D10	.001	.15	.053	.047	.036
18F1576	5HK-D15	.0015	.15	.053	.047	.036
18F1577	5HK-D20	.002	.15	.053	.047	.036
18F1578	5HK-D22	.0022	.15	.053	.047	.036
18F1579	5HK-D25	.0025	.15	.053	.047	.036
18F1580	5HK-D33	.0033	.15	.053	.047	.036
18F1581	5HK-D40	.004	.15	.056	.049	.037
18F1582	5HK-D47	.0047	.15	.056	.049	.037
18F1583	5HK-D50	.005	.15	.056	.049	.037
18F1584	5HK-D68	.0068	.15	.061	.054	.041
18F1585	5HK-S10	.01	.15	.061	.054	.041
18F1586	5HK-S15	.015	.15	.068	.060	.045
18F1587	5HK-S20	.02	.15	.079	.070	.053
18F1589	5HK-S25	.025	.15	.086	.070	.057
18F1591	5HK-S40	.04	.27	.192	.170	.128
18F1592	5HK-S50	.05	.27	.203	.180	.135
18F1593	5HK-P10	.1	.54	.394	.350	.263

DUAL UNITS

Stock No.	Mfr's. No.	Capacitance µF	1-99	100-499	500-999	1000-9999
18F1594	5HK-2D10	2 x .001	.18	.117	.104	.078
18F1595	5HK-2D15	2 x .0015				
18F1596	5HK-2D20	2 x .002				
18F1597	5HK-2D22	2 x .0022				
18F1598	5HK-2D40	2 x .004	.21	.147	.130	.098
18F1599	5HK-2D47	2 x .0047	.21	.147	.130	.098
18F1600	5HK-2S10	2 x .01	.24	.169	.150	.113
18F1601	5HK-2S20	2 x .02	.30	.214	.190	.143

MINIATURIZED DISC TYPES FOR TRANSISTORIZED CIRCUITRY

Tiny ceramic capacitors for by-pass and coupling application. Low self inductance and flat plate construction permits higher self-resonant frequency and high by-pass efficiency in all TV and transistorized circuitry. Good performance under severe conditions of humidity and vibration. TH dia. .335 to .905, TG dia. .275 to .655.

Stock No.	Mfr's No.	Volts	Mfd.	1-99	100-499	500-999	1000-Up
18F932	TG-D50	50	.005	.15	.058	.051	.039
18F933	TG-S10	50	.01	.15	.072	.064	.048
18F934	TG-S20	50	.02	.15	.086	.076	.057
18F935	TG-S25	50	.025	.15	.093	.082	.062
18F936	TG-S30	50	.03	.15	.099	.088	.066
18F937	TG-S50	50	.05	.30	.212	.188	.141
18F938	TG-P10	50	.1	.39	.282	.050	.188

HYPERCON CERAMIC DISCS

Ultra-miniature ceramic discs ideal for use in transistorized circuitry. Designed for bypass and coupling applications but particularly well-suited for any low voltage use where high capacitance and low power factor are important considerations. Superior to electrolytic capacitors of similar capacitance value because of the very low power factor of Hypercon Capacitors, Capacitance Tolerance: GMV.

3 VOLTS DC

Stock No.	Type	Mfd.	Dia.	1-99	100-499	500-999	1000-Up
18F946	HY-120	1	.225"	.39	.282	.25	.188
18F947	HY-125	.22	.275"	.21	.147	.13	.098
18F948	HY-130	.47	.400"	.21	.147	.13	.098
18F949	HY-135	1.0	.595"	.24	.18	.16	.12
18F950	HY-150	2.2	.840"	.36	.27	.24	.18

10 VOLTS DC

Stock No.	Type	Mfd.	Dia.	1-99	100-499	500-999	1000-Up
18F951	HY-310	.047	.275"	.15	.102	.090	.068
18F952	HY-320	.1	.400"	.15	.106	.094	.071
18F953	HY-325	.22	.550"	.24	.169	.15	.112
18F1986	HY-327	.33	.66"	.27	.192	.17	.128
18F954	HY-330	.47	.840"	.33	.248	.22	.165

16 VOLTS DC

Stk. No.	Type	Mfd.	Dia.	1-99	100-249	250-499	500-999
18F032	HY-420	.01	.300"	.15	.086	.076	.057
18F033	HY-435	.047	.500"	.15	.102	.09	.068
18F034	HY-450	.1	.365"	.15	.113	.11	.075

25 VOLTS DC

Stk. No.	Type	Mfd.	Dia.	1-99	100-249	250-499	500-999
18F1987	HY-520	.01	.275"	.15	.09	.08	.06
18F1988	HY-525	.022	.350"	.15	.102	.09	.068
18F1989	HY-530	.033	.400"	.15	.102	.09	.068
18F1990	HY-535	.047	.490"	.18	.124	.11	.083
18F1991	HY-550	.1	.660"	.21	.147	.13	.098

CERAMIC CAPACITORS

Series 5 GA. Low self-inductance of silvered flat-plate design means very high by-pass efficiency in all TV circuits. Designed for 85° C (185°F) continuous operation. Higher self-resonant frequency than tubular ceramic or molded mica capacitors. Moisture proof coating. Tol. ±20%. 1000 WVDC.

Stk. No.	Type	Mmfd.	1-99	100-499	500-999	1000-Up
18F2675	5GA-V50	5	.15	.055	.049	.037
18F2676	5GA-V75	7.5				
18F2677	5GA-Q10	10				
18F2678	5GA-Q12	12				
18F2679	5GA-Q15	15				
18F2680	5GA-Q20	20				
18F2681	5GA-Q22	22				
18F2682	5GA-Q25	25				
18F2683	5GA-Q27	27				
18F2684	5GA-Q30	30				
18F2685	5GA-Q33	33				
18F2686	5GA-Q39	39				
18F2687	5GA-Q47	47				
18F2688	5GA-Q50	50				
18F2689	5GA-Q56	56				
18F2690	5GA-Q68	68				
18F2691	5GA-Q75	75				
18F2692	5GA-Q82	82				
18F2693	5GA-T10	100				
18F2694	5GA-T12	120				
18F2695	5GA-T15	150				
18F2696	5GA-T18	180				
18F2697	5GA-T20	200				
18F2698	5GA-T22	220				
18F2699	5GA-T25	250				
18F2700	5GA-T27	270				
18F2701	5GA-T30	300				
18F2702	5GA-T33	330				
18F2703	5GA-T36	360				
18F2704	5GA-T39	390				
18F2705	5GA-T47	470				
18F2706	5GA-T50	500				
18F2707	5GA-T56	560				
18F2708	5GA-T68	680				
18F2709	5GA-T75	750				
18F2710	5GA-T82	820				
18F2711	5GA-D10	.001				
18F2712	5GA-D12	.0012				
18F2713	5GA-D13	.0013				
18F2714	5GA-D15	.0015				
18F2715	5GA-D18	.0018				
18F2716	5GA-D20	.002				
18F2717	5GA-D22	.0022				
18F2718	5GA-D25	.0025				
18F2719	5GA-D27	.0027				
18F2720	5GA-D30	.003				
18F2721	5GA-D33	.0033				
18F2722	5GA-D39	.0039				
18F2723	5GA-D40	.004				
18F2724	5GA-D43	.0043				
18F2725	5GA-D47	.0047	.15	.061	.054	.041
18F2726	5GA-D50	.005	.15	.061	.054	.041
18F2727	5GA-S10	.01	.15	.072	.064	.048
18F2728	5GA-S15	.015	.15	.097	.086	.065
18F2729	5GA-S20	.02	.15	.112	.099	.074
18F2730	5GA-S25	.025	.15	.092	.082	.062
18F2731	5GA-S40	.04	.30	.210	.186	.140
18F2732	5GA-S50	.05	.39	.282	.250	.188
18F2733	5GA-P10	.1	.60	.450	.400	.300

J-135 "CERAMICENTER" CERAMIC ASSORTMENT KIT

• **Handy metal drawers — Save Time and Effort**

710 capacitors of 57 different values in handy reusable "Kleer-Pak" plastic boxes. Kit includes: 290 Type 5 GA, 1000 WVDC ceramic disc capacitors in 31 different values from 5 mmf to 20,000 mmf; 145 Type 5HK "High K" bypass and coupling capacitors in 7 different values from .001 mfd. to .01 mfd. @ 1000 WVDC and .02 mfd. to .1 mfd. @ 500 WVDC; 100 Type 10 TS, 1000 WVDC temperature stable capacitors in 12 different values from 100 mmf to 20,000 mmf; and 175 Type TG, 50 WVDC disc capacitors in 7 different values from .005 to .1 mfd. Cabinet, 30¾ x5½x11¾". Ship. wt., 29 lbs.

18F2764. NET **172.50**

HIGH-VOLTAGE DOORKNOB CERAMICS

Has female threads for interchangeable screw-in terminals. Molded plastic. Guard rings lengthen surface creepage path.
Type 20DK-T5. Complete with 7 terminals. 1" dia. x 31/32".
Type 30DK-T5. Complete with 2 terminals. 1 5/16" dia. x 1¼".

Stk. No.	Type	Term	Size	µµf	KV	NET
18F2762	20DK-T5	1	1 x 31/32"	500	20	1.80
18F2763	30DK-T5	2	1 5/16 x 1¼"	500	30	3.78

Ceramic and Electrolytic Capacitors

SPRAGUE
THE MARK OF RELIABILITY

POWERLYTIC ALUMINUM ELECTROLYTICS

Type 39D. End seals are made of molded phenolic, which is an important feature in establishing long life. Designed for operation at temperatures up to 85°C. Have very low effective series resistance and leakage current.

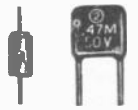
SIZE CHART FOR TYPE 3 9D

EE	9/16x1¼	GE	13/16x1¼	HS	15/16x3¼
EJ	9/16x1¾	GJ	13/16x1¾	JE	1 1/16x1¼
EL	9/16x2¼	GL	13/16x2¼	JL	1 1/16x2¼
FJ	11/16x1¾	GP	13/16x2¾	JP	1 1/16x2¾
FL	11/16x2¼	HE	15/16x1¼	JS	1 1/16x3¼
FP	11/16x2¾	HL	15/16x2¼	JT	1 1/16x3¾
		HP	15/16x2¾		

Stk. No.	Type	Mfd.	DxL	1-24	25-49	50-99
3 WVDC						
18F2613	39D138G003EL4	1,300	EL	1.67	.98	.75
18F2614	39D218G003HE4	2,100	HE	1.74	1.02	.79
18F2615	39D308G003JE4	3,000	JE	1.89	1.11	.85
18F2616	39D578G003GP4	5,700	GP	2.01	1.18	.91
18F2617	39D109G003HS4	10,000	HS	2.52	1.48	1.14
18F2618	39D189G003JT4	18,000	JT	3.15	1.84	1.42
6 WVDC						
18F2619	39D607G006EJ4	600	EJ	1.62	.95	.73
18F2620	39D108G006GE4	1,000	GE	1.68	.99	.76
18F2621	39D208G006GJ4	2,000	GJ	1.79	1.05	.81
18F2622	39D408G006GP4	4,000	GP	2.01	1.18	.91
18F2623	39D608G006HP4	6,000	HP	2.07	1.21	.94
18F2624	39D109G006JS4	10,000	JS	2.91	1.70	1.31
10 WVDC						
18F2625	39D507G01EJ4	500	EJ	1.62	.95	.73
18F2626	39D108G010FJ4	1,000	FJ	1.71	1.00	.77
18F2627	39D168G010FL4	1,600	FL	1.77	1.04	.80
18F2628	39D258G010GL4	2,500	GL	1.95	1.14	.88
18F2629	39D508G010HP4	5,000	HP	2.07	1.21	.94
18F2630	39D109G010JT4	10,000	JT	3.15	1.84	1.42
15 WVDC						
18F2631	39D607G015EL4	600	EL	1.67	.98	.75
18F2632	39D128G015FL4	1,200	FL	1.77	1.04	.80
18F2633	39D258G015GP4	2,500	GP	2.01	1.18	.91
18F2634	39D408G015JL4	4,000	JL	2.43	1.42	1.10
18F2635	39D808G015JT4	8,000	JT	3.15	1.84	1.42
25 WVDC						
18F2636	39D207G025EJ4	200	EJ	1.62	.95	.73
18F2637	39D507G025HE4	500	HE	1.74	1.02	.79
18F2638	39D108G025GL4	1,000	GL	1.95	1.14	.88
18F2639	39D228G025HP4	2,200	HP	2.07	1.21	.94
18F2640	39D408G025JT4	4,000	JT	3.15	1.84	1.42
30 WVDC						
18F2641	39D756G030EE4	75	EE	1.59	.93	.72
18F2642	39D157G030EJ4	150	EJ	1.62	.95	.73
18F2643	39D257G030EL4	250	EL	1.67	.98	.75
18F2644	39D507G030FL4	500	FL	1.77	1.04	.80
18F2645	39D118G030GP4	1,100	GP	2.01	1.18	.91
18F2646	39D218G030HS4	2,100	HS	2.52	1.48	1.14
18F031	39D308G030JS4	3,000	JS	2.91	1.70	1.31
50 WVDC						
18F2647	39D506G050EE4	50	EE	1.59	.93	.72
18F2648	39D107G050EJ4	100	EJ	1.62	.95	.73
18F2649	39D157G050EL4	150	EL	1.67	.95	.75
18F2650	39D257G050HE4	250	HE	1.74	1.02	.79
18F2651	39D507G050GL4	500	GL	1.95	1.14	.88
18F2652	39D118G050HP4	1,100	HP	2.07	1.21	.94
18F2653	39D238G050JT4	2,300	JT	3.15	1.84	1.42
150 WVDC						
18F2654	39D256F150EJ4	25	EJ	1.62	.95	.73
18F2655	39D506F150FJ4	50	FJ	1.71	1.00	.77
18F2656	39D107F150FP4	100	FP	1.92	1.13	.87
18F2657	39D257F150HP4	250	HP	2.07	1.21	.94
18F2658	39D537F150JT4	530	JT	3.15	1.84	1.42
250 WVDC						
18F2659	39D206F250EL4	20	EL	1.67	.98	.75
18F2660	39D506F250JE4	50	JE	1.89	1.11	.85
18F2661	39D107F250HL4	100	HL	2.06	1.20	.93
18F2662	39D207F250JP4	200	JP	2.58	1.51	1.16
18F2663	39D307F250JT4	300	JT	3.15	1.84	1.42
350 WVDC						
18F2664	39D206F350FL4	20	FL	1.77	1.04	.80
18F2665	39D306F350FP4	30	FP	1.92	1.13	.87
18F2666	39D406F350GL4	40	GL	1.95	1.14	.88
18F2667	39D506F350GP4	50	GP	2.01	1.18	.91
18F2668	39D107F350HS4	100	HS	2.52	1.48	1.14
18F2669	39D167F350JT4	160	JT	3.15	1.84	1.42
450 WVDC						
18F2670	39D505F450EL4	5	EL	1.67	.98	.75
18F2671	39D106F450FL4	10	FL	1.77	1.04	.80
18F2672	39D206F450GL4	20	GL	1.95	1.14	.88
18F2673	39D506F450JP4	50	JP	2.58	1.50	1.16
18F2674	39D756F450JT4	75	JT	3.15	1.84	1.42

FORMULATION C-23 MONOLYTHIC CERAMIC CAPACITORS

Monolythic ceramic capacitors for transistorized circuitry. C-23 formulation insures high K—these units provide high capacitance in small physical size. Solid homogeneous blocks are protected against moisture and mechanical damage by a resin dip. Well suited for use in all frequency ranges through 1000 mc.



RADIAL LEADS 25 WVDC ±20% TOLERANCE

SIZE-.390"x.202"

Stk. No.	Type	Mfd.	1-49	50-99	100-249	250-499	500-999
18F1964	3C023103X0250A3	.01	1.32	.99	.743	.66	.495
18F1965	3C023153X0250A3	.015	1.36	1.02	.765	.68	.510
18F1966	3C023223X0250A3	.022	1.36	1.02	.765	.68	.510
18F1967	3C023333X0250A3	.033	1.36	1.02	.765	.68	.510
18F1968	3C023473X0250A3	.047	1.36	1.02	.765	.68	.510
18F1969	3C023683X0250A3	.068	1.40	1.05	.788	.70	.525
18F1970	3C023104X0250A3	.1	1.44	1.08	.810	.72	.540
SIZE-.515"x.296"							
18F1971	4C023154X0250A3	.15	1.94	1.46	1.091	.97	.728
18F1972	4C023224X0250A3	.22	2.24	1.68	1.26	1.12	.840
18F1973	4C023334X0250A3	.33	2.74	2.05	1.541	1.37	1.028
SIZE-.535"x.340"							
18F1974	4C023474X0250A3	.47	3.42	2.57	1.924	1.71	1.283
18F1975	4C023684X0250A3	.68	4.44	3.33	2.498	2.22	1.665

RADIAL LEADS 25 WVDC ±20% TOLERANCE

MAX. THICKNESS .125; SIZE .500x500"

Stk. No.	Type	Mfd.	1-49	50-99	100-249	250-499	500-999
18F1955	5C023104X0250B3	.1	.96	.72	.54	.48	.36
18F1956	5C023154X0250B3	.15	1.08	.81	.608	.54	.405
18F1957	5C023224X0250B3	.22	1.14	.85	.65	.57	.428
18F1958	5C023334X0250B3	.33	1.42	1.06	.799	.71	.533
18F1959	5C023474X0250B3	.47	1.60	1.20	.90	.80	.600
18F1960	5C023684X0250B3	.68	1.76	1.32	.99	.88	.660
18F1961	5C023105X0250B3	1.0	2.00	1.50	1.12	1.00	.750
MAX. THICKNESS .187; SIZE .500x500"							
18F1962	5C023155X0250B3	1.5	2.80	2.10	1.57	1.40	1.050
18F1963	5C023225X0250B3	2.2	3.80	2.85	2.13	1.90	1.425

RADIAL LEADS 50 WVDC ±20% TOLERANCE

SIZE-.500"x.500"

Stk. No.	Type	Mfd.	1-49	50-99	100-249	250-499	500-999
18F885	5C023104X0500B3	.1	1.06	.80	.60	.53	.398
18F886	5C023154X0500B3	.15	1.20	.90	.68	.60	.450
18F887	5C023224X0500B3	.22	1.38	1.03	.78	.69	.518
18F888	5C023334X0500B3	.33	2.00	1.50	1.13	1.00	.750
18F889	5C023474X0400B3	.47	2.52	1.89	1.42	1.26	.945

HYPASS SUPPRESSION CAPACITORS

Exclusive 3-terminal Network-Feed-thru capacitors assure very effective VHF current by-passing. Bypass VHF oscillation up to 150 MC. Suppress TVI from Short-Wave Transmitters, Diathermy Machines, Electronic Heating Apparatus, etc. Eliminate interference caused by Line-conducted radiation between neighboring TV sets. Temperature operation: —40°C to +85°C. Currents up to 20 amps. (*) Have female screw terms. Bulkhead mounting. Shipping wt. 2 oz.

Stk. No.	Type	Amps.	Mfd.	WVDC	Dia. x Length	NET
18F189	48P18*	40	.5	50	1x1 3/16"	3.03
18F190	48P9*	20	.1	250VAC	1 1/16x1 13/16"	1.98
18F244	48P8*	20	.1	600	1 1/16x1 13/16"	1.98
18F192	47P6	20	.01	600	7/16x1 1/4"	1.59
18F199	80P3*	20	.1	600	1 1/16x1 13/16"	1.98

AXIAL LEADS 25 WVDC ±20% TOLERANCE

SIZE-.390"x.202"

Stk. No.	Type	Mfd.	1-49	50-99	100-249	250-499	500-999
18F1976	3C023103X0250B1	.01	1.56	1.17	.878	.78	.585
18F1978	3C023223X0250B1	.022	1.60	1.20	.90	.80	.600
18F1980	3C023473X0250B1	.047	1.66	1.25	.934	.83	.623
18F1982	3C023104X0250B1	.1	1.68	1.26	.945	.84	.630

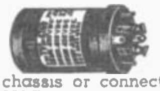
SPRAGUE
THE MARK OF RELIABILITY

Capacitors

TVL TWIST-LOK ELECTROLYTICS

CASE SIZES

A—1⅜x2"	E—1x2"	H—1⅜x3	L—1x3½
B—¾x2"	F—1x2½"	J—1⅜x4	M—1⅜x4
C—¾x2½"	G—1x3	K—1⅜x3½"	N—1x4
D—1⅜x2½"			P—1x1½"



Withstands extremely high temperatures, ripple currents and surge voltages. Self-mounting, with twist-prong tabs that go through chassis or connect to washer for above-chassis mounting. For 85°C operation up to 450 Working Volts DC. Shpg. wt., 6 oz.

SINGLE UNITS

Stock No.	TVL No.	MF	WVDC	Size	1-24	25-49	50-99	100-249
18F550	1168	2000	15	A	2.07	1.44	1.12	.89
18F1603	1220	500	25	P	1.53	.87	.68	.54
18F552	1230	1000	25	A	2.13	1.30	1.01	.81
18F667	1317	100	50	B	.99	.58	.45	.36
18F554	1330	500	50	A	1.59	1.09	.85	.68
18F557	1415	50	150	P	.99	.66	.51	.41
18F559	1423	100	150	P	1.20	.75	.58	.47
18F1780	1426	120	150	D	1.29	.92	.71	.57
18F689	1429	150	150	E	1.29	.63	.65	.52
18F560	1430	150	150	A	1.29	.99	.77	.62
18F561	1431	200	150	A	1.47	1.10	.86	.69
18F562	1434	300	150	A	1.68	1.25	.97	.78
18F668	1509	20	250	E	.96	.64	.50	.40
18F684	1519	40	250	E	1.08	.70	.54	.44
18F1782	1535	100	250	G	1.62	.89	.69	.55
18F1783	1540	150	250	D	1.86	1.17	.91	.73
18F690	1547	200	250	D	2.19	1.36	1.06	.85
18F1784	1578	100	300	F	1.74	.98	.76	.61
18F566	1584	150	300	K	2.10	1.34	1.05	.84
18F692	1590	250	300	J	3.33	1.74	1.35	1.08
18F669	1617	30	350	E	1.14	.72	.56	.45
18F567	1621	40	350	E	1.20	.77	.60	.48
18F568	1638	125	350	D	2.37	1.37	1.06	.85
18F693	1642	150	350	D	2.37	1.50	1.17	.93
18F569	1705	10	450	P	.93	.65	.51	.41
18F570	1714	20	450	E	1.08	.72	.56	.45
18F571	1720	30	450	F	1.17	.80	.63	.50
18F572	1725	40	450	F	1.23	.88	.68	.55
18F573	1735	80	450	D	1.83	1.31	1.02	.81
18F574	1760	125	450	J	2.31	1.69	1.31	1.05
18F576	1820	40	475	A	1.51	1.06	.82	.66
18F578	1940	10	500	P	1.02	.68	.53	.42
18F670	1947	30	500	F	1.20	.89	.69	.55
18F1604	1950	40	500	F	1.50	.99	.77	.62
18F694	1958	80	500	D	2.16	1.54	1.20	.96
18F687	1960	90	500	H	2.10	1.66	1.29	1.03

DUAL UNITS

Stock No.	TVL No.	MF	WVDC	Size	1-24	25-49	50-99	100-249
18F1605	2160	1000-1000	15-15	F	2.64	1.40	1.09	.87
18F583	2428	40-40	150-150	P	1.14	.80	.62	.50
18F584	2432	50-30	150-150	P	1.20	.80	.62	.50
18F585	2435	50-50	150-150	P	1.29	.83	.64	.52
18F587	2442	80-40	150-150	A	1.38	1.02	.79	.63
18F685	2442.1	80-50	150-150	F	1.44	.88	.68	.55
18F1785	2444	200-5	150-150	H	1.62	1.24	.96	.77
18F671	2515	20-20	250-250	P	1.14	.78	.61	.49
18F685	2628	30-30	350-350	F	1.74	.96	.75	.60
18F594	2635	80-80	350-350	D	2.82	1.63	1.27	1.01
18F1786	2641	100-100	350-350	H	3.69	1.80	1.40	1.12
18F598	2/50	10-10	450-450	E	1.14	.81	.63	.50
18F600	2755	20-20	450-450	F	1.53	.96	.75	.60
18F601	2759	30-30	450-450	A	1.83	1.26	.98	.78
18F602	2764	40-40	450-450	D	2.07	1.42	1.10	.88
18F674	2940	40-40	500-500	D	2.58	1.63	1.27	1.02

TRIPLE UNITS

Stock No.	TVL No.	MF	WVDC	Size	1-24	25-49	50-99	100-249
18F1787	3432	80-40-20	150-150-25	E	1.68	.95	.74	.59
18F1788	3437	40-20-20	150-150-150	P	1.44	.82	.64	.51
18F613	3440	40-40-40	150-150-150	E	1.56	.95	.74	.59
18F614	3442	50-50-50	150-150-150	G	1.80	.99	.77	.62
18F622	3583	80-40-40	300-300-300	D	2.85	1.52	1.18	.95
18F686	3639.8	30-20-10	350-350-350	F	1.95	1.04	.81	.65
18F625	3620	30-30-20	350-300-25	G	1.89	1.02	.80	.64
18F631	3642	80-60-60	350-350-350	K	3.33	1.91	1.49	1.19
18F1790	3689.3	100-10-80	400-400-350	K	3.66	2.04	1.59	1.27
18F634	3731	10-10-20	450-450-25	E	1.44	.90	.70	.56
18F635	3739	20-20-20	450-450-25	G	1.63	1.05	.82	.66
18F640	3757	80-20-100	450-450-50	K	2.88	1.75	1.36	1.09
18F641	3764	40-40-100	450-450-200	H	2.97	1.75	1.37	1.09
18F642	3776	10-10-10	450-450-450	E	1.56	.97	.76	.61
18F680	3778 2	15-15-15	450-450-450	F	1.86	1.08	.84	.67
18F644	3780	20-20-20	450-450-450	A	2.16	1.34	1.04	.84
18F1791	3784	40-30-20	450-450-450	D	2.58	1.57	1.23	.98
18F646	3785	40-40-10	450-450-450	D	2.49	1.56	1.21	.97
18F647	3786	40-40-20	450-450-450	D	2.67	1.65	1.28	1.03
18F648	3787	40-40-40	450-450-450	H	2.94	1.81	1.41	1.13
18F649	3789	60-20-20	450-450-450	H	2.76	1.65	1.28	1.03
18F681	3793	80-40-20	450-450-450	H	3.24	1.97	1.53	1.22
18F682	3952	10-10-10	500-500-500	F	1.62	1.05	.82	.66

QUADRUPLE UNITS

Stock No.	TVL No.	MF	WVDC	Size	1-24	25-49	50-99	100-249
18F664	4760	10-10-10-10	450-450-450-450	A	2.01	1.25	.98	.78
18F665	4763	20-20-20-20	450-450-450-450	D	2.82	1.58	1.23	.98
18F1792	4773	40-40-20-20	450-450-450-450	D	3.33	1.90	1.48	1.18
18F699	4775	40-40-40-40	450-450-450-450	K	3.87	2.91	1.70	1.36

SUBMINIATURE—TYPE 96P—VITAMIN Q

Inserted tab construction. Glass-to-metal hermetically sealed. Operates from —55°C to +125°C. Terminals are insulated from metal case. Impregnated with vitamin Q. Tolerance of ±10%. Meets "latest" MIL-C-25 specs. Section insulated from can.

CASE SIZES FOR TYPE 96P

A: .175x¾"	E: .400x ⅞"	H: .562x1⅛"	L: .670x1⅞"
B: .195x¾"	F: .400x1⅛"	J: .562x1⅜"	M: .750x2⅛"
C: .235x¾"	G: .400x1⅜"	K: .562x1⅞"	N: 1.000x1⅞"
D: .312x⅞"			

100 WVDC — ± 10% TOLERANCE

Stk. No.	Type 96P	Mfd.	Sz.	1-9	10-24	25-49	50-99	500-999	100-499
18F1000	10291S2	.001	A	1.65	1.24	.93	.619	.345	.495
18F1004	15291S2	.0015	A	1.65	1.24	.93	.619	.345	.495
18F1009	22291S2	.0022	A	1.65	1.24	.93	.619	.345	.495
18F1022	68291S2	.0068	A	1.68	1.26	.95	.627	.502	.350
18F475	10391S2	.01	A	1.68	1.26	95	.627	.502	.350
18F1039	47391S2	.047	D	1.63	1.23	.92	.611	.488	.340
18F300	10491S2	.1	D	1.76	1.32	.99	.66	.528	.368
18F1044	15491S2	.15	E	1.85	1.39	1.04	.693	.554	.386
18F301	47491S2	.47	H	2.25	1.69	1.27	.842	.673	......
18F471	10591S2	1.00	K	2.82	2.12	1.59	1.056	.845	.. ....

200 WVDC — ± 10% TOLERANCE

Stk. No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499	500-999
18F1019	47292S2	.0047	C	1.63	1.23	.92	.611	.488	.340
18F476	10392S2	.01	C	1.63	1.23	.92	.611	.488	.340
18F1028	15392S2	.015	C	1.65	1.24	.93	.619	.495	.345
18F478	47392S2	.047	D	1.72	1.29	.97	.644	.515	.359

(Con't on next column)

200 WVDC (cont.)

Stk. No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499	500-999
18F302	10492S2	.1	E	1.81	1.36	1.02	.677	.541	.377
18F1045	15492S2	.15	F	1.83	1.37	1.03	.685	.548	....
18F303	47492S2	.47	J	2.29	1.72	1.29	.858	.686	.382
18F480	10592S2	1.00	L	2.91	2.18	1.64	1.089	.871	....

400 WVDC — ± 10% TOLERANCE

Stk. No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499	500-999
18F1021	4729432	.0047	C	1.70	1.28	.96	.635	.508	.354
18F481	10394S2	.01	C	1.72	1.29	.97	.644	.515	....
18F1037	33394S2	.033	D	1.79	1.34	1.01	.668	.535	....
18F304	10494S2	.1	G	1.94	1.46	1.09	.726	.581	....
18F305	22494S2	.22	J	2.25	1.69	1.27	.842	.673	.469
18F306	47494S2	.47	L	2.73	2.05	1.54	1.023	.818	....
18F486	10594S2	1.00	N	3.77	2.63	2.12	1.411	1.129	....

600 WVDC — ± 10% TOLERANCE

Stk. No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499	500-999
18F307	10296S2	.001	C	1.68	1.26	.95	.627	.502	.319
18F308	22296S2	.0022	C	1.68	1.26	.95	.627	.502	....
18F309	47296S2	.0047	C	1.72	1.29	.97	.644	.515	.359
18F310	68296S2	.0068	C	1.72	1.29	.97	.644	.515	....
18F311	10396S2	.01	D	1.76	1.32	.99	.66	.528	....
18F312	22396S2	.022	D	1.81	1.36	1.02	.677	.541	....
18F313	47396S2	.047	F	1.90	1.42	1.07	.710	.568	....
18F315	10496S2	.1	H	2.12	1.59	1.19	.792	.634	....
18F1048	15496S2	.15	J	2.20	1.65	1.24	.825	.660	.460
18F316	22496S2	.22	K	2.38	1.79	1.34	.891	.713	..... .
18F1055	33496S2	.33	L	2.64	1.98	1.49	.990	.792	.552
18F317	47496S2	.47	M	2.97	2.23	1.68	1.114	.891	....

Miniature Capacitors

SPRAGUE THE MARK OF RELIABILITY

SPRAGUE TYPE TE LITTL-LYTICS (30D)

Ultra-small electrolytic capacitors made for transistor circuitry and other sub-min. applications. Temp. Range: —20°C to +85°C. Ultra-low leakage current. Clear Plastic Sleeves.

Key	Size	Key	Size	Key	Size
BA	17/64x35/64	CC	21/64x55/64	DD	25/64x63/64
BB	17/64x47/64	DB	25/64x47/64	DF	25/64x1 19/64
CB	21/64x47/64	DC	25/64x55/64	DG	25/64x1 35/64

Stock No.	Type	Mfd	WV DC	DxL	1-24	25-49	50-99	100-249	250-up
18F532	TE1050	1	3	BA	.51	.38	.29	.231	.191
18F533	TE1052	3	3	BA					
18F534	TE1052.1	4	3	BA					
18F535	TE1052.2	5	3	BA					
18F536	TE1052.3	6	3	BA					
18F537	TE1052.5	8	3	BA					
18F2929	TE1053	10	3	BA					
18F538	TE1053.5	15	3	BA					
18F539	TE1054	20	3	BA					
18F501	TE1055	25	3	BA					
18F000	TE1055.5	30	3	BA					
18F542	TE1058	50	3	BB	.72	.53	.42	.329	.271
18F001	TE1058.5	65	3	BB	.75	.56	.43	.343	.282
18F544	TE1059.5	100	3	CB	.81	.61	.48	.378	.311
18F2930	TE1060.1	130	3	CB	.81	.61	.48	.378	.311
18F545	TE1061	150	3	CC	.81	.61	.48	.378	.311
18F546	TE1065	250	3	DC	.81	.61	.48	.378	.311
18F2928	TE1064	200	3	CC	.81	.61	.47	.378	.311
18F2931	TE1066.1	290	3	DC	.87	.65	.51	.406	.334
18F2932	TE1067.1	390	3	DD	.93	.70	.54	.434	.357
18F548	TE1068	500	3	DF	.99	.75	.58	.462	.38
18F002	TE1069	590	3	DF	.99	.75	.58	.462	.38
18F003	TE1070	790	3	DG	1.02	.77	.60	.476	.391
18F503	TE1080	1	6	BA	.54	.39	.30	.238	.196
18F504	TE1081	2	6	BA	.54	.39	.30	.238	.196
18F505	TE1082	3	6	BA	.54	.39	.30	.238	.196
18F506	TE1083	4	6	BA	.54	.39	.30	.238	.196
18F507	TE1084	5	6	BA	.54	.39	.30	.238	.196
18F549	TE1085	6	6	BA	.54	.39	.30	.238	.196
18F508	TE1086	8	6	BA	.54	.39	.30	.238	.196
18F509	TE1087	10	6	BA	.54	.39	.30	.238	.196
18F510	TE1089	15	6	BA	.54	.39	.30	.238	.196
18F807	TE1090	20	6	BA	.54	.39	.30	.238	.196
18F511	TE1091	25	6	BB	.54	.39	.30	.238	.196
18F808	TE1093	35	6	BB	.57	.43	.33	.263	.216
18F513	TE1095	40	6	BB	.57	.43	.33	.263	.216
18F509	TE1101.5	75	6	CB	.81	.61	.48	.378	.311
18F004	TE1101.7	90	6	CB	.81	.61	.48	.378	.311
18F2933	TE1102	100	6	CC	.81	.61	.47	.378	.311
18F005	TE1102.5	140	6	CC	.81	.61	.48	.378	.311
18F810	TE1103	150	6	DC	.81	.61	.48	.378	.311
18F811	TE1104	200	6	DC	.84	.63	.49	.392	.322
18F812	TE1105	250	6	DD	.87	.66	.51	.406	.334
18F006	TE1105.5	280	6	DD	.90	.67	.52	.413	.339
18F813	TE1106	300	6	DF	.93	.69	.54	.428	.352
18F007	TE1107	400	6	DF	.93	.70	.55	.434	.357
18F008	TE1108	560	6	DG	1.02	.77	.60	.476	.391
18F817	TE1120	1	12	BA	.57	.41	.32	.254	.209
18F818	TE1121	2	12	BA	.57	.41	.32	.254	.209
18F819	TE1122	3	12	BA	.57	.41	.32	.254	.209
18F820	TE1123	4	12	BA	.57	.41	.32	.254	.209
18F821	TE1127.1	6	12	BA	.57	.41	.32	.254	.209
18F822	TE1127.3	8	12	BA	.57	.41	.32	.254	.209
18F2934	TE1128	10	12	BA	.57	.41	.32	.254	.209
18F823	TE1129	15	12	BA	.57	.41	.32	.254	.209
18F824	TE1130	20	12	BB	.57	.41	.32	.254	.209
18F825	TE1131	25	12	BB	.75	.56	.43	.343	.282
18F2935	TE1132.1	30	12	BB	.75	.55	.43	.343	.282
18F827	TE1133	50	12	CB	.81	.61	.48	.378	.311
18F009	TE1133.5	60	12	CB	.81	.61	.48	.378	.311
18F828	TE1134	75	12	CC	.81	.61	.48	.378	.311
18F010	TE1134.5	90	12	DB	.81	.61	.48	.378	.311
18F829	TE1135	100	12	CC	.81	.61	.48	.378	.311
18F011	TE1135.5	140	12	DC	.84	.63	.49	.392	.322
18F830	TE1136	150	12	DD	.87	.65	.50	.399	.328

Stock No.	Type	Mfd	WV DC	DxL	1-24	25-49	50-99	100-249	250-up
18F012	TE1136.5	190	12	DD	.87	.65	.50	.399	.328
18F831	TE1137	200	12	DF	.93	.69	.53	.424	.349
18F832	TE1138	250	12	DH	.96	.72	.56	.442	.364
18F013	TE1139	290	12	DF	.96	.72	.56	.445	.366
18F014	TE1140	390	12	DG	.96	.72	.56	.448	.368
18F833	TE1148	1	15	BA	.57	.42	.33	.259	.214
18F834	TE1149	2	15	BA	.57	.42	.33	.259	.214
18F835	TE1150	3	15	BA	.57	.42	.33	.259	.214
18F520	TE1151	4	15	BA	.57	.42	.33	.259	.214
18F836	TE1152	5	15	BA	.57	.42	.33	.259	.214
18F837	TE1153	6	15	BA	.57	.42	.33	.259	.214
18F838	TE1154	8	15	BA	.57	.42	.33	.259	.214
18F521	TE1155	10	15	BA	.57	.42	.33	.259	.214
18F839	TE1156	15	15	BB	.57	.42	.33	.259	.214
18F522	TE1157	20	15	BB	.57	.42	.33	.259	.214
18F840	TE1157.1	25	15	BB	.75	.56	.43	.343	.282
18F523	TE1158	30	15	CB	.75	.56	.43	.343	.282
18F841	TE1159	35	15	CB	.75	.56	.43	.343	.282
18F842	TE1160	50	15	CB	.81	.61	.48	.378	.311
18F843	TE1161	75	15	CC	.81	.61	.48	.378	.311
18F015	TE1161.5	85	15	DB	.81	.61	.48	.378	.311
18F016	TE1161.7	90	15	CC	.81	.61	.48	.378	.311
18F844	TE1162	100	15	DC	.81	.61	.48	.378	.311
18F017	TE1162.5	130	15	DC	.84	.63	.49	.392	.322
18F845	TE1163	150	15	DD	.87	.66	.51	.406	.334
18F018	TE1163.5	170	15	DD	.87	.66	.51	.406	.334
18F846	TE1164	200	15	DF	.96	.72	.56	.448	.368
18F019	TE1165	260	15	DF	.96	.72	.56	.448	.368
18F020	TE1166	350	15	DG	.99	.75	.58	.462	.38
18F847	TE1200	1	25	BA	.54	.41	.32	.252	.207
18F848	TE1201	2	25	BA	.57	.41	.32	.252	[illegible]
18F849	TE1201.1	3	25	BA	.57	.43	.33	.263	.217
18F850	TE1201.2	4	25	BA	.57	.43	.34	.266	.219
18F524	TE1202	5	25	BA	.57	.43	.34	.266	.219
18F525	TE1203	6	25	BA	.57	.43	.34	.266	.219
18F851	TE1203.5	8	25	BA	.60	.44	.34	.269	.222
18F526	TE1204	10	25	BB	.60	.44	.34	.271	.223
18F527	TE1205	15	25	BB	.75	.56	.43	.343	.282
18F852	TE1207	25	25	CB	.81	.61	.48	.378	.311
18F021	TE1207.5	30	25	CB	.81	.61	.48	.378	.311
18F853	TE1208	35	25	CB	.81	.61	.48	.378	.311
18F854	TE1209	50	25	CC	.81	.61	.48	.378	.311
18F855	TE1210	75	25	DC	.87	.65	.50	.399	.328
18F856	TE1211	100	25	DD	.90	.67	.52	.413	.340
18F022	TE1212	150	25	DF	.90	.68	.53	.42	.345
18F023	TE1213	200	25	DG	.99	.75	.58	.462	.38
18F857	TE1300	1	50	BA	.54	.41	.32	.252	.207
18F858	TE1301	2	50	BA	.54	.41	.32	.252	.207
18F859	TE1302	3	50	BA	.57	.43	.33	.263	.217
18F860	TE1302.1	4	50	BA	.57	.43	.34	.266	.219
18F529	TE1303	5	50	BB	.57	.43	.34	.266	.219
18F861	TE1303.1	6	50	BB	.81	.59	.46	.367	.302
18F862	TE1303.3	8	50	BB	.81	.60	.46	.368	.303
18F530	TE1304	10	50	CB	.81	.60	.47	.370	.304
18F863	TE1304.2	15	50	CB	.81	.61	.48	.377	.310
18F531	TE1305	20	50	CC	.81	.61	.48	.378	.311
18F024	TE1305.5	25	50	CC	.81	.61	.48	.378	.311
18F864	TE1306	35	50	DC	.84	.63	.49	.392	.322
18F865	TE1307	50	50	DD	.87	.65	.51	.403	.332
18F025	TE1308	75	50	DF	.87	.66	.51	.406	.334
18F026	TE1309	100	50	DG	.90	.68	.53	.42	.345
18F866	TE1400	1	100	BA	.81	.60	.47	.370	.304
18F867	TE1401	2	100	BB	.81	.60	.47	.370	.304
18F868	TE1402	3	100	CB	.81	.60	.47	.370	.304
18F869	TE1403	4	100	CB	.81	.60	.47	.370	.304
18F870	TE1404	5	100	CC	.81	.60	.47	.371	.305
18F871	TE1405	6	100	CC	.81	.60	.47	.372	.306
18F872	TE1406	8	100	DC	.81	.61	.47	.374	.308
18F873	TE1407	10	100	DC	.81	.61	.47	.375	.309
18F874	TE1408	15	100	DD	.84	.62	.48	.382	.314
18F875	TE1409	20	100	DF	.84	.63	.49	.389	.320
18F027	TE1410	25	100	DG	.93	.70	.55	.434	.357
18F028	TE1411	30	100	DG	.93	.70	.55	.434	.357
18F876	TE1500	1	150	BA	.84	.63	.49	.389	.320
18F877	TE1501	2	150	BB	.84	.63	.49	.389	.320
18F878	TE1502	3	150	CB	.84	.63	.49	.389	.320
18F879	TE1503	4	150	CC	.84	.63	.49	.389	.320
18F880	TE1504	5	150	CC	.84	.63	.49	.389	.320
18F881	TE1505	6	150	DC	.84	.63	.49	.389	.320
18F029	TE1505.5	7	150	DC	.84	.63	.49	.391	.321
18F882	TE1506	8	150	DC	.84	.63	.49	.391	.321
18F883	TE1507	10	150	DD	.84	.63	.49	.392	.322
18F2936	TE1508.1	15	150	DF	.87	.64	.50	.400	.329
18F030	TE1509	20	150	DG	.87	.66	.51	.406	.334

SAVE WORK! Make Newark your Complete 1-Point Stock Source!

SPRAGUE
THE MARK OF RELIABILITY

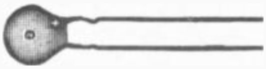
TVA Atom Electrolytics

The only small size electrolytic especially designed for 85°C (185°F) operation on voltages to 450 working volts D.C. Unit is engineered to withstand extra high temperature, high ripple currents, plus high surge voltages. Metal case construction with outer insulating tube. Wt., 3 oz.

Stock No.	TVA No.	Mfd.	D. x L.	1-24	25-49	50-99	100-249	250-Up
SINGLE UNITS 6 WVDC								
18F955	1100	50	3/8"x1 3/16"	.57	.41	.32	.26	.21
18F957	1102	250	9/16"x1 5/16"	.81	.64	.50	.40	.33
18F958	1103	500	5/8"x1 9/16"	.93	.73	.57	.46	.37
18F959	1104	1000	3/4"x1 13/16"	1.14	.89	.70	.56	.46
18F960	1105	1500	13/16"x2 11/16"	1.26	.98	.76	.61	.50
18F151	1106	2000	13/16"x2 15/16"	1.38	1.08	.84	.67	.55
12 WVDC								
18F961	1130	100	9/16"x1 5/16"	.72	.52	.40	.32	.26
18F962	1131	250	5/8"x1 5/16"	.87	.68	.53	.43	.35
18F153	1132	500	3/4"x1 11/16"	1.02	.79	.62	.49	.41
18F963	1133	1000	13/16"x1 13/16"	1.35	1.05	.82	.65	.54
15 WVDC								
18F964	1160	100	9/16"x1 5/16"	.75	.52	.41	.33	.27
18F965	1161	250	5/8"x1 9/16"	.93	.74	.60	.46	.38
18F966	1162	500	11/16"x1 13/16"	1.05	.83	.64	.52	.42
18F228	1163	1000	13/16"x1 13/16"	1.38	1.07	.84	.67	.55
18F2132	1170	2000	15/16"x2 13/16"	1.92	1.29	1.00	.81	.66
18F2904	1175	3000	1 1/16"x4 1/16"	1.02	.77	.60	.48	.39
25 WVDC								
18F967	1201	2	5/16"x5/8"	.54	.39	.31	.25	.20
18F968	1203	5	5/16"x5/8"	.60	.42	.32	.26	.21
18F154	1204	10	5/16"x1 3/16"	.60	.42	.33	.27	.22
18F2133	1204.5	20	3/8"x1 3/16"	.60	.43	.34	.27	.23
18F155	1205	25	3/8"x1 3/16"	.60	.44	.35	.28	.23
18F156	1206	50	9/16"x1 5/16"	.66	.47	.37	.30	.24
18F157	1207	100	9/16"x1 11/16"	.81	.58	.45	.36	.30
18F2905	1207.5	150	13/16"x1 9/16"	.87	.63	.49	.39	.32
18F969	1208	250	11/16"x1 9/16"	1.02	.79	.61	.49	.40
18F159	1209	500	3/4"x1 13/16"	1.38	1.07	.84	.67	.55
18F2134	1211	1000	13/16"x2 5/16"	1.98	1.79	1.39	1.11	.91
50 WVDC								
18F970	1300	1	5/16:x5/8"	.54	.39	.31	.25	.20
18F971	1301	2	5/16"x5/8"	.54	.39	.31	.25	.20
18F972	1303	5	5/16"x1 3/16"	.60	.42	.32	.26	.21
18F163	1304	10	3/8"x1 3/16"	.60	.42	.33	.27	.22
18F2136	1305	15	3/8"x1 3/16"	.60	.43	.34	.27	.23
18F973	1305.5	20	3/8"x1 5/16"	.60	.43	.34	.27	.22
18F164	1306	25	3/8"x1 5/16"	.63	.44	.35	.28	.23
18F165	1308	50	5/8"x1 5/16"	.72	.52	.40	.32	.27
18F166	1310	100	5/8"x1 5/16"	.84	.60	.47	.40	.31
18F974	1311	150	3/4"x1 9/16"	.93	.66	.51	.41	.34
18F229	1312	250	15/16"x1 11/16"	1.05	.83	.64	.52	.42
18F975	1315	500	1"x1 15/16"	1.44	1.11	.86	.69	.57
150 WVDC								
18F2137	1400	1	5/16"x5/8"	.57	.41	.32	.26	.22
18F976	1402	4	3/8"x1 5/16"	.60	.43	.33	.27	.22
18F977	1403	5	3/8"x1 5/16'	.60	.43	.34	.27	.22
18F978	1405	8	7/16"x1 7/8"	.63	.45	.35	.28	.23
18F222	1406	10	9/16"x1 5/16"	.63	.46	.36	.29	.24
18F979	1407	12	9/16"x1 5/16"	.66	.47	.37	.29	.24
18F980	1409	16	9/16"x1 5/16"	.69	.49	.38	.31	.25
18F175	1410	20	5/8"x1 9/16"	.72	.50	.39	.32	.26
18F981	1411	25	3/4"x1 9/16"	.75	.53	.41	.33	.27
18F167	1412	30	13/16"x1 5/16"	.78	.55	.43	.35	.28
18F176	1413	40	13/16"x1 9/16"	.81	.58	.45	.36	.30
18F230	1414	50	13/16"x1 13/16"	.84	.60	.47	.38	.31
18F223	1415	60	15/16"x1 9/16"	.90	.63	.49	.40	.33
18F168	1418	80	15/16"x1 9/16"	.96	.69	.54	.43	.35
18F231	1420	100	15/16"x2 1/16"	1.05	.75	.58	.47	.38
18F224	1422	150	1 1/16"x2 1/16"	1.14	.82	.64	.48	.42
18F982	1423	200	1 1/16"x2 9/16"	1.32	.93	.72	.58	.47
18F2138	1424	250	1 1/4"x4 3/8"	2.16	1.60	1.25	1.00	.82
18F983	1425	300	1 1/16"x3 5/16"	1.68	1.25	.97	.78	.64
175 WVDC								
18F2906	1430	80	1 1/16"x2 1/16"	.99	.81	.63	.51	.42
200 WVDC								
18F035	1445	100	1 1/16"x2 5/16"	1.14	.90	.70	.56	.46
18F984	1447	150	1 3/8"x3 3/8"	1.68	1.26	.98	.79	.65
18F985	1480	200	1 3/8"x3 3/8"	1.89	1.42	1.10	.89	.73
250 WVDC								
18F986	1501	4	9/16"x1 5/16"	.66	.48	.37	.30	.25
18F987	1503	8	9/16"x1 9/16"	.69	.54	.42	.34	.28
18F232	1504	10	5/8"x1 9/16"	.72	.56	.43	.35	.29
18F988	1505	12	5/8"x1 9/16"	.75	.57	.45	.36	.29
18F989	1507	16	13/16"x1 5/16"	.78	.60	.47	.38	.31
18F233	1508	20	13/16"x1 5/16"	.81	.64	.50	.40	.33
18F990	1510	30	13/16"x1 13/16"	.87	.68	.53	.43	.35
18F234	1511	40	13/16"x2 1/16"	.93	.74	.57	.46	.38
18F991	1512	50	15/16x1 13/16"	1.02	.81	.63	.50	.41
18F992	1513	60	1"x1 13/16"	1.08	.84	.66	.53	.43
18F2139	1522	100	1 1/16"x2 5/16"	1.47	.96	.75	.60	.50
18F2907	1528	200	1 3/8"x3 1/8	2.10	1.35	1.05	.84	.69
300 WVDC								
18F2140	1573	100	1 1/166"x3 1/16x31	1.59	.98	.77	.61	.50
18F993	1575	140	1 3/8"x3 3/8"	2.19	1.64	1.28	1.02	.84

Stock No.	TVA No.	Mfd.	D. x L.	1-24	25-49	50-99	100-249	250-Up
300 WVDC								
18F2908	1576	150	1 3/8"x3 7/8"	1.95	1.35	1.05	.84	.69
18F2142	1578	200	1 3/8"x4 5/8"	2.70	1.61	1.25	1.00	.72
350 WVDC								
18F994	1601	4	11/16"x1 9/16"	.63	.49	.38	.31	.25
18F995	1603	8	11/16"x1 5/16"	.72	.55	.43	.35	.28
18F996	1604	10	3/4"x1 9/16"	.75	.59	.46	.37	.30
18F997	1605	12	13/16"x1 9/16"	.78	.61	.47	.38	.31
18F998	1607	16	13/16"x1 9/16"	.84	.66	.51	.41	.34
18F999	1608	20	13/16"x1 13/16"	.87	.68	.53	.42	.35
18F1529	1610	30	13/16"x2 1/16"	.99	.77	.60	.48	.40
18F1530	1611	40	15/16"x2 1/16"	1.05	.80	.62	.50	.41
18F1531	1613	60	1 1/16"x2 1/16"	1.17	.91	.71	.57	.47
18F2144	1620	100	1 1/16"x2 13/16"	1.86	1.11	.86	.69	.57
18F2909	1622	150	1 3/8'x3 3/8"	2.22	1.46	1.14	.91	.75
18F2910	1624	200	1 3/8"x4 1/8"	3.12	1.88	1.46	1.17	.97
400 WVDC (Nonpolarized)								
18F1532	1650	10	1 1/16"x2 1/16"	1.05	.78	.61	.49	.40
18F2143	1652	20	1 1/16"x2 5/16"	1.17	.88	.69	.55	.46
450 WVDC								
18F1533	1700	1	9/16"x1 5/16"	.66	.51	.40	.32	.26
18F1534	1701	2	9/16"x1 5/16"	.66	.52	.41	.33	.27
18F1535	1702	4	11/16"x1 5/16"	.69	.54	.42	.34	.28
18F2146	1703	5	11/16"x1 9/16"	.72	.56	.44	.35	.29
18F225	1704	8	3/4"x1 9/16"	.75	.60	.46	.37	.31
18F169	1705	10	13/16"x1 9/16"	.78	.60	.47	.37	.31
18F1536	1706	12	13/16"x1 9/16"	.81	.64	.50	.40	.33
18F187	1708	16	13/16"x1 13/16"	.84	.68	.53	.42	.35
18F170	1709	20	15/16"x1 13/16"	.93	.73	.57	.46	.37
18F171	1711	30	15/16"x2 1/16"	1.02	.80	.63	.50	.41
18F172	1712	40	1 1/16"x2 1/16"	1.08	.83	.65	.52	.43
18F226	1713	50	1/16"x2 9/16"	1.26	.98	.76	.61	.50
18F227	1714	60	1 1/16"x2 13/16"	1.41	1.16	.90	.72	.59
18F235	1716	80	1 1/16"x3 13/16"	1.68	1.11	.87	.69	.57
18F1537	1718	100	1 1/16"x4 1/16"	1.92	1.69	1.31	1.05	.86
18F2911	1719	150	1 3/8"x3 5/8"	2.85	2.02	1.57	1.26	1.03
18F2912	1720	200	1 1/2"x4 5/8"	3.00	2.25	1.75	1.40	1.15
500 WVDC								
18F236	1902	8	15/16"x1 13/16"	.78	.61	.48	.38	.31
18F238	1906	20	1 1/16"x2 5/16"	.96	.75	.58	.47	.38
18F2144	1908	40	1 1/16"x3 1/16"	1.86	.79	.62	.50	.41
600 WVDC								
18F240	1962	8	1 1/16"x3 3/16"	1.83	1.37	1.07	.85	.70
18F241	1963	10	1 1/16"x3 3/16"	2.19	1.64	1.28	1.02	.84
18F242	1965	16	1 1/16"x4 3/16"	2.49	1.87	1.46	1.17	.96
18F243	1966	20	1 1/16"x4 3/16"	2.58	1.93	1.50	1.20	.99
DUAL UNITS (COMMON NEGATIVE) 150-150 WVDC								
18F173	2428	20-20	13/16"x1 9/16"	1.05	.80	.62	.50	.41
18F188	2434	30-30	15/16"x1 9/16"	1.08	.85	.66	.53	.43
18F1546	2438	40-20	15/16"x1 9/16"	1.14	.84	.65	.52	.43
18F1547	2442	40-30	15/16"x1 13/16"	1.08	.86	.67	.54	.44
18F178	2445	40-40	15/16"x2 1/16"	1.11	.88	.69	.55	.45
18F185	2450	50-30	15/16"x2 1/16"	1.17	.88	.69	.55	.45
18F1548	2453	50-50	15/16"x2 1/16"	1.26	.93	.72	.58	.47
18F1549	2460	80-30	15/16"x2 9/16"	1.32	.94	.73	.59	.48
18F1550	2461	80-40	15/16"x2 9/16"	1.32	.96	.75	.60	.49
18F1551	2462	80-50	15/16"x2 9/16"	1.41	.99	.77	.62	.51
18F036	2463	100-50	1 1/16x2 13/16	1.59	1.04	.81	.65	.54
18F1552	2464	100-100	1 3/8"x3 3/8"	1.92	1.32	1.03	.82	.68
18F1553	2467	200-5	1 1/16"x3 9/16"	1.59	1.17	.91	.73	.67
250-250 WVDC								
18F1555	2515	20-20	15/16"x1 13/16"	1.11	.88	69	.55	.45
350-350 WVDC								
18F037	2640	140-5	1 1/4x3 7/8"	2.49	1.90	1.48	1.18	.97
450-450 WVDC								
18F179	2720	8-8	15/16"x1 13/16"	1.17	.88	.69	.55	.45
18F174	2722	10-10	15/16"x2 1/16"	1.23	.92	.72	.58	.47
18F180	2730	20-20	15vb"x2 13/16"	1.50	1.19	.92	.74	.61
18F038	2735	30-30	1 1/16x3 5/16"	1.95	1.46	1.13	.91	.75
18F181	2740	40-40	1 1/16"x4 1/16"	2.25	1.69	1.40	1.12	.92
TRIPLE UNITS 150-150-150 WVDC								
18F039	3440	20-20-20	15/16x1 13/16"	1.77	1.32	1.03	.82	.68
18F186	3444	30-30-30	15/16x2 5/16"	1.56	1.34	1.04	.84	.69
18F040	3446	40-20-20	15/16x2 1/16	1.80	1.36	1.06	.84	.70
18F041	3448	40-30-20	15/16x2 5/16"	1.86	1.38	1.08	.86	.71
18F042	3450	40-40-20	15/16x2 9/16"	1.86	1.40	1.09	.88	.72
18F043	3451	40-40-40	1 1/16x2 9/16"	1.92	1.44	1.12	.90	.74
18F044	3453	50-30-20	1 1/16x2 9/16"	1.89	1.40	1.09	.88	.72
18F045	3455	80-40-20	1 1/16x3 1/16"	1.98	1.49	1.16	.93	.76
18F046	3456	80-40-40	1 1/16x3 1/16"	2.04	1.53	1.19	.95	.78
QUAD UNITS 450-450-450-450 WVDC								
18F047	4748	40-20-20-10	1 3/8x4 3/8"	3.18	2.37	1.84	1.47	1.21
18F048	4750	40-40-20-20	1 1/2x4 1/4"	3.27	2.34	1.82	1.46	1.20

196D SOLID TANTALUM EPOXY DIPPED



Low - cost solid-electrolyte tantalum capacitors suitable for mounting printed wiring boards in transistorized commercial, and industrial electronic equipment. Furnished in sizes which permit coverage of a broad range of capitance ratings, from 0.1μF through 330μF. The standard capitance tolerance of these capacitors is ±20%. Operating temperature range —55° to +85°C low leakage current. The maximum dissipation factor is 10%. Standard capacitors are furnished with long straight leads. Leads are electro-tinned nickel for ease in soldering. Solid-electrolyte tantalum pellet construction allows plug-in mounting on printed wiring boards Highly resistant, and insulated epoxy resin coating.

4 WVDC —20% TOLERANCE

Stk. No.	Mfd.	Size Code	1-24	25-49	50-99	100-499	500-999
18F049	33	196D336X0004EB	.81	.64	.44	.32	.29
18F050	150	196D157X0004FB	1.35	1.08	.74	.54	.49

6 WDC —20% TOLERANCE

Stk. No.	Mfd.	Size Code	1-24	25-49	50-99	100-499	500-999
18F051	22	196D226X0006EB	.81	.64	.44	.32	.29
18F052	100	196D107X0006FB	1.35	1.08	.74	.54	.49
18F053	330	196D337X0006GB	3.45	2.76	1.90	1.38	1.24

10 WVDC —20% TOLERANCE

Stk. No.	Mfd.	Size Code	1-24	25-49	50-99	100-499	500-999
18F054	15	196D156X0010EB	.81	.64	.44	.32	.29
18F055	68	196D686X0010FB	1.35	1.08	.74	.54	.49
18F056	220	196D227X0010GB	3.45	2.76	1.90	1.38	1.24

15 WVDC —20% TOLERANCE

Stk. No.	Mfd.	Size Code	1-24	25-49	50-99	100-499	500-999
18F057	10	196D106X0015EB	.81	.64	.44	.32	.29
18F058	33	196D336X0015FB	1.20	.96	.66	.48	.43
18F059	47	196D476X0015FB	1.35	1.08	.74	.54	.49
18F060	150	196D157X0015GB	3.45	2.76	1.90	1.38	1.24

20 WVDC —20% TOLERANCE

Stk. No.	Mfd.	Size Code	1-24	25-49	50-99	100-499	500-999
18F061	2.2	196D225X0020EB	.81	.64	.44	.32	.29
18F062	4.7	196D475X0020EB	.81	.64	.44	.32	.29
18F063	6.8	196D685X0020EB	.81	.64	.44	.32	.29
18F064	10	196D106X0020FB	.87	.68	.47	.32	.29
18F065	22	196D226X0020FB	1.35	1.08	.74	.54	.49
18F066	100	196D107X0020GB	3.45	2.76	1.90	1.38	1.24

35 WVDC —20% TOLERANCE

Stk. No.	Mfd.	Size Code	1-24	25-49	50-99	100-499	500-999
18F067	.1	196D104X0035DB	.81	.64	.44	.32	.29
18F068	.22	196D224X0035DB	.81	.64	.44	.32	.29
18F069	.33	196D334X0035DB	.81	.64	.44	.32	.29
18F070	.47	196D474X0035DB	.81	.64	.44	.32	.29
18F071	.68	196D684X0035DB	.81	.64	.44	.32	.29
18F072	1.0	196D105X0035DB	.81	.64	.44	.32	.29
18F073	1.0	196D105X0035EB	.81	.64	.44	.32	.29
18F074	1.5	196D155X0035EB	.81	.64	.44	.32	.29
18F075	2.2	196D225X0035FB	1.02	.80	.55	.40	.36
18F076	3.3	196D335X0035FB	1.02	.80	.55	.40	.36
18F077	4.7	196D475X0035FB	1.11	.88	.61	.44	.40
18F078	6.8	196D685X0035FB	1.11	.88	.61	.44	.40
18F079	27	196D276X0035GB	3.45	2.76	1.90	1.38	1.24

36D "POWERLYTIC" ALUMINUM ELECTROLYTICS

For applications requiring maximum capacitance in a given case size. Low ESR and leakage current; extremely long shelf life. Withstands military environmental conditions including —55°C storage tests. Tol. 3-50v, +75% to —10%; 75-450v, +50% to —10%. Av. shpg. wt., 4 oz. With plastic outer tube.

SIZES FOR 36D CAPACITORS

D. x L. Including plastic outer case

AA, 1 13/32x2 3/16	BC, 2 1/32x4 3/16	DC, 3 1/32x4 3/16
AB, 1 13/32x3 3/16	CB, 2 17/32x3 3/16	DD, 3 1/32x4 11/16
AC, 1 13/32x4 3/16	CC, 2 17/32x4 3/16	DF, 3 1/32x5 11/16
BB, 2 1/32x3 3/16	CD, 2 17/32x4 11/16	

3 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99
18F2433	36D274G003DF2A	270,000	DF	10.97	9.60	7.41

6 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99
18F2434	36D124G006DC2A	120,000	DC	8.20	7.17	5.54
18F2435	36D194G006DF2A	190,000	DF	11.04	9.66	7.46

10 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99
18F2436	36D602G010AA2A	6,000	AA	1.85	1.62	1.25
18F2437	36D123G010AB2A	12,000	AB	2.23	1.95	1.51
18F2438	36D183G010AC2A	18,000	AC	2.57	2.25	1.74
18F2439	36D283G010BB2A	28,000	BB	3.43	3.00	2.32
18F2440	36D423G010BC2A	42,000	BC	4.15	3.64	2.81
18F2441	36D483G010CB2A	48,000	CB	4.66	4.08	3.15
18F2442	36D104G010DC2A	100,000	DC	8.27	7.24	5.58
18F2443	36D164G010DF2A	160,000	DF	11.10	9.71	7.49

Continued on next column.

15 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99
18F2444	36D462G015AA2A	4,600	AA	1.85	1.62	1.25
18F2445	36D922G015AB2A	9,200	AB	2.24	1.96	1.51
18F2446	36D133G015AC2A	13,000	AC	2.58	2.26	1.74
18F2447	36D213G015BB2A	21,000	BB	3.45	3.02	2.33
18F2448	36D313G015BC2A	31,000	BC	4.16	3.64	2.81
18F2449	36D363G015CB2A	36,000	CB	4.68	4.10	3.16
18F2450	36D543G015CC2A	54,000	CC	6.14	5.37	4.14
18F2451	36D633G015CD2A	63,000	CD	6.87	6.01	4.64
18F2452	36D803G015DC2A	80,000	DC	7.97	6.98	5.38

25 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99
18F2453	36D272G025AA2A	2,700	AA	1.85	1.62	1.25
18F2454	36D552G025AB2A	5,500	AB	2.24	1.96	1.51
18F2455	36D822G025AC2A	8,200	AC	2.59	2.26	1.75
18F2456	36D183G025BC2A	18,000	BC	4.18	3.66	2.82
18F2457	36D323G025CC2A	32,000	CC	6.18	5.41	4.17
18F2458	36D473G025DC2A	47,000	DC	7.99	7.00	5.40
18F2459	36D553G025DD2A	55,000	DD	9.51	8.33	6.42
18F2460	36D713G025DF2A	71,000	DF	10.99	9.62	7.42

30 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99
18F2461	36D363G030DC2A	36,000	DC	8.05	7.05	5.44
18F2462	36D423G030DD2A	42,000	DD	9.56	8.36	6.45

40 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99
18F2463	36D552G040AC2A	5,500	AC	2.60	2.28	1.76
18F2464	36D842G040BB2A	8,400	BB	3.50	3.06	2.36
18F2465	36D123G040BC2A	12,000	BC	4.26	3.73	2.88
18F2466	36D213G040CC2A	21,000	CC	6.22	5.45	4.20
18F2467	36D253G040CD2A	25,000	CD	7.02	6.14	4.74

50 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99
18F2468	36D132G050AA2A	1,300	AA	1.86	1.63	1.26
18F2469	36D262G050AB2A	2,600	AB	2.26	1.98	1.53
18F2470	36D392G050AC2A	3,900	AC	2.61	2.29	1.76
18F2471	36D602G050BB2A	6,000	BB	3.52	3.08	2.38
18F2472	36D902G050BC2A	9,000	BC	4.27	3.74	2.88
18F2473	36D153G050CC2A	15,000	CC	6.24	5.46	4.22
18F2474	36D223G050DC2A	22,000	DC	8.09	7.08	5.47

75 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99
18F2475	36D252F075AC2A	2,500	AC	2.62	2.29	1.77
18F2476	36D392F075BB2A	3,900	BB	3.53	3.09	2.38
18F2477	36D592F075BC2A	5,900	BC	4.28	3.74	2.89
18F2478	36D113F075CD2A	11,000	CD	7.08	6.20	4.78
18F2479	36D143F075DC2A	14,000	DC	8.14	7.12	5.49
18F2480	36D223F075DF2A	22,000	DF	11.52	10.08	7.78

100 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99
18F2481	36D451F100AA2A	450	AA	1.86	1.63	1.26
18F2482	36D132F100AC2A	1,300	AC	2.60	2.28	1.76
18F2483	36D302F100BC2A	3,000	BC	4.24	3.71	2.86
18F2484	36D532F100CC2A	5,300	CC	6.22	5.45	4.20
18F2485	36D782F100DC2A	7,800	DC	8.50	7.44	5.74

150 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99
18F2486	36D301F150AA2A	300	AA	1.86	1.63	1.25
18F2487	36D901F150AC2A	900	AC	2.58	2.26	1.74
18F2488	36D142F150BB2A	1,400	BB	3.45	3.02	2.33
18F2489	36D212F150BC2A	2,100	BC	4.18	3.66	2.82
18F2490	36D362F150CC2A	3,600	CC	6.24	5.46	4.22
18F2491	36D532F150DC2A	5,300	DC	8.42	7.37	5.68
18F2492	36D782F150DF2A	7,800	DF	11.39	9.97	7.69

200 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99
18F2493	36D251F200AA2A	250	AA	1.85	1.62	1.25
18F2494	36D431F200AB2A	430	AB	2.22	1.94	1.50
18F2495	36D641F200AC2A	640	AC	2.56	2.24	1.73
18F2496	36D142F200BC2A	1,400	BC	4.11	3.60	2.78
18F2497	36D162F200CB2A	1,600	CB	4.70	4.11	3.17
18F2498	36D372F200DC2A	3,700	DC	8.21	7.18	5.54
18F2499	36D552F200DF2A	5,500	DF	11.35	9.93	7.66

250 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99
18F2500	36D531F250AC2A	530	AC	2.55	2.23	1.72
18F2501	36D122F250BC2A	1,200	BC	4.09	3.58	2.76
18F2502	36D302F250DC2A	3,000	DC	8.19	7.16	5.53
18F2503	36D452F250DF2A	4,500	DF	11.29	9.88	7.62

300 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99
18F2504	36D241F300AB2A	240	AB	2.20	1.92	1.49
18F2505	36D821F300BC2A	820	BC	4.07	3.56	2.75
18F2506	36D212F300DC2A	2,100	DC	8.16	7.14	5.51

350 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99
18F2507	36D950F350AA2A	95	AA	1.84	1.61	1.24
18F2508	36D191F350AB2A	190	AB	2.17	1.90	1.47
18F2509	36D421F350BB2A	420	BB	3.17	2.78	2.14
18F2510	36D651F350BC2A	650	BC	4.04	3.53	2.73
18F2511	36D112F350CC2A	1,100	CC	5.91	5.17	3.99
18F2512	36D162F350DC2A	1,600	DC	8.05	7.05	5.44
18F2513	36D252F350DF2A	2,500	DF	11.08	9.69	7.48

400 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99
18F2514	36D421F400BC2A	420	BC	4.02	3.52	2.71

450 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99
18F2515	36D500F450AA2A	50	AA	1.80	1.58	1.22
18F2516	36D141F450AC2A	140	AC	2.51	2.20	1.69
18F2517	36D221F450BB2A	220	BB	3.23	2.82	2.18
18F2518	36D331F450BC2A	330	BC	3.99	3.49	2.70
18F2519	36D861F450DC2A	860	DC	8.37	7.33	5.65

SPRAGUE
THE MARK OF RELIABILITY

Type 150D and CS13 Solid Tantalums

STANDARD SERIES 150D & MILITARY TYPE CS13

Type CS13. Hermetically sealed solid tantalum capacitors to Mil-C-26655 Revision 2D. Plastic insulating sleeves. Extremely low leakage current and stability with both temperature and time. Temperature range: −80°C to +85°C; +125°C with ⅓ voltage derating. Combines true miniaturization with characteristics previously unobtainable in electrolytic capacitors. Type 150D same as above except commercial series.

6 WVDC ±10% TOLERANCE

Commercial		MIL-C-26655B			
Stk. No.	150D	Stk. No.	CS13	Mfd	Price & Size Key
18F1354	565X900A2	18F2258	BB565K	5.6	C
18F1355	685X9006A2	18F2259	BB685K	6.8	C
18F1356	476X9006B2	18F2261	BB476K	47	H
18F1357	566X9006B2	18F2263	BB566K	56	H
18F1822	157X9006R2	18F2264	BB157K	150	M
18F1823	187X9006R2	18F2266	BB187K	180	M
18F1824	277X9006S2	18F2267	BB277K	270	S
18F1825	337X9006S2	18F2268	BB337K	330	S

6 WVDC ±20% TOLERANCE

18F770	685X0006AS	18F2260	BB685M	6.8	A
18F1211	336X0006B2	....		33	G
18F1212	476X0006B2	18F2262	BB476M	47	G
18F1213	157X0006R2	18F2265	BB157M	150	L
18F1214	187X0006R2	....	.. ..	180	L
18F1839	277X0006S2	....		270	R
18F1237	337X0006S2	18F2269	BB337M	330	R

10 WVDC ±10% TOLERANCE

Commercial		MIL-C-26655B			
Stk. No.	150D	Stk. No.	CS13	Mfd	Price & Size Key
18F1358	395X9010A2	18F2270	BC395K	3.9	C
18F1359	475X9010A2	18F2271	BC475K	4.7	C
18F1360	276X9010B2	18F2273	BC276K	27	H
18F1361	336X9010B2	18F2274	BC336K	33	H
18F1362	396X9010B2	18F2276	BC396K	39	H
18F1245	826X9010R2	18F2277	BC826K	82	M
18F1246	107X9010R2	18F2278	BC107K	100	M
18F1247	127X9010R2	18F2280	BC127K	120	M
18F1248	187X9010S2	18F2281	BC187K	180	S
18F1249	227X9010S2	18F2282	BC227K	220	S

10 WVDC ±20% TOLERANCE

18F772	475X0010A2	18F2272	BC475M	4.7	A
18F773	336X0010B2	18F2275	BC336M	33	G
18F1215	107X0010R2	18F2279	BC107M	100	L
18F1216	127X0010R2	....	....	120	L
18F1238	227X0010S2	18F2283	BC227M	220	R

15 WVDC ±10% TOLERANCE

Commercial		MIL-C-26655B			
Stk. No.	150D	CS13	Stk. No.	Mfd	Price & Size Key
18F1363	275X9015A2	18F2284	BD275K	2.7	C
18F1826	335X9015A2	18F2285	BD335K	3.3	C
18F1364	186X9015B2	18F2287	BD186K	18	H
18F1365	226X9015B2	18F2288	BD226K	22	H
18F1827	566X9015R2	18F2290	BD566K	56	M
18F1828	686X9015R2	18F2291	BD686K	68	M
18F1829	127X9015S2	18F2292	BD127K	120	S
18F1830	157X9015S2	18F2293	BD157K	150	S

15 WVDC ±20% TOLERANCE

18F775	335X0015A2	18F2286	BD335M	3.3	A
18F776	226X0015B2	18F2289	BD226M	22	G
18F1217	686X0015R2	18F2295	BD686M	68	L
18F1239	157X0015S2	18F2294	BD157M	150	R

20 WVDC ±10% TOLERANCE

18F1366	125X9020A2	18F2296	BE125K	1.2	C
18F1367	155X9020A2	18F2297	BE155K	1.5	C
18F1368	185X9020A2	18F2299	BE185K	1.8	C
18F1369	225X9020A2	18F2300	BE225K	2.2	C
18F1370	825X9020B2	18F2302	BE825K	8.2	H
18F1371	106X9020B2	18F2303	BE106K	10	H
18F1372	126X9020B2	18F2305	BE126K	12	H
18F1373	156X9020B2	18F2306	BE156K	15	H
18F1831	276X9020R2	18F2308	BE276K	27	M
18F1832	336X9020R2	18F2309	BE336K	33	M
18F1833	396X9020R2	18F2311	BE396K	39	M
18F1834	476X9020R2	18F2312	BE476K	47	M
18F1835	566X9020S2	18F2314	BE566K	56	S
18F1836	686X9020S2	18F2315	BE686K	68	S
18F1837	826X9020S2	18F2317	BE826K	82	S
18F1838	107X9020S2	18F2318	BE107K	100	S

20 WVDC ±20% TOLERANCE

COMMERCIAL		Mil-C-2665B			
Stk. No.	150D	Stk. No.	CS13	Mfd.	Price & Size Key
18F781	155X0020A2	18F2298	BE155M	1.5	A
18F782	225X0020A2	18F2301	BE225M	2.2	A
18F786	106X0020B2	18F2304	BE106M	10	G
18F1218	156X0020B2	18F2307	BE156M	15	G
18F1220	336X0020R2	18F2310	BE336M	33	L
18F1221	476X0020R2	18F2313	BE476M	47	L
18F1240	686X0020S2	18F2316	BE686M	68	R
18F1243	107X0020S2	18F2319	BE107M	100	R

35 WVDC ±10% TOLERANCE

18F1840	472X9035A2	....	....	.0047	D
18F1841	562X9035A2	....	....	.0056	D
18F1842	682X9035A2	....	....	.0068	D
18F1374	822X9035A2	....	....	.0082	D
18F1375	103X9035A2	....	....	.01	D
18F1376	123X9035A2	....	....	.012	D
18F1377	153X9035A2	....	....	.015	D
18F1378	183X9035A2	....	....	.018	D
18F1379	223X9035A2	....	....	.022	D
18F1380	273X9035A2	....	....	.027	D
18F1381	333X9035A2	....	....	.033	C
18F1382	393X9035A2	....	....	.039	C
18F1383	473X9035A2	....	....	.047	C
18F1384	563X9035A2	....	....	.056	C
18F1385	683X9035A2	....	....	.068	C
18F1386	823X9035A2	....	....	.082	C
18F1387	104X9035A2	....	....	.10	C
18F1388	124X9035A2	....	....	.12	C
18F1389	154X9035A2	....	....	.15	C
18F1390	184X9035A2	....	....	.18	C
18F1391	224X9035A2	....	....	.22	C
18F1392	274X9035A2	....	....	.27	C
18F1393	334X9035A2	18F2320	BF334K	.33	C
18F1843	394X9035A2	18F2322	BF394K	.39	C
18F1394	474X9035A2	18F2323	BF474K	.47	C
18F1395	564X9035A2	18F2325	BF564K	.56	C
18F1396	684X9035A2	18F2326	BF684K	.68	C
18F1397	824X9035A2	18F2328	BF824K	.82	C
18F1398	105X9035A2	18F2329	BF105K	1.0	C
18F1399	125X9035B2	18F2331	BF125K	1.2	H
18F1400	155X9035B2	18F2332	BF155K	1.5	H
18F1401	185X9035B2	18F2334	BF185K	1.8	H
18F1402	225X9035B2	18F2335	BF225K	2.2	H
18F1403	275X9035B2	18F2337	BF275K	2.7	H
18F1404	335X9035B2	18F2338	BF335K	3.3	H
18F1405	395X9035B2	18F2340	BF395K	3.9	H
18F1406	475X9035B2	18F2341	BF475K	4.7	H
18F1407	565X9035B2	18F2343	BF565K	5.6	H
18F1408	685X9035B2	18F2344	BF685K	6.8	H
18F1844	825X9035R2	18F2346	BF825K	8.2	M
18F1845	106X9035R2	18F2347	BF106K	10	M
18F1846	126X9035R2	18F2349	BF126K	12	M
18F1847	156X9035R2	18F2350	BF156K	15	M
18F1848	186X9035R2	18F2352	BF186K	18	M
18F1849	226X9035R2	18F2353	BF226K	22	M
18F1850	276X9035S2	18F2355	BF276K	27	S
18F1851	336X9035S2	18F2356	BF336K	33	S
18F1852	396X9035S2	18F2358	BF396K	39	S
18F1853	476X9035S2	18F2359	BF476K	47	S

35 WVDC ±20% TOLERANCE

18F787	472X0035A2	....	....	.0047	B
18F788	682X0035A2	....	....	.0068	B
18F789	103X0035A2	....	....	.01	B
18F790	153X0035A2	....	....	.015	B
18F791	223X0035A2	....	....	.022	B
18F792	333X0035A2	....	....	.033	A
18F793	473X0035A2	....		.047	A
18F794	683X0035A2	.... ..	..	.068	A
18F795	104X0035A2	....	..	.10	A
18F1222	154X0035A2			.15	A
18F1223	224X0035A2			.22	A
18F1224	334X0035A2	18F2321	BF334M	.33	A
18F1225	474X0035A2	18F2324	BF474M	.47	A
18F1226	684X0035A2	18F2327	BF684M	.68	A
18F1227	105X0035A2	18F2330	BF105M	1.0	A
18F1228	155X0035B2	18F2333	BF155M	1.5	G
18F1229	225X0035B2	18F2336	BF225M	2.2	G
18F1230	335X0035B2	18F2339	BF335M	3.3	G
18F1231	475X0035B2	18F2342	BF475M	4.7	G
18F1232	685X0035B2	18F2345	BF685M	6.8	G
18F1233	106X0035R2	18F2348	BF106M	10	L
18F1234	156X0035R2	18F2351	BF156M	15	L
18F1235	226X0035R2	18F2354	BF226M	22	L
18F1241	336X0035S2	18F2357	BF336M	33	R
18F1242	476X0035S2	18F2360	BF476M	47	R

SEE FOLLOWING PAGE FOR PRICE AND SIZE LOCATOR CHART

Electrolytic Capacitors

SPRAGUE
THE MARK OF RELIABILITY

STANDARD SERIES 150D & MILITARY TYPE CS13

50 WVDC ±10% TOLERANCE

Commercial Stk. No.	Commercial 150D	Mil-C-2665B Stk. No.	Mil-C-2665B CS13	Mid.	Price & Size Key
18F1854	123X9050A2			.012	F
18F1855	183X9050A2			.018	F
18F1856	273X9050A2			.027	F
18F1857	393X9050A2			.039	F
18F1858	563X9050A2			.056	F
18F1859	823X9050A2			.082	F
18F1860	124X9050A2			.12	F
18F1861	184X9050A2			.18	F
18F1862	274X9050A2			.27	F
18F1863	390X9050A2			.39	F
18F1854	564X9050A2			.56	F
18F1865	824X9050A2			.82	F
18F2948	105X9050A2	18F2957	BG105K	1.0	F
18F1866	125X9050B2	18F2363	BG125K	1.2	K
18F2949	155X9050B2	18F2958	BG155K	1.5	K
18F1867	185X9050B2	18F2366	BG185K	1.8	K
18F2950	225X9050B2	18F2959	BG225K	2.2	K
18F1868	275X9050B2	18F2369	BG275K	2.7	K
18F2951	335X9050B2	18F2960	BG335K	3.3	K
18F1869	395X9050B2	18F2370	BG395K	3.9	K
18F2952	475X9050B2	18F2961	BG475K	4.7	K
18F1870	565X9050R2	18F2375	BG565K	5.6	P
18F2953	685X9050R2	18F2962	BG685K	6.8	P
18F1871	825X9050R2	18F2378	BG825K	8.2	P
18F2954	106X9050R2	18F2963	BG106K	10	P
18F1872	126X9050R2	18F2381	BG126K	12	P
18F2955	156X9050R2	18F2964	BG156K	15	P
18F1873	186X9050R2	18F2384	BG186K	18	P
18F2956	226X9050S2	18F2965	BG226K	22	U

50 WVDC ±20% TOLERANCE

Commercial Stk. No.	Commercial 150D	Mil-C-2665B Stk. No.	Mil-C-2665B CS13	Mid.	Price & Size Key
18F1800	103X0050A2			.01	E
18F1801	153X0050A2			.015	E
18F1802	223X0050A2			.022	E
18F1803	333X0050A2			.033	E
18F1804	473X0050A2			.047	E
18F1805	683X0050A2			.068	E
18F1806	104X0050A2			.1	E

50 WVDC ±20% TOLERANCE

Commercial Stk. No.	Commercial 150D	Mil-C-2665B Stk. No.	Mil-C-2665B CS13	Mid.	Price & Size Key
18F1807	154X0050A2			.15	E
18F1809	224X0050A2			.22	E
18F1808	334X0050A2			.33	E
18F1810	474X0050A2			.47	E
18F1811	684X0050A2			.68	E
18F1812	105X0050A2	18F2362	BG105M	1.0	E
18F1813	155X0050B2	18F2365	BG155M	1.5	J
18F1814	225X0050B2	18F2368	BG225M	2.2	J
18F1815	335X0050B2	18F2371	BG335M	3.3	J
18F1816	475X0050B2	18F2374	BG475M	4.7	J
18F1817	685X0050R2	18F2377	BG685M	6.8	N
18F1818	106X0050R2	18F2380	BG106M	10	N
18F1819	156X0050R2	18F2383	BG156M	15	N
18F1820	226X0050S2	18F2386	BG226M	22	T

PRICE & SIZE LOCATOR CHART

Key	Sizes	1-24	25-49	50-99	100-499	500-999
A	.135 x .286	1.31	1.05	.72	.59	.50
B	.135 x .286	1.32	1.06	.93	.76	.61
C	.135 x .286	1.34	1.08	.75	.62	.53
D	.135 x .286	1.35	1.09	.96	.79	.64
E	.135 x .286	1.92	1.54	1.30	1.11	1.02
F	.135 x .286	2.48	1.99	L.68	1.45	1.31
G	.185 x .474	1.54	1.24	.74	.61	.51
H	.185 x .474	1.57	1.27	.77	.64	.54
J	.185 x .474	2.02	1.62	1.37	1.17	1.07
K	.185 x .474	2.62	2.10	1.77	1.52	1.39
L	.289 x .686	2.54	2.04	1.39	1.13	.95
M	.289 x .686	2.57	2.07	1.42	1.16	.98
N	.289 x .686	3.30	2.64	2.24	1.81	1.75
P	.289 x .686	4.28	3.43	2.90	3.47	2.26
R	.351 x .822	4.72	3.78	2.78	2.26	1.88
S	.351 x .822	4.75	3.81	2.81	2.29	1.91
T	.351 x .822	6.14	4.92	4.16	3.54	3.24
U	.351 x .786	7.98	6.39	5.39	4.60	4.20

TYPE 600D HIGH GRADE ALUMINUM ELECTROLYTICS — PLASTIC INSULATING SLEEVE

Offer combination of extended temperature range and high voltage rating. Withstands 2000-hour life test at either temperature, and corresponding working voltage. Features excellent capacitance stability, dissipation factor and DC leakage current after high temperature shelf testing. Closely approximate electrical requirements of MIL-C-3965 tantalum foil capac-

itors, at about half the cost. Tolerance is —10%, +75% up to 75 WVDC; —10%. +50% for 100 WVDC up. Sizes shown in chart are for bare can only: add 1/64: to dia. and 1/16" to length for insulating sleeve. Avg. shpg. wt., 3 oz.

PRICE AND SIZE LOCATOR CHART

Key Code	Dia.xL. Inches	EACH 1-9	10-24	25-49	50-99	100-499
A	9/32x1 5/16	3.06	2.29	1.54	1.34	.97
B	3/8x1 5/16	3.06	2.29	1.54	1.34	.97
C	3/8x1 1/8	3.98	2.98	2.00	1.75	1.26
D	3/8x1 3/8	5.98	4.48	3.00	2.62	1.88
E	3/8x1 5/8	6.14	4.60	3.08	2.69	1.93
F	3/8x2 3/16	6.58	4.93	3.30	2.88	2.07
G	3/8x2 11/16	9.94	7.45	4.98	4.35	3.12

Stock No.	Mfr's Type 600D-	μF	WVDC @ 85° C	WVDC @ 125° C	Key
18F2834	127G007KD4	120	7	5	A
18F2835	227G007DD4	220	7	5	B
18F2836	277G007DE4	270	7	5	C
18F2837	397G007DG4	390	7	5	D
18F2769	567G007DJ4	560	7	5	E
18F2838	827G007DL4	820	7	5	F
18F2839	108G007DX4	1000	7	5	G
18F2840	107G010KD4	100	10	7	A
18F2841	187G010DD4	180	10	7	B
18F2842	227G010DE4	220	10	7	C
18F2843	337G010DG4	330	10	7	D
18F2844	477G010DJ4	470	10	7	E
18F2845	687G010DL4	680	10	7	F
18F2846	827G010DX4	820	10	7	G
18F2847	686G015KD4	68	15	10	A
18F2848	826G015KD4	82	15	10	A
18F2849	157G015DD4	150	15	10	B
18F2850	187G015DE4	180	15	10	C
18F2851	277G015DG4	270	15	10	D
18F2775	397G015DJ4	390	15	10	E
18F2852	567G015DL4	560	15	10	F
18F2853	687G015DX4	680	15	10	G
18F2854	686G020KD4	68	20	15	A
18F2778	107G020DD4	100	20	15	B
18F2779	147G020DE4	140	20	15	C
18F2780	227G020DG4	220	20	15	D
18F2781	297G020DJ4	290	20	15	E
18F2782	147G020DL4	440	20	15	F
18F2855	507G020DX4	600	20	15	G
18F2856	336G030KD4	33	30	20	A
18F2857	476G030KD4	47	30	20	A
18F2858	826G030DD4	82	30	20	B
18F2859	107G030DE4	100	30	20	C
18F2860	127G030DG4	120	30	20	D
18F2861	157G030DG4	150	30	20	D
18F2862	227G030DJ4	220	30	20	E
18F2863	337G030DL4	330	30	20	F
18F2864	397G030DX4	390	30	20	G
18F2865	306G040KD4	30	40	30	A
18F2790	506G040DD4	50	40	30	B
18F2791	706G040DE4	70	40	30	C
18F2792	107G040DG4	100	40	30	D
18F2793	147G040DJ4	140	40	30	E
18F2794	217G040DL4	210	40	30	F
18F2866	287G040DX4	280	40	30	G
18F2867	226G050KD4	22	50	40	A
18F2868	336G050DD4	33	50	40	B
18F2869	476G050DE4	47	50	40	C
18F2870	566G050DG4	56	50	40	D
18F2871	686G050DG4	68	50	40	D
18F2799	107G050DJ4	100	50	40	E
18F2800	157G050DL4	150	50	40	F
18F2872	187G050DX4	180	50	40	G
18F2873	176G060KD4	17	60	50	A
18F2802	256G060DD4	25	60	50	B
18F2803	406G060DE4	40	60	50	C
18F2804	606G060DG4	60	60	50	D
18F2805	806G060DJ4	80	60	50	E
18F2806	127G060DL4	120	60	50	F
18F2874	167G060DX4	160	60	50	G
18F2875	126F075KD4	12	75	60	A
18F2876	226F075DD4	22	75	60	B
18F2877	336F075DE4	33	75	60	C
18F2878	476F075DG4	47	75	60	D
18F2879	686F075DJ4	68	75	60	E
18F2880	107F075DL4	100	75	60	F
18F2881	127F075DX4	120	75	60	G
18F2882	825F100KD4	8.2	100	75	A
18F2883	126F100DD4	12	100	75	B
18F2884	156F100DE4	15	100	75	C
18F2885	226F100DG4	22	100	75	D
18F2886	336F100DJ4	33	100	75	E
18F2887	476F100DL4	47	100	75	F
18F2888	686F100DX4	68	100	75	G
18F2889	475F150KD4	4.7	150	100	A
18F2890	565F150KD4	5.6	150	100	A
18F2891	825F150DD4	8.2	150	100	B
18F2821	126F150DE4	12	150	100	C
18F2822	186F150DG4	18	150	100	D
18F2892	226F150DJ4	22	150	100	E
18F2893	336F150DL4	33	150	100	F
18F2894	566F150DX4	56	150	100	G
18F2895	405F200KD4	4	200	150	A
18F2826	605F200DD4	6	200	150	B
18F2827	305F200DE4	8	200	150	C
18F2828	136F200DG4	13	200	150	D
18F2829	176F200DJ4	17	200	150	E
18F2830	266F200DL4	26	200	150	F
18F2896	396F200DX4	39	200	150	G
18F2897	335F250KD4	3.3	250	200	A
18F2898	565F250DD4	5.6	250	200	B
18F2899	685F250DX4	6.8	250	200	C
18F2900	106F250DG4	10	250	200	D
18F2901	126F250DJ4	12	250	200	E
18F2902	226F250DL4	22	250	200	F
18F2903	276F250DX4	27	250	200	G

To Serve You Better — Eleven Stocking Warehouses from Coast-to-Coast

SPRAGUE THE MARK OF RELIABILITY Capacitors

160P BLACK BEAUTY DIFILM MOLDED

For high humidity and high temperature operation up to 105° C. From 220v. through 1600v. the units will operate at 105°C. (221°F) with no voltage derating. From 6000v thru 12,500v. they will operate at 85°C. (185°F). Wt., 3 oz. Tolerance ±10%.

TYPE 2TM 200 VOLTS

Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
18F088	2TMS10	.01	5/16x1"	.24	.18	.14	.12
18F130	2TMS20	.02	3/8x1 1/4"	.24	.17	.13	.10
18F131	2TMS47	.047	7/16x1 1/4"	.24	.17	.13	.10
18F132	2TMS50	.05	7/16x1 1/4"	.24	.17	.13	.10
18F133	2TMP10	.1	1/2x1 1/2"	.18	.18	.14	.12
18F134	2TMP15	.15	1/2x1 1/2"	.30	.22	.18	.14
18F135	2TMP22	.22	5/8x1 7/8"	.48	.36	.28	.23
18F136	2TMP25	.25	5/8x1 7/8"	.48	.36	.28	.23
18F137	2TMP47	.47	3/4x2 1/4"	.48	.36	.28	.23
18F138	2TMP50	.5	3/4x2 1/4"	.48	.36	.28	.23
18F139	2TMM1	1.0	3/4x2 1/4"	.84	.62	.48	.39

TYPE 4TM 400 VOLTS

Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
18F089	4TMS10	.01	3/8x1 1/4"	.21	.14	.11	.09
18F368	4TMS15	.015	3/8x1 1/4"	.24	.17	.13	.10
18F090	4TMS20	.02	3/8x1 1/4"	.24	.17	.13	.10
18F091	4TMS22	.022	3/8x1 1/4"	.24	.17	.13	.10
18F369	4TMS25	.025	7/16x1 1/4"	.24	.17	.13	.10
18F370	4TMS30	.03	7/16x1 1/4"	.24	.17	.13	.10
18F371	4TMS40	.040	7/16x1 1/4"	.24	.18	.13	.10
18F092	4TMS47	.047	7/16x1 1/4"	.24	.18	.14	.12
18F093	4TMS50	.05	7/16x1 1/4"	.30	.22	.18	.14
18F094	4TMS68	.068	1/2x1 1/2"	.30	.22	.18	.14
18F095	4TMP10	.1	1/2x1 1/2"	.30	.22	.18	.14
18F096	4TMP15	.15	5/8x1 7/8"	.48	.36	.28	.23
18F372	4TMP20	.2	5/8x1 7/8"	.48	.36	.28	.23
18F097	4TMP22	.22	5/8x1 7/8"	.48	.36	.28	.23
18F098	4TMP25	.25	3/4x2 1/4"	.84	.62	.48	.39
18F373	4TMP47	.47	3/4x2 1/4"	.84	.62	.48	.39
18F099	4TMP50	.5	3/4x2 1/4"	.84	.62	.48	.39
18F258	4TMM1	1.0	1x2 1/2"	1.08	.81	.63	.50

TYPE 6TM 600 VOLTS

Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
18F140	6TMT10	.0001	5/16x1"	.27	.21	.16	.13
18F141	6TMT25	.00025	5/16x1"	.27	.21	.16	.13
18F142	6TMT40	.0004	5/16x1"	.27	.21	.16	.13
18F143	6TMT50	.0005	5/16x1"	.27	.21	.16	.13
18F100	6TMD10	.001	5/16x1"	.21	.15	.12	.09

TYPE 6TM 600 VOLTS (Cont'd)

Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
18F144	6TMD15	.0015	5/16x1"	.21	.15	.12	.09
18F101	6TMD20	.002	5/16x1"	.21	.15	.12	.09
18F145	6TMD22	.0022	5/16x1"	.21	.15	.12	.09
18F374	6TMD25	.0025	5/16x1"	.21	.15	.12	.09
18F102	6TMD30	.003	5/16x1"	.21	.15	.12	.09
18F375	6TMD33	.0033	5/16x1"	.21	.15	.12	.09
18F103	6TMD40	.004	3/8x1 1/4"	.24	.17	.13	.10
18F146	6TMD47	.0047	3/8x1 1/4"	.24	.17	.13	.10
18F104	6TMD50	.005	3/8x1 1/4"	.24	.17	.13	.10
18F105	6TMD60	.006	3/8x1 1/4"	.24	.17	.13	.10
18F147	6TMD68	.0068	3/8x1 1/4"	.24	.17	.13	.10
18F376	6TMD80	.008	3/8x1 1/4"	.24	.17	.13	.10
18F106	6TMS10	.01	3/8x1 1/4"	.24	.17	.13	.10
18F148	6TMS15	.015	3/8x1 1/4"	.24	.17	.13	.10
18F107	6TMS20	.02	7/16x1 1/4"	.24	.17	.13	.10
18F377	6TMS22	.022	7/16x1 1/4"	.24	.18	.14	.12
18F108	6TMS30	.03	7/16x1 1/4"	.24	.18	.14	.12
18F378	6TMS33	.033	7/16x1 1/4"	.24	.18	.14	.12
18F149	6TMS35	.035	7/16x1 1/4"	.24	.18	.14	.12
18F109	6TMS40	.04	1/2x1 1/2"	.30	.22	.18	.14
18F379	6TMS47	.047	1/2x1 1/2"	.30	.22	.18	.12
18F110	6TMS50	.05	1/2x1 1/2"	.30	.22	.18	.14
18F111	6TMS60	.06	1/2x1 1/2"	.30	.22	.18	.14
18F380	6TMS68	.068	1/2x1 1/2"	.30	.22	.18	.12
18F112	6TMP10	.1	5/8x1 7/8"	.48	.36	.28	.23
18F381	6TMP15	.15	5/8x1 7/8"	.48	.36	.28	.23
18F382	6TMP20	.2	3/4x2 1/4"	.84	.62	.48	.39
18F383	6TMP22	.22	3/4x2 1/4"	.84	.62	.48	.39
18F113	6TMP25	.25	3/4x2 1/4"	.84	.62	.48	.39
18F384	6TMP50	.5	1x2 1/2"	1.08	.81	.63	.50
18F385	6TM-M1	1.0	1x2 1/2"	1.56	1.17	.91	.73

TYPE MB 1600 VOLTS
Designed for buffer operations

Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
18F800	MB-D1	.001	3/8x1 1/4	.27	.18	.14	.12
18F801	MB-D2	.002	3/8x1 1/4	.27	.18	.14	.12
18F802	MB-D3	.003	7/16x1 1/4	.27	.18	.14	.12
18F803	MB-D4	.004	1/2x1 1/2	.33	.25	.19	.15
18F804	MB-D5	.005	1/2x1 1/2	.33	.25	.19	.15
18F406	MB-D7	.007	1/2x1 1/2	.54	.39	.30	.24
18F407	MB-D8	.008	5/8x1 7/8	.54	.39	.30	.24
18F408	MB-S1	.01	5/8x1 7/8	.54	.39	.30	.24
18F409	MB-S15	.015	5/8x1 7/8	.54	.39	.30	.24
18F805	MB-S2	.02	5/8x1 7/8	.59	.39	.30	.24
18F806	MB-S4	.04	3/4x2 1/4	.90	.66	.51	.41

ORANGE DROP, DIFILM DIPPED TUBULARS

Dual dielectric impregnated with exclusive HCX. Produces rock-hard capacitor section. Double dipped in Bright Orange Epoxy Resin — beats heat and humidity. Shpg. Wt. 4 oz.

SIZES FOR 75 AND 100 VOLT—ORANGE DROP

A	5/8	23/64	3/4	H	63/64	47/64	1 3/16
B	43/64	27/64	3/4	J	5/16	13/64	45/64
C	27/32	31/64	3/4	K	21/64	15/64	43/64
D	27/32	19/32	3/4	L	11/32	1/4	45/64
E	57/64	9/16	1 3/16	M	3/8	9/32	43/64
F	29/32	19/32	1 3/16	N	17/32	21/64	43/64
G	61/64	21/32	1 3/16				

TYPE 225P—75 VOLTS DC

Stock No.	Mfd	Size	Type	1-24	25-49	50-99	100-249	250-up
18F2549	.12	A	225P1249R75	.21	.14	.11	.09	.071
18F2550	.15	A	225P1549R75	.21	.16	.12	.10	.077
18F2551	.18	B	225P1849R75	.24	.17	.13	.11	.085
18F2552	.22	B	225P2249R75	.27	.19	.15	.12	.094
18F2553	.27	C	225P2749R75	.30	.21	.17	.13	.106
18F2554	.33	C	225P3349R75	.33	.24	.19	.15	.120
18F2555	.39	D	225P3949R75	.36	.26	.20	.16	.131
18F2556	.47	D	225P4749R75	.39	.28	.22	.18	.142
18F2557	.56	E	225P5649R75	.54	.39	.30	.24	.196
18F2558	.68	F	225P6849R75	.54	.39	.30	.24	.196
18F2559	.82	G	225P8249R75	.60	.43	.34	.27	.219
18F2560	1.0	H	225P1059R75	.66	.49	.38	.31	.240

TYPE 225P—100 VOLTS DC

Stock No.	Mfd	Size	Type	1-24	25-49	50-99	100-249	250-up
18F2561	.001	J	225P10291	.15	.10	.08	.06	.049
18F2562	.0012	J	225P12291	.15	.10	.08	.06	.049
18F2563	.0015	J	225P15291	.15	.10	.08	.06	.049
18F2564	.0018	J	225P18291	.15	.10	.08	.06	.049
18F2565	.0022	J	225P22291	.15	.10	.08	.06	.049
18F2566	.0027	J	225P27291	.15	.10	.08	.06	.049
18F2567	.0033	J	225P33291	.15	.10	.08	.06	.049
18F2568	.0039	J	225P39291	.15	.10	.08	.06	.049
18F2569	.0047	J	225P47291	.15	.10	.08	.06	.049
18F2570	.0056	J	225P56291	.15	.10	.08	.06	.049
18F2571	.0068	J	225P68291	.15	.10	.08	.06	.049
18F2572	.0082	J	225P82291	.15	.10	.08	.06	.049
18F2573	.01	J	225P10391	.15	.10	.08	.06	.049
18F2574	.012	J	225P12391	.15	.10	.08	.07	.051
18F2575	.015	J	225P15391	.15	.10	.08	.07	.052
18F2576	.018	J	225P18391	.15	.10	.08	.07	.052
18F2577	.022	J	225P22391	.15	.11	.09	.07	.053
18F2578	.027	K	225P27391	.15	.11	.09	.07	.054
18F2579	.033	K	225P33391	.15	.11	.09	.07	.064
18F2580	.039	L	225P39391	.15	.11	.09	.07	.056
18F2581	.047	L	225P47391	.15	.12	.09	.07	.057
18F2582	.056	M	225P56391	.18	.12	.10	.08	.060

TYPE 225P—100 VOLTS DC

Stock No.	Mfd	Size	Type	1-24	25-49.	50-99	100-249	250-up
18F2583	.068	M	225P68391	.18	.12	.10	.08	.061
18F2584	.082	N	225P82391	.18	.13	.10	.08	.063
18F2585	.1	N	225P10491	.18	.13	.10	.08	.065

TYPE 220P—200 VOLTS DC

18F1612	.02	3/8x 7/8	2PS-S20	.15	.11	.09	.07	.056
18F1613	.022	25/64x 7/8	2PS-S22	.15	.11	.09	.07	.056
18F1614	.047	29/64x 7/8	2PS-S47	.18	.12	.10	.075	.062
18F1615	.05	15/32x 7/8	2PS-S50	.18	.13	.10	.079	.065
18F1616	.1	31/64x1 3/16	2PS-P10	.21	.14	.11	.087	.071
18F1617	.15	9/16x1 3/16	2PS-P15	.24	.16	.13	.100	.082
18F1618	.2	19/32x1 5/16	2PS-P20	.24	.16	.13	.100	.082
18F1619	.22	39/64x1 5/16	2PS-P22	.27	.20	.15	.121	.099
18F1620	.25	5/8x1 5/16	2PS-P25	.27	.20	.16	.125	.103
18F1621	.33	5/8x1 5/8	2PS-P33	.36	.27	.21	.168	.138
18F1622	.47	45/64x1 5/8	2PS-P47	.42	.32	.25	.196	.161
18F1623	.5	23/32x1 5/8	2PS-P50	.45	.33	.26	.200	.165

TYPE 220P—400 VOLTS DC

Stock No.	Mfd	Size	Type	1-24	25-49	50-99	100-249	250-up
18F1624	.01	13/32x 11/16	4PS-S10	.15	.10	.08	.060	.050
18F1625	.015	29/64x 11/16	4PS-S15	.15	.11	.08	.063	.052
18F1626	.02	13/32x 7/8	4PS-S20	.15	.12	.09	.070	.057
18F1627	.022	27/64x 7/8	4PS-S22	.15	.12	.09	.070	.057
18F1628	.025	7/16x 7/8	4PS-S25	.18	.12	.10	.075	.061
18F1630	.033	15/32x 7/8	4PS-S33	.18	.13	.10	.077	.063
18F1632	.047	29/64x1 3/16	4PS-S47	.21	.139	.11	.087	.071
18F1633	.05	29/64x1 3/16	4PS-S50	.21	.142	.11	.088	.073
18F1634	.056	31/64x1 3/16	4PS-S56	.21	.15	.12	.091	.075
18F1635	.068	33/64x1 3/16	4PS-S68	.21	.15	.12	.10	.075
18F1637	.1	37/64x1 3/16	4PS-P10	.24	.17	.13	.104	.086
18F1638	.15	39/64x1 5/16	4PS-P15	.27	.21	.16	.126	.104
18F1639	.2	19/32x1 5/8	4PS-P20	.33	.25	.20	.153	.126
18F1640	.22	39/64x1 5/8	4PS-P22	.33	.26	.20	.153	.126
18F1641	.25	41/64x1 5/8	4PS-P25	.36	.26	.20	.158	.130

TYPE 2DF-200 WVDC

18F2913	.15	9/16x3/8x1 3/16	2DF-P15	.51	.38	.298	.238
18F2914	.22	3/8x7/16x1 3/16	2DF-P22	.54	.39	.30	.24
18F2915	.33	11/16x1/2x1 3/16	2DF-P33	.66	.45	.373	.299
18F2916	.47	13/16x9/16x1 3/16	2DF-P47	.69	.52	.401	.321
18F2917	.68	3/4x1/2x1 1/4	2DF-P68	.84	.61	.476	.381
18F2918	1.0	13/16x9/16x1 1/4	2DF-M1	.96	.71	.552	.441
18F2919	1.5	7/8x5/8x1 1/4	2DF-M1.5	1.14	.84	.651	.521
18F2920	2.0	15/16x11/16x1 1/4	2DF-M2	1.35	1.00	.779	.623
18F2921	2.5	1 1/16x13/16x1 1/4	2DF-M2.5	1.50	1.11	.863	.691
18F2922	3.0	15/16x1 1/16x1 5/8	2DF-M3	1.62	1.22	.945	.756
18F2923	3.5	1x3/4x1 5/8	2DF-M3.5	1.80	1.35	1.05	.84
18F2924	4.0	1 1/16x13/16x1 5/8	2DF-M4	2.01	1.51	1.17	.938
18F2925	4.5	1 1/8x7/8x1 5/8	2DF-M4.5	2.13	1.59	1.23	.987
18F2926	5.0	1 1/8xx7/8x1 5/8	2DF-M5	2.31	1.72	1.34	1.07
18F2927	5.5	1 3/16x15/16x1 5/8	2DF-M5.5	2.43	1.81	1.41	1.13

ORANGE DROP (CONT'D.)

TYPE 220P—600 VOLTS DC

Stock No.	Mfd	Size	Type	1-24	25-49	50-99	100-249	250-Up
18F1642	.001	21/64x 11/16	6PS-D10	.15	.10	.08	.060	.050
18F1644	.0015	21/64x 11/16	6PS-D15	.15	.10	.08	.060	.050
18F1646	.002	21/64x 11/16	6PS-D20	.15	.10	.08	.062	.051
18F1647	.0022	21/64x 11/16	6PS-D22	.15	.10	.08	.062	.051
18F1648	.0025	21/64x 11/16	6PS-D25	.15	.10	.08	.062	.051
18F1649	.0027	11/32x 11/16	6PS-D27	.15	.10	.08	.062	.051
18F1651	.0033	23/64x 11/16	6PS-D33	.15	.10	.08	.062	.051
18F1652	.0039	3/8x 11/16	6PS-D39	.15	.10	.08	.062	.051
18F1654	.0047	23/64x 11/16	6PS-D47	.15	.10	.08	.062	.051
18F1655	.005	23/64x 11/16	6PS-D50	.15	.10	.08	.062	.051
18F1656	.0056	23/64x 11/16	6PS-D56	.15	.10	.08	.062	.051
18F1658	.0068	13/32x 11/16	6PS-D68	.15	.11	.08	.064	.052
18F1659	.0075	23/64x 7/8	6PS-D75	.15	.11	.08	.065	.053
18F1661	.0082	3/8x 7/8	6PS-D82	.15	.11	.09	.065	.053
18F1662	.01	27/64x 7/8	6PS-S10	.15	.11	.09	.066	.054
18F1664	.015	27/64x 7/8	6PS-S15	.18	.11	.09	.069	.058
18F1665	.02	31/64x 7/8	6PS-S20	.18	.12	.09	.073	.060
18F1666	.022	31/64x 7/8	6PS-S22	.18	.13	.10	.076	.063
18F1667	.025	17/32x 7/8	6PS-S25	.18	.13	.10	.080	.066
18F1670	.033	15/32x13/16	6PS-S33	.18	.13	.10	.080	.066
18F1672	.039	31/64x13/16	6PS-S39	.18	.14	.11	.084	.069
18F1674	.047	17/32x13/16	6PS-S47	.21	.15	.12	.084	.073
18F1675	.05	17/32x13/16	6PS-S50	.21	.15	.12	.090	.074
18F1676	.056	35/64x13/16	6PS-S56	.21	.15	.12	.093	.076
18F1678	.068	37/64x13/16	6PS-S68	.24	.18	.14	.108	.089
18F1679	.075	9/16x13/16	6PS-S75	.24	.18	.14	.112	.092
18F1680	.082	37/64x13/16	6PS-S82	.24	.18	.14	.112	.092
18F1681	.1	5/8x13/16	6PS-P10	.27	.19	.15	.116	.096
18F1682	.15	43/64x15/8	6PS-P15	.36	.26	.20	.157	.129
18F1683	.2	3/4x15/8	6PS-P20	.42	.32	.25	.196	.161
18F1684	.22	21/32x15/8	6PS-P22	.42	.32	.25	.196	.161
18F1685	.25	13/16x15/8	6PS-P25	.45	.33	.26	.201	.165

TYPE 220P—1000 VOLTS DC

Stock No.	Mfd	Size	Type	1-24	25-49	50-99	100-249	250-Up
18F1686	.001	21/64x 11/16	10PS-D10	.15	.10	.08	.062	.051
18F1689	.0022	3/8x 11/16	10PS-D22	.15	.11	.08	.063	.052
18F1692	.0047	11/32x 7/8	10PS-D47	.15	.11	.09	.068	.056
18F1693	.005	11/32x 7/8	10PS-D50	.15	.12	.09	.070	.057

TYPE 118P DIFILM METALIZED CAPACITORS

Unique dual dielectric rated for operation at 125°C without voltage derating. High insulation resistance and capacitance is 10 megohm-microfarads for 200 V units or 40 megohm-microfarads for 400 and 600 V units. Hermetically sealed, with glass to metal solder seal terminals. Tolerance: ±10%.

SIZES — DIAMETER x LENGTH

J	.562" x 1⅛"	W	1.000" x 1⅞"	HH	.312" x 1⅛"
K	.562" x 1⅜"	X	1.000" x 2⅛"	JJ	.400" x ⅞"
M	.562" x 1⅝"	Y	1.000" x 2⅜"	KK	.400" x 1⅛"
P	.670" x 1⅝"	Z	1.000" x 2⅝"	LL	.500" x 1⅛"
Q	.670" x 1⅞"	FF	.235" x ¾"	YY	.175" x ¾"
T	.750" x 1⅞"	GG	.312" x ⅞"	ZZ	.195" x ¾"

Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-499
18F1286	118P10392S2	.01	YY	1.95	1.38	.88	.780
18F1288	118P15392S2	.015	ZZ				
18F1290	118P22392S2	.022	FF				
18F1292	118P33392S2	.033	FF				
18F1294	118P47392S2	.047	GG	1.97	1.15	.89	.787
18F1296	118P68392S2	.068	GG	2.02	1.18	.91	.806
18F1298	118P10492S2	.1	GG	2.04	1.19	.92	.814
18F1300	118P15492S2	.15	HH	2.07	1.21	.94	.828
18F1301	118P22492S2	.22	JJ	2.07	1.21	.94	.828
18F1302	118P27492S2	.27	KK	2.15	1.26	.97	.858
18F1303	118P33492S2	.33	KK	2.22	1.30	1.00	.888
18F1305	118P47492S2	.47	LL	2.33	1.36	1.05	.930
18F1306	118P56492S2	.56	LL	2.37	1.38	1.07	.948
18F1307	118P68492S2	.68	LL	2.40	1.40	1.08	.960
18F1308	118P82492S2	.82	J	2.48	1.45	1.12	.990
18F1309	118P10592S2	1.0	J	2.55	1.49	1.15	1.020
18F1310	118P15592S2	1.5	M	3.62	2.11	1.63	1.446
18F1311	118P20592S2	2.0	P	4.29	2.51	1.94	1.716
18F1312	118P30592S2	3.0	Q	4.50	2.63	2.03	1.800
18F1313	118P40592S2	4.0	T	4.80	2.80	2.16	1.920
18F1314	118P50592S2	5.0	W	5.25	3.07	2.37	2.100
18F1315	118P60592S2	6.0	W	6.00	3.50	2.70	2.400
18F1316	118P80592S2	8.0	W	6.15	3.59	2.77	2.460
18F1317	118P10692S2	10.0	Y	6.57	3.84	2.96	2.628
18F1318	118P12692S2	12.0	Z	7.41	4.33	3.34	2.964

400 VOLTS

Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-499
18F1321	118P10594S2	1.0	T	3.40	1.98	1.53	1.357
18F1322	118P20594S2	2.0	W	4.95	2.89	2.23	1.980
18F1323	118P30594S2	3.0	Z	5.85	3.42	2.64	2.340

600 VOLTS

Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-499
18F1324	118P10396S2	.01	GG	2.01	1.18	.91	.804
18F1325	118P15396S2	.015	GG	2.03	1.19	.92	.810
18F1326	118P22396S2	.022	HH	2.04	1.19	.92	.816
18F1328	118P47396S2	.047	KK	2.07	1.21	.93	.826
18F1329	118P68396S2	.068	KK	2.16	1.26	.98	.864
18F1330	118P10496S2	.1	LL	2.34	1.37	1.06	.936
18F1331	118P15496S2	.15	J	2.43	1.42	1.10	.972
18F1332	118P22496S2	.22	K	2.57	1.50	1.16	1.026
18F1334	118P47496S2	.47	P	3.08	1.80	1.39	1.230
18F1335	118P68496S2	.68	Q	3.33	1.95	1.50	1.332
18F1336	118P10596S2	1.0	W	4.35	2.54	1.96	1.740
18F1337	118P15596S2	1.5	W	4.59	2.68	2.07	1.836
18F1338	118P20596S2	2.0	X	5.55	3.24	2.50	2.220
18F1339	118P25596S2	2.5	Z	6.30	3.68	2.84	2.520

192P "PACER"—MINIATURE "FILMITE E" CAPACITORS

Nearly three times smaller than conventional paper-film tubulars. Sizes are the same as composition resistors. Entire unit insulated by heat shrinkable mylar sleeve. High insulation resistance. Operating temp. range —55°C to +85°C. Derate 50% @ 105°C. Tolerance ±10%. Average shipping wt. 2 oz.

80 VOLTS DC

Stk. No.	Type	F	D. x L.	1-24	25-49	50-99	100-249
18F2520	192P2229R8	.0022	9/64x5/16	.36	.27	.21	.166
18F2521	192P2729R8	.0027	9/64x5/16	.36	.27	.21	.166
18F2522	192P3329R8	.0033	9/64x5/16	.36	.27	.21	.166
18F2523	192P3929R8	.0039	9/64x5/16	.36	.27	.21	.166
18F2524	192P4729R8	.0047	9/64x5/16	.36	.27	.21	.166
18F2525	192P5629R8	.0056	11/64x3/8	.36	.27	.21	.166
18F2526	192P6829R8	.0068	11/64x3/8	.36	.27	.21	.166
18F2527	192P8229R8	.0082	11/64x3/8	.36	.27	.21	.166
18F2528	192P1039R8	.01	11/64x3/8	.36	.26	.20	.157
18F2529	192P1239R8	.012	11/64x3/8	.36	.27	.21	.168
18F2530	192P1539R8	.015	11/64x3/8	.39	.29	.23	.180
18F2531	192P1839R8	.018	11/64x3/8	.39	.30	.23	.182
18F2532	192P2239R8	.022	11/64x3/8	.42	.30	.24	.185
18F2533	192P2739R8	.027	7/32x7/16	.42	.31	.24	.188
18F2534	192P3339R8	.033	7/32x7/16	.42	.31	.24	.191
18F2535	192P3939R8	.039	7/32x9/16	.42	.32	.25	.195
18F2536	192P4739R8	.047	7/32x9/16	.45	.33	.25	.200
18F2537	192P5639R8	.056	15/64x9/16	.45	.34	.26	.207
18F2538	192P6839R8	.068	15/64x9/16	.48	.35	.27	.216
18F2539	192P8239R8	.082	19/64x1/2"	.48	.36	.28	.224
18F2540	192P1049R8	.1	19/64x1/2"	.51	.38	.29	.231
18F2541	192P1249R8	.12	19/64x5/8"	.60	.44	.35	.273
18F2542	192P1549R8	.15	19/64x5/8"	.63	.47	.37	.293
18F2543	192P1849R8	.18	21/64x5/8	.69	.52	.41	.322
18F2544	192P2249R8	.22	21/64x5/8	.78	.57	.45	.354
18F2545	192P2749R8	.27	21/64x7/8	.81	.61	.48	.378
18F2546	192P3349R8	.33	21/64x7/8	.87	.65	.51	.400
18F2547	192P3949R8	.39	21/64x13/16	.93	.69	.53	.424
18F2548	192P4749R8	.47	21/64x13/16	.96	.72	.58	.447

200 VOLTS DC

Stk. No.	Type	F	D. x L.	1-24	25-49	50-99	100-249
18F2242	192P47192	.00047	9/64x5/16	.33	.23	.18	.142
18F2243	192P56192	.00056	9/64x5/16	.30	.22	.17	.131
18F2244	192P68192	.00068	9/64x5/16	.30	.22	.17	.131
18F2245	192P82192	.00082	9/64x5/16	.30	.22	.17	.131
18F2246	192P10292	.001	9/64x5/16	.27	.19	.15	.114
18F2247	192P12292	.0012	9/64x5/16	.27	.19	.15	.114
18F2248	192P15292	.0015	9/64x5/16	.27	.19	.15	.114
18F2249	192P18292	.0018	11/64x5/16	.27	.19	.15	.115
18F2250	192P22292	.0022	11/64x5/16	.27	.19	.15	.116
18F2251	192P27292	.0027	11/64x5/16	.27	.19	.15	.116
18F2252	192P33292	.0033	11/64x5/16	.27	.19	.15	.117
18F2253	192P39292	.0039	11/64x7/16	.27	.19	.15	.118
18F2254	192P47292	.0047	11/64x7/16	.27	.20	.15	.119
18F2255	192P56292	.0056	11/64x7/16	.27	.20	.15	.119
18F2256	192P68292	.0068	11/64x7/16	.27	.20	.16	.122
18F2257	192P82292	.0082	11/64x1/2	.30	.21	.16	.126
18F2226	192P10392	.01	11/64x1/2	.30	.21	.17	.126
18F2227	192P12392	.012	7/32x7/16	.30	.22	.17	.132
18F2228	192P15392	.015	7/32x7/16	.30	.22	.17	.134
18F2229	192P18392	.018	7/32x9/16	.30	.22	.17	.136
18F2230	192P22392	.022	7/32x9/16	.30	.23	.18	.139
18F2231	192P27392	.027	15/64x9/16	.33	.24	.19	.146
18F2232	192P33392	.033	15/64x9/16	.33	.25	.20	.154
18F2233	192P39392	.039	19/64x1/2	.36	.26	.21	.162
18F2234	192P47392	.047	19/64x1/2	.39	.28	.22	.169
18F2235	192P56392	.056	19/64x5/8	.39	.29	.23	.179
18F2236	192P68392	.068	19/64x5/8	.42	.31	.24	.188
18F2237	192P82392	.082	21/64x5/8	.45	.32	.25	.197
18F2238	192P10492	.1	21/64x5/8	.45	.34	.26	.206
18F2239	192P12492	.12	21/64x7/8	.48	.35	.27	.216
18F2240	192P15492	.15	21/64x7/8	.48	.35	.27	.217
18F2241	192P22492	.22	21/64x13/16	.51	.37	.29	.228

121P METALIZED PAPER CAPACITORS

Designed to operate at 125°C without voltage derating. High insulation resistance—at 85°C minimum product of insulation resistance and capacitance is 20 megohm microfarads. Tol. ±10%. 150WVDC.

CASE SIZE

(J)	.562x1⅛	(Q)	.670x1⅞	(W)	1.000x1⅞
(K)	.562x1⅜	(T)	.750x1⅞	(X)	1.000x2⅛
(M)	.562x1⅝	(U)	.750x2⅜	(Y)	1.000x2⅜
(N)	.670x1⅜	(V)	.750x2⅝	(Z)	1.000x2⅝
(P)	.670x1⅝				

Stk. No.	Type	Mfd.	*Size	1-24	25-49	50-99	100-499	500-999
18F1410	121P15591R5S2	1.5	J	2.73	1.60	1.23	1.092	1.001
18F1411	121P20591R5S2	2.0	K	3.00	1.75	1.35	1.20	1.10
18F1412	121P25591R5S2	2.5	M	3.09	1.80	1.39	1.236	1.133
18F1413	121P30591R5S2	3.0	N	3.45	2.02	1.56	1.38	1.265
18F1414	121P35591R5S2	3.5	P	3.66	2.14	1.65	1.464	1.342
18F1415	121P40591R5S2	4.0	P	3.72	2.17	1.68	1.488	1.364
18F1416	121P50591R5S2	5.0	Q	4.08	2.38	1.84	1.632	1.496
18F1417	121P60591R5S2	6.0	T	4.44	2.59	2.00	1.776	1.628
18F1418	121P80591R5S2	8.0	U	5.16	3.01	2.33	2.064	1.892
18F1419	121P10691R5S2	10	V	5.97	3.49	2.69	2.388	2.189
18F1420	121P12691R5S2	12	W	6.75	3.94	3.04	2.70	2.475
18F1421	121P14691R5S2	14	X	7.53	4.40	3.39	3.012	2.761
18F1422	121P16691R5S2	16	Y	8.01	4.68	3.61	3.204	2.937
18F1423	121P18691R5S2	18	Z	9.12	5.32	4.11	3.648	3.344

DC PAPER-OIL CAPACITORS TYPE T-SIMILIAR TO MIL CP70 STYLE

For power supply filter specifications. Solder seam styles, rectangular cased. Operating temp.; —55°C to +85°C. CDE reserves the right to supply type T with a 1/8" variation in case height from that shown in the listing. Former styles TJU, TJH, and TJL were type T with bracket attached. Equivalent obtained by ordering T with universal bracket for type TJU, spade bracket for type TJH, and footed bracket for type TJL. Order brackets separately from table below, right colum. *2 needed per unit. †CP70D1-.

600 WORKING VOLTS DC

Stock No.	Type T-	MIL CP70E1-	Mfd.	H. x W. x D.	1-9	10-24	25-99	50-99	100-499	500-Up	Universal Mtg. Bracket Stk. No.	Universal Mtg. Bracket Type	Net	Footed Bracket Stk. No.	Footed Bracket CP0-7F	Net	*Spade Bracket St.k No.	*Spade Bracket CP0-7S	Net
15F549	6005		.5	2 1/4x1 13/16x1 1/16"	4.47	2.24	2.01	1.86	1.71	1.64	15F2000	18402	.16	15F2057	A2	.16	15F2020	SA2	.08
15F550	6010		1	2 1/4x1 13/16x1 1/16"	4.65	2.33	2.09	1.94	1.78	1.71	15F2000	18402	.16	15F2057	A2	.16	15F2020	SA2	.08
15F551	6020	FF205K1	2	2 7/8x1 13/16x1 1/16"	4.98	2.49	2.24	2.08	1.91	1.83	15F2000	18402	.16	15F2058	A3	.16	15F2021	SA3	.08
15F552	6040	FF405K1	4	3 1/2x2 1/2x1 3/16"	5.70	2.85	2.57	2.38	2.19	2.09	15F2001	18403	.16	15F2060	B3	.16	15F2024	SB3	.08
15F448	6060	FF605K1	6	4 3/4x2 1/2x1 3/16"	6.36	3.18	2.86	2.65	2.44	2.33	15F2001	18403	.16	15F2061	B6	.16	15F2027	SB6	.08
15F553	6080	FF805K1	8	3 7/8x3 3/4x1 1/4"	7.38	3.69	3.32	3.08	2.83	2.71	15F2002	18404	.16	15F2062	C2	.16	15F2028	SC2	.08
15F554	6100	FF106K1	10	4 3/4x3 3/4x1 1/4"	7.98	3.99	3.59	3.33	3.06	2.93	15F2002	18404	.16	15F2063	C4	.16	15F2030	SC4	.08
1000 WORKING VOLTS DC																			
15F541	10001		.1	2x1 13/16x1 1/16"	4.44	2.22	2.00	1.85	1.70	1.63	15F2000	18402	.16	15F2057	A2	.16	15F2020	SA2	.08
15F542	100025		.25	2 1/4x1 13/16x1 1/16"	4.50	2.25	2.03	1.88	1.73	1.65	15F2000	18402	.16	15F2057	A2	.16	15F2020	SA2	.08
15F586	10005		.5	2 1/4x1 13/16x1 1/16"	4.62	2.31	2.08	1.93	1.77	1.69	15F2000	18402	.16	15F2057	A2	.16	15F2020	SA2	.08
15F555	10010	FG105K1	1	2 1/4x1 13/16x1 1/16"	4.89	2.45	2.20	2.04	1.88	1.79	15F2000	18402	.16	15F2057	A2	.16	15F2020	SA2	.08
15F556	10020	FG205K1	2	3 7/8x1 13/16x1 1/16"	5.26	2.64	2.38	2.20	2.02	1.94	15F2000	18402	.16	15F2059	A5	.16	15F2022	SA5	.08
15F557	10040	FG405K1	4	4 3/4x2 1/2x1 3/16"	6.12	3.06	2.75	2.55	2.35	2.24	15F2001	18403	.16	15F2061	B6	.16	15F2027	SB6	.08
15F558	10080X	FG805K1	8	3 7/8x3 3/4x1 3/4"	8.07	4.04	3.63	3.36	3.09	2.96	15F2003	18405	.16	15F2064	D2	.27	15F2032	SD2	.14
15F559	10100	FG106K1	10	4 3/4x3 3/4x1 3/4"	9.15	4.58	4.12	3.81	3.51	3.36	15F2003	18405	.16	15F2065	D5	.27	15F2033	SD5	.14
15F587	10150	FG156K1	15	4 3/4x3 3/4x2 1/2"	12.90	6.45	5.81	5.38	4.95	4.73	15F2005	18407	.16	15F2066	F1	.58	15F2038	SF1	.29
1500 WORKING VOLTS DC																			
15F588	15005		.5	2 7/8x1 13/16x1 1/16"	8.28	4.14	3.73	3.45	3.17	3.04	15F2000	18402	.16	15F2058	A3	.16	15F2021	SA3	.08
15F560	15010	FH105K1	1	3 7/8x1 13/16x1 1/16"	5.01	2.51	2.26	2.09	1.92	1.84	15F2000	18402	.16	15F2059	A5	.16	15F2022	SA5	.08
15F561	15020X	FH205K1	2	4 1/4x2 1/2x1 3/16"	5.79	2.90	2.61	2.41	2.22	2.12	15F2001	18403	.16	15F2067	B5	.16	15F2026	SB5	.08
15F562	15040X	FH405K1	4	4 3/4x3 3/4x1 1/4"	7.26	3.63	3.27	3.03	2.78	2.66	15F2002	18404	.16	15F2063	C4	.16	15F2030	SC4	.08
15F563	15080	FH805K1	8	4 3/4x3 3/4x2 1/2"	11.82	5.91	5.32	4.93	4.53	4.33	15F2005	18407	.16	15F2066	F1	.58	15F2038	SF1	.29
15F564	15100X	FH106K1	10	1 3/4x3 3/4x3 3/16"	13.95	6.98	6.28	5.87	5.35	5.12	15F2006	18408	.27	15F2068	G2	.58	15F2040	SG2	.29
2000 WORKING VOLTS DC																			
15F589	20001		.1	2 1/4x1 13/16x1 1/16"	5.91	2.96	2.66	2.46	2.27	2.17	15F2000	18402	.16	15F2057	A2	.16	15F2020	SA2	.08
15F590	200025		.25	2 1/4x1 13/16x1 1/16"	6.06	3.03	2.73	2.53	2.32	2.22	15F2000	18402	.16	15F2057	A2	.16	15F2020	SA2	.08
15F591	20005		.5	[illegible] 7/8x1 13/16x1 1/16"	6.36	3.18	2.86	2.65	2.44	2.33	15F2000	18402	.16	15F2058	A3	.16	15F2021	SA3	.08
15F565	20010		1	3 1/8x2 1/2x1 3/16"	6.39	3.20	2.88	2.66	2.45	2.34	15F2001	18403	.16	15F2060	B3	.16	15F2024	SB3	.08
15F566	20020		2	3 7/8x3 3/4x1 1/4"	7.80	3.90	3.51	3.25	2.99	2.86	15F2002	18404	.16	15F2062	C2	.16	15F2029	SC3	.08
15F567	20040	FJ405K1	4	3 7/8x3 3/4x2 1/4"	10.50	5.25	4.73	4.38	4.03	3.85	15F2004	18406	.16	15F2069	E3	.27	15F2035	SE3	.14
15F593	20080		8	4 3/4x3 3/4x3 3/16"	15.45	7.73	6.95	6.44	5.92	5.67	15F2006	18408	.27	15F2068	G2	.58	15F2041	SG3	.29
2500 WORKING VOLTS DC																			
15F543	25005		.5	3 1/2x3 3/4x1 1/4"	7.35	3.88	3.31	3.06	2.82	2.70	15F2001	18403	.16	15F2062	C2	.16	15F2024	SB3	.08
15F569	25010	FK105K1	1	3 1/4x3 3/4x1 3/4"	8.34	4.17	3.75	3.48	3.20	3.06	15F2003	18405	.16	15F2070	D1	.27	15F2031	SD1	.14
15F571	25040		4	3 7/8x3 3/4x4 9/16"	15.21	7.61	6.84	6.34	5.83	5.58	15F2007	18409	.58	15F2071	J1	.58	15F2042	SJ1	.29
15F572	25100X	FK106K1	10	7x3 3/4x4 9/16	30.51	15.26	13.73	12.71	11.70	11.19	15F2007	18409	.58	15F2072	J8	.58	15F2047	SJ7	.29
3000 WORKING VOLTS DC																			
15F574	300025		.25	2 1/2x2 1/2x1 3/16"	8.91	4.46	4.01	3.71	3.42	3.27	15F2001	18403	.16	15F2073	B1	.16	15F2023	SB2	.08
15F575	30005		.5	3 7/8x2 1/2x1 3/16"	9.57	4.79	4.31	3.99	3.67	3.51	15F2001	18403	.16	15F2074	B4	.16	15F2025	SB4	.08
15F576	30010	FL105K1	1	3 7/8x3 3/4x2 1/4"	11.97	5.99	5.39	4.99	4.59	4.39	15F2004	18406	.16	15F2075	E3	.27	15F2035	SE3	.14
15F577	30020		2	4 1/8x3 3/4x3 3/16"	14.73	7.37	6.63	6.14	5.65	5.40	15F2006	18408	.27	15F2076	G1	.58	15F2039	SG1	.29
15F578	30040	FL405K1	4	4 3/4x3 3/4x4 9/16"	21.67	10.79	9.71	8.99	8.27	7.91	15F2007	18409	.58	15F2077	J3	.58	15F2044	SJ3	.29
4000 WORKING VOLTS DC																			
15F545	400025	FM254K1	.25	2 3/4x3 3/4x2 1/4"	13.11	6.56	5.90	5.46	5.03	4.81	15F2004	18406	.16	15F2078	E1	.27	15F2034	SE1	.14
15F546	40005	FM504K1	.5	3 7/8x3 3/4x2 1/4"	13.92	6.96	6.26	5.80	5.34	5.10	15F2004	18406	.16	15F2075	E3	.27	15F2035	SE3	.14
15F579	40010	FM105K1	1	5 1/4x3 3/4x2 1/4"	15.06	7.53	6.78	6.28	5.77	5.52	15F2004	18406	.16	15F2080	E6	.27	15F2037	SE6	.14
15F580	40020	FM205K1	2	5 1/8x3 3/4x4 9/16"	20.04	10.02	9.02	8.35	7.68	7.35	15F2007	18409	.58	15F2079	J4	.58	15F2048	SJ10	.29
15F581	40040A		4	8x3 3/4x4 9/16"	28.38	14.19	12.77	11.83	10.88	10.40									
5000 WORKING VOLTS DC																			
15F582	50005		.5	4 1/4x3 3/4x2 1/4"	14.40	7.20	6.48	6.00	5.52	5.28	15F2004	18406	.16	15F2069	E3	.27	15F2034	SE1	.14
15F583	50010	FN105K1	1	4 [illegible]/8x3 3/4x4 9/16"	20.22	10.11	9.10	8.43	7.75	7.41	15F2007	18409	.58	15F2081	J2	.58	15F2045	SJ4	.29
15F584	50020	FN205K1	2	6x3 3/4x4 9/16"	25.62	12.81	11.53	10.67	9.82	9.39	15F2004	18406	.16	15F2082	J6	.58	15F2036	SE4	.14
6000 WORKING VOLTS DC																			
15F547	60001X	FP104K1†	.1	3 3/8x3 3/4x2 1/4"	13.44	6.72	6.05	5.60	5.15	4.93	15F2007	18409	.58	15F2083	E2	.27	15F2043	SJ2	.29
15F585	60010A	FP105K1†	1	5 1/8x3 3/4x4 9/16"	22.05	11.03	9.92	9.19	8.45	8.09	15F2007	18409	.58	15F2084	J9	.58	15F2046	SJ6	.29

TYPE DYR OIL FILLED BATHTUBS

Widely used in military, communications, and industrial electronic equipment. All types are drawn case "bathtub" configurations provided with integral drilled mounting flange. Available in F (—55°C to +85°C). All styles supplied with terminal style B, non-removable soldered lug. Single, dual and triple capacitance units available.

600 WVDC

Stk. No.	Type DYR-	Mfd.	L.xW.xT.	1-9	10-24	25-49	50-99	100-499	500-999
15F500	6005	.05	1 13/16x1x3/4"	1.77	1.18	1.08	.74	.68	.65
15F501	6010	.1	1 13/16x1x3/4"	1.89	1.26	1.10	.79	.72	.69
15F502	6025	.25	1 13/16x1x3/4"	1.92	1.28	1.12	.80	.74	.70
15F503	6050	.5	1 13/16x1x7/8"	2.13	1.42	1.24	.89	.82	.78
15F504	6100	1	2x1 3/4x7/8"	2.55	1.70	1.49	1.06	.98	.94
15F505	6200	2	2x2x1 1/8"	3.33	2.22	1.94	1.39	1.28	1.22

(Con't. on next col.)

600 WVDC (Cont'd.)

Stk. No.	Type	Mfd.	L. x W. x T.	1-9	10-24	25-49	50-99	100-499	500-999
15F506	60055	.05-.05	1 13/16x1x3/4"	2.52	1.68	1.47	1.05	.97	.92
15F507	6011J	.1-.1	1 13/16x1x3/4"	2.61	1.74	1.52	1.09	1.00	.96
15F508	6022X	.25-.25	1 13/16x1x7/8"	2.85	1.90	1.66	1.19	1.09	1.05
15F509	6055	.5-.5	2x1 3/4x7/8"	3.30	2.20	1.93	1.38	1.27	1.21
15F510	6110	1.0-1.0	2x2x1 1/8"	4.08	2.72	2.38	1.70	1.56	1.50
15F511	6111	3x.1	1 13/16x1x3/4"	2.97	1.98	1.73	1.24	1.14	1.09
15F513	6555	3x.5	2x2x1 1/8"	4.47	2.98	2.61	1.86	1.71	1.64

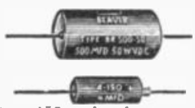
1000 VDC WORKING

Stk. No.	Type	Mfd.	L. x W. x T.	1-9	10-24	25-49	50-99	100-499	500-999
15F515	10010	.1	1 13/16xix3/4"	1.92	1.28	1.12	.80	.74	.70
15F516	10025	.25	1 13/16x1x3/4"	2.07	1.38	1.21	.86	.79	.76
15F517	10050	.5	2x1 3/4x7/8"	2.25	1.50	1.31	.94	.86	.83
15F518	10100	1	2x2x1 1/8"	3.00	2.00	1.75	1.25	1.15	1.10
15F520	10011	.1-.1	1 13/16x1x3/4"	2.73	1.82	1.59	1.14	1.05	1.00

Cornell-Dubilier Capacitors

CDE

TYPE BBR AND BR "BLUE BEAVER" ELECTROLYTIC CAPACITORS



Compact aluminum cased, cardboard insulated electrolytics. Type BR section tabs and leads are rivited. Type BBR negative lead is rivited and positive lead is crimped. Voltage ratings up to and including 150 volts feature etched cathcdes.

6 DC W. VOLTS

Stock No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999	1000 Up
15F310	BBR5-6	5	3/8x1 1/16"	.48	.35	.27	.22	.19	.15
15F311	BBR25-6	25	3/8x1 1/16"	.51	.37	.29	.23	.20	.16
15F312	BBR50-6	50	3/8x1 1/16"	.57	.41	.32	.26	.21	.18
15F314	BR100-6	100	1/2x1 1/16"	.72	.50	.39	.31	.24	.22
15F315	BR250-6	250	1/2x1 1/16"	.81	.64	.50	.40	.32	.28
15F317	BR500-6	500	1/2x1 7/16"	.93	.73	.57	.45	.35	.32
15F318	BR1000-6	1000	5/8x1 11/16"	1.14	.89	.69	.55	.44	.39
15F319	BR2000-6	2000	3/4x2"	1.38	1.04	.84	.67	.53	.48
15F320	BR3000-6	3000	7/8x2"	1.71	1.35	1.04	.84	.72	.60
15F321	BR4000-6	4000	1x2 3/16"	1.95	1.54	1.20	.95	.82	.68

15 DC W. Volts

Stock No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999	1000 Up
15F316	BR100-15	100	1/2x1 1/16"	.75	.52	.41	.33	.25	.23
15F159	BR250-15	250	1/2x1 1/16"	.93	.73	.57	.46	.36	.33
15F160	BR500-15	500	1/2x1 7/16"	1.05	.82	.64	.51	.40	.36
15F165	BR1000-15	1000	5/8x1 11/16"	1.38	1.07	.83	.67	.53	.48
15F166	BR2000-15	2000	3/4x2"	1.92	1.26	.97	.78	.64	.56
15F194	BR3000-15	3000	7/8x2 3/16"	2.37	1.82	1.42	1.14	.97	.81
15F195	BR4000-15	4000	7/8x2 3/4"	2.91	2.25	1.75	1.40	1.19	1.00
15F196	BR5000-15	5000	1x3"	3.15	2.45	1.91	1.53	1.30	1.09

25 DC W. Volts

Stock No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999	1000 Up
15F317	BR10-25	10	3/8x1 1/16"	.60	.42	.33	.26	.21	.19
15F318	BR20-25	20	3/8x1 1/16"	.60	.43	.34	.27	.22	.19
15F319	BR25-25	25	3/8x1 1/16"	.60	.44	.35	.28	.22	.20
15F320	BR50-25	50	1/2x1 1/16"	.66	.47	.37	.30	.23	.21
15F321	BR100-25	100	1/2x1 1/16"	.81	.57	.45	.36	.29	.25
15F162	BR250-25	250	1/2x1 7/16"	1.02	.79	.62	.49	.39	.35
15F163	BR500-25	500	5/8x1 11/16"	1.38	1.07	.83	.67	.53	.47
15F112	BR1000-25	1000	3/4x2"	2.37	1.82	1.42	1.14	.89	.81
15F113	BR2000-25	2000	7/8x2 1/2"	2.91	2.25	1.76	1.41	1.12	1.00
15F345	BR3000-25	3000	1"x3"	3.00	2.47	1.93	1.54	1.32	1.10
15F346	BR4000-25	4000	1x4 1/16"	3.90	2.92	2.28	1.82	1.56	1.30

50 DC W. Volts

Stock No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999	1000 Up
15F322	BBR1-50	1	3/8x1 1/16"	.54	.39	.31	.24	.19	.17
15F323	BBR2-50	2	3/8x1 1/16"	.54	.39	.31	.24	.19	.17
15F324	BBR4-50	4	3/8x1 1/16"	.60	.42	.32	.26	.20	.18
15F325	BBR5-50	5	3/8x1 1/16"	.60	.42	.32	.26	.20	.18
15F326	BBR10-50	10	3/8x1 1/16"	.60	.42	.33	.27	.21	.19
15F327	BR25-50	25	1/2x1 1/16"	.63	.44	.35	.28	.22	.20
15F131	BR50-50	50	1/2x1 1/16"	.72	.51	.40	.32	.25	.23
15F164	BR100-50	100	1/2x1 7/16"	.84	.59	.46	.37	.30	.26
15F199	BR150-50	150	5/8x1 7/16"	.93	.66	.51	.41	.33	.29
15F198	BR250-50	250	3/4x1 7/16"	1.05	.87	.64	.51	.40	.37
15F197	BR500-50	500	7/8x1 11/16"	1.44	1.11	.86	.69	.55	.49
15F114	BR1000-50	1000	1x2 11/16"	2.52	1.93	1.49	1.20	1.03	.85
15F536	BR1500-50	1500	1 1/8x2 3/4"	3.00	2.26	1.76	1.41	1.26	1.01
15F537	BR2000-50	2000	1 3/8x2 3/4"	3.48	2.60	2.02	1.61	1.38	1.15
15F347	BR3000-50	3000	1 3/8x3 1/16"	3.90	2.92	2.28	1.82	1.56	1.30

150 DC W. VOLTS

Stock No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999	1000 Up
15F330	BBR4-150	4	3/8x1 1/16"	.60	.43	.33	.27	.21	.19
15F331	BR8-150	8	1/2x1 1/16"	.63	.45	.34	.28	.22	.20
15F332	BR10-150	10	1/2x1 1/16"	.63	.46	.35	.29	.23	.20
15F333	BR12-150	12	1/2x1 1/16"	.66	.42	.36	.29	.23	.21
15F334	BR16-150	16	1/2x1 7/16"	.69	.49	.38	.31	.23	.22
15F313	BR20-150	20	1/2x1 7/16"	.72	.50	.39	.31	.24	.22
15F302	BR25-150	25	3/4x1 7/16"	.75	.53	.41	.33	.25	.23
15F862	BR30-150	30	3/4x1 7/16"	.78	.55	.43	.34	.26	.24
15F124	BR40-150	40	3/4x1 11/16"	.81	.58	.45	.36	.29	.26
15F125	BR50-150	50	3/4x1 11/16"	.84	.59	.46	.37	.30	.27
15F303	BR60-150	60	7/8x1 11/16"	.90	.63	.49	.39	.31	.28
15F126	BR80-150	80	7/8x1 11/16"	.96	.68	.54	.43	.33	.30
15F167	BR100-150	100	7/8x2"	1.05	.74	.58	.46	.36	.33
15F168	BR150-150	150	1x2 3/16"	1.14	.82	.63	.51	.40	.36
15F098	BR200-150	200	1x3"	1.32	.98	.77	.62	.46	.44
15F118	BR250-150	150	1x3 3/16	1.53	1.17	.90	.73	.62	.52
15F099	BR300-150	300	1x3 13/16"	1.77	1.35	1.04	.84	.71	.60

250 DC W. Volts

Stock No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999	1000 Up
15F993	BR4-250	4	1/2x1 1/16"	.60	.47	.37	.30	.23	.21
15F994	BR8-250	8	1/2x1 7/16"	.69	.54	.41	.33	.26	.24
15F995	BR12-250	12	1/2x1 7/16	.75	.57	.44	.36	.27	.25
15F115	BR16-250	16	3/4x1 7/16"	.78	.60	.47	.38	.29	.27
15F116	BR20-250	20	3/4x1 7/16"	.81	.64	.49	.40	.31	.28
15F304	BR30-250	30	3/4x1 11/16"	.87	.68	.53	.42	.33	.30
15F117	BR40-250	40	3/4x2"	.93	.73	.57	.46	.36	.33
15F305	BR50-250	50	7/8x1 11/16"	1.02	.80	.62	.50	.40	.36
15F306	BR60-250	60	1x1 11/16"	1.08	.84	.65	.52	.41	.37
15F119	BR100-250	100	1x2 3/16"	1.47	.96	.75	.60	.48	.43
15F120	BR150-250	150	1 1/8x3"	1.89	1.12	.87	.70	.60	.50
15F309	BR200-250	200	1 3/8x3 1/8"	2.10	1.28	1.00	.80	.69	.57

350 DC W. Volts

Stock No.	Type	Mfd.	D x L	1-24	25-49	50-49	100-499	500-499	1000 Up
15F886	BR4-350	4	5/8x1 1/16"	.63	.47	.38	.30	.24	.22
15F887	BR8-350	8	5/8x1 7/16"	.72	.55	.43	.34	.26	.24
15F888	BR12-350	12	3/4x1 7/16"	.78	.60	.47	.38	.29	.27
15F890	BR20-350	20	3/4x1 7/16"	.87	.68	.52	.42	.33	.30
15F123	BR30-350	30	3/4x2"	.99	.77	.60	.48	.39	.34
15F892	BR40-350	40	7/8x2"	1.05	.81	.62	.51	.40	.36
15F[illegible]	BR50-350	50	1x2"	1.11	.87	.68	.54	.47	.39
15F894	BR60-350	60	1x2"	1.17	.91	.71	.57	.45	.40
15F895	BR80-350	80	1x3"	1.26	.98	.78	.63	.54	.45
15F896	BR100-350	100	1x3"	1.53	1.11	.86	.69	.55	.49
15F121	BR150-350	150	1 3/8x3"	2.37	1.36	1.05	.85	.73	.60
15F122	BR200-350	200	1 3/8x4 1/8"	2.70	1.72	1.34	1.11	.92	.76

450 DC W. Volts

Stock No.	Type	Mfd.	D x L	1-24	25-49	50-49	100-499	500-499	1000 Up
15F102	BR1-450	1	5/8x1 1/16"	.66	.51	.39	.32	.24	.23
15F103	BR2-450	2	5/8x1 1/16"	.66	.52	.40	.32	.25	.23
15F104	BR4-450	4	5/8x1 1/16"	.69	.53	.42	.34	.26	.24
15F105	BR8-450	8	3/4x1 7/16"	.75	.59	.46	.37	.29	.26
15F106	BR10-450	10	3/4x1 7/16"	.78	.62	.47	.38	.30	.26
15F107	BR12-450	12	3/4x1 7/16"	.81	.64	.50	.40	.31	.28
15F1[illegible]	BR16-450	16	3/4x1 11/16"	.84	.65	.53	.42	.33	.30
15F109	BR20-450	20	7/8x1 11/16"	.93	.73	.56	.45	.35	.32
15F110	BR30-450	30	1x2"	1.02	.80	.62	.50	.39	.35
15F111	BR40-450	40	1x2 3/16"	1.08	.83	.64	.52	.41	.37
15F147	BR60-450	60	1x3"	1.41	1.08	.83	.67	.58	.48
15F148	BR80-450	80	1x3 3/16"	1.68	1.28	.99	.79	.64	.57
15F169	BR100-450	100	1x3 13/16"	1.92	1.48	1.15	.92	.80	.66
15F127	BR150-450	150	1 3/8x3 5/8"	2.85	2.00	1.55	1.27	1.07	.89
15F128	BR200-450	200	1 3/8x4 1/8"	3.00	2.50	1.95	1.56	1.33	1.11

500 DC W. Volts

No. Stock	Type	Mfd.	D x L	1-24	25-49	50-49	100-499	500-499	1000 Up
15F307	BR4-500	4	5/8x1 7/16"	.72	.56	.43	.35	.30	.25
15F100	BR8-500	8	3/4x1 7/16"	.78	.61	.47	.38	.31	.27
15F308	BR12-500	12	3/4x1 11/16"	.84	.66	.51	.41	.34	.29
15F101	BR16-500	16	7/8x1 11/16"	.90	.70	.54	.43	.35	.31
15F145	BR20-500	20	7/8x2"	.96	.74	.60	.47	.36	.33
15F146	BR30-500	30	1x2"	1.05	.82	.66	.52	.45	.37

600 DC W. VOLTS

Stock No.	Type	Mfd.	D x L	1-24	25-49	50-49	100-499	500-499	1000 Up
15F183	BR4-600	4	13/16x2 7/16"	1.44	1.08	.84	.67	.58	.48
15F185	BR8-600	8	13/16x3 3/16"	1.68	1.26	.98	.78	.67	.56
15F186	BR10-600	10	15/16x3 3/16"	1.80	1.35	1.05	.84	.72	.60
15F187	BR12-600	12	1 1/16x3 3/16"	1.92	1.46	1.12	.90	.77	.64
15F188	BR16-600	16	1 1/16x3 3/16"	2.10	1.58	1.23	.98	.84	.70
15F184	BR20-600	20	1 1/16x3 11/16	2.31	1.73	1.35	1.08	.92	.77

700 DC W. VOLTS

Stock No.	Type	Mfd.	D x L	1-24	25-49	50-49	100-499	500-499	1000 Up
15F189	BR8-700	8	15/16x3 3/16"	1.74	1.31	1.02	.81	.70	.58
15F190	BR10-700	10	1 1/16x3 3/16"	1.86	1.40	1.09	.87	.74	.62
15F191	BR12-700	12	1 1/16x3 11/16	1.98	1.49	1.16	.92	.79	.66
15F192	BR16-700	16	1 1/16x4 5/16"	2.25	1.69	1.31	1.05	.90	.75

NON-POLARIZED ELECTROLYTICS

Suitable for use when no DC polarized voltage is present. Units are physically similar to the type BR-axial lead, hermetically sealed in aluminum cases with cardboard insulating sleeves. For use in crossover networks and in boot-strap filtering applications.

Stk. No.	Type BRNP-	Mfd.	Volts	Size	1-24	25-49	50-99	100-499	500-999	1000 Up
15F1674	1000-3	1000	3	1 5/16x2 3/16	1.29	.92	.77	.62	.53	.488
15F1675	500-10	500	10	1 3/16x1 5/8	1.20	.91	.75	.56	.44	.35
15F1676	20-30	20	30	1 1/16x1 1/4	.75	.54	.42	.33	.28	.25
15F1677	4-50	4	50	1 1/16x1 1/4	.75	.51	.40	.30	.26	.225
15F1678	5-400	5	400	1 3/16x1 5/8	.81	.56	.42	.33	.28	.25
15F1679	20-400	20	400	1 1/16x2 3/8	1.20	.91	.75	.60	.45	.40
15F1680	10-400	10	400	1 5/16x1 7/8	.93	.71	.57	.43	.38	.325
15F1690	1-50	1	50	9/16x1 1/4"	.64	.48	.37	.30	.24	.213
15F1691	2-50	2	50	9/16x1 1/4"	.64	.48	.37	.30	.24	.213

● NEW CAP-KIT

The type BR tubular electrolytic assortment is ideal for prototype shops,, laboratory work, and general maintenence. The kit includes one each of the most popular BR ratings.

Type	Mfd.	WVDC	Type	Mfd.	WVDC
BR2000-25	2000	25	BR100-150	100	150
BR25-50	25	50	BR4-450	4	450
BR100-50	50	100	BR10-450	10	450
BR250-50	250	50	BR20-450	20	450
BR500-50	500	50	BR40-450	40	450
BR1000-50	1000	50	BR100-450	100	450
BR50-150	50	150			

15F480. NET 13.77

Cornell-Dubilier Capacitors

COMPUTER GRADE HIGH CAPACITANCE TYPE FAH

Designed for use in computer power supplies and other applications where banks of high capacitance filters are required. Low leakage current, minimum ESR, high 120cps ripple currents, molded terminal block with safety vent seal, provided with screw terminals, plastic insulating sleeve. Dual rated as shown, minimum operating temperature —40°C.

Stock No.	Type FAH—	Cap. Mfd.	Size	ESR Ohms	1-49	50-99	100-249	250-up
65C: 10V DCW, 15VS; 85C: 8V DCW, 10VS								
15F1807	353-10	35,000	2x5⅝	.043	4.50	4.05	3.60	3.30
15F1808	503-10	50,000	2½x4⅝	.036	6.15	5.52	4.92	4.61
65C: 15V DCW, 20VS; 85C: 10V DCW, 15VS								
15F1809	143-15	14,000	1¾x4⅛	.067	3.30	2.90	2.58	2.37
15F1810	253-15	25,000	2x5⅝	.051	4.55	4.11	3.66	3.36
15F1811	403-15	40,000	3x4⅛	.040	5.90	5.29	4.68	4.29
65C: 25V DCW, 35VS; 85C: 20V DCW, 30VS								
15F1812	152-25	1,500	1⅜x2⅛	.17	1.50	1.35	1.20	1.10
15F1813	103-25	10,000	2x4⅛	.066	3.40	3.04	2.70	2.48
15F1814	203-25	20,000	2½x4⅛	.047	4.95	4.46	3.96	3.63
15F1815	323-25	32,000	3x4⅝	.037	6.18	5.55	4.92	4.51
65C: 50V DCW, 65VS; 85C: 40V DCW, 55VS								
15F1816	801-50	800	1⅜x2⅛	.35	1.55	1.42	1.26	1.16
15F1817	252-50	2,500	1⅜x4⅛	.15	1.90	1.69	1.50	1.38
15F1818	402-50	4,000	1¾x4⅛	.115	2.55	2.30	2.04	1.87
15F1819	502-50	5,000	2x4⅛	.099	3.30	3.00	2.64	2.42
15F1820	103-50	10,000	2½x4⅛	.07	5.30	4.80	4.26	3.91
15F1821	203-50	20,000	3x5⅝	.047	7.35	6.64	5.88	5.41
65C: 100V DCW, 135VS; 85C: 75V DCW, 100VS								
Stock No.	**Type FAH—**	**Cap. Mfd.**	**Size**	**ESR Ohms**	**1-49**	**50-99**	**100-249**	**250-up**
15F1822	102-100	1,000	1⅜x4⅛	.225	2.05	1.83	1.62	1.49
15F1823	402-100	4,000	2½x4⅛	.112	4.65	4.19	3.72	3.41
15F1824	532-100	5,300	3x4⅛	.093	5.20	4.65	4.14	3.80
65C: 150V DCW, 185VS; 85C: 125V DCW, 150VS								
15F1825	751-150	750	1⅜x4⅛	.375	2.05	1.82	1.62	1.49
15F1826	202-150	2,000	2x4⅝	.128	3.90	3.52	3.12	2.86
15F1827	602-150	6,000	3x5⅝	.072	7.15	6.40	5.70	5.32
65C: 200V DCW, 250VS; 85C: 150V DCW, 200VS								
15F1828	501-200	500	1⅜x4⅛	.56	1.95	1.74	1.56	1.43
15F1829	202-200	2,000	2½x4⅛	.127	4.30	3.85	3.42	3.14
65C: 250V DCW, 300VS; 85C: 200V DCW, 250VS								
15F1830	102-250	1,000	2x4⅝	.28	4.50	4.05	3.60	3.30
15F1831	152-250	1,500	2½x4⅛	.15	5.05	4.60	4.08	3.74
65C: 350V DCW, 400VS; 85C:300V DCW, 350VS								
15F1832	351-350	350	1¾x4⅛	.56	2.55	2.30	2.04	1.87
15F1833	102-350	1,000	3x4⅛	.198	5.40	4.85	4.32	3.96
65C: 450V DCW, 525VS; 85C: 400V DCW, 475VS								
15F1834	251-450	250	1¾x4⅛	.782	2.80	2.50	2.22	2.04
15F1835	501-450	500	2x5⅝	.392	3.75	3.40	3.00	2.75
15F1836	861-450	860	3x4⅛	.215	6.45	5.80	5.16	4.73

"KR" ALUMINUM CAN CAPACITOR

Single hole inverted mounting aluminum can electrolytics. Ideal for replacement of 1" diameter wet type electrolytics in older equipment. Shipping wt., 6 oz.

Stk. No.	Type	VDC	Mfd.	DxL	1-24	25-49	50-99	100-499	500-999
15F450	KR604C	600	4	1⅜x3½"	1.77	1.32	1.02	.90	.86
15F451	KR608C	600	8	1⅜x4⅜"	1.89	1.50	1.15	1.08	.98
15F452	KR616C	600	16	1⅜x4⅜"	2.25	1.68	1.28	1.14	1.10
15F459	KR540	450	40	1⅜x4⅜"	1.89	1.08	.83	.74	.71

DUAL SEPARATE SECTION UNITS

Stock No.	Type	Mfd.	DxL	1-24	25-49	50-99	100-499	500-999
15F460	KR588A	8-8	1⅜x3"	2.25	1.16	.90	.80	.77

NLW ELECTROLYTIC CAPACITORS

Type NLW. Rugged physical construction. Hermetically sealed aluminum foil electrolytic capacitors. Low leakage currents; freedom from shorts. Long shelf and operating life. Suitable for printed circuits. Tinned copper leads with plastic sleeves. Temperature range, —40°C to +85°. Tol. —10% to +75%.

Stock No.	Type NLW	Cap. Mfd.	WV DC	DXL	1-24	25-49	50-99	100-499	500-999	1000-Up
15F1003	25-3	25	3	¼x½	.51	.378	.288	.234	.189	.17
15F1042	00-3	100	3	⅜x⅝	.81	.617	.470	.382	.309	.26
15F1007	200-3	200	3	⅜x⅞	.81	.617	.470	.382	.309	.26
15F2085	250-3	250	3	⅜x1	.81	.617	.470	.382	.309	.26
15F2086	300-3	300	3	⅜x1	.87	658	.501	.407	.329	.29
15F2087	450-3	450	3	⅜x1½	.96	.722	.550	.447	.361	.32
15F1014	10-6	10	6	3/16x½	.54	.397	.302	.246	.198	.18
15F2088	20-6	20	6	¼x½	.54	.397	.302	.246	.198	.17
15F1018	30-6	30	6	¼x⅝	.54	.397	.302	.246	.198	.18
15F2089	150-6	150	6	⅜x⅞	.81	.617	470	.382	.309	.26
15F2090	250-6	250	6	⅜x1¼	.87	.658	.501	.407	.329	.29
15F2091	300-6	300	6	⅜x1½	.93	.706	.538	.437	.353	.31
15F1025	25-10	25	10	¼x⅝	.75	.55	.419	.341	.275	.25
15F1026	50-10	50	10	5/16x¾	.81	.617	.470	.382	.309	.26
15F2092	15-12	15	12	¼x½	.57	.42	.32	.26	.21	.18
15F1059	100-12	100	12	⅜x¾	.81	.617	.470	.382	.309	.26
15F1060	200-12	200	12	⅜x1¼	.93	.689	.525	.426	.344	.30
15F2093	250-12	250	12	⅜x1½	.96	.722	.550	.447	.361	.32
15F1085	4-15	4	15	3/16x½	.57	.42	.32	.26	.21	.18
15F1028	5-15	5	15	3/16x½	.57	.422	.322	.261	.211	.20
15F2094	6-15	6	15	3/16x½	.57	.422	.322	.261	.211	.20
15F1029	10-15	10	15	¼x½	.57	.42	.32	.26	.21	.19
15F1062	15-15	15	15	¼x⅝	.57	.42	.32	.26	.21	.19
15F1030	20-15	20	15	¼x⅝	.57	.42	.32	.26	.21	.19
15F1087	25-15	25	15	5/16x⅝	.75	.55	.419	.341	.275	.25
15F1063	50-15	50	15	⅜x⅝	.81	.617	.47	.382	.309	.26
15F1089	75-15	75	15	⅜x¾	.81	.617	.47	.382	.309	.26
15F1064	100-15	100	15	⅜x⅞	.81	.617	.47	.382	.309	.26
15F2095	125-15	125	15	⅜x1	.81	.617	.47	.382	.309	.27
15F2096	150-15	150	15	⅜x1¼	.87	.658	.501	.407	.329	.29
15F2097	200-15	200	15	⅜x1½	.96	.722	.55	.447	.361	.32
15F2098	3-25	3	25	3/16x½	.57	.435	.331	.269	.217	.20
15F1033	6-25	6	25	¼x½	.57	.435	.331	.269	.217	.19
15F1092	8-25	8	25	¼x½	.57	.435	.331	.269	.217	.20
15F1034	10-25	10	25	¼x⅝	.57	.435	.331	.269	.217	.20
15F1035	15-25	15	25	15/16x⅝	.75	.55	.419	.341	.275	.25
15F1763	25-25	25	25	⅜x⅝	.81	.617	.47	.382	.309	.26
15F1094	35-25	35	25	⅜x¾	.81	.617	.47	.382	.309	.26
15F1764	40-25	40	25	⅜x¾	.81	.617	.47	.382	.309	.26
15F1765	50-25	50	25	⅜x⅞	.81	.617	.47	.382	.309	.26
15F1766	100-25	100	25	⅜x1½	.87	.658	.501	.407	.329	.29
15F1096	1-50	1	50	3/16x½	.57	.42	.32	.26	.21	.20
15F1097	2-50	2	50	3/16x½	.54	.416	.317	.257	.208	.18
15F2099	3-50	3	50	¼x½	.57	.435	.331	.269	.217	.19
15F1767	4-50	4	50	¼x½	.57	.435	.331	.269	.217	.19
15F1037	5-50	5	50	¼x⅝	.57	.435	.331	.269	.217	.19
15F2100	8-50	8	50	5/16x⅝	.81	.596	.454	.369	.298	.26
15F1038	10-50	10	50	5/16x⅝	.81	.596	.454	.369	.298	.26
15F1144	15-50	15	50	⅜x⅝	.81	.617	.47	.382	.309	.26
15F1039	20-50	20	50	⅜x⅝	.81	.617	.47	.382	.309	.26
15F1145	25-50	25	50	⅜x¾	.84	.63	.48	.39	.315	.27
15F1066	30-50	30	50	⅜x¾	.84	.63	.48	.39	.315	.27
15F2101	35-50	35	50	⅜x⅞	.84	.63	.48	.39	.315	.28
15F1147	40-50	40	50	⅜x1	.84	.63	.48	.39	.315	.28
15F1768	50-50	50	50	⅜x1¼	.87	.658	.501	.407	.329	.29
15F1067	75-50	75	50	⅜x1½	.87	.658	.501	.407	.329	.29
15F1040	2-100	2	100	¼x⅝	.81	.596	.454	.369	.298	.26
15F1045	10-100	10	100	⅜x⅞	.81	.617	.47	.382	.309	.28
15F1047	20-100	20	100	⅜x1½	.84	.63	.48	.39	.315	.27
15F2102	1-150	1	150	¼x½	.84	.63	.48	.39	.315	.27
15F1148	2-150	2	150	5/16x⅝	.84	.63	.48	.39	.315	.27
15F2103	4-150	4	150	⅜x⅝	.84	.63	.48	.39	.315	.27
15F1049	5-150	5	150	⅜x⅝	.84	.63	.48	.39	.315	.27
15F1051	8-150	8	150	⅜x⅞	.84	.63	.48	.39	.315	.27
15F1052	10-150	10	150	⅜x1	.84	.63	.48	.39	.315	.27
15F1149	15-150	15	150	⅜x1¼	.87	.658	.501	.407	.329	.28
15F1769	18-150	18	150	⅜x1½	.87	.658	.501	.407	.329	.28

Electrolytic Capacitors

CDE

WIDE APPLICATION RANGE TWIST-PRONG ELECTROLYTIC CAPACITORS

Wide application range Twist-Prongs provide proper replacement for any electrolytic marked with a capacitance within range on wide application label. Proper replacement instantly available. Highest purity materials.

Tolerance from nominal rated capacitance:

Rated DC Voltage	Capacitance Tolerance
3-50 volts, inclusive	—10% to +150%
51-350 volts, inclusive	—10% to +100%
351-500 volts, inclusive	—10% to +50%

CONVERT CODE-LETTER TO SIZE USING THIS TABLE

Code Letter	Size	Code Letter	Size	Code Letter	Size
A	1x1½	E	1 x3	J	1⅜x3½
B	1x1¾	F	1⅜x2	K	1⅜x3⅝
C	1x2	G	1⅜x2½	L	1⅜x4
D	1x2½	H	1⅜x3		

SINGLE-SECTION TWIST-PRONG ELECTROLYTICS (AA)

Stock No.	Type AA—	CAP. MFD.	Size	1-24	25-49	50-99	100-499	500-999
10-16 WVDC								
15F215	0060	500-1000	A	1.26	.93	.73	.540	.477
15F216	0070	1000-2000	F	1.92	1.43	1.11	.824	.729
15F277	0080	1500-3000	F	2.40	1.78	1.39	1.031	.912
10-25 WVDC								
15F213	0130	500-1000	F	1.74	1.29	1.01	.748	.661
10-50 WVDC								
15F279	0160	250-500	F	1.44	1.07	.83	.620	.549
15F262	0174	750-1500	H	2.46	1.83	1.42	1.056	.934
10-150 WVDC								
15F1682	0200	30-50	A	.90	.66	.51	.380	.336
15F288	0263	200-300	F	1.59	1.19	.93	.688	.608
10-250 WVDC								
15F1683	0267	80-125	E	1.29	.96	.74	.553	.489
15F210	0316	100-160	G	1.65	1.17	.91	.680	.600
10-300 WVDC								
15F1684	0350	60-100	D	1.29	.96	.75	.556	.492
15F211	0357	120-200	G	2.01	1.49	1.16	.861	.761
10-350 WVDC								
15F2[illegible]7	0415	100-150	G	1.95	1.44	1.12	.833	.737
15F1687	0417	250-300	L	2.97	2.21	1.72	1.279	1.132
10-450 WVDC								
15F[illegible]06	0510	60-80	G	1.74	1.30	1.01	.753	.666
15F1689	0514	100-125	J	2.22	1.67	1.30	.962	.851
10-500 WVDC								
15F200	0520	7-10	A	.90	.68	.53	.390	.345
15F205	0550	30-40	D	1.32	.97	.76	.563	.498
15F202	0560	60-80	H	2.07	1.53	1.19	.885	.783

DUAL-SECTION TWIST-PRONG ELECTROLYTICS (BB)

10-150 VDCW

STOCK NO.	TYPE BB	CAP. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F293	0141	20-40						
		20-40	A	1.11	.79	.61	.454	.401
15F231	0150	30-50						
		15-30	A	1.11	.79	.61	.454	.401
15F232	0171	50-80						
		50-80	C	1.29	.92	.71	.530	.469

10-350 VDCW

Stock No.	Type BB	Cap. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F225	0300	15-20						
		15-20	C	1.20	.86	.67	.494	.437
15F226	0310	20-30						
		20-30	D	1.38	.95	.74	.550	.486
10-450 WVDC								
15F220	0400	15-20						
		15-20	D	1.38	.95	.74	.551	.488
15F447	0410	20-30						
		7-10	E	1.38	.96	.75	.554	.490
15F221	0430	20-30						
		20-30	F	1.77	1.24	.96	.716	.634
15F222	0440	30-40						
		15-20	F	1.77	1.24	.96	.716	.634
15F224	0480	60-80						
		30-40	K	2.43	1.72	1.34	.992	.877
10-500 WVDC								
15F219	0490	7-10						
		7-10	C	1.17	.86	.67	.498	.440
15F223	0530	30-40						
		30-40	G	2.28	1.61	1.25	.930	.822

TRIPLE-SECTION TWIST-PRONG ELECTROLYTICS (CC)

10-150 WVDC

Stock No.	Type	Cap. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F249	CC0090	20-40						
		20-40						
		20-40	B	1.47	.93	.72	.536	.474

TRIPLE-SECTION TWIST-PRONG ELECTROLYTICS (CC) (Cont.)

10-150 WVDC

Stock No.	Type	Cap. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F229	CC0105	30-50						
		30-50						
		30-50	C	1.53	.98	.76	.567	.501
10-450 WVDC								
15F269	CC0350	30-40						
		30-40						
		30-40	H	2.76	1.79	1.39	1.032	.913
15F228	CC0370	50-80						
		30-40						
		15-20	H	2.97	1.93	1.50	1.115	.987
10-500 VDCW								
15F234	CC0380	7-10						
		7-10						
		7-10	E	1.62	1.05	.81	.605	.535
15F268	CC0390	20-30						
		15-20						
		15-20	H	2.43	1.61	1.25	.930	.822

QUADRUPLE-SECTION TWIST-PRONG ELECTROLYTICS (DD)

10-475 WVDC

Stock No.	Type	Cap. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F253	DD0179.5	15-20						
		15-20						
		15-20						
		15-20	G	2.67	1.66	1.29	.957	.846
10-500 WVDC								
15F252	DD0180	7-10						
		7-10						
		7-10						
		7-10	F	2.10	1.36	1.05	.784	.693
10-450 WVDC								
15F254	DD0480	7-10						
		7-10						
		7-10						
		15-20*	F	1.89	1.19	.93	.688	.608

*This section 10-25 WVDC.

TYPE WCR—POLYCARBONATE/FILM WRAP

Characteristics similar to polystyrene, but often preferred. With a high operating temperature range from —55°C to +85°C without derating, and to +125°C with 50% voltage derating, overcomes polystyrene limitation. Excellent capacitance stability. Tt 1000 Hz average capacitance change is within +1%; —3% of the +25°C value.

Stk. No.	Type WCR-	Mfd.	WV DC	Size DxL (in.)	1-24	25-49	50-99	100-499	500-999
15F740	1D1	.001	100	.200x15⁄16	.47	.31	.23	.20	.17
15F741	1D22	.0022	100	.220x15⁄16	.47	.31	.23	.20	.17
15F742	1D33	.0033	100	.260x15⁄16	.47	.31	.23	.20	.17
15F743	1D47	.0047	100	.290x15⁄16	.47	.31	.23	.20	.17
15F744	1D68	.0068	100	.290x15⁄16	.47	.31	.23	.20	.17
15F745	1S1	.01	100	.235x¾	.47	.31	.23	.20	.17
15F746	1S22	.022	100	.295x¾	.48	.32	.24	.20	.18
15F747	1S33	.033	100	.345x¾	.51	.34	.26	.21	.19
15F748	1S47	.047	100	.395x¾	.54	.36	.27	.23	.20
15F749	1S68	.068	100	.415x⅞	.58	.38	.29	.24	.21
15F750	1P1	.10	100	.450x1	.63	.42	.32	.26	.23
15F751	1P22	.22	100	.590x1⅛	.78	.52	.39	.33	.29
15F752	1P33	.33	100	.645x1⅜	.93	.62	.47	.39	.34
15F753	1P47	.47	100	.735x1⅝	1.08	.72	.54	.45	.40
15F754	1P68	.68	100	.765x1⅞	1.25	.83	.62	.52	.46
15F755	1W1	1.0	100	925x1⅞	1.70	1.13	.85	.71	.62
15F756	2D1	.001	200	.200x15⁄16	.47	.31	.23	.20	.17
15F757	2D22	.0022	200	.220x15⁄16	.47	.31	.23	.20	.17
15F758	2D33	.0033	200	.260x15⁄16	.47	.31	.23	.20	.17
15F759	2D47	.0047	200	.290x15⁄16	.47	.31	.23	.20	.17
15F760	2D68	.0068	200	.290x15⁄16	.47	.31	.23	.20	.17
15F761	?S1	.01	200	.290x15⁄16	.47	.31	.23	.20	.17
15F762	2S22	.022	200	.385x15⁄16	.56	.37	.28	.23	.20
15F763	2S33	.033	200	.465x15⁄16	.62	.41	.31	.26	.23
15F764	2S47	.047	200	.405x15⁄16	.68	.45	.34	.28	.25
15F765	2S68	.068	200	.485x15⁄16	.77	.51	.39	.32	.28
15F766	2P1	.10	200	.585x15⁄16	.84	.56	.42	.35	.31
15F767	2P22	.22	200	.675x1⅞	1.10	.73	.55	.46	.40
15F768	2P33	.33	200	.815x1⅞	1.28	.85	.64	.53	.47
15F769	2P47	.47	200	.950x1⅞	1.47	.98	.74	.61	.54
15F770	2P68	.68	200	1.000x2⅜	1.71	1.14	.86	.71	.63

Cornell-Dubilier Capacitors

MYLAR DIELECTRIC FILM ENCASED

Type WMF. Encased in a Mylar film wrapping and end sealed with a high density thermosetting plastic. A desirable unit where a metal case unit is not indicated miniscule in size, has high resistance to humidity and excellent capacitance stability with temp. and life. Full rated voltage @ 85°C, 50% rated voltage @125°C. Temp. range: —55°C to +125°C. Tolerance: 10%.

100 WVDC

Stk. No.	Type	Mfd.	DxL (in.)	1-24	25-49	50-99	100-499	500-999
15F1450	WMF1D1	.001	.156x ½					
15F1451	WMF1D15	.0015	.156x ½					
15F1452	WMF1D22	.0022	.156x ½					
15F1453	WMF1D33	.0033	.156x ½	.21	.17	.14	.12	.10
15F1454	WMF1D47	.0047	.156x ½					
15F1455	WMF1D68	.0068	.175x ½					
15F1456	WMF1S1	.01	.200x ½					
15F1457	WMF1S15	.015	.235x ½					
15F1458	WMF1S22	.022	.275x ⅝	.24	.18	.15	.13	.10
15F1459	WMF1S33	.033	.300x ⅝	.24	.18	.15	.13	.12
15F1460	WMF1S47	.047	.265x ¾	.27	.21	.16	.14	.12
15F1461	WMF1S68	.068	.280x ¾	.27	.21	.16	.14	.12
15F1462	WMF1P1	.1	.290x ⅞	.36	.25	.20	.14	.12
15F1463	WMF1P15	.15	.335x ⅞	.36	.25	.20	.14	.12
15F1464	WMF1P22	.22	.385x1	.39	.29	.22	.15	.13
15F1465	WMF1P33	.33	.415x1⅛	.45	.32	.24	.19	.15
15F1466	WMF1P47	.47	.475x1¼	.47	.33	.26	.22	.19
15F1467	WMF1P68	.68	.570x1¼	.57	.42	.33	.29	.24
15F1468	WMF1W1	1.0	.625x1½	.87	.59	.46	.40	.34
15F1469	WMF1W1P25	1.25	.690x1½	1.05	.68	.53	.46	.38
15F1470	WMF1W1P5	1.5	.770x1¾	1.23	.81	.63	.54	.45
15F1471	WMF1W2	2.0	.995x1¾	1.50	.98	.76	.66	.55
15F1837	WMF1D12	.0012	.156x ½					
15F1838	WMF1D18	.0018	.156x ½					
15F1839	WMF1D27	.0027	.156x ½					
15F1840	WMF1D39	.0039	.156x ½					
15F1841	WMF1D5	.005	.156x ½	.21	.17	.14	.12	.10
15F1842	WMF1D56	.0056	.156x ½					
15F1843	WMF1D82	.0082	.175x ½					
15F1844	WMF1S12	.012	.215x ½					
15F1845	WMF1S18	.018	.255x ½					
15F1846	WMF1S27	.027	.300x ⅝	.24	.18	.15	.13	.10
15F1847	WMF1S39	.039	.245x ¾	.24	.18	.15	.13	.12
15F1848	WMF1S5	.05	.265x ¾	.27	.21	.16	.14	.12
15F1849	WMF1S56	.056	.265x ¾	.27	.21	.16	.14	.12
15F1850	WMF1S82	.082	.270x ¾	.36	.25	.20	.14	.12

200 WVDC

Stk. No.	Type	Mfd.	DxL (in.)	1-24	25-49	50-99	100-499	500-999
15F1472	WMF2D1	.001	.156x ½					
15F1473	WMF2D15	.0015	.156x ½					
15F1474	WMF2D22	.0022	.156x ½					
15F1475	WMF2D33	.0033	.160x ½					
15F1476	WMF2D47	.0047	.170x ½	.21	.17	.14	.12	.10
15F1477	WMF2D68	.0068	.200x ½					
15F1478	WMF2S1	.01	.230x ½					
15F1479	WMF2S15	.015	.290x ½					
15F1480	WMF2S22	.022	.275x ⅝	.24	.18	.15	.13	.12
15F1481	WMF2S33	.033	.270x ¾	.24	.18	.15	.13	.12
15F1482	WMF2S47	.047	.320x ¾	.27	.20	.16	.14	.12
15F1483	WMF2S68	.068	.350x ¾	.27	.21	.16	.14	.12
15F1484	WMF2P1	.1	.410x ⅞	.36	.25	.20	.14	.12
15F1485	WMF2P15	.15	.500x ⅞	.36	.26	.24	.15	.12
15F1486	WMF2P22	.22	.500x1⅛	.39	.29	.22	.15	.13

200 WVDC Cont. on next Col.

200 WVDC (Cont.)

Stk. No.	Type	Mfd.	DxL (in.)	1-24	25-49	50-99	100-499	500-999
15F1487	WMF2P33	.33	.550x1⅛	.45	.32	.24	.19	.15
15F1488	WMF2P47	.47	.600x1¼	.51	.36	.29	.23	.19
15F1489	WMF2P68	.68	.650x1⅝	.57	.42	.33	.29	.24
15F1490	WMF2W1	1.0	.750x1¾	.87	.59	.46	.40	.34
15F1491	WMF2W1P25	1.25	.825x1¾	1.05	.68	.53	.46	.38
15F1492	WMF2W1P5	1.5	.900x1¾	1.23	.81	.63	.54	.45
15F1493	WMF2W2	2.0	.980x1⅞	1.50	.98	.76	.66	.55

400 WVDC

Stk. No.	Type	Mfd.	DxL (in.)	1-24	25-49	50-99	100-499	500-999
15F1494	WMF4D1	.001	.156x ⅝	.27				
15F1495	WMF4D15	.0015	.156x ⅝	.27				
15F1496	WMF4D22	.0022	.156x ⅝	.27				
15F1497	WMF4D33	.0033	.190x ⅝	.27	.21	.16	.15	.12
15F1498	WMF4D47	.0047	.200x ⅝	.27				
15F1499	WMF4D68	.0068	.250x ⅝	.27				
15F1500	WMF4S1	.01	.300x ⅝	.27	.21	.16	.15	.12
15F1501	WMF4S15	.015	.360x ⅝	.27	.21	.16	.15	.13
15F1502	WMF4S22	.022	.320x ¾	.27	.21	.16	.15	.13
15F1503	WMF4S33	.033	.350x ⅞	.27	.21	.16	.15	.13
15F1504	WMF4S47	.047	.400x ⅞	.30	.22	.17	.15	.13
15F1505	WMF4S68	.068	.390x1	.33	.24	.18	.16	.14
15F1506	WMF4P1	.1	.465x1	.33	.24	.18	.17	.14
15F1507	WMF4P15	.15	.515x1¼	.36	.25	.20	.18	.14
15F1508	WMF4P22	.22	.565x1⅜	.42	.29	.23	.20	.17
15F1509	WMF4P33	.33	.600x1⅝	.66	.47	.36	.32	.25
15F1510	WMF4P47	.47	.700x1⅝	.78	.56	.43	.37	.32
15F1511	WMF4P68	.68	.790x1¾	.96	.68	.54	.46	.39
15F1512	WMF4W1	1.0	.875x2	1.20	.82	.63	.55	.46
15F1513	WMF4W1P25	1.25	.950x2	1.38	.90	.70	.60	.50
15F1514	WMF4W1P5	1.5	.975x2¼	1.56	1.01	.80	.68	.57
15F1515	WMF4W2	2.0	1.250x2¼	2.04	1.33	1.04	.89	.75

600 WVDC

Stk. No.	Type	Mfd.	DxL (in.)	1-24	25-49	50-99	100-499	500-999
15F1516	WMF6D1	.001	.170x ¾	.30				
15F1517	WMF6D15	.0015	.170x ¾	.30				
15F1518	WMF6D22	.0022	.187x ¾	.30				
15F1519	WMF6D33	.0033	.203x ¾	.30				
15F1520	WMF6D47	.0047	.234x ¾	.30	.23	.18	.16	.14
15F1521	WMF6D68	.0068	.265x ¾	.30				
15F1522	WMF6S1	.01	.290x ¾	.30				
15F1523	WMF6S15	.015	.312x ⅞	.30				
15F1524	WMF6S22	.022	.335x ⅞	.30				
15F1525	WMF6S33	.033	.350x1	.30				
15F1526	WMF6S47	.047	.415x1	.33	.24	.18	.16	.14
15F1527	WMF6S68	.068	.500x1	.36	.25	.20	.17	.15
15F1528	WMF6P1	.1	.520x1⅜	.42	.31	.24	.21	.18
15F1529	WMF6P15	.15	.625x1⅜	.45	.33	.25	.23	.19
15F1530	WMF6P22	.22	.660x1⅝	.51	.37	.30	.25	.21
15F1536	WMF6P33	.33	.685x2	.90	.64	.50	.43	.36
15F1537	WMF6P47	.47	.855x2	1.14	.83	.65	.56	.46
15F1531	WMF6P68	.68	.970x2	1.53	1.10	.86	.74	.62
15F1532	WMF6W1	1.0	1.165x2½	2.55	1.74	1.35	1.17	.97
15F1533	WMF6W1P25	1.25	1.340x2½	2.88	1.88	1.46	1.26	1.07
15F1534	WMF6W1P5	1.5	1.275x3	3.48	2.26	1.76	1.52	1.26
15F1535	WMF6W2	2.0	1.460x3	4.38	2.85	2.22	1.91	1.59

WMF 100 VOLT KIT

Type	Mfd.	Qty.	Type	Mfd.	Qty.	Type	Mfd.	Qty.
1D1	.001	5	1S1	.01	5	1S68	.068	5
1D22	.0022	5	1S22	.022	5	1P1	.1	5
1D33	.0033	5	1S33	.033	5	1P22	.22	5
1D47	.0047	5	1S47	.047	5	1P47	.47	5

15F1951. NET 15.30

DPMS DIELECTRIC SIDE-LEAD TUBULARS CAPACITORS

Type DPMS has two dielectrics—Mylar Polyester Film and a film of high grade paper. Features a "dipped" rock-hard casing which holds wire leads rigidly at fixed spacings. High humidity resistance. Crimped side leads for uniform mounting. —55°C. to +125°C. Derate working voltage 25% for +125°C operation. Full rated @ 125°C.

200 VDCW ± 10% Tol.

Stk. No.	Type	Cap. Mfd.	Size	1-24	25-49	50-99	100-499	500-999
15F1600	DPMS2S22	.022	.350x .855	.18	.131	.102	.087	.073
15F1601	DPMS 2S47	.047	.450x .855	.21	.152	.118	.101	.084
15F1603	DPMS 2P1	.1	.470x1.180	.24	.183	.142	.122	.101
15F1604	DPMS 2P15	.15	.540x1.180	.30	.222	.173	.148	.124
15F1605	DPMS 2P22	.22	.590x1.300	.33	.237	.185	.158	.132
15F1607	DPMS 2P47	.47	.730x1.600	.45	.345	.268	.230	.192

600 VDCW ± 10% Tol.

Stk. No.	Type	Cap. Mfd.	Size	1-24	25-49	50-99	100-499	500-999
15F1609	DPMS 6D1	.001	.340x 660	.18	.142	.111	.095	.079
15F1610	DPMS 6D2	.002	.340x 660	.18	.142	.111	.095	.079
15F1611	DPMS 6D25	.0025	.340x 660	.18	.142	.111	.095	.079
15F1612	DPMS 6D33	.033	.370x .660	.18	.142	.111	.095	.079
15F1613	DPMS 6D5	.005	.390x .870	.18	.142	.111	.095	.079
15F1614	DPMS 6S1	.01	.340x .870	.18	.142	.111	.095	.079
15F1615	DPMS 6S2	.02	.445x .870	.18	.145	.113	.097	.081
15F1616	DPMS 6S3	.03	.415x1.150	.24	.175	.136	.117	.097
15F1617	DPMS 6S47	.047	.490x1.150	.27	.20	.155	.133	.111
15F1618	DPMS 6S5	.05	.490x1.150	.27	.20	.155	.133	.111
15F1619	DPMS 6S68	.068	.540x1.300	.30	.222	.173	.148	.124
15F1620	DPMS 6P1	.1	.640x1.300	.33	.257	.200	.172	.143
15F1622	DPMS 6P22	.22	.750x1.560	.51	.383	.298	.255	.213
15F1623	DPMS 6P25	.25	.830x1.560	.57	.417	.325	.278	.232

DPMS KIT — 600 VOLTS

Dipped paper Mylar by-pass types. Tolerance ±10%. High temp. operation. High insulation resistance. Compact.

Type	Mfd.	Qty.	Type	Mfd.	Qty.	Type	Mfd.	Qty.
6D1	.001	5	6D68	.0068	5	6S33	.033	5
6D22	.0022	10	6S1	.01	10	6S47	.047	10
6D33	.0033	5	6S22	.022	10	6P1	.1	10
6D47	.0047	10	6S27	.027	5	6P22	.22	5

15F1952. NET 21.60

TYPE MFP SPACE-SAVER FLAT-OVAL POLYESTER FILM CAPACITORS

Type MFP is similar to WMF. It is designed however, with an oval figure useful in many applications requiring its space saving characteristics. In ratings of 0.01 mfd. and above, the MFP is often used as an alternative to type WMF or the mil. type CTM. The unit is highly moisture and humidity resistant. Max. operating temp. range: —55° to 125°C—85°C at full rated voltage with deratings of 10% and 50% at 100°C and 125°C respectively. Standard tolerance is ±10%, 1½" min. copperweld leads. Thickness and width tolerances are: up to and incl. .484", ±.032"; .500" to and incl. 1.000", ±.062"; larger than 1.000", ±.093".

100 VOLTS DCW

Stk. No.	Type MFP-	Cap. Mfd.	Size L.xW.xT.	1-24	25-49	50-99	100-499	500-999
15F1851	1S22-10	.022	.500x .343x .218	.27	.23	.18	.16	.13
15F1852	1S33-10	.033	.625x .312x .187	.30	.26	.21	.17	.15
15F1853	1S47-10	.047	.750x .312x .187	.30	.26	.21	.17	.15
15F1854	1S68-10	.068	.750x .343x .218	.30	.26	.21	.17	.15
15F1855	1P1-10	.10	.875x .343x .218	.36	.30	.23	.20	.17
15F1856	1P15-10	.15	.875x .406x .250	.39	.32	.25	.22	.18
15F1857	1P22-10	.22	1.000x .468x .281	.42	.35	.28	.23	.20
15F1858	1P33-10	.33	1.125x .500x .312	.45	.37	.29	.25	.21
15F1859	1P47-10	.47	1.250x .531x .375	.51	.42	.33	.29	.23
15F1860	1P68-10	.68	1.250x .687x .468	.57	.47	.36	.32	.26
15F1861	1W1-10	1.00	1.500x .718x .500	.81	.64	.49	.43	.36
15F1862	W1P25-10	1.25	1.500x .718x .562	.99	.74	.58	.50	.41
15F1863	1W1P5-10	1.50	1.750x .843x .656	1.14	.86	.67	.57	.48
15F1864	1W2-10	2.00	1.750x1.062x .843	1.38	1.04	.81	.69	.58

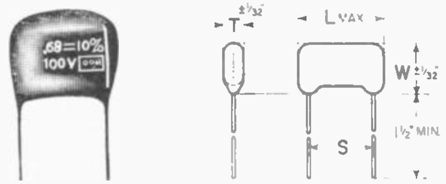
200 VOLTS DCW

Stk. No.	Type MFP-	Cap. Mfd.	Size L.xW.xT.	1-24	25-49	50-99	100-499	500-999
15F1866	2S22-10	.022	.625x .343x .218	.27	.23	.18	.16	.13
15F1868	2S47-10	.047	.750x .375x .250	.30	.26	.21	.17	.15
15F1869	2S68-10	.068	.750x .437x .250	.30	.26	.21	.17	.15
15F1870	2P1-10	.10	.875x .500x .312	.36	.30	.23	.20	.17
15F1871	2P15-10	.15	.875x .562x .375	.39	.32	.25	.22	.18
15F1872	2P22-10	.22	1.125x .562x .406	.42	.35	.28	.23	.20
15F1874	2P47-10	.47	1.250x .656x .500	.51	.42	.33	.29	.23
15F1875	2P68-10	.68	1.625x .718x .531	.57	.47	.36	.32	.26
15F1876	2W1-10	1.00	1.750x .812x .625	.81	.64	.49	.43	.36
15F1878	2W1P5-10	1.50	1.750x1.000x .781	1.14	.86	.67	.57	.48
15F1879	2W2-10	2.00	1.875x1.062x .843	1.38	1.03	.81	.69	.58

400 VOLTS DCW

Stk. No.	Type MFP-	Cap. Mfd.	Size L.xW.xT.	1-24	25-49	50-99	100-499	500-999
15F1881	4S22-10	.022	.750x .375x .250	.30	.26	.21	.17	.15
15F1883	4S47-10	.047	.875x .500x .343	.33	.29	.22	.20	.16
15F1884	4S68-10	.068	1.000x .437x .312	.33	.29	.22	.20	.16
15F1885	4P1-10	.10	1.000x .531x .375	.36	.30	.23	.20	.17
15F1887	4P22-10	.22	1.375x .625x .500	.42	.35	.28	.23	.20
15F1889	4P47-10	.47	1.625x .781x .593	.75	.62	.48	.42	.34
15F1890	4P68-10	.68	1.750x .875x .687	.90	.75	.58	.50	.42
15F1891	4W1-10	1.00	2.000x .937x .750	1.11	.87	.68	.59	.48
15F1893	4W1P5-10	1.50	2.225x1.062x .843	1.41	1.06	.82	.71	.59
15F1894	4W2-10	2.00	2.250x1.312x1.125	1.83	1.37	1.07	.92	.76

MINIATURE RADIAL-LEAD POLYESTER FILM CAPACITORS



Fix-fil-impregnated capacitor section—no impregnation leakage even at maximum operating temperatures. Uniform dip coating control assures protection of capacitor section—no possibility of shorts caused by contact of an uncoated case to chassis. Max. operating temperature is 125°C-85°C at full rated voltage. 10% derated at 100°C and 50% derated at 125°C. Leads are #22 AWG including 0.068/100V; 0.047/200V; 022/400V, and 0.068 at 600V. Above these ratings, leads are #20 AWG. Tol. ±10%. Wire lead spacing: 9/16" for 3/4" dim. L and 5/16" for 1 1/8" dim. L.

100 VOLTS DCW

Stk. No.	Type DMF-	Cap. Mfd.	Size T.xW.xL.	1-24	25-49	50-99	100-499	500-999
15F1895	1S15-10	.015	3/16x5/16x3/4"	.21	.15	.12	.10	.083
15F1896	1S22-10	.022	3/16x5/16x3/4"	.21	.15	.12	.10	.083
15F1897	1S33-10	.033	7/32x11/32x3/4"	.21	.16	.12	.11	.089
15F1898	1S47-10	.047	7/32x11/32x3/4"	.24	.17	.13	.12	.096
15F1899	1S68-10	.068	1/4x3/8x3/4"	.27	.19	.15	.13	.108
15F1900	1P1-10	.10	5/16x7/16x3/4"	.27	.21	.16	.14	.115
15F1901	1P15-10	.15	9/32x11/16x3/4"	.33	.25	.20	.17	.141
15F1902	1P22-10	.22	3/8x3/4x3/4"	.36	.27	.21	.18	.15
15F1903	1P33-10	.33	7/16x27/32x3/4"	.42	.31	.24	.21	.173
15F1904	1P47-10	.47	3/8x3/4x1 1/8"	.48	.36	.28	.24	.200
15F1905	1P68-10	.68	15/32x27/32x1 1/8"	.57	.42	.33	.28	.234
15F1906	1W1-10	1.00	9/16x15/16x1 1/8"	.75	.56	.44	.38	.314

200 VOLTS DCW

Stk. No.	Type DMF-	Cap. Mfd.	Size T.xW.xL.	1-24	25-49	50-99	100-499	500-999
15F1907	2S1-10	.01	3/16x5/16x3/4"	.21	.17	.13	.11	.093
15F1908	2S15-10	.015	7/32x11/32x3/4"	.21	.15	.12	.10	.083
15F1909	2S22-10	.022	1/4x3/8x3/4"	.21	.15	.12	.10	.083
15F1910	2S33-10	.033	1/4x3/8x3/4"	.21	.16	.12	.11	.089
15F1911	2S47-10	.047	1/4x3/8x3/4"	.24	.17	.13	.12	.096
15F1912	2S68-10	.068	9/32x13/32x3/4"	.27	.19	.15	.13	.108
15F1913	2P1-10	.10	5/16x23/32x3/4"	.27	.21	.16	.14	.115
15F1914	2P15-10	.15	3/8x25/32x3/4"	.33	.25	.20	.17	.141
15F1915	2P22-10	.22	15/32x27/32x3/4"	.36	.27	.21	.18	.151
15F1916	2P33-10	.33	9/16x31/32x3/4"	.42	.31	.24	.21	.173
15F1917	2P47-10	.47	1/2x7/8x1 1/8"	.48	.36	.28	.24	.200
15F1918	2P68-10	.68	9/16x31/32x1 1/8"	.57	.42	.33	.28	.234

400 VOLTS DCW

Stk. No.	Type DMF-	Cap. Mfd.	Size T.xW.xL.	1-24	25-49	50-99	100-499	500-999
15F1919	4D47-10	.0047	3/16x5/16x3/4"	.21	.17	.13	.11	.093
15F1920	4D68-10	.0068	3/16x5/16x3/4"	.21	.17	.13	.11	.093
15F1921	4S1-10	.01	7/32x11/32x3/4"	.21	.17	.13	.11	.093
15F1922	4S15-10	.015	1/4x3/8x3/4"	.21	.15	.12	.10	.083
15F1923	4S22-10	.022	9/32x13/32x3/4"	.21	.15	.12	.10	.083
15F1924	4S33-10	.033	9/32x11/16x3/4"	.21	.16	.13	.11	.091
15F1925	4347-10	.047	11/32x23/32x3/4"	.24	.18	.14	.12	.099
15F1926	4S68-10	.068	13/32x25/32x3/4"	.27	.20	.15	.13	.110
15F1927	4P1-10	.10	1/2x29/32x3/4"	.30	.23	.18	.15	.126
15F1928	4P15-10	.15	13/32x13/16x1 1/8"	.36	.27	.21	.18	.149
15F1929	4P22-10	.22	15/32x7/8x1 1/8"	.39	.29	.23	.20	.164

TYPE MCR — POLYCARBONATE METALIZED FILM WRAP

Stability at high operating temp. Epoxy end seals for greater moisture resistance. Designed to minimize inductive characteristics. Temp. range: —55 to 125°C. Tolerance: ±20%.

200 VOLTS DCW

Stk. No.	Type MCR	Mfd.	WV DC	Size DxL (in.)	1-24	25-49	50-99	100-499	500-999
15F700	2S1	.01	200	.150x9/16	.90	.60	.45	.38	.33
15F701	2S22	.022	200	.185x9/16	.90	.60	.45	.38	.33
15F702	2S33	.033	200	.215x9/16	.90	.60	.45	.38	.33
15F703	2S47	.047	200	.240x9/16	1.02	.68	.51	.43	.37
15F704	2S68	.068	200	.215x11/16	1.08	.72	.54	.45	.40
15F705	2P1	.10	200	.275x11/16	1.14	.76	.57	.48	.42
15F706	2P22	.22	200	.370x11/16	1.35	.90	.68	.56	.50
15F707	2P33	.33	200	.430x11/16	1.50	1.00	.75	.63	.55
15F708	2P47	.47	200	.370x1	1.74	1.16	.87	.73	.64
15F709	2P68	.68	200	.450x1	1.95	1.30	.98	.81	.72
15F710	2W1	1.0	200	.530x1	2.28	1.52	1.14	.95	.84
15F711	2W2	2.0	200	.650x1 1/4	3.21	2.14	1.61	1.34	1.18
15F712	2W3	3.0	200	.700x1 1/2	3.96	2.64	1.98	1.65	1.45
15F713	2W4	4.0	200	.745x1 3/4	4.89	3.26	2.45	2.04	1.79
15F714	2W5	5.0	200	.825x1 3/4	5.76	3.84	2.68	2.40	2.11

400 VOLTS DCW

Stk. No.	Type MCR-	Mfd.	WVDC	Size DxL(in.)	1-24	25-49	50-99	100-249	500-999
15F715	4S1	.01	400	.200x9/16	.90	.60	.45	.38	.33
15F727	4S22	.022	400	.225x11/16	.96	.64	.48	.40	.35
15F728	4S33	.033	400	.260x11/16	1.02	.68	.51	.43	.37
15F729	4S47	.047	400	.320x11/16	1.11	.74	.56	.46	.41
15F730	4S68	.068	400	.375x11/16	1.20	.80	.60	.50	.44
15F731	4P1	.10	400	.345x1	1.32	.88	.66	.55	.48
15F732	4P22	.22	400	.425x1 1/4	1.71	1.14	.86	.71	.63
15F733	4P33	.33	400	.465x1 1/2	2.04	1.36	1.02	.85	.75
15F734	4P47	.47	400	.550x1 1/2	2.49	1.66	1.25	1.04	.91
15F735	4P68	.68	400	.650x1 1/2	2.88	1.92	1.44	1.20	1.06
15F736	4W1	1.0	400	.725x1 3/4	3.54	2.36	1.77	1.48	1.30
15F737	4W2	2.0	400	.990x1 3/4	5.85	3.90	2.93	2.44	2.15
15F738	4W3	3.0	400	1.062x2 1/4	7.08	4.72	3.54	2.95	2.60

600 VOLTS DCW

Stk. No.	Type MCR-	Mfd.	WVDC	Size DxL(in.)	1-24	25-49	50-99	100-249	500-999
15F716	6S1	.01	600	.245x3/4	.96	.64	.48	.40	.35
15F717	6S22	.022	600	.350x3/4	1.17	.78	.59	.49	.43
15F718	6S33	.033	600	.420x3/4	1.29	.86	.65	.54	.47
15F719	6S47	.047	600	.375x1 1/16	1.41	.94	.71	.59	.52
15F720	6S68	.068	600	.435x1 1/16	1.56	1.04	.78	.65	.57
15F721	6P1	.10	600	.525x1 1/16	1.71	1.14	.86	.71	.63
15F722	6P22	.22	600	.670x1 1/4	2.19	1.46	1.10	.91	.80
15F723	6P33	.33	600	.670x1 3/4	2.58	1.72	1.29	1.08	.95
15F724	6P47	.47	600	.775x1 3/4	3.21	2.14	1.61	1.38	1.18
15F725	6P68	.68	600	.925x1 3/4	3.87	2.58	1.94	1.61	1.42
15F726	6W1	1.0	600	1.125x1 3/4	5.19	3.46	2.60	2.16	1.90

Cornell Dubilier Capacitors

CD SERIES DIPPED MICA CAPACITORS

Feature multi-coat dipped process to meet rigid humidity requirements. Conform to EIA specs. Meets requirements of MIL-C-5. Operating temperature: —55°C to +125°C. Tolerance: ±5% except (*) ±10%. Operating potential 500 WVDC. For MIL equivalent part number, substitute "CM" designation for "CD" as follows: CD10—CM04; CD15—CM05; CD19—CM06; CD30—CM07; CD24—CM08.

Stk. No.	Type CD10	pf.	1-24	25-99	100-499	500-999	1000-Up
15F1338	CD050D03	5	.18	.14	.10	.091	.073
15F1339	CD100J03	10	.21	.17	.12	.110	.088
15F1340	CD120J03	12					
15F1341	CD150J03	15					
15F1342	CD180J03	18					
15F1344	ED220J03	22					
15F1345	ED240J03	24	.24	.17	.12	.110	.088
15F1346	ED270J03	27					
15F1347	ED300J03	30					
15F1348	ED330J03	33					
15F1350	ED390J03	39					
15F1352	ED470J03	47					
15F1353	ED510J03	51					
15F1354	ED560J03	56					
15F1355	ED620J03	62	.27	.17	.12	.11	.088
15F1356	ED680J03	68					
15F1358	ED820J03	82					
15F1360	FD101J03	100					
15F1362	FD121J03	120	.30	.17	.13	.116	.093
15F1364	FD151J03	150	.33	.21	.16	.139	.111
15F1366	FD181J03	180	.39	.26	.19	.170	.136
15F1367	FD201J03	200	.45	.27	.20	.178	.142
15F1368	FD221J03	220	.45	.27	.20	.178	.142
15F1369	FD241J03	240	.45	.27	.20	.179	.143

Stk. No.	Type CD15	pf.	1-24	25-99	100-499	500-999	1000-Up
15F1203	CD050K03	5	.15	.15	.11	.095	.076
15F1204	CD100K03	10	.15	.11	.09	.076	.061
15F1205	CD120K03	12	.15	.11	.09	.076	.061
15F1207	CD180K03	18	.15	.11	.09	.076	.061
15F1209	ED220J03	22					
15F1210	ED240J03	24					
15F1211	ED270J03	27					
15F1212	ED300J03	30					
15F1213	ED330J03	33					
15F1214	ED360J03	36					
15F1215	ED390J03	39	.18	.13	.10	.086	.069
15F1217	ED470J03	47					
15F1219	ED510J03	51					
15F1220	ED560J03	56					
15F1221	ED620J03	62					
15F1222	ED680J03	68					
15F1223	ED750J03	75					
15F1224	ED820J03	82	.18	.13	.10	.086	.069
15F1226	FD101J03	100	.18	.13	.10	.086	.069
15F1230	FD151J03	150	.21	.14	.11	.101	.081
15F1232	FD181J03	180	.27	.16	.11	.101	.081
15F1233	FD201J03	200	.27	.16	.11	.101	.081
15F1234	FD221J03	220	.27	.16	.12	.102	.082
15F1235	FD241J03	240	.27	.16	.12	.102	.082
15F1237	FD271J03	270	.30	.18	.14	.120	.082
15F1238	FD301J03	300	.30	.18	.14	.120	.096
15F1239	FD331J03	330	.33	.18	.14	.124	.096
15F1240	FD361J03	360	.33	.20	.14	.125	.100
15F1241	FD391J03	390	.36	.20	.14	.128	.100
15F1242	FD431J03	430	.30	.18	.13	.115	.092

Stk. No.	Type CD19	pf.	1-24	25-99	100-499	500-999	1000-Up
15F1243	FD471J03	470	.33	.20	.14	.132	.102
15F1245	FD511J03	510	.33	.20	.14	.132	.102
15F1246	FD561J03	560	.36	.20	.14	.132	.102
15F1247	FD621J03	620	.36	.23	.16	.142	.114
15F1248	FD681J03	680	.36	.23	.16	.142	.114
15F1249	FD751J03	750	.39	.23	.16	.142	.114
15F1250	FD821J03	820	.42	.23	.16	.142	.114
15F1251	FD911J03	910	.42	.26	.18	.164	.131
15F1252	FD102J03	1000	.45	.27	.20	.175	.140
15F1253	FD112J03	1100	.45	.28	.21	.188	.150
15F1254	FD122J03	1200	.48	.30	.22	.195	.156
15F1256	FD152J03	1500	.54	.36	.26	.232	1.86
15F1258	FD182J03	1800	.66	.38	.28	.249	1.99
15F1259	FD202J03	2000	.72	.41	.30	.265	.212
15F1260	FD222J03	2200	.78	.43	.31	.278	.222
15F1261	FD242J03	2400	.84	.47	.35	.309	.247
15F1263	FD272J03	2700	.90	.54	.40	.354	.283
15F1264	FD302J03	3000	.99	.58	.43	.378	.302
15F1265	FD332J03	3300	1.05	.63	.46	.404	.323
15F1267	FD392J03	3900	1.17	.67	.49	.438	.350
15F1268	FD432J03	4300	1.23	.73	.53	.472	.378
15F1269	FD472J03	4700	1.32	.77	.56	.500	.400
15F1271	FD512J03	5100	1.38	.81	.59	.525	.420

Stk. No.	Type CD30	pf.	1-24	25-99	100-499	500-999	1000-Up
15F1272	FD562J03	5600	1.17	.66	.48	.425	.340
15F1273	FD622J03	6200	1.23	.72	.52	.460	.368
15F1274	FD682J03	6800	1.38	.80	.58	.515	.410
15F1275	FD752J03	7500	1.50	.84	.62	.547	.437
15F1276	FD822J03	8200	1.65	.93	.68	.600	.480
15F1277	FD912J03	9100	1.77	1.00	.73	.652	.522
15F1278	FD103J03	10000	1.98	1.11	.81	.719	.575
15F1375	FD113J03	11000	2.16	1.21	.89	.78	.627
15F1376	FD123J03	12000	2.31	1.30	.95	.838	.670
15F1377	FD133J03	13000	2.46	1.41	1.02	.912	.730
15F1378	FD153J03	15000	2.79	1.57	1.16	1.030	.825
15F1379	FD163J03	16000	2.97	1.70	1.24	1.100	.880
15F1380	FD183J03	18000	3.30	1.89	1.38	1.22	.980
15F1381	FD203J03	20000	3.63	2.10	1.53	1.361	1.090

Stk. No.	Type CD42	pf.	1-24	25-99	100-499	500-999	1000-Up
15F1382	FD223J03	22000	4.14	2.28	1.68	1.494	1.195
15F1383	FD243J03	24000	4.50	2.51	1.84	1.638	1.310
15F1384	FD273J03	27000	5.04	3.72	2.04	1.804	1.443
15F1385	FD303J03	30000	5.58	3.03	2.21	1.964	1.571
15F1386	FD333J03	33000	6.12	3.31	2.41	2.144	1.715
15F1387	FD363J03	36000	6.66	3.64	2.74	2.356	1.885
15F1388	FD393J03	39000	7.20	3.88	2.83	2.501	2.001
15F1389	FD433J03	43000	7.80	4.28	3.12	2.763	2.210
15F1390	FD473J03	47000	8.40	4.28	3.12	2.763	2.210

MPY METALLIZED PAPER CAPACITORS

Epoxy end seal triclad case. Oper. temp. range: —40°C to 125°C. ±20% tol. Av. shpg. wt. 3 oz.

200 WVDC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99	100-499	500-999
15F828	MPY2S22	.022	1/4x5/8"	.45	.34	.26	.21	.18
15F829	MPY2S33	.033	1/4x5/8"	.45	.34	.26	.21	.18
15F830	MPY2S47	.047	1/4x5/8"	.45	.34	.26	.21	.18
15F831	MPY2S68	.068	5/16x5/8"	.48	.36	.28	.22	.19
15F865	MPY2P1	.1	3/8x5/8"	.54	.38	.30	.24	.20
15F832	MPY2P15	.15	3/8x5/8"	.60	.43	.33	.27	.23
15F833	MPY2P22	.22	15/32x5/8"	.66	.47	.37	.29	.25
15F834	MPY2P33	.33	3/8x1 1/8"	.72	.52	.40	.32	.28
15F835	MPY2P47	.47	7/16x1 1/8"	.78	.56	.44	.35	.30
15F836	MPY2P68	.68	15/32x1 1/8"	.90	.68	.53	.42	.36
15F868	MPY2W1	1.0	9/16x1 1/8"	1.08	.81	.63	.50	.43
15F837	MPY2W1P5	1.5	9/16x1 7/16"	1.26	.95	.74	.59	.50
15F869	MPY2W2	2.0	5/8x1 7/16"	1.50	1.10	.86	.69	.59

400 WVDC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99	100-499	500-999
15F838	MPY4S15	.015	1/4x5/8"	.45	.34	.26	.21	.18
15F839	MPY4S22	.022	5/16x5/8"	.45	.34	.26	.21	.18
15F840	MPY4S33	.033	3/8x5/8"	.45	.34	.26	.21	.18
15F841	MPY4S47	.047	7/16x5/8'	.48	.36	.28	.22	.19
15F842	MPY4S68	.068	15/32x5/8"	.54	.38	.30	.24	.20
15F874	MPY4P1	.1	3/8x1 1/8"	.60	.43	.33	.27	.23
15F843	MPY4P15	.15	7/16x1 1/8"	.66	.47	.37	.29	.25
15F844	MPY4P22	.22	1/2x1 1/8"	.72	.54	.42	.34	.29
15F845	MPY4P33	.33	5/8x1 1/8"	.84	.63	.49	.39	.34
15F846	MPY4P47	.47	5/8x1 7/16"	.96	.72	.56	.45	.38
15F847	MPY4P68	.68	5/8x1 13/16"	1.14	.86	.67	.53	.46
15F877	MPY4W1	1.0	11/16x1 13/16"	1.32	.99	.77	.62	.53
15F848	MPY4W1P5	1.5	23/32x2 3/8"	1.56	1.15	.89	.71	.61
15F849	MPY4W2	2.0	13/16x2 3/8"	1.74	1.31	1.01	.81	.70

600 WVDC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99	100-499	500-666
15F878	MPY6S1	.01	1/4x5/8"	.45	.34	.26	.21	.18
15F850	MPY6S15	.015	5/16x5/8"	.48	.36	.28	.22	.19
15F851	MPY6S22	.022	3/8x5/8"	.48	.36	.28	.22	.19
15F852	MPY6S33	.033	3/8x5/8"	.54	.38	.30	.24	.20
15F853	MPY6S47	.047	15/32x5/8"	.54	.41	.32	.25	.22
15F854	MPY6S68	.068	3/8x1 1/8"	.60	.43	.33	.27	.23
15F882	MPY6P1	.1	3/8x1 1/8"	.60	.45	.35	.28	.24
15F855	MPY6P15	.15	15/32x1 1/8"	.78	.56	.44	.35	.30
15F856	MPY6P22	.22	9/16x1 1/8"	.81	.61	.47	.38	.32
15F857	MPY6P33	.33	5/8x1 1/8"	1.08	.79	.61	.49	.42
15F858	MPY6P47	.47	5/8x1 7/16"	1.14	.86	.67	.53	.46
15F859	MPY6P68	.68	5/8x1 13/16"	1.26	.95	.74	.59	.50
15F885	MPY6W1	1.0	23/32x1 13/16"	1.44	1.08	.84	.67	.58
15F860	MPY6W1P5	1.5	13/16x2 3/8"	1.80	1.35	1.05	.84	.72
15F861	MPY6W2	2.0	23/32x2 3/8"	2.10	1.58	1.23	.98	.84

CORNELL-DUBILIER

MINIATURE DIPPED MICA-DIELECTRIC CAPACITORS

CD6 CD7

Types CD6 and CD7 are microminiature, radial lead, dipped silvered mica capacitors. Operate within temperature range —55°C to +125°C. Excellent for applications not critical with regard to extreme conditions of humidity. Have phenolic coating with epoxy impregnation; affords protection for one cycle of the moisture resistance test of EIA Specification RS153. Other wise meets MIL-C-5B. Capacitance tolerance: ±10% (K), ±5% (J), ±2% (G), ±1pf (C).

DIMENSIONS

CD6 — .265" x .135" x .095" CD7 — .330" x .310" x .175"

500 WVDC

Stk. No.	Type	Pf.	1-24	1-24	100-499	500-999
15F1700	CD6CD030C03	3	.36	.17	.11	.101
15F1701	CD6CD050C03	5	.36	.17	.11	.101
15F1702	CD6CD100K03	10	.36	.17	.11	.101
15F1703	CD6CD12K03	12	.39	.17	.13	.116
15F1704	CD6CD180C03	18	.39	.17	.13	.116
15F1705	CD6CD200J03	20	.39	.17	.13	.116
15F1706	CD6CD220J03	22	.39	.17	.13	.116
15F1707	CD6ED240J03	24	.39	.17	.13	.116
15F1708	CD6ED270C03	27	.48	.27	.20	.116
15F1709	CD6ED300C03	30	.48	.30	.21	.188
15F1710	CD6ED330C03	33	.51	.30	.21	.188
15F1711	CD6ED360C03	36	.51	.30	.21	.188
15F1712	CD6ED390C03	39	.51	.30	.21	.188
15F1713	CD6ED430C03	43	.51	.30	.21	.188
15F1714	CD6ED470C03	47	.51	.30	.21	.188
15F1716	CD6ED560G03	56	.57	.33	.24	.211

CONTINUED IN NEXT COLUMN

500 WVDC

Stk. No.	Type	Pf	1-24	25-99	100-499	500-999
15F1717	CD6ED620603	62	.57	.33	.24	.211
15F1718	CD6ED680G03	68	.60	.33	.24	.211
15F1719	CD6ED750G03	75	.60	.36	.26	.232
15F1725	CD7CD131G03	130	.63	.37	.27	.236
15F1726	CD7CD151G03	150	.63	.37	.27	.236
15F1727	CD7CD161G03	160	.63	.37	.27	.236
15F1728	CD7CD181G03	180	.63	.37	.27	.236

300 WVDC

Stk. No.	Type	Pf	1-24	25-99	100-499	500-999
15F1720	CD6EC820G03	82	.66	.36	.26	.232
15F1721	CD6EC910G03	91	.66	.38	.28	.241
15F1722	CD6FC101G03	100	.66	.38	.28	.241
15F1723	CD6FC111GO3	110	.72	.41	.30	.270
15F1724	CD6FC121G03	120	.72	.41	.30	.270
15F1729	CD7FC201GO3	200	.69	.37	.28	.251
15F1730	CD7FC221G03	220	.69	.37	.28	.251
15F1731	CD7FC241GO3	240	.69	.37	.28	.251
15F1732	CD7FC271GO3	270	.69	.40	.30	.262
15F1733	CD7FC301G03	300	.69	.40	.30	.262

100 WVDC

Stk. No.	Type	Pf.	1-24	25-99	100-499	500-999
15F1734	CD7FA331G03	330	1.05	.60	.44	.388
15F1735	CD7FA361G03	360	1.08	.61	.45	.401
15F1736	CD7FA391G03	390	1.29	.74	.54	.481
15F1738	CD7FA471G03	470	1.17	.67	.49	.438
15F1739	CD7FA511G03	510	1.20	.70	.51	.452
15F1740	CD7FA561G03	560	1.23	.71	.52	.461
15F1741	CD7FA621G03	620	1.29	.74	.54	.480
15F1742	CD7FA681G03	680	1.65	.93	.67	.598
15F1743	CD7FA751G03	750	1.74	1.00	.73	.645
15F1746	CD7FA102G03	1000	2.13	1.21	.89	.790
15F1747	CD7FA112G03	1100	2.31	1.31	.96	.854
15F1748	CD7FA122G03	1200	2.37	1.36	.99	.880
15F1749	CD7FA132G03	1300	2.70	1.54	1.13	.999
15F1750	CD7FA152G03	1500	2.82	1.64	1.18	1.042

PLASTIC CAPACITORS, INC.

TYPE AM METAL CLAD MINIATURE CAPACITORS

Type AM metal clad miniature capacitors utilize metalized mylar film as the solid dielectric and are hermetically sealed. High performance exceeding the most rigid tests for humidity and temperature. Windings are extended foil (non-inductive) construction. The capacitors are self healing and non-sparking. Tolerance is 20%. Sizes shown are for diameter and length. Power factor is less than 1% at 25°C.

200 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
19F1558	AM2-223	.022	.187x5/8	1.08	.83	.77	.68
19F1559	AM2-333	.033	.235x5/8	1.15	.88	.82	.72
19F1560	AM2-473	.047	.235x5/8	1.16	.89	.83	.73
19F1561	AM2-683	.068	.235x13/16	1.16	.90	.83	.73
19F1562	AM2-104	.1	.235x13/16	1.17	.90	.84	.74
19F1563	AM2-154	.15	.312x13/16	1.18	.91	.84	.74
19F1564	AM2-224	.22	.312x13/16	1.21	.93	.86	.76
19F1565	AM2-334	.33	.400x13/16	1.36	1.05	.97	.86
19F1566	AM2-474	.47	.400x1 1/8	1.40	1.08	1.00	.88
19F1567	AM2-684	.68	.400x1 1/8	1.46	1.13	1.04	.92
19F1568	AM2-105	1.0	.562x1 1/8	1.70	1.31	1.21	1.07
19F1569	AM2-205	2.0	.670x1 5/16	2.31	1.79	1.65	1.46
19F1570	AM2-405	4.0	.670x1 13/16	2.93	2.26	2.09	1.84
19F1571	AM2-505	5.0	.750x1 13/16	3.08	2.38	2.20	1.94
19F1572	AM2-805	8.0	1.000x1 13/16	4.52	3.49	3.23	2.85
19F1573	AM2-106	10.0	1.000x2 5/16	5.81	4.49	4.15	3.66

300 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
19F1580	AM3-104	.10	.312x13/16	1.19	.92	.85	.75
19F1581	AM3-154	.15	.400x13/16	1.29	1.00	.92	.81
19F1582	AM3-224	.22	.400x1 1/8	1.32	1.02	.95	.83
19F1583	AM3-334	.33	.400x1 1/8	1.38	1.07	.99	.87
19F1584	AM3-474	.47	.562x1 1/8	1.65	1.27	1.18	1.04
19F1585	AM3-684	.68	.562x1 1/8	1.75	1.35	1.25	1.10
19F1586	AM3-105	1.0	.562x1 5/16	1.90	1.47	1.36	1.20
19F1587	AM3-205	2.0	.750x1 5/16	2.93	2.26	2.09	1.84
19F1588	AM3-405	4.0	1.000x1 7/16	4.06	3.13	2.90	2.55
19F1589	AM3-505	5.0	1.000x1 13/16	4.56	3.52	3.26	2.87

TYPE "OF" HIGH V. GLASS CAPACITORS

Plastic film dielectric. Useful for high voltage power filter. Mount in any position. Temperature range —55°C. to +85°C. Tolerance ±10%. 3/8x8-32 screw terminals except * marked have tinned copper pigtails. Heavy wall, hard glass case.

Stk. No.	Type	Cap. Mfd.	Volts	Size	1-9	10-24	25-49	50-99	100-249
*19F700	20-103	.01	2000	1 3/16x19/32"	2.44	2.44	2.22	2.00	1.75
19F701	20-503	.05	2000	1 3/4x3/4"	2.63	2.63	2.42	2.17	1.89
19F702	20-104	.10	2000	2 1/4x3/4"	2.98	2.98	2.73	2.47	2.14
19F703	20-254	.25	2000	2 3/4x29/32"	3.40	3.40	3.11	2.79	2.44
*19F704	30-103	.01	3000	1 9/16x19/32"	2.84	2.84	2.65	2.43	1.87
19F705	30-203	.02	3000	1 3/4x3/4"	3.05	3.05	2.84	2.63	2.00
19F706	30-503	.05	3000	2 1/4x3/4"	3.09	3.09	2.90	2.69	2.06
19F707	30-104	.10	3000	1 3/4x1 1/8"	3.63	3.63	3.38	3.13	2.38
19F1290	30-254	.25	3000	2x1 3/8"	4.10	4.10	3.80	2.52	2.68
19F1291	30-504	.50	3000	2 3/4x1 5/8"	5.10	5.10	4.75	4.42	3.34
19F708	50-103	.01	5000	1 3/4x3/4"	3.78	3.78	3.39	3.17	2.75
19F709	50-203	.02	5000	2 1/4x3/4"	4.20	4.20	3.72	3.51	3.01
19F710	50-503	.05	5000	2 1/4x29/32"	4.57	4.57	4.01	3.79	3.23
19F711	50-104	.10	5000	2 1/4x1 3/8"	6.14	6.14	5.42	5.09	4.36
*19F1292	50-102	.001	5000	1 3/16x19/32"	3.72	3.72	3.30	3.09	2.67
*19F1293	50-502	.005	5000	1 5/8x19/32"	3.76	3.76	3.34	3.14	2.71
19F1294	50-254	.25	5000	3x1 5/8"	7.72	7.72	6.83	6.43	5.52
19F1295	50-504	50	5000	6x1 5/8"	8.90	8.90	7.83	7.42	6.35
19F1296	80-502	.005	8000	1 3/4x3/4"	4.00	4.00	3.51	3.30	2.90
19F1297	80-103	.01	8000	2 1/4x3/4"	4.43	4.28	3.79	3.57	3.07
19F1298	80-104	.10	8000	3 5/8x1 5/8"	8.15	7.00	6.53	5.97	5.02
*19F712	100-102	.001	10KV	1 5/8x19/32"	3.97	3.97	3.46	3.35	2.93
19F713	100-502	.005	10KV	1 3/4x13/16"	4.83	4.42	4.00	3.75	3.26
19F714	100-103	.01	10KV	2 1/4x29/32"	5.32	4.87	4.42	4.14	3.60
19F715	100-203	.02	10KV	2 3/4x1 1/8"	7.04	6.41	5.80	5.44	4.73
19F1299	150-103	.01	15KV	3 3/4x1 1/8"	8.62	7.88	7.15	6.68	5.83
19F716	200-102	.001	20KV	3 1/2x3/4"	8.24	7.51	6.77	6.19	5.30
19F717	200-202	.002	20KV	3 1/2x13/16"	8.55	7.77	7.03	6.40	5.51
19F718	200-502	.005	20KV	3 1/2x1 1/8"	9.19	8.35	7.56	6.88	5.93
19F719	200-103	.01	20KV	4 1/2x1 1/8"	10.92	9.92	8.92	8.19	7.03
*19F720	300-501	.0005	30KV	4 9/16x19/32"	8.56	7.77	7.03	6.46	5.56
19F722	300-202	.002	30KV	5x29/32"	13.65	12.49	11.23	10.24	8.77
19F723	300-502	.005	30KV	5x1 3/8"	16.80	15.22	13.44	12.60	11.02
19F724	600-501	.0005	60KV	10x3/4"	15.77	13.91	12.63	11.69	9.80
19F725	600-102	.001	60KV	10x29/32"	18.35	16.80	14.96	14.14	11.84
19F726	600-202	.002	60KV	10x1 3/8"	19.71	18.06	16.43	15.19	12.73

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Capacitors

SUBMINIATURE MONOBLOC CERAMIC CAPACITORS

Type 8003

Monobloc construction allows volumetric efficiency up to 20mf/cu. in. Tolerance within ±10% for capacitance from 10 pf to 100 pf when measured at 1mc with .5 to 1 VRMS across the capacitor including COG dielectric. For values greater than 100pf tolerance is within ±10% —when measured at 1kc with .5 to 1 VRMS across the capacitor. Maximum capacitance change ±15% of the 25°C value over temp. range —55°C to 125°C. Size: .260 max. lead length 1.5 min. Leads 22AWG sodder coated copper.

W5RO GENERAL PURPOSE TYPE 8003 — 100 VDCW @ 125°C

Stock No.	Type	Cap. (pf.)	1-49	50-99	100-249	250-499	500-999
19F2534	8003-000 W5RO 181K	180	.80	.70	.59	.51	.47
19F2535	8003-000 W5RO 221K	220					
19F2536	8003-000 W5RO 271K	270					
19F2537	8003-000 W5RO 331K	330					
19F2538	8003-000 W5RO 391K	390					
19F2539	8003-000 W5RO 471K	470					
19F2540	8003-000 W5RO 561K	560					
19F2541	8003-000 W5RO 681K	680					
19F2542	8003-000 W5RO 821K	820					
19F2543	8003-000 W5RO 102K	1000	.80	.72	.60	.52	.48
19F2544	8003-000 W5RO 122K	1200					
19F2545	8003-000 W5RO 152K	1500					
19F2546	8003-000 W5RO 182K	1800					
19F2547	8003-000 W5RO 222K	2200	.82	.74	.62	.53	.49
19F2548	8003-000 W5RO 272K	2700	.82	.74	.62	.53	.49
19F2549	8003-000 W5RO 332K	3300	.84	.76	.63	.55	.50
19F2550	8003-000 W5RO 392K	3900	.84	.76	.63	.55	.50
19F2551	8003-000 W5RO 472K	4700	.88	.79	.66	.57	.53
19F2552	8003-000 W5RO 562K	5600	.88	.79	.66	.57	.53
19F2553	8003-000 W5RO 682K	6800	1.00	.90	.75	.65	.60
19F2554	8003-000 W5RO 822K	8200	1.00	.90	.75	.65	.60
19F2555	8003-000 W5RO 103K	10000	1.00	.90	.75	.65	.60
19F2556	8003-000 W5RO 123K	12000	1.36	1.22	1.02	.88	.82
19F2557	8003-000 W5RO 153K	15000	1.36	1.22	1.02	.88	.82
19F2558	8003-000 W5RO 183K	18000	1.36	1.22	1.02	.88	.82
19F2559	8003-000 W5RO 223K	22000	1.66	1.49	1.25	1.08	1.00

NPO HIGH STABILITY TYPE 8003-100 VDCW @ 125°C

Stock No.	Type	Cap. (pf.)	1-49	50-99	100-249	250-499	500-999
19F2560	8003-000 COGO 100K	10	.88	.79	.66	.57	.53
19F2561	8003-000 COGO 120K	12					
19F2562	8003-000 COGO 150K	15					
19F2563	8003-000 COGO 180K	18					
19F2564	8003-000 COGO 220K	22					
19F2565	8003-000 COGO 270K	27					
19F2566	8003-000 COGO 330K	33					
19F3351	8003-000 COGO 829K	8.2					
19F2567	8003-000 COGO 390K	39	.88	.79	.66	.57	.53
19F2568	8003-000 COGO 470K	47					
19F2569	8003-000 COGO 560K	56					
19F2570	8003-000 COGO 680K	68	1.00	.90	.75	.65	.60
19F2571	8003-000 COGO 820K	82					
19F2572	8003-000 COGO 101K	100					
19F2573	8003-000 COGO 121K	120					
19F2574	8003-000 COGO 151K	150					

W5R GENERAL PURPOSE TYPE 8123 & 8133 — 100 VDCW @ 125°C

Stock No.	Type	Cap. (pf.)	1-49	50-99	100-249	250-499	500-999
19F3352	8013-000 COGO 100K	10	.84	.76	.63	.55	.50
19F3353	8013-000 COGO 101K	100	.90	.81	.68	.59	.54
19F3354	8013-000 COGO 470K	47	.86	.77	.65	.56	.52
19F3355	8013-000 W5RO 102K	1000	.84	.76	.63	.55	.50
19F3356	8013-000 W5RO 471K	470	.84	.76	.63	.55	.50
19F3357	8013-000 W5RO 472K	4700	.90	.81	.68	.59	.54
19F2575	8123-000 W5RO 271K	270	.58	.52	.44	.38	.35
10F2576	8123-000 W5RO 331K	330					
19F2577	8123-000 W5RO 391K	390					
19F2578	8123-000 W5RO 471K	470					
19F2579	8123-000 W5RO 561K	560					
19F2580	8123-000 W5RO 681K	680					
19F2581	8123-000 W5RO 821K	820					
19F2582	8123-000 W5RO 102K	1000					
19F2583	8133-000 W5RO 122K	1200	.54	.49	.41	.35	.32
19F2584	8133-000 W5RO 152K	1500					
19F2585	8133-000 W5RO 182K	1800					
19F2586	8133-000 W5RO 222K	2200					
19F2587	8133-000 W5RO 272K	2700					
19F2588	8133-000 W5RO 332K	3300	.54	.49	.41	.35	.32
19F2589	8133-000 W5RO 392K	3900	.56	.50	.42	.36	.34
19F2590	8133-000 W5RO 472K	4700	.56	.50	.42	.36	.34
19F2591	8133-000 W5RO 562K	5600	.72	.65	.54	.47	.43
19F2592	8133-000 W5RO 682K	6800	.72	.65	.54	.47	.43
19F2593	8133-000 W5RO 822K	8200	.72	.65	.54	.47	.43
19F2594	8133-000 W5RO 103K	10000	.72	.65	.54	.47	.43
19F2595	8133-000 W5RO 123K	12000	1.10	.99	.83	.72	.66
19F2596	8133-000 W5RO 153K	15000	1.10	.99	.83	.72	.66
19F2597	8133-000 W5RO 183K	18000	1.22	1.10	.92	.79	.73
19F2598	8133-000 W5RO 223K	22000	1.22	1.10	.92	.79	.73
19F2599	8133-000 W5RO 273K	27000	1.54	1.39	1.16	1.00	.92
19F2600	8133-000 W5RO 333K	33000	1.66	1.49	1.25	1.08	1.00
19F2601	8133-000 W5RO 393K	39000	1.76	1.58	1.32	1.14	1.06
19F2602	8133-000 W5RO 473K	47000	1.76	1.58	1.32	1.14	1.06
19F2603	8133-000 W5RO 563K	56000	1.88	1.69	1.41	1.22	1.13
19F2604	8133-000 W5RO 683K	68000	1.98	1.78	1.49	1.29	1.19
19F2605	8133-000 W5RO 823K	82000	2.10	1.89	1.58	1.37	1.26
19F2606	8133-000 W5RO 104K	100000	2.20	1.98	1.65	1.43	1.32

NPO HIGH STABILITY TYPE 8123 & 8133 — 100 VDCW @ 125°C EXCEPT (*) 25 VDCW

Type	Width	Height	Thickness	Spacing
8123	.200	.200	.100	.200
8133	.300	.300	.100	.200

Stock No.	Type	Cap. (pf.)	1-49	50-99	100-249	250-499	500-999
19F2607	8123-000 COGO 100K	10	.42	.38	.32	.28	.25
19F2608	8123-000 COGO 120K	12	.42	.38	.32	.28	.25
19F2609	8123-000 COGO 150K	15	.66	.59	.50	.43	.40
19F2610	8123-000 COGO 180K	18					
19F2611	8123-000 COGO 220K	22					
19F2612	8123-000 COGO 270K	27					
19F2613	8123-000 COGO 330K	33					
19F2614	8123-000 COGO 390K	39					
19F2615	8123-000 COGO 470K	47					
19F2616	8123-000 COGO 560K	56					
19F2617	8123-000 COGO 680K	68					
19F2618	8123-000 COGO 820K	82					
19F2619	8123-000 COGO 101K	100	.88	.79	.66	.57	.53
19F2620	8123-000 COGO 121K	120					
19F2621	8123-000 COGO 151K	150					
19F2622	8123-000 COGO 181K	180					
19F2623	8123-000 COGO 221K	220					
19F2624	8133-000 COGO 271K	270	1.10	.99	.83	.72	.66
19F2625	8133-000 COGO 331K	330	1.22	1.10	.92	.79	.73
19F2626	8133-000 COGO 391K	390	1.22	1.10	.92	.79	.73
19F2627	8133-000 COGO 471K	470	1.22	1.10	.92	.79	.73
19F2628	8133-000 COGO 561K	560	1.32	1.19	.99	.86	.79
19F2629	8133-000 COGO 681K	680	1.32	1.19	.99	.86	.79
19F2630	8133-000 COGO 821K	820	1.32	1.19	.99	.86	.79
19F2631	8133-000 COGO 102K	1000	1.44	1.30	1.08	.94	.86
19F3358	8133-000 Z5UO 154M*	150000	1.76	1.58	1.32	1.14	1.00
19F3359	8133-000 Z5UO 224M*	220000	1.98	1.78	1.49	1.29	1.19
19F3360	8133-000 Z5UO 334M*	330000	1.88	1.69	1.41	1.22	1.13
19F3361	8133-000 Z5UO 474M*	470000	2.10	1.89	1.58	1.37	1.26

MIL-C-11015-C TYPES 8133 & 8123-200 VDCW @ 150°C

Stock No.	Type	Cap. (pf.)	1-49	50-99	100-249	250-499	500-999
19F2632	CK05CW 100K	10	.42	.38	.32	.28	.25
19F2633	CK05CW 120K	12					
19F2634	CK05CW 150K	15					
19F2635	CK05CW 180K	18					
19F2636	CK05CW 220K	22					
19F2637	CK05CW 270K	27					
19F2638	CK05CW 330K	33					
19F2639	CK05CW 390K	39					
19F2640	CK05CW 470K	47					
19F2641	CK05CW 560K	56					
19F2642	CK05CW 680K	68					
19F2643	CK05CW 820K	82					
19F2644	CK05CW 101K	100					
19F2645	CK05CW 121K	120					
19F2646	CK05CW 151K	150					
19F2647	CK05CW 181K	180					
19F2648	CK05CW 221K	220					
19F2649	CK05CW 271K	270					
19F2650	CK05CW 331K	330					
19F2651	CK05CW 391K	390	.42	.38	.32	.28	.25
19F2652	CK05CW 471K	470					
19F2653	CK05CW 561K	560					
19F2654	CK05CW 681K	680					
19F2655	CK05CW 821K	820					
19F2656	CK05CW 102K	1000					
19F2657	CK06CW 122K	1200	.50	.45	.38	.33	.30
19F2658	CK06CW 152K	1500					
19F2659	CK06CW 182K	1800					
19F2660	CK06CW 222K	2200					
19F2661	CK06CW 272K	2700	.54	.49	.41	.35	.32
19F2662	CK06CW 332K	3300	.54	.49	.41	.35	.32
19F2663	CK06CW 392K	3900	.56	.50	.42	.36	.34
19F2664	CK06CW 472K	4700	.56	.50	.42	.36	.34
19F2665	CK06CW 562K	5600	.72	.65	.54	.47	.43
19F2666	CK06CW 682K	6800					
19F2667	CK06CW 822K	8200					
19F2668	CK06CW 103K	10000					

GENERAL PURPOSE CERAMICONS

CK60 831 | CK61 801 | 851 | CK62 811 | CK63 841

A flat ceramic dielectric with silver fired onto the dielectric. 1000 DCWV, 1500 VDC test. Tolerence: (* ±.25), (** ±5%), († ±10%), (†† ±10±). Shpg. wt. 1 oz.

KEY FOR CERAMICONS

Type	Diameter	Lead Spacing	Thickness
831	.290	.250	.156
801	.360	.250	.156
811	.593	.375	.156
841	.675	.375	.156
851	.437	.250/.375	.156

Stk. No.	Type	Cap. (pf.)	1-49	50-99	100-249	250-499	500-999	1000-4999
19F2683	831-000 COGO 509C	5.0**	.10	.08	.063	.045	.043	.025
19F2684	831-000 COGO 829D	8.2*	.10	.08	.063	.045	.043	.025
19F2685	831-000 COGO 1001	10.0*	.10	.08	.063	.045	.043	.025
19F2686	831-000 COGO 120J	12.0†	.10	.08	.063	.045	.043	.025
19F2687	801-000 COGO 150J	15.0†	.10	.08	.063	.045	.043	.025
19F2688	801-000 COGO 180J	18.0†	.10	.08	.063	.045	.043	.025
19F2689	801-000 COGO 200J	20.0†	.10	.08	.063	.045	.043	.025
19F2690	801-000 COGO 220J	22.0†	.10	.08	.063	.045	.043	.025
19F2691	851-000 COGO 270J	27.0†	.10	.08	.063	.045	.043	.025
19F2692	851-000 COGO 330J	33.0†	.10	.08	.063	.045	.043	.025
19F2693	851-000 COGO 470J	47.0†	.10	.08	.053	.045	.043	.025
19F2710	811-000 COGO 680J	68.0†	.124	.09	.078	.056	.053	.031
19F2711	811-000 COGO 750J	75.0†	.124	.09	.078	.056	.053	.031

Stk. No.	Type	Cap. (pf.)	1-49	50-99	100-249	250-499	500-999	1000-4999
19F2712	841-000 COGO 820J	82.0†	.124	.09	.078	.056	.053	.031
19F2713	841-000 COGO 101J	100.0†	.124	.09	.078	.056	.053	.031
19F2694	831-000 U2JO 100D	10.0†	.10	.08	.063	.045	.043	.025
19F2695	831-000 U2JO 120J	12.0†	.10	.08	.063	.045	.043	.025
19F2696	831-000 U2JO 150J	15 0†	.10	.08	.063	.045	.043	.025
19F2697	831-000 U2JO 180J	18.0†	.10	.08	.063	.045	.043	.025
19F2698	831-000 U2JO 200J	20.0†	.10	.08	.063	.045	.043	.025
19F2699	831-000 U2JO 220J	22.0†	.10	.08	.063	.045	.043	.025
19F2700	831-000 U2JO 270J	27.0†	.10	.08	.063	.045	.043	.025
19F2701	831-000 U2JO 330J	33.0†	.10	.08	.063	.045	.043	.025
19F2702	801-000 U2JO 390J	39.0†	.10	.08	.063	.045	.043	.025
19F2703	801-000 U2JO 470J	47.0†	.10	.08	.063	.045	.043	.025
19F2704	801-000 U2JO 500J	50.0†	.10	.08	.063	.045	.043	.025
19F2705	801-000 U2JO 560J	56.0†	.10	.08	.063	.045	.043	.025
19F2706	851-000 U2JO 680J	68.0†	.10	.08	.063	.045	.043	.025
19F2707	851-000 U2JO 750J	75.0†	.10	.08	.063	.045	.043	.025
19F2708	851-000 U2JO 820J	82.0†	.10	.08	.063	.045	.043	.025
19F2709	851-000 U2JO 101J	100.0†	.10	.08	.063	.045	.043	.025
19F2718	831-000 X5FO 470K	47.0	.15	.11	.095	.068	.065	.038
19F2719	831-000 X5FO 560K	56.0	.15	.11	.095	.068	.065	.038
19F2720	831-000 X5FO 680K	68.0	.15	.11	.095	.068	.065	.038
19F2721	831-000 X5FO 101K	100.0	.15	.11	.095	.068	.065	.038
19F2722	831-000 X5FO 151K	150.0	.15	.11	.095	.068	.065	.038
19F2723	831-000 X5FO 201K	200.0	.15	.11	.095	.068	.065	.038
19F2724	831-000 X5FO 221K	220.0	.15	.11	.095	.068	.065	.038
19F2725	831-000 X5FO 271K	270.0	.15	.11	.095	.068	.065	.038
19F2726	831-000 X5FO 331K	330.0	.15	.11	.095	.068	.065	.038
19F2727	831-000 X5FO 391K	390.0	.15	.11	.095	.068	.065	.038
19F2728	831-000 X5FO 471K	470.0	.15	.11	.095	.068	.065	.038
19F2729	831-000 X5FO 501K	500.0	.15	.11	.095	.068	.065	.038
19F2730	801-000 X5FO 681K	680.0	.15	.11	.095	.069	.065	.038
19F2731	801-000 X5FO 102K	1,000.0	.15	.11	.094	.068	.065	.038
19F2732	851-000 X5FO 152K	1.500.0	.15	.11	.094	.068	.065	.038
19F2733	871-000 X5FO 202K	2,000.0	.16	.12	.099	.071	.067	.04
19F2734	811-000 X5FO 222K	2,200.0	.16	.12	.10	.072	.068	.04
19F2735	811-000 X5FO 332K	3.300.0	.16	.12	.10	.072	.068	.04
19F2736	811-000 X5RO 472K	4,700.0	.12	.09	.075	.054	.051	.03
19F2737	811-000 X5RO 502K	5.000.0	.12	.09	.075	.054	.051	.03
19F2738	811-000 Z5UO 103M	10.000.0††	.13	.10	.080	.058	.054	.032
19F2739	841-000 Z5UO 153M	15,000.0††	.16	.12	.099	.071	.067	.04
19F2740	841-000 X5UO 203M	20,000.0††	.16	.12	.099	.071	.067	.04

MIL-C-11015C DISC CERAMICS

Capacitors meet requirements for TV, industrial electronics and military equipment on 85°C. All .156" thick. Style 831: .290 disc. dia., .250 lead spacing. Style 801: 360 disc. dia., .250 lead spacing. Style 811: .539 disc. dia., .357 lead spacing. Style 841: .675 disc. dia. .375 lead spacing. 500 VDC. 1500 VDC Flash Test. Shpg. Wt., 1 oz.

Stk. No.	Mil. No.	Cap. (pf)	1-49	50-99	100-249	250-499	500-999	1000-4999
19F2745	CK60BX100K	10.0	.23	.18	.146	.105	.099	.059
19F2746	CK60BX150K	15.0	.23	.18	.146	.105	.099	.059
19F2747	CK60BX220K	22.0	.23	.18	.146	.105	.099	.059
19F2750	CK60BX470K	47.0	.23	.18	.146	.105	.099	.059
19F2754	CK60BX101K	100 0	.23	.18	.146	.105	.099	.059
19F2755	CK60BX101M	100.0	.23	.17	.141	.102	.096	.057
19F2756	CK60BX151K	150.0	.23	.18	.146	.102	.096	.059
19F2762	CK60AX471K	470.0	.19	.15	.121	.087	.082	.049
19F2763	CK60AX471M	470.0	.19	.14	.116	.084	.079	.047
19F2764	CK60AW471M	470 0	.18	.14	.114	.082	.077	.046
19F2765	CK60AW681M	680.0	.18	.14	.114	.082	.077	.046
19F2766	CK60AW821M	820.0	.18	.14	.114	.082	.077	.046
19F2767	CK60AW102M	1,000.0	.18	.14	.114	.082	.077	.046
19F2768	CK60AW152M	1,500 0	.18	.14	.114	.082	.077	.046
19F2769	CK61BX221K	220.0	.23	.18	.146	.105	.099	.059
19F2773	CK61BX471K	680.0	.23	.18	.146	.105	.099	.059
19F2774	CK61BX471M	470.0	.23	.17	.141	.102	.096	.057
19F2775	CK61BX681K	470.0	.23	.18	.146	1.05	.099	.059
19F2776	CK61BX681M	680.0	.23	.17	.141	.102	.096	.057
19F2777	CK61AW222M	2.200.0	.18	.14	.114	.082	.077	.046
19F2778	CK62AY220M	22.0	.21	.16	.130	.094	.088	.052
19F2779	CK62AY470M	47.0	.21	.16	.130	.094	.088	.052
19F2780	CK62AY101M	100.0	.21	.16	.130	.094	.088	.052
19F2781	CK62AY221M	220.0	.21	.16	.130	.094	.088	.052
19F2782	CK62AY471M	470.0	.21	.16	.130	.094	.088	.052
19F2783	CK62BX821K	820.0	.24	.18	.149	.107	.101	.060
19F2785	CK62BX102K	1,000.0	.24	.18	.149	.107	.101	.060
19F2787	CK62BX152K	1,500.0	.24	.18	.149	.107	.101	.060
19F2789	CK62AX222K	2,200.0	.20	.15	.124	.089	.084	.050
19F2791	CK62AW332M	3 300.0	.21	.16	.13	.094	.088	.052
19F2792	CK62AW472M	4,700.0	.21	.16	.13	.094	.088	.052
19F2794	CK62AW822M	8,200.0	.21	.16	.13	.094	.088	.052
19F2795	CK63BX222K	2,200.0	.26	.19	.16	.115	.109	.064
19F2797	CK63BX332K	3,300.0	.26	.19	.16	.115	.109	.064
19F2800	CK63AY103M	10,000.0	.22	.17	.138	.099	.094	.055
19F2801	CK63AW103M	10,000.0	.24	.18	.149	.107	.101	.060

12-VOLT TRANSCAPS

Use in transistorized, filtering and by-pass applications. .156" thick. All char. Y5F. PF max. is 8%. IR(min)ohms, is 1,000,000 for 5655 and 5615. Life, at 85°C. and rated voltage, is 500 hours. All are rated at ±20% tol. Shpg. wt., 1 oz.

Lead spacing .250 except type 5615, 5645 and 5685 which are .325

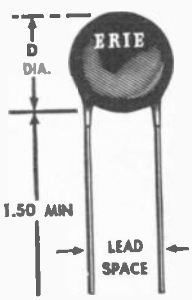
Stk. No.	Type	Dia.	Mf	1-49	50-99	100-249	250-499	500-999	1000-4999
19F2802	5635-000 Y5F0 503M	.275	.05	.22	.16	.135	.097	.092	.054
19F2803	5655-000 Y5F0 104M	.420	.1	.22	.17	.140	.101	.095	.056
19F2804	5615-000 Y5F0 224M	.550	.22	.34	.15	.21	.151	.143	.084
19F2805	5645-000 Y5F0 334M	.660	.33	.44	.33	.275	.198	.187	.110
19F2806	5685-000 Y5F0 474M	.800	.47	.55	.41	.345	.248	.235	.138

25-VOLT

19F2085	5835-000-Y5U0-103Z	.01	.290	.20	.15	.125	.09	.085	.050
19F2086	5835-000-Y5U0-203Z	.02	.290	.24	.18	.15	.108	.102	.06
19F2087	5855-000-Y5U0-503Z	.05	.437	.30	.23	.189	.136	.128	.076
19F2088	5815-000-Y5U0-104Z	.1	593	.32	.24	.200	.144	.136	.08
19F2089	5815-000-Y5U0-204Z	.2	.593	.62	.47	.388	.279	.264	.155
19F1707	5865-000-Y5U0-224Z	.22	89[illegible]	.48	.36	.30	.216	.204	.120
19F1708	5865-000-Y5U0-474Z	47	.895	.94	.70	.588	.423	.400	.235

100V TRANSISTOR CAPACITORS

Ultra miniature. Capacitance Tol. 80% to 20%. Style 835, 805, & 855 have a thickness of .125 and lead spacing of .250. Style 845 has a thickness of .125 and lead spacing of .375. Style *845 have a thickness of .172 and lead spacing of .375 with a duel Ceramicon. Shpg. wt., 1 oz.



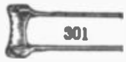
Type	D-Dia.	T.-Thick.	Lead Spacing
835	.275	.125	.250
805	.344	.125	.250
855	.420	.125	.250
845	.655	.125	.375
845*	.675	.172	.375

Stk. No.	Type	Mf.	1-49	50-99	100-249	250-499	500-999	1M-5M
19F1700	835-000-X5V0-502Z	.005	.12	.09	.078	.056	.053	.031
19F1701	805-000-X5V0-103Z	.01	.20	.15	.128	.092	.087	.051
19F1702	855-000-X5V0-203Z	.02	.20	.15	.128	.092	.087	.051
19F1704	845-000-X5V0-473Z	.047	.27	.20	.166	.12	.113	.067
10F1705	845-000-X5V0-503Z	.05	.27	.20	.166	.12	.113	.067
19F1706	845-000-X5V0-104Z	.1	.67	.50	.412	.299	.283	.166

Capacitors

TYPE NPO CERAMICONS

316



301

Tubular capacitors for frequency determining applications. Also used as temp. compensating elements in circuits which must be temp. stabilized. Shpg. wt. 1 oz. Size: 301; D-.200, L-.400 Lead sp.-.250; 316 same as 315.

± .25 PF TOL.

Stk. No.	Type	T. Co NPO	Cap. pf	1-49	50-99	100-249	250-499	500-999	1M-5M
19F1092	301-000 COKO 508C	±250	0.5	.11	.08	.068	.049	.046	.027
19F1093	301-000 COKO 688C	±250	0.68	.11	.08	.068	.049	.046	.027
19F1094	301-000 COKO 109C	±250	1.0	.11	.08	.068	.049	.046	.027
19F500	301-000 COKO 159C	±250	1.5	.11	.08	.068	.049	.046	.027
19F2823	301-000 COKO 209C	±250	2.0	.10	.08	.064	.046	.043	.026
19F1096	301-000 COJO 229C	±120	2.2	.10	.08	.064	.046	.043	.026
19F501	301-000 COJO 309C	±120	3.0	.11	.08	.068	.049	.046	.027
19F502	301-000 COJO 339C	±120	3.3	.11	.08	.068	.049	.046	.027
19F503	301-000 COHO 479C	±60	4.7	.11	.08	.068	.049	.046	.027
19F504	301-000 COHO 509C	±60	5.0	.11	.08	.068	.049	.046	.027
19F505	301-000 COHO 689C	±60	6.8	.22	.16	.135	.097	.092	.054
19F506	301-000 COHO 829C	±60	8.2	.22	.16	.135	.097	.092	.054
19F507	301-000 COHO 100C	±60	10.0	.22	.16	.135	.097	.092	.054

± 5% TOL.

Stk.No.	Type	T. Co NPO	Cap. pf	1-49	50-99	100-249	250-499	500-999	1M-5M
19F2824	301-000 COGO 120J	±30	12.0	.11	.08	.068	0.49	.046	.027
19F2825	301-000 COGO 150J	±30	15.0	.11	.08	.068	0.49	.046	.027
18F2826	301-000 COGO 180J	±30	18.0	.11	.08	.068	0.49	.046	.027
19F2827	301-000-COGO 200J	±30	20.0	.11	.08	.068	0.49	.046	.027
19F2828	301-000 COGO 220J	±30	22.0	.11	.08	.068	0.49	.046	.027
19F2829	301-000 COGO 240J	±30	24.0	.11	.08	.068	0.49	.046	.027
19F2830	315-000 COHO 100D	±60	10.0	.21	.16	.132	.095	.090	.053
19F2832	315-000 COGO 150J	±30	15.0	.21	.16	.132	.095	.090	.053
19F508	315-000 COGO 200J	±30	20.0	.21	.16	.132	.095	.090	.053
19F2833	315-000 COGO 220J	±30	22.0	.21	.16	.132	.095	.090	.053
19F2834	315-000 COGO 240J	±30	24.0	.21	.16	.132	.095	.090	.053

TYPE N750 TUBULAR CERAMICONS

Have neg. temp. coefficient of 750 x 10[6] mmf/°C. Tolerance at working volt. 600 VDC is ±5%. Sizes: 301, ½"x¼"; 316, 3/16x¼".

Stk. No.	Type	Cap. pf	1-49	50-99	100-249	250-499	500-999	1M-5M
19F540	301-000 U2JO 509C	5.0	.11	.08	.068	.049	.046	..027
19F541	301-000 U2JO 100C	10.0	.22	.16	.135	.097	.092	.054
19F544	316-000 U2JO 101J	100.0	.22	.17	.138	.099	.094	.055

MIL C-20-D TUBULARS

Ideally suited for applications where temperature coefficient is not important. Ceramicons meet performance specifications of EIA Standard RS109 for class 1; temp. comp. class 2 HI-K.

Stk. No.	Mil. Type	Mmf.	Body Style	1-49	50-99	100-249	250-499	500-999	1M-5M
19F2200	CC20 CH 040C	4	301	.27	.20	.168	.121	.114	.067
19F2201	CC20 CH 050C	5	301	.27	.20	.168	.121	.114	.067
19F2202	CC20 CH 060C	6	301	.38	.28	.235	.169	.160	.094
19F2203	CC20 CH 070C	7	301	.38	.28	.235	.169	.160	.094
19F2204	CC20 CH 080C	8	301	.38	.28	.235	.169	.160	.094
19F2205	CC20 CH 090C	9	301	.38	.28	.235	.169	.160	.094
19F2206	CC20 CH 100C	10	301	.38	.28	.235	.169	.160	.094
19F2835	CC20 CH 120G	12	301	.42	.31	.26	.187	.177	.104
19F2836	CC20 CH 150G	15	301	.42	.31	.26	.187	.177	.104
19F2837	CC20 CH 180G	18	301	.42	.31	.26	.187	.177	.104
19F2838	CC20 CH 200G	20	301	.42	.31	.26	.187	.177	.104
19F2839	CC20 CH 220G	22	301	.42	.31	.26	.187	.177	.104
19F2840	CC20 CJ 030C	3	301	.27	.20	.168	.121	.114	.067
19F2841	CC20 CK 010C	1	301	.27	.20	.168	.121	.114	.067
19F2197	CC20 CK 1R5C	1.5	301	.27	.20	.168	.121	.114	.067
19F2198	CC20 CK 020C	2	301	.26	.20	.164	.118	.111	.066
19F2195	CC20 CK 0R5C	0.5	301	.27	.20	.168	.121	.114	.067
19F2196	CC20 CK R75C	0.75	301	.27	.20	.168	.121	.114	.067
19F2161	CC20 UJ 100C	10	301	.38	.28	.235	.169	.160	.094
19F2842	CC20 UJ 120J	12	301	.27	.20	.168	.121	.114	.067
19F2843	CC20 UJ 150J	15	301	.27	.20	.168	.121	.114	.067
19F2154	CC20 UJ 030C	3	301	.27	.20	.168	.121	.114	.067
19F2155	CC20 UJ 040C	4	301	.27	.20	.168	.121	.114	.067
19F2156	CC20 UJ 050C	5	301	.27	.20	.168	.121	.114	.067
19F2157	CC20 UJ 060C	6	301	.38	.28	.235	.169	.160	.094
19F2158	CC20 UJ 070C	7	301	.38	.28	.235	.169	.160	.094
19F2159	CC20 UJ 080C	8	301	.38	.28	.235	.169	.160	.094
19F2160	CC20 UJ 090C	9	301	.38	.28	.235	.169	.160	.094
19F2153	CC20 UK 020C	2	301	.26	.20	.164	.118	.111	.066
19F2448	CC21 CH 100C	10	315	.49	.37	.308	.221	.209	.123
19F2207	CC21 CH 120J	12	315	.37	.28	.233	.168	.158	.093
19F2208	CC21 CH 150J	15	315	.37	.28	.233	.168	.158	.093
19F2209	CC21 CH 160J	18	315	.37	.28	.233	.168	.158	.093
19F2210	CC21 CH 220J	22	315	.37	.28	.233	.168	.158	.093
19F2211	CC21 CH 240J	24	315	.37	.28	.233	.168	.158	.093
19F2844	CC21 CH 040C	4	315	.38	.29	.243	.175	.165	.097
19F2845	CC21 CH 050C	5	315	.38	.29	.243	.175	.165	.097
19F2846	CC21 UJ 100C	10	315	.49	.37	.308	.221	.209	.123

GENERAL PURPOSE CERAMICONS—500 VDC

315

Reliability at low cost. Tolerance, ±10%; characteristic X5R. Capacitance within tolerance @ 1 kc, 25°C., with 0.5 to 5 V RMS across piece. Size: O-.250, L-.562.

Stk. No.	Type	Cap. (pf)	1-49	50-99	100-249	250-499	500-999	1M-5M
19F2807	315-005 X5R 820K	82	.19	.14	.120	.086	.082	.048
19F2808	315-005 X5R 101K	100	.19	.14	.120	.086	.082	.048
19F2809	315-005 X5R 151K	150	.21	.16	.129	.093	.088	.052
19F2810	315-005 X5R 201K	200	.21	.16	.129	.093	.088	.052
19F2811	315-C05 X5R 221K	220	.21	.16	.129	.093	.088	.052
19F2812	315-005 X5R 251K	250	.23	.17	.141	.102	.096	.057
19F2813	315-G05 X5R 271K	270	.21	.16	.129	.093	.088	.052
19F2814	315-005 X5R 301K	300	.23	.17	.141	.102	.096	.057
19F2815	315-005 X5R 331K	330	.21	.16	.129	.093	.088	.052
19F2816	315-005 X5R 391K	390	.21	.16	.129	.093	.088	.052
19F2817	315-005 X5R 471K	470	.21	.16	.129	.093	.088	.052
19F2818	315-005 X5R 501K	500	.21	.16	.129	.093	.088	.052
19F2819	315-005 X5R 561K	560	.21	.16	.129	.093	.088	.052
19F2820	315-005 X5R 681K	680	.21	.16	.129	.093	.088	.052
19F2821	315-005 X5R 821K	820	.21	.16	.129	.093	.088	.052
19F2822	315-005 X5R 102K	1000	.21	.16	.129	.093	.088	.052

TYPE 390-000 SUB-MINIATURE MOLDED CAPACITORS

Meets military specifications MIL-C-11015 with a cap. range up to 330 pf ±10%, 20%; 390-680 pf ±20%+100-0% (GMV); 820 and above +100-0% (GMV). Working voltage of 100 volts DC at 85°C, or 50 volts at 125°C. Constructed of high quality molded plastic to assure resistance against moisture and humidity. Dia., —.100; L—.260 Lead L—1.50 min. #22 AWG (.025) tinned copper leads.

Stk. No.	Type 390-000	Mmf.	Tol.	1-49	50-99	100-249	250-499	500-999	1M-5M
19F1709	X5PO 569K	5.6	±10%	.58	.44	.363	.261	.247	.145
19F1710	X5PO 689K	6.8	±10%	.58	.44	.363	.261	.247	.145
19F1711	X5PO 829K	8.2	±10%	.58	.44	.363	.261	.247	.145
19F1712	X5PO 100K	10	±10%	.58	.44	.363	.261	.247	.145
19F1713	X5PO 120K	12	±10%	.58	.44	.363	.261	.247	.145
19F1714	X5PO 150K	15	±10%	.58	.44	.363	.261	.247	.145
19F1715	X5PO 180K	18	±10%	.58	.44	.363	.261	.247	.145
19F1716	X5PO 220K	22	±10%	.58	.44	.363	.261	.247	.145
19F1717	X5PO 270K	27	±10%	.58	.44	.363	.261	.247	.145
19F1718	X5PO 330K	33	±10%	.58	.44	.363	.261	.247	.145
19F1719	X5PO 390K	39	±10%	.58	.44	.363	.261	.247	.145
19F1720	X5PO 470K	47	±10%	.58	.44	.363	.261	.247	.145
19F1721	X5PO 560K	56	±10%	.58	.44	.363	.261	.247	.145
19F1722	X5PO 680K	68	±10%	.58	.44	.363	.261	.247	.145
19F1723	X5PO 820K	82	±10%	.58	.44	.363	.281	.247	.145
19F1724	X5PO 101K	100	±10%	.58	.44	.363	.261	.247	.145
19F1725	X5PO 121K	120	±10%	.58	.44	.363	.261	.247	.145
19F1726	X5PO 151K	150	±10%	.58	.44	.363	.261	.247	.145
19F1727	X5PO 181K	180	±10%	.58	.44	.363	.261	.247	.145
19F1728	X5TO 221K	220	±10%	.58	.44	.363	.261	.247	.145
19F1729	X5TO 271K	270	±10%	.58	.44	.363	.261	.247	.145
19F1730	X5TO 331K	330	±10%	.58	.44	.363	.261	.247	.145
19F1731	X5UO 391M	390	±20%	.54	.41	.338	.243	.230	.135
19F1732	X5UO 471M	470	±20%	.54	.41	.338	.243	.230	.135
19F1733	X5UO 561M	560	±20%	.54	.41	.338	.243	.230	.135
19F1734	X5UO 681M	680	±20%	.54	.41	.338	.243	.230	.135
19F1735	X5VO 821P	820	GMV	.50	.38	.313	.225	.213	.125
19F1736	X5VO 102P	1000	GMV	.50	.38	.313	.225	.213	.125
19F1737	X5VO 122P	1200	GMV	.50	.38	.313	.225	.213	.125

RED CAPS — 100 VOLT ULTRA STABLE CAPACITORS

Encapsulated with Jet-Seal 4.7pf to 2.2uf. Meets or exceeds all applicable requirements of MIL-C-20 and MIL-C-11015.

MAX DIM'S

Type	W	H	Lead Spacing	Type	W	H	Lead Spacing
8101	.100	.100	100	8131	.300	.300	200
8111	.150	.150	100	8141	.400	.400	
8121	.200	.200	100	8151	.500	.500	400

Stk. No.	Type	Cap.	Thickness	1-49	50-99	100-249	250-499	500-999
19F3500	8101-100-COGO-479D	4.7	.100	.36	.26	.22	.18	.16
19F3501	8101-100-COGO-689D	6.8	.100	.36	.26	.22	.18	.16
19F3502	8101-100-COGO-100K	10	.100	.36	.26	.22	.18	.16
19F3503	8111-100-COGO-150K	15	.100	.36	.26	.22	.18	.16
19F3504	8111-100-COGO-220K	22	.100	.36	.26	.22	.18	.16
19F3505	8121-100-COGO-330K	33	.125	.33	.24	.20	.17	.14
19F3506	8121-100-COGO-470K	47	.125	.60	.44	.36	.30	.26
19F3507	8121-100-COGO-680K	68	.125	.60	.44	.36	.30	.26
19F3508	8121-100-COGO-101K	100	.125	.66	.48	.40	.33	.29
19F3509	8121-100-COGO-151K	150	.125	.69	.51	.41	.35	.30
19F3510	8121-100-COGO-221K	220	.125	.78	.57	.47	.39	.34
19F3511	8121-100-COGO-331K	330	.125	.90	.66	.54	.45	.39
19F3512	8121-100-COGO-471K	470	.125	1.05	.77	.63	.53	.46
19F3513	8121-100-COGO-681K	680	.125	1.26	.92	.76	.63	.55
19F3514	8121-100-COGO-102K	1000	.125	1.56	1.14	.94	.78	.68
19F3515	8131-100-COGO-152K	1500	.150	1.23	.90	.74	.62	.53
19F3516	8131-100-COGO-222K	2200	.150	1.62	1.19	.97	.81	.70
19F3517	8131-100-COGO-332K	3300	.150	2.10	1.54	1.26	1.05	.91
19F3518	8141-100-COGO-472K	4700	.150	3.06	2.24	1.84	1.53	1.33
19F3519	8141-100-COGO-682K	6800	.150	4.14	3.04	2.48	2.07	1.79
19F3520	8141-100-COGO-103K	.01	.150	5.64	4.14	3.38	2.82	2.44

ERIE

RED CAPS — 100 VOLT STABLE

For application in circuits requiring volumetric efficiency at temp. between —55°C to +125°C.

Stk. No.	Type	CAP	1-49	50-99	100-249	250-499	500-999
19F3521	8101-100-W5RO-151K	150	.36	.26	.22	.18	.16
19F3522	8101-100-W5RO-221K	220	.36	.26	.22	.18	.16
19F3523	8101-100-W5RO-331K	330	.36	.26	.22	.18	.16
19F3524	8111-100-W5RO-471K	470	.36	.26	.22	.18	.16
19F3525	8111-100-W5RO-681K	680	.36	.26	.22	.18	.16
19F3526	8121-100-W5RO-102K	1000	.33	.24	.20	.17	.14
19F3527	8121-100-W5RO-152K	1500	.33	.24	.20	.17	.14
19F3528	8121-100-W5RO-222K	2200	.42	.31	.25	.21	.18
19F3529	8121-100-W5RO-332K	3300	.45	.33	.27	.23	.20
19F3530	8121-100-W5RO-472K	4700	.45	.33	.27	.23	.20
19F3531	8121-100-W5RO-682K	6800	.51	.37	.31	.26	.22
19F3532	8121-100-W5RO-103K	.01	.60	.44	.36	.30	.26
19F3533	8131-100-W5RO-153K	.015	.75	.55	.45	.38	.33
19F3534	8131-100-W5RO-223K	.022	.87	.64	.52	.44	.38
19F3535	8131-100-W5RO-333K	.033	.96	.70	.58	.48	.42
19F3536	8131-100-W5RO-473K	.047	1.11	.81	.67	.56	.48
19F3537	8131-100-W5RO-683K	.068	1.41	1.03	.85	.71	.61
19F3538	8131-100-W5RO-104K	.1	1.74	1.28	1.04	.87	.75
19F3539	8141-100-W5RO-224K	.22	3.72	2.73	2.23	1.86	1.61
19F3540	8151-100-W5RO-334K	.33	4.68	3.43	2.81	2.34	2.03
19F3541	8151-100-W5RO-474K	.47	6.04	4.44	3.64	3.03	2.63
19F3542	8151-100-W5RO-564K	.56	7.29	5.35	4.37	3.65	3.16

RED CAPS — 100 VOLT GENERAL PURPOSE

Top efficiency between —55°C and +85°C.

Stk. No.	Type	CAP	1-49	50-99	100-249	250-499	500-999
19F3543	8121-100-651-682M	6800	.30	.22	.178	.149	.129
19F3544	8121-100-651-103M	.01	.48	.35	.29	.24	.21
19F3545	8121-100-651-153M	.015	.51	.37	.31	.26	.22
19F3546	8121-100-651-223M	.022	.60	.44	.36	.30	.26
19F3547	8121-100-651-273M	.027	.66	.48	.40	.33	.29
19F3548	8121-100-651-333M	.033	.72	.53	.43	.36	.31
19F3549	8121-100-651-473M	.047	.81	.59	.49	.41	.35
19F3550	8121-100-651-683M	.068	.96	.70	.58	.48	.42
19F3551	8131--100-651-104M	.1	.72	.53	.43	.36	.31
19F3552	8131-100-651-154M	.15	.78	.57	.47	.39	.34
19F3553	8131-100-651-224M	.22	.87	.64	.52	.44	.38
19F3554	8131-100-651-274M	.27	.99	.73	.59	.50	.43
19F3555	8131-100-651-334M	.33	1.11	.81	.67	.56	.48
19F3556	8131-100-651-474M	.47	1.44	1.06	.86	.72	.62
19F3557	8141-100-651-684M	.68	1.74	1.28	1.04	.87	.75
19F3558	8141-100-651-105M	1.0	2.19	1.61	1.31	1.10	.95
19F3559	8151-100-651-155M	1.5	2.94	2.16	1.76	1.47	1.27
19F3560	8151-100-651-225M	2.2	3.99	2.93	2.93	2.00	1.73

MIL-C-11015/18B-STYLE CK05

Stk. No.	Type	Volts	Cap.	1-49	50-99	100-249	250-499	500-999
19F3561	CK05BX100-K	200	10	.54	.50	.45	.42	.39
19F3562	CK05BX120-K	200	12	.54	.50	.45	.42	.39
19F3563	CK05BX150-K	200	15	.54	.50	.45	.42	.39
19F3564	CK05BX180-K	200	18	.54	.50	.45	.42	.39
19F3565	CK05BX220-K	200	22	.54	.50	.45	.42	.39
19F3566	CK05BX270-K	200	27	.54	.50	.45	.42	.39
19F3567	CK05BX330-K	200	33	.54	.50	.45	.42	.39
19F3568	CK05BX390-K	200	39	.54	.50	.45	.42	.39
19F3569	CK05BX470-K	200	47	.54	.50	.45	.42	.39
19F3570	CK05BX560-K	200	56	.54	.50	.45	.42	.39
19F3571	CK05BX680-K	200	68	.54	.50	.45	.42	.39
19F3572	CK05BX820-K	200	82	.54	.50	.45	.42	.39
19F3573	CK05BX101-K	200	100	.54	.50	.45	.42	.39
19F3574	CK05BX121-K	200	120	.54	.50	.45	.42	.39
19F3575	CK05BX151-K	200	150	.54	.50	.45	.42	.39
19F3576	CK05BX181-K	200	180	.54	.50	.45	.42	.39
19F3577	CK05BX221-K	200	220	.54	.50	.45	.42	.39
19F3578	CK05BX271-K	200	270	.54	.50	.45	.42	.39
19F3579	CK05BX331-K	200	330	.54	.50	.45	.42	.39
19F3580	CK05BX391-K	200	390	.54	.50	.45	.42	.39
19F3581	CK05BX471-K	200	470	.54	.50	.45	.42	.39
19F3582	CK05BX561-K	200	560	.54	.50	.45	.42	.39
19F3583	CK05BX681-K	200	680	.54	.50	.45	.42	.39
19F3584	CK05BX821-K	200	820	.54	.50	.45	.42	.39
19F3585	CK05BX102-K	200	1,000	.54	.50	.45	.42	.39
19F3586	CK05BX122-K	100	1,200	.56	.52	.47	.43	.40
19F3587	CK05BX152-K	100	1,500	.56	.52	.47	.43	.40
19F3588	CK05BX182-K	100	1,800	.56	.52	.47	.43	.40
19F3589	CK05BX222-K	100	2,200	.57	.54	.48	.44	.41
19F3590	CK05BX272-K	100	2,700	.57	.54	.48	.44	.41
19F3591	CK05BX332-K	100	3,300	.59	.55	.49	.46	.42
19F3592	CK05BX392-K	100	3,900	.59	.55	.49	.46	.42
19F3593	CK05BX472-K	100	4,700	.59	.55	.49	.46	.42
19F3594	CK05BX562-K	100	5,600	.60	.57	.51	.47	.43
19F3595	CK05BX682-K	100	6,800	.60	.57	.51	.47	.43
19F3596	CK05BX822-K	100	8,200	.64	.59	.53	.49	.45
19F3597	CK05BX103-K	100	10,000	.64	.59	.53	.49	.45

MIL-C-11015/19B

Stk. No.	Type	Volts	Cap.	1-49	50-99	100-249	250-499	500-999
19F3610	CK06BX122-K	200	1,200	.56	.52	.47	.43	.40
19F3611	CK06BX152-K	200	1,500	.56	.52	.47	.43	.40
19F3612	CK06BX182-K	200	1,800	.56	.52	.47	.43	.40
19F3613	CK06BX222-K	200	2,200	.56	.52	.47	.43	.40
19F3614	CK06BX272-K	200	2,700	.56	.52	.47	.43	.40
19F3615	CK06BX332-K	200	3,300	.56	.52	.47	.43	.40
19F3616	CK06BX392-K	200	3,900	.56	.52	.47	.43	.40
19F3617	CK06BX472-K	200	4,700	.56	.52	.47	.43	.40
19F3618	CK06BX562-K	200	5,600	.60	.56	.51	.47	.43
19F3619	CK06BX682-K	200	6,800	.60	.56	.51	.47	.43
19F3620	CK06BX822-K	200	8,200	.60	.56	.51	.47	.43
19F3621	CK06BX103-K	200	10,000	.60	.56	.51	.47	.43
19F3622	CK06BX123-K	100	12,000	.67	.62	.56	.52	.47
19F3623	CK06BX153-K	100	15,000	.67	.62	.56	.52	.47
19F3624	CK06BX183-K	100	18,000	.74	.70	.62	.58	.53
19F3625	CK06BX223-K	100	22,000	.74	.70	.62	.58	.53
19F3626	CK05BX273-K	100	27,000	.82	.77	.69	.64	.58
19F3627	CK06BX333-K	100	33,000	.90	.84	.75	.70	.64
19F3628	CK06BX393-K	100	39,000	.98	.91	.82	.76	.69
19F3629	CK06BX473-K	100	47,000	.98	.91	.82	.76	.69
19F3630	CK06BX563-K	100	56,000	1.05	.99	.88	.82	.75
19F3631	CK06BX683-K	100	68,000	1.13	1.06	.95	.88	.80
19F3632	CK06BX823-K	100	82,000	1.21	1.13	1.01	.94	.86
19F3633	CK06BX104-K	100	100,000	1.36	1.28	1.14	1.06	.97

BUTTON MICA CAPACITORS

Designed for use where compact size, minimum series inductance, and high leakage resistance are essential. Temp range: —55°C to 125°C. Tol: 10% except (*) 5%.

Stk. No.	Type	Mil No. CB11-	Cap. (pf)	1-49	50-99	100-250	250-499	500-999
19F3082	654-017 150K	RD150K	15	.86	.71	.57	.428	.314
19F3396	654-017 240K	RD240K	24	.85	.713	.57	.428	.314
19F3397	654-017 470K	RD470K	47	.86	.71	.57	.428	.314
19F3085	654-017 101K	RD101K	100	.86	.71	.57	.428	.314
19F3086	654-017 151K	RD151K	150	.86	.71	.57	.428	.314
19F3398	654-017 241K	RD241K	240	.86	.713	.57	.428	.314
19F3399	654-017 471K	RD471K	470	1.01	.84	.67	.503	.369
19F3400	654-017 471J*	RD471J	470	1.28	1.06	.85	.638	.468
19F3091	654-017 102K	RD102K	1K	1.71	1.43	1.14	.855	.627
19F3092	654-017 102J*	RD102J	1K	2.13	1.78	1.42	1.065	.781

Stk. No.	Type	Mil No. CB21-	Cap. (pf)	1-49	50-99	100-250	250-499	500-999
19F3390	662-003 240K	PD240K	24	.84	.70	.56	.42	.308
19F3391	662-003 470K	PD470K	47	.84	.70	.56	.42	.308
19F3392	662-003 101K	PD101K	100	.84	.70	.56	.42	.308
19F3393	662-003 241K	PD241K	240	.84	.70	.56	.42	.308
19F3394	662-003 471K	PD471K	470	1.01	.84	.67	.502	.369
19F3395	662-003 471J*	PD471J	470	1.25	1.05	.84	.63	.462
19F3080	662-003 102K	PD102K	1K	1.70	1.41	1.13	.848	.622

CERAMIC TRIMMER TYPE 503

Provides maximum stability and ease of adjustment. Capacity change constant per degree of rotation. Silver electrodes are fired onto ceramic rotor and base, 500 wkg. volts DC. 503-000: .843"-656". 503-001: .859x281. (*Indicates bent leads.)

STRAIGHT LEADS

Stk. No.	Type	Mmf. Range	1-49	50-99	100-249	250-499	500-999
19F520	503-000 10A	1.5-7	1.10	.87	.735	.552	.452
19F1746	503-000 17A	3-12	1.10	.87	.735	.552	.452
19F2897	503-000 25A	4.5-20	1.10	.87	.735	.552	.452
19F2898	503-000 37A	4.5-20	1.10	.87	.735	.552	.452
19F2896	503-000 19B	3-16	1.10	.87	.735	.552	.452
19F1747	503-000 28B	5-20	1.10	.87	.735	.552	.452
19F522	503-000 24C	4-30	1.10	.87	.735	.552	.452
19F523	503-000 33C	7-45	1.10	.87	.735	.552	.452
19F2899	503-000 24D	4-30	1.10	.87	.735	.552	.452
19F2900	503-000 33D	7-45	1.10	.87	.735	.552	.452
19F1748	503-000 53D	5-50	1.10	.87	.735	.552	.452
19F2901	503-000 62F	11-110	1.43	1.14	.951	.678	.565

BENT LEADS

Stk. No.	Type	Mmf. Range	1-49	50-99	100-249	250-499	500-999
19F2267	503-001 10A	1.5-7	1.10	.87	.735	.552	.452
19F2268	503-001 17A	3-12	1.10	.87	.735	.552	.452
19F2903	503-001 25A	4.5-20	1.10	.87	.735	.552	.452
19F2904	503-001 37A	4.5-20	1.10	.87	.735	.552	.452
19F2902	503-001 19B	3-16	1.10	.87	.735	.552	.452
19F2270	503-001 28B	5-20	1.10	.87	.735	.552	.452
19F2269	503-001 24C	4-30	1.10	.87	.735	.552	.452
19F2271	503-001 33C	7-45	1.10	.87	.735	.552	.452
19F2905	503-001 24D	4-30	1.10	.87	.735	.552	.452
19F2906	503-001 33D	7-45	1.10	.87	.735	.552	.452
19F2272	503-001 53D	5-50	1.10	.87	.735	.552	.452
19F2907	503-001 62F	11-110	1.43	1.14	.951	.678	.565

Ceramic Trimmers

SUBMINIATURE CERAMIC TRIMMERS

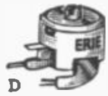
The sub-miniature 518 occupies less than .007 cu. inches of space. Unique base design permits rigid mounting in both printed circuit and point to point wiring applications. Capacity range, 5-25pF. Operating temp. range, —55°C to 125°C. WVDC, 100 to 85°C and 50 to 125°C. Torque, .5-3 oz. in.

Stk. No.	Type	1-49	50-99	100-249	250-499	500-999
19F3440 19F3446 19F3447	518-000-39A 518-000-155A 518-000-156A	7.00	6.30	5.25	4.55	4.20

MINIATURE CERAMIC DISC TRIMMERS


A

B

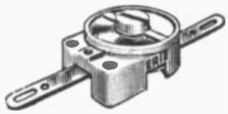
C


D

(Following trimmers mfg'd. to app. req. of MIL-C-81)

Stk. No.	Type	Fig.	Mmf. Range	1-49	50-99	100-249	250-499	500-999
19F2090	538-000 89A	A	2-8	1.69	1.35	1.125	.675	.563
19F2091	538-000 92A	A	5.5-18	1.69	1.35	1.125	.675	.563
19F2092	538-000 90B	A	2.5-11	1.69	1.35	1.125	.675	.563
19F2093	538-000 93B	A	7-25	1.69	1.35	1.125	.675	.563
19F2094	538-000 91C	A	3-10	1.69	1.35	1.125	.675	.563
19F2095	538-000 99C	A	8-25	1.69	1.35	1.125	.675	.563
19F2096	538-000 110D	A	3-15	1.69	1.35	1.125	.675	.563
19F2097	538-000 94D	A	9-35	1.69	1.35	1.125	.675	.563
19F2893	538-000 112F	A	15-60	1.98	1.59	1.317	.787	.653
19F2098	538-002 89A	B	2-8	1.69	1.35	1.125	.675	.563
19F2099	538-002 92A	B	5.5-18	1.69	1.35	1.125	.675	.563
19F2100	538-002 90B	B	2.5-11	1.69	1.35	1.125	.675	.563
19F2101	538-002 93B	B	7-25	1.69	1.35	1.125	.675	.563
19F2102	538-002 91C	B	3-10	1.69	1.35	1.125	.675	.563
19F2103	538-002 99C	B	8-25	1.69	1.35	1.125	.675	.563
19F2104	538-002 110D	B	3-15	1.69	1.35	1.125	.675	.563
19F2105	538-002 94D	B	9-35	1.69	1.35	1.125	.675	.563
19F2894	538-002 112F	B	15-60	1.98	1.59	1.317	.787	.653
19F2219	538-006 89A	D	2-8	1.86	1.49	1.240	.743	.619
19F2220	538-006 92A	D	5.5-18	1.86	1.49	1.240	.743	.619
19F2221	538-006 90B	D	2.5-11	1.86	1.49	1.240	.743	.619
19F2222	538-006 93B	D	7-25	1.86	1.49	1.240	.743	.619
19F2223	538-006 91C	D	3-10	1.86	1.49	1.240	.743	.619
19F2224	538-006 99C	D	8-25	1.86	1.49	1.240	.743	.819
19F2225	538-006 110D	D	3-15	1.86	1.49	1.240	.743	.619
19F2226	538-006 94D	D	9-35	1.86	1.49	1.240	.743	.619
19F2444	538-006 112E	D	15-60	2.15	1.73	1.432	.851	.709
19F1738	538-011 89A	C	2-8	2.05	1.64	1.365	.819	.683
19F1739	538-011 92A	C	5.5-18	2.05	1.64	1.365	.819	.683
19F1740	538-011 90B	C	2.5-11	2.05	1.64	1.365	.819	.683
19F1741	538-011 93B	C	7-25	2.05	1.64	1.365	.819	.683
19F1742	538-011 91C	C	3-10	2.05	1.64	1.365	.819	.683
19F1743	538-011 99C	C	8-25	2.05	1.64	1.365	.819	.683
19F1744	538-011 110D	C	3-15	2.05	1.64	1.365	.819	.683
19F1745	538-011 94D	C	9-35	2.05	1.64	1.365	.819	.683
19F2895	538-011 112F	C	15-60	2.34	1.88	1.557	.931	.773
19F2227	538-001 89A	A	2-8	1.97	1.58	1.315	.788	.656
19F2228	538-001 92A	A	5.5-18	1.97	1.58	1.315	.788	.656
19F2229	538-001 90B	A	2.5-11	1.97	1.58	1.315	.788	.656
19F2230	538-001 93B	A	7-25	1.97	1.58	1.315	.788	.656
19F2231	538-001 91C	A	3-10	1.97	1.58	1.315	.788	.656
19F2232	538-001 99C	A	8-25	1.97	1.58	1.315	.788	.656
19F2233	538-001 110D	A	3-15	1.97	1.58	1.315	.788	.656
19F2234	538-001 94D	A	9-35	1.97	1.58	1.315	.788	.656
19F2442	538-001 112F	A	15-60	2.26	1.82	1.507	.90	.746
19F2235	538-003 89A	B	2-8	1.97	1.58	1.315	.788	.656
19F2236	538-003 92A	B	5.5-18	1.97	1.58	1.315	.788	.656
19F2237	538-003 90B	B	2.5-11	1.97	1.58	1.315	.788	.656
19F2238	538-003 93B	B	7-25	1.97	1.58	1.315	.788	.656
19F2239	538-003 91C	B	3-10	1.97	1.58	1.315	.788	.656
19F2240	538-003 99C	B	8-25	1.97	1.58	1.315	.788	.656
19F2241	538-003 110D	B	3-15	1.97	1.58	1.315	.788	.656
19F2242	538-003 94D	B	9-35	1.97	1.58	1.315	.788	.656
19F2443	538-003 112F	B	15-60	2.26	1.82	1.507	.90	.746
19F2243	538-007 89A	D	2-8	2.16	1.73	1.440	.863	.719
19F2244	538-007 92A	D	5.5-18	2.16	1.73	1.440	.863	.719
19F2245	538-007 90B	D	2.5-11	2.16	1.73	1.440	.863	.719
19F2246	538-007 93B	D	7-25	2.16	1.73	1.440	.863	.719
19F2247	538-007 91C	D	3-10	2.16	1.73	1.440	.863	.719
19F2248	538-007 99C	D	8-25	2.16	1.73	1.440	.863	.719
19F2249	538-007 110D	D	3-15	2.16	1.73	1.440	.863	.719
19F2258	538-007 94D	D	9-35	2.16	1.73	1.440	.863	.719
19F2445	538-007 112F	D	15-60	2.44	1.97	1.632	.975	.809
19F2259	538-016 89A	C	2-8	2.33	1.86	1.553	.932	.776
19F2260	538-016 92A	C	5.5-18	2.33	1.86	1.553	.932	.776
19F2261	538-016 90B	C	2.5-11	2.33	1.86	1.553	.932	.776
19F2262	538-016 93B	C	7-25	2.33	1.86	1.553	.932	.776
19F2263	538-016 91C	C	3-10	2.33	1.86	1.553	.932	.776
19F2264	538-016 99C	C	8-25	2.33	1.86	1.553	.932	.776
19F2265	538-016 110D	C	3-15	2.33	1.86	1.553	.932	.776
19F2266	538-016 94D	C	9-35	2.33	1.86	1.553	.932	.776
19F2446	538-016 112F	C	15-60	2.62	2.10	1.745	1.044	.866

MINIATURE CERAMIC TRIMMER



TYPE 539. Miniaturized for maximum density. Designed for point-to-point wiring and printed circuit. Secure mount assured by 0.068" diameter mounting holes that accept #0 screws. A conservative rating from —55°C to +125°C insures inherent reliability. Intimately bonded silver electrode.

Stk. No.	Type	Cap. Rnge.	Temp. Coef.	1-49	50-99	100-249	250-499	500-999
19F2281	539-000 98A	1.5-8	NPO	1.78	1.43	1.188	.713	.594
19F2282	539-000 144A	4-15	NPO	1.78	1.43	1.188	.713	.594
19F2283	539-000 137D	4-20	N650	1.78	1.43	1.188	.713	.594
19F2284	539-000 142D	8-35	N650	1.78	1.43	1.188	.713	.594
19F2285	539-000 112F	15-60	N1500	2.07	1.67	1.38	.825	.684
19F2286	539-002 98A	1.5-8	NPO	1.78	1.43	1.188	.713	.594
19F2287	539-002 144A	4-15	NPO	1.78	1.43	1.188	.713	.594
19F2288	539-002 137D	4-20	N650	1.78	1.43	1.188	.713	.594
19F2289	539-002 142D	8-35	N650	1.78	1.43	1.188	.713	.594
19F2290	539-002 112F	15-60	N1500	2.07	1.67	1.38	.825	.684
19F2291	539-001 98A	1.5-8	NPO	2.06	1.65	1.375	.825	.688
19F2292	539-001 144A	4-15	NPO	2.06	1.65	1.375	.825	.688
19F2293	539-001 137D	4-20	N650	2.06	1.65	1.375	.825	.688
19F2294	539-001 142D	8-35	N650	2.06	1.65	1.375	.825	.688
19F2295	539-001 112F	15-60	N1500	2.35	1.89	1.567	.937	.778
19F2296	539-003 98A	1.5-8	NP0	2.06	1.65	1.375	.825	.688
19F2297	539-003 144A	4-15	NP0	2.06	1.65	1.375	.825	.688
19F2298	539-003 137D	4-20	N650	2.06	1.65	1.375	.825	.688
19F2299	539-003 142D	8-35	N650	2.06	1.65	1.375	.825	.688
19F2450	539-003 112F	15-60	N1500	2.35	1.89	1.567	.937	.778


Type 557

Type 3192

PHENOLIC BASE — TYPE 557

Features .500" dia. ceramic rotor, lapped and silvered on the underside, and a silvered ceramic dielectric stator disc wits lapped bearing surface.

Stk. No.	Type	Mmf. Range	Temp. Coef.	1-49	50-99	100-249	250-499	500-999
19F2971	557-000 10A	1.5- 7	NP0	.90	.75	.60	.353	.315
19F2972	557-000 17A	3 -12	NP0	.90	.75	.60	.353	.315
19F2973	557-000 39A	5 -25	NP0	.90	.75	.60	.353	.315
19F2974	557-000 109F	10 -75	N1500	1.06	.89	.708	.416	.371
19F2975	557-000 28B	5 -20	N330	.90	.75	.60	.353	.315
19F2976	557-000 29E	5 -30	N750	.90	.75	.60	.353	.315
19F2977	557-000 34E	8 -50	N750	.90	.75	.60	.353	.315
19F2978	557-006 10A	1.5- 7	NP0	.90	.75	.60	.377	.336
19F2979	557-006 17A	3 -12	NP0	.90	.75	.60	.377	.336
19F2980	557-006 39A	5 -25	NP0	.90	.75	.60	.377	.336
19F2981	557-006 109F	10 -75	N1500	1.06	.89	.708	.44	.392
19F2982	557-006 28B	5 -20	N330	.90	.75	.60	.377	.336
19F2983	557-006 29E	5 -30	N750	.90	.75	.60	.377	.336
19F2984	557-006 34E	8 -50	N750	.90	.75	.60	.377	.336
19F2985	557-013 10A	1.5- 7	NP0	.90	.75	.60	.332	.296
19F2986	557-013 17A	3 -12	NP0	.90	.75	.60	.332	.296
19F2987	557-013 39A	5 -25	NP0	.90	.75	.60	.332	.296
19F2988	557-013 109F	10 -75	N1500	1.06	.89	.708	.395	.352
19F2989	557-013 28B	5 -20	N330	.90	.75	.60	.332	.296
19F2990	557-013 29E	5 -30	N750	.90	.75	.60	.332	.296
19F2991	557-013 34E	8 -50	N750	.90	.75	.60	.332	.296
19F2992	557-051 10A	1.5- 7	NP0	1.05	.88	.70	.496	.443
19F2993	557-051 17A	3 -12	NP0	1.05	.88	.70	.496	.443
19F2994	557-051 39A	5 -25	NP0	1.05	.88	.70	.496	.443
19F2995	557-051 109F	10 -75	N1500	1.21	1.01	.808	.559	.499
19F2996	557-051 28B	5 -20	N330	1.05	.88	.70	.496	443
19F2997	557-051 29E	5 -30	N750	1.05	.88	.70	.496	.443
19F2998	557-051 34E	8 -50	N750	1.05	.88	.70	.496	.443
19F2999	557-091 10A	1.5- 7	NP0	1.02	.85	.68	.391	.349
19F3000	557-091 17A	3 -12	NP0	1.02	.85	.68	.391	.349
19F3001	557-091 39A	5 -25	NP0	1.02	.85	.68	.391	.349
19F3002	557-091 109F	10 -75	N1500	1.18	.99	.788	.454	.405
19F3003	557-091 28B	5 -20	N330	1.02	.85	.68	.391	.349
19F3004	557-091 29E	5 -30	N750	1.02	.85	.68	.391	.349
19F3005	557-091 34E	8 -50	N750	1.02	.85	.68	.391	.349

CERAMIC TRIMMERS — PHENOLIC BASE — TYPE 3192

Stk. No.	Type	Mmf. Range	Temp. Coef.	1-49	50-99	100-249	250-499	500-999
19F3006	3192-000 15A	2.5- 7	NP0	1.20	1.00	.80	.478	.427
19F3007	3192-000 20A	4 -12	NP0	1.20	1.00	.80	.478	.427
19F3008	3192-000 32A	6 -25	NP0	1.20	1.00	.80	.478	.427
19F3009	3192-000 81B	11 -75	N1500	1.20	1.00	.80	.478	.427
19F3010	3192-000 47E	9 -50	N750	1.20	1.00	.80	.478	.427
19F3011	3192-000 77E	6 -30	N750	1.20	1.00	.80	.478	.427
19F3012	3192-000 120F	6 -20	N330	1.20	1.00	.80	.478	.427

STYLE 503—CERAMIC DISC TRIMMERS—MI-C-81A

Stk. No.	Mil. Type	Cap. Rnge.	Temp. Coef.	1-49	50-99	100-249	250-499	500-999
19F1072	CV11A070	1.5-7	NP0	1.18	.94	.810	.627	.527
19F1073	CV11A120	3-12	NP0	1.18	.94	.810	.627	.527
19F1074	CV11A250	4.5-25	NP0	1.18	.94	.810	.627	.527
19F1075	CV11B130	3-13	N300	1.18	.94	.810	.627	.527
19F1076	CV11B200	5-20	N300	1.18	.94	.810	.627	.527
19F1077	CV11C300	4-30	N500	1.18	.94	.810	.627	.527
19F1078	CV11C450	7-45	N500	1.18	.94	.810	.627	.527
19F1079	CV11D300	4-30	N650	1.18	.94	.810	.627	.527
19F1080	CV11D450	7-45	N650	1.18	.94	.810	.627	.527

MINIATURE BUSHING CERAMIC CAPACITORS

A	L.898 x H.267
B	L.533 x H.267

Feed-Thru Stand-Off

Type 2425. Capacitance of +80% —20% = 100, 500, 1000 pf. Power factor 3.5%. Hex nut mounting. Types 2425-001 and 2425-061 operating temperature: —55° to 85°C. Types 2425-003 and 2425-063 op. temp. —55° to 125°C. Thread: 8-32 UNC-2A.

FEED-THRU TYPES

Stock No.	Type No.	WVDC	1-49	50-99	100-249	250-499	500-999
19F2418	2425 001 X5U0 101AA	200	2.03	1.52	1.270	.914	.864
19F2419	2425 001 X5U0 102AA	200	2.03	1.52	1.270	.914	.864
19F2420	2425 001 X5U0 152AA	200	2.03	1.52	1.270	.914	.864
19F2421	2425 001 X5U0 202AA	200	2.03	1.52	1.270	.914	.864
19F2422	2425 001 X5V0 501AA	200	2.03	1.52	1.270	.914	.864
19F2423	2425 001 X5V0 502AA	200	2.03	1.52	1.270	.914	.864
19F2424	2425 003 W5U0 101AA	100	2.17	1.63	1.358	.977	.923
19F2425	2425 003 5WU0 102AA	100	2.17	1.63	1.358	.977	.923
19F2426	2425 003 W5U0 152AA	100	2.17	1.63	1.358	.977	.923
19F2427	2425 003 W5U0 202AA	100	2.17	1.63	1.358	.977	.923
19F2428	2425 003 W5U0 501AA	100	2.17	1.63	1.358	.977	.923
19F2429	2425 003 K5W0 502AA	100	2.17	1.63	1.358	.977	.923

STAND-OFF TYPES

Stock No.	Type No.	WVDC	1-49	50-99	100-249	250-499	500-999
19F2430	2425 061 X5U0 101AA	200	2.03	1.52	1.270	.914	.864
19F2431	2425 061 X5U0 102AA	200	2.03	1.52	1.270	.914	.864
19F2432	2425 061 X5U0 152AA	200	2.03	1.52	1.270	.914	.864
19F2433	2425 061 X5U0 202AA	200	2.03	1.52	1.270	.914	.864
19F2434	2425 061 X5U0 501AA	200	2.03	1.52	1.270	.914	.864
19F2435	2425 061 X5V0 502AA	200	2.03	1.52	1.270	.914	.864
19F2436	2425 063 W5U0 101AA	100	2.17	1.63	1.358	.977	.923
19F2437	2425 063 W5U0 102AA	100	2.17	1.63	1.358	.977	.923
19F2438	2425 063 W5U0 152AA	100	2.17	1.63	1.358	.977	.923
19F2439	2425 063 W5U0 202AA	100	2.17	1.63	1.358	.977	.923
19F2440	2425 063 W5U0 501AA	100	2.17	1.63	1.358	.977	.923
19F2441	2425 063 W5W0 502AA	100	2.17	1.63	1.358	.977	.923

FEED-THRU CERAMICONS


A

C

B

D

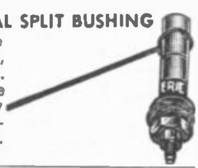
Types 363 and 327 have tie-point terminals; provide point to point wiring. 20% Tol. 500 WVDC. Size: 321 (.625x5/16) 327 (1¼x5/16) 357 & 363 (.625x5/16), 2404 (.375x.150). Lock washers available on request. Shpg. wt., 1 oz.

Stk. No.	Type	Fig.	Mmf.	1-49	50-99	100-249	250-499	500-999
19F1780	327-005-X5U0-102M	D	1000	1.34	1.00	.836	.602	.569
19F1781	327-005-X5U0-152M	D	1500	1.34	1.00	.836	.602	.569
19F1783	357-000-X5U0-102M	C	1000	.93	.70	.579	.417	.394
19F1784	357-000-X5U0-152M	C	1500	.93	.70	.579	.417	.394
19F1785	362-000-X5U0-102M	A	1000	.93	.70	.579	.417	.394
19F1786	362-000-X5U0-152M	A	1500	.93	.70	.579	.417	.394
19F1787	2404-000-U2M0-500M	B	50	.19	.14	.116	.084	.079
19F1788	2404-000-X5U0-101M	B	100	.19	.14	.116	.084	.079
19F1789	2404-000-X5U0-102P	B	1000	.19	.14	.116	.084	.079
19F1790	2404-014-X5U0-501M	...	500	.15	.11	.093	.067	.063
19F1791	2404-014-X5U0-102P	...	1000	.15	.11	.093	.067	.063
19F2857	2443-000-X5S0-102M	...	1000	1.12	.84	.708	.506	.478
19F2858	2443-000-X5S0-152M	.	1500	1.12	.84	.703	.506	.478
19F2859	2443-001-X5S0-102M	.....	1000	1.18	.88	.735	.529	.50
19F2860	2443-001-X5S0-152M	....	1500	1.18	.88	.735	.529	.50
19F2861	2499-003-X5S0-102M	....	1000	1.24	.93	.775	.558	.527
19F2862	2499-003-X5S0-152M	....	1500	1.24	.93	.775	.558	.527

Fig. D—CK-70 Series Mil-C-11015C Feed-Thru Ceramicons. Body style 327. Size 1.25Hx5/16".

Stk. No.	Mil. Type	Mmf.	Tol.	1-49	50-99	100-249	250-499	500-999
19F2149	CK70 AW 102M	1000	±20	1.56	1.17	.974	.701	.662
19F2150	CK70 AW 152M	1500	±20	1.56	1.17	.974	.701	.662

GLASS TRIMMER CAPACITOR — EXTERNAL SPLIT BUSHING



For applications allowing extension of the adjustment screw. Suited for high volume, economic usage in electronic equipment. Linear, non-reversing capacitance change with rotation. Maintains proper screw torque under varying conditions of vibration and shock. Insl. Res: 10^{12} ohms mm. at 25°C. Op. Temp.: —55°C to 125°C.

Stock No.	Type	WVDC	Cap. Rng. (pf)	1-24	25-49	50-99	100-299	300-499	500-999
19F3032	582-003	1250	.7-9	1.66	1.50	1.34	1.12	1.07	.95
19F3034	586-003	750	.8-17	1.80	1.60	1.42	1.20	1.12	1.00
19F3035	588-003	750	2.0-30	2.00	1.88	1.55	1.30	1.22	1.10

AIR DIELECTRIC PRECISION TRIMMERS

Series 540. Rotor and stator plates are solid brass. Insulation resistance 50K Megohms. Working Voltage, 375 DC. Op. temp.,—55C to 125C. Initial Q, 1500 Min. Min. torque, 4-10 oz. Trimmers utilize steatite base.

Stk. No.	Type	pF Range	L.(in.)	1-49	50-99	100-249	250-499	500-999
Two Vertical Terminals								
19F3450	540-000	1.2-3.5	.450	.63	.51	.46	.41	.36
19F3451	541-000	1.3-5.4	.500	.64	.52	.47	.42	.37
19F3452	542-000	1.4-7.3	.550	.66	.53	.48	.43	.38
19F3453	543-000	1.5-9.1	.600	.67	.54	.49	.44	.39
19F3454	544-000	1.7-11.0	.655	.69	.55	.50	.45	.40
19F3455	545-000	1.8-13.0	.705	.72	.58	.52	.47	.41
19F3456	546-000	2.0-15.0	.755	.74	.59	.53	.48	.42
19F3457	547-000	2.2-17 0	.805	.76	.61	.55	.50	.44
Two Horizontal Terminals								
19F3458	540-010	1.2-3.5	.450	.63	.51	.46	.41	.36
19F3459	541-010	1.3-5.4	.500	.64	.52	.47	.42	.37
19F3460	542-010	1.4-7.3	.550	.66	.53	.48	.43	.38
19F3461	543-010	1.5-9.1	.600	.67	.54	.49	.44	.39
19F3462	544-010	1.7-11.0	.655	.69	.55	.50	.45	.40
19F3463	545-010	1.8-13.0	.705	.72	.58	.52	.47	.41
19F3464	546-010	2.0-15.0	.755	.74	.59	.53	.48	.42
19F3465	547-010	2.2-17.0	.805	.76	.61	.55	.50	.44
Two Horizontal and One Vertical Terminals								
19F3466	540-020	1.2-3.5	.450	.63	.51	.46	.41	.36
19F3467	541-020	1.3-5.4	.500	.64	.52	.47	.42	.37
19F3468	542-020	1.4-7.3	.550	.66	.53	.48	.43	.38
19F3469	543-020	1.5-9.1	.600	.67	.54	.49	.44	.39
19F3470	544-020	1.7-11.0	.655	.69	.55	.50	.45	.40
19F3471	545-020	1.8-13.0	.705	.72	.58	.52	.47	.41
19F3472	546-020	2.0-15.0	.755	.74	.59	.53	.48	.42
19F3473	547-020	2.2-17.0	.805	.76	.61	.55	.50	.44

GLASS & QUARTZ TRIMMER CAPACITORS

A  B  C 

Meets MIL-C-14409. 1000 VDCW from —55°C to 125°C. Life test: 1500VDC for 250 hours @ 125°C. "Q" minimum at 1MC: 500.

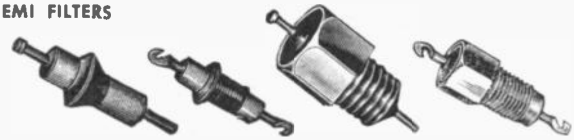
Stk. No.	Type	Fig.	Mmf.	1-24	25-49	50-99	100-299	300-499	500-999
GLASS PANEL MOUNT									
19F1755	560-013	A	.8-4.5	3.20	2.95	2.50	2.10	2.00	1.70
19F1756	562-013	A	.8-8.5	3.40	3.05	2.70	2.25	2.15	1.80
19F1757	564-013	A	.7-12	3.75	3.40	2.95	2.45	2.35	2.00
19F1758	566-013	A	.8-18	4.35	3.95	3.40	2.85	2.70	2.35
19F1759	568-013	A	1.0-30.0	4.55	4.15	3.60	3.05	2.90	2.40
GLASS PRINTED CIRCUIT MOUNT									
19F3364	521-000	B	.8-5.5	3.40	3.05	2.75	2.40	2.15	2.00
19F3365	523-000	B	.8-11.0	3.80	3.40	3.05	2.65	2.40	2.20
19F3366	525-000	B	.8-16.0	3.80	3.40	3.05	2.65	2.40	2.20
19F3367	527-000	B	.8-23.0	5.00	4.50	4.05	3.55	3.25	2.80
19F1760	561-013	B	.8-4.5	2.80	2.60	2.20	1.85	1.75	1.50
19F1761	563-013	B	.8-8.5	3.00	2.75	2.40	2.00	1.90	1.65
19F1762	565-013	B	.8-12	3.35	3.05	2.65	2.20	2.10	1.80
19F1763	567-013	B	.8-18	3.95	3.60	3.10	2.60	2.45	2.10
19F1764	569-013	B	.8-30	4.15	3.80	3.30	2.80	2.65	2.25
19F1765	561-023	C	.8-4.5	2.80	2.60	2.20	1.85	1.75	1.50
19F1766	563-023	C	.8-8.5	3.00	2.75	2.40	2.00	1.90	1.65
19F1767	565-023	C	.8-12	3.35	3.05	2.65	2.20	2.10	1.80
19F1768	567-023	C	.8-18	3.95	3.60	3.10	2.60	2.45	2.10
19F1769	569-023	C	.8-30	4.15	3.80	3.30	2.80	2.65	2.25
QUARTZ PANEL MOUNT									
19F3368	520-000	A	.8-5.5	3.80	3.40	3.05	2.65	2.40	2.20
19F3369	522-000	A	.8-11.0	4.20	3.80	3.40	3.00	2.70	2.40
19F3370	524-000	A	.8-16.0	4.80	4.30	3.85	3.35	3.05	2.70
19F3371	526-000	A	.8-23.0	5.40	4.85	4.35	3.80	3.45	3.00
19F3372	528-000	A	1.0-38.0	6.00	5.40	4.85	4.25	3.80	3.30
19F3019	560-053	A	.6-1.8	5.00	4.50	4.05	3.55	3.25	2.90
19F3020	562-053	A	.6-5.5	5.60	5.05	4.55	4.00	3.65	3.10
19F3021	566-053	A	.6-9.5	7.00	6.65	6.00	5.25	4.75	4.20
19F3022	568-053	A	.8-16.0	9.20	8.30	7.45	6.55	5.85	5.30
QUARTZ PRINTED CIRCUIT MOUNT									
19F3023	561-053	B	.6-1.8	4.60	4.15	3.75	3.30	2.95	2.45
19F3024	563-053	B	.6-5.5	5.20	4.70	4.20	3.70	3.35	3.05
19F3025	567-053	B	.6-9.5	7.00	6.30	5.65	4.95	4.45	4.00
19F3026	569-053	B	.8-16.0	8.80	7.90	7.10	6.20	5.60	5.10
19F3027	561-054	B	.6-1.8	4.60	4.15	3.75	3.30	2.95	2.45
19F3028	563-054	B	.6-5.5	5.20	4.70	4.20	3.70	3.35	3.05
19F3029	567-054	B	.6-9.5	7.00	6.30	5.65	4.95	4.45	4.00
19F3030	569-054	B	.8-16.0	8.80	7.90	7.10	6.20	5.60	5.10
MILITARY APPROVED TYPES									
19F3013	PC40H120	A	.8-12	3.75	3.40	2.95	2.45	2.35	2.00
19F3014	PC40H180	A	.8-18	4.35	3.95	3.40	2.85	2.70	2.35
19F3015	PC40H300	A	.1-30	4.55	4.15	3.60	3.05	2.90	2.40
19F3016	PC41H120	B	.8-12	3.35	3.05	2.65	2.20	2.10	1.80
19F3017	PC41H180	B	.8-18	3.95	3.60	3.10	2.60	2.45	2.10
19F3018	PC41H300	B	.1-30	4.15	3.80	3.30	2.80	2.65	2.25
19F1784	PC40J4R5	A	.8-4.5	3.20	2.95	2.50	2.10	2.00	1.70
19F1795	PC40J8R5	A	.8-8.5	3.40	3.05	2.70	2.25	2.15	1.80
19F1796	PC41J4R5	B	.8-4.5	2.80	2.60	2.20	1.85	1.75	1.50
19F1797	PC41J8R5	B	.8-8.5	3.00	2.75	2.40	2.00	1.90	1.65

Filters

BROAD BAND EMI FILTERS

Temp. rng.:—55°C. Working volt. 50 VDC at 105°C, 28 VDC at 125°C. Dielectric strength: 110 VDC at 25°C. (50 ma max. charging current.) * Wire Ends, † Wire and Tab End, **Tab Ends, ††Tab Ends.

Stock No.	Type	Max. DC Resist. at 25°C	Max. DC Curr.	1-49	50-99	100-249	250-499	500-999
19F3036	1200-003	*70 ohms	60 ma	16.24	14.21	13.20	12.18	11.17
19F3037	1200-002	*12 ohms	150 ma	13.73	12.01	11.15	10.30	9.44
19F3038	1200-004	*4 ohms	250 ma	13.73	12.01	11.15	10.30	9.44
19F3039	1200-001	*2.3 ohms	300 ma	13.73	12.01	11.15	10.30	9.44
19F3040	1200-000	*1.2 ohms	450 ma	14.64	12.81	11.99	10.98	10.07
19F3041	1200-005	*.01 ohms	10 amps	13.73	12.01	11.15	10.30	9.44
19F3042	1200-013	†70 ohms	60 ma	16.24	14.21	13.20	12.18	11.17
19F3043	1200-012	†12 ohms	150 ma	13.73	12.01	11.15	10.30	9.44
19F3044	1200-014	†4 ohms	250 ma	13.73	12.01	11.15	10.30	9.44
19F3045	1200-011	†2.3 ohms	300 ma	13.73	12.01	11.15	10.30	9.44
19F3046	1200-010	†1.2 ohms	450 ma	14.64	12.81	11.99	10.98	10.07
19F3047	1200-015	†.01 ohms	10 amps	13.73	12.01	11.15	10.30	9.44
19F3048	1200-028	**70 ohms	60 ma	16.24	14.21	13.20	12.18	11.17
19F3049	1200-023	**12 ohms	150 ma	13.73	12.01	11.15	10.30	9.44
19F3050	1200-024	**4 ohms	250 ma	13.73	12.01	11.15	10.30	9.44
19F3051	1200-021	**2.3 ohms	300 ma	13.73	12.01	11.15	10.30	9.44
19F3052	1200-022	**1.2 ohms	450 ma	14.64	12.81	11.99	10.98	10.07
19F3053	1200-025	**.01 ohms	10 amps	13.73	12.01	11.15	10.30	9.44
19F3054	1200-016	††70 ohms	60 ma	17.04	14.91	13.58	12.79	11.72
19F3055	1200-017	††12 ohms	150 ma	14.48	12.67	11.77	10.87	9.96
19F3056	1200-018	††4 ohms	250 ma	14.48	12.67	11.77	10.87	9.96
19F3057	1200-019	††2.3 ohms	300 ma	14.48	12.67	11.77	10.87	9.96
19F3058	1200-020	††1.2 ohms	450 ma	15.36	13.44	12.48	11.52	10.56
19F3059	1200-027	††.01 ohms	10 amps	14.48	12.67	11.77	10.87	9.96



1203 1204 1201 1202

Specifications for 1201 & 1202: Cap. 1000 mmf. at 1KC; .5 to 5 VRMS; 25°C; working voltage, 200 VDC; operating temp. range —55°C to 125°C. DC resistance 0.01 ohms max. DC and low frequency current 5 amps. max.

Type 1201 bushing type. Lockwashers and hex nuts supplied. .812 L x .250 Dia.

Type 1202 Same as 1201 but size is 1.175 L. x .375 Dia. Hex nuts and lockwashers are supplied.

Stk. No.	Type	1-49	50-99	100-249	250-499	500-999
19F2451	1201-050	3.40	2.89	2.38	2.21	2.04
19F2452	1201-051	3.44	2.92	2.41	2.24	2.06
19F2110	1201-052	3.44	2.92	2.41	2.24	2.06
19F2459	1202-050	1.80	1.53	1.26	1.17	1.08

Specifications for 1203 & 1204: Minimum attenuation 50 db from 100 MC to 2000MC over a temp. range of —55°C to 125°C. Cap.: 2000 mmf. min. at 1 KC, .5 to 5 VRMS, 25°C. working voltage: 500 VDC. DC resistance: 0.10 ohms max. DC and low frequency current: 5 amps. max. RF current: 0.25 amps. max.

Type 1023 miniaturized eyelet type. Overall size is: .718 L. x .218 Dia.

Type 1024 eyelet type similar to 1023, but size is: 1.187 L. x .328 Dia.

19F2460	1202-051	1.84	1.56	1.29	1.20	1.10
19F2112	1202-052	1.84	1.56	1.29	1.20	1.10
19F2111	1203-050	1.60	1.36	1.12	1.04	.96
19F2113	1204-050	1.20	1.02	.84	.78	.72

LOW PASS, HIGH FREQUENCY FILTERS

Type 1280-001 and 1270-001. Minimum attenuation: 50 db from 10 Mc to 2000 Mc over temp. range of —55° to +85°C. Capacitance: 2000 pf min. Working voltage 15000 VDC for 1 sec.

Stock No.	Type	atten.	1-49	50-99	100-249	250-499	500-999
19F2454	1280-001	....	3.50	2.98	2.45	2.28	2.10
19F2455	1270-009	40 db.	2.20	1.87	1.54	1.43	1.32
19F2456	1270-016	40 db.	2.40	2.04	1.68	1.56	1.44

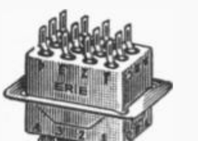
Stock No.	Type	Atten.	1-9	10-49	50-99	100-249	250-499	500-999
19F2457	1270-024	50 db.	2.18	1.89	1.62	1.51	1.40	1.30
19F2458	1270-025	50 db.	2.95	2.36	2.07	1.77	1.53	1.42

SUBMINIATURE EMI FILTER

Min. Attenuation per Mil.-Std. 220A; 50 db from 200 MC to 2000 MC over range from —55°C to 125°C. Working Voltage; 100VDC.

Stock No.	Type	1-49	50-99	100-249	250-499	500-999
19F3061	1250-003	4.20	3.57	2.94	2.73	2.52

MINIATURE R.F.I. FILTERS—MINIATURE 6 & 12 CHANNEL R.F.I. FILTERS



Minimum attenuation: 45 db from 100-200 Mc, 50 db from 200 Mc to 2000 Mc, over the temp. range of —55°C to +125°C measured in accordance with Mil-Std.-220A. Capacitance: 2500 pf min. at 1 Kc, 0.5 to 5 Vrms, 25°C. Working voltage: 350 VDC. Insulation resistance: 20K megohms min. at 100 VDC, 25°C (50 ma max. charging current). D.C. resistance: .01 ohms per section. D.C. and Low Frequency current: 5 amps max. per section.

Type 1212 is 12 channel—**Type 1206** is 6 channel. **Size:** 502 and 501—1.125 x .594". 552 and 554—.75 x .437".

Stk. No.	Type	1-49	50-99	100-249	250-499	500-999
19F3066	1212-501	20.69	19.21	17.00	16.26	15.52
19F3067	1212-502*	20.69	19.21	17.00	16.26	15.52
19F2462	1212-552*	18.06	16.77	14.84	14.19	13.55
19F3063	1212-554*	18.06	16.77	14.84	14.19	13.55
19F3064	1206-501	16.11	14.96	13.24	12.66	12.09
19F3065	1206-502	16.11	14.96	13.24	12.66	12.09
19F2463	1206-552	14.14	13.13	11.62	11.11	10.61
19F3068	1206-554*	14.14	13.13	11.62	11.11	10.61

Solder Mount except (*) Bolt Mount.

LOW PASS EMI SUPRESSION FILTERS

Temp. range: —55°C to 85°C. Miniaturized line of filters rated at 100 WVDC to cover the freq. range from 10khz to 10 ghz. Filters hermetically sealed.

100 WVDC — L Section Filters — .728 x .406"

Stk. No.	Type	Rdc Ohms	1-9	10-49	50-99	100-249	250-499	500-999
19F3404	9000-000-0000	1.5	27.55	25.38	23.20	21.03	19.29	17.40
19F3405	9000-000-0003	.35	26.60	24.50	22.40	20.30	18.62	16.80
19F3406	9000-000-0007	.04	24.89	22.93	20.96	19.00	17.42	15.72

100 WVDC — Pi Section Filters — .728 x .406"

Stk. No.	Type	Rdc Ohms	1-9	10-49	50-99	100-249	250-499	500-999
19F3407	9000-000-1000	1.5	30.88	28.44	26.00	21.61	19.50	19.50
19F3408	9000-000-1003	.35	30.78	28.35	25.92	23.49	21.55	19.44
19F3409	9000-000-1005	.06	30.68	28.26	25.84	23.42	21.48	19.38
19F3410	9000-000-1008	.04	30.40	28.00	25.60	23.20	21.28	19.20

100 WVDC — T Section Filters — 1.164 x 1.33"

Stk. No.	Type	Rdc Ohms	1-9	10-49	50-99	100-249	250-499	500-999
19F3411	9004-000-2000	.2	42.75	39.38	36.00	32.63	29.93	27.00
19F3412	9005-000-2000	.05	41.99	38.68	35.36	32.05	29.39	26.52

115 VAC — L Section Filter — .930 x 1.164"

Stk. No.	Type	Rdc Ohms	1-9	10-49	50-99	100-249	250-499	500-999
19F3413	9400-000-0003	.35	13.11	12.08	11.04	10.01	9.18	18.28
19F3414	9400-000-0005	.06	13.05	12.02	10.99	9.96	9.14	18.24
19F3415	9400-000-0007	.04	13.01	11.99	10.96	9.93	9.11	8.22
19F3416	9401-000-0003	.35	13.40	12.34	11.28	10.22	9.38	18.46
19F3417	9401-000-0005	.6	13.77	12.69	11.60	10.51	9.64	8.70
19F3418	9401-000-0007	.4	14.06	12.95	11.84	10.73	9.84	8.88

115 VAC — Pi Section Filter — .930 x 1.164"

Stk. No.	Type	Rdc Ohms	1-9	10-49	50-99	100-249	250-499	500-999
19F3419	9000-000-1018	1.2	35.15	32.38	29.60	26.83	24.61	22.20
19F3420	9000-000-1021	.25	34.20	31.50	28.80	26.10	23.94	21.60
19F3421	9000-000-1023	.05	33.25	30.63	28.00	24.38	23.28	21.00
19F3422	9000-000-1025	.015	32.49	29.93	27.36	24.80	22.74	20.52

150 WVDC @ 85°C — T Section Filter — 1.164 x 1.33"

Stk. No.	Type	Rdc Ohms	1-9	10-49	50-99	100-249	250-499	500-999
19F3423	9004-000-2001	.01	42.75	39.38	36.00	32.63	29.93	27.00
19F3424	9005-000-2001	.05	41.99	38.68	35.36	32.05	29.39	26.52

150 WVDC @ 85°C — L Section Filter — 1.164 x 1.33"

Stk. No.	Type	Rdc Ohms	1-9	10-49	50-99	100-249	250-499	500-999
19F3425	9000-000-0012	1.2	35.15	32.38	29.60	26.83	24.61	22.20
19F3426	9000-000-0015	.25	34.20	31.50	28.80	26.10	23.94	21.60
19F3427	9000-000-0019	.015	32.49	29.93	27.36	24.80	22.74	20.52

150 WVDC @ 85°C — Pi Section Filter — .728 x 1.164"

Stk. No.	Type	Rdc Ohms	1-9	10-49	50-99	100-249	250-499	500-999
19F3428	9000-000-1010	1.2	37.62	34.65	31.68	28.71	26.33	23.76
19F3429	9000-000-1013	.25	37.43	34.48	31.52	28.57	26.20	23.64
19F3430	9000-000-1015	.05	37.24	34.30	31.36	28.42	26.07	23.52
19F3431	9000-000-1017	.015	37.05	34.13	31.30	28.28	25.94	23.40
19F3432	9000-000-1006	.22	30.78	28.35	25.92	23.49	21.55	19.44
19F3433	9000-000-1009	1.2	30.88	28.44	26.00	23.56	21.61	19.50

150 WVDC @ 85°C — T Section Filter — 1.164 x 1.33"

Stk. No.	Type	Rdc Ohms	1-9	10-49	50-99	100-249	250-499	500-999
19F3435	9004-000-2002	.10	42.75	39.38	36.00	32.63	29.93	27.00

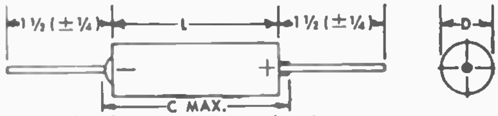
150 WVDC @ 85° — L Section Filter 1.164 x 1.33"

Stk. No.	Type	Rdc Ohms	1-9	10-49	50-99	100-249	250-499	500-999
19F3436	9000-000-0026	.25	26.60	24.50	22.40	20.30	18.62	16.80
19F3437	9000-000-0028	.05	25.84	23.80	21.17	19.72	18.09	16.32
19F3438	9000-000-0030	.015	24.89	22.93	20.96	19.00	17.42	15.72

150 WVDC @ 125°C — T Section Filter — 1.164 x 1.33"

Stk. No.	Type	Rdc Ohms	1-9	10-49	50-99	100-249	250-499	500-999
19F3439	9005-000-2002	.05	41.99	38.68	35.36	32.05	29.39	26.52

Texas Instruments Solid Tantalum Capacitors



No. 22 (0.025 +0.005 / −0.0011) No. 24 (0.020 +0.005 / −0.001)
AWG SOLDERABLE LEADS

Type SCM. A capacitor of completely dry construction (no liquid or paste is used), offering the chemical stability of tantalum and its oxides. All available from Newark stock with Mylar insulating sleeves.

6 WORKING VOLTS DC ± 20% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia.	L.	1-24	25-49	50-99	100-499	500-999
17F025	476BP006D4	47	0.175	0.438	1.53	1.23	.73	.60	.45
17F027	337HP006D4	330	0.341	0.750	4.46	3.52	2.30	1.87	1.41

10 WORKING VOLTS DC ± 20% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia.	L.	1-24	25-49	50-99	100-499	500-999
17F028	475FP010D4	4.7	0.125	0.250	1.30	1.04	.71	.58	.43
17F030	336BP010D4	33	0.175	0.438	1.53	1.23	.73	.60	.45
17F033	107GP010D4	100	0.279	0.650	2.19	1.97	1.32	1.08	.81

15 WORKING VOLTS DC ± 20% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia.	L.	1-24	25-49	50-99	100-499	500-999
17F007	226BP015D4	22	0.175	0.438	1.53	1.23	.73	.60	.45
17F079	686GP015D4	68	0.279	0.650	2.19	1.97	1.32	1.08	.81
17F039	157HP015D4	150	0.341	0.750	4.46	3.52	2.30	1.87	1.41

20 WORKING VOLTS DC ± 20% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia.	L.	1-24	25-49	50-99	100-499	500-999
17F040	155FP020D4	1.5	0.125	0.250	1.30	1.04	.71	.58	.43
17F041	225FP020D4	2.2	0.125	0.250	1.30	1.04	.71	.58	.43
17F044	106BP020D4	10	0.175	0.438	1.53	1.23	.73	.60	.45
17F045	156BP020D4	15	0.175	0.438	1.53	1.23	.73	.60	.45
17F047	336GP020D4	33	0.279	0.650	2.19	1.97	1.32	1.08	.81
17F048	476GP020D4	47	0.175	0.650	2.19	1.97	1.32	1.08	.81
17F050	107HP020D4	100	0.341	0.750	4.46	3.52	2.30	1.87	1.41

35 WORKING VOLTS DC ±20% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia. x Lt.	1-24	25-49	50-99	100-499	500-999
17F1136	103FP035D4	.010	.125x.250	1.30	1.04	.71	.58	.48
17F1142	104FP035D4	.10						
17F1143	154FP035D4	.15	.125x.250	1.30	1.04	.71	.58	.43
17F1146	474FP035D4	.47						
17F1147	684FP035D4	.68						
17F051	105FP035D4	1.0						
17F053	225BP035D4	2.2	.175x.438	1.53	1.23	.73	.60	.45
17F055	475BP035D4	4.7						
17F056	685BP035D4	6.8						
17F057	106GP035D4	10	.279x.650	2.53	2.03	1.38	1.12	.85
17F058	156GP035D4	15						
17F059	226GP035D4	22						
17F060	336HP035D4	33	.341x.750	4.71	3.77	2.77	2.25	1.69
17F061	476HP035D4	47	.341x.750	4.71	3.77	2.77	2.25	1.69

6 WORKING VOLTS DC ± 10% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia. x Lt.	1-24	25-49	50-99	100-499	500-999
17F1010	685FP006D2	6.8	.125x.250	1.33	1.07	.74	.61	.46
17F1020	476BP006D2	47	.175x.438	1.56	1.26	.76	.63	.48
17F1021	566BP006D2	56	.175x.438	1.56	1.26	.76	.63	.48
17F1030	337HP006D2	330	.341x.750	4.49	3.55	2.33	1.90	1.44

10 WORKING VOLTS DC ± 10% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia. x Lt.	1-24	25-49	50-99	100-499	500-999
17F1038	395FP010D2	3.9	.125x.250	1.33	1.07	.74	.61	.46
17F1039	475FP010D2	4.7	.125x.250	1.33	1.07	.74	.61	.46
17F1049	336BP010D2	33	.175x.438	1.56	1.26	.76	.63	.48
17F1050	396BP010D2	39						
17F1055	107GP010D2	100	.279x.650	2.22	2.00	1.35	1.11	.84
17F1056	127GP010D2	120						
17F1059	227HP010D2	220	.341x.750	4.49	3.55	2.33	1.90	1.44

15 WORKING VOLTS DC ± 10% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia.xLt.	1-24	25-49	50-99	100-499	500-999
17F1065	275FP015D2	2.7	.125x.250	1.33	1.07	.74	.61	.46
17F1066	335FP015D2	3.3	.125x.250	1.33	1.07	.74	.61	.48
17F1076	226BP015D2	22	.175x.438	1.56	1.26	.76	.63	.48
17F1081	566GP015D2	56	.279x.650	2.23	2.00	1.35	1.11	.84
17F1082	686GP015D2	68	.341x.650	2.23	2.00	1.35	1.11	.84
17F1086	157HP015D2	150	.279x.750	4.49	3.55	2.33	1.90	1.44

20 WORKING VOLTS DC ±10% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia.xLt.	1-24	25-49	50-99	100-499	500-999
17F1088	125FP020D2	1.2	.125x.250	1.33	1.07	.74	.61	.46
17F1091	225FP020D2	2.2						
17F1098	825BP020D2	8.2	.173x.438	1.56	1.26	.76	.63	.48
17F1099	106BP020D2	10						
17F1100	126BP020D2	12						
17F1101	156BP020D2	15						
17F1104	276GP020D2	27	.279x.650	2.22	2.00	1.35	1.11	.84
17F1105	336GP020D2	33						
17F1107	476GP020D2	47						
17F1108	566HP020D2	56	.341x.750	4.49	3.55	2.33	1.90	1.44
17F1109	686HP020D2	68						
17F1111	107HP020D2	100						
17F1112	127HP020D2	120						

35 WORKING VOLTS DC ±10% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia.xLt.	1-24	25-49	50-99	100-499	500-999
17F1150	472BP035D2	.0047	.125x.250	1.33	1.07	.74	.61	.51
17F1152	682BP035D2	.0068						
17F1154	103FP035D2	.010						
17F1158	223FP035D2	.022						
17F1162	473FP035D2	.047	.125x.250	1.33	1.07	.74	.61	.46
17F1166	104FP035D2	.10						
17F1167	124FP035D2	.12	.125x.250	1.33	1.07	.74	.61	.46
17F1168	154FP035D2	.15						
17F1170	224FP035D2	.22						
17F1172	334FP035D2	.33						
17F1174	474FP035D2	.47						
17F1175	564FP035D2	.56						
17F1176	684FP035D2	.68						
17F1113	105FP035D2	1.0						
17F1117	225BP035D2	2.2	.173x.438	1.56	1.26	.76	.63	.48
17F1119	335BP035D2	3.3						
17F1120	395BP035D2	3.9						
17F1121	475FP035D2	4.7						
17F1122	565FP035D2	5.6						
17F1123	685FP035D2	6.8						
17F1124	825FP035D2	8.2	.279x.650	2.56	2.06	1.41	1.15	.88
17F1125	106GP035D2	10						
17F1127	156GP035D2	15						
17F1129	226GP035D2	22						
17F1130	276HP035D2	27	.341x.750	4.74	3.80	2.80	2.28	1.72
17F1132	396HP035D2	39						
17F1133	476HP035D2	47						

JFD Trimmers

JFD precision bore solid dielectric Piston Trimmer. Capacitors with special anti-corrosion metalizing. Meets or exceeds MIL-C-14409B. Glass operate from —55°C to 125°C; quartz from —55°C to 150°C. Features: 6 patented precision anti-backlash drive mechanisms; Hi-Life standard panel mount; MCD; Miniature Telescoping sliding piston and direct transverse. Five dielectric materials and matched metalized for homogenous bond of metalizing to dielectric. Low T.C., low loss of inductance. All have highest level shock and vibration resistance. Green Glass "N" prefix units with higher 0 increase delta C's 30% over other comparably sized units, and have Hi-Life "Y" mechanism. Low cost "Y" suffix units combine Hi-Life adjustment mechanism with standard glass dielectric are physically interchangeable with corresponding standard units. JFD trimmers have been exclusively selected for the Apollo, Gemini, and Minuteman programs.

MINIATURE SERIES

JFD Miniature Trimmer Series features exclusive telescoping tuning assembly for miniaturization. Up to 50% savings in length for a given capacitance range. Mechanical stops at both ends of adjustment. NVC and VC glass dielectric 1/4 dia. NMQ quartz dielectic 1/4" dia. "Y" series directly interchangeable with standard VC units, and NMQ units with standard MQ units with added feature of longer life and lower cost. Uses 7104-5 tool.

PANEL MOUNT TYPES

Stock No.	Type	Cap MMF Range	1-24	25-49	50-99	100-299	300-499
19F3161	NVC20G	.8-11.0	4.20	3.80	3.40	3.00	2.70
19F3162	NVC21G	.8- 5.5	3.80	3.40	3.05	2.65	2.40
19F3163	NVC22G	.8-16.0	4.80	4.30	3.85	3.35	3.05
19F3164	NVC23G	.8-23.0	5.40	4.85	4.35	3.80	3.45
19F3165	NVC24G	1.0-38.0	6.00	5.40	4.85	4.25	3.80
19F1461	VC20GY	.8- 8.5	3.40	3.05	2.70	2.25	2.15
19F1462	VC21GY	.8- 4.5	3.20	2.95	2.50	2.10	2.00
19F1463	VC22GY	.8-12.0	3.75	3.40	2.95	2.45	2.35
19F1464	VC23GY	.8-18.0	4.35	3.95	3.40	2.85	2.70
19F1465	VC24GY	1.0-30.0	4.55	4.15	3.60	3.05	2.90
19F3166	NMQ101	.8- 1.8	5.00	4.50	4.05	3.55	3.25
19F3167	NMQ103	.6- 5.5	5.60	5.05	4.55	4.00	3.65
19F3168	NMQ106	.6- 9.5	7.40	6.65	6.00	5.25	4.75
19F3169	NMQ109	.8-16.0	9.20	8.30	7.45	6.55	5.85

PRINTED CIRCUIT TYPES * LUG MTG. † WIRE MTG.

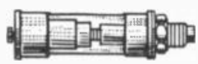
Stock No.	Type	Cap MMF Range	1-24	25-49	50-99	100-299	300-499
19F3170	NVC9G*	.8-11.0	3.80	3.40	3.05	2.65	2.40
19F3171	NVC10G*	.8- 5.5	3.40	3.05	2.75	2.40	2.15
19F3172	NVC31G*	.8-16.0	4.40	3.95	3.55	3.10	2.80
19F3173	NVC32G*	.8-23.0	5.00	4.50	4.05	3.55	3.25
19F3174	NVC43G*	1.0-38.0	5.60	5.05	4.55	4.00	3.65
19F1459	VC9GY*	.8- 8.5	3.00	2.75	2.40	2.00	1.90
19F1460	VC10GY*	.8- 4.5	2.80	2.60	2.20	1.85	1.75
19F1466	VC31GY*	.8-12.0	3.35	3.05	2.65	2.20	2.10
19F1468	VC43GY*	1.0-30.0	4.15	3.80	3.30	2.80	2.65
19F3175	NVC9GW†	.8-11.0	3.80	3.40	3.05	2.65	2.40
19F3176	NVC10GW†	.8- 5.5	3.40	3.05	2.75	2.40	2.15
19F3177	NVC31GW†	.8-16.0	4.40	3.95	3.55	3.10	2.80
19F3178	NVC32GW†	.8-23.0	5.00	4.50	4.05	3.55	3.25
19F3179	NVC43GW†	1.0-38.0	5.60	5.05	4.55	4.00	3.65
19F1469	VC9GWY†	.8- 8.5	3.00	2.75	2.40	2.00	1.90
19F1470	VC10GWY†	.8- 4.5	2.80	2.60	2.20	1.85	1.75
19F1471	VC31GWY†	.8-12.0	3.35	3.05	2.65	2.20	2.10
19F3292	VC32GWY†	.8-18.0	3.95	3.60	3.10	2.60	2.45
19F1473	VC43GWY†	1.0-30.0	4.15	3.80	3.30	2.80	2.65
19F3180	NMQ111*	.6- 1.8	4.60	4.15	3.75	3.30	2.95
19F3181	NMQ113*	.6- 5.5	5.20	4.70	4.20	3.70	3.35
19F3182	NMQ116*	.6- 9.5	7.00	6.30	5.65	4.95	4.45
19F3183	NMQ119*	.8-16.0	8.80	7.90	7.10	6.20	5.60
19F3184	NMQ121*	.6- 1.8	4.60	4.15	3.75	3.30	2.95
19F3185	NMQ123*	.6- 5.5	5.20	4.70	4.20	3.70	3.35
19F3186	NMQ126*	.6- 9.5	7.00	6.30	5.65	4.95	4.45
19F3187	NMQ129*	.8-16.0	8.80	7.90	7.10	6.20	5.60

STANDARD PANEL MOUNT SERIES

JFD Precision capacitor for all panel mtg. purposes. Available in glass, quartz, and new green glass "N" prefix with long life adjustment. VC99 is designed for hi voltage and power applications. Has closed end to prevent arcing. Rated at 5000 WV, DC. Test 5 KVDC. All units 1/4"—Quartz 5/16" dia. * glass. ** green glass. † quartz.

Stock No.	Mfg's Type	Mmf Min.	Max. Mmf	1-24	25-49	50-99	100-299	300-499
19F1959	VC25G*	.5	3.	1.74	1.55	1.35	1.14	1.09
19F1953	VC1GC*	.7	9.	1.66	1.50	1.34	1.12	1.07
19F1954	VC26G*	.7	9.	1.74	1.55	1.35	1.14	1.09
19F1956	VC27G*	.8	18.	1.80	1.60	1.42	1.20	1.12
19F1955	VC4G*	.8	18.	1.70	1.53	1.35	1.13	1.08
19F1957	VC28G*	.8	30.	2.00	1.80	1.55	1.30	1.22
19F3150	NVC25G**	0.5	4.5	2.50	2.25	2.00	1.75	1.60
19F3151	NVC26G**	0.8	13.0	2.60	2.35	2.10	1.85	1.65
19F3152	NVC27G**	1.0	24.0	3.00	2.70	2.40	2.10	1.85
19F3153	NVC28G**	1.0	40.0	3.40	3.05	2.75	2.40	2.15

MAX-C SEALED CAP CAPACITORS



Max-C embedded electrode technique gives 3 times more capacity than standard metalizing in standard glass. Sealed cap. construction. "Y" series reduces Max-C, has added advantage of Hi-Life mechanism and is directly interchangeable with std. MC units. "N" series has 30% greater delta C and Hi-life mechanism.

PANEL MOUNT TYPES

Stock No.	Type	Cap. Mmf	1-24	25-49	50-99	100-299	300-499
19F3120	NMC601	1.0- 16.0	10.20	9.20	8.30	7.30	6.60
19F3121	NMC603	1.0- 36.0	10.50	9.45	8.50	7.45	6.75
19F3122	NMC604	1.0- 52.0	10.80	9.70	8.70	7.60	6.90
19F3123	NMC606	1.0- 75.0	11.40	10.25	9.25	8.10	7.40
19F3124	NMC609	1.0-120.0	12.60	11.35	10.20	8.95	8.10
19F3125	MC601Y	1.0- 14.0	6.20	5.60	5.05	4.45	4.05
19F3126	MC603Y	1.0- 28.0	6.50	5.85	5.25	4.60	4.20
19F3127	MC604Y	1.0- 42.0	6.80	6.10	5.50	4.80	4.35
19F3128	MC606Y	1.0- 60.0	7.40	6.65	6.00	5.25	4.75
19F3129	MC609Y	1.0- 90.0	8.60	7.75	7.00	6.15	5.50

PRINTED CIRCUIT TYPES

Stock No.	Type	Cap. Mmf	1-24	25-49	50-99	100-299	300-499
19F3135	NMC621†	1.0- 16.0	10.20	9.20	8.30	7.30	6.60
19F3136	NMC623†	1.0- 36.0	10.50	9.45	8.50	7.45	6.75
19F3137	NMC624†	1.0- 52.0	10.80	9.70	8.70	7.60	6.90
19F3138	NMC626†	1.0- 75.0	11.40	10.25	9.25	8.10	7.40
19F3139	NMC629†	1.0-120.0	12.60	11.35	10.20	8.95	8.10
19F3140	MC621Y†	1.0- 14.0	6.20	5.60	5.05	4.45	4.05
19F3141	MC623Y†	1.0- 28.0	6.50	5.85	5.25	4.60	4.20
19F3142	MC624Y†	1.0- 42.0	6.80	6.10	5.50	4.80	4.35
19F3143	MC626Y†	1.0- 60.0	7.40	6.65	6.00	5.25	4.75
19F3144	MC629Y†	1.0- 90.0	8.60	7.75	7.00	6.15	5.50
19F3145	NMC611†	1.0- 16.0	10.20	9.20	8.30	7.30	6.60
19F3146	NMC613†	1.0- 36.0	10.50	9.45	8.50	7.45	6.75
19F3147	NMC614†	1.0- 52.0	10.80	9.70	8.70	7.60	6.90
19F3148	NMC616†	1.0- 75.0	11.40	10.25	9.25	8.10	7.40

TYPE SC SEALCAPS

Ideal for space applications SC-SCY (glass) QS-NQS (quartz) NSC (Green Glass) miniature or new Hi-Life design. Available in panel mounted or printed circuit mounting. Hi-Life adjustment mechanism has exclusive anti-backlash features and a 500 cycle adjustment life, exceeding Mil-C-14409B by 600%.
"Y" series SC dielectric interchangeable with standard with the added feature (Hi-Life mechanism).
NSC has approximately 30% greater delta C than standard, superior Q and long life adjustment mechanism.

Stock No.	Type	Cap. Mmf	1-24	25-49	50-99	100-299	300-499
19F3240	NSC131†	.8- 5.5	4.60	4.15	3.75	3.30	2.95
19F3241	NSC133†	.8-11.0	5.00	4.50	4.05	3.55	3.25
19F3242	NSC134†	.8-16.0	5.60	5.05	4.55	4.00	3.65
19F3243	NSC136†	.8-23 0	6.20	5.60	5.05	4.45	4.05
19F3244	NSC139†	1.0-38.0	6.80	6.10	5.50	4.80	4.35
19F3245	SC131Y†	.8- 4.5	3.80	3.40	3.05	2.65	2.40
19F3246	SC133Y†	.8- 8.5	4.00	3.60	3.25	2.85	2.55
19F3247	SC134Y†	.8-12.0	4.40	3.95	3.55	3.10	2.80
19F3248	SC136Y†	.8-18.0	5.00	4.50	4.05	3.55	3.25
19F3249	SC139Y†	1.0-30.0	5.20	4.70	4.20	3.70	3.35
19F3250	NQS171†	.6- 1.8	7.00	6.30	5.65	4.95	4.45
19F3251	NQS173†	.6- 5.5	7.60	6.80	6.10	5.30	4.80
19F3252	NQS176†	.6- 9.5	9.40	8.45	7.65	6.70	6.10
19F3253	NQS179†	.8-16.0	11.20	10.10	9.10	8.00	7.30

LOW COST DIRECT TRAVERSE TRIMMERS

Direct Traverse Trimmers by JFD are designed for use in high quality commercial or instrument applications and communications equipment. Uses direct traverse mechanism with expanding self-aligning spring-clip piston. Also features standard panel mount drive mechanism. With glass or ceramic dielectric.

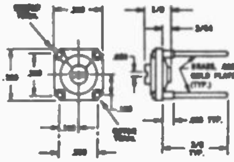
Stk. No.	Type	Cap Mmf Range	1-24	25-99	100-199	200-299
19F1948	VC54G	0.8-13.0	1.65	1.48	1.37	1.24
19F1949	VC55C†	5.0-50.0	1.95	1.75	1.62	1.46
19F1950	*VC56C†	5.0-50.0	1.95	1.75	1.62	1.46
19F1951	VC57G	1.0-12.0	1.65	1.48	1.37	1.24
19F1952	*VC58G	1.0-12.0	1.65	1.48	1.37	1.24

TUNING TOOLS

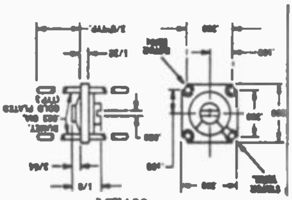
Stk. No.	Type	Application	NET
19F1448	5284	All hex and screw adjustments.	.85
19F1456	7104-1	Screw adjustments. With ferrule.	2.50

● NEW MODUTRIM CERAMIC VARIABLE CAPACITORS

500 Series



MT300



MT400

Microminiature. Offer a choice of wide ΔCs in exeremely small and stable units. Unique rotor design utilizes proprietary ceramic material in a monolithic structure. MT400 (with 4 feed-through leads, 2 dummy leads) for cordwood and channel-mount applications. MT300, with 4 "legged" configuration, 2 dummy terminals, is for printed, microminiature, module circuits MT500 designed to fit .100 grid spaced PC boards at lower cost than comparable units. Operating range: —55°C to +85°C. Weight: .026 oz.

MT SERIES ELECTRICAL DATA SHEET

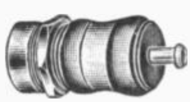
Types			CAP. RANGE(pf)	Temp. Coeff. PPM/C	WVDC
MT300	MT400	MT500	4.0 to 15.0	N250	500
MT306	MT406	MT506	1.1 to 5.0	NPO	50
MT309	MT409	MT509	1.6 to 9.0	NPO	50
MT312	MT412	MT512	3.0 to 12.0	N250	50
MT320	MT420	MT520	3.5 to 20.0	N250	50
MT330	MT430	MT530	5.0 to 30.0	N450	50
MT340	MT440	MT540	6.5 to 40.0	N550	50
MT350	MT450	MT550	8.5 to 50.0	N650	50
MT360	MT460	MT560	12.0 to 60.0	N650	50

Stk. No.	Type	Stk. No.	Type	1-24	25-99	100-199	200-299	300-499
19F3282	MT300	19F3293	MT400	6.00	5.40	5.00	4.50	4.00
19F3283	MT306	19F3294	MT406					
19F3284	MT309	19F3295	MT409					
19F3285	MT312	19F3296	MT412					
19F3286	MT320	19F3297	MT420					
19F3287	MT330	19F3298	MT430					
19F3288	MT340	19F3299	MT440					
19F3289	MT350	19F3300	MT450					
19F3290	MT360	19F3301	MT460					

MT500 SERIES PRICES

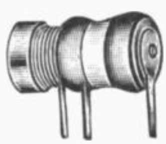
Stk. No.	Type No.	1-24	25-99	100-199	200-299
19F3305	MT500	4.80	4.30	3.85	3.35
19F3306	MT506				
19F3307	MT509				
19F3308	MT512				
19F3309	MT520				
19F3310	MT530				
19F3311	MT540				
19F3312	MT550				
19F3314	MT560				

VAM AIR VARIABLE MINIATURE CAPACITORS



VAM010

VAM010M



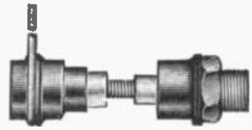
VAM010W

For high frequency applications demanding stability, small size and high Q (more than 2000 at 10 pf, 100 MHz). VAM010 is a panel mount w/turret term. VAM010M, a panel mount w/lug term. VAM010W, printed circuit. Plates are silver and gold plated. Terminals, leads are brass w/gold plating. Has ceramic insulator and positive stop 250WVDC.

St. No.	Type	pf—Range	1-24	25-49	50-99	100-299	300-499
19F3302	VAM010	.8—10.0	3.95	3.60	3.10	2.60	2.45
19F3303	VAM010M	.8—10.0					
19F3304	VAM010W	.8—10.0					

SUBMINIATURE VC900 SERIES

Larger range of capacity adjustment in a smaller size than previously available with low Temp. Coefficient. VC960-961 green glass dielectric higher "Q"—expanded range 17/64" Dia. all units.

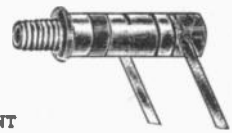


VC950

Stock No.	Type	Cap. Pf Max. Min.	L	1-24	25-49	50-99	100-199	200-299	300-499
19F3157	VC950	1-10.0	27/64	4.20	3.80	3.40	3.00	3.00	2.70
19F3158	VC951	1.2-16.0	15/32	6.20	5.60	5.05	4.45	4.45	4.05
19F3159	VC960	1-10	17/64	3.80	3.40	3.05	2.65	2.65	2.40
19F3160	VC961	1.2-16.0	5/16	5.80	5.22	4.70	4.15	4.15	3.70

JFD LC TUNERS

Combine precision variable piston capacitor with metallized inductor, to provide compact, tunable LC circuit. Offer more circuit in less space, economy, and faster assembly.



PANEL MOUNT

Stk. No.	Type	Min. MC	Max. MC	Size	1-24	25-99	100-199	200-299
19F1427	LC-303	450	725	.66x1/4"	4.65	4.19	3.88	3.49
19F1428	LC-304	300	550	.87x1/4"	4.80	4.32	4.00	3.60
19F1429	LC-306	225	500	1.12x1/4"	4.95	4.46	4.13	3.71
19F1430	LC-309	150	375	1.71x1/4"	5.40	4.86	4.50	4.05
19F1869	LC-333	450	725	.65x1/4"	3.60	3.24	3.00	2.70
19F1870	LC-334	300	550	.86x1/4"	3.75	3.38	3.13	2.81
19F1871	LC-336	225	500	1.12x1/4"	4.05	3.65	3.38	3.04
19F1872	LC-339	150	375	1.71x1/4"	4.20	3.78	3.50	3.15

PRINTED CIRCUIT

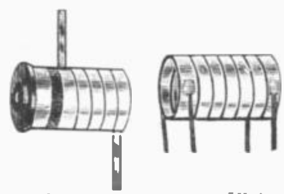
Stk. No.	Type	Min. MC	Max. MC	Size	1-24	25-99	100-199	200-299
19F1433	LC-316	200	500	1 1/8x1/4"	4.80	4.32	4.00	3.60
19F1434	LC-319	125	375	1 45/64x1/4"	5.25	4.73	4.38	3.94

PANEL MOUNT MINIATURE TANK CIRCUITS

Precision miniature piston capacitor across an air core coil. Patented telescopic tuning for more space economy and faster assembly. Low temperature coefficient, low loss due to superior construction. High levels of shock and vibration resistance. Size 9/16x1/2x1/4" with 10-32 x 1/4 bushing.

Stk. No.	Type	Min. Freq.	Self Res (MHz)	1-24	25-99	100-199	200-299
19F1452	LC372	280	765	4.05	3.64	3.37	3.04
19F1453	LC373	225	580				
19F1455	LC375	170	415				

FIXED METALLIZED INDUCTORS



Precision metallized miniature inductors feature large space economy, fast assembly and reduced weight. The inductor employs a silver film bonded to the glass dielectric. This construction results in a low temperature coefficient of inductance and low distributed capacitance. All leads are made of plated copper. High Q over a broad frequency range. All inductors are available in panel or printed circuit types. Temperature: —55°C to +125°C (*)—Q measured at 75.0 MC. (**)—Q measured at 25 MC.

LF-1P AND LF-3P SERIES — PANEL MOUNT

Stk. No.	Type	μh ±5%	Q Min.	1-24	25-99	100-199	200-299
19F1800	LF-1P005	.05	125*	1.95	1.76	1.63	1.46
19F1894	LF-1P100	1.00	135**	1.95	1.76	1.63	1.46
19F1896	LF-1P200	2.00	180**	2.25	2.02	1.87	1.69
19F1474	LF-3P005	.05	170	1.95	1.75	1.62	1.46

LF-2W AND LF-4W SERIES — PRINTED CIRCUIT MOUNT

Stk. No.	Type	μh ±5%	Q Min.	1-24	25-99	100-199	200-299
19F1824	LF-2W010	.10	165	1.89	1.70	1.58	1.42
19F1829	LF-2W020	.20	170				
19F1480	LF-4W005	.05	170	1.89	1.70	1.57	1.42
19F1481	LF-4W016	.16	160				
19F1482	LF-4W025	.25	160				
19F1483	LF-4W050	.50	140				
19F1484	LF-4W080	.80	125				

CORNING Capacitors

MIL-C-11272B CYFM GLASS CAPACITORS

Completely frozen in glass with a true glass to metal seal at the 106A) conditions for over 1200 hrs. immersed in boiling salt water for 450 hrs. and saturated in steam at 15 lbs. gage press., for 150 hrs. without altering their performance. Highly resistant to nuclear radiation. Exposures to radiation levels of 10¹⁸ NVT result no significant changes in properties. VDCW is 300v & 500v from —55° to +125°C. Std. Tol. is ±5% or +0.25uuf whichever is greater.

CYFM10C

Stk. No.	Type	Cap.	1-49	50-99	100-249	250-499	500-999
58F050	0R5C	.5	3.78	3.47	2.67	2.52	1.89
58F051	1R0C	1.0					
58F052	1R5C	1.5					
58F053	2R2C	2.2					
58F054	2R7C	2.7	3.63	3.33	2.57	2.42	1.82
58F055	3R0C	3.0					
58F056	3R3C	3.3					
58F057	3R6C	3.6					
58F058	3R9C	3.9					
58F059	4R3C	4.3					
58F060	4R7C	4.7					
58F061	5R1C	5.1					
58F062	5R6J	5.6	2.25	2.06	1.59	1.50	1.13
58F063	6R2J	6.2					
58F064	6R8J	6.8					
58F065	7R5J	7.5					
58F066	8R2J	8.2					
58F067	9R1J	9.1					
58F068	100J	10					
58F069	110J	11					
58F070	120J	12					
58F071	130J	13	1.20	1.10	.85	.80	.60
58F072	150J	15					
58F073	160J	16					
58F074	180J	18					
58F075	200J	20					
58F076	220J	22					

Stk. No.	Type	Cap.	1-49	50-99	100-249	250-499	500-999
58F077	240J	24	1.20	1.10	.85	.80	.60
58F078	270J	27					
58F079	300J	30					
58F080	330J	33					
58F081	360J	36	1.35	1.24	.95	.90	.68
58F082	390J	39					
58F083	430J	43					
58F084	470J	47					
58F085	510J	51					
58F086	560J	56					
58F087	620J	62					
58F088	680J	68					
58F089	750J	75					
58F090	820J	82					
58F091	910J	91	2.16	1.98	1.53	1.44	1.08
58F092	101J	100					
58F093	111J	110					
58F094	121J	120					
58F095	131J	130					
58F096	151J	150					
58F097	161J	160	2.40	2.20	1.70	1.60	1.20
58F098	181J	180					
58F099	201J	200					
58F100	221J	220	2.82	2.59	2.00	1.88	1.41
58F101	241J	240					
58F102	271J	270					
58F103	301J	300					

CYFM15C

Stk. No.	Type	Cap.	1-49	50-99	100-249	250-499	500-999
58F104	221J	220	1.50	1.38	1.06	1.00	.75
58F105	241J	240					
58F106	271J	270					
58F107	301J	300					
58F108	331J	330	1.74	1.60	1.23	1.16	.87
58F109	361J	360					
58F110	391J	390					
58F111	431J	430					
58F112	471J	470	2.10	1.93	1.48	1.40	1.05
58F113	511J	510	2.10	1.93	1.49	1.40	1.05
58F114	561J	560					
58F115	621J	620					
58F116	681J	680	2.40	2.20	1.70	1.60	1.20
58F117	751J	750					
58F118	821J	820					
58F119	911J	910					
58F120	102J	1000					
58F121	122J	1200	3.00	2.75	2.13	2.00	1.50

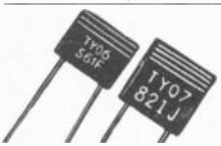
CYFM20C

Stk. No.	Type	Cap.	1-49	50-99	100-249	250-499	500-999
58F122	561J	560	2.25	2.06	1.59	1.50	1.13
58F123	621J	620					
58F124	681J	680					
58F125	751J	750					
58F126	821J	820	2.40	2.20	1.70	1.60	1.20
58F127	911J	910					
58F128	102J	1000					
58F129	112J	1100					
58F130	122J	1200	2.70	2.48	1.91	1.80	1.35
58F131	132J	1300					
58F132	152J	1500					
58F133	162J	1600					
58F134	182J	1800	3.00	2.75	2.13	2.00	1.50
58F135	202J	2000					
58F136	222J	2200	3.30	3.03	2.34	2.20	1.65
58F137	242J	2400					
58F138	272J	2700					
58F139	302J	3000					
58F140	332J	3300	3.75	3.44	2.66	2.50	1.88
58F141	362J	3600					
58F142	432J	4300	4.20	3.85	2.98	2.80	2.10
58F143	472J	4700					
58F144	512J	5100					

CYFM30C

Stk. No.	Type	Cap.	1-49	50-99	100-249	250-499	500-999
58F145	362J	3600	3.90	3.58	2.76	2.60	1.95
58F146	392J	3900					
58F147	432J	4300					
58F148	472J	4700					
58F149	512J	5100	4.50	4.13	3.19	3.00	2.25
58F150	562J	5600					
58F151	622J	6200	4.50	4.13	3.19	3.00	2.25
58F152	682J	6800	4.95	4.54	3.50	3.30	2.48
58F153	752J	7500	4.95	4.54	3.50	3.30	2.48
58F154	822J	8200	5.40	4.95	3.82	3.60	2.70
58F155	912J	9100	5.40	4.95	3.82	3.60	2.70
58F156	103J	10,000	6.00	5.50	4.24	4.00	3.00

TYO CAPACITORS



For printed circuit or point to point wiring. Permits upright or flush mounting on circuit boards. Has 1¼" gold-plated Dumet leads. Proven glass dielectric and foil are fused together to form single monolithic capacitive element to achieve unexcelled electrical and dimensional stability. These capacitors meet the environmental and electrical requirement of MIL-C-11272B. Range: at 25°C IR is greater than 100,000 megohms. Voltage rating is 300 WVDC from —55°C to +125°C.

TYPE TY06

Stock No.	Type No.	Cap. pf	Tolerance ±	1-49	50-99	100-249	250-499	500-999
58F202	TY06-5R1C	5.1	.25 pf	3.45	3.16	2.44	2.30	1.73
58F203	TY06-100C	10	.25 pf	2.52	2.31	1.78	1.68	1.26
58F205	TY06-150J	15	5 %	1.29	1.18	.92	.86	.65
58F206	TY06-200J	20	5 %					
58F207	TY06-300J	30	5 %					
58F209	TY06-390J	39	5 %					
58F210	TY06-470J	47	5 %					
58F211	TY06-510J	51	5 %					
58F212	TY06-560J	56	5 %					
58F214	TY06-680J	68	5 %					
58F215	TY06-820J	82	5 %					
58F216	TY06-910J	91	5 %					

Stock No.	Type No.	Cap. pf	Tolerance ±	1-49	50-99	100-249	250-499	500-999
58F217	TY06-101J	100	5 %	1.29	1.18	.92	.86	.65
58F219	TY06-121J	120	5 %	1.44	1.32	1.02	.96	.72
58F221	TY06-151J	150	5 %					
58F222	TY06-201J	200	5 %					
58F223	TY06-221J	220	5 %					
58F225	TY06-271J	270	5 %					
58F226	TY06-301J	300	5 %	1.62	1.48	1.14	1.08	.81
58F237	TY06-361J	360	5 %					
58F228	TY06-391J	390	5 %					
58F229	TY06-471J	470	5 %					
58F230	TY06-511J	510	5 %					
58F231	TY06-561J	560	5 %					

TYPE TY07

Stock No.	Type No.	Cap. pf	Tolerance ±	1-49	50-99	100-249	250-499	500-999
58F232	TY07-621J	620	5 %	1.68	1.54	1.19	1.12	.84
58F233	TY07-681J	680	5 %					
58F234	TY07-751J	750	5 %	1.68	1.54	1.19	1.12	.84
58F236	TY07-102J	1000	5 %	1.80	1.65	1.27	1.20	.90

CORNING CAPACITORS

New stable Glass-K ceramic capacitor crams up to 100,000 pf. into .250". Three stability characteristics in range of 1000 pf-100,000 pf offer tight end of life design.

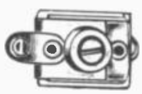
Stk. No.	Type	1-24	25-99	100-499	500-999
58F250	CYK01BT102K	1.84	1.70	1.36	1.02
58F251	CYK01BT103K	2.30	2.13	1.70	1.28
58F252	CYK02BT203K	3.92	3.63	2.90	2.18
58F253	CYK01BV393K	4.05	3.75	3.00	2.25
58F254	CYK01BV513K	4.05	3.75		2.25
58F255	CYK01BT152K	1.84	1.70	1.36	1.02
58F256	CYK01BT332K	2.03	1.88	1.50	1.13
58F257	CYK01BT472	2.03	1.88	1.50	1.13
58F258	CYK01BT122K	1.84	1.70	1.36	1.02
58F259	CKY01BT182K	1.84	1.70	1.36	1.02
58F260	CYK02BT123K	3.92	3.63	2.90	2.18
58F261	CYK01BT222K	2.03	1.88	1.50	1.13
58F262	CYKC1BT272K	2.03	1.88	1.50	1.13
58F263	CYK0BT292K	2.03	1.88	1.50	1.13
58F264	CYK01BT562K	2.03	1.88	1.50	1.13
58F265	CYK01BT682K	2.03	1.88	1.50	1.13
58F266	CYK01BT822K	2.03	1.88	1.50	1.13

Meets requirements MIL-C-11015, 50 volt rating (—55 to +125°C). Adaptable to cordwood, PC. Point to point packaging. Tol: ±10%.

Stk. No.	Type	1-24	25-99	100-499	500-999
58F267	CYK01BU123K	3.65	3.38	2.70	2.03
58F268	CYK01BU153K	3.65	3.38	2.70	2.03
58F269	CYK01BU183K	3.65	3.38	2.70	2.03
58F270	CYK01BU203K	3.65	3.38	2.70	2.03
58F271	CYK01BV223K	4.05	3.75	3.00	2.25
58F272	CYK01BV273K	4.05	3.75	3.00	2.25
58F273	CYK01BV333K	4.05	3.75	3.00	2.25
58F274	CYK01BV473K	4.05	3.75	3.00	2.25
58F275	CYK02BU223K	3.92	3.63	2.90	2.18
58F276	CYK02BU273K	3.92	3.63	2.90	2.18
58F277	CYK02BU333K	3.92	3.63	2.90	2.18
58F278	CYK02BU393K	3.92	3.63	2.90	2.18
58F279	CYK02BV563K	3.90	3.58	2.60	1.95
58F280	CYKC2BV683K	3.90	3.58	2.60	1.95
58F281	CYK02BV823K	3.90	3.58	2.60	1.95
58F282	CYK02BV104K	5.40	4.95	3.60	2.70

ELMENCO — ARCO

QUALITY TRIMMERS



Quality trimmers are treated for resistance to humidity and for permanence of capacitance setting. Have low dielectric loss bases, micas are clear India ruby. Voltage 350 VDCW 175 VDCW. Shipping weight 3 ounces.

TYPE 40 MINIATURE TRIMMERS

Stk. No.	Type	Plts.	Range Mmf.	1-24	25-99	100-499
14F836	400	1⅛	7-0.9	.36	.32	.216
14F837	402	2	20-1.5	.36	.32	.216
14F838	403	3	35-3	.45	.41	.270
14F839	404	4	60-8	.51	.46	.306

TYPE 42 MIDGET TRIMMERS

Stk. No.	Type	Plts.	Range Mmf.	1-24	25-99	100-499
14F960	420	1⅛	12-1	.36	.32	.216
14F961	421	1¾	25-2	.36	.32	.216
14F962	422	2	40-4	.36	.32	.216
14F963	423	3	100-7	.42	.38	.252
14F964	424	4	150-14	.48	.43	.288
14F965	425	5	200-24	.57	.51	.342
14F966	426	6	250-37	.63	.57	.378
14F967	427	7	300-55	.69	.62	.414
14F968	428	8	350-70	.75	.68	.450
14F969	429	9	400-90	.81	.73	.486

TYPE 42 MOUNTING BRACKETS

Stk. No.	For	1-24	25-99	100-499
14F831	2	.11	.10	.066
14F832	3	.13	.12	.078
14F833	4	.14	.13	.084
14F834	5	.16	.14	.096
14F835	6	.18	.16	.108

TYPE 46 MICA TRIMMERS

Stk. No.	Type	Plts.	Range Mmf.	1-24	25-99	100-499
14F818	460	1¼	15-1.5	.36	.32	.216
14F819	461	1¾	30-2.7	.36	.32	.216
14F820	462	2	80-5	.36	.32	.216
14F821	463	3	180-9	.42	.38	.252
14F822	464	4	280-25	.48	.43	.288
14F823	465	5	380-50	.57	.51	.342
14F824	466	6	480-80	.63	.57	.378
14F825	467	7	580-110	.69	.62	.414
14F826	468	8	680-140	.75	.68	.450
14F827	469	9	780-170	.84	.76	.504

TYPE 30 MICA PADDERS

Made of the finest quality clear India ruby mica. Phosphor bronze adjusting plates assure permanent resilience and freedom from mechanical fatigue. All parts are heavily plated; mica film completely enclosed. Rated 500 volts DC flash. 250 WDCD. Size: ⅞ x 15/16 in. Shpg. wt., 3 oz.

Stk. No.	Type	Plates	Range Mmf.	1-24	25-99	100-Up
14F804	302	2	130-15	.69	.62	.414
14F805	303	3	240-65	.75	.68	.450
14F806	304	4	550-100	.81	.73	.486
14F807	305	5	760-190	.87	.78	.522
14F808	306	6	970-275	.93	.84	.558
14F809	307	7	1180-350	.99	.89	.594
14F810	308	8	1390-450	1.05	.95	.630
14F811	309	9	1600-550	1.14	1.03	.684
14F812	310	10	1890-650	1.20	1.08	.720
14F813	311	11	2110-780	1.29	1.61	.774
14F815	313	13	2605-1150	1.44	1.30	.864
14F816	314	14	2830-1300	1.53	1.38	.918
14F817	315	15	3055-1400	1.62	1.46	.972

DP TUBULARS

Mylar paper dielectric non-inductively wound and vacuum dipped to obtain solid impregnation and rugged moisture-resistant coat. Leads are radial and crimped to facilitate use in printed circuits. Full rated voltage: 125°C. Leads are tinned copper #20 gauge and are 1⅝" min. below the crimp. Tol. is ±10%.

100 DCWV

Stk. No.	Type	Mfd.	1-24	25-99	100-499	500-999
14F1000	1DP-1-502	.005	.18	.16	.110	.092
14F1002	1DP-1-682	.0068				
14F1003	1DP-1-752	.0075				
14F1004	1DP-1-103	.01				
14F1005	1DP-1-153	.015				
14F1006	1DP-1-203	.02				
14F1007	1DP-1-223	.022				
14F1008	1DP-1-253	.025				
14F1009	1DP-1-303	.03				
14F1010	1DP-1-333	.033				
14F1012	1DP-2-473	.047	.21	.19	.129	.107
14F1013	1DP-2-503	.05				
14F1014	1DP-2-563	.056				
14F1015	1DP-2-683	.068				
14F1017	1DP-2-104	.1				
14F1018	1DP-3-154	.15	.24	.22	.147	.122
14F1019	1DP-3-204	.2	.27	.24	.165	.138
14F1020	1DP-3-224	.22	.27	.24	.165	.138
14F1021	1DP-3-254	.25	.30	.27	.184	.153

200 DCWV

Stk. No.	Type	Mfd.	1-24	25-99	100-499	500-999
14F1022	2DP-3-104	.1	.21	.19	.129	.107
14F1025	2DP-4-224	.22	.27	.24	.165	.138
14F1029	2DP-5-504	.5	.45	.41	.275	.230

400 DCWV

Stk. No.	Type	Mfd.	1-24	25-99	100-499	500-999
14F1030	4DP-1-103	.01	.15	.14	.092	.077
14F1033	4DP-2-223	.022	.18	.16	.110	.092
14F1038	4DP-3-473	.047	.21	.19	.129	.107
14F1043	4DP-3-104	.1	.24	.22	.147	.122
14F1046	4DP-5-224	.22	.33	.30	.202	.168

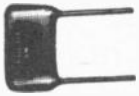
600 DCWV

Stk. No.	Type	Mfd.	1-24	25-19	100-499	500-999
14F1049	6DP-1-102	.001	.15	.14	.092	.077
14F1061	6DP-1-502	.005	.15	.14	.092	.077
14F1064	6DP-1-682	.0068	.18	.16	.110	.092
14F1068	6DP-2-103	.01	.19	.16	.110	.092
14F1070	6DP-2-153	.015	.18	.16	.110	.092
14F1071	6DP-2-203	.02	.18	.16	.110	.092
14F1072	6DP-2-223	.022	.18	.16	.110	.092
14F1073	6DP-2-253	.025	.21	.19	.129	.107
14F1076	6DP-3-333	.033	.21	.19	.129	.107
14F1080	6DP-3-503	.05	.24	.22	.147	.122
14F1081	6DP-3-563	.056	.24	.22	.165	.138
14F1083	6DP-4-683	.068	.27	.24	.165	.138
14F1086	6DP-4-104	.1	.27	.24	.165	.138
14F1087	6DP-5-154	.15	.36	.32	.220	.184
14F1088	6DP-5-204	.2	.42	.38	.257	.214
14F1089	6DP-5-224	.22	.42	.38	.257	.214

1600 DCWV

Stk. No.	Type	Mfd.	1-24	25-19	100-499	500-999
14F1091	16DP-2-102	.001	.24	.22	.147	.122
14F1095	16DP-2-222	.0022	.24	.22	.147	.122
14F1100	16DP-2-472	.0047	.27	.24	.165	.138
14F1106	16DP-3-103	.01	.30	.27	.184	.153
14F1109	16DP-5-223	.022	.42	.38	.257	.214
14F1115	16DP-5-503	.05	.48	.43	.294	.245

ELMENCO—Arco Capacitors



MIL Type	Cap. Pf.	Elmenco
CM04	1-390	DM10
CM05	1-390	DM15
CM06	430-4700	DM19
CM07	5,100-20,000	DM30
CM08	22,000-62,000	DM42

DUR-MICA CAPACITORS

The Dur-Mica is a silvered mica capacitor with a plastic coating. It combines excellence in stability, dielectric strength, "Q", dielectric constant, chemical inertness, moisture resistance and puncture resistance. Operating temperature range —55°C to 150°C. Standard tolerance ±5% except (*) Min. tolerance ±1.0 Pf. DM5 capacitors are stamped with capacitance values in pf. followed by a letter signifying capacitance tolerance. (J) means ±5%, while (A) signifies ±1% pf. All ELMENCO dipped mica capacitors meet or exceed requirements set forth in MIL-C-5C specifications. Portions of the ELMENCO DM series are the specific values and case sizes tabulated in the MIL-C-5/18 detail specifications.

TYPE DM5 DCWV 300

Stk. No.	Type	Pf.	1-24	25-99	100-499	500-999
14F1262	DM5-010A	1*	.20	.15	.118	.088
14F1263	DM5-020A	2*				
14F1264	DM5-030A	3*				
14F1265	DM5-040A	4*				
14F1266	DM5-050A	5*				
14F1267	DM5-060A	6*	.23	.17	.140	.105
14F1268	DM5-070A	7*	.23	.17	.140	.105
14F1269	DM5-080A	8*	.23	.17	.140	.105
14F1270	DM5-100J	10	.39	.29	.233	.174
14F1271	DM5-120J	12	.40	.30	.240	.180
14F1272	DM5-150J	15	.40	.30	.240	.180
14F1273	DM5-180J	18	.41	.31	.247	.185
14F1274	DM5-200J	20	.27	.21	.164	.123
14F1275	DM5-220J	22	.28	.21	.169	.127
14F1276	DM5-240J	24	.28	.21	.169	.127
14F1277	DM5-270J	27	.29	.22	.174	.130
14F1278	DM5-300J	30	.29	.22	.174	.130
14F1279	DM5-330J	33	.30	.22	.179	.134
14F1280	DM5-360J	36	.31	.23	.186	.140
14F1281	DM5-390J	39	.31	.23	.186	.140
14F1282	DM5-430J	43	.32	.24	.191	.143
14F1283	DM5-470J	47	.33	.25	.196	.147
14F1284	DM5-500J	50	.33	.25	.196	.147
14F1285	DM5-510J	51	.34	.26	.206	.154
14F1286	DM5-560J	56	.36	.27	.218	.163
14F1287	DM5-620J	62	.38	.29	.230	.173
14F1288	DM5-680J	68	.40	.30	.240	.180
14F1289	DM5-750J	75	.42	.32	.252	.189
14F1290	DM5-820J	82	.46	.34	.274	.206
14F1291	DM5-910J	91	.49	.37	.296	.222
14F1292	DM5-101J	100	.51	.39	.308	.231
14F1293	DM5-111J	110	.55	.41	.330	.248
14F1294	DM5-121J	120	.59	.44	.353	.264
14F1295	DM5-131J	130	.49	.37	.296	.222
14F1296	DM5-151J	150	.55	.41	.330	.248
14F1297	DM5-161J	160	.57	.43	.343	.257
14F1298	DM5-181J	180	.63	.47	.377	.283

TYPE DM-10 DCWV 500

Stk. No.	Type	Pf.	1-24	25-99	100-499	500-999
14F1150	DM10-010A	1*	.18	.14	.110	.083
14F1151	DM10-020A	2*				
14F1152	DM10-030A	3*				
14F1153	DM10-050A	5*				
14F1154	DM10-100J	10	.31	.23	.186	.140
14F1155	DM10-120J	12	.32	.24	.191	.143
14F1156	DM10-150J	15	.32	.24	.191	.143
14F1157	DM10-180J	18	.32	.24	.191	.143
14F1158	DM10-200J	20	.21	.16	.127	.095
14F1159	DM10-220J	22	.21	.16	.127	.095
14F1160	DM10-240J	24	.22	.16	.130	.097
14F1161	DM10-270J	27	.22	.16	.130	.097
14F1162	DM10-300J	30	.22	.16	.130	.097
14F1163	DM10-330J	33	.22	.16	.130	.097
14F1164	DM10-360J	36	.22	.17	.135	.101
14F1165	DM10-390J	39	.22	.17	.135	.101
14F1166	DM10-430J	43	.22	.17	.135	.101
14F1167	DM10-470J	47	.23	.17	.137	.103
14F1168	DM10-500J	50	.23	.17	.137	.103
14F1169	DM10-510J	51	.23	.17	.137	.103
14F1170	DM10-560J	56	.23	.17	.140	.105
14F1171	DM10-620J	62	.23	.17	.140	.105
14F1172	DM10-680J	68	.24	.18	.144	.108
14F1173	DM10-750J	75	.24	.18	.144	.108
14F1174	DM10-820J	82	.25	.18	.147	.110
14F1175	DM10-910J	91	.25	.19	.152	.114
14F1176	DM10-101J	100	.26	.19	.154	.116
14F1177	DM10-111J	110	.26	.19	.154	.116
14F1178	DM10-121J	120	.27	.21	.164	.123
14F1179	DM10-131J	130	.29	.21	.171	.129
14F1180	DM10-151J	150	.31	.24	.188	.141
14F1182	DM10-181J	180	.36	.27	.215	.162
14F1183	DM10-201J	200	.39	.29	.233	.174
14F1184	DM10-221J	220	.40	.30	.240	.180
14F1185	DM10-241J	240	.43	.32	.259	.195
14F1186	DM10-251J	250	.45	.33	.267	.200

TYPE DM-10 DCWV 300

Stk. No.	Type	Pf	1-24	25-99	100-499	500-999
14F1187	DM10-271J	270	.42	.31	.250	.187
14F1188	DM10-301J	300	.46	.35	.277	.207

TYPE DM-10 DCWV 100

Stk. No.	Type	Pf	1-24	25-99	100-499	500-999
14F1189	DM10-331J	330	.43	.32	.259	.195
14F1190	DM10-361J	360	.46	.35	.277	.207
14F1200	DM10-391J	390	.49	.37	.294	.220

TYPE DM-15 DCWV 500 except (††) 100 (†) 300

Stk. No.	MIL No.	Pf.	1-24	25-99	100-499	500-999
14F549	DM15-010A	1*	.22	.16	.130	.097
14F550	DM15-020A	2*				
14F551	DM15-030A	3*				
14F552	DM15-050A	5*				
14F553	DM15-100J	10				
14F554	DM15-120J	12				
14F555	DM15-150J	15				
14F556	DM15-180J	18				
14F557	DM15-200J	20	.18	.13	.105	.079
14F558	DM15-220J	22				
14F559	DM15-240J	24				
14F560	DM15-270J	27				
14F581	DM15-300J	30				
14F562	DM15-330J	33				
14F563	DM15-360J	36				
14F564	DM15-390J	39				
14F565	DM15-430J	43				
14F566	DM15-470J	47				
14F567	DM15-500J	50				
14F568	DM15-510J	51				
14F569	DM15-560J	56				
14F570	DM15-620J	62	.18	.14	.108	.081
14F571	DM15-680J	68				
14F572	DM15-750J	75				
14F573	DM15-820J	82				
14F574	DM15-910J	91				
14F575	DM15-101J	100				
14F576	DM15-111J	110	.19	.14	.115	.086
14F577	DM15-121J	120	.19	.14	.115	.086
14F578	DM15-131J	130	.21	.16	.125	.094
14F579	DM15-151J	150	.21	.16	.125	.094
14F580	DM15-161J	160	.22	.17	.135	.101
14F581	DM15-181J	180	.24	.18	.144	.108
14F582	DM15-201J	200	.24	.18	.144	.108
14F583	DM15-221J	220	.26	.19	.154	.116
14F584	DM15-241J	240	.27	.21	.164	.123
14F585	DM15-251J	250	.27	.21	.164	.123
14F586	DM15-271J	270	.29	.22	.174	.130
14F587	DM15-301J	300	.31	.23	.184	.138
14F588	DM15-331J	330	.34	.25	.203	.152
14F589	DM15-361J	360	.36	.27	.213	.160
14F590	DM15-391J	390	.37	.28	.223	.167
14F591	DM15-431J	430	.40	.30	.240	.180
14F592	DM15-471J	470	.42	.31	.250	.187
14F593	DM15-501J	500	.43	.32	.259	.195
14F594	DM15-511J	510	.45	.34	.269	.202
14F595	DM15-561J	560†	.45	.34	.269	.202
14F596	DM15-621J	620†	.48	.36	.289	.217
14F597	DM15-681J	680†	.53	.40	.318	.239
14F598	DM15-751J	750†	.56	.42	.338	.253
14F599	DM15-821J	820†	.61	.46	.367	.275
14F1116	DM15-911J	910††	.53	.40	.318	.239
14F1117	DM15-102J	1000††	.58	.44	.348	.261
14F450	DM19-101J	100	.20	.15	.120	.090
14F452	DM19-121J	120	.20	.15	.120	.090
14F457	DM19-201J	200	.21	.16	.125	.094
14F458	DM19-221J	220	.21	.16	.125	.094
14F459	DM19-241J	240	.21	.16	.125	.094
14F460	DM19-251J	250	.21	.16	.125	.094
14F461	DM19-271J	270	.23	.17	.137	.103
14F462	DM19-301J	300	.23	.17	.137	.103
14F463	DM19-331J	330	.23	.17	.137	.103
14F464	DM19-361J	360	.26	.19	.154	.116
14F465	DM19-391J	390	.26	.19	.154	.116

(DM series continued from preceding page)

TYPE DM-19 DCWV 500

Stk. No.	Type No.	Mmf.	1-24	25-99	100-499	500-999
14F466	DM19-431J	430	.26	.19	.154	.116
14F467	DM19-471J	470	.29	.22	.174	.13
14F468	DM19-501J	500	.29	.22	.174	.13
14F469	DM19-511J	510	.29	.22	.174	.13
14F470	DM19-561J	560	.29	.22	.174	.13
14F471	DM19-621J	620	.32	.24	.191	.14
14F472	DM19-681J	680	.32	.24	.191	.14
14F473	DM19-751J	750	.35	.26	.208	.156
14F474	DM19-821J	820	.38	.28	.225	.169
14F477	DM19-112J	1100	.44	.33	.262	.196
14F478	DM19-122J	1200	.47	.35	.279	.209
14F479	DM19-132J	1300	.50	.37	.299	.224
14F480	DM19-152J	1500	.56	.42	.333	.250
14F481	DM19-162J	1600	.56	.42	.333	.250
14F482	DM19-182J	1800	.62	.46	.370	.277
14F483	DM19-202J	2000	.67	.51	.404	.303
14F484	DM19-222J	2200	.73	.55	.441	.330
14F1201	DM19-242J	2400	.77	.58	.463	.347
14F1202	DM19-252J	2500	.80	.60	.482	.362
14F1203	DM19-272J	2700	.87	.66	.524	.393
14F1204	DM19-302J	3000	.98	.73	.588	.441
14F1205	DM19-332J	3300	1.05	.79	.629	.472
14F1206	DM19-362J	3600	1.16	.87	.693	.520
14F1207	DM19-392J	3900	1.22	.92	.734	.551
14F1208	DM19-432J	4300	1.36	1.02	.815	.611
14F1209	DM19-472J	4700	1.47	1.10	.879	.659
14F1210	DM19-502J	5000	1.57	1.18	.942	.707
14F1211	DM19-512J	5100	1.61	1.21	.965	.723

TYPE DM-20 DCWV 500

14F601	DM20-751J	750	.32	.24	.191	.143
14F603	DM20-911J	910	.35	.26	.208	.156
14F604	DM20-102J	1000	.38	.28	.225	.169
14F607	DM20-132J	1300	.44	.33	.262	.196
14F608	DM20-152J	1500	.50	.37	.299	.224
14F610	DM20-182J	1800	.56	.42	.333	.250
14F611	DM20-202J	2000	.59	.44	.353	.264
14F612	DM20-222J	2200	.65	.48	.387	.290

TYPE DM 42—DCWV 500

14F1252	DM42-253J	25000	7.47	5.60	4.48	3.36
14F1254	DM42-303J	30000	8.69	6.52	5.22	3.91
14F1257	DM42-393J	39000	11.10	8.32	6.66	4.99
14F1258	DM42-433J	43000	12.12	9.09	7.27	5.45

TYPE CM-15 MINIATURE SILVER MICAS

Smallest molded silver micas made. In low-loss phenolic cases, 9/32 by ½ by 3/16 in. Standard tolerance ±5%; tolerances of ±2% and ±1% available on special order. All are 500 volts DC working. *Closest tolerance ±.5 mmf. Wt., 1 oz.

Stk. No.	Mil. No.	Mmf.	1-24	25-99	100-499	500-999
14F650*	C010M	1	.22	.16	.130	.097
14F651*	C020M	2				
14F652*	C030M	3				
14F653*	C050K	5				
14F654	C100J	10				
14F655	C120J	12				
14F656	C150J	15				
14F657	C180J	18				
14F658	C200J	20	.18	.13	.105	.079
14F659	C220J	22				
14F660	E240J	24				
14F661	E270J	27				
14F662	E300J	30				
14F663	E330J	33				
14F664	E360J	36				
14F665	E390J	39				
14F666	E430J	43				
14F667	E470J	47				
14F668	E500J	50				
14F669	E510J	51				
14F670	E560J	56				
14F671	E620J	62	.18	.14	.108	.081
14F672	E680J	68				
14F673	E750J	75				
14F674	E820J	82				
14F675	E910J	91				
14F676	E101J	100				
14F677	E111J	110	.19	.14	.115	.086
14F678	E121J	120	.19	.14	.115	.086
14F679	E131J	130	.21	.16	.125	.094
14F680	E151J	150	.21	.16	.125	.094
14F681	E161J	160	.22	.17	.135	.101
14F682	E181J	180	.24	.17	.135	.101
14F683	E201J	200	.24	.18	.144	.108

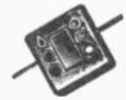
Con't on Next Col..

CM-15 Cont'd.

Stk. No.	Mil.No.	Mmf.	1-24	25-99	100-499	500-999
14F684	E221J	220	.26	.19	.154	.116
14F685	E241J	240	.27	.21	.164	.123
14F686	E251J	250	.27	.21	.164	.123
14F687	E271J	270	.29	.22	.174	.130
14F688	E301J	300	.31	.23	.184	.138
14F689	E331J	330	.34	.25	.203	.152
14F690	E361J	360	.34	.27	.213	.160
14F691	E391J	390	.37	.28	.223	.167
14F692	E431J	430	.40	.30	.240	.180
14F693	E471J	470	.42	.31	.250	.187
14F694	E501J	500	.43	.32	.259	.195
14F695	E511J	510	.45	.34	.269	.202

MOLDED SILVERED MICA CAPACITORS

Manufactured in accordance with MIL-C-5 specifications and EIA Specification RS-153. Color coded in accordance with MIL-C-5. Temp. range: —55 to +85°C. Vibration frequency: 10-2000 hz. ±5% tolerance. CM-19, CM20: 25/32 x 7/16 x 7/32". CM30: 13/16 x 3/16 x 9/32".



SILVERED TYPE CM19 & CM20 500 VDCW

Stk. No.	Mil. No.	Mmf.	1-24	25-99	100-499	500-999
14F865	C101J	100	.20	.15	.120	.090
14F866	C111J	110	.20	.15	.120	.090
14F867	C121J	120	.20	.15	.120	.090
14F868	C131J	130	.20	.15	.120	.090
14F869	C151J	150	.20	.15	.120	.090
14F870	C161J	160	.21	.16	.125	.094
14F871	C181J	180	.21	.16	.125	.094
14F872	D201J	200	.21	.16	.125	.094
14F873	D221J	220	.21	.16	.125	.094
14F874	D241J	240	.21	.16	.125	.094
14F875	D251J	250	.21	.16	.125	.094
14F876	D271J	270	.21	.16	.125	.094
14F877	D301J	300	.23	.17	.137	.103
14F878	D331J	330	.23	.17	.137	.103
14F879	D361J	360	.23	.17	.137	.103
14F880	D391J	390	.23	.17	.137	.103
14F881	D431J	430	.26	.19	.154	.116
14F882	D471J	470	.26	.19	.154	.116
14F883	D501J	500	.26	.19	.154	.116
14F884	D511J	510	.26	.19	.154	.116
14F885	D561J	560	.29	.22	.174	.130
14F886	D621J	620	.29	.22	.174	.130
14F887	D681J	680	.29	.22	.174	.130
14F888	D751J	750	.32	.24	.191	.143
14F889	D821J	820	.32	.24	.191	.143
14F890	D911J	910	.35	.26	.208	.156
14F891	E102J	1000	.38	.28	.225	.169
14F892	E112J	1100	.42	.32	.252	.189
14F893	E122J	1200	.42	.32	.252	.189
14F894	E132J	1300	.44	.33	.262	.196
14F895	E152J	1500	.50	.37	.299	.224
14F896	E162J	1600	.50	.37	.299	.224
14F897	E182J	1800	.56	.42	.333	.250
14F898	E202J	2000	.59	.44	.353	.264

SILVERED TYPE CM30

Stk. No.	Mil.No.	Mmf.	1-24	25-99	100-499	500-999
14F903	E511J	510	.31	.24	.188	.141
14F904	E561J	560	.35	.26	.208	.156
14F905	E621J	620	.35	.26	.208	.156
14F906	E681J	680	.35	.26	.208	.156
14F907	E751J	750	.35	.26	.208	.156
14F908	E821J	820	.38	.29	.230	.173
14F910	E911J	910	.38	.29	.230	.173
14F911	E102J	1000	.38	.29	.230	.173
14F912	E112J	1100	.44	.33	.262	.196
14F914	E132J	1300	.44	.33	.262	.196
14F915	E152J	1500	.49	.36	.291	.218
14F916	E162J	1600	.49	.36	.291	.218
14F918	E202J	2000	.59	.44	.353	.264
14F919	E222J	2200	.64	.48	.384	.288
14F920	E242J	2400	.64	.48	.384	.288
14F921	E252J	2500	.69	.52	.414	.310
14F922	E272J	2700	.69	.52	.414	.310
14F923	E302J	3000	.79	.59	.475	.356
14F924	E332J	3300	.85	.63	.507	.380
14F925	E362J	3600	.89	.67	.536	.402
14F926	E392J	3900	.94	.71	.565	.424
14F927	E432J	4300	1.00	.75	.597	.448
14F929	E502J	5000	1.15	.86	.688	.516
14F930	E512J	5100	1.15	.86	.688	.516
14F931	E562J	5600	1.25	.94	.749	.562

ARCO DUR-MICA KITS

Individual clear plastic boxes, labeled for easy handling.
Type CM-15. Kit # 1. Contains one each of 46 capacitors. Values: 1 mmf.—510 mmf. Shpg. wt. 1¼ lbs.
14F830. NET **48.00**

Type DM-15. Kit # 10. Five each of 51 capacitors. Values: 1 mmf.—820 mmf. Tol. ±5%. Shpg. wt., 1½ lbs.
14F840. NET **61.20**

MALLORY Tantalum Capacitors

TYPE CSR SOLID ELECTROLYTE TANTALUM CAPACITORS

New solid electrolyte tantalum capacitors meet or exceed established reliability requirements of MIL-C-39003A for 2% (L) and 1% (M) failure rate levels. Rigid MIL specifications. Have hermetically sealed metal cases with insulating sleeves. WVDC is at +85°C. ±10% Tolerance. Av. shpg. wt. 2 oz.

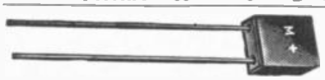
Case Code	Dia. x Len.
A	.135 x .286"
B	.185 x .474"
C	.289 x .686"
D	.351 x .786"

2% FAILURE RATE

Stk. No.	Type CSR13-	Mfd.	WV DC	Case Size	1-24	25-49	50-99	100-499	500-999
17F1505	B565KL	5.6	6	A	1.46	1.17	.80	.65	.53
17F1506	B685KL	6.8	6	A	1.46	1.17	.80	.65	.53
17F1507	B476KL	47	6	B	1.71	1.37	.83	.69	.54
17F1508	B566KL	56	6	B	1.71	1.37	.83	.69	.54
17F1509	B157KL	150	6	C	2.82	2.25	1.55	1.25	.98
17F1510	B187KL	180	6	C	2.82	2.25	1.55	1.25	.98
17F1511	B277KL	270	6	D	5.21	4.15	3.08	2.49	1.91
17F1512	B337KL	330	6	D	5.21	4.15	3.08	2.49	1.91
17F1513	C395KL	3.9	10	A	1.46	1.17	.80	.65	.53
17F1514	C475KL	4.7	10	A	1.46	1.17	.80	.65	.53
17F1515	C276KL	27	10	B	1.71	1.37	.83	.69	.54
17F1516	C336KL	33	10	B	1.71	1.37	.83	.69	.54
17F1517	C396KL	39	10	B	1.71	1.37	.83	.69	.54
17F1518	C826KL	82	10	C	2.82	2.25	1.55	1.25	.98
17F1519	C107KL	100	10	C	2.82	2.25	1.55	1.25	.98
17F1520	C127KL	120	10	C	2.82	2.25	1.55	1.25	.98
17F1521	C187KL	180	10	D	5.21	4.15	3.08	2.49	1.91
17F1522	C227KL	220	10	D	5.21	4.15	3.08	2.49	1.91
17F1523	D275KL	2.7	15	A	1.46	1.17	.80	.65	.53
17F1524	D335KL	3.3	15	A	1.46	1.17	.80	.65	.53
17F1525	D186KL	18	15	B	1.71	1.37	.83	.69	.54
17F1526	D226KL	22	15	B	1.71	1.37	.83	.69	.54
17F1527	D566KL	56	15	C	2.82	2.25	1.55	1.25	.98
17F1528	D686KL	68	15	C	2.82	2.25	1.55	1.25	.98
17F1529	D127KL	120	15	D	5.21	4.15	3.08	2.49	1.91
17F1530	D157KL	150	15	D	5.21	4.15	3.08	2.49	1.91
17F1531	E125KL	1.2	20	A	1.46	1.17	.80	.65	.53
17F1532	E155KL	1.5	20	A	1.46	1.17	.80	.65	.53
17F1533	E185KL	1.8	20	A	1.46	1.17	.80	.65	.53
17F1534	E225KL	2.2	20	A	1.46	1.17	.80	.65	.53
17F1535	E825KL	8.2	20	B	1.71	1.37	.83	.69	.54
17F1536	E106KL	10	20	B	1.71	1.37	.83	.69	.54
17F1537	E126KL	12	20	B	1.71	1.37	.83	.69	.54
17F1538	E156KL	15	20	B	1.71	1.37	.83	.69	.54
17F1539	E276KL	27	20	C	2.82	2.25	1.55	1.25	.98
17F1540	E336KL	33	20	C	2.82	2.25	1.55	1.25	.98
17F1541	E396KL	39	20	C	2.82	2.25	1.55	1.25	.98
17F1542	E476KL	47	20	C	2.82	2.25	1.55	1.25	.98
17F1543	E566KL	56	20	D	5.21	4.15	3.08	2.49	1.91
17F1544	E686KL	68	20	D	5.21	4.15	3.08	2.49	1.91
17F1545	E826KL	82	20	D	5.21	4.15	3.08	2.49	1.91
17F1546	E107KL	100	20	D	5.21	4.15	3.08	2.49	1.91
17F1547	F565KL	5.6	35	B	1.71	1.37	.83	.69	.54
17F1548	F685KL	6.8	35	B	1.71	1.37	.83	.69	.54
17F1549	F226KL	22	35	C	2.82	2.25	1.55	1.25	.98
17F1550	F276KL	27	35	D	5.21	4.15	3.08	2.49	1.91
17F1551	F336KL	33	35	D	5.21	4.15	3.08	2.49	1.91
17F1552	F396KL	39	35	D	5.21	4.15	3.08	2.49	1.91
17F1553	F476KL	47	35	D	5.21	4.15	3.08	2.49	1.91
17F1554	G472KL	.0047	50	A	2.71	2.17	1.83	1.58	1.31
17F1555	G562KL	.0056	50	A	2.71	2.17	1.83	1.58	1.31
17F1556	G682KL	.0068	50	A	2.71	2.17	1.83	1.58	1.31
17F1557	G822KL	.0082	50	A	2.71	2.17	1.83	1.58	1.31
17F1558	G103KL	.01	50	A	2.71	2.17	1.83	1.58	1.31
17F1559	G123KL	.012	50	A	2.71	2.17	1.83	1.58	1.31
17F1560	G153KL	.015	50	A	2.71	2.17	1.83	1.58	1.31
17F1561	G183KL	.018	50	A	2.71	2.17	1.83	1.58	1.31
17F1562	G223KL	.022	50	A	2.71	2.17	1.83	1.58	1.31
17F1563	G273KL	.027	50	A	2.71	2.17	1.83	1.58	1.31
17F1564	G333KL	.033	50	A	2.71	2.17	1.83	1.58	1.31
17F1565	G393KL	.039	50	A	2.71	2.17	1.83	1.58	1.31
17F1566	G473KL	.047	50	A	2.71	2.17	1.83	1.58	1.31
17F1567	G563KL	.056	50	A	2.71	2.17	1.83	1.58	1.31
17F1568	G683KL	.068	50	A	2.71	2.17	1.83	1.58	1.31
17F1569	G823KL	.082	50	A	2.71	2.17	1.83	1.58	1.31
17F1570	G104KL	.1	50	A	2.71	2.17	1.83	1.58	1.31
17F1571	G124KL	.12	50	A	2.71	2.17	1.83	1.58	1.31
17F1572	G154KL	.15	50	A	2.71	2.17	1.83	1.58	1.31
17F1573	G184KL	.18	50	A	2.71	2.17	1.83	1.58	1.31
17F1574	G224KL	.22	50	A	2.71	2.17	1.83	1.58	1.31
17F1575	G274KL	.27	50	A	2.71	2.17	1.83	1.58	1.31
15F1576	G334KL	.33	50	A	2.71	2.17	1.83	1.58	1.31
17F1577	G394KL	.39	50	A	2.71	2.17	1.83	1.58	1.31
17F1578	G474KL	.47	50	A	2.71	2.17	1.83	1.58	1.31
15F1779	G564KL	.56	50	A	2.71	2.17	1.83	1.58	1.31
17F1580	G684KL	.68	50	A	2.71	2.17	1.83	1.58	1.31
17F1581	G824KL	.82	50	A	2.71	2.17	1.83	1.58	1.31
17F1582	G105KL	1.0	50	A	2.71	2.17	1.83	1.58	1.31
17F1583	G125KL	1.2	50	B	2.86	2.29	1.94	1.65	1.39
17F1584	G155KL	1.5	50	B	2.86	2.29	1.94	1.65	1.39
17F1585	G185KL	1.8	50	B	2.86	2.29	1.94	1.65	1.39
17F1586	G225KL	2.2	50	B	2.86	2.29	1.94	1.65	1.39
17F1587	G275KL	2.7	50	B	2.86	2.29	1.94	1.65	1.39
17F1588	G335KL	3.3	50	B	2.86	2.29	1.94	1.65	1.39
17F1589	G395KL	3.9	50	B	2.86	2.29	1.94	1.65	1.39
17F1590	G475KL	4.7	50	B	2.86	2.29	1.94	1.65	1.39
17F1591	G565KL	5.6	50	C	4.70	3.75	3.19	2.70	2.26
17F1592	G685KL	6.8	50	C	4.70	3.75	3.19	2.70	2.26
17F1593	G825KL	8.2	50	C	4.70	3.75	3.19	2.70	2.26
17F1594	G106KL	10	50	C	4.70	3.75	3.19	2.70	2.26
17F1595	G126KL	12	50	C	4.70	3.75	3.19	2.70	2.26
17F1596	G156KL	15	50	C	4.70	3.75	3.19	2.70	2.26
17F1597	G186KL	18	50	C	4.70	3.75	3.19	2.70	2.26
17F1598	G226KL	22	50	C	8.76	7.00	5.92	5.03	4.20

1% FAILURE RATE

Stock No.	Type CSR13-	Mfd.	WV DC	Case Size	1-24	25-49	50-99	100-499	500-999
17F1678	B685KM	6.8	6	A	1.99	1.60	1.10	.90	.77
17F1680	B476KM	47	6	B	2.34	1.88	1.13	.93	.78
17F1681	B157KM	150	6	C	3.83	3.08	2.11	1.72	1.45
17F1682	B337KM	330	6	D	7.10	5.66	4.20	3.40	2.85
17F1683	C475KM	4.7	10	A	1.99	1.60	1.10	.90	.77
17F1684	C336KM	33	10	B	2.34	1.88	1.13	.93	.78
17F1685	C107KM	100	10	C	3.83	3.08	2.11	1.72	1.45
17F1686	C227KM	220	10	D	7.10	5.66	4.20	3.40	2.85
17F1687	D335KM	3.3	15	A	1.99	1.60	1.10	.90	.77
17F1688	D686KM	68	15	C	3.83	3.08	2.11	1.72	1.45
17F1689	D157KM	150	15	D	7.10	5.66	4.20	3.40	2.85
17F1690	E155KM	1.5	20	A	1.99	1.60	1.10	.90	.77
17F1691	E225KM	2.2	20	A	1.99	1.60	1.10	.90	.77
17F1692	E106KM	10	20	B	2.34	1.88	1.13	.93	.78
17F1693	E156KM	15	20	B	2.34	1.88	1.13	.93	.78
17F1694	E336KM	33	20	C	3.83	3.08	2.11	1.72	1.45
17F1695	E476KM	47	20	C	3.83	3.08	2.11	1.72	1.45
17F1696	E686KM	68	20	D	7.10	5.66	4.20	3.40	2.85
17F1697	E107KM	100	20	D	7.10	5.66	4.20	3.40	2.85
17F1698	F685KM	6.8	35	B	2.34	1.88	1.13	.93	.78
17F1699	F226KM	22	35	C	3.83	3.08	2.11	1.72	1.45
17F1655	F336KM	33	35	D	7.10	5.66	4.20	3.40	2.85
17F1656	F476KM	47	35	D	7.10	5.66	4.20	3.40	2.85
17F1657	G103KM	.01	50	A	3.69	2.95	2.49	2.15	1.93
17F1658	G153KM	.015	50	A	3.69	2.95	2.49	2.15	1.93
17F1659	G223KM	.022	50	A	3.69	2.95	2.49	2.15	1.93
17F1660	G333KM	.033	50	A	3.69	2.95	2.49	2.15	1.93
17F1661	G473KM	.047	50	A	3.69	2.95	2.49	2.15	1.93
17F1662	G683KM	.068	50	A	3.69	2.95	2.49	2.15	1.93
17F1663	G104KM	.1	50	A	3.69	2.95	2.49	2.15	1.93
17F1664	G224KM	.22	50	A	3.69	2.95	2.49	2.15	1.93
17F1666	G334KM	.33	50	A	3.69	2.95	2.49	2.15	1.93
17F1667	G474KM	.47	50	A	3.69	2.95	2.49	2.15	1.93
17F1668	G684KM	.68	50	A	3.69	2.95	2.49	2.15	1.93
17F1669	G105KM	1.0	50	A	3.69	2.95	2.49	2.15	1.93
17F1670	G155KM	1.5	50	B	3.91	3.11	2.63	2.25	2.05
17F1671	G225KM	2.2	50	B	3.91	3.11	2.63	2.25	2.05
17F1672	G335KM	3.3	50	B	3.91	3.11	2.63	2.25	2.05
17F1673	G475KM	4.7	50	B	3.91	3.11	2.63	2.25	2.05
17F1674	G685KM	6.8	50	C	6.40	5.10	4.34	3.69	3.35
17F1675	G106KM	10	50	C	6.40	5.10	4.34	3.69	3.35
17F1676	G156KM	15	50	C	11.95	5.10	4.34	3.69	3.35
17F1677	G226KM	22	50	D	6.40	9.54	8.07	6.86	6.28



TANTALUM CAPACITORS TYPE TAM

Plastic encapsulated, solid electrolyte, sintered tantalum pellet anode. Temp. range: —80° to +85°C or 125° if derated. 33⅓%. Ht. .3125", Dia. .175". Aver. Shpg. Wt. 2 oz.

Stock No.	Type	Mfd.	WV	1-24	25-49	50-99	100-499	500-999
14F126	TAM685M025P5C	6.8	25	1.20	.96	.82	.69	.63
14F127	TAM106M025P5C	10	25					
14F128	TAM156M025P5C	15	25					
14F129	TAM226M015P5C	22	15	1.20	.96	.82	.69	.63
14F145	TAM336M010P5C	33	10					
14F146	TAM396M010P5C	39	10					
14F147	TAM566M006P5C	56	6					

Tantalum Capacitors

MALLORY

TAC TYPE

Mallory TAC solid electrolytic tantlum capacitors are miniature types designed for high density applications. Precision molded in cases .105" x .290" long with #24 (.020") wire leads 1½" ±¼" long.

Stock No.	Type Tac—	Mfd.	WV DC	1-99	100-249	500-up
17F1600	823K050P02	.082	50	1.06	.80	.53
17F1601	104K050P02	.1	50			
17F1602	124K050P02	.12	50			
17F1603	154K050P02	.15	50			
17F1604	184K050P02	.18	50			
17F1605	224K050P02	.22	50			
17F1606	274K050P02	.27	50			
17F1607	334K050P02	.33	50			
17F1608	394K050P02	.39	50			
17F1609	474K050P02	.47	50			
17F1610	564K035P02	.56	35	.66	.50	.33
17F1611	684K035P02	.68	35			
17F1612	824K035P02	.82	35			
17F1613	105K020P02	1.0	20			
17F1614	125K020P02	1.2	20			
17F1615	155K020P02	1.5	20			
17F1616	185K020P02	1.8	20			
17F1617	225K020P02	2.2	20			
17F1618	275K015P02	2.7	15			
17F1619	335K010P02	3.3	10			
17F1620	395K010P02	3.9	10			
17F1621	475K010P02	4.7	10			
17F1622	565K010P02	5.6	10			
17F1623	685K010P02	6.8	10			
17F1624	825K006P02	8.2	6			
17F1625	106K006P02	10	6			
17F1626	126K006P02	12	6			
17F1627	156K003P02	15	3			
17F1628	186K003P02	18	3			

TIM TYPE

Mallory TIM capacitors are solid electrolytic tantalum types in rectangular cases. .228" w.x. .345" h.x. th. Tinned #24 AWG wire leads. Total lead length is 1½" ±¼".

Stock No.	Type Tim—	Mfd.	WV DC	1-99	100-249	500-up
17F1629	823K050POW	.082	50	1.18	.89	.59
17F1630	124K050POW	.12	50			
17F1631	154K050POW	.15	50			
17F1632	184K050POW	.18	50			
17F1633	224K050POW	.22	50			
17F1634	274K050POW	.27	50			
17F1635	334K050POW	.33	50			
17F1636	394K050POW	.39	50			
17F1637	474K050POW	.47	50			
17F1638	564K050POW	.56	50			
17F1639	684K050POW	.68	50			
17F1640	824K035POW	.82	35	.72	.55	.36
17F1641	105K035POW	1.0	35			
17F1642	125K035POW	1.2	35			
17F1643	155K020POW	1.5	20			
17F1644	185K020POW	1.8	20			
17F1645	225K020POW	2.2	20			
17F1646	275K015POW	2.7	15			
17F1647	335K015POW	3.3	15			
17F1648	395K015POW	3.9	15			
17F1649	475K010POW	4.7	10			
17F1650	565K010POW	5.6	10			
17F1651	685K010POW	6.8	10			
17F1652	825K006POW	8.2	6			
17F1653	106K006POW	10	6			
17F1654	126K003POW	12	3			

WET-SLUG TANTALUM CAPACITORS

Type TAP. Tantalum Capacitors possess extremely long operational life. Operating temp. —55° to +85°C. DC leakage is less than 1 microamp after 10 min. of rated voltage. Employs intered anode wet-slug construction and are furnished in metal cases with precision formed epoxy end seals. Tol., —15% to +75% Axial leads 1½" tinned for easy soldering.

Stk. No.	TAP Type	Cap. Mfd.	WVDC +85°C	Case Size	Price Code
14F442	TAP306U006POA	30	6	.228 x .500	A
14F091	TAP147U006POB	140	6	.228 x .660	B
14F441	TAP206U010POA	20	10	.228 x .500	A
14F090	TAP107U010POB	100	10	.228 x .660	B
14F089	TAP706U015POB	70	15	.228 x .660	B
14F438	TAP106U025POA	10	25	.228 x .500	A
14F437	TAP805U030POA	8	30	.228 x .500	A
14F088	TAP406U030POB	40	30	.228 x .660	B
13F871	TAP705U035POA	7	35	.228 x .500	A
14F436	TAP605U040POA	6	40	.228 x .500	A
14F435	TAP505U050POA	5	50	.228 x .500	B
14F086	TAP256U050POB	25	50	.228 x .660	A
14F434	TAP405U060POA	4	60	.228 x .500	B
14F432	TAP205U090POA	2	90	.228 x .500	A
14F083	TAP116U090POB	11	90	.228 x .660	B

TAP Prices

Case Size	1-24	25-49	50-99	100-499	500-999
A	1.46	1.17	0.99	0.84	0.766
B	2.46	1.97	1.66	1.415	1.29

Type TNT. Subminiature Tantalum Capacitors have the largest capacity per unit volume available. Operating temp. —55° to +85°C. DC leakage is less than 1 microamp after 10 min. of rated voltage. Tol., —15% to +75%. Leads withstand 5 sec., 3 lb. axial pull. Axial leads 1½" tinned for easy soldering.

Stk. No.	TNT Type	Cap. Mfd.	WVDC +85°C	Case Size	Price Code
14F494	TNT406U003POA	40	3	.152 x .325	A
14F449	TNT806U003POB	80	3	.152 x .475	B
14F495	TNT256U006POA	25	6	.152 x .325	A
14F448	TNT506U006POB	50	6	.152 x .475	B
14F869	TNT356U012POB	35	12	.152 x .475	B
14F496	TNT126U015POA	12	15	.152 x .325	A
14F447	TNT256015POB	25	15	.152 x .475	B
14F446	TNT156P030POB	15	30	.152 x .475	B
14F497	TNT605U035POA	6	35	.152 x .325	A
13F870	TNT126U035POB	12	35	.152 x .475	B
14F490	TNT205U050POA	2	50	.152 x .325	A
14F498	TNT405050POA	4	50	.152 x .325	A
14F445	TNT805U050POB	8	50	.152 x .475	B

TNT Prices

Case Size	1-24	25-49	50-99	100-499	500-499
A	1.24	0.99	0.84	0.714	0.651
B	1.46	1.17	0.99	0.84	0.766

HC CAPACITORS

Plastic case electrolytics for high-capacity, low-voltage applications such as dry disc rectifier filters, movie equipment, etc. All are polarized. Two screw terminals. 10 oz.

Stk. No.	Type	Mfd.	WV	Size	1-9	10-24	25-49	50-99
14F100	HC1020A	2000	10	1 7/16x2 3/4	3.36	2.88	1.68	1.30
14F101	HC1040A	4000	10	1 7/16x3 3/8	4.60	3.95	2.30	1.78
14F102	HC1060A	6000	10	1 1/2x4 1/8	5.20	4.46	2.60	2.00
14F197	HC10100	10000	10	2 1/16x4 3/8	7.82	6.70	3.90	3.02
14F103	HC1520A	2000	15	1 7/16x2 3/4	3.47	2.97	1.74	1.34
14F104	HC1540A	4000	15	1 7/16x4 3/8	5.37	4.61	2.69	2.07
14F105	HC1560A	6000	15	1 13/16x3 3/8	5.62	4.82	2.81	2.17
17F1700	HC2050-50	25,000	20	2 1/16x4 3/8	8.00	6.86	4.00	3.09
14F294	HC2060	6000	20	2 1/16x4 3/8	6.60	5.66	3.30	2.55
14F295	HC2060A	6000	20	1 13/16x4 3/8	6.11	5.24	3.05	2.36

Stk. No.	Type	Med.	WV	Size	1-9	10-24	25-49	50-99
17F1701	HC20250	25,000	20	3x4 1/8	12.88	11.04	6.44	4.96
14F106	HC2510A	1000	25	1 7/16x2 3/4	3.19	2.73	1.59	1.23
14F107	HC2520A	2000	25	1 7/16x3 3/8	4.15	3.56	2.07	1.60
14F108	HC2540A	4000	25	1 13/16x3 3/8	5.58	4.79	2.79	2.15
14F296	HC4040	4000	40	2 1/16x4 3/8	7.54	6.48	3.77	2.91
14F297	HC4040A	4000	40	1 13/16x4 3/8	6.98	6.00	3.49	2.69
14F298	HC5040	4000	50	2 1/16x4 3/8	7.32	6.27	3.66	2.82
14F109	HC5005A	500	50	1 7/16x2 3/4	3.33	2.85	1.66	1.28
14F110	HC5010A	1000	50	1 7/16x3 3/8	4.25	3.65	2.13	1.64
14F111	HC5020A	2000	50	1 13/16x3 3/8	5.06	4.34	2.53	1.95
14F997	HC15010	1000	150	2 1/16x4 3/8	6.89	5.96	3.45	2.68
14F112	HC15010A	1000	150	1 13/16x4 3/8	6.44	5.52	3.22	2.48
17F1702	HC15010A	1000	150	1 13/16x3 3/8	6.44	5.52	3.22	2.48
17F1703	HC20005	500	200	2 1/16x4 3/8	5.97	5.12	2.99	2.30
14F113	HC20005A	500	200	1 13/16x3 3/8	5.53	4.74	2.77	2.13
14F114	HC45003	300	450	2 1/16x4 3/8	8.47	7.26	4.24	3.27
17F1704	HC45003	300	450	2 1/16x4 3/8	8.47	7.26	4.24	3.27

TYPE NP NON-POLARIZED HIGH CAP ELECTROLYTICS

Stk. No.	Type	Mfd.	WV	Size	1-9	10-24	25-49	50-99
14F135	NP1225A	200	125	1 7/16x3 3/8	4.04	3.47	2.02	1.56
14F137	NP1235A	300	125	1 13/16x3 3/8	4.87	4.17	2.43	1.88
14F136	NP1255A	500	125	1 13/16x4 3/8	6.30	5.40	3.15	2.42
14F138	NP3003A	15	300	1 7/16x2 3/4	2.87	2.46	1.44	1.11

Stk. No.	Type	Med.	WV	Size	1-9	10-24	25-49	50-99
26F989	NP3008	50	300	1 7/16x3 3/8	5.25	4.50	2.63	2.03
14F134	NP3025	200	300	2 1/16x4 3/8	7.00	6.00	3.50	2.70
14F131	NP4505	50	450	1 13/16x3 3/8	6.30	5.40	3.15	2.42
14F132	NP4510	100	450	2 1/16x4 3/8	7.70	6.60	3.85	2.97

MALLORY Electrolytic Capacitors

FP AND WP CAPACITORS

Vertical mounting dry electrolytics for all filter and audio by-pass circuits, and TV applications. All types include deep etched anodes and etched cathodes. All hermetically sealed in aluminum cases. Can is negative; separate positive terminals provided for each section. With mounting washers. Shipping weight, 6 oz.

SIZE CHART

Key Size	Key Size	Key Size	Key Size
A 3/4 x 2	E 1 x 2	I 1 3/8 x 2 1/2	N 1 3/8 x 4
B 1 x 2 1/2	F 1 x 1 3/4	J 1 3/8 x 3 1/2	
C 1 x 3	G 1 3/8 x 3	K 1 3/8 x 1 3/4	
D 1 x 1 1/2	H 1 3/8 x 2		

SINGLE SECTION

Stock No.	Type	Mfd.	WV	Size	1-9	10-24	25-49	50-99	100-249
14F216	WP039A	1000	15	D	1.56	1.20	.90	.70	.56
14F217	WP041A	2000	15	H	2.35	1.82	1.36	1.06	.85
14F243	WP042A	3000	15	H	2.92	2.25	1.69	1.31	1.05
60F2105	FP04206	10000	15	J	6.66	5.13	3.85	2.99	2.39
14F213	WP055A	100	25	D	1.14	.88	.66	.51	.41
14F214	WP057A	500	25	D	1.35	1.04	.78	.61	.48
14F215	WP059	1000	25	H	1.90	1.46	1.10	.85	.68
60F2106	FP060.2	2000	25	K	2.56	1.96	1.48	1.15	.92
60F2107	FP060.4	4000	25	G	3.93	3.02	2.27	1.76	1.41
60F2108	FP060.6	5000	25	J	4.63	3.56	2.67	2.08	1.66
14F212	WP065	500	50	H	1.74	1.34	1.00	.78	.62
14F245	WP068	1500	50	G	2.70	2.08	1.56	1.21	.97
60F2110	FP070	2000	50	J	3.22	2.48	1.86	1.44	1.16
14F211	FP116A	100	150	D	1.34	1.02	.77	.60	.48
14F247	FP117A	150	150	E	1.49	1.14	.86	.67	.53
14F971	FP118A	200	150	H	1.88	1.45	1.09	.85	.68
14F248	FP119A	300	150	H	2.17	1.67	1.25	.97	.78
14F972	FP140.6A	150	350	I	2.64	2.03	1.52	1.18	.95
14F251	FP137A	50	350	E	1.49	1.15	.86	.67	.53
14F252	FP138A	80	350	H	2.00	1.54	1.16	.90	.72
14F209	FP140A	125	350	I	2.41	1.86	1.39	1.08	.87
14F203	FP142	10	450	A	1.05	.81	.61	.47	.38
14F205	FP144	20	450	F	1.31	1.01	.76	.59	.47
14F207	FP146	40	450	B	1.58	1.22	.91	.71	.57
14F208	FP149	80	450	I	2.37	1.82	1.37	1.06	.87
14F973	FP150	100	450	I	2.68	2.06	1.54	1.20	.95
14F291	FP187	90	500	I	2.94	2.26	1.70	1.32	1.06

DUAL SECTION

Stock No.	Type	Mfd.	WV	Size	1-9	10-24	25-49	50-99	100-249
14F229	WP200	1000-1000	15-15	H	2.48	1.91	1.43	1.11	.89
14F241	FP208A	20-20	150-150	D	1.31	1.01	.76	.59	.47
14F977	FP216.2A	80-40	150-150	F	1.55	1.19	.90	.70	.56
14F292	FP216.4A	200-200	150-150	I	2.66	2.05	1.54	1.20	.96
14F227	FP221A	40-40	250-250	F	1.63	1.26	.95	.72	.58
14F256	FP227A	20-20	350-350	E	1.55	1.19	.90	.70	.557
14F219	FP231A	10-10	450-450	F	1.46	1.23	.85	.66	.53
14F220	FP234A	20-20	450-450	B	1.74	1.34	1.00	.78	.62
14F222	FP238A	40-40	450-450	I	2.54	1.96	1.47	1.14	.91
14F223	FP240	50-50	450-450	G	1.67	2.31	1.73	1.35	1.08
14F980	FP258	15-15	475-475	B	2.96	1.29	.97	.75	.60
14F262	FP288A	40-40	500-500	I	2.96	2.28	1.71	1.33	1.07

TRIPLE SECTION

14F267	FP311.2A	20-20-20	150-150-150	D	1.51	1.17	.88	.68	.54
14F263	FP311.5A	40-40-40	150-150-150	F	1.69	1.30	.98	.76	.61
14F986	FP311.7	80-40-20	150-150-150	H	2.02	1.56	1.17	.91	.73
14F270	FP345.8	20-20-20	450-450-25	B	1.91	1.47	1.10	.86	.69
14F271	FP346A	40-40-20	450-450-25	G	2.75	2.12	1.59	1.24	.99
14F275	FP375.8	10-10-10	450-450-450	B	1.75	1.35	1.01	.79	.63
14F278	FP376.5A	20-20-20	450-450-450	H	2.44	1.88	1.41	1.10	.88
14F279	FP376.8A	40-40-10	450-450-450	I	2.86	2.20	1.65	1.28	[illegible]
14F234	FP377.1A	40-40-40	450-450-450	G	3.28	2.53	1.89	1.47	1.18
14F235	FP378	80-40-20	450-450-450	N	3.58	2.75	2.07	1.61	1.29
14F231	FP394A	10-10-10	475-475-475	B	1.83	1.41	1.06	.82	.66
14F280	FP398A	10-40-40	500-450-450	I	2.91	2.24	1.68	1.31	1.05

QUADRUPLE SECTION

Working volts: 450-450-450-450 except G which is 450-450-350-350.

Stock No.	Type	Mfd.	Size	1-9	10-24	25-49	50-99	100-249
14F996	FP428.4A	40-40-30-30	J	3.42	2.63	1.98	1.54	1.23
14F239	FP434	10-10-10-10	H	2.27	1.75	1.31	1.02	.82
14F289	FP434.5	20-10-10-10	H	2.41	1.85	1.39	1.08	.87
14F240	FP444A	20-20-20-20	I	2.86	2.21	1.65	1.29	1.03
14F283	FP447A	40-40-20-20	J	3.42	2.64	1.98	1.54	1.23
14F990	FP447.5A	40-40-30-30	J	3.71	2.86	2.14	1.67	1.33

METAL TUBULAR DRY ELECTROLYTIC CAPACITORS

TC Electrolytic with Mylar Sleeve. Single section capacitor with clear mylar insulating sleeve. Sizes shown are for base can, without sleeve. More capacitance and voltage in a smaller sized can. Tol. —10%+100%. Temp. rating; up to 85 C. (*) Includes mounting strap. 4 oz.

Temp. Range

1. —40 C to +85 C
2. —30 C to +85 C
3. —20 C to +65 C
4. —55 C to +85 C

Stock No.	Type	Mfd.	Voc	Can Size	1-24	25-49	50-99	100-249	250-499
16F1684	TC1205	500	12	5/8x1 1/16	1.02	.74	.59	.48	.43
16F1685	TC1210	1000	12	5/8x1 13/16	1.35	.97	.75	.68	.66
16F1686	TC1215	1500	12	3/4x1 9/16	1.42	.98	.77	.62	.60
16F1687	TC1220	2000	12	3/4x2 1/16	1.62	1.19	1.04	.87	.71
16F1688	TC15025	250	15	1/2x1 5/16	.93	.70	.58	.45	.38
14F153	TC1505A	500	15	5/8x1 5/16	1.05	.80	.63	.52	.42
14F443	TC1501A	1000	15	3/4x1 9/16	1.38	1.07	.83	.67	.54
16F1689	TC1520A*	2000	15	7/8x1 13/16	1.65	1.25	.95	.78	.67
16F1690	TC22A	10	25	1/4x5/8	.60	.43	.33	.26	.22
16F1691	TC26A	25	25	5/16x3/4	.60	.43	.35	.28	.23
16F1692	TC29A	50	25	3/8x7/8	.67	.47	.36	.30	.24
14F157	TC2501A	100	25	3/8x1 3/8	.80	.57	.45	.35	.30
16F1693	TC25025	250	25	5/8x1 1/16	1.02	.79	.63	.50	.42
16F1694	TC2505B	500	25	3/4x1 9/16	1.35	1.0[illegible]	.83	.66	.55
16F1695	TC2510*	1000	25	7/8x1 13/16	1.98	1.17	.91	.77	.60
16F1696	TC2515*	1500	25	7/8x2 1/16	2.35	1.76	1.35	1.06	.90
16F1697	TC2520*	2000	25	1x2 11/16	2.73	1.58	1.23	.98	.81
16F1698	TC31	1	50	1/4x5/8	.54	.39	.31	.25	.28
16F1699	TC32A	10	50	5/16x3/4	.60	.43	.33	.27	.22
14F163	TC36A	25	50	3/8x7/8	.64	.44	.35	.28	.23
14F164	TC39A	50	50	3/8x1 3/8	.72	.52	.40	.33	.28
14F165	TC3501A	100	50	5/8x1 9/16	.83	.61	.47	.40	.31
16F1700	TC50015A	150	50	5/8x1 9/16	.90	.64	.51	.40	.35
14F185	TC50025A	250	50	3/4x1 9/16	1.00	.78	.62	.48	.43
16F1701	TC50050A*	500	50	1x1 9/16	1.40	1.06	.83	.60	.50
16F1702	TC50100A*	1000	50	1x2 11/16	1.90	1.30	1.04	.82	.64
14F166	TC40A	5	150	5/16x3/4	.60	.43	.34	.27	.22
14F168	TC42A	10	150	3/8x1	.64	.47	.37	.29	.24
14F170	TC45A	20	150	3/8x1 3/8	.72	.51	.39	.32	.27
14F171	TC47A	30	150	5/8x1 1/16	.79	.55	.43	.35	.30
14F172	TC48A	40	150	3/4x1 1/16	.82	.59	.45	.36	.31
14F173	TC49A	50	150	5/8x1 9/16	.84	.60	.47	.38	.32
16F1703	TC492A	80	150	3/4x1 9/16	.95	.67	.54	.43	.37
16F1704	TC493A	100	150	3/4x1 13/16	1.05	.75	.58	.47	.40
14F175	TC495A*	150	150	1x1 5/16	1.13	.81	.64	.48	.43
16F1705	TC496A*	200	150	1x1 9/16	1.32	.93	.74	.69	.47
16F1706	TC499A*	300	150	1x2 1/16	1.63	1.21	.96	.84	.64
26F990	TC50XA	5	250	1/2x1 1/16	.69	.49	.37	.31	.26
16F1707	TC51A	8	250	5/8x1 1/16	.70	.53	.41	.33	.28
16F1708	TC52A	10	250	5/8x1 1/16	.72	.56	.43	.35	.29
16F1709	TC55A	20	250	5/8x1 5/16	.82	.64	.51	.40	.34
16F1710	TC58A	40	250	3/4x1 9/16	.94	.69	.55	.43	.39
16F1711	TC59A	50	250	3/4x1 9/16	1.02	.74	.59	.48	.43
16F1712	TC1265A*	100	250	7/8x2 1/16	1.47	.97	.75	.60	.50
16F1713	TC60A	5	350	5/8x1 1/16	.65	.48	.39	.33	.28
16F1714	TC62A	10	350	5/8x1 9/16	.75	.59	.46	.36	.31
14F024	TC65A	20	350	3/4x1 9/16	.87	.65	.53	.42	.36
26F991	TC68A	60	350	7/8x2 11/16	1.17	.87	.66	.57	.48
16F1715	TC69A	100	350	1x2 11/16	1.82	1.10	.80	.73	.67
14F176	TC70A	5	450	5/8x1 5/16	.72	.52	.40	.34	.29
14F177	TC71A	8	450	3/4x1 9/16	.75	.56	.45	.37	.32
14F178	TC72A	10	450	3/4x1 9/16	.77	.59	.47	.37	.33
14F179	TC74A	16	450	7/8x1 9/16	.84	.64	.52	.41	.36
14F180	TC75A	20	450	7/8x1 9/16	.98	.70	.58	.45	.39
16F1716	TC77A	30	450	1x1 13/16	1.02	.79	.63	.50	.42
14F182	TC78A	40	450	1x2 1/16	1.08	.83	.65	.51	.44
16F1717	TC805A	100	450	1 3/8x2 13/16	1.82	1.33	1.10	.90	.85

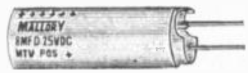
MTA PRICES

Price Code	1-24	25-49	50-99	100-249	250-499	500-999	100-Up
A	.36	.27	.24	.202	.179	.150	.130
B	.40	.30	.26	.220	.195	.164	.142
C	.45	.34	.30	.252	.222	.188	.162
D	.51	.38	.33	.270	.248	.209	.181
E	.54	.40	.35	.296	.262	.222	.191
F	.57	.43	.37	.315	.279	.235	.203

MOLDED ALUMINUM ELECTROLYTICS

Molded polypropelene cases provides exce
tion as well as positive electrotyte seal.
MTV has two #20 AWG leads 1/2" long
Both types rated for operation from —30°
—10%+100%. DCL: less than .03 ua/ mf–

MTA



MTV

TYPE MTA — AXIAL LEADS

Stock No.	Type MTA-	Mfd.	WV DC		Price Code
17F1753	50E15	50	15	3/8 x 1"	B
26F956	100E15	100	15	1/2 x 1 3/8"	B
17F1754	250F15	250	15	1/2 x 1 3/8"	D
26F958	350F15	350	15	5/16 x 3/4"	F
26F959	25D20	25	20	1/2 x 1 3/8"	A
26F962	250F20	250	20	3/8 x 1"	F
26F963	50E25	50	25	1/2 x 1 3/8"	B
26F965	200F25	200	25	5/16 x 3/4"	F
17F1755	10D35	10	35	3/8 x 1"	A
26F968	25E35	25	35	1/2 x 1 3/8"	B
26F972	100F35	100	35	5/16 x 3/4"	D
26F974	150F35	150	35	3/8 x 1"	F
26F975	1D50	1	50	1/2 x 1 3/8"	A
26F976	2D50	2	50	1/2 x 1 3/8"	A
26F977	5D50	5	50	5/16 x 3/4"	A
26F978	10E50	10	50	3/8 x 1"	B
26F981	25F50	25	50	1/2 x 1 3/8"	C
26F982	30F50	30	50	1/2 x 1 3/8"	C
26F985	50F50	50	50	1/2 x 1 3/8"	C
26F988	80F50	80	50	1/2 x 1 3/8"	E
17F1746	175E3	175	3	1/2 x 1 3/8"	C
17F1747	600F3	600	3	1/2 x 1 3/8"	C
17F1748	50D6	50	6	5/16 x 3/4"	A
17F1749	150E6	150	6	3/8 x 1"	B
17F1750	500F6	500	6	1/2 x 1 3/8"	D
26F950	40D10	40	10	5/16 x 3/4"	A
17F1751	100E10	100	10	3/8 x 1"	B
17F1752	200F10	200	10	1/2 x 1 3/8"	C
26F951	400F10	400	10	1/2 x 1 3/8"	E
26F952	30D15	30	15	5/16 x 3/4"	A

TYPE MTV — PRINTED CIRCUIT

Stk. No.	Type MTV-	Mfd.	WV DC	Price Code	Size
17F1756	150CD3	150	3	B	3/8 x 15/16
17F1757	200CF3	200	3	C	3/8 x 1 1/16
17F1758	300CK3	300	3	C	3/8 x 1 5/16
17F1759	700DJ3	700	3	E	1/2 x 1 1/4
17F1760	1000DN3	1000	3	F	1/2 x 1 1/2
17F1761	100CB6	100	6	B	3/8 x 13/16
17F1762	150CF6	150	6	B	3/8 x 1 1/16
17F1763	250CK6	250	6	C	3/8 x 1 5/16
17F1764	400DE6	400	6	C	1/2 x 1
17F1765	500DJ6	500	6	D	1/2 x 1 1/4
17F1766	800DN6	800	6	F	1/2 x 1 1/2
17F1767	100CD10	100	10	B	3/8 x 15/16
17F1768	250CP10	250	10	C	3/8 x 1 9/16
17F1769	400DJ10	400	10	E	1/2 x 1 1/4
17F1770	600DN10	600	10	F	1/2 x 1 1/2
17F1771	50CB15	50	15	B	3/8 x 13/16
17F1772	100CF15	100	15	B	3/8 x 1 1/16
17F1773	150CK15	150	15	C	3/8 x 1 5/16
17F1774	250DE15	250	15	D	1/2 x 1
17F1775	500DN15	500	15	F	1/2 x 1 1/2
17F1776	50CD25	50	25	B	3/8 x 15/16
17F1777	100CP25	100	25	C	3/8 x 1 9/16
17F1778	250DN25	250	25	F	1/2 x 1 1/2
17F1779	25CB35	25	35	B	3/8 x 13/16
17F1790	50CF35	50	35	C	3/8 x 1 1/16
17F1780	100DE35	100	35	D	1/2 x 1
17F1781	150DJ35	150	35	F	1/2 x 1 1/4
17F1782	200DN35	200	35	F	1/2 x 1 1/2
17F1783	1CB50	1	50	A	3/8 x 13/16
17F1784	2CB50	2	50	A	3/8 x 13/16
17F1785	5CB50	5	50	A	3/8 x 13/16
17F1786	10CB50	10	50	B	3/8 x 13/16
17F1787	25CF50	25	50	C	3/8 x 1 1/16
17F1788	50DE50	50	50	C	1/2 x 1
17F1789	100DN50	1000	50	F	1/2 x 1 1/2

Price Code	1-24	25-49	50-99	100-249	250-499	500-999	1000
A	.40	.30	.26	.220	.195	.164	.143
B	.42	.32	.27	.230	.206	.173	.150
C	.48	.36	.31	.267	.237	.199	.172
D	.54	.40	.36	.283	.262	.222	.191
E	.56	.42	.37	.313	.277	.233	.201
F	.60	.45	.40	.331	.292	.247	.213

HARDWARE FOR CAPACITORS


A


B


C


D


E


F


G

MOUNTING PLATES

For mounting "Twist-Prong" capacitors.
*For mounting 1" FP's in chassis punches for 1 3/8" wafer.
†Mount 1" dia. can over a 1 3/8" dia. hole.

FIG. A METAL Stk. No.	Size	FIG. B PHENOLIC Stk. No.	Size	1-99	100-999	1000-Up
14F400	3/4"	14F403	3/4"	.09	.07	.05
14F401	1"	14F404	1"			
14F402	1 1/8"†	14F405	1"*			
		14F406	1 3/8"†			

MOUNTING SOCKETS—Fig. C

Stk. No.	Size, In.	1-24	25-49	50-99	100-249
29F549	1	.52	.42	.35	.28
29F550	1 3/8	.76	.61	.51	.41

CLIPS—Fig. D

Stock No.	Size, in.	1-99	100-999	1000-up
14F414	3/8 x 7/16	.12	.10	.08
14F415	1/2 x 9/16	.12	.10	.08
14F416	5/8 x 11/16	.12	.10	.08
14F417	3/4 x 13/16	.15	.11	.09
14F418	7/8 x 15/16	.15	.11	.09
14F419	1 x 1 1/16	.15	.11	.09
14F420	1 3/8 x 1 7/16	.15	.11	.09

CLAMPS — Fig. E

Stock No.	Size, in.	1-99	100-999	1000-up
14F409	1 x 1 1/16	.15	.12	.10
14F410	1 3/8 x 1 7/16	.18	.15	.13
14F411	1 1/2 x 1 9/16	.18	.15	.13
14F412	1 3/4 x 1 13/16	.24	.20	.16
14F413	2 x 2 1/16	.11	.14	.12
60F2292	2 1/2 x 2 9/16	.21	.18	.15
60F2113	3	.39	.35	.32

FIBER INSULATING SLEEVES—Fig. F

For Twist-Prong capacitors. Closed end. Weight 2 oz.

Stock No.	Size	1-99	100-999	1000-up
14F422	3/4 x 2"	.09	.07	.05
14F423	1 x 2"			
14F424	1 x 3"			
14F425	1 3/8 x 2"			
14F426	1 3/8 x 3"			
14F427	1 x 2 1/2"			
14F428	1 x 4"			
14F429	1 3/8 x 2 1/2"			
14F430	1 3/8 x 4"			
60F2114	1 x 3 1/2"			
60F2115	1 3/8 x 3 1/2"			
60F2116	1 x 1 3/4"			
60F2117	3/4 x 1 1/2"			

MOUNTING WRENCH—Fig. G

For locking "Twist-Prong" electrolytic capacitors securely into position. Shipping weight, 1 lb.
14F421 .... 1.05

MALLORY Capacitors

COMPUTER GRADE ELECTROLYTIC CAPACITORS

- Pressure sensitive safety vent construction.
- May be operated —20° to +85°C.

Computer grade capacitors; may be operated —40°C to +85°C. Max. DC leakage current is .0- square root of CV, where C=measured capacity, V=rated DC voltage. Dissipation factor =ESR/Xc. Tolerance: —10, +75% for 0-150 volt units; —10, +50% for 151-450 volt units. Supplied with Mylar insulating sleeve and 7/32" long post terminals with #10-32 screws. Sizes do not include terminals or sleeve; Lug terminals, special capacitances, working voltages, and sizes available on special order.

Stk. No.	Type	Mfd.	WV DC	DxL In.	1-49	50-99	100-up
26F434	CG363U3D1	36,000	3	3 x 5 5/8	4.41	3.47	2.84
17F1727	CG54U3E1	50,000	3	2 33/64 x 4 9/64	5.65	4.44	3.63
17F1729	CG115U3G1	115,000	3	3 1/64 x 5 41/64	8.63	6.78	5.55
26F646	CG2752U5D1	27,500	5	2 x 4 1/8	4.60	3.61	2.96
60F2134	CG15U5G1	100,000	5	3 x 5 5/8	9.39	7.38	6.03
17F1730	CG63U10B1	6,000	10	1 25/64 x 3 9/64	2.37	1.87	1.53
26F425	CG822U10C1	8,200	10	1 3/8 x 4 1/8	2.84	2.23	1.82
17F1731	CG14U10H1	10,000	10	1 49/64 x 3 9/64	3.15	2.48	2.03
26F428	CG1352V10K1	13,500	10	2 x 3 1/8	3.72	2.92	2.39
26F430	CG183U10D1	18.000	10	3 x 4 1/8	4.59	3.61	2.96
17F1732	CG34U10E1	30,000	10	2 33/64 x 4 9/64	6.61	5.20	4.25
26F436	CG683U10G1	68,000	10	3 x 5 5/8	9.66	7.59	6.21
26F635	CG252U15A1	2,500	15	1 3/8 x 2 1/4	1.97	1.55	1.27
26F642	CG642U15G1	6,400	15	1 3/8 x 4 1/8	2.69	2.11	1.73
17F1733	CG83U15H1	8,000	15	1 49/64 x 3 9/64	3.07	2.41	1.97
26F644	CG1052U15K1	10,500	15	2 x 3 1/8	3.38	2.66	2.17
26F615	CG143U15D1	14,000	15	2 x 4 1/8	4.47	3.51	2.88
17F1734	CG233U15E1	23,000	15	2 33/64 x 4 9/64	6.32	4.97	4.06
26F433	CG343U15F1	34,000	15	2 x 4 1/8	7.11	5.59	4.57
26F435	CG533U15G1	53,000	15	2 x 4 1/8	9.30	7.30	5.98
26F631	CG152U25A1	1,500	25	1 3/8 x 2 1/2	1.72	1.35	1.11
17F1735	CG282U25B1	2,800	25	1 25/64 x 3 9/64	2.12	1.67	1.36
26F639	CG382U25C1	3,800	25	1 3/8 x 4 1/8	2.60	2.05	1.67
17F1736	CG452U25H1	4,500	25	1 49/64 x 3 9/64	2.77	2.18	1.78
26F641	CG63U25K1	6,000	25	2 x 3 1/8	3.23	2.54	2.08
26F427	CG852U25D1	8,500	25	2 x 4 1/8	3.90	3.07	2.51
17F1737	CG1352U25E1	13,500	25	2 33/64 x 4 9/64	5.99	4.70	3.85
26F431	CG24U25F1	20,000	25	3 x 5 5/8	6.55	5.15	4.21
26F432	CG3152U25G1	31,500	25	3 x 4 1/8	8.78	6.90	5.64
17F1738	CG212U35B1	2,100	35	1 25/64 x 3 9/64	2.16	1.70	1.39
17F1739	CG312U35C1	3,100	35	1 25/64 x 4 9/64	3.04	2.40	1.96
17F1740	CG362U35H1	3,600	35	1 49/64 x 3 9/64	3.21	2.52	2.07
17F1741	CG472U35K1	4,700	35	2 1/64 x 3 9/64	3.46	2.73	2.23
17F1742	CG113U35E1	11,000	35	2 33/64 x 4 9/64	6.42	5.05	4.14
26F630	CG82U50A1	800	50	1 3/8 x 2 1/4	1.74	1.37	1.12
17F1743	CG152U50B1	1,500	50	1 25/64 x 4 9/64	2.05	1.62	1.32
26F633	CG23U50C1	2,000	50	1 3/8 x 4 1/8	2.29	1.80	1.47
17F1744	CG252U50H1	2,500	50	1 49/64 x 3 9/64	2.52	1.98	1.62
60F2130	CG332U50K1	3,300	50	2 x 3 1/8	3.25	2.56	2.09
26F424	CG452U50D1	4,500	50	2 x 4 1/8	3.47	2.72	2.23
17F1745	CG732U50E1	7,300	50	2 33/64 x 4 9/64	5.33	4.19	3.42
60F2133	CG14U50F1	10,000	50	3 x 4 1/8	6.70	5.27	4.30
26F429	CG1652U50G1	16,500	50	3 x 5 5/8	9.20	7.23	5.91
26F628	CG62U75A1	600	75	1 3/8 x 2 1/4	2.01	1.58	1.30
17F1715	CG13U75B1	1,000	75	1 25/64 x 3 9/64	2.35	1.85	1.51
26F632	CG152U75C1	1,500	75	1 3/8 x 4 1/8	2.84	2.23	1.82
17F1716	CG23U75H1	2,000	75	1 49/64 x 3 9/64	3.09	2.43	1.98
26F636	CG252U75K1	2,500	75	2 x 3 1/8	3.70	2.90	2.38
26F421	CG3451U75D1	3,450	75	1 3/8 x 4 1/8	4.03	3.17	2.59

Stk. No.	Type	Mfd.	WV DC	DxL In.	1-49	50-99	100-up
17F1717	CG552U75E1	5,500	75	2 33/64 x 4 9/64	6.40	5.04	4.12
26F643	CG822U75F1	8,200	75	3 x 4 1/8	7.25	5.70	4.66
60F2132	CG1252U75G1	12,500	75	3 x 5 5/8	9.45	7.42	6.08
60F2123	CG42U100A1	100	100	1 3/8 x 2 1/4	2.01	1.58	1.30
17F1718	CG751U100B1	750	100	1 25/64 x 3 9/64	2.38	1.86	1.53
60F2126	CG13U100C1	1,000	100	1 3/8 x 4 1/8	2.73	2.15	1.76
17F1719	CG132U100H1	1,300	100	1 49/64 x 3 9/64	2.99	2.35	1.92
60F2128	CG1651U100K1	1,650	100	2 x 3 1/8	3.17	2.49	2.04
26F419	CG2251U100D1	2,250	100	2 x 4 1/8	4.12	3.23	2.64
17F1720	CG362U100E1	3,600	100	2 33/64 x 4 9/64	6.03	4.74	3.88
26F640	CG532U100F1	5,300	100	2 x 4 1/8	6.74	5.30	4.33
26F426	CG832U100G1	8,300	100	3 x 5 5/8	9.68	7.61	6.23
26F627	CG2750U150A1	275	150	1 3/8 x 2 1/4	1.63	1.29	1.05
17F1721	CG52U150B1	500	150	1 25/64 x 3 9/64	2.05	1.62	1.32
26F629	CG72U150C1	700	150	1 3/8 x 4 1/8	2.40	1.89	1.54
60F2127	CG112U150K1	1,100	150	2 x 3 1/8	3.13	2.46	2.01
26F416	CG1551U150D1	1,550	150	2 x 4 1/8	4.01	3.15	2.58
17F1722	CG252U150E1	2,500	150	2 33/64 x 4 9/64	5.92	4.65	3.81
26F422	CG362U150F1	3,600	150	2 x 4 1/8	7.08	5.56	4.55
60F2131	CG562U150G1	5,600	150	3 x 5 5/8	9.87	7.76	6.35
60F2119	CG181T200A1	180	200	3/8 x 2 1/4	2.02	1.59	1.30
60F2125	CG451T200C1	450	200	1 3/8 x 4 1/8	2.58	2.03	1.66
17F1723	CG551T200H1	550	200	1 49/64 x 3 9/64	2.86	2.24	1.84
26F414	CG13T200D1	1,000	200	2 x 4 1/8	4.51	3.54	2.90
26F420	CG2451T200F1	2,450	200	3 x 4 1/8	6.83	5.37	4.39
26F423	CG382T200G1	3,800	200	3 x 5 5/8	12.26	9.64	7.88
60F2120	CG141T250A1	140	250	1 3/8 x 2 1/4	2.41	1.90	1.55
17F1724	CG2750T250B1	275	250	1 25/64 x 3 9/64	2.75	2.16	1.76
60F2122	CG3750T250C1	375	250	1 3/8 x 4 1/8	2.99	2.35	1.92
26F413	CG82T250D1	800	250	2 x 4 1/8	4.72	3.71	3.04
26F418	CG192T250F1	1,900	250	3 x 4 1/8	7.60	5.97	4.89
26F638	CG33T250G1	3,000	250	3 x 5 5/8	10.16	8.00	6.53
17F1725	CG3250T300C1	325	300	1 25/64 x 4 9/64	2.85	2.24	1.84
26F412	CG72T300D1	700	300	2 x 4 1/8	4.74	3.72	3.05
26F417	CG1651T300F1	1,650	300	3 x 4 1/8	8.46	6.65	5.44
26F637	CG262T300G1	2,600	300	3 x 5 5/8	10.63	8.35	6.84
60F2121	CG12T350A1	100	350	1 3/8 x 2 1/4	2.43	1.91	1.57
60F2118	CG251T350C1	250	350	1 3/8 x 4 1/8	2.96	2.33	1.90
60F2124	CG42T350K1	400	350	2 x 3 1/8	3.57	2.80	2.30
26F411	CG551T350D1	550	350	2 x 4 1/8	5.10	4.01	3.28
17F1726	CG92T350E1	900	350	2 33/64 x 4 9/64	6.46	5.09	4.16
26F415	CG132T350F1	1,300	350	3 x 4 1/8	8.59	6.75	5.52
26F634	CG23T350G1	2,000	350	3 x 5 5/8	10.63	8.35	6.84
26F626	CG151T400C1	150	400	1 3/8 x 4 1/8	2.96	2.33	1.90
26F410	CG3250T400D1	325	400	2 x 4 1/8	3.80	2.99	2.44
26F624	CG41T450A1	40	450	1 3/4 x 2 1/4	1.80	1.41	1.16
26F625	CG111T450C1	110	450	1 3/8 x 4 1/8	2.73	2.15	1.76
26F409	CG241T450D1	240	450	2 x 4 1/8	3.42	2.69	2.20

PVC MYLAR CAPACITORS

Constructed of aluminum foil and 100% DuPont Mylar. Has radial leads for adaptability to printed circuit applications. Leads can be bent in any manner to accommodate mounting without danger of cracking. Unaffected by soldering iron heat. Can be operated at 105°C and at two times rated voltage with no performance derating. Exceptionally low capacitance drift characteristics. Temp. range: —40°C to +105°C. Tolerance ±10%. Shpg. wt., 2 oz.

Stk. No.	Type	Mfd.	WV DC	L. x H. x T.	1-24	25-49	50-99
60F2146	PVC1122	.022	100	.75 x .34x.22	.17	.13	.10
60F2147	PVC1133	.033	100	.75 x .34x.22	.17	.13	.10
60F2149	PVC1147	.047	100	.75 x .34x.22	.18	.14	.11
60F2150	PVC1156	.056	100	.75 x .38x.25	.20	.16	.12
60F2152	PVC101	.10	100	.75 x .44x.31	.22	.17	.13
60F2153	PVC1015	.15	100	.75 x .69x.34	.27	.20	.16
60F2154	PVC1022	.22	100	.75 x .74x.38	.28	.22	.17
60F2156	PVC1033	.33	100	.75 x .84x.44	.33	.25	.19
60F2157	PVC1047	.47	100	1.125x .75x.38	.38	.29	.23
60F2158	PVC105	.5	100	1.125x .78x.41	.38	.29	.23
60F2161	PVC11	1.0	100	1.125x .94x.56	.60	.45	.36
60F2162	PVC11P5	1.5	100	.78 Dia. x 1.75	.82	.62	.47
60F2163	PVC12	2.0	100	.953Dia. x 1.75	.98	.75	.68
13F888	PVC411	.01	400	.390x .69x.50	.15	.11	.09
13F890	PVC412	.02	400	.390x .85x.69	.15	.11	.09
13F893	PVC415	.05	400	.415x1.15x 969	.21	.15	.11
13F706	PVC405	.5	400	.740Dia. x 1.63	.46	.37	.28
13F790	PUC211	.01	200	75 x .31x.19	.17	.13	.10
13F791	PUC2115	.015	200	.75 x .34x.22	.17	.13	.10
13F792	PVC-212	.02	200	75 x .38 x .25	.17	.13	.10

Stk. No.	Type	Mfd.	WV DC	L. x H. x T.	1-24	25-49	50-99
13F793	PVC-2133	.033	200	.75 x .38 x .25	.17	.13	.10
13F794	PVC214	.04	200	.75 x .38 x .25	.18	.14	.11
13F795	PVC-215	.05	200	.75 x .38 x .25	.18	.14	.12
13F796	PVC-2168	.068	200	.75 x .406x .28	.20	.16	.12
13F797	PVC-201	.10	200	.75 x .72 x .31	.22	.17	.13
60F2243	PVC2122	.022	200	.75 x .38 x .25	.17	.13	.10
60F2244	PVC2147	.047	200	.75 x .38 x .25	.18	.14	.12
60F2245	PVC2015	.15	200	.75 x .78 x .56	.27	.20	.16
60F2246	PVC2022	.22	200	.75 x .84 x .47	.30	.23	.17
06F2247	PVC2025	.25	200	.75 x .91 x .50	.30	.23	.17
60F2248	PVC2033	.33	200	.75 x .97 x .56	.30	.25	.18
60F2249	PVC2047	.47	200	.235x .88 x .50	.38	.29	.23
60F2250	PVC205	.5	200	.125x .906x .53	.38	.29	.23
60F2251	PVC21	1.0	200	75Dia. x 1.75	.66	.49	.39
60F2252	PVC22	2.0	200	984Dia. x 1.88	1.12	.82	.68
60F2254	PVC4147	.047	400	.415x1.15 x .97	.21	.15	.11
60F2255	PVC401	.1	400	.52 x1.18 x .97	.27	.19	.14
60F2256	PVC4022	.22	400	.62 x1.56 x1.34	.27	.23	.18
60F2258	PVC4047	.47	400	.700Dia x 1.63	.72	.52	.41

DEPEND ON NEWARK FOR EVERYTHING IN INDUSTRIAL ELECTRONICS

MALLORY

SERIES MTP

Available in 43 sizes with a capacitance greater than other conventional wet or solid foil capacitor. Oper. temp. —50°C to 85°C Tol., ±20%. Size: A, .115D x .400L; B, .145D x .590L; C, .225D x .775L; D, .115D x .312L.

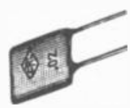
Stock No.	Catalog Number	Mfd.	WDVC	Size	1-9	10-24	25-49	50-99	100-499	500-999
13F314	MTP187M 006P1B	180	6	B	3.11	2.74	2.39	2.06	1.64	1.51
13F315	MTP457M 006P1C	450	6	C	3.62	3.18	2.78	2.39	1.91	1.75
13F316	MTP127M 010P1B	120	10	B	3.11	2.74	2.39	2.06	1.64	1.51
13F317	MTP307M 010P1C	300	10	C	3.62	3.18	2.78	2.39	1.91	1.75
13F318	MTP806M 015P1B	80	15	B	3.11	2.74	2.39	2.06	1.61	1.51
13F319	MTP207M 015P1C	200	15	C	3.62	3.18	2.78	2.39	1.91	1.75
13F320	MTP606M 020P1B	60	20	B	3.11	2.74	2.39	2.06	1.64	1.51
13F321	MTP605M 030P1D	6	30	D	2.57	2.26	1.97	1.69	1.35	1.23
13F322	MTP106M 030P1A	10	30	A	2.59	2.28	1.99	1.71	1.37	1.25
13F323	MTP456M 030P1B	45	30	B	3.11	2.74	2.39	2.06	1.64	1.51
13F324	MTP127M 030P1C	120	30	C	3.62	3.18	2.78	2.39	1.91	1.75
13F325	MTP405M 050P1D	4	50	D	2.57	2.26	1.97	1.69	1.35	1.23
13F326	MTP685M 050P1A	6.8	50	A	2.59	2.28	1.99	1.71	1.37	1.25
13F327	MTP306M 050P1B	30	50	B	3.11	2.74	2.39	2.06	1.64	1.51
13F328	MTP786M 050P1C	78	50	C	3.62	3.18	2.78	2.39	1.91	1.75
60F2136	MTP476M 006P1A	47	6	A	2.59	2.28	1.99	1.71	1.37	1.25
60F2137	MTP477M 006P1C	470	6	C	3.62	3.18	2.78	2.39	1.91	1.75
60F2138	MTP227M 015P1C	220	15	C	3.62	3.18	2.78	2.39	1.91	1.75
60F2139	MTP106M 035P1A	10	35	A	2.59	2.28	1.99	1.71	1.37	1.25
60F2140	MTP107M 035P1C	100	35	C	3.62	3.18	2.78	2.39	1.91	1.75
60F2141	MTP336M 050P1B	33	50	B	3.11	2.74	2.39	2.06	1.64	1.51
60F2142	MTP226M 060P1B	22	60	B	3.11	2.74	2.39	2.06	1.64	1.51

Stock No.	Catalog Number	Mfd.	WDVC	Size	1-9	10-24	25-49	50-99	100-499	500-999
60F2143	MTP336M 060P1C	33	60	C	3.62	3.18	2.78	2.39	1.91	1.75
60F2144	MTP476M 060P1C	47	60	C	3.62	3.18	2.78	2.39	1.91	1.75
60F2260	MTP156M 006P1D	15	6	D	2.57	2.26	1.97	1.69	1.35	1.23
60F2261	MTP157M 006P1B	150	6	B	3.11	2.74	2.39	2.06	1.64	1.51
60F2262	MTP106M 010P1D	10	10	D	2.57	2.26	1.97	1.69	1.35	1.23
60F2263	MTP336M 010P1A	33	10	A	2.59	2.28	1.99	1.71	1.37	1.25
60F2264	MTP107M 010P1B	100	10	B	3.11	2.74	2.39	2.06	1.64	1.51
60F2265	MTP337M 010P1C	330	10	C	3.62	3.18	2.78	2.39	1.91	1.75
60F2266	MTP226M 015P1A	22	15	A	2.59	2.28	1.99	1.71	1.37	1.25
60F2267	MTP686M 015P1B	68	15	B	3.11	2.74	2.39	2.06	1.64	1.51
60F2268	MTP685M 020P1D	6 8	20	D	2.57	2.26	1.97	1.69	1.35	1.23
60F2269	MTP156M 020P1A	15	20	A	2.59	2.28	1.99	1.71	1.37	1.25
60F2270	MTP476M 020P1B	47	20	B	3.11	2.74	2.39	2.06	1.64	1.51
60F2271	MTP157M 020P1C	150	20	C	3.62	3.18	2.78	2.39	1.91	1.75
60F2272	MTP475M 035P1D	4.7	35	D	2.57	2.26	1.97	1.69	1.35	1.23
60F2273	MTP686M 050P1C	68	50	C	3.62	3.18	2.78	2.39	1.91	1.75
60F2274	MTP335M 060P1D	3.3	60	D	2.57	2.26	1.97	1.69	1.35	1.23
60F2275	MTP475M 060P1A	4.7	60	A	2.59	2.28	1.99	1.71	1.37	1.25
60F2276	MTP685M 060P1A	6 8	60	A	2.59	2.28	1.99	1.71	1.37	1.25
60F2277	MTP106M 060P1B	10	60	B	3.11	2.74	2.39	2.06	1.64	1.51
60F2278	MTP156M 060P1B	15	60	B	3.11	2.74	2.39	2.06	1.64	1.51

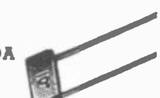
CENTRALAB LOW VOLTAGE CAPACITORS


UK10


UK3


DA


DDA


DM


DF

TYPE UK ULTRA-KAPS

For transistor circuit applications, low voltage use requiring high capacities and low power factors. TOL: (GMV) Rated: 3 VDCW.

Stk. No.	Type	Mfd.	Diam.	1-99	100-199	200-499	500-999	1000-3000	4000-5000
19F395	UK-104	.1	.220	.42	.333	.210	.158	.145	.127
19F396	UK-224	.22	.290	.30	.238	.150	.113	.094	.082
19F397	UK-474	.47	.405	.30	.238	.150	.113	.098	.086
19F398	UK-105	1.0	.590	.36	.285	.180	.135	.125	.110
19F399	UK-225	2.2	.820	.42	.333	.210	.158	.153	.135

TYPE UK10—10 VDCW (Tol. +80 —20%)

Stk. No.	Type	Mfd.	Diam.	1-99	100-199	200-499	500-999	1000-3000	4000-5000
19F276	UK10-503	.05	.290	.18	.143	.09	.068	.060	.053
19F277	UK10-104	.1	.405	.180	.143	.09	.068	.066	.058
19F278	UK10-204	.2	.590	.30	.238	.15	.113	.095	.083
19F279	UK10-474	.47	.820	.42	.333	.21	.158	.145	.127

TYPE UK20—20 VDCW (Tol. +80 —20%)

Stk. No.	Type	Mfd.	Diam.	1-99	100-199	200-499	500-999	1000-3000	4000-5000
19F1278	UK20-503	.05	.405	.18	1.43	.090	.068	.062	.055
19F1279	UK20-104	.1	.590	.21	.166	.105	.079	.077	.068
19F1280	UK20-204	.2	.820	.39	.310	.195	.146	.139	.122

Type DA. High capacity, low voltage ceramic capacitors designed for such sub-biniature applications as transistor circuits. ½x½x³⁄₁₀". Cap. Tolerance: —20%, +100%. Rated 30 VDCW.

Stk. No.	Type	1-99	100-199	200-499	500-999	1000-3000	4000-5000
19F1100	DA-203	.36	.285	.180	.135	.102	.089
19F1101	DA-503	.81	.641	.405	.304	.235	.207
19F1102	DA-104	1.35	1.070	.675	.506	.400	.351

Type DDA. Disc type ⅝" diam x 5/32" thk. Cap. tolerance -30%, +80%. Rated 75 VDCW.

Stock No.	Type	Mfd.	1-99	100-199	200-499	500-999	1000-3000	4000-5000
19F1103	DDA-503	.05	.30	.238	.15	.113	.082	.073
19F1104	DDA-104	.1	.60	.475	.30	.225	.203	.178

Type DM. Plate type, 17/32 x 7/32 x 7/64". Cap. tolerance: -20%, +50% up to .002 higher cap. -20%, 80%. Rated 150 WVDC.

Stk. No.	Type	Mfd.	1-99	100-199	200-499	500-999
19F1105	DM-101	.0001				
19F1106	DM-201	.0002				
19F1107	DM-301	0003				
19F1108	DM-501	0005				
19F1109	DM-102	.001	.90	.72	.45	.338
19F1110	DM-202	.002				
19F1111	DM-302	.003				
19F1112	DM-502	.005				
19F1113	DM-103	.01				
19F1114	DM2-502	2x.005				

Type DF Flat Hi-Kaps. 600 WVDC. 1200 VDC test 1 7/16 x 1 1/16 x 7/32".

Stk. No.	Type	Mfd.	Tol.	1-49	50-149	150-499	500-1000
19F362	DF-503	.05	GMV	.75	.594	.375	.280
19F364	DF-104	.1	+80-20%	1.05	.83	.525	.394

Centralab Capacitors

CENTRALAB

CERAMIC CAPACITOR KIT

MODEL DDK-200 KIT. Contains a carefully balanced inventory of 200 disc capacitors required most in replacement applications. All are 1000 WVDC except (*) 600 WVDC. Value desired can easily be located and removed from labeled, reusable clear plastic packages. Housed in one drawer, heavy gauge steel 6x4x11" cabinet finished with durable blue enamel.

19F2406. NET ... 34.10

Cap. Mmf.	Qty.	Type	Cap. Mmf.	Qty.	Type	Cap. Mfd.	Qty.	Type
5	5	DD-050	200	10	DD-201	.001	15	DD-102
10	5	DD-100	220	5	DD-221	.0015	5	DD-152
25	5	DD-250	250	5	DD-251	.003	5	DD-302
33	5	DD-330	270	5	DD-271	.0047	5	DD-472
47	5	DD-470	300	5	DD-301	.005	5	DD-5022
50	5	DD-500	330	5	DD-331	.005	10	DD-502
68	5	DD-680	390	5	DD-391	.01	5	*DD6-103
100	10	DD-101	470	5	DD-471	.01	15	DD-103
120	5	DD-121	500	5	DD-501	.01	5	DD-1032
150	5	DD-151	680	5	DD-681	.02	15	*DD-203
180	5	DD-181						

3000-6000 V HI-VO DISC CAPACITORS

Highly efficient for by-pass-coupling in high frequency circuits under conditions of extreme humidity or temperature. Maintain performance at temperatures up to 85° C. Tested at twice rated working voltage before shipment. Leads #22 tinned copper wire 1½" min. length. Insul.: Double coating phenolic resin "DUREZ" and high temp. vacuum wax impregnation. Tol. ±20%. Volt. DD30 series, 3000 VDCW, 6000 VDC test; DD60 series, 6000 VDCW, 12,000 test. Sizes: (A) .290" dia.; (B) .385" dia.; (C) .590" dia.; (E) .840" dia.; (F) .969" dia.; (G) 1.0" dia.

TYPE DD30—3000 VDCW—6000 VDC TEST

Stk. No.	Type	Mmf	Size	1-49	50-149	150-499	500-1000
19F200	4R7	4.7	A				
19F203	100	10	A				
19F212	500	50	A				
19F217	101	100	A				
19F219	151	150	A	.24	.19	.12	.09
19F222	221	220	A				
19F225	301	300	A				
19F228	401	400	A				
19F229	471	470	A				

Stk. No.	Type	Mmf	Size	1-49	50-149	150-499	500-1000
19F230	501	500	A				
19F232	681	680	A	.24	.19	.12	.09
19F233	751	750	A				
19F234	102	1,000	B				
19F236	152	1,500	C				
19F237	202	2,000	C	.30	.238	.15	.113
19F238	222	2,200	C				
19F241	302	3,000	C				
19F242	502	5,000	F				

TYPE DD60—6000 VDCW—12,000 VDC TEST

Stk. No.	Type	Mmf	Size	1-49	50-149	150-499	500-1000
19F473	500	50	C				
19F481	181	180	C				
19F482	201	200	C	.36	.285	.18	.135
19F483	221	220	C				
19F485	271	270	C				

Stk. No.	Type	Mmf	Size	1-49	50-149	150-499	500-1000
19F490	471	470	C				
19F491	501	500	C	.36	.285	.18	.135
19F493	681	680	C				
19F495	102	1,000	C	.60	.475	.30	.225
19F498	202	2,000	G	.60	.475	.30	.225

CENTRALAB TYPE DD DISC CERAMIC CAPACITORS

Primarily intended for by-pass coupling or filter service where high capacity is necessary and controlled stability is secondary. Disc ceramic capacitors have a higher dielectric constant, greater voltages, and higher capacities in less space than paper or mica types. Construction enables these units to operate for long periods of time under extreme moisture, temperature, and vibration. 1000 volts DC working except #, which are 600 volts DC working. Tol. ±10% except * ±20%, † ±.5 mmf, ‡ GMV; ** +80—20% (A) ¼x5⁄32"; (B) ⅜x4⁄32"; (C) 9⁄16x5⁄32"; (D) 11⁄16x5⁄32"; (F) ⅞x5⁄32"; (G) 23⁄32x15⁄64";

Stk. No.	Type	Mmf	Size	1-99	100-199	200-499	500-999	1M-3M	4M-5M
19F300	DD-3R3	3.3†	A					.048	.042
19F301	DD-050	5	A					.048	.042
19F341	DD-060	6	A					.048	.042
19F302	DD-6R8	6.8	A					.048	.042
19F342	DD-7R5	7.5	A					.048	.042
19F343	DD-080	8	A					.048	.042
19F303	DD-100	10	A					.038	.033
19F344	DD-120	12	A					.038	.033
19F304	DD-150	15	A					.038	.033
19F345	DD-180	18	A					.038	.033
19F305	DD-200	20	A					.038	.033
19F346	DD-220	22	A					.038	.033
19F347	DD-240	24	A					.038	.033
19F306	DD-250	25	A					.038	.033
19F348	DD-270	27	A					.038	.033
19F349	DD-300	30	A					.038	.033
19F307	DD-330	33	A					.038	.033
19F308	DD-390	39	A					.038	.033
19F309	DD-470	47	A					.038	.033
19F310	DD-500	50	A					.038	.033
19F516	DD-510	51	A					.038	.033
19F311	DD-560	56	A	.15	.119	.075	.056	.038	.033
19F312	DD-680	68	A					.038	.033
19F313	DD-750	75	A					.038	.033
19F358	DD-820	82	A					.038	.033
19F359	DD-910	91	A					.038	.033
19F314	DD-101	100	A					.038	.033
19F315	DD-121	120	A					.038	.033
19F365	DD-131	130	A					.038	.033
19F316	DD-151	150	A					.038	.033
19F317	DD-181	180	A					.038	.033
19F318	DD-201	200	A					.038	.033
19F319	DD-221	220	A					.038	.033
19F366	DD-241	240	A					.038	.033
19F320	DD-251	250	A					.041	.035
19F321	DD-271	270	A					.041	.035
19F322	DD-301	300	A					.041	.035
19F323	DD-331	330	A					.041	.035
19F368	DD-351	350	A					.041	.035
19F369	DD-361	360	A					.041	.035
19F324	DD-391	390	A					.041	.035
19F379	DD-401	400	A					.041	.035
19F325	DD-471	470	A					.041	.035

Stk. No	Type	Mmf	Size	1-99	100-199	200-499	500-999	1M-3M	4M-5M
19F517	DD 471G	470‡	A					.036	.031
19F326	DD-501	500	A					.041	.035
19F518	DD-511	510	A					.041	.035
19F327	DD-561	560	A					.041	.035
19F519	DD-601	600	A					.041	.035
19F328	DD-681	680	A					.041	.035
19F329	DD-751	750	A					.041	.035
19F330	DD-801	800‡	A					.036	.031
19F380	DD-821	820	A					.041	.035
19F531	DD-911	910	A					.041	.035
19F331	DD-102	1000	B					.044	.038
19F532	DD-102G	1000‡	A					.036	.031
19F381	DD-122	1200	B					.044	.038
19F533	DD-122G	1200‡	A					.036	.031
19F382	DD-132	1300	B					.044	.038
19F332	DD-152	1500	B					.044	.038
19F534	DD-152G	1500‡	A					.036	.031
19F383	DD-162	1600	B	.15	.119	.075	.056	.044	.038
19F384	DD-182	1800	B					.044	.038
19F333	DD-202	2000‡	B					.038	.033
19F385	DD-222	2200‡	B					.038	.033
19F386	DD-252	2500‡	B					.038	.033
19F387	DD-272	2700‡	B					.038	.033
19F334	DD-302	3000‡	B					.038	.033
19F388	DD-332	3300‡	C					.044	.038
19F389	DD-392	3900‡	C					.044	.038
19F390	DD-402	4000‡	C					.044	.038
19F391	DD-432	4300‡	C					.044	.038
19F335	DD-472	4700*	C					.046	.040
19F535	DD-472G	4700‡	C					.044	.038
19F336	DD-5022	5000*	C					.046	.040
19F337	DD-502	5000‡	C					.044	.038
19F392	DD-562	5600‡	C					.044	.038
19F393	DD-682	6800‡	C					.044	.038
19F394	DD-752	7500‡	C					.044	.038
19F536	DD-822	8200‡	D					.054	.047
19F339	DD-103	10000‡	D	.24	.19	.12	.09	.054	.047
19F338	DD-1032	10000*	D	.24	.19	.12	.09	.062	.054
19F340	DD-203#	20000**	D	.45	.356	.225	.169	.054	.047
19F537	DD-303#	30060**	F	.45	.356	.225	.169	.099	.085
19F538	DD-403#	40000**	G	.45	.356	.225	.169	.155	.145
19F539	DD-503#	50000**	F	.45	.356	.225	.169	.155	.145

CENTRALAB

POLYSTYRENE CAPACITORS

Sealed polystyrene foil-capacitors, ideal for applications in TV and radio where they can be used as direct replacements for micas and mylars. Voltage rating 500 VDCW; 1500 VDC test. Tolerance ±5%. 20-470pF: .434" L., .165" to .217" Diam.; 510-3000pF: .631" L., .250" to .346" Diam.; 3300-10000pF: .827" L., .335" to .504" Diam.

Stk. No.	Type	Mmf.	1-49	50-149	150-499	500-999	1M-3M	4M-5M
19F2337	CPR-20J	20						
19F2338	CPR-22J	22						
19F2339	CPR-24J	24						
19F2340	CPR-27J	27						
19F2341	CPR-30J	30						
19F2342	CPR-33J	33						
19F2343	CPR-36J	36						
19F2344	CPR-39J	39						
19F2345	CPR-43J	43						
19F2346	CPR-47J	47						
19F2347	CPR-56J	56						
19F2348	CPR-62J	62						
19F2349	CPR-68J	68						
19F2350	CPR-75J	75						
19F2351	CPR-82J	82						
19F2352	CPR-91J	91						
19F2353	CPR-100J	100	.15	.119	.075	.056	.052	.047
19F2354	CPR-110J	110						
19F2355	CPR-120J	120						
19F2356	CPR-130J	130						
19F2357	CPR-150J	150						
19F2358	CPR-160J	160						
19F2359	CPR-180J	180						
19F2360	CPR-200J	200						
19F2361	CPR-220J	220						
19F2362	CPR-240J	240						
19F2363	CPR-270J	270						
19F2364	CPR-300J	300						
19F2365	CPR-330J	330						
19F2366	CPR-360J	360						
19F2367	CPR-390J	390						
19F2368	CPR-430J	430						
19F2369	CPR-470J	470						
19F2370	CPR-510J	510						

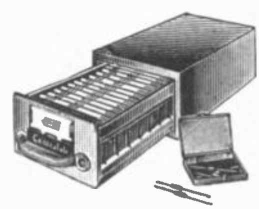
Stk. No.	Type	Mmf.	1-49	50-149	150-499	500-999	1M-3M	4M-5M
19F2371	CPR-560J	560						
19F2372	CPR-620J	620						
19F2373	CPR-680J	680	.15	.119	.075	.056	.052	.047
19F2374	CPR-750J	750						
19F2375	CPR-820J	820						
19F2376	CPR-910J	910						
19F2377	CPR-1000J	1000						
19F2378	CPR-1100J	1100						
19F2379	CPR-1200J	1200						
19F2380	CPR-1300J	1300						
19F2381	CPR-1500J	1500						
19F2382	CPR-1600J	1600						
19F2383	CPR-1800J	1800	.18	.143	.09	.068	.064	.059
19F2384	CPR-2000J	2000						
19F2385	CPR-2200J	2200						
19F2386	CPR-2400J	2400						
19F2387	CPR-2500J	2500						
19F2388	CPR-2700J	2700						
19F2389	CPR-3000J	3000						
19F2390	CPR-3300J	3300						
19F2391	CPR-3600J	3600						
19F2392	CPR-3900J	3900						
19F2393	CPR-4300J	4300						
19F2394	CPR-4700J	4700						
19F2395	CPR-5000J	5000						
19F2396	CPR-5100J	5100	.21	.166	.105	.079	.075	.070
19F2397	CPR-5600J	5600						
19F2398	CPR-6200J	6200						
19F2399	CPR-6800J	6800						
19F2400	CPR-7500J	7500						
19F2401	CPR-8200J	8200						
19F2402	CPR-9100J	9100						
19F2403	CPR-10000J	10000						

POLYSTYRENE CAPACITOR KIT

Model CPK-150 Kit. Contains 150 sealed polystyrene foil capacitors, rated at 500VDCW and with a ±5% tolerance. Included are 17 selected values in a range from 22 pF to 10,000 pF. There are 5 to 20 pieces per value, based on estimated frequency of use. The polystyrene film dielectric of these units permits use in place of mica, Mylar, paper, and ceramic capacitors. They not only substitute for the above types of capacitors but generally outperform them. Capacitance drift: .05% max. @ +25°C. Insulation resistance is 100,000 megohms. "Q" factor is over 2,000 at 1 mc, +25°C, operating temp. range is from —40° to +85°C.

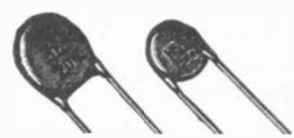
The assortment in this kit is packaged in a 1-drawer Equipto cabinet finished in blue baked enamel. Contents are fully labeled.

19F2404. NET **25.55**



TYPE CK—50 VDCW

Type CK capacitors are designed for high capacity low voltage demands of transistor circuitry. Proven for use in transistor radios. Working voltage: 50 VDC. Leakage resistance initial: over 7500 megohms. Leakage resistance after humidity: over 1000 megohms. Leads: #22 tinned copper, 1½" minimum length. Max. thickness .235". Power factor: 2% max. at 1 KC. Insulation: Phenolic vacuum wax impregnated. Tolerance: all +80 —20%. Max. pregnated. Tolerance: all +80 —20%. Operating range: —55° to +85°C.



Stk. No.	Cap. Mfd.	CRL. No.	Diam.	1-99	100-199	200-499	500-999	1M-3M	4M-5M
19F1223	.005	CK-502	3/8"						
19F1224	.01	CK-103	3/8"	.21	.166	.105	.079	.076	.067
19F1225	.02	CK-203	19/32"						
19F1226	.025	CK-253	19/32"	.21	.166	.105	.079	.076	.067
19F1228	.05	CK-503	11/16"	.30	.238	.15	.113	.088	.077
19F1229	.1	CK-104	23/32"	.60	.475	.30	.225	.216	.192

TEMPERATURE STABLE "K" AND SEMI-STABLE "K" DISC HI-KAPS

Types CE & CF Hi-Kaps used for applications requiring a min. capacity change as temperature varies between —55°C and +85°C. Working voltage: 500 VDC. Phenolic insulation impregnated with high temp. wax. ±10% Tolerance. Leads; 1½" min. lengths. * .290" dia., ** .390" dia., † .590" dia., ‡ .690" dia., # .920" dia. Average shipping weight, 1 oz

STABLE

Stk. No.	Mmf.	CRL. No.	1-99	100-199	200-499	500-1M
19F1235	150	CE-151*				
19F1236	220	CE-221*				
19F1237	330	CE-331*				
19F1238	470	CE-471*				
19F1239	500	CE-501**				
19F1240	560	CE-561**	.18	.143	.09	.068
19F1241	680	CE-681**				
19F1242	750	CE-751**				
19F1243	800	CE-801**				
19F1244	1000	CE-102†				

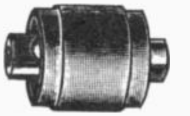
SEMI-STABLE

Stk. No.	Mmf.	CRL. No.	1-99	100-199	200-499	500-1M
19F1245	1200	CF-122**				
19F1246	1500	CF-152**	.18	.143	.09	.068
19F1247	1800	CF-182**				
19F1248	2000	CF-202†				
19F1249	2200	CF-222†				
19F1250	3300	CF-332†	.21	.166	.105	.079
19F1251	3900	CF-392†				
19F1252	4700	CF-472‡				
19F1253	5000	CF-502‡				
19F1256	10000	CF-103#	.24	.19	.12	.09

Centralab Capacitors

CENTRALAB

TRANSMITTING CAPACITORS TYPE 857



7.5 KV and 15KV axial screw terminals that are fully threaded to 1/4" with 10-32 thread. All 15,000 volts DC, except *, which work at 7,500 volts DC. Negative 750 temperature coefficients, except †, which are NPO zero temperature coefficients. The tolerance is ±10%. Size: 19/32" diameter by 1 7/64" long.

Stk. No.	Type	Mmf.	RF Load at 30MC	1-9	10-24	25-99	100-249
19F454	857-25Z†	25	12 amps	8.40	7.56	6.65	5.99
19F455	857-50Z†	50	12 amps	8.40	7.56	6.65	5.99
19F456	857-100N	100	14.4 amps	7.20	6.48	5.70	5.13
19F457	857-200N*	200	18.2 amps	7.20	6.48	5.70	5.13

CENTRALAB CERAMIC TRANSMITTING CAPACITORS

High voltage applications. 5000 Volts D.C.W., tested to 7500 volts DC. ±10% tolerance. Available in either wire lead or axial screw terminal types. NPO temperature coefficients except * which are N750. Dimensions: Type 853—1/2" dia. x 7/16" L; Type 854—3/8" dia. x 3/8" L; Type 855—1/4" dia. x 11/32" L; Type 853A—9/16" dia. x 31/64" L; Type 854A—7/16" dia. x 7/16" L; Type 855A—5/16" dia. x 25/64" L.

WIRE LEAD

Stk. No.	Type	Mmf.	RF Load at 30MC	1-4	5-29	30-104	105-250
19F268	855-3Z	3	1.8 amps	1.80	1.62	1.43	1.28
19F270	854-10Z	10	1.8 amps				
19F271	855-10N*	10	3.2 amps				
19F272	853-20Z	20	2.8 amps				
19F274	853-40N*	40	5.6 amps				

CENTRALAB CERAMIC TRIMMERS

Centralab ceramic trimmers are highly stable, small in size, and light weight. Light-weight rotor under constant spring pressure provides excellent vibration stability. All units 500 VDC working. Power factor less than 0.2%.

CRL TYPE 822 TRIMMERS

Type 822 Steatite body trimmers. Silver rotor and stator plates. 500 VDC working 1500 VDC test, 27/32x21/32". Mtg. holes take No. 4 screws. All are zero temp. coeff. except * neg. T.C. Shpg. wt., 2 oz.

Stk. No.	Type	Mmf	1-4	5-29	30-104	105-250
19F163	AN*	8.0-50	1.14	.95	.90	.76
19F164	BN*	7-45				
19F165	CN*	4.5-25				
19F166	DN*	2-6				
19F167	AZ	4.5-25				
19F168	BZ	2.5-13				
19F169	CZ	2-7.5				
19F185	DZ	1.5-3				
19F186	EZ	1.5-7				
19F188	EN*	4-30				
19F189	FZ	3-12				

CRL TYPE 825 MIL-C-81A TRIMMER CAPACITORS

Ceramic trimmer caps. 27/32x21/32". Mtg. hole takes No. 4 screws. 500 VDC working. Shpg. wt., 2 oz. CVll Series meet MIL-C-81A specifications. Low loss steatite base and silver fired base for stator plate. Temp. Coeffs: DN, BN—N650; AN, FN—N300; CN, GN—N500, EZ, FZ, AZ—0.

Stk. No.	Type	Mmf.	MIL No.	1-4	5-29	30-104	105-250
19F1217	825-EZ	1.5-7	CV11A070	1.17	.98	.93	.78
19F1218	825-FZ	3-12	CV11A120				
19F1219	825-AZ	4 5-25	CV11A250				
19F1220	825-DN	2-6	CV11D060				
19F1222	825-BN	7-45	CV11D450				
19F1230	825-AN	3-13.0	CV11B130				
19F1231	825-GN	7-45.0	CV11C450				
[illegible]	825-FN	5-20.0	CV11B200				
19F1233	825-CN	4-30.0	CV11C300				

CENTRALAB CERAMIC TRANSMITTING CAPACITORS

Type 858—7.5 KV and 5 KV transmitting capacitors. All 7500 VDC working except (*) 5000 VDC working. 850S tol.: ± 10%, 858S tol.: ± 20% ‡ Hi-K material, variable T.C. Body 1 5/16" diameter x 5/8" long. Screw Terminals.

Stk. No.	Type	Mmf.	RF Load at 30MC	1-4	5-29	30-104	105-250
19F248	850S-25Z	25	7 amps	2.70	2.43	2.14	1.92
19F254	850S-50Z	50	10 amps				
19F250	850S-50N	50	8.8 amps				
19F251	850S-75N	75	10 amps				
19F252	850S-100N*	100	9.8 amps				
19F253	858S-500‡*	500	....				
19F249	858S-1000‡*	1000	....				

CRL TYPE FT FEED-THRU CAPACITORS

Bushing type ceramic feed-thru capacitors rated 500 VDC working, 1000 VDC test. Bushing 12-28 thread hex nut .281" lg. Overall size 5/16" hex x 15/32" lg. Tolerance ±20% except when marked by an asterisk, indicates a tolerance of +50%, —20% Shpg. wt., 2 oz.

Stk. No.	Type	Mmf	1-99	100-199	200-499	500-1M
19F1115	FT-500	500	.75	.594	.375	.28
19F1116	FT-1000	1000				
19F1117	FT-1500	1500*				
19F1118	FT-1800	1800*				
19F1119	FT-2300	2300*				

CRL TYPE MFT FEED-THRU CAPACITORS

Miniature eyelet type, rated 500 VDC working, 1000 VDC test. Mounts on 1/4" flange on eyelet inserted in .160" hole in chassis Body diam. .135x1 3/8" L. overall. Shipping wt., 1 oz.

Stk. No.	Type	Mmf.	1-99	100-199	200-499	500-1M
19F1120	MFT-50	50±10%	.30	.238	.15	.113
19F1121	MFT-100	100±10%				
19F1122	MFT-500	500±20%				
19F1123	MFT-1000	1000 GMV				

CRL TYPE 827 TRIMMER

Sturdy, moisture - resistant ceramic trimmers Ceramic molded phenolic body. Maintain stability under vibration, due to light weight rotor construction that is always in balance under heavy spring pressure. 500 volts DC working, 1000 volts DC test. Initial insulation resistance, 10.000 megs minimum. Power factor is less than 0.2% at one MHz. Size: 1 1/32x3/4". Wt., 2 oz.

Stk. No.	Type	Mmf	1-4	5-29	30-104	105-250
19F094	827A	2.5-7	.90	.75	.71	.60
19F095	827B	3.5-12				
19F096	827C	6.0-30				
19F097	827D	7.0-35				

CRL TYPE 829 TUBULAR TRIMMER

Tiny tubular high-voltage trimmers for TV and FM applications. Have ceramic bodies, .225" in diameter. Length as shown. Mount by means of lock-nut. Full capacity range obtained in 180° rotation.. Power factor: .25% at 1 MHz 500 volts DC working. 1000 VDC test. Shpg. wt. 1 oz.

Stk. No.	Type	Mmf	Length	1-24	25-124	125-499	500-1M
19F170	829-3	.5-3	1/2"	.30	.238	.15	.113
19F171	829-4	1-4	1/2"				
19F172	829-6	1-6	5/8"				
19F173	829-7	1-7.5	3/4"				
19F174	829-10	1.5-10	3/4"				

Ceramic Capacitors NYTRONICS

"DECI-CAP"

Epoxy-molded subminiature ceramic capacitor. Operating range: —55°C to +125°C. High density cordwood packaging. Capacitance range: 4.7-27,000 pf. Size: all 0.100" dia. x 0.250" l.(¼ watt resistor). Tolerance: ±10%. Working voltage 4.7-470 pf: 200 volts DC. 560 pf to 27,000 pf: 100 volts DC. Meets MIL-C-11015C.

Stk. No.	Type	pf	1-24	25-49	50-99	100-249	250-499	500-999
35F1700	DC-047	4.7						
35F1701	DC-056	5.6						
35F1702	DC-068	6.8						
35F1703	DC-082	8.2						
35F1704	DC-100	10						
35F1705	DC-120	12						
35F1706	DC-150	15						
35F1707	DC-180	18						
35F1708	DC-220	22						
35F1709	DC-270	27						
35F1710	DC-330	33						
35F1711	DC-390	39	.51	.41	.35	.32	.30	.28
35F1712	DC-470	47						
35F1713	DC-560	56						
35F1714	DC-680	68						
35F1715	DC-820	82						
35F1716	DC-101	100						
35F1717	DC-121	120						
35F1718	DC-151	150						
35F1719	DC-181	180						
35F1720	DC-221	220						
35F1721	DC-271	270						
35F1722	DC-331	330						

Stk. No.	Type	pf	1-24	25-49	50-99	100-249	250-499	500-999
35F1723	DC-391	390	.51	.41	.35	.32	.30	.28
35F1724	DC-471	470	.53	.43	.37	.34	.31	.29
35F1725	DC-561	560	.53	.43	.37	.34	.31	.29
35F1726	DC-681	680	.53	.43	.37	.34	.31	.29
35F1727	DC-821	820	.53	.43	.37	.34	.31	.29
35F1728	DC-102	1000	1.18	.94	.82	.74	.69	.64
35F1729	DC-122	1200	1.30	1.04	.90	.82	.76	.71
35F1730	DC-152	1500	1.33	1.06	.92	.84	.78	.72
35F1731	DC-182	1800	1.47	1.18	1.02	.93	.86	.80
35F1732	DC-222	2200	1.49	1.19	1.04	.94	.87	.81
35F1733	DC-272	2700	1.65	1.32	1.15	1.05	.97	.90
35F1734	DC-332	3300	1.74	1.39	1.21	1.10	1.01	.94
35F1735	DC-392	3900	1.82	1.46	1.26	1.15	1.06	.99
35F1736	DC-472	4700	1.87	1.50	1.30	1.18	1.09	1.02
35F1737	DC-562	5600	2.12	1.69	1.47	1.34	1.24	1.15
35F1738	DC-682	6800	2.33	1.87	1.62	1.48	1.36	1.27
35F1739	DC-822	8200	2.55	2.04	1.77	1.61	1.49	1.39
35F1740	DC-103	10000	2.81	2.25	1.95	1.78	1.64	1.53
35F1741	DC-123	12000	2.93	2.35	2.03	1.85	1.71	1.59
35F1742	DC-153	15000	3.20	2.56	2.22	2.02	1.87	1.74
35F1743	DC-183	18000	3.20	2.56	2.22	2.02	1.87	1.74
35F1744	DC-223	22000	3.25	2.61	2.26	2.06	1.90	1.77
35F1745	DC-273	27000	3.66	2.93	2.54	2.32	2.14	1.99

HY-CAP

The HY-CAP is a high capacity ceramic capacitor. For design application in coupling, by-pass, and filter circuits where temperature stability and high capacitance are mandatory. Capacitance range is .01 mfd. to 2.5 mfd. Less than ±15% capacitance change from —55°C to +125°C. Working voltage is 100 Volts D.C. with no derating to 125°C. Life test is 1000 hours at 125° under twice rated voltage. Tol: ±20%. This ceramic capacitor meets the requirements of MIL-C-11015.

Stk. No.	Type HC-	Mfd.	H max.	W max.	T max.	1-24	25-49	50-99	100-249	250-499
35F1746	A-103-M	.01	0.175	0.225	0.110	1.39	1.11	.97	.88	.82
35F1747	A-123-M	.012	0.175	0.225	0.110	1.57	1.26	1.09	.99	.92
35F1748	A-153-M	.015	0.175	0.225	0.110	1.73	1.38	1.20	1.09	1.01
35F1749	A-183-M	.018	0.175	0.225	0.110	1.86	1.49	1.30	1.18	1.09
35F1750	A-223-M	.022	0.175	0.225	0.110	2.10	1.68	1.46	1.33	1.23
35F1751	A-273-M	.027	0.175	0.225	0.110	2.51	2.01	1.75	1.59	1.47
35F1752	A-333-M	.033	0.175	0.225	0.110	2.83	2.26	1.97	1.79	1.66
35F1753	B-393-M	.039	0.310	0.325	0.150	3.21	2.57	2.23	2.03	1.88
35F1754	B-473-M	.047	0.310	0.325	0.150	3.39	2.71	2.36	2.14	1.98
35F1755	B-563-M	056	0.310	0.325	0.150	3.55	2.84	2.47	2.24	2.08
35F1756	B-683-M	.068	0 310	0.325	0.150	3.91	3.12	2.72	2.47	2.29
35F1757	B-823-M	.082	0.310	0 325	0.150	4.15	3.32	2.89	2.63	2.43
35F1758	B-104-M	.100	0.310	0.325	0.150	4.38	3.50	3.04	2.77	2.56

Stk. No.	Type HC-	Mfd.	H max.	W max.	T max.	1-24	25-49	50-99	100-249	250-499
35F1759	C-124-M	.12	0.310	0.325	0.150	4.40	3.52	3.06	2.78	2.58
35F1760	C-154-M	.15	0.355	0.670	0.150	4.49	3.59	3.12	2.84	2.63
35F1761	C-184-M	.18	0.355	0.670	0.150	4.71	3.77	3.28	2.98	2.76
35F1762	C-224-M	.22	0 355	0 670	0.150	4.94	3.95	3.44	3.12	2.89
35F1763	C-274-M	.27	0.355	0.670	0.150	5.21	4.17	3.62	3.29	3.05
35F1764	C-334-M	.33	0.355	0.670	0.150	5.91	4.41	3.83	3.49	3.23
35F1765	C-394-M	.39	0.355	0.670	0.150	5.93	4.74	4.12	3.75	3.47
35F1766	C-474-M	.47	0.355	0 670	0.150	6.40	5.12	4.45	4.05	3.75
35F1767	D-105-M	1.0	0.550	0.800	0.225	10.10	8.08	7.03	6.39	5.91
35F1768	E-155-M	1.5	0 550	0.800	0.250	12.90	10.32	8.98	8.16	7.56
35F1769	F-205-M	2.0	0 550	0.800	0.300	16.83	13.47	11.71	10.64	9.86
35F1770	G-255-M	2.5	0.550	0.800	0.375	20.76	16.61	14.44	13.13	12.16

HIGH STABILITY CERAMIC MOLDED & CHIP CAPACITORS

NYT-CAP. This ceramic capacitor has ultra-high stability. Capacitance range is 4.7pf. to 4700pf. Working voltage is 200 Volts D.C. Miniature molded epoxy case suitable for high component density applications. For use in oscillators, filters, and other critical circuitry. Tolerance ±10%.

NYT-CHIP. Provides in slug form all of the high stability and low loss features of the epoxy molded NYT-CAP. Compatible with integrated circuitry, thick and thin film circuitry, and printed circuitry. Capacitance range: 4.7pf. to 4700pf. Tolerance: ±10% standard. 200 VDC rating. With wrap-around terminals.

CERAMIC

CHIP

NYT-CAP

Cap. Range	Size	1-24	25-49	50-99	100-249	250-499	500-999
4.7-82pf	.1" dia.x.25 l.	1.41	1.14	.98	.90	.83	.77
100-220pf	.1" dia.x.25 l.	1.49	1.20	1.04	.94	.87	.81
270-470pf	.35"x.25"x.1"	2.44	1.96	1.70	1.54	1.43	1.33
560-1000pf	.35"x.25"x.1"	3.35	2.68	2.32	2.12	1.95	1.82
1200-4700pf	.35"x.25"x.1"	4.20	3.37	2.92	2.66	2.46	2.29

NYT-CHIP

Cap. Range	Size	1-24	25-49	50-99	100-249	250-499	500-999
4.7-82pf	.17"x.065"x.07"	1.36	1.09	.93	.85	.78	.72
100-220pf	.17"x.065"x.07"	1.44	1.15	.99	.89	.82	.76
270-470pf	.28"x.195"x.07"	2.39	1.91	1.65	1.49	1.38	1.28
560-1000pf	.28"x.195"x.07"	3.30	2.63	2.27	2.07	1.90	1.77
1200-4700pf	.28"x.195"x.07"	4.15	3.32	2.87	2.61	2.41	2.24

Stk. No.	Type	pf	Stk. No.	Type	pf
35F1771	NC-047	4.7	35F1790	NC-181	180
35F1772	NC-056	5.6	35F1791	NC-221	220
35F1773	NC-068	6.8	35F1792	NC-271	270
35F1774	NC-082	8.2	35F1793	NC-331	330
35F1775	NC-100	10	35F1794	NC-391	390
35F1776	NC-120	12	35F1795	NC-471	470
35F1777	NC-150	15	35F1796	NC-561	560
35F1778	NC-180	18	35F1797	NC-681	680
35F1779	NC-220	22	35F1798	NC-821	820
35F1780	NC-270	27	35F1799	NC-102	1000
35F1781	NC-330	33	35F1800	NC-122	1200
35F1782	NC-390	39	35F1801	NC-152	1500
35F1783	NC-470	47	35F1802	NC-182	1800
35F1784	NC-560	56	35F1803	NC-222	2200
35F1785	NC-680	68	35F1804	NC-272	2700
35F1786	NC-820	82	35F1805	NC-332	3300
35F1787	NC-101	100	35F1806	NC-392	3900
35F1788	NC-121	120	35F1807	NC-472	4700
35F1789	NC-151	150			

Stk. No.	Type	pf	Stk. No.	Type	pf
35F1808	NCU-047	4.7	35F1827	NCU-181	180
35F1809	NCU-056	5.6	35F1828	NCU-221	220
35F1810	NCU-068	6.8	35F1829	NCU-271	270
35F1811	NCU-082	8.2	35F1830	NCU-331	330
35F1812	NCU-100	10	35F1831	NCU-391	390
35F1813	NCU-120	12	35F1832	NCU-471	470
35F1814	NCU-150	15	35F1833	NCU-561	560
35F1815	NCU-180	18	35F1834	NCU-681	680
35F1816	NCU-220	22	35F1835	NCU-821	820
35F1817	NCU-270	27	35F1836	NCU-102	1000
35F1818	NCU-330	33	35F1837	NCU-122	1200
35F1819	NCU-390	39	35F1838	NCU-152	1500
36F1820	NCU-470	47	35F1839	NCU-182	1800
35F1821	NCU-560	56	35F1840	NCU-222	2200
35F1822	NCU-680	68	35F1841	NCU-272	2700
35F1823	NCU-820	82	35F1842	NCU-332	3300
35F1824	NCU-101	100	35F1843	NCU-392	3900
35F1825	NCU-121	120	35F1844	NCU-472	4700
35F1826	NCU-151	150			

OHMITE Adjustable Dividohms

"Dividohm" Vitreous Enameled Resistors make ideal voltage dividers for original equipment and replacement in transmitters, rectifiers and other apparatus. Handy for obtaining odd resistance values, for adjusting circuits and for use on equipment which must be set to meet various line voltages. Tolerance: 10%. Avg. Shipping wt. 12-50 Watts, 4.0 oz.; 100-225 Watts, 1 lb.

STYLE 210-12—12 WATT—1¾"x5/16"

Stock No.	Type	Resis. Ohms	Max Amps.	1-9	10-24	25-99	100-249
13F500	1001	1	3.46	1.20	1.02	.84	.72
13F501	1002	2	2.45				
13F502	1003	3	2.00				
13F503	1004	5	1.54				
13F504	1005	7.5	1.26				
13F505	1006	10	1.09				
13F506	1007	15	.89				
13F507	1008	20	.77				
13F508	1009	25	.69				
13F509	1010	50	.49				
13F510	1011	75	.40	1.20	1.02	.84	.72
13F511	1012	100	.34				
13F512	1013	150	.28				
13F513	1014	200	.24				
13F514	1015	250	.22				
13F515	1016	300	.20				
13F516	1017	350	.18				
13F517	1018	400	.17				
13F518	1019	500	.15				
13F519	1020	600	.14				
13F520	1021	750	.13				
13F521	1022	800	.12				
13F522	1023	1,000	.11				
13F523	1024	1,250	.098	1.24	1.05	.87	.74
13F524	1025	1,500	.089				
13F525	1026	2,000	.077				
13F526	1027	2,250	.073				
13F527	1028	2,500	.069				
13F528	1029	3,000	.063				
13F529	1030	3,500	.058				
13F530	1031	4,000	.055				
13F531	1032	4,500	.052				
13F532	1033	5,000	.049				
13F533	1034	6,000	.045	1.33	1.13	.93	.80
13F534	1035	7,000	.042				
13F535	1036	7,500	.040				
13F536	1037	8,000	.039				
13F537	1038	8,500	.037				
13F538	1039	9,000	.036				
13F539	1040	10,000	.035				

STYLE 210-25—25 WATT—2"x9/16"

Stock No.	Type	Resis. Ohms	Max Amps.	1-9	10-24	25-99	100-249
13F550	0360	1	5.00	1.35	1.15	.95	.81
13F551	0360B	2	3.54				
13F552	0361	3	2.88				
13F553	0362	5	2.24				
13F554	0362B	7.5	1.82				
13F555	0363	10	1.58	1.35	1.15	.95	.81
13F556	0364	15	1.29				
13F557	0364B	20	1.12				
13F558	0365	25	1.00				
13F559	0366	50	.71				
13F560	0367	75	.58	1.35	1.15	.95	.81
13F561	0368	100	.50				
13F562	0369	150	.41				
13F563	0370	200	.35				
13F564	0371	250	.32				
13F565	0371B	300	.29	1.35	1.15	.95	.81
13F566	0371C	400	.25				
13F567	0372	500	.22				
13F568	0373	750	.18				
13F569	0374	800	.17				
13F570	0375	1,000	.16				
13F571	0375B	1,250	.14	1.39	1.18	.97	.83
13F572	0376	1,500	.13				
13F573	0377	2,000	.12				
13F574	0377B	2,250	.11				
13F575	0378	2,500	.10				
13F576	0379	3,000	.091				
13F577	0380	3,500	.084				
13F578	0381	4,000	.079				
13F579	0381B	4,500	.074				
13F580	0382	5,000	.070				
13F581	0383	6,000	.064	1.49	1.27	1.04	.89
13F582	0383B	7,000	.060				
13F584	0384	7,500	.057				
13F585	0384B	8,000	.055				
13F586	0384C	9,000	.052				
13F587	0385	10,000	.050				
13F588	0386	12,000	.042	1.54	1.31	1.08	.92
13F589	0387	15,000	.036	1.54	1.31	1.08	.92
13F590	0388	20,000	.031	1.54	1.31	1.08	.92
13F591	0389	25,000	.028	1.69	1.44	1.18	1.01

STYLE 210-50—50 WATT—4"x9/16"

Stock No.	Type	Resis. Ohms	Max Amps.	1-9	10-24	25-99	100-249
13F600	0560	5	3.16	1.76	1.50	1.23	1.06
13F601	0561	10	2.23				
13F602	0562	25	1.41				
13F603	0563	50	1.00				
13F604	0564	75	.82				
13F605	0565	100	.71	1.76	1.50	1.23	1.06
13F606	0566	150	.58				
13F607	0567	200	.50				
13F608	0568	250	.45				
13F609	0568B	300	.41				
13F610	0568C	400	.35	1.76	1.50	1.23	1.06
13F611	0569	500	.32				
13F612	0570	750	.26				
13F639	0571	800	.25				
13F613	0572	1,000	.22				
13F614	0572B	1,250	.20	1.80	1.53	1.26	1.08
13F615	0573	1,500	.18				
13F616	0574	2,000	.16				
13F617	0575	2,500	.14				
13F618	0576	3,000	.13				
13F619	0576B	3,500	.12				
13F620	0577	4,000	.11				
13F621	0577B	4,500	.10				
13F622	0578	5,000	.10				
13F623	0578B	6,000	.091	1.89	1.61	1.32	1.13
13F624	0578C	7,000	.084				
13F625	0579	7,500	.081				
13F626	0580	8,000	.079				
13F627	0580B	9,000	.074				
13F628	0581	10,000	.071				
13F629	0582	12,000	.064	2.02	1.72	1.41	1.21
13F630	0583	15,000	.057	2.02	1.72	1.41	1.21
13F631	0584	20,000	.050	2.02	1.72	1.41	1.21
13F632	0585	25,000	.045	2.22	1.89	1.55	1.33
13F633	0586	30,000	.036	2.22	1.89	1.55	1.33
13F634	0587	40,000	.029	2.22	1.89	1.55	1.33
13F635	0588	50,000	.026	2.40	2.04	1.68	1.44
13F636	0589	60,000	.024	2.40	2.04	1.68	1.44
13F637	0590	80,000	.021	2.67	2.27	1.87	1.60
13F638	0591	100,000	.018	2.84	2.41	1.99	1.70

STYLE 210-100—100 WATT—6½"x¾"

Stock No.	Type	Resis. Ohms	Max Amps.	1-9	10-24	25-99	100-249
13F670	0956A	1	10.0	2.87	2.44	2.01	1.72
13F671	0956B	2	7.07	2.87	2.44	2.01	1.72
13F672	0956C	3	5.77	2.87	2.44	2.01	1.72
13F673	0956D	4	5.00	2.22	1.89	1.55	1.33
13F650	0956	5	4.47				
13F651	0957	10	3.16				
13F652	0958	25	2.00				
13F653	0959	50	1.41				
13F654	0960	100	1.00				
13F655	0960B	250	.63				
13F656	0961	500	.45				
13F657	0962	1,000	.32				
13F658	0962B	1,500	.26	2.28	1.94	1.60	1.37
13F659	0963	2,500	.20	2.28	1.94	1.60	1.37
13F660	0964	5,000	.14	2.28	1.94	1.60	1.37
13F661	0965	10,000	.10	2.42	2.06	1.69	1.45
13F662	0966	15,000	.081	2.56	2.18	1.79	1.54
13F663	0967	20,000	.071	2.56	2.18	1.79	1.54
13F664	0968	25,000	.063	2.84	2.41	1.99	1.70
13F665	0969	30,000	.058	2.84	2.41	1.99	1.70
13F666	0970	40,000	.050	2.84	2.41	1.99	1.70
13F667	0971	50,000	.045	2.92	2.48	2.04	1.75
13F668	0972	75,000	.032	3.17	2.69	2.22	1.90
13F669	0973	100,000	.028	3.49	2.97	2.44	2.09

ADJUSTABLE LUGS

For Dividohms—Bakelite knob type

Stock No.	Type	Description	1-9	10-24	25-99
13F710	0359	For 25, 50 Watt	.33	.28	.23
13F711	1959	For 100 Watt	.33	.28	.23
13F712	2159	For 200 Watt	.42	.36	.29

For Dividohms—Screw driver type

Stock No.	Type	Description	1-9	10-24	25-99
13F713	1058	For 10 Watt	.15	.13	.11
13F714	0358	For 25, 50 Watt	.15	.13	.11
13F715	1958	For 100 Watt	.15	.13	.11
13F716	2158	For 200 Watt	.24	.20	.17

OHMITE ADJUSTABLE DIVIDOHMS (Continued)

STYLE 210-225 225 WATT—10½"x1⅛"

Stock No.	Type	Resis. Ohms	Max. Amps.	1-9	10-24	25-99	100-249
13F676	1356A	1	15.00	4.54	3.86	3.18	2.72
13F677	1356B	2	10.60				
13F678	1356C	3	8.67				
13F679	1356D	4	7.50				
13F680	1356	5	6.72				
13F681	1357	10	4.74	3.51	2.98	2.46	2.11
13F682	1358	25	3.00				
13F683	1359	50	2.12				
13F684	1360	100	1.50				
13F685	1360B	250	.95				
13F686	1361	500	.67				
13F687	1362	1,000	.47				

Stock No.	Type	Resis. Ohms	Max. Amps.	1-9	10-24	25-99	100-249
13F688	1362B	1,500	.39	3.58	3.04	2.51	2.15
13F689	1363	2,500	.30	3.58	3.04	2.51	2.15
13F690	1364	5,000	.21	3.58	3.04	2.51	2.15
13F691	1365	10,000	.15	3.77	3.20	2.64	2.26
13F692	1366	15,000	.13	3.96	3.37	2.77	2.38
13F693	1367	20,000	.11	3.96	3.37	2.77	2.38
13F694	1368	25,000	.095	4.05	3.44	2.84	2.43
13F695	1369	30,000	.087	4.05	3.44	2.84	2.43
13F696	1370	40,000	.075	4.05	3.44	2.84	2.43
13F697	1371	50,000	.067	4.16	3.54	2.91	2.50
13F698	1372	75,000	.055	4.35	3.70	3.05	2.61
13F699	1373	100,000	.047	4.56	3.88	3.19	2.74

TYPE 200 "BROWN DEVIL" RESISTORS

High quality, compact wire-wound resistors for voltage-dropping, bias units, bleeders, etc. Extra-sturdy all-ceramic vitreous enameled. Protected against shock, vibration, heat and humidity. Have standard resistance tolerance of ±5%. 8-watt units have 1x5/16" cores: 12-watt units, 1¾x5/16" cores; 20-watt units, 2x7/16" cores. All have 1½" leads. Average shipping weight, 3 ounces.

13F150—8 WATT "BROWN DEVIL" RESISTORS—STYLE 200-8

Type	Ohms	1-9	10-24	25-99	100-249
1500	1	.55	.47	.39	.33
1500B	1.5				
1501	2				
1502	3				
1503	4				
1504	5				
1505	7.5				
1506	10				
1507	12				
1508	15				
1509	20				
1510	25				
1511	30				
1512	35				
1513	40				
1514	50				
1515	75				
1516	100				
1517	125				
1518	150				

Type	Ohms	1-9	10-24	25-99	100-249
1519	200	.55	.47	.39	.33
1520	225				
1521	250				
1522	300				
1523	350				
1524	400				
1525	450				
1526	500				
1527	600				
1528	700				
1529	750				
1530	800				
1531	900				
1532	1,000				
1533	1,100	.58	.49	.41	.35
1534	1,200				
1535	1,250				
1536	1,500				
1537	1,750				
1538	2,000				

Type	Ohms	1-9	10-24	25-99	100-249
1539	2,250	.58	.49	.41	.35
1540	2,500				
1541	3,000				
1542	3,500				
1543	4,000				
1544	4,500				
1545	5,000				
1546	6,000	.61	.52	.43	.37
1547	7,000				
1548	7,500				
1549	8,000				
1550	9,000				
1551	10,000				
1552	12,500	.68	.58	.48	.41
1553	15,000				
1554	17,500				
1555	20,000				
1556	22,500	.71	.60	.50	.43
1557	25,000				

13F155—12 WATT "BROWN DEVIL" RESISTORS—STYLE 200-12

Type	Ohms	1-9	10-24	25-99	100-249
1701	1	.60	.51	.42	.36
1704	1.5				
1705	2				
1706	3				
1707	4				
1708	5				
1709	7.5				
1710	10				
1711	12				
1712	15				
1713	20				
1714	25				
1715	30				
1716	35				
1717	40				
1718	50				
1719	75				
1720	100				
1721	125				
1722	150				
1723	200				
1724	225				
1725	250				

Type	Ohms	1-9	10-24	25-99	100-249
1726	300	.60	.51	.42	.36
1727	350				
1728	400				
1729	450				
1730	500				
1731	600				
1732	700				
1733	750				
1734	800				
1735	900				
1736	1,000				
1737	1,100	.64	.54	.45	.38
1738	1,200				
1739	1,250				
1740	1,500				
1741	1,750				
1742	2,000				
1743	2,250				
1744	2,500				
1745	3,000				
1746	3,500				
1747	4,000				
1748	4,500				

Type	Ohms	1-9	10-24	25-99	100-249
1749	5,000	.64	.54	.45	.38
1750	6,000	.74	.63	.52	.44
1751	7,000				
1752	7,500				
1753	8,000				
1754	8,500				
1754A	9,000				
1755	10,000				
1756	11,000	.83	.71	.58	.50
1757	12,000				
1758	12,500				
1759	13,500				
1761	15,000				
1762	16,000				
1763	17,500				
1764	18,000				
1765	20,000				
1766	22,500	.87	.74	.61	.52
1767	25,000				
1768	30,000				
1769	35,000				
1770	40,000				
1771	45,000	.98	.83	.69	.59
1772	50,000				

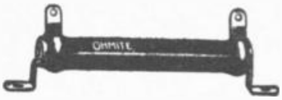
13F160—20 WATT "BROWN DEVIL" RESISTORS—STYLE 200-20

Type	Ohms	1-9	10-24	25-99	100-249
1802A	1	.71	.60	.50	.43
1802B	2				
1802C	3				
1802D	4				
1803	5				
1804	10				
1805	25				
1806	50				
1807	75				
1808	100				
1809	150				
1810	200				
1811	250				
1812	300				
1813	350				
1814	400				
1815	500				
1816	650				
1817	700				
1818	750				

Type	Ohms	1-9	10-24	25-99	100-249
1819	800	.71	.60	.50	.43
1820A	900				
1821	1,000				
1822	1,200	.74	.63	.52	.44
1823	1,250				
1824	1,500				
1825	1,750				
1827	2,000				
1828	2,250				
1830	2,500				
1831	2,750				
1832	3,000				
1833	3,500				
1834	4,000				
1835	4,500				
1836	5,000				
1837	6,000	.87	.74	.61	.52
1838	7,000				
1839	7,500				
1840	8,000				

Type	Ohms	1-9	10-24	25-99	100-249
1840A	9,000	.87	.74	.61	.52
1841	10,000				
1842	12,500	.89	.76	.62	.53
1843	15,000				
1844	20,000				
1845	25,000	1.04	.88	.73	.62
1846	30,000				
1847	35,000				
1848	40,000				
1849	45,000	1.21	1.03	.85	.73
1850	50,000				
1851	55,000				
1852	60,000				
1853	65,000	1.44	1.22	1.01	.86
1854	70,000				
1855	75,000				
1856	80,000				
1857	85,000	1.65	1.40	1.16	.99
1858	90,000				
1859	95,000				
1860	100,000				

OHMITE Fixed Resistors



Lug type, wire-wound with vitreous enamel. Wire of the finest alloy and largest possible size is used for each resistance. The original uniform close spacing of the turns is maintained by the anchoring effect of the vitreous enamel. The wire is securely welded to the terminal lugs. Tolerance: 5%. Shpg. wt.: 10-50 watts, 4.0 oz.; 100-225 watts, 1 lb.

STYLE 270-12 — 12 WATT—1 3/4"x5/16"

Stock No.	Type	Resis. Ohms	Max. Amps.	1-9	10-24	25-99	100-249
13F1200	3723	.51	4.86	.60	.51	.42	.36
13F1201	3730	1.0	3.46				
13F1202	3734	1.5	2.83				
13F1203	3738	2.2	2.34				
13F1204	3742	3.3	1.91				
13F1205	3746	4.7	1.60				
13F1206	3750	6.8	1.33				
13F1207	3754	10	1.10				
13F1208	3756	12	1.00				
13F1209	3758	15	.89				
13F1210	3760	18	.82				
13F1211	3762	22	.74				
13F1212	3764	27	.67				
13F1213	3766	33	.60				
13F1214	3768	39	.55				
13F1215	3770	47	.53				
13F1216	3772	56	.46				
13F1217	3774	68	.42				
13F1218	3776	82	.38				
13F1219	3778	100	.35				
13F1220	3780	120	.32				
13F1221	3782	150	.28				
13F1222	3784	180	.26				
13F1223	3786	220	.23				
13F1224	3788	270	.21				
13F1225	3790	330	.19				
13F1226	3792	390	.18				
13F1227	3794	470	.16				
13F1228	3796	560	.15				
13F1229	3798	680	.13				
13F1230	3800	820	.12				
13F1231	3802	1,000	.11				
13F1232	3804	1,200	.10	.64	.54	.45	.38
13F1233	3806	1,500	.089				
13F1234	3808	1,800	.082				
13F1235	3810	2,200	.074				
13F1236	3812	2,700	.067				
13F1237	3814	3,300	.060				
13F1238	3816	3,900	.055				
13F1239	3818	4,700	.053				
13F1240	3820	5,600	.046	.74	.63	.52	.44
13F1241	3822	6,800	.042				
13F1242	3824	8,200	.038				
13F1243	3826	10,000	.035				
13F1244	3828	12,000	.032	.83	.71	.58	.50
13F1245	3830	15,000	.028				
13F1246	3832	18,000	.026				
13F1247	3834	22,000	.023	.87	.74	.61	.52
13F1248	3836	27,000	.021				
13F1249	3838	33,000	.019				
13F1250	3840	39,000	.018				
13F1251	3842	47,000	.016	.98	.83	.69	.59
13F1252	3843	51,000	.015	.98	.83	.69	.59

STYLE 270-25—25 WATT—2"x9/16"

Stock No.	Type	Resis. Ohms	Max. Amps.	1-9	10-24	25-99	100-249
13F720	0200J	1	5.00	.76	.65	.53	.46
13F721	0200K	2	3.54				
13F722	0200L	3	2.88				
13F723	0200A	5	2.24				
13F724	0200B	10	1.58				
13F725	0200R	15	1.29				
13F726	0200C	25	1.00				
13F727	0200D	50	.71				
13F728	0200E	75	.58				
13F729	0200F	100	.50				
13F730	0200G	150	.41				
13F731	0200H	200	.35				
13F732	0201	250	.32				
13F733	0202	500	.22				
13F734	0203	750	.18				
13F735	0204	800	.17				
13F736	0205	1,000	.16				
13F737	0206	1,500	.13	.79	.67	.55	.47
13F738	0207	2,000	.12				
13F739	0208	2,500	.10				
13F740	0209	3,000	.091				
13F741	0210	3,500	.084				
13F742	0211	4,000	.079				
13F743	0212	5,000	.070				
13F744	0213	6,000	.064	.89	.76	.62	.53
13F745	0214	7,500	.057				
13F746	0215	10,000	.050				
13F747	0216	12,000	.042	.95	.81	.67	.57
13F748	0217	15,000	.036				
13F749	0218	20,000	.031				
13F750	0219	25,000	.028	1.09	.93	.76	.65
13F754	0220	30,000	.026				
13F755	0221	35,000	.024				
13F751	0222	40,000	.022				
13F752	0224	50,000	.020	1.27	1.08	.89	.76
13F756	0226	70,000	.014	1.49	1.27	1.04	.89
13F753	0229	100,000	.010	1.72	1.46	1.20	1.03

STYLE 270-50—50 WATT—4"x9/16"

Stock No.	Type	Resis. Ohms	Max. Amps.	1-9	10-24	25-99	100-249
13F760	0400A	5	3.16	1.17	.99	.82	.70
13F761	0400B	10	2.23				
13F762	0400C	25	1.41				
13F763	0400D	50	1.00				
13F764	0400E	75	.82				
13F765	0400F	100	.71				
13F766	0400G	150	.58				
13F767	0400H	200	.50				
13F768	0401	250	.45				
13F769	0402	500	.32				
13F770	0403	750	.26				
13F789	0404	800	.25				
13F771	0405	1,000	.22				
13F772	0406	1,500	.18	1.20	1.02	.84	.72
13F773	0407	2,000	.16				
13F774	0408	2,500	.14				
13F775	0409	3,000	.13				
13F776	0410	4,000	.11				
13F777	0411	5,000	.10				
13F778	0412	7,500	.081	1.29	1.10	.90	.77
13F779	0413	8,000	.079	1.29	1.10	.90	.77
13F780	0414	10,000	.071	1.29	1.10	.90	.77
13F781	0415	12,000	.064	1.42	1.21	.99	.85
13F782	0416	15,000	.057	1.42	1.21	.99	.85
13F783	0417	20,000	.050	1.42	1.21	.99	.85
13F784	0418	25,000	.045	1.62	1.38	1.13	.97
13F785	0419	35,000	.032	1.62	1.38	1.13	.97
13F786	0420	50,000	.026	1.81	1.54	1.27	1.09
13F787	0421	75,000	.021	2.07	1.76	1.45	1.24
13F788	0422	100,000	.018	2.24	1.90	1.57	1.34

STYLE 270-100—100 WATT—6 1/2"x 3/4"

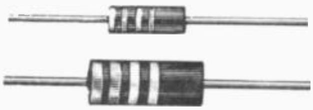
Stock No.	Type	Resis. Ohms	Max. Amps.	1-9	10-24	25-99	100-249
13F827	0600D	2	7.07	2.27	1.93	1.59	1.36
13F800	0600A	5	4.47	1.62	1.38	1.13	.97
13F801	0600B	10	3.16				
13F802	0601	25	2.00				
13F803	0602	50	1.41				
13F804	0603	75	1.15				
13F805	0604	100	1.00				
13F806	0605	150	.82				
13F807	0606	250	.63				
13F808	0607	500	.45				
13F809	0608	750	.37				
13F810	0609	1,000	.32				
13F811	0610	1,500	.26	1.68	1.43	1.18	1.01
13F812	0611	2,000	.22				
13F813	0612	2,500	.20				
13F814	0613	3,000	.18				
13F815	0614	5,000	.14				
13F816	0615	7,500	.12	1.82	1.55	1.27	1.09
13F817	0616	10,000	.10	1.82	1.55	1.27	1.09
13F818	0617	15,000	.081	1.96	1.67	1.37	1.18
13F819	0618	20,000	.071	1.96	1.67	1.37	1.18
13F820	0619	25,000	.063	2.24	1.90	1.57	1.34
13F821	0620	30,000	.058	2.24	1.90	1.57	1.34
13F822	0621	40,000	.050	2.24	1.90	1.57	1.34
13F823	0622	50,000	.045	2.32	1.97	1.62	1.39
13F825	0624	75,000	.032	2.57	2.18	1.80	1.54
13F826	0625	100,000	.028	2.89	2.46	2.02	1.73

STYLE 270-225—225 WATT—10 1/2" x 1 1/8"

Stock No.	Type	Resis. Ohms	Max. Amps.	1-9	10-24	25-99	100-249
13F830	0900A	5	6.72	3.61	3.07	2.53	2.17
13F831	0900B	10	4.74	2.58	2.19	1.81	1.55
13F832	0901	25	3.00				
13F833	0902	50	2.12				
13F834	0903	75	1.73				
13F835	0904	100	1.50				
13F836	0905	150	1.25				
13F837	0906	250	.95				
13F838	0907	500	.67				
13F839	0908	750	.55				
13F840	0909	1,000	.47				
13F841	0910	1,500	.39	2.66	2.26	1.86	1.60
13F842	0911	2,000	.34				
13F843	0912	2,500	.30				
13F844	0913	3,000	.27				
13F845	0914	5,000	.21				
13F846	0915	7,500	.17	2.85	2.42	2.00	1.71
13F847	0916	10,000	.15	2.85	2.42	2.00	1.71
13F848	0917	15,000	.13	3.03	2.58	2.12	1.82
13F849	0918	20,000	.11	3.03	2.58	2.12	1.82
13F850	0919	25,000	.095	3.13	2.66	2.19	1.88
13F851	0920	30,000	.087	3.13	2.66	2.19	1.88
13F852	0921	40,000	.075	3.13	2.66	2.19	1.88
13F853	0922	50,000	.067	3.23	2.75	2.26	1.94
13F854	0923	60,000	.061	3.23	2.75	2.26	1.94
13F855	0924	75,000	.055	3.42	2.91	2.39	2.05
13F856	0925	100,000	.047	3.63	3.09	2.54	2.18

 Newark-Electronics Center, Inc., 160 Fifth Ave., New York, New York 10010

OHMITE "LITTLE DEVIL" RESISTORS



Molded composition resistors meet all requirements for MIL-R-11E, except *. Minimum resistance under MIL spec is 2.7 ohms for ½ watt and 10 ohms for ⅛ watt. Meets salt water and high humidity requirements. Unexcelled for low noise level. Dissipate heat rapidly—can be used at their full wattage ratings at 158°F. ambient temp. 1½" leads. WT., 2 oz. **Figures in large, bold type are 10% EIA values. All values available in ±5% tolerance.**

Ohms							Megohms		
1.0	6.2	**39**	240	1500	9100	**56000**	0.24	1.1	5.1
1.1	**6.8**	43	**270**	1600	**10000**	62000	**0.27**	**1.2**	**5.6**
1.2	7.5	**47**	300	**1800**	11000	**68000**	0.30	1.3	6.2
1.3	**8.2**	51	**330**	2000	**12000**	75000	**0.33**	**1.5**	**6.8**
1.5	9.1	**56**	360	**2200**	13000	**82000**	0.36	1.6	7.5
1.6	**10**	62	**390**	2400	**15000**	91000	**0.39**	**1.8**	**8.2**
1.8	11	**68**	430	**2700**	16000	**100000**	0.43	2.0	9.1
2.0	**12**	75	**470**	3000	**18000**	110000	**0.47**	**2.2**	**10.0**
2.2	13	**82**	510	**3300**	20000	**120000**	0.51	2.4	11.0
2.4	**15**	91	**560**	3600	**22000**	130000	**0.56**	**2.7**	**12.0**
2.7	16	**100**	620	**3900**	24000	**150000**	0.62	3.0	13.0
3.0	**18**	110	**680**	4300	**27000**	160000	**0.68**	**3.3**	**15.0**
3.3	20	**120**	750	**4700**	30000	**180000**	0.75	3.6	16.0
3.6	**22**	130	**820**	5100	**33000**	200000	**0.82**	**3.9**	**18.0**
3.9	24	**150**	910	**5600**	36000	**220000**	0.91	4.3	20.0
4.3	**27**	160	**1000**	6200	**39000**		**1.0**	**4.7**	**22.0**
4.7	30	**180**	1100	**6800**	43000				
5.1	**33**	200	**1200**	7500	**47000**				
5.6	36	**220**	1300	**8200**	51000				

⅛ WATT UNITS

Voltage Rating: 150 volts r.m.s. Size: .145" x .062". Mil. RC-05.

Stock No.	Tol.	Resist. Range	May be Assorted 100 per value 1-4	5-49	50-99	100-249	250-499	500-999	1000-up
13F048	5%	2.7 ohms to 9.1 ohms*	.37	.31	.25	.218	.190	.175	.164
		10 ohms to 22 Meg.	.34	.28	.23	.198	.173	.159	.149
13F046	10%	2.7 ohms to 8.2 ohms*	.27	.22	.18	.156	.134	.123	.116
		10 ohms to 22 Meg.	.24	.20	.16	.140	.122	.112	.105

¼ WATT UNITS

Voltage Rating: 250 volts r.m.s. Size: .25x.090". Mil. RC-07.

Stock No.	Tol.	Resist. Range	1-4	5-49	50-99	100-249	250-499	500-999	1000-up
12F20[illegible]	± 5%	2.7 ohms to 9.1 ohms	.29	.24	.15	.105	.10	.08	.068
		10 ohms to 22 Meg.	.26	.22	.14	.095	.091	.073	.062
12F200	±10%	2.7 ohms to 8.2 ohms	.14	.12	.08	.055	.055	.044	.037
		10 ohms to 22 Meg.	.13	.11	.07	.05	.05	.04	.034

½ WATT UNITS

Voltage rating: 350 volts r.m.s. Size: .375 x .1404". Mil. RC-20.

Stock No.	Tol.	Resis. Range	May be Assorted 100 per value 1-4	5-49	50-99	100-249	250-499	500-999	1000-up
13F065	± 5%	1 ohm to 2.4 ohms*	.26	.22	.14	.095	.091	.073	.062
		2.7 ohms to 22 Meg.	.24	.20	.12	.075	.073	.065	.056
13F050	±10%	1 ohm to 2.2 ohms*	.13	.11	.07	.05	.05	.04	.034
		2.7 ohms to 22 Meg.	.12	.10	.06	.04	.04	.032	.03

1 WATT UNITS

Voltage Rating: 500 volts r.m.s. Size: .5625x.218". Mil. RC-32.

Stock No.	Tol.	Resis. Range	1-4	5-49	50-99	100-249	250-499	500-999	1000-up
13F070	± 5%	2.7 ohms to 22 Meg.	.36	.30	.18	.125	.123	.11	.09
13F055	±10%	2.7 ohms to 22 Meg.	.18	.15	.09	.06	.055	.050	.045

2 WATT UNITS

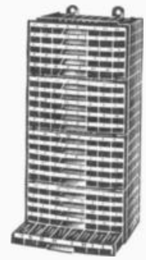
Voltage Rating: 750 volts r.m.s. Size: .6875x.3125". Mil. RC-42.

Stock No.	Tol.	Resis. Range	1-4	5-49	50-99	100-249	250-499	500-999	1000-up
13F075	± 5%	10 ohms to 22 Meg.	.48	.40	.24	.19	.185	.175	.16
13F060	±10%	10 ohms to 22 Meg.	.24	.20	.15	.11	.096	.088	.082

CAPACITOR CALCULATOR

Type #5184. Provides quick answers on capacitance problems. With one setting of slide, capacitor calculator gives the solution to problems involving frequency, reactance, power factor, dissipation factor, equivalent series resistance, impedance and phase angle. Incorporates A, B, C, D, slide rule scales. Includes important capacitance formulae and comparison chart. 7"x2⅝". Durable, heavy, varnished cardboard. Shpg. wt., 2 oz.
51F995. NET **25c**

● NEW OHMITE "LITTLE DEVIL" RESISTOR ASSORTMENTS



Seven new engineering prototype lab assortments of "Little Devil" composition resistors in handy cabinets. Resistance values from 2.7 ohms to 22 megohms. Each drawer has 8 sections individually marked with ohmic values. Quantities per ohmic value vary between 5 each and 30 each, depending on the popularity of the value. The ±5% assortments have 160 different ohmic values while the ±10% assortments have 80 values. Cabinet mounts on wall or stands on bench.

10% TOLERANCE

Stk. No.	Type	Wattage Size	No. Resistors	NET
99F1207	Cab. 25	¼	1000	70.00
99F1201	Cab. 26	½	1000	60.00
99F1202	Cab. 27	1	600	54.00

5% TOLERANCE

Stk. No.	Type	Wattage Size	No. Resistors	NET
99F1203	Cab. 45	⅛	1000	225.00
99F1204	Cab. 46	¼	1500	210.00
99F1205	Cab. 47	½	1500	180.00
99F1206	Cab. 48	1	900	160.00

OHMITE "LITTLE DEVIL" KITS

Most commonly used resistors with a plastic cabinet included at no extra cost. Cabinet has 5 drawers and 40 compartments. 9x4¾x5¼". Wt., 7 lbs.

Model CAB-4. ¼ watt ± 10% assortment with 150 resistors in values below.
13F164. NET **19.50**

Model CAB-10. ½-watt ± 10% assortment with 150 resistors in values listed below.
13F165. NET **18.00**

Model CAB-2. 1-watt ±10% assortment with 125 resistors in values below.
13F166. NET **22.50**

Model CAB-3. 2-watt ±10% assortment with 125 resistors in values below.
13F167. NET **30.00**

Quantities CAB-4	CAB-10	CAB-2 CAB-3	Ohms	Quantities CAB-4	CAB-10	CAB-2 CAB-3	Ohms
....	1	1	10	3	3	1	33,000
....	1	1	15	3	5	5	39,000
....	1	1	27	5	10	10	47,000
5	1	1	47	3	3	1	68,000
5	5	1	100	2	1	1	82,000
1	1	1	150	10	10	10	.1 meg
3	3	1	270	3	5	5	.15 meg
1	1	1	330	3	3	1	.22 meg
3	3	1	470	3	10	10	.27 meg
1	1	1	680	3	3	1	.33 meg
10	5	3	1,000	5	10	10	.47 meg
5	1	1	1,500	1	1	1	.68 meg
10	1	1	2,200	10	10	10	1.0 meg
5	3	3	2,700	1	1	1	1.5 meg
10	10	5	4,700	1	1	1	2.2 meg
5	1	1	6,800	1	3	1	2.7 meg
10	10	10	10,000	1	1	1	3.9 meg
5	3	3	15,000	1	1	1	4.7 meg
5	5	5	22,000	1	1	1	6.8 meg
5	10	10	27,000	1	1	1	10.0 meg

"LITTLE DEVIL" COLOR CODER

Type #5190. Set dial to resistor's EIA color code . . . read resistance directly. Gives MIL equivalents and chart showing availability of various resistances. Shpg. wt., 2 oz.
51F989. NET **10c**

OHM'S LAW CALCULATOR

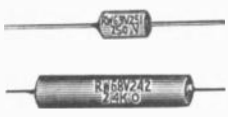
Type #5182. Easy-to-use rapid calculator. Solve electrical problems involving various applications of Ohm's Law—has a parallel-resistance calculator. Made of vinyl. Slide-rule scales. Size: 9x3". Shpg. wt., 3 oz.
51F992. NET **1.50**

Type #5180. As above, but on cardboard. Shpg. wt., 2 oz.
51F993. NET **25c**

Resistors

OHMITE MOLDED VITREOUS ENAMELED RESISTORS—SERIES 99

TYPE 991 MILITARY AXIAL LEAD POWER RESISTORS



Meets the requirements of MIL-R-26E insulated styles RW67V, RW68V, RW69V. Tolerance ±5% 1000 VAC insl. brkdwn. Vitrified, permanent markings. Leads 1½ in. long. Resistors utilize a single layer winding of high grade resistance alloy on a ceramic core. Axial type terminal leads and the resistance wire are both welded to metal end-caps which fit snugly over the core ends. Tough, moisture-resistant, vitreous enamel material is molded around the resistor. Provides a uniformly thick, dense, smooth covering. Av. Shpg. wt., 4 oz.

Stock Resistances—Ohms

1.0	18	36	68	180	360	680	1300	2700	5100
2.0	20	39	75	200	390	750	1500	3000	5600
3.0	22	43	82	220	430	820	1600	3300	6200
5.1	24	47	91	240	470	910	1800	3600	6800
10	27	51	100	270	510	1000	2000	3900	7500
12	30	56	120	300	560	1100	2200	4300	8200
15	33	62	150	330	620	1200	2400	4700	

TYPE RW69V—3 WATTS

To substitute RW59V and RW59G. OHMITE STYLE 991-3. Size: 0.203 in. Dia. by 0.547 in. L.

Stk. No.	Stock res. in ohms	NET EACH 1-9	10-24	25-99	100-249
13F310	1.0 to 910	.71	.60	.50	.43

TYPE RW67V—6.5 WATTS

To substitute RW57V and RW57G. OHMITE STYLE 991-6.5. Size: 0.313 in. dia. x 0.922 in. L.

Stk. No.	Stock res. in ohms	1-9	10-24	25-99	100-249
13F311	1.0 to 1000	.74	.63	.52	.44
	1100 to 3600	.79	.67	.55	.47

TYPE RW68V—11 WATTS

To substitute RW58V, RW58G, RW55V, RW55G and RW56G. OHMITE STYLE 991-11. Size: 0.313 in. dia. by 1.781 in. L.

Stk. No.	Stock res. in ohms	1-9	10-24	25-99	100-249
13F312	1.0 to 1000	.82	.70	.57	.49
	1100 to 4700	.88	.75	.62	.53
	5100 to 8200	1.01	.86	.71	.61

TYPE 995 "MOLDED VITREOUS" AXIAL-LEAD RESISTORS

All welded vitreous enamel resistor with 1000VAC insulation. Resists chipping, breaking, and protects against moisture, salt spray, and salt immersion. Vitrified markings resist high temperatures, solvents, and abrasions. Standard resistance tolerance: ±5%. Leads tinned, 1½"L. All sizes 20 gauge except 1½ w.: 24 gauge. Leads can be bent sharply at the body. Uniform dimensions permit use in automated assembly insertion equipment.

RESISTOR SIZE

1½ Watt: 0.422" L. x 0.125" D. 3¼ Watt: 0.547" L. x 0.203 D. 2¼ Watt: 0.375" L. x 0.188 D. 5 Watt: 0.938" L. x 0.203" D. 11 Watt: 1.781" L. x 0.313" D.

Stock Resistance—Ohms

1.0	22	82	400	1200	5000	18000
1.5	25	100	470	1500	5600	20000
2.0	27	120	500	1800	6000	22000
3.0	30	150	560	2000	6800	25000
4.0	33	180	600	2200	7000	27000
5.0	39	200	680	2500	7500	30000
7.5	40	220	700	2700	8000	33000
10	47	250	750	3000	8200	39000
12	50	270	800	3300	9000	40000
15	56	300	820	3900	10000	47000
18	68	330	900	4000	12000	50000
20	75	390	1000	4700	15000	

Specify Stock No. and Resistance when ordering.

1½ WATT UNITS—STYLE 995-1A

Stk. No.	Value in Ohms	1-9	10-24	25-99	100-249
13F168	1 to 1,000	.62	.53	.43	.37
	1,100 to 3,000	.66	.56	.46	.40

2¼ WATT UNITS—STYLE 995-2A

Stk. No.	Value in Ohms	1-9	10-24	25-99	100-249
13F169	1 to 1,000	.60	.51	.42	.36
	1,100 to 3,000	.64	.54	.45	.38

3¼ WATT UNITS—STYLE 995-3A

Stk. No.	Value in Ohms	1-9	10-24	25-99	100-249
13F145	1 to 1,000	.59	.50	.41	.35
	1,200 to 5,000	.62	.53	.43	.37
	5,600 to 10,000	.66	.56	.46	.40

5 WATT UNITS—STYLE 995-5B

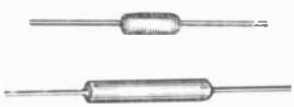
Stk. No.	Value in Ohms	1-9	10-24	25-99	100-249
13F146	1 to 1,000	.62	.53	.43	.37
	1,200 to 5,000	.66	.56	.46	.40
	5,600 to 10,000	.70	.60	.49	.42
	12,000 to 20,000	.78	.66	.55	.47
	22,000 and 25,000	.82	.70	.57	.49

11 WATT UNITS—STYLE 995-10A

Stk. No.	Value in Ohms	1-9	10-24	25-99	100-249
13F147	1 to 1,000	.68	.58	.48	.41
	1,200 to 5,000	.73	.62	.51	.44
	5,600 to 10,000	.84	.71	.59	.50
	12,000 to 20,000	.95	.81	.67	.57
	22,000 to 40,000	1.00	.85	.70	.60
	47,000 and 50,000	1.12	.95	.78	.67

SPRAGUE RESISTORS

AXIAL-LEAD "BLUE JACKET" POWER WIREWOUND RESISTORS



Designed for industrial applications demanding utmost stability under extreme operating conditions. Well suited for printed circuits, terminals boards, and point-to-point wiring applications. Unique all-welded end-cap construction eliminated moisture paths along the leads and anchors the leads securely to the resistor. Power rating is based on a max. temperature rise of 300°C above a 40° ambient at full rated wattage. Will meet performance characteristics of MIL-R-26C. Available only in values shown.

TYPE 242E—3 WATT ± 5% TOLERANCE

Size: 13/64" dia. x 17/32" L.

Stk. No.	Range (ohms)	1-24	25-99	100-249	250-499
60F290	1 thru 1000 except 35, 350, 450, 750	.44	.32	.28	.23
	1200 thru 5000 except 3.5K, 4.5K	.47	.34	.29	.24
	5600 thru 10K except 7K	.49	.37	.34	.25

TYPE 243E—5 WATT ±5% TOLERANCE

Size: 13/64" dia. x 15/16" L.

Stk. No.	Range (ohms)	1-24	25-99	100-249	250-499
60F291	1 thru 1000 except 18, 22, 27, 33, 39, 47, 56, 68, 82, 180, 270, 330, 390, 450, 560, 680, 820	.46	.37	.30	.26
	1100 thru 5000 except 2700, 3300 3900, 4700	.48	.40	.31	.27
	6000 thru 10K except 6800, 8200	.52	.42	.33	.29
	12K thru 20K except 16K, 17K,	.57	.48	.36	.32
	22K thru 30K	.64	.52	.41	.37

TYPE 247E—10 WATT ±5% TOLERANCE

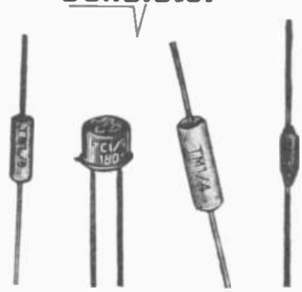
Size: 5/16" dia. x 1¾" L.

Stk. No.	Range (ohms)	1-24	25-99	100-299	250-499
60F292	1 thru 1000 except 18, 22, 27, 33, 39, 47, 56, 68, 82, 180, 270, 330, 390, 450, 470, 560, 680, 820	.46	.37	.30	.26
	1100 thru 5000 except 2700, 4700	.48	.40	.31	.27
	6000 thru 10K except 6800, 8200	.52	.42	.33	.29
	11K thru 20K except 17K	.57	.48	.36	.32
	22K thru 30K	.64	.52	.41	.37
	35K thru 40K	.67	.55	.44	.40
	45K thru 50K	.71	.59	.48	.43

TABLE OF RESISTANCE VALUES

1	12	33	75	250	470	820	2000	4000	7500	15K	35K
1.5	15	35	82	270	500	900	2200	4500	8000	16K	40K
2	18	39	100	300	560	1000	2500	4700	8200	17K	45K
3	20	40	120	330	600	1100	2700	5000	9000	18K	50K
4	22	47	150	350	680	1200	3000	5600	10K	20K	
5	25	50	180	390	700	1400	3300	6000	11K	22K	
7.5	27	56	200	400	750	1500	3500	6800	12K	25K	
10	30	68	220	450	800	1800	3900	7000	14K	30K	

Texas Instruments Resistors



TEXAS INSTRUMENTS SENSISTOR® SILICON RESISTORS

All are solid state temperature sensing resistors. Temperature compensating, temperature sensing. Positive temperature coefficient thermistors. TM¼, TM-⅛, and TC-⅛ feature large positive temperature coefficient of resistance (approx. 0.7°/C). TM-¼ & TM-⅛. Molded case. Tolerance of ±10%. Axial leads, Full lead at 100°C. Derated linearly to 150°C. Size: ¼" dia. x ½" length. TG⅛. Features round welded case. Has glass-to-metal hermetic seal between case and leads. ±10% tolerance. Full load at 125°C. Derated Linearly to 200°C. Size: ⅜" dia. x ¼" height. TG-⅛. Hermetically sealed, designed to meet or exceed all electrical requirements of MIL-T-23648A for positive-TC thermistors ±10% tolerance. Ambient and Storage Temp. Range: —65°C to 150°C. Power dis. (at 25°C)—250 mW; at 100°C—125mW. Wt. 1 oz.

Stk. No.	Type	Watts	Resistance Range	1-49	50-249	250-499	500-999
12F055	TM-¼	¼	10 ohms to 10 K	4.00	3.50	3.00	2.50
12F052	TM-⅛	⅛	10 ohms to 5.6 K	5.00	4.50	4.00	3.20
12F050	TC-⅛	⅛	10 ohms to 5.6 K	5.00	4.50	4.00	3.20
12F075	TG-⅛	⅛	10 ohms to 2.7 K	5.00	4.50	4.00	3.20

RESISTANCE TABLE FOR SENSISTORS

10	18	33	56	100	180	330	500	820	1500	2700	4700	6800
12	22	39	68	120	220	390	560	1000	1800	3300	5000	8200
15	27	47	82	150	270	470	680	1200	2200	3900	5600	10000

TYPE CR "EPOXY-PLUS" CARBON FILM RESISTORS

High moisture resistance. Insulation res. over 100,000 meg. Operate at full rated power at 70°C. amb., derated linearly to zero at 165°C. for characteristic D, 150°C. for characteristic B, to MIL-R-10509D. Size: CR-⅛, .25"Lx..095"dia.; CR-¼, .375"Lx.105" dia.; CR-½, .6"Lx.175"dia. 1% tolerance.

Stock No.	Type No.	Mil Type	Resistance Range	1-24	25-99	100-249	250-499	500-999	1000-4999
60F500	CR⅛	RN55D,B	10 Ohms to 100 Ohms	1.22	.66	.40	.30	.26	.22
			102 Ohms to 301K	1.10	.50	.30	.22	.188	.143
60F501	CR-¼	RN60D,B	10 Ohms to 1 Meg Ohms	.95	.42	.26	.18	.17	.13
60F502	CR-½	RN65D,B	10 Ohms to 100 Ohms	1.10	.50	.30	.22	.188	.143
			102 Ohms to 2.49 Meg Ohms	.95	.42	.26	.18	.17	.13
60F502	CR-½		49.9 Ohms to 499K Ohms	1.14	.58	.33	.22	.19	.185

GLASS HERMETIC RESISTORS

Hermetically sealed in hard glass for stability and reliability. Impervious to moisture. 1% ohmic tolerance. Meets or exceeds all requirements of Specification MIL-R-10509C for Characteristic B. Alloy end caps high-temperature sealed to glass shell. Size: CG ⅛-0.240 Length x 0.125 dia. CG ¼-0.360 Length x 0.140 diameter.

Stk. No.	Type	Watts Ti	Watts Mil	Mil Type	Resis. Range	Volts	1-24	25-99	100-249	250-499	500-999	1000-4999
12F110	CG ⅛	⅛	1/10	RN55G,D	10 ohms-100 ohms	250	1.22	.66	.48	.38	.31	.27
12F110	CG ⅛	⅛	1/10	RN55G,D	102 ohms-100K ohms	250	1.22	.66	.40	.30	.26	.22
12F115	CG ¼	¼	⅛	RN60D	10 ohms-100 ohms	250	1.22	.66	.48	.38	.31	.27
12F115	CG ¼	¼	⅛	RN60G	102 ohms-1 meg	250	1.22	.66	.40	.30	.26	.22

MIL LINE CARBON FILM RESISTORS

Meet or exceed all requirements of MIL-R-10509 specifications for characteristic X. High degree of stability ±1% resistance tolerance. Will withstand moisture, shock environment and abrasion. Full rated load at 70° C. Insulation resistance greater than 50,000 megohms. Negligibl noise level.

Stock No.	Type	Mil Type	Resistance Range	Watts	1-24	25-99	100-249	250-499	500-999	1000-4999
12F080	CD½MR	RN20X	10 ohms-100 ohms	½	1.10	.50	.30	.22	.188	.143
			102 ohms-4.99 meg	½	.95	.40	.24	.15	.125	.095
			5.11 meg-10 meg	½	2.20	1.30	.98	.84	.75	.68

Resistance values for units above shown below.

● *NEW* COMFORMAL METAL FILM RESISTORS

Resistors available in accordance with the requirements of MIL-R-10509E. Load rated for 125°C or 70°C applications with 1% Tol. Temperature coefficients ±100 ppm/°C. All units are mil marked.

Stk. No.	Type	Watts Ti	Watts Mil	Mil Type	Resis. Range	Volts	Length x Dia.	1-24	25-99	100-249	250-499	500-999	1000-4999
58F001	MC55D	⅛	⅛	RN55D	10 ohms—301K	200	0.250 x 0.095	.80	.40	.19	.15	.125	.095
58F002	MC60D	¼	¼	RN60D	10 ohms—499K	300	0.375 x 0.140	.80	.40	.19	.15	.125	.095
58F003	MC65D	½	½	RN65D	10 ohms—1 Meg	350	0.575 x 0.171	.80	.40	.19	.15	.125	.095

Decade Table — For Determining Mil-Bell Standard Resistance Values

Standard Resistance Values are obtained from the Decade Table by multiplying by multiples of 10. As an example, 1.33 can represent 13.3 ohms; 133 ohms, 1.33 K, 13.3 K, 133 K. 1.33 megohms.

1.00	1.21	1.47	1.78	2.15	2.61	3.16	3.83	4.64	5.62	6.81	8.25
1.02	1.24	1.50	1.82	2.21	2.67	3.24	3.92	4.75	5.76	6.98	8.45
1.05	1.27	1.54	1.87	2.26	2.74	3.32	4.02	4.87	5.90	7.15	8.66
1.07	1.30	1.58	1.91	2.32	2.80	3.40	4.12	4.99	6.04	7.32	8.87
1.10	1.33	1.62	1.96	2.37	2.87	3.48	4.22	5.11	6.19	7.50	9.09
1.13	1.37	1.65	2.00	2.43	2.94	3.57	4.32	5.23	6.34	7.68	9.31
1.15	1.40	1.69	2.05	2.49	3.01	3.65	4.42	5.36	6.49	7.87	9.53
1.18	1.43	1.74	2.10	2.55	3.09	3.74	4.53	5.49	6.65	8.06	9.76

To Serve You Better—Eleven Stocking Warehouses from Coast-to-Coast

Use the Services of the Facility Nearest You

Fixed Resistors

POWER RESISTORS "GREENOHM V"

Vitreous enamel, wire-wound power resistors engineered to meet or exced MIL-R-26 specifications. Features wire of finest grade resistance alloy. Teal green enamel finish withstands overheating without peeling or cracking. Tolerance ±5%, resistance 1 ohm and over. Designed for the utmost in reliability and stability under the most adverse conditions.

TERMINALS, WIRE LEAD AND LUG

VPR5F FIXED 8 WATT

Stk. No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F260	1 1.5 2 3 4 5 7.5 10 15 20 25 30 40 50 75 100 125 150 200 225 250 300 400 500 600 800 900 1000	.46	.40	.32	.262	.232
	1500 2000 2250 2500 3000 3500 5000	.49	.43	.34	.277	.25
	6000 7000 8000 9000 10K	.52	.45	.36	.292	.258
	12.5K 15K 17.5K 20K	.58	.51	.41	.329	.291
	22.5K	.66	.58	.46	.375	.331

VPR10F FIXED 12-WATT

Stk. No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F261	1 1.5 2 3 4 5 10 12 15 20 25 30 35 40 50 75 100 125 150 200 225	.51	.44	.35	.287	.254

VPR10F (cont'd)

Stk. No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F261	250 300 350 400 450 500 600 750 1000	.51	.44	.35	.287	.254
	1100 1200 1250 1500 1750 2000 2250 2500 3000 3500 4000 4500 5000	.54	.47	.38	.306	.271
	6000 7000 7500 8000 10K	.62	.54	.43	.352	.311
	11K 12K 15K 20K	.70	.61	.49	.398	.352
	25K	.74	.64	.51	.418	.369
	30K	.74	.64	.51	.418	.369
	40K	.83	.72	.58	.468	.414
	50K	.83	.72	.58	.468	.414

FIXED 20-WATT VPR-20H

Stk. No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F262	5 10 25 50 75 100 150 200 250 300 400 500 650 700 800 850	.61	.53	.42	.342	.302
	1250 1500 1850 2000 2400 2500 3000 3500 4000 5000	.62	.54	.43	.352	.311
	6000 7000 7500 8000 10K	.74	.64	.51	.418	.370
	12.5K 20K	.77	.66	.53	.428	.378
	25K 30K 40K	.88	.77	.61	.50	.442
	50K	1.02	.89	.71	.579	.512
	60K	1.02	.89	.71	.579	.512
	65K	1.08	.94	.75	.611	.54
	75K	1.08	.94	.75	.611	.54
	100K	1.16	1.01	.81	.655	.579

LUG TERMINALS AND MTG. BKT.

VP25K FIXED 25-WATT

Stk. No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F317	1	.64	.57	.45	.363	.321
12F318	2	.64	.57	.45	.363	.321

VP25K FIXED 25-WATT (cont'd)

Stk. No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F319 12F320 12F321 12F322 12F323 12F324 12F325 12F326 12F327 12F328 12F329 12F330 12F263 12F331 12F332	3 4 5 10 15 25 50 75 100 150 200 250 500 750 1000	.64	.57	.45	.363	.321
12F333 12F334 12F335 12F336 12F337	1500 2000 2500 3000 5000	.67	.58	.47	.378	.334
12F338	10K	.76	.66	.53	.428	.378
12F339	15K	.80	.70	.58	.45	.401
12F340	20K	.80	.70	.58	.45	.401
12F341	25K	.93	.81	.64	.523	.463
12F342	40K	.93	.81	.64	.523	.463
12F344	50K	1.08	.94	.75	.609	.539
12F345	100K	1.47	1.28	1.02	.832	.736

VP50K FIXED 50-WATT

Stk. No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F264 12F265 12F266 12F267 12F268 12F269 12F270 12F271 12F272 12F273 12F274 12F275 12F276 12F277 12F278 12F279	1 2 3 4 5 10 25 50 100 150 200 250 300 400 500 750	.99	.86	.69	.558	.493
12F280 12F281 12F282 12F283 12F284 12F285 12F286 12F287	800 1000 1250 1500 2000 3000 4000 5000	1.01	.88	.71	.573	.507
12F288	6000	1.09	.95	.76	.618	.547
12F289	10K	1.09	.95	.76	.618	.547
12F290	15K	1.20	1.05	.84	.68	.601
12F291	50K	1.54	1.34	1.07	.872	.772
12F292	100K	1.90	1.65	1.32	1.08	.951
12F293	150K	2.44	2.12	1.70	1.38	1.22
12F294	200K	2.85	2.48	1.98	1.61	1.43
12F295	250K	3.04	2.64	2.11	1.72	1.52

VK100N FIXED 100-WATT

Stk. No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F296 12F297 12F298 12F299 12F300 12F301 12F302 12F303 12F304 12F305 12F306 12F307 12F308 12F309 12F310	1 2 3 4 5 10 25 50 75 100 150 200 250 300 1000	1.37	1.19	.95	.775	.686
12F311	2500	1.42	1.24	.99	.805	.712
12F312	5000	1.42	1.24	.99	.805	.712
12F313	10K	1.54	1.34	1.07	.870	.769
12F314	50K	1.97	1.71	1.37	1.11	.983
12F315	100K	2.44	2.12	1.70	1.38	1.22
12F316	200K	3.80	3.30	2.64	2.15	1.90

ADJ. 12 WATT VP10FA

Stk. No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F366	1					
12F367	2					
12F368	3					
12F369	5					
12F370	10					
12F371	15					
12F372	20					
12F373	25					
12F374	50					
12F375	75					
12F376	100	.63	.56	.47	.408	.375
12F377	150					
12F378	200					
12F379	250					
12F380	300					
12F381	400					
12F382	500					
12F383	600					
12F384	750					
12F385	1000					
12F386	1250					
12F387	1500					
12F388	2000					
12F389	2250	.66	.59	.50	.427	.392
12F390	2500					
12F391	3000					
12F392	5000					
12F393	10K	.74	.66	.55	.473	.432

ADJ. 25-WATT VP25KA

Stk. No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F394	1					
12F395	2					
12F396	5					
12F397	10					
12F398	15					
12F399	20					
12F400	25					
12F401	50					
12F402	75	.76	.68	.57	.484	.442
12F403	100					
12F404	150					
12F405	200					
12F406	250					
12F407	400					
12F408	500					
12F409	750					
12F410	1000					
12F411	1500					
12F412	2000					
12F413	2500	.79	.60	.59	.499	.455
12F414	3000					
12F415	5000					
12F416	6000					
12F417	9000	.88	.78	.65	.549	.499
12F418	10K					
12F419	15K	.92	.82	.68	.574	.522
12F420	20K	.92	.82	.68	.574	.522
12F421	25K	1.05	.93	.77	.644	.584

ADJUSTABLE SERIES

ADJ. 50 WATT VP50KA

Stk. No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F422	1					
12F423	2					
12F424	3					
12F425	4					
12F426	5					
12F427	10					
12F428	20					
12F429	25					
12F430	50					
12F431	75	1.11	.98	.81	.679	.614
12F432	100					
12F433	150					
12F434	200					
12F435	250					
12F436	300					
12F437	400					
12F438	500					
12F439	750					
12F440	800					
12F441	1000	1.11	1.00	.83	.694	.614
12F442	1250					
12F443	1500					
12F444	2000					
12F445	3000	1.13	1.00	.83	.694	.628
12F446	3500					
12F447	5000					
12F448	7500	1.21	1.07	.88	.739	.668
12F449	10K	1.21	1.07	.88	.739	.668
12F450	15K	1.32	1.17	.96	.80	.722
12F451	20K	1.32	1.17	.96	.80	.722
12F452	25K	1.51	1.33	1.00	.905	.814
12F453	30K	1.51	1.33	1.00	.905	.814
12F454	50K	1.66	1.46	1.19	.993	8.93
12F455	100K	2.02	1.77	1.44	1.20	1.07

ADJ. 100 WATT VK100NA

Stk. No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F456	1					
12F457	2					
12F458	3					
12F459	4					
12F460	5					
12F461	10					
12F462	15	1.49	1.31	1.08	.896	.807
12F463	25					
12F464	50					
12F465	100					
12F466	150					
12F467	200					
12F468	250					

VK100NA (con't)

Stk. No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F469	300					
12F470	400					
12F471	500	1.49	1.31	1.08	.896	.807
12F472	750					
12F473	1000					
12F474	1500					
12F475	2000	1.54	1.36	1.11	.926	.833
12F476	2500					
12F477	5000					
12F478	10K	1.66	1.46	1.19	.99	.89
12F479	100K	2.56	2.24	1.82	1.50	1.34

FIXED SERIES VK200

LUG TERM. AND MTG. BKT. CONT. 200 WATT VK-200W

Stk. No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F346	1					
12F347	2					
12F348	3					
12F349	4					
12F350	5					
12F351	10					
12F352	25					
12F353	50	2.19	1.90	1.52	1.24	1.09
12F354	75					
12F355	100					
12F356	150					
12F357	200					
12F358	250					
12F359	500					
12F360	1000					
12F361	2500	2.25	1.95	1.56	1.27	1.12
12F362	5000	2.25	1.95	1.56	1.27	1.12
12F363	10K	2.42	2.10	1.68	1.37	1.21
12F364	50K	2.76	2.40	1.92	1.56	1.38
12F365	100K	3.08	2.68	2.14	1.74	1.54

Note: Fixed series VK200 has core size of 10½" x 1⅛". Adjustable series core sizes are as follows: VP50KA, 4" x 9/16"; VP25KA, 2" x 9/16"; VK100NA, 6½" x ¾"; VP10FA, 1¾" x 5/16". **(All series above are furnished with lug terminals and mounting brackets.)**

AXIAL LEAD VITREOUS RESISTORS

Particularly adapted to printed circuit, terminal board, and point to point wiring applications. These resistors save considerable space because of elimination of mounting brackets and terminal lugs. Standard resistance tolerance is ±5% for 1 ohm and higher. Finished in vitreous shade of tealgreen. Will operate with stability and reliability under most variable environmental conditions. Economically priced for quantity selector

VC3D 1Ω TO 10K — 3 WATTS

Stk. No.	Range Ohms	1-9	10-24	25-99	100-249	250-499
12F480	1.0-100	.51	.44	.35	.286	.253
	101-2.5K	47	.41	.32	.263	.233
	2501-5.5K	.53	.46	.37	.297	.263
	5501-7.5K	.57	.49	.39	.32	.283
	7501-10K	.67	.58	.47	.378	.334

VC5E 1Ω TO 25K — 5 WATTS

Stk. No.	Range Ohms	1-9	10-24	25-99	100-249	250-499
12F481	1.0-1K	.51	.44	.35	.286	.253
	1001-5K	.53	.46	.37	.297	.263
	5001-10K	.57	.49	.39	.32	.283
	10001-15K	.61	.53	.42	.343	.304
	15001-20K	.69	.60	.48	.389	.344
	20001-25K	.91	.79	.63	.515	.455

VC10F 1Ω TO 50K — 10 WATTS

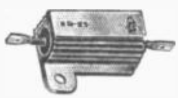
Stk. No.	Range Ohms	1-9	10-24	25-99	100-249	250-499
12F482	1.0-1K	.55	.48	.38	.309	.273
	1001-5K	.61	.53	.42	.343	.304
	5001-10K	.67	.58	.47	.378	.334
	10001-20K	.76	.66	.53	.432	.382
	20001-40K	.86	.75	.60	.486	.43
	40001-50K	1.01	.88	.70	.57	.51

OHM CHART

1	50	390	1.2K	4.5K	22K
1.5	56	400	1.25K	4.7K	25K
2	68	450	1.5K	5K	27K
3	82	470	1.75K	5.6K	30K
4	100	500	1.8K	6K	33K
5	120	560	2K		40K
7.5	150	600	2.2K	7K	45K
10	180	680	2.25K	7.5K	50K
15	200	700	2.5K	8K	
18	220	750	2.7K	8.2K	
20	225	800	3K	9K	
25	250	820	3.3K	10K	
30	270	900	3.5K	12.5K	
33	300	1K	3.9K	15K	
35	330	1.1K	4K	20K	

DALE Precision Resistors

TYPE RH-MIL-R-18546



Resistors are wire wound type with special resistance-temperature characteristics and housing configurations designed to meet MIL-R-18546 specifications. Constructed to provide a flat surface and recommended for chassis mounting to assure proper heat dissipation. Molded construction in a die-cast, gold anodized-radiator finned aluminum housing. 100% impervious to moisture and salt spray. Heavy duty leads.

RH-10 ±1% — 12.5 WATT MIL. NO. RE65

Stock No.	Resistance in Ohms	1-24	25-49	50-99	100-249	250-499	500-999
13F139	1.0-1K	1.82	1.45	1.36	1.27	1.18	1.11
	1-1K-5K	1.91	1.53	1.44	1.34	1.24	1.20
	5.1K-10K	2.08	1.66	1.56	1.45	1.35	1.28
	10.1K-12K	2.24	1.79	1.68	1.56	1.45	1.38
	12.1K-15K	2.44	1.95	1.83	1.71	1.58	1.50
	15.1K-25K	2.62	2.39	2.18	1.95	1.74	1.64
	25.1K-40K	2.90	2.65	2.41	2.17	1.93	1.80
	40.1K-50K	3.19	2.91	2.64	2.42	2.11	1.98

RH-25 ±1%—25 WATT MIL. NO. RE70

Stock No.	Resistance in Ohms	1-24	25-49	50-99	100-249	250-499	500-999
13F140	1.0-1K	1.82	1.45	1.36	1.27	1.18	1.11
	1.1K-5K	1.91	1.53	1.44	1.34	1.24	1.20
	5.1K-10K	2.08	1.66	1.56	1.45	1.35	1.28
	10.1K-12K	2.24	1.79	1.68	1.56	1.45	1.38
	12.1K-15K	2.44	1.95	1.83	1.71	1.58	1.50
	15.1K-25K	2.62	2.39	2.18	1.95	1.74	1.64
	25.1K-40K	2.90	2.65	2.41	2.17	1.93	1.80
	40.1K-50K	3.19	2.91	2.64	2.42	2.11	1.98
	50.1K-60K	3.48	3.17	2.87	2.54	2.26	2.19
	60.1K-75K	3.79	3.45	3.10	2.76	2.48	2.41
	75.1K-95.2K	4.17	3.79	3.41	3.07	2.73	2.65

RH-50 ±1%—50 WATT MIL. NO. RE75

Stock No.	Resis., Ohms	1-24	25-49	50-99	100-249	250-499	500-999
13F141	1.0-5.9	3.23	2.59	2.42	2.26	2.10	2.01
	6.0-1K	2.23	1.78	1.67	1.56	1.45	1.38
	1.1K-5K	2.34	1.87	1.76	1.64	1.52	1.44
	5.1K-10K	2.53	2.02	1.89	1.77	1.64	1.55
	10.1K-20K	2.75	2.20	2.06	1.93	1.78	1.68
	20.1K-55K	3.00	2.40	2.24	2.10	1.95	1.85
	55.1K-75K	3.26	2.61	2.44	2.28	2.11	2.05
	75.1K-100K	3.50	2.79	2.63	2.45	2.28	2.20
	100.1K-125K	3.80	3.04	2.85	2.66	2.46	2.41
	125.1K-150K	4.09	3.28	3.07	2.86	2.66	2.57
	150.1K-175K	4.38	3.50	3.29	3.07	2.85	2.76
	175.1K-225K	4.65	3.67	3.52	3.24	3.05	2.96
	225.1k-267K	5.02	3.95	3.80	3.45	3.20	3.19

STANDARD RESISTANCE VALUES —RH & RS ONLY

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
1	15	65	330	900	4.2K	14K	70K
1.5	16	70	350	950	4.3K	15K	75K
2	17.5	75	375	1K	4.5K	15.5K	80K
2.5	20	80	390	1.1K	4.7K	17.5K	90K
3	21	85	400	1.2K	5K	20K	100K
4	22.5	90	425	1.25K	5.3K	22.5K	110K
4.5	25	100	450	1.3K	6K	25K	120K
5	27.5	110	470	1.4K	6.2K	27.5K	130K
5.5	30	125	500	1.5K	6.3K	30K	140K
6	31	130	510	1.6K	6.8K	35K	150K
7	33	150	560	1.75K	7K	40K	160K
7.5	35	160	600	1.8K	7.5K	42K	170K
8	37	175	620	2K	8K	45K	175K
9	40	180	650	2.2K	8.2K	46K	182K
10	42	200	700	2.5K	9K	47K	191K
11	45	220	725	3K	10K	50K	200K
12	47	225	750	3.1K	11K	55K	221K
12.5	50	250	760	3.5K	12K	60K	232K
13	55	270	800	3.75K	12.5K	65K	243K
14	60	300	850	4K	13K	68K	267K

TYPE RS—MIL—R-26C MIL-R-23379

Type RS. These should be specified when space is at a premium and when precision and power are needed. They are of the conventional type with pigtail mounting leads. They are completely protected and silicone sealed. Surpasses MIL-R-26C.

RS-1B ±1%—1 WATT

Stock No.	Resistance in Ohms	1-24	25-49	50-99	100-249	250-499	500-999
13F137	1 - 1K	.98	.77	.73	.68	.63	.59
	1.1K- 4K	1.08	.86	.81	.75	.69	.65
	4.1K-15K	1.21	.95	.90	.83	.77	.72

RS-2B ±1%—3 WATT

Stock No.	Resistance in Ohms	1-24	25-49	50-99	100-249	250-499	500-999
13F142	1 - 1K	.75	.59	.56	.52	.48	.45
	1.1K- 5K	.83	.66	.62	.57	.53	.50
	5.1K-10K	.86	.68	.64	.59	.56	.53
	10.1K-15K	.88	.70	.66	.62	.57	.54
	15.1K-20K	.92	.74	.69	.65	.59	.56
	20.1K-24.5K	.98	.78	.74	.68	.64	.60

Resistance values not listed are available. $7.50 minimum order. Prices as listed below:
For ±0.5% tolerance add 100% to listed prices.
For 0.25% tolerance add 150% to listed prices.
For ±0.10% tolerance add 200% to listed prices.
For 0.05% tolerance add 300% to listed prices.

RS-5 ±1%—5 WATT—MIL. NO. RW-67 & RWP-21

Stock No.	Resistance in Ohms	1-24	25-49	50-99	100-249	250-499	500-999
13F143	1 - 1K	.75	.59	.56	.52	.48	.45
	1.1K- 5K	.83	.66	.62	.57	.53	.50
	5.1K-10K	.86	.68	.64	.59	.56	.53
	10.1K-15K	.88	.70	.66	.62	.57	.54
	15-1K-20K	.92	.74	.69	.65	.59	.56
	20.1K-40K	.98	.78	.74	.68	.64	.60
	40.1K-55K	1.05	.85	.79	.74	.68	.64
	55.1K-75K	1.16	.92	.87	.81	.75	.73
	75.1K-95.2K	1.28	1.02	.96	.89	.83	.80

RS-10 ±1%—10 WATT—MIL. NO. RW-68 & RWP-23

Meets precision power req. in advanced electronic circuits where space is at a premium. Silicon coating maintains stable performance under adverse environmental conditions.

Stock No.	Resistance in Ohms	1-24	25-49	50-99	100-249	250-499	500-999
13F136	1 - 1K	.75	.59	.56	.52	.48	.45
	1.1K- 5K	.83	.66	.62	.57	.53	.50
	5.1K- 10K	.86	.68	.64	.59	.56	.53
	10.1K- 15K	.88	.70	.66	.62	.57	.54
	15.1K- 20K	.92	.74	.69	.65	.59	.56
	20.1K- 40K	.98	.78	.74	.68	.64	.60
	40.1K- 55K	1.05	.85	.79	.74	.68	.64
	55.1K- 75K	1.16	.92	.87	.81	.75	.73
	75.1K-100K	1.28	1.02	.96	.89	.83	.80
	100.1K-125K	1.40	1.11	1.05	.98	.91	.88
	125.1K-150K	1.53	1.21	1.14	1.07	.99	.96
	150.1K-175K	1.67	1.33	1.25	1.17	1.09	1.05
	175.1K-225K	1.82	1.46	1.37	1.29	1.20	1.16
	225.1K-273K	2.00	1.61	1.51	1.42	1.33	1.27

Newark-Houston Electronic Corp., 6902 Harwin Drive, Houston, Texas 77036

DALE

MOLDED METAL FILM RESISTORS

Meet a variety of industrial and military applications. Vacuum deposited metal film resistors have inherently good RF characteristics and low noise level. Epoxy-molded construction protects other severe environmental factors. 1% tolerance.

Type MF. Epoxy molded. Meets MIL-R-10509.

Stk. No.	Type	Mil Type	TC Code	1-24	25-99	100-249	250-499	500-999	1M-9M
12F149	MF-1/10	RN-55D	T-1 0±100 ppm/°C 49.9 Ω — 499K	.95	.44	.22	.16	.14	.11
12F151	MF-1/8	RN-60D	T-1 0±100 ppm/°C 30 Ω — 499K	.95	.44	.22	.16	.14	.11
12F156	MF-1/10	RN-55C	T-2 0±50 ppm/°C 100 Ω — 200K	1.31	.80	.29	.18	.17	.14
12F161	MF-1/8	RN-60C	T-2 0±50 ppm/°C 49.9 Ω — 499K	1.31	.60	.29	.18	.17	.14

CARBON-FILM PRECISION RESISTORS

Type DC and DCS. Low cost miniature resistors designed for excellent protection from moisture, salt spray and other environmental conditions. Ideal for applications requiring high stability and accuracy combined with long reliable load life. Pure crystalline carbon film (no binder or filler). Excellent high frequency characteristics. Tolerance 1%. Full power to 70°C, derating at 0 at 165° C. Sizes: DC-1/4—Dia. .109 x Lt. .468 DCS1/2 Dia. .171 x Lt. .562.

Stock No.	Range Resist.	Type	Watt	1-24	25-99	100-499	500-999	1M-9M
13F148	10 ohm—2 meg.	DC-1/4 (RN-10X)	1/4	.93	.36	.14	.11	.10
	2.01 meg.-5 meg.			1.39	.60	.40	.24	.21
13F152	10-2.5 meg.	DCS-1/2 (RN-20X)	1/2	.93	36	.14	.11	.09
	2.51-5 meg.			1.39	.60	.40	.22	.17

STANDARD RESISTANCE VALUES FOR DC-1/4, DCS-1/2 AND MF RESISTORS

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Meg	Meg
10.0	22.1	48.7	107	237	523	1150	2550	5620	12.4K	27.4K	60.4K	133K	294K	649K	1.37	3.01
10.2	22.6	49.9	110	243	536	1180	2610	5760	12.7K	28.0K	61.9K	137K	301K	665K	1.40	3.09
10.5	23.2	51.1	113	249	549	1210	2670	5900	13.0K	28.7K	63.4K	140K	309K	681K	1.43	3.16
10.7	23.7	52.3	115	255	562	1240	2740	6040	13.3K	29.4K	64.9K	143K	316K	698K	1.47	3.24
11.0	24.3	53.6	118	261	576	1270	2800	6190	13.7K	30.1K	66.5K	147K	324K	715K	1.50	3.32
11.3	24.9	54.9	121	267	590	1300	2870	6340	14.0K	30.9K	68.1K	150K	332K	732K	1.54	3.40
11.5	25.5	56.2	124	274	604	1330	2940	6490	14.3K	31.6K	69.8K	154K	340K	750K	1.58	3.48
11.8	26.1	57.6	127	280	619	1370	3010	6650	14.7K	32.4K	71.5K	158K	348K	768K	1.62	3.57
12.1	26.7	59.0	130	287	634	1400	3090	6810	15.0K	33.2K	73.2K	162K	357K	787K	1.65	3.65
12.4	27.4	60.4	133	294	649	1430	3160	6980	15.4K	34.0K	75.0K	165K	365K	806K	1.69	3.74
12.7	28.0	61.9	137	301	665	1470	3240	7150	15.8K	34.8K	76.8K	169K	374K	825K	1.74	3.83
13.0	28.7	63.4	140	309	681	1500	3320	7320	16.2K	35.7K	78.7K	174K	383K	845K	1.78	3.92
13.3	29.4	64.9	143	316	698	1540	3400	7500	16.5K	36.5K	80.6K	178K	392K	866K	1.82	4.02
13.7	30.1	66.5	147	324	715	1580	3480	7680	16.9K	37.4K	82.5K	182K	402K	887K	1.87	4.12
14.0	30.9	68.1	150	332	732	1620	3570	7870	17.4K	38.3K	84.5K	187K	412K	909K	1.91	4.22
14.3	31.6	69.8	154	340	750	1650	3650	8060	17.8K	39.2K	86.6K	191K	422K	931K	1.96	4.32
14.7	32.4	71.5	158	348	768	1690	3740	8250	18.2K	40.2K	88.7K	196K	432K	953K	2.00	4.42
15.0	33.2	73.2	162	357	787	1740	3830	8450	18.7K	41.2K	90.9K	200K	442K	976K	2.05	4.53
15.4	34.0	75.0	165	365	806	1780	3920	8660	19.1K	42.2K	93.1K	205K	453K		2.10	4.64
15.8	34.8	76.8	169	374	825	1820	4020	8870	19.6K	43.2K	95.3K	210K	464K	**Meg**	2.15	4.75
16.2	35.7	78.7	174	383	845	1870	4120	9090	20.0K	44.2K	97.6K	215K	475K	1.00	2.21	4.87
16.5	36.5	80.6	178	392	866	1910	4220	9310	20.5K	45.3K	100K	221K	487K	1.02	2.26	4.99
16.9	37.4	82.5	182	402	887	1960	4320	9530	21.0K	46.4K	102K	226K	499K	1.05	2.32	5.00
17.4	38.3	84.5	187	412	909	2000	4420	9760	21.5K	47.5K	105K	232K	511K	1.07	2.37	5.00
17.8	39.2	86.6	191	422	931	2050	4530	10.0K	22.1K	48.7K	107K	237K	523K	1.10	2.43	5.00
18.2	40.2	88.7	196	432	953	2100	4640	10.2K	22.6K	49.9K	110K	243K	536K	1.13	2.49	5.00
18.7	41.2	90.9	200	442	976	2150	4750	10.5K	23.2K	51.1K	113K	249K	549K	1.15	2.55	5.00
19.1	42.2	93.1	205	453	1000	2210	4870	10.7K	23.7K	52.3K	115K	255K	562K	1.18	2.61	5.00
19.6	43.2	95.3	210	464	1020	2260	4990	11.0K	24.3K	53.6K	118K	261K	576K	1.21	2.67	5.00
20.0	44.2	97.6	215	475	1050	2320	5110	11.3K	24.9K	54.9K	121K	267K	590K	1.24	2.74	5.00
20.5	45.3	100	221	487	1070	2370	5230	11.5K	25.5K	56.2K	124K	274K	604K	1.27	2.80	5.00
21.0	46.4	102	226	499	1100	2430	5360	11.8K	26.1K	57.6K	127K	280K	619K	1.30	2.87	5.00
21.5	47.5	105	232	511	1130	2490	5490	12.1K	26.7K	59.0K	130K	287K	634K	1.33	2.94	5.00

DAVEN

MODEL 1250 ENCAPSULATED RESISTORS

Encapsulated axial lead non-inductive resistors. Meet MIL-R-93D requirements. Meet MIL-R-9444 requirements for values of 100 ohms to 100K. Tolerance: 1%. Designed to dissipate .33 watts at 25° amb. with 100°C rise. Size: 1/4" dia.x1/2" L. Avg. wt. 1.25 grams

Stock No. 10F000 . . . . See table below for values and prices.

Ohms	1-4	5-9	10-24	25-99	Ohms	1-4	5-9	10-24	25-99	Ohms	1-4	5-9	10-24	25-99
1	1.90	1.29	.92	.75	60K	2.35	1.59	1.18	.93	4000	1.90	1.29	.92	.75
10	1.90	1.29	.92	.75	70K	2.35	1.59	1.18	.93	5000	1.90	1.29	.92	.75
20	1.90	1.29	.92	.75	75K	2.35	1.59	1.18	.93	6000	1.93	1.31	.93	.77
40	1.90	1.29	.92	.75	80K	2.51	1.76	1.30	1.03	8000	1.93	1.31	.93	.77
50	1.90	1.29	.92	.75	82K	2.51	1.76	1.30	1.03	10000	1.93	1.31	.93	.77
100	1.90	1.29	.92	.75	100K	2.51	1.76	1.30	1.03	15K	2.02	1.37	1.00	.80
150	1.90	1.29	.92	.75	120K	2.60	1.80	1.40	1.11	18K	2.02	1.37	1.00	.80
200	1.90	1.29	.92	.75	150K	2.70	1.94	1.46	1.20	20K	2.02	1.37	1.00	.80
300	1.90	1.29	.92	.75	160K	2.83	2.12	1.59	1.31	22K	2.02	1.37	1.00	.80
400	1.90	1.29	.92	.75	180K	2.92	2.20	1.65	1.35	25K	2.02	1.37	1.00	.80
500	1.90	1.29	.92	.75	200K	2.92	2.20	1.65	1.35	30K	2.13	1.44	1.06	.84
600	1.90	1.29	.92	.75	220K	3.12	2.34	1.76	1.44	40K	2.13	1.44	1.06	.84
1000	1.90	1.29	.92	.75	250K	3.12	2.34	1.76	1.44	43K	2.13	1.44	1.06	.84
1500	1.90	1.29	.92	.75	300K	3.48	2.61	1.96	1.62	47K	2.13	1.44	1.06	.84
2000	1.90	1.29	.92	.75	400K	3.79	2.85	2.13	1.75	50K	2.13	1.44	1.06	.84
3000	1.90	1.29	.92	.75	500K	4.37	3.28	2.46	2.02	56K	2.35	1.59	1.18	.93

MODEL 1195 ENCAPSULATED RESISTORS

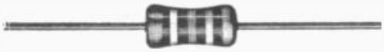
Model 1195. Axial lead resistor. Same as Model 1250 above except: Power rating is .5 watts and size is 1/4" diameter x 3/4" length. Avg. wt. 1.5 grams. **Stock No. 10F005.**

Ohms	1-4	5-9	10-24	25-99
750K	5.78	4.34	3.25	2.67
1 Meg.	6.67	5.22	3.92	3.22

CORNING Resistors

SERIES-C FILM RESISTORS

MIL-R-22684B



RL42S C-42 2 Watt

RL32S C-32 1 Watt
RL07S C44¼ Watt

RL20S C-5 ½ Watt

Large variety of small size metallic oxide film resistors. Combine small size with excellent thermal, frequency, and stability characteristics. These low-power resistors are expressly designed for TV, Radio, and allied products, where high-quality, low cost applications are required. PYREX brand glass core insulator with a very thin film of metallic oxide. Load Life Resistance change of .5%-3% after 1,000 hours of operation at 70°C. Operating Temperature from —55°C to 175°C. Moisture Resistance: Change in ohmic value 0 3-2%. Lead wire 1½"L. Tol: C-5, C-32 ±5%; C-42 ± 5 and 10%. Copper leads are standard. Mil-R-22684B.

RL07S C-4-2%—¼ Watt (Max. Dia. .098", Length .250")

Stock No.	Type	Resis. Ohms	1-99	100-249	250-999	1000-4999	5000-9000	10000
58F034	C-4	51-300K	.30	.20	.125	.10	.089	.079

RL07S C-4.5%—¼ Watt (Max. Dia. .098", Length .250")

Stock No.	Type	Resis. Ohms	1-99	100-249	250-999	1000-4999	5000-9000	10000
58F035	C-4	50-300K	.29	.18	.115	.089	.078	.068

RL20S C-5 2%—½ Watt (Max. Dia. 148", Length .416")

Stk. No.	Type	Resis. Ohms	1-99	100-249	250-999	1000-4999	5000-9000	10,000
58F023	C-5	51-150K	.30	.20	.125	.09	.081	.074

RL20S C5-5%—½ Watt (Max. Dia. .148", Length .416")

Stk. No.	Type	Resis. Ohms	1-99	100-249	250-999	1000-4999	5000-9000	10,000
58F025	C-5	10-50 ohms	.37	.24	.15	.09	.081	.074
		51-150K	.28	.18	.09	.065	.063	.059
		151K-1 Meg	.37	.24	.15	.09	.081	.074

C42S 5%—2 WATT (Max. Dia. .325", Length .718") RL42

Stock No.	Type	Resis. Ohms	1-99	100-249	250-499	500-999	1000-4999
12F005	C-42	10 ohms to 1.5 meg.	.30	.275	.225	.16	.118

C-42 ±10%—2 WATT (Max. Dia. .325", Length .718")

Stock No.	Type	Resis. Ohms	1-99	100-249	250-499	500-999	1000-4999
58F027	C-42	10 ohms to 1.5 meg.	.20	.14	.12	.09	.057

C-32 ±5%—1 WATT (Max Dia. .200", Length .593") RL32

Stock No.	Type	Resis. Ohms	1-99	100-249	250-499	500-999	1000-4999
58F026	C-32	10 ohms to 51 ohms	.32	.25	.195	.12	.112
		52-470K	.25	.20	.15	.10	.067
		471K-1Meg	.28	.22	.17	.12	.095

STANDARD RESISTANCE VALUES FOR C-FILM RESISTORS

10% tolerance values in bold face. All values available in 5% and 2% tolerance.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Megohms	
10	**27**	**68**	**180**	**470**	**1200**	**3300**	**8200**	**22000**	**56000**	**150000**	0.24	0.62
11	30	75	200	510	1300	3600	9100	24000	62000	160000	**0.27**	**0.68**
12	**33**	**82**	**220**	**560**	**1500**	**3900**	**10000**	**27000**	**68000**	**180000**	0.30	0.75
13	36	91	240	620	1600	4300	11000	30000	75000	200000	**0.33**	**0.82**
15	**39**	**100**	**270**	**680**	**1800**	**4700**	**12000**	**33000**	**82000**	**220000**	0.36	0.91
16	43	110	300	750	2000	5100	13000	36000	91000		**0.39**	**1.0**
18	**47**	**120**	**330**	**820**	**2200**	**5600**	**15000**	**39000**	**100000**		0.43	1.1
20	51	130	360	910	2400	6200	16000	43000	110000		**0.47**	**1.2**
22	**56**	**150**	**390**	**1000**	**2700**	**6800**	**18000**	**47000**	**120000**		0.51	1.3
24	62	160	430	1100	3000	7500	20000	51000	130000		**0.56**	**1.5**

NA RESISTORS

Types NA55, NA60, NA65, NA70. Has glass body with tin oxide coating temp. coef., ±0.01%/°C on NA55, NA60. NA65 and NA70 over —55° to +165°C. Overload change less than 0.5% and noise level less than 0-1 uv/v. Non-insulation, wattage: ⅛, ¼, ½, ¾ @ 70°C., tolerance: 1%. Meets MIL-R-10509E, characterictic D. Copper leads are standard.

PERFORMANCE CHART

Characteristic	70°C	70°C	125°C	125°C
Wattage, NA55	⅛	¼	1/10	⅛
Wattage, NA60	¼	½	⅛	¼
Load life DR	±0.5%	±1.0%	±0.5%	±1.0%

Stk. No.	Type	Mil Type	Range Ohms	Watt @ 70°	Watt @ 125°	Volt Rating	Max. Dia.	Max. Length	Load Life △ R	Clean Wire to wire max.	1-24	25-99	100-249	250-999	1000-9999	10,000
58F033	NA55	RN55D	51-301K	⅛	1/10	200	.098"	.250"	± .5	.281"	.85	.40	.19	.125	.095	.08
58F030	NA60	RN60D	10-49.9	¼	⅛	300	148"	.416"	± .5	.450"	1.00	.46	.24	.17	.13	.10
			50-499K	¼	⅛	300	.148'	.416"	± .5	.450"	.85	.40	.19	.125	.095	.08
58F031	NA65	RN65D	10-49.9	½	¼	350	200"	.593"	± .5	.633"	1.00	.46	.24	.17	.13	.10
			50-1 Meg	½	¼	350	200'	.593"	± .5	.633"	.85	.40	.19	.125	.095	.08
58F032	NA70	RN70D	51-1 Meg	¾	½	500	300"	.790"	± .1	.875"	1.00	.55	.24	.17	.13	.10

NC RESISTORS

Provide circuit designer ± 50 ppm temp. coefficient stability with ½ and 1% tol. in glass tin oxide film construction. Meets and conforms to Mil-R-10509E, Characteristic C, and other circuitry requiring reliable load life performance. Design tolerances, high frequency characteristics, and low current noise permit greater design freedom with other, more costly components.

NC4 (RN55C) 1/10 Watt @ 125°C ± 1% 200 Volts

Stk. No.	Res. (Ohms)	1-24	25-99	100-249	250-999	1000-9999	10000
58F036	49.9-301K	1.30	.60	.28	.17	.135	.125

NC5 (RN60C) ⅛ Watt @ 125°C ±1% 250 Volts

Stk. No.	Res. (Ohms)	1-24	25-99	100-249	250-999	1000-9999	10000
58F037	49 9-1 meg	1.30	.60	.28	.17	.135	.125

NC66 (RN65C) ¼ Watt @ 125°C ± 1% 300 Volts

Stk. No.	Res. (Ohms)	1-24	25-99	100-249	250-999	1000-9999	10000
58F038	49.9-2 meg	1.30	.60	.28	.17	.135	.125

DECADE TABLE DETERMINING MIL-BELL STANDARD RESISTANCE VALUES FOR NA AND NC

Standard Resistance Values are obtained from the Decade Table by multiplying by multiples of 10. As an example, 1.33 can represent 13.3 ohms; 133 ohms, 1.33 K, 13.3 K, 133 K. 1.33 megohms.

1.00	1.21	1.47	1.78	2.15	2.61	3.16	3.83	4.64	5.62	6.81	8.25
1.02	1.24	1.50	1.82	2.21	2.67	3.24	3.92	4.75	5.76	6.98	8.45
1.05	1.27	1.54	1.87	2.26	2.74	3.32	4.02	4.87	5.90	7.15	8.68
1.07	1.30	1.58	1.91	2.32	2.80	3.40	4.12	4.99	6.04	7.32	8.87
1.10	1.33	1.62	1.96	2.37	2.87	3.48	4.22	5.11	6.19	7.50	9.09
1.13	1.37	1.65	2.00	2.43	2.94	3.57	4.32	5.23	6.34	7.68	9.31
1.15	1.40	1.69	2.05	2.49	3.01	3.65	4.42	5.36	6.49	7.87	9.53
1.18	1.43	1.74	2.10	2.55	3.09	3.74	4.53	5.49	6.65	8.06	9.76

YSI Thermistors

YELLOW SPRINGS INSTRUMENT CO.
YELLOW SPRINGS, OHIO

PRECISION THERMISTORS

Thermistors which match a published resistance-temperature curve and thus each other to ± 1% not only at 25° C but over most of their useable range of —80° C to +150° C. Each thermistor is provided with resistance-temperature data for each degree C and with tolerance curves both in resistance variation and temperature sensing interchangeability. Base resistance from 100 ohms to 1 Megohm at 25° C available to ease circuit design impedance matching problems. Useful as transducers for measurement and control circuits where precision of YSI thermistors allow interchanging of transducers and multiple monitoring from single circuits. In control circuitry direct dialing of set points is possible as is trigger action at a specific temperature since resistance at any usable temperature is known to close tolerances. Also useful as temperature compensating devices for transistors, meters, circuits, etc. Physical size: .095" maximum dimension #32 solid tinned copper leads, 3" long. Thermistors are epoxy encapsulated for ruggedness and long life. Each thermistor supplied with data and with dissipation information, time constant and instructions. Rated at 25° C.

- Low Cost Precision Thermistors
- Matches Standard Curves—80°C to 150°C

Stock No.	Type	Ohms	Res. Tol.	Temp. Tol.	1-9	10-29	30-99
29F200	44001	100	1.0%	.3°C	4.90	4.15	3.50
29F201	44002	300	1.0%	.3°C			
29F202	44003	1K	1.0%	.3°C			
29F229	44004	2.252K	1.0%	.2°C			
29F203	44005	3K	.8%	.2°C			
29F204	44006	10K	.8%	.2°C			
29F205	44008	30K	.8%	.2°C			
29F206	44011	100K	.8%	.2°C			
29F214	44014	300K	1.0%	.2°C			
29F215	44015	1 Meg	1.0%	.2°C			

½ % PRECISION THEMISTORS

Specifically designed to match published and provided curves to within ±½% over exceptionally wide range! Units can be interchanged in measuring circuitry with a maximum 0.1°C error. Resistance tolerance data provided with each thermistor for each degree centigrade and its corresponding resistance shown from —40° to +100°C. Physical size: .095" diameter, #32 solid tinned copper leads, 3" long. Thermistors are epoxy encapsulated for ruggedness and extremely long life. Individually packaged with dissipation information, time constant data, and instructions. Rated at 25°C.

- Twice the Precision over Previous YSI Devices
- Interchangeability—0.1°C
- ± ½°C to 100°C.

Stock No.	Type	Ohms	Res. Tol.	1-9	10-29	30-99
29F223	44030	3K	.4%	9.90	8.90	7.75
29F224	44031	10K	.4%			
29F225	44032	30K	.4%			
29F228	44033	2.252K	.4%			

TEFLON® PRECISION THERMISTOR PROBES

YSI interchangeable thermistors in chemically imprevious form for sensing or control use. The interchangeable precision thermistors listed above, but additionally encased in a 2" length of chemically impervious Teflon. 3" leads extend 1" beyond the probe for convenience in attaching leads. Leads are insulated from each other by a smaller Teflon tube around one lead. Probes can be used straight or can be bent by finger pressure to exact configuration required for placing the thermistor where you want it. 11" max. in diameter.

- Precision — ± 1% at 25°C.
- Easily bent to required shape
- Chemically impervious Teflon casing

Can be assorted for quantity prices.

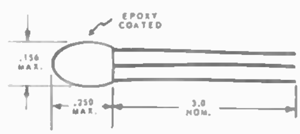
Stock No.	Type	Ohms	Res. Tol.	Temp. Tol.	1-9	10-29	30-99
29F207	44101	100	1.0%	.3°C	9.90	8.90	7.75
29F208	44102	300	1.0%	.3°C			
29F209	44103	1K	1.0%	.3°C			
29F210	44105	3K	.8%	.2°C			
29F211	44106	10K	.8%	.2°C			

Stock No.	Type	Ohms	Res. Tol.	Temp. Tol.	1-9	10-29	30-99
29F212	44108	30K	.8%	.2°C	9.90	8.90	7.75
29F213	44111	100K	.8%	.2°C			
29F216	44114	300K	1.0%	.2°C			
29F217	44115	1 Meg	1.0%	.2°C			

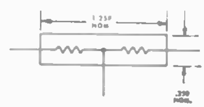
THERMILINEAR® THERMISTOR DEVICES

Linear Output Thermistor Networks

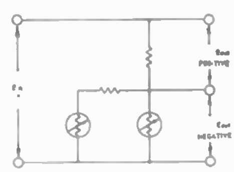
A composite precision thermistor device which, in conjunction with the precision resistors supplied, provides linear voltage output or linear resistance change with change of temperature. Sensitivities of 20 mv/°C. and more are common, 400 times the sensitivity of an IC thermocouple. Linearity deviation is as little as 2 parts in 1000 from 0 to 100°C. Combined absolute accuracy, linearity and interchangeability specifications of as little as 3 parts in 1000 from 0 to 100°C. Greater accuracies, interchangeabilities, and linearities available for shorter standard ranges. Parts guaranteed to stay within tolerances for three years. Useful for direct digital temperature indication with DVM or linear recorder. Provides linear temperature compensation with thermistor sensitivity. Time constant: 1 second, in well-stirred oil bath. Parts consist of composite thermistor and resistor assembly. Thermistor composites are manufactured to absolute accuracy tolerances of ±0.15°C from —30 to +100°C. For complete information and technical data, write Newark. Type 44018: additional thermistor composites for replacement or multiple input work.



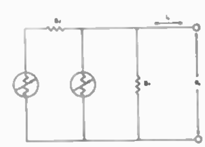
Thermistor Composite



Resistor Composite



Linear Voltage vs. Temperature



Linear Resistance vs. Temperature

Stk. No.	Type	Range	Linearity	1-9	10-29	30-99
29F218	44201	0° to 100°C	±0.2°C	19.70	18.25	16.80
29F219	44202	— 5 to — 45°C	±0.1°C			
29F220	44203	—30 to — 50°C	±0.2°C			
29F221	44204	+30 to 100°F	±0.075°F			
29F222	44018	see text		14.90	13.70	12.60
29F227	44019	—55 to 85°C	1.1°C	14.90	13.70	12.60
29F226	44211	—55 to 85°C	1.1°C	19.70	18.15	16.80

Thermistors

BEAD

Glass coated bead Thermistors feature small size, fast response, improved high-temperature stability to 400°C. Leads, fired-in platinum- iridium ± 10% to 1.

Stock No.	Type	Ohms @ 25°C	Res. Ratio 25°C/125°C	Diss. Const. (MW/°C)	Time Const.	Price Key
30F1100	81B105	1000K	51.5	.7	2 (Sec)	A
30F1101	81B504	500K	46.5	.7	2 (Sec)	A
30F1102	81B154	150K	39.7	.7	2 (Sec)	A
30F1103	81B503	50K	35.0	.7	2 (Sec)	A
30F1104	81B153	15K	29.85	.7	2 (Sec)	A
30F1105	81B103	10K	29.85	.7	2 (Sec)	A
30F1106	81B202	2K	19.8	.7	2 (Sec)	A

BEAD PROBES

Glass coated bead in the tip of a glass probe. Rugged construction. Tinned Dumet leads. Max. Temp. 400°C ± 20% Tol.

Stock No.	Type	Ohms @ 25°C	Res. Ratio 25°C/125°C	Diss. Const. (MW/°C)	Time Const.	Price Key
30F1107	81G105	1000K	51.5	1	25 (Sec)	B
30F1108	81G504	500K	46.5	1	25 (Sec)	B
30F1109	81G154	150K	39.7	1	25 (Sec)	B
30F1110	81G503	50K	35.0	1	25 (Sec)	B
30F1111	81G153	15K	29.85	1	25 (Sec)	B
30F1112	81G103	10K	29.85	1	25 (Sec)	B
30F1113	81G202	2K	19.8	1	25 (Sec)	B

DISKS

Large size Thermistors with close electrical tolerances. For temperature compensation circuits, reduces self-heating effect. Pieces especially suited for current inrush suppression and time delay application.

Stock No.	Type	Ohms @ 25°C	Res. Ratio 25°C/125°C	Diss. Const. (MW/°C)	Time Const.	Dia. In.	Price Key
30F1114	4D051	200K	48.78	2	4.5	.05	D
30F1115	4D101	100K	48.78	4	12	.1	E
30F1116	4D103	50K	48.78	4	8	.1	E
30F1117	4D201	30K	48.78	8	34	.2	E
30F1118	1D051	20K	29.85	2	4.5	.05	D
30F1119	1D053	10K	29.85	2	3.5	.05	D
30F1120	1D101	10K	29.85	4	12	.1	E
30F1121	1D103	5K	29.85	4	8	.1	E
30F1122	4D503	5K	48.78	16.5	90	.5	E
30F1123	1D201	3K	29.85	8	34	.2	E
30F1124	1D301	3K	29.85	11.5	85	.3	E
30F1125	4D403	2.5K	48.78	14	35	.4	E
30F1126	2D052	2K	19.80	2	4	.05	D
30F1127	1D203	1K	29.85	7.5	19	.2	E
30F1128	1D303	1K	29.85	9	48	.3	E
30F1129	1D401	1K	29.85	15.5	80	.4	E
30F1130	2D054	1K	19.80	2	3	.05	D
30F1131	2D102	1K	19.80	4	10	.1	E
30F1132	4D753	1K	48.78	22	80	.75	E
30F1133	1D503	500	29.85	16.5	90	.5	E
30F1134	2D104	500	19.80	4	6	.1	E
30F1135	2D202	300	19.80	8	24	.2	E
30F1136	2D302	300	19.80	10.5	75	.3	E
30F1137	1D901	250	29.85	37	260	1.0	D
30F1138	1D753	100	29.85	22	80	.75	E
30F1139	2D204	100	19.80	7.5	16	.2	E
30F1140	2D304	100	19.80	8.5	38	.3	E
30F1141	2D502	100	19.80	17.5	120	.5	E
30F1142	3D102	100	12.95	4	10	.1	E
30F1143	2D504	50	19.80	15.5	70	.5	E
30F1144	3D202	30	12.95	8	28	.2	E
30F1145	3D302	30	12.95	10.5	75	.3	E
30F1146	2D754	10	19.80	20	50	.75	E
30F1147	2D904	10	19.80	30	120	1.0	D
30F1148	3D204	10	12.95	7.5	16	.2	E
30F1149	3D402	10	12.95	15.5	70	.4	E
30F1150	3D502	10	12.95	17.5	120	.5	E
30F1151	3D504	5	12.95	15.5	70	.5	E
30F1152	3D404	2.5	12.95	14	25	.4	E
30F1153	3D754	1	12.95	20	50	.75	E

PRICE LOCATOR CHART

Key	1-9	10-24	25-49	50-99	100-499	500-999
A	3.20	1.65	1.30	1.20	1.00	.95
B	5.60	1.75	1.40	1.30	1.25	1.20
C	3.00	1.55	1.15	1.05	.95	.90
D	2.80	1.25	1.00	.95	.83	.76
E	1.60	.72	.59	.53	.45	.41
F	2.20	1.00	.80	.70	.68	.65
G	6.30	3.94	3.15	2.36	1.97	1.82

Key	1-9	10-49	50-249	250-999	1000-4999
H	2.50	2.00	1.55	1.10	.70
J	1.60	1.20	.85	.60	.45

H SERIES

Small, rugged, hermetically sealed Thermistors, good for use up to 275°C. Uniform dimensions make them desirable for automatic insertion in printed circuit boards. Gold plated Dumet leads, weldable or solderable. ±10% Tol.

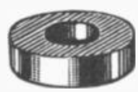
Stock No.	Type	Ohms @ 25°C	Res. Ratio 25°C/125°C	Diss. Const. CMW/°C	Time Const.	Price Key
30F1154	4H105	1000K	48.78	2	8 (Sec)	C
30F1155	4H504	500K	48.78	2	8 (Sec)	C
30F1156	2H103	10K	19.80	2	8 (Sec)	C
30F1157	2H502	5K	19.80	2	8 (Sec)	C
30F1158	2H202	2K	19.80	2	8 (Sec)	C

RODS

Rod Thermistor, cover range from small mass low time constant to high mass low self heating to fill rod application. Max. Temp. 150°C.

Stock No.	Type	Ohms @ 25°C	Res. Ratio 25°C/125°C	Diss. Const. (MW/°C)	Time Const.	Dia. (In.)	Price Key
30F1159	4R051	1000K	48.78	3	12	.05	D
30F1160	4R171	500K	48.78	18	120	.173	F
30F1161	4R113	315K	48.78	7	50	.112	F
30F1162	1R051	100K	29.85	3	12	.05	D
30F1163	1R111	100K	29.85	10	70	.112	F
30F1164	1R171	50K	29.85	18	120	.173	F
30F1165	1R113	31.5K	29.85	7	50	.112	F
30F1166	1R173	20K	29.85	13	80	.173	F
30F1167	2R052	10K	19.80	3	12	.05	D
30F1168	2R112	10K	19.80	8	70	.112	F
30F1169	2R172	5K	19.80	15	120	.173	F
30F1170	2R114	4.3K	19.80	6	50	.112	F
30F1171	2R174	2K	19.80	11	80	.173	F
30F1172	3R052	1K	12.95	3	12	.05	D

WASHERS



Washer types to meet special mounting needs of chassis or heat sink mounting. Maximum temperature 150°C. Tolerence: ± 10%. Dia. .75 In.

Stock No.	Type	Ohms @ 25°C	Res. Ratio 25°C/125°C	Price Key
30F1173	1W751	415	29.85	F
30F1174	1W753	315	29.85	F
30F1175	1W755	100	29.85	F
30F1176	2W752	41.5	19.80	F
30F1177	2W754	31.5	19.80	F
30F1178	2W756	10	19.80	F

WASHERS ASSEMBLIES

Assemblies meet requirements for large mass sensing with long time constants for compensation. Maximum temperature 150°C. Tolerence: ± 10%. Dia. .75 In.

Stock No.	Type	Ohms @ 25°C	Dis. Const. CMW/°C	Price Key
30F1179	9RT1A1	415	29.85	G
30F1180	9RT1A3	315	29.85	G
30F1181	9RT1A5	100	29.85	G
30F1182	9RT1A2	41.5	19.80	G
30F1183	9RT1A4	31.5	19.80	G
30F1184	9RT1A6	10	19.80	G

ECONOMY PACKAGE 1 H-SERIES

boards.Small hermetically sealed units for use up to 275°C. Uniform dimensions facilitate automatic insertion in printed circuit boards. Gold plated Dumet leads 1⅛" long. Last 2 digits in type indicate Tol. 05-5%, 10-10%.

No. Stock	Type	Ohms @ 25°C	Res. Ratio 25°C/125°C	Diss. Const.	Time Const.	Price Key
30F1185	1H18305	18K	29.85	2	8 (Sec)	H
30F1186	1H20305	20K	29.85	2	8 (Sec)	H
30F1187	1H22305	22K	29.85	2	8 (Sec)	H
30F1188	1H24305	24K	29.85	2	8 (Sec)	H
30F1189	1H27305	27K	29.85	2	8 (Sec)	H
30F1190	1H30305	30K	29.85	2	8 (Sec)	H
30F1191	1H33305	33K	29.85	2	8 (Sec)	H
30F1192	1H36305	36K	29.85	2	8 (Sec)	H
30F1193	1H39305	39K	29.85	2	8 (Sec)	H
30F1194	1H43305	43K	29.85	2	8 (Sec)	H
30F1195	1H47305	47K	29.85	2	8 (Sec)	H
30F1196	1H51305	51K	29.85	2	8 (Sec)	H
30F1197	1H56305	56K	29.85	2	8 (Sec)	H
30F1198	1H18310	18K	29.85	2	8 (Sec)	J
30F1199	1H22310	22K	29.85	2	8 (Sec)	J
30F1200	1H27310	27K	29.85	2	8 (Sec)	J
30F1201	1H33310	33K	29.85	2	8 (Sec)	J
30F1202	1H39310	39K	29.85	2	8 (Sec)	J
30F1203	1H47310	47K	29.85	2	8 (Sec)	J
30F1204	1H56310	56K	29.85	2	8 (Sec)	J

Thermistors, & Thyrite® Varistors

MAN-MADE™ DIAMOND THERMISTORS

Small hermetically sealed units capable of operation from —200°C to +450°C (to +650° in a non-oxidizing atmosphere). Tolerance in resistance at 125°C is ±10%. Diss. (MW/°C) 2.

Stock No.	Type	Ohms@ 25°C	Res. Ratio 125°C/200°C	Time Const.	1-9	10-24	25-49
30F1205	91H552	5.5K	2.35	14 (Sec.)	8.25	7.00	6.15
30F1206	91H672	6.7K					
30F1207	91H812	8.1K					
30F1208	91H103	10K					

Stock No.	Type	Ohms@ 25°C	Res. Ratio 125°C/200°C	Time Const.	1-9	10-24	25-49
30F1209	91H123	12K	2.35	14 (Sec.)	8.25	7.00	6.15
30F1210	91H153	15K					
30F1211	91H183	18K					
30F1212	91H223	22K					
30F1213	91H273	27K					
30F1214	91H333	33K					

THYRITE® VARISTORS

RODS

Protects circuits and components from inductive voltage surges by limiting peak discharge voltage, when AC or DC magnetic or inductive circuit current is suddenly interrupted. Applications include rectification of asymmetrical waveforms in TV circuits to aid High Voltage Regulation. Max. Temp. 110°C ±20% tol.

Stock No.	Type	DC Oper. Volts	Power Rating Watts	1-9	10-24	25-49	50-99	100-499
30F1215	72R-2200	3300	0.4	2.80	1.75	1.50	1.05	.88
30F1216	72R-2100	1700	0.25	1.60	1.00	.80	.60	.50
30F1217	71R-2100	1100	0.25					
30F1218	69R-2100	600	0.25					
30F1219	68R-2100	300	0.25					
30F1220	66R-2100	150	0.25					

DISKS

Varistors protect circuits and components from inductive voltage surges by limiting peak discharge voltage, when AC or DC magnetic or inductive current is suddenly interrupted. Black Glyptal coated after moisture protection with Silicone Impregnation. Max Temp. 110°C.

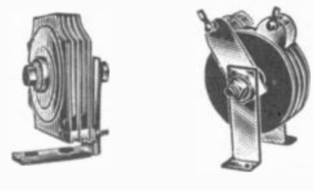
Stock No.	Type	DC Oper. Volts	Power Rating Watts	1-9	10-24	25-49	50-99	100-499
30F1221	70D-5010	150	0.25	1.20	.75	.60	.45	.38
30F1222	68D-5010	60	0.25					
30F1223	67D-5010	30	0.25					
30F1224	65D-5010	15	0.25					
30F1225	71D-7000	150	0.75	1.80	1.13	.90	.68	.56
30F1226	68D-7000	60	0.75					
30F1227	66D-7000	30	0.75					
30F1228	63D-7000	15	0.75					
30F1229	71D-10000	300	1.50	2.00	1.25	1.00	.75	.63
30F1230	68D-10000	150	1.50					
30F1231	66D-10000	60	1.50					
30F1232	63D-10000	30	1.50					

WASHERS

Varistors protect circuits and components from inductive voltage surges by limiting peak discharge voltage, when AC or DC magnetic or inductive current is suddenly interrupted. Silicone Impregnation provided to insure protection against moisture. ±20% Tolerance, short-time body temp. 150°C, continuous body temp. 110°C. 3" Dia. except (*) 6".

Stock No.	Type	DC Oper. Volts	Power Rating Watts	1-9	10-24	25-49	50-99	100-499
30F1233	71W-30100	1500	3.5	7.88	5.93	4.73	3.57	3.15
30F1234	69W-30100	300	3.0					
30F1235	68W-30100	150	3.0					
30F1236	67W-30100	60	3.0	5.51	4.15	3.26	2.52	2.21
30F1237	66W-30100	30	3.0					
30F1238	63W-30100	15	3.0					
30F1239	62W-30100	7	3.0					
30F1240	*69W-60100	275	10.0	12.50	10.61	9.03	7.82	6.88
30F1241	*68W-60200	200	10.0					
30F1242	*68W-60100	150	10.0					

ASSEMBLIES



Protect circuits and components from inductive voltage surges. Assemblies have one or more Thyrite® washers bracket-mounted with spring lock washer for contact pressure. Washer insulated from central bolt and mounting brackets. Connections made to terminals shown. Bracket mounted assemblies available for stud mounting. Substitute "C" for "A" or "B" in type number. Varistors moisture protected with Silicone Impregnation. AC voltage rating 90% of DC voltage rating. Continuous body temp. —110°C.

Stock No.	Type	Disks	DC Oper. Volts	Watts	1-9	10-24	25-49	50-99
30F1243	9RV3A1	1	6	3	9.60	8.21	7.06	6.23
30F1244	9RV3A2	2	6	6	16.32	13.89	12.02	10.58
30F1245	9RV3A3	4	6	12	22.39	19.08	16.43	14.50
30F1246	9RV3A4	1	12	3	9.60	8.21	7.06	6.23
30F1247	9RV3A5	2	12	6	16.32	13.89	12.02	10.58
30F1248	9RV3A6	4	12	12	22.39	19.08	16.43	14.50
30F1249	9RV3A7	2	25	6	13.72	11.69	10.09	8.87
30F1250	9RV3A8	1	50	3	9.60	8.21	7.06	6.23
30F1251	9RV3A9	2	50	6	16.32	13.89	12.02	10.58
30F1252	9RV3A10	4	50	12	22.39	19.08	16.43	14.50
30F1253	9RV3A11	2	100	6	13.72	11.69	10.09	8.87
30F1254	9RV3A12	1	150	3	11.47	9.82	8.49	7.44
30F1255	9RV3A14	1	300	3	11.47	9.82	8.49	7.44
30F1256	9RV3A15	2	600	6	16.87	14.45	12.40	10.92
30F1257	9RV3A51	1	1500	3.5	10.31	8.77	7.61	6.67
30F1258	9RV3A52	2	3000	7	16.49	14.11	12.13	10.70
30F1259	9RV3A53	3	4500	10.5	22.71	19.35	16.65	14.67
30F1260	9RV3A54	4	6000	14	28.89	24.64	21.22	18.69
30F1261	9RV3A55	5	7500	17.5	35.06	29.88	25.80	22.71
30F1262	9RV3A56	6	9000	21	41.23	35.18	30.32	26.68
30F1263	9RV3A57	7	10.5K	24.5	47.41	40.47	34.84	30.70
30F1264	9RV3B5	2	15	6	16.32	13.89	12.02	10.58
30F1265	9RV3B7	2	30	6	16.32	13.89	12.02	10.58
30F1266	9RV3B10	4	60	12	22.39	19.08	16.43	14.50
30F1267	9RV3B11	2	100	6	16.32	13.89	12.02	10.58
30F1268	9RV6A1	1	150	10	20.90	17.86	15.38	13.50
30F1269	9RV6A2	2	150	20	35.28	30.16	25.97	22.88
30F1270	9RV6A3	3	150	30	49.29	42.06	36.28	31.92
30F1271	9RV6A4	4	150	40	61.19	52.15	44.98	39.59
30F1272	9RV6A5	2	300	20	36.60	31.26	26.95	23.71
30F1273	9RV6A6	1	275	10	20.90	17.86	15.38	13.50
30F1274	9RV6A7	2	275	20	35.28	30.16	25.97	22.88
30F1275	9RV6A8	3	275	30	49.29	42.06	36.28	31.92
30F1276	9RV6A9	4	275	40	61.19	52.15	44.98	39.59
30F1277	9RV6A10	2	550	20	36.60	31.26	26.95	23.71

ENGINEERING APPRAISAL VARISTOR KITS

KIT KV1

TYPE	2 Ea.	DC Oper. Volts	Power Rating Watts
DISK	70D-5010	150	0.25
DISK	68D-5010	60	0.25
DISK	67D-5010	30	0.25
DISK	65D-5010	15	0.25

30F1278 .... Per Kit 15.00

KIT KV2

TYPE	2 Ea.	DC Oper. Volts	Power Rating Watts
ROD	72R-2200	3300	0.4
ROD	72R-2100	1700	0.25
ROD	69R-2100	600	0.25
ROD	68R-2100	300	0.25
ROD	66R-2100	1500	0.25

30F1279 .... Per Kit 15.00

ENGINEERING APPRAISAL VARISTOR KITS

KIT KV3

TYPE	2 Ea.	DC Oper. Volts	Power Rating Watts
DISK	71D-7000	150	0.75
DISK	68D-7000	60	0.75
DISK	66D-7000	30	0.75
DISK	63D-7000	15	0.75

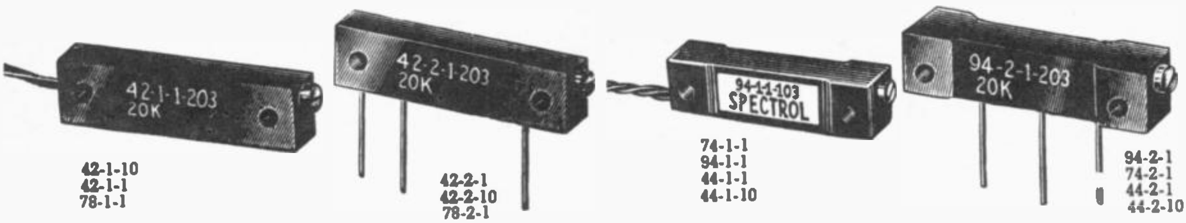
30F1280 .... Per Kit 15.00

KIT KV4

TYPE	2 Ea.	DC Oper. Volts	Power Rating Watts
DISK	71D-10000	300	1.50
DISK	68D-10000	150	1.50
DISK	66D-10000	60	1.50
DISK	63D-10000	30	1.50

30F1281 .... Per Kit 15.00

Spectrol Trimming Potentiometers



MODEL 42

Rectangular wirewound type. Resistance tolerance ±5%. Tempco 50 ppm. Power rating 1.0 watt at 70°C. Operating temperature —65°C to 175°C. Meets MIL specs. Number of turns 22±5. 42-1-1 has 12" teflon leads. 42-2-1 has PC pins. Size .190 x .315 x 1.250. Mtg. hole centers 1 inch. Wt. 4.3 grams max.

Type 42-1-1	Type 42-2-1	Ohms	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F2500	12F2511	50							
12F2501	12F2512	100							
12F2502	12F2513	200							
12F2503	12F2514	500	5.75	5.24	4.90	4.56	4.39	4.06	3.89
12F2504	12F2515	1K							
12F2505	12F2516	2K							
12F2506	12F2517	5K							
12F2507	12F2518	10K							
12F2508	12F2519	20K	6.44	5.88	5.50	5.12	4.93	4.55	4.36
12F2509	12F2520	50K	6.95	6.34	5.93	5.52	5.32	4.91	4.70
12F2510	12F2521	100K	8.62	7.86	7.35	6.85	6.49	6.08	5.83

MODEL 44

Rectangular wirewound type. Resistance tolerance ±5%. Tempco 50 ppm. Power rating 1.0 watt at 70°C. Operating temperature —65°C to 175°C. Meets MIL specs. Number of turns 22±5. 44-1-1 has 12" teflon leads. 44-2-1 has PC pins. Size .280 x .315 x 1.250. Mtg. hole centers 1 inch. Wt. 4.5 grams max.

Type 44-1-1	Type 44-2-1	Ohms	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F2522	12F2533	50							
12F2523	12F2534	100							
12F2524	12F2535	200							
12F2525	12F2536	500	5.56	5.07	4.74	4.42	4.25	3.92	3.76
12F2526	12F2537	1K							
12F2527	12F2538	2K							
12F2528	12F2539	5K							
12F2529	12F2540	10K							
12F2530	12F2541	20K	6.22	5.67	5.31	4.94	4.76	4.39	4.21
12F2531	12F2542	50K	6.73	6.14	5.74	5.35	5.15	4.75	4.55
12F2532	12F2543	100K	8.35	7.61	7.12	6.63	6.38	5.89	5.65

SERIES 949 "CERMET" TRIMMING POTS

1¼" rectangular types for industrial and commercial application. Multi-finger wiper design provides redundant positive contact under the most severe environments. Fired-on precious metal terminals assure minimum end resistance. Rated ¾ watt at 70°C; temperature range —25 to +125°C. Excellent stability due to physical characteristics of uniform cermet element. Equivalent to Bournes Types 272 and 276. ±20% tol. Type 949-1-1 has Wire Leads. Type 949-2-1 has PL Leads.

Leads 949-1-1	PC Type 949-2-1	Ohms	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F2978	12F2990	100							
12F2979	12F2991	200							
12F2980	12F2992	500							
12F2981	12F2993	1K							
12F2982	12F2994	2K							
12F2983	12F2995	5K							
12F2984	12F2996	10K	3.03	2.76	2.58	2.40	2.31	2.14	2.05
12F2985	12F2997	20K							
12F2986	12F2998	50K							
12F2987	12F2999	100K							
12F2988	12F3000	500K							
12F2989	12F3001	1 Meg							

MODEL 74

Rectangular wirewound type. Resistance tolerance ±10%. Tempco 50 ppm. Power rating 1 watt at 70°C. Operating temperature —65°C to 125°C. Meets MIL specs. Number of turns 22±5. 74-1-1 has 12" teflon leads. 74-2-1 has PC pins. Size .280 x .315 x 1.250. Mtg. hole centers 1 inch. Wt. 4.5 grams max.

Type 74-1-1	Type 74-2-1	Ohms	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F2554	12F2565	50							
12F2555	12F2566	100							
12F2556	12F2567	200							
12F2557	12F2568	500	4.93	4.50	4.21	3.92	3.77	3.48	3.34
12F2558	12F2569	1K							
12F2559	12F2570	2K							
12F2560	12F2571	5K							
12F2561	12F2572	10K							
12F2562	12F2573	20K	5.53	5.04	4.71	4.39	4.23	3.90	3.74
12F2563	12F2574	50K	5.97	5.44	5.09	4.74	4.56	4.21	4.04

MIL STYLE RT 12

Meets MIL-R-27208. Resistance tolerance ±5%. Tempco 50 ppm. Power rating 1.0 watt at 70°C. Operating temperature —65°C to 175°C. Number of turns 22±5. Size .190 x .315 x 1.250. Mtg. hole centers 1 inch. Wt. 4.3 grams max.

42-1-10 RT12C2L	42-2-10 RT12C2P	Ohms	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F2822	12F2831	50							
12F2823	12F2832	100							
12F2824	12F2833	200							
12F2825	12F2834	500	5.38	4.98	4.62	4.34	4.03	3.77	3.52
12F2826	12F2835	1K							
12F2827	12F2836	2K							
12F2828	12F2837	5K							
12F2829	12F2838	10K							
12F2830	12F2839	20K	5.93	5.49	5.09	4.73	4.44	4.17	3.89

MIL STYLE RT 11

Meets MIL-R-27208. Resistance tolerance ±5%. Tempco 50 ppm. Power rating 1.0 watt at 70°C. Operating temperature —65°C to 175°C. Number of turns 22±5. Size .280 x .315 x 1.250. Mtg. hole centers 1 inch. Wt. 4.5 grams max.

44-1-10 RT11C2L	44-2-10 RT11C2P	Ohms	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F2840	12F2849	50							
12F2841	12F2850	100							
12F2842	12F2851	200							
12F2843	12F2852	500	5.38	4.98	4.62	4.34	4.03	3.77	3.52
12F2844	12F2853	1K							
12F2845	12F2854	2K							
12F2846	12F2855	5K							
12F2847	12F2856	10K							
12F2848	12F2857	20K	5.93	5.49	5.09	4.73	4.44	4.17	3.89

MODEL 78

Rectangular, non-wirewound. Tol: 20%. Tempco ±450 PPM/°C. Power rating ¾ watt @ 70°C. Oper. temp: —25°C to +125°C. Type 78-1-1 has wire leads. Type 78-2-1 has PC leads. Size: .32 x 1.25". Mtg. hole centers 1". Wt. 0.1 oz.

78-1-1 Stk. No.	78-2-1 Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499	500-999
8F865	8F881	10							
8F866	8F882	20							
8F867	8F883	50							
8F868	8F884	100							
8F869	8F885	200							
8F870	8F886	500							
8F871	8F887	1K							
8F872	8F888	2K	3.00	2.85	2.70	2.57	2.43	2.29	2.15
8F873	8F889	5K							
8F874	8F890	10K							
8F875	8F891	20K							
8F876	8F892	50K							
8F877	8F893	100K							
8F878	8F894	200K							
8F879	8F895	500K							
8F880	8F896	1 Meg.							

MODEL 94

Rectangular wirewound type. Resistance tolerance ±10%. Tempco 100 ppm. Power rating 0.5 watt at 70°C. Operating temperature —65°C to 105°C. Number of turns 22±5. 94-1-1 has 12" teflon leads. 94-2-1 has PC pins. Size .280 x .315 x 1.250. Mtg. hole centers 1 inch. Wt. 4.5 grams.

94-1-1 Stk. No	94-2-1 Stk. No	Ohms	1-9	10-24	25-49	50-99	100-499	250-499	500-999
12F2576	12F2584	50							
12F2577	12F2585	100							
12F2578	12F2586	200							
12F2579	12F2587	500	3.15	2.87	2.68	2.50	2.41	2.22	2.13
12F2580	12F2588	1K							
12F2581	12F2589	2K							
12F2582	12F2590	5K							
12F2583	12F2591	10K							
12F3002	12F3003	20K	3.52	3.21	3.00	2.80	2.69	2.48	2.38

MIL STYLE RT 22 TRIMMING POTS

Meets MIL-R-27208. Power rating 1.5 watts at 70°C. Tempco 50 ppm. Resistance tolerance ±5%. Operating temperature —65°C to 150°C. Case size: ½x½x3/16". Weight: 2.5 grams.

INSULATED LEADS

Type 55-1-10 RT22C2L Stock No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F2960	50	5.35	5.05	4.73	4.46	4.22	4.03	3.84
12F2961	100							
12F2962	200							
12F2963	500							
12F2964	1K							
12F2965	2K							
12F2966	5K							
12F2967	10K							
12F2968	20K	5.84	5.51	5.18	4.87	4.60	4.37	4.16

PRINTED CIRCUIT PINS

Type 55-2-10 RT22C2X Stock No.	Type 55-3-10 RT22C2W Stock No.	Type 55-4-10 RT22C2P Stock No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499	500-999
8F909	8F918	12F2969	50	4.81	4.53	4.25	3.99	3.84	3.65	3.47
8F910	8F919	12F2970	100							
8F911	8F920	12F2971	200							
8F912	8F921	12F2972	500							
8F913	8F922	12F2973	1K							
8F914	8F923	12F2974	2K							
8F915	8F924	12F2975	5K							
8F916	8F925	12F2976	10K							
8F917	8F926	12F2977	20K	5.28	4.98	4.68	4.38	4.20	4.01	3.84

MIL STYLE RT24 TRIMMING POTS

Meets MIL-R-27208. Power rating 1 watt at 50°C. Tempco 50 PPM/°C. Resistance tolerance ±5%. Operating temperature —65°C to +150°C. Case size: ⅜" square. Printed Circuit Pins. Weight 1.5 grams.

Type 50-4-10	Ohms	1-9	10-24	25-49	50-99	100-249	250-499	500-999
8F927	10	4.81	4.53	4.25	3.99	3.84	3.65	3.47
8F928	20							
8F929	50							
8F930	100							
8F931	200							
8F932	500							
8F933	1K							
8F934	2K							
8F935	5K							
8F936	10K							

MODEL 55 TRIMMING POTS

Meets or exceeds all applicable military and commercial specifications. Power rating 1.5 watts at 70°C. Tempco 50 ppm. Resistance tolerance ±5%. Operating temperature —65°C to 150°C. Models 55-(x)-8 with stops/clutch, 25 turns. Models 55-(x)-12 continuous rotation. 42 turns. Case size ½x½x³⁄₁₆. Wt. 2.5 grams.

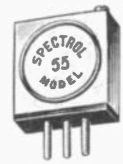
TEFLON INSULATED LEADS

Type 55-1-8 Stock No.	Type 55-1-12 Stock No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F3006	12F3008	10	5.78	5.27	4.93	4.59	4.42	4.08	3.91
12F3007	12F3009	20							
12F2622	12F2781	50							
12F2623	12F2782	100							
12F2624	12F2783	200							
12F2625	12F2784	500							
12F2626	12F2785	1K							
12F2627	12F2786	2K							
12F2628	12F2787	5K							
12F2629	12F2788	10K							
12F2630	12F2789	20K	6.48	5.91	5.53	5.14	4.95	4.57	4.38
12F2631	12F2790	50K	6.99	6.37	5.96	5.55	5.34	4.93	4.73

PRINTED CIRCUIT PINS

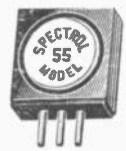
Type 55-4-8 Stk. No.	Type 55-4-12 Stk. No.	Type 55-3-8 Stk. No.	Type 55-3-12 Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F3010	12F3012	12F3014	12F3016	10	5.78	5.27	4.93	4.59	4.42	4.08	3.91
12F3011	12F3013	12F3015	12F3017	20							
12F2632	12F2801	12F2791	12F2642	50							
12F2633	12F2802	12F2792	12F2643	100							
12F2634	12F2803	12F2793	12F2644	200							
12F2635	12F2804	12F2794	12F2645	500							
12F2636	12F2805	12F2795	12F2646	1K							
12F2637	12F2806	12F2796	12F2647	2K							
12F2638	12F2807	12F2797	12F2648	5K							
12F2639	12F2808	12F2798	12F2649	10K							
12F2640	12F2[illegible]	12F2799	12F2650	20K	6.48	5.91	5.53	5.14	4.95	4.57	4.38
12F2641	12F2810	12F2800	12F2651	50K	6.99	6.37	5.96	5.55	5.34	4.93	4.73

55-1-10



55-3-10

55-4-10
50-4-10



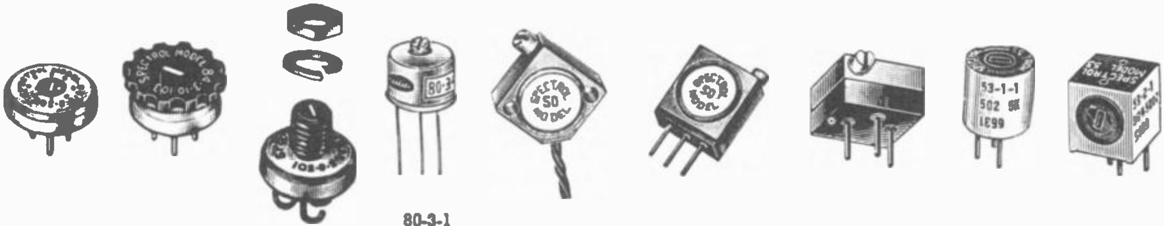
55-2-10

55-1-8
55-1-12

55-3-8
55-3-12

55-4-8
55-4-12

Spectrol Precision Potentiometers



84-3-8 | 84-3-10 | 84-5-6 | 80-3-1 80-3-4 | 50-1-1 | 50-3-1 | 50-4-1 | 53-1-1 | 53-2-1

MODEL 84 SINGLE TURN

Meets or exceeds MIL specs. Power rating 1.5 watts at 70°C. Tempco 50 ppm. Temperature range —65°C to 175°C. Case diameter 1/2". Model 84-3-8, screwdriver adjust, PC pins. Model 84-3-10, knob adjust, PC pins. Model 84-5-6, panel bushing mount, solder hooks.

TYPE 84-3-8—SCREWDRIVER ADJUST-PC PINS

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F2958	10	3.32	3.02	2.83	2.63	2.54	2.34	2.24
12F2959	20							
12F2680	50							
12F2681	100							
12F2682	200							
12F2683	500							
12F2684	1K							
12F2685	2K							
12F2686	5K							
12F2687	10K							
12F2688	20K	3.71	3.38	3.16	2.94	2.83	2.62	2.51
12F2689	50K	4.01	3.66	3.42	3.19	3.07	2.83	2.71
12F2690	100K	4.98	4.54	4.25	3.96	3.81	3.52	3.37

TYPE 84-3-10—KNOB ADJUST-PC PINS

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F2932	10	4.00	3.64	3.41	3.17	3.06	2.82	2.70
12F2933	20							
12F2934	50							
12F2935	100							
12F2936	200							
12F2937	500							
12F2938	1K							
12F2939	2K							
12F2940	5K							
12F2941	10K							
12F2942	20K	4.47	4.08	3.81	3.55	3.42	3.16	3.03
12F2943	50K	4.83	4.40	4.12	3.83	3.69	3.41	3.27
12F2944	100K	6.00	5.47	5.12	4.77	4.59	4.24	4.06

TYPE 84-5-6—PANEL BUSHING MOUNT-SOLDER HOOKS

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F2945	10	5.10	4.65	4.35	4.05	3.90	3.60	3.45
12F2946	20							
12F2947	50							
12F2948	100							
12F2949	200							
12F2950	500							
12F2951	1K							
12F2952	2K							
12F2953	5K							
12F2954	10K							
12F2955	20K	5.71	5.21	4.87	4.54	4.37	4.03	3.86
12F2956	50K	6.17	5.63	5.26	4.90	4.72	4.36	4.18
12F2957	100K	7.65	6.98	6.53	6.08	5.85	5.40	5.18

PANEL MOUNTING

All Spectrol trimmers can be furnished with panel mounts on special order. Add the following charge to the regular trimmer price.

1-9	10-24	25-49	50-99	100-249	250-499	500-999
.87	.79	.74	.69	.66	.61	.57

MODEL 80 SINGLE TURN

Ultraminiature TO-9 size. Terminal spacing per standard MIL grid. High power rating 1 watt at 50°C. Resistance tolerance ±5%. Tempco 50 ppm. 80-3-4: 310° elec. travel with end stops. 80-3-1: cont. rotation with 335° elec. travel. Temperature range —65°C to 150°C Size .241 x .325 dia.

Type 80-3-4 Stk. No.	Type 80-3-1 Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F3025	12F3027	10	3.74	3.41	3.19	2.97	2.86	2.64	2.53
12F3026	12F3028	20							
12F2652	12F2662	50							
12F2653	12F2663	100							
12F2654	12F2664	200							
12F2655	12F2665	500							
12F2656	12F2666	1K							
12F2657	12F2667	2K							
12F2658	12F2668	5K							
12F2659	12F2669	10K							
12F2660	12F2670	20K	4.18	3.81	3.57	3.32	3.20	2.95	2.83
12F2661	12F2671	50K	4.52	4.12	3.86	3.59	3.46	3.19	3.06

● *NEW* MODEL 53 TRIMMING POTENTIOMETERS

Power rated 0.5 watt at 85°C. Resistance tolerance ±20%. Actual effective electrical travel: 280° minimum. Dielectric withstanding voltage: 2000VAC at sea level, 250 VAC at 80000 feet. Insulation resistance: 1000 megohoms. Mechanical adjustment: 314° minimum, stop to stop. Shaft torque: 8.0 oz-in max. Rotation life: 200 cycles min. with loading circuit. Static stop strength: 15 oz-in. min. Weight: 1.5 grams.

53-1-1 ROUND, TOP ADJUST

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F3029	10	2.13	1.94	1.81	1.69	1.63	1.50	1.44
12F3030	20							
12F3031	50							
12F3032	100							
12F3033	200							
12F3034	500							
12F3035	1K							
12F3036	2K							
12F3037	5K							
12F3038	10K							
12F3039	20K							
12F3040	50K							
12F3041	100K							
12F3042	200K							
12F3043	500K							
12F3044	1 meg							

53-2-1 CUBE, SIDE ADJUST

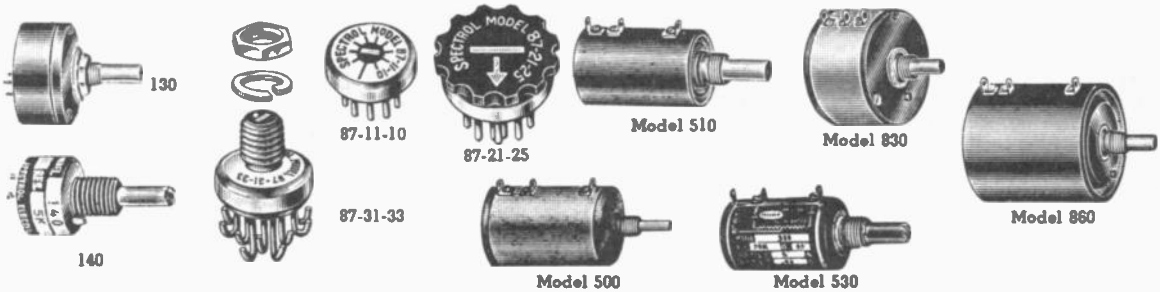
Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F3045	10	2.55	2.33	2.18	2.03	1.95	1.80	1.73
12F3046	20							
12F3047	50							
12F3048	100							
12F3049	200							
12F3050	500							
12F3051	1K							
12F3052	2K							
12F3053	5K							
12F3054	10K							
12F3055	20K							
12F3056	50K							
12F3057	100K							
12F3058	200K							
12F3059	500K							
12F3060	1 meg							

MODEL 50

Meets or exceeds all applicable military and commercial specifications. Power rating 1.0 watt at 50°C. Tempco 50 ppm. Resistance tolerance ±5%. Operating temperature —65° to 150°C. Number of turns 23±2. **Type 50-1-1** has Insulated Leads all others have printed circuit pins. Case size 3/8x3/8x3/16. Wt. 1.5 grams.

Type 50-1-1	Type 50-2-1	Type 50-3-1	Type 50-4-1	Ohms	1-9	10-24	25-49	50-99	100-249	250-499	500-999
12F2592	8F937	12F2602	12F2612	50	6.80	6.20	5.80	5.40	5.20	4.80	4.60
12F2593	8F938	12F2603	12F2613	100	6.80	6.20	5.80	5.40	5.20	4.80	4.60
12F2594	8F939	12F2604	12F2614	200	6.80	6.20	5.80	5.40	5.20	4.80	4.60
12F2595	8F940	12F2605	12F2615	500	6.80	6.20	5.80	5.40	5.20	4.80	4.60
12F2596	8F941	12F2606	12F2616	1K	6.80	6.20	5.80	5.40	5.20	4.80	4.60
12F2597	8F942	12F2607	12F2617	2K	6.80	6.20	5.80	5.40	5.20	4.80	4.60
12F2598	8F943	12F2608	12F2618	5K	6.80	6.20	5.80	5.40	5.20	4.80	4.60
12F2599	8F944	12F2609	12F2619	10K	6.80	6.20	5.80	5.40	5.20	4.80	4.60
12F2600	8F945	12F2610	12F2620	20K	7.62	6.94	6.50	6.05	5.82	5.38	5.15
12F2601	8F946	12F2611	12F2621	50K	8.23	7.50	7.02	6.53	6.29	5.81	5.57

Trimming Potentiometers Spectrol



MODEL 500 10 TURN—7/8" DIAMETER

Power rating 3.0 watts at 40°C. Tempco 20 ppm except 100 ohms at 180 ppm. Operating temperature —55°C to 125°C. Resistance tolerance ±3%. Linearity ±.25%. Max. start torque .5 oz. in. 1.5" long. 1/8" shaft. 1/4-32 bushing. Shipping wt. 1.1 oz.

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
12F2709	100	15.00	14.25	13.50	12.75	12.00	11.25
12F2710	500						
12F2711	1K						
12F2712	2K						
12F2713	5K						
12F2714	10K						
12F2715	20K						
12F2716	30K						
12F2717	50K						
12F2718	100K						

MODEL 130 SINGLE-TURN 1-5/16" DIAMETER

High reliability at low cost. Terminals at rear. Bushing mount. Power rating 2.75 watts at 40°C. Temperature range (operating) —55°C to 105°C. Resistance tolerance ±3%. 360° mech. rotation, 352° ±2° elec. rot. Body length 5/8". Shaft diameter 1/4". Shpg. wt. 1.5 oz.

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
12F2691	100	9.00	8.55	8.10	7.65	7.20	6.75
12F2692	1K						
12F2693	2K						
12F2694	5K						
12F2695	10K						
12F2696	20K						
12F2697	30K						

MODEL 140 SINGLE TURN 1/2" DIAMETER

Small diameter, rear terminals for maximum package density. Linearity tolerance 1%. Power rating 2 watts at 40°C. Operating temperature range —55°C to 125°C. 330° ±5° mech. rotation, 320° ±5° elec. rot. Body length .305". Shaft diameter 1/8". Shipping weight 0.1 oz.

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
12F2698	50	8.65	8.22	7.80	7.37	6.93	6.50
12F2699	100						
12F2700	200						
12F2701	500						
12F2702	1K						
12F2703	2K						
12F2704	5K						
12F2705	10K						
12F2706	20K						
12F2707	50K						

MINIATURE ROTARY SWITCHES

Maximum current rating 250 MA at 28 VDC. Contact resistance, .05 ohms; insulation resistance, 1000 megaohms. Operating temperatures, —65°C to +150°C. Positive detent switch action with 36° indexing. Stop strength of 15 oz-in. Maximum weight, 1.7 grams.

Type 87-11-xx. Screwdriver adjustment-type switches.
Type 87-21-xx. Knob adjustment type switches.
Type 87-31-xx. Threaded bushing mount switches for panel mounting.

Stk. No.	Type	Poles	1-9	10-24	25-49	50-99	100-249	250-499	500-999
8F900	87-11-19	1	4.13	3.77	3.52	3.28	3.16	2.92	2.80
8F901	87-21-19	1	4.79	4.37	4.09	3.81	3.67	3.38	3.24
8F902	87-31-10	1	5.29	4.82	4.51	4.20	4.04	3.73	3.58
8F903	87-11-24	2	4.62	4.22	3.94	3.67	3.54	3.26	3.13
8F904	87-21-24	2	5.29	4.82	4.51	4.20	4.04	3.73	3.58
8F905	87-31-25	2	5.80	5.29	4.95	4.60	4.43	4.09	3.92
8F906	87-11-33	3	4.96	4.53	4.23	3.94	3.80	3.50	3.36
8F907	87-21-33	3	5.63	5.13	4.80	4.47	4.30	3.97	3.81
8F908	87-31-33	3	6.12	5.58	5.22	4.86	4.68	4.32	4.14

NOTE: Last digit of type number is number of active positions per pole. i.e., 87-11-19 is 9 positions, 87-11-10 is ten, etc.

MODEL 510 10 TURN—7/8" DIAMETER

Power rating 3.0 watts at 40°C. Tempco 20 ppm. Except 100 ohms at 180 ppm. Operating temperature —55°C to 105°C. Resistance tolerance ±3%. Linearity ±.25%. Max. start torque .5 oz. in. 1.5" long. 1/4" shaft. 3/8-32 bushing. Shipping weight 1.5 oz.

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
12F2719	100	10.00	9.50	9.00	8.50	8.00	7.50
12F2720	200						
12F2721	500						
12F2722	1K						
12F2723	2K						
12F2724	5K						
12F2725	10K						
12F2726	20K						
12F2727	30K						
12F2728	50K						
12F2729	100K						

MODEL 530 10 TURN—7/8" DIAMETER

Power rating 3.0 watts at 40°C. Tempco 20 ppm. except 100 ohms at 180 ppm. Operating temperature —55°C to 105°C. Resistance tolerance ±5%. Linearity ±.25%. Max. start torque .5 oz. in 1.4" long. 1/4" slotted shaft. 3/8-32 bushing. Shipping wt. 1.5 oz.

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
12F3004	100	7.00	6.65	6.30	5.95	5.60	5.25
12F3005	200						
12F2890	500						
12F2891	1K						
12F2892	2K						
12F2893	5K						
12F2894	10K						
12F2895	20K						
12F2896	30K						
12F2897	50K						
12F2898	100K						

MODEL 830 3-TURN—1-13/16" DIAMETER

Power rating 3 watts at 40°C. Operating temperature —55°C to 105°C. Meets or exceeds military and industrial specifications. Resistance tolerance ±3%. Linearity tolerance ±.25%. Max. start torque 1.75 oz. in. 1.220" long. 1/4" shaf.t 3/8-32 bushing. Shipping weight 3.0 oz.

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
12F2746	100	10.00	9.50	9.00	8.75	8.50	8.00
12F2747	500						
12F2748	1K						
12F2749	2K						
12F2750	5K						
12F2751	10K						
12F2752	20K						
12F2753	30K						
12F2754	50K						

MODEL 860 10-TURN—1-13/16" DIAMETER

Power rating 8 watts at 40°C. Operating temperature —55°C to 105°C. Resistance tolerance ±3%. Linearity tolerance ±.25%. Max. start torque 1.75 oz. in. 2" long. 1/4" shaft. 3/8-32 bushing. Shipping weight 4.5 oz.

12F2755	25	10.00	9.50	9.00	8.50	8.00	7.50
12F2756	50						
12F2757	100						
12F2758	200						
12F2759	500						
12F2760	1K						
12F2761	2K						
12F2762	5K						
12F2763	10K						
12F2764	20K						
12F2765	30K						
12F2766	50K						
12F2767	100K						
12F2768	200K						
12F2769	300K						
12F2770	400K						

Potentiometer and Counting Dials

SPECTROL

MODEL 162 10 TURN—½" DIAMETER

Model 162

Small size rear terminals allows use where space is at a premium. Power rating 2 watts at 40°C. Tempco 20 ppm. Operating temperature —55°C to 125°C. Resistance tolerance ±5%. Lineartiy tolerance 0.3%. Max. start torque 0.8 oz. in. One inch long. .0935 Dia. slotted shaft, ¼-32 bushing. Shipping weight 1.0 oz.

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
12F2899	100	10.00	9.50	9.00	8.50	8.00	7.50
12F2900	200						

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
12F2901	500	10.00	9.50	9.00	8.50	8.00	7.50
12F2902	1K						
12F2903	2K						
12F2904	5K						
12F2905	10K						
12F2906	20K						
12F2907	30K						
12F2908	50K						

PRECISION COUNTING DIALS

Model 21 Model 25 Model 30

Accuracy of better than 0.1% when used with 10-turn pot. Fast numeral transfer takes place in less than one division. Unique one-finger brake lever prevents dial creepage or loss of setting no matter how severe vibration or shock encountered.

PRECISION TURNS-COUNTING DIALS

Model 11. Eleven turns. Registers 1099 total count. Satin chrome, black markings. 1" diameter.

Stk. No.	Type	Shaft Diameter	1-9	10-24	25-49	50-99	100-249	250-499
12F2773	11-1-11	¼"	7.75	7.36	6.98	6.59	6.20	5.81
12F2774	11-3-11	⅛"	8.35	7.93	7.52	7.10	6.68	6.26
12F3095	11-5-11	3/32"	8.95	8.31	7.88	7.44	7.00	6.56

Model 21. 15 turns. Satin chrome plated finish. Brake lever holds dial in any position. 1 13/16" diameter. 1" deep. Shipping weight: 3 ounces.

Stock No.	Type	Shaft Diameter	1-9	10-24	25-49	50-99	100-249	250-499
8F898	21-1-11	¼"	5.75	5.45	5.18	4.89	4.60	4.31
2F899	21-3-11	⅛"	6.35	6.03	5.72	5.40	5.08	4.76

DIGITAL DIAL

Model 25-1-13. Three digit dial reads to 1099 in 11 turns. Fine calibrations allow settings to 1/10 of a digit accuracy. 2 to 1 gear ratio between setting knob and device shaft for extremely fine settings. Mounts directly to panel. Satin chrome finish with black plastic turn-knob. 1 13/16" dia. 1⅝" protrusion from panel.

12F2777	25-1-13	¼"	14.25	13.54	12.83	12.11	11.40	10.69

Model 25-4-13. 4-digit dial unit similar to above reads to 9999 in 100 turns.

12F2778	25-4-13	¼"	19.75	18.76	17.78	16.79	15.80	14.81

PRECISION TURNS-COUNTING DIAL

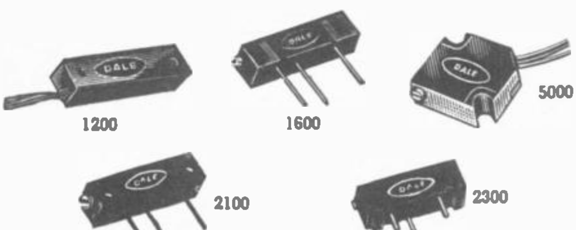
Model 30. Ten turns. Registers 999 total count. Satin chrome, black markings. 1 13/16" diameter.

12F2779	30-1-11	¼"	5.75	5.46	5.18	4.89	4.60	4.31
12F2780	30-3-11	⅛"	6.35	6.03	5.72	5.40	5.08	4.76

DALE

MILITARY GRADE TRIMMER POTENTIOMETERS—HIGH TEMP., HUMIDITY-PROOF, PRECISION

1 watt @ 70°C Temp. range: —65°C to 175°C. **1287, 1680, 2187:** Printed Circuit Pins 21 AWG. **1288:** Stranded Teflon Leads 28AWG (5050—30 AWG) **2387:** Printed Circuit Terminals Gold Plated. **2389:** Solder Lugs.



1200 1600 5000 2100 2300

SERIES 1200

Ohms	1287 Stk. No.	1288 Stk. No.	1-9	10-24	25-49	50-99	100-249	250-499	500-999
10	13F1550	13F1565	6.12	5.69	5.27	4.90	4.59	4.35	4.10
20	13F1551	13F1566							
50	13F1552	13F1567							
100	13F1553	13F1568							
200	13F1554	13F1569							
500	13F1555	13F1570							
1K	13F1556	13F1571							
2K	13F1557	13F1572							
5K	13F1558	13F1573							
10K	13F1559	13F1574	6.67	6.20	5.73	5.33	4.98	4.72	4.45
15K	13F1560	13F1575							
20K	13F1561	13F1576							
25K	13F1562	13F1577							
50K	13F1563	13F1578	8.39	7.79	7.19	6.67	6.24	5.90	5.55
100K	13F1564	13F1579	8.39	7.79	7.19	6.67	6.24	5.90	5.55

SERIES 1600

Ohms	1680 Stk. No.	1-9	10-24	25-49	50-99	100-249	250-499	500-999
10	13F1580	5.56	5.13	4.71	4.34	4.03	3.79	3.54
20	13F1581							
50	13F1582							
100	13F1583							
200	13F1584							
500	13F1585							
1K	13F1586							
2K	13F1587							
5K	13F1588							
10K	13F1589							
20K	13F1590	6.11	5.64	5.17	4.77	4.42	4.16	[illegible]
50K	13F1591	6.43	5.94	5.47	5.07	4.72	4.46	4.19

SERIES 2100

Ohms	2187 Stk. No.	1-9	10-24	25-49	50-99	100-249	250-499	500-999
10	13F1628	3.66	3.41	3.18	3.01	2.86	2.71	2.59
20	13F1629							
50	13F1630							
100	13F1631							
200	13F1632							
500	13F1633							
1K	13F1634							
2K	13F1635							
5K	13F1636							
10K	13F1637							
15K	13F1638	4.17	3.87	3.61	3.39	3.22	3.05	3.92
20K	13F1639							
25K	13F1640							
50K	13F1641	5.76	5.33	4.96	4.65	4.40	4.44	3.97
100K	13F1642	5.76	5.33	4.96	4.65	4.40	5.20	3.97

SERIES 5000

Ohms	5050 No.	1-9	10-24	25-49	50-99	100-249	250-499	500-999
10	13F1604	5.47	5.14	4.84	4.54	4.24	4.00	3.74
20	13F1605							
50	13F1606							
100	13F1607							
200	13F1608							
500	13F1609							
1K	13F1610							
2K	13F1611							
5K	13F1612							
10K	13F1613							
20K	13F1614	6.02	5.69	5.36	5.03	4.70	4.15	4.17
50K	13F1615	7.07	6.68	6.29	5.90	5.41	5.20	4.89

SERIES 2300

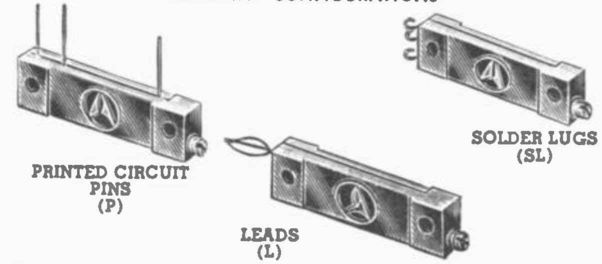
Ohms	2387 Stk. No.	2389 Stk. No.	1-9	10-24	25-49	50-99	100-249	250-499	500-999
10	13F1658	13F1670	1.82	1.67	1.50	1.38	1.27	1.16	1.06
20	13F1659	13F1671							
50	13F1660	13F1672							
100	13F1661	13F1673							
200	13F1662	13F1674							
500	13F1663	13F1675							
1K	13F1664	13F1676							
2K	13F1665	13F1677							
5K	13F1666	13F1678							
10K	13F1667	13F1679							
20K	13F1668	13F1680	2.22	2.07	1.90	1.78	1.67	1.56	1.46
50K	13F1669	13F1681							

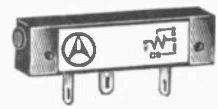
Amphenol Trimmers

3800 & 3810

2750 SL

TERMINAL CONFIGURATIONS





2850 SL

2900 L

3800 SERIES — NEW IMPROVED VERSION OF 2600 SERIES
EXACT ELECTRICAL REPLACEMENT

Micro-Miniature Trimmers. —65° to +125°C. 1 watt at 40°C. .75 x .16 x .31". Up to 52% higher resolution than many trimmers selling up to six times the price. Silver brazed terminations virtually eliminate end resistance. Self-locking leadscrew, and low mass contact design permits the 3800 to withstand acceleration and shock up to 50 g's. T.C., 30 ppm nominal. Damage proof clutch. Rated one full watt at 40°C, derated to zero at 125°C. Factory tested. 2610P is humidity-proof version.

3800P SERIES WIREWOUND

Stock No.	Ohms	Resolution No. of Turns	Resolution %	1-9	10-24	25-49	50-99	100-249	250-499
30F1510	10	56	1.78						
30F1511	20	74	1.35						
30F1512	50	101	.98						
30F1513	100	105	.95						
30F1514	200	135	.72						
30F1515	500	157	.64	1.75	1.62	1.46	1.39	1.30	1.23
30F1516	1,000	191	.525						
30F1517	2,000	211	.474						
30F1518	5,000	314	.32						
30F1519	10,000	403	.24						
30F1520	20,000	455	.22						

3810P SERIES WIREWOUND

Stock No.	Ohms	Resolution No. of Turns	Resolution %	1-9	10-24	25-49	50-99	100-249	250-499
30F1521	10	56	1.78						
30F1522	20	74	1.35						
30F1523	50	101	.98						
30F1524	100	105	.95						
30F1525	200	135	.72						
30F1526	500	157	.64	2.14	1.98	1.86	1.75	1.66	1.55
30F1527	1,000	191	.525						
30F1528	2,000	211	.474						
30F1529	5,000	314	.32						
30F1530	10,000	403	.24						
30F1531	20,000	455	.22						

2750 SERIES (RT 12)

Designed to meet all the specifications detailed in MIL-R-27208A, style RT12. Lead-screw actuated, wirewound, and humidity proof of the high temperature type. Operating temperature ranges from —65° to +175°C. Stranded copper wire leads are color coded and teflon insulated for extra insulation in corrosive atmospheres. 11½" minimum lengths. Total resistance tolerance is ±5% with a power rating of 1 watt at 70°C, which is derated to 0 at 175°C. Range of adjustment from lead-screw is 22 turns. Size: 1.25"x0.19"x0.32".

Type 2750 L Stock No.	Type 2750P Stock No.	Type 2750SL Stock No.	Ohms	Resolution No. of Trns.	1-9	10-24	25-49	50-99	100-249	250-499
12F1657	12F1757	12F1857	10	77						
12F1658	12F1758	12F1858	20	97						
12F1659	12F1759	12F1859	50	126						
12F1660	12F1760	12F1860	100	154						
12F1661	12F1761	12F1861	200	192						
12F1662	12F1762	12F1862	500	256	5.21	4.83	4.53	4.27	4.04	3.78
12F1663	12F1763	12F1863	1000	237						
12F1664	12F1764	12F1864	2000	288						
12F1665	12F1765	12F1865	5000	398						
12F1666	12F1766	12F1866	10000	475						
12F1667	12F1767	12F1867	20000	605	5.74	5.32	4.99	4.70	4.45	4.16
12F1668	12F1768	12F1868	50000	715	6.50	6.05	5.66	5.31	5.07	4.70
12F1669	12F1769	12F1869	100000	1180	7.75	7.21	6.75	6.35	6.05	5.60

2850 SERIES (RT 11)

Designed to meet government specifications as stated in MIL-R-27208A, style RT 11. Rated one full watt at 110°C, the 2850 is a high temperature, humidity proof, wirewound precision trimmer, with a temperature range of —65°C to +175°C. Special silver brazed terminations minimize end resistance to a minute ohm, or 0.25% of the total resistance. Total resistance tolerance is ±5%. Extra long ceramic mandrel provides more turns of resistance element, superior resolution. 12" tinned teflon insulated leads.

Type 2850L Stock No.	Type 2850P Stock No.	Type 2850SL Stock No.	Ohms	Resolution No. of Turns	1-9	10-24	25-49	50-99	100-249	250-499
12F1644	12F1744	12F1844	10	61						
12F1645	12F1745	12F1845	20	77						
12F1646	12F1746	12F1846	50	102						
12F1647	12F1747	12F1847	100	154						
12F1648	12F1748	12F1848	200	192						
12F1649	12F1749	12F1849	500	176	5.21	4.83	4.53	4.27	4.04	3.78
12F1650	12F1750	12F1850	1K	238						
12F1651	12F1751	12F1851	2K	287						
12F1652	12F1752	12F1852	5K	343						
12F1653	12F1753	12F1853	10K	570						
12F1654	12F1754	12F1854	20K	675	5.74	5.32	4.99	4.70	4.45	4.16
12F1655	12F1755	12F1855	50K	915	6.55	6.07	5.67	5.33	5.08	4.71
12F1656	12F1756	12F1856	100K	1100	7.75	7.20	6.74	6.34	6.04	5.60

2900 SERIES (RT 22)

Trimmers are ½" square, humidity-proof, and wirewound. Conform to government standards specified in MIL-R-27208A. An ambient temperature range of —65°C to +175°C. Power dissipation is one watt at 70°C derated to at 175°C. Complete adjustment of this instrument is achieved in 25 turns of the lead-screw. Six inch long wire leads are color coded for your convenience, and teflon insulated for extra protection against corrosive forces. Total resistance tolerance ±5%.

Type 2900L Stock No.	Type 2900P Stock No.	Ohms	Resolution No. of Trns.	1-9	10-24	25-49	99 50-	100-249	250-499
12F1670	12F1770	10	100						
12F1671	12F1771	20	130						
12F1672	12F1772	50	185						
12F1673	12F1773	100	233						
12F1674	12F1774	200	286						
12F1675	12F1775	500	286	5.43	5.04	4.72	4.45	4.21	3.94
12F1676	12F1776	1000	322						
12F1677	12F1777	2000	477						
12F1678	12F1778	5000	625						
12F1679	12F1779	10000	714						
12F1680	12F1780	20000	910	5.93	5.50	5.16	4.85	4.60	4.30
12F1681	12F1781	50000	1190	7.10	6.60	6.16	5.80	5.53	5.13

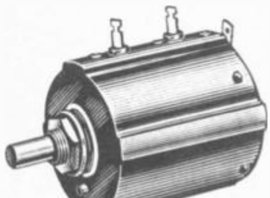
Amphenol Trimmers and Potentiometers

• NEW MINIATURE POTENTIOMETER

Model 4100. Capable of dissapating 2 watts at 40°C for 1,000 hrs., and has a mechanical life of over 200,000 revolutions. Wiper and contacts are made of a precious metal to prevent corrosion and noise, but is amazingly inexpensive. Exclusive wiper drive mechanism guarantees zero backlash for precise settings. Standard Linearity Tol. is .25%. Standard Res. is ±5%. Size: 7/8" dia. x 1 3/16". Wt. 1 ounce maximum.

Stk. No.	Type	Ohms	Max. amps. through Element (40°C)	1-9	10-24	25-49	50-99	100-249
30F1500	4101B-101	100	140	5.95	5.65	5.35	5.05	4.75
30F1501	4101B-201	200	.100					
30F1502	4101B-501	500	.063					
30F1503	4101B-102	1,000	.044					
30F1504	4101B-202	2,000	.032					
30F1505	4101B-502	5,000	.020					
30F1506	4101B-103	10,000	.014					
30F1507	4101B-203	20,000	.010					
30F1508	4101B-503	50,000	0063					
30F1509	4101B-104	100,000	.0045					

MODEL 205 MICROPOT 10-TURN POTS



- **Dual Bearings**
- **Zero-based Resolution**
- **64% better Resolution**
- **Anti-backlash Drive**
- **Rugged Molded Element**

Designed for both military and commercial application. Single shaft, non-gangable. Mechanical Rotation: 3600° +15° —0° Electrical Rotation: 3600° +14.4° —0. Resistance Tolerance: ±3% except items marked (*) which are ±10%. Linearity Accuracy: ±1% except (*) which are ±1% independent linearity. Running torque not over 1.5 inch ounces, starting torque not to exceed 3 0 inch ounces. Power dissipation 5 watts at 40°C. Shaft: 1/2" long, .25" dia. Size 2 1/8" long; 1 3/4" dia. Fits panel hole .405" dia. Shpg. wt. 8 oz.

Stock No.	Ohms	Resolution: Turns of Wire	Resolution: %	Res. Element (40°C): Maximum Voltage	Res. Element (40°C): Max. Current in Amps
12F800*	1.15	....	..	2.4	2.08
12F801*	2.9	. . . . .	.	3.8	1.32
12F802*	25	2520	.040	11.2	.450
12F803*	50	3230	.031	15 9	.316
12F804	100	3820	.026	22.3	.223
12F805	200	6100	.0164	31.6	.158
12F806	500	5150	.0195	50 0	.100
12F807	1K	6200	.0162	72.0	.070
12F808	2K	7800	.0141	100 0	.050
12F809	5K	9170	.0109	160.0	.0315
12F810	10K	8300	.0120	222.0	.0225
12F811	20K	10900	.0092	318 0	.0159
12F812	30K	13000	.0077	390 0	.0128
12F813	50K	17000	0059	500 0	.0100
12F814	100K	18750	.0053	710 0	.0070

PRICES	1-9	10-24	25-99	100-199	200-499
	16.86	15.81	14.75	14.05	11.94

2901 METAL FILM TRIMMERS

Offers a temperature coefficient as low as 50 ppm/°C and zero noise level at the trimmed position 1/2" square trimmer is humidity- proof, vibration proof and shock-proof. Entire case is insulator. 2901L—color coded wire lead is 0 5x0 187x0.5". 2901P—gold plated printed circuit pin is 0.5x0.220x0.5". Wt., 3 gms.

Type 2901L Stk. No.	Type 2901P Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
12F1682	12F1690	500	7.35	6.95	6.60	6.25	5.85	5.50
12F1683	12F1691	1K						
12F1684	12F1692	2K						
12F1685	12F1693	5K						
12F1686	12F1694	10K						
12F1687	12F1695	20K						
12F1688	12F1696	50						
12F1689	12F1697	100						
12F1699	12F1698	200						

3600 SERIES (RT 24)

Unique wiper design does not shift under shock. Gives a low .200" trimmer height for low card space applications. Circuit pins are silver bronzed directly to the resistance element for long life. Exclusive ratcheting clutch mechanism eliminates open circuit, contact damage and wiper slippage. Meets steady-state humidity spec of MIL-STD-202. .375" square with 1/4" corrosion-proof gold plated pins .010" thick x .030" wide Resistance tolerance: ±10%.

Type 3600P Stk. No.	Ohms	Resolution No. of Turns	1-9	10-24	25-49	50-99	100-249	250-499
12F1785	100	218	2.95	2.73	2.46	2.33	2.18	2.07
12F1786	200	282						
12F1787	500	362						
12F1788	1K	337						
12F1789	2K	448						
12F1790	5K	560						
12F1791	10K	709						
12F1792	20K	881						

SERIES 992

General purpose wirewound. Resistance range: 50 ohms to 10K. Resistance tolerance: ±10% to 100 ohms; ±5% 100 ohms and over. Power rating; 1 watt @ 40°C, 0 watt @ 105°C. Dust proof; 0-ring seal. Usable potentionmeter range: 93% to 100%. Insulation: 0.2" double amplitude 2-30 Hz., 20 g's, 30-2000 hz. Acceleration 100 g's. Shock: 50 g's. Load life: 500 hrs. operation. 1100VAC breakdown voltage. Gang mountable.

Type 992L Stock No.	Type 992P Stock No.	Type 992SL Stock No.	Ohms	Resolution No. of Turns	1-9	10-24	25-49	50-99	100-249	250-499
12F941	12F956	12F1512	50	108	2.95	2.73	2.46	2.33	2.18	2.07
12F942	12F957	12F1513	100	108						
12F943	12F958	12F1514	200	107						
12F944	12F959	12F1515	500	167						
12F945	12F960	12F1516	1K	225						
12F946	12F961	12F1517	2K	273						
12F948	12F963	12F1518	5K	378						
12F949	12F964	12F1519	10K	448						

994 SERIES

General purpose wirewound model with resistance range of 50 to 10,000 ohms, ±5% from 100 to 10,000 ohms. Temperature range, —55°C to +105°C. Acceleration is up to 100 G's. Humidity-proof: meets military salt spray test as well as sand and dust specifications. Power rating is 1 watt @ 40°C. Size: .36"H x .28"W x 1.25"L.

994L Stk. No.	994P Stk. No.	994SL Stk. No.	Ohms	Resolution No. of Turns	1-9	10-24	25-49	50-99	100-249	250-499
12F1531	12F1710	12F1718	50	108	3.10	2.87	2.59	2.45	2.29	2.18
12F1532	12F1711	12F1719	100	108						
12F1533	12F1712	12F1720	200	107						
12F1534	12F1713	12F1721	500	167						
12F1535	12F1714	12F1722	1000	225						
12F1536	12F1715	12F1723	2000	273						
12F1537	12F1716	12F1724	5000	378						
12F1538	12F1717	12F1725	10000	448						

999 TRIMMER MOUNTING BRACKET

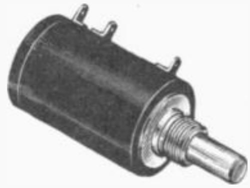
For any .28" W. x 1.25" L. Trimmer: Models 992, 994, and 2850 series. Easily adjusted—no special tools needed. Self-locking. Aluminum with gold anodized finish.

Stk. No.	Type	Size	1-9	10-24	25-49
12F1635	999	1 19/32"Lx15/32"Wx5/16"H	.81	.75	.68

 Newark-Denver Electronic Supply Corp., 2170 So. Grape St., Denver, Colo. 80222

Amphenol Microdials and Potentiometers

2151B WIREWOUND POTENTIOMETERS



Type 2151B. For industrial-commercial use. 7/8" diameter. Wirewound. Dual slip-ring commutator. Metal wiper contact "hugs." Rotational life: over 2,000,000 revolutions. High temperature thermosetting. Molded phenolic case meets MIL-R-12934D. Temp. range: —65°C to +85°C. Wt. 1 oz.

Stock No.	Ohms	Res. No. of turns	1-9	10-24	25-49	50-99	100-249
12F1800	25	1,820	10.00	9.50	9.00	8.50	8.00
12F1801	50	2,080					
12F1802	100	1,850					
12F1803	200	2,143					
12F1804	500	2,745					
12F1805	1,000	3,180					
12F1806	2,000	4,040					
12F1807	5,000	5,200					
12F1808	10,000	4,800					
12F1809	20,000	5,900					
12F1810	30,000	6,500					
12F1811	50,000	9,150					
12F1812	100,000	11,300					

1" MICRODIAL® WITH BRAKE

Series 3000. Ten-turn, precision counting dial provide maximum accuracy and convenience with Amphenol Micropot potentiometers. Concentricscale Microdial with finger tip brake ideal for the series 205 and 1111B Micropots and for all potentiometers having ten turn adjustment and 1/4" diameter shaft. White numerals on black scale. Smooth, silent gear action. Size 1 1/4" with finger grip. Shpg. wt. 10 oz.

Stock No.	Type	Description	1-9	10-24	25-99	100-199
12F875	3041-2	Black Brake Knob	7.75	7.30	6.95	6.55
12F876	3041-4	Dark-Gray Br. Knob				
12F877	3041-5	Light-Gray Br. Knob				

3141 DIGITAL MICRODIAL

Remarkably accurate (1000:1 indexing accuracy). Measures only 1 1/8x1 21/32" and protrudes only 25/32" from a panel. Digits are magnified by convex lens in recessed window. Three-digit, ten-turn dial rotates continuously forward or backward with push-pull fingertip brake to lock settings. Will mount on panels 1/16-3/16" thick. Natural brushed aluminum finish. Shaft dia. 1/4". Shpg. wt. 2.75 oz.

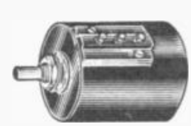
Stk. No.	1-9	10-24	25-99	100-199
12F879	10.00	9.50	9.00	8.50

SERIES 1350 MICRODIAL COUNTING DIAL

Counting dial features 2 concentrically mounted dials: larger counts shaft rev. in 100 equal increments: inner — full rev. Smooth equicyclic motion. Eliminates reading inaccuracies. Indexing accuracy: 1000:1. 1 13/16" diameter. Ten turns. Shaft dia: 1/4". Housing: clear anodized alum. Wt: 4.4 oz.

Stk. No.	Type	1-9	10-24	25-99	100-199
12F878	1350	5.75	5.46	5.18	4.89

2201B PRECISION 10-TURN LINEAR MICROPOTS



Model 2201B. A high resolution ten-turn precision potentiometer for use in commercial instrument applications. Specifications include Mechanical Rotation: 3600° +4° —0°. Temperature Range: —55°C to +105°C. Torque: 2 oz/in running 3 oz/in starting. Stop Strength: 160 oz/in. Shaft Dia: .250". Front Shaft ext. 7/8". Power Dissipation: 5 watts at 40°C. Wt. 4.2 oz.

Stock No.	Ohms	Std. Linearity	1-9	10-24	25-49	50-99	100-199
12F885	25	±.5%	10.00	9.50	9.00	8.50	8.00
12F886	50	±.5%					
12F887	100	±.25%					
12F888	200	±.25%					
12F889	500	±.25%					
12F890	1K	±.25%					
12F891	2K	±.25%					
12F892	5K	±.25%					
12F893	10K	±.25%					
12F894	20K	±.25%					
12F895	30K	±.25%					
12F896	50K	±.25%					
12F897	100K	±.25%					
12F898	200K	±.25%					

CONCENTRIC SCALE MICRODIALS®

Composed of 2 concentrically mounted dials: Smaller counts up to 10 turns; larger counts increments of turn. (100 equal divisions). Attachment to actuation shaft eliminates backlash. Accelerating turn-counting dial removes confusion. Cont. operation in either direction. No stops in dial itself. Finger tip brake. #6 Allen wrench packed with each unit. Dia: 1 3/4". Depth: 1 3/16". Shaft Dia.: 0.252". Shpg. wt: 8 oz.

Stk. No.	Type	Description	1-9	10-24	25-99	100-199
12F833	1320	Bright chrome cover-satin chrome dials	5.82	5.46	5.09	4.85
12F834	1321	Bright chrome cover-gloss black dials				
12F835	1322	Satin chrome cover-satin chrome dials				
12F836	1323	Satin chrome cover-gloss black dials				
12F837	1324	Gloss black cover-satin chrome dials				
12F838	1325	Gloss black cover-gloss black dials				
12F839	1326	Dull black cover-satin chrome dials				
12F840	1327	Dull black cover-dull black dials				

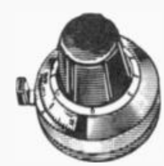
DIRECT-READING MICRODIALS®

Inline digital presentation. Rugged, sealed construction. Control knob mounted on the shaft. Packed with #6 Allen Set Screw Wrench, 1 adapter ring for use when panel thickness exceeds 1/8". Depth 1 5/8". Panel face dia. 2 1/16". †Panel face dia. 1 13/16", depth 1 21/32". Finger tip braking on some models. *Has anodized aluminum control knob (meets 50 hour salt spray test). Shpg. wt., 8 oz.

Stk. No.	Type	Description	1-9	10-24	25-49	50-99	100-up
12F828	1304	0-9999 Scale, w/o brake	18.00	17.10	16.20	14.85	13.95
12F829	1305	0-99999 Scale, w/o brake	23.00	21.90	20.70	19.60	18.40
12F831	1309*†	0-999 Scale with brake	14.00	13.30	12.60	11.55	10.80
12F832	1310*†	0-999 Scale, w/o brake	13.00	12.35	11.70	10.75	10.10

● NEW COUNTING DIAL

- 1000:1 ACCURACY
- BACKLASH ELIMINATED



Model 1370. Fulfills need for a functional concentric 10-turn dial. Though it is only 7/8" in dia., it has a large outer vernier dial for maximum adjustment and readout accuracy. Dial mounts directly to shaft, eliminating backlash. Indexing accuracy is 1000:1. Accepts 1/4" shaft dia. and up to .177" panel thickness. The cover is made of machined aluminum, and the control knob is made of polystyrol. The dial is made of zinc, offering high readability. Rotation: Continuous CW or CCW, with finger-tip brake. Weight, .531 ounces.

Stk. No.	Type	1-9	10-24	25-49	50-99
12F880	1370	6.60	6.17	5.85	5.53

OHMITE Potentiometers

STYLE AS ½ WATT MINIATURE POTENTIOMETERS

The smallest, high-quality, molded, composition potentiometer available. Only ½" in diameter. Locking type shaft is standard. Max. continuous voltage across entire element—350v. ½-watt at 70°C. Derate linearly to zero at 120°C ambient. Can be used throughout range from —55°C to +120°C. Type AS potentiometers meet the 200 hour salt spray test of QQ-M-151 and exceed the performance requirements of MIL-R-94A as well as E.I.A. requirements. Shipping weight, 4 ounces. Tol. ±10%. * ±20%.

Stk. No.	Type	MIL-R-94	Ohms	1-9	10-49	50-99	100-up
9F950	AS3601	RV6LAYSA101A	100	5.10	4.59	4.23	3.58
9F951	AS3602	RV6LAYSA251A	250	5.10	4.59	4.23	3.58
9F952	AS3603	RV6LAYSA501A	500	5.10	4.59	4.23	3.58
9F953	AS3604	RV6LAYSA102A	1,000	5.10	4.59	4.23	3.58
9F954	AS3605	RV6LAYSA252A	2,500	5.10	4.59	4.23	3.58
9F963	AS3606	RV6LAYSA502A	5,000	5.10	4.59	4.23	3.58
9F964	AS3607	RV6LAYSA103A	10,000	5.10	4.59	4.23	3.58
9F955	AS3608	RV6LAYSA253A	25,000	5.10	4.59	4.23	3.58

Stk. No.	Type	MIL-R-94	Ohms	1-9	10-49	50-99	100-up
9F956	AS3609	RV6LAYSA503A	50,000	5.10	4.59	4.23	3.58
9F957	AS3610	RV6LAYSA104A	.1 meg	5.10	4.59	4.23	3.58
9F958	AS3611	RV6LAYSA254A	.25 meg	5.10	4.59	4.23	3.58
9F959	AS3612	RV6LAYSA504A	.50 meg	5.10	4.59	4.23	3.58
9F960	AS3613	RV6LAYSA105B	1 meg.*	5.10	4.59	4.23	3.58
9F949	AS3684	RV6LAYSA205B	2.0 meg*	5.10	4.59	4.23	3.58
9F961	AS3614	RV6LAYSA255B	2.5 meg*	5.10	4.59	4.23	3.58
9F962	AS3615	RV6LAYSA505B	5.0 meg*	5.10	4.59	4.23	3.58

STYLE ASM POTENTIOMETERS

½ watt potentiometers. Same as Type AS above, except that Type ASM has straight bushing and shafts that extend ⅞" L. from the mounting surface. Shafts are slotted. Tolerance: ±10%. except * ±20%.

Stk. No.	Type	MIL-R-94	Ohms	1-9	10-49	50-99	100-up
9F1800	ASM6661	RV6NAYSD101A	100	5.10	4.59	4.23	3.58
9F1801	ASM6662	RV6NAYSD251A	250	5.10	4.59	4.23	3.58
9F1802	ASM6663	RV6NAYSD501A	500	5.10	4.59	4.23	3.58
9F1803	ASM6664	RV6NAYSD102A	1,000	5.10	4.59	4.23	3.58
9F1804	ASM6665	RV6NAYSD252A	2,500	5.10	4.59	4.23	3.58
9F1805	ASM6666	RV6NAYSD502A	5,000	5.10	4.59	4.23	3.58
9F1806	ASM6667	RV6NAYSD103A	10,000	5.10	4.59	4.23	3.58
9F1807	ASM6668	RV6NAYSD253A	25,000	5.10	4.59	4.23	3.58

Stk. No.	Type	MIL-R-94	Ohms	1-9	10-49	50-99	100-up
9F1808	ASM6669	RV6NAYSD503A	50,000	5.10	4.59	4.23	3.58
9F1809	ASM6670	RV6NAYSD104A	.1 meg.	5.10	4.59	4.23	3.58
9F1810	ASM6671	RV6NAYSD254A	.25 meg.	5.10	4.59	4.23	3.58
9F1811	ASM6672	RV6NAYSD504A	.5 meg.	5.10	4.59	4.23	3.58
9F1812	ASM6673	RV6NAYSD105B	1.0 meg.*	5.10	4.59	4.23	3.58
9F1813	ASM6674	RV6NAYSD205B	2.0 meg.*	5.10	4.59	4.23	3.58
9F1814	ASM6675	RV6NAYSD255B	2.5 meg.*	5.10	4.59	4.23	3.58
9F1815	ASM6676	RV6NAYSD505B	5.0 meg.*	5.10	4.59	4.23	3.58

TYPE AB 2-WATT POTENTIOMETERS

A

B

C

Molded composition 2-watt variable resistance control units. Type CMU (Fig. C has ⅞"Lx¼" slotted shaft. Type CLU (Fig. A.) has locking nut, ⅝" L. x ¼" slotted shaft mounts in ⅜" hole on panels up to ⅛". Types CU (Fig. B), has a 2" long, Mount in ⅜" hole on panels up to ¼". All are ±10% tolerance, except * ±20%. Types CU, CCU, CMU, and CLU are linear taper; Type CA clockwise log; Type CB counter-clockwise log; size ⅝x1⁵⁄₃₂" diameter. Type CCU size, 1¹¹⁄₆₄x 1⁵⁄₃₂" dia. With lock washer and mtg. nut. Shpg. wt., 4 oz.

Stock Potentiometers-Mil Units Are Stamped With Mil And Commercial Designations.

STYLE CLU (⅝" SHAFT) FIG. A

Stk. No.	Type	MIL-R-94	Ohms	1-9	10-49	50-99	100-up
9F916	CLU5001	RV4LAYSA500A	50	2.55	2.29	2.12	1.90
9F917	CLU1011	RV4LAYSA101A	100	2.55	2.29	2.12	1.90
9F558	CLU1511	RV4LAYSA151A	150	2.55	2.29	2.12	1.90
9F918	CLU2511	RV4LAYSA251A	250	2.55	2.29	2.12	1.90
9F559	CLU3511	RV4LAYSA351A	350	2.55	2.29	2.12	1.90
9F919	CLU5011	RV4LAYSA501A	500	2.55	2.29	2.12	1.90
9F560	CLU7511	RV4LAYSA751A	750	2.55	2.29	2.12	1.90
9F920	CLU1021	RV4LAYSA102A	1,000	2.55	2.29	2.12	1.90
9F561	CLU1521	RV4LAYSA152A	1,500	2.55	2.29	2.12	1.90
9F921	CLU2521	RV4LAYSA252A	2,500	2.55	2.29	2.12	1.90
9F562	CLU3521	RV4LAYSA352A	3,500	2.55	2.29	2.12	1.90
9F922	CLU5021	RV4LAYSA502A	5,000	2.55	2.29	2.12	1.90
9F563	CLU7521	RV4LAYSA752A	7,500	2.55	2.29	2.12	1.90
9F923	CLU1031	RV4LAYSA103A	10,000	2.55	2.29	2.12	1.90
9F564	CLU1531	RV4LAYSA153A	15,000	2.55	2.29	2.12	1.90
9F924	CLU2531	RV4LAYSA253A	25,000	2.55	2.29	2.12	1.90

Stk.No.	Type	MIL-R-94	Ohms	1-9	10-49	50-99	100-up
9F565	CLU3531	RV4LAYSA353A	35,000	2.55	2.29	2.12	1.90
9F925	CLU5031	RV4LAYSA503A	50,000	2.55	2.29	2.12	1.90
9F566	CLU7531	RV4LAYSA753A	75,000	2.55	2.29	2.12	1.90
9F926	CLU1041	RV4LAYSA104A	100,000	2.55	2.29	2.12	1.90
9F567	CLU1541	RV4LAYSA154A	150,000	2.55	2.29	2.12	1.90
9F927	CLU2541	RV4LAYSA254A	250,000	2.55	2.29	2.12	1.90
9F568	CLU3541	RV4LAYSA354A	350,000	2.55	2.29	2.12	1.90
9F928	CLU5041	RV4LAYSA504A	500,000	2.55	2.29	2.12	1.90
9F569	CLU7542	RV4LAYSA754B	750,000*	2.55	2.29	2.12	1.90
9F929	CLU1052	RV4LAYSA105B	1 meg*	2.55	2.29	2.12	1.90
9F570	CLU1552	RV4LAYSA155B	1.5 meg*	2.55	2.29	2.12	1.90
9F948	CLU2052	RV4LAYSA205B	2.0 meg*	2.55	2.29	2.12	1.90
9F930	CLU2552	RV4LAYSA255B	2.5 meg*	2.55	2.29	2.12	1.90
9F571	CLU3552	RV4LAYSA355B	3.5 meg*	2.55	2.29	2.12	1.90
9F931	CLU5052	RV4LAYSA505B	5 meg*	2.55	2.29	2.12	1.90

STYLE CMU (⅞" SHAFT) FIG. C

Stk. No.	Type	MIL-R-94	Ohms	1-9	10-49	50-99	100-up
9F1350	CMU5001	RV4NAYSD500A	50	1.95	1.75	1.62	1.46
9F1351	CMU1011	RV4NAYSD101A	100	1.95	1.75	1.62	1.46
9F1352	CMU1511	RV4NAYSD151A	150	1.95	1.75	1.62	1.46
9F1353	CMU2511	RV4NAYSD251A	250	1.95	1.75	1.62	1.46
9F1354	CMU3511	RV4NAYSD351A	350	1.95	1.75	1.62	1.46
9F1355	CMU5011	RV4NAYSD501A	500	1.95	1.75	1.62	1.46
9F1356	CMU7511	RV4NAYSD751A	750	1.95	1.75	1.62	1.46
9F1357	CMU1021	RV4NAYSD102A	1 000	1.95	1.75	1.62	1.46
9F1358	CMU1521	RV4NAYSD152A	1 500	1.95	1.75	1.62	1.46
9F1359	CMU2521	RV4NAYSD252A	2 500	1.95	1.75	1.62	1.46
9F1360	CMU3521	RV4NAYSD352A	3,500	1.95	1.75	1.62	1.46
9F1361	CMU5021	RV4NAYSD502A	5 000	1.95	1.75	1.62	1.46
9F1362	CMU7521	RV4NAYSD752A	7,500	1.95	1.75	1.62	1.46
9F1363	CMU1031	RV4NAYSD103A	10 000	1.95	1.75	1.62	1.46
9F1364	CMU1531	RV4NAYSD153A	15 000	1.95	1.75	1.62	1.46
9F1365	CMU2531	RV4NAYSD253A	25 000	1.95	1.75	1.62	1.46

Stk. No.	Type	MIL-R-94	Ohms	1-9	10-49	50-99	100-up
9F1366	CMU3531	RV4NAYSD353A	35,000	1.95	1.75	1.62	1.46
9F1367	CMU5031	RV4NAYSD503A	50,000	1.95	1.75	1.62	1.46
9F1368	CMU7531	RV4NAYSD753A	75,000	1.95	1.75	1.62	1.46
9F1369	CMU1041	RV4NAYSD104A	.1 meg.	1.95	1.75	1.62	1.46
9F1370	CMU1541	RV4NAYSD154A	.15 meg.	1.95	1.75	1.62	1.46
9F1371	CMU2541	RV4NAYSD254A	25 meg.	1.95	1.75	1.62	1.46
9F1372	CMU3541	RV4NAYSD354A	.35 meg.	1.95	1.75	1.62	1.46
9F1373	CMU5041	RV4NAYSD504A	.5 meg.	1.95	1.75	1.62	1.46
9F1374	CMU7542	RV4NAYSD754B	.75 meg.*	1.95	1.75	1.62	1.46
9F1375	CMU1052	RV4NAYSD105B	1.0 meg.*	1.95	1.75	1.62	1.46
9F1376	CMU1552	RV4NAYSD155B	1.5 meg.*	1.95	1.75	1.62	1.46
9F1377	CMU2052	RV4NAYSD205B	2.0 meg.*	1.95	1.75	1.62	1.46
9F1378	CMU2552	RV4NAYSD255B	2.5 meg.*	1.95	1.75	1.62	1.46
9F1379	CMU3552	RV4NAYSD355B	3.5 meg.*	1.95	1.75	1.62	1.46
9F1380	CMU5052	RV4NAYSD505B	5.0 meg.*	1.95	1.75	1.62	1.46

STYLE CU (⅝" SHAFT) FIG. B

Stk. No.	Type	Ohms	1-9	10-49	50-99	100-up
9F900	CU5001	50	1.95	1.75	1.62	1.46
9F901	CU1011	100	1.95	1.75	1.62	1.46
9F572	CU1511	150	1.95	1.75	1.62	1.46
9F902	CU2511	250	1.95	1.75	1.62	1.46
9F573	CU3511	350	1.95	1.75	1.62	1.46
9F903	CU5011	500	1.95	1.75	1.62	1.46
9F574	CU7511	750	1.95	1.75	1.62	1.46
9F904	CU1021	1,000	1.95	1.75	1.62	1.46
9F575	CU1521	1,500	1.95	1.75	1.62	1.46
9F905	CU2521	2,500	1.95	1.75	1.62	1.46
9F576	CU3521	3,500	1.95	1.75	1.62	1.46
9F906	CU5021	5,000	1.95	1.75	1.62	1.46

Stk. No.	Type	Ohms	1-9	10-49	50-99	100-up
9F577	CU7521	7,500	1.95	1.75	1.62	1.46
9F907	CU1031	10,000	1.95	1.75	1.62	1.46
9F578	CU1531	15,000	1.95	1.75	1.62	1.46
9F908	CU2531	25,000	1.95	1.75	1.62	1.46
9F579	CU3531	35,000	1.95	1.75	1.62	1.46
9F909	CU5031	50,000	1.95	1.75	1.62	1.46
9F580	CU7531	75,000	1.95	1.75	1.62	1.46
9F910	CU1041	100,000	1.95	1.75	1.62	1.46
9F581	CU1541	150,000	1.95	1.75	1.62	1.46
9F911	CU2541	250,000	1.95	1.75	1.62	1.46
9F582	CU3541	350,000	1.95	1.75	1.62	1.46
9F912	CU5041	500,000	1.95	1.75	1.62	1.46

TYPE AB 2-WATT POTENTIOMETERS (Cont.)

All types ±10% tolerance, except (*) 20%.

STYLE CU — FIG. B (Continued)

Stk. No.	Type	Ohms	1-9	10-49	50-99	100-up
9F583	CU7542	750,000*	1.95	1.75	1.62	1.46
9F913	CU1052	1 meg*				
9F584	CU1552	1.5 meg*				
9F586	CU2052	2.0 meg*				
9F914	CU2552	2.5 meg*				
9F585	CU3552	3.5 meg*				
9F915	CU5052	5 meg*				

STYLE CA and CB—Fig. B.

Stk. No.	Type	Ohms	1-9	10-49	50-99	100-up
9F932	CB1031	10,000	2.25	2.02	1.87	1.69
9F933	CB2531	25,000				
9F934	CB5031	50,000				
9F935	CA1041	100,000				
9F936	CA2541	250,000				
9F937	CA5041	500,000				
9F938	CA1052	1 meg*				
9F939	CA2552	2.5 meg*				

STYLE CCU Dual—Fig. C

Stk. No.	Type	Ohms	1-9	10-49	50-99	100-up
9F941	CCU1031	10,000	5.85	5.26	5.06	4.40
9F945	CCU2531	25,000				
9F942	CCU5031	50,000				
9F946	CCU1041	100,000				
9F943	CCU2541	250,000				
9F947	CCU5041	500,000				
9F944	CCU1052	1.0 meg*				

TYPE CS-1 SWITCH

SPST Switch for Ohmite Potentiometers listed above and on preceding page — except Dual Style CCU.

Stock No.	Type	1-9	10-49	50-99	100-up
9F940	CS-1	.66	.62	.59	.55

WIRE WOUND POWER RHEOSTATS

ALL RHEOSTATS SUPPLIED LESS KNOBS. SEE NEXT PAGE FOR KNOB LISTING

● NEW 7.5 WATT MINIATURE RHEOSTATS

Model C. Compact power rheostats for limited space applications. For high temperature applications; operates at maximum hot spot temperature of 340 C. Rugged ceramic and metal construction. Only .515 diameter 7/8" behind panel. Mounts with 1/4-32 bushing, 1/8" dia. shaft, 5/8" long. Less knob. wt. 2 1/4 oz.

Stock No.	Type	Ohms ± 10%	1-4	5-9
11F201	4908	10	8.59	7.30
11F202	4909	15		
11F203	4910	25		
11F204	4912	50		
11F205	4913	75		
11F206	4914	100		
11F207	4916	200		
11F208	4818	350		
11F234	4919	500		

12 1/2 WATT MINIATURE RHEOSTATS

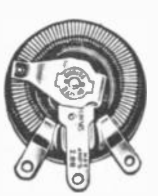
Model E. 12 1/2-Watt Miniature Rheostat. (Rating on metal panel.) Smaller than many 1- or 2-watt potentiometers. Rugged, all-ceramic and metal construction. Use where 12g watts dissipation is needed but space is limited. Operates at a maximum hot spot temperature rise of 300°C at an ambient of 40°C, but also useful for operating at high military ambients, derated linearly to zero at 340°C. Specifications: Overall diam.: 7/8". Shaft diam.: 1/8". Resistance range: Up to 5000 ohms with vitreous enamel; higher values available with Ohmicone inorganic coating. Resistance tol.: ±10% Standard Mounting: for panels up to 1/8", 1/4"-32 threaded Bushing. With non-turn washer. Rotation: 300° ±5°. Shpg. wt., 1 1/2 oz. † Silicone-ceramic coating.

Stock No.	Type	Ohms	Max. Amps.	1-4	5-9	10-24	25-49
9F965	0101	1	3.53	5.05	4.29	3.38	2.78
9F966	0102	2	2.50				
9F967	0103	3	2.04				
9F968	0104	6	1.44				
9F969	0105	8	1.25				
9F970	0106	10	1.12				
9F971	0107	15	.91	4.55	3.87	3.05	2.50
9F972	0108	25	.71				
9F973	0109	35	.60				
9F974	0110	50	.50				
9F975	0111	75	.41				
9F976	0112	100	.35				
9F977	0113	125	.32				
9F978	0114	175	.27				

Stock No.	Type	Ohms	Max. Amps.	1-4	5-9	10-24	25-49
9F979	0115	250	.22	4.55	3.87	3.05	2.50
9F980	0116	350	.19				
9F981	0117	500	.16				
9F982	0118	750	.11				
9F983	0119	1,000	.13	5.05	4.29	3.38	2.78
9F984	0120	1,500	.091				
9F985	0121	2,500	.060				
9F986	0122	3,500	.071	5.35	4.55	3.58	2.94
9F987	0123	5,000	.050	5.35	4.55	3.58	2.94
9F988	4190†	7,500	.041	5.55	4.72	3.72	3.05
9F989	4191†	10,000	.035	5.55	4.72	3.72	3.05
9F990	4192†	12,500	.031	6.05	5.14	4.05	3.33
9F991	4193†	15,000	.029	6.05	5.14	4.05	3.33

MODEL H—25 WATT

All ceramic vitreous enameled construction. Wire wound over ceramic core. Shunt pigtail carries current to slip-ring. High strength ceramic hub insulates the shaft and bushing. Tempered steel contact arm. Models H, J, K, L, N, when made without additional features are listed by UL and are marked Series A except (*) Silicone Ceramic Coating are not UL listed. Aver. shpg. wt.: Models H, J, K: 8 oz.—Models L, N: 3 lbs.—Model R: 4 lbs.



Mounts on panels up to 1/4" by 3/8"—32 Bushing with No 5050 Non-turn washer. Shaft Dia. 1/4". 300° rotation. Dia. 1 9/16".

Stk. No.	Type	Ohms	1-4	5-9	10-24	25-49
11F000	0140	1	5.05	4.29	3.38	2.78
11F001	0141	2				
11F002	0142	3				
11F003	0143	6				
11F004	0144	8				
11F005	0145	10				

Stock No.	Type	Ohms	1-4	5-9	10-24	25-49
11F006	0146	15	4.55	3.87	3.05	2.50
11F007	0147	25				
11F008	0148	35				
11F009	0149	50				
11F010	0150	75				
11F011	0151	100				
11F012	0152	125				
11F013	0153	175				
11F014	0154	250				
11F015	0155	350				
11F016	0156	500				
11F017	0157	750				
11F018	0158	1,000	5.05	4.29	3.38	2.78
11F019	0159	1,500				
11F020	0160	2,500				
11F021	0161	3,500	5.35	4.55	3.58	2.94
11F022	0162	5,000	5.35	4.55	3.58	2.94
11F026	*4200	7,500	5.55	4.72	3.72	3.05
11F027	*4201	10,000	5.55	4.72	3.72	3.05
11F028	*4202	15,000	6.05	5.14	4.05	3.33
11F029	*4203	20,000	6.80	5.78	4.56	3.74
11F030	*4204	25,000	7.50	6.38	5.03	4.13

OHMITE Wire Wound Power Rheostats

Model J — 50 WATT

Mounts on panels up to ¼" by ⅜"—32 bushing with No. 5050 Non-turn washer. Shaft dia. ¼". 300° rotation. Dia. 2$\frac{5}{16}$.

Stk. No.	Type	Ohms	1-4	5-9	10-24	25-49
11F040	0308	0.5				
11F041	0309	1.0				
11F042	0310	2.0	5.65	4.80	3.79	3.11
11F043	0311	4.0				
11F044	0312	6.0				
11F045	0313	8.0				
11F046	0314	12.0				
11F047	0315	16.0	5.05	4.29	3.38	2.78
11F048	0316	22.0				
11F049	0317	35.0				
11F050	0318	50.0				
11F051	0319	80.0				
11F052	0320	125.0				
11F053	0321	150.0	5.05	4.29	3.38	2.78
11F054	0322	225.0				
11F055	0323	300				
11F056	0324	500				
11F057	0325	800				
11F058	0326	1000	5.35	4.55	3.58	2.94
11F059	0327	1600				
11F060	0328	2500				
11F061	0329	3500				
11F062	0330	5000	5.65	4.80	3.79	3.11
11F063	0331	8000				
11F064	0332	10000				
11F066	4210	15000	6.40	5.44	4.29	3.52
11F067	4211	20000	7.25	6.16	4.86	3.99
11F068	4212	25000	8.00	6.80	5.36	4.40
11F069	4213	30000	8.85	7.52	5.93	4.87
11F070	4214	40000	10.30	8.76	6.90	5.67
11F071	4215	50000	11.25	9.56	7.59	6.19

TANDEM COUPLING KITS

Type 6532 for models H and J; couple models K,H,J, or L in rear position. 6533 for models K and L; couple models H,J,K, or L in rear position. Shpg. wt., 5 oz.

*For model E rheostats.

11F196	6532	2.20	1.87	1.48	1.21
11F197	6533	2.75	2.34	1.84	1.51
11F195	6591*	2.20	1.87	1.48	1.21

KNOBS FOR OHMITE RHEOSTATS

5105 — Handwheel without pointer. For models N & R. 5104-Same but with pointer. 5150 for models H,J,K,L, "AB" pots, except CLU. Model 5151 for model E.

Stock No.	Type	1-4	5-9	10-24	25-49
11F023	5105	1.22	1.04	.82	.82
11F200	5104	1.45	1.23	.97	.97
11F024	5150	.30	.26	.20	.18
11F025	5151	.30	.26	.20	.18

MODEL K—100 WATT

Mounts on panels up to ¼" by ⅜"—32 Bushing with No. 5050 Non-turn washer. Shaft Diameter ¼". 300° rotation. Rheostat diameter 3⅛".

Stk. No.	Type	Ohms	1-4	5-9	10-24	25-49
11F076	0440	0.5				
11F077	0441	1				
11F078	0442	2				
11F079	0443	3	8.45	7.18	5.66	4.65
11F080	0444	5				
11F081	0445	7.5				
11F082	0446	10				
11F083	0447	16				
11F084	0448	25	7.95	6.76	5.33	4.37
11F085	0449	50				
11F086	0450	75				
11F087	0451	100				
11F088	0452	200				
11F089	0453	300	7.95	6.76	5.33	4.37
11F090	0454	400				
11F091	0455	500				
11F092	0456	750				
11F093	0457	1,000				
11F094	0458	1,500	8.45	7.18	5.66	4.65
11F095	0459	2,000				
11F096	0460	2,500				
11F097	0461	5,000	9.05	7.69	6.06	6.98
11F098	0462	7,500	9.65	8.20	6.47	5.31
11F099	0463	10,000	10.20	8.67	6.83	5.61

MODEL L—150 WATT

Mounts on panels up to ¼" by ⅜"—32 Bushing or by two No. 10-32x¾" long flat head screws which are supplied. Shaft diameter ¼" 300° Rotation Rheostat diameter 4".

Stk. No.	Type	Ohms	1-4	5-9	10-24	25-49
11F100	0524	0.5				
11F101	0525	1	10.75	9.14	7.20	5.91
11F102	0528	5				
11F103	0530	10				
11F104	0532	25				
11F105	0534	50				
11F106	0536	100				
11F107	0537	150	10.15	8.63	6.80	5.58
11F108	0538	200				
11F109	0539	250				
11F110	0541	500				
11F111	0543	1,250	10.75	9.14	7.20	5.91
11F112	0545	2,250	11.35	9.65	7.60	6.24
11F113	0547	4,500	11.90	10.12	7.97	6.55
11F114	0549	10,000	13.60	11.56	9.11	7.48

DIAL PLATES

Use 5000 with H,K,J,L,AB except CLU. Use 5001 with N and R. Use 5007 with E.

Stock No.	Type	1-4	5-9	10-24	25-49
11F199	5000	.30	.26	.20	.18
11F198	5001	.74	.63	.50	.50
11F194	5007	.30	.26	.20	.18

MODEL N—300 WATT

Mounts on panles up to 1"., by two ¼"—20 by 1½" flat head screws supplied. Shaft dia. ⅜". 320° Rotation. Dia. 6".

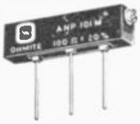
Stk. No.	Type	Ohms	1-2	3-4
11F130	0650	1		
11F131	0651	2		
11F132	0652	3		
11F133	0653	4		
11F134	0654	5		
11F135	0655	7.5		
11F136	0656	10		
11F137	0657	15		
11F138	0658	25		
11F139	0659	50		
11F140	0660	75	16.80	14.28
11F141	0661	100		
11F142	0662	150		
11F143	0663	200		
11F144	0664	300		
11F145	0665	400		
11F146	0666	700		
11F147	0667	900		
11F148	0668	1,200		
11F149	0669	1,500		
11F150	0670	1,750		
11F151	0671	2,500		

MODEL R—500 WATT

Mounts on panles up to 1"., by two ¼"—20 by 1½" flat head screws supplied. Shaft diameter ⅜". 325° Rotation. Dia. 8".

Stk. No.	Type	Ohms	1-2	3-4
11F170	0849	1.0		
11F171	0850	1.5		
11F172	0851	2		
11F173	0852	2.5		
11F174	0853	3		
11F175	0854	4		
11F176	0855	5		
11F177	0856	8		
11F178	0857	12.5		
11F179	0858	16		
11F180	0859	25		
11F181	0860	40	24.30	20.66
11F182	0872	50		
11F183	0861	80		
11F184	0862	125		
11F185	0863	175		
11F186	0864	250		
11F187	0865	325		
11F188	0866	500		
11F189	0867	750		
11F190	0868	1,000		
11F191	0869	1,500		
11F192	0871	2,000		
11F193	0871	2,500		

● NEW OHMITE HOT MOLDED TRIMMERS



ANP

AFR

Model ANP. Continuously adjustable 25-turn for printed circuit boards. Size: 1¼ L x ¼ W x $\frac{23}{64}$ H. Three wire leads .028 dia. x $\frac{19}{32}$ long. Single slot for screw driver adjustment.

Model AFR. Single turn control for P. C. board mounting. Size: ½ dia., $\frac{17}{32}$ H. Three leads .028 dia. x $\frac{35}{64}$ long. Single slot for screwdriver adjustment.

Stk. No.	Type ANP	Ohms ±20%	Stk. No.	Type ANP	Ohms ±20%	1-9	10-24	25-49
11F209	101M	100	11F214	502M	5000			
11F210	251M	250	11F215	103M	10000			
11F211	501M	500	11F216	253M	25000	3.30	2.75	2.25
11F212	102M	1000	11F217	503M	50000			
11F213	252M	2500	11F218	104M	.1 meg			

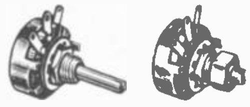
Stk. No.	Type AFR	Ohms ±20%	Stk. No.	Type AFR	Ohms ±20%	1-9	10-24	25-49
11F219	101M	100	11F227	503M	50000			
11F220	251M	250	11F228	104M	.1 meg			
11F221	501M	500	11F229	245M	.25 meg			
11F222	102M	1000	11F230	504M	.5 meg	3.00	2.50	2.00
11F223	252M	2500	11F231	105M	1.0 meg			
11F224	502M	5000	11F232	255M	2.5 meg			
11F225	103M	10000	11F233	505M	5.0 meg			
11F226	253M	25000						

MAKE NEWARK YOUR DEPENDABLE SOURCE FOR ALL ELECTRONIC COMPONENTS

Whether ordering in quantity for production or in small lots for specialized use, make Newark your headquarters for every electronic component. — Get the exact part you need from an inventory of over 70,000 units! Top Quality, Lowest Prices, Fatsest Service.

CENTRALAB

1/5 WATT MINIATURE COMPOSITION CONTROLS



Style RV1. Meets MIL-R-94B. Ideally suited for guided missiles, geophysical equipment and miniature amplifiers. Linear taper. Tol: ±10% Dielectric strength: 900 VAC-RMS Resistance elements completely enclosed permitting sealing and potting without damage. Brass terminals. Tin plated leads. Locating lug—left only. Stainless steel screwdriver slotted shaft, 1/8" dia. Mech. rotation 260° ±3°. Bushing mtg. nut and lockwasher supplied.
JMP. Shaft 7/8" long from mtg. surface. 1/4" —32 NEF-2A thd.
JML. Shaft 1/2" long from mtg. surface. Locking type bushing 1/4" —32 NEF-2A thd. 3/8" long from mtg. surface. Shaft locking nut furnished.

MODEL JMP

Stock No.	Type	Mil. Type	Ohms	1-9	10-24	25-49	50-99	100-249
9F1500	JMP-501	RV1NAXSD501A	500					
9F1501	JMP-102	RV1NAXSD102A	1000					
9F1502	JMP-252	RV1NAXSD252A	2500					
9F1503	JMP-502	RV1NAXSD502A	5000					
9F1504	JMP-103	RV1NAXSD103A	10K					
9F1505	JMP-253	RV1NAXSD253A	25K	3.60	3.24	3.00	2.85	2.70
9F1506	JMP-503	RV1NAXSD503A	50K					
9F1507	JMP-104	RV1NAXSD104A	100K					
9F1508	JMP-254	RV1NAXSD254A	250K					
9F1509	JMP-504	RV1NAXSD504A	500K					
9F1510	JMP-105	RV1NAXSD105A	1 MEG					

TYPE JML

Stock No.	Type	Mil. Type	Ohms	1-9	10-24	25-49	50-99	100-249
9F1511	JML-501	RV1LAXSB501A	500					
9F1512	JML-102	RV1LAXSB102A	1000					
9F1513	JML-252	RV1LAXSB252A	2500					
9F1514	JML-502	RV1LAXSB502A	5000					
9F1515	JML-103	RV1LAXSB103A	10K					
9F1516	JML-253	RV1LAXSB253A	25K	3.90	3.51	3.25	3.09	2.93
9F1517	JML-503	RV1LAXSB503A	50K					
9F1518	JML-104	RV1LAXSB104A	100K					
9F1519	JML-254	RV1LAXSB254A	250K					
9F1520	JML-504	RV1LAXSB504A	500K					
9F1521	JML-105	RV1LAXSB105A	1 MEG					

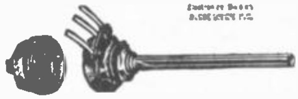
WW AND WN WIREWOUND CONTROLS

Rated full 5 watts — small as other 2 watt controls. 1 5/32" dia., 9/16" depth, WW shaft 1/4" dia. full round, 2 5/8" lg., WN shaft fingertip knurl, screwdriver slotted, 3/8" lg. from end at bushing. Linear taper. Shpg. wt., 4 oz.

Type WW — Type WN

Stk. No.	Type WW	Stk. No.	Type WN	Ohms	1-9	10-24	25-49	50-99	100-249
9F400	010	9F433	010	1					
9F401	020	9F434	020	2					
9F402	030	9F435	030	3					
9F403	040	9F436	040	4					
9F404	050	9F437	050	5					
9F405	060	9F438	060	6					
9F406	080	9F439	080	8					
9F407	100	9F440	100	10					
9F408	150	9F441	150	15					
9F409	200	9F442	200	20					
9F410	250	9F443	250	25					
9F411	300	9F444	300	30					
9F412	400	9F445	400	40					
9F413	500	9F446	500	50					
9F414	600	9F447	600	60					
9F415	750	9F448	750	75					
9F416	101	9F449	101	100	1.32	1.19	1.10	1.05	.99
9F417	201	9F450	201	200					
9F418	251	9F451	251	250					
9F419	301	9F452	301	300					
9F420	401	9F453	401	400					
9F421	501	9F454	501	500					
9F422	751	9F455	751	750					
9F423	102	9F456	102	1000					
9F424	152	9F457	152	1500					
9F425	202	9F458	202	2000					
9F426	252	9F459	252	2500					
9F427	302	9F460	302	3000					
9F428	402	9F461	402	4000					
9F429	502	9F462	502	5000					
9F430	752	9F463	752	7500					
9F431	103	9F464	103	10000					
9F432	153	9F465	153	15000					
9F683	203	9F690	203	20000	1.59	1.43	1.33	1.26	1.19
9F684	253	9F691	253	25000					
9F685	303	9F692	303	30000					
9F686	403	9F693	403	40000	2.01	1.81	1.68	1.59	1.51
9F687	503	9F694	503	50000	2.01	1.81	1.68	1.59	1.51
9F688	753	9F695	753	75000	2.46	2.22	2.05	1.95	1.85
9F689	104	9F696	104	100000	2.46	2.22	2.05	1.95	1.85

MODEL B CONTROLS



1/2 watt, 1 3/16" diam., universal fluted shaft 3" lg. Use KR switches. Less switch.

Stk. No.	Type	Ohms	Taper	1-9	10-24	25-49	50-99	100-249	250-499
9F600	B-2	200	C1						
9F824	B-4	500	C1						
9F800	B-5	1,000	C1						
9F825	B-6	2,000	C1						
9F826	B-7	2,500	C1						
9F801	B-10	5,000	C1						
9F828	B-11	5,000	C2						
9F802	B-14	10,000	C1						
9F835	B-15	10,000	C2						
9F840	B-22	20,000	C1						
9F804	B-26	25,000	C1						
9F805	B-31	50,000	C1						
9F806	B-32	50,000	C2						
9F844	B-35	75,000	C1						
9F807	B-40	100,000	C1						
9F808	B-41	100,000	C2	1.02	.92	.85	.81	.76	.68
9F846	B-46	200,000	C1						
9F847	B-50	250,000	C1						
9F848	B-51	250,000	C2						
9F810	B-59	5 meg.	C1						
9F811	B-60	.5 meg.	C2						
9F853	B-69	1 meg.	C1						
9F812	B-70	1 meg.	C2						
9F613	B-742	1.5 megs	C1						
9F857	B-75	2 megs	C1						
9F813	B-76	2 megs	C2						
9F859	B-83	2 5 megs	C1						
9F860	B-84	3 megs	C1						
9F814	B-87	5 megs	C1						
9F476	B-90	7.5 megs	C1						
9F815	B-98	10 megs	C1						

TAPERS FOR CENTRALAB CONTROLS

C1. Linear, has uniform resistance change from either end.
C2. Semi-log (audio) 10% center.

TYPE KR FASTATCH SWITCHES FOR MODEL B CONTROLS

3 Amps—125 Volts

Stk. No.	Type	Circuit	1-9	10-24	25-49	50-99	100-249
9F466	KR-1†	SPST					
9F467	KR-2	DPST	.60	.54	.50	.48	.45
9F468	KR-3*	DP (1 on 1 off)					

15 Amps—10 Volts

Stk. No.	Type	Circuit	1-9	10-24	25-49	50-99	100-249
9F469	KR-4	SPST					
9F470	KR-6**	SPST	.60	.54	.50	.48	.45
9F471	KR-7	DPST					

*Can be used as SPDT. **With dummy lug. †5 amps.

1/10 WATT-MINIATURE CONTROLS

Type B16. Dielectric strength 900 VAC-RMS. Tol. ±20% except (†) ±30%. SPST switch rated at 6.5 amps at 1.5 VDC. Mounting nuts and screws supplied. Audiotaper except * which is linear. Shpg. wt., 3 oz.

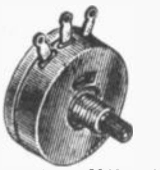
Plain Type Stud Mounted — 260° Rotation

Stock No.	Type	Ohms	1-9	10-24	25-49	50-99	100-249
9F621	B16-107*	500					
9F622	B16-109*	1000					
9F623	B16-111*	2500					
9F624	B16-112	2500					
9F625	B16-113*	5000					
9F626	B16-114	5000					
9F627	B16-115*	10K					
9F628	B16-116	10K					
9F629	B16-117	25K	1.50	1.35	1.25	1.19	1.13
9F630	B16-119*	50K					
9F631	B16-121*	100K					
9F632	B16-123*	250K					
9F633	B16-118	500K					
9F634	B16-120	1 Meg.					
9F635	B16-122	2 Meg.					
9F636	B16-124†	3 Meg.					
9F637	B16-128†	5 Meg.					

Switch Type — Bracket Mounted — 225° Rotation

Stock No.	Type	Ohms	1-9	10-24	25-49	50-99	100-249
9F638	B16-212	2500					
9F639	B16-214	5000					
9F640	B16-216	10K					
9F641	B16-217	25K					
9F642	B16-218	500K	2.40	2.16	2.00	1.90	1.80
9F643	B16-220	1 Meg.					
9F644	B16-222	2 Meg.					
9F645	B16-224†	3 Meg.					
9F646	B16-228†	5 Meg.					

MALLORY Potentiometers And Controls

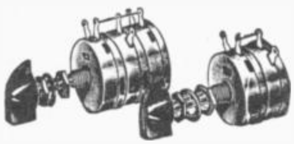


MG controls have a continuous DC rating of 12.5 watts at 35°C (ambient). Volume is 1.1 cu. in. and outside control diameter is only slightly larger than standard knob rotation arc at 1⅝". Mechanical rotation: 294°; electrical rotation: 275°; peak audio rating at 50 watts. Voltage breakdown at 900V RMS. Contact arm insulated.

12½ WATT MG WIRE-WOUND CONTROLS

MG-Stk. No.	Ohms	1-9	10-49	50-99	100-249	250-499	MG-Stk. No.	Ohms	1-9	10-49	50-99	100-249	250-499
9F1700	1	2.18	1.95	1.81	1.63	1.45	9F1714	600	2.18	1.95	1.81	1.63	1.45
9F1701	3	2.18	1.95	1.81	1.63	1.45	9F1715	1000	2.22	2.00	1.95	1.67	1.48
9F1702	6	2.18	1.95	1.81	1.63	1.45	9F1716	1500	2.22	2.00	1.85	1.67	1.48
9F1703	10	2.18	1.95	1.81	1.63	1.45	9F1717	2000	2.22	2.00	1.85	1.67	1.48
9F1704	15	2.18	1.95	1.81	1.63	1.45	9F1718	2500	2.22	2.00	1.85	1.67	1.48
9F1705	20	2.18	1.95	1.81	1.63	1.45	9F1719	3000	2.22	2.00	1.85	1.67	1.48
9F1706	25	2.18	1.95	1.81	1.63	1.45	9F1720	4000	2.22	2.00	1.85	1.67	1.48
9F1707	30	2.18	1.95	1.81	1.63	1.45	9F1721	5000	2.22	2.00	1.85	1.67	1.48
9F1708	50	2.18	1.95	1.81	1.63	1.45	9F1722	10K	2.32	2.08	1.93	1.74	1.54
9F1709	100	2.18	1.95	1.81	1.63	1.45	9F1723	15K	2.32	2.08	1.93	1.74	1.54
9F1710	200	2.18	1.95	1.81	1.63	1.45	9F1724	20K	2.32	2.08	1.93	1.74	1.54
9F1711	300	2.18	1.95	1.81	1.63	1.45	9F1725	25K	2.32	2.08	1.93	1.74	1.54
9F1712	400	2.18	1.95	1.81	1.63	1.45	9F1726	50K	2.50	2.26	2.08	1.88	1.67
9F1713	500	2.18	1.95	1.81	1.63	1.45	9F1727	100K	2.72	2.46	2.27	2.04	1.82

MALLORY T AND L PADS



Control level of low impedance audio circuits DC rating, 4 w.; 15 watts audio. With bar knob, dial-plate, washer and nuts. "L" pad 1⅝" dia. x 1⅛" deep. "T" pad. 1$\frac{11}{16}$" deep. Wt., 7 oz.

"T" PADS

Stk. No.	Type	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
9F251	T4	4	3.54	3.36	3.19	2.95	2.655	2.36
9F252	T6	6						
9F253	T8	8						
9F254	T15	15						
9F255	T50	50						
9F256	T100	100						
9F258	T250	250						
9F259	T500	500						
9F260	T600	600						
9F261	T1000	1000						
9F262	T2000	2000						
9F263	T3000	3000						

"L" PADS

Stk. No.	Type	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
9F281	L4	4	2.73	2.59	2.46	2.28	2.047	1.82
9F282	L6	6						
9F283	L8	8						
9F284	L15	15						
9F285	L50	50						
9F286	L100	100						
9F287	L200	200						
9F288	L250	250						
9F289	L500	500						
9F290	L600	600						
9F291	L1000	1000						
9F292	L2000	2000						
9F293	L3000	3000						

M AND MT WIRE WOUND POTENTIOMETERS

Used on bias control and voltage dividers; also for replacement of positioning, hold, focus and other controls of TV sets. *MT are center tapped. Compact high wattage controls rated 4 watts. Arm insulated from shaft. 275° rotation. 1⅝" dia. x $\frac{9}{16}$"W. ¼" shaft, slotted $\frac{3}{64}$x$\frac{1}{16}$" deep, extended ⅜" from bush. Mount in ⅜" hole. 4 oz.

Stk. No.	Type	Ohms	1-9	10-49	50-99	100-249	250-499
9F300	M1PK	1	1.35	1.22	1.13	1.013	.90
9F337	M3PK	3	1.35	1.22	1.13	1.013	.90
9F302	M6PK	6	1.35	1.22	1.13	1.013	.90
9F328	MT10PK*	10	1.32	1.19	1.10	.99	.88
9F303	M10PK	10	1.35	1.22	1.13	1.013	.90
9F304	M15PK	15	1.35	1.22	1.13	1.013	.90
9F329	MT20PK*	20	1.32	1.19	1.10	.99	.88
9F306	M25PK	25	1.35	1.22	1.13	1.013	.90
9F307	M30PK	30	1.35	1.22	1.13	1.013	.90
9F336	MT30PK*	30	1.32	1.19	1.10	.99	.88
9F308	M40PK	40	1.35	1.22	1.13	1.013	.90
9F309	M50PK	50					
9F310	M60PK	60					
9F311	M75PK	75					
9F312	M100PK	100					
9F313	200PK	200					
9F331	M300PK	300					
9F314	M400PK	400					
9F315	M500PK	500					
9F316	M600PK	600					
9F317	M1MPK	1K					
9F332	M1.5MPK	1.5K					
9F318	M2MPK	2K					
9F333	M2.5MPK	2.5K					
9F319	M3MPK	3K					
9F338	M4MPK	4K					
9F321	M5MPK	5K					
9F322	M10MPK	10K					
9F323	M15MPK	15K	1.47	1.32	1.23	1.103	.98
9F324	M20MPK	20K	1.47	1.32	1.23	1.103	.98
9F325	M25MPK	25K	1.47	1.32	1.23	1.103	.98
9F326	M50MPK	50K	1.74	1.57	1.45	1.305	1.16
9F327	M70MPK	70K	1.74	1.57	1.45	1.305	1.16
9F335	M100MPK	100K	2.46	2.21	2.05	1.845	1.64

TYPE VW WIREWOUND 5 WATT CONTROLS

Subminiature Industrial 5 Watt potentiometer. Ideal for limited space applications. Case size only ¾ of an inch in diameter by ⅞" in depth. Bushing ⅜"x⅜" in diameter and length. Has ¼" plain round shaft 2½" from mounting surface.

Stk. No.	Type	Ohms	1-9	10-49	50-99	100-249	250-499
9F033	VW-1	1	1.38	1.24	1.15	1.035	.92
9F034	VW-2	2					
9F035	VW-3	3					
9F036	VW-5	5					
9F037	VW-6	6					
9F038	VW-8	8					
9F039	VW-10	10					
9F040	VW-15	15					
9F041	VW-20	20					
9F042	VW-25	25					
9F043	VW-30	30					
9F044	VW-40	40					
9F045	VW-50	50					
9F046	VW-60	60					

Stk. No.	Type	Ohms	1-9	10-49	50-99	100-249	250-499
9F047	VW-75	75	1.38	1.24	1.15	1.035	.92
9F048	VW-100	100					
9F049	VW-200	200					
9F055	VW-250	250					
9F056	VW-300	300					
9F057	VW-400	400					
9F058	VW-500	500					
9F059	VW-600	600					
9F060	VW-750	750					
9F061	VW-1K	1000					
9F062	VW-1.5K	1500	1.44	1.30	1.20	1.08	.96
9F063	VW-2K	2000					
9F064	VW-2.5K	2500					
9F065	VW-3K	3000					
9F066	VW-4K	4000					
9F067	VW-5K	5000					
9F068	VW-7.5K	7500	1.50	1.35	1.25	1.125	1.00
9F069	VW-10K	10000	1.50	1.35	1.25	1.125	1.00
9F070	VW-15K	15000	1.56	1.40	1.30	1.17	1.04
9F071	VW-20K	20000	1.56	1.40	1.30	1.17	1.04
9F072	VW-25K	25000	1.65	1.49	1.38	1.237	1.10

VOLUME CONTROL ACCESSORIES

COUPLERS AND BUSHINGS

Stk. No.	Type	Fig.	EACH
9F206	EB247	D	.13
9F207	UB241	E	.12

HEX SHOULDER NUTS

No.	Type	Size	EACH
9F208	255	¼"	.08
9F209	A11260-12	½"	.08

RB MOUNTING BRACKETS

No.	Type	Fig.	Mtg.	EACH
9F201	RB248	A	1¾"	.05
9F202	RB249	B	2½"	
9F218	RB254	...	Univ.	

TYPE U METAL SHAFT MIDGETROLS

Standard universal replacement 15⁄16" dia. carbon control. 1/4" dia. round brass shaft with adapters for knurled, slotted or flatted knobs. Hex nut incl. 3/8"-32x1/4" bushing. 1 watt linear taper, 1/2 watt Audio taper.

No. Taper same as for minitrols below.

Stk. No.	Type No.	Resist. Ohms	Taper	1-24	25-49	50-99	100-174	175-299	300-499
9F073	U1	100	4	1.02	.92	.85	.77	.73	.68
9F074	U2	500	4						
9F075	U52R	500	2						
9F076	U751R	750	2						
9F077	U3	1K	2						
9F078	U4	1K	4						
9F079	U5	1500	2						
9F080	U5L	1500	4						
9F081	U6	2K	4						
9F082	U7	2500	2						
9F083	U8	3K	4						
9F084	U9	3K	2						
9F085	U12	5K	1						
9F086	U14	5K	4						
9F087	U18	10K	1						
9F088	U19	10K	2						
9F089	U20	10K	4						
9F090	U21	15K	1						
9F091	U22	15K	2						
9F092	U24	20K	1						
9F093	U26	20K	4						
9F094	U28	25K	2						
9F095	U28A	25K	1						
9F096	U29	25K	4						
9F097	U30	30K	4						
9F098	U33	50K	1						
9F099	U34	50K	2						
9F219	U35	50K	4						

Stk. No.	Type No.	Resist. Ohms	Taper	1-24	25-49	50-99	100-174	175-299	300-499
9F220	U36	75K	1	1.02	.92	.85	.77	.73	.68
9F221	U39	100K	1						
9F222	U40	100K	2						
9F223	U41	100K	4						
9F224	U415	125K	4						
9F225	U42	150K	1						
9F226	U43	200K	4						
9F227	U44	250K	1						
9F228	U45	250K	2						
9F229	U46	250K	4						
9F230	U48	500K	1						
9F231	U50	500K	4						
9F232	U51	750K	1						
9F233	U52	1 meg.	2						
9F234	U53	1 meg.	1						
9F235	U54	1 meg.	4						
9F236	U155	1.5 meg.	4						
9F237	U55	2 meg	1						
9F238	U56	2 meg	4						
9F239	U255	2.5 meg	4						
9F240	U57	3 meg.	1						
9F241	U59	3 meg	4						
9F242	U63	5 meg	2						
9F243	U65	5 meg	1						
9F244	U67	5 meg	4						
9F245	U82	10 meg	4						

SWITCHES FOR TYPE U CONTROLS

Stk. No.	Type No.	Description	1-24	25-49	50-99	100-174	175-299	300-499
9F246	US26	SPST 6 amp @ 125V.	.42	.38	.35	.315	.30	.28
9F247	US26T	SPST w/dummy Terminal	.51	.46	.43	.383	.36	.34
9F248	US27	DPST 6 amp @ 125V.						
9F249	US28	SPDT 3 amp @ 125V.						

SUBMINIATURE MINITROLS

Only 1/2" diameter. Rated 1/4 watt linear, watt audio. 1/2"-32x1/4" bushing with nut. Shaft: 1/4" diameter x 1" FMS, MLC (steel); MLCN (nylon). (*) Indicates an SPST switch rated 2 amperes at 125VAC, UL approved. Printed ckt, MTC has open screwdriver slot. Supplied in resistance values from 100 ohms to 3½ megohms, in standard linear taper.

Taper No. 1: Logarithmic used in audio circuits where percent of change is small at start of rotation.

Taper No. 2: Reverse logarithmic used where percent of change must be large at start of rotation.

Taper No. 4: Linear taper where percentage of resistance change is directly proportional to rotational change on a straight line.

MLC

MTC

BUSHING MOUNT

Stk. No.	Type MLC	Resis., Ohms	Taper	1-24	25-49	50-99	100-174	175-299	300-499
60F2164	13L	1000	4	1.14	1.03	.95	.855	.81	.76
60F2165	222LS*	2200	4	1.86	1.67	1.55	1.395	1.33	1.24
60F2166	252A	2500	1	1.14	1.03	.95	.855	.81	.76
60F2167	252AS*	2500	1	1.86	1.67	1.55	1.395	1.33	1.24
60F2168	53A	5000	1	1.14	1.03	.95	.855	.81	.76
60F2169	53AS*	5000	1	1.86	1.67	1.55	1.395	1.33	1.24
60F2170	53L	5000	4	1.14	1.03	.95	.855	.81	.76
60F2171	53LS*	5000	4	1.86	1.67	1.55	1.395	1.33	1.24
60F2172	14AS*	10K	1	1.86	1.67	1.55	1.395	1.33	1.24
60F2173	14L	10K	4	1.14	1.03	.95	.855	.81	.76
60F2174	54L	50K	4	1.14	1.03	.95	.855	.81	.76
60F2175	15A	100K	1	1.14	1.03	.95	.855	.81	.76
60F2176	15L	100K	4	1.14	1.03	.95	.855	.81	.76
60F2177	25L	200K	4	1.14	1.03	.95	.855	.81	.76
60F2178	254L	250K	4	1.14	1.03	.95	.855	.81	.76
60F2179	N55A	500K	1	1.14	1.03	.95	.855	.81	.76
60F2180	55AS*	500K	1	1.86	1.67	1.55	1.395	1.33	1.24
60F2181	55LS*	500K	4	1.86	1.67	1.55	1.395	1.33	1.24
60F2182	N55L	500K	4	1.14	1.03	.95	.855	.81	.76
60F2183	16AS*	1 meg	1	1.86	1.67	1.55	1.395	1.33	1.24
60F2184	16LS*	1 meg	4	1.86	1.67	1.55	1.395	1.33	1.24
60F2185	N16A	1 meg	1	1.14	1.03	.95	.855	.81	.76
60F2186	N16L	1 meg	4	1.14	1.03	.95	.855	.81	.76

MTC-PRINTED CIRCUIT VERTICAL MOUNT

Stk. No.	Type MTC	Resis., Ohms	1-24	25-49	50-99	100-174	175-299	300-499
60F2187	12L1	100	.39	.35	.33	.29	.29	.26
60F2188	22L1	200						
60F2189	251L1	250						
60F2190	32L1	300						
60F2191	52L1	500						
60F2192	751L1	750						
60F2193	13L1	1000						
60F2194	152L1	1500						
60F2195	23L1	2000						
60F2196	33L1	3000						
60F2197	53L1	5000						
60F2198	63L1	6000						
60F2199	682L1	6800						
60F2200	14L1	10K						
60F2201	153L1	15K	.39	.35	.33	.29	.29	.26
60F2202	24L1	20K						
60F2203	253L1	25K						
60F2204	54L1	50K						
60F2205	15L1	100K						
60F2206	124L1	120K						
60F2207	184L1	180K						
60F2208	254L1	250K						
60F2209	3253L1	325K						
60F2210	454L1	450K						
60F2211	55L1	500K						
60F2212	16L1	1 meg						
60F2213	26L1	2 megs						
60F2214	355L1	3.5 megs						

MTC-4 PRINTED CIRCUIT HORIZONTAL MOUNTS

Stk. No.	Type MTC	Resis. Ohms	1-24	25-49	50-99	100-174	175-299	300-499
60F2215	153L4	15K	.39	.35	.33	.29	.29	.26
60F2216	24L4	20K						
60F2217	253L4	25K						
60F2218	54L4	50K						
60F2219	15LA	100K						
60F2220	124L4	120K						
60F2221	184L4	180K						
60F2222	254L4	250K						
60F2223	3253L4	325K						
60F2224	454L4	450K						
60F2225	55L4	500K						
60F2226	16L4	1 meg						
60F2227	26L4	2 megs						
60F2228	355L4	3.5 megs						
60F2229	12L4	100	.39	.35	.33	.29	.29	.26
60F2230	22L4	200						
60F2231	251L4	250						
60F2232	32L4	300						
60F2233	52L4	500						
60F2234	751L4	750						
60F2235	13L4	1000						
60F2236	152L4	1500						
60F2237	23L4	2000						
60F2238	33L4	3000						
60F2239	53L4	5000						
60F2240	63L4	6000						
60F2241	682L4	6800						
60F2242	14L4	10K						

Potentiometers

SERIES RV4—2 WATT CARBON Meets Mil. Spec.—MIL-R-94B

For tolerance see last letter in type number (A) ± 10% (B) ± 20%. Linear resistance taper. 1⅛" dia. Shpg. wt. 7 oz.

TYPE RV4NAYSD ⅜" long standard bushing. Slotted shaft ¼" dia., ⅞" long FMS.

Stk. No.	Type	Ohms	1-9	10-49	50-99	100-249	250-499
9F1400	RV4NAYSD500A	50					
8F700	RV4NAYSD101A	100					
9F1402	RV4NAYSD151A	150					
8F701	RV4NAYSD251A	250					
9F1404	RV4NAYSD351A	350					
8F702	RV4NAYSD501A	500					
9F1406	RV4NAYSD751A	750					
8F703	RV4NAYSD102A	1000					
9F1408	RV4NAYSD152A	1500					
8F704	RV4NAYSD252A	2500					
9F1410	RV4NAYSD352A	3500					
8F705	RV4NAYSD502A	5000					
9F1412	RV4NAYSD752A	7500					
8F706	RV4NAYSD103A	10K					
9F1414	RV4NAYSD153A	15K					
8F707	RV4NAYSD253A	25K	1.95	1.60	1.50	1.25	.92
9F1416	RV1NAYSD353A	35K					
8F708	RV4NAYSD503A	50K					
9F1418	RV4NAYSD753A	75K					
8F709	RV4NAYSD104A	100K					
9F1420	RV4NAYSD154A	150K					
8F710	RV4NAYSD254A	250K					
9F1422	RV4NAYSD354A	350K					
8F711	RV4NAYSD504A	500K					
9F1424	RV4NAYSD754A	750K					
8F712	RV4NAYSD105A	1 Meg					
9F1426	RV4NAYSD155B	1.5 Meg					
9F1427	RV4NAYSD205B	2 Meg					
8F713	RV4NAYSD255B	2.5 Meg					
9F1429	RV4NAYSD355B	3.5 Meg					
8F714	RV4NAYSD505B	5 Meg					

TYPE RV4LAYSA: ½" long locking bushing. Slotted shaft ¼" dia., ⅝" long FMS.

Stk. No.	Type	Ohms	1-9	10-49	50-99	100-249	250-499
9F1431	RV4LAYSA500A	50					
8F715	RV4LAYSA101A	100					
9F1433	RV4LAYSA151A	150					
8F716	RV4LAYSA251A	250					
9F1435	RV4LAYSA351A	350					
8F717	RV4LAYSA501A	500					
9F1437	RV4LAYSA751A	750					
8F718	RV4LAYSA102A	1000					
9F1439	RV4LAYSA152A	1500					
8F719	RV4LAYSA252A	2500					
9F1441	RV4LAYSA352A	3500					
8F720	RV4LAYSA502A	5000					
9F1443	RV4LAYSA752A	7500					
8F721	RV4LAYSA103A	10K					
9F1445	RV4LAYSA153A	15K					
8F722	RV4LAYSA253A	25K	2.25	1.90	1.58	1.33	.99
9F1447	RV4LAYSA353A	35K					
8F723	RV4LAYSA503A	50K					
9F1449	RV4LAYSA753A	75K					
8F724	RV4LAYSA104A	100K					
9F1451	RV4LAYSA154A	150K					
8F725	RV4LAYSA254A	250K					
9F1453	RV4LAYSA354A	350K					
8F726	RV4LAYSA504A	500K					
9F1455	RV4LAYSA754A	750K					
8F727	RV4LAYSA105A	1 Meg					
9F1457	RV4LAYSA155B	1.5 Meg					
9F1458	RV4LAYSA205B	2 Meg					
8F728	RV4LAYSA255B	2.5 Meg					
9F1460	RV4LAYSA355B	3.5 Meg					
8F729	RV4LAYSA505B	5 Meg					

Type RV4LAYSD. Carbon type "pots" with ½ in. locking type bushing. Maximum temperature: 120°C Maximum resistance change due to humidity test: ±10%. Minimum insulation resistance during humidity test: 100 megs. Screw drive slotted operating shaft: ⅞ in. long (from mtg. surface). Wt., 7 oz.

8F685	RV4LAYSD101A	100 ohms					
8F686	RV4LAYSD251A	250 ohms					
8F687	RV4LAYSD501A	500 ohms					
8F688	RV4LAYSD102A	1000 ohms					
8F689	RV4LAYSD252A	2500 ohms					
8F690	RV4LAYSD502A	5000 ohms					
8F691	RV4LAYSD103A	10 K					
8F692	RV4LAYSD253A	25 K	2.25	1.90	1.58	1.33	.99
8F693	RV4LAYSD503A	50 K					
8F694	RV4LAYSD104A	100 K					
8F695	RV4LAYSD254A	250 K					
8F696	RV4LAYSD504A	500 K					
8F697	RV4LAYSD105A	1 Meg.					
8F698	RV4LAYSD255B	2.5 Meg					
8F699	RV4LAYSD505B	5 Meg.					

Type RV4NAYSK

Maximum operating temperature: 120°C. Maximum resistance change due to humidity test: 100 megs. Slotted operating shaft ¼" dia., 2½" long.

Stk. No.	Type	Ohms	1-9	10-49	50-99	100-249	250-499
9F1462	RV4NAYSK101A	100					
9F1463	RV4NAYSK251A	250					
9F1464	RV4NAYSK501A	500					
9F1465	RV4NAYSK102A	1000					
9F1466	RV4NAYSK252A	2500					
9F1467	RV4NAYSK502A	5000					
9F1468	RV4NAYSK103A	10K					
9F1469	RV4NAYSK253A	25K	1.95	1.60	1.50	1.25	.92
9F1470	RV4NAYSK503A	50K					
9F1471	RV4NAYSK104A	100K					
9F1472	RV4NAYSK254A	250K					
9F1473	RV4NAYSK504A	500K					
9F1474	RV4NAYSK105A	1 Meg					
9F1475	RV4NAYSK255B	2.5 Meg					
9F1476	RV4NAYSK505B	5 Meg					

Type RV4NAYSB

Same as above except with ¼" diameter, ⅞" long, slotted shaft.

Stk. No.	Type	Ohms	1-9	10-49	50-99	100-249	250-499
9F1477	RV4NAYSB101A	100					
9F1478	RV4NAYSB251A	250					
9F1479	RV4NAYSB501A	500					
9F1480	RV4NAYSB102A	1000					
9F1481	RV4NAYSB252A	2500					
9F1482	RV4NAYSB502A	5000					
9F1483	RV4NAYSB103A	10K					
9F1484	RV4NAYSB253A	25K	1.95	1.60	1.50	1.25	.92
9F1485	RV4NAYSB503A	50K					
9F1486	RV4NAYSB104A	100K					
9F1487	RV4NAYSB254A	250K					
9F1488	RV4NAYSB504A	500K					
9F1489	RV4NAYSB105A	1 Meg					
9F1490	RV4NAYSB255B	2.5 Meg					
9F1491	RV4NAYSB505B	5 Meg					

SERIES RA30—4 WATT WIRE WOUND Meets Mil. Spec.—MIL-R-19A

Linear resistance taper ± 10% tolerance. 1 11/32" dia. Shpg. wt. 7 oz.

TYPE RA30NASD: ⅜" long standard bushing. Slotted shaft ¼" diameter, ⅞" long FMS.

Stk. No.	Type	Ohms	1-9	10-49	50-99	100-249
9F1492	RA30NASD3R0A	3				
8F786	RA30NASD6R0A	6				
8F787	RA30NASD8R0A	8				
8F788	RA30NASD100A	10				
8F789	RA30NASD150A	15				
8F790	RA30NASD200A	20				
8F791	RA30NASD250A	25				
8F792	RA30NASD350A	35				
8F793	RA30NASD500A	50				
8F794	RA30NASD750A	75				
8F795	RA30NASD101A	100				
8F796	RA30NASD151A	150				
8F797	RA30NASD251A	250	3.00	2.19	1.59	1.34
8F798	RA30NASD351A	350				
8F799	RA30NASD501A	500				
8F800	RA30NASD102A	1K				
8F801	RA30NASD152A	1.5K				
8F802	RA30NASD202A	2K				
8F803	RA30NASD252A	2.5K				
8F804	RA30NASD352A	3.5K				
8F805	RA30NASD502A	5K				
8F806	RA30NASD752A	7.5K				
8F807	RA30NASD103A	10K				
8F808	RA30NASD203A	20K				
8F809	RA30NASD253A	25K				

TYPE RA30LASB: ½" long locking bushing Slotted shaft ¼" diameter, ⅝" long FMS.

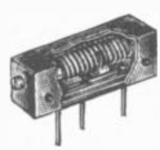
9F1493	RA30LASB3R0A	3				
8F810	RA30LASB6R0A	6				
8F811	RA30LASB8R0A	8				
8F812	RA30LASB150A	15				
8F813	RA30LASB200A	20				
8F814	RA30LASB350A	35				
8F815	RA30LASB750A	75				
8F816	RA30LASB101A	100				
8F817	RA30LASB151A	150	3.00	2.27	1.67	1.42
8F818	RA30LASB351A	350				
8F819	RA30LASB102A	1K				
8F820	RA30LASB152A	1.5K				
8F821	RA30LASB202A	2K				
8F822	RA30LASB352A	3.5K				
8F823	RA30LASB502A	5K				
8F824	RA30LASB103A	10K				
8F825	RA30LASB203A	20K				
8F826	RA30LASB253A	25K				

SERIES RA20—2 WATT WIRE WOUND
Meets Mil. Spec.—MIL-R-19A

Linear resistance taper ± 10% tolerance 1 17/64" dia. Shpg. wt. 7 oz.
RA20NASD: Standard bushing 3/8" long Slotted shaft 1/4" diameter 7/8" long FMS
RA20LASB: Locking bushing 1/2" long Slotted shaft 1/4" diameter 5/8" long FMS.

Stk. No.	Type	Ohms	1-9	10-49	50-99	100-249
8F735	RA20NASD6R0A	6				
8F736	RA20NASD8R0A	8				
8F737	RA20NASD100A	10				
8F738	RA20NASD150A	15				
8F739	RA20NASD200A	20				
8F740	RA20NASD250A	25				
8F741	RA20NASD350A	35				
8F742	RA20NASD500A	50				
8F743	RA20NASD101A	100				
8F744	RA20NASD151A	150				
8F745	RA20NASD201A	200				
8F746	RA20NASD251A	250	3.00	2.01	1.41	1.16
8F747	RA20NASD351A	350				
8F748	RA20NASD501A	500				
8F749	RA20NASD751A	750				
8F750	RA20NASD102A	1K				
8F751	RA20NASD152A	1.5K				
8F752	RA20NASD202A	2K				
8F753	RA20NASD252A	2.5K				
8F754	RA20NASD352A	3.5K				
8F755	RA20NASD502A	5K				
8F756	RA20NASD103A	10K				
8F757	RA20NASD153A	15K				
8F758	RA20LASB3R0A	3				
8F759	RA20LASB6R0A	6				
8F760	RA20LASB8R0A	8				
8F761	RA20LASB100A	10				
8F762	RA20LASB150A	15				
8F763	RA20LASB200A	20				
8F764	RA20LASB250A	25				
8F765	RA20LASB350A	35				
8F766	RA20LASB500A	50				
8F767	RA20LASB101A	100				
8F768	RA20LASB151A	150				
8F769	RA20LASB201A	200				
8F770	RA20LASB251A	250	3.00	2.09	1.49	1.24
8F771	RA20LASB351A	350				
8F772	RA20LASB501A	500				
8F773	RA20LASB751A	750				
8F774	RA20LASB102A	1K				
8F775	RA20LASB152A	1.5K				
8F776	RA20LASB202A	2K				
8F777	RA20LASB252A	2.5K				
8F778	RA20LASB352A	3.5K				
8F779	RA20LASB502A	5K				
8F780	RA20LASB103A	10K				
8F781	RA20LASB153A	15K				

SERIES 76 SUPER SET TRIMMING POTENTIOMETERS



SUPER SETABILITY made possible through 10 times the resolution — 15 times greater winding length ever offered in this configuration. Trimming costs in critical circuits drop, performance of circuit improves. Because of small size, packaging size decreases. Mechanical travel: 14 turns approx. Effective travel: 11 turns ±1/4 turn. Resistance Range: 100 ohms to 20,000 ohms. Resistance tolerance ±5%. Power Rating: .75 watts @ 85°C—derated linearly to 0 power @150°C.

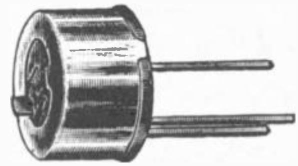
SERIES 76JA-2 (solder lug)

Stk. No.	Resis. Ohms	Nom. Resolution %	1-24	25-49	50-99	100-249	250-499
9F1381	100	0.1					
9F1382	200	0.09					
9F1383	500	0.08					
9F1384	1K	0.075	8.10	7.20	6.75	6.30	5.63
9F1385	2K	0.06					
9F1386	5K	0.05					
9F1387	10K	0.04					
9F1388	20K	0.03					

SERIES 76JA-3 (printed circuit)

Stk. No.	Resis. Ohms	Nom. Resolution %	1-24	25-49	50-99	100-249	250-499
9F1389	100	0.1					
9F1390	200	0.09					
9F1391	500	0.08					
9F1392	1K	0.075	8.10	7.20	6.75	6.30	5.63
9F1393	2K	0.06					
9F1394	5K	0.05					
9F1395	10K	0.04					
9F1396	20K	0.03					

SERIES 371-S HOT MOLDED, LOW COST, TRIMMING POTENTIOMETERS



Construction consists of a hot molded carbon element, carbon contact brush, pressure spring and cover. Have stand-offs to insulate metal cover from printed circuit board and a screwdriver adjustment slot. Power rating: 3/8 watt @ 70°C derated linearly to zero watts @ 120°C. Working voltage: 350 VAC. Resistance range: 100 ohms to 1 megohm. Resistance tolerance: ±20%. Tapers: linear and audio. Mechancial and electrical rotation: 290° ±5°. Dielectric strength: variable arm hot to case. Case to mounting plane — 750 volts R.M.S. @ atmospheric pressure. Torque: operating: 7.0 ounce inches maximum. Stop: 20 ounce-inches. Approximate weight: .2 ounces.

Stock No.	Resist.	1-9	10-49	50-99	100-249	250-499	500-999
9F1750	100						
9F1751	250						
9F1752	500						
9F1753	1K						
9F1754	2.5K						
9F1755	5K						
9F1756	10K						
9F1757	15K	2.28	1.63	.98	.85	.78	.72
9F1758	25K						
9F1759	50K						
9F1760	100K						
9F1761	150K						
9F1762	200K						
9F1763	250K						
9F1764	500K						
9F1765	1 Meg.						

HOT MOLDED CARBON POTENTIOMETERS
MIL-R-94 STYLE RV6

Rated 0.5 watt @ 70°C, derated to zero power @120°C. Working voltage 350 VDC across end of terminals. Mechanical and electrical rotation 295°±3°. Voltage breakdown 750 VAC between terminals and ground for 1 minute. Available with standard or locking type bushing. RV6L Locking Bushing. RV6N Standard Bushing. Diameter: 1/2", Shpg. wt., 5 oz.


RV6L


RV6N

SERIES RV6L

Stk. No.	RV6L/ AYSA Type	Ohms	1-9	10-49	50-99	100-249	250-499
9F2000	101A	100					
9F2001	251A	250					
9F2002	501A	500					
9F2003	102A	1000					
9F2004	252A	2500					
9F2005	502A	5000					
9F2006	103A	10,000					
9F2007	153A	15,000	5.00	3.88	2.33	2.02	1.71
9F2008	253A	25,000					
9F2009	503A	50,000					
9F2010	104A	100K					
9F2011	154A	150K					
9F2012	254A	250K					
9F2013	504A	500K					
9F2014	105A	1 Meg					

SERIES RV6N

Stk. No.	RV6N/ AYSD Type	Ohms	1-9	10-49	50-99	100-249	250-499
9F2015	101A	100					
9F2016	251A	250					
9F2017	501A	500					
9F2018	102A	1000					
9F2019	252A	2500					
9F2020	502A	5000					
9F2021	103A	10,000					
9F2022	153A	15,000	5.00	3.65	2.19	1.90	1.61
9F2023	253A	25,000					
9F2024	503A	50,000					
9F2025	104A	100K					
9F2026	154A	150K					
9F2027	254A	250K					
9F2028	504A	500K					
9F2029	105A	1 Meg					

Potentiometers

63MI 62JA 412 42-900 57m 5m9

CARBON TRIMMING POTENTIOMETERS

Type 63MI. Plastic Shaft and Faceplate. Solder Lug.
Type 63M2. Metal Shaft and Faceplate. Solder Lug.
Type 63M4. Plastic Shaft and Faceplate. Wire Leads.
Type 63M5. Metal Shaft and Faceplate. Wire Leads.
Designed specifically for application on printed circuit boards, this new configuration permits extremely close board-to-board spacing. Power Rating: .25 watt @ 70°C. Working Voltage: 350 VDC across end terminals, but power not to exceed rating. Resistance Range is 100 Ω to 1 megohm, linear. Resistance Tolerance: ±20%. Mechanical & Electrical Rotation 295° ±3°, Voltage Breakdown is 750 VAC between terminals and gnd. for 1 min. Torque 0.5 to 3 oz. in Diam. ½"; body length 1⅓₂". Weight, 1 oz.

Res.	Stock No. 63M1	63M2	63M4	63M5
100	9F2030	9F2039	9F2048	9F2057
250	9F2031	9F2040	9F2049	9F2058
500	9F2032	9F2041	9F2050	9F2059
1K	9F2033	9F2042	9F2051	9F2060
2.5K	9F2034	9F2043	9F2052	9F2061
5K	9F2035	9F2044	9F2053	9F2062
10K	9F2036	9F2045	9F2054	9F2063
15K	9F2037	9F2046	9F2055	9F2064
25K	9F2038	9F2047	9F2056	9F2065
50K	9F2066	9F2073	9F2080	9F2087
100K	9F2067	9F2074	9F2081	9F2088
150K	9F2068	9F2075	9F2082	9F2089
200K	9F2069	9F2076	9F2083	9F2090
250K	9F2070	9F2077	9F2084	9F2091
500K	9F2071	9F2078	9F2085	9F2092
1 Meg.	9F2072	9F2079	9F2086	9F2093

1-9	10-24	25-99	100-249	250-499	500-999
3.45	2.50	1.50	1.30	1.20	1.10

43C2 2 WATT WW POTENTIOMETERS

2 watt, wire-wound control. Tolerance ±5%. ⅛ screwdriver slotted bushing. Diam. 1⁵⁄₃₂x⅝" deep. Fabricated in accordance with MIL-R-19 Style RA20. Shpg. wt., 4 oz.

Stk. No.	Type	Ohms	NET
8F400	43C2-5	5	
8F401	43C2-10	10	
8F402	43C2-20	20	
8F403	43C2-25	25	
8F404	43C2-30	30	
8F405	43C2-40	40	
8F406	43C2-50	50	
8F407	43C2-75	75	
8F408	43C2-100	100	
8F409	43C2-150	150	
8F410	43C2-200	200	
8F411	43C2-300	300	2.50
8F412	43C2-400	400	
8F413	43C2-500	500	
8F414	43C2-750	750	
8F415	43C2-1000	1000	
8F416	43C2-1500	1500	
8F417	43C2-2000	2000	
8F418	43C2-2500	2500	
8F419	43C2-3000	3000	
8F420	43C2-4000	4000	
8F421	43C2-5000	5000	
8F422	43C2-7500	7500	
8F423	43C2-10K	10 K	
8F424	43C2-15K	15 K	
8F425	43C2-20K	20 K	2.81
8F426	43C2-25K	25 K	
8F427	43C2-30K	30 K	
8F428	43C2-40K	40 K	3.30
8F429	43C2-50K	50 K	

COMMERCIAL POTENTIOMETERS

Designed for industrial instrumentation applications. Resistance tolerance ±5%. Linear functional output; absolute linearity ±25%. 500-100K ohms. Power dissipation 2 watts @ 25°C. Dielectric strength 1000 volts AC. Effective rotation 360° nominal. Insulation resistance 100 meg-ohms. Max. speed of rotation is 60 RPM. Weight: 1.34 oz.

Stk. No.	Res.	1-9	10-24	25-99	100-499
8F570	100				
8F569	200				
8F571	250				
8F572	500				
8F573	1K				
8F574	2K				
8F575	5K	7.50	6.50	6.00	5.50
8F576	10K				
8F577	20K				
8F578	30K				
8F579	50K				
8F580	100K				

"CLARODIAL" 10 TURN SCALE DIALS

Calibrated dials designed for multi-turn potentiometers up to 10 turns. Requires 1 inch of panel space. The knob attaches directly to the shaft and the body of the dial is mounted rigidly to the panel. Ratio of 1000 to 1 for 10 turns provided with zero backlash and reading error. ¼" shaft.

Stk. No.	Type	Descrip	1-9	10-24	25-99	100-249
8F585	412*	Black	7.75	7.30	6.95	6.55
8F586	411	Black	8.75	8.50	8.05	7.60
8F587	462*	Clear	8.25	7.80	7.40	7.00
8F588	461	Clear	9.45	8.95	8.50	8.00

* With Lock

58C1 WIRE-WOUND POTENTIOMETERS

Standard bushings; wire-wound; with all controls rated at 4 watts. Electrical tolerance is ±5% with all changes. Available up to 50K Ohms. Diam. 1²³⁄₃₂x1" depth. Shpg. wt.: 4 oz.

Stk. No.	Type	Ohms	NET
8F430	58C1-1	1	
8F431	58C1-2	2	
8F432	58C1-4	4	
8F433	58C1-6	6	
8F434	58C1-10	10	
8F435	58C1-15	15	
8F436	58C1-20	20	
8F437	58C1-30	30	
8F438	58C1-40	40	
8F439	58C1-50	50	
8F440	58C1-60	60	
8F441	58C1-75	75	
8F442	58C1-100	100	
8F443	58C1-200	200	2.25
8F444	58C1-300	300	
8F445	58C1-400	400	
8F446	58C1-500	500	
8F447	58C1-750	750	
8F448	58C1-1000	1000	
8F449	58C1-1500	1500	
8F450	58C1-2000	2000	
8F451	58C1-2500	2500	
8F452	58C1-3000	3000	
8F453	58C1-5000	5000	
8F454	58C1-7500	7500	
8F455	58C1-10K	10 K	
8F456	58C1-15K	15 K	
8F457	58C1-20K	20 K	2.55
8F458	58C1-25K	25 K	
8F459	58C1-30K	30 K	
8F460	58C1-40K	40 K	3.00
8F461	58C1-50K	50 K	

SINGLE TURN POTENTIOMETERS SERIES 42-900

Extra tap for greater electrical versatility. Shaft extends thru rear of unit to permit addition of switching and other functions actuated by a single shaft. Tol.: ±5%. Linear out-put. Rated at 3 watts at 40°C. Tap 50% of applied voltage. ±1 in. tol. Max speed of rotation: 90 RPM. 1²¹⁄₃₂" dia. Shaft length: 1½". Shaft dia : 25". Approximate weight, 3.2 oz.

Stk. No.	Res.	1-9	10-24	25-99	100-199	200-499
8F548	50					
8F549	100					
8F550	500					
8F551	1K	14.00	13.30	12.60	11.90	11.20
8F552	2.5K					
8F553	5K					
8F554	10K	16.00	15.20	14.40	13.60	12.80
8F555	20K	16.00	15.20	14.40	13.60	12.80
8F556	50K	19.00	18.05	17.10	16.15	15.20
8F557	100K	19.00	18.05	17.10	16.15	15.20

SINGLE TURN POTENTIOMETERS SERIES 57M AND 57M9

½" dia. housing. Series 57M is rated at 1.5 watts at 40°C. Series 57EJ 2 watts at 70°C and features glass sealed terminals. Shaft length: 57M and 57EJA ½" beyond bushing. Series 57M9 has locking bushing mtg. and a ¹⁄₁₆" shaft. Series 57EB is similar to Series 57EA except it has locking bushing mtg. and ¹⁄₁₆" shaft. Common specifications: Res. Tol.: ±5% independent. Linearity: ±2%. Mechanical and electrical rotation: 320° ±5%. Dielectric Strength: 1000 VAC. Corrosion resistant housing per QQ-M-151. Centerless grnd, stainless steel shaft. Approx. wt., ½ oz.

57M Stk. No.	57M9 Stk. No.	Res.	1-9	10-24	25-99	100-199	200-499
8F470	8F480	50					
8F471	8F481	100					
8F472	8F482	200					
8F473	8F483	500					
8F474	8F484	1K	9.65	9.17	8.69	8.20	7.72
8F475	8F485	5K					
8F476	8F486	10K					
8F477	8F487	20K					
8F478	8F488	50K					

SERIES 57EJA AND 57EJB

57EJA Stk. No.	57EJB Stk. No.	Res.	1-9	10-24	25-99	100-199	200-499
8F500	8F510	50					
8F501	8F511	100					
8F502	8F512	200					
8F503	8F513	500					
8F504	8F514	1K	10.00	9.50	9.00	8.50	8.00
8F505	8F515	5K					
8F506	8F516	10K					
8F507	8F517	20K					
8F508	8F518	50K					

CLAROSTAT

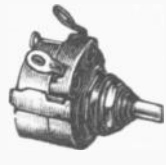
TYPE 58 WW CONTROLS

Linear type, wirewound 4 watt controls. All are 1 23/32" dia. x 13/16" deep. Mount in 3/8" hole with nut and washer. Average weight, 4 oz. ±10% tolerance. 2" L. round shaft.

Stk. No.	Type	Ohms	NET
9F700	58-1	1	
9F701	58-2	2	
9F702	58-4	4	
9F703	58-6	6	
9F704	58-10	10	
9F705	58-15	15	
9F706	58-20	20	
9F707	58-25	25	
9F708	58-30	30	
9F709	58-40	40	
9F710	58-50	50	
9F711	58-60	60	
9F712	58-75	75	1.25
9F713	58-100	100	
9F714	58-200	200	
9F715	58-300	300	
9F716	58-400	400	
9F717	58-500	500	
9F718	58-750	750	
9F719	58-1,000	1,000	
9F720	58-2,000	2,000	
9F721	58-3000	3,000	
9F722	58-5,000	5 000	
9F723	58-7,500	7,500	
9F724	58-10K	10,000	
9F725	58-15K	15,000	
9F726	58-20K	20,000	1.52
9F727	58-25K	25,000	
9F728	58 30K	30,000	
9F729	58-40K	40,000	1.95
9F730	58-50K	50,000	

You Can Depend on NEWARK for Everything In Industrial Electronics

MINIATURIZED CONTROLS



Series 48M-9. Single pot. with shaft locking bushing. Rated at 0.2 w. Dia. 5/8". Screwdriver slot shaft 1/8" diameter x 1/16" long. Split-locking bushing. 1/4"x2NEF2A, 3/8" long. Tolerance, 1K-100K is 10%, balance 20%.

No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
9F513	1000	4.90	3.68	3.15	2.63	2.28	2.10
9F514	1500	4.90	3.68	3.15	2.63	2.28	2.10
9F515	2500	4.90	3.68	3.15	2.63	2.28	2.10
9F516	5000	4.90	3.68	3.15	2.63	2.28	2.10
9F517	7500	4.90	3.68	3.15	2.63	2.28	2.10
9F518	10K	4.90	3.68	3.15	2.63	2.28	2.10
9F519	25K	4.90	3.68	3.15	2.63	2.28	2.10
9F520	50K	4.90	3.68	3.15	2.63	2.28	2.10
9F521	100K	4.90	3.68	3.15	2.63	2.28	2.10
9F522	250K	4.90	3.68	3.15	2.63	2.28	2.10
9F523	500K	4.90	3.68	3.15	2.63	2.28	2.10
9F524	1 meg.	4.90	3.68	3.15	2.63	2.28	2.10
9F525	2 5 meg.	4.90	3.68	3.15	2.63	2.28	2.10

WW MIN. CONTROLS

Series 49M-9. Wirewound pot rated 1.5W Low-loss 3/4" housing; 1000VAC bkdn. volt. Linear taper thru 300° rot. 1/8"D shaft. W/shaft locking bushing. Shpg. wt. 4 oz.

No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
9F542	5	5.83	4.37	3.75	3.12	2.71	2.49
9F543	10	4.96	3.72	3.19	2.66	2.30	2.12
9F544	20	4.96	3.72	3.19	2.66	2.30	2.12
9F545	25	4.96	3.72	3.19	2.66	2.30	2.12
9F546	50	4.96	3.72	3.19	2.66	2.30	2.12
9F547	100	4.96	3.72	3.19	2.66	2.30	2.12
9F548	200	4.96	3.72	3.19	2.66	2.30	2.12
9F549	250	4.96	3.72	3.19	2.66	2.30	2.12
9F550	500	4.96	3.72	3.19	2.66	2.30	2.12
9F551	1000	4.96	3.72	3.19	2.66	2.30	2.12
9F552	1500	4.96	3.72	3.19	2.66	2.30	2.12
9F553	2000	4.96	3.72	3.19	2.66	2.30	2.12
9F554	2500	4.96	3.72	3.19	2.66	2.30	2.12
9F555	5000	4.96	3.72	3.19	2.66	2.30	2.12
9F556	7500	4.96	3.72	3.19	2.66	2.30	2.12
9F557	10K	4.96	3.72	3.19	2.66	2.30	2.12

2-4 WATT WIRE WOUND CONTROLS

Type 43. Wire wound controls are rated for work at 2 to 4 watts. They have an overall tolerance of +10% for all values. The body is linear taper molded of general purpose, long-life phenolic. Body dimensions are 1 1/8 inches in diameter, 9/16 inch deep, with 3/8"-32 bushings. Round shaft is 2 inches long. Types below are listed without switch.

Stk. No.	Type	Ohms	NET
9F760	43-5	5	
9F761	43-10	10	
9F762	43-20	20	
9F763	43-25	25	
9F764	43-30	30	
9F765	43-40	40	1.25
9F766	43-50	50	
9F767	43-75	75	
9F768	43-100	100	
9F769	43-150	150	
9F770	43-200	200	
9F771	43-300	300	

Stk. No.	Type	Ohms	NET
9F772	43-400	400	
9F773	43-500	500	
9F774	43-750	750	
9F775	43-1,000	1,000	
9F776	43-1,500	1,500	
9F777	43-2,000	2,000	1.25
9F778	43-2,500	2,500	
9F779	43-3,000	3,000	
9F780	43-4,000	4,000	
9F781	43-5,000	5,000	
9F782	43-7,500	7,500	
9F783	43-10K	10,000	

AMPERITE

THERMOSTATIC DELAY RELAYS

Hermetically sealed-heater actuated relays for AC or DC operation. SPST—Normally open (NO); Normally closed (C). Draw 2 w. Contact rating—115v at 3A AC and 220v at 1A AC. Breakdown voltage: delays 2-5 sec. between contacts 250 V, heater to contacts 500 V. Compensated for 55°-70°C ambient. Dia. 1 1/4". Hgt. less prongs 2 3/4". Min. 9 pin. 3/4 x 2 1/2" U.L. approved for up thru 115V. Shpg. wt. 4 oz.

OCTAL BASE TUBE SHELL

Delay Seconds	Stock No.	6.3 NO	Stock No.	26V NO	Stock No.	115V NO	Stock No.	115V NC	NET
2	24F2300	6 NO2	24F2314	26 NO2	24F2328	115 NO2	24F2342	115 C2	
3	24F2301	6 NO3	24F2315	26 NO3	24F2329	115 NO3	24F2343	115 C3	
5	24F2302	6 NO5	24F2316	26 NO5	24F2330	115 NO5	24F2344	115 C5	
10	24F2303	6 NO10	24F2317	26 NO10	24F2331	115 NO10	24F2345	115 C10	
15	24F2304	6 NO15	24F2318	26 NO15	24F2332	115 NO15	24F2346	115 C15	
20	24F2305	6 NO20	24F2319	26 NO20	24F2333	115 NO20	24F2347	115 C20	
30	24F2306	6 NO30	24F2320	26 NO30	24F2334	115 NO30	24F2348	115 C30	2.35
45	24F2307	6 NO45	24F2321	26 NO45	24F2335	115 NO45	24F2349	115 C45	
60	24F2308	6 NO60	24F2322	26 NO60	24F2336	115 NO60	24F2350	115 C60	
75	24F2309	6 NO75	24F2323	26 NO75	24F2337	115 NO75	24F2351	115 C75	
90	24F2310	6 NO90	24F2324	26 NO90	24F2338	115 NO90	....	....	
120	24F2311	6 NO120	24F2325	26 NO120	24F2339	115 NO120	24F2353	115 C120	
150	....	....	24F2326	26 NO150	24F2340	115 NO150	24F2354	115 C150	
180	24F2313	6 NO180	24F2327	26 NO180	24F2341	115 NO180	24F2355	115 C180	

MINIATURE 9 PIN TUBE SHELL

Delay Seconds	Stock No.	6.3 NO	Stock No.	26V NO	Stock No.	115V NO	Stock No.	115V NC	NET
2	24F2370	6 NO2T	24F2381	26 NO2T	24F2392	115 NO2T	24F2403	115 C2T	
3	24F2371	6 NO3T	24F2382	26 NO3T	24F2393	115 NO3T	24F2404	115 C3T	
5	24F2372	6 NO5T	24F2383	26 NO5T	24F2394	115 NO5T	24F2405	115 C5T	
10	24F2373	6 NO10T	24F2384	26 NO10T	24F2395	115 NO10T	24F2406	115 C10T	
15	24F2374	6 NO15T	24F2385	26 NO15T	24F2396	115 NO15T	24F2407	115 C15T	
20	24F2375	6 NO20T	24F2386	26 NO20T	24F2397	115 NO20T	24F2408	115 C20T	
30	24F2376	6 NO30T	24F2387	26 NO30T	24F2398	115 NO30T	24F2409	115 C30T	2.35
45	24F2377	6 NO45T	24F2388	26 NO45T	24F2399	115 NO45T	24F2410	115 C45T	
60	24F2378	6 NO60T	24F2389	26 NO60T	24F2400	115 NO60T	24F2411	115 C60T	
90	24F2379	6 NO90T	24F2390	26 NO90T	24F2401	115 NO90T	24F2412	115 C90T	
120	24F2380	6 NO120T	24F2391	26 NO120T	24F2402	115 NO120T	24F2413	115 C120T	
30	24F2361	6 F30	Flasher						

24F2414. Type 26C5T. Normally closed. Delay 5 sec. 26 V. NET....................2.35

OCTAL BASE TUBE SHELL

Delay Sec.	Stock No.	2.5 V.	Stock No.	6.3 V.	Stock No.	26.0 V.	NET
2	....	....	....	....	24F2362	26C2	
30	24F2356	2NO30	....	....	....	....	2.35
20	....	....	24F2357	6C20	....	....	
30	....	....	....	....	24F2358	26C30	

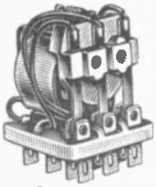
AMPERITE BALLAST TUBES

Rugged units provide low-cost automatic voltage and current regulation. As supply voltage increases, ballast tube resistance increases. Regulating action is based on high temperature coefficient of resistance element and heat dissipation qualities of gas-filled tube. Av. shpg. wt., 8 oz.

No.	Type	No.	Type	NET
24F744	1HMA	24F724	4A1	
24F735	1HT4	24F718	4H4C	
24F717	3-4	24F719	6-4	
24F716	3-14	24F720	6-8B	
24F739	3-16	24F721	6-12	
24F737	3-50A	24F722	6H6	1.76
24F727	3HTF4	24F742	61F4	
24F725	3TF4A	24F733	8-4	
24F738	3TF4	24F734	9-7	
24F726	3TFV4	24F723	10-4C	
24F729	3TK2	24F743	3A10	
24F732	3V4			

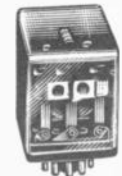
Reed and General Purpose Relays

CR120 TYPE H GENERAL PURPOSE RELAY



OPENED

Compact, high quality relay line for multipole switching applications. Available in AC or DC coils. Rated 10 amps and 1/6 hp at 120 volts AC, 1/3 hp at 240V AC. Well suited for use in small, built in chassistype control units or as an output device for electronic equipment. May also be in control panels to obtain plug-in construction. Typical applications include, air-conditioning and refrigerator equipment, office machines and packaging equipment. Relays are offered open stud mount, or enclosed with plastic dust covers. The enclosed DPDT uses standard octal socket, 3PDT, 11 pin socket. Built to withstand extreme shock and vibration while delivering high-fidelity performance. Constant, outstanding coil performance at temperature ranges of —45 to +80°C. Low noise level and high load life are characteristic of this relay. High insulation resistance, 1000 megs at 500 volts DC between all terminals and ground, coil to contacts and between contacts. Dielectric strength: 1000 volts RMS.



ENCLOSED

OPEN TYPE

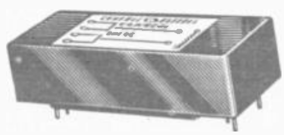
Stock No.	Type CR120	Volts	Cont. Action	1-24	25-49	50-74	75-99	100-999
24F3050	HC12J02	115AC	DPDT	4.18	3.97	3.76	3.35	2.93
24F3051	HF12J09	12DC	DPDT	3.73	3.54	3.36	2.98	2.61
24F3052	HF12J10	24DC	DPDT	3.73	3.54	3.36	2.98	2.61
24F3053	HC12W02	115AC	3PDT	4.71	4.47	4.24	3.77	3.30
24F3054	HF12W09	12DC	3PDT	4.31	4.09	3.88	3.44	3.01
24F3055	HF12W10	24DC	3PDT	4.31	4.09	3.88	3.44	3.01

ENCLOSED TYPE

Stock No.	Type CR120	Volts	Cont. Action	1-24	25-49	50-74	75-99	100-999
24F3056	HC85J02	115AC	DPDT	6.34	6.03	5.71	5.07	4.44
24F3057	HF85J09	12DC	DPDT	6.30	5.99	5.67	5.04	4.41
24F3058	HF85J10	24DC	DPDT	6.30	5.99	5.67	5.04	4.41
24F3059	HC95W02	115AC	3PDT	7.93	7.54	7.14	6.35	5.55
24F3060	HF95W09	12DC	3PDT	7.88	7.49	7.10	6.31	5.52
24F3061	HF95W10	24DC	3PDT	7.88	7.49	7.10	6.31	5.52

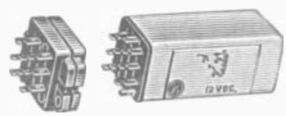
DRY REED RELAYS

TUBE TYPE PLUG IN



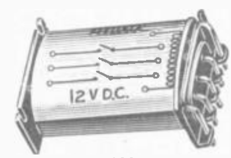
ENCLOSED PRINTED CIRCUIT

PLUG-IN REED SWITCH



WITH SOCKET

WIRE WRAP FORMS



CR220G

- No Contact Contamination
- Easy to Install
- Long Electrical, Mechanical Life
- Fast Cycling
- Gold Plated Hi-Fi Contacts

Types CR120 G and CR220 G reed switch relays may be applied where a fast operating time is required (1.0 to 1.5 milliseconds). Relays are housed in compact packages suitable for multi-relay applications. Used for computer, scanning, counting, sequencing, or data processing circuits.

TYPE CR120 G REED RELAY
COIL POWER AND SIZE

Contacts	Milliwatts	Sizes CR120G1	Sizes CR120G2
1-Pole	450	3 1/16 x 1 1/4"	23/32 x 2 3/4 x 23/32"
2-Pole	680	3 1/16 x 1 1/4"	23/32 x 2 3/4 x 1 3/64"
3-Pole	1000	3 1/16 x 1 1/4"	23/32 x 2 3/4 x 1 27/64"

Stock No.	Type CR120	Cont. Action	1-24	25-49	50-74	75-99	100-249	250-499	500-up
12VDC CR120G1 OCTAL PLUG-IN									
24F3062	G10A02	SPST	4.90	4.65	4.41	3.92	3.43	3.18	2.94
24F3063	G10B02	DPST	7.02	6.67	6.32	5.62	4.91	4.56	4.21
24F3064	G10C02	3PST	9.25	8.79	8.33	7.40	6.48	6.01	5.55
24F3065	G101C2	SPDT	6.77	6.43	6.09	5.41	4.74	4.40	4.06
24F3066	G1C202	DPDT	10.69	10.16	9.62	8.55	7.48	6.95	6.42
24F3067	G10302	3PDT	15.41	14.64	13.87	12.33	10.79	10.02	9.24
24 VDC CR120G1 OCTAL PLUG-IN									
24F3068	G10A03	SPST	4.90	4.65	4.41	3.92	3.43	3.18	2.94
24F3069	G10B03	DPST	7.02	6.67	6.32	5.62	4.91	4.56	4.21
24F3070	G10C03	3PST	9.25	8.79	8.33	7.40	6.48	6.01	5.55
24F3071	G10103	SPDT	6.77	6.43	6.09	5.41	4.74	4.40	4.06
24F3072	G10203	DPDT	10.69	10.16	9.62	8.55	7.48	6.95	6.42
24F3073	G10303	3PDT	15.41	14.64	13.87	12.33	10.79	10.02	9.24
12 VDC CR120G2 PRINTED CIRCUIT									
24F3074	G20A02	SPST	3.82	3.63	3.43	3.05	2.67	2.48	2.29
24F3075	G20B02	DPST	5.69	5.40	5.12	4.55	3.98	3.70	3.41
24F3076	G20C02	3PST	7.81	7.42	7.03	6.25	5.47	5.08	4.69
24F3077	G20102	SPDT	6.77	6.43	6.09	5.41	4.74	4.40	4.06
24F3078	G20202	DPDT	9.68	9.20	8.72	7.75	6.78	6.29	5.81
24F3079	G20302	3PDT	13.54	12.86	12.18	10.83	9.48	8.80	8.12
24 VDC CR120G2 PRINTED CIRCUIT									
24F3080	G20A03	SPST	3.82	3.63	3.43	3.05	2.67	2.48	2.29
24F3081	G20B03	DPST	5.69	5.40	5.12	4.55	3.98	3.70	3.41
24F3082	G20C03	3PST	7.81	7.42	7.03	6.25	5.47	5.08	4.69
24F3083	G20103	SPDT	6.08	5.78	5.48	4.87	4.26	3.95	3.65
24F3084	G20203	DPDT	9.68	9.20	8.72	7.75	6.78	6.29	5.81
24F3085	G20303	3PDT	13.54	12.86	12.18	10.83	9.48	8.80	8.12

TYPE CR220G REED RELAYS
COIL POWER AND SIZE

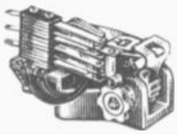
Contacts	Milliwatts	Size CR220G600	Size CR220G700
1-Pole	350	9/16 x 2 x 3/4"	2 21/64 x 1 1/32 x 61/64"
2-Pole	600	9/16 x 2 x 1"	2 21/64 x 1 1/32 x 61/64"
4-Pole	1000	9/16 x 2 x 1 1/2"	2 21/64 x 1 1/32 x 61/64"
6-Pole	1600	9/16 x 2 x 2"	2 21/64 x 1 1/32 x 1 29/64"

Stock No.	Type CR2202	Cont. Action	1-24	25-49	50-74	75-99	100-249	250-499	500-up
12 VDC CR220G OPEN TYPE—PRINTED CIRCUIT									
24F3086	G600Au2	SPST	2.95	2.80	2.66	2.36	2.07	1.92	1.77
24F3087	G6CCB02	DPST	4.36	4.14	3.92	3.48	3.05	2.83	2.61
24F3088	G603D02	4PST	7.31	6.94	6.58	5.85	5.12	4.75	4.38
24F3089	G6C0F02	6PST	10.19	9.68	9.17	8.15	7.13	6.62	6.11
24 VDC CR220G OPEN TYPE—PRINTED CIRCUIT									
24F3090	G600A03	SPST	2.95	2.80	2.66	2.36	2.07	1.92	1.77
24F3091	G600B03	DPST	4.36	4.14	3.92	3.48	3.05	2.83	2.61
24F3092	G600D03	4PST	7.31	6.94	6.58	5.85	5.12	4.75	4.38
24F3093	G600F03	6PST	10.19	9.68	9.17	8.15	7.13	6.62	6.11
12 VDC CR220G700 PLUG-IN									
24F3094	G700A02	SPST	4.14	3.93	3.73	3.31	2.90	2.69	2.48
24F3095	G700B02	DPST	5.76	5.47	5.18	4.61	4.03	3.74	3.46
24F3096	G700D02	4PST	9.54	9.06	8.59	7.63	6.68	6.20	5.72
24F3097	G700F02	6PST	13.61	12.93	12.25	10.89	9.53	8.85	8.16
24 VDC CR220G700 PLUG-IN									
24F3098	G7u0A03	SPST	4.14	3.93	3.73	3.31	2.90	2.69	2.48
24F3099	G700B03	DPST	5.76	5.47	5.18	4.61	4.03	3.74	3.46
24F3100	G700D03	4PST	9.54	9.06	8.59	7.63	6.68	6.20	5.72
24F3101	G700F03	6PST	13.61	12.93	12.25	10.89	9.53	8.85	8.16
SOCKETS									
24F3102	GX1 Skt. for 1, 2, & 4 Pole		1.15	1.10	1.04	.92	.81	.75	.691
24F3103	GX2 Skt. for 6- Pole		1.44	1.37	1.30	1.15	1.01	.94	.864

NOTE: Complete set of G.E. catalogs covering terminal boards, relays, and switches listing applications dimensions and engineering data.
39F2061 .... **FREE**

Guardian Relays

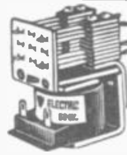
IMPULSE RATCHET RELAY—AC



Type 660. For on/off control of lighting, motors, appliances and speaker applications, among others. Each impulse (up to 10 steps per second) reverses contacts. Contact amperes 12.5 Intermittent duty coil with voltage of 120 VAC, 60 Hz. Size: 3x1¾x2$\frac{1}{16}$". Shpg. wt., 7.5 oz.

Stock No.	Type	Cont. Comb.	Coil VAC	1-24	25-49	50-99	100-249	250-499
24F193	660-C120A	SPDT	120	6.85	6.17	5.82	5.48	4.80
24F194	660-2C-120A	DPDT	120	7.40	6.66	6.29	5.92	5.18
24F2437	660-C-24A	SPDT	24	6.85	6.17	5.82	5.48	4.80
24F2438	660-2C-24A	DPDT	24	7.40	6.66	6.29	5.92	5.18
24F2439	660-4C-24A	4PDT	24	10.75	9.68	9.14	8.60	7.53
24F2440	660-4C-120A	4PDT	120	10.75	9.68	9.14	8.60	7.53
			Coil VDC					
24F2441	665-C-24D	SPDT	24	6.85	6.17	5.82	5.48	4.80
24F2442	665-2C-24D	DPDT	24	7.40	6.66	6.29	5.92	5.18
24F2443	665-4C-24D	4PDT	24	10.75	9.68	9.14	8.60	7.53

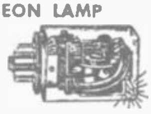
ALL-PURPOSE ECONOMY AC-DC RELAY



Types IR-640 & 645. Compact, lightweight relay capable of unusually heavy power control for its size. Contact rating at 60 Hz, 120 V non-inductive load. All contact ratings are 10 amps. *Normally open. U/L approved. Size 1$\frac{11}{16}$x1½x1". Shpg. wt., 4 oz.

Stock No.	Mfr. No.	Cont. Comb.	1-24	25-49	50-99	100-249	250-499
6 VOLTS AC—(Coil resistance 1.7 ohms)							
24F000	IR-640U-A-6A	SPST*	2.90	2.61	2.47	2.32	2.03
24F001	IR-640U-C-6A	SPDT	3.15	2.84	2.68	2.52	2.21
24F002	IR-640U-2C-6A	DPDT	3.40	3.06	2.89	2.72	2.38
24F003	IR-640U-4C-6A	4PDT	5.00	4.50	4.25	4.00	3.50
24 VOLTS AC—(Coil resistance 48 ohms)							
24F004	IR-640U-A-24A	SPST*	2.90	2.61	2.47	2.32	2.03
24F005	IR-640U-C-24A	SPDT	3.15	2.84	2.68	2.52	2.21
24F006	IR-640U-2C-24A	DPDT	3.40	3.06	2.89	2.72	2.38
24F007	IR-640U-4C-24A	4PDT	5.00	4.50	4.25	4.00	3.50
120 VOLTS AC—(Coil resistanc1 1400 ohms)							
24F008	IR 640U-A-120A	SPST*	2.90	2.61	2.47	2.32	2.03
24F009	IR-640U-C-120A	SPDT	3.15	2.84	2.68	2.52	2.21
24F010	IR-640U-2C-120A	DPDT	3.40	3.06	2.89	2.72	2.38
24F011	IR-640U-4C-120A	4PDT	5.00	4.50	4.25	4.00	3.50
240 VOLTS AC—(Coil resistance 5260 ohms)							
24F012	IR-640C-2C-240A	DPDT	4.20	3.78	3.57	3.36	2.94
6 VOLTS DC—(Coil Resistance 25 ohms)							
24F013	IR-645U-A-6D	SPST*	2.90	2.61	2.47	2.32	2.03
24F014	IR-645U-C-6D	SPDT	3.15	2.84	2.68	2.52	2.21
24F015	IR-645U-2C 6D	DPDT	3.40	3.06	2.89	2.72	2.38
24F016	IR-645U-4C-6D	4PDT	5.00	4.50	4.25	4.00	3.50
12 VOLTS DC—(Coil resistance 100 ohms)							
24F106	IR-645U-A-12D	SPST*	2.90	2.61	2.47	2.32	2.03
24F107	IR-645U-C-12D	SPDT	3.15	2.84	2.68	2.52	2.21
24F108	IR-645U-2C-12D	DPDT	3.40	3.06	2.89	2.72	2.38
24F109	IR-645U-4C-12D	4PDT	5.00	4.50	4.25	4.00	3.50
24 VOLTS DC—(Coil resistance 400 ohms)							
24F017	IR-645U-A-24D	SPST*	2.90	2.61	2.47	2.32	2.03
24F018	IR-645U-C-24D	SPDT	3.15	2.84	2.68	2.52	2.21
24F019	IR-645U-2C-24D	DPDT	3.40	3.06	2.89	2.72	2.38
24F020	IR-645U-4C-24D	4PDT	5.00	4.50	4.25	4.00	3.50
110 VOLTS DC—(Coil resistance 8400 ohms)							
24F021	IR-645U-A-110D	SPST*	3.40	3.06	2.89	2.72	2.38
24F022	IR-645U-C-110D	SPDT	3.70	3.33	3.15	2.96	2.59
24F023	IR-645U-2C-110D	DPDT	3.95	3.56	3.36	3.16	2.77
24F024	IR-645U-4C-110D	4PDT	5.25	4.73	4.46	4.20	3.68

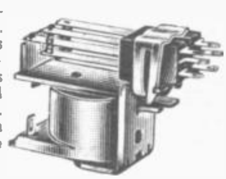
ENCLOSED PLUG-IN AC RELAY WITH NEON LAMP



Type 1210-N. A miniature neon lamp lights each time the coil is energized, or indicates a circuit fault when lamp is dark. Ideal for detecting circuit faults in relay banks, mass relay arrangements, or where relays are visibly located at intermediate switching points of the circuitry. Contacts rated 10 amps at 120 VAC, 60 Hz. non-inductive load. Size 2$\frac{21}{32}$x1⅜x1⅜' Shpg wt , 3 5 ounces.
*8 pin octal plug. †11 pin plug.

Stock No.	Mfg. No.	Coil Res.	Cont. Comb.	1-24	25-49	50-99	100-249	250-up
24F191	1210N-2C-120A*	1110	DPDT	6.75	6.08	5.74	5.40	4.73
24F192	1210N 3C-120A†	1110	3PDT	8.00	7.20	6.80	6.40	5.60

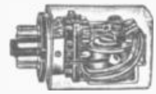
GUARDIAN 900 SERIES RELAYS



Number of parts and assembly time reduced by 50%. Eliminates cold flow. Higher voltage breakdown. Contacts D.P.D.T. can control up to 10 amps. resistive load at 120 V.A.C. Coil Values 24, 120 or 240 V.A.C. and 6, 12 or 24 V.D.C. 2 point. Single screw mounting. Unitary field and core, no gap between core and field piece. UL Approved. Size 2$\frac{11}{16}$ x 1$\frac{11}{16}$.

Stock No.	Type	1-9	10-24	25-49	50-99	100-up
62F1875	900-2C-24VAC	1.75	1.66	1.49	1.40	1.23
62F1876	900-2C-120VAC					
62F1877	900-2C-240VAC					
62F1878	905-2C-6VDC					
62F1879	905-2C-12VDC					
62F1880	905-2C-24VDC					
As above, but with $\frac{3}{16}$" quick-disconnect terminals.						
24F2444	910-2C-24AC	1.75	1.66	1.49	1.40	1.23
24F2445	910-2C-120AC					
24F2446	910-2C-240AC					
24F2447	915-2C-6DC					
24F2448	915-2C-12DC					
24F2449	915-2C-24DC					

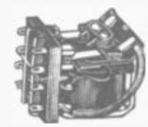
ENCLOSED PLUG-IN AC-DC RELAY



Type 1210. Type 1215. Enclosed in a transparent, lightweight Lexan case, resistant to temperatures of 200° F. 8 pin octal plug for DPDT and 11 pin for 3PDT. Contacts rated for 10 amperes and 60 Hz. 120 V. AC non-inductive load. Size 2$\frac{3}{32}$"x1⅜"x1⅜". Shpg. wt., 3.5 oz.

Stock No.	Mfr. No.	AC Volts	Cont. Comb.	1-24	25-49	50-99	100-249	250-499
24F115	1210-2C-6A	6	DPDT	6.00	5.40	5.10	4.80	4.20
24F116	1210-3C-6A	6	3PDT	7.50	6.75	6.38	6.00	5.25
24F117	1210-2C-24A	24	DPDT	6.00	5.40	5.10	4.80	4.20
24F118	1210-3C-24A	24	3PDT	7.50	6.75	6.38	6.00	5.25
24F119	1210-2C-120A	120	DPDT	6.00	5.40	5.10	4.80	4.20
24F120	1210-3C-120A	120	3PDT	7.50	6.75	6.38	6.00	5.25
24F2457	1210-2C-240A	240	DPDT	6.25	5.63	5.31	5.00	4.38
24F2458	1210-3C-240A	240	3PDT	7.75	6.98	6.59	6.20	5.43
			DC					
24F121	1215-2C-6D	6	DPDT	6.00	5.40	5.10	4.80	4.20
24F122	1215-3C-6D	6	3 PDT	7.50	6.75	6.38	6.00	5.25
24F2459	1215-2C-12D	12	DPDT	6.00	5.40	5.10	4.80	4.20
24F2460	1215-3C-12D	12	3PDT	7.50	6.75	6.38	6.00	5.25
24F123	1215-2C-24D	24	DPDT	6.00	5.40	5.10	4.80	4.20
24F124	1215-3C-24D	24	3PDT	7.50	6.75	6.38	6.00	5.25
24F2461	1215-2C-110D	110	DPDT	6.50	5.85	5.53	5.20	4.55
24F2462	1215-3C-110D	110	3PDT	8.00	7.20	6.80	6.40	5.60

MEDIUM POWER AC-DC RELAY



Type 1200 and 1205. Suited to communications, remote control. Heavy solder lug type terminals molded in phenolic black, with barriers for over-surface insulation, built to meet U/L specifications. Contacts rated 10 amperes at 60 Hz, 120 V. AC non-inductive load. Size: 1⅝"x1"x1½". Mounting single mtg.hole 6-32 TAP. 2.5 oz.

24F833	1200-2C-6A	6	DPDT	3.75	3.38	3.19	3.00	2.63
24F834	1200-3C-6A	6	3PDT	4.25	3.83	3.61	3.40	2.98
24F835	1200-2C-24A	24	DPDT	3.75	3.38	3.19	3.00	2.63
24F836	1200-3C-24A	24	3PDT	4.25	3.83	3.61	3.40	2.98
24F837	1200-2C-120A	120	DPDT	3.75	3.38	3.19	3.00	2.63
24F838	1200-3C-120A	120	3PDT	4.25	3.83	3.61	3.40	2.98
24F2450	1200-2C-240A	240	DPDT	4.00	3.60	3.40	3.20	2.80
24F2451	1200-3C-240A	240	3DPT	4.50	4.05	3.83	3.60	3.15
		DC						
24F839	1205-2C-6D	6	DPDT	3.40	3.06	2.89	2.72	2.38
24F840	1205-3C-6D	6	3PDT	3.85	3.47	3.27	3.08	2.70
24F2452	1205-2C-12D	12	DPDT	3.40	3.06	2.89	2.72	2.38
24F2453	1205-3C-12D	12	3PDT	3.85	3.47	3.27	3.08	2.70
24F841	1205-2C-24D	24	DPDT	3.40	3.06	2.89	2.72	2.38
24F842	1205-3C-24D	24	3PDT	3.85	3.47	3.27	3.08	2.70
24F2455	1205-2C-110D	110	DPDT	3.75	3.38	3.19	3.00	2.63
24F2456	1205-3C-110D	110	3PDT	4.25	3.83	3.61	3.40	2.98

RESET OVERLOAD DC RELAY

Type X300-ER. Protects from current surges and continuous overloads. Remote panel installation of control potentiometer simplifies adjustment of relay to operate on any current value from 250 to 750 ma. Auxiliary for pilot light indication of "overload" or "clear" position. Insulation, ccil to ground rated 3,000 V. Size: 4¾x2x1$\frac{15}{16}$". Shpg. wt. 13 oz.

Stock No.	1-24	25-49	50-99	100-249	250-up
24F852	10.00	8.55	8.50	8.00	7.00

For Prices on Quantities Over 500 Pcs. — Contact the Nearest NEWARK Office

Guardian Relays

SOLID STATE TIME DELAY RELAYS


Series TDO


Series TD

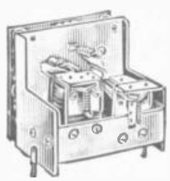
Series TDO-62C30-115A. 2PDT 5 amp. commercial time delay relay. 10 turn pot .5 to 30 seconds. Recycling time: 100 milliseconds. Accuracy to 10% of a nominal setting over the temperature range. Plug-in mtg. Termination: octal socket. Temperature —10° F to +100° F. 115 VAC ±10% 50/60 Hz.

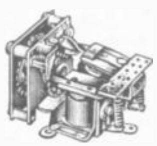
Stock No.	1-49	50-99	100-Up
62F1912	16.32	15.69	14.12

Series TD. High reliability; all silicon semiconductors, precision tantalum capacitors. High resolution 15 turn pot. Recycle-time: 50 milliseconds. Accuracy: ±5% of nominal setting over complete voltage and temperature range. Repeatability: ±1% of nominal setting. 3PDT—10 amps. Temperature: —40°F to +150°F.

Stock No.	Type No.	Coil Volts	Adj. Range (Sec)	1-49	50-99	100-Up
62F1913	TD-33C15-24D	24VDC	1-15	24.20	21.88	19.69
62F1914	TD-33C60-24D	24VDC	10-60	25.19	22.67	20.40
62F1915	TD 33C180-24D	24VDC	50-180	32.09	29.88	26.90
62F1916	TD 63C15-115A	115VAC	1-15	29.70	26.73	24.06
62F1917	TD-63C60-115A	115VAC	10-60	30.06	27.54	24.79
62F1918	TD-63C180-115A	115VAC	50-180	36.85	33.16	29.84

ELECTRICAL RESET STEP RELAY

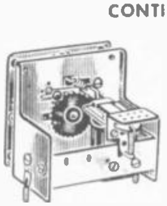

Type IR-P.E.R.


Type M.E.R.

Type IR-P.E.R. Positive mechanical stops available to limit "steps." Resets when coil energized. Coil V 120 VAC; 45W (stepping coil), 15W (reset coil). No. of pts: 40. 36 active contacts. Size $3\times3\frac{3}{8}\times3\frac{9}{16}$. Wt. 22 oz. **Type M.E.R.** Reset stepper with positive acting interlock, actuated by magnet. Positive reset on one-hundredth of second. Coil V 120 VAC. 18W stepping coil, 7W reset coil. No. of pts: 24. 22 active contacts. Size $3\frac{1}{4}\times2\frac{3}{16}\times3$ 1/9. Wt. 11.5 oz.

Stk. No.	Type	VA.	1-24	25-49	50-99	100-249	250-499
24F766	IR-PER-120A	70-25	26.25	23.63	22.31	21.00	18.37
24F865	MER-120A	30-9	15.75	14.18	13.39	12.60	11.03
62F1919	MER-24DC	30-9	15.75	14.18	13.39	12.60	11.03

CONTINUOUS ROTATION STEP RELAY

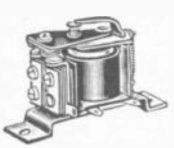

Type IR-P.C.


Type IR-M.C.

Type IR-P.C. Oilite shaft bearing. Beryllium copper pawl control shutter. Solder beaded for easy soldering. Life expectancy at 4,000,000 steps; operate at 15% below, or 10% above voltage. Coil. 120 VAC. 45W; no of pts: 40. 40 active contacts. Size $3\frac{3}{8}\times3\times3\frac{9}{16}$. Wt. 17 oz. **Type IR-M.C.** Smaller rotation stepper similar to P.C.; life expectancy 2,000,000 steps. Coil V 120 VAC, 18W. No. pts 24. 24 active contacts. Size: $2\frac{3}{16}\times3\times3\frac{1}{4}$.

Stk. No.	Mfr. Type	VA.	1-24	25-49	50-99	100-249	250-499
24F762	IR-PC-120A	70	19.95	17.96	16.96	15.96	13.97
24F764	IR-MC-120A	30	14.75	13.28	12.54	11.80	10.32

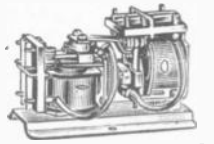
HEAVY DUTY INDUSTRIAL RELAY—AC



Type IR-220. Rugged unit breaks up to 20 amperes, at 240 volts. Armature is equipped with Phenolic contact mounting block carrying 5/16" dual contacts. Phenolic is tested at 1500 volts breakdown to ground. Contacts are silver alloy. Relay is available in SPST-NO contact combination only. Contact rating at 60 cycles, 20 amps, 240 V non-inductive load. Size: $3\times1\frac{7}{8}\times1\frac{3}{4}$". Shipping wt., 5.5 oz.

Stock No.	Mfr. No.	Volts	1-24	25-49	50-99	100-249	250-499
24F052	IR-220A-24A	24	4.50	4.05	3.83	3.60	3.15
24F053	IR-220A-120A	115	5.05	4.55	4.29	4.04	3.54
24F054	IR-220A-240A	230	5.55	5.00	4.72	4.44	3.89

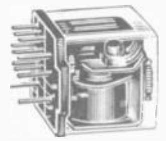
INTERLOCKING RELAY 120V AC



Two interlocking AC relays in sturdy metal frame bracket. Used to maintain circuits continuously without coil power consumption. Unit is electrically pulse operated with mechanical hold and electrical release. Contacts rated at 10 amps, 60 Hz non-inductive. Size $1\frac{13}{16}\times1\frac{3}{4}\times2\frac{7}{8}$". 4PDT contacts. Shipping wt., 5.5 oz.

Stock No.	Mfg. No.	1-24	25-49	50-99	100-249	250-499
24F868	IR-1200/1200-4C-120A	10.40	9.36	8.84	8.32	7.28

10 AMPERE VERSATILE ENCLOSED RELAY



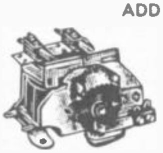
Reduced height and cost by elimination of radio-type plug. Features "Uni-Guard," loop moving blades; snap lock cover; terminals can be used as solder lug AMP Faston 110 Series quick connect or socket plug in; built to U/L requirements; with mounting brackets. DPDT except *3 PDT.

Stk. No.	Type	Coil Volt.	1-24	25-49	50-99	100-249	250-499
62F1881	IR-1220-2C-6A	6AC	4.00	3.60	3.40	3.20	2.80
62F1882	IR-1220-2C-24A	24AC	4.00	3.60	3.40	3.20	2.80
62F1883	IR-1220-2C-120A	120AC	4.00	3.60	3.40	3.20	2.80
62F1884	IR-1220-2C-240A	240AC	4.25	3.83	3.61	3.40	2.98
62F1885	IR-1220-3C-6A	6AC	4.50	4.05	3.83	3.60	3.15
62F1886	IR-1220-3C-24A*	24AC	4.50	4.05	3.83	3.60	3.15
62F1887	IR-1220-3C-120A*	120AC	4.50	4.05	3.83	3.60	3.15
62F1888	IR-1220-3C-240A*	240AC	4.75	4.28	4.04	3.80	3.33
62F1889	IR-1225-2C-6D	6DC	4.00	3.60	3.40	3.20	2.80
62F1890	IR-1225-2C-12D	12DC	4.00	3.60	3.40	3.20	2.80
62F1891	IR-1225-2C-24D	24DC	4.00	3.60	3.40	3.20	2.80
62F1892	IR-1225 2C-110D	110DC	4.25	3.83	3.61	3.40	2.98
62F1893	IR-1225-3C-6D*	6DC	4.50	4.05	3.83	3.60	3.15
62F1894	IR 1225-3C-12D*	12DC	4.50	4.05	3.83	3.60	3.15
62F1895	IR-1225 3C-24D*	24DC	4.50	4.05	3.83	3.60	3.15
62F1896	IR-1225-3C-110D	110DC	4.75	4.28	4.04	3.80	3.33

IR-1220 SNAP-IN SOCKET. Socket terminal lugs can be soldered to or will accept Series 110 quick connects. U/L app.

62F1911 .... **1-9** ... **.60** **10 up** ... **.55**

ADD AND SUBTRACT STEP RELAY



Type IR-M.A.S. Add and Subtract Stepper. Guardian Steppers intermittent duty units at 10% duty cycle, max. energization single period, 5 min. Coil 120 VAC, 10 W. No. of pts: 30. Zero position switch only. $1\frac{5}{16}\times3\frac{1}{8}\times3$". Shpg. wt., 11 oz.

Stock No.	Mfr. Type	VA.	1-24	25-49	50-99	100-249	250-499
24F772	IR-M A S. 120A	15	17.35	15.62	14.75	13.88	12.15

ROTOMITE STEPPER-DC

Continuous rotation on 12 positions up to 20 step per sec. Stepping mechanism, coils and contacts completely (metal) enclosed 3 amps resistive, 1 amp inductive (50% P.F.). Tests well over 1,000,000 operations Appr.: bus machines, lighting, sorting, computer circuits, and counting. Size: 2"L.x$1\frac{3}{16}$"D. Shpg. wt., 5 oz.

Stk. No.	Mfg. No.	VDC	1-24	25-49	50-99	100-249	250-499
24F125	IR-705 12P-6D	6	6.60	5.94	5.61	5.28	4.62
24F126	IR-705-12P-12D	12					
24F127	IR-705-12P-24D	24					

For Prices on Quantities

Over 500 Pcs. —

CONTACT THE NEAREST

NEWARK OFFICE

UNIVERSAL "200" SERIES RELAYS

With coil assembly (coil and field piece) and contact assembly (switch blades, armature, return spring, and mtg bracket) Contacts. 60 Hz AC non-induct. Stnd. size: 2⅞ x 1¾ x 1". Midget 1⅝ long Mtg (all 200 relays): (2) 6-32 mtg. holes. .687" ctr. 4 oz.

Stk. No.	Type No.	Volts	1-24	25-49	50-99	100-249	250-up
24F810	200- 6A	6AC	1.85	1.67	1.57	1.48	1.30
24F811	200- 12A	12AC					
24F812	200- 24A	24AC					
24F813	200-120A	120AC	2.15	1.94	1.83	1.72	1.51
24F814	200-240A	240AC	2.85	2.57	2.42	2.28	2.00
24F820	200- 6D	6DC	2.00	1.80	1.70	1.60	1.40
24F821	200- 12D	12DC					
24F822	200- 24D	24DC					
24F823	200- 32D	32DC					
24F824	200-110D	110DC	2.65	2.39	2.25	2.12	1.86
24F815	200-5000D	5000Ω	2.30	2.07	1.96	1.84	1.61
24F829	200 10000D	10000Ω	2.65	2.39	2.25	2.12	1.86

CONTACT SWITCH ASSEMBLIES

*Rating 8 amps. **Rating 10 amps. †Rating 12.5 amps.

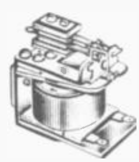
Stk. No.	Type	Contacts	1-24	25-49	50-99	100-249	250-up
24F800	200-1	SPDT*	1.60	1.44	1.36	1.28	1.12
24F801	200-2	DPDT*	2.10	1.89	1.79	1.68	1.47
24F830	200-3	DPDT	2.15	1.94	1.88	1.72	1.50
24F802	200-4	DPDT†	2.35	2.12	2.00	1.88	1.65
24F805	200-5	4PDT*	3.70	3.33	3.15	2.96	2.59
24F803	200-M1	Midget SPDT	1.50	1.35	1.28	1.20	1.05
24F804	200-M2	Midget DPDT**	1.85	1.67	1.57	1.48	1.30
24F831	200-M3	DPDT	1.95	1.76	1.66	1.56	1.37
24F806	200-M5	Midget 4PDT*	3.00	2.70	2.55	2.40	2.10

PLATE CIRCUIT RELAY

Unit is constructed with extra long coil for greater sensitivity. Adaptable to voltage operating as well as sensitive plate circuit control installations. Rated at 10 amps. Coil impregnated for reliability and longer life. Average power requirement, 0.2 watts. DPDT Silver contacts. Size, 2½"x2"x1½". Wt. 5.5 oz.

Stk. No.	Mfg. No.	Coil Res. Ohms	Oper. Mils	1-24	25-49	50-99	100-249	250-up
24F055	IR-625-2.5	2,500	9Ma.	4.45	4.01	3.78	3.56	3.12
24F056	IR 625-5	5,000	6 3Ma.	4.75	4.28	4.04	3.80	3.33
24F057	IR-625-10	10,000	4 5Ma.	5.80	5.22	4.93	4.64	4.06

AC-60 Hz LATCHING ON/OFF RELAY



Type IR-640L. Recommended for positive ON/OFF control of positioning devices, remote controls, lighting circuits and many additional applications. Impulse as short as 20 M.S. energizes coil to reverse position of snap-action switches. Holds last position of switch with coil de-energized. Contacts rated for 5 amperes, at 60 Hz, 115 V. AC non-inductive load. Size, 2¹⁄₁₆" x 1⅛" x 1⅝". 4 oz.

St. No.	Type	Comb.	1-24	25-49	50-99	100-249	250-up
24F097	IR-640L-A-120A	SPST	4.45	4.01	3.78	3.56	3.12
24F098	IR-640L-C-120A	SPDT	4.75	4.28	4.04	3.80	3.33

ENGINEER'S CONTACT SWITCH KIT

Indispensable to those who design, build, repair or test electrical controls. Contains large assortment of switch blades, contacts, separators, adapters, fish papers, bushings, etc. All standard high-quality Guardian parts. Shpg. wt., 1¾ lbs.

24F094. NET **11.50**

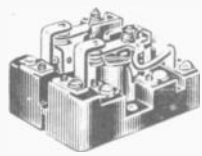
32-POLE DC RELAY

Type IR-805-S. Group selector relay can simultaneously make common up to 32 circuits. All circuits insulated from ground. Contact blades molded in thermosetting phenolic. Phenolic plunger housing, 32 poles made common upon energization. Coil Res. Ohms 72. Size, 2⁷⁄₃₂"x1¹⁷⁄₃₂"x2⅛". Shpg. wt., 6 oz.

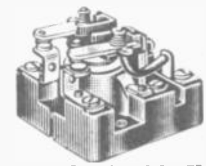
Stock No.	Type	Volts	1-24	25-49	50-99	100-249	250-up
24F058	IR-805-S	24 DC	5.00	4.50	4.25	4.00	3.50

SERIES 2100 & 2110 POWER RELAYS

2100



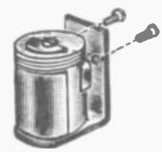
2110



Rated at 25 amperes continuous duty at 240 volts AC 75% power factor. Operating power requirement for AC 9.5 volt amperes, 60 Hz. Coil drain approximately .080 amperes at 120 volts 60 Hz. U/L approved.

Stk. No.	Mfg. No.	1-24	25-49	50-99	100-249	250-up
24F816	2100U-DPDT-6	6.75	6.08	5.74	5.40	4.73
24F817	2100U-DPDT-24					
24F818	2100U-DPDT-120					
24F819	2100U-DPDT-240	7.25	6.53	6.16	5.80	5.08
24F110	2110U-DPST-N O -6	5.75	5.18	4.89	4.60	4.03
24F111	2110U-DPST-N.O.-24	5.75	5.18	4.89	4.60	4.03
24F112	2110U-DPST-N O -120	5.75	5.18	4.89	4.60	4.03
24F113	2110U-DPST-N.O.-240	6.10	5.49	5.19	4.88	4.27

INTERCHANGEABLE COIL ASSEMBLIES



By removing two easily accessible screws, coil assembly can be replaced by coil of another value. Complete instructions for this operation are included with each unit. Solder connections are not required when changing coils. MTG. 2 holes for 8/32 screws on 1⅞" ctrs. Shpg. wt., 6 oz.

AC REPLACEMENT COILS—FOR EITHER RELAY

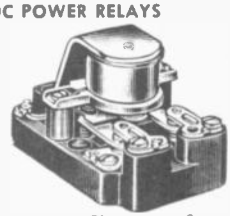
Stk. No.	Type No.	1-24	25-49	50-99	100-249	250-up
24F825	2100-6A	2.35	2.12	2.00	1.88	1.65
24F827	2100-120A					
24F828	2100-240A	2.65	2.39	2.25	2.12	1.86

POWER RELAY REPLACEMENT CONTACT SWITCH PARTS

Available for series 2100 only—Replacement Contact Switch Parts for easy right or left S.P.D.T. assembly. Package contains one normally open and one normally closed contact bracket, complete moving blade and terminal. Left or Right Switch Assemblies determined by viewing relay from armature hinge end with contacts up. Cu. Cap. 25 amps. Shpg. wt. 4 oz.

24F847	CS-2100-Left	1.95	1.76	1.66	1.56	1.37
24F848	CS-2100-Right	1.95	1.76	1.66	1.56	1.37

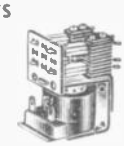
SERIES 2300 AC AND 2305 DC POWER RELAYS



For power applications requiring up to 15 ampere conntacts. Inverted coil construction protects armature and contacts. Standard DPDT contacts rated for 15 amperes non-inductive, or 1 H.P. at 115/120 volts, 60 Hertz. Armature extension permits manual circuit testing. Screw type terminals. Recessed auxiliary switch, up to S.P.D.T. for 10 ampere operation, available for both A.C. and D.C. versions. Size: 3⁵⁄₁₆" x 2½" x 2¹⁄₁₆". Mounting: Two 196" Dia. holes on 1⅞" centers. Shpg. wt., 8 oz. *10 amps AC. U/L approved.

Stk. No.	Mfg. No.	1-24	25-49	50-99	100-249	250-up
24F213	2300U-DPDT-6VAC	6.25	5.63	5.31	5.00	4.38
24F214	2300U-DPDT-24VAC					
24F215	2300U-DPDT-120VAC					
24F216	2300U-DPDT-240VAC	6.50	5.85	5.53	5.20	4.55
24F2463	2305-DPDT-6VDC	6.25	5.63	5.31	5.00	4.38
24F2464	2305-DPDT-12VDC					
24F2465	2305-DPDT-24VDC					
24F2466	2305-DPDT-110VDC	6.75	6.08	5.74	5.40	4.73
24F217	2300-SPDT-AUX* Auxiliary Switch	1.35	1.22	1.15	1.08	.95

SERIES 240 AC & 245 DC RELAYS

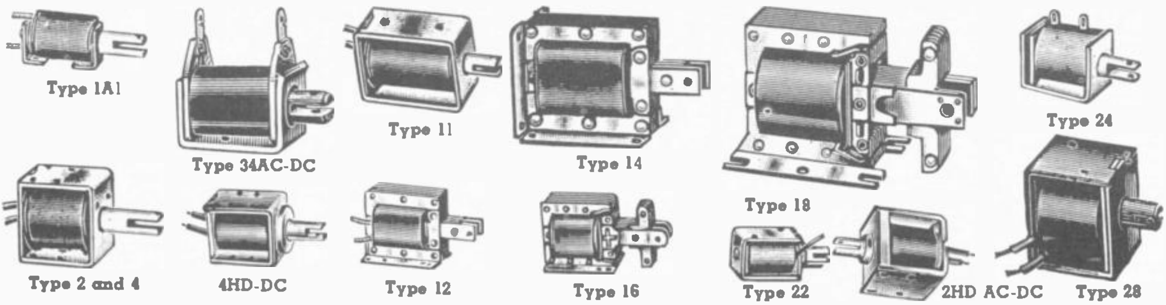


Contact rating up to 4PDT, is 15 amps, 120 V, 60 hz Pwr. Req.; AC—6 volt amps, 60 Hz DC—1.5 watts min ; 3 watts max. AC coils operates at —15% of rated volt.; will not overheat on contin. duty at ± 10% of rated volt. DC coils operate on values up to 10% above 20% below rated voltage.

62F1920	240U-A 24A	3.15	2.84	2.68	2.52	2.21
62F1921	240U 2C-24A	3.95	3.56	3.36	3.16	2.77
62F1922	240U-A-120A	3.15	2.84	2.68	2.52	2.21
62F1923	240U-2C-120A	3.95	3.56	3.36	3.16	2.77
62F1924	245U-A-24D	3.15	2.84	2.68	2.52	2.21
62F1925	245U-2C-24D	3.95	3.56	3.36	3.16	2 77

Guardian Solenoids

AC AND DC SOLENOIDS



Available in both intermittent and continuous duty types. Intermittent types should not be energized for more than 5 consecutive minutes, or be permitted to rise more than 85° C. above 24° C. ambient, without giving sufficient time to cool between operation cycles. Continuous duty types are designed so they will not rise more than 85° C. above the 24° C. ambient temperature when operated at rated load. Plunger has slotted end with 1/8" diameter hole for coupling.

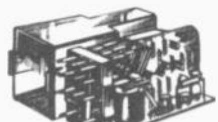
***Pull Data Obtained During "Cold" Operation, when plunger is down.**

Stock No.	Type	Volts	Current	Duty	Ohms	Amps	Adj. Stroke (in.)	Max. *Lift (oz.)	SIZE Height (in.)	Length (in.)	Width (in.)	Shpg. Wt. (oz.)	1-24	25-49	50-99	100-249	250-499
24F870	1A1	115	AC	Inter.	300	.17	1/8-1/2	8	1 1/16	1 3/4	15/16	4.5	3.15	2.84	2.68	2.52	2.21
24F871	1A1	115	AC	Cont.	675	.076	1/8-3/8	3	1 1/16	1 3/4	15/16	4.5	3.15	2.84	2.68	2.52	2.21
24F078	2	115	AC	Inter.	60	.50	1/8-7/8	33	1 5/8	1 9/16	1 7/16	10	3.68	3.31	3.13	2.94	2.58
24F079	2	115	AC	Cont.	166	.155	1/8-7/8	10.5	1 5/8	1 9/16	1 7/16	10	3.68	3.31	3.13	2.94	2.58
62F1897	2HD	115	AC	Inter.	39	.6	1/8-3/4	38	1 1/16	1 25/32	1 7/16	13	8.66	7.79	7.36	6.93	6.06
62F1898	2HD	115	AC	Cont.	113	.13	1/8-3/4	17	1 1/16	1 25/32	1 7/16	13	8.66	7.79	7.36	6.93	6.06
24F872	4	115	AC	Inter.	37	.64	1/8-1	24	1 5/8	2	1 7/16	14.5	4.20	3.78	3.57	3.36	2.94
24F873	4	115	AC	Cont.	133	.14	1/8-1/2	8	1 5/8	2	1 7/16	14.5	4.20	3.78	3.57	3.36	2.94
24F890	11	24	AC	Inter.	5.1	1.10	1/8-1	10	1 3/16	1 5/16	1 27/32	7.5	3.15	2.84	2.68	2.52	2.21
24F080	11	24	AC	Cont.	12	.33	1/8-1	26	1 3/16	1 5/16	1 27/32	7.5	3.15	2.84	2.68	2.52	2.21
24F081	11	115	AC	Inter.	125	.225	1/8-1	10	1 3/16	1 5/16	1 27/32	7.5	3.15	2.84	2.68	2.52	2.21
24F082	11	115	AC	Cont.	300	.072	1/8-1	26	1 3/16	1 5/16	1 27/32	7.5	3.15	2.84	2.68	2.52	2.21
24F086	12	115	AC	Inter.	100	.27	1/8-1	32	1 7/16	1 5/8	1 3/16	6	4.46	4.01	3.79	3.57	3.12
24F087	12	115	AC	Cont.	150	.155	1/8-7/8	22	1 7/16	1 5/8	1 3/16	6	4.46	4.01	3.79	3.57	3.12
24F874	14	115	AC	Inter.	11	1.4	1/8-1 1/2	110	2 1/16	2 7/16	1 7/16	19	6.04	5.44	5.13	4.83	4.23
24F875	14	115	AC	Cont.	18	.52	1/8-1 1/2	65	2 1/16	2 7/16	1 7/16	19	6.04	5.44	5.13	4.83	4.23
24F090	16	115	AC	Inter.	41	.54	1/8-3/4	96	1 7/16	1 5/8	1 1/8	7.5	3.68	3.31	3.13	2.94	2.58
24F876	16	115	AC	Cont.	85	.19	1/8-5/8	50	1 7/16	1 5/8	1 1/8	7.5	3.68	3.31	3.13	2.94	2.58
24F892	16	230	AC	Inter.	200	.230	1/8-3/4	96	1 7/16	1 5/8	1 1/8	7.5	3.94	3.55	3.35	3.15	2.76
24F893	16	230	AC	Cont.	350	.110	1/8-5/8	50	1 7/16	1 5/8	1 1/8	7.5	3.94	3.55	3.35	3.15	2.76
24F092	18	115	AC	Inter.	8.8	1.45	1/8-1	280	2 1/16	2 1/2	1 13/16	16.5	4.99	4.49	4.24	3.99	3.49
24F093	18	115	AC	Cont.	19.7	.39	1/8-1	145	2 1/16	2 1/2	1 13/16	16.5	4.99	4.49	4.24	3.99	3.49
24F894	18	230	AC	Inter.	45	.590	1/8-1	280	2 1/16	2 1/2	1 13/16	16.5	5.25	4.73	4.46	4.20	3.68
24F895	18	230	AC	Cont.	78	.20	1/8-1	145	2 1/16	2 1/2	1 13/16	16.5	5.25	4.73	4.46	4.20	3.68
24F754	24	115	AC	Inter.	310	.130	1/16-5/8	16	59/64	1 1/4	1	3.0	3.41	3.07	2.90	2.73	2.39
24F755	24	115	AC	Cont.	500	.07	1/16-5/8	10.5	59/64	1 1/4	1	3.0	3.41	3.07	2.90	2.73	2.39
24F878	1A1	24	DC	Inter.	42.6	.56	1/8-3/8	5	1 1/16	1 3/4	15/16	4.5	2.89	2.60	2.46	2.31	2.02
62F1905	34	115	AC	Inter.	400	.11	1/16-1/2	15	17/64	1 1/8	3/4	2.5	2.31	2.08	1.96	1.85	1.62
62F1906	34	115	AC	Cont.	865	.055	1/16-1/2	7	17/64	1 1/8	3/4	2.5	2.31	2.08	1.96	1.85	1.62
24F879	1A1	24	DC	Cont.	74.4	.32	1/8-1/4	2	1 1/16	1 3/4	15/16	4.5	2.89	2.60	2.46	2.31	2.02
24F880	1A1	115	DC	Inter.	803	.14	1/8-3/8	5	1 1/16	1 3/4	15/16	4.5	3.41	3.07	2.90	2.73	2.39
24F881	1A1	115	DC	Cont.	2070	.05	1/8-1/4	2	1 1/16	1 3/4	15/16	4.5	3.41	3.07	2.90	2.73	2.39
24F885	4	24	DC	Inter.	15	1.6	1/8-1	90	1 5/8	2	1 7/16	14.5	4.20	3.78	3.57	3.36	2.94
24F886	4	24	DC	Cont.	50	.48	1/8-7/8	55	1 5/8	2	1 7/16	14.5	4.20	3.78	3.57	3.36	2.94
24F887	4	115	DC	Inter.	346	.33	1/8-1	90	1 5/8	2	1 7/16	14.5	4.46	4.01	3.79	3.57	3.12
24F888	4	115	DC	Cont.	1300	.09	1/8-7/8	55	1 5/8	2	1 7/16	14.5	4.46	4.01	3.79	3.57	3.12
24F889	11	6	DC	Inter.	2	3.00	1/8-7/8	34	1 3/16	1 5/16	1 27/32	7.5	3.15	2.84	2.68	2.52	2.21
24F083	11	,6	DC	Cont.	5	1.2	1/8-5/8	25	1 3/16	1 5/16	1 27/32	7.5	3.15	2.84	2.68	2.52	2.21
24F891	11	24	DC	'nter.	32	.750	1/8-7/8	25	1 3/16	1 5/16	1 27/32	7.5	3.15	2.84	2.68	2.52	2.21
24F084	11	24	DC	Cont.	72	.333	1/8-5/8	34	1 3/16	1 5/16	1 27/32	7.5	3.15	2.84	2.68	2.52	2.21
24F756	22	6	DC	Inter.	4.7	1.27	1/16-3/8	24	3/4	1 1/8	3/4	2.5	2.94	2.65	2.50	2.35	2.06
24F757	22	6	DC	Cont.	9	.667	1/16-1/4	13	3/4	1 1/8	3/4	2.5	2.94	2.65	2.50	2.35	2.06
24F758	22	24	DC	Inter.	60	.4	1/16-3/8	24	3/4	1 1/8	3/4	2.5	2.94	2.65	2.50	2.35	2.06
24F759	22	24	DC	Cont.	144	.167	1/16-1/4	13	3/4	1 1/8	3/4	2.5	2.94	2.65	2.50	2.35	2.06
24F176	28	24	AC	Inter.	7.5	.900	1/16-1/2	35	1 3/16	1 1/8	15/16	3.5	3.15	2.84	2.68	2.52	2.21
24F177	28	24	AC	Cont.	17.4	.340	1/16-1/2	20	1 3/16	1 1/8	15/16	3.5	3.15	2.84	2.68	2.52	2.21
24F178	28	115	\C	Inter.	220	.160	1/16-1/2	35	1 3/16	1 1/8	15/16	3.5	3.41	3.07	2.90	2.73	2.39
24F179	28	115	AC	Cont.	400	.077	1/16-1/2	20	1 3/16	1 1/8	15/16	3.5	3.41	3.07	2.90	2.73	2.39
24F218	28	6	DC	Inter.	3.3	1.80	1/16-1/2	41	1 3/16	1 1/8	15/16	3.5	2.94	2.65	2.50	2.35	2.06
24F219	28	6	DC	Cont.	7 7	.78	1/16-3/8	24	1 3/16	1 1/8	15/16	3.5	2.94	2.65	2.50	2.35	2.06
24F220	28	12	DC	Inter.	13	.92	1/16-1/2	41	1 3/16	1 1/8	15/16	3.5	2.94	2.65	2.50	2.35	2.06
24F221	28	12	DC	Cont.	27	.45	1/16-3/8	24	1 3/16	1 1/8	15/16	3.5	2.94	2.65	2.50	2.35	2.06
24F222	28	24	DC	Inter.	50	.48	1/16-1/2	41	1 3/16	1 1/8	15/16	3.5	2.94	2.65	2.50	2.35	2.06
24F223	28	24	DC	Cont.	104	.23	1/16-3/8	24	1 3/16	1 1/8	15/16	3.5	2.94	2.65	2.50	2.35	2.06
62F1899	2HD	24	DC	Inter	1 2		1/8-3/4	120	1 1/16	1 25/32	1 7/16	13	8.93	8.04	7.59	7.14	6.25
62F1900	2HD	24	DC	Cont	.4		1/8-3/4	60	1 1/16	1 25/32	1 7/16	13	8.93	8.04	7.59	7.14	6.25
62F1901	4HD	24	DC	Inter.	15		1/8-3/4	156	1 5/8	2 1/64	1 7/16	15	6.41	5.77	5.45	5.13	4.49
62F1902	4HD	24	DC	Cont	50	.092	1/8-3/4	86	1 5/8	2 1/64	1 7/16	15	6.41	5.77	5.45	5.13	4.49
62F1903	4HD	110	DC	Inter	330	.48	1/8-3/4	156	1 5/8	2 1/64	1 7/16	15	6.41	5.77	5.45	5.13	4.49
62F1904	4HD	110	DC	Cont.	1200	.33	1/8-3/4	86	1 5/8	2 1/64	1 7/16	15	6.41	5.77	5.45	5.13	4.49
62F1907	34	6	DC	Inter	4 3	1.4	1/16-1/2	17	17/64	1 1/8	3/4	2.5	2.31	2.08	1.96	1.85	1.62
62F1908	34	6	DC	Cont	9 1	.66	1/16-1/2	8.5	17/64	1 1/8	3/4	2.5	2.31	2.08	1.96	1.85	1.62
62F1909	34	24	DC	Inter.	66	.36	1/16-1/2	17	17/64	1 1/8	3/4	2.5	2.31	2.08	1.96	1.85	1.62
62F1910	34	24	DC	Cont.	145	.16	1/16-1/2	8.5	17/64	1 1/8	3/4	2.5	2.31	2.08	1.96	1.85	1.62

For Prices on quantities over 500 pcs. — Contact The Nearest NEWARK Office

GUARDIAN

● NEW IR-PROTECTION SENSORS



Voltage, frequency and phase rotation sensors provide repeat cycle characteristic of solid state input sensors, plus 3PDT, 10 amp relay output. Electrical latching can be obtained. Mounting: accepts printed circuit socket, chassis mount, clip or chassis-mounted socket. 3PDT contacts rated 115 VAC. With plastic dust cover.

● NEW 3-PHASE VOLTAGE SENSOR — 4 WIRE

Detects from 3-phase source of 95 VAC when sufficient voltage available and loss of any line of drop in average of 50 VAC. Used as warning or lockout device to protect 3-phase motors and systems. Specified for pull in and drop out, but will repeat close values, allowing for unevenly loaded lines which can cause other lines to rise and fall drastically.

24F2956. IR-AV2-611. 115VAC 60Hz. **NET** **34.20**
24F2957. IR-AV2-621. 115VAC 400Hz. **NET** **34.20**

● NEW OVER-VOLTAGE SENSOR

This voltage level sensor is actuated when the selected level is reached. De-energizes as input voltage drops 2.5% below set trip-point. Functions as under or over voltage detector.

24F2958. IR-VS1-610. 115VAC 60Hz. **NET** **42.90**
24F2959. IR-VS1-300. 24VDC **NET** **41.70**
24F2960. IR-VS1-410. 24VAC 60Hz. **NET** **42.15**

● NEW UNDER VOLTAGE SENSOR

Similar to over-voltage sensor above except for following inverted operation: when sufficient voltage is applied relay will energize and stay pulled in until the trip point and then will drop out.

24F2961. IR-VS2-610 115VAC 60Hz. **NET** **42.90**
24F2962. IR-VS2-410. 24VAC 60Hz. **NET** **42.15**
24F2963. IR-VS2-300. 24VDC **NET** **41.70**

● NEW CLOSE DIFFERENTIAL VOLTAGE SENSOR

The Adjustable Differential Sensor performs the same operation as the Over-Voltage Sensor with the added feature of broadening the differential to a desired set point. Both sense point and differential are adjusted through top of cover. Non-latching output; energizes when voltage is returned to normal. The repeat accuracy of the pull in and drop out is less than 1%.

24F2964. IR-VS3-610. 115VAC 60 Hz. **NET** **54.80**
24F2965. IR-VS3-300. 24VDC **NET** **43.40**
24F2966. IR-VS3-410. 24VAC 60Hz. **NET** **54.15**

● NEW PHASE ROTATION SENSOR—3 PHASE—4 WIRE

The Phase Rotation Sensor will detect the relationship of the 3 phases in a phase sequence ABC, thereby assuring the proper rotation of motors. Output relay is energized by 75 VAC balanced phase inputs. Non-latching. The unit is solid state controlled, designed for environments in excess of the specification, assures a reliable unit. The 3 "C" 10 amp. output switch lends itself to a 3-phase power requirement.

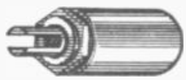
24F2967. IR-PR1-610. 115VAC 60Hz. **NET** **39.95**
24F2968. IR-PR1-620. 115VAC 400 Hz. **NET** **39.95**

● NEW ADJUSTABLE FREQUENCY SENSOR (OVER-FREQUENCY)

The frequency sensor gives, by an output switch closure, an adjustable preset indication of frequency. The adjustable range allows the user to indicate high or low frequency conditions. Useful in equipment which is supplied A.C. power from a portable generator. This unit allows the system to be monitored for a minimum or maximum frequency output. The unit energizes when the adjustable trip point is exceeded, and de-energizes one hertz below the trip point. Independent of control circuit and remains energized until frequency rises to the adjusted sense-point.

24F2969. IR-FS1-610. 115VAC 45-66Hz. **NET** **55.20**
24F2970. IR-FS1-620. 115VAC 360-440Hz. **NET** **55.20**

● NEW TUBULAR SOLENOIDS



Tubular Solenoids from a 7/16 to a 1½" Diameter available in both Intermittent and Continuous Duty 24VDC. Clear design allows side by side mounting, and permittnig easy installation just insert threaded bushing through chassis hole and tighten furnished nut. Computers, Aircraft and missels, Office Equipment and Copy Machines are some of the typical applications for these products. Intermittent Types cannot be energized for more than 1 minute or be permitted to rise more than 85°C above 25°C ambient, without giving sufficient time to cool between operations. Continuous Duty Types are designed so that they will not rise more than 85°C above the 25°C ambient temperature when operated at rated load. Life expectancy at rated load is 10 million cycles.

INTERMITTENT DUTY

Stk. No.	Type	Stroke & Lift Min.	Stroke & Lift Max.	Size, Inches L X Dia.	Ohms	Watts	1-24	25-49	50-99	100-249	250-499
24F2971	T3.5x9	11 1/32	.5 1/2	1 1/8x5/16	58	10	3.10	2.79	2.64	2.48	2.17
24F2972	T4x7	10 1/32	5 1/4	7/8x1/2	82	7	4.20	3.78	3.57	3.36	2.94
24F2973	T4x12	15 1/32	5 5/8	1 1/2x1/2	38	12	4.50	4.05	3.83	3.60	3.15
24F2974	T4x16	17 1/32	5-13/16	2x1/2	28	20	4.80	4.32	4.08	3.84	3.36
24F2975	T6x12	35 1/16	1 5/8	1 1/2x3/4	25	12	5.00	4.50	4.25	4.00	3.50
24F2976	T8x9	50 1/16	1 9/16	1 1/8x1	30	19	5.15	4.63	4.38	4.12	3.60
24F2977	T8x16	80 1/16	2-1 1/4	2x1	15	38	5.40	4.86	4.59	4.32	3.78
24F2978	T12x13	150 1/8	4 7/8	1 5/8x1 1/2	14	40	6.50	5.85	5.52	5.20	4.55
24F2979	T12x19	175 1/4	6-1 1/2	2 3/8x1 1/2	9 5	60	7.10	6.39	6.03	5.68	4.97

CONTINUOUS DUTY

Stk. No.	Type	Stroke & Lift Min.	Stroke & Lift Max.	Size, Inches L X Dia.	Ohms	Watts	1-24	25-49	50-99	100-249	250-499
24F2980	T3 5x9	8 1/32	.25 5/16	1 1/8x5/16	295	3	3.20	2.88	2.72	2.57	2.24
24F2981	T4x7	4 1/32	25 5/32	7/8x1/2	240	2.4	4.30	3.87	3.65	3.44	3.01
24F2982	T4x12	6 1/32	25 5/16	1 1/2x1/2	165	2 6	4.60	4.14	3.91	3 68	3.22
24F2983	T4x16	10 1/32	5 7/8	2x1/2	145	4	4.90	4.41	4.16	3.92	3.43
24F2984	T6x12	20 1/16	1 1/2	1 1/2x3/4	165	4 8	5.10	4.59	4.33	4.08	3.57
24F2985	T8x9	15 1/16	1 3/8	1 1/8x1	145	4 5	5.20	4.68	4.42	4.16	3.64
24F2986	T8x16	40 1/16	2 11/16	2x1	105	6	5.50	4.95	4.65	4.40	3.85
24F2987	T12x13	48 1/8	1 3/4	1 5/8x1 1/2	82	6 6	6.70	6.03	5.69	5.36	4.69
24F2988	T12x19	80 1/8	1-1 1/4	2 3/8x1 1/2	58	10	7.20	6.48	6.12	5.76	5.04

DOW KEY

COAXIAL RELAYS

SPDT R.F. switch with DPDT auxiliary contacts and special "isolated connector" in de-energize position. Low VSWR: less than 1.51:1 from 0-500 mc. Long life expectancy greater than 1,000,000 operations. Power rating: 1 kilowatt through straight connectors: to 10 watts through "isolated connector." Maximum operating temperature: 100°C. Pure silver contacts with UHF connectors. Size: 3¾" x 2¾" x 1⅛". Shpg. wt., 1 lb.

Stk. No.	Type	Coil Voltage	1-4	5-9	10-24	25-up
24F2000	60-212842	6 VDC	18.00	16.35	14.70	13.10
24F2001	60-282842	6 VAC	18.00	16.35	14.70	13.10
24F2002	60-222842	12 VDC	18.00	16.35	14.70	13.10
24F2003	60-262842	115 VAC	18.00	16.35	14.70	13.10

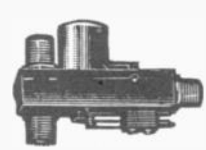
UHF CONNECTORS

A complete line of connector styles suitable for every UHF application. Panel-mounting connectors require a ⅝" hole, no screws necessary. Connectors are made of precision machined brass which is then silver-plated. They lock firmly and provide a tight, firm connection. Female connectors designed for low-loss operation with moisture and humidity-proof construction. Approximate shipping weight for each connector, 1 oz.

Stk. No.	Type	Description	1-4	5-9	10-24	25-Up
24F959	AF-2	Double Male	.79	.69	.62	.54
24F999	C-60P	Panel Mount Female	.69	.63	.57	.50
57F1700	C-201	Panel Mount Male	1.07	.97	.87	.78
57F1701	A-202	Double Female	.82	.75	.67	.60
57F1702	A-210	Female-Male Phono	1.24	1.12	1.01	.90
57F1703	A-211	Male-Male Phono	1.32	1.20	1.08	.96


AF-2


C-60P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C-201


A-202


A-210


A-211

POTTER & BRUMFIELD General Purpose Relays

KA GENERAL PURPOSE RELAY

For small power loads; silver contacts rated at 5 amps. "G" suffix indicates silver cadmium contacts on movables rated 10 amps. Mounting #6-32 stud with locating tab. Size: 1 15/32"x 1 27/32"x1 11/16". KAP-enclosed model protected by clear plastic dust cover. Terminals: 8 or 11 pin plug. U. L. listed.

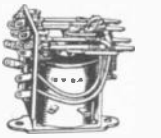
Stock No.	Type	Action	Volt	1-24	25-50	51-99	100-249
24F545	KA5AY	SPDT	6v. AC	3.50	3.33	3.15	2.45
24F1308	KA5AY	SPDT	12v. AC				
24F593	KA5AY	SPDT	24v. AC				
24F515	KA5AY	SPDT	120v. AC				
24F547	KA11AY	DPDT	6v. AC	4.25	4.04	3.83	2.98
24F1309	KA11AY	DPDT	12v. AC				
24F594	KA11AY	DPDT	24v. AC				
24F517	KA11AY	DPDT	120v. AC				
24F1310	KA11AY	DPDT	240v. AC	4.65	4.42	4.19	3.26
24F549	KA14AY	3PDT	6v. AC				
24F1213	KA14AY	3PDT	12v. AC				
24F595	KA14AY	3PDT	24v. AC				
24F519	KA14AY	3PDT	120v. AC				
24F552	KA5DY	SPDT	6v. DC	3.35	3.18	3.02	2.35
24F1214	KA5DY	SPDT	12v. DC				
24F596	KA5DY	SPDT	24v. DC				
24F1311	KA5DY	SPDT	110v. DC	4.05	3.85	3.65	2.84
24F553	KA11DY	DPDT	6v. DC	3.75	3.56	3.38	2.63
24F1215	KA11DY	DPDT	12v. DC				
24F597	KA11DY	DPDT	24v. DC				
24F554	KA11DY	DPDT	110v. DC	4.40	4.18	3.96	3.08
24F523	KA14DY	3PDT	6v. DC	4.25	4.04	3.83	2.98
24F1216	KA14DY	3PDT	12v. DC				
24F598	KA14DY	3PDT	24v. DC				
24F1217	KA14DY	3PDT	110v. DC	4.90	4.66	4.41	3.43
24F1665	KA5AG	SPDT	6v. AC	3.55	3.37	3.20	2.49
24F1666	KA5AG	SPDT	12v. AC				
24F1667	KA5AG	SPDT	24v. AC				
24F1668	KA5AG	SPDT	120v. AC				
24F1669	KA5AG	SPDT	240v. AC	4.05	3.85	3.65	2.84
24F1670	KA11AG	DPDT	6v. AC	4.35	4.13	3.92	3.05
24F1671	KA11AG	DPDT	12v. AC				
24F1672	KA11AG	DPDT	24v. AC				
24F1673	KA11AG	DPDT	120v. AC				
24F1674	KA11AG	DPDT	240v. AC	4.75	4.51	4.28	3.33
24F1675	KA14AG	3PDT	6v. AC	4.85	4.61	4.37	3.40
24F1676	KA14AG	3PDT	12v. AC				
24F1677	KA14AG	3PDT	24v. AC				
24F1678	KA14AG	3PDT	120v. AC				
24F1679	KA14AG	3PDT	240v. AC	5.30	5.04	4.77	3.71

SERIES KAP GENERAL PURPOSE RELAYS

Stock No.	Type	Action	Volt	1-24	25-50	51-99	100-249
24F2565	KAP11AY	DPDT	24VAC	6.65	6.32	5.99	4.66
24F2566	KAP11AY	DPDT	120VAC	6.65	6.32	5.99	4.66
24F2567	KAP11AY	DPDT	240VAC	7.10	6.75	6.39	4.97
24F2568	KAP11AG	DPDT	6VAC	6.75	6.41	6.08	4.73
24F2569	KAP11AG	DPDT	24VAC	6.75	6.41	6.08	4.73
24F2570	KAP11AG	DPDT	120VAC	6.75	6.41	6.08	4.73
24F2571	KAP11DG	DPDT	24VDC	6.70	6.37	6.03	4.69
24F2572	KAP11DG	DPDT	110VDC	7.40	7.03	6.66	5.18
24F2573	KAP11DY	DPDT	12VDC	6.60	6.27	5.94	4.62
24F2574	KAP11DY	DPDT	24VDC	6.60	6.27	5.94	4.62
24F2575	KAP11DY	DPDT	110VDC	7.30	6.94	6.57	5.11
24F2576	KAP14AY	3PDT	24VAC	8.30	7.89	7.47	5.81
24F2577	KAP14AY	3PDT	120VAC	8.30	7.89	7.47	5.81
24F2578	KAP14AY	3PDT	240VAC	8.70	8.27	7.83	6.09
24F2579	KAP14AG	3PDT	24VAC	8.45	8.03	7.61	5.92
24F2580	KAP14AG	3PDT	120VAC	8.45	8.03	7.61	5.92
24F2581	KAP14DG	3PDT	24VDC	8.40	7.98	7.56	5.88
24F2582	KAP14DG	3PDT	110VDC	9.15	8.69	8.24	6.41
24F2583	KAP14DY	3PDT	12VDC	8.20	7.79	7.38	5.74
24F2584	KAP14DY	3PDT	24VDC	8.20	7.79	7.38	5.74
24F2585	KAP14DY	3PDT	110VDC	8.85	8.41	7.97	6.20

24F2586 KAP holdown springs 9KA1 (.15 ea. Box of 50 5.50)

KL MULTIPLE CONTACT RELAY



Highly versatile relay with extra-long coil permits double the ampere-turns; provides more power to actuate the relay and maintain good hold-down pressure. Silver contacts rated at 5 amps. Mounting: Two #6-32 holes on 1 7/16" centers. Weight: 5 ozs. Size: 2 1/4"x1 23/32"x1 15/16".

Stock No.	Type	Action	Volts	1-24	25-50	51-99	100-249
24F1312	KL5A	SPDT	120v. AC	4.25	4.04	3.83	2.98
24F684	KL11A	DPDT	120v. AC	5.30	5.04	4.77	3.71
24F691	KL14A	3PDT	120v. AC	5.90	5.61	5.31	4.13
24F694	KL17A	4PDT	24v. AC	7.00	6.65	6.30	4.90
24F687	KL17A	4PDT	120v. AC	7.00	6.65	6.30	4.90
24F696	KL14D	3PDT	24v. DC	5.65	5.37	5.09	3.96
24F686	KL17D	4PDT	24v. DC	6.60	6.27	5.94	4.62
24F697	KL17D	4PDT	110v. DC	7.30	6.94	6.57	5.11

COMPUTER and DATA PROCESSING APPLICATION

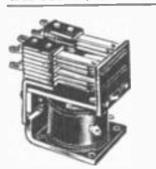
4-pole relay with long life operating 4PDT contacts switch loads from dry circuit to 3 amps at 30VDC or 115VAC. Power: 0.5 W min. and 0.9 W max. at 3 amps. Temp.: —45°C to +70°C. Pull-in time less than 15ms.
KHP: Size 1 17/64x55/64x1 7/64". Wt., 1 1/8 oz. Nylon dust cover.
KHS: Size 1 5/32x29/32x1 9/32. Wt., 1 5/8oz. Hermetically sealed. (*) Silver Cadmium-oxide contacts.

Stock No.	Type	DC Voltage	Ohms	1-24	25-50	51-99	100-249
24F1390	KHP17D11	6	40	5.05	4.80	4.55	3.54
24F1391	KHP17D11	12	160	5.05	4.80	4.55	3.54
24F1392	KHP17D11	24	650	5.05	4.80	4.55	3.54
24F1393	KHP17D11	48	2600	5.25	4.99	4.73	3.68
24F1394	KHP17D11	90	9000	5.90	5.61	5.31	4.13
24F1395	KHP17D11	110	11000	5.90	5.61	5.31	4.13
24F2561	KHS17D11	6	40	8.55	8.12	7.70	5.99
24F2562	KHS17D11	12	160	8.55	8.12	7.70	5.99
24F2563	KHS17D11	24	650	8.55	8.12	7.70	5.99
24F2564	KHS17D11	110	11000	9.40	8.93	8.46	6.58
24F1697	KHP17D12*	24	650	5.20	4.95	4.68	3.64
24F1698	KHP17D12*	110	11000	6.05	5.75	5.45	4.24
		AC VOLTS					
24F1661	KHP17A11	6	10.5	5.55	5.27	5.00	3.89
24F1662	KHP17A11	12	43	5.55	5.27	5.00	3.89
24F1663	KHP17A11	24	160	5.55	5.27	5.00	3.89
24F1664	KHP17A11	120	3900	6.05	5.75	5.45	4.24
24F2557	KHS17A11	6	10.5	9.55	9.07	8.60	6.69
24F2558	KHS17A11	12	43	9.55	9.07	8.60	6.69
24F2559	KHS17A11	24	160	9.55	9.07	8.60	6.69
24F2560	KHS17A11	120	3900	9.90	9.41	8.91	6.93

P&B SOCKETS FOR COMPUTER AND DATA PROCESSING RELAYS

Stock No.	Type	Description	1-24	25-50	51-99	100-249
24F1396	9KH-1	Sold. TermSkt.	.66	.63	.59	.46
24F1397	9KH-2	P C. Socket	.66	.63	.59	.46
24F1398	9KH-3	Hold Down Spring	.15 ea.	Box of 50		......5.50

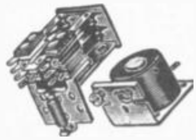
GA GENERAL ALL PURPOSE RELAY



Multiple leaf relay with a wide range of contact combinations. Used for remote power switching and mobile communications equipment. (See GB for current actuated models.) Mounting: No. 8-32 tapped core with locating boss. Silver contacts rated at 5 amps. Size: 1 1/16"W x 1 23/32"L x 1 25/32"H. Weight: 3.5 ozs.

Stk. No.	Type	Action	Volts	1-24	25-50	51-99	100-249
24F1183	GA11A	DPDT	6v.AC	3.70	3.52	3.33	2.59
24F1184	GA11A	DPDT	24v.AC				
24F1185	GA11A	DPDT	120v.AC				
24F1307	GA14A	3PDT	120v.AC	4.45	4.23	4.01	3.12
24F1186	GA17A	4PDT	6v.AC	5.35	5.08	4.82	3.75
24F1187	GA17A	4PDT	12v.AC	5.35	5.08	4.82	3.75
24F1188	GA17A	4PDT	24v.AC				
24F1189	GA17A	4PDT	120v.AC				
24F1190	GA11D	DPDT	6v.DC	3.70	3.52	3.33	2.59
24F1191	GA11D	DPDT	12v.DC				
24F1192	GA11D	DPDT	24v.DC				
24F1193	GA11D	DPDT	110v.DC	4.20	3.99	3.78	2.94
24F1194	GA17D	4PDT	6v.DC	5.35	5.08	4.82	3.75
24F1195	GA17D	4PDT	12v.DC				
24F1196	GA17D	4PDT	24v.DC				
24F1197	GA17D	4PDT	110v.DC	5.90	5.61	5.31	4.13

GP "PIC & BUILD" KIT



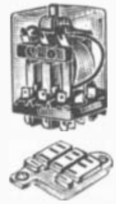
Units can be combined to produce twenty different relays and design different sensitivities or switches for different contact arrangements. Mtg: permits rapid changing of coils for #8-32 tapped core and locating half punch. Silver contacts rated at 5 amps. Wt. Av. 4 oz.

Stock No.	Mfr's Type	Item	1-24	25-50	51-99	100-249
24F1200	GPA	6v. AC Coil	1.85	1.76	1.67	1.30
24F1201	GPA	12v. AC Coil	1.85	1.76	1.67	1.30
24F1203	GPA	120v AC Coil	1.85	1.76	1.67	1.30
24F1211	GP11	DPDT Switch	1.70	1.62	1.53	1.19
24F1212	GP17	4PDT Switch	1.90	1.81	1.71	1.33
24F2644	GPD	6VDC	2.30	2.19	2.07	1.61
24F2645	GPD	12VDC	2.30	2.19	2.07	1.61
24F2647	GPD	110VDC	3.45	3.28	3.11	2.42
24F2648	GPD	2.5K Ohms	1.70	1.62	1.53	1.19
24F2649	GPD	5K Ohms	1.95	1.85	1.76	1.37
24F2650	GPD	10K Ohms	2.30	2.19	2.07	1.61

 For prices on quantities over 250 pieces — Call Newark's Industrial Dept.

General Purpose Relays POTTER & BRUMFIELD

GENERAL PURPOSE KUP SERIES



This reliable 10-ampere relay is for industrial control. The .187" terminals of the relay are of the quick-connect solder type. The KUP is enclosed in a clear, high impact plastic dust cover. Silver-cadmium-oxide contacts assure long contact life. Operation: continuous. Shpg. wt., 3 ozs.

Stock No.	Type	Action	Coil	Ma.	1-24	25-50	51-99	100-249
24F2600	KUP5A15	SPDT	6VAC	10	3.90	3.71	3.51	2.73
24F2601	KUP5A15	SPDT	12VAC	10	3.90	3.71	3.51	2.73
24F2602	KUP5A15	SPDT	24VAC	10	3.90	3.71	3.51	2.73
24F2603	KUP5A15	SPDT	120VAC	10	3.90	3.71	3.51	2.73
24F2604	KUP5A15	SPDT	240VAC	10	4.30	4.09	3.87	3.01
24F2605	KUP5D15	SPDT	6VDC	10	3.75	3.56	3.38	2.63
24F2606	KUP5D15	SPDT	12VDC	10	3.75	3.56	3.38	2.63
24F2607	KUP5D15	SPDT	24VDC	10	3.75	3.56	3.38	2.63
24F2608	KUP5D15	SPDT	110VDC	10	4.35	4.13	3.92	3.05
24F2609	KUP11A15	DPDT	6VAC	10	4.75	4.51	4.28	3.33
24F2610	KUP11A15	DPDT	12VAC	10	4.75	4.51	4.28	3.33
24F2611	KUP11A15	DPDT	24VAC	10	4.75	4.51	4.28	3.33
24F2612	KUP11A15	DPDT	120VAC	10	4.75	4.51	4.28	3.33
24F2613	KUP11A15	DPDT	240VAC	10	5.15	4.89	4.64	3.61
24F2614	KUP11D15	DPDT	6VDC	10	4.25	4.04	3.83	2.88
24F2615	KUP11D15	DPDT	12VDC	10	4.25	4.04	3.83	2.88
24F2616	KUP11D15	DPDT	24VDC	10	4.25	4.04	3.83	2.88
24F2617	KUP11D15	DPDT	110VDC	10	4.90	4.66	4.41	3.43
24F2618	KUP14A15	3PDT	6VAC	10	5.30	5.04	4.77	3.71
24F2619	KUP14A15	3PDT	12VAC	10	5.30	5.04	4.77	3.71
24F2620	KUP14A15	3PDT	24VAC	10	5.30	5.04	4.77	3.71
24F2621	KUP14A15	3PDT	120VAC	10	5.30	5.04	4.77	3.71
24F2622	KUP14A15	3PDT	240VAC	10	5.70	5.42	5.13	3.99
24F2623	KUP14D15	3PDT	6VDC	10	4.90	4.66	4.41	3.43
24F2624	KUP14D15	3PDT	12VDC	10	4.90	4.66	4.41	3.43
24F2625	KUP14D15	3PDT	24VDC	10	4.90	4.66	4.41	3.43
24F2626	KUP14D15	3PDT	110VDC	10	5.30	5.04	4.77	3.71

9KUI SOCKETS

For KUP relays. 10 amps. molded nylon.

Stk No.	Type	1-24	25-50	51-99	100-249
24F2627	9KUI	.79	.75	.71	.55

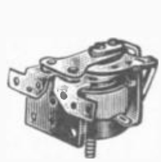
KUP SERIES WITH SLOTTED FLANGES

This 10-ampere relay is identical to the KUP above, except for slotted flange case for direct-to-chassis mounting. The .187" terminals of relay are of the quick-connect solder type. Enclosed in clear, high impact plastic dust cover. Silver-cadmium-oxide contacts assure long contact life. Operation: continuous. Slot width: .156". Weight: 3 oz.

Stock No.	Type	Action	Coil Volts	1-24	25-50	51-99	100-249
24F2891	KUP14A55	3PDT	12 VAC	5.30	5.04	4.77	3.71
24F2892	KUP14A55	3PDT	24 VAC	5.30	5.04	4.77	3.71
24F2893	KUP14A55	3PDT	120 VAC	5.30	5.04	4.77	3.71
24F2894	KUP14D55	3PDT	12 DC	4.90	4.66	4.41	3.43
24F2895	KUP14D55	3PDT	24 DC	4.90	4.66	4.41	3.43
24F2896	KUP14D55	3PDT	110 DC	5.30	5.04	4.77	3.71

KR3-H AND KRP3-H SERIES

KR3-H. Compact heavy-duty relays. Silver-CdO contacts rated 20A @ 115 VAC resistive, or 28 VDC; 1 HP @ 115/230 VAC. Form X arrangement (SPST-NO-DB). Solder terminals on coil, ¼" quick-connect on contacts. 1.6 x 1 671 x 1 52"; mtg: one 6-32 stud on .437" center. 2 oz.



KR3-H Series

KRP3-H Series

KRP3-H. As above, with plastic dust cover & octal base.

Stock No.	Mfr. Type	Contacts	Coil Volts	1-24	25-50	51-99	100-249
24F2630	KR3AH	SPST-NO-DB	24VAC	4.30	4.09	3.87	3.01
24F2631	KR3AH	SPST-NO-DB	120VAC	4.30	4.09	3.87	3.01
24F2633	KR3DH	SPST-NO-DB	12VDC	4.10	3.90	3.69	2.81
24F2634	KR3DH	SPST-NO-DB	24VDC	4.10	3.90	3.69	2.81
24F2638	KRP3AH	SPST-NO-DB	24VAC	7.00	6.65	6.30	4.90
24F2639	KRP3AH	SPST-NO-DB	120VAC	7.00	6.65	6.30	4.90
24F2641	KRP3DH	SPST-NO-DB	12VDC	6.75	6.41	6.08	4.73
24F2642	KRP3DH	SPST-NO-DB	24VDC	6.75	6.41	6.08	4.73

FOR PRICES OVER 250 PIECES
CALL NEWARK'S INDUSTRIAL DEPT.

KRP ENCLOSED-VOLTAGE ACTUATED RELAY

Versatile, multi-contact relay enclosed in clear plastic dust cover. (See KCP for current actuated models.) Mounting: Standard 8 pin octal for KRP-5 & 11; 11 pin for KRP14. Contacts: 5 amp — gold flashed silver. 10 amp — silver cadmium-oxide. Size: 1 13/32x1 13/32x2". Wt., 3 oz.

5 AMP

Stock No.	Mfr's Type	Coil Volts	Action	1-24	25-50	51-99	100-249
24F522	KRP5A	6v. AC	SPDT	6.00	5.70	5.40	4.20
24F524	KRP5A	24v. AC	SPDT				
24F520	KRP5A	120v. AC	SPDT				
24F548	KRP11A	6v. AC	DPDT	6.65	6.32	5.99	4.66
24F1223	KRP11A	12v. AC	DPDT				
24F525	KRP11A	24v. AC	DPDT				
24F518	KRP11A	120v. AC	DPDT				
24F1324	KRP11A	240v. AC	DPDT	7.10	6.75	6.39	4.97
24F1224	KRP14A	6v. AC	3PDT	8.30	7.89	7.47	5.81
24F1225	KRP14A	12v. AC	3PDT				
24F526	KRP14A	24v. AC	3PDT				
24F527	KRP14A	120v. AC	3PDT				
24F1226	KRP5D	6v. DC	SPDT	5.95	5.65	5.36	4.17
24F1325	KRP5D	12v. DC	SPDT				
24F1227	KRP5D	24v. DC	SPDT				
24F1326	KRP5D	110v. DC	SPDT	6.60	6.27	5.94	4.62
24F680	KRP11D	6v. DC	DPDT				
24F683	KRP11D	12v. DC	DPDT				
24F528	KRP11D	24v. DC	DPDT				
24F682	KRP11D	110v. DC	DPDT	7.30	6.94	6.57	5.11
24F1228	KRP14D	6v. DC	3PDT	8.20	7.79	7.38	5.74
24F1229	KRP14D	12v. DC	3PDT				
24F679	KRP14D	24v. DC	3PDT				
24F1327	KRP14D	110v. DC	3PDT	8.85	8.41	7.97	6.20
10 AMP							
24F1330	KRP5AG	6v. AC	SPDT	6.15	5.84	5.54	4.31
24F1331	KRP5AG	24v. AC	SPDT				
24F1332	KRP5AG	120v. AC	SPDT				
24F1333	KRP11AG	6v. AC	DPDT	6.90	6.56	6.21	4.83
24F1334	KRP11AG	12v. AC	DPDT				
24F1335	KRP11AG	24v. AC	DPDT				
24F1336	KRP11AG	120v. AC	DPDT				
24F1696	KRP11AG	240v. AC	DPDT	7.35	6.98	6.62	5.15
24F1337	KRP14AG	6v. AC	3PDT	8.60	8.17	7.74	6.02
24F1338	KRP14AG	12v. AC	3PDT				
24F1339	KRP14AG	24v. AC	3PDT				
24F1340	KRP14AG	120v. AC	3PDT				
24F2947	KRP14AG	240v AC	3PDT	9.00	8.55	8.10	6.30
24F1343	KRP5DG	24v. DC	SPDT	6.10	5.80	5.49	4.27
24F1344	KRP5DG	110v. DC	SPDT	6.70	6.37	6.03	4.69
24F1345	KRP11DG	6v. DC	DPDT	6.85	6.51	6.17	4.80
24F1346	KRP11DG	12v. DC	DPDT				
24F1347	KRP11DG	24v. DC	DPDT				
24F1348	KRP11DG	110v. DC	DPDT	7.50	7.13	6.75	5.25
24F1349	KRP14DG	6v. DC	3PDT	8.50	8.08	7.65	5.95
24F1350	KRP14DG	12v. DC	3PDT				
24F1359	KRP14DG	24v. DC	3PDT				
24F1351	KRP14DG	110v. DC	3PDT	9.20	8.74	8.28	6.44

KRP-N INDICATOR LAMP RELAY

Plug-in relay has built-in lamp, which lights when relay coil is energized. Operates on 1.2 watts DC or 2 volt-amps AC. DPDT silver cadmium contacts rated at 10 amps. Octal plug DPDT Lamp: AC 6 to 230 volts, DC 6 to 110 volts. Enclosure: clear cellulose acetate. Dim: 2"H x 1 13/32" square. 3 oz.

Stk. No.	Type	Volts	1-24	25-50	51-99	100-249
24F1435	KRP11AN	6v. AC	7.90	7.51	7.11	5.53
24F1436	KRP11AN	12v. AC				
24F1437	KRP11AN	24v. AC				
24F1438	KRP11AN	120v. AC				
24F1439	KRP11AN	240v. AC	8.30	7.89	7.47	5.81
24F1329	KRP14AN*	120v. AC	9.60	9.12	8.64	6.72
24F1440	KRP11DN	6v. DC	7.80	7.41	7.02	5.46
24F1441	KRP11DN	12v. DC				
24F1442	KRP11DN	24v. DC				
24F1443	KRP11DN	110v. DC	8.50	8.08	7.65	5.95

*DPDT 11 Pin Socket

KCP-KRP HOLD DOWN SPRING

Type 9-KR-15. Insures mounting of relay in any position. Fits all KCP and KRP plug-in relays. Stainless steel spring can be moved aside for relay removal and installation. Mounting: Two 5/32" dia. holes on 1 5/16" centers. Wt. 3 oz. for 50

Stk. No.	Type	Each	Box of 50
24F1358	9-KR-15	.15	5.80

For sockets for above see Amphenol listings in index

POTTER & BRUMFIELD Relays

PLATE CIRCUIT AND SENSITIVE RELAYS

GB LOW COST PLATE CIRCUIT RELAY

115 milliwatts for single pole, 275 milliwatts for 4 pole. (See GA Relay for similar voltage actuated models.) Silver contacts rated at 5 amps. Mounting: No. 8-32 tapped core and locating half-punch. 2$\frac{15}{32}$x1$\frac{23}{32}$x1$\frac{1}{16}$". Weight: 5 ozs.

Stk. No.	Type	Action	Ohms	Ma.	1-24	25-50	51-99	100-249
24F1319	GB5D	SPDT	2500	6.8	3.80	3.61	3.42	2.66
24F1320	GB5D	SPDT	5000	4.8	4.00	3.80	3.60	2.80
24F1321	GB5D	SPDT	10,000	3.4	4.50	4.28	4.05	3.15
24F1177	GB11D	DPDT	2500	7.0	5.35	5.08	4.82	3.75
24F1178	GB11D	DPDT	5000	5.0	5.45	5.18	4.91	3.32
24F1179	GB11D	DPDT	10,000	3.53	6.10	5.80	5.49	4.27
24F1181	GB17D	4PDT	5000	7.4	6.55	6.22	5.90	4.59
24F1182	GB17D	4PDT	10,000	5.25	7.05	6.70	6.35	4.94

KCP ENCLOSED PLATE CIRCUIT RELAY

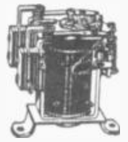
Silver contacts rated at 2 amps. Current actuated. Sensitivity: 125 milliwatts per pole. Mounting: Standard octal plug; eight pins for KCP5 and 11, 11 pins for KCP14. Clear plastic case. 1$\frac{13}{32}$x1$\frac{13}{32}$x2" high. Wt., 3 ozs.

Stk. No.	Type	Action	Ohms	Ma.	1-24	25-50	51-99	100-249
24F489	KCP5	SPDT	2500	7.2	6.50	6.18	5.85	4.55
24F490	KCP5	SPDT	5000	5.0	6.60	6.27	5.94	4.62
24F491	KCP5	SPDT	10,000	3.6	7.05	6.70	6.35	4.94
24F492	KCP11	DPDT	2500	10.0	6.95	6.60	6.26	4.87
24F496	KCP11	DPDT	5000	7.2	7.05	6.70	6.35	4.94
24F497	KCP11	DPDT	10,000	5.0	7.50	7.13	6.75	5.25
24F493	KCP14	3PDT	2500	12.3	8.55	8.12	7.70	5.99
24F494	KCP14	3PDT	5000	8.7	8.65	8.22	7.79	6.06
24F495	KCP14	3PDT	10,000	6.1	9.10	8.65	8.19	6.37

SM SUPER MIDGET RELAY

Both current and voltage actuated models available. 75 mw. sensitivity for current actuated models. Hermetically sealed. SPDT silver-rhodium contacts rated at 250 ma. Mounting: Sealed-Standard 7-pin miniature tube socket. Size: 1$\frac{11}{16}$" above chassis, .765" dia. Wt.: 1 oz.

Stk. No.	Type	VDC	Ohms	Ma.	1-24	25-50	51-99	100-249
24F602	SM5DS	6	80	.	7.25	6.89	6.53	5.08
24F607	SM5DS	12	360	. .				
24F603	SM5DS	24	900					
24F604	SM5LS	....	5000	3.9	7.55	7.17	6.80	5.29
24F606	SM5LS	. .	10,000	2.7	8.10	7.70	7.29	5.67



LM PLATE CIRCUIT RELAY

Operates on only 100 mw. per pole. Medium cost high quality relay with silver contacts rated at 5 amps. Pull-in adjustable by tail spring adjusting screw. Mounting: Two No. 6-32 holes on 1$\frac{13}{16}$" centers. DC only. (See KL for voltage actuated models.) 2$\frac{3}{16}$x2$\frac{1}{4}$x2$\frac{1}{2}$". Weight: 5 ozs.

Stk. No.	Type	Action	Ohms	Ma.	1-24	25-50	51-99	100-249
24F562	LM5	SPDT	2500	6.3	4.35	4.13	3.92	3.05
24F563	LM5	SPDT	5000	4.5	4.55	4.32	4.10	3.19
24F564	LM5	SPDT	10,000	3.2	4.90	4.66	4.41	3.43
24F567	LM11	DPDT	2500	9.0	6.20	5.89	5.58	4.34
24F568	LM11	DPDT	5000	6.3	6.40	6.08	5.76	4.48
24F569	LM11	DPDT	10,000	4.5	7.05	6.70	6.35	4.94

LB LOW COST PLATE CIRCUIT RELAY

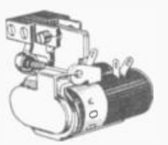
Current sensitive relays designed to operate on a few milliwatts DC. Sensitivity 200 milliwatts. Silver contacts rated at 5 amps. Two $\frac{3}{16}$" holes on 2$\frac{7}{32}$" centers. 2$\frac{21}{32}$x1$\frac{1}{4}$x1$\frac{3}{8}$". Weight. 2 ozs.

Stk. No.	Type	Action	Ohms	Ma.	1-24	25-50	51-99	100-249
24F570	LB5	SPDT	2500	9.0	2.85	2.71	2.57	2.00
24F571	LB5	SPDT	5000	6.3	3.05	2.90	2.75	2.14
24F572	LB5	SPDT	10,000	4.5	3.30	3.14	2.97	2.31

RS5D LIGHT WEIGHT, SENSITIVE RELAY

Low cost, sensitive relay for current or voltage applications. Mountings: Two No. 4-40 holes on $\frac{3}{4}$x$\frac{5}{8}$" diagonal centers. SPDT bar palladium contacts rated at 2 amps. Size: 1x1$\frac{11}{16}$x1$\frac{5}{16}$" high. Av. Shpg. wt. 1$\frac{1}{2}$ oz.

Stk. No.	V.DC	Ohms	Ma.	1-24	25-50	51-99	100-249
24F1173	6	335	....	2.90	2.76	2.61	2.03
24F1198	12	1350	.	3.05	2.90	2.75	2.14
24F1174	....	2500	5.0	3.15	2.99	2.84	2.21
24F1175	. .	5000	3.5	3.45	3.28	3.11	2.42
24F1176	. .	10,000	2.5	4.00	3.80	3.60	2.80



SS SUPER SENSITIVE RELAY

Model SS5D. 10 mw. sensitivity. Dual coils with balanced armature on needle-point bearings for precision instruments and bridge circuits. May be used as a differential relay. SPDT silver contacts rated at 2 amps. Coil 10,000 ohms 1 ma. Mounting: Two No. 6-32 holes on $\frac{23}{32}$" centers. Size: 1$\frac{3}{4}$x1$\frac{5}{16}$x$\frac{11}{16}$". Wt. 3$\frac{1}{2}$ oz.

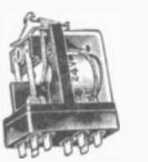
Stk. No.	1-24	25-50	51-99	100-249
24F609	15.25	14.49	13.73	10.68

PW HERMETICALLY SEALED RELAY

A miniature tube sensitive relay available in voltage or current actuated models. Sensitivity: Voltage: 180 mw.; current: 40 mw. Precision, light weight relay with 10g vibration to 500 cps. Silver SPDT contacts rated at 2 amps. Mounting: Standard 7-pin miniature tube base. Weight: 1 oz. Size: 1$\frac{11}{16}$" high above socket, .765" dia.

Stk. No.	Type	Volts	Ohms	Ma.	1-24	25-50	51-99	100-249
24F556	PW5DS	6VDC	202	.... .	11.85	11.26	10.67	8.30
24F555	PW5DS	12VDC	810	......	11.85	11.26	10.67	8.30
24F557	PW5DS	24VDC	3240		11.85	11.26	10.67	8.30
24F558	PW5LS	. .	5000	2.8	12.25	11.64	11.03	8.58
24F559	PW5LS	. . .	10,000	2.0	12.70	12.07	11.43	8.89

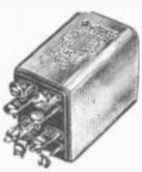
POWER RELAYS



AB APPLIANCE RELAY

For appliance and general purpose applications where rugged construction, long life and quiet operation are required. All units have DPDT silver contacts rated at 10 amps. Mounting: 2 #8-32 tapped holes on 1$\frac{1}{4}$" centers. Weight: 5 oz. Size: 3" L. x 1$\frac{13}{32}$" W. x 1$\frac{15}{16}$" H. U. L. Listed.

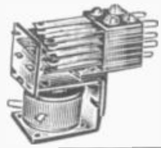
Stock No.	Type	Coil Volts	Ohms	1-24	25-50	51-99	100-249
24F1121	AB11AY	120 VAC	510	5.85	5.56	5.27	4.10



ABC MEDIUM POWER RELAYS

Dust cover enclosed AB relay. Used with small motors, industrial controls and similar applications. All relays have DPDT silver contacts rated at 10 amps. Snap-on terminals packed with each relay. Mounting: One #8-32 stud $\frac{3}{8}$" long. Weight: 7 oz. Size: 2$\frac{25}{32}$" L. x 1$\frac{31}{64}$" W. x 2$\frac{3}{32}$" H. All A.C. Models U.L. Listed.

24F1128	ABC11AY	24 VAC	23	7.05	6.70	6.35	4.94
24F1129	ABC11AY	120 VAC	510	7.05	6.70	6.35	4.94
24F1301	ABC11D	24 VDC	288	6.95	6.60	6.26	4.87
24F1131	ABC11D	110 VDC	6050	7.50	7.13	6.75	5.25



MEDIUM DUTY POWER RELAY

GF SERIES. Medium duty power relay for industrial control applications. $\frac{1}{4}$" dia. silver contacts rated at 10 amps at 120V AC or 28V DC resistive. Tinned, pierced solder terminals. Mounting: 8-32 tapped core with locating boss. Weight: 4.75 ozs.

Stk. No.	Type	Coil Volts	Action	1-24	25-50	51-99	100-249
24F2587	GF17A	4PDT	6VAC	7.35	6.98	6.62	5.15
24F2588	GF17A	4PDT	12VAC	7.35	6.98	6.62	5.15
24F2589	GF17A	4PDT	24VAC	7.35	6.98	6.62	5.15
24F2590	GF17A	4PDT	120VAC	7.35	6.98	6.62	5.15
24F2591	GF17A	4PDT	240VAC	7.75	7.36	6.98	5.43
24F2592	GF17D	4PDT	6VDC	7.35	6.98	6.62	5.15
24F2593	GF17D	4PDT	12VDC	7.35	6.98	6.62	5.15
24F2594	GF17D	4PDT	24VDC	7.35	6.98	6.62	5.15
24F2595	GF17D	4PDT	110VDC	7.75	7.36	6.98	5.43

"P" CASE — CLEAR RESISTANT PLASTIC

For mounting rectifiers, capacitors, or combinations. Av. Shpg. wt. 3 oz.

Stock No.	Type	Plugs	1-24	25-50	51-99	100-249
24F1322	35D070	8 pin	.65	.62	.59	.46
24F1323	35D072	11 pin	.80	.76	.72	.56

For prices on quantities over 250 pieces — Call Newark's Industrial Dept.

PM SERIES POWER RELAYS

PM series relays are rated at 25 amperes (or 1 H.P.) at 115 volts, 50/60 HZ resistive. Insulated with molded phenolic. These are 4PDT relays with silver-cadmium-oxide contacts. UL listed. Terminals are screw type with No. 8-32 BH screw. Wt., 14 oz. Size: 2 21/32"W, 3 23/64"L, 2 17/32"H.

Stock No.	Mfr. No.	Coil Volts	1-24	25-50	51-99	100-249
24F1430	PM17AY	6VAC	13.60	12.92	12.24	9.52
24F1431	PM17AY	12VAC	13.60	12.92	12.24	9.52
24F1432	PM17AY	24VAC	13.60	12.92	12.24	9.52
24F1433	PM17AY	120VAC	13.60	12.92	12.24	9.52
24F1434	PM17AY	240VAC	14.10	13.40	12.69	9.87
24F1449	PM17A	480VAC	15.00	14.25	13.50	10.50
24F1426	PM17DY	6VDC	13.00	12.35	11.70	9.10
24F1427	PM17DY	12VDC	13.00	12.35	11.70	9.10
24F1428	PM17DY	24VDC	13.00	12.35	11.70	9.10
24F1429	PM17DY	110VDC	13.65	12.97	12.29	9.56

PM DUST COVERS

Have sheet metal base with knockouts for 1/2" dia. conduit and an aluminum cover fitted with two screws. Color: grey hammertone. Mtg. — 3 No. 10 holes on 1 7/8x4 1/8" ctrs. Size: Lt.—5.313 x width—3.812 x height—3.812. Approx. wt. 1 lb.

Stk. No.	Type	Material	1-24	25-50	51-99	100-249
24F1289	35D227	PM Metal	3.45	3.20	3.11	2.42
24F2491	9PM2	PM Plastic	.48	.45	.43	.33

MR MEDIUM DUTY POWER RELAY

Designed for small motors and appliances. Contacts rated at 8 amps except * rated at 10 amps. Mounting: Two 5/32" dia. holes on 2 5/8" centers for 1 and 3 poles and 2 1/4" centers for 2 pole relay. Size: 2 31/32x2 1/8x1 3/4". Weight: 4 ozs.

6 Volts AC

Stock No.	Mfrs. Type	Action	Normal Pos.	1-24	25-50	51-99	100-249
24F1157	MR3A	SPST*	NO-DB	4.30	4.09	3.87	3.01
24F541	MR5A	SPDT	....	3.85	3.66	3.47	2.70
24F543	MR11A	DPDT	....	5.40	5.13	4.86	3.78

24 Volts AC

Stock No.	Mfrs. Type	Action	Normal Pos.	1-24	25-50	51-99	100-249
24F1158	MR3A	SPST*	NO-DB	4.30	4.09	3.87	3.01
24F1159	MR5A	SPDT	....	3.85	3.66	3.47	2.70
24F1160	MR11A	DPDT	....	5.40	5.13	4.86	3.78

120 Volts AC

Stock No.	Mfrs. Type	Action	Normal Pos.	1-24	25-50	51-99	100-249
24F506	MR3A	SPST*	NO-DB	4.30	4.09	3.87	3.01
24F509	MR5A	SPDT	....	3.85	3.66	3.47	2.70
24F511	MR11A	DPDT	....	5.40	5.13	4.86	3.78
24F536	MR14A	3PDT	....	6.45	6.13	5.81	4.52

240 Volts AC

Stock No.	Mfrs. Type	Action	Normal Pos.	1-24	25-50	51-99	100-249
24F534	MR5A	SPDT	....	4.30	4.09	3.87	3.01
24F535	MR11A	DPDT	....	5.85	5.56	5.27	4.10

6 Volts DC

Stock No.	Mfrs. Type	Action	Normal Pos.	1-24	25-50	51-99	100-249
24F1164	MR3D	SPST*	NO-DB	3.90	3.71	3.51	2.73
24F550	MR5D	SPDT	....	3.55	3.37	3.20	2.49
24F551	MR11D	DPDT	....	5.15	4.89	4.64	3.61

12 Volts DC

Stock No.	Mfrs. Type	Action	Normal Pos.	1-24	25-50	51-99	100-249
24F1167	MR5D	SPDT	....	3.55	3.37	3.20	2.49
24F1169	MR11D	DPDT	....	5.15	4.89	4.64	3.61
24F1171	MR14D	3PDT	....	6.10	5.80	5.49	4.27

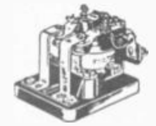
24 Volts DC

Stock No.	Mfrs. Type	Action	Normal Pos.	1-24	25-50	51-99	100-249
24F1166	MR3D	SPST*	NO-DB	3.90	3.71	3.51	2.73
24F1168	MR5D	SPDT	....	3.55	3.37	3.20	2.49
24F1170	MR11D	DPDT	....	5.15	4.89	4.64	3.61

110 Volts DC

Stock No.	Mfrs. Type	Action	Normal Pos.	1-24	25-50	51-99	100-249
24F1315	MR11D	DPDT	....	5.65	5.37	5.09	3.96
24F1316	MR14D	3PDT	....	6.60	6.27	5.94	4.62

PR HEAVY-DUTY POWER RELAY



Extra rugged fast-acting power relay with full-floating movable contact carrier to provide ample contact wipe and pressure. For industrial control applications, motor loads up to 1 HP or heater loads up to 25 amps. Terminals are heavy duty screw type. Mounting: Two 3/16" dia. holes on 1 7/8" centers. Silver contacts rated at 25 amps. Size: max. w/out aux. contacts. 3 3/8" L. x 2 7/16" W. x 2 1/2" H. All except PR11AL5 are U/L listed. Weight, 11 ozs.

Stk. No.	Type	Action	Coil V.	1-24	25-50	51-99	100-249
24F1132	PR3AY	SPST	6 VAC	4.55	4.32	4.10	3.19
24F1133	PR3AY	Nor. Open	24 VAC	4.55	4.32	4.10	3.19
24F500	PR3AY	Double	120 VAC	4.55	4.32	4.10	3.19
24F530	PR3AY	Break	240 VAC	5.00	4.75	4.50	3.50
24F1135	PR5AY	SPDT	12 VAC	4.80	4.56	4.32	3.36
24F1136	PR5AY	SPDT	24 VAC	4.80	4.56	4.32	3.36
24F503	PR5AY	SPDT	120 VAC	4.80	4.56	4.32	3.36
24F531	PR5AY	SPDT	240 VAC	5.25	4.99	4.73	3.68
24F1137	PR7AY	DPST	6 VAC	5.40	5.13	4.86	3.78
24F539	PR7AY	DPST	24 VAC	5.40	5.13	4.86	3.78
24F504	PR7AY	DPST	120 VAC	5.40	5.13	4.86	3.78
24F1139	PR7AY	DPST	240 VAC	5.90	5.61	5.31	4.13
24F1140	PR11AY	DPDT	6 VAC	7.10	6.75	6.39	4.97
24F538	PR11AY	DPDT	24 VAC	7.10	6.75	6.39	4.97
24F505	PR11AY	DPDT	120 VAC	7.10	6.75	6.39	4.97
24F532	PR11AY	DPDT	240 VAC	7.65	7.27	6.89	5.36
24F1199	PR11AY	DPDT	480 VAC	8.60	8.17	7.74	6.02
24F1141	†PR11AL5	DPDT	6 VAC	9.00	8.55	8.10	6.30
24F1144	†PR11AL5	DPDT	120 VAC	9.00	8.55	8.10	6.30
24F2492	PR3DY	SPST-NO	24 VDC	4.55	4.32	4.00	3.19
24F1147	PR3DY	SPST-NO	110 VDC	5.25	4.99	4.73	3.68
24F579	PR5DY	SPDT	12 VDC	4.80	4.56	4.32	3.36
24F1148	PR5DY	SPDT	110 VDC	5.45	5.18	4.91	4.36
24F1150	PR7DY	DPST	24 VDC	5.40	5.13	4.86	3.78
24F1151	PR7DY	DPST	110 VDC	6.10	5.80	5.49	4.27
24F586	PR11DY	DPDT	6 VDC	7.10	6.75	6.39	4.97
24F1152	PR11DY	DPDT	12 VDC	7.10	6.75	6.39	4.97
24F578	PR11DY	DPDT	24 VDC	7.10	6.75	6.39	4.97
24F577	PR11DY	DPDT	110 VDC	7.75	7.36	6.98	5.43

†DPDT main contacts rated at 20 amps.

PR COVER-3SDO13

A sheet steel base with aluminum cover all finished in zinc gray baked enamel with 4 knockouts for 1/2" conduit. Mounting: 3 No. 10 holes on 1 7/8x4 1/8" centers. Shpg. wt., 1 lb.

Stock No.	Type	1-24	25-50	51-99	100-249
24F1318	35DO13	3.45	3.28	3.11	2.42

AP RATCHET IMPULSE RELAY

Compact unit for applications requiring on-off or reversing action on alternate impulses. Operates on 60 ms. pulses. Intermittent duty. Silver contacts rated at 5 amps. Mtg.: Three 5/32" dia. holes on 3 3/8"x7/8" triangular centers. Wt. 7 ozs. Size 2 3/16"x2 1/4"x3 3/4".

Stock No.	Mfr's Type	Action	Coil Volts	1-24	25-50	51-99	100-249
24F1231	AP11A	DPDT	6 VAC	9.65	9.17	8.69	6.76
24F1232	AP11A	DPDT	12 VAC	9.65	9.17	8.69	6.76
24F1233	AP11A	DPDT	24 VAC	9.65	9.17	8.69	6.76
24F1234	AP11A	DPDT	120 VAC	9.65	9.17	8.69	6.76
24F1235	AP11A	DPDT	240 VAC	10.20	9.69	9.18	7.14
24F1238	AP17A	4PDT	24 VAC	11.70	11.12	10.53	8.19
24F1239	AP17A	4PDT	120 VAC	11.70	11.12	10.53	8.19
24F1241	AP11D	DPDT	6 VDC	9.65	9.17	8.69	6.76
24F1243	AP11D	DPDT	24 VDC	9.65	9.17	8.69	6.76
24F1247	AP17D	4PDT	24 VDC	11.70	11.12	10.53	8.19
24F1248	AP17D	4PDT	110 VDC	12.45	11.83	11.21	8.72

GM SERIES IMPULSE SEQUENCING RELAYS

Especially suitable for applications where single coil latching is desirable. The 2 Form C contact arrangement is switched alternately by cams. Positive switching is by indirect action during drop-out of the armature. All contacts are rated at 3 amps, 120V AC (non-inductive). Available with AC or DC coils. Mounting: 8-32 tapped core with a locating boss. *All Double Action DPDT. Weight: with aux. contacts 4 3/4 oz.; without aux. contacts 4 oz.

Stk. No.	Type	Action	Coil Volts	1-24	25-50	51-99	100-249
24F2470	GM11A	DPDT	24 AC	8.00	7.60	7.20	5.60
24F2471	GM11A	DPDT	120 AC	8.00	7.60	7.20	5.60
24F2472	GM11AL11	DPDT*	24 AC	11.35	10.78	10.22	7.95
24F2473	GM11AL11	DPDT*	120 AC	11.35	10.78	10.22	7.95
24F2474	GM11D	DPDT	12 DC	7.65	7.27	6.89	5.36
24F2475	GM11D	DPDT	24 DC	7.65	7.27	6.89	5.36
24F2476	GM11D	DPDT	110 DC	8.20	7.79	7.38	5.74
24F2477	GM11DL11	DPDT*	12 DC	11.15	10.59	10.04	7.81
24F2478	GM11DL11	DPDT*	24 DC	11.15	10.59	10.04	7.81
24F2479	GM11DL11	DPDT*	110 DC	11.65	11.07	10.49	8.16

For prices on quantities over 250 pieces — Call Newark's Industrial Dept.

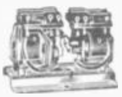
POTTER & BRUMFIELD Relays

SPECIAL PURPOSE RELAYS

BU AC-OPERATED BUZZERS

Steel armature buzzes when coil is energized. Mntg #6-32. Taped core 15 8 oz.

Stk. No.	Volts	Ohms	1-24	25-50	51-99	100-249
24F2483	6	2.75	1.95	1.85	1.76	1.37
24F2484	12	13.25				
24F2485	24	50 00				
24F2486	120	1250 00				



KB SERIES LATCHING RELAY

Dual coil relay for latching, memory work or overlord application. Operates on momentary impulse to either coil. Silver contacts rated at 5 amps except * 10 amps. Mtg.: Two 5/32" dia. holes on 1⅜" centers. Size: 2 15/16"x1 25/32"x 2 3/32". AC relay with 5 amp contacts. U.L. listed. Wt. 6 oz.

Stock No.	Mfr's Type	Action	Coil Volts	1-24	25-50	51-99	100-249
24F629	KB17AY	4PDT	6 AC	11.60	11.02	10.44	8.12
24F617	KB17AY	4PDT	12 AC				
24F631	KB17AY	4PDT	120 AC				
24F1249	KB17AG	4PDT	24 AC*	11.70	11.12	10.53	8.19
24F1250	KB17AG	4PDT	120 AC*	11.60	11.02	10.44	8.12
24F632	KB17D	4PDT	6 DC	10.40	9.88	9.36	7.28
26F618	KB17D	4PDT	12 DC				
24F633	KB17D	4PDT	24 DC				
24F619	KB17D	4PDT	110 DC	11.75	11.16	10.58	8.23
24F1355	KB17DG	4PDT	24DC*	15.40	14.63	13.86	10.78

KBP SERIES LATCHING RELAY

Enclosed in a translucent polypropylene dust cover, the KBP is furnished with 20-pin octal type plugs for socket mounting. Specifications same as the KB series above. Weight: 8 ounces. Size: 1.781x2.406x3.56".

Stk. No.	Type	Action	Coil V.	1-24	25-50	51-99	100-249
24F2900	KBP17A	4PDT	120 AC	16.30	15.49	14.67	11.41
24F2901	KBP17AG	4PDT	120 AC	16.50	15.68	14.85	11.55
24F2902	KBP17D	4PDT	24 DC	15.15	14.39	13.64	10.61
24F2903	KBP17DG	4PDT	12 DC	15.40	14.63	13.86	10.71
24F2904	KBP17DG	4PDT	24 DC	15.40	14.63	13.86	10.71
24F2905	KBP20A	5PDT	120 AC	16.80	15.96	15.12	11.76
24F2906	KBP20AG	5PDT	120 AC	17.05	16.20	15.35	11.94
24F2907	KBP20DG	5PDT	12 DC	16.20	15.39	14.58	11.34
24F2908	KBP20DG	5PDT	24 DC	16.20	15.39	14.58	11.34

PC ALTERNATE PULSE RELAY

Conventional armature relay operated by 60-ms pulses. Armature actuates phenolic rocker to transfer contacts between alternate positions. For on-off or alternate mode switching. Gold-flashed silver cadmium oxide 7½-amp. contacts. Mtg.: Two 5/32" diam. holes on 2⅝" centers. Wt., 5 oz. 2 31/32Lx 2 1/16Wx2 5/64"H.

Stk. No.	Type	Action	Coil V.	1-24	25-50	51-99	100-249
24F636	PC11A	DPDT	120 AC	6.20	5.89	5.58	4.34
24F638	PC17A	4PDT	24 AC	8.55	8.12	7.70	5.99
24F639	PC17A	4PDT	120 AC	8.55	8.12	7.70	5.99
24F641	PC11D	DPDT	24 DC	6.00	5.70	5.40	4.20
24F643	PC17D	4PDT	24 DC	8.35	7.93	7.52	5.85

● SA SERIES 12 POSITION STEPPING SWITCH

Type SA-1N-12A. Complete with printed circuit strips to switch currents up to 250 M A. Two 6-32 Mt. holes. 120 VAC coil, 140 Ohms. For intermittent duty only.

Stock No.	1-24	25-50	51-99	100-249
24F2948	7.35	6.98	6.62	5.15

KM SUBMINIATURE RELAYS

Subminiature relay for use where size and weight are critical factors. Simple to install and wire into circuit. Silver contacts rated at 2 amps. Terminals are solder lug type Mounting: No. 2-56 tapped core with locating boss. Size: 1⅛"Lx35/64"Wx53/64"H. Wt., 1 oz.

Stk. No.	Type	VDC	Action	1-24	25-50	51-99	100-249
24F1268	KM11D	6	DPDT	4.15	3.94	3.74	2.91
24F1269	KM11D	12	DPDT				
24F1270	KM11D	24	DPDT				
24F1271	KM14D	6	3PDT	4.80	4.56	4.32	3.36
24F1272	KM14D	12	3PDT				
24F1273	KM14D	24	3PDT				

KT ANTENNA SWITCHING RELAY

Glass base insulation to minimize RF losses. Used to switch common transmitter-receiver antenna using 300-ohm line. Silver contacts rated at 5 amps. Mounting: 6-32 stud. Weight: 1.5 oz. Size: 1⅝"Lx1¼"Wx1 11/16"H.

Stk. No.	Type	Coil V.	Action	1-24	25-50	51.99	100-249
24F1275	KT11A	120 AC	DPDT	4.10	3.90	3.69	2.87
24F1277	KT11D	12 DC	DPDT	4.10	3.90	3.69	2.87

TELEPHONE TYPE RELAYS

MB MINIATURE DC POWER CONTACTOR

Designed for very high current applications Switches 60 amps with SPST, normally open, double break silver contacts. Mounting: Four #3-48 holes on ⅜x⅜" centers. Weight: 2 oz. Solder terminals. Size: 1⅝" L. x 27/32" W. x 1⅜" H.

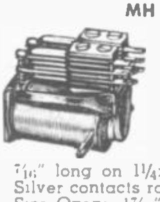
Stock No.	Mfr. Type	Coil VDC	1-24	25-50	51-99	100-249
24F612	MB3D	12	6.10	5.80	5.49	4.27
24F613	MB3D	24	6.10	5.80	5.49	4.27
24F614	MB3D	110	6.50	6.18	5.85	4.55

● NEW MG SERIES

Type MG17D. Sub-miniature telephone type relay, open-model with a 24 volt d.c. coil and a resistance of 365 ohms. The contacts have a dia. of 3/32" and are constructed of silver. They are rated at 1.6 W. @ 2 amps., with an arrangement of 4 PDT. Mounted by means of four tapped holes, No. 3-48, which are centered on a ⅜"x⅜" area. Dims. are L. I. .062 x H. 1.250 x W. .687. Wt. 1.2 ozs.

Stock No.	Mfg. Type	Coil V.D.C.	1-24	25-50	51-99	100-249
24F2949	MG 17D	24	7.65	7.27	6.89	5.36

MH MINIATURE TELEPHONE RELAY



DC Models withstand 0 065" double amplitude vibrations from 10-55 cps. Sealed AC's operate with built-in rectifier. 4.5-ma current actuated, 10,000 ohm coil. Mtg. MH11L has #6-32 stud, 11/32" long locating boss. Other open relays have 4, #3-48 holes on ⅜" ctrs. Sealed units have 3, #6-32 studs, 7/16" long on 1¼x½" ctrs. Weight Sealed: 5 oz.; open: 2½ oz. Silver contacts rated at 5 amp except † 3 amps. **Herm. sealed. Size Open: -17/32"L. x ¾"W. x 1⅜"H.

Stk. No.	Mfr. Type	Contacts	Coil V	1-24	25-50	51-99	100-249
24F1115	MH11L†	DPDT	10,000 Ohms	6.55	6.22	5.90	4.59
24F1118	MH11LM**†	DPDT	10,000 Ohms	11.15	10.59	10.04	7.81
24F1113	MH17D	4PDT	6 VDC	6.55	6.22	5.90	4.59
24F1296	MH17D	4PDT	12 VDC	6.55	6.22	5.90	4.59
24F620	MH17D	4PDT	24 VDC	6.55	6.22	5.90	4.59
24F1297	MH17DM**	4PDT	12 VDC	13.30	12.64	11.97	9.31
24F622	MH17DM**	4PDT	24 VDC	13.30	12 64	11.97	9.31
24F1117	MH17AMR**	4PDT	120 VAC	21.70	20.62	19.53	15.19
24F1298	MH23D	6PDT	24 VDC	8.30	7.89	7.47	5.81
24F1299	MH23D	6PDT	110 VDC	8.80	8.36	7.92	6.16

HIGH PERFORMANCE RELAYS

TYPE FL MICRO-MINIATURE LATCHING RELAY

Hermetically sealed relay. Particularly designed for use in printed circuit applications. The terminals are plug-in pins to afford fast interchangeability. Coil resistance is 10,000 ohms per coil. The transfer time is .5 millisecond maximum. The terminals are arranged in a grid layout of multiples of 0.1". Weight: .75 ounces. DPDT silver contacts rated at 3 amps. @ V.D.C. 1.1x.925x.485".

Stk. No.	Type	Volts	1-24	25-50	51-99	100-249
24F1286	FL11D	6 VDC	21.15	20.09	19.04	14.81
24F1287	FL11D	12 VDC				
24F1288	FL11D	24 VDC				

FC SERIES RELAYS

Conventional micro-miniature relay lies flat on printed circuit board. Contact arrangement: DPDT. Rated 3 amps. .65W. ¾ oz.

Stock No.	Type	Coils Volt.	Coils Ohms	1-24	25-50	51-99	100-249
24F2487	FC11D	6VDC	60	18.80	17.86	16.92	13.16
24F2488	FC11D	12VDC	210				
24F2489	FC11D	24VDC	900				
24F2490	FC4037	26.5VDC	....				

For prices on quantities over 250 pieces — Call Newark's Industrial Dept.

HP SERIES

Microminiature, half crystal case size relay for applications in minimum area—as in TV cameras, dictating and copying machines. For circuit board or socket mntg. Terminals on .200" grid. 2 amps @ 30 VDC, resistive; 0.5 amps max. @ 120 VAC. Wt.. 0.26 oz. Range: —45 to +75°C. Continuous duty. Pwr: .662W nom; 1.0W max. @ 25°C. .88 x .49 x .48

Stk. No.	Type	Action	VDC	1.24	25.50	51-99	100-249
24F2898	HP11D	DPDT	12	7.95	7.55	7.16	5.57
24F2899	HP11D	DPDT	24	7.95	7.55	7.16	5.57

9HP1 solder terminal socket and retainer for HP relay.

	1-24	25-50	51-99	100-249
24F2950	.48	.45	.43	.33

SC MICRO-MINIATURE PERMANENT MAGNET D.C. RELAY

High shock-vibration relay conforms with standard crystal-case relay dimensions and circuitry. Coil circuit polarized, positive terminal marked with red dot. Mounting: Plug-in for printed circuit or receptacle A, shoulder bracket B with two 0.014" x 0.136" holes on 1.062" centers; mounting plates C DD-plain case w/hook end solder terminals D, 2 #4-40 Studs. 0.54 cntrs. Wt. 3/4 oz. Gold 0.795" x 0.359" x 0.890" above the chassis. All DPDT.

Stk. No.	Type	Mtg.	VDC	1-24	25-50	51-99	100-249
24F1360	SC11D	A	6	19.00	18.05	17.10	13.30
24F1361	SC11D	A	12				
24F1280	SC11D	A	24				
24F1363	SC11DA	B	6				
24F1364	SC11DA	B	12				
24F1281	SC11DA	B	24				
24F1282	SC11DB	C	24				
24F1386	SC11DC	D	24				
24F1387	SC11DD	D	24				

SOCKET FOR PLUG-IN SC RELAYS

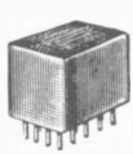
Stk. No.	Type	Description	1-24	25-49	50-99	100-249
29F729	8RS	Socket	.54	.43	.36	.29

SL MAGNETIC LATCHING D.C. RELAY

Dual coil latching relay for low power, high shock/vibration uses. Requires connections to both coils or a reversing power source applied to the two coils in series. Operates on 1 watt, 3-ms pulses to either coil. Remaining specifications identical to SC description above. All DPDT

Stk. No.	Type	Mtg.	VDC	1-24	25-50	51-99	100-249
24F1373	SL11D	A	6	20.85	19.81	18.77	14.60
24F1283	SL11D	A	24				
24F1377	SL11DA	B	12				
24F1284	SL11DA	B	24				
24F1379	SL11DB	C	6				
24F1380	SL11DB	C	12				
24F1285	SL11DB	C	24				
24F1388	SL11DC	D	24				
24F1389	SL11DD	C	24				

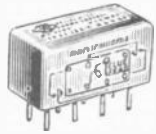
TL SERIES MAGNETIC LATCHING RELAYS



High performance 4PDT micro-miniature magnetic latching relay for severe environments. Encapsulated and hermetically sealed coils within hermetically sealed relay case can't contaminate contacts by outgassing. Approx. 0.5 ms transfer time. Temperature range: —65°C to 125°C. Mountings: D-plain case, plug-in header; DC-shoulder brackets .300" from base, hook-end solder; DB-flatplate, .593" x 1.60". 4-.125 dia. holes on .281" x 1.30" centers, hook-end solder. Shpg. wt. 2 oz.

Stk. No.	Type	Action	Coil Volts	1-24	25-50	51-99	100-249
24F2480	TL17D	4PDT	24 DC	30.20	28.69	27.18	21.14
24F2481	TL17DA	4PDT	24 DC				
24F2482	TL17DB	4PDT	24 DC				

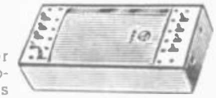
HC SERIES RELAYS



A micro-miniature, non-polarized, non-latching half-size crystal case relay. High torque motor structure and bifurcated gold-plated silver DPDT contacts rated dry circuit to 2 amps @ 28 VDC (or 814 ohms) resistive. Nominal power: .72W. Temperature range: —65C to +125C. Hermetically welded. Meets or exceeds all applicable sections of MIL-R-5757D/9, and complies with MSFC-SPEC-399 24VDC. 8x.4x.4". Shpg. wt., 1/4 oz.

Stock No.	Type	Description	1-24	25-50	51-99	100-249
24F2596	HC11D	plug-in case hook-	18.40	17.48	16.56	12.88
24F2597	HC11DA	end sold. term.				
24F2598	HC11DB	flat mtg. plate				

JR DRY REED RELAYS



Relays for computer circuits and other data processing equipment. Glass supported nylon insulated. Voltage: 500 volts rms 60 Hz. between insulated points. 250 volts rms 60 Hz between open contacts. Operate time: 3 ms @ nom. coil voltage @ 25°C. Coil power: 1 capsule-240 mw; 2 capsules-360 mw, 3 capsules-720 mw. 4 capsules-960 mw

Stock No.	Type	No. Cav	Coil Nom. Volt	Coil Ohms	Con. Arr.	Reed Rating Watts	1-9	10-24	25-99
24F2860	JR1000	1	6	150	1A	15	3.05	2.28	1.94
24F2861	JR1001	2	6	100	2A	15	4.10	3.06	2.60
24F2862	JR1003	4	6	37.5	4A	15	5.70	4.25	3.62
24F2863	JR1084	3	6	50	1A& 1B	15	5.05	3.77	3.21
24F2864	JR1040	1	6	150	1C	10	7.65	5.71	4.86
24F2865	JR1020	1	6	150	1A	50	4.30	3.21	2.73
24F2866	JR1021	2	6	100	2A	50	6.60	4.92	4.19
24F2867	JR1005	1	12	600	1A	15	3.05	2.28	1.94
24F2868	JR1006	2	12	400	2A	15	4.10	3.06	2.60
24F2869	JR1008	4	12	150	4A	15	5.70	4.25	3.62
24F2870	JR1086	3	12	200	1A& 1B	15	5.05	3.77	3.21
24F2871	JR1045	1	12	600	1C	10	7.65	5.71	4.86
24F2872	JR1025	1	12	600	1A	50	4.30	3.21	2.73
24F2873	JR1026	2	12	400	2A	50	6.60	4.92	4.19
24F2874	JR1010	1	24	2400	1A	15	3.55	2.65	2.25
24F2875	JR1011	2	24	1600	2A	15	4.35	3.25	2.76
24F2876	JR1013	4	24	600	4A	15	6.00	4.48	3.81
24F2877	JR1088	3	24	800	1A& 1B	15	5.35	3.99	3.40
24F2878	JR1050	1	24	2400	4A	10	8.00	5.97	5.08
24F2879	JR1030	1	24	2400	1A	50	4.60	3.43	2.92

JRM MINIATURE DRY REED RELAYS

JRM relay employs dry reed glass capsules with 2 types of contact arrangement: Form A (SPST-NO) or Form C (SPDT). Biasing with a permanent magnet changes Form A to a B (SPST-NC), using a 2-cavity bobbin and requiring the observation of coil polarity. Combining Form A with B results in a single Form C (SPDT) break-before-make; using a 3-cavity bobbin. A "True" Form C (SPDT)† uses a reed switch with 2 stationary and 1 movable contact, using a single-cavity bobbin. 1.125" long; .468" high; width varies with contact arrangement. Oper. time: 1ms. Release time. .05ms Pickup 75% nom. @ 25°C. Rating: 10 watts (or 4 watts*).

Stock No.	Type JRM	No. Cav	VDC	Con. Arr.	W. In.	Wt. Oz.	1-9	10-24	25-99
24F2909	1006	1	12	1A	.432	.366	3.30	2.46	2.10
24F2910	1007	2	12	2A	.557	.395	4.80	3.58	3.05
24F2911	1009	4	12	4A	.808	.620	7.65	5.71	4.86
24F2912	1012	1	24	1A	.432	.366	3.60	2.69	2.29
24F2913	1013	2	24	2A	.557	.395	4.95	3.69	3.14
24F2914	1015	4	24	4A	.808	.620	7.75	5.78	4.92
24F2915	1024*	1	12	1C	.432	.366	7.05	5.26	4.48
24F2916	1025*	2	12	2C	.557	.395	12.10	9.03	7.68
24F2917	1030*	1	24	1C	.432	.366	7.20	5.37	4.57
24F2918	1031*	2	24	2C	.557	.395	12.25	9.14	7.78
24F2919	1040	2	12	1B	.557	.395	4.20	3.13	2.67
24F2920	1041	3	12	2B	.698	.530	5.60	4.18	3.56
24F2921	1044	2	24	1B	.557	.395	4.30	3.21	2.73
24F2922	1045	3	24	2B	.698	.530	5.75	4.29	3.65
24F2923	1050	3	12	1A& 1B	.698	.530	5.60	4.18	3.56
24F2924	1051	5	12	2A& 2B	.963	.781	8.60	6.42	5.46
24F2925	1052	3	24	1A& 1B	.698	.530	5.75	4.29	3.65
24F2926	1053	5	24	2A& 2B	.963	.781	8.75	6.53	5.56

For Prices on Quantities Over 250 Pieces — Call Newark's Industrial Dept.

POTTER & BRUMFIELD Relays

SPECIAL PURPOSE RELAYS

11 12 21 22 31 61 81 82

Last Two Digits in Type Number Indicates Contact Form

JM MERCURY-WETTED CONTACT RELAYS

Designed for long high speed versatility of operation; computing systems, data processing, missile control, etc. Glass capsule contains 2 sets of contacts with mercury reservoir. Hermetically sealed in hydrogen. Rating—500V-54; 250 VA contact protection. Timing—Contact speed up to 100 operations/second; 60 operations—2 and 4 capsule—3 Mi sec.; 4 Mi/sec.—2 capsule; 5 Mi/sec. —4 capsule. Resistance 25-50 milliohms. Dielectric—Double buffer coils 1000V-60 Hz. Will withstand 10G's 10-500 Hz Wt., 4 oz.

SINGLE CAPSULE—Single Coils—SPDT

Stk. No.	Type	Ohms	1-9	10.24	25-99
24F1680	JM1-109-12	130	16.15	12.05	10.26
24F1681	JM1-112-11	500	16.15	12.05	10.26
24F1682	JM1-114-11	700	16.15	12.05	10.26
24F1683	JM1-114-12	700	16.15	12.05	10.26
24F1684	JM1-118-12	2500	16.40	12.23	10.41
24F1685	JM1-119-11	4000	8.15	8.15	8.15
24F2156	JM1-119-12	4000	17.00	12.68	10.80
24F1686	JM1-120-11	7000	17.00	12.68	10.80
24F1687	JM1-121-11	11000	17.00	12.68	10.80
24F1688	JM1-123-11	25000	17.00	12.68	10.80

DOUBLE CAPSULE—Single Coil—DPDT

Stk. No.	Type	Ohms	1-9	10.24	25-99
24F2157	JM2-104-22	50	26.20	19.55	16.64
24F2158	JM2-109-22	315			
24F2159	JM2-110-22	500			
24F1690	JM2-111-22	700			
24F2160	JM2-112-22	1250			
24F2162	JM2-115-21	5000			
24F1691	JM2-115-22	5000			

THREE APSULE—Single Coil—3 PDT
THREE CAPSULE—Single Coil

Stk. No.	Type	Ohms	1-9	10-24	25-99
24F2166	JM3-111-31	700	33.90	25.29	21.53
24F2168	JM3-115-31	5000	33.90	25.29	21.53

JML NON-BRIDGING MERCURY-WETTED CONTACT RELAYS

JML relays employ a Form C non-bridging (break-before-make) contact arrangement. They provide greater sensitivity, faster operation, and somewhat lower contact ratings than the JMP relays. JML relays have a sensitivity approximately six times that of the JM1. Speeds from 3 ms to 1.1 ms are possible, depending upon coil power. Contacts are rated 2 amps max., 500V max. with contact protection. All JML relays mount in Amphenol 77-MIP-8 sockets. Size: Diameter 1.312" max; Seated height 2.640" max; Overall height 3.303" max. Weight: 4 ozs.

SINGLE-SIDE-STABLE

Stk. No.	Type	Ohms	1-9	10-24	25-99
24F2189	JML-1061-81	40	13.35	9.96	8.48
24F2190	JML-1110-81	350			
24F2191	JML-1160-81	1000			
24F2192	JML-1190-81	2500	14.25	10.63	9.05
24F2193	JML-1200-81	4000			
24F2194	JML-1260-81	25000			

BI-STABLE

Stk. No.	Type	Ohms	1-9	10-24	25-99
24F2197	JML-5200-81	4000	14.25	10.63	9.05
24F2198	JML-5430-82	1100-1100	15.60	11.64	9.91

CHOPPER

Stk. No.	Type	Ohms	1-9	10-24	25-99
24F2199	JML-8130-81	600	13.90	10.37	8.83

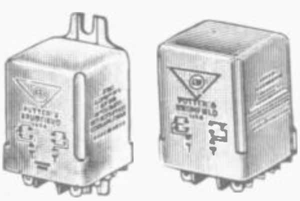
JMF PRINTED CIRCUIT MODULE RELAYS

JMF relays utilize the same capsule as the JML series, but are designed for mounting on printed circuit boards. They employ a Form C SPDT break-before-make non-bridging contact arrangement. Contacts are rated 2 amps max.; 500 volts max. with contact protection. Details of a simple protection circuit are packed with every relay. Size: Width .612"; Mounted height .625" max.; Length 2.062". Weight 1.25 ozs.

SINGLE-SIDE-STABLE

Stk. No.	Type	Ohms	1-9	10-24	25-99
24F2551	JMF-1070-61	450	10.80	8.06	6.86
24F2552	JMF-1080-61	675			
24F2553	JMF-1120-61	1425			
24F2554	JMF-1150-61	2400			
24F2555	JMF-1160-61	4000	11.35	8.47	7.21

CU SERIES TIME DELAY RELAYS



Plain Case Flange Case

Ideal for vending equipment, machine tool control, process controls and many others. Designed for delay on operate applications with fixed timing tolerance of ±5%, resistor adjustable tolerance of ±10% and an internal DPDT relay rated at 10 amperes Available with fixed timing ranges of 10 and 120 seconds. Versatility is increased by the availability of resistor adjustable relays in the 1 to 10 seconds and 1 to 120 seconds range. Resistor adjustable units require the addition of an external resistor before relay is operational. TYPE 41 enclosures are plain cases while TYPE 42 are flanged cases for direct-to-chassis mounting External Resistor for Maximum Time: CUF 41-70010 -30010, CUF 42-70010, -30010: 250 K . . CUF 41-70120, 42-70120: 3 meg . . . CUH 41-30010, 42-30010: 200 K . . . CUH 41-30120, 42-30120: 2.5 meg. Shipping weight $4^1/_4$ oz.

MOUNTING SOCKET

Stk. No.	Type	Description	1-24	25-50	51-99	100-249
24F2627	9KV1	For Type 41	.75	.71	.68	.53

FIXED UNITS

Stk. No.	Type	Input Voltage	Time (sec)	1-9	10-24	25-49	50-99
24F2927	CUA 41-70010	120 VAC	10	12.50	11.88	11.25	10.00
24F2928	CUA 41-70120	120 VAC	120	14.00	13.30	12.60	11.20
24F2929	CUC 41-30010	24 VDC	10	12.50	11.88	11.25	10.00
24F2930	CUC 41-30120	24 VDC	120	14.00	13.30	12.60	11.20
24F2931	CUA 41-30010	24 VAC	10	12.50	11.88	11.25	10.00
24F2932	CUA 42-70010	120 VAC	10	12.50	11.88	11.25	10.00
24F2933	CUA 42-70120	120 VAC	120	14.00	13.30	12.60	11.20
24F2934	CUC 42-30010	24 VDC	10	12.50	11.88	11.25	10.00
24F2935	CUC 42-30120	24 VDC	120	14.00	13.30	12.60	11.20
24F2936	CUA 42-30010	24 VAC	10	12.50	11.88	11.25	10.00

RESISTOR ADJUSTABLE UNITS

Stk. No.	Type	Input Voltage	Time (sec)	1-9	10-24	25.49	50-99
24F2937	CUF 41-70010	120 VAC	1- 10	13.25	12.59	11.93	10.60
24F2938	CUF 41-70120	120 VAC	1-120	14.50	13.78	13.05	11.60
24F2939	CUH 41-30010	24 VDC	1- 10	13.25	12.59	11.93	10.60
24F2940	CUH 41-30120	24 VDC	1-120	14.50	13.78	13.05	11.60
24F2941	CUF 41-30010	24 VAC	1- 10	13.25	12.59	11.93	10.60
24F2942	CUF 42-70010	120 VAC	1- 10	13.25	12.59	11.93	10.60
24F2943	CUF 42-70120	120 VAC	1-120	14.50	13.78	13.05	11.60
24F2944	CUH 42-30010	24 VDC	1- 10	13.25	12.59	11.93	10.60
24F2945	CUH 42-30120	24 VDC	1-120	14.50	13.78	13.05	11.60
24F2946	CUF 42-30010	24 VAC	1- 10	13.25	12.59	11.93	10.60

MDP SMALL POLARIZED RELAYS

Small size, ultra-sensitivity and high speed switching together with efficient, bounce free contact action. Temp. —60°C to +85 C. Size: $1^7/_{16}$" sq.x$1^3/_{16}$"H (seated). Equipped with a plastic dust cover and 8 or 12 pin slugs Ship wt. $4^1/_4$ oz. $2^{11}/_{16}$ sq x $3^3/_4$ H. 10 oz.

CENTER STABLE

Stock No.	Type	MA	Ohms	1-9	10-49	50-249
24F2845	MDP-1009	0.18	1460	26.85	24.16	22.82
24F2846	MDP-1011	0.10	3500			
24F2847	MDP-1013	0.067	7200			
24F2850	MDP-2009	0.32	1000			
24F2854	MDP-2112	0.22	3300			

For prices on quantities over 250 pieces — Call Newark's Industrial Dept.

POTTER AND BRUMFIELD

● NEW CS SERIES SOLID STATE VOLTAGE SENSORS

First, an adjusable pick-up and drop-out series for 24V DC and 120V 50/60 Hz voltage sources. Second, a series with factory-fixed pick-up and adjustable drop-out also for 24V DC and 12V 50/60 Hz voltage sources. With standard octal plugs for socket mounting enclosed in a nylon dust cover DPDT relay. Rating: 3 amps 28V DC; 120V 50/60 Hz. Max. current drain after sensing: 30 ma. Operating temp. —10°C to +55 C. Set point accuracy: 1%. Expected electrical life: 100,000 operations.

ADJUSTABLE PICK-UP AND DROP OUT

Stk. No.	Type	Type of Voltage	1-9	10-24	25-49	50-99
24F2951	CSJ38-30010	120 VAC	29.75	28.26	26.78	23.80
24F2952	CSJ38-70010	120 VAC	32.50	30.88	29.25	26.00
24F2953	CSL38-30010	24 VDC	25.75	24.46	23.18	20.60
FIXED PICK-UP AND ADJUSTABLE DROP-OUT						
24F2954	CSJ38-71010	120VAC	28.75	27.31	25.88	23.00
24F2955	CSL38-31010	24 VDC	22.70	21.57	20.43	18.16

DC SOLID STATE TIME DELAY RELAYS

Knob adjustment for entire time range. Timing accuracy ±10%. Repeatability, ±2%. Plastic enclosures. All delay on operate except **CDB-38-70012 and CDD-38-10012 are delay on release. CDB-38 and CDD-38 have internal DPDT 10-amp relay. Timers only for use with P&B relays: *KRP5AG, KRP11AG, KRP14AG; †KRP5DG, KRP11DG, KRP14DG, ††PR11AY-120VAC, ≠KHP17D11 (adjustable delay, 1.88-180 sec. by connecting ½ watt resistors).

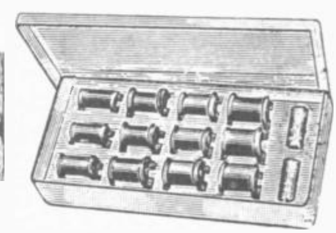
Specifications	CH SERIES	CD SERIES
Dial Setting..	Reference scale	Time-calibrated ±5% of full scale
Temperature...................	—10°C to +55 C	—40°C to +55°C
Accuracy Over Temp. and Voltage Range	±10% of nominal	±5% of nominal
Transient Protection	Twice rated impulse voltage 8 milliseconds	Tested to 1000V-½ hz surges (on all 120 AC models)
Inherent False Oper.	Contacts transfer mom. if timing interval is interrupted	None
Reset Time	100 milliseconds	60 milliseconds
Repeatability	±2%	±1%
Polarity Reversal Protection on DC	Yes	Yes

Stock No.	Type	Input Volts	Delay Sec.	1-9	10-24	25-49	50-99
24F2881	CHB38-30001	24VAC	1.0—10	18.50	17.58	16.65	14.80
24F2882	CHB38-30003	24VAC	1.0—180	18.50	17.58	16.65	14.80
24F2883	CHB38-70001	120VAC	1.0—10	18.50	17.58	16.65	14.80
24F2884	CHB38-70003	120VAC	1.0—180	18.50	17.58	16.65	14.80
24F2885	CHD38-30001	24VDC	1.0—10	17.50	16.67	15.75	14.00
24F2886	CHD38-30003	24VDC	1.0—180	17.50	16.67	15.75	14.00
24F2887	CHB38-70011	120VAC	1.0—10	22.50	21.38	20.25	18.00
24F2888	CHB38-70013	120VAC	1.0—180	22.50	21.38	20.25	18.00
24F2889	CHD38-30011	24VDC	1.0—10	20.50	19.47	18.45	16.40
24F2890	CHD38-30013	24VDC	1.0—180	20.50	19.47	18.45	16.40
24F1875	CDB-38-70003	120VAC	0.1-10	43.80	41.61	39.42	35.04
24F1876	CDB-38-70004	120VAC	0.6-60	43.80	41.61	39.42	35.04
24F1877	CDB-38-70005	120VAC	1 8-180	43.80	41.61	39.42	35.04
24F1878	CDD-38-30003	24VDC	0.1-10	41.55	39.47	37.40	33.24
24F1879	CDD-38-30004	24VDC	0.6-60	41.55	39.47	37.40	33.24
24F1880	CDD-38-30005	24VDC	1.8-180	41.55	39.47	37.40	33.24
24F1881	CDB-21-70003*	120VAC	0 1-10	38.70	36.77	34.83	30.96
24F1882	CDB-21-70001*	120VAC	1.8-100	38.70	36.77	34.83	30.96
24F1883	CDD-21-30003†	24VDC	0.1-10	38.35	36.43	35.37	30.68
24F1884	CDD-21-30001†	24VDC	1.8-180	38.35	36.43	35.37	30.68
24F1885	CDH-31-30005≠	24VDC	180 Max.	38.90	36.96	35.01	31.12
24F1886	CDB-45-70002††	120VAC	0.6 60	37.05	35.20	33.35	29.64
24F1887	CDB-38-70012**	120VAC	0.6-60	52.45	49.83	47.21	41.96
24F1888	CDD-38-30012**	24VDC	0.6-60	49.50	48.03	44.55	39.60

JAMES ELECTRONICS

REED-COIL

Better performance, simplicity of circuitry, and cost savings now possible. REED-COIL and capsule design is readily adaptable to volume production techniques. Control relays can be assembled with the desired combination of switching and installed in the most efficient manner. Features: Full range of operating volts with simplicity of control; Flexibility of reed mounting, termination, and combinations; Models for 1-4 reeds for combination logic systems; Space saving dry miniature reeds; Ease of replacement, Positive cost savings over pre-assembled relays & logic boards.



TEST KIT

REED-COIL DESIGN KIT

Model C-7800. Combination of 12 coil assemblies (one each of those listed) plus 50 of numbers 7823, terminal pins listed below

63F129. NET ... **14.95**

6 VOLT DRIVE

Stk. No.	Type	Reeds	Amp-turns	1-24	24-49	50-99	100-Up
63F130	7801	1	95	1.35	1.15	1.01	.88
63F131	7802	2	120	1.42	1.21	1.06	.92
63F132	7803	3	150	1.42	1.21	1.06	.92
63F133	7804	4	180	1.42	1.21	1.06	.92

12 VOLT DRIVE

Stk. No.	Type	Reeds	Amp-turns	1-24	24-49	50-99	100-Up
63F134	7805	1	95	1.70	1.44	1.27	1.10
63F135	7806	2	120	1.80	1.53	1.35	1.17
63F136	7807	3	150	1.80	1.53	1.35	1.17
63F137	7808	4	180	1.80	1.53	1.35	1.17

24 VOLT DRIVE

Stk. No.	Type	Reeds	Amp-turns	1-24	24-49	50-99	100-Up
63F138	7809	1	95	2.01	1.71	1.51	1.31
63F139	7810	2	120	2.07	1.76	1.55	1.35
63F140	7811	3	150	2.07	1.76	1.55	1.35
63F141	7812	4	180	2.07	1.76	1.55	1.35

STANDARD SWITCH REED COILS

6 VOLT DRIVE

Stock No.	Type	Reeds	Amp-turns	1-24	25-49	50-99	100-499
63F145	7826	1	135	1.44	1.22	1.08	.94
63F146	7827	2	175	1.83	1.56	1.37	1.19
63F147	7828	3	210	1.83	1.56	1.37	1.19
63F148	7829	4	250	1.83	1.56	1.37	1.19

12 VOLT DRIVE

Stock No.	Type	Reeds	Amp-turns	1-24	25-49	50-99	100-499
63F149	7830	1	135	1.81	1.54	1.35	1.18
63F150	7831	2	175	1.88	1.60	1.41	1.22
63F151	7832	3	210	1.88	1.60	1.41	1.22
63F152	7833	4	250	1.88	1.60	1.41	1.22

24 VOLT DRIVE

Stock No.	Type	Reeds	Amp-turns	1-24	25-49	50-99	100-499
63F153	7834	1	135	2.00	1.70	1.50	1.30
63F154	7835	2	175	2.05	1.74	1.54	1.33
63F155	7836	3	210	2.05	1.74	1.54	1.33
63F156	7837	4	250	2.05	1.74	1.54	1.33

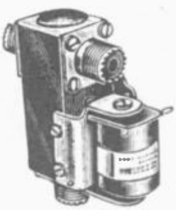
ACCESSORY

63F143. Type 7823. Terminal with lead. Pkg. of 100 .50

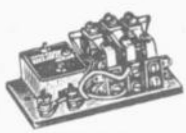
Hart Advance Relays

W Series

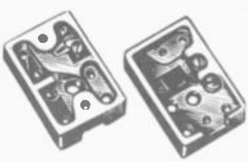
AT Series



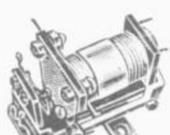
CB Series



DM Series



DT Series



HV Series

SERIES W RELAYS

DPDT Series. For plug-in application, also has quick connect terminals for use without socket. Mechanical life expectancy under low contact load conditions is in excess of 10,000,000 cycles. Contact ratings: 25 A resistive: 120 VAC or 240 VAC. 1 HP: 120 VAC. 2 HP: 240 VAC. 25 A resistive: 24 VDC. Small size, 1½ x 1½ x 1⅞". U.L. approved.

Stk. No.	Type	Coil Volts	Coil Ohms	1-9	10-49	50-99	100-249	250-499
24F1959	WU012D3-159	12 VDC	50	9.00	8.05	6.65	5.50	4.90
24F1960	WU024D3-129	24 VDC	250					
24F1961	WU012A3-293	12 VAC	4					
24F1962	WU024A3-295	24 VAC	14					
24F1963	WU115A3-099	115 VAC	250					
24F1964	WU220A3-108	220 VAC	1,000	9.30	8.35	6.95	5.75	5.15
24F1972	WPS-C socket for above relays			1.26	1.16	1.06	1.01	.96

HEAVY DUTY ANTENNA RELAY

AT Series. For heavy-duty RF transmitter antenna changeover applications. Primarily designed for fixed-station usage, with a conservative 1 Kilowatt RF rating. Insulated with ceramic Steatite. Excellent wiping action of contacts assures flow of most minute currents for receiving positions. High efficiency. Four mounting holes, .157 dia., clearance for 6-32 screws. Size 1 11/16"H.x2 13/16"W.x3 9/16"L. Weight 12.6 oz.

Stock No.	Type	Coil Res.	Coil Voltage	Contacts	1-9	10-49	50-99	100-249	250-499
24F1971	AT/2C/115VA	450 ohms	115VAC	DPDT 10 Amp	13.20	12.54	11.88	11.22	10.56

COAXIAL SWITCHING RELAYS

CB Series. Unsurpassed for meeting problems of coaxial cable switching. Designed for performance on 52-ohm coaxial lines. Low standing-wave ratios permit usage on frequencies up to 300 megacycles. Units operate equally well in any position. All types supplied with SO-239 connectors. Inspection port at contact end for access to internal parts. Two tapped holes 6-32 NC-2; 1⅞" cntrs., for mounting. 1⅞"H.x3 1/16"W.x3⅞"L. Shpg. wt., 11.1 oz.

Stock No.	Type	Coil Resis.	Coil Voltage	Contacts	1-9	10-49	50-99	100-249	250-499
24F1006	CB/1C/115VA	280 ohms	115VAC	SPDT 5 amps	21.00	19.95	18.90	17.85	16.80
24F1007	CB/1C2C/115VA	280 ohms	115VAC	SPDT(int.) DPDT(aux) 5 amps	24.55	23.32	22.10	20.87	19.64
24F1061	CB/1C2C/12VD	70 ohms	12VDC	SPDT(int) DPDT(aux) 5 amps	23.60	22.42	21.24	20.06	18.88
24F1062	CB/1C2C/24VD	280 ohms	24VDC	SPDT(int) DPDT(aux) 5 amps	23.60	22.42	21.24	20.06	18.88

TIME-DELAY RELAY

DM Series. Has adjustable time-delay range, excellent for use in pre-heating tube-filaments, for specialized lighting circuits, photographic controls, protection applications, etc. Provides time-delay before make. Uses bi-metal thermal unit which can be adjusted for delays of from 5 to 60 seconds Cool quickly for recycling. Require only 8 to 10 times the delay period to be properly cooled. Two .152 dia., 3 1/16" centers, mounting holes. 1⅝"x2⅝"x3¾". Wt. 7.8 oz.

Stk. No.	Type	Coil Resist.	Coil Voltage	Contacts	1-9	10-49	50-99	100-249	250-499
24F748	DM/2C/115VA	450 ohms	115VAC	DPDT 15 amps	14.35	13.63	12.92	12.20	11.48

THERMAL DELAY RELAYS

DT Series. Efficient, low-cost units used in conjunction with various relays for delayed making or breaking of controlled circuits. Applicable wherever a time delay of 5 to 60 seconds is needed. Adjustable range from 8 to 20 hz per minute Operates on the bi-metal thermal principle, housed in unglazed porcelain and obtainable with either normally-open or normally-closed contacts. 2 holes, .154 dia. for 6-32 NC-2 screws; 1⅜" cntrs. 1 3/16" x 1 17/64" x 1 57/64". Wt. 1.4 oz.

Stock No.	Type	Coil Voltage	Contacts	1-9	10-49	50-99	100-249	250-499
24F1057	DT/1A/115VA	115VAC	SPST-NO 2 amps	2.75	2.61	2.48	2.36	2.20
24F1058	DT/1B/115VA	115VAC	SPST-NC 2 amps	2.75	2.61	2.48	2.36	2.20

HIGH VOLTAGE RELAYS

HV SERIES. Replaces space taking std. high volt units. Will break up to 5000V RMS @ 200ma. Contact assembly mounted on Steatite to insure high insulation and low energy loss. Available in SPDT contact arrangement. Dimensions: 1 29/32 x 2 7/32 x 3 1/16". Shpg. wt., 7.5 oz.

Stock No.	Type	Coil Resis.	Coil Voltage	Contacts	1-9	10-49	50-99	100-249	250-499
24F1081	HV/1Z/24VD	120 ohms	24VDC	SPDT DB-DM	17.65	16.77	15.89	15.00	14.12
24F1082	HV/1Z/110VD	3000 ohms	110VDC	SPDT DB-DM	18.25	17.34	16.43	15.51	14.60

GENERAL PURPOSE RELAYS

GHA and GHP Series. General purpose, continuous-duty relays, engineered for high efficiency at low cost. Contacts rated at 5 amps with resistive load. GHA series is open-frame relay with axial-type solder lug terminals, size 1 47/64x1 7/64x1 3/16". GHP relays have dustite plastic enclosure with octal base in SP and DPDT models, 11-pin base in 3PDT types; size 1 13/32x1 13/32x2 1/8". Wt. 2 oz.

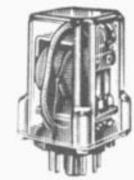
Stock No.	Type	Coil Res.(ohms)	Coil Voltage	Contacts Form	Contacts Rating	1-9	10-49	50-99	100-249	250-499
24F1020	GHA/1C/115VAC	1600	115VAC	SPDT	5 amps	3.05	2.90	2.75	2.14	1.98
24F1022	GHA/2C/ 6VAC	4	6VAC	DPDT	5 amps	3.55	3.37	3.20	2.49	2.31
24F1023	GHA/2C/ 24VAC	63	24VAC	DPDT	5 amps	3.55	3.37	3.20	2.49	2.31
24F1024	GHA/2C/115VAC	1600	115VAC	DPDT	5 amps	3.55	3.37	3.20	2.49	2.31
24F1026	GHA/3C/ 6VAC	4	6VAC	3PDT	5 amps	4.05	3.85	3.65	2.84	2.63
24F1028	GHA/3C/115VAC	1600	115VAC	3PDT	5 amps	4.05	3.85	3.65	2.94	2.63
24F1034	GHA/2C/ 24VDC	400	24VDC	DPDT	5 amps	3.35	3.18	3.02	2.35	2.18
24F1037	GHA/3C/ 24VDC	400	24VDC	3PDT	5 amps	3.75	3.56	3.38	2.63	2.44
24F989	GHP/2C/115VAC	1600	115VAC	DPDT	5 amps	5.75	5.46	5.18	4.03	3.74
24F993	GHP/3C/115VAC	1600	115VAC	3PDT	5 amps	7.05	6.70	6.35	4.94	4.58

GHA Series

GENERAL PURPOSE RELAYS

GHE SERIES. A plate circuit current operated unit having extremely good sensitivity. Standard GHE enclosed in dustite plastic enclosure and mounts with an 8 pin plug-in base Nominal power of 130 milliwatts per IC (single pole) is required. Contact rating: 5 amps. Size 1 13/32x1 13/32x2 1/8". Wt. 2 oz 2 1/8". Wt. 2 oz.

Stk. No.	Type	Coil Resis.	Coil Cur ma	Contacts	1-9	10.49	50-99	100-249	250-499
24F994	GHE/2C/2500D	2500	10.	DPDT	5.15	4.89	4.64	3.61	3.35
24F995	GHE/2C/5000D	5000	7.2	DPDT	5.25	4.99	4.74	3.68	3.41
24F996	GHE/2C/10,000D	10000	5.	DPDT	5.65	5.37	5.09	3.96	3.67

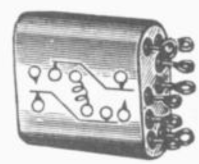


GHE Series

MICRO-MINIATURE CRYSTAL CAN RELAYS

MV Series. Hermetically sealed rotary action DPDT DC relay for severe military and industrial applications. Designed to meet MIL-R-5757D requirements. Occupies 1/4 inch. Spring leaf contact blades insure longer life, greater heat dissipation. All except MV7033 available in a wide variety of terminal and mounting arrangements. Type number designates coil resist.; 120, 600, 1000, or 2500Ω except MV7033 which has 6000. *44 ma. max. pull-in current, nom. coil voltage 12VDC. **21 ma., 26VDC. ***16 ma., 35VDC. ‡10 ma., 55 VDC. ‡‡21 ma.. 26.5 VDC.

Stock No.	Type	Terminal Arrangement	Mounting Arrangement	1-9	10-49	50-99	100-249	250-499
24F1910	MV2C120D-13*	Solder-hook	2-hole bracket	13.50	11.50	8.50	8.00	7.50
24F1915	MV2C120D-24*	Plug-in pin	Plain can					
24F1916	MV2C600D-11**	Solder-hook	Side studs					
24F1917	MV2C600D-12**	Solder-hook	Top studs					
24F1918	MV2C600D-13**	Solder-hook	2-hole bracket					
24F1923	MV2C600D-24**	Plug-in pin	Plain can					
24F1926	MV2C1000D-13***	Solder-hook	2-hole bracket					
24F1931	MV2C1000D-24***	Plug-in pin	Plain can					
24F1956	MV7033‡‡	Solder-hook	Angle bracket					

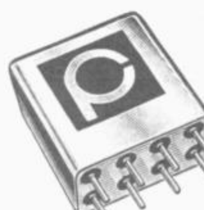


MV Series

MICRO-MINIATURE RELAYS

Type 30. Micro-miniature relay provides rugged, dependable performance from a compact, hermetically sealed unit. It is ideal for applications involving computer systems, missile or aircraft control circuits, communications equipment and general electronic circuitry. Quality controlled production and precision components assembled and tested under dust-free super clean manufacturing conditions assures you that the Hart micro-miniature Type 30 will uphold the high quality standards of your products. Conforms to MIL-5757D. Meets the following low level requirements: 30 microvolts open circuit voltage; 10 microamperes contact current. Available with five different mountings, all with 675 ohms resistance and 26.5 volts nominal.

Stk. No.	Type	Mounting	Res.	Volt Nom.	1-9	10-49	50-99	100-249	250-499
60F1750	30-01G	Solder Header with 2 mtg. brackets	700	26.5	7.25	7.00	6.25	6.00	5.75
60F1751	30-02G	Solder Header with side bracket	700	26 5					
60F1754	30-07G	Plug in—plain can	700	26 5					



Type 30

POWER TRANSFER RELAYS

PG Series. Continuous duty general purpose relay. Excellent for general industrial power control circuits and withstanding vibration and shock because of special armature and frame design. 4 tapped holes 6-32 NC-2; 1/2" x 1 3/16" cntrs. 1 7/8" x 1 5/8" x 1 1/2". Wt. 4.4 oz.

Stk. No.	Type	Coil Resistance	Coil Voltage	Cont.	1-9	10-49	50-99	100-249	250-499
24F917	PG/2C/115VA	400 ohms	115VAC	DPDT 15 amps	7.50	7.13	6.75	6.37	6.00
24F919	PG/2C/24VD	250 ohms	24-28VDC	DPDT 15 amps	6.90	6.56	6.21	5.87	5.52

PG Series

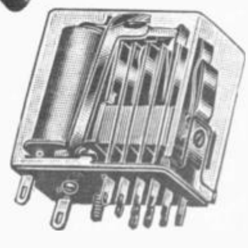
POWER RELAYS

PC Series. Compact, positive-acting relays for either AC or DC use. Used in air conditioning and lighting systems, small motor starting, transformers, garage door openers—wherever dependable circuit switching is necessary. Rugged construction for long life at peak efficiency. Contacts rated at 15 amperes resistive, 5 amperes inductive at 115 VAC or 26.5 VDC. 2 tapped mounting holes 6-32 NC-2; 2" centers. 1 9/16" x 1 5/8" 2 5/8". Weight 8 oz.

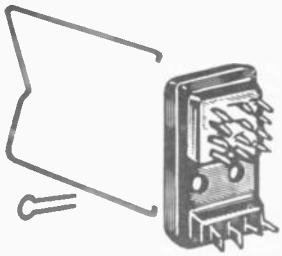
Stk. No.	Type	Coil Resistance	Coil Voltage	Cont.	1-9	10-49	50-99	100-249	250-499
24F783	PC/1C/115VA	450 ohms	115VAC	SPDT	3.95	3.75	3.56	3.35	3.16
24F839	PC/2C/6VA	1.6 ohms	6VAC	DPDT	5.95	5.65	5.36	5.06	4.77
24F913	PC/2C/115VA	450 ohms	115VAC	DPDT					
24F942	PC/2C/12VD	63 ohms	12VDC	DPDT					
24F943	PC/2C/24VD	250 ohms	24-28VDC	DPDT					
24F945	PC/3C/115VA	450 ohms	115VAC	3PDT	8.45	8.03	7.61	7.19	6.76
24F947	PC/3C/24VD	250 ohms	24-28VDC	3PDT	8.45	8.03	7.61	7.19	6.76
24F948	PC/4C/115VA	450 ohms	115VAC	4PDT	10.95	10.40	9.86	9.41	8.76
24F949	PC/4C/24VD	250 ohms	24-28VDC	4PDT	10.95	10.40	9.86	9.41	8.76

PC Series

Hart-Advance Relays



Type 67



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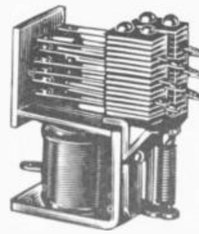


Type 12

SV Series

MINIATURE INDUSTRIAL RELAY

Type 67. Uses armco magnetic ingot iron and a one piece frame and core to provide unusually precise adjustment. Has plastic protective cover. Sockets available. Listed below.

STANDARD ADJUSTMENT

Stk. No.	Type	Coil VDC	Ohms	Contacts Form	Contacts Amp	1-9	10-49	50-99	100-249	250-499
57F1600	67DP--A-2C3	6	52	2C	3	3.40	3.05	2.55	2.38	2.31
57F1601	67DP-D-2C3	12	185	2C	3	3.40	3.05	2.55	2.38	2.31
57F1602	67DP-G-2C3	24	700	2C	3	3.40	3.05	2.55	2.38	2.31
57F1603	67DP-N-2C3	115	15000	2C	3	4.80	4.32	3.60	3.36	3.26
57F1604	67DP-A-4C3	6	52	4C	3	3.80	3.42	2.85	2.66	2.58
57F1605	67DP-D-4C3	12	185	4C	3	3.80	3.42	2.85	2.66	2.58
57F1606	67DP-G-4C3	24	700	4C	3	3.80	3.42	2.85	2.66	2.58
57F1607	67DP-N-4C3	115	15000	4C	3	5.20	4.68	3.90	3.64	3.54
57F1609	67DP-E-6C3	12	90	6C	3	4.90	4.41	3.68	3.43	3.33
57F1610	67DP-H-6C3	24	430	6C	3	4.90	4.41	3.68	3.43	3.33
57F1613	67DP-F-8C3	12	72	8C	3	7.00	6.30	5.25	4.90	4.76
57F1614	67DP-J-8C3	24	350	8C	3	7.00	6.30	5.25	4.90	4.76
57F1616	67DP-A-2C5	6	52	2C	5	3.50	3.15	2.63	2.45	2.38
57F1617	67DP-D-2C5	12	185	2C	5	3.50	3.15	2.63	2.45	2.38
57F1618	67DP-G-2C5	24	700	2C	5	3.50	3.15	2.63	2.45	2.38
57F1621	67DP-D-4C5	12	185	4C	5	4.00	3.60	3.00	2.80	2.72
57F1622	67DP-G-4C5	24	700	4C	5	4.00	3.60	3.00	2.80	2.72
57F1623	67DP-N-4C5	115	15000	4C	5	5.40	4.86	4.05	3.78	3.67
57F1625	67DP-E-6C5	12	90	6C	5	5.20	4.68	3.90	3.64	3.54
57F1626	67DP-H-6C5	24	430	6C	5	5.20	4.68	3.90	3.64	3.54
57F1629	67DP-F-8C5	12	72	8C	5	7.40	6.66	5.55	5.18	5.03
57F1630	67DP-J-8C5	24	350	8C	5	7.40	6.66	5.55	5.18	5.03
57F1638	67DP-G-4C3B	24	700	Bifurcated		4.30	3.87	3.23	3.01	2.94
57F1641	67DP-E-6C3B	12	90	Bifurcated		5.40	4.86	4.05	3.78	3.67
57F1642	67DP-H-6C3B	24	430	Bifurcated		5.40	4.86	4.05	3.78	3.67
57F1645	67DP-F-8C3B	12	72	Bifurcated		7.70	6.93	5.78	5.39	5.24
57F1646	67DP-J-8C3B	24	350	Bifurcated		7.70	6.93	5.78	5.39	5.24

SENSITIVE ADJUSTMENT

Stk. No	Type	Ohms	Contacts Form	Contacts Amp	Curr. Ma.	1-9	10-49	50-99	100-249	250-499
57F1648	67DS-S-2C3	1,000	2C	3	8.5	3.70	3.33	2.78	2.59	2.52
57F1649	67DS-K-2C3	2,500	2C	3	5.8	3.70	3.33	2.78	2.59	2.52
57F1650	67DS-T-2C3	5,000	2C	3	4.1	4.20	3.78	3.15	2.94	2.87
57F1653	67DS-S-4C3	1,000	4C	3	13.0	4.15	3.74	3.11	2.91	2.82
57F1654	67DS-K-4C3	2,500	4C	3	8.4	4.15	3.74	3.11	2.91	2.82
57F1655	67DS-T-4C3	5,000	4C	3	6.2	4.65	4.19	3.49	3.26	3.16
57F1656	67DS-V-4C3	10,000	4C	3	4.5	5.05	4.55	3.79	3.54	3.44

CHASSIS SOCKETS

For 67 relay. Retaining ring & ground clip included.

Stk. No.	Poles	Socket No.	1-9	10-49	50-99	100-249
57F1658	2	6-1313-9	.55	.50	.43	.38
57F1659	4	6-1313-11	.60	.55	.46	.42
57F1660	6	6-1313-13	.95	.86	.73	.66
57F1661	8	6-1313-15	1.30	1.13	.86	.78

GENERAL PURPOSE RELAYS

Type 12. Low cost general purpose relay with multiple contacts. Used widely in commercial applications such as industrial controls, communications equipment, and automatic vending machines. Coil dissapation. 3 watts maximum. Provided with four mounting holes, single stud for easy installation. $2\frac{3}{16}$ x $1\frac{23}{32}$ x 1".

Stk. No.	Type	Coil Volt.	Cont. Arr.	Rating (Amps)	1-9	10-49	50-99	100-249	250-499
60F1715	12DC-6-2C-10	6	DPDT	10	2.30	1.95	1.72	1.54	1.45
60F1716	12DC--12-2C-10	12	DPDT	10	2.40	2.04	1.80	1.60	1.51
60F1717	12DC-24-2C-10	24	DPDT	10	2.50	2.13	1.88	1.67	1.58
60F1720	12DC-12-3C-10	12	3PDT	10	2.75	2.34	2.06	1.84	1.73
60F1721	12DC-24-3C-10	24	3PDT	10	2.80	2.38	2.10	1.88	1.76
60F1722	12DC-115-3C-10	115	3PDT	10	3.15	2.68	2.36	2.11	1.98
60F1723	12DC-6-4C-10	6	4PDT	10	3.00	2.55	2.25	2.00	1.89
60F1724	12DC-12-4C-10	12	4PDT	10	3.10	2.63	2.32	2.07	1.95
60F1725	12DC-24-4C-10	24	4PDT	10	3.15	2.68	2.37	2.11	1.98
60F1726	12DC-115-4C-10	115	4PDT	10	3.50	2.98	2.63	2.33	2.21
60F1728	12DC-12-6C-10	12	6PDT	10	3.60	3.06	2.70	2.40	2.27
60F1729	12DC-24-6C-10	24	6PDT	10	3.65	3.10	2.74	2.45	2.30
60F1731	12AC-6-2C-10	6	DPDT	10	2.40	2.04	1.80	1.60	1.51
60F1732	12AC-12-2C-10	12	DPDT	10	2.50	2.13	1.88	1.67	1.58
60F1733	12AC-24-2C-10	24	DPDT	10	2.55	2.17	1.92	1.71	1.61
60F1734	12AC-115-2C-10	115	DPDT	10	2.70	2.30	2.03	1.80	1.70
60F1742	12AC-115-4C-10	115	4PDT	10	3.40	2.89	2.55	2.27	2.14
60F1745	12AC-24-6C-10	24	6PDT	10	3.70	3.15	2.78	2.47	2.33
60F1746	12AC-115-6C-10	115	6PDT	10	3.90	3.32	2.93	2.60	2.46

SENSITIVE RELAYS

SV SERIES. Ultra-sensitive durable, dustite and fully adjustable relay incomparable for use in any DC circuit restricted to a few thousandths of a watt power consumption. Permits excellent operation in any position. Molded bakelite base has both screw and solder terminal connectors, and a convenient means of mounting is provided. Standard factory adjustment is 5 milliwatt sensitivity, easily rectified with vernier screws. SPDT, 1 amp contacts. Mtg holes $\frac{9}{64}$" dia. $1\frac{1}{2}$ x 2 x $2\frac{9}{16}$". Shpg. wt.

Stock No.	Type	Ohms	Coil Cur.	1-9	10-49	50-99	100-249	250-499
24F920	SV/1C/1000D	1000	2.25 MA	8.25	7.84	7.43	7.01	6.60
24F922	SV/1C/2200D	2200	1.5 MA	8.25	7.84	7.43	7.01	6.60
24F776	SV/1C/3500D	3500	1.2 MA	8.40	7.98	7.56	7.14	6.72
24F924	SV/1C/5500D	5500	.95 MA	8.75	8.31	7.88	7.44	7.00
24F923	SV/1C/10000D	10000	.7 MA	9.40	8.93	8.46	7.99	7.52
24F926	SV/1C/14000D	14000	.6 MA	10.10	9.60	9.09	8.59	8.08
24F927	SV/1C/20000D	20000	.5 MA	11.10	10.55	9.99	9.44	8.88
24F928	SV/1C/30000D	30000	.4 MA	11.85	11.26	10.67	10.07	9.48
24F929	SV/1C/40000D	40000	.35 MA	13.30	12.64	11.97	11.33	10.64

BARBER-COLMAN RELAYS

Ultra-sensitive, versatile, polarized DC industrial relay. With 0.0005 watt input can control 100 watts on contacts with proper arc suppression giving 200,000 to 1 amplification factor. Reliable selenium photo cell can drive directly, one millisecond operation.

SINGLE COIL (1.3 Ampere-Turns)

Stock No.	Mfr. Type AYLZ	Coil Ohms	Pull-In Amps.	Pull-In Volts	uW Input	NET
24F387	7300-100	13	.00173	.023	39.1	29.00
24F388	7301-100	54	.00087	.047	40.6	
24F390	7303-100	140	.00054	.076	41.1	
24F391	7304-100	215	.00046	.100	46.3	
24F392	7305-100	350	.00035	.123	43.2	
24F393	7306-100	560	.00028	.155	42.8	
24F394	7307-100	900	.00022	.198	43.7	
24F395	7308-100	1400	.00017	.243	42.1	
24F396	7309-100	2300	.00014	.325	45.9	
24F397	7310-100	3550	.00011	.401	45.3	
24F398	7311-100	5650	.000093	.524	48.7	
24F426	7312-100	7950	.000076	.604	45.9	

SPDT center off works in relation to the current direction. Resists 10g vibration with twice pull-in current. Comes with octal base — dimensions: $2\frac{5}{16}$x$1\frac{7}{8}$". Shipping weight, $6\frac{1}{4}$ lbs.

SINGLE COIL (2 Ampere-Turns)

Stk. No.	Mfr. Type AYLZ-	Coil Ohms	Pull-in Amps.	Pull-in Volts	uW Input	NET
24F401	7325-100	13	.00267	.035	92.4	25.00
24F405	7329-100	215	.00071	.154	109.6	
24F407	7331-100	560	.00043	.238	101.2	
24F409	7334-100	2300	.00022	.499	108.3	
24F412	7337-100	7950	.00012	.930	108.8	

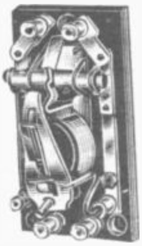
DOUBLE COIL (1.3 Ampere-Turns)

Stk. No.	Mfr. Type AYLZ-	Coil Ohms	Pull-in Amps.	Pull-in Volts	uW Input	NET
24F471	7358-100	940	.00034	.322	110.0	30.00
24F473	7360-100	2300	.00022	.507	111.6	
24F474	7361-100	3800	.00017	.650	111.1	

DOUBLE COIL (2 Ampere-Turns)

Stk. No.	Mfr. Type AYLZ-	Coil Ohms	Pull-in Amps.	Pull-in Volts	uW Input	NET
24F400	7383-100	940	.00053	.494	260.0	26.00
24F424	7386-100	3800	.00026	1.000	263.0	

Dunco Industrial Relays


B11


C85

B11 MIDGET FRAME SEQUENCE 115VAC DPST RELAYS

DPST cam-operated contacts repeat predetermined sequence continuously. Type B11BXX contacts open and close together. Type B11AXA contacts open and close alternately. Coils are for intermittent duty only. Contact ratings: 6 amps @ 24, or 115 VAC, 3 amps @ 230 VAC, or 6 amps @ 27 VDC, ½ amp. @ 115 VDC. Eight tooth ratchets. Six terminals: #6-32 studs complete with wiring hardware for front connection. Size: 2 x 3 13/16". Av. wt., 1 lb.

Stk. No.	Type	1-24	25-49	50-74	75-99	100-249
60F3124	B11BXX	24.20	22.99	21.78	19.36	16.94
60F3125	B11AXA	24.20	22.99	21.78	19.36	16.94

C85 FRAME POWER SEQUENCE 115VAC DPST RELAYS

DPST cam operated contacts repeat predetermined sequence continuously. Type C85BXX relay contacts open and close together. Type C85AXA contacts open and close alternately. Contact ratings: 20 amps @ 24 and 115VAC or 24 VDC; 10 amps @ 230VAC; 1 amp @ 115VDC: ¼ amp @ 230VDC. Eight toothed ratchets. Same terminals as Type B11. Size: 3 x 5". Shpg wt , 1 lb

Stk. No.	Type	1-24	25-49	50-74	75-99	100-249
60F3126	C85BXX	38.40	36.48	34.56	30.72	26.88
60F3127	C85AXA	38.40	36.48	34.56	30.72	26.88

TYPE 415XBX COMPACT POWER RELAY

For instrument control, small motors, solenoid valves & heating elements. Contact arrangement DPDT, single-break. Mech. life, 20 million oper. Rating; 15 amps, 115 VAC resistive load, 10 amps, 230VAC, resistive load. Size base, 1⅞ x 2¾"; ht., 1¾". Shpg. wt. 8 oz.

Stk. No.	Coil Volts	1-24	25-59	50-74	75-99	100-249
60F3129	24VDC	7.20	6.84	6.48	5.76	5.04
60F3130	115VDC					
60F3128	115VAC					

PLASTIC RELAY ENCLOSURES

Make your own plug-in type enclosure for experimental circuits, timing devices, etc. It features the same construction as enclosures on this page. Fits Type 27390 socket on this page. Case is sturdy, thermoplastic with molded phenolic base. Size: 2⅝x1 5/32". Twelve usable pins with 10-amp current rating. Polarized by means of a mounting clip. All necessary hardware is included. Ship. weight, 4 oz.

Stk. No.	Type	Size	Net
60F3131	CX3671	2 19/32" high less pins	2.45
60F3132	CX3672	3¾" high less pins	2.55

219 FRAME GENERAL PURPOSE RELAYS

For lab type "tail chasing" circuits, machine control installations handling light relay loads, solenoids, and heaters. Clear thermoplastic enclosure, mounted on 12-pin plugs. 10 amp. contact current carrying capacity. Insulation: ¼" over the surface, ⅛" through air. 1500 dielectric test Max amb. 53°C. 20,000,000 cycle no-load life. Withstand 110% nominal V without damage. Oper: AC 85% nominal V; DC 80% nominal V. Base 1 15/32x2⅝" Height, 2 19/32" (less pins). UL. listed Wt. 7 oz

Indicating Lamp. Neon lamp across relay coil indicates when power is available

Stk. No.	Type 219—	Coil Volts	DPDT Cont.	1-24	25-49	50-74	75-99	100-249
60F3101	XBXP	24DC	DPDT	12.10	11.50	10.89	9.68	8.47
60F3102	XBXP	115DC	DPDT					
60F3100	XBXP	115AC	DPDT					
60F3104	BBXP	24DC	+2NO	14.50	13.78	13.05	11.60	10.15
60F3105	BBXP	115DC	+2NO					
60F3103	BBXP	115AC	+2NO					
60F3107	ABAP	24DC	+1NO+1NC					
60F3108	ABAP	115DC	+1NO+1NC					
60F3106	ABAP	115AC	+1NO+1NC					

With Neon Indicating Light

Stock No.	Type	DPDT Contacts	1-24	25-49	50-74	75-99	100-249
60F3195	219XBXPL	DPDT	13.20	12.54	11.88	10.56	9.24
60F3194	219BBXPL	+2NO	15.60	14.82	14.04	12.48	10.92
60F3193	219ABAPL	+1NO +1NC	15.60	14.82	14.04	12.48	10.92

211 FRAME SEQUENCE 115VAC RELAYS

For applications requiring max. dependability in min. space. Double cam movement on each step. Molded spacers lock contacts into position and provide 150V insulation to meet U.L. requirements. Ratchets and cams are of nylon Eight tooth ratchets are standard. Rated at 5 amps @ 115V AC. Coils are enameled copper wire on acetate lined bobbin, impregnated and baked. Operated 15% below rated AC voltage & 20% on DC. Position. vertical with ratchets up. Min. life 1,000,000 oper Size. 3¾ (less pins) x 2⅝ x 1 15/32" Wt : 6 oz.

*Contacts open and close alternately. **Transfer on each impulse.

Stk. No.	Type	Contacts	1-24	25-49	50-74	75-99	100-249
60F3109	211AXAP	DPST*	22.80	21.66	20.54	18.24	15.96
60F3111	211XBXP	DPDT**	25.10	23.85	22.59	20.08	17.57

255 FRAME LATCH 115 VAC RELAYS

For dependable long-life service on industrial panels. Combines standard 219 frame relay with latching frame. Min life 10 million mech. oper Coil rated for continuous duty. Cont rated 10 amps @ 115VAC 115V electrical spacings of ¼ surface & ⅛ air Size 3 (less pins) x 2⅝ x 1 15/32". Wt 9 oz

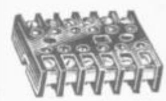
Stk. No.	Type	Contacts	1-24	25-49	50-74	75-99	100-249
60F3112	255XBXP	DPDT	24.20	22.99	21.78	19.36	16.94
60F3113	255XCXP	3PDT	26.60	25.27	23.94	21.28	18.62
60F3114	255BXBP	2NO: 2NC	26.60	25.27	23.94	21.28	18.62


219


211


255


235


Socket 27390

235AAXP FRAME TIME-DELAY 115VAC RELAYS

Combines 219 Frame relays with epoxy-encapsulated, solid state delay networks. Timing is screwdriver adjustable over 90.1 range. Cont: 10 amps. 115VAC resist Repeat accuracy ±5% @ fixed V. Will operate at voltages from 95 to 125V, but timing var. inversely with voltages. 20 million mech. oper. life. Size: 3¾ x 2⅝ x 1 15/32". Shpg. wt : 11 oz

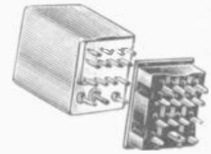
Stock No.	Time Range	1-24	25-49	50-74	75-99	100-249
60F3115	0.2 to 18 sec.	57.80	54.91	52.02	46.24	40.46
60F3116	2.0 to 180 sec.	57.80	54.91	52.02	46.24	40.46

TYPE 27390 12-PIN PLUG-IN SOCKET

Heavy-duty socket for all relays listed above. Front-connected screws have clamp plates for up to two No. 14 wires. Base: 2 3/16 x 2⅝; ht. 27/32". Wt. 3 oz.

60F3117. EACH ... 2.20

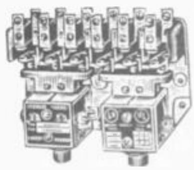
MODEL 281 XDX MINIATURE WIRED OR PLUG-IN RELAY



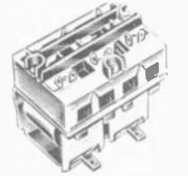
4PDT 3 amp contacts. Light duty relay contains in line contacts. Enclosed by a removable nylon cover. Solder brass terminals and a single mounting stud for directly-wired applications; converts easily to plug-in by adding sockets High contact packaging density makes it ideal for applications requiring large banks of relays. Contacts are fine silver buttons, gold flashed. Life expectancy 50 million mech oper min. 750,000 elec oper. min

Stk. No.	Coil Volts	Coil Cur.	Coil Ohms	1-24	25-49	50-74	75-99	100-249
60F3281	24AC	40MA	160	5.20	4.94	4.68	4.16	3.64
60F3282	115AC	10MA	3900	5.60	5.32	5.04	4.48	3.92
60F3283	12DC	76MA	160	4.50	4.28	4.05	3.60	3.15
60F3284	24DC	37MA	650	4.50	4.28	4.05	3.60	3.15
60F3285	110DC	10MA	11000	4.80	4.56	4.32	3.84	3.36
60F3286	32884—Solder Terminal Socket			.60	.57	.54	.48	.42
60F3287	32885—PC Terminal Socket			.60	.57	.54	.48	.42

Dunco Industrial Relays



B175KXX



275KXX

SERIES B175KXX REVERSING CONTACTOR

Control the reversal of single phase AC, polyphase AC, and DC motors. Withstands frequent reversing or jogging service, and severe shock and vibrations encountered in the hoist service. Two 3-pole solenoid operated contactors mounted on a common frame and mechanically interlocked to prevent simultaneous closure. Double-break silver contacts rated 2hp at 110-220v., 2-3 phase; 3 hp at 440-450v., 2-3 phase; 1½hp at 230v., 1 hp at 115v. single phase. 5¼x4⁷⁄₁₆x2½". U.L., C.S.A. listed. Shpg. wt. 2½ lbs.

Stk. No.	Type	Coil Vac	1-24	25-49	50-74	75-99	100-249
60F3174	B175KXX	24	27.50	26.13	24.75	22.00	19.25
60F3175	B175KXX	115					
60F3176	B175KXX	230					

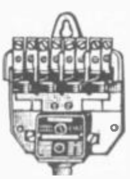
SERIES 275KXX REVERSING CONTACTOR

Compact, low cost contactor designed for continuous operation in heavy duty service. Numerous applications in overhead doors, elevators, hoists, pump sequencing and other jogging services. 3 point suspension 3 pole contactor mounted on a common frame and mechanically interlocked to prevent simultaneous closure. Contacts rated ¾ hp at 120v; 1 hp at 120v; 2-3 phase, 240 and 480v; 1-2-3-phase.

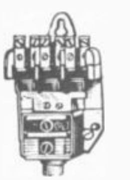
SERIES 275KXX74. As above but with auxiliary electrical interlock that consists of a pair of SPDT double break contacts mounted on the front of the contactor. Size 3⅛x2¹¹⁄₁₆x2⅞. Wt. 1 lb.

Stock No.	Type	Coil Vac	1-24	25-49	50-74	75-99	100-249
60F3177	275KXX	24	16.50	15.68	14.85	13.20	11.55
60F3178	275KXX	120					
60F3179	275KXX	230					
60F3180	275KXX74	24	19.80	18.81	17.82	15.84	13.86
60F3181	275KXX74	120					
60F3182	275KXX74	230					

FRAME 48 NON-REVERSING POWER CONTACTORS



48LXX



48KXX

Ideally suited for use in severe motor-starting applications hoists, window and door openers, motorized valves, built-in motor control uses. Silver double break contacts in melamine arc chutes provide extra degree of safety under high overload conditions. Coils and contact terminals readily accessible from front for easy installation. Heavy gauge mounting plates resist twisting and torsional strain. Single throw contacts normally open—each individually sprung for precise contact alignment. Coils with molded melamine insulation with 600 volt spacing. Contact rating: 1½ hp (15 amps) at 230 volts, single phase 1 hp (15 amps) at 115 volts, single phase. Sizes 3-Pole Types: 5⅛ x 2¹³⁄₁₆ x 2½". 4-Pole Types: 5⅛ x 3⅝ x 2½". UL and CSA Listed. Shpg. wt. 1½ lbs.

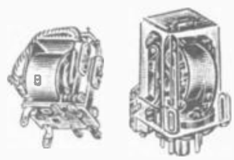
Stock No.	Type	Coil VAC	Poles	1-24	25-49	50-74	75 99	100-249
60F3273	48KXX	24	3	15.70	14.92	14.13	12.56	10.99
60F3274	48KXX	115	3	15.70	14.92	14.13	12.56	10.99
60F3275	48LXX	24	4	18.20	17.29	16.38	14.56	12.74
60F3276	48LXX	115	4	18.20	17.29	16.38	14.56	12.74

STANDARD INDUSTRIAL OPEN-TYPE POWER 115VAC RELAYS

For supervisory, interlocking and power transferring. Cont. ratings. single-break type. 30 amps. @ 24, 115 or 230VAC or 24VDC; 3 amps @ 115VDC; ¾ amp @ 230 VDC Heavy duty contacts that transfer when energized. Cont. spaced, relays insulated according to U.L. requir. *U.L. Listed. Stud terminals. Size: 3 x 4¼". Av. ft., 1 lb.

Stk. No.	Type	Contacts	1-24	25-49	50-74	75-99	100-249
60F3121	8BXX	DP-NO	20.60	19.57	18.54	16.48	14.42
60F3122	8AXA	INO-INC	20.60	19.57	18.54	16.48	14.42
60F3123	A8CXX	3P-NO	23.30	22.14	20.97	18.64	16.31

214 FRAME GENERAL PURPOSE RELAYS



Space saving, low cost relays for general purpose applications. Features contact reliability. Insulation (G5) is Melamine bonded fibre glass which assures firm contact support. Longer operating life by use of wide hinge. AC relays operate over a range of 85% to 110% of nom.v. DC relays operate over a range of 80% to 110% of nom. v. Standard contacts are fine silver rated 5 amps, 115 VAC. Shpg. Wt. 5 oz.

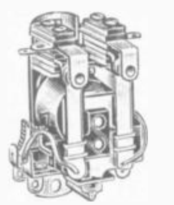
OPEN

Stock No.	Type	Coil volts	Action	1-24	25-49	50-74	75-99	100-249	250-499
60F3183	214XBX	115AC	DPDT	3.10	2.95	2.79	2.48	2.17	2.01
60F3184	214XBX	24DC	DPDT	3.10	2.95	2.79	2.48	2.17	2.01
60F3185	214XCX	115AC	3PDT	3.50	3.33	3.15	2.80	2.45	2.27
60F3186	214XCX	24DC	3PDT	3.50	3.33	3.15	2.80	2.45	2.27

ENCLOSED

Stock No.	Type	Coil volts	Action	1-24	25-49	50-74	75-99	100-249	250-499
60F3187	214XBX48P	115AC	DPDT	5.00	4.75	4.50	4.00	3.50	3.25
60F3188	214XBX48P	24DC	DPDT	5.00	4.75	4.50	4.00	3.50	3.25
60F3189	214XCX48P	115AC	3PDT	6.00	5.70	5.40	4.80	4.20	3.90
60F3190	214XCX48P	24DC	3PDT	6.00	5.70	5.40	4.80	4.20	3.90

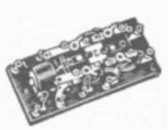
MEDIUM POWER OPEN-FRAME 115 VAC RELAYS



Low cost relay designed for long life. Can be used over a broad range of applications. Impregnated operating coils for max. moisture and corrosion resistance. Insulated carrying parts for min. of 1250 volts AC breakdown. Contacts are ⁵⁄₃₂" fine silver buttons mounted on heavy flexing phosphor bronze fingers with a current carrying cap. of 15 amps. DC circuits when adjusted may be used in plate circuits. Shpg. wt. 5 oz.

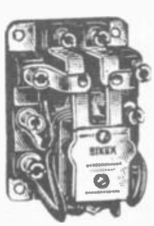
Stk. No.	Type	Action	1-24	25-49	50-74	75-99	100-249
60F3191	215XAX	SPDT	5.10	4.85	4.59	4.08	3.57
60F3192	215XBX	DPDT	7.20	6.84	6.48	5.76	5.04

FRAME 51 MIDGET MECHANICAL LATCH RELAYS



Designed for logic functions concerned with independent control of circuits which must operate through power failure; logic involving "memory", normal AC hum elimination, retention of open or closed contact position over long periods without using coil power. Mechanical latching with electrical reset. Contact ratings: 6 amps at 24 or 115 VAC or 24 VDC; 3 amps at 230 VAC, 0.5 amps at 115 VAC. Coils approximate 5 volt amperes AC; 3 watts DC; continuous duty. Size: 2⅜ x 5¹⁄₁₆". Wt. 1½ lbs.

Stock No.	Type	Action	AC Volts	1-24	25-49	50-74	75-99	100-249
60F3277	51XBX46	DPDT	24	30.30	28.79	27.27	24.24	21.21
60F3278	51XBX46	DPDT	115					
60F3279	51BXB46	2NO-2NC	24					
60F3280	51BXB46	2NO-2NC	115					



STANDARD MIDGET OPEN-TYPE 115VAC RELAYS

Use for control circuits and for operating small motors, heaters, lights. Contact resistive rating: 6 amps @ 24 or 115VAC or 24VDC; 3 amps @ 230 VAC 0.5 amps @ 115VDC. Inrush on motor or lamp loads should not exceed 20 amps. Insulation spacing in accordance with U.L. requirements for 300 V. *U.L. listed. 1⅞ x 2¾". Shpg. wt., 1 lb.

Stk. No.	Type	Contacts	1-24	25-49	50-74	75-99	100-249
60F3118	B1HXX	DB-NO	8.90	8.46	8.01	7.12	6.86
60F3119	B1XAX	SPDT*	9.80	9.31	8.82	7.84	6.86
60F3120	B1XBX	DPDT*	12.50	11.88	11.25	10.00	8.75

STANDARD REED CHARACTERISTICS

Temp. range; 0°C to 50°C. Vib.; 10G to 450 cycles; Shock; 50G; Contact rating; 15 watts; 250 volts or 1 amp. Contact resistance; 50 milliohms maximum. Life epectancy; 200,000,000 operations at dry circuit level. 100,000,000 operations at one-half max; 20-000,000 operations at maximum rating. Form A (SPST-NO), Form B (SPST-NC), Form C (SPDT).

MINIATURE REED CHARACTERISTICS

Contact rating; low level to 4 watts; 250 volts max. 125 MA max. Temp. range; 0°C to 50°C. Vib.; 10 G to 1000 cycles. Shock; 50G. Contact Res., 200 milliohms max. Life expectancy; 100,000,000. oper. at dry circuit level. 20,000,000 oper. at ½ max. rating. 10,000.000 oper. at max. rating.

MINIATURE MOLDED SHIELD REEDS

Operating time is 1-2 5 msec. Release time less than 0.3 msec Insulation resistance: 50,000 megs. MRR1A. 1 form A, N.O.; 425" dia x 1.062". MRR2A. 2 form A, N.O.; 425x 515x1.062". MRR4A 4 form A, N.O.; 53x 810x1.062". Shpg. wt. 2 oz.

Stock No.	Type	Coil VDC	Ohms	1-24	25-49	50-74	75-99	100-249
60F3154	MRR1A	6	288	4.20	3.99	3.78	3.36	2.94
60F3155	MRR1A	12	1152	4.20	3.99	3.78	3.36	2.94
60F3156	MRR1A	24	4600	6.20	5.89	5.58	4.96	4.34
60F3157	MRR2A	6	144					
60F3158	MRR2A	12	576					
60F3159	MRR2A	24	2300	7.70	7.32	6.93	6.16	5.39
60F3160	MRR4A	12	288	10.60	10.07	9.54	8.48	7.42
60F3161	MRR4A	24	1152	10.60	10.07	9.54	8.48	7.42

STANDARD MOLDED SHIELDED REEDS

Axial leads, encapsulated with wrap around sheilding. Operating time; 1.5 to 2.5 milliseconds, 500,000 megohms insulating res. Contact arrangements indicated by type numbers as follows: RR1A (1 Form A) and RR1B (1 Form B), .655" dia. x 1.875"; RR2A (2 Form A), .67 x .84 x 1.875" and RR4AF (4 Form A), .81 x 1 385 x 1.875". Shpg. wt. 4 oz.

Stock No.	Type	Coil VDC	Ohms	1-24	25-49	50-74	75-99	100-249
60F3133	RR1A	6	90	3.20	3.04	2.88	2.56	2.24
60F3134	RR1A	12	360					
60F3135	RR1A	24	1440					
60F3137	RR1B	12	360	4.10	3.90	3.69	3.28	2.87
60F3136	RR1B	24	1440					
60F3138	RR2A	6	36	5.00	4.75	4.50	4.00	3.50
60F3139	RR2A	12	145					
60F3140	RR2A	24	580					
60F3141	RR4AF	12	95	8.60	8.17	7.74	6.88	6.02
60F3142	RR4AF	24	380					

● NEW MINIATURE SIZE DRY REED RELAYS

SERIES MRRK. Miniature dry reed relays Enclosed in molded case with O I' P. C grid Oper temp -25C to +85C Insul res exceeding 1000 megohms Oper time· 1 to 2 ma Rating. 10 volt amps

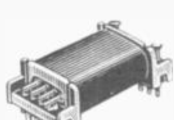
12 VOLTS DC (COIL RES. 400 OHMS)

Stock No.	Type	Contacts	1-24	25-49	50-74	75-99	100-249
60F3288	MRRK1A	1 Form A —SPST N O	3.60	3.42	3.24	2.88	2.52
60F3289	MRRK2A	2 Form A —DPST N O	5.20	4.94	4.68	4.16	3.64
60F3290	MRRK3A	3 Form A —3PST N O	7.00	6.65	6.30	5.60	4.90
60F3291	MRRK1C	1 Form C —SPDT	7.00	6.65	6.30	5.60	4.90
60F3292	MRRK2C	2 Form C —DPDT	10.00	9.50	9.00	8.00	7.00

24 VOLTS DC (COIL RES. 1600 OHMS)

Stock No.	Type	Contacts	1-24	25-49	50-74	75-99	100-249
60F3293	MRRK1A	1 Form A —SPST N O	4.00	3.80	3.60	3.20	2.80
60F3294	MRRK2A	2 Form A —DPST N O	5.40	6.13	4.86	4.32	3.78
60F3295	MRRK3A	3 Form A —3PST N O	7.00	6.65	6.30	5.60	4.90
60F3296	MRRK1C	1 Form C —SPDT	7.00	6.65	6.30	5.60	4.90
60F3297	MRRK2C	2 Form C —DPDT	10.00	9.50	9.00	8.00	7.00

● NEW MRRN SERIES



Low cost open dry reed relay designed for applications requiring reliability over an extremely long life Snap-on metal covers for magnetic shielding Contacts rated for low level to 12 volt-amperes Non-magnetic P/C in line terminals on 0 1' grid spacing Size. 1⅛' long by ⅜ above the mounting board

12 VOLTS DC

Stk. No.	Type	Contacts	1-24	25-49	50-74	75 99	100-249
60F3088	MRRN1A	1 Form A —SPST N O	3.30	3.14	2.97	2.64	2.31
60F3089	MRRN2A	2 Form A —DPST N O	4.70	4.47	4.23	3.76	3.29
60F3090	MRRN3A	3 Form A —3PST N O	6.40	6.08	5.76	5.12	4.48
60F3091	MRRN4A	4 Form A —4PST N O	8.00	7.60	7.20	6.40	5.60
60F3092	MRRN1C	1 Form C —SPDT	6.50	6.18	5.85	5.20	4.55
60F3093	MRRN2C	2 Form C —DPDT	9.50	9.03	8.55	7.60	6.65

24 VOLTS DC

Stk. No.	Type	Contacts	1-24	25-49	50-74	75 99	100-249
60F3094	MRRN1A	1 Form A —SPST N O	3.70	3.52	3.33	2.96	2.59
60F3095	MRRN2A	2 Form A —DPST N O	5.00	4.75	4.50	4.00	3.50
60F3096	MRRB3A	3 Form A —3PST N O	6.40	6.08	5.76	5.12	4.48
60F3097	MRRN4A	4 Form A —4PST N O	8.00	7.60	7.20	6.40	5.60
60F3098	MRRN1C	1 Form C —SPDT	6.50	6.18	5.85	5.20	4.55
60F3099	MRRN2C	2 Form C —DPDT	9.50	9.03	8.55	7.60	6.65

MINIATURE PRINTED CIRCUIT SHIELDED REEDS

Can be wired on 0.1 grid centers MMR-1AM, 1 form A, MRR1BM, 1 form B, MRR1A1BM, 1 form A 1 form B; MRR-2AM 2 form A, MRR2BM 2 form B Size; All aver. .50x 50x1.125 . Shpg. wt 5 oz.

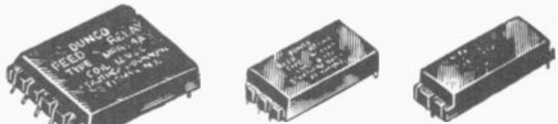
Stock No.	Type	Coil VDC	Ohms	1-24	25-49	50-74	75-99	100-249
60F3162	MRR1AM	6	144	5.70	5.42	5.13	4.56	3.99
60F3163	MRR1AM	12	576					
60F3164	MRR1AM	24	2304					
60F3165	MRR1BM	12	576	5.90	5.61	5.31	4.72	4.13
60F3166	MRR1BM	24	2304					
60F3167	MRR1A1BM	6	72	7.70	7.32	6.93	6.16	5.39
60F3168	MRR1A1BM	12	288					
60F3169	MRR1A1BM	24	1152					
60F3170	MRR2AM	12	288	6.80	6.46	6.12	5.44	4.76
60F3171	MRR2AM	24	1152					
60F3172	MRR2BM	12	288	7.00	6.65	6.30	5.60	4.90
60F3173	MRR2BM	24	1152					

STANDARD PRINTED CIRCUIT SHIELED REEDS

Entirely enclosed in a steel housing. Insulation resistance: 10000 megohms RR1A1BM, 1 Form A, 1 Form B, .800x.500x2 313" RR2-A2BM 2 Form A, 2 Form B; 1.200x5.50x 2 313". RR1CM, 1 Form C RRLM1CM, 1 Form C (latching-single coil, bistable) and RRLM1CM102, is same but double coil; .60x55x2.313".

Stock No.	Type	Coil VDC	Ohms	1-24	25-49	50-74	75-99	100-249
60F3143	RR1A1BM	6	36	7.00	6.65	6.30	5.60	4.90
60F3144	RR1A1BM	12	144					
60F3145	RR1A1BM	24	576					
60F3146	RR2A2BM	12	72	12.30	11.69	11.07	9.84	8.61
60F3147	RR2A2BM	24	288					
60F3148	RR1CM	12	1152	12.70	12.07	11.43	10.16	8.89
60F3149	RR1CM	24	4600					
60F3152	RRLM1CM102	12	480	12.70	12.07	11.43	10.16	8.89
60F3153	RRLM1CM102	24	1920					

LOW PROFILE SUBMINIATURE DRY REED RELAYS FOR PRINTED CIRCUITS



Type MRRS4A **Type MRRS2A** **Type MRRS1A**

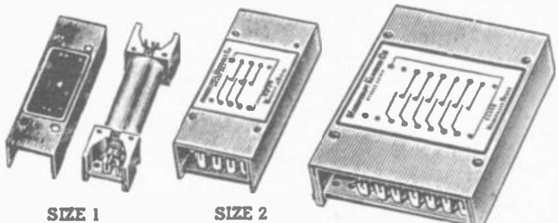
Extra-thin . . . .350" high! Electromagnetically shielded internally. Designed to assure maximum environmental protection. Contact rating: 10 watts. Operate time: 2.5 ms Temperature range: 0°C to +50°C. Shock resistance up to 50g. Mechanical lift 100,000,000 operations at dry circuit level; 10,000,000 operations at minimum rating. Std. 0.172" grid space, right angle leads arranged to prevent incorrect insertion into circuit board. Insulation resistance: 1000 megohms. Wt. 4 oz

Type MRRS1A. SPST N.0 Size: 1 3 x .500 x .350".
Type MRRS2A. DPST N 0. Size: 1.3 x .625 x .350".
Type MRRS4A. 4PST N.O. Size: 1 3 x 1.0 x .350".

Stock No.	Type	Coil DC Volts Nom.	Coil DC Volts Oper.	Coil Ohms	1-24	25-49	50-74	75-99	100-249
60F3206	MRRS1A	12	9 6	576	4.40	4.18	3.96	3.52	3.08
60F3207	MRRS1A	24	19 2	2300	4.40	4.18	3.96	3.52	3.08
60F3202	MRRS2A	12	9 6	380	6.10	5.80	5.49	4.88	4.27
60F3203	MRRS2A	24	19 2	1440	6.10	5.80	5.49	4.88	4.27
60F3204	MRRS4A	12	9 6	125	7.70	7.32	6.93	6.16	5.39
60F3205	MRRS4A	24	19 2	500	7.70	7.32	6.93	6.16	5.39

MAGNECRAFT MPC Relays

STANDARD SERIES MPC RELAYS



SIZE 1 SIZE 2 SIZE 3

Provide quick plug-in assembly. Nylon bobbin molded with terminal board support and mounting base. Epoxy resin terminal supports and pins riveted into mortised position. Steel cover gives mechanical protectoin and magnetic shielding. Swith hermetically sealed with inert gas.

CLASS 102MPC FORM A DRY REED RELAYS

DC Power Required: $\frac{1}{2}$ watt nom.; Operating Time: 3 msec. average; Release Time: $\frac{1}{2}$ msec. average; Contact Bounce: less than 1 msec. average; Contact Load Ratings 15 VA at 1 amp, max. or 250 VAC max.; non-inductive load; Contact Resistance: 0.1 ohm. Life Expectancy: 20 million cycles; Dielectric str., cont. to coil: 500 VAC RMS; Operating Position: Any; Ambient Temp. Range: —50°F. to +185°F.; Maintenance: None. Size 1 Single-Pole—$2\frac{5}{8}x\frac{3}{4}x\frac{41}{64}$"; Size 2 Triple-Pole—$2\frac{5}{8}x1\frac{3}{16}x\frac{41}{64}$"; Size 3 Six-Pole— $2\frac{5}{8}$"$x1\frac{31}{32}$"$x\frac{41}{64}$"; All are normally open. Wt. 2 oz.

Stk. No.	Type W102-	Act.	COIL DATA VDC	COIL DATA OHMS	1-24	25-49	50-74	75-99	100-499
56F415	MPCX-5	SPST	....	30	3.29	2.96	2.79	2.63	2.30
56F416	MPCX-6	SPST	6	70	3.29	2.96	2.79	2.63	2.30
56F417	MPCX-7	SPST	12	250	3.29	2.96	2.79	2.63	2.30
56F418	MPCX-8	SPST	24	1000	3.29	2.96	2.79	2.63	2.30
56F419	MPCX-9	SPST	48	4000	3.46	3.11	2.94	2.77	2.42
56F300	MPCX-48	3PST	6	50	5.62	5.06	4.78	4.50	3.94
56F301	MPCX-49	3PST	12	175	5.63	5.07	4.79	4.51	3.95
56F302	MPCX-50	3PST	24	750	5.77	5.20	4.91	4.62	4.04
56F304	MPCX-52	6PST	6	25	9.18	8.27	7.81	7.35	6.43
56F306	MPCX-54	6PST	24	375	9.35	8.42	7.95	7.48	6.55

CLASS 103MPC FORM C DRY REED RELAYS

Contact load rating: 10 VA at $\frac{1}{2}$ amp max., or 250 VAC max., non-inductive load; contact resistance 0.1 ohm; dielectric str., cont. to coil: 500 VAC RMS; DC power required: $\frac{1}{2}$ watt nom. Lite expectancy 25 million hz. Ambient temp. range: —50 to +185°F. Operating time: 2 msec, release time: $\frac{1}{2}$ msec. Size 1 SPDT—$2\frac{5}{8}x\frac{3}{4}x\frac{41}{64}$"; Size 2 3PDT—$2\frac{5}{8}x1\frac{9}{16}x\frac{41}{64}$"; Size 3 3PDT—$2\frac{5}{8}x1\frac{31}{32}x\frac{41}{66}$". Wt. 2 oz.

Stk. No.	Type W103	Act.	COIL DATA VDC	COIL DATA OHMS	1-24	25-49	50-74	75-99	100-499
56F421	MPCX-1	SPDT	....	30	5.83	5.25	4.96	4.66	4.08
56F422	MPCX-2	SPDT	6	70	5.83	5.25	4.96	4.66	4.08
56F423	MPCX-3	SPDT	12	250	5.83	5.25	4.96	4.66	4.08
56F424	MPCX-4	SPDT	24	1000	5.83	5.25	4.96	4.66	4.08
56F425	MPCX-5	SPDT	48	4000	6.00	5.40	5.10	4.80	4.20
56F308	MPCX-30	DPDT	6	50	8.33	7.50	7.09	6.67	5.84
56F309	MPCX-31	DPDT	12	175	8.33	7.50	7.09	6.67	5.84
56F310	MPCX-32	DPDT	24	750	8.47	7.63	7.20	6.78	5.93
56F311	MPCX-33	DPDT	48	3000	8.67	7.81	7.37	6.94	6.07
56F312	MPCX-34	4PDT	6	25	14.60	13.14	12.41	11.68	10.22
56F314	MPCX-36	4PDT	24	375	14.77	13.29	12.55	11.82	10.34
56F315	MPCX-37	4PDT	48	1500	14.88	13.40	12.65	11.91	10.42

CLASS 132MPC FORM A MERCURY-WETTED RELAYS

Power Required: $\frac{1}{2}$ watt nom.; Operating Time: 2 msec. average; Release Time: 2msec. average; Contact Bounce: None; .Contact Load Rating: 50 VA at 3.0 amps. max. or 400 VAC max.; non-inductive; Contact Resistance: 50 milliohm av.; Life Expectancy 25 million hz; Diel str., cont. to coil: 500 VAC RMS; Operating Position: Upright. not more than 30 from vertical; Ambient Temp. Range: —37°F. to+185°F.; Maintenance: No change in adjustment after the realy is made. Size 1 Single-Pole—$2\frac{5}{8}x\frac{3}{4}x^{41}$ All are normally open. Wt. 2 oz.

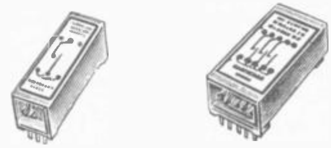
Stk. No.	Type W132-	Act.	COIL DATA VDC	COIL DATA OHMS	1-24	25-49	50-74	75-99	100-499
56F484	MPCX-2	SPST	6	70	5.83	5.25	4.96	4.66	4.08
56F485	MPCX-3	SPST	12	250	5.83	5.25	4.96	4.66	4.08
56F486	MPCX-4	SPST	24	1000	5.83	5.25	4.96	4.66	4.08
56F487	MPCX-5	SPST	48	4000	6.00	5.40	5.10	4.80	4.20

CONTACT RELAYS

Same as Class 132MPC listed on this page, except for—Contact Load Rating: 50 VA at 2.0 amps. max. or 400 VAC max., non-inductive load. Size 1 Single-Pole—$2\frac{5}{8}x\frac{3}{4}x\frac{41}{64}$". Wt. 2 oz.

Stk. No.	Type W133-	Act.	COIL DATA VDC	COIL DATA OHMS	1-24	25-49	50-74	75-99	100-499
56F490	MPCX-2	SPDT	6	70	8.42	7.58	7.16	6.74	5.89
56F491	MPCX-3	SPDT	12	250	8.42	7.58	7.16	6.74	5.89
56F492	MPCX-4	SPDT	24	1000	8.42	7.58	7.16	6.74	5.89
56F493	MPCX-5	SPDT	48	4000	8.60	7.74	7.31	6.88	6.02
56F494	MPCX-6	SPDT	....	7000	9.35	8.42	7.95	7.48	6.55

MINIATURE SERIES MPC RELAYS



SIZE 1 SIZE 2

Miniature MPC Reed Relays offer more than versatility alone . . . they're fast and reliable! Form A Dry Reed MPC Relays provide operating times of one msec. average and life expectancies of 5 million cycles at rated loads! Contact ratings and mechanical construction is fully consistent with circuit requirements. Ideal units for compact printed circuit design.

CLASS 101MPC FORM A MINIATURE DRY REED RELAYS

DC Power Required: 500 Milliwatts; Operating Time: 1 Millisecond, average; Release Time: 0.5 Millisecond, average; Contact Bounce: less than 0.5 msec. average; Contact Load Rating: 12 Volt-Amperes maximum at 250 Milliamperes maximum or 100 Volts maximum, non-inductive; Contact Resistance: 150 Milliohms, average; Capacitance Across Contacts: 0.8 Picofarad, average; Life Expectancy. Rated Load: 5 million hz Diel. sta. cont. to coil: 500 Volts AC, RMS· Operating Position: Any; Ambient Temperature Range: —50°F. to +185°F. Size 1 Single-Pole—$1\frac{1}{8}x\frac{13}{32}x\frac{3}{8}$"; Size 2 Triple-Pole—$1\frac{1}{8}x\frac{39}{64}x\frac{3}{8}$". Wt. 1 oz.

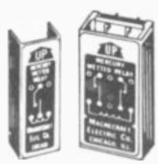
Stk. No.	Type W101-	Act.	COIL DATA VDC	COIL DATA OHMS	1-24	25-49	50-74	75-99	100-499
56F316	MPCX-1	SPST	6	70	3.60	3.24	3.06	2.88	2.52
56F317	MPCX-2	SPST	12	300	3.60	3.24	3.06	2.88	2.52
56F318	MPCX-3	SPST	24	1100	3.63	3.27	3.09	2.90	2.54
56F319	MPCX-4	SPST	48	4300	3.77	3.39	3.20	3.02	2.64
56F320	MPCX-5	3PST-	6	50	6.75	6.08	5.74	5.40	4.73
56F321	MPCX-6	3PST-	12	220	6.75	6.08	5.74	5.40	4.73
56F322	MPCX-7	3PST-	24	850	6.77	6.09	5.75	5.42	4.74
56F323	MPCX-8	3PST-	48	3300	6.85	6.17	5.82	5.48	4.80

CLASS 104MPC FOR MC MINIATURE DRY REED RELAYS

DC Power Required: 500 Milliwatts; Operating Time: 1 Millisecond, average; Release Time: 1 Millisecond, average; Contact Resistance: 150 Milliohms, average; Diel. str., cont. to coil: 500 Volts AC, RMS; Operating Position: Any; Contact Load Rating: 3 Volt-Amperes maximum at 250 Milliamperes maximum or 28 Volts maximum. non-inductive; Size 1 Single-Pole—$1\frac{1}{8}x\frac{13}{32}x\frac{3}{8}$"; Size 2 Double-Pole—$1\frac{1}{8}x\frac{39}{64}x\frac{3}{8}$". Wt. 1 oz.

Stk. No.	Type W104-	Act.	COIL DATA VDC†	COIL DATA OHMS	1-24	25-49	50-74	75-99	100-499
56F324	MPCX-1	SPDT	6	70	6.82	6.14	5.80	5.46	4.77
56F325	MPCX-2	SPDT	12	300	6.83	6.15	5.81	5.46	4.78
56F326	MPCX-3	SPDT	24	1100	6.85	6.17	5.82	5.48	4.80
56F327	MPCX-4	SPDT	48	4300	6.98	6.28	5.93	5.58	4.89
56F328	MPCX-5	DPDT	6	50	11.62	10.46	9.88	9.30	8.13
56F329	MPCX-6	DPDT	12	220	11.63	10.47	9.89	9.30	8.14
56F330	MPCX-7	DPDT	24	850	11.65	10.49	9.90	9.32	8.16
56F331	MPCX-8	DPDT	48	3300	11.73	10.56	9.97	9.38	8.21

CLASS 131 MPC MINIATURE MERCURY REED RELAYS



SIZE 3 SIZE 4

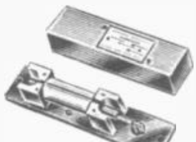
DC Power required: 500MW (SPST-NO), 700MW (DPST-NO); Operating time; 1 ms, average; Release time: 1 ma, average; Contact resistance: 50 milliohms averoge; Dielectric strength: 500 VAC. RMS. Operational positions: upright, no more than 30° front vertical; Contact load rating; 28VA at 1.0 amps maximum or 100V max., non-conductive. Weight: (SPST) 1 oz. (DPST) 2 oz.

Stock No.	Type W131	Act.	COIL Volts	COIL Ohms	1-24	25-49	50-74	75-99	100-499
56F921	MPCX-3	DPST-NC	12VDC	300	6.48	5.83	5.51	5.18	4.53
56F922	MPCX-4	DPST-NC	24VDC	1100	6.53	5.88	5.55	5.22	4.57
56F923	MPCX-5	DPST-NC	48VDC	4300	6.98	6.28	5.93	5.58	4.89
56F924	MPCX-7	SPST-NO	12VDC	220	11.58	10.42	9.84	9.26	8.11
56F925	MPCX-8	SPST-NO	24VDC	850	11.65	10.48	9.90	9.32	8.15
56F926	MPCX-9	SPST-NO	48VDC	3300	11.93	10.74	10.14	9.54	8.35

Designers Hand Book and Catalog

Designed for Reed and Mercury wetted Contact Relays.
56F920. NET **1.00**

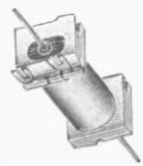
CLASS 102V 5000 VOLT REED RELAY



For high voltage switching with the inherent reliability of reed relay operation. Contacts rated at 50 Volt Amp @ 3 amps max. or 5000 VDC max. resistive load. Life expectancy 20,000,000 operations. Op time, 3 millisec. average, release time 0.5 millisec. average. Internally insulated metal cover protects coil assembly and shields relays from stray magnetic fields. Contacts: SPST-NO. 4½"x1⁵⁄₁₆"x⅞". Wt. 3 oz.

Stk. No.	Type	Volt. or. Curr.	Res. (Ohms	1-24	25-49	50-74	75-99	100-499
56F369	W102VX-10	6 V	70	13.69	12.32	11.64	10.95	9.58
56F370	W102VX-11	12 V	250	13.73	12.36	11.67	10.98	9.61
56F371	W102VX-12	24 V	1000	13.78	12.40	11.71	11.02	9.65
56F372	W102VX-13	48 V	4000	14.15	12.74	12.03	11.32	9.91
56F373	W102VX-14	9.0 MA	7000	14.58	13.12	12.39	11.66	10.21

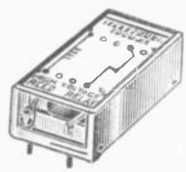
● NEW 101VM MINIATURE HIGH VOLTAGE DRY REED RELAYS



Operate, 1 ms aver. Release 0.5 ms average. Contact load rating, 1000VDC max. at .001 ampere max., resistance, 100 milliohms aver. Capacitance across contacts 0.2 pf average. Life expectancy, 1 million cycles at rated loads: longer at reduced loads. Contacts: SPST-NO. Sizes ½ x 7/16" x 1' Shpg. wt. 3 oz.

Stock No.	Type	Coil-DC			Price	25-	50-	75-	100-
		++MA	*Volts	*Ohms	1-24	49	74	99	499
56F927	W101VMX-1		6	100	10.90	9.81	9.27	8.72	7.63
56F928	W101VMX-2		12	250	10.92	9.83	9.28	8.74	7.64
56F929	W101VMX-3		24	500	10.93	9.83	9.29	8.74	7.65
56F930	W101VMX-4	9MA		2500	11.12	10.01	9.45	8.90	7.78

● NEW 101 VMPC MINIATURE HIGH VOLTAGE DRY REED RELAYS



Operate, 1 ms average. Release 0.5 ms average. Contact load rating, 1000 VDC max. at .001 ampere max., resistive contact resistance, 100 milliohms aver Capacitance across contacts, 0.2 pf average. Life expectancy, 1 million cycles at rated load; longer at reduced loads. Contacts: SPST-NO. Shpg. wt. 3 oz Size: ½x7/16x1".

Stock No.	Type	Coil-DC		Price	25-	50-	75-	100-
		Volts	*Ohms	1-24	49	74	99	499
56F931	W101VMPCX-1	6	50	11.90	10.71	10.12	9.52	8.33
56F932	W101VMPCX-2	12	220	11.97	10.77	10.17	9.58	8.38
56F933	W101VMPCX-3	24	850	12.00	10.80	10.20	9.60	8.40
56F934	W101VMPCX-4	48	3300	12.22	11.00	10.39	9.78	8.55

102RMPC POWER REED RELAY

Type 102 RMPC. Provides the printed circuit design engineer with the first reed relay capable of switching up to 100 watts at 3 amps and within 1 msec. average. SPST-NO. Requiring ½ watt nominal operating power and rated 100VA @ 3 amps or 250 volts maximum. Dimensions: 2⅝L, ¾W, 41/64H.

Stock No.	Type	VDC	Ohms	1-24	25-49	50-74	75-99	100-499
56F356	W102RMPCX-1	6	70	7.87	7.08	6.69	6.30	5.51
56F357	W102RMPCX-2	12	250	7.88	7.09	6.70	6.31	5.52
56F358	W102RMPCX-3	24	1000	7.93	7.14	6.74	6.34	5.55
56F359	W102RMPCX-4	48	4000	8.18	7.36	6.95	6.54	5.73

103 LMPC LATCHING REED RELAYS

Magnetic latching; requires no coil current to hold SPDT contacts. Contacts rated at 10 Volt Amp @ .2 amps max. or 200 VDC max Life expectancy, 25 million operations. Size: 2⅝" x 41/64" x ¾'. Wt. 3 oz.

Stock No.	Type	Ma	Volt	Ohm	1-24	25-49	50-74	75-99	100-499
56F391	W103LMPCX-4		6	250	7.07	6.36	6.01	5.66	4.95
56F392	W103LMPCX-5		12	1000	7.07	6.36	6.01	5.66	4.95
56F393	W103LMPCX-6		24	4000	7.26	6.53	6.17	5.81	5.08
56F394	W103LMPCX-7	4		7000	8.01	7.21	6.81	6.41	5.61
56F395	W103LMPCX-8	80		30/30	8.22	7.40	6.99	6.58	5.75
56F396	W103LMPCX-9		6	120/120	8.33	7.50	7.08	6.66	5.83
56F397	W103LMPCX-10		12	460/460	8.33	7.50	7.08	6.66	5.83
56F398	W103LMPCX-11		24	1800/1800	9.00	8.10	7.65	7.20	6.30

CLASS 101 ENCAPSULATED MINIATURE REED RELAYS

SPST-1½"L, ½"W, 9/16"H. DPST-1½"L, 11/16"W, 9/16"H. Gold contacts rated at 12 VA @ .25 amps max. or 100 VAC max. resistance. Operating time 1 millisecond average. Release time ½ millisecond average. Wt. 1 oz.

Stk. No.	Type	Volt	Ohm	Cont.	1-24	25-49	50-74	75-99	100-499
56F459	W101PCX-5	6VDC	65	SPST	5.11	4.60	4.34	4.09	3.58
56F460	W101PCX-6	12VDC	250	SPST	5.16	4.64	4.39	4.13	3.61
56F461	W101PCX-7	24VDC	1000	SPST	5.26	4.73	4.47	4.21	3.68
56F462	W101PCX-8	8 0MADC	5000	SPST	5.68	5.11	4.83	4.54	3.98
56F463	W101PCX-9	6VDC	40	DPST	7.15	6.43	6.08	5.72	5.00
56F464	W101PCX-10	12VDC	150	DPST	7.18	6.46	6.10	5.74	5.03
56F465	W101PCX-11	24VDC	650	DPST	7.24	6.52	6.15	5.79	5.07
56F466	W101PCX-12	8.0MADC	5000	DPST	7.69	6.92	6.54	6.15	5.38

CLASS 102 ENCAPSULATED STANDARD REED RELAYS

SPST 2¼"L, 21/32"W, ⅝"H. DPST 2¼"L. 1¼"W, ⅝"H. Operate, 3 ms. average. Release, ½ ms. average. Contact Load Rating, 15VA at 1 amp. max. or 250 VAC max., non-inductive. Life Expectancy, 20 million cycles at full load; 100 million at ½ load Wt. 3 oz.

Stk. No.	Type	Volt	Ohm	Cont.	1-24	25-49	50-74	75-99	100-499
56F468	W102PCX-2	12VDC	400	SPST	4.83	4.35	4.10	3.86	3.38
56F469	W102PCX-3	24VDC	1500	SPST	4.87	4.38	4.14	3.90	3.41
56F471	W102PCX-5	6VDC	50	DPST	6.22	5.60	5.29	4.98	4.35
56F472	W102PCX-6	12VDC	200	DPST	6.28	5.65	5.34	5.02	4.40
56F473	W102PCX-7	24VDC	800	DPST	6.33	5.70	5.38	5.06	4.43
56F474	W102PCX-8	8 0MADC	5000	DPST	6.78	6.10	5.76	5.42	4.75

CLASS 103 ENCAPSULATED STANDARD REED RELAYS

SPDT 2¼"L, 21/32"W, ⅝"H. Double pole-double throw 2½"L, 1¼"W, ¾"H. SPDT or DPDT. Good contacts rated 10 watts resistive load, .5 amp or 250 VAC max. Operating and release time less than 2 millsecond average. Weight, 3 ounces.

Stk. No.	Type	Volt	Ohm	Cont.	1-24	25-49	50-74	75-99	100-499
56F475	W103PCX-1	6VDC	100	SPDT	7.22	6.50	6.14	5.78	5.05
56F476	W103PCX-2	12VDC	400	SPDT	7.27	6.54	6.18	5.82	5.09
56F477	W103PCX-3	24VDC	1500	SPDT	7.32	6.59	6.22	5.86	5.12
56F480	W103PCX-6	12VDC	200	DPDT	10.79	9.71	9.17	8.63	7.55
56F481	W103PCX-7	24VDC	800	DPDT	10.84	9.76	9.21	8.67	7.59

CLASS 104 ENCAPSULATED MINIATURE SPDT OR DPDT DRY REED RELAYS

Miniaturized Magnereed relays. Contacts gold, rated 3 VA @ ¼ amp. max. or 28 V max. Life expectancy: 10 million cycles at rated load Oper time 1ms aver. Shipping weight 5 ounces.

Stk. No.	Type	Volt	Ohm	Cont.	1-24	25-49	50-74	75-99	100-499
56F428	W104PCX-8	12VDC	225	SPDT	10.12	9.11	8.60	8.10	7.08
56F429	W104PCX-9	24VDC	10000	SPDT	10.22	9.20	8.69	8.18	7.15
56F432	W104PCX-4	12VDC	150	DPDT	14.62	13.16	12.43	11.70	10.23
56F433	W104PCX-5	24VDC	650	DPDT	14.68	13.21	12.48	11.74	10.28

SERIES "131PC" MINIATURE MERCURY WETTED RELAY

Contacts rated 28VA @ lamp, or 100 V max. resistive oper. and release time 1 ms aver. 100 million cycles life. Weight 2 ounces

Stk. No.	Type	Volt. or Curr.	Res. (Ohms)	1-24	25-49	50-74	75-99	100-499
56F375	W131PCX-9	12 VDC	250	8.44	7.60	7.17	6.75	5.91
56F376	W131PCX-11	24 VDC	1000	8.55	7.70	7.27	6.84	5.99
56F379	W131PCX-13	12 VDC	150	10.66	9.59	9.06	8.53	7.46
56F380	W131PCX-14	24 VDC	650	10.71	9.64	9.10	8.57	7.50

● NEW 133 LMPC SPOT MAGNETIC LATCHING MERCURY-WETTED LATCHING RELAYS

Ideal for memory applications Bi-stable SPDT contacts-biased permanent magnetic holds either contact pos. w/out coil power until coil polarity is reversed Oper. 2ms aver. no contact bounce. Contact load rate 50VA at 2.0 amps max or 400V max resistive. Contact resistance 50 milliohms aver capacitance across contacts, 3 0 pf aver. life 25 million cycles. Contacts. SPDT Shipping weight 4 ounces. Size 3½ x 15/16 x ⅞".

SINGLE WOUND COILS

Stock No.	Type	COIL-DC		1-24	25-49	50-74	75-99	100-499
		Volts	Ohms					
56F935	W133LMPCX-18	6	250	9.88	8.89	8.40	7.90	6.92
56F936	W133LMPCX-19	12	1000	9.92	8.93	8.43	7.94	6.94
56F937	W133LMPCX 20	24	4000	10.07	9.06	8.56	8.06	7.05

DOUBLE WOUND COILS

Stock No.	Type	Volts	Ohms	1-24	25-49	50-74	75-99	100-499
56F938	W133LMPCX-23	6	120/120	11.25	10.13	9.56	9.00	7.88
56F939	W133LMPCX 24	12	460/460	11.32	10.19	9.62	9.06	7.92
56F940	W133LMPCX-25	24	1800/1800	11.42	10.28	9.71	9.14	7.99

MAGNECRAFT Reed Relays

ENCAPSULATED AXIAL LEAD REED RELAYS

CLASS "101EP" SPST REED RELAYS

SPST-NO gold contacts rated at 12 VA at .250 amperes maximum or 100 VAC maximum. Life expectancy 5 million hz at rated load. Operate time 1 millisecond average release time 1/2 millisecond average. Axial lead wires for coil and contacts. Encapsulated molded case. Overall length 3', body length 1", 7/16" diameter. Weight, 1 oz.

Stock No.	Type	Coil MA	Coil Volt	Coil Ohms	Nom. Pwr.	1-24	25-49	50-74	75-99	100-499
56F382	W101EPX-5	....	6VDC	65		3.62	3.26	3.08	2.90	2.53
56F383	W101EPX-6	....	12VDC	225	600	3.62	3.26	3.08	2.90	2.53
56F384	W101EPX-7	....	24VDC	1000	MW	4.24	3.82	3.60	3.39	2.97
56F385	W101EPX-8	8	.. ....	5000		4.68	4.21	3.98	3.74	3.28

CLASS "104EP" SPDT REED RELAYS

SPDT gold contacts rated at 3 VA at .250 amps. or 28 VAC maximum. Life expectancy 10 million hz at rated load. Operate time and release time 1 millisecond average. Axial lead wires for coil and contacts. Encapsulated molded case. Overall length 3", body length 1", 7/16" diameter. Weight, 1 ounce.

Stock No.	Type	Coil Voltage or Current	Coil Res. in Ohms	1-24	25-49	50-74	75-99	100-499
56F386	W104EPX-2	6VDC	65	7.37	6.63	6.26	5.90	5.16
56F387	W104EPX-3	12VDC	225	7.37	6.63	6.26	5.90	5.16
56F388	W104EPX-4	24VDC	1000	8.05	7.25	6.84	6.44	5.64
56F389	W104EPX-5	8.OMA	5000	8.55	7.70	7.27	6.84	5.99

MICRO-MINIATURE CLASS "105EP" SPST REED RELAYS

They are equipped with 3/4" long axial leads, for both coil and contacts, and may be used in either printed circuit applications or circuits designed for point-to-point wiring. DC Coil Power Required: 300 mw avg; Operate Time: 250 Microseconds, average; Release Time: 500 Microseconds, average. Contact Load Rating: 100 Millivolt-Amperes maximum at 10 Milliamperes max. or 12 Volts maximum, non-inductive; Contact Resistance: 200 Milliohms, average; Capacitance Across Contacts: .5. Picofcrad, average: Life Expectancy, Rated Load: 10 Million hz. 1/4" in diameter by 7/16" long. Wt. 1 oz.

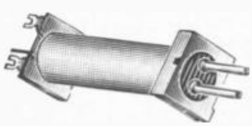
Stk. No.	Type	Coil VDC	Coil Ohms	1-24	25-49	50-74	75-99	100-499
56F351	W105EPX-1	6	90	6.18	5.56	5.25	4.94	4.33
56F352	W105EPX-2	12	350	6.18	5.56	5.25	4.94	4.33
56F353	W105EPX-3	24	1300	6.30	5.67	5.36	5.04	4.41

MICRO-MINIATURE SERIES MPC RELAYS

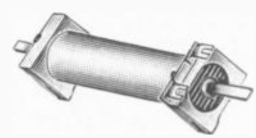
Low profile compact designs, in either encapsulated axial lead units or "plug-in" units specifically designed for high density printed circuit applications. Switch capsule and design features provide fast switching plus low internal noise. Contacts: SPST-NO: Contact Load Rating: 100 Millivolt-Amperes maximum at 10 Milliamperes maximum or 12 Volts maximum, non-inductive; Contact Resistance: 200 Milliohms, average; Diel. str., cont. to coil: 050 VAC RMS. Operating Position: Any; DC Coil. Power required: 300 Milliwatts: Size 1: Single-Pole—5/8x5/16x1 15/32". W. 1 oz.

Stk. No.	Type No.	Coil VDC	1-24	25-49	50-74	75-99	100-499
56F332	W105MPCX-1	6	5.45	4.91	4.63	4.36	3.82
56F333	W105MPCX-2	12	5.47	4.92	4.65	4.38	3.83
56F334	W105MPCX-3	24	5.58	5.02	4.74	4.46	3.91

STANDARD AND MINIATURE REED RELAYS



W103M



W102M

W104M

W101M

TYPES W102M & W103M STANDARD REED RELAYS

Specifications: nominal coil power 300mw, operate time 1 ms av., release time less than 1 ms, contact bounce less than 0.5 ms av. Dielectric contact 250 VAC RMS. Dielectric contact & coil 750 VAC RMS. Contact resistance: 150 mΩ av. Size: 1/2x7/16x1". Shpg. wt. 1 oz.

TYPE W102M—SPST—NO

Contacts rated 15 volt-amps maximum at 1 amp maximum, or 250 VAC maximum resistive. Capacitance across contacts is 0.9 pf average, and 20,000,000 operations at rated load. (*) Milliamps.

Stock No.	Type	Coil VDC	Coil Ohms	1-24	25-49	50-74	75-99	100-499
56F900	W102MX-1	40*	100	2.18	1.96	1.85	1.74	1.53
56F901	W102MX-2	6	200	2.25	2.03	1.91	1.80	1.58
56F902	W102MX-3	12	500	2.25	2.03	1.91	1.80	1.58
56F903	W102MX-4	24	2000	2.47	2.22	2.10	1.98	1.73
56F904	W102MX-5	5.5*	5000	2.63	2.37	2.24	2.10	1.84

TYPE W103M—SPDT

Contacts rated 10 volt-amps maximum at .5 amp maximum or 250 VAC maximum resistive. Capacitance across contacts is 3.0 pf average, and 25,000,000 operations at rated load. (*) Milliamps.

Stock No.	Type	Coil VDC	Coil Ohms	1-24	25-49	50-74	75-99	100-499
56F905	W103MX-1	6	200	4.23	3.81	3.60	3.38	2.96
56F906	W103MX-2	12	500	4.23	3.81	3.60	3.38	2.96
56F907	W103MX-3	24	2000	4.45	4.01	3.78	3.56	3.12
56F908	W103MX-4	5.5*	5000	4.62	4.16	3.93	3.70	3.23

TYPES W101M & W104M MINIATURE REED RELAYS

Specifications: nominal coil power 300 mw, operate time less than 3 ms, release time 0.5 ms av., contact bounce less than 1 ms av. Dielectric contact 500 VAC RMS. Dielectric contact & coil 750 VAC RMS. Contact resistance: 100 milliohm av. Size: 1/2x19/32x21/8". Shpg. wt. 2 oz.

TYPE 101M—SPST-NO

Contacts rated 12 volt-amps maximum at 0.25 amp .maximum, or 100 VAC maximum resistive. Capacitance across contacts: 0.7 pf average, and 5,000,000 operations at rated load. (*) Milliamps.

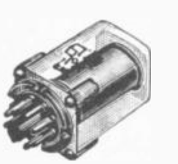
Stock No.	Type	Coil VDC	Coil Ohms	1-24	25-49	50-74	75-99	100-499
56F909	W101MX-1	6	100	2.20	1.98	1.87	1.76	1.54
56F910	W101MX-2	12	250	2.25	2.03	1.91	1.80	1.58
56F911	W101MX-3	24	500	2.25	2.03	1.91	1.80	1.58
56F912	W101MX-4	9*	2500	2.43	2.19	2.07	1.94	1.70

TYPE 104M—SPDT

Contacts rated 3 volt-amps maximum at 0.25 amp maximum, or 28 VAC maximum, resistive. Capacitance across contacts is 1.3 pf average, and 10,000,000 operations at rated load. (*) Milliamps.

Stock No.	Type	Coil VDC	Coil Ohms	1-24	25-49	50-74	75-99	100-499
56F913	W104MX-1	6	100	5.63	5.07	4.79	4.50	3.94
56F914	W104MX-2	12	250	5.68	5.11	4.83	4.54	3.98
56F915	W104MX-3	24	500	5.68	5.11	4.83	4.54	3.98
56F916	W104MX-4	9*	2500	5.87	5.28	4.99	4.70	4.11

DRY REED RELAY PLUG-IN ASSEMBLIES WITH PLASTIC DUST COVER



Type 103CP. Each assembly contains two or three SPDT dry reeds with plugin mounting in plastic dust cover. All are DPDT except (*) are 3PDT. Rated: 10 watts resistive load. .5 amp or 250 VAC max. Life expectancy: 25 million cycles at rated. 50 million cycles at 1/2 rated. 100 million cycles at low load. Dimensions: 13/8" x 13/8" x 21/8". Wt. 5 oz.

Stk. No.	Type	Volt or Cur.	Coil Res. (Ohms)	1-24	25-49	50-74	75-99	100-499
56F360	W103CPX-7	6VDC	75	12.92	11.63	10.98	10.34	9.04
56F361	W103CPX-8	12VDC	300	12.95	11.66	11.01	10.36	9.07
56F362	W103CPX-9	24VDC	1K	13.01	11.71	11.06	10.41	9.11
56F363	W103CPX-10	8MADC	5K	13.57	12.21	11.5[illegible]	10.86	9.50
56F364	W103CPX-11*	6VDC	40	16.77	15.09	14.25	13.42	11.74
56F365	W103CPX-12*	12VDC	150	16.83	15.15	14.3[illegible]	13.46	11.78
56F366	W103CPX-13*	24VDC	650	16.9[illegible]	15.2[illegible]	14.41	13.56	11.87
56F367	W103CPX-14*	10MADC	5K	17.5[illegible]	15.7[illegible]	14.86	14.00	12.25

MAGNECRAFT

SERIES 77CS TELEPHONE RELAY WITH DUST COVER

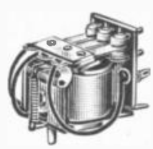
Features miniature size 4PDT contact combination, switches to 5 amps, has greater contact pressure without increasing coil operating power. The special design eliminates internal wiring and solder connections. Precision built hinge pin armature bearings with oversize bearings guarantee longer life. 1⁷⁄₆₄ x 1⁹⁄₃₂ x 5⁵⁄₆₄".

Stk. No.	Type	Cont.	Coils Volts	Coils Ohms	1-9	10-24	25-49	50-99	100-249
56F335	W77CSX-1		6VDC	40	5.30	5.04	4.77	4.51	3.58
56F336	W77CSX-2		12VDC	160	5.30	5.04	4.77	4.51	3.58
56F337	W77CSX-3	4PDT	24VDC	600	5.40	5.13	4.86	4.59	3.65
56F338	W77CSX-4	5 Amp	48VDC	2500	5.55	5.27	5.00	4.72	3.75
56F339	W77CSX-5		110VDC	10000	5.97	5.67	5.37	5.07	4.03
56F340	W77ACSX-1		115VAC	....	5.58	5.30	5.02	4.74	3.77
56F341	70-161-1	Socket with Solder terminals			.58	.52	.49	.46	.44
56F342	70-161-3	Socket with printed circuit terminals			.58	.52	.49	.46	.44

CLASS 88 PLUG-IN AND OPEN RELAYS

Closed

Closed. Enclosed in clear, crackproof plastic cover. Insulation provides dielectric strength unaffected by weather. All have rugged hinge-pin armature bearings surfaces, the same construction used in telephone relays. Molded nylon bobbins with rugged coil terminals to eliminate shorts. Built in contact wipe with riveted contacts give longer life. Silver alloy contacts. W88ANCPX2 equipped with light. 10 amp rating. 1³⁄₈x1¹⁄₈x1¹⁄₄". 3 oz.



Open

Open. Same as above except open with tinned terminals and mounting holes. 1³⁄₄ x 1³⁄₁₆ x 1¹⁄₄". Wt. 2 Oz.

Note: All use octal plug except 3PDT-11 pin plug in.

CLOSED TYPE RELAYS

Stk. No.	Type No.	Coil Volts	Coil Ohms	Con. Form	1-9	10-24	25-49	50-99	100-499
56F507	W88ACPX4	115VAC	....	SPDT	5.79	5.21	4.92	4.63	4.05
56F515	W88ACPX8	115VAC	....	SPDT	6.44	5.80	5.47	5.15	4.51
56F344	W88ANCPX2	115VAC	•	3PDT	7.29	6.56	6.20	5.83	5.47
56F523	W88ACPX12	115VAC	....	SPDT	7.97	7.17	6.77	6.38	5.58
56F530	W88CPX3	24VDC	400	SPDT	5.40	4.86	4.59	4.32	3.78
56F536	W88CPX5	6VDC	25	DPDT	5.85	5.27	4.97	4.68	4.10
56F537	W88CPX6	12VDC	100	DPDT	5.85	5.27	4.97	4.68	4.10
56F538	W88CPX7	24VDC	400	DPDT	5.95	5.36	5.06	4.76	4.17
56F545	W88CPX10	12VDC	100	3PDT	7.28	6.55	6.19	5.82	5.10
56F546	W88CPX11	24VDC	400	3PDT	7.38	6.64	6.27	5.90	5.17
56F557	W88CPX16	10MA	2500	DPDT	6.30	5.67	5.36	5.04	4.41
56F558	W88CPX17	7.2MA	5000	DPDT	6.40	5.76	5.44	5.12	4.48
56F559	W88CPX18	5MA	10000	DPDT	6.80	6.12	5.78	5.44	4.76

OPEN RELAYS

Stk. No.	Type No.	Coil Volts	Coil Ohms	Con. Form	1-9	10-24	25-49	50-99	100-499
56F503	W88AX4	115VAC	....	SPDT	3.66	3.29	3.11	2.93	2.56
56F511	W88AX8	115VAC	....	DPDT	4.27	3.84	3.63	3.42	2.99
56F519	W88AX12	115VAC	.. ..	3PDT	4.77	4.29	4.05	3.82	3.34
56F525	W88X3	12VDC	100	SPDT	3.20	2.88	2.72	2.56	2.24
56F526	W88X4	24VDC	400	SPDT	3.28	2.95	2.79	2.62	2.30
56F533	W88X7	12VDC	100	DPDT	3.73	3.36	3.17	2.98	2.61
56F534	W88X8	24VDC	400	DPDT	3.79	3.41	3.22	3.03	2.65
56F541	W88X11	12VDC	100	3PDT	4.17	3.75	3.54	3.34	2.92
56F542	W88X12	24VDC	400	3PDT	4.21	3.79	3.58	3.37	2.95
56F554	W88X17	10MA	2500	DPDT	4.01	3.61	3.41	3.21	2.81
56F555	W88X18	7.2MA	5000	DPDT	4.11	3.70	3.49	3.29	2.88
56F556	W88X19	5MA	10000	DPDT	4.51	4.06	3.83	3.61	3.16

HERMETICALLY SEALED RELAYS
4PDT SMALL AC-DC TYPES

Hermetically sealed enclosure housing Class 22 telephone type relay with 14 pin glass insulated solder terminal header. Offers advantage of being compact in size. Silver alloy contacts, 5 amp rating. Three 6-32 threaded mounting studs on 1⁵⁄₁₆x1³⁄₁₆" centers. Size: 1⁷⁄₁₆x1⁵⁄₈x2¹¹⁄₁₆". Wt.: 7 oz.

AC Voltage Actuated

Stock No.	Type	Coil Volts	1-9	10-24	25-49	50-99	100-249
56F607	W22AHSX32	115	17.30	15.57	14.71	13.84	12.98

DC Voltage Actuated

Stock No.	Type	Coil Volts	Coil Ohms	1-9	10-24	25-49	50-99	100-249
56F608	W22HSX144	6V	20	17.00	15.30	14.45	13.60	12.75
56F609	W22HSX145	12V	80	17.00	15.30	14.45	13.60	12.75
56F610	W22HSX146	24V	375	17.05	15.35	14.49	13.64	12.79

CLASS 88 HERMETICALLY SEALED PLUG-IN RELAY

High reliability relay with type 40-180 enclosure. Has hermetically sealed housing. Class 88 with a standard 8-pin octal plug. Has silver alloy contacts. Rated at 10 amps. All are DPDT except (*) are 3PDT and use 11-pin octal plug. Type 88AHP is alternating current voltage actuated. Type 88HP is direct current voltage actuated. Nominal power: Type 88AHP, 3VA; Type 88HP, 1.5 W. Plug-in mounted. Size: 1¹¹⁄₁₆" x 2¹⁄₃₂". Wt. 5 oz.

Stk. No.	Type	Voltage	Res. Ohms	1-9	10-24	25-49	50-99	100-249
56F400	W88AHPX-21	6 VAC	....	8.59	7.73	7.30	6.87	6.44
56F402	W88AHPX-23	24 VAC	....	8.64	7.78	7.34	6.91	6.48
56F403	W88AHPX-24	115 VAC	.....	8.79	7.91	7.47	7.03	6.59
56F354	W88AHPX-36*	115 VAC	.....	10.60	9.54	9.01	8.48	7.95
56F404	W88HPX-32	6 VDC	25	8.19	7.37	6.96	6.55	6.14
56F405	W88HPX-33	12 VDC	100	8.19	7.37	6.96	6.55	6.14
56F406	W88HPX-34	24 VDC	400	8.24	7.42	7.00	6.59	6.18
56F355	W88HPX-51*	24 VDC	400	10.03	9.03	8.53	8.02	7.52

SERIES 88D AC-DC 50 AMPERE POWER RELAY

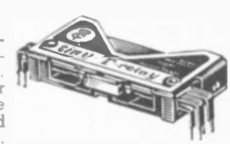
TYPE 88D. Specially designed with 50 ampere single pole single throw, double break, normally open contacts. This relay was developed specially for switching heavy loads while taking up a minimum of space, providing for reliable and economic operation. Unique contact structure provides for positive wiping action. One 6-32 tapped mounting hole and locating boss. Dimensions: 1¹³⁄₁₆" x 1¹⁄₄" x 1⁷⁄₁₆" not including soldering tabs. Shipping weight 3 oz.

Stk. No.	Type No.	Cont.	Coil Volts	Coil Ohms	1-9	10-24	25-49	50-99	100-249
56F412	W88ADX-1		24VAC		5.15	4.64	4.38	4.12	3.86
56F413	W88ADX-2	50	115VAC		5.25	4.72	4.46	4.20	3.94
56F409	W88DX-2	Amp	12VDC	100	4.65	4.19	3.95	3.72	3.49
56F410	W88DX-3	SPST	24VDC	400	4.70	4.23	4.00	3.76	3.53

ELECTRONIC CONTROLS INC.

● *NEW* SERIES 401 TINY-T FLATPACK RELAYS

A low profile non-reed relay .360" off-the-board height P.C. terminals spaced on .100 x .100 grid. Contacts: gold bonded over silver base metal or double gold bonded with rhodium interface available for long life, extra low level applications. Contact rating: millivolts to 1000 VAC, resistive load 3 amps @ 115 VAC max. 5 amps 500 watts carry, each contact. All are 4 poles; "A" in part number indicates form "A"—4PST N.O. "C" indicates form "C"—4PDT. Mech. life: 100 mil. per min. Coil power; 1 watt at nom voltage or 4 PST(4A); 1½ watts at nom voltage for 4 PDT(4C). *Indicates double gold bounded, rhodium interfaced contacts.



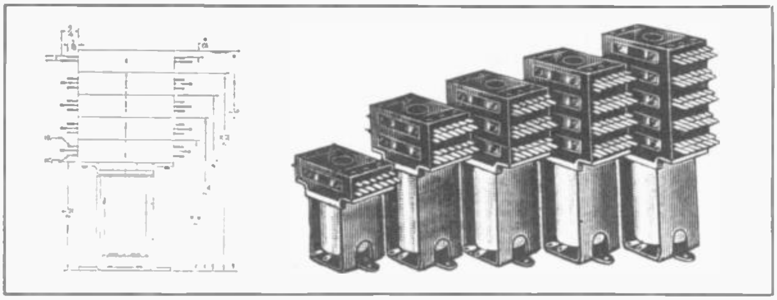
Stock No.	Part No. 401—	Coil Voltage D.C.	Ohms	1-24	25-49	50-99	100-249	250-499
59F680	4A-12	12	144	5.35	5.08	4.83	3.86	3.67
59F681	4A-24	24	576	5.35	5.08	4.83	3.86	3.67
59F682	4A-48	48	2304	5.35	5.08	4.83	3.86	3.67
59F683	4A-110	110	12100	6.42	6.10	5.79	4.64	4.40
59F684	4C-12	12	96	6.85	6.51	6.18	4.95	4.70
59F685	4C-24	24	380	6.85	6.51	6.18	4.95	4.70
59F686	4C-48	48	1505	6.85	6.51	6.18	4.95	4.70
59F687	4C-110	110	8000	8.22	7.81	7.42	5.93	5.64

Stock No.	Part No. 401—	Coil Voltage D.C.	Ohms	1-24	25-49	50-99	100-249	250-499
59F688	4AR-12*	12	144	5.75	5.48	5.23	4.26	4.07
59F689	4AR-24*	24	576	5.75	5.48	5.23	4.26	4.07
59F690	4AR-48*	48	2304	5.75	5.48	5.23	4.26	4.07
59F691	4AR 110*	110	12100	6.82	6.50	6.19	5.04	4.80
59F692	4CR-12*	12	96	7.45	7.11	6.78	5.24	5.30
59F693	4CR-24*	24	380	7.45	7.11	6.78	5.24	5.30
59F694	4CR-48*	48	1505	7.45	7.11	6.78	5.24	5.30
59F695	4CR-110*	110	8000	8.82	8.41	8.02	6.53	6.24

ELECTRONIC CONTROLS INC.

ECI T-BAR® RELAYS

- Stock-up Contact Wafers Switch up to 60 Poles at Once
- Easily Mounted — With Only 2 Screws — In Any Orientation
- Easily Wired — Snap-on Crimp Terminals Fit into Block Connectors



SERIES 801 T-BAR RELAYS

Reliable, ultra-compact, solenoid actuated relays with a unique design employing stacked-up enclosed contact wafers for up to 60-pole switching. Ideal for aircraft, telemetry communications, computers. Gold bonded silver contacts are rated to carry 500 watts resistive (5 amps), make or break 3 amps. Less than 30 milliseconds operate and release time. Min. life: 20 million mechanical operations. 1000 VAC dielectric strength, terminal-to-case; temperature range —55 to +85°C. Terminals will mate with T-Bar Connectors (below), which simply push onto contact wafers for quick, easy wiring, or solder connections may be made. Contact assemblies are in dust-tight plastic enclosures which measure 1⅟₃₂" wide by 2⅜" long; height is 13⁄32" per wafer.

T-BAR RELAY COIL CHARACTERISTICS

All characteristics are nominal and subject to normal manufacturing tolerances. All are for continuous duty. 115 VAC units have a full-wave bridge rectifier and use the same coils listed under 110 VDC. Operate at 80%, release at 20% of nominal voltage. Actuator assembly size: 1.375" mtg. centers x 21⁄32" high, except one-wafer relay use a shorter actuator (115⁄32" high).

Coil Voltage	12A or 12C Wt.: 4.5 oz.			24A or 24C Wt.: 6.75 oz.			36A, 36C, 48A Wt.: 7.5 oz.			48C, 52A, 60A 52°C Wt.: 9 oz.		
	Resistance Ohms	Current Amps	Power Watts	Resistance Ohms	Current Amps	Power Watts	Resistance Ohms	Current Amps	Power Watts	Resistance Ohms	Current Amps	Power Watts
115 VAC	3,963	.024	2.80	3 450	.027	3.10	2,355	.041	4.72	1 930	.049	5.62
110 VDC	3,963	.028	3.05	3,450	032	3 54	2,355	.047	5 18	1,930	.057	6.27
48 VDC	778	.062	2.98	674	.071	3.41	438	.110	5 26	350	.137	6.58
28 VDC	258	.109	3.03	227	.123	3.44	150	.187	5 23	120	.233	6.52
24 VDC	193	.124	2.98	174	.138	3.32	111	.216	5.15	94	.255	6.12
12 VDC	49.1	.244	2.96	45	.267	3.19	28	.429	5.16	22	.545	6.54
6 VDC	11.9	.504	3.01	11.09	.541	3 24	7	.857	5 06	5 5	1 09	6.54

T-BAR DC RELAYS

Stk. No.	Type 801-	Action	DC Coil Volt.	1-24	25-49	50-74	75-99
59F700	4C24	4PDT	24	8.71	8.27	7.86	7.47
59F701	8C24	8PDT	24	12.46	11.84	11.25	10.68
59F764	12A12	12PST	12	14.77	14.03	13.33	12.66
59F765	12A24	12PST	24	13.43	12.76	12.12	11.51
59F766	12A28	12PST	28	13.43	12.76	12.12	11.51
59F767	12A48	12PST	48	14.77	14.03	13.33	12.66
59F768	12A110	12PST	110	13.43	12.76	12.12	11.51
59F702	12C12	12PDT	12	15.84	15.05	14.30	13.58
59F703	12C24	12PDT	24	14.40	13.68	13.00	12.35
59F750	12C28	12PDT	28	14.40	13.68	13.00	12.35
59F704	12C48	12PDT	48	15.84	15.05	14.30	13.58
59F705	12C110	12PDT	110	14.40	13.68	13.00	12.35
59F769	24A12	24PST	12	24.83	23.59	22.41	21.39
59F770	24A24	24PST	24	22.57	21.44	20.37	19.35
59F771	24A28	24PST	28	22.57	21.44	20.37	19.35
59F772	24A48	24PST	48	24.83	23.59	22.41	21.39
59F773	24A110	24PST	110	22.57	21.44	20.37	19.35
59F751	24C12	24PDT	12	28.49	27.07	25.71	24.43
59F712	24C24	24PDT	24	25.89	24.60	23.37	27.70
59F752	24C28	24PDT	28	25.89	24.60	23.37	22.20
59F713	24C48	24PDT	48	28.49	27.07	25.71	24.43
59F714	24C110	24PDT	110	25.89	24.60	23.37	22.20
59F774	36A12	36PST	12	32.95	31.30	29.74	28.25
59F775	36A24	36PST	24	29.95	28.45	27.03	25.68
59F776	36A28	36PST	28	29.95	28.45	27.03	25.68
59F777	36A48	36PST	48	32.95	31.30	29.74	28.25
59F778	36A110	36PST	110	29.95	28.45	27.03	25.68
59F753	36C12	36PDT	12	38.38	36.46	34.64	32.91
59F721	36C24	36PDT	24	34.89	33.15	31.49	29.91
59F754	36C28	36PDT	28	34.89	33.15	31.49	29.91
59F722	36C48	36PDT	48	38.38	36.46	34.64	32.91
59F723	36C110	36PDT	110	34.89	33.15	31.49	29.91
59F779	48A12	48PST	12	37.33	35.46	33.69	32.01
59F780	48A24	48PST	24	37.33	35.46	33.69	32.01
59F781	48A28	48PST	28	37.33	35.46	33.69	32.01
59F782	48A48	48PST	48	37.33	35.46	33.69	32.01
59F783	48A110	48PST	110	37.33	35.46	33.69	32.01
59F775	48C12	48PDT	12	29.95	28.45	27.03	25.68
59F756	48C24	48PDT	24	48.39	45.97	43.67	41.49
59F757	48C28	48PDT	28	48.39	45.97	43.67	41.49
59F758	48C48	48PDT	48	48.39	45.97	43.67	41.49
59F759	48C110	48PDT	110	48.39	45.97	43.67	41.49
59F674	52A12	52PST	12				
59F675	52A24	52PST	24				
59F676	52A28	52PST	28	46.05	43.75	41.56	39.48
59F677	52A48	52PST	48				
59F678	52A110	52PST	110				
59F679	52C12	52PDT	12				
59F696	52C24	52PDT	24				
59F697	52C28	52PDT	28	57.50	54.63	51.89	49.30
59F698	52C48	52PDT	48				
59F699	52C110	52PDT	110				
59F784	60A12	60PST	12				
59F785	60A24	60PST	24				
59F786	60A28	60PST	28	52.10	49.50	47.02	44.67
59F787	60A48	60PST	48				
59F788	60A110	60PST	110				

T-BAR 115 VAC RELAYS

Stk. No.	Type 801-	Action	1-24	25-49	50-74	75-99
59F789	4C115	4PDT	13.53	12.85	12.21	11.60
59F790	8C115	8PDT	16.28	15.47	14.69	13.96
59F791	12A115	12PST(NO)	17.16	16.30	15.49	14.71
59F792	12C115	12PDT	18.04	17.14	16.28	15.47
59F793	24A115	24PST(NO)	26.57	25.24	23.98	22.78
59F794	24C115	24PDT	29.89	28.40	26.98	25.63
59F795	36A115	36PST(NO)	36.95	35.10	33.35	31.68
59F796	36C115	36PDT	38.89	36.95	35.10	33.34
59F797	48A115	48PST(NO)	41.33	39.26	37.30	35.44
59F798	48C115	48PDT	52.39	49.77	47.28	44.92
59F706	52A115AC	52PST(NO)	50.05	47.55	45.17	42.91
59F707	52C115AC	52PDT	61.50	58.43	55.50	52.73
59F799	60A115	60PST(NO)	56.10	53.30	50.63	48.10

CONNECTOR, TOOLS

Model 88601. T-Bar Connector. For connecting wires to T-Bar switches or terminals. Nylon terminal block pushes onto wafer terminals. Snap-in terminals for wire. Wires are first crimped to snap-in terminal using the crimping tool below. Accommodates #18, 20, 22, 24 or 26 stranded wire with max. insulation diameter of .074". Can be used with all T Bar Relays (above) and Switches (see index).

59F741 1-23 **Each** **1.25**

24-499 **(Free connector tong with each pkg. of 24) Ea.** 1.15

Model 8601-51. Crimping Tool. For use with the connectors above. Crimps wire and insulation to snap-in terminals.

59F742. NET **35.00**

Model 8601-61. Extraction Tool. Removes snap-in terminal from connector block.

59F743. NET **7.50**

Model 8601-71. Connector Tong. For pushing on or withdrawing connectors from wafer terminals.

59F739. NET. **1.00**

Relays — General Purpose

SIGMA

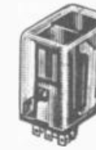

Type 11FZ


11F2


11FP


Type 50F


Type 50RO


Type 62

SERIES 68 AC & DC—SPDT, DPDT, 3PDT RELAYS

Versatile low-cost, general purpose relay for production-line switching of light to medium power loads. Fast installation—.187" terminals. Contact rating 10 amps at 28 VDC/115 VAC. 5×10^5 operations at 115 VAC; 10^6 at 28 VDC. Mechanical life 10^7 operations. Nominal power AC 1- and 2-pole types, 2.1 va; 3-pole types, 2.5 va; DC, 1.2 w. Minimum operating temperature: —49°F. Maximum: AC 1- and 2-pole, +131°F; 3-pole, +113°F: DC, +158°F. Polycarbonate cover. 3-pole type available with flanged cover. 1.406 x 1.531 x 2.222" h. Flanged cover, 2.900" h. U/L listed. Wt. 2.7 oz.

Stock No.	Type SCO & Coil Volts	Coil ohms	Action	1-24	25-49	50-74	75-99	100-249
24F3125	68R1-115AC	2250	SPDT	3.20	3.04	2.88	2.56	2.24
24F3126	68R1-12DC	120	SPDT	3.10	2.95	2.79	2.48	2.17
24F3127	68R1-24DC	470	SPDT	3.10	2.95	2.79	2.48	2.17
24F3128	68R2-115AC	2250	DPDT	3.90	3.71	3.51	3.12	2.73
24F3129	68R2-12DC	120	DPDT	3.50	3.33	3.15	2.80	2.45
24F3130	68R2-24DC	470	DPDT	3.50	3.33	3.15	2.80	2.45
24F3131	68R3-115AC	2000	3PDT	4.40	4.18	3.96	3.52	3.08
24F3132	68R3-12DC	120	3PDT	3.10	2.95	2.79	2.48	2.17
24F3133	68R3-24DC	470	3PDT	3.10	2.95	2.79	2.48	2.17
24F3134	68R34-115AC	2000	3PDT	4.40	4.18	3.96	3.52	3.08
24F3135	68R34-12DC	120	3PDT	4.00	3.80	3.60	3.20	2.80
24F3136	68R34-24DC	470	3PDT	4.00	3.80	3.60	3.20	2.80
24F3137	AD40-P.C. term. socket			.70	.67	.63	.56	.49
24F3138	AD51-Solder term. socket			.80	.76	.72	.64	.56

SERIES 50 AC & DC SPDT, DPDT, 3PDT RELAYS

Compact relay for switching small motors, solenoids, and other relays in all types of automated equipment. Contact rating 10 amps at 28 VDC/115 VAC. Polycarbonate cover. Mech. life, 5×10^6 operations. Temp: +14° to ±158°F; 50R0: TO +131° F. 50F1, 50F2, 50F3: Screw mounting with solder terminals, H; 1 5/16"x1 11/64"x1 15/16". Shpg. tw., 2 oz. 50R01, 50R02, 50R03: H; 1 3/8" sq. x 2 3/32". 50R01, 50R02; 8-pin plug; 50R03; 11-pin plug. UL/CSA listed. Shpg. wt., 4 oz.

OPEN TYPE WITH SOLDER TERMINALS

Stock No.	Type SCO and Coil Volts	Coil ohms	Action	1-24	25-49	50-74	75-99	100-249
24F2652	50F1-12AC	23.5	SPDT	3.20	3.04	2.88	2.56	2.24
24F2653	50F1-24AC	95	SPDT	3.20	3.04	2.88	2.56	2.24
24F2655	50F1-6DC	23.5	SPDT	3.15	2.99	2.84	2.52	2.21
24F2656	50F1-12DC	95	SPDT	3.15	2.99	2.84	2.52	2.21
24F2558	50F1-110DC	10000	SPDT	3.65	3.47	3.29	2.92	2.56
24F2659	50F2-6AC	5.8	DPDT	3.95	3.75	3.56	3.16	2.77
24F2660	50F2-12AC	23.5	DPDT	3.95	3.75	3.56	3.16	2.77
24F2661	50F2-24AC	430	DPDT	3.95	3.75	3.56	3.16	2.77
24F2662	50F2-115AC	2300	DPDT	3.95	3.75	3.56	3.16	2.77
24F2663	50F2-6DC	23.5	DPDT	3.60	3.42	3.24	2.88	2.52
24F2664	50F2-12DC	95	DPDT	3.60	3.42	3.24	2.88	2.52
24F2665	50F2-24DC	430	DPDT	3.60	3.42	3.24	2.88	2.52
24F2667	50F3-6AC	5.8	3PDT	4.40	4.18	3.96	3.52	3.08
24F2668	50F3-12AC	23.5	3PDT	4.40	4.18	3.96	3.52	3.08
24F2669	50F3-24AC	95	3PDT	4.40	4.18	3.96	3.52	3.08
24F2670	50F3-115AC	2300	3PDT	4.40	4.18	3.96	3.52	3.08
24F2672	50F3-12DC	95	3PDT	4.05	3.85	3.65	3.24	2.84
24F2673	50F3-24DC	430	3PDT	4.05	3.85	3.65	3.24	2.84
24F2674	50F3-110DC	10000	3PDT	4.55	4.32	4.10	3.64	3.19

ENCLOSED PLUG-IN TYPE

Stock No.	Type SCO & Coil V.	Coil Ohms	Action	1-24	25-49	50-74	75-99	100-249
24F2697	50R01-12AC	23.5	SPDT	4.90	4.66	4.41	3.92	3.43
24F2698	50R01-24AC	95	SPDT	4.90	4.66	4.41	3.92	3.43
24F2699	50R01-115AC	2300	SPDT	4.90	4.66	4.41	3.92	3.43
24F2701	50R01-12DC	95	SPDT	4.80	4.56	4.32	3.84	3.36
24F2702	50R01-24DC	430	SPDT	4.80	4.56	4.32	3.84	3.36
24F2704	50R02-6AC	5.8	DPDT	5.45	5.18	4.91	4.36	3.82
24F2705	50R02-12AC	23 5	DPDT	5.45	5.18	4.91	4.36	3.82
24F2706	50R02-24AC	2300	DPDT	5.45	5.18	4.91	4.36	3.82
24F2707	50R02-115AC	95	DPDT	5.45	5.18	4.91	4.36	3.82
24F3139	50ROL2-115A	2300	DPDT	6.45	6.13	5.81	5.16	4.52
24F2708	50R02-6DC	23.5	DPDT	5.45	5.18	4.91	4.36	3.82
24F2709	50R02-12DC	95	DPDT	5.45	5.18	4.91	4.36	3.82
24F2710	50R02-24DC	430	DPDT	5.45	5.18	4.91	4.36	3.82
24F2019	50RO2-48DC	1630	DPDT	5.80	5.70	5.40	4.80	4.20
24F2711	50R02-110DC	10000	DPDT	6.00	5.51	5.22	4.64	4.06
24F2713	50R03-12AC	23 5	3PDT	6.30	5.99	5.67	4.41	5.04
24F2714	50R03-24AC	95	3PDT	6.30	5.99	5.67	4.41	5.04
24F2715	50R03-115AC	2300	3PDT	6.30	5.99	5.67	4.41	5.04
24F2717	50R03-12DC	95	3PDT	6.30	5.99	5.67	4.41	5.04
24F2718	50R03-24DC	430	3PDT	6.30	5.99	5.67	4.41	5.04
24F2719	50R03-110DC	10000	3PDT	6.70	6.37	6.03	4.69	5.36

SERIES 62DC DPDT, 4PDT, 6PDT RELAYS

Excellent stability, exceptional life at moderate loads. Interchangeable with similar commercial relays. Rated 2 amps. Nom. power for 2 pole and 4 pole; 70mw; For 6 pole 1.4w. Plastic dust cover, stud mounting, and solder or printed-circuit terminal sockets. 1 3/16"x3/4"x1 9/32" h. Temp: +14° to +158°F. UL/CSA listed. Shpg. wt., 1 oz.

Stock No.	Type and coil volts	Coil ohms	Action	1-24	25-49	50-74	75-99	100-249
24F2675	62R2-6DC	52	DPDT	3.05	2.90	2.75	2.44	2.14
24F2676	62R2-12DC	185	DPDT	3.05	2.90	2.75	2.44	2.14
24F2677	62R2-24DC	700	DPDT	3.05	2.90	2.75	2.44	2.14
24F2678	62R2-48DC	2.5K	DPDT	3.15	2.99	2.84	2.52	2.21
24F2679	62R2-110DC	15K	DPDT	4.50	4.28	4.05	3.60	3.15
24F2680	62R4-6DC	52	4PDT	3.40	3.23	3.06	2.72	2.38
24F2681	62R4-12DC	185	4PDT	3.40	3.23	3.06	2.72	2.38
24F2682	62R4-24DC	700	4PDT	3.40	3.23	3.06	2.72	2.38
24F2683	62R4-48DC	2500	4PDT	3.60	3.42	3.24	2.88	2.52
24F2684	62R4-110DC	15000	4PDT	5.00	4.75	4.50	4.00	3.50
24F2685	62R6-6DC	25	6PDT	4.40	4.18	3.96	3.52	3.08
24F2686	62R6-12DC	90	6PDT	4.40	4.18	3.96	3.52	3.08
24F2687	62R6-24DC	430	6PDT	4.40	4.18	3.96	3.52	3.08
24F2688	62R6-48DC	1550	6PDT	4.65	4.42	4.19	3.72	3.26
24F2689	62R6-110DC	9000	6PDT	5.60	5.32	5.04	4.48	3.92

SCO suffix for 5 Amps at 28 VDC or 4 Amps at 115 VAC. T suffix for 2 Amps at 28 VDC or 1 Amp at 115 VAC.

Stock No.	Type And Coil Volts	Coil Ohms	Action	1-24	25-49	50-74	75-99	100-249
24F3140	62R2-12DC-SCO	185	DPDT	3.15	2.99	2.84	2.52	2.21
24F3141	62R2-24DC-SCO	700	DPDT	3.15	2.99	2.84	2.52	2.21
24F3142	62R2-48DC-SCO	2500	DPDT	3.25	3.09	2.93	2.60	2.28
24F3143	62R2-110DC-SCO	15000	DPDT	4.60	4.37	4.14	3.68	3.22
24F3144	62R2T-12DC	185	DPDT	3.45	3.28	3.11	2.76	2.42
24F3145	62R2T-24DC	700	DPDT	3.45	3.28	3.11	2.76	2.42
24F3146	62R4-12DC-SCO	185	4PDT	3.60	3.42	3.24	2.88	2.52
24F3147	62R4-24DC-SCO	700	4PDT	3.60	3.42	3.24	2.88	2.52
24F3148	62R4-48DC-SCO	2500	4PDT	3.80	3.61	3.42	3.04	2.66
24F3149	62R4T-12DC	185	4PDT	4.00	3.80	3.60	3.20	2.80
24F3150	62R4T-24DC	700	4PDT	4.00	3.80	3.60	3.20	2.80
24F3151	62R6-12DC-SCO	90	6PDT	3.15	2.99	2.84	2.52	2.21
24F3152	62R6-24DC-SCO	430	6PDT	3.15	2.99	2.84	2.52	2.21
24F3153	62R6-48DC-SCO	1550	6PDT	3.25	3.09	2.93	2.60	2.28
24F3154	62R6T-12DC	90	6PDT	4.90	4.66	4.41	3.92	3.43
24F3155	62R6T-24DC	430	6PDT	4.90	4.66	4.41	3.92	3.43
24F2690	AD22-Solder term. socket DPDT			.55	.52	.50	.44	.39
24F3156	AD41-P.C. term. socket DPDT			.55	.52	.50	.44	.39
24F2692	AD24-Solder term. socket 4PDT			.65	.62	.58	.52	.46
24F3157	AD42-P.C.term. socket 4PDT			.65	.62	.58	.52	.46
24F2694	AD26-Solder term. socket 6PDT			.95	.90	.86	.76	.66
24F3158	AD43-P.C. term. socket 6PDT			.95	.90	.86	.76	.66

SERIES 11 AC & DC SPDT RELAYS

Small, low cost relays for 1 ampere switching at 28 VDC/115 VAC resistive. DC types are designed for sliding current or on-off 50 mw signals. AC is used for .3va on-off signals. Good environmental capability UL and CSA listed. 11F and 11 FZ screw mounting with solder lug terminals. 1 7/32 x 1 3/16 x 1 1/16". **11 FP** shoulder lug mounting with printed circuit terminals, 1 7/32" sq. x 1 5/12". **11F2**, insulated base with clearance holes for screw mounting. 5 solder terminals. Temperature range: —40 to +122°F. Shpg. wt. 3 oz.

DC RELAYS

Stock No.	Type and Coil ohms	Ma DC	Nominal Voltage	1-99	100-499
24F1987	11F-250-G-SIL	14.0	6VDC	1.95	1.76
24F1988	11F-550-G-SIL	9.5	....	1.95	1.76
24F360	11F-1000-G-SIL	7.0	12VDC	1.95	1.76
24F1989	11F-1500-G-SIL	5.8	....	1.95	1.76
24F361	11F-2300-G-SIL	4 6	....	1.95	1.76
24F362	11F-6000-G-SIL	2 9	24VDC	2.15	1.94
24F363	11F-9000-G-SIL	2 4	....	2.35	2.12
24F3159	11F2-1000-G-SIL	7.0	12VDC	2.15	1.94
24F381	11F2-2300-G-SIL	4.6	. .. .	2.15	1.94
24F3160	11F2-6000-G-SIL	2.9	24VDC	2.35	2.12
24F1990	11FP-1000-G-SIL	7 0	12VDC	2.05	1.85
24F1991	11FP-2300-G-SIL	4.6		2.05	1.85
24F3161	11FP-6000-G-SIL	2.9	24VDC	2.35	2.12

AC RELAYS

Stock No.	Type and Coil ohms	V AC	1-24	25-49	50-74	75-99	100-249
24F1992	11FZ-25-ACS-SIL	6	3.05	2.90	2.75	2.44	2.14
24F379	11FZ-550-ACS-SIL	24	3.15	2.99	2.84	2.52	2.21
24F380	11FZ-9000-ACS-SIL	115	3.60	3.42	3.24	2.88	2.52

SIGMA Relays


8RC01A


8P3

8L7


8P4

SERIES 8 LIGHT-ACTUATED

Two-part systems employ integral receiver units (containing photo-cell and relay) and prefocussed light sources Three-part systems have miniaturized light sources and receivers, for use where space is limited; receivers connect to remote amplifier-relay units.

TWO-PART (INTEGRAL RECEIVER) SYSTEMS

All units operate from 115 VAC, 50/60 hz. and are housed in NEMA type 1 & 12 enclosures Complete system consists of 8L3 light source plus receiver unit appropriate to application. Operate over a 12 foot range, no inter-wiring necessary.

8P3, 8P5 & 8P6 General-Purpose Receiver. For switching rates up to 600 operations/minute contacts rated 10A or 28VDC/115VAC. Wt., 13 oz.

8P8, 8P9 and 8P10 High-Speed Receivers. Operate 1200 times per minute. Relay contacts rated 5A at 28VDC/115VAC 2.5A at 230-VAC. 8P8 comes with wire leads, ½" conduit bushing and mtg. bracket 8P9 has bracket and octal plug. Wt . 13 oz.

8RC01A & 8RC02A Miniature Low-Cost Receivers. 120 cycles/minute switching. Plug-in units fit standard 5-pin socket; SPDT relay contacts rated 3A at 28VDC/115VAC. May be used for beam-breaking or fluctuating-intensity applications: 8RC01A relay picks up at 5 foot-candles, drops out at .1 fc.; 8RC02A for high-ambient-light conditions, picks up at 5 fc; opens at .5 fc. Supply voltage 115V 60 Hz, UL approved. Wt., 3 oz.

8L3 Light Source. Provides actuating beam for all 8P and 8R receivers. Set to span up to 12 feet. With mounting bracket, ½" conduit bushing, and 16" leads (18 AWG). Wt., 13 oz.

Stk. No.	Type	Action	Mounting	1-24	25-49	50-74	75-99
24F427	8P3-115	SPDT	Bracket	20.90	19.86	18.81	16.72
24F437	8P5-115	DPDT	Octal plug	20.90	19.86	18.81	16.72
24F438	8P6-115	SPDT	5-pin plug	19.95	18.95	17.96	15.96
24F428	8P8-115	SPDT	Bracket	41.80	39.71	37.62	33.44
24F439	8P9-115	DPDT	Octal plug	41.80	39.71	37.62	33.44
24F429	8P10-115	SPDT	5-pin plug	39.90	37.91	35.91	31.92
24F1719	8RC01A	SPDT	5-pin plug	17.25	16.34	15.53	13.80
24F1720	8RC02A	SPDT	5-pin plug	17.25	16.39	15.53	13.80
24F430	8L3-115	Light Source	Bracket	15.20	14.44	13.68	12.16

THREE PART (REMOTE AMPLIFIER-RELAY) SYSTEMS

8P7 Subminiature Receiver. Beam range 12". 600 cycle/minute switching rate. Black plastic enclosure measures 1½x5/16".
8L7 Light Source. Matches 8P7. Lamp life 4000 hours. Wt. .32 oz.
8P4 Miniature Receiver. Max. range 25 ft. 600 operations/min. 1 x 2 7/16" Black anodized aluminum housing. Wt , 3 oz.
8L4 Light Source. For 8P4. Adjustable focus. Wt., 2.7 oz.
8A Amplifier-Relay Unit. DPDT rated 5A at 28 VDC or 115/230-VAC. Operates from 115/230 VAC; provides power for 8L7, 8L4 light sources and 8P7, 8L7 receivers 8½x5x2 9/16", unenclosed, wt. 2 lbs.
8A3 Amplifier-Relay Unit. Identical to 8A, but with time delay relay: delay variable from .05 to 20 sec.
NOTE: For a complete photocontrol system. order the 8A or 8A3 control unit plus a suitable source-receiver combination.

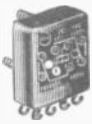
Stk. No.	Type	Descriptions	1-24	25-49	50-74	75-99
24F431	8P7	Wire lds. mtg bkt.	13.80	13.11	12.42	11.04
24F432	8L7	Wire lds. mtg. bkt.	10.00	9.50	9.00	8.00
24F433	8P4	3/8" conduit fitting	15.20	14.44	13.68	12.16
24F434	8L4	3/8" conduit fitting	13.30	12.64	11.97	10.64
24F435	8A	Amp.-relay control	57.00	54.15	51.30	45.60
24F436	8A3	Amp.-relay control	76.00	72.20	68.40	60.80

SERIES 67 AC AND DC — 4PDT

This miniature AC or DC relay switches 3 ampere loads from 1.2 volt-ampere or 900 milliwatt signals. Features choice of solder or printed circuit terminals Also features temperature range of —4 F. to +140° F Plastic dust cover is included With 14-prong plug, is adequately designed for stud mounting. 1-5/16 x 1-7/64 x 55/64". Shipping weight, 1.5 oz.

Stock No.	Mfr's. Type Coil Volts	Ohms Coil	1-24	25-49	50-74	75-99	100 249
24F2829	67R4-12AC	43	5.00	4.75	4.50	4.00	3.50
24F2830	67R4-24AC	160	5.00	4.75	4.50	4.00	3.50
24F2831	67R4-115AC	3900	5.40	5.13	4.62	4.32	3.78
24F2832	67R4-6DC	40	4.40	4.18	3.96	3.52	3.08
24F2833	67R4-12DC	160	4.40	4.18	3.96	3.52	3.08
24F2834	67R4-24DC	650	4.40	4.18	3.96	3.52	3.08
24F2835	67R4-48DC	2600	4.60	4.37	4.14	3.68	3.22
24F2836	67R4-110DC	11000	5.10	4.85	4.19	4.08	3.57
24F2837	AD28 Solder Term. Skt.		.60	.57	.54	.48	.42
24F2838	AD29 Printed Circ. Skt		.60	.57	.54	.48	.42


A


B


C


D


E

SPECIFICATIONS

Series	Coil Ohms	Adj. Ohms	Pickup Pwr (mw)	Pickup Max (DC)	Vibration	Shock
32	3100	G	50	4 0MA	30 g s to 5000 cps.	—100 g s
32	1200**	GD	100	9 2MA	30 g s to 5000 cps.	—100 g's
33	1200	VG	100	9 2MA	30 g s to 5000 cps.	—70 g's
34	6300	G	20	1 8MA	30 g's to 2000 cps.	—50 g's
34	4000**	GD	40	3 2MA	30 g's to 2000 cps.	—50 g's
35	1000**	VG	40	6 5V	30 g's to 2000 cps.	—50 g's
35	4000	VG	40	13 5V	30 g's to 2000 cps.	—50 g's
36	700	G	260	13 5V	30 g's to 2000 cps.	—50 g's

Subminiature relays, exceeds MIL-R-5757D. Rated 26.5 VDC nom. except * 12 DC. Contact rating 2 amp. All types hermetically sealed **Dual coil types. Size 0.8x0.9x0 4" except Type 36, 0.8x0.41x0.41". Ship. wt., 10 oz. Temp: —60 to +125°C.

TYPE 32 — DPDT (Solder terms., except † 10 pin) LATCHING

Stock No.	Mf'rs Type & Coil Ohms	Fig.	1-24	25-49	50-74	75-99	100-249
24F2754	32JD-1200 GD-SIL†**	A	26.50	25.18	23.85	21.20	18.55
24F2755	32RJKD-1200 GD-SIL**	B	26.50	25.18	23.85	21.20	18.55
24F2756	32RJPD-1200 GD-SIL**	C	26.50	25.18	23.85	21.20	18.55
24F2757	32RJP-3100 G-SIL	C	23.50	22.33	21.15	18.80	16.45

TYPE 33 — DPDT (Solder term., except † 9-pin. POLARIZED

24F2758	33J-1200 VG-SIL†	A	22.00	20.90	19.80	17.60	15.40
24F2759	33RJK-1200 VG-SIL	B	22.00	20.90	19.80	17.60	15.40
24F2760	33RJL-1200 VG-SIL	D	22.00	20.90	19.80	17.60	15.40
24F2761	33RJP-1200 VG-SIL	C	22.00	20.90	19.80	17.60	15.40

TYPE 34 — DPDT (Solder term.) LATCHING

24F2762	34RJP2-6300 G-SCN	C	21.10	20.05	18.99	16.88	14.77
24F2763	34RJP2D-4000 GD-SCN	C	22.00	20.90	19.80	17.60	15.40

TYPE 35 — DPDT (Solder term., except † 8 pin.) POLARIZED

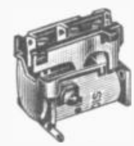
24F2764	35JP2-1000 VG-SCN†*	C	18.00	17.10	16.20	14.40	12.60
24F2765	35RJL-4000 VG-SCN	D	18.00	17.10	16.20	14.40	12.60
24F2766	35RJP2-4000 VG-SCN	C	18.00	17.10	16.20	14.40	12.60

TYPE 36 — DPDT (8 Pin term., except † solder.)

24F2767	36J-700 G-SMN	C/A	15.20	14.44	13.68	12.16	10.64
24F2768	36JP2-700 G-SMN	E/C	15.20	14.44	13.68	12.16	10.64
24F2769	36RJP2-700 G-SMN†	E/C	15.20	14.44	13.68	12.16	10.64

SERIES 59DC SPDT RELAYS


Type 59A01D


Type 59F1D

While priced almost unbelievably low, this snap switch relay features an excellent contact rating of 2 amperes. The precise contact assembly provides positive operations from on-off or slowly changing signals Mechanical life: 1,000,000 operations. Temperature range: +14 to +158°F. **59F1D:** Screw mounting with solder terminals 1⅛" x 2 29/32 x 1 13/64". Shipping weight 1 oz **59A01D:** Metal dust cover, 8-pin plug, dia. 15/16 x 1 19/32 height Nominal power 300 mw Shipping weight: 2 oz.

Stock No.	Type and coil V.	Coil ohms	1-99	100-499
24F1978	59A01D-6DC	120	3.55	3.20
24F1979	59A01D-12DC	465	3.55	3.20
24F1980	59A01D-24DC	1800	3.55	3.20
24F1975	59F1D-6DC	120	2.05	1.85
24F1976	59F1D-12DC	465	2.05	1.85
24F1977	59F1D-24DC	1800	2.05	1.85

Relays — Sensitive SIGMA

SERIES 72 — SPDT

Latching, 2 position polar relay. For high-speed switching, telegraphy at 100 words/minute, pulse repetition. Contacts replaceable for extended life. Temp.: —85 to +185°F **72A0Z** plastic dust cover, 8-pin. 1 13/32 dia. x 2 5/8". Ship. wt. 4 oz.

Stock No.	Mfr's Type & Coil Ohms	Ma DC	1-24	25-49	50-74	75-99	100-249
24F2818	72AOZ-160 TG-TCP	3 6	33.00	31.35	29.70	26.40	23.10
24F1752	72AOZ-160 TS-TCP	1 4	33.00	31.35	29.70	26.40	23.10
24F2819	72AOZ-4000 TS-TCP	.28	34.10	32.40	30.69	27.28	23.87
24F1754	72AOZ-4000 TG-TCP	.72	34.10	32.40	30.69	27.28	23.87

Stock No.	Description	Net Each
24F2820	AT36-1 Contact Repair Kit	3.50

SERIES 22—MINIATURE RELAYS

A non-polarized relay featuring excellent stability and dropout 33% of pickup current. Single-coil 22RJC pickup power: 20 mw; dual-coil 22RJCC, 22JNCC: 40 mw. 2 amp contact-rated at 28 VDC/115 VAC. Resists 10 g to 300 cps vibration, 100 g shock. Temp: —65 to +125°C. 1" sq. x 1 25/32". 22RJC, 22RJCC: stud mounting; 22JNCC: 9-pin plug. Shpg. wt., 3 oz.

SPDT

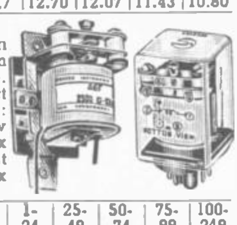
Stock No.	Mfr's Type & Coil Ohms	1-24	25-49	50-74	75-99	100 249
24F2750	22RJC-500 G-SIL	13.00	12.35	11.70	10.40	9.10
24F371	22RJC-1000 G-SIL	13.00	12.35	11.70	10.40	9.10
24F372	22RJC-2500 G-SIL	13.50	12.83	12.15	10.80	9.45
24F373	22RJC-5000 G-SIL	14.00	13.30	12.60	11.20	9.80
24F374	22RJC-8000 G-SIL	14.50	13.78	13.05	11.60	10.15
DPDT						
24F1750	22RJCC-500 G-SIL	14.50	13.78	13.05	11.60	10.15
24F375	22RJCC-1000 G-SIL	14.50	13.78	13.05	11.60	10.15
24F376	22RJCC-2500 G-SIL	15.00	14.25	13.50	12.00	10.50
24F377	22RJCC-5000 G-SIL	15.50	14.73	13.95	12.40	10.85
24F378	22RJCC-8000 G-SIL	16.00	15.20	14.40	12.80	11.20
24F2751	22RJCC-12000 G-SIL	17.50	16.63	15.75	14.00	12.25
24F382	22JNCC-500 G-SIL	16.35	15.53	14.72	13.08	11.45
24F3162	22JNCC-1000G-SIL	16.35	15.53	14.72	13.08	11.45
24F2752	22JNCC-2500 G-SIL	15.35	14.58	13.82	12.28	10.75
24F2753	22JNCC-5000 G-SIL	15.85	15.06	14.27	12.68	11.10
24F3163	22KNCC-500G-SIL	16.50	15.68	14.85	13.20	11.55
24F383	22KNCC-1000 G-SIL	16.50	15.68	14.85	13.20	11.55
24F2069	22KNCC-2500G-SIL	17.05	16.20	15.35	13.64	11.94
24F384	22KNCC-5000 G-SIL	17.60	16.72	15.84	14.08	12.32
24F385	22KNCC-8000-SIL	18.15	17.24	16.34	14.52	12.71
24F386	AT155 socket	.45	.43	.41	.36	.32

SERIES 26 — SPDT

Adjustment S features 5 mw pickup power, switches 1 amp at 28 VDC/115 VAC. CDS: 4 mw pickup power, .5 ampere contact rating, drop-out 50% of pickup current. Temp: —85 to +212°F. **26F:** unenclosed, screw mounting, solder terminals. 1 7/8x3 1/32x1 1/16". Ship. wt. 2 oz.

Stock No.	Mfr's Type	Coil Ohms	Ma DC	1-24	25-49	50-74	75-99
24F2088	26F-1000 S-SIL	1 K	2.3	10.40	9.88	9.36	8.84
24F351	26F-8000 CDS-PAL	8 K	.7	12.70	12.07	11.43	10.80

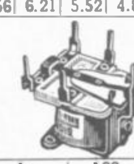
SERIES 48 DC — SPDT



Low cost sensitive relay for use in alarm systems requiring operation from 10 mw. Bridge type contact structure. Compliant armature for good contact wipe. Contact rating: 2 amp; Temp.: —4 to +158°F. **48F.** Unenclosed, screw mounting, solder terminals. 1 17/64x2 9/32x 1 7/16". Ship. wt. 3 oz. **48RO:** Plastic dust cover, 8 pin octal plug. 1 23/64 sq. x 2 7/64". Ship. wt. 4 oz.

Stock No.	Mfr's Type	Coil Ohms	Ma DC	1-24	25-49	50-74	75-99	100-249
24F2779	48F-1000 G-SIL	1 K	3.2	5.90	5.61	5.31	4.72	4.13
24F2780	48F-2500 G-SIL	2.5K	2.0	5.90	5.61	5.31	4.72	4.13
24F2783	48RO-1000 G-SIL	1 K	3 2	6.90	6.56	6.21	5.52	4.83
24F2784	48RO-2500 G-SIL	2.5K	2 0	6.90	6.56	6.21	5.52	4.83

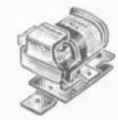
TYPE 65 COMMERCIAL SPDT RELAYS



Responds positively to low-power signals. 5 million operation mechanical life. Contact load rating: 1 A. Nom. power; 90 mw. 65F1 (screw mount, with holder term). 65FP1 (terminals with printed circuit) for mtg. Shpg. wt.: 1 oz.

Stock No.	Mfr.'s Type Coil Volts	Coil Ohms	1-99	100-499
24F1981	65F1A-6DC	410	1.50	1.35
24F1982	65F1A-12DC	1640	1.50	1.35
24F1983	65F1A-24DC	6560	1.50	1.35
24F1984	65FP1A-6DC	1640	1.60	1.44
24F1985	65FP1A-12DC	1640	1.60	1.44
24F1986	65FP1A-24DC	6560	1.60	1.44

SERIES 41 AC & DC — SPDT



Industrial relay. Operates from on-off AC/DC signals Adjustment S: 40 mw; ACS: 2 va; ACG: .4 va. ACG rated 5 amp, S, ACS: 2 amp. Temp.; —67 to +185 F. **41F, 41FZ:** unenclosed, screw mounting, solder terminals. 1 17/64 x 2 9/32 x 1 7/16". **41ROZ, 41RO:** aluminum dust cover, 8-pin. 1 21/64 x sq. 2 1/16". **41RO6:** plastic dust cover, 8-pin. 1 23/64 sq. x 2 7/64'. **41JOZ:** hermetically sealed, 8-pin. 1 5/8 sq. x 5/8". Shpg. wt. Enclosed: 4 oz.; unenclosed 2 1/2 oz.

AC TYPES

Stock No.	Mfr's Type & Coil Ohms	VDC/AC Ma	1-24	25-49	50-74	75-99	100-249
24F365	41FZ-10 ACG-BSL	6	3.90	3.71	3.51	3.12	2.73
24F3164	41FZ-200 ACG-BSL	24	4.10	3.90	3.69	3.28	2.87
24F369	41FZ-5000 ACG-BSL	115	4.10	3.90	3.69	3.28	2.87
24F364	41FZ-35 ACS-SIL	6	4.50	4.28	4.05	3.60	3.15
24F368	41JOZ-10000 ACS-SIL	115	5.00	4.75	4.50	4.00	3.50
24F3165	41JOZ-10 000ACS-SIL	115	12.35	11.73	11.12	9.88	8.65
24F2787	41JOZ-12 000 ACS-SIL	150	12.15	11.54	10.94	9.72	8.51
24F2788	41ROZ-5000 ACG BSL	115	5.75	5.46	5.18	4.60	4.03
24F2789	41RZ-5000 ACG-BSL	115	5.75	5.46	5.18	4.60	4.03
DC TYPES							
24F2790	41F-200 S-SIL	6	4.30	4.09	3.87	3.44	3.01
24F2791	41F 500 S-SIL		4.30	4.09	3.87	3.44	3.01
24F1714	41F-1000 S-SIL	12	4.30	4.09	3.87	3.44	3.01
24F2792	41F-5000 S-SIL	24	4.50	4.28	4.05	3.60	3.15
24F1747	41F-10,000 S-SIL		4.75	4.51	4.28	3.80	3.33
24F3166	41F-200G BSL	12	4.10	3.90	3.69	3.28	2.87
24F3167	41F-1000G BSL	24	4.10	3.90	3.69	3.28	2.87
24F3168	41R-1000S SIL	12	6.45	6.13	5.81	5.16	4.52
24F3169	41R-5000S SIL	24	6.60	6.27	5.94	5.28	4.62
24F1716	41RO-1000 S-SIL	12	6.15	5.84	5.54	4.92	4.31
24F2793	41RO-5000 S-SIL	24	6.30	5.99	5.67	5.04	4.41
24F2794	41RO-10,000 S-SIL	....	6.60	6.27	5.94	5.28	4.62
24F2795	41RO6-1000 S-SIL	12	6.15	5.84	5.54	4.92	4.31
24F2796	41RO6-2500 S-SIL		6.15	5.84	5.54	4.92	4.31
24F2797	41RO6-5000 S-SIL	24	6.30	5.99	5.67	5.04	4.41

SERIES 4 DC — SPDT

For vacuum tube and transistor drives and applications requiring high dropou: or narrow differential. Ideal for circuits where energizing current does not drop to zero. Pickup power: 20 mw. Contact rating: 2 amp at 28VDC/115VAC. Temperature range: +32 to +112 F. Unenclosed 4F has screw mounting, with solder terminals. 4R has aluminum dust cover and 5 pin plug. **4F:** 1 3/4x1 1/2x1 15/32". Shp. wt. 2 1/4 oz. **4R:** 1 9/16 sq. x 2 19/32". Sh. wt. 3 3/4 oz.

Stock No.	Mfr's Type	Coil Ohms	Ma DC	1-24	25-49	50-74	75-99	100-249
24F352	4F-1000 S-SIL	1 K	4.5	6.50	6.18	5.85	5.20	4.55
24F353	4F-2500 S-SIL	2.5K	3 0	6.50	6.18	5.85	5.20	4.55
24F354	4F-5000 S-SIL	5 K	2 0	6.85	6.51	6.17	5.48	4.80
24F350	4F-8000 S-SIL	8 K	1 6	7.10	6.75	6.39	5.68	4.97
24F1700	4F-10,000 S-SIL	10 K	1 4	7.10	6.75	6.39	5.68	4.97
24F2770	4R-1000 S-SIL	1 K	4 5	8.90	8.46	8.01	7.12	6.23
24F3170	4R-2500S-SIL	2 5K	3 0	9.75	9.26	8.78	7.80	6.83
24F2771	4R-5000 S-SIL	5 K	2.0	9.20	8.74	8.28	7.36	6.44
24F2772	4R-8000 S-SIL	8 K	1.6	9.45	8.98	8.51	7.56	6.62
24F2773	4R-10.000 S-SIL	10 K	1 4	9.45	8.98	8.51	7.56	6.62

SERIES 5 DC — SPDT

Sensitive type for overload—underload detection. Withstands overloads of 30.1 Contact ratings: S: 1 amp; SS 25 amp Temp : S: —4 to+158° F ; SS: +50 to 140°F. **5F.** Unenclosed, screw mounting, solder terminals. 1 3/8x1 3/4x1 1/2". Ship. wt. 4 1/4 oz. **5R.** 5 pin plug. 1 9/16 sq. x 2 9/32". Ship. wt. 5 3/4 oz.

24F355	5F-1000 S-SIL	1 K	2.3	9.25	8.79	8.33	7.40	6.48
24F356	5F-2500-S SIL	2.5K	1 4	9.25	8.79	8.33	7.40	6.48
24F357	5F-5000 S-SIL	5 K	1.0	9.90	9.41	8.91	7.92	6.93
24F358	5F-10,000 S-SIL	10 K	70	10.85	10.31	9.77	8.68	7.60
24F3171	5F-16000S-SIL	16 K	.55	11.70	10.93	10.35	9.20	8.05
24F3172	5R-100CSS-PAL	10 K	.30	13.90	13.21	12.51	11.12	9.73
24F3173	5R-10000SS-PAL	10 K	.30	15.65	14.87	14.09	12.52	10.96
24F3174	5RO-1000S-SIL	1 K	1 00	12.60	11.97	11.34	10.08	8.82
24F3175	5RO-2500S-SIL	1 4		12.60	11.97	11.34	10.08	8.82
24F3176	5RO-5000S-SIL	1 0		13.30	12.64	11.97	10.64	9.31
24F3177	5RO-10,000S-SIL	.70		14.25	13.54	12.83	11.40	9.98
24F3178	5RO-16,000S-SIL	55		15.30	14.54	13.77	12.24	10.71
24F2774	5F-1000 SS PAL	1 K	1.0	10.50	9.98	9.45	8.40	7.35
24F2775	5F-10,000 SS-PAL	10 K	.30	12.10	11.50	10.89	9.68	8.47
24F2776	5R-1000 S-SIL	1 K	2 3	11.70	11.12	10.53	9.36	8.19
24F2777	5R-2500 S-SIL	2.5K	1 4	11.70	11.12	10.53	9.36	8.19
24F2778	5R-5000 S-SIL	5 K	1 0	12.35	11.73	11.12	9.88	8.65
24F1742	5R-10,000 S-SIL	10 K	.70	13.25	12.59	11.93	10.60	9.28
24F1743	5R-16,000 S-SIL	16 K	.55	14.25	13.54	12.83	11.40	9.98

Relays

SIGMA RELAYS

SERIES 42 AC & DC — DPDT

100 mw for 1-billion-operation mechanical life. Adjustment S: 100 mw; G: 200 mw; ACS; .3 va; ACG: .5 va Contact ratings: ACG, G: 5 amp ACS, S: 2 amp. Temp.: —67 to +185°F, plastic covers to 158°F .42 F: open, stud mounting, solder terminals. 1$^{19}/_{32}$x1½x1$^{13}/_{32}$". 42RO, 42ROZ: Plastic dust cover with 8-pins. 1$^{23}/_{64}$ sq.x2$^{7}/_{64}$". 42RO6Z: differ in wiring only. 42J0Z: Hermetically sealed, 8-pin. 1⅝ sq. x2⅝". Shpg. wt. 5¼.

AC TYPES

Stock No.	Mfr's Type & Coil Ohms	Nom. Volts	1-24	25-49	50-74	75-99	100-249
24F2798	42J0Z-4000 ACG-SIL	115	11.25	10.69	10.13	9.00	7.88
24F2799	42ROZ-8 ACG-SIL	6	6.55	6.22	5.90	5.24	4.59
24F2800	42ROZ-50 ACG-SIL	12	6.55	6.22	5.90	5.24	4.59
24F2801	42ROZ-200 ACG-SIL	24	6.55	6.22	5.90	5.24	4.59
24F2802	42ROZ-4000 ACG-SIL	115	6.55	6.22	5.90	5.24	4.59
24F2049	42RO6Z-4000 ACG-SIL	115	6.55	6.22	5.90	5.24	4.59
24F2803	42ROZ-7000 ACS-SIL	115	7.80	7.41	7.02	6.24	5.46

DC TYPES

Stock No.	Mfr's Type & Coil Ohms	Nom. Volts	1-24	25-49	50-74	75-99	100-249
24F2804	42RO-200 G-SIL	12	6.55	6.22	5.90	5.24	4.59
24F2805	42RO-500 G-SIL	....	6.55	6.22	5.90	5.24	4.59
24F2806	42RO-1000 G-SIL	24	6.55	6.22	5.90	5.24	4.59
24F2807	42RO-2500 G-SIL	48	6.55	6.22	5.90	5.24	4.59
24F2808	42RO-5000 G-SIL	.. ...	6.80	6.46	6.12	5.44	4.76
24F2809	42RO-10,000 G-SIL	. ...	7.00	6.65	6.30	5.60	4.90
24F2810	42RO-12,000 G-SIL	. . .	7.30	6.94	6.57	5.84	5.11
24F2041	42RO6-500 G-SIL	....	6.55	6.22	5.90	5.24	4.59
24F2010	42RO6-1000 G-SIL	24	6.55	6.22	5.90	5.24	4.59
24F2043	42RO6-2500 G-SIL	48	6.55	6.22	5.90	5.24	4.59

Stock No.	Mfr's Type & Coil Ohms	Nom. Volts	1-24	25-49	50-74	75-99	100-249
24F2011	42RO6-5000 G-SIL	....	6.80	6.46	6.12	5.44	4.76
24F2045	42RO6-10,000 G-SIL	....	7.00	6.65	6.30	5.60	4.90
24F2811	42RO-150 S-SIL	6	7.20	6.84	6.48	5.76	5.04
24F2812	42RO-500 S-SIL	12	7.20	6.84	6.48	5.76	5.04
24F2813	42RO-1000 S-SIL	.. . ..	7.20	6.84	6.48	5.76	5.04
24F2814	42RO-2500 S-SIL	24	7.20	6.84	6.48	5.76	5.04
24F2815	42RO-5000 S-SIL	....	7.45	7.08	6.71	5.96	5.22
24F2009	42RO6-500S-SIL	12	7.55	7.17	6.80	6.04	5.29
24F2817	42RO6-1000 S-SIL	.... ..	7.20	6.84	6.48	5.76	5.04
24F3179	42RO6-2500S-SIL	24	7.20	6.84	6.48	5.76	5.04

OPTO-ELECTRONIC RELAYS — DATACEL SERIES 301 — 1, 2, AND 4 POLE

Lamp-to-photocell light-beam coupling isolates each circuit electrically. Solid-state. AC or DC input-output. 300-nw output cell power rating. Visual on-off state indication. Printed circuit terminals. Solder-terminal socket. Switching functions include isolation interface, logic circuits,, data sampling, noiseless potentiometer, low signal level, automatic feedback. Temperature range: —40 to +50C. Size: 1x½x½". Weight: ¼ oz.

1 POLE

Stk. No.	Mfr's Type	Volts	1-24	25-49	50-74	75-99	100-249
24F1588	301R1-6	6	2.20	2.09	1.98	1.76	1.54
24F1589	301R1-12	12	2.20	2.09	1.98	1.76	1.54
25F1590	301R1-24	24	2.20	2.09	1.98	1.76	1.54
24F1591	301R1-150	150	2.20	2.09	1.98	1.76	1.54

2 POLE

Stk. No.	Mfr's Type	Volts	1-24	25-49	50-74	75 99	100-249
24F1592	301R2-6	6	3.40	3.23	3.06	2.72	2.38
24F1593	301R2-12	12	3.40	3.23	3.06	2.72	2.38
24F1594	301R2-24	24	3.40	3.23	3.06	2.72	2.38
24F1595	301R2-150	150	3.40	3.23	3.06	2.72	2.38

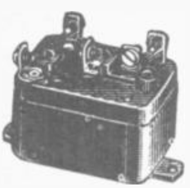
4 POLE

Stk. No.	Type	Volts	1-24	25-49	50-74	75-99	100-249
24F1596	301R4-6	6	4.80	4.56	4.32	3.84	3.36
24F1597	301R4-12	12	4.80	4.56	4.32	3.84	3.36
24F1598	301R4-24	24	4.80	4.56	4.32	3.84	3.36
24F1599	AD32-1*		.65	.62	.59	.52	.46

(*) Socket for solder terminal mounting. Fits all models.

RBM RELAYS

TYPE 84 SCREW TERMINALS



Totally enclosed. Silver alloy contacts rated at 125/250 volts AC; SPNO, 16 amps resistive (continuous); 8 amps (25 amps inrush) inductive. SPDT, 12 amps resistive (18 amps inrush) inductive. 6-32 mounting holes/2.156" centers. Electrical life, 100,000 operations at rated load. Coil, 4 VA inrush; 3 VA sealed. Overall size, 2⅜x1⅝x1½". Approx. wt., 5 oz.

Stock No.	Type	A.C. Coil V.	Action	1-24	25-49	50-99	100-249
60F2700	84-901	6	SPNO	2.85	2.57	2.28	2.00
60F2701	84-902	24	SPNO	2.90	2.61	2.32	2.03
60F2702	84-903	115/120	SPNO	3.05	2.75	2.44	2.14
60F2703	84-904	230/240	SPNO	3.35	3.02	2.68	2.35
60F2704	84-905	6	SPDT	3.00	2.70	2.40	2.10
60F2705	84-906	24	SPDT	3.20	2.88	2.56	2.24
60F2706	84-907	115/120	SPDT	3.35	3.02	2.68	2.35
60F2707	84-908	230/240	SPDT	3.59	3.24	2.87	2.52

TYPE 84 QUICK CONNECT TERMINALS

Same as above except with female quick connect wiring terminals.

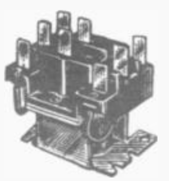
Stock No.	Type	AC Volts 50/60 Hz	Action	1-24	25-49	50-99	100-249
60F2985	84-912	24	SPNO	2.90	2.61	2.32	2.03
60F2986	84-913	115	SPNO	3.05	2.75	2.44	2.14
60F2987	84-914	230	SPNO	3.34	3.02	2.68	2.35
60F2988	84-916	24	SPDT	3.20	2.88	2.56	2.24
60F2989	84-917	115	SPDT	3.35	3.02	2.68	2.35
60F2990	84-918	230	SPDT	3.59	3.24	2.87	2.52

TYPE S30 SOLENOID CONTACTORS

3PNO double break-rated. 30 amps continuous, 180 amps inrush at 250 volts. 15 amps continuous and 90 amps inrush at 600 VAC. Laminated magnet and armature. Resilient mounting. Screw terminals. Enclosed contacts. 50/60 cy. coil. 14.5 Volt Amps. continuous with 50 Volt Amps. inrush. Overall size: 3⅞"x2⅜"x2½".

Stock No.	Mfr's. No.	A.C. Voltage	1-24	25-49	50-99	100-249
60F2863	S30-901	24V.	11.55	10.40	9.24	8.09
60F2864	S30-902	115V.				
60F2865	S30-903	230V.				

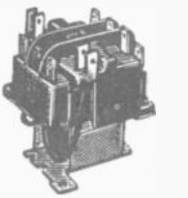
TYPE 91 A.C. GENERAL PURPOSE



Solenoid action. Quick connect terminals Enclosed fine silver contacts. Contacts rated at 15 amps, 277 volts AC max., resistive; 12 amps, (60 amps inrush), 125 volts AC—6 amps (35 amps inrush) 250 volts AC inductive. Selective mounting. Electrical life, 100,000 operations at rated load. Coil, 22 volt-amperes inrush; 10 volt-amperes sealed. Overall dimensions, 2⅛"x1⅞"x2⅜". Approx. wt., 5 oz.

Stock No.	Type	A.C. Coil V.	Action	1-24	25-49	50-99	100-249
60F2716	91-901	24	DPDT	5.14	4.63	4.11	3.60
60F2717	91-902	115/120	DPDT	5.37	4.84	4.30	3.76
60F2718	91-903	208/240	DPDT	5.57	5.02	4.46	3.90

TYPE 92 A.C. GENERAL PURPOSE



Solenoid action. Quick connect terminals. Enclosed fine silver contacts rated at 15 amps, 277 volts AC max., resistive: 12 amps (60 amps inrush), 125 volts AC — 6 amps (35 amps inrush), 250 volts AC inductive. Selective mounting. Electrical life, 100,000 operations at rated load. Coil characteristics, 24 volt-amperes inrush; 12 volt-amperes sealed. Overall dimensions, 2⅜x2⅜x2¾". Approx. wt., 6 oz.

Stock No.	Type	Coil V.	Action	1-24	25-49	50-99	100-249
60F2719	92-901	24	3PDT	5.87	5.29	4.70	4.11
60F2720	92-902	115/120	3PDT	6.07	5.47	4.86	4.25
60F2721	92-903	208/240	3PDT	6.24	5.62	5.00	4.37

 Newark-Detroit Electronics, Inc., 20700 Hubbell Ave., Oak Park, Mich. 48237

● NEW TYPE 129AR AC POWER RELAY

Totally enclosed in high impact phenolic, with aluminum die-cast base. Fits any ½" knockout. Contacts rated at 250 VAC @ 18 amp. continuous. Pre-wired. Color coded 8¼ lead wires, U.L. approved (†)single pole, normally open; (*)single pole, double throw. 2¾x2 11/16x3 1/16".

Stk. No.	Mfr. Type	Coil Voltage	1-24	25-49	50-99	100-249
60F2683	129AR-901†	24	6.64	5.98	5.31	4.65
60F2684	129AR-902†	120	6.95	6.25	5.55	4.86
60F2685	129AR-903†	208/230	7.25	6.53	5.80	5.08
60F2686	129AR-904*	24	7.24	6.52	5.80	5.07
60F2687	129AR-905*	120	7.54	6.79	6.04	5.28
60F2688	129AR-906*	208/230	7.85	7.07	6.28	5.50

TYPE MS64 MINIATURE SENSITIVE RELAY

For application where minimum mounting space and maximum protection to moving parts are important For printed circuit board mounting or in mounting bracket version for "solder on" lead wire termination. Snap-on cover.

PRINTED CIRCUIT

Stock No.	Type	DC Voltage Nom.	DC Voltage Pick-up*	Coil Ohms @25°C	1-24	25-49	50-99	100-249
60F2971	MS64-901	6	4.5	400	2.37	2.13	1.90	1.66
60F2972	MS64 902	12	9 0	1600	2.44	2.20	1.96	1.71
60F2973	MS64-903	24	18 0	6500	2.82	2.54	2.27	1.97
60F2974	MS64-904	3MA	2 3MA.	10000	2.96	2.66	2.37	2.07
BRACKET SOLDER TERMINALS								
60F2975	MS64-911	6	4.5	400	2.37	2.13	1.90	1.66
60F2976	MS64-912	12	9.0	1600	2.44	2.20	1.96	1.71
60F2977	MS64-913	24	18 0	6500	2.82	2.54	2.27	1.97
60F2978	MS64-914	3MA.	2.3MA	10000	2.96	2.66	2.37	2.07

INDUSTRIAL AC CONTACTORS

Double break contact action. Replaceable contacts and coil. Silver alloy contacts. Design permits common base, coil, and magnet for contactor ratings from 10-50 amperes. Epoxy sealed molded magnet coil housing. 50/60 Hz magnet coil. Hi-dielectric arc resistant moldled block and carrier. Resilient mounting.

C10/4PNO

Pressure type power terminals: #10 wire max; 10 amps @ 600 max. resistive load (per pole); Contacts convert to N.C.

Stk. No.	Type	Coil V.	1-24	25-49	50-99	100-299
60F2830	C10-901	24	14.00	12.60	11.20	9.80
60F2831	C10-902	110				
60F2832	C10-903	220				

C15/4PNO

Same feature as above but rated for 15 amps. @ 600 Volts Contacts convert to N.C.

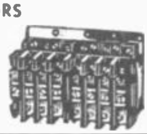
Stk. No.	Type	Coil V.	1-24	25-49	50-99	100-299
60F2853	C15-901	24	19.80	17.82	15.84	13.86
60F2854	C15-902	110				
60F2855	C15-903	220				

C30/3PNO

30 amps. @ 600V; Terminals take #6 solid wire max.; SPNO auxiliary converts to N.C.

Stk. No.	Type	Coil V.	1-24	25-49	50-99	100-299
60F2833	C30-901	24	24.30	21.87	19.44	17.01
60F2834	C30-902	110				
60F2835	C30-903	220				

AC REVERSING CONTACTORS



Two type C contactors mounted side by side on steel base. Hardened steel interlock prevents simultaneous closing of both contactors. Resilient mounting No cross-phase wiring 15 amps @ 600V. 4PNO All contacts convert to N.C.

60F2836	CR15-901	110	43.20	38.88	34.56	30.24
60F2837	CR15-902	220	43.20	38.88	34.56	30.24

TYPE C REPLACEMENT PARTS

Magnetic Coils

Stk. No.	Type	Replaces	Voltage 50/60Hz	1-24	25-Up
60F2991	MC-901	45225-5	24	4.68	3.51
60F2992	MC-902	45225-1	110		
60F2993	MC-903	45225-2	220		

Contact Assemblies

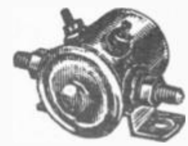
Stk. No.	Type	Replaces	Type	1-24	25-Up
60F2994	CA-901	45997-3 45997-4	C-10, C-15 CR-15*	5.76	4.33
60F2995	CA-902	45997-5	C-30, CR-30*	7.80	5.85

***Reversing type—2 sets required**

Armature and Magnet

Stk. No.	Type No.	1-24	25-Up
60F2996	RP-901	4.28	3.22

TYPE 70 D. C. POWER CONTACTORS



Solenoid actuated. Totally enclosed. Double break copper to copper rotating disc moveable contact. Copper stud power and isolated coil terminals Wiring hardware included. Continuous rating, 80 amps (inrush 300 amps at 6 volts—150 amps at 12 volts DC) 50 amps maximum at 24 and 32 volts DC. Bracket mounting —2.109" centers. Coil, 9 watts. Copper contacts except * which are silver. Overall dimensions SPNO: 2½x3½x2½". SPDT: 3⅜x3 9/16x 2½". Approx. wt., 1 lb

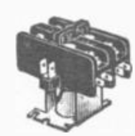
Stock No.	Type	Coil V.	Action	1-24	25-49	50-99	100-249
60F2725	70-901	6V. D.C.	SPNO	3.74	3.37	3.00	2.62
60F2726	70-902	12V. D.C.	SPNO	3.74	3.37	3.00	2.62
60F2727	70-903	24V. D C.	SPNO	3.74	3.37	3.00	2.62
60F2728	70-904	36V. D C.	SPNO	3.74	3.37	3.00	2.62
60F2675	70-905*	6V. D.C.	SPNO	5.97	5.37	4.77	4.18
60F2676	70-906*	12V. D C.	SPNO	5.97	5.37	4.77	4.18
60F2677	70-907*	24V. D.C.	SPNO	5.97	5.37	4.77	4.18
60F2678	70-908*	36V. D C.	SPNO	5.97	5.37	4.77	4.18
60F2679	70-909*	4V D C	SPDT	9.54	8.59	7.64	6.68
60F2680	70-910*	12V D.C.	SPDT	9.54	8.59	7.64	6.68
60F2681	70-911*	24V D C	SPDT	9.54	8.59	7.64	6.68
60F2682	70-912*	36V D C	SPDT	9.54	8.59	7.64	6.68

TYPE 75 AC POWER CONTACTORS

Protected contacts Coil lead wires. Silver alloy contacts rated at 20 amps, 240 volts AC (per hole) resistive; 15 amps 230 volts AC inductive. 1 Horse power per pole, 115/230 volts AC. 2 pole rating—2 horse power, 230 volts AC. Selective mounting. Electrical life, 100,000 operations at rated load. Coil characteristics, 16 volt-amperes inrush; 12 volt-amperes sealed. Screw power terminals except * which are quick-connect. Overall dimensions, 2½x2⅛x2¼". Approx. wt., 7 oz.

Stock No.	Type	AC Volts 60 Hz.	Action	1-24	25-49	50-99	100-249
60F2722	75-901	24	2PNO	4.59	4.13	3.67	3.21
60F2723	75-902	115/120	2PNO				
60F2724	75-903	230/240	2PNO				
60F2982	75-904*	24	2PNO	4.59	4.13	3.67	3.21
60F2983	75-905*	115/120	2PNO				
60F2984	75-906*	230/240	2PNO				

TYPE 143 AC POWER CONTACTOR



Compact power contactor. 2-pole normally open double break contacts. Rated for 18 amp., 250 volts continuous or 90 amp. inrush. Straight-through wiring. No. 10 pressure screw power terminals with dual quick connect auxiliary terminals. Female quick-connect wiring, terminals included. High dielectric molded vertical mounting. Class "B" coils. Size: 3¼ x 2⅜ x 2½". Wt. 8 oz. U.L. and CSA listed.

Stock No.	Type	AC Volts 50/60 Hz.	1-24	25-49	50-99	100-249
60F2979	143-901	24	4.78	4.30	3.83	3.35
60F2980	143-902	120				
60F2981	143-903	208-230				

TYPE 129 AC POWER RELAY

Totally enclosed. Screw terminals. Silver alloy contacts rated at 18 amperes continuously at 250 volts AC, resistive or inductive. Horse power rating, 1 H.P. at 125 volts, 2 H.P. at 250 volts. Single screw mounting. Electrical life, 100,000 operations at rated load. Coil: 10 volt-amperes inrush—5 volt-amperes sealed. Size, 2⅜x1⅞x1⅞". Approx. wt. 7 oz.

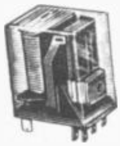
Stock No.	Type	Coil V.	Action	1-24	25-49	50-99	100-249
60F2708	129-901	6	SPNO	3.89	3.50	3.11	2.72
60F2709	129-902	24	SPNO	3.94	3.55	3.16	2.76
60F2710	129-903	115/120	SPNO	4.05	3.65	3.24	2.84
60F2711	129-904	208/230	SPNO	4.14	3.73	3.31	2.90
60F2712	129-905	6	SPDT*	4.32	3.89	3.46	3.03
60F2713	129-906	24	SPDT*	4.37	3.94	3.50	3.06
60F2714	129-907	115/120	SPDT*	4.50	4.05	3.60	3.15
60F2715	129-908	208/240	SPDT*	4.59	4.14	3.68	3.22

***Isolated Terminals; all contact terminals must be wired same polarity.**

NEWARK — Fast Service — Top Quality

Allied Control – Enclosed Plug-In Relays

TU-154 DC RELAYS



For applications in industrial control and data processing systems. Available in 4PDT or 6PDT, both with dust cover. Made under the U/L recognized file # E20604. Operates at 25°C with rating of 3 amps resistive at 115VAC, 60 Hz. Temp Scale for 4PDT is —55 C to +71 C, 6PDT ranges from —55 C to +65 C. Oper Time 15 ms. Shpg. Wt. 1 5 oz.

COIL RESISTANCE AND OPERATE DATA (AT 25°C)

Stock No.	Type	Contacts	Volts DC	Ohms	1-9	10-49	50-99	100-499
59F1264	TU154-4C	4PDT	6	35.5	4.00	3.60	3.00	2.80
59F1265	TU154-4C		12	138	4.00	3.60	3.00	2.80
59F1266	TU154-4C		24	700	4.00	3.60	3.00	2.80
59F1267	TU154-4C		48	2500	4.00	3.60	3.00	2.80
59F1268	TU154-4C		115	10000	4.90	4.41	3.68	3.43
59F1269	TU154-6C	6PDT	6	35.5	5.10	4.59	3.83	3.57
59F1270	TU154-6C		12	138	5.10	4.59	3.83	3.57
59F1271	TU154-6C		24	700	5.10	4.59	3.83	3.57
59F1272	TU154-6C		48	2500	5.10	4.59	3.83	3.57
59F1273	TU154-6C		115	10000	6.00	5.40	4.50	4.20

T-154 DC RELAYS

Compact telephone relays. No eternal Wiring, contact arms extend, plug-in terminals 2 amp contacts, 700 mw except 6-C with 1.5W coil power. Shpg. Wt. 2 oz.

Stock No.	Type	Volt	Cont.	Ohms	1-9	10-49	50-99	100-499
59F459	T154-2C	6	DPDT	52	3.25	2.92	2.44	2.27
59F460	T154-2C	12	DPDT	185	3.25	2.92	2.44	2.27
59F461	T154-2C	24	DPDT	700	3.25	2.92	2.44	2.27
59F462	T154-2C	48	DPDT	2500	3.25	2.92	2.44	2.27
59F463	T154-2C	115	DPDT	15000	4.95	4.45	3.71	3.46
59F464	T154-4C	6	4PDT	52	3.63	3.27	2.72	2.54
59F465	T154-4C	12	4PDT	185	3.63	3.27	2.72	2.54
59F466	T154-4C	24	4PDT	700	3.63	3.27	2.72	2.54
59F467	T154-4C	48	4PDT	2500	3.63	3.27	2.72	2.54
59F468	T154-4C	115	4PDT	15000	5.33	4.80	3.99	3.73
59F469	T154-6C	6	6PDT	25	4.66	4.19	3.49	3.26
59F470	T154-6C	12	6PDT	90	4.66	4.19	3.49	3.26
59F471	T154-6C	24	6PDT	430	4.66	4.19	3.49	3.26
59F472	T154-6C	48	6PDT	1550	4.66	4.19	3.49	3.26
59F473	T154-6C	115	6PDT	9000	5.56	5.00	4.17	3.89

T-163 BIFURCATED DC RELAYS

Maximum contact arrangement of 6PDT. Ambient temperature ranges from —55°C to +71°C. Has Dielectric Strength of 1000 volts rms. at sea level, and 500 volts rms. across open contacts. Insulation Resistance (at +25°C) is 1000 megohms. Shpg. Wt. 2 oz. max

59F526	T-163-2C	6	DPDT	52	3.65	3.28	2.74	2.55
59F527	T-163-2C	12	DPDT	185	3.65	3.28	2.74	2.55
59F528	T-163-2C	24	DPDT	700	3.65	3.28	2.74	2.55
59F529	T-163-2C	48	DPDT	2500	3.65	3.28	2.74	2.55
59F530	T-163-2C	115	DPDT	15000	5.35	4.81	4.01	3.74
59F531	T-163-4C	6	4PDT	52	4.16	3.74	3.12	2.91
59F532	T-163-4C	12	4PDT	185	4.16	3.74	3.12	2.91
59F533	T-163-4C	24	4PDT	700	4.16	3.74	3.12	2.91
59F534	T-163-4C	48	4PDT	2500	4.16	3.74	3.12	2.91
59F535	T-163-4C	115	4PDT	15000	5.86	5.27	4.39	4.10
59F536	T-163-6C	6	6PDT	52	5.34	4.81	4.01	3.74
59F537	T-163-6C	12	6PDT	185	5.34	4.81	4.01	3.74
59F538	T-163-6C	24	6PDT	700	5.34	4.81	4.01	3.74
59F539	T-163-6C	48	6PDT	2500	5.34	4.81	4.01	3.74
59F540	T-163-6C	115	6PDT	15000	6.24	5.62	4.69	4.37

TF-154 DC RELAYS

5 amp contacts; with 700 mw except on the 6 PDT which is 1 5 W. combination solder terminals and plug in style.

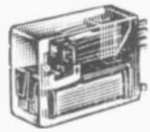
Stock No.	Type	Volt	Cont.	Ohms	1-9	10-49	50-99	100-499
59F484	TF154-2C	6	DPDT	52	3.37	3.03	2.53	2.36
59F485	TF154-2C	12	DPDT	185	3.37	3.03	2.53	2.36
59F486	TF154-2C	24	DPDT	700	3.37	3.03	2.53	2.36
59F487	TF154-2C	48	DPDT	2500	3.37	3.03	2.53	2.36
59F488	TF154-2C	115	DPDT	15000	5.35	4.81	4.01	3.74
59F489	TF154-4C	6	4PDT	52	3.87	3.48	2.90	2.71
59F490	TF154-4C	12	4PDT	185	3.87	3.48	2.90	2.71
59F491	TF154-4C	24	4PDT	700	3.87	3.48	2.90	2.71
59F492	TF154-4C	48	4PDT	2500	3.87	3.48	2.90	2.71
59F493	TF154-4C	115	4PDT	15000	5.49	4.94	4.12	3.84
59F494	TF154-6C	6	6PDT	25	5.02	4.52	3.76	3.51
59F495	TF154-6C	12	6PDT	90	5.02	4.52	3.76	3.51
59F496	TF154-6C	24	6PDT	430	5.02	4.52	3.76	3.51
59F497	TF154-6C	48	6PDT	1550	5.02	4.52	3.76	3.51
59F498	TF154-6C	115	6PDT	9000	5.92	5.33	4.44	4.14

TS-154 PLATE CIRCUIT RELAYS

1 amp contacts, DPDT-85mW, 4PDT *-125mW. Shpg. Wt. 2 oz.

59F509	TS154-2C	5.8 ma	DPDT	2500	3.55	3.19	2.66	2.48
59F510	TS154-2C	4 1 ma	DPDT	5000	4.05	3.64	3.04	2.83
59F511	TS154-2C	3.1 ma	DPDT	10000	4.45	4.00	3.34	3.11
59F512	TS154-4C	8.4 ma	4PDT	2500	3.96	3.57	2.97	2.77
59F513	TS154-4C	6.2 ma	4PDT	5000	4.46	4.02	3.35	3.12
59F514	TS154-4C	4.5 ma	4PDT	10000	4.86	4.38	3.65	3.40

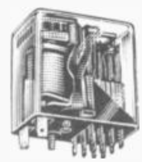
TF-255 AC RELAYS



AC version of the T154 relay with 5 amp contacts. Contact Arrangement available in 2PDT or 4PDT. Contacts: Low level to 5 amp resistive at 29VDC, 3 amp at 115VAC. Coil: 1.5VA nominal power except 2.5VA for 220 V and 4 PDT relays. Shpg. Wt. 2 oz.

Stock No.	Type TF255-	Volt	Cont.	Resis. Ohms	1-9	10-49	50-99	100-499
59F1202	2C	24	DPDT	112.5	4.40	3.96	3.30	3.08
59F1203	2C	115	DPDT	2580	4.40	3.96	3.30	3.08
59F1207	4C	24	4PDT	112.5	5.12	4.61	3.84	3.58
59F1208	4C	115	4PDT	1575	5.12	4.61	3.84	3.58
59F1209	4C	220	4PDT	6000	5.62	5.06	4.21	3.93

T-351 MAGNETIC LATCHING DC RELAYS



Actuated by a pulse of 10 milli-seconds duration, it is able to withstand a continuous coil input. Coil available with one or two windings. Coil dissipation: 1.2 W. Operate time: 10 ms max. (set or reset) Contact ratings: T-351, 1A at 29 VDC, non-ind. and 0.5A at 115 VAC, non-ind.; TF-351, 5A at 24 VDC, non-ind. and 3A at 115 VAC, non-ind. With up to 4 contact (2x) circuits, 6 normally opened or closed. Size: 47/64x11/64x15/16.

Single Coil

Stock No.	Type	VDC	Ohms	Contact	1-9	10-49	50-99	100-499
59F1211	T351-2C	12	166	DPDT	5.00	4.50	3.75	3.50
59F1212	T351-2C	24	630	DPDT	5.00	4.50	3.75	3.50
59F1214	T351-2C	115	13800	DPDT	6.40	5.76	4.80	4.84
59F1216	T351-4C	12	166	4PDT	5.50	4.95	4.12	3.85
59F1217	T351-4C	24	630	4PDT	5.50	4.95	4.12	3.85
59F1219	T351-4C	115	13800	4PDT	6.90	6.21	5.17	4.83
59F1220	TF351-2C	6	40	DPDT	5.12	4.61	3.84	3.58
59F1221	TF351-2C	12	166	DPDT	5.12	4.61	3.84	3.58
59F1222	TF351-2C	24	630	DPDT	5.12	4.61	3.84	3.58
59F1223	TF351-2C	48	2020	DPDT	5.32	4.79	3.99	3.72
59F1224	TF351-2C	115	13800	DPDT	6.52	5.87	4.89	4.56

Double Coil*

59F1225	T351-2C	2/6	31.5	DPDT	7.10	6.39	5.33	4.97
59F1226	T351-2C	2/12	134	DPDT	7.10	6.39	5.33	4.97
59F1227	T351-2C	2/24	485	DPDT	7.10	6.39	5.33	4.97
59F1228	T351-2C	2/48	1760	DPDT	7.30	6.57	5.48	5.11
59F1229	T351-2C	2/110	9600	DPDT	9.05	8.15	6.79	6.34
59F1230	T351-4C	2/6	31.5	4PDT	7.50	6.75	5.63	5.25
59F1231	T351-4C	2/12	134	4PDT	7.50	6.75	5.63	5.25
95F1232	T351-4C	2/24	485	4PDT	7.50	6.75	5.63	5.25
59F1233	T351-4C	2/48	1760	4PDT	7.70	6.93	5.78	5.39
95F1234	T351-4C	2/110	9600	4PDT	9.40	8.46	7.05	6.58
59F1235	TF351-2C	2/6	31.5	DPDT	7.50	6.75	5.63	5.25
59F1236	TF351-2C	2/12	134	DPDT	7.50	6.75	5.63	5.25
59F1237	TF351-2C	2/24	485	DPDT	7.50	6.75	5.63	5.25
59F1238	TF351-2C	2/48	1760	DPDT	7.70	6.93	5.78	5.39
59F1239	TF351-2C	2/110	9600	DPDT	9.45	8.51	7.09	6.62

SOCKETS FOR RELAYS ON THIS PAGE

Above chassis mounting sockets, Beryllium copper, silver plated contacts. Socket: mica filled phenolic. Hardware: retainer ring and ground wire. The **30055** comes with retainer ring and ground wire. The **30054** comes with ground wire only.

Stock No.	Type	For Relays	1-9	10-49	50-99	100-499
59F517	30055-1	2PDT-Solder	.55	.50	.43	.38
59F1252	30054-1	2PDT Solder	.50	.45	.38	.35
59F541	30055-1	2PDT-Pr Cir.	.55	.50	.43	.38
59F1256	30054-5	2PDT-Pr Cir.	.50	.45	.38	.35
59F1261	30055-3	2PDT-Pr Cir	.72	.65	.55	.50
59F1254	30054-3	2PDT-Pr Cir.	.67	.60	.50	.47
59F1263	30055-8	4PDT Solder	.70	.64	.54	.49
59F1258	30054 8	4PDT Solder	.65	.59	.49	.46
59F518	30055 2	4PDT-Solder	.60	.55	.46	.42
59F1253	30054 2	4PDT Solder	.55	.50	.41	.39
59F542	30055 6	4PDT-Pr. Cir.	.70	.64	.54	.49
59F1257	30054 6	4PDT-Pr Cir.	.65	.59	.49	.46
59F1262	30055 4	4PDT-Pr. Cir.	.88	.80	.67	.61
59F1255	30054 4	4PDT-Pr Cir	.78	.75	.62	.58
59F519	30055-20	6PDT Solder	.95	.86	.73	.66
59F1259	30054 20	6PDT Solder	.90	.81	.68	.63
59F543	30055 24	6PDT-Pr. Cir.	.95	.86	.73	.66
59F1260	30054-24	6PDT-Pr Cir.	.90	.81	.68	.63

*.100 grid spacing. ‡.359" panel

A. C. SOCKET RETAINERS

Beryllium Copper-Gold Platted Terminals - Sockets of Black Phenolic per MIL - P-14D-CFG.

Stk. No.	Type	For Relays	1-99	100-Up
59F1250	30040-4	2PDT	.05	.03
59F1251	30040 5	4PDT	.05	.03

TAT DC RELAYS

Subminiature, 4-4-48. NF-2B tapped holes. Wt. .7 oz., 2 AMP contacts; 700 MW, DPDT Relay.

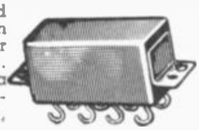
Stk. No.	Type	Voltage	Ohms	1-9	10-49	50-99	100-499
59F474	TAT-2C	6DC	52	2.96	2.66	2.22	2.07
59F475	TAT-2C	12DC	185				
59F476	TAT-2C	24DC	700				
59F477	TAT-2C	48DC	2500				
59F478	TAT-2C	115DC	15000	4.66	4.19	3.49	3.26

TAT-4C DC RELAYS

Stk. No.	Type	Voltage	Ohms	1-9	10-49	50-99	100-499
59F479	TAT-4C	6DC	52	3.34	2.51	3.01	2.34
59F480	TAT-4C	12DC	185				
59F481	TAT-4C	24DC	700				
59F482	TAT-4C	48DC	2500				
59F483	TAT-4C	115DC	15000	5.04	3.78	4.54	3.53

● NEW HALF CRYSTAL CAN RELAY

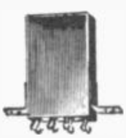
HALF CRYSTAL can relay in all welded construction with solder hook or plug in terminals. Bifurcated contacts - higher reliability, especially in dry circuit areas. Dielectric Strength: 1000 volts rms at sea level, 500 volts rms between open contacts: between coil terminals and case, 350 volts rms at 80,000 feet.



Stk. No.	Type	Volts	Amps	Coil Res.	1-9	10-49	50-99	100-499
59F1246	S6A1	26.5V O-C	2	700	9.91	8.92	7.43	6.94
59F1247	S6H3	26.5V O-C	2	700	9.91	8.92	7.43	6.94
59F1248	SL6H1	26.5V O-C	2	700	9.91	8.92	7.43	6.94
59F1249	SL6H3	26.5V O-C	2	700	9.91	8.92	7.43	6.94

WJS-3D AND WJS-6D DC RELAYS

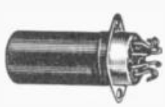
Welded construction, biforcated contacts. Meets MIL-R-5757/13. Ambient temp.: —65°C to +125°C. Non-inductive—low level up to 3 amps @ 29VDC or - amp @ 115 VAC case underground. Terminals: 0.2 in. grid spaced Shock: 50g operational. Insl. rest.: 1000 megohms min. Min. pull-in power; WJS-3D, 25 mw; WJS-6D, 40 mw. Hook solder term. except.



Stk. No.	Type	Curr. Ma	Ohms	Cont.	1-9	10-49	50-99	100-499
59F664	WJS-3D	3.2	2500	SPDT	11.57	10.41	8.68	8.10
59F665	WJS-3D	2.2	5000	SPDT	11.57	10.41	8.68	8.10
59F666	WJS-3D	1 6	10000	SPDT	13.50	12.15	10.13	9.45
59F667	WJS6D	4 0	2500	DPDT	11.83	10.65	8.87	8.28
59F668	WJS6D	2.8	5000	DPDT	11.83	10.65	8.87	8.28
59F669	WJS6D	2.00	10000	DPDT	13.83	12.45	10.37	9.68

MH SEALED RELAYS

26.5 VDC, 5 amp, solder hook terminals. Vibration 34-1000 Hz at 15G Temp. for MII, —55° to +85°C for MHB, —65°C to +125°C. Wt. 2 oz.



Stk. No.	Type	Ohm	Coil Pwr.	Cont.	1-9	10-49	50-99	100-499
59F439	MH-6D	400	1.75W	DPDT	14.25	11.40	10.69	9.98
59F442	MHB-6D	325	1.25W	DPDT	14.25	11.40	10.69	9.98
59F441	MH-18D	240	3W	4PDT	23.75	19.00	17.81	16.63
59F444	MHB-18D	200	3.5W	4PDT	23.75	19.00	17.81	16.63
59F440	MH-12D	300	2.5W	6PDT	20.90	16.72	15.68	14.63
59F443	MHB-12D	250	3.0W	6PDT	20.90	18.72	15.68	14.63

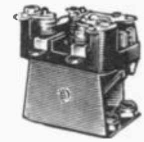
GENERAL PURPOSE RELAYS

DPDT enclosed in a transparent polycarbonate cover and rigidly secured to base. Enclosure: dust cover. Socket: Any standard RETMA or EIA octal. Contacts rated 5 amps. Shpg. weight: 2.5 ounces.

Stock No.	Type	Volt.	Ohms	1-9	10-49	50-99	100-499
59F1240	TEFDO-2C	6AC	6.4	4.92	4.43	3.69	3.44
59F1242	TEFDO-2C	24AC	112.5	4.92	4.43	3.69	3.44
59F1243	TEFDO-2C	115AC	2580.0	4.92	4.43	3.69	3.44
59F502	TFMDO-2C	6DC	52	6.02	5.42	4.51	4.21
59F503	TFMDO-2C	12DC	185	6.02	5.42	4.51	4.21
59F504	TFMDO-2C	24DC	700	6.02	5.42	4.51	4.21
59F505	TFMDO-2C	115DC	15000	7.72	6.95	5.78	5.40

POWER TYPE RELAYS

BOT AC/DC RELAYS

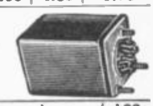


AC-DC relay for 15 amp at 29 VDC and 115 VAC. .05 ohms max, resistance. Temp: —55 C to +71 C. The BOT is an unenclosed DPDT relay with standard mounting. Terminals solder lug. Wt. 5 oz.

Stock No.	Type	Voltage	Ohm	Coil Power	1-9	10-49	50-99	100-499
59F404	BOT6A	6AC	1.07	5VA	5.50	4.95	4.12	3.85
59F1245	BOT6A	12AC	4.10	5VA	5.50	4.95	4.12	3.85
59F405	BOT6A	24AC	17.	5VA	5.50	4.95	4.12	3.85
59F406	BOT6A	115AC	445	5VA	5.50	4.95	4.12	3.85
59F407	BOT6A	230AC	2675	5VA	5.62	5.06	4.21	3.93
59F408	BOT6D	6DC	14.2	2.5W	4.82	4.34	3.61	3.37
59F409	BOT6D	12DC	70	2.5W	4.82	4.34	3.61	3.37
59F410	BOT6D	26.5DC	230	2.5W	4.82	4.34	3.61	3.37
59F411	BOT6D	110DC	5000	2.5W	5.40	4.86	4.05	3.78

BOHR AC/DC RELAYS

Same as BOT except 10 amps, hermetically sealed mounting (3)—8-32 thd. studs. Solder hook term. Wt. 9.5 oz.



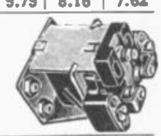
Stk. No.	Type	Voltage	Ohm	Coil Power	1-9	10-49	50-99	100-499
59F412	BOHR-6A	115AC	445	5VA	11.33	10.20	8.50	7.93
59F413	BOHR-6D	26.5DC	230	2.5W	10.88	9.79	8.16	7.62

BOHRO AC/DC RELAYS

Same as above except plug-in style, socket RETMA or EIA. 9.5 oz.

59F414	BOHRO-6A	115AC	445	5VA	11.33	10.20	8.50	7.93
59F415	BOHRO-6D	26.5DC	230	2.5W	10.88	9.79	8.16	7.62

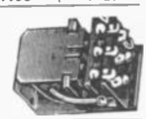
CNA 115 VAC AC RELAYS



SPST-NO; 145 ohm coil, 10.5 VA relays are heavy duty with compact double break contacts. Mounting (4)—6-32 elastic stop nuts. Wt.; 9.5 oz.

Stk. No.	Type	Cont.	1-9	10-49	50-99	100-499
59F417	CNA-13A	25A	8.60	7.74	6.45	6.02
59F418	CNAS-13A	50A	10.60	9.54	7.95	7.42

PO-9 AND PO-12 AC/DC RELAY SERIES



Low cost compact. PO-9 3PDT, PO-12 4PDT, 15 ampere relays. Mounting (4)—6-32 tapped holes. Wt., 8.0 oz.

Stk. No.	Type	Volt.	Wattage	Ohm	1-9	10-49	50-99	100-499
59F449	PO-9A	24AC	10.5VA	8	7.03	6.33	5.27	4.92
59F450	PO-9A	115AC	10.5VA	145	7.03	6.33	5.27	4.92
59F451	PO-9D	13.2DC	2.5W	70	6.71	6.04	5.03	4.70
59F452	PO-9D	24DC	2.5W	230	6.71	6.04	5.03	4.70
59F453	PO-9D	110DC	2.5W	5000	7.38	6.64	5.53	5.17
59F454	PO-12A	115AC	10.5VA	145	7.90	7.11	5.92	5.53
59F455	PO-12D	13.2DC	2.5W	70	7.44	6.70	5.58	5.21
59F456	PO-12D	24DC	2.5W	230	7.44	6.70	5.58	5.21

ALCO

ISOLATION RELAYS

Millions of applications because of compact size. Typical uses are in automatic apparatus demanding isolated control circuits. Relay combines isolated step down transformer & sensitive low volt. relay in a single laminated core construction. Operates from 95-125 VAC.

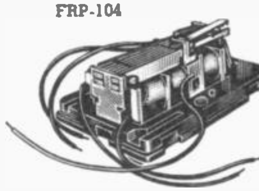
61F968. Model FRP-101. SPST — Basic. **NET.** 3.85

61F969. Model FRP-102. SPDT — Basic. **NET.** 4.45

Model FRP-104. A standard octal base plug feature is added to the basic isolation relay for the industrial user. The relay is protected by a plastic dust cover. SPDT @ 5 amps. Same specs as above.

61F970. NET. 5.45

FRP-104



FRP-101-2

Time Delay and Mercury Plunger Relays

AGASTAT PNEUMATIC TIME DELAY RELAYS

Fig. A

Fig. B

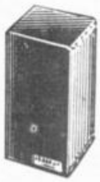


Fig. C

Fig. D.

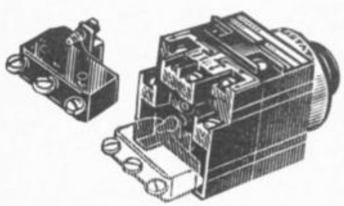


Fig. E

Type 2412, 2452. Time delay on pull-in. Timing cycle begins when coil is energized. Coil kept energized throughout time setting preceding DPDT contacts transfer from de-energized to energized position. Coil de-energized: contacts retransfer immediately (25 m-sec). Coil de-energized during timing cycle, contacts remain de-energized & timing mech. resets to start position for full time cycle on next energization of coil.

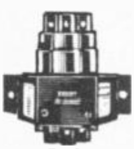
Model 2422. Time delay on drop-out. Coil energized: DPDT contacts transfer & stay in transfer position. De-energization coil: Time delay begins. Timing cycle: contacts stay energized. End time delay setting: contacts transfer back to de-energized position. Coil re-energized during timing cycle; contacts energized produce full time delay upon next de-energization if coil remains de-energized through time setting.

Type 2422, 2462. Double head unit provides independent delay of contact transfer on both energized & de-energized cycles of coil, 6$\frac{5}{8}$"x3$\frac{3}{8}$"x3$\frac{1}{8}$". Shpg. wt. 2$\frac{1}{2}$ lbs.

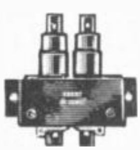
Auxiliary Switch Kits: Type "T" SPDT contacts rated 10A/120V, 60 cy. attached to Model 2412 or 2422. 2412 units: "T" switch provides 2-step timing. Switch transfers time delay up to 30 sec. Type "L" switch gives immediate transfer of contacts both on energization and de-energization cy. of coil. *Needle valve.

Stk. No.	Model	Fig.	Time Delay Range	Volts AC	NET
57F1550	2412AB	A	0.2 to 5 sec.	120	40.00
57F1551	2412AD	A	2.5 to 50 sec.	120	40.00
57F1552	2412AH	A	1 to 30 min.	120	48.00
57F1567	2412AN*		0.2 to 180 sec.	120	36.00
57F1553	2412BB	A	0.2 to 5 sec.	240	40.00
57F1554	2412BD	A	2 5 to 50 sec.	240	40.00
57F1555	2412BH	A	1 to 30 min.	240	48.00
57F1556	2422AB	A	0 2 to 5 sec.	120	40.00
57F1557	2422AD	A	2 to 50 sec.	120	40.00
57F1558	2422AH	A	1 to 30 min.	120	48.00
57F1568	2422AN*		0.2 to 180 sec.	120	36.00
57F1559	2422BB	A	0.2 to 5 sec.	240	40.00
57F1560	2422BD	A	2.5 to 50 sec.	240	40.00
57F1561	2422BH	A	1 to 30 min.	240	48.00
57F1562	2432ADD	B	2.5 to 50 sec.	120	80.00
57F1563	2432AHH	B	1 to 30 min.	120	88.00
57F1569	2452AB	D	.2 to 5 sec.	120	45.00
57F1570	2452AD	D	2.5 to 50 sec.	120	45.00
57F1571	2452AH	D	1 to 30 min.	120	53.00
57F1572	2452BB	D	.2 to 5 sec.	240	45.00
57F1573	2452BD	D	2.5 to 50 sec.	240	45.00
57F1574	2452BH	D	1 to 30 min.	240	53.00
57F1564	T	E	Aux. switch kit (see text) 30 sec.		8.00
57F1565	L	E	Aux. switch kit (see text) 30 sec.		7.00
57F1566	GZ	C	Relay enclosure w/bottom knockouts		6.50
57F1575	2462AB	D	.2 to 5 sec.	120	45.00
57F1576	2462AD	D	2.5 to 50 sec.	120	45.00
57F1577	2462AH	D	1 to 30 min.	120	53.00
57F1578	2462BB	D	.2 to 5 sec.	240	45.00
57F1579	2462BD	D	2.5 to 50 sec.	240	45.00
57F1580	2462BH	D	1 to 30 min.	240	53.00
57F1581	2412AC	A	.8 to 15 sec.	120	40.00
57F1582	2422AC	A	.8 to 15 sec.	120	40.00
57F1583	2412AE	A	10 to 200 sec.	120	40.00
57F1584	2422AE	A	10 to 200 sec.	120	40.00
57F1585	2212AF	A	.5 to 10 min.	120	44.00
57F1586	2422AF	A	.5 to 10 min.	120	44.00

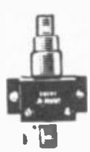
EBERT MERCURY PLUNGER RELAYS



A-111



A-11, B-11, H-11



A-1, A-2, B-1, H-1

S&T

EM-1, HD-1

MR-14, EM-4, HD-4

"100" Relay

Silent, mercury to mercury action relay for power control applications. Terminals in front for easy access. Contacts rated 550 Volts AC.

EPOXY ENCASED METAL TUBE TYPES

Epoxy encased metal tube withstands physical shock.

MINIATURE SERIES A 25 AMPS (115VAC)

Stk. No.	Type	Description	Size	1-9	10-99
59F1600	A-1	Single pole NO	4$\frac{3}{16}$x3x2$\frac{1}{4}$"	13.80	12.50
59F1601	A-2	Single pole NC	4$\frac{3}{16}$x3x2$\frac{1}{4}$"	15.80	14.50
59F1602	A-11	2-pole both NO	4$\frac{3}{16}$x4$\frac{3}{8}$x2$\frac{9}{16}$"	24.65	22.20
59F1603	A-111	3-pole ALL NO	4$\frac{3}{16}$x4$\frac{3}{8}$x2$\frac{9}{16}$"	35.85	32.30

STANDARD SERIES B 50 AMPS (115VAC)

Stk. No.	Type	Description	Size	1-9	10-99
59F1604	B-1	Single pole NO	4$\frac{3}{4}$x3x2$\frac{1}{4}$"	17.50	15.95
59F1605	B-11	2-pole both NO	4$\frac{3}{4}$x4$\frac{3}{8}$x2$\frac{9}{16}$"	29.75	26.90

HEAVY DUTY SERIES H 100 AMPS (115VAC)

Stk. No.	Type	Description	Size	1-9	10-99
59F1606	H-1	Single pole NO	6$\frac{3}{4}$x4x3$\frac{5}{8}$"	47.70	42.95
59F1607	H-11	2-pole both NO	6$\frac{3}{4}$x6$\frac{1}{2}$x4"	78.90	71.00

COMPLETELY ENCAPSULATED RELAYS

Use for extreme environmental conditions. Molded-in terminal connectors eliminates need for enclosures.

MINIATURE SERIES S 25 AMPS (115VAC)

Stk. No.	Type	Description	Size	1-9	10-99
59F1608	S-1	Single pole NO	3$\frac{1}{2}$x1$\frac{3}{4}$x2"	16.30	14.70
59F1609	S-2	Single pole NC	3$\frac{1}{2}$x1$\frac{3}{4}$x2"	18.30	16.70

STANDARD SERIES T 50 AMPS

Stk. No.	Type	Description	Size	1-9	10.99
59F1610	T-1	Single pole NO	3$\frac{7}{8}$x2$\frac{1}{4}$x2$\frac{3}{8}$"	19.90	17.95
59F1611	T-2	Single pole NC	3$\frac{7}{8}$x2$\frac{1}{4}$x2$\frac{3}{8}$"	21.90	19.95

OPEN CONSTRUCTION TYPES

MINIRELAY 20 AMPS (115VAC) CSA LISTED

Stk. No.	Type	Description	Size	Net	2-up
59F1612	MR-10	Single pole NO	3x1$\frac{7}{8}$x1$\frac{1}{2}$"	10.89	8.36
59F1613	MR-12	Single pole NC	4x1$\frac{7}{8}$x1$\frac{1}{2}$"	11.99	9.19
59F1614	MR-14	2 pole both NO	4$\frac{1}{2}$x3x1$\frac{7}{8}$"	20.63	16.34

STANDARD DUTY 35 AMPS (115VAC) UL&CSA LISTED

Stk. No.	Type	Description	Size	Net	2-up
59F1615	EM-1	Single pole NO	4$\frac{3}{4}$x2$\frac{5}{8}$x2$\frac{1}{2}$"	15.35	11.28
59F1616	EM-4	2pole both NO	5$\frac{3}{8}$x3$\frac{3}{8}$x2$\frac{1}{2}$"	25.30	19.80

HEAVY DUTY 60 AMPS (115VAC) UL&CSA LISTED

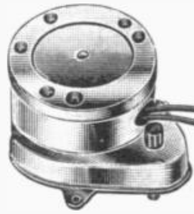
Stk. No.	Type	Description	Size	Net	2-up
59F1617	HD-1	Single pole NO	5$\frac{1}{4}$x3$\frac{3}{4}$x2$\frac{3}{8}$"	17.32	13.64
59F1618	HD-4	2 pole both NO	5$\frac{3}{4}$x3$\frac{3}{4}$x2$\frac{3}{8}$"	31.95	24.31

"100" RELAY—100 AMPS (115VAC) CSA LISTED

Encapsulated relay tube to withstand physical shock and rough handling.

Stk. No.	Type	Description	Size	Net	2-up
59F1619	100	Single pole NO	7x3$\frac{1}{2}$x3$\frac{3}{8}$"	35.75	27.22
59F1620	100	Single pole NC	7x3$\frac{1}{2}$x3$\frac{3}{8}$"	37.95	29.42

CRAMER MOTORS



Type 117P. Permanent magnet type synchronous motors suited for use both in the lab and industry where precise timing functions are a prerequisite. Instant start and stop . . . No Coast! Rotation is clockwise facing shaft. Shaft is .125" dia., .375" long with flat. For 115 volt, 60 hz operation. 117 P series 30 in. oz. @ 1RPM. 117 H series 60 in. oz. @ 1 RPM.

Stock No.	Type	Speed	1-4	5-9	10-24	25-49	50-99
55F390	117P	1 rev./day	9.00	8.50	8.00	7.00	5.65
55F391	117P	1 rev./12 hrs	9.00	8.50	8.00	7.00	5.65
55F392	117P	1 rev./hour	8.50	8.25	7.75	6.75	5.40
55F393	117P	1 rev./30 min	8.50	8.25	7.75	6.75	5.40
55F394	117P	1 rev./5 min	8.50	8.00	7.50	6.50	5.10
55F395	117P	1 rev./min	8.00	7.50	7.00	6.00	4.85
55F4400	117P	2 rev./min					
55F4401	117P	4 rev./min					
55F397	117P	10 rev./min					
55F398	117P	30 rev./min					
55F399	117P	60 rev./min					
55F4402	117H	2 rev./min	10.00	9.00	8.50	7.50	6.50
55F4403	117H	4 rev./min					
55F4404	117H	10 rev./min					
55F4405	117H	30 rev./min					
55F4406	117H	60 rev./min					

REVERSIBLE SYNCHRONOUS MOTORS

Type 0410. Provides equivalent of 35 in. oz. at 1 RPM and electrically reversible. Direction of the rotation can be controlled by an SPDT switch. Operates on 2 phase or single phase. Single phase operation is accomplished by a shift network which is furnished with motor. Shaft is .125 dia. x .375 long flatted. 115 volt 60 hz operation. Shpg. wt., 7 oz.

Stock No.	Speed	1-4	5-9	10-24	25-49	50-99
55F4407	1 rev./day	17.50	15.50	14.25	13.25	12.00
55F4408	1 rev /12 hr	17.50	15.50	14.25	13.25	12.00
55F4409	1 rev./hour	16.50	15.00	13.75	12.75	11.85
55F4410	1 rev./30 min					
55F4411	1 rev./5 min					
55F4412	1 rev./min					
55F4413	2 rev./min					
55F4414	4 rev./min					
55F4415	10 rev./min					
55F4416	30 rev./min					
55F4417	60 rev./min					

AMPHENOL MOTORS

4 POLE SYNCHRONOUS MOTORS

Synchronous permanent split capacitor type. No cut out switch is used. Can be reversed with a DPDT switch. Torque same in both directions. Starting torque min. of double the rated syn. torque with average of 3 to 4 times this fig. Rated 8.7 Watts on 110V. 50 or 60 hz, 110-220V. * is 11 watts. On 50 cycles the output speed will be 5/6 of the listed speed. Size: 1003—2⅞x2$\frac{9}{16}$", shaft dia., .25". 1005—2¼x2$\frac{9}{16}$", shaft dia., 1.876", mounting size for both 2.696". Geared motor can be mounted with shaft in 9, 12, 3, or 6 o'clock positions. Wt., 3 lbs. *Without gear train.

1005-4SY

1003-4SY

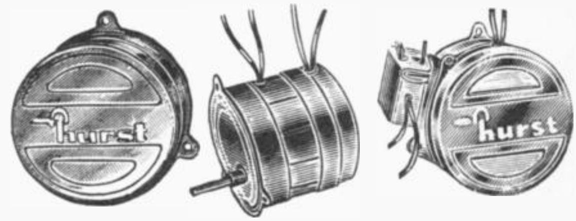
Stk. No.	Type	Output	Rated Sync. Torque-oz. in.	1-9	10-49	50-199
12F860	1003-4SY	300 RPM	1.3	31.96	28.78	26.95
12F861	1003-4SY	180 RPM	2.1	31.96	28.78	26.95
12F862	1003-4SY	120 RPM	3.2	33.26	29.94	28.04
12F863	1003-4SY	60 RPM	7.0	33.26	29.94	28.04
12F864	1003-4SY	30 RPM	14.0	33.26	29.94	28.04
12F865	1003-4SY	10 RPM	41.0	35.87	32.29	30.25
12F866	1003-4SY	3 RPM	138 0	37.11	33.41	31.29
12F867	1003-4SY	1 RPM	150.0	37.11	33.41	31.29
12F868	1005 4SY*	1800 RPM	.56	25.17	22.66	21.22

MOTOR CAPACITOR

A 0 8 mfd capacitor that is required for the above listed motors. Size: 3"x1" dia. Shipping wt., ½ lb.

12F869. 1-9 1.17 10-49 ...... .99 50-199....... .97

HURST MOTORS



SM-DA CA PC-DA

40 INCH-OUNCE SYNCHRONOUS MOTOR FOR HEAVY DUTY CONTINUOUS TIMING

This compact motor is engineered for tough jobs demanding accurate timing. It has excellent shock and vibration resistance and will start instantly at full torque (40 in. ounces @ 1 RPM). It will not overheat during continuous duty nor in a stall position. Dim. 2½"x1¾". Weight 12 oz. Shaft size: $\frac{3}{16}$" dia flatted. Shaft length: 1". Mounting: 3 no. 6 holes spaced 120°. Power: 60 CPS. AC: 95/130V., 5 watts. Rotation: Clockwise facing shaft. Max. temp. rise 40°C above ambient. Shock resistance: 100g without motor damage. Shpg. wt., 1 lb.

Stock No.	Mfg. Type	RPM	1-9	10-24	25-49	50-99	100-249
24F1450	SM-1	1	12.28	11.05	10.50	9.98	9.48
24F1451	SM-4	4					
24F1452	SM-6	6					
24F1453	SM-10	10					
24F1454	SM-30	30					
24F1455	SM-60	60					

120 INCH-OUNCE REVERSIBLE SYNCHRONOUS MOTORS

Complete timing accuracy in both clockwise and counter-clockwise directions. SPDT switching. Dimensions: 2½" dia. Shaft size: $\frac{3}{16}$" dia. Shaft length 1" standard flatted. Power: 60 hz. AC 95/130V., 5 watts. Other specifications same as above. Shpg. wt., 1 pound 4 ounces.

Stk. No.	Mfg. Type	RPM	1-9	10-24	25-49	50-99	100-249
24F1456	DA-1	1	14.60	13.14	12.48	11.86	11.27
24F1580	DA-2	2					
24F1457	DA-4	4					
24F1458	DA-6	6					
24F1459	DA-10	10					
24F1581	DA-12	12					
24F1460	DA-30	30					
24F1461	DA-60	60					

120 INCH-OUNCE REVERSIBLE SYNCHRONOUS MOTORS

Same as Series DA (above) but with clutch and brake. Shpg. wt., 1 lb. 8 oz.

Stk. No.	Mfg. Type	RPM	1-9	10-24	25-49	50-99	100-249
24F1471	PC-DA-1	1	20.18	18.16	17.25	16.39	15.75
24F1582	PC-DA-2	2					
24F1472	PC-DA-4	4					
24F1473	PC-DA-6	6					
24F1474	PC-DA-10	10					
24F1583	PC-DA-12	12					
24F1475	PC-DA-30	30					
24F1476	PC-DA-60	60					

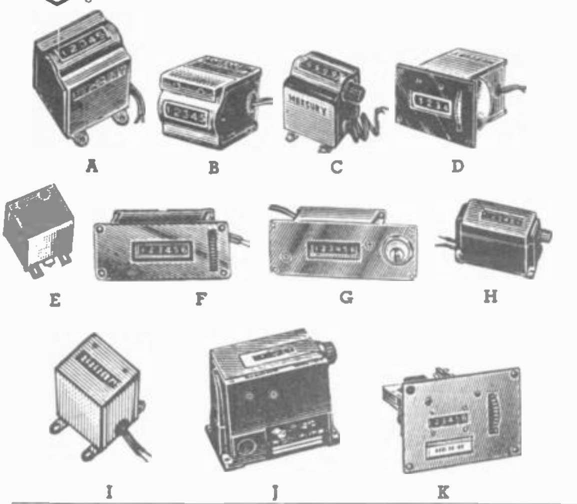
100 INCH-OUNCE REVERSIBLE SYNCHRONOUS MOTORS

Instantly reversible (with SPDT switching). Completely accurate both clockwise and counter-clockwise. 1200 rpm rotor speed for quiet performance. Torque, 100 inch-ounce at 1 rpm. Case dimensions, 2½" dia. x 2⅛". Output shaft $\frac{3}{16}$" dia. x 1" long flatted. Shpg. wt., 1 lb. 2 oz.

Stk. No.	Mfg. Type	RPM	1-9	10-24	25-49	50-99	100-249
24F1584	CA-½	½	12.51	11.26	10.70	10.17	9.67
24F1494	CA-1	1					
24F1585	CA-2	2					
24F1495	CA-4	4					
24F1496	CA-6	6					
24F1497	CA-10	10					
24F1586	CA-15	15					
24F1498	CA-30	30					
24F1499	CA-60	60					

Depend on NEWARK for the Latest Top-Quality Equipment. Complete On-the-Shelf Stocks — Lowest Prices — Fast Service.

ITT General Controls Counters



SERIES CE40, CE50, CE60, CE600, CE800 ELECTRIC COUNTERS

Series CE40. Operates in any position. Tamper proof construction. Features large white numerals for easy readability. Actuation by switch, relay, or device with a minimum closed period of .050 sec., and min. open period of .050 sec. 5 watts power consumption. 6" leads. 600 cpm. Shpg. wt. 10 oz.

Series CE50. 5 digit non-reset electric totalizer. Ambient operating temperature range 0-160F. 600 counts per minute. 1,000,000 min. life. 1.563"x2.675x1.350. Wt. 5 oz

Series CE60. Non reset 6-digit totalizer. Tamper resistant. Operates from —40 to +160°F. 600 counts per min. Ideal for outdoor applications. Min. life: 1 million on AC, 6 mil. on DC. 1.74x2.50x1.530". 8 oz.

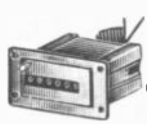
Series CE600. 6-digit. Operates in any position. Specialized armature, built-in rectification. 1000 cpm. with 50 million count life. Actuated by any switch relay, or device with min. make and break of .030 sec. Free from AC hum when energized. 7 watt max. power consumption. Cont. duty coil housed in tamper-proof housing. Unbreakable plastic window. Shipping weight: 1⅞ lbs.

Series CE800. Heavy duty 6-digit counter. Balanced armature & built-in rect. Gasket sealed and tamper proof. Plastic window. 1000 cpm. Actuated by any switch, relay, photo-electric cell or other device with min. make and break of .030 sec. Rectifier with capacitor gives top reliability to 240 V. Cont. duty coil. 200 million count life. Weight: 4⅝ lbs.

Stk. No.	Type	Fig.	V/Freq.	Reset	Mount	Digit	1-9	10-24	25-49	50-99	100-249
57F1800	CE40AN501	A	24AC/60	Non	Base	5					
57F1801	CE40AN502	A	120AC/60	Non	Base	5	7.75	6.59	6.20	5.81	5.43
57F1842	CE40AN5016	A	24VDC	Non	Base	5					
57F1802	CE40BN501	B	24AC/60	Non	Panel	5	8.35	7.10	6.68	6.26	5.85
57F1803	CE40BN502	B	120AC/60	Non	Panel	5	8.35	7.10	6.68	6.26	5.85
57F1804	CE40AS401	C	24AC/60	Knob	Base	4	15.25	12.96	12.20	11.44	10.68
57F1805	CE40AS402	C	120AC/60	Knob	Base	4	15.25	12.96	12.20	11.44	10.68
57F1845	CE40AS4015	C	12VDC	Knob	Base	4	15.25	12.96	12.20	11.44	10.68
57F1846	CE40AS4016	C	24VDC	Knob	Base	4	15.25	12.96	12.20	11.44	10.68
57F1806	CE40BS401	D	24AC/60	Wheel	Panel	4	15.95	13.56	12.76	11.96	11.17
57F1807	CE40BS402	D	120AC/60	Wheel	Panel	4	15.95	13.56	12.76	11.96	11.17
57F1848	CE40BS4015	D	12VDC	Wheel	Panel	4	15.95	13.56	12.76	11.96	11.17
57F1849	CE40BS4016	D	24VDC	Wheel	Panel	4	15.95	13.56	12.76	11.96	11.17
57F1897	CE50AN502	I	120AC/60	Non	Base	5	4.50	3.83	3.60	3.38	3.15
57F1898	CE50BN502	I	120AC/60	Non	Panel	5	4.50	3.83	3.60	3.38	3.15
57F1866	CE60AN601	E	24AC/60	Non	Base	6	8.25	7.01	6.60	6.19	5.78
57F1867	CE60AN602	E	120AC/60	Non	Base	6	8.25	7.01	6.60	6.19	5.78
57F1868	CE60AN6016	E	24VDC	Non	Base	6	8.25	7.01	6.60	6.19	5.78
57F1869	CE60BN602	E	120AC/60	Non	Panel	6	8.75	7.44	7.00	6.56	6.13
57F1852	CE600AS601	H	24AC/60	Knob	Base	6	20.00	17.00	16.00	15.00	14.00
57F1808	CE600AS602	H	12AC/60	Knob	Base	6	20.00	17.00	16.00	15.00	14.00
57F1850	CE600AS6015	H	12VDC	Knob	Base	6	20.00	17.00	16.00	15.00	14.00
57F1851	CE600AS6016	H	24VDC	Knob	Base	6	20.00	17.00	16.00	15.00	14.00
57F1853	CE600AS702	H	120AC/60	Knob	Base	7	22.00	18.70	17.60	16.50	15.40
57F1809	CE600BS602	F	120AC/60	Wheel	Panel	6	23.00	19.55	18.40	17.25	16.10
57F1810	CE600BK602	G	120AC/60	Key	Panel	6	30.00	25.50	24.00	22.50	21.00
57F1813	CE800AS602	J	120AC/60	Knob	Base	6	55.00	46.75	44.00	41.25	38.50
57F1814	CE800AK602	...	120AC/60	Key	Base	6	60.00	51.00	48.00	45.00	42.00
57F1815	CE800BS602	K	120AC/60	Wheel	Panel	6	48.75	41.44	39.00	36.56	34.13
57F1816	CE800BK602	....	120AC/60	Key	Panel	6	58.75	49.94	47.00	44.06	41.13

SERIES CE59 AND CE61 PUSHBUTTON RESET ELECTRIC COUNTERS

CE59AP



CE61BP

Series CE59. Miniature, push button reset counter designed for quiet operation. Pwr. consum.: 5.5 watts AC. 1000 cpm. Life: 10 million counts. Basemount—3-digit: 1.04Wx2.87Dx.88H". 4-digit: 1.26x3.15x.88". Panel mount, 3-digit: 1.38x3.13x1.54"; 4-digit: 1.58 x3.60x1.53".

Series CE61. High speed 6-digit counter with a push-button reset. 1000 counts/min. Count life: 10 million. Basemount: 3.19Wx 2.99Dx1.18H". Panel mount 3.38x2.87x1.69". 1 lb., 1 oz.

Stk. No.	Type	Fig.	V/Freq.	Reset	Mount	Digit	1-9	10-24	25-49	50-99	100-249
57F1879	CE59AP302	..	120AC/60	Pushbutton	Base	3	14.95	12.71	11.96	11.21	10.47
57F1880	CE59AP3016	...	24VDC	Pushbutton	Base	3	11.85	10.07	9.48	8.89	8.30
57F1881	CE59BP302	...	120AC/60	Pushbutton	Panel	3	14.95	12.71	11.96	11.21	10.47
57F1882	CE59BP3016	....	24VDC	Pushbutton	Panel	3	11.85	10.07	9.48	8.89	8.30
57F1883	CE59AP402	...	120AC/60	Pushbutton	Base	4	16.75	14.24	13.40	12.56	11.73
57F1884	CE59AP4016	..	24VDC	Pushbutton	Base	4	13.65	11.60	10.92	10.24	9.56
57F1885	CE59BP402	...	120AC/60	Pushbutton	Panel	4	16.75	14.24	13.40	12.56	11.73
57F1886	CE59BP4016	....	24VDC	Pushbutton	Panel	4	13.65	11.60	10.92	10.24	9.56
57F1887	CE61AP602	...	120AC/60	Pushbutton	Base	6	25.50	21.68	20.40	19.13	17.85
57F1888	CE61BP602	...	120AC/60	Pushbutton	Panel	6	26.50	22.53	21.20	19.87	18.55

SERIES CE62 4-DIGIT PREDETERMINED ELECTRIC COUNTER

900 cpm. Interlock mechanism. Predetermined output is held until reset is finished. 20 million count life. Switch rate: 5 amp at 125 VAC. Panel mount. 120AC/60. Pushbutton reset: 2.91 x2.74x3.78". Electric reset: 2.91x6.1x3.78". 2½ lbs.

Stk. No.	Type	Reset	1-9	10-24	25-49	50-99	100-249
57F1889	CE62BP402	Pushbutton	57.70	49.05	46.16	43.28	40.39
57F1890	CE62BE402	Electric	73.00	62.05	58.40	54.75	51.10

Counters, Controls, Actuators and Switches

ITT GENERAL CONTROLS

SERIES CM4 MECHANICAL HAND TALLY

A four-digit hand tally reset counter which features small size (1¾" diameter), and a chrome finish. Counter fits comfortably into the palm of hand. 3 oz.

Stock No.	Type	Description	Reset	1-9	10-24	25-49	50-99	100-249
57F1891	CM4CS454	Hand held	Knob	3.25	2.76	2.60	2.44	2.27

CM4

CM33 MECHANICAL STROKE COUNTER

Extremely compact, occupies only 1.5 sq. in. Directly interchangeable with VR series 1122. Knob reset. 2½" x 1.44" x 1.30". Weight: 4 oz.

Stk. No.	Type	Digits	Reset	Shaft Ext.	Shaft Rotation*	1-9	10-24	25-49	50-99	100-249
57F1893	CM33AS501C	5	Knob	Right	Coming	7.25	6.16	5.80	5.44	5.07
57F1894	CM33AS502C	5	Knob	Left	Coming	7.25	6.16	5.80	5.44	5.07
57F1895	CM33BS501C	5	Knob	Right	Going	7.25	6.16	5.80	5.44	5.07
57F1896	CM33BS502C	5	Knob	Left	Going	7.25	6.16	5.80	5.44	5.07

*Top Going—clockwise facing shaft.
Top Coming—counterclockwise facing shaft.

CM33

SERIES CM52 SERIES MECHANICAL STROKE REVOLUTION COUNTERS

Series CM52 stroke counter. 200 million count life, 500 cpm. conservative rating. Large white figures ¼" high on black background. Tamperproof reset. Registers one count for each stroke of operating arm. Unbreakable window. 1 lb. 9 oz.

Five Digit Top Coming Knob Reset

Stk. No.	Type	Shaft Ext.	1-9	10-24	25-49	50-99	100-249
57F1817	CM52AS501A	Right	17.00	14.45	13.60	12.75	11.90
57F1818	CM52AS502A	Left	17.00	14.45	13.60	12.75	11.90
57F1857	CM52AK501A*	Right	22.00	18.70	17.60	16.50	15.40
57F1858	CM52AK502A*	Left	22.00	18.70	17.60	16.50	15.40

*Keyreset

Five Digit Top Going Knob Reset

Stk. No.	Type	Shaft Ext.	1-9	10-24	25-49	50-99	100-249
57F1819	CM52BS501B	Right	17.00	14.45	13.60	12.75	11.90
57F1820	CM52BS502B	Left	17.00	14.45	13.60	12.75	11.90

CM52

SERIES ES4, ES5 SMALL SENSITIVE ACTUATORS

Series ES4. small, sensitive actuators. 300 cpm. Arm motion: reciprocal 24° minimum, 59° maximum; overthrow 10 to 45°. Operating torque: field adjustable from ½ oz. to ¾ oz. at end of spring steel arm. Switching: SPST. Electrical rating: noninductive. Generally used where only lightweight objects are available to operate actuator. 3 oz.

Series ES5 heavy duty actuator. 300 cpm. Arm motion: reciprocal 31° minimum, 63° maximum by internal mechanical limit stops. Minimum operating torque: 3 inch-ounces. Switch is operated by steel arm equipped with spring return. 5 oz.

Series ES1B. For measuring lengths of paper, fabric, lumber, rope and wire-and-rotary switching to open and close a circuit with each shaft revolution—this heavy duty switch has an expected count or contact life of 100,000,000. Available as an actuator switch with mounting bracket only. Can be used to actuate any electric counter, cut-off device solenoid or other electrical equipment. Rated maximum speed: 1,000 RPM. 2 lbs. 1 oz.

Stk. No.	Type	Description	1-9	10-24	25-49	50-99	100-249
57F1835	ES-41	Straight Spring Steel Arm, 2¾" Long	8.40	7.14	6.72	6.30	5.88
57F1836	ES-43	Straight Spring Steel Arm, 6¼" Long	8.40	7.14	6.72	6.30	5.88
57F1837	ES-5	Actuating Switch	12.50	10.63	10.00	9.38	8.75
57F1838	ES-4B1	Normally closed 2¾" Spring Steel Arm	8.40	7.14	6.72	6.30	5.88
57F1861	ES-1BAR	Lineal Act. Switch	35.00	29.75	28.00	26.25	24.50

ES4

ES5

ES1B

GENERAL ELECTRIC

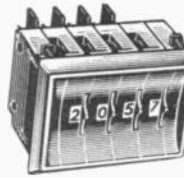
THUMBWHEEL SWITCHES

CR103 Type F Thumbwheel Switch. Save panel space by replacing old "wafer type" switches. It can be used wherever data are manually inserted into a machine or process, such as welding control, computer systems, and numerical control. Purchase modules as individual units to be mounted and replaced separately. Make up your own standard duty switches by ordering blocks spacers, shafts and witch modules. Rated 3 amperes carry, 150V ac-dc and is available standard duty form. Black body, white wheel, and black numerals. Size: ½" x 1¾" x 2".

Stk. No.	CR103	Description	1-9	10-49	50-149	150-Up
39F2000	FX1uAC	Module	3.78	3.57	3.40	3.21
39F2001	FX110	Ends (2)	1.08	1.03	.97	.92

CR103 SHAFT ASSEMBLY

Stk. No.	SR103	Description	1-9	10-49	50-149	150-Up
39F2002	FX302	For 2 Modules	.36	.34	.32	.31
39F2003	FX303	For 3 Modules				
39F2004	FX304	For 4 Modules				
39F2005	FX305	For 5 Modules				
39F2006	FX306	For 6 Modules				



Industrial Timer Controls

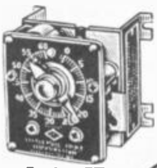
Series TDAB

Series TDAF

AUTOMATIC RESET TIME DELAY SERIES TDAB & TDAF

Both have SPST switches rated 10 amps, 115 V, 60 Hz. TDAF designed for panel mount. TDAB designed for behind panel mount. Shpg. wt. 4 lbs. **TDAB** is U.L. approved.

Back Mount Stk. No.	TDAB	Panel Mount Stk. No.	TDAF	Time Cy.	Calibration	NET EACH 1-3	4-5	6-11	12-24	25-49	50-99
24F1848	-3S	24F1850	-3S	3 sec	1/20 sec	43.00	40.85	38.70	36.55	34.40	32.25
24F1810	-6S	24F305	-6S	6 sec	1/10 sec						
24F302	-15S	24F1806	-15S	15 sec	¼ sec						
24F1849	-30S	24F1807	-30S	30 sec	½ sec						
24F1811	-60S	24F1838	-60S	60 sec	1 sec						
24F1812	-15M	24F1808	-15M	15 min	15 sec						
24F303	-30M	24F1809	-30M	30 min	30 sec						
24F304	-60M	24F1839	-60M	60 min	60 sec						
24F1871	Type K Steel Housing Encl. for TDAB					6.50	6.18	5.85	5.53	5.20	4.88



Series SF

Series TD

AUTOMATIC RESET SERIES TD AND CTD

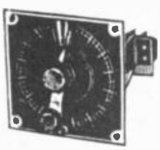
Expertly designed for "through the panel" mounting. 3" diameter extra strong bakelite case with terminals at rear. 115V. 60 Hz. Weight, 1½ lbs. *2 23/32 dep., †4 5/32 depth. U.L. and C.S.A. approved.

Stock No	Type No.	Time Cycle	Calibration	NET EACH 1-3	1-5	6-11	12-24	25-49	50-99
24F1851	TD-6S	6 seconds	1/10 seconds	30.50	28.98	27.45	25.93	24.40	22.88
24F275	TD15S*	15 seconds	¼ second						
24F1852	TD-30S	30 seconds	½ second						
24F276	CTD1M†	60 seconds	1 seconds						
24F277	CTD3M†	3 minutes	3 seconds						
24F278	CTD5M†	5 minutes	5 seconds						

AUTOMATIC RESET SERIES SF AND CSF

For back of panel or chassis installation. 115v 60 Hz. 2¾x3⅛x7⅝". Shpg. wt., 1½ lbs. U.L. and C.S.A. approved.

24F1853	SF-6S	6 seconds	1/10 second	23.00	21.85	20.70	19.55	18.40	17.25
24F279	SF15S	15 seconds	¼ second						
24F1854	SF-30S	30 seconds	½ second						
24F280	CSF1M	60 seconds	2 seconds						
24F281	CSF3M	3 minutes	6 seconds						
24F282	CSF5M	5 minutes	10 seconds						



Series H

AUTOMATIC RESET SERIES H AND CH

For panel mounting. Four screws hold timer in place. Terminals at rear. 115 volt, 60 Hz operation. 3 9/16x3 7/16x3½". Shipping weight 1½ lbs. U.L. and C.S.A. approved.

24F1855	H-6S	6 seconds	1/10 second	26.50	25.18	23.85	22.53	21.20	19.88
24F296	H-15S	15 seconds	¼ second						
24F1856	H-30S	30 seconds	½ second						
24F297	CH1M	60 seconds	1 second						
24F298	CH3M	3 minutes	3 seconds						
24F299	CH5M	5 minutes	5 seconds						

Series MTD

AUTOMATIC RESET TIME DELAY RELAY

Series MTD. Timing cycle begins when power is applied to timer, motor; contacts transfer when progress indicator reaches zero point on timer dial. Units operate from 115 VAC, 60 Hz. SPDT contacts are rated 10A/115 VAC. Rugged plastic matches modern panels.

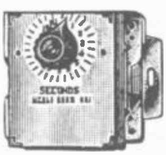
Stock No.	Model No.	Max. Setting	Min. Setting	1-3	4-5	6-11	12-24	25-49	50-99
62F2036	MTD-15S	15 sec.	¼ sec.	30.50	28.98	27.45	25.93	24.40	22.88
62F2037	MTD-60S	60 sec.	1 sec.						
62F2038	MTD-5M	5 min.	5 sec.						
62F2039	MTD-60M	60 min.	1 min.						

Series 90

SERIES 90 DELAY TIMERS

The Series 90 is designed for applications requiring little or no field adjustments. No calibrated dial is supplied with the Series 90. Changes in time cycle are made by loosening the time set cam screw and offsetting one cam arm Load contacts are SPDT, 10 amps. rated at 115/60. Dimensions are 2⅝x2¼x2¼. Shipping weight is 1 lb. U.L. and C.S.A. approved.

24F1843	90-6S	6 sec.	½ sec.	17.00	16.15	15.30	14.45	13.60	12.75
24F1844	90-15S	15 sec.	1½ sec.						
24F1845	90-30S	30 sec.	3 sec.						
24F1846	90-60S	60 sec.	6 sec.						
24F1847	90-90S	90 sec.	9 sec.						



RB

RB AUTOMATIC RESET DELAY TIMER

Provides an adjustable delay between the closing of one circuit and the subsequent operation of the timer load switch. The timer delay is initiated with a sustained switch closure to the synchronous motor of the timer. Series RB automatically resets to the start setting when the sustained start circuit is opened, and the timer is then ready to perform another timing function. Versatile back panel or front mounting. Directly interchange physically and electrically with Haydon type DA. Timing cycles ranging from 5.6 sec. to 4 min. and 40 sec. Contact rating: 15 amps non-inductive @ 115/60. 115/60V AC oper. Shpg. wt., 1 lb RB is U.L. approved.

24F331	RB-5.6S	5 6 sec.	.2 sec.	14.50	13.77	13.05	12.32	11.60	10.88
24F332	RB-14S	14 sec	½ sec.						
24F333	RB-28S	28 sec.	1 sec.						
24F334	RB-56S	56 sec.	2 sec.						
24F335	RB-84S	1 min. 24 sec.	3 sec.						
24F336	RB-168S	2 min 48 sec.	6 sec.						
24F337	RB-4 5M	4 min. 40 sec.	10 sec.						

ELB

TYPE ELB LOW COST ELECTRONIC TIME DELAY

Employs electronic delay circuit. Open start circuit: unit resets. Adjusts with screw secured with lock nut. Timing cycles — from 1/10 sec. to 60 sec. Load contacts isolated from timing circuit. Contact rating: 5 amps, rated at 115/60 only. Unit is transient protected. Plugs into standard octal socket. 115/60 operation.

Stock No.	Type	Time Delay Min.	Max.	1-3	4-5	6-11	12-24	25-49	50-99
24F258	ELB-5	0.1 sec.	5 sec.	18.50	17.57	16.65	15.72	14.80	13.87
24F259	ELB-10	0.1 sec.	10 sec.						
24F260	ELB-15	0.1 sec.	15 sec.						
24F261	ELB-30	0.1 sec.	30 sec.						
24F262	ELB-60	0.1 sec.	60 sec.						

Industrial Timer Controls

Series PBM

Series RS

Series PC

SC-100

PUSHBUTTON AUTORESET INTERVAL TIMER

Series PBM. When pushbutton is manually depressed the timer resets; when the pushbutton is released, load switch closes and the timing operation begins. Contacts: 25 amps non-inductive. 115 VAC. Motor: 115 Volts, 60 hz.

Stock No.	Type	Time Cycle	1-3	4-5	6-11	12-24	25-49	50-99
62F2040	PBM-15S	15 sec.	19.25	18.29	17.32	16.36	15.40	14.44
62F2041	PBM-60S	60 sec.						
62F2042	PBM-5M	5 min.						
62F2043	PBM-60M	60 min.						

SERIES RS MANUAL RESET INTERVAL TIMERS

Completely enclosed for extra ruggedness! Heavy silver contacts. Mounts in 2¾" hole, requiring 3" depth. Has 3½" flange, 18" color coded leads extend from back for direct wiring. For 115 volts AC, 60 hz. Shipping weight, 12 oz.

Stock No.	Type	Max. Time Cyc.	Dial Cal.	1-3	4-5	6-11	12-24	25-49	50-99
24F1821	RS-15M	15 min.	15 seconds	18.50	17.58	16.65	15.73	14.80	13.88
24F1822	RS-60M	60 min.	1 minute						
24F1823	RS-3H	3 hrs.	5 minutes						
24F271	RS-6H	6 hrs.	10-min. steps						
24F270	RS-12H	12 hrs.	15-min. steps						

PERCENTAGE TIMERS

Series PC. Calibrated in percentage of a given time delay. Designed to close an electrical circuit within any desired percentage of rated time cycle for timer. Knob for setting of "on" time from 3% to 97%, with 100% position for continuous circuit operation. Cam operated snap switch rated at 15 amps. 3⅞ dia. x 4$\frac{5}{16}$ deep. 115V., AC. 60 hz. 12 oz

Stock No.	Type	Time Cycle	1-3	4-5	6-11	12-24	25-49	50-99
24F243	PC-15S	15 seconds	31.00	29.45	27.90	26.35	24.80	23.25
24F244	PC-30S	30 seconds						
24F245	PC-60S	60 seconds						

MODEL SC-100 ELECTRIC STOP-CLOCK

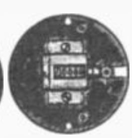
Provides all the functions of a mechanical stopwatch with the advantage of electrical control. Measures intervals from .01 to 60 seconds; ideal for research, time-and-motion study, sporting events. Remote-control provision permits start/stop with pushbutton on cord, etc.; reset with button unit or remotely with a series switch. Compound dial has 2 pointers measuring 1-60 sec in 1-sec increments and .01-.99 sec in .01 sec increments respectively. Synchronous motor, automatic wear compensation. 115V 60 hz AC only. 5x5x4$\frac{23}{32}$". Shpg. wt. 5 lbs.

24F300	SC-100	....	68.50	65.08	61.65	58.23	54.80	51.38

ELAPSED TIME METERS

Provides exact record of operating hours of AC machines and appliances. Long-life synchronous self-lubricating motors, connected to counters. Series C-2A enclosed in a 3½" bakelite meter case; requires a 2⅞" diameter hole in panel for mounting. Series C-5 is resettable to zero, has a ¾" square flange and requires a 2¾" diameter mounting hole. Series C-4 open type 2½" round flange. 2" diam. mtg. holes. All 115 V 60 hz except C-2* which is 230 volts. Shpg. wt., 1 lb. † Max. no. of minutes.

Type C-2



Type C-4

Type C-5

Stock No.	Type	Max. Hrs.	Calib.	NET EACH 1-3	4-5	6-11	12-24	25-49	50-99
55F670	C-2	10,000	1/10 hr.	20.00	19.00	18.00	17.00	16.00	15.00
55F671	C-2*	10,000	1/10 hr.	21.50	20.43	19.35	18.28	17.20	16.13
55F680	C-5	10,000	1/10 hr.	42.50	40.38	38.25	36.13	34.00	31.88
24F1816	C-2-A	100,000	1 hr.	20.00	19.00	18.00	17.00	16.00	15.00
24F1817	C-4	10,000	1/10 hr.	16.50	15.68	14.85	14.03	13.20	12.38
24F1841	C-2-F	100,000†	1 min.	20.00	19.00	18.00	17.00	16.00	15.00

SIGNALLING TIMER — AUTOMATIC RESET SERIES SAR

Provides an audible signal at the end of a pre-set time cycle. Load receptacles are provided on the side of the case for either a load to be operated during the time cycle or at the end of the time cycle. Toggle switch on front of unit. SPDT switching action. SPDT contacts rated at 10 amps. 115 volt 60 hz. Shipping weight: 3 lbs.

Stock No.	Type	Time Cycle	Calibration	NET EACH 1-3	4-5	6-11	12-24	25-49	50-99
24F343	SAR-1M	1 min.	1 sec.	39.95	37.95	35.95	33.96	31.96	29.96
24F344	SAR-5M	5 min.	5 sec.						
24F345	SAR-15M	15 min.	15 sec.						
24F346	SAR-30M	30 min.	30 sec.						
24F347	SAR-1H	1 hr.	1 min.						
24F348	SAR-3H	3 hr.	3 min.						

INTERVAL TIMERS

For applications where dependable one-unit timers are required. Feature positive adjustments, and automatic reset. These units are all manufactured to high standards of quality and will stand up under hard usage. Heavy-duty synchronous motors operate on 115 volts-60 hz. Type PAB and Type P contacts rated at 15 amps non-inductive load, all others 10 amps.

INSTANTANEOUS RESET PAB

Designed for process control where longevity and trouble-free operation is essential. Features automatic reset. In steel enclosure, 7⅛ x 5⅛ x 4$\frac{11}{16}$". Two ½" knockouts for easy access to internal terminal strip. Shpg. wt., 6 lbs.

Stock No.	Type No.	Time Cycle	Calibration
24F283	PAB6S	6 sec.	1/10 second
24F1872	PAB15S	15 sec.	¼ second
24F1800	PAB30S	30 sec.	½ second
24F1801	PAB60S	60 sec.	1 second
24F1802	PAB3M	3 min.	3 seconds
24F1803	PAB15M	15 min.	15 seconds
24F1804	PAB30M	30 min.	30 seconds
24F1873	PAB60M	60 min.	60 seconds
24F1805	PAB3H	3 hr.	3 minutes

NET EACH

1-3	4-5	6-11	12-24	25-49	50-99
55.00	52.25	49.50	46.75	44.00	41.25

ECONOMY SERIES P

Low-cost timing units complete with AC line cord, built-in actuating start button and two receptacles on side of case for load and remote control circuits. 5 x 5 x 3¾". Shpg. wt., 3 lbs.

Stock No.	Type No.	Time Cycle	Calibration
24F269	P4R	15 sec.	¼ second
24F1813	P2R	30 sec.	½ second
24F256	P1M	60 sec.	1 second
24F274	P3M	3 min.	3 seconds
24F257	P5M	5 min.	5 seconds

NET EACH

1-3	4-5	6-11	12-24	25-49	50-99
33.00	31.35	29.70	28.05	26.40	24.75

MANUAL RESET SERIES S

Manual reset signaling timers are designed to command visual and audible attention when a time interval is completed. Sockets on side of timer provide for connection of additional lights, alarms or controlled circuits 115v 60 hz operation. 5x5x 3¾". Wt., 3 lbs.

Stock No.	Type No.	Time Cycle	Calibration
24F1836	S-1M	1 min.	1 second
24F1837	S-5M	5 min.	5 seconds
24F1814	S-15M	15 min.	15 seconds
24F1815	S-30M	30 min.	30 seconds
24F266	S-1H	1 hr.	1 minute
24F267	S-3H	3 hrs.	3 minutes

NET EACH

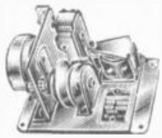
1-3	4-5	6-11	12-24	25-49	50-99
29.00	27.55	26.10	24.65	23.20	21.75

Industrial Timer Controls

HOW TO ORDER CAM TIMERS

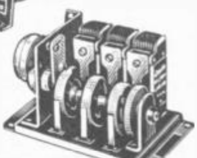
Locate desired time cycle duration in "Gear Assemblies" chart below, and order gear-and-rack assembly listed in left-hand column. Appropriate foundation (motor-switch) units appear at top of "Time Cycle" columns: CM types are single-cicuit, recycling; MC types are multi-circuit recycling; RC types are multi-circuit, single-time-cycle (see detailed descriptions below): Example: Suppose 4 circuits are to be controlled, with a 30-second time cycle, recycling. Order gear-and-rack assembly A12, stock number 24F315, and note that foundation unit MC2 is required. At bottom of page, locate MC2 under heading "4 SWITCH CHASSIS and order stk. no. 62F2010. All units U/L & CSA approved.
Note: in some cases RC0, RC1, MC0 and MC1 units may require a special high-torque motor. Multiply time cycle (in seconds) by 2/3; result will be maximum number of switches that can be operated by a standard unit. For example, with a time cycle of 9 seconds, up to 6 switches may be operated by a standard motor; if more circuits are to be controlled, order a high-torque motor. On RC0 and MC0 units, add $27.50 to listed price for high-torque motor; on RC1 and MC1 types price must be increased by $29.50.
Alternate Ordering Information: specify desired time cycle, number of switches, operating voltage and frequency. Such information may expedite delivery by allowing NEWARK to ship model in stock with desired time cycle

RA

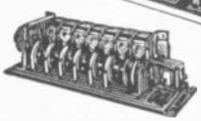


CM

MC



RC



GEAR ASSEMBLIES—TOTAL TIME CYCLE*

Stock No.	Mfrs. Type	CMO RCO MCO	MC1 CM1 RC1	CM2 MC2 RC2	CM3 MC3 RC3	CM4 MC4 RC4	CM5 RC5 MC5	CM6 MC6 RC6	CM7 MC7 RC7	CM8 MC8 RC8	CM9 MC9 RC9	CM10 MC10 RC10	CM12 MC12 RC12	NET
24F306	E12	40c	4S	10S	20S	40S	2M	3M20S	10M	20M	40M	2H	8H	
24F307	E15	50c	5S	12 5S	25S	50S	2M30S	4M10S	12M30S	25M	50M	2H30M	10H	
24F308	C12	1S	6S	15S	30S	60S	3M	5M	15M	30M	60M	3H	12H	
24F309	C14	70c	7S	17.5S	35S	70S	3M30S	5M50S	17M30S	35M	70M	3H30M	14H	
24F310	C15	75c	7.5S	18.75S	37 5S	75S	3M45S	6M15S	18M45S	37M30S	75M	3H45M	15H	
24F311	B12	80c	8S	20S	40S	80S	4M	6M40S	20M	40M	80M	4H	16H	
24F312	C18	90c	9S	22.5S	45S	90S	4M30S	7M30S	22M30S	45M	90M	4H30M	16H	
24F313	B15	100c	10S	25S	50S	100S	5M	8M20S	25M	50M	100M	5H	20H	
24F314	C22	110c	11S	27.5S	55S	110S	5M30S	9M10S	27M30S	55M	110M	5H30M	22H	
24F315	A12	2S	12S	30S	60S	2M	6M	10M	30M	60M	2H	6H	24H	
24F316	C26	2S10c	13S	32.5S	65S	130S	6M30S	10M50S	32M30S	65M	2H10M	6H30M	26H	
24F317	A14	2S20c	14S	35S	70S	140S	7M	11M40S	35M	70M	2H20M	7H	28H	1.75
24F318	A15	2S30c	15S	37 5S	75S	150S	12M30S	12M30S	37M30S	75M	2H30M	7H30M	30H	
24F319	A16	2S40c	16S	40S	80S	160S	8M	13M20S	40M	80M	2H40M	8H	32H	
24F320	C34	2S50c	17S	42.5S	85S	170S	8M30S	14M10S	42M30S	85M	2H50M	8H30M	34H	
24F321	A18	3S	18S	45S	90S	3M	9M	15M	45M	90M	3H	9H	36H	
24F322	A20	3S20c	20S	50S	100S	200S	10M	16M40S	50M	100M	3H20M	10H	40H	
24F323	A22	3S40c	22S	55S	110S	220S	11M	18M20S	55M	110M	3H40M	11H	44H	
24F324	A24	4S	24S	60S	2M	4M	12M	20M	60M	2H	4H	12H	48H	
24F325	A26	4S20c	26S	65S	130S	260S	13M	21M40S	65M	2H10M	4H20M	13H	52H	
24F326	A28	4S40c	28S	70S	140S	280S	14M	23M20S	70M	2H20M	4H40M	14H	56H	
24F327	A30	5S	30S	75S	150S	5M	15M	25M	75M	2H30M	5H	15H	60H	
24F328	A32	5S20c	32S	80S	160S	320S	16M	26M40S	80M	2H40M	5H20M	16H	64H	
24F329	A34	5S40c	34S	85S	170S	340S	17M	28M20S	85M	2H50M	5H40M	17H	68H	
24F330	A36	6S	36S	90S	3M	6M	18M	30M	90M	3H	6H	18H	72H	

* C=cycles (refers to 60 cps current; e.g. 50 c=5/6 sec), S=seconds, M=minutes, H=hours.

SERIES RA SINGLE-CAM SINGLE-CYCLE TIMER

Performs a single electrical cycle upon momentary actuation from a remote position. 115V 60 Hz. Order with any gear assembly (above) for time cycles from 2 to 18 minutes. Wt., 1 lb.

Stk. No.	Type	1-3	4-5	6-11	12-24	25-49	50-99
62F2000	RA5	28.75	27.31	25.87	24.43	23.00	21.57

SERIES CM SINGLE-CAM RECYCLING TIMER

Snap action totally-enclosed, dustproof SPDT switch. Rated 10A-115V, 10A-220V, non-inductive AC Cam and gear train, interchangeable for longer or shorter time cycle, attach to motor chassis by single 6-32 screw. Can be set so switch is actuated from 2% to 98% of total time cycle; each cycle automatically repeats until power is turned off. Size, 3 1/16x2 13/16x 2 1/4". For 115 volts — 60 Hz operation. For complete timer, order Motor-Switch chassis covering required time range, and gear assemblies for specific time cycles. Av. shpg. wt., 1 lb

Stk. No.	Type	Stk. No.	Type	Stk. No.	Type	Stk. No.	Type	1-3	4-5	6-11	12-24	25-49	50-99
24F1827	CM0	24F1829	CM3	24F252	CM6	24F1820	CM9	18.75	17.81	16.88	15.94	15.00	14.06
24F1828	CM1	24F250	CM4	24F1819	CM7	24F254	CM10						
24F268	CM2	24F251	CM5	24F253	CM8	24F255	CM12						

SERIES MC MULTI-CAM RECYCLING TIMER

Recycling type identical in operation to CM timer but with multiple cams to operate more than one switch. The cams are mounted on a single driving shaft, coupled to the motor by a gear and rack assembly (see gear assembly chart above). Cams can be adjusted in any combination of timed sequences. Each cam is individually adjustable from 2 to 98% of the total time cycle. Order Motor-Switch chassis plus any gear assembly to achieve required time cycle. For 115 v.-60 Hz.

SERIES RC SINGLE CYCLE MULTI-CAM TIMER

Provides a single timed electrical cycle upon momentary actuation from a remote position. May be used to control several circuits; similar to MC series, except operates one cycle only. Cams are adjustable for any combination of timed sequences. Order motor-switch chassis plus any gear assembly (see "How to Order," above). For 115VAC, 60 Hz.

2 SWITCH CHASSIS

Stk. No.	Type	Stk. No.	Type	1-3	4-5	6-11	12-24	25-49	50-99
62F2001	MC0	62F2052	MC6						
62F2050	MC1	62F2053	MC7						
62F2002	MC2	62F2054	MC8	33.75	32.06	30.37	28.69	27.00	25.51
62F2051	MC3	62F2055	MC9						
62F2005	MC4	62F2056	MC10						
62F2006	MC5	62F2057	MC12						
62F2003	RC0	62F2061	RC6						
62F2004	RC1	62F2062	RC7						
62F2007	RC2	62F2008	RC8	48.75	46.31	43.87	41.44	39.00	36.56
62F2058	RC3	62F2063	RC9						
62F2059	RC4	62F2064	RC10						
62F2060	RC5	62F2065	RC12						

4 SWITCH CHASSIS

Stk. No.	Type	Stk. No.	Type	1-3	4-5	6-11	12-24	25-49	50-99
62F2009	MC0	62F2068	MC6						
62F2066	MC1	62F2069	MC7						
62F2010	MC2	62F2070	MC8	50.75	48.21	45.67	43.14	40.60	38.06
62F2067	MC3	62F2071	MC9						
62F2013	MC4	62F2072	MC10						
62F2014	MC5	62F2073	MC12						
62F2011	RC0	62F2077	RC6						
62F2012	RC1	62F2078	RC7						
62F2015	RC2	62F2016	RC8	66.25	62.94	59.63	56.31	53.00	49.69
62F2074	RC3	62F2079	RC9						
62F2075	RC4	62F2080	RC10						
62F2076	RC5	62F2081	RC12						

6 SWITCH CHASSIS

Stk. No.	Type	Stk. No.	Type	1-3	4-5	6-11	12-24	25-49	50-99
62F2017	MC0	62F2084	MC6						
62F2082	MC1	62F2085	MC7						
62F2018	MC2	62F2086	MC8	67.25	63.89	60.53	57.17	53.80	50.44
62F2083	MC3	62F2087	MC9						
62F2021	MC4	62F2088	MC10						
62F2022	MC5	62F2089	MC12						
62F2019	RC0	62F2093	RC6						
62F2020	RC1	62F2094	RC7						
62F2023	RC2	62F2024	RC8	83.75	79.56	75.38	71.19	67.00	62.81
62F2090	RC3	62F2095	RC9						
62F2091	RC4	62F2096	RC10						
62F2092	RC5	62F2097	RC12						

8 SWITCH CHASSIS

Stk. No.	Type	Stk. No.	Type	1-3	4-5	6-11	12-24	25-49	50-99
62F2025	MC0	62F2100	MC6						
62F2098	MC1	62F2101	MC7						
62F2026	MC2	62F2102	MC8	84.25	80.04	75.82	71.61	67.40	63.19
62F2099	MC3	62F2103	MC9						
62F2029	MC4	62F2104	MC10						
62F2030	MC5	62F2105	MC12						
62F2027	RC0	62F2109	RC6						
62F2028	RC1	62F2031	RC7						
62F2110	RC2	62F2032	RC8	100.25	95.24	90.23	85.21	80.20	65.16
62F2106	RC3	62F2111	RC9						
62F2107	RC4	62F2112	RC10						
62F2108	RC5	62F2113	RC12						

INDUSTRIAL TIMER CONTROLS

TANDEM RECYCLING TIMER

Type A. Timing device that provides 2 adjustable and continuous time cycles. Permits practically any timing sequence. Controls: "ON"-"OFF" toggle switch. load control switch, pilot lamps, and male load plugs. Load circuit carried by SPDT relay, contact rating: 15 amps AC non-inductive.

Type B. Similar to Type A but designed for built-in tamper-proof applications. Contains only pilot lights and element receptacles. Load control switch located inside the cabinet. Wiring to and from unit done at terminal block. 9x11x6". 11 lbs.

TIMING ELEMENT (2 REQUIRED)

Stock No.	Type	Max. Time	Dial Calib.	1-3	4-5	6-11	12-24	25-49
24F1840	ET-3S	3 sec	1/20 sec					
24F286	ET-6S	6 sec	1/10 sec					
24F287	ET-15S	15 sec	1/4 sec					
24F288	ET-30S	30 sec	1/2 sec					
24F289	ET-60S	60 sec	1 sec					
24F290	ET-3M	3 min	3 sec	44.00	41.80	39.60	37.40	35.20
24F291	ET-5M	5 min	5 sec					
24F292	ET-15M	15 min	15 sec					
24F293	ET-30M	30 min	30 sec					
24F294	ET-60M	60 min	60 sec					
24F295	ET-3H	3 hours	3 hours					
24F285	Type A Control Unit			54.50	51.78	49.05	46.33	43.60
24F1826	Type B Control Unit			54.50	51.78	49.05	46.33	43.60

SERIES "DUAL TROL" RECYCLING TIMERS

The Dual-Trol is a compact recycling timer that continuously closes and opens a SPDT load switch. A complete unit consists of two TM timer modules—one to set the ON interval. The second to fix the OFF interval—and a control cabinet. Any two modules from the listing below may be used to achieve the desired combination of time cycles. The TM modules are complete timing mechanisms, with 4-prong plugs that match receptacles within the cabinet, for easy installation. Isolated SPDT load switch connects to terminal strip within cabinet; switch is rated 10A non-inductive at 115 VAC. 115 VAC/60 hz. 4½x5⁹⁄₁₆x7½" Wt. 2 lbs.

TIMING ELEMENTS (2 REQUIRED)

Stock No.	Type	Max. Time	Min. Time	1-3	4-5	6-11	12-24	25-49
24F1860	TM-6S	6 sec	1/10 sec					
24F1861	TM-15S	15 sec	1/4 sec					
24F1862	TM-30S	30 sec	1/2 sec					
24F1863	TM-60S	60 sec	1 sec					
24F1864	TM-3M	3 min	3 sec	27.50	26.13	24.75	23.38	22.00
24F1865	TM-5M	5 min	5 sec					
24F1866	TM-15M	15 min	15 sec					
24F1867	TM-30M	30 min	30 sec					
24F1868	TM-60M	60 min	1 min					
24F1869	TM-3H	3 hours	3 min					
24F1870	Control Cabinet			22.50	21.38	20.25	19.13	18.00

CUTLER-HAMMER

7084 HIGH PERFORMANCE SERIES

Solid state electronic time delay relay. Silicon-bar simiconductor trigger device. Stable with regard to ambient temperature and life. Independent of supply voltage variations within normal limits. Output relay energizes after preset time interval (supply voltage applied), and de-energizes on removal of supply voltage. Power "on" starts timing period. Contacts close at end of time period and are held in until power is turned "off".

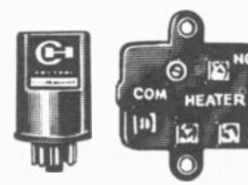
Stk. No.	Type No.	Range Sec.	1-9	10-24	25-49	50-99	100-249	250-499
115 VAC								
24F3200	7084K2	.5-5						
24F3201	7084K12	.5-20	40.00	34.00	31.00	27.00	26.00	25.00
24F3202	7084K22	.5-120						
24 VDC								
24F3203	7084K3	.5-5						
24F3204	7084K13	.5-20	38.00	32.00	29.00	25.00	24.00	23.00
24F3205	7084K23	.5-120						

7082 STANDARD SERIES

Similar to 7084 Series. Designed for industrial applications where econon.y is of greater interest than highly critical performance.

Stk. No.	Type	Range sec.	1-9	10-24	25-49	50-99	100-249	250-499
115VAC 50/60CPS								
24F3206	7082K2	1-5						
24F3207	7082K12	1-20	18.90	18.55	17.85	16.80	14.70	13.65
24F3208	7082K22	1-120						
24VDC								
24F3209	7082K3	1-5						
24F3210	7082K13	1-20	17.90	17.55	16.95	16.00	14.00	12.95
24F3211	7082K23	1-120						

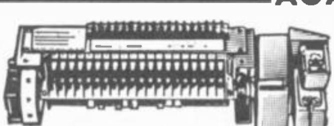
7080 AND 7081 THERMAL RELAYS



Snap acting, dust tight thermal timing relays. Power "on" starts timing period. Contacts close and are held in until power is turned "off". Contact life of over 100,000 operations. Ambient temperature range: 0°-160°F. SPDT snap acting. Resistive rating: 2 amps 115V ac or ⅛ amp at 32 V dc. Inductive rating: 1 amp to 250 V AC or ⅛ amp to 32 V DC. Heater power 3 watts nom.

Stk. No.	Type No.	Time Delay Sec.	Tol. Sec.	1-9	10-24	25-49	50-99	100-249	250-499
OCTAL PLUG-IN SERIES									
24F3212	7081K2	10	2						
24F3213	7081K5	30	5						
24F3214	7081K7	60	9						
24F3215	7081K9	120	20						
24F3216	7081K11	180	30						
24F3217	7081K22	10	2	7.00	5.90	5.35	4.60	4.43	4.20
24F3218	7081K25	30	5						
24F3219	7081K27	60	9						
24F3220	7081K29	120	20						
24F3221	7081K31	180	30						
PANEL MOUNTING SERIES									
24F3222	7080K2	10	2						
24F3223	7080K5	30	5						
24F3224	7080K7	60	9						
24F3225	7080K9	120	20						
24F3226	7080K11	180	30						
24F3227	7080K22	10	2	8.00	6.74	6.13	5.26	5.05	4.80
24F3228	7080K25	30	5						
24F3229	7080K27	60	9						
24F3230	7080K29	120	20						
24F3231	7080K31	180	30						

AGASTAT PROGRAMERS



Model 2912AD17A. This Programmer as supplied requires only AC input for fully automatic cycling 12 time control steps. The programmer features time ranges of .25-10 sec., 1-100 sec., and .1-10 min., and operating voltage of 120 nom. 50/60 Hz., 17 load switches, and 12 steps. Mounts on front panel.
99F1500. EACH **430.00**

Model 2918AD17A. Same as 2912AD17A except has 18 steps.
99F1501. EACH **530.00**

Model 2962AA20B. Stepping switch with 12 steps, an operating voltage of 120 VAC nom. 50/60 Hz., single input, and 20 load switches. Rear panel mounting style. It controls up to 20 electrically isolated load circuits through 12 sequential steps.
99F1502. EACH **145.00**

Model 2968AA20B. Same as 2962AA20B, except has 18 steps.
99F1503. EACH **160.00**

Model 2962AB20B. Same as 2962AA20B, but with multiple input.
FF91504. EACH **160.00**

Model 2968AB20B. Same as 2962AB20B, but with 18 steps.
99F1505. EACH **185.00**

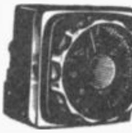
Cramer Timers and Controls

Cramer


Type 635


Type 310E


Type 330


Type 450A


Type 560


Type 691E

RUNNING TIME METERS

Type 635 & 636. (Replaces types 632 & 633). Running time motor registers cumulative operating or idle time of machinery or electrical apparatus. Instant start-stop accuracy ±50 milliseconds per operation. Large diameter counting wheels provide legible display. Available with pushbutton reset (636) or non-reset (635). Bezels are 2½" round (-x) or square (-y) for standard NEMA mounting. 3½" round (-e) or square (-s) bezels are for replacement of 632 & 633 timers. 115V 60 Hz. Shpg. wt., 1 lb.

TYPE 635—NON-RESET

Stock Numbers						
2½" Rd.	2½" Sq.	3½" Rd.	3½" Sq.	Range	Counts	NET
55F4420	55F4428	55F4436	55F3178	9999.9 sec.	1/10 sec.	14.00
55F4421	55F4429	55F4437	55F3179	99999 sec.	1 sec.	
55F4422	55F4430	55F4438	55F3180	999.99 min.	1/100 min.	
55F4423	55F4431	55F4439	55F3181	9999.9 min	1/10 min	
55F4424	55F4432	55F4440	55F3182	99999 min.	1 min	
55F4425	55F4433	55F4441	55F3183	999.99 hr.	1/100 hr.	
55F4426	55F4434	55F4442	55F3184	9999.9 hr.	1/10 hr	
55F4427	55F4435	55F4443	55F3185	99999 hr	1 hr.	

TYPE 636—PUSH BUTTON RESETTABLE

2½" Rd.	2½" Sq.	3½" Rd.	3½" Sq.	Range	Counts	NET
55F4444	55F4452	55F4460	55F4468	9999.9 sec.	1/10 sec.	25.00
55F4445	55F4453	55F4461	55F4469	99999 sec.	1 sec.	
55F4446	55F4454	55F4462	55F4470	999.99 min.	1/100 min.	
55F4447	55F4455	55F4463	55F4471	9999.9 min	1/10 min.	
55F4448	55F4456	55F4464	55F4472	99999 min.	1 min.	
55F4449	55F4457	55F4465	55F4473	999.99 hr.	1/100 hr.	
55F4450	55F4458	55F4466	55F4474	9999.9 hr.	1/10 hr.	
55F4451	55F4459	55F4467	55F4475	99999 hr	1 hr.	

MODEL 691E

Electric stopclock capable of measuring E.T. to .02 sec. accuracy. Load switch rated 5 amps at 115VAC. Range 60 seconds. Calibration .01 sec. outer scale, 1 sec. inner scale.

55F369. NET 75.00

TYPE 241E AUTOMATIC RESET INTERVAL TIMER

Start button integrate with setting knob turns on the load and starts the timer. At end of timing, load is shut off and timer automatically resets. SPDT contacts rated 15 amps at 115 VAC, 60 Hz. Repeat accuracy: ±.25% except 15 sec. time range ±5%. Case dia. 3$^{11}/_{16}$". depth 3$^{3}/_{32}$". Timer has three hole mounting on 1.687 radius. 115 VAC, 60 hz. Shpg. wt. 3 lbs.

Stk. No.	Time Range	Calibration	NET
55F350	15 seconds	0.25 second	25.50
55F351	60 seconds	1 second	
55F352	15 minutes	15 seconds	
55F378	30 minutes	0.5 minute	
55F353	60 minutes	1 minute	
55F4476	24 hours	30.0 minute	

TYPE 310E

Time lag. Automatically resets to establish delay setting. SPDT contacts rated 10 amps at 115V, 60 Hz. Overall accuracy ±2%. Repeat acc. ±5%. Case dia. 3$^{1}/_{16}$", depth 3$^{3}/_{32}$". UL approved. Shpg. Wt. 3 lbs.

Stk. No.	Range	Calibration	Net
55F385	15 sec.	0.25 sec.	28.00
55F386	60 sec.	1.00 sec.	
55F387	120 sec.	2.00 sec.	

TYPE 330-ADJUSTABLE

For applications not requiring adments. SPDT contacts rated 10 amps at 115V, 60 Hz. Repeat accuracy ±75% of range. 115V 60 Hz. Size: H.W.D. •2.5" x 2.125" x 3.656". Shpg. Wt. 2 lbs.

Stk. No.	Range	Net
55F342	20 sec.	18.00
55F343	40 sec.	
55F344	80 sec.	

SERIES 450A AND 450D TIME DELAY RELAYS

SPDT, 125/250 VAC load switch. Provide time delay between closing of control cricuit and actuation of load circuit. Instantaneous reset upon power interruption. For 115V, 60 Hz operation. Shpg. Wt. 2 lbs.

450A PANEL MOUNT

Stk. No.	Range	NET
55F3154	6 min.	33.00
55F3155	12 min.	
55F3156	30 min.	
55F3159	6 hr..	
55F3161	30 hr.	
450D CHASSIS MOUNT		
55F3164	60 sec.	26.00
55F3168	30 min.	

PERCENTAGE TIMERS

Type 560. Percentage adjustable from 3% to 97%. 25 amperes switch. 115V, 60Hz.

Stk. No.	Cycle Times	Dial Division	NET
55F3174	15 sec..	0.15 sec.	24.50
55F3175	30 sec.	0.30 sec.	
55F3176	60 sec.	0.60 sec.	
55F3177	5 min.	3.0 sec.	

TIME DELAY RELAY

Type 3800. Adjustable time delay between closing of a maintained control circuit. Resets when power is removed. Repeat accuracy ±2%. DPDT 10 amp contacts. Life up to 1 million operations. 115VAC. Octal base.

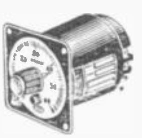
INTERVAL TIMER

Type 4801. Same as type 3800 except plugs into 11 pin socket. Load contacts closed during timed interval and open at end of timing. Resets automatically.

BASE MOUNT

Stk. No. 3800	Stk. No. 3801	Time Range	1-9	10-24	25-49
55F1905	55F1910	1 Sec.	31.50	28.35	26.78
55F1906	55F1911	10 Sec.			
55F1907	55F1912	30 Sec.			
55F1908	55F1913	60 Sec.			
55F1909	55F1914	5 Min.			
PANEL MOUNT					
55F1920	55F1925	1 Sec.	36.50	32.85	31.03
55F1921	55F1926	10 Sec.			
55F1922	55F1927	30 Sec.			
55F1923	55F1928	60 Sec.			
55F1924	55F1929	5 Min.			

TIME-DELAY—CHASSIS MOUNTED



Model 3810. Provides adjustable time delay between closing of a control circuit and actuation of time load contacts. Resets when power is removed. 10 mil. oper. life. Accuracy ±5% DPDT 10 amp contacts. 115 VAC.

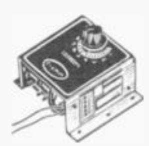
Stk. No. 3810	Time Range	1-24	25-49	50-99
55F1900	1 Sec.	19.75	17.77	16.78
55F1901	10 Sec.			
55F1902	30 Sec.			
55F1903	60 Sec			
55F1904	5 Min			

INTERVAL TIMER—CHASSIS MOUNTED

Model 3811. Provides adjustable control of a load during a timed interval. Oper. volt 115VAC. Repeat accur. ±5% D.P.D.T.-10 amps.

Stk. No. 3811	Time Range	1-24	25-49	50-99
55F1935	1 Sec.	20.75	18.67	17.64
55F1936	10 Sec.			
55F1937	30 Sec.			
55F1938	60 Sec.			
55F1939	5 Min.			

TIME DELAY or INTERVAL TIMER



Model 3823. Panel-Mount Timer. Repeat accuracy ±5%. SPDT 10 amps (resistive) 115VAC, 60 Hz. Standard time ranges: 1, 10, 30, or 60 sec. and 5 min.

S.k. No. 3823	Time Range	1-9	10-24	25-49
55F1940	1 Sec.	28.00	25.20	23.80
55F1941	10 Sec.			
55F1942	30 Sec.			
55F1943	60 Sec.			
55F1944	5 Min			

—NEWARK—

FAST SERVICE

TOP QUALITY

Timers and Elapsed Time Indicators HAYDON®

SERIES DA11 & DA21 RESET TIMERS

Type DA-11. Manually adj. by knob. SPDT switch. 20 A. Solder lug term. Repeat acc. ±¾%. 5 watt motor. Rear mounted Resets to start when power removed. Min. time setting 0 sec. U.L. listed. Size: 3⅜x3⅛x2 13/16". Type DA21. Same as DA11 except locknut adjustment to eliminate tampering.

120 VOLTS AC

Maximum Setting	Reset	DA11 Stk. No.	Type	DA21 Stk. No.	Type
5.7 Sec	.25 Sec	54F000	DA11-036	...	.....
14 Sec	1.0 Sec	54F001	DA11-031	54F006	DA21-001
57 Sec	1.5 Sec	54F002	DA11-032	54F007	DA21-002
114 Sec	9 Sec	54F003	DA11-035	54F008	DA21-005
4.5 Min	15 Sec	54F004	DA11-033	54F009	DA21-003
9.5 Min	120 Sec	54F005	DA11-034	54F010	DA21-004

1-4	5-9	10-24	25-49	50-99	100-up
15.30	14.54	13.77	13.01	12.24	11.48

240 VOLTS AC

Maximum Setting	Reset	DA11 Stk. No.	Type	DA21 Stk. No.	Type
5.7 sec.	.25 Sec	54F074	DA11-036	...	.....
14 sec.	1.0 Sec	54F075	DA11-031	54F080	DA21-001
57 sec.	1.5 Sec	54F076	DA11-032	54F081	DA21-002
114 sec.	9 Sec	54F077	DA11-035	54F082	DA21-005
4.5 sec.	15 Sec	54F078	DA11-033	54F083	DA21-003
9.5 sec.	120 Sec	54F079	DA11-034	54F084	DA21-004

1-4	5-9	10-24	25-49	50-99	100-Up
16.15	15.34	14.54	13.73	12.92	12.11

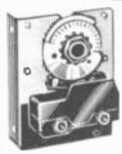
SERIES DP-11 PANEL MOUNT RESET TIMERS

Applied wherever delay, interval, or repeat cycle timing (requires two timers) are needed Simple pointer knob for timing adjustment. Reset to start position when power is removed. Time elapse readout in center of adjustment knob. SPDT switch, 10 amps, 5 watt timing motor, 120 VAC 60 hz. Repeat accuracy, +1% of total time. Screw term. Size: 3 5/16 sq. x 3 9/32" depth Requires 3 3/16" dia mounting hole.

Stk. No.	Type DP11-	Time Setting Max	Time Setting Min	Maximum Reset Time	Dial Grads. Maj.	Dial Grads. Min.
54F072	007	6 Sec	0.3 Sec	.5 Sec	1 Sec	1 Sec
54F011	001	15 Sec	0.8 Sec	1.0 Sec	1 Sec	.2 Sec
54F012	006	30 Sec	1.5 Sec	1.5 Sec	5 Sec	.5 Sec
54F013	002	60 Sec	3.0 Sec	1.5 Sec	10 Sec	1 Sec
54F014	005	120 Sec	6.0 Sec	10 Sec	20 Sec	2 Sec
54F015	003	5 Min	0.2 Min	15 Sec	1 Min	.1 Min
54F016	004	10 Min	0 4 Min	120 Sec	1 Min	.2 Min

1-4	5-9	10-24	25-49	50-99	100-up
19.55	18.57	17.60	16.62	15.64	14.66

SERIES RG21 REPEAT CYCLE TIMERS

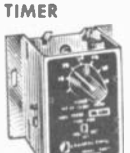


Cam-actuated, single switch timers for rear mounting. Runs continuously, repeating a set cycle of switching operations. Cam adjustable from 7 min. to 169° max. (±3%). SPDT switch. 20 A. 3.7 W. motor. 120 VAC. 60 Hz. Size: 2 5/16 x 3⅛ x 2½".

Stk. No.	Type	Time Range	Stk. No.	Type	Time Range
54F017	RG21-090	7½ Sec	54F022	RG21-095	10 Min
54F018	RG21-091	15 Sec	54F023	RG21-096	15 Min
54F019	RG21-092	30 Sec	54F024	RG21-097	30 Min
54F020	RG21-093	1 Min	54F025	RG21-098	60 Min
54F021	RG21-094	5 Min	54F026	RG21-099	4 Hrs

1-4	5-9	10-24	25-49	50-99	100-up
12.96	12.31	11.67	11.02	10.37	9.72

SERIES QT21 REAR MOUNTING RESET TIMER



Solid state electronic timer provides reset timing control adjustable through time range. Ideal for application where delay, interval, or repeat cycle timing functions are required for adjustable time periods SPDT switch, 10 amp. 117 VAC, 60 hz. Combination ¼" male spade/solder terminals. Reset time: 130 milliseconds maximum 3⅜x3⅝x2 57/64.

Stk. No.	Type QT21-	Time Range	1-4	5-9	10-24	25-49	50-99	100-up
54F042	003	3 Sec	17.85	16.96	16.07	15.17	14.28	13.39
54F043	004	5 Sec						
54F044	005	10 Sec						
54F045	006	15 Sec						
54F046	007	30 Sec						
54F047	008	60 Sec						

ELAPSED TIME INDICATORS

EF  EN  ER  ED 

Provides readout. All units operate at 120VAC 60 Hz. except 7010 which is 115V 400 Hz. Oper. temp.: —12°C to 55°C. Except 7010-004 which is —55°C to +85°C and is hermetically sealed 7010-004 conforms to MIL-M 7793-C, MIL std. MS28053-5, Rev. "D".

SPECIFICATIONS

Type	Bezel	Depth	Mtg. Hole	Input @ 60 Hz	Leads or Terminals
EF13 Non-Reset	2⅞" Rd	1 51/64"	2⅛"	2 5 wts	6" Leads
ED71 Non-Reset	1¾" Sq	2 37/64"	1 9/16"	2.5 wts	11¼" Leads
ED72 Non-Reset	1¾" Sq	2 37/64"	1 9/16"	2.5 wts	Solder
EN30 Non-Reset	3" Sq	2¾"	2¾"	3.7 wts	8-32 Studs
ER30 Reset	3" Sq	2¾"	2¾"	3.7 wts	8-32 Studs
ER35 Reset	3½" Rd	2¾"	2¾"	3.7 wts	8-32 Studs
EN35 Non-Reset	3½" Rd	2¾"	2¾"	3.7 wts	8-32 Studs
7010 Non-Reset	1¾" Sq	2 37/64"	1 9/16"	2.5 wts	Solder

Stk. No.	Type	Time Range	1-4	5-9	10-24	25-49	50-99	100-up
54F061	EF1333	99999.9 Min	8.93	8.48	8.03	7.59	7.14	6.69
54F062	EF1335	99999.9 Hrs	8.93	8.48	8.03	7.59	7.14	6.69
54F063	ED7112	99999.9 Hrs	20.19	19.18	18.17	17.16	16.15	15.14
54F073	ED7212	99999.9 Hrs	21.89	20.79	19.70	18.60	17.51	16.42
54F064	EN3010	99999.9 Min	16.15	15.34	14.54	13.73	12.92	12.11
54F065	EN3012	99999.9 Hrs	16.15	15.34	14.54	13.73	12.92	12.11
54F066	EN3510	99999.9 Min	16.15	15.34	14.54	13.73	12.92	12.11
54F067	EN3512	99999.9 Hrs	16.15	15.34	14.54	13.73	12.92	12.11
54F068	ER3020	99999.9 Min	23.16	22.00	20.85	19.69	18.53	17.37
54F069	ER3022	99999.9 Hrs	23.16	22.00	20.85	19.69	18.53	17.37
54F070	ER3520	99999.9 Min	23.16	22.00	20.85	19.69	18.53	17.37
54F071	ER3522	99999.9 Hrs	23.16	22.00	20.85	19.69	18.53	17.37
54F060	7010-004	9999.9 Hrs	34.00	32.30	30.60	28.90	27.20	25.50

SERIES RE62 REPEAT CYCLE MULTI-CAM TIMERS

Same specifications as RG21, except 2 to 6 switches may be actuated during cycle. Adjustable friction loaded cams. Complete unit requires one switch stack and one drive motor. Size: 2 5/16"H x 3 5/32"W x 3 9/16"D. Add 11/16" to depth for each additional switch.

SWITCH STACKS

Stk. No.	Type	Swi.	1-4	5-9	10-24	25-49	50-99	100-up
54F027	RE62-091	2	12.03	11.42	10.83	10.22	9.62	9.02
54F028	RE63-092	3	16.06	15.26	14.66	13.66	12.85	12.04
54F029	RE64-093	4	20.10	19.09	18.10	17.09	16.08	15.07
54F030	RE65-094	5	24.56	23.33	22.11	20.88	19.65	18.42
54F031	RE66-095	6	28.60	27.17	25.75	24.31	22.88	21.45

DRIVE MOTORS — Order w/switch stack for complete unit

Stk. No.	Type	Time Range	Stk. No.	Type	Time Range
54F032	MP10-390	7½ Sec	54F037	MP10-395	10 Min
54F033	MP10-391	15 Sec	54F038	MP10-396	15 Min
54F034	MP10-392	30 Sec	54F039	MP10-397	30 Min
54F035	MP10-393	1 Min	54F040	MP10-398	1 Hr
54F036	MP10-394	5 Min	54F041	MP10-399	4 Hrs

1-4	5-9	10-24	25-49	50-99	100-up
6.25	5.94	5.62	5.31	5.00	4.69

SERIES QT SOLID STATE TIMERS

Panel mounting. SPDT switch rated at 10 A. Electrical input 3 w max. 117 VAC 60/50 Hz. Repeat acc ±1% of set value. Max. reset time 05 sec Up to 1 000,000 oper. at rated load. Screw terminal block. Size: 3⅝" sq. x 4⅛" D behind panel Requires 3¼" dia. mounting hole

Time Setting Max.	Time Setting Min.	Time Delay Stk. No.	Time Delay Type	Interval Stk. No.	Interval Type
1 Sec	.02 Sec	54F048	QT11-001	54F054	QT14-001
3 Sec	04 Sec	54F049	QT11-002	54F055	QT14-002
5 Sec	.05 Sec	54F050	QT11-003	54F056	QT14-003
10 Sec	10 Sec	54F051	QT11-004	54F057	QT14-004
15 Sec	.15 Sec	54F052	QT11-005	54F058	QT14-005
30 Sec	30 Sec	54F053	QT11-006	54F059	QT14-006

1-4	5-9	10-24	25-49	50-99	100-up
72.25	68.64	65.03	61.41	57.80	54.19

● NEW SERIES Q-52 SOLID STATE RESET TIMERS

Octal plug mounting provides reset timing control used as a delay interval or as a repeat cycle timer (2 required) Load switch: DPDT 10A, 125 VAC. Min time setting 600 ms Reset time 130 msec max 117 VAC. 3 5 watts max 4¾x2½x2⅛".

Stk No.	Type	Time Range	1-4	5-9	10-24	25-49	50-99	100-up
54F085	QT-52-003	3 sec	19.55	18.57	17.60	16.62	15.64	14.66
54F086	QT-52-004	5 sec						
54F087	QT-52-005	10 sec						
54F088	QT-52 006	15 sec						
54F089	QT-52-007	30 sec						
54F090	QT-52-008	60 sec						

Intermatic Timers

PORTABLE TIME-ALL

Type A911-6

Type A911-6 Deluxe. Time control switch for plant, office, store. Controls lights, appliances, P.A. systems, dehumidifiers, etc. Operation repeated every 24 hours. Plug equipment controlled into built-in AC outlet. Contacts handle 15 amp, 1875 watt load. 5 ft. line cord, plug included. 5x4x2½". Plastic case. U.L. listed. For 110-120 V. 60 Hz AC. 2 lbs. Formerly A211-6.

Stk. No.	Type	1-5	6-Up
24F979	A911-6	9.70	8.64

Type A921-6. Standard. Similar to above, but handles 7 amps or 875 watts.
24F966. 1 to 5 .... **8.95**
6 or more, each **7.97**

TIME MINDER

Type A301-4. Plug it in and set for 1 to 60 minutes. At end of interval, buzzer sounds. Desert sand case, 4¾x4½x2¼". 125v, 60 hz AC. 2 lbs.

Type A301-4

Stk. No.	Type	1-5	6-Up
24F967	A301-4	7.47	6.64

CLOCK TIMER

Type A401-4. Super deluxe timepiece that turns lights and appliances on for periods of 15 minutes to 5½ hours . . . then turns them off again automatically. Handles up to 1875 watts (15 amps). Desert sand case, 4¾x4½x2¼". Operates on 125v, 60 hz AC. Shipping wt. 2 lbs.

Type A401-4

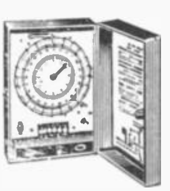
Stk. No.	Type	1-5	6-Up
24F968	A401-4	9.70	8.64

7-DAY OPERATION "SKIPPER" TIME SWITCH

Model T171, T173 & T175. The Intermatic Skipper provides a program of operations for most commercial or industrial needs. For use where it is desired to skip operations on weekends or other selected days. Has 24-hour time dial and 7-day skipper dial. Small skipping screws are merely inserted into the respective day-holes for skipping operation. Contacts are rated up to 40 amps. per pole. 3 skipping screws, one cutout, one off tripper. Power requirements: 125 volt AC 60 Hz. Drawn steel case, gray finished. 7¾"x5"x3". 3 lbs.

Model T173. DPST.
24F1890. EACH **13.62**
Model T175. SPDT.
24F1891. EACH **13.62**
Model T171. SPST.
24F1892. EACH **12.32**
Set of extra trippers.
24F982. Each .... .40

SUPERVISOR DELUXE



Ideal for control of background music, industrial process operations, heating systems. Periods of operation can be varied in multiples of 5 minutes. Repeats program every 24 hours and skips any days desired. Includes toggle switches for testing signal and cutting off automatic operations. Gray steel case 12⅛"x9⅛"x4⅝". 125 V, 60 Hz AC. Weight: 9½ lbs.

24F1893. Model V27171 One circuit ... **71.96**
24F1894. Model V27177 Two Circuit 95.96

PD-140 PORTABLE LAMP DIMMER

Controls light volume from dim to full bright. No special installation required. Lamp plugs into dimmer—dimmer plugs into wall outlet. Not for use on motors or fluorescent lights. 400 watts. 125V, 60 hz. Shpg. wt.: 2 lbs.

Stk. No.	Type	1-5	6-Up
24F854	PD-140	11.21	9.97

NEWARK Stocks the World's Most Complete Inventory of Industrial Electronic Components

GENERAL PURPOSE TIMERS

Type T101. Turns device on and off for any period over 1 hour . . . once every 24 hours. May be set up for more operations with additional trippers sets below. Can be manually operated without upsetting automatic sequence. SPST switch. U-beam blades, high-power switching mechanism, and tungsten rated at 40 amps, to carry incandescent lighting loads. 7¾x5x3". For 125 v. 60-hz AC. 3 lbs.
24F978. EACH **9.07**
Type T103. Same as above, but it has DPST contacts.
24F977. EACH **10.37**
24F982. Set of extra trippers each .... .40

PROGRAM TIME SWITCH

Type T1905. Provides up to 96 on and off operations in 15-minute steps every 24 hours! Ideal for devices requiring frequent control. Permanently attached trippers are spotted every 15 minutes around the dial . . . slide easily, and can't get lost. 20-amp. contacts can be set up for: SPST normally open or closed, or SPDT. Knock-out box, 7¾x5x3". For 125v, 60 hz AC. Shpg. wt., 4 lbs.
24F973. EACH **20.12**

SUPERVISOR PROGRAM TIMER

Type T1975. Has 96 trippers for 48 "on" and 48 "off" operations every 24 hours. Minimum interval is 15 minutes. "Skipper" dial omits operation on selected days. Snap-out mechanism. SPDT switch, rated 20 amps at 125 volts, 60 hz AC. Gray steel case, 7¾" x 5" x 3". 3¾ lbs.
24F980. NET **23.37**

SEVEN DAY PROGRAMMER

Type V26001. Provides different program for every day of week. Up to 4 operations per day with minimum of 3 hours between operations. 40 Amp tungsten rated contacts. 120 VAC 60 hz. Gray steel case, 10⅞" x 7⅜" x 3⅝". Shpg. wt.: 6¼ lbs.
24F1897. 4 PST switch **21.09**
24F1898. Type V26003 Same as above except 4P: 2 NO-2 NC switch 21.09

SCHEDULER

Provides 1 to 288 short interval operations per day. Operates for periods of from 2-30 sec.—intervals of 2½ min. on 12 hour models. 2-60 at 5 min. intervals on 24 hours models. 125 V, 60 hz AC. 12⅛x9x4⅝". 9½ lbs.
24F970. Model V28177 (with advance warning signal before maj. sig.) 2 cir., 24 hr. 63.96
24F971. Model V29171 1 cir., 24 hr........59.96
24F972. Model V29177 2 cir., 24 hr. 79.96

PORTABLE TIME SWITCH

Type P101. Will handle any appliance that plugs into regular outlets. Easily set for as many as 12 "on-off" operations per day with extra trippers. Minimum "on" or "off" time, 1 hour; maximum, 23 hours. May also be manually operated, 10 amps at 125 volts. Tungsten rated contacts. Gray steel case, 7¾"H x 5"W x 3"D. 125 V. 60 hz AC. 3 lbs.
24F1899. NET **10.37**

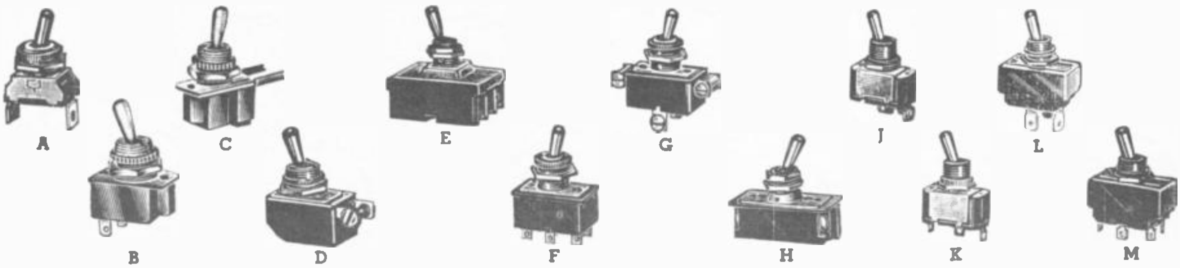
RANGER TIME SWITCH

Type T185. Up to 12 "on-off" cycles of from 5-60 minutes. Minimum interval between cycles, 2 hours. Used as SPST, N.O.; SPST, N.C.; or SPDT, alternate open & closed 40 Amps (1 combination tripper for each "on-off" cycle). Gray steel case. 7¾" x 5" x 3". 60 hz AC. Shpg. wt.: 3 lbs.
24F1895. NET **12.97**
Extra Set of Trippers. Adjustable cam type tripper can be set for duration of "on" period. 4 oz.
24F1896. EACH **1.27**

SERIES PT-301 INTERVAL TIMER

Operates appliances with automatic shut-off at end of desired time period. Practical for the control of sun lamps, sterilizers, televisions, and electrical cooking appliances. 13 amps—1600 watts. 125 volts, 60 hz. Shipping wt.: 2 lbs.

Stk. No.	Type	Interval	1-5	6-up
24F951	PT-301	0-60 min.	8.21	7.29
24F952	PT-304	0-24 hrs.	8.21	7.29



SNAP-ACTION TOGGLE SWITCHES

General purpose light and heavy duty AC switches for power appliances. Employ snap-action rocker type contact mechanism. Phenolic metalic housing. All one hole mount type Bushing 15/32" Dia 15/32" L. * 11/32" Long Bushing. U/L Approved.

6 AMP 125 V. 3 AMP 250 V AC

Stock No.	Type	Fig.	Act.	Term	Key	1-24	25-49	50-99	100-499	500-Up
23F341	7580K4	J	SPST	Screw	A	.66	.61	.51	.46	.41
23F342	7580K6	J	SPST	Lugs	A	.57	.53	.44	.40	.35
23F371	7580K9*	J	SPST	Spd.	A	.57	.39	.33	.29	.26
23F343	7581K4	K	SPDT	Screw	B	.62	.57	.48	.93	.38
23F344	7581K6	K	SPDT	Lugs	B	.59	.54	.45	.405	.360
23F372	7581K9*	K	SPDT	Spd.	B	.62	.57	.48	.43	.38
23F345	7582K4	K	SPDT	Screw	C	.76	.70	.59	.53	.47
23F346	7582K6	K	SPDT	Lugs	C	.62	.57	.48	.43	.38
23F347	7590K4	L	DPST	Screw	A	.94	.87	.725	.653	.58
23F348	7590K6	L	DPST	Lugs	A	.83	.76	.64	.57	.51
23F349	7591K4	M	DPDT	Screw	B	1.20	1.11	.93	.83	.74
23F356	7591K6	M	DPDT	Lugs	B	.92	.85	.71	.64	.57
23F374	7591K7*	M	DPDT	Lugs	B	.92	.85	.71	.64	.57
23F357	7592K4	M	DPDT	Screw	C	1.20	1.11	.93	.83	.74
23F358	7592K6	M	DPDT	Lugs	C	.92	.85	.71	.64	.57
23F376	7592K8	M	DPDT	Spd.	C	.92	.85	.71	.64	.57

HEAVY DUTY AC SWITCHES 15 AMP 125 V. 10 AMP 250 V

Stock No.	Type	Fig.	Act.	Term	Key	1-24	25-49	50-99	100-499	500-Up
23F377	7500K13*	J	SPST	Screw	A	.76	.70	.585	.527	.468
23F247	7500K14	J	SPST	Screw	A	.76	.70	.585	.527	.468
23F369	7501K12*	J	SPST	Lugs	A	.66	.61	.51	.459	.408
23F230	7501K13	J	SPST	Lugs	A	.66	.61	.51	.459	.408
23F231	7503K13	K	SPDT	Lugs	B	.76	.70	.585	.527	.468
23F380	7504K4	J	SPDT	Screw	C	.76	.70	.585	.527	.468
23F232	7505K4	K	SPDT	Lugs	C	.76	.70	.59	.53	.47
23F383	7502K12*	J	SPDT	Screw	B	.90	.83	.69	.621	.552
23F265	7502K13	E	SPDT	Screw	B	.85	.79	.66	.590	.524
23F267	7560K5	L	DPST	Screw	A	1.20	1.11	.93	.83	.74
23F235	7561K4	L	DPST	Lugs	A	1.01	.94	.78	.70	.62
23F268	7561K5	L	DPST	Lugs	A	1.01	.94	.78	.70	.62
23F381	7561K6	L	DPST	Spd.	A	1.01	.94	.78	.70	.62
23F246	7562K4	M	DPDT	Screw	B	1.48	1.37	1.14	1.03	.91
23F266	7564K6	M	DPDT	Screw	C	1.48	1.37	1.14	1.03	.91
23F236	7565K5	M	DPDT	Lugs	C	1.20	1.11	.93	.83	.74
23F382	7565K7	M	DPDT	Spd.	C	1.20	1.11	.93	.83	.74
23F237	7563K4	M	DPDT	Lugs	B	1.20	1.11	.93	.83	.74
23F271	7610K2	E	3PST	Screw	A	2.31	2.13	1.78	1.598	1.420
23F240	7611K2	E	3PST	Lugs	A	1.98	1.82	1.52	1.368	1.216
23F241	7613K2	E	3PDT	Lugs	B	2.44	2.25	1.88	1.688	1.500
23F243	7615K2	E	3PDT	Lugs	C	2.44	2.25	1.88	1.688	1.500
23F276	7615K4	E	3PDT	Spd.	C	2.44	2.25	1.88	1.688	1.500
23F256	7612K2	E	3PDT	Screw	B	2.93	2.70	2.25	2.025	1.800
23F257	7614K2	E	3PDT	Screw	C	2.93	2.70	2.25	2.025	1.800

10 AMP 250 V

Stock No.	Type	Fig.	Act.	Term	Key	1-24	25-49	50-99	100-499	500-Up
23F242	7691K14	E	4PST	Lugs	A	2.99	2.76	2.30	2.070	1.840
23F384	7693K2	E	4PDT	Lugs	B	3.65	3.37	2.81	2.525	2.244

10 AMP AT 250 VAC ONLY. MOMENTARY CONTACT

Stock No.	Type	Fig.	Act.	Term	Key	1-24	25-49	50-99	100-499	500-Up
23F233	7506K3	J	SPST	Lugs	K	.90	.83	.70	.63	.56
23F234	7510K6	K	SPDT	Lugs	G	1.02	.94	.79	.71	.63
23F239	7566K4	L	DPST	Lugs	K	1.44	1.33	1.11	1.00	.89
23F368	7566K5	L	DPST	Screw	K	1.64	1.51	1.26	1.13	1.01
23F[illegible]8	7570K4	M	DPDT	Lugs	G	1.64	1.54	1.28	1.15	1.02

HARDWARE FOR ONE HOLE MOUNTING SWITCHES

827-228F3. ON-OFF Plate. Slot by off, vertical lettering, .480" hole Dia. Burnish finish.
827-228F13. Same as above but with Horz. lettering.
827-228F16. Same as 827-228F3 but with HI-LO lettering.
29-761-3. 23/32" Locking Ring.
16-886. 19/32" Internal Tooth Lockwasher.

Stk. No.	Type	1-49	50-98	100-499	500-Up
23F248	827-228F3	.06	.05	.04	.03
23F516	827-228F13	.06	.05	.04	.03
23F517	827-228F16	.06	.05	.04	.03
23F518	29-761-3	.04	.035	.030	.025
23F519	16-886	.03	.025	.023	.02

LEVER CONTROL CHART

(*) Momentary Contact

Key	Up	Center	Down	Key	Up	Center	Down
A	On	None	Off	H	None	Off	On*
B	On	Off	On	I	On	Off	None
C	On	None	On	J	On	None	Off*
D	On	Off	None	K	Off	None	On*
E	On	Off	On*	L	Off	None	On
F	On*	Off	On*	M	On	On	None
G	On	None	On*				

QUICK MAKE-BREAK TOGGLE SWITCHES

Quick make-break toggle, standard duty AC-DC switches. Small one hole mount type for flat surfaces. Designed for small motor loads, radio appliances, and other similar applications. Quick break mechanism provides speedy operation, minimizing harmful pitting of contacts. Mtg. Bushing 15/32" Dia., 15/32" L. except (*) 1/4" L. and (**) 11/32" L. U/L Approved. Shpg. wt., 3 oz.

3 AMP 250 VOLT AC-DC

Stock No.	Type	Fig.	Act.	Term	Key	1-24	25-49	50-99	100-499	500-up
23F219	8280K14*	B	SPST	Lugs	A	.63	.58	.49	.437	.388
23F385	8280K15**	B	SPST	Lugs	A	.63	.58	.49	.437	.388
23F220	8280K16	B	SPST	Lugs	A	.63	.58	.49	.437	.388
23F391	8290K15**	C	SPST	Wire	A	.76	.70	.59	.527	.468
23F335	8290K16	C	SPST	Wire	A	.76	.70	.59	.527	.468
23F336	8295K7**	D	SPST	Screw	A	.76	.70	.59	.527	.468
23F337	8295K8	D	SPST	Screw	A	.76	.70	.59	.527	.468
23F392	8360K6*	F	DPST	Lugs	A	1.14	1.05	.88	.788	.700
23F223	8360K7	F	DPST	Lugs	A	1.14	1.05	.88	.788	.700
23F393	8360K8**	F	DPST	Lugs	A	1.14	1.05	.88	.788	.700
23F394	8363K6*	F	DPDT	Lugs	C	1.31	1.21	1.01	.905	.804
23F224	8363K7	F	DPDT	Lugs	C	1.31	1.21	1.01	.905	.804
23F209	8363K8**	F	DPDT	Lugs	C	1.31	1.21	1.01	.905	.804
23F275	8365K7	G	DPDT	Screw	C	1.72	1.59	1.33	1.193	1.060

3 AMP 125 VOLT, 1 AMP 250 V AC-DC

Stock No.	Type	Fig.	Act.	Term	Key	1-24	25-49	50-99	100-499	500-up
23F395	8282K13**	F	3 Way	Lugs	C	79	.73	.61	.549	.488
23F259	8284K14	F	2 Circ.	Lugs	C	.84	.77	.65	.581	.516
23F396	8284K12*	F	2 Circ.	Lugs	C	.84	.77	.65	.581	.516
23F222	8282K14	F	3 Way	Lugs	C	.79	.73	.61	.549	.488

6 AMP 125 V. 3 AMP 250 V AC-DC

Stock No.	Type	Fig.	Act.	Term	Key	1-24	25-49	50-99	100-499	500-up
23F338	3391K8	C	SPST	Wire	A	.85	.79	.66	.590	.524
23F221	8381K8	B	SPST	Lugs	A	.72	.67	.56	.500	.444
23F397	8396K6*	D	SPST	Screw	A	.85	.79	.66	.590	.524
23F228	8396K8	D	SPST	Screw	A	.85	.79	.66	.590	.524
23F339	8372K7	G	DPST	Screw	A	1.50	1.38	1.16	1.035	.920
23F227	8370K7	F	DPST	Lugs	A	1.22	1.13	.9'	.846	.752
23F225	8370K8**	F	DPST	Lugs	A	1.22	1.13	.94	.846	.752
23F226	8373K7	F	DPDT	Lugs	C	1.40	1.30	1.08	.972	.864
23F263	8373K8**	F	DPDT	Lugs	C	1.40	1.30	1.08	.972	.864
23F340	8375K7	G	DPDT	Screw	C	1.81	1.68	1.39	1.251	1.112

3 AMP 125 VAC, .75 AMP DC

Stock No.	Type	Fig.	Act.	Term	Key	1-24	25-49	50-99	100-499	500-up
23F367	8098K3	A	SPST	Screw		.53	.49	.41	.365	.324

HEAVY DUTY SWITCHES AC-DC 16 AMP 125 V, 8 AMP 250 V

Stock No.	Type	Fig.	Act.	Term	Key	1-24	25-49	50-99	100-499	500-up
23F252	7321K3	H	SPST	Screw	A	1.27	1.17	.98	.878	.780
23F251	7320K3	H	DPST	Screw	A	1.27	1.17	.98	.878	.780
23F250	7320K2**	H	DPST	Screw	A	1.27	1.17	.98	.878	.780

15 AMP 125 V, 10 AMP 250 V AC-DC

Stock No.	Type	Fig.	Act.	Term	Key	1-24	25-49	50-99	100-499	500-up
23F270	7360K7**	H	DPST	Screw	A	2.19	2.02	1.69	1.517	1.348
23F245	7361K5	H	SPST	Screw	A	2.19	2.02	1.69	1.517	1.348
23F253	7360K8	H	DPST	Screw	A	2.19	2.02	1.69	1.517	1.348

20 AMP 250 VOLT AC-DC

Stock No.	Type	Fig.	Act.	Term	Key	1-24	25-49	50-99	100-499	500-up
23F255	7402K4	H	DPST	Screw	A	2.94	2.72	2.27	2.039	1.812

15 AMP 125 V, 10 AMP 250 V AC-DC

Stock No.	Type	Fig.	Act.	Term	Key	1-24	25-49	50-99	100-499	500-up
23F229	8690K2	H	DPDT	Screw	C	4.59	4.24	3.53	3.177	2.824

Cutler-Hammer Military Switches

AIRCRAFT SWITCHES


ST-42


ST-40


ST-52


ST-50

Meet rigid aircraft requirements. Long life under adverse conditions. Shpg. wt. 2 oz.
NOTE: **Screw lug ‡Solder lug §Flush mtd. ††Unsealed leaver.

JAN MILITARY TYPES

Stock No.	Type	JAN. No.	Switch Action	Key	1-24	25-49	50-99	100-Up
23F283	8801-K13	ST40A	SPST**	A	1.41	1.30	1.09	.868
23F286	8800-K13	ST40E	SPDT**	B	1.70	1.57	1.31	1.044
23F291	8812-K13	ST40G	SPDT**	F	1.84	1.70	1.42	1.132
23F200	8803-K10	ST42A	SPST‡	A	1.33	1.23	1.03	.820
23F277	††8803-K6	ST42A	SPST‡	A	1.27	1.17	.98	.78
23F207	8819-K9	ST42B	SPST-NC‡	J	1.48	1.36	1.14	.908
23F205	8817-K9	ST42C	SPST-NO‡	K	1.48	1.36	1.14	.908
23F323	††8816-K5	ST42D	SPDT‡	C	1.24	1.14	.95	.760
23F201	8816-K9	ST42D	SPDT‡	C	1.53	1.46	1.22	.972
23F324	††8802-K6	ST42E	SPDT‡	B	1.30	1.20	1.00	.80
23F202	8802-K10	ST42E	SPDT‡	B	1.53	1.46	1.22	.972
23F203	8805-K9	ST42F	SPDT‡	G	1.72	1.59	1.33	1.060
23F204	8818-K9	ST42G	SPDT‡	F	1.72	1.59	1.33	1.060
23F208	8815-K10	ST42H	SPDT‡	E	1.72	1.59	1.33	1.060
23F218	§8201-K6	ST45A	SPST**	A	1.64	1.52	1.27	1.012
23F292	8822-K8	ST50K	DPST**	A	1.89	1.74	1.45	1.160
23F294	††8826-K5	ST50M	DPST-NO**	K	2.33	2.15	1.80	1.436
23F295	8824-K8	ST50N	DPDT**	C	2.27	2.09	1.75	1.396
23F296	8820-K10	ST50P	DPDT**	B	2.27	2.09	1.75	1.396
23F297	8830-K5	ST50R	DPDT**	G	2.63	2.43	2.03	1.62
23F298	8834-K4	ST50S	DPDT**	F	2.63	2.43	2.03	1.62
23F299	8832-K4	ST50T	DPDT**	E	2.63	2.43	2.03	1.62
23F326	8823-K5	ST52K	DPST‡	D	1.46	1.35	1.13	.90
23F210	8823-K6	ST52K	DPST‡	D	1.73	1.60	1.33	1.064
23F215	††8827-K5	ST52M	DPST-NO‡	H	1.92	1.77	1.48	1.18
23F273	††8825-K5	ST52N	DPDT‡	C	1.63	1.50	1.25	1.00
23F211	8825-K6	ST52N	DPDT‡	C	2.03	1.87	1.56	1.248
23F325	††8821-K5	ST52P	DPDT‡	B	1.63	1.50	1.25	1.00
23F212	8821-K6	ST52P	DPDT‡	B	2.03	1.87	1.56	1.248
23F216	††8831-K5	ST52R	DPDT‡	M	1.89	1.74	1.45	1.16
23F217	††8835-K3	ST52S	DPDT‡	F	2.05	1.89	1.58	1.26
23F213	††8833-K3	ST52T	DPDT‡	E	2.05	1.89	1.58	1.26
23F272	§8700-K14	ST52P	DPDT**	B	4.62	4.26	3.55	2.84

POSITIVE ACTION MINIATURE SWITCHES

Positive wiping action with gold plated contacts. Rated 4 @ 28 volts DC, 1 A @ 50 volts DC, 3 A @ 115 volts AC. Min. 30 μa @ 50 mu. *Mom contact. Small lever, 9/16 x 3/4 x 11/32—35/64. Large lever 9/16 x 45/64 x 11/32—35/64. Shpg. wt. 2 oz.

SMALL LEVER

Stock No.	Type	MS No.	Action	Key	1-24	25-49	50-99	100-Up
23F327	8866K1	24655-211	SPDT	B	5.04	4.65	3.88	3.10
23F328	8866K2	24655-271	SPDT*	F	5.69	5.25	4.38	3.50
23F447	8866K3	24655-311	SPDT*	E	5.69	5.25	4.38	3.50
23F329	8866K4	24655-231	SPDT	C	5.04	4.65	3.88	3.10
23F448	8866K5	24655-241	SPST	L	5.69	5.25	4.38	3.50
23F449	8866K6	24655-281	SPST*	H	5.69	5.25	4.38	3.50
23F330	8866K7	24655-221	SPST	A	5.04	4.65	3.88	3.10
23F494	8866K8		SPDT	M	6.01	5.55	4.63	3.70
23F331	8867K1	24656-211	DPDT	B	6.31	5.82	4.85	3.88
23F332	8867K2	24656-271	DPDT	F	7.35	6.78	5.65	4.52
23F495	8867K3	24656-311	DPDT	E	7.35	6.78	5.65	4.52
23F333	8867K4	24656-231	DPDT	C	6.31	5.82	4.85	3.88
23F499	8867K5	24656-241	DPST	L	7.35	6.78	5.65	4.52
23F497	8867K6	24656-281	DPST	H	7.35	6.78	5.65	4.52
23F334	8867K7	24656-221	DPST	A	6.31	5.82	4.85	3.88
23F498	8867K8	....	DPST	M	7.67	7.08	5.90	4.72

LARGE LEVER

Stock No.	Type	MS No.	Action	Key	1-24	25-49	50-99	100-Up
23F781	8868K1	90310-211	SPDT	B	5.14	4.74	3.95	3.16
23F782	8868K2	90310-271	SPDT*	F	5.79	5.34	4.45	3.56
23F783	8868K3	90310-231	SPDT*	G	5.79	5.34	4.45	3.56
23F784	8868K4	90310-311	SPDT	C	5.14	4.74	3.95	3.16
23F785	8868K5	90310-241	SPST	L	5.79	5.34	4.45	3.56
23F786	8868K6	90310-281	SPST*	H	5.79	5.34	4.45	3.56
23F274	8868K7	90310-221	SPST	A	5.14	4.74	3.95	3.16
23F787	8868K8	90310-321	SPDT*	M	6.11	5.64	4.70	3.76
23F788	8869K1	90311-211	DPDT	B	6.40	5.91	4.93	3.94
23F789	8869K2	90311-271	DPDT*	F	7.44	6.87	5.73	4.58
23F790	8869K3	90311-311	DPDT*	E	7.44	6.87	5.73	4.58
23F791	8869K4	90311-231	DPDT	C	6.40	5.91	4.93	3.94
23F792	8869K5	90311-241	DPST	L	7.44	6.87	5.73	4.58
23F793	8869K6	90311-281	DPST*	A	7.44	6.87	5.73	4.58
23F794	8869K7	90311-221	DPST	H	6.40	5.91	4.93	3.94
23F795	8869K8	90311-312	DPDT*	M	6.11	5.64	4.70	3.76

MIL-S-3950A AND MIL-S-8834 (ASG) MILITARY SWITCHES

Desigend for positive performance in aircraft, missile, and electronic applications. Wiping contacts provide positive opening action; insures making and carrying of low energy circuits. Pos. detent action. Stronger return springs. All meet MIL-S-3950A, except (†), which are environment sealed and meet MIL-S-8834 (ASG). All types have screw terminals, except (*) solder lugs. Rated 20 amps at 28 VDC. 10 amps at 115 VAC. **See Lever Control Chart on previous page.**

Stock No.	Type	Gov't Ms No.	Key	1-24	25-49	50-99	100-Up
SPST							
23F655	†8836-K6	25306-242	D	6.50	6.00	5.00	4.00
23F658	†8836-K9	25306-222	A	6.99	6.45	5.38	4.30
23F660	†8836-K11	25306-302	K	7.54	6.96	5.80	4.64
23F300	8801-K22	35058-22	A	1.41	1.30	1.09	.868
23F301	8801-K23	35058-24	D	1.41	1.30	1.09	.868
23F305	8811-K17	35058-30	K	1.55	1.43	1.20	.956
SPDT							
23F650	†8836-K1	25306-212	B	6.66	6.15	5.13	4.10
23F652	†8836-K3	25306-312	E	7.54	6.96	5.80	4.64
23F653	†8836-K4	25306-232	C	6.99	6.45	5.38	4.30
23F654	†8836-K5	25306-262	G	7.87	7.26	6.05	4.84
23F306	8810-K15	35058-23	C	1.70	1.57	1.31	1.044
23F307	8800-K16	35058-21	B	1.70	1.57	1.31	1.044
23F308	8804-K13	35058-26	G	1.84	1.70	1.42	1.132
23F309	8812-K14	35058-27	F	1.84	1.70	1.42	1.132
23F310	8809-K16	35058-31	E	1.84	1.70	1.42	1.132
DPST							
23F666	†8837-K6	25307-242	D	10.30	9.51	7.93	6.34
23F667	†8837-K7	25307-282	H	11.15	10.29	8.58	6.86
23F669	†8837-K9	25307-222	A	9.91	9.15	7.63	6.10
23F311	8822-K20	35059-22	A	1.89	1.74	1.45	1.160
23F312	8822-K21	35059-24	H	1.89	1.74	1.45	1.160
DPDT							
23F661	†8837-K1	25307-212	B	10.78	9.93	8.28	6.62
23F662	†8837-K2	25307-272	F	11.64	10.74	8.95	7.16
23F663	†8837-K3	25307-312	E	11.64	10.74	8.95	7.16
23F664	†8837-K4	25307-232	C	10.76	9.93	8.28	6.62
23F315	8824-K14	35059-23	C	2.27	2.09	1.75	1.396
23F316	8820-K16	35059-21	B	2.27	2.09	1.75	1.396
23F317	8834-K5	35059-27	F	2.54	2.34	1.95	1.56
23F318	8832-K6	35059-31	E	2.54	2.34	1.95	1.56
4PST							
23F680	†8838-K9	25308-222	A	22.95	21.18	17.65	14.12
23F269	†7661-K6*	....	A	3.82	3.52	2.94	2.348
4PDT							
23F672	†8838-K1	25308-212	B	24.05	22.20	18.50	14.80
23F674	†8838-K3	25308-312	E	25.87	23.88	19.90	15.92
23F675	†8838-K4	25308-232	C	24.05	22.20	18.50	14.80
23F676	†8838-K5	25308-262	G	25.87	23.88	19.90	15.92
23F319	†7664-K5	25068-23	C	5.16	4.76	3.97	3.166
23F264	†7663-K5*	....	B	4.69	4.33	3.61	2.888
23F321	†7665-K4*	....	C	4.69	4.33	3.61	2.888

● NEW MILITARY SWITCH GUARDS

Stk. No.	Type	MS No.	1-24	25-49	50-99	100-Up
23F140	8492K1	MS24417-1	1.07	.99	.83	.66
23F141	8494K1	MS25214-1	3.41	3.15	2.63	2.10
23F142	8494K2	MS25214-2	3.08	2.85	2.38	1.90
23F143	8494K3	MS25214-3	3.08	2.85	2.38	1.90
23F144	8495K1	MS25221-1	.72	.66	.55	.44
23F145	8497K1	MS22524-1	1.63	1.50	1.25	1.00
23F146	8497K2	MS22524-2	1.63	1.50	1.25	1.00
23F147	8497K3	MS22524-3	1.63	1.50	1.25	1.00

MIL-S-6807 ROTARY SWITCHES

These switches feature an adjustable index and continuous rotation by omitting the index screws. Rated 5 amps @ 28 volts DC and 115 volts AC. All switches are non-shorting and have 8 positions. All have screw terminals, 1/4" shaft, 15/32" bushing, hex nuts, locking ring, and washer. Average Shpg. Wt., 4 oz.

Stock No.	Type	MS No.	Sec.	Action	1-24	25-49	50-99	100-Up
23F544	7261K13	25002-1	1	SP	6.43	5.94	4.95	3.96
23F545	7262K12	25002-2	2	DP	9.55	8.82	7.35	5.88
23F546	7263K11	25002-3	3	3P	12.65	11.67	9.73	7.78
23F547	7264K9	25002-4	4	4P	15.63	14.52	12.10	9.68
23F548	7265K9	25002-5	5	5P	18.82	17.37	14.48	11.58
23F549	7266K5	25002-6	6	6P	21.91	20.22	16.85	13.48

Cutler-Hammer Switches

DESIGNER SERIES

For the designer who wants to add "snap" to any panel or equipment. For AC-DC service, "tease resistant" quick make—quick break contact in arc resistant phenolic case. 15/32" diameter, 11/32" long threaded item. Solder lug terminals. UL and CSA listed. Shpg. wt., 2 oz.

UL and CSA listed

SPST (3A @ 250V—6A @ 125V)

Color	Lever C Stk. No.	Lever C Type	Lever D Stk. No.	Lever D Type	Lever H Stk. No.	Lever H Type
White	23F450	8381K21C	23F455	8381K21D	23F460	8381K21H
Red	23F451	8381K22C	23F456	8381K22D	23F461	8381K22H
Grey	23F452	8381K23C	23F457	8381K23D	23F462	8381K23H
Green	23F453	8381K24C	23F458	8381K24D	23F463	8381K24H
Black	23F454	8381K27C	23F459	8381K27D	23F464	8381K27H

Prices	1-24	25-49	50-99	100-499	500-999
	.79	.73	.61	.55	.488

DPST (3A @ 25V—6A @ 125V)

Color	Lever C Stk. No.	Lever C Type	Lever D Stk. No.	Lever D Type	Lever H Stk. No.	Lever H Type
White	23F480	8370K21C	23F485	8370K21D	23F490	8370K21H
Red	23F481	8370K22C	23F486	8370K22D	23F491	8370K22H
Grey	23F482	8370K23C	23F487	8370K23D	23F492	8370K23H
Green	23F483	8370K24C	23F488	8370K24D	23F493	8370K24H
Black	23F484	8370K27C	23F489	8370K27D	23F500	8370K27H

Prices	1-24	25-49	50-99	100-499	500-999
	1.26	1.16	.97	.87	.776

SPDT (1A @ 250V—3A @ 125V)

Color	Lever C Stk. No.	Lever C Type	Lever D Stk. No.	Lever D Type	Lever H Stk. No.	Lever H Type
White	23F465	8282K21C	23F470	8282K21D	23F475	8282K21H
Red	23F466	8282K22C	23F471	8282K22D	23F476	8282K22H
Grey	23F467	8282K23C	23F472	8282K23D	23F477	8282K23H
Green	23F468	8282K24C	23F473	8282K24D	23F478	8282K24H
Black	23F469	8282K27C	23F474	8282K27D	23F479	8282K27H

Prices	1-24	25-49	50-99	100-499	500-999
	.87	.80	.67	.60	.532

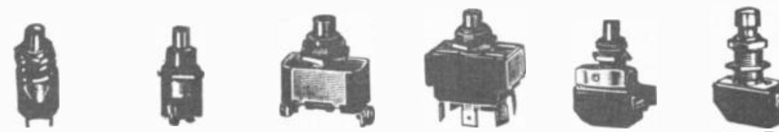
DPDT (3A @ 250V—6A @ 125V)

Color	Lever C Stk. No.	Lever C Type	Lever D Stk. No.	Lever D Type	Lever H Stk. No.	Lever H Type
White	23F501	8373K21C	23F506	8373K21D	23F511	8373K21H
Red	23F502	8373K22C	23F507	8373K22D	23F512	8373K22H
Grey	23F503	8373K23C	23F508	8373K23D	23F513	8373K23H
Green	23F504	8373K24C	23F509	8373K24D	23F514	8373K24H
Black	23F505	8373K27C	23F510	8373K27D	23F515	8373K27H

Prices	1-25	25-49	50-49	100-499	500-999
	1.43	1.32	1.10	.99	.88

PUSHBUTTON SWITCHES

Momentary contact (SPST) except (**) DPDT action pushbutton switches. Normally open, circuit closed only when button is held in closed position. Wide use in refrigerators, telephone booths, closets, etc. (*) Normally closed. (†) Push-"On-Off" Switch. ‡‡Push Pull. Wt. 3 oz.



Stock No.	Type	Button Color	Fig.	Current Rating 125 VDC	125 VAC	250 VAC	Pole	Bushing	Term.	1-24	25-49	50-99	100-499	500-Up
23F439	8411K12	Black	A	3/4	3/4	1/4	1	15/32"	Screw	.48	.44	.37	.333	.296
23F260	8411K11	Black	A	3/4	3/4	1/4	1	15/32"	Lug	.43	.39	.33	.297	.264
23F359	8411K13	Red	A	3/4	3/4	1/4	1	1/4"	Lug	.43	.39	.33	.297	.264
23F440	8411K7*	Black	A	3/4	3/4	1/4	1	15/32"	Screw	.36	.33	.28	.248	.220
23F261	8411K8*	Black	A	3/4	3/4	1/4	1	15/32"	Lug	.31	.29	.24	.216	.192
23F262	8440K2	Nickel	B	....	3	1	1	15/32"	Lug	.87	.80	.67	.603	.536
23F441	8440K3	Nickel	B	....	3	1	1	15/32"	Screw	1.01	.93	.78	.698	.62
23F360	8442K4	Nickel	C	....	6	3	1	11/32"	Screw	.96	.89	.74	.666	.592
23F442	8443K2	Black	C	....	6	3	1	11/16"	Screw	.96	.89	.74	.666	.592
23F443	8444K3	Nickel	C	....	15	10	1	11/16"	Screw	1.03	.95	.80	.716	.636
23F361	8444K4	Nickel	C	....	15	10	1	11/32"	Screw	1.03	.95	.80	.716	.636
23F362	8448K2	Nickel	D	..	15	10	2	11/32"	Screw	1.48	1.37	1.14	1.026	.912
23F444	7190K1	Nickel	E	6	6	3	1	1/2"	Lug	1.27	1.18	.98	.882	.744
23F363	7196K1	Nickel	E	..	6	3	1	1/2"	Screw	1.41	1.30	1.09	.98	.87
23F445	7199K1**	Nickel	E	6	6	3	2	1/2"	Screw	2.86	2.64	2.20	1.98	1.76
23F364	7208K4†	Nickel	F	....	6	3	1	11/16"	Screw	1.09	1.00	.84	.75	.67
23F370	7116K2††	Nickel		5	5	1	1	1"	Screw	1.55	1.43	1.19	1.07	.95

ROCKETTE APPLIANCE SWITCHES

Switches are UL approved. Actuator is made of molded white nylon. Flush mounting with two #6 mounting holes. .250 spade terminals except (*) screw. (**) with off position. Wt., 4 oz.

Stk. No.	Type	Amp @125	@250	1-24	25-49	50-99	100-499	500-Up
SPST—KEY A								
23F398	8134K21A1M52	6	3	.62	.57	.48	.427	.380
23F399	8144K21A1M52	15	10	.70	.65	.54	.486	.432
23F365	8144K21A1M50*	15	10	.79	.72	.81	.544	.484
SPLT—KEY B**								
23F433	8134-K20A-1M52	6	3	.66	.61	.51	.427	.406
23F434	8144K-20A-1M52	15	10	.79	.73	.61	.544	.484
DPST—KEY A								
23F435	8132K-21E-6M52	6	3	.92	.84	.70	.629	.562
23F436	8142K-21E-6M52	15	10	1.10	1.02	.83	.748	.664
23F366	8142K21E6M50*	15	10	1.25	1.16	.96	.864	.836
DPDT—KEY B**								
23F437	8132K-20E-6M52	6	3	.99	.92	.77	.69	.612
23F438	8142K-20E-6M52	15	10	1.25	1.16	.96	.864	.836

PUSHBUTTON SWITCH

Aircraft Type. SPST action. Normally open circuit. Button chrome plated. Bushing 15/32" — 32 thds., Screw terminal. Size 5/8"x115/32".
*8A Rating — resistive load. †5A Rating — resistive load

Stock No.	Type	30V	125V	1-24	25-49	50-99	100-499	500-Up
23F281	8450-K1	4A*	1.5A†	1.95	1.80	1.50	1.35	1.20

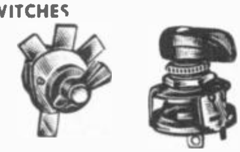
COMMERCIAL MINIATURE TOGGLE SWITCHES

Single or double throw types. Momentary or maintained action. Rated 5 amps, 125 VAC and 28 VDC. Bushing length: 5/16". Lever extension 3/8". Term. silver solder lugs located at rear. Gold plated terminals and contacts .Has extra large .07" dia. terminal holes to accept three #22 wires.

Stock No.	Type	Action	Key	1-24	25-49	50-99	100-499	500-Up
23F766	7055K20	SPST	A	3.46	3.19	2.66	2.394	2.128
23F767	7050K20	SPDT	B	3.62	3.39	2.83	2.543	2.260
23F770	7053K20	SPDT	C	3.67	3.39	2.83	2.543	2.128
23F772	7065K20	DPST	A	4.28	3.95	3.29	2.961	2.632
23F773	7060K20	DPDT	B	4.70	4.34	3.62	3.254	2.892
23F776	7063K20	DPDT	C	4.70	4.34	3.62	3.254	2.892

ROTARY SWITCHES

Ideal for use with fans, air conditioners, and other similar electrical uses. Types 7011K1 and 7012K4 are AC-DC and have screw terminal with a 3/8" stem. Types 8122K4 and 8123K4 are AC only and have solder lug terminals with a 3/8" stem. UL approved. Av. Shpg. wt. 6 oz.



7011K1 8122K4

Stock No.	Type	Action	125V	250V	1-24	25-49	50-99	100-499	500-Up
23F796	7011K1	2 on, 1 off	5	2	1.48	1.36	1.14	1.02	.91
23F797	7012K4	3 on, 1 off	5	2	1.51	1.40	1.17	1.05	.93
23F798	8122K4	2 on, 1 off	3	....	.53	.49	.41	.369	.328
23F799	8123K4	3 on, 1 off	3	....	.58	.53	.45	.401	.356

● NEW SPEED CONTROL MODULE

Model 8349K2. This speed control module is used in conjunction with an external variable resistor and an "on-off" switch. The module will provide "stepless" ("off" to "full on") speed control of fractional H.P. universal motors. Typical applications include small household appliances, power tools, and floor surface apparatus equipped with series wound (universal) motors. Mounting Means: Nest Mounting. Electrical Details: Withstands inrush currents up to 21 amps. Terminals: Wire Leads. All leads meet U.L. specifications. Mechanical Details: Static Design. No moving parts.

Stk. No.	Type	1-24	25-49	50-99	100-499	500 & Up
23F778	8349K2	4.71	4.35	3.625	3.263	2.90

ALCOSWITCH Switches

MST 105
SPDT

MST 205
DPDT

MST 305
3PDT

MST 405
4PDT

ALCOSWITCH SIZES:

SPDT: .244 x .492 x .354; Contacts rated 5 amps. Over 80,0000 operations.
DPDT: .453 x .492 x .354; Contacts rated 5 amps. Over 80,000 operations.
3PDT: .644 x .472 x .453; Contacts rated 5 amps. Over 25,000 operations.
DP3T: .453 x .492 x .453; Contacts rated 5 amps. Over 15,000 operations.

GENERAL SPECIFICATIONS

Insulating Res.—over 1000 megohms @ 500 VDC.
Voltage Breakdown—1000 volts @ 60 Hz. Contacts are solid silver. Bushings 1/4-40. ***Momentary. †Special DP3P switch with 3 "on" positions take the place of 3 position rotary switch in certain applications. Imported from Japan. Shipping wt. 1 oz.**

WHITE PLASTIC CAP — 30° THROW

Stock No.	Type MST-	Action	1-24	25-99	100-499	500-999
61F850	115D	SPDT On-None-On	1.70	1.16	1.02	.85
61F851	215N	DPDT On-None-On	2.20	1.47	1.32	1.10
61F852	315D	3PDT On-None-On	3.90	2.61	2.34	1.95
61F853	415N	4PDT On-None-On	4.90	3.33	2.94	2.45

SLIM BAT HANDLE—30° THROW

Stock No.	Type MST-	Action	1-24	25-99	100-499	500-999
61F854	105D	SPDT On-None-On	1.65	1.12	.99	.83
61F855	105E	SPDT On-Off-On	1.95	1.33	1.17	.97
61F856	105F	SPDT None-On-On	1.95	1.33	1.17	.97
61F857	105G	SPDT On*-Off On*	1.95	1.33	1.17	.97
61F858	105H	SPDT On-Off-On*	1.95	1.33	1.17	.97
61F859	205N	DPDT On-None-On	2.15	1.43	1.29	1.08
61F860	205P	DPDT On-Off-On	2.55	1.72	1.53	1.28
61F861	205R	DPDT None-On-On	2.55	1.72	1.53	1.28
61F862	205S	DPDT On*-Off-On*	2.55	1.72	1.53	1.28
61F863	205T	DPDT On-Off-On*	2.55	1.72	1.53	1.28
61F864	†205PA	DP3T On-On-On	2.85	1.90	1.71	1.42
61F865	†205TA	DP3T On-On-On*	3.15	2.14	1.89	1.58
61F866	305D	3PDT On-None-On	3.85	2.57	2.31	1.92
61F867	305E	3PDT On-Off-On	4.15	2.82	2.49	2.07
61F868	305H	3PDT On-Off-On*	4.15	2.82	2.49	2.07
61F869	405N	4PDT On-None-On	4.85	3.29	2.91	2.43
61F870	405P	4PDT On-Off-On	5.35	3.64	3.21	2.68

ADJUSTABLE STOP 1/2" ROTARY SWITCHES

Ideal where size and space limitations are a factor. Features adjustable stop, non shorting 36° spacing, and up to 4 poles on a single deck. Rated 500MA @ 125 VAC. Silver contacts. 1/4"-40 bushing. Imported from Japan. (*) - poles on a single deck.

1/8" DIAMETER SHAFT—LESS KNOB

Stock No.	Type	*	Positions	1-24	25-99	100-499	500-999
61F891	MRA-1-10S	1	2-10	3.85	2.57	2.31	1.92
61F892	MRA-2-5S	2	2-5				
61F893	MRA-3-3S	3	2-3				
61F894	MSRA-4-2	4	2 (fixed)				

5/32" DIAMETER SHAFT—WITH KNOB

Stock No.	Type	*	Positions	1-24	25-99	100-499	500-999
61F895	MRA-1-10	1	2-10	3.95	2.64	2.37	1.98
61F896	MRA-2-5	2	2-5				
61F897	MRA-3-3	3	2-3				
61F898	MSRA-4-2	4	2 (fixed)				

1/8" DIA. SHAFT WATERPROOF ROTARY SWITCHES

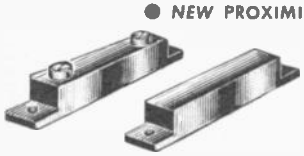
Non-adjustable . . . similar to MRA series, but fully waterproof. Less knob. Rear terminals permanently sealed.

Stock No.	Type	No. of Poles	No. of Positions	1-24	25-99	100-499	500-999
61F899	MSRE-1-10	1	10	4.85	3.29	2.91	2.43
61F900	MSRE-2-5	2	5				
61F901	MRSE-3-3	3	3				
61F902	MSRE-4-2	4	2				

1/8" DIA. SHAFT ANODIZED ALUM. KNOBS FOR MSR & MSRE

Stock No.	Type	Description	1-99	100-249	250-499	500-999
61F903	KC-500A	Natural Aluminum	.55	.49	.47	.45
61F904	KC-500B	Black Anodized	.55	.49	.47	.45
61F905	KC-500B-10	Black 0-9 Numeral	.65	.59	.56	.53

● *NEW* PROXIMITY MAGNETIC SWITCH



The inherent simplicity of the basic dry reed switch is the key to a long life and a very reliable proximity switch. An encased Alnico 5 permanent magnet provides the force to actuate the reed switch within distances of 1" apart (cen- to center). Some of the uses for these magnet-switch combinations are as interlocks, counters, and burglar alarms. Supplied as a normally open switch.

Stk. No.	Model No.	1-24	25-99	100-499	500-999
61F971	RS-24PR	2.85	1.90	1.71	1.42

WATERPROOF SWITCH SERIES

Type MSTE. All new case design incorporates high voltage barriers, rugged high impact materials, low loss properties. Bonded silver contacts rated 6 amps at 115 VAC. "O" rings, **permanently seals turret terminals. Imported from Japan. Wt. 1 oz.**

Stock No.	Type MSTE	Action	1-24	25-99	100-499	500-999
61F871	106D	SPDT On-None-On	1.95	1.33	1.17	.975
61F872	106E	SPDT On-Off-On	2.55	1.72	1.53	1.28
61F873	206N	DPDT On-None-On	2.55	1.72	1.53	1.28
61F874	206P	DPDT On-Off-On	3.15	2.14	1.89	1.58
61F875	206PA	DP3T On-On-On	3.45	2.35	2.07	1.73
61F876	306D	3PDT On-None-On	4.25	2.89	2.55	2.13
61F877	306E	3PDT On-Off-On	4.75	3.23	2.85	2.38
61F878	406N	4PDT On-None-On	5.35	3.64	3.21	2.68
61F879	406P	4PDT On-Off-On	5.95	4.05	3.57	2.98

● *NEW* LEVER-LOCK TOGGLE SWITCHES

Pull-to-unlock toggle switches for use in hazardous applications. Toggle locks into position. Rated 6A @ 125VAC (resistive), 4A @ 30VDC (resistive).

Stk. No.	Type	Action	1-24	25-99	100-499	500-999
61F972	MSTL-106D	SPDT On-None-On	3.15	2.14	1.89	1.58
61F973	MSTL-106E	SPDT* On-Off-On	3.85	2.57	2.31	1.925
61F974	MSTL-206N	DPDT On-None-On	3.85	2.57	2.31	1.925
61F975	MSTL-206P	DPDT* On-Off-On	4.45	3.03	2.67	2.23

"MUSTANG" TOGGLE SWITCHES

Features 15/32" hole mounting and large lever bat handle, but has minimal rear space requirement. Rugged case of low loss, high impact and temperature materials with turret terminals. Bonded silver contacts. Rated at 6 Amps @ 125 VAC. Imported from Japan. Shipping weight: 1 oz.

Stock No.	Type MSTG	Action	1-24	25-99	100-499	500-999
61F884	206N	DPDT On-None-On	2.75	1.87	1.65	1.38
61F885	206P	DPDT On-Off-On	3.35	2.28	201	1.68
61F886	206PA	DP3T On-On-On	3.85	2.48	2.19	1.83
61F887	306D	3PDT On-None-On	4.45	3.03	2.67	2.23
61F888	306E	3PDT On-Off-On	4.95	3.37	2.97	2.48
61F889	406N	4PDT On-None-On	5.55	3.72	3.33	2.78
61F890	406P	4PDT On-Off-On	6.15	4.18	3.60	3.08

SWITCH PLATES

ON-OFF switch plates for standard and miniature switches. SLP-4 accepts the BND series pilot light. Sold in packages of 5 only.

Stk. No.	Type	Use	1-24*	100-499*	25-99*
61F948	SP-3	1/4" Dia. Bushing	.75	.54	.51
61F949	SP-4	15/32" Dia. Bushing	.75	.54	.51
61F950	SLP-4	1/4" Dia. Bushing	.90	.65	.61

* per pkg. of five

COLOR CODED CAPS

An invaluable aid. Pkgs. of 25. Model C-10 for all series except C-15 for Mustang Series only.

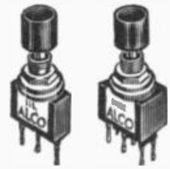
Stock No.	Model	Color	Per Package of 25: 1-3	4-19	20-39
61F880	C-10	Black	.70	.63	.55
61F881	C-10	White			
61F882	C-10	Red			
61F883	C-10	Blue			
61F951	C-15	Black	1.00	.90	.82
61F952	C-15	White			
61F953	C-15	Red			
61F954	C-15	Blue			

ALCOSWITCH

MSPE SERIES PUSHBUTTON SWITCHES

I unique waterproof switch takes the place of 2 separate Normally Open or Normally Closed types. Current rating: 6 A @ 125 VAC (Resistance load). Initial contact resistance: below 10 milliohms at 2.4 Kq. Life cycle: 20,000. Less buttons. Bushing size: ¼-40, mounts in D-hole. Size: ½" case.

*—Momentary †—Push On-Off



MSPE 106 MSPE 206

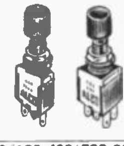
Stk. No.	Type	Description	1-24	25-99	100-499	500-999
61F957	MSPE-106F	SPDT*	2.55	1.72	1.53	1.28
61F958	MSPE-206R	DPDT*	3.45	2.35	2.07	1.73
61F959	MSPE-106D	SPDT†	2.55	1.72	1.53	1.28
61F960	MSPE-206N	DPDT†	3.45	2.35	2.07	1.73
61F961	MSPE-406N	4PDT†	5.95	4.05	3.57	2.98

SWITCH HARDWARE

Stk. No.	Type	Description	Per Pkg. of 25 1-3	4-19	20-39	40-Up
61F913	N-1	¼"-40 Knurled Nut	.70	.62	.55	.50
61F914	N-1A	¼"-40 Perfect Fit Nut	1.00	.90	.82	.75
61F915	N-1B	15/32" Perfect Fit Nut	.55	1.25	1.10	1.00
61F916	N-2	¼"-40 Hex Nut	1.40	.50	.45	.40

MINIATURE PUSH BUTTON SWITCHES

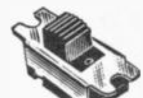
*Momentary action, usable as a NO or NC switch. PUSH to make contact, PUSH again to reverse action. Silver contacts rated 5 amps @ 115 VAC. Over 20,000 operations: ¼-40 bushing size. 1 megohms insul. res. ½x½x¾".
†—Push On-Off.



Stk. No.	Type	Action	1-24	25-99	100-499	500-999
61F906	MSP-105F	SPDT*	1.90	1.29	1.138	.945
61F907	MSP-205R	DPDT*	2.80	1.86	1.678	1.39
61F908	MSP-105D	SPDT†	1.90	1.29	1.138	.945
61F909	MSP-205N	DPDT†	2.80	1.86	1.678	1.39
61F910	C-12	Black Button	.05	.04	.032	.03
61F911	C-12	Red Button	.05	.04	.032	.03
61F912	C-14-L	Chrome Button	.06	.04	.036	.033

MINIATURE SLIDE SWITCH

Type MSS-22. SPDT, 2 circuit. Only ½ x .305 x .257". Contact rating: 2 A at 120 VAC or ½ A at 120 VDC. Cont. Res: .01 ohm max. Leak. res: 10,000 megohms. V. breakdown: 250 VRMS 60 CPS. Life: 250,000 actions. .687" mntg. centers. Phenolic base and side block. NO-NC.



Stk. No.	Type	1-24	25-99	100-499	500-999
61F947	MSS-22	1.75	1.17	.88	.73

J. B. T. SWITCHES

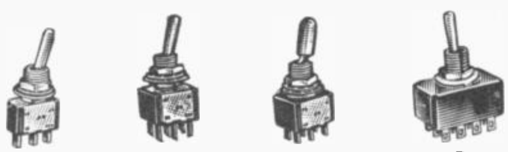
HEAVY DUTY — MIL-S-3950B

Heavy duty switches with coin silver contacts and rocker arms. Nominal ratings: 20 amps at 125 VAC. All MS switches contain a silicone rubber bushing seal to meet sand, dust, and 15' head of water submersion tests. Size: single hole bushing 15/32"L x 15/32"H. Toggle 11/16" long. All MIL-S 3905B series have solderable 6/32" screw terminals.

MIL-S-3950B 4 POLE SERIES FIG. E

Stck. No.	Type	Action	Each	2-9	10-29	30-99	100-249
22F122	MS25068-24	4PST On-Off-X	5.50	4.50	3.54	2.98	2.47
22F123	MS25068-25	4PST On-off*-X	6.30	5.30	4.18	3.51	2.92
22F124	MS25068-28	4PST X-Off-On*	6.30	5.30	4.18	3.51	2.92
22F125	MS25068-21	4PDT On-off-On	6.22	5.22	4.11	3.46	2.87
22F126	MS25068-23	4PDT On-X-On	6.30	5.30	4.18	3.51	2.92
22F127	MS25068-26	4PDT On-X-On*	6.63	5.63	4.44	3.73	3.10
22F128	MS25068-27	4PDT On*-Off-On*	6.63	5.63	4.44	3.73	3.10
22F129	MS25068-31	4PDT On-off-on*	6.63	5.63	4.44	3.73	3.10

SUB-MINIATURE — JMT SERIES



A B C D

Designed for manually controlled, low current, solid state devices, and miniaturized circuitry. Single hole mtg. ¼" thin bushing. Nominal rating: 5 amps @ 125 VAC; 24 VDC. Mtg. hdwe: 1 lock ring; 2 hex nuts; 1 internal lock washer.

Stk. No.	Type	Lever Action	1-24	25-99	100-499	500-999
SPDT—3 Term. Fig. A						
22F862	JMT-121	On-Off-On	1.95	1.30	1.17	1.09
22F863	JMT-123	On-X-On	1.65	1.10	.99	.93
22F864	JMT-126	On-X-On*	1.95	1.30	1.17	1.09
22F865	JMT-127	On*-Off-On*	2.10	1.40	1.28	1.18
22F866	JMT-131	On-Off-On*	2.10	1.40	1.26	1.18
22F867	JMT-134	X-On-On*	1.95	1.30	1.17	1.09
DPDT—6 Term. Fig. B						
22F868	JMT-221	On-Off-On	2.55	1.70	1.53	1.43
22F869	JMT-223	On-X-On	2.15	1.43	1.28	1.20
22F870	JMT-226	On-X-On*	2.55	1.70	1.53	1.43
22F871	JMT-227	On*-Off-On*	2.70	1.80	1.62	1.51
22F872	JMT-231	On-Off-On*	2.70	1.80	1.62	1.51
22F873	JMT-232	On-On-On	2.85	1.90	1.71	1.60
22F874	JMT-233	On-On-On*	3.15	2.10	1.89	1.76
22F875	JMT-234	X-On-On*	2.55	1.70	1.53	1.42
3PDT—9 Term. Fig. C						
22F876	JMT-321	On-Off-On	4.25	2.84	2.54	2.37
22F877	JMT-323	On-X-On	3.85	2.57	2.32	2.16
4PDT—12 Term. Fig. D						
22F878	JMT-421	On-Off-On	5.45	3.64	3.26	3.05
22F879	JMT-423	On-X-On	4.85	3.24	2.90	2.71

*Momentary position; X No Position

SNAP ACTION TOGGLE SWITCHES

E F G

Nominally 6 amps @ 125 VAC, 3 amps @ 250 VAC. For use with instruments, data processing, and combination circuits. 11/16" lever. Bushing 15/32"L x 15/32"D. U.L. approved.

MIL-S-3950C MEDIUM DUTY WITH LEVER SEAL FIG. F.

Stk. No.	Type MS-	Action	Each	2-9	10-29	30-99	100-249
SPST—2 Term.							
22F912	25098-22	On-X-Off	1.98	1.48	1.18	1.11	1.03
22F913	25098-29	On-X-Off*	2.40	1.90	1.52	1.43	1.33
22F914	25098-30	Off-X-On*	2.40	1.90	1.52	1.43	1.33
DPST—4 Term.							
22F915	25098-23	On-X-On	2.19	1.69	1.35	1.27	1.18
SPDT—3 Term.							
22F916	25100-22	On-X-Off	2.62	2.12	1.69	1.59	1.48
22F917	25100-29	On-X-Off*	2.97	2.47	1.97	1.85	1.73
22F918	25100-30	Off-X-On*	2.97	2.47	1.97	1.85	1.73
DPDT—6 Term.							
22F919	25100-23	On-X-On	2.80	2.30	1.84	1.72	1.61

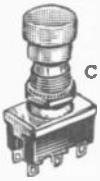
JAN-S-23 MEDIUM DUTY FIG. G.

Stk. No.	Type	Action	Each	2-9	10-29	30-99	100-249
SPST—2 Term.							
22F880	ST12A	On-X-Off	1.48	.98	.78	.72	.68
22F881	ST12B	On-X-Off*	1.61	1.11	.89	.83	.78
22F882	ST12C	Off-X-On*	1.61	1.11	.89	.83	.78
22F883	ST13A +	On-X-Off	1.48	.98	.78	.72	.68
22F884	ST16A #	On-X-Off	1.48	.98	.78	.72	.68
22F885	ST16B #	On-X-Off*	1.61	1.11	.89	.83	.78
22F886	ST16C #	Off-X-On*	1.61	1.11	.89	.83	.78
22F887	ST17A +#	On-X-Off	1.48	.98	.78	.73	.78
SPDT—3 Term.							
22F888	ST12D	On-X-On	1.61	1.11	.89	.83	.78
22F889	ST13D +	On-X-On	1.61	1.11	.89	.83	.78
22F890	ST16C #	On-X-On	1.61	1.11	.89	.83	.78
22F891	ST17D #	On-X-On	1.61	1.11	.89	.83	.78
DPST—4 Term.							
22F892	ST22K	On-X-Off	1.84	1.34	1.08	1.01	.95
22F893	ST22L	On-X-Off*	1.98	1.48	1.19	1.11	1.04
22F894	ST22M	Off-X-On*	1.98	1.48	1.19	1.11	1.04
22F895	ST23K +	On-X-Off	1.84	1.34	1.08	1.01	.95
22F896	ST26K #	On-X-Off	1.84	1.34	1.08	1.01	.95
22F897	ST26L #	On-X-Off*	1.98	1.48	1.19	1.11	1.04
22F898	ST26M #	Off-X-On*	1.98	1.48	1.19	1.11	1.04
22F899	ST27K +#	On-X-Off	1.84	1.34	1.08	1.01	.94
DPDT—6 Term.							
22F900	ST22N	On-X-On	1.98	1.48	1.19	1.11	1.04
22F901	ST23N +	On-X-On	1.98	1.48	1.19	1.11	1.04
22F902	ST26N #	On-X-On	1.98	1.48	1.19	1.11	1.04
22F903	ST27N +#	On-X-On	1.98	1.48	1.19	1.11	1.04

X-No Position; *-Momentary Position; + Bushing ¼" high; # Side Connected

Arrow-Hart Hegeman Switches


A

B

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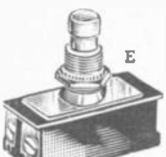
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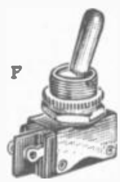
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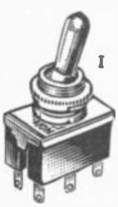
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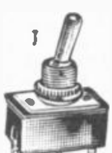
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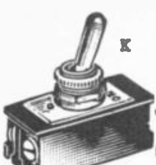
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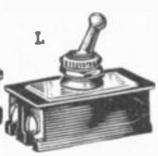
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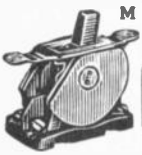
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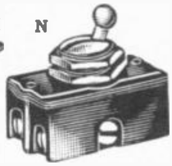
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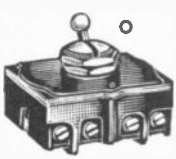
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MOMENTARY PUSH SWITCHES SLOW MADE & BREAK MIDGET SIZE

Long life expectancy, reliable butt type contacts for use with AC only. UL Listed.

Stock No.	Type	Fig.	Action	Rating 120V	Rating 250V	HP	Cap	Sleeve Lgth.	Term Type	1-24	25-49	50-99	100-499	500-Up
23F042	8391-GL	A	SPST-NO	1	...	.	Blk.	9/16	Lug	.88	.82	.68	.61	.54
23F043	8391-GLR	A	SPST-NO	1	...	....	Red	9/16	Lug	.88	.82	.68	.61	.54
23F029	8392	A	SP-NO-NC	1	....	.	Nkl.	9/16	Lug	.87	.80	.67	.60	.54
23F044	8392-AE	A	SP-NO-NC	1	...	.	Blk.	9/16	Lug	1.08	1.00	.83	.75	.66
23F118	80511-E	B	SPST-NO	3	....		Nkl.	9/16	Lug	.47	.43	.36	.32	.24
23F119	80541-E	B	SPST-NO	3		1/10	Blk.	9/16	Lug	.88	.82	.68	.61	.54
23F120	80541-ER	B	SPST-NO	3	..	1/10	Red	9/16	Lug	.88	.82	.68	.61	.54
23F115	80511	B	SPST-NC	3		.	Nkl.	9/16	Lug	.47	.43	.36	.32	.29
23F116	80541	B	SPST-NC	3	.		Blk.	9/16	Lug	.88	.82	.68	.61	.54
23F117	80541-R	B	SPST-NC	3	.	1/10	Red	9/16	Lug	.88	.82	.68	.61	.54

MIDGET WIPING ACTION MOMENTARY PUSH SWITCHES

leal for electronics and other applications demanding small size. Excellent performance and dependability. All current carrying parts silver plated. U. L. listed.

23F050	83090	C	SPST-NO	3	1		Nkl.	1/2	Lug	1.30	1.20	1.00	.90	.80
23F051	83090-CB	C	SPST-NO	3	1		Blk.	1/2	Lug	1.50	1.39	1.16	1.04	.924
23F052	83090-CR	C	SPST-NO	3	1		Red	1/2	Lug	1.50	1.39	1.16	1.04	.924
23F053	83094-C	C	DPDT	3	1		Nkl.	1/2	Lug	1.93	1.78	1.49	1.34	1.188
23F061	83094-CB	C	DPDT	3	1		Blk.	1/2	Lug	2.13	1.97	1.64	1.48	1.312
23F062	83094-CR	C	DPDT	3	1		Red	1/2	Lug	2.13	1.97	1.64	1.48	1.312

HEAVY DUTY MOMENTARY PUSH SWITCHES

One Horse power rated for industrial applications. UL Listed.

23F036	80630	E	DPST-NO	15	1	1	Nkl	7/16	Lug	1.77	1.65	1.36	1.22	1.09

DOUBLE ACTION PUSH SWITCHES

Combines the assets of a snap action mechanism with highly reliable push-push type actuation.

23F114	82403	D	SPST	6	3	....	Nkl.	9/16	Lug	.95	.88	.73	.657	.584
23F054	80863	E	DPST	12	6	1	Nkl	9/16	Scrw	1.94	1.80	1.50	1.35	1.20

SNAP ACTION CANOPY SWITCHES

Providing long life at low cost. Ideal for light duty applications U. L. listed.

Stock No.	Type	Fig.	Action *-momentary	Rating 125V	Rating 250V	HP	Lever Type	Sleeve Length	Term Type	1-24	25-49	50-99	100-499	500-Up
23F021	20994-CS	F	SPST-ON-OFF	6	3		Ball	1 5/32	Lug	.62	.58	.48	.43	.38
23F013	20994-LH	F	SPST-ON-OFF	6	3		Bat	1 5/32	Lug	.62	.58	.48	.43	.38
23F064	20994-BF	F	SPST-ON-OFF	6	3		Ball	1 3/32	Lug	.62	.58	.48	.43	.384
23F125	20994-NV	F	SPST-ON-OFF	6	3		Bat	1 3/32	Lug	.62	.58	.48	.43	.38
23F024	21350-BF	F	SPDT-ON-ON	3	1		Ball	1 5/32	Lug	.79	.73	.61	.55	.49
23F011	21350-EH	F	SPDT-ON-ON	3	1		Bat	1 5/32	Lug	.79	.73	.61	.55	.49
23F025	20902-N	G	DPST-ON-OFF	3	1		Ball	1 5/32	Lug	1.14	1.05	.88	.79	.70
23F012	20902-CX	G	DPST-ON-OFF	3	1		Bat	1 5/32	Lug	1.14	1.05	.88	.79	.70
23F015	20905-FR	G	DPDT-ON-ON	3	1		Bat	1 5/32	Lug	1.31	1.21	1.01	.91	.80
23F028	20905-BX	G	DPDT-ON-ON	3	1		Ball	1 5/32	Lug	1.31	1.21	1.01	.91	.80
23F126	20905-AN	G	DPDT-ON-ON	3	1		Bat	1 3/32	Lug	1.31	1.21	1.01	.91	.80
23F059	21827-GA	G	SPDT-ON-ON	3	1		Bat	1 5/32	Lug	1.20	1.11	.93	.83	.74
23F058	21858-X	G	DPDT-ON-ON*	3	1		Bat	1 5/32	Lug	2.20	2.03	1.70	1.53	1.36

MIDGET SNAP ACTION TOGGLE POWER SWITCH

Quick make & break mechanism provides high rating, small size. Ideal appliance control U. L. listed.

23F065	80994-BD	H	SPST-ON-OFF	3			Bat	1 5/32	Lug	.62	.58	.48	.43	.384
23F066	80964-BA	H	SPST-ON-OFF	3			Ball	1 5/32	Lug	.77	.70	.59	.527	.468

MIDGET WIPING ACTION TOGGLE SNAP SWITCH

For electronic applications demanding small size, highly dependable performance U. L. listed.

60F2322	83050	I	SPST-ON-OFF	3	1	.....	Bat	1 5/32	Lug	.83	.76	.64	.57	.51
60F2326	83070	I	SPST-OFF-ON*	3	1	.....	Bat	1 5/32	Lug	1.14	1.05	.88	.79	.70
60F2323	83052	I	SPDT-ON-ON	3	1	.....	Bat	1 5/32	Lug	.99	.91	.76	.68	.61
60F2327	83072	I	SPDT-ON-ON*	3	1	.....	Bat	1 5/32	Lug	1.30	1.20	1.00	.90	.80
60F2324	83053	I	DPST-ON-OFF	3	1	.....	Bat	1 5/32	Lug	1.22	1.13	.94	.85	.75
60F2328	83073	I	DPST-OFF-ON*	3	1	.....	Bat	1 5/32	Lug	1.53	1.41	1.18	1.06	.94
60F2325	83054	I	DPDT-ON-ON	3	1	.....	Bat	1 5/32	Lug	1.40	1.30	1.08	.97	.86
60F2329	83074	I	DPDT-ON-ON*	3	1		Bat	1 5/32	Lug	1.72	1.58	1.32	1.19	1.06

INTERMEDIATE SIZE TOGGLE TWO POSITION SNAP ACTION SWITCH

Silver plated wiping action contacts for low contact resistance applications. UL Listed.

23F006	81015-AW	J	SPST-ON-OFF	6	3		Bat	1 5/32	Lug	.83	.76	.64	.57	.51
23F002	81045-FB	J	SPST-OFF-ON*	6	3		Bat	1 5/32	Lug	1.31	1.21	1.01	.91	.81
23F007	81021-AV	J	SPDT-ON-ON	6	3		Bat	1 5/32	Lug	.99	.91	.76	.68	.61
23F004	81051-G	J	SPDT-ON-ON*	6	1		Bat	1 5/32	Lug	1.43	1.32	1.10	.99	.88
23F008	81024-GB	J	DPST-OFF-ON	6	3		Bat	1 5/32	Lug	1.22	1.13	.94	.85	.75
23F003	81054-H	J	DPST-OFF-ON*	6	3		Bat	1 5/32	Lug	1.72	1.58	1.32	1.19	1.06
23F009	81027-CE	J	DPDT-ON-ON	6	3		Bat	1 5/32	Lug	1.40	1.30	1.08	.97	.86
23F005	81057-N	J	DPDT-ON-ON*	6	3		Bat	1 5/32	Lug	2.07	1.91	1.59	1.43	1.27

STANDARD DUTY TOGGLE — QUICK MAKE & BREAK SWITCH

Non-teasable action providing control available for motor loads up to 2 H. P. U. L. listed.

23F035	80600	K	DPST-ON-OFF	16	8	1	Ball	5/16	Scrw	1.26	1.16	.97	.87	.78
23F039	80600-B	K	DPST-ON-OFF	16	8	1	Ball	1 5/32	Scrw	1.26	1.16	.97	.87	.78
23F048	80600-BJ	K	DPST-ON-OFF	16	8	1	Bat	1 5/32	Scrw	1.26	1.16	.97	.87	.78
23F041	80602	L	DPST-ON-OFF	16	8	1	Ball	1 1/32	Scrw	2.19	2.02	1.69	1.52	1.35
23F016	80602-C	L	DPST-ON-OFF	15	10	1 1/2	Ball	1 3/32	Scrw	2.20	2.02	1.69	1.52	1.348
23F047	80602-CA	L	DPST-ON-OFF	15	10	1 1/2	Bat	1 5/32	Scrw	2.19	2.02	1.69	1.52	1.35
				230V	600V									
23F017	80093	M	DPST-ON-OFF	30	20	2	Square	..	Scrw.	2.61	2.41	2.01	1.81	1.604
23F018	80404	M	3PST-ON-OFF	30	20	2	Square		Scrw.	7.63	7.04	5.87	5.28	4.696

HEAVY DUTY TOGGLE — POSITIVE ACTION 3 POSITION SWITCH

Switch presents a foolproof answer to control problems requiring a positive stop at center position (OFF) U. L. listed.

23F060	80638-D	N	DPDT-ON-OFF-ON	10	5	3/4	Ball	1 3/32	Scrw.	4.42	4.08	3.40	3.06	2.72
23F019	80983	O	3PDT-ON-OFF-ON	10	5	1/2	Ball	1 3/32	Scrw.	6.83	6.30	5.25	4.73	4.20
23F000	80985	O	4PDT-ON-OFF-ON	10	5	1/2	Ball	1 3/32	Scrw.	9.10	8.41	7.01	6.31	5.61

Arrow-Hart & Hegeman Switches

AIRCRAFT TYPE AC ONLY TOGGLE SWITCH

Butt type contacts, high capacity, small size, combined in an extremely long life switch. All have bat handles except for 23F020 with ball handle. U.L. listed.

Stock No.	Type	Fig.	Action	Rating 125V	Rating 250V	HP	Sleeve Lgth.	Term Type	1-24	25-49	50-99	100-499	500-Up
23F106	82600	A	SPST-ON-OFF	15	10	3/4	15/32	scrw	.83	.76	.64	.57	.508
60F2300	82601	A	SPST-ON-OFF	15	10	3/4	15/32	lug	.72	.67	.56	.499	.444
60F2305	82604	A	SPDT-ON-ON	15	10	3/4	15/32	scrw	.99	.91	.76	.68	.61
60F2308	82605	A	SPDT-ON-ON	15	10	3/4	15/32	lug	.83	.76	.64	.57	.508
23F107	82602	A	SPDT-ON-OFF-ON	15	10	3/4	15/32	scrw	.99	.91	.76	.68	.61
60F2304	82603	A	SPDT-ON-OFF-ON	15	10	3/4	15/32	lug	.83	.76	.64	.57	.508
60F3450	82606	B	DPST-ON-OFF	15	10	3/4	15/32	scrw	1.33	1.22	1.02	.918	.861
60F2302	82607	B	DPST-ON-OFF	15	10	3/4	15/32	lug	1.12	1.03	.86	.77	.688
60F3451	82610	B	DPDT-ON-ON	15	10	3/4	15/32	scrw	1.63	1.51	1.26	1.129	1.00
60F2310	82611	B	DPDT-ON-ON	15	10	3/4	15/32	lug	1.33	1.22	1.02	.918	.816
23F108	82608	B	DPDT-ON-OFF-ON	15	10	3/4	15/32	scrw	1.63	1.51	1.26	1.129	1.00
60F2306	82609	B	DPDT-ON-OFF	15	10	3/4	15/32	lug	1.33	1.22	1.02	.918	.816
60F3452	82612	C	3PST-ON-OFF	15	10	1	15/32	scrw	2.53	2.33	1.44	1.75	1.56
60F3453	82614	C	3PDT-ON-OFF-ON	15	10	1	15/32	scrw	3.21	2.96	2.47	2.22	1.967
60F3454	82615	C	3PDT-ON-OFF-ON	15	10	1	15/32	lug	2.69	2.48	2.07	1.858	1.652
60F3455	82616	C	3PDT-ON-NONE-ON	15	10	1	15/32	scrw	3.21	2.96	2.47	2.22	1.967
60F3456	82617	C	3PDT-ON-NONE-ON	15	10	1	15/32	lug	2.69	2.48	2.07	1.858	1.652
60F3457	82634	C	4PDT-ON-OFF-ON	15	10	1/2	15/32	lug	4.01	3.70	3.09	2.777	2.468
60F3458	82636	C	4PDT-ON-NONE-ON	15	10	1/2	15/32	lug	4.01	3.70	3.09	2.777	2.468
23F020	80421	C	DPST-ON-OFF	20	20	1 1/2	1 1/32	scrw	3.24	2.99	2.49	2.24	1.99

DRY CIRCUIT ACTION — GOLD PLATED CONTACT TOGGLE SWITCH

Stock No.	Type	Fig.	Action	DC Rating 125V	DC Rating 250V	Lever Type	Sleeve Lgth.	Term Type	1-24	25-49	50-99	100-499	500-Up
60F3477	83052-Y	F	SPDT-ON-ON	3	1	Bat	15/32	lug	2.19	2.06	1.22	1.10	.98
60F3478	83054-Y	F	DPDT-ON-ON	3	1	Bat	15/32	lug	2.60	2.40	2.00	1.80	1.60

LOCK SWITCHES — ROTARY ACTION — Fig. G

3 pin "Corbin" lock switch, designed for easy dead front mounting providing the maximum in electrical circuit security.

Stock No.	Type	Action	DC Rating 125V	DC Rating 250V	Key Removable	Sleeve Lgth.	Term Type	1-24	25-99	100-499	500-Up
60F3479	81721-LQ-41	SPDT-ON-ON	6	3	Pos. I	7/8	lug	10.23	8.18	7.67	7.16
60F3480	(Key for above A-H&H #41)							1.68	1.34	1.26	1.18
60F3484	81721-LQ-61	SPDT-ON-ON	6	3	Pos. I & II	7/8	lug	10.23	8.18	7.67	7.16
60F3483	(Key for above A-H&H #61)							1.68	1.34	1.26	1.18

INTERMEDIATE SIZE LOCKING SWITCH

Stk. No.	Type	Action	DC Rating 125V	DC Rating 250V	Key Removable	Sleeve Lgth.	Term Type	1-24	25-49	50-99	100-499	500-Up
60F2316	81715-L	SPST-ON-OFF	6	3	Pos. I	15/32"	lug	2.13	1.97	1.64	1.48	1.31
60F2320	(Key for above switch 1861-488)							.20	.19	.16	.14	.12
60F3482	81721-L	SPDT ON-OFF	6	3	Pos. I	15/32"	lug	2.26	2.08	1.74	1.56	1.388
60F3481	81727-L	DPDT ON-OFF	6	3	Pos. I + II	15/32"	lug	2.93	2.71	2.26	2.03	1.804
60F2321	Key for above switches #1561-487 Rem. ON & OFF Pos.							.20	.19	.16	.14	.12
Push-Pull Wiping Action Switch												
60F3485	81376	DPDT-ON-ON	6	3	....	17/32	lug	1.72	1.59	1.33	1.19	1.06

ROTARY POWER SWITCHES

Wiping blade contact, ideal for control panel, small appliance and instrument use.

Stock No.	Type	Fig.	Action	Rating 125V	Rating 250V	Slv. Dia.	Spdl. Lgth.	Sleeve Lgth.	Term Type	1-24	25-49	50-99	100-499	500-Up
60F3486	41047	...	SPST-ON-OFF	3	1	3/8	3/8	3/8	lug	.45	.42	.35	.31	.28
60F3487	1516-B	...	SPST-ON-OFF	6	3	3/8	3/8	3/8	lug	.85	.79	.66	.59	.52
60F3488	1575	...	DPDT-ON-ON	3	1	3/8	3/8	3/8	lug	1.62	1.49	1.25	1.12	1.00
60F3489	81715	J	SPST-ON-OFF	6	3	3/8	3/8	3/8	lug	1.52	1.40	1.17	1.05	.94
60F3490	81727	J	DPDT-ON-ON	6	3	3/8	3/8	3/8	lug	2.22	2.05	1.71	1.54	1.36
60F3491	70302-A	K	DPST-ON-OFF	20	2HP	1/4	3/4	7/32	scrw	2.11	1.94	1.62	1.46	1.30

SUBMINIATURE SWITCHES

Gold plated contacts standard Military type meet Mil-3950-C per drawing, single pole MS-75028 and double pole MS-75029. Toggle switch ratings, 5 amps at 125VAC and 29VDC. Push button switch ratings, 1 amp at 115VAC and 2 amps at 29VDC, #rated, 7 amps at 125VAC and 29VDC. Base size, SPST switches 1/4x1/2", DPDT 1/2x1/2". Sleeves diameter both 1/4".

LEVER POSITION CHART

*denotes momentary action

I ON-NONE-ON	V ON-NONE-ON
II ON*-OFF-ON	VI OFF-NONE-ON
III ON*-OFF-ON*	VII ON-OFF-ON
IV ON*-NONE-ON	VIII ON-ON-ON

Stock No.	Comm Type	Fig.	Action	Lever Chart	1-24	25-99	100-499	500-Up	Stock No.	Mil. Type	Fig.	1-24	25-99	100-499
60F2388	TS-1	P	SPST	I	3.00	2.40	2.25	2.10	60F2335	TS-1-M	S	3.00	2.40	2.25
59F521	TC-3	P	SPDT	II	3.00	2.40	2.25	2.10	60F2334	TC-3-M	S	3.20	2.56	2.40
59F522	TE-3	P	SPDT	II	3.20	2.65	2.40	2.24	60F2339	TE-3-M	S	3.40	2.72	2.55
59F523	TG-3	P	SPDT	III	2.30	2.65	2.40	2.24	60F2338	TG-3-M	S	3.40	2.72	2.55
60F2389	TM-3	P	SPDT	IV	3.40	2.72	2.55	2.38	60F2337	TM-3-M	S	3.40	2.72	2.55
59F524	TS-3	P	SPDT	I	3.20	2.40	2.25	2.10	60F2336	TS-3-M	S	3.20	2.56	2.40
60F2390	TS-2	N	DPST	VI	3.60	2.88	2.70	2.52	60F2341	TS-2-M	R	3.60	2.88	2.70
60F2391	TC-6	N	DPDT	VII	4.10	3.28	3.08	2.87	60F2340	TC-6-M	R	4.10	3.28	3.08
60F2392	TE-6	N	DPDT	II	5.20	4.16	3.90	3.64	60F2345	TE-6-M	R	5.20	4.16	3.90
60F2393	TG-6	N	DPDT	III	5.20	4.16	3.90	3.64	60F2344	TG-6-M	R	5.20	4.16	3.90
60F2394	TM-6	N	DPDT	IV	5.20	4.16	3.90	3.64	60F2343	TM-6-M	R	5.20	4.16	3.90
59F525	TS-6	N	DPDT	I	3.90	3.12	2.93	2.73	60F2342	TS-6-M	R	4.10	3.28	3.08
60F2395	TC-7	N	SPDT	VIII	5.40	4.32	4.05	3.78						

PUSH BUTTON SERIES — MOMENTARY ACTION

Stk. No.	Type	Fig.	Action	1-24	25-99	100-499	500-Up
23F128	PM-3	L	SPDT	2.86	2.29	2.15	2.00
23F129	PM-6	M	DPDT	3.51	2.81	2.63	2.46
59F520	PM-7	M	3PST-NO	3.31	2.65	2.48	2.32
60F2386	PM-8	M	3PST-NC	4.65	3.72	3.49	3.26
60F2387	PMQ-3	L	SPST#	3.25	2.60	2.44	2.28


Fig. A


Fig. B

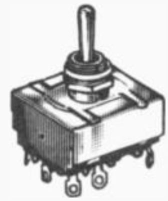


Fig. C

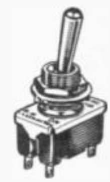


Fig. F

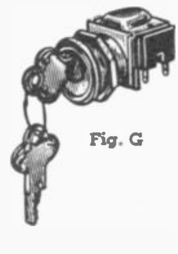


Fig. G


Fig. H

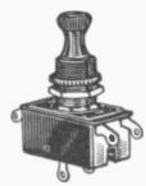


Fig. I

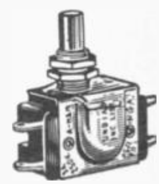


Fig. J


Fig. L

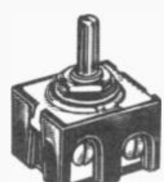


Fig. K


Fig. M

Switches

ARROW-HART & HEGEMAN

- Ideal for Low Voltage Applications
- Solder Lug—Quick Contact Type

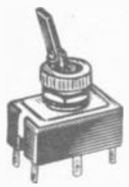


Fig. D

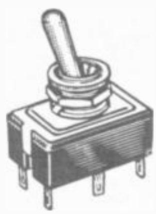


Fig. E

● NEW 84000 SERIES AC-DC COMPACT TOGGLE SWITCHES

2 & 3 position, with wiping action, silver alloy contacts, ideal for low voltage applications. Size: $\frac{1}{2}$x$\frac{49}{64}$x$1\frac{13}{64}$" with $\frac{5}{16}$" sleeve length, $\frac{15}{32}$" dia. Terminals are combination solder lug. quick connect type. Rating: AC—5A@ 125V, 2A@ 250V; DC—4A@ 12V, 1A@ 250V. Nickel plated bat handle—$\frac{3}{4}$". Colored paddle shaped nylon lever—$1\frac{15}{16}$". UL listed.

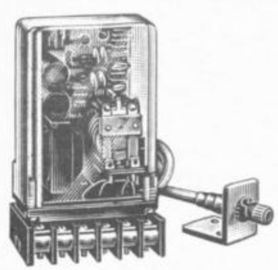
Fig. D **METAL BAT HANDLE**

Stk. No.	Type	Action	1-24	25-49	50-99	100-499	500-Up
60F3459	84000	SPST-ON-OFF	1.92	1.77	1.48	1.33	1.18
60F3460	84001	DPST-ON-OFF	2.28	2.10	1.75	1.58	1.40
60F3461	84002	SPDT-ON- ON	2.07	1.91	1.59	1.43	1.27
60F3462	84003	DPDT-ON-ON	2.53	2.33	1.95	1.75	1.56
60F3463	84004	DPDT-ON-OFF-ON	2.53	2.33	1.95	1.75	1.56
60F3464	84005	SPDT-ON-OFF-ON	2.07	1.91	1.59	1.43	1.27

Fig. E **COLORED NYLON LEVER**

Black Lever		Red Lever							
Stk. No.	Type	Stk. No.	Type	Action	1-24	25-49	50-99	100-499	500-Up
60F3465	84000-CB	60F3471	84000-CR	SPST-ON-OFF	1.98	1.83	1.53	1.37	1.22
60F3466	84001-CB	60F3472	84001-CR	DPST-ON-OFF	2.34	2.16	1.80	1.62	1.44
60F3467	84002-CB	60F3473	84002-CR	SPDT-ON-ON	2.13	1.97	1.64	1.48	1.31
60F3468	84003-CB	60F3474	84003-CR	DPDT-ON-ON	2.60	2.39	2.00	1.80	1.60
60F3469	84004-CB	60F3475	84004-CR	DPDT-ON-OFF-ON	2.60	2.39	2.00	1.80	1.60
60F3470	84005-CB	60F3476	84005-CR	SPDT-ON-OFF-ON	2.13	1.97	1.64	1.48	1.31

LICON SWITCHES



TYPE 70-700

● NEW ULTRA COMPACT 70-700 PROXIMITY SWITCH

Ultra compact proximity switch for precision control without physical contact. Consists of a control module (2.53" x 3.75" x 1.35") which contains a 10 amp DPDT relay plug-in terminal block (2.19" x 2.66" x .84"), potted sensor with 20' cable, and potentiometer for sensitivity control. Senses both ferrous and non-ferrous metals. Up to 1000 operations per minute possible. Sensing range for .750 dia. sensor is .110" to .261", for .440" dia. sensor .048" to .148". Shipping wt. for complete unit $1\frac{1}{2}$ lbs.

Stk. No.	Type	Description	Net Ea.
60F2075	70-7021	Complete unit with .440 dia. sensor	85.00
60F2076	70-7022	Complete unit with .750" dia. sensor	85.00
		COMPONENTS	
60F2077	70-7010	Controls module	57.00
60F2078	70-7011	Terminal block	6.00
60F2079	70-7012	.750" dia. sensor	17.00
60F2080	70-7014	.440" dia. sensor	17.00
60F2081	70-7018	Potentiometer	5.00
60F2082	70-7025	Nema class 1 enclosure	13.00

DIECAST ENCLOSED SWITCHES — TYPE 30

Type 30

Roller Plunger

Type 30. For industrial control limit, safety applications. Polyethylene diaphram provides a positive switch seal with unlimited life, minimizes "pumping" by its minute movement and eliminates customary problems of tearing and cracking. "O" ring at base prevents extrusion of gaskets. Aluminum diecast housing provides rugged enclosure, $\frac{1}{2}$"—14 internal tap conduit hub, 15 amps 125/250/480 V AC. .5 amps @ 125 V DC. Size: 3"x1"x2"x$\frac{1}{2}$". Shpg. wt., 10 oz.

Stock No.	Type	Description	Micro Switch Equivalent	1-9	10-19	20-49	50-99	100-199
23F172	30-200	Sealed Plunger	BZE-2RN BZV-2RN	6.05	5.45	4.84	4.24	3.93
23F173	30-400	Adjustable Sealed Roller Arm	BZE-2RN2 BZV-2RN2	9.35	8.42	7.48	6.55	6.08
23F174	30-600	Sealed Palm Button	BZE-2RN4	9.85	8.87	7.85	6.90	6.373
23F175	30-100	Overtravel Plunger	BZE-2RQ BZX-2RQ	4.60	4.14	3.68	3.22	2.99
23F176	30-300	Adj. Roller Lever	BZE-2RQ2	8.25	7.43	6 60	5.78	5.363
23F177	30-500	Roller Plunger	BZE-2RQ8 BZV-2RQ8 BZE-2RQ81 BZV-2RQ81 BZE-2RQ9 BZV-2RQ9	8.25	7.43	6.60	5.78	5 363
23F186	30-030	Diecast Term Encl.	3PA1, 3PA2	1.75	1.58	1.40	1.23	1.14

SPLIT DIECAST TYPE 30 ENCLOSED LIMIT SWITCH — SIDE MOUNT

Plunger Switch

Roller Arm

"Easy-wire" split diecast version of Type 30 above offers all features with one added feature: entire bottom half of protective case can be removed for ease in wiring. Bottom half enclosure is made of high impact, chemically resistant polyvinyl dichloride which eliminates any possibility of shorting out the basic switch.

Stock No.	Type	Description	Micro Switch Equivalent	1-9	10-19	20-49	50-99	100-199
60F2067	30-100301	Overtravel plunger—side mount	BZE6-2RQ	5.10	4.59	4.08	3.57	3.315
60F2068	30-200301	Sealed plunger—side mount	BZE6-2RN	6.55	5.91	5.24	4.59	4.258
60F2069	30-300301	Adjust. roller lever—side mount	BZE6-2RQ2	8.75	7.87	7.00	6.13	5.688
60F2070	30-400301	Sealed adjust. roller lever—side mount	BZE6-2RN2	9.85	8.87	7.88	6.90	6.403
60F2071	30-500301	Roller plunger—side mount	BZE6-2RQ8	8.75	7.87	7.00	6.13	5.688
60F2072	30-600301	Sealed palm button—side mount	BZE6-2RN4	10.35	9.32	8.28	7.25	6.728
60F2073	30-800301	Sealed one-way roller—side mount	BZE6-2RN28	11.35	10.22	9.08	7.95	7.378
60F2074	30-900301	One way roller actuator—side mount	....	10.35	9.32	8.28	7.25	8.728

NOTE: Bottom mount versions available upon special order at same price: Use #2 for last digit instead of #1. Exclude Stock Number.

01 SERIES SINGLE LITE PUSHBUTTON SWITCH

15/32" Bushing Screw Base	5/8" Bushing Flange Base	Description	1-24	25-99	100-499
01-145000	01-365000	Indicator	3.35	3.02	2.72
01-145130	01-365130	Maint. 1 pole form Z	7.80	7.02	6.40
01-145230	01-365230	Maint. 2 pole form Z	9.80	8.82	8.04
01-145530	01-365530	Momentary 1 pole form Z	5.40	4.86	4.43
01-145630	01-365630	Momentary 2 pole form Z	7.45	6.71	6.11

01 SERIES LENS CAPS

Indicate desired colors by replacing the "X's" with appropriate numbers: 1-white, 2-red, 3-green, 4-blue, 5-yellow, 6-amber, 7-orange.

15/32" Bushing	5/8" Bushing	Description	1-24	25-99	100-499
01-91131X	01-92131X	Solid Color 5/8" Square	.40	.36	.328
01-93131X	01-94131X	Solid Color 5/8" Round	.40	.36	.328
01-91141X	01-92141X	Solid Color 3/4" Square	.50	.45	.41
01-93141X	01-94141X	Solid Color 3/4" Round	.50	.45	.41
01-91132X	01-92132X	Projected Color 5/8" Square	.80	.72	.65
01-93132X	01-94132X	Projected Color 5/8" Round	.80	.72	.65
01-91142X	01-92142X	Projected Color 3/4" Square	.90	.81	.738
01-93142X	01-94142X	Projected Color 3/4" Round	.90	.81	.738

01-700 SERIES ONE LITE

Mom. Cont.	Description	1-24	25-99	100-499	Maint. Cont.	1-24	25-99	100-499
01-745000	Indicator	1.80	1.62	1.476	01-745000	1.80	1.62	1.476
01-745510	1 pole form C	3.10	2.79	2.542	01-745110	4.10	3.69	2.362
01-745530	1 pole form Z	3.30	2.97	2.706	01-745130	4.30	3.87	3.526
01-745610	2 pole form C	3.80	3.42	3.116	01-745210	4.80	4.32	3.936
01-745630	2 pole form Z	4.20	3.78	3.444	01-745230	5.20	4.68	4.264

PLUNGER FOR 01-700

Mon. Cont.	Maint. Cont.	Color	1-24	25-99	100-499
80-010768	86-010580	White	.30	.28	.26
80-010765	86-010577	Red			
80-010764	86-010576	Green			
80-010767	86-010579	Blue			
80-010766	86-010578	Yellow			

Plunger converter, 80-010824 permits use of larger lens cap (Momentary) .... .20 **each**
Plunger converter, 86-010574 .... .30 **each**

01-800 SERIES SINGLE LITE PUSHBUTTON SWITCH

Type	Description	1-24	25-99	100-499
01-865000	Indicator only	2.15	1.94	1.76
01-865130	Maint. contact 1 pole—Form Z	5.80	5.22	4.76
01-865230	Maint. contact 2 pole—Form Z	7.50	6.75	6.15
01-865530	Momentary 1 pole—Form Z	3.85	3.47	3.16
01-865630	Momentary 2 pole—Form Z	5.55	5.00	4.55

01-800 SERIES LENS CAP — 1 1/8" x 7/8"

Indicate desired colors by replacing the "X's" with appropriate numbers: 1-white, 2-red, 3-green, 4-blue, 5-yellow, 6-amber, 7-orange.

Projected Color	1-24	25-99	100-499	Solid Color	1-24	25-99	100-499
01-95192X	1.10	.99	.902	01-95191X	.70	.63	.574

SWITCH MODULES — FOR 02 AND 04 SERIES

Type	Description	1-24	25-99	100-499
76-2713	Maint. cont. 1 pole Form Z	4.60	4.14	3.77
76-2723	Maint. cont. 2 pole Form Z	5.85	5.27	4.82
76-2753	Momentary 1 pole Form Z	3.05	2.75	2.50
76-2763	Momentary 2 pole Form Z	4.10	3.69	3.36

02 LENS CAP AND HOUSINGS

Indicate desired colors by replacing the "X's" with appropriate numbers: 1—white, 2—red, 3—green, 4—blue, 5—yellow, 6—amber, 7—orange.

02-61XX	Full screen, solid color	.70	.63	.574
02-62XX	Vertical split, solid color	1.25	1.13	1.025
02-63XX	Horizontal split, solid color	1.25	1.13	1.025
02-73	Snap-in mtg.-flange base lamp socket	1.95	1.76	1.599
02-76	Indicator only Housing	1.95	1.76	1.599

04 LIGHT MODULES

Indicate color filter combination for projected screen color by listing color designating letters clockwise in accordance with the color key diagram at right. Example: Vertically split, green at left, red at right — order 04-602GRRG W—white, R—red, G—green, B—blue, Y—yellow, A—amber, O—orange.

LIGHT MODULES

Type	Description	1-24	25-99	100-499
04-601XXXX	Full screen translucent proj. color	2.75	2.48	2.255
04-602XXXX	Vertical split translucent proj. color	3.15	2.84	2.583
04-603XXXZ	Horizontal split translucent proj. color	3.15	2.84	2.583
04-607XXXX	Quad split translucent proj. color	3.55	3.20	2.91
04-604XXXX	Full screen solid color	2.75	2.48	2.255
04-611XXXX	Full screen, insertable legend, proj. color	2.90	2.61	2.38
04-612XXXX	Vert. split, insertable legend, proj. color	3.30	2.97	2.71
04-613XXXX	Horiz. split insertable legend, proj. color	3.30	2.97	2.71
04-617XXXX	Quad split insertable legend, proj. color	3.70	3.33	3.03
04-614XXXX	Full screen solid color, insert. legend	2.90	2.61	2.38

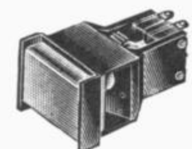
04 HOUSINGS

Stk. No.	Type	Description	1-24	25-99	100-499
42F865	04-71	Flange mount 1/8" panel	4.15	3.74	3.403
42F866	04-72	Flange mount 1/4" panel	4.15	3.74	3.403
42F867	04-75	Barrier with screw mounting	3.90	3.51	3.198
42F868	04-76	Bezel mounting snap in mounting Blk. Anod	4.15	3.74	3.403
42F869	04-78	Bezel barrier snap in mounting Blk. Anod.	4.15	3.74	3.403

NOTE: For 02 and 04 series, select 1 len cap or light module, 1 housing and 1 switch module to make up a complete unit.

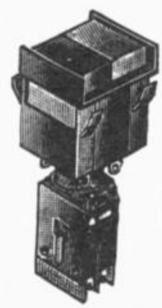
Type 01

Type 01-700

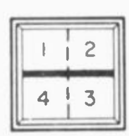


01-800 Bezel

01-800 Bezel Barrier



02-800



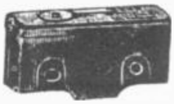
04 Color Key

FOR SWITCH MODULES FOR 04 SERIES SEE 02 SERIES LISTING

BARRIERS FOR 04-75 HOUSING

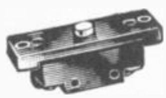
Flush	Protruding	Color	1-24	25-99	100-499
70-3051	70-3061	Black	.40	.36	.328
70-3052	70-3062	White			
70-3053	70-3063	Gray			

LICON® Switches



Type 10

Type 11



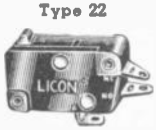
Type 14

Type 16

Type 18

Type 19

Type 22



Type 23

Type 25

Type 26

Type 36

BASIC SWITCHES

Type 10. No pivot points means high vibration resistance and positive snap action. 1" mounting centers rated 15 amperes 125, 250 or 480 AC. ½ ampere at 115 VDC 2" x 1" x 1¹⁄₁₆". Shpg. wt., 1.3 oz.

MINIATURE SWITCH

Type 11. High capacity two circuit Double break mechanism with wiping action. Rated 10 amperes at 125/250 V AC. 1¼"x½" x½". Ship. wt., ³⁄₁₀ oz.

HEAVY DUTY SWITCH

Type 14 Industrial limit switch. Uses double break mechanism for high electrical rating. 20 amps at 125/250/480 VAC. 1¾"x ¾"x¾". Shpg. wt., 1¼ oz.

SUBMINIATURE SWITCH

Type 16 double break. 2 circuit rated 10 amps 125/250 VAC. Size ²⁵⁄₃₂"x⁷⁄₁₆"x ¼". Shpg. wt., .12 oz.

SUB SUBMINIATURE

Type 18. Double break. Rated: 7 amps @ 125/250 VAC; 3 amps inductive @ 28 VDC. Size: .2x.5x.38". Shpg. wt., .003 lbs.

SUBMINIATURE

Type 19. Single break with standard movement differential of .003" max. Rated 5 amps @ 125/250 VAC; 4 amps resistive @ 28 VDC. Size: .78x.36x.25". Shpg. wt., .005 lb.

DOUBLE POLE SWITCH

Type 22 DPDT high current interruption. Rated: 10 amps @ 125/250 VAC; 10 amps @ RES 30 VDC. Double bearing guide Wiping action. Dust proof case. Beryllium copper switch blades. Size: ⅞x 1¼x½". Shpg. wt., ½ oz.

HIGH CAPACITY SWITCH

Type 23. Hi-capacity single break with unique "heat dam" to omit flow of solder inside models having solder terminals. UL rated 15 amps @ 125/250 VAC. 10 amps resistive and 6 amps inductive @ 30 VDC. Size: 1.34 x .625 x .41". Shpg. wt., ³⁄₁₀ oz.

"THIN" SWITCH

Type 25. Internal wiping action insures resistance to contact weld. Center line plunger rated at 12 amps @ 125/250 VDC. ⁴⁵⁄₃₂x⁵⁄₆₄x1½". Shpg. wt., ³⁄₁₀ ounce.

DOUBLE POLE SUBMIN.

Type 26. Two BUTTERFLY double break mechanisms. Both poles operate simultaneously due to special linkage. Uses type 76 actuators. UL rated 8 amps @ 125/250 VAC. 10 amps. res., 5 ind. @ 28 VDC. ²³⁄₃₂"x.761"x¼". Sh. wt., ²⁄₁₀ oz.

3 POLE SUBMIN

Type 36. Compact triple pole double break switch. Three Butterfly double break mechanisms. Rated at 8 amps 125/250 VDC. Simultaneous handling for up to 6 circuits in a single switch. Uses 76 series actuators. 1.187 x .796 x 250. Shipping weight, 1 oz.

BASIC SWITCHES — TYPE 10

Stk. No.	Type	Description	Microswitch Equivalent	1-9	10-19	20-49	50-99	100-199
23F151	10-122	Pin Plunger .020" gap	BZ-2RT	1.80	1.62	1.44	1.26	1.17
23F154	10-222	Spring Plunger	BZ-2RST	2.22	1.99	1.78	1.55	1.44
23F155	10-322	Panel Mount Plunger	BZ-2RQIT	3.80	3.42	3.04	2.66	2.47
23F156	10-422	Leaf Spring	BZ-2RLT	1.95	1.76	1.56	1.37	1.27
23F157	10-522	Roller Leaf Spring	BZ-2RL2T	2.65	2.39	2.12	1.86	1.72
23F158	10-622	Pivoted Lever	....	2.20	1.98	1.76	1.54	1.43
23F159	10-722	Pivoted Roller Lever	BZ-2RW82T	2.80	2.52	2.24	1.96	1.82
23F160	10-822	Compact Plunger	BZ-ROT	2.25	2.03	1.80	1.58	1.46
23F181	10-922	Roller Plunger	BZ-2RO18T	6.75	6.08	5.40	4.73	4.39

MINIATURE SWITCHES — TYPE 11

23F161	11-104	End Solder Terminal	1TB1-2	1.45	1.31	1.16	1.02	.94
23F162	11-204	End Screw Terminal	1TB1-1	1.60	1.44	1.28	1.12	1.04
23F163	11-304	Side Solder Terminal	1TB1-3	1.55	1.40	1.24	1.09	1.01
23F165	11-214	Reset-End Screw Term	....	1.85	1.67	1.48	1.30	1.20

AUXILIARY ACTUATORS FOR TYPE 11 SWITCHES

23F168	71-1040	Rigid Roller Lever	....	.85	.77	.68	.60	.55
23F169	71-2010	Overtravel Plunger	....	1.30	1.17	1.04	.91	.85
23F170	71-3010	Spring Lever	JT-1	.40	.36	.32	.28	.260
23F171	71-3020	Spring Roller Lever	JT-5	.70	.63	.56	.49	.455

HEAVY DUTY SWITCHES — TYPE 14

Stk. No.	Type	Description	Microswitch Equivalent	1-9	10-19	20-49	50-99	100-199
23F178	14-12403	Basic Switch	....	3.05	2.75	2.44	2.14	1.98
23F180	14-1204	Basic Switch	....	3.05	2.75	2.44	2.14	1.98

SUBMINIATURE SWITCH — TYPE 16

23F179	16-104	End Solder Terminal	....	2.35	2.12	1.88	1.65	1.53
23F182	16-304	Side Solder Terminal	....	2.35	2.12	1.88	1.65	1.53
23F183	16-404	Bottom Solder Term	....	2.35	2.12	1.88	1.65	1.53
23F184	16-114	Reset-End Solder Term	....	2.60	2.34	2.08	1.82	1.69
23F187	16-504	Bottom Taper Tab	....	2.35	2.12	1.88	1.65	.153

AUXILIARY ACTUATORS FOR TYPE 16 SWITCHES

23F188	76-1200	Rigid roller lever	....	.95	.86	.76	.67	.62
23F189	76-1210	Rigid lever	....	.50	.45	.40	.35	.322

SUB-SUBMINIATURE SWITCHES — TYPE 18

Stk. No.	Type	Description	Microswitch Equivalent	1-9	10-19	20-49	50-99	100-199
60FX1950	18-40121	Form Y	....	3.00	2.70	2.40	2.10	1.95
60FX1952	18-40421	Form Z Hi temps	....	3.00	2.70	2.40	2.10	1.95

SUBMINIATURE SWITCHES — TYPE 19

60FX1953	19-103	Solder terminal, silver contact	1SM1	1.20	1.08	.96	.84	.78
60FX1954	19-203	Single turret, silver contact	1SM1-T	1.20	1.08	.96	.84	.78
60FX1955	19-303	Double turret, silver contact	1SM1-T2	1.25	1.13	1.00	.83	.81

DOUBLE POLE SWITCH — TYPE 22

Stk. No.	Type	Description	Microswitch equivalent	1-9	10-19	20-49	50-99	100-199
23F185	22-304	DPDT Side Term	41TBS-3	4.95	4.46	3.96	3.47	3.22

HIGH CAPACITY SWITCHES — TYPE 23

60FX1958	23-114	Solder terminals SPDT	V3-19	1.04	.94	.83	.73	.62
60FX1959	23-124	Screw terminals SPDT	V3-1	1.10	.99	.88	.77	.71
60FX1960	23-154	187 Series Amp Connect.	V3-1D8	.95	.85	.76	.66	.62

HIGH CAPACITY SINGLE BREAK MINIATURE TYPE 25

Stk. No.	Type	Description	Acro Equiv.	1-9	10-19	20-49	50-99	100-199
60FX1963	25-100000*	3-6 oz O.F.	1MD1-1A	1.45	1.31	1.16	1.02	.94
60FX1964	25-101000*	6-10 oz O.F.	2MD1-1A					
60FX1965	25-102000*	12-16 oz O.F.	3MD1-1A					
60FX1966	25-205000**	27 gr max. O.F.	1CMD1-2AXX					
60FX1967	25-206000**	44 gr max. O.F.	2CMD1-2AXX					
60FX1968	25-207000**	60 gr max. O.F.	3CMD1-2AXX					

*On center. **Off center plunger.

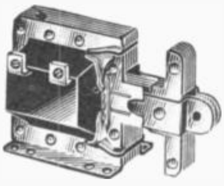
DOUBLE POLE SUBMINIATURE — TYPE 26

60FX1961	26-804	Form ZZ End Solder Terminal	....	5.50	4.95	4.40	3.85	3.57
60FX1962	26-904	Form ZZ Side Solder Terminal	....	5.75	5.18	4.60	4.03	3.74

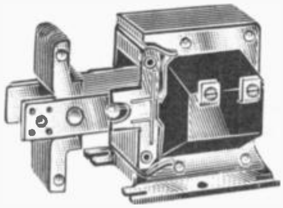
TRIPLE POLE SUBMINIATURE TYPE 36

Stock No.	Type	Description	1-9	10-19	20-49	50-99	100-199
60F1969	36-604	End solder term. simul.	8.90	8.01	7.12	6.23	5.79
60F1970	36-60401	End solder term. Non-simul.	7.90	7.11	6.32	5.53	5.14
60F1971	36-704	Side solder term. Simul.	9.20	8.28	7.36	6.44	5.98
60F1972	36-70401	Side solder term. Non-simul.	8.15	7.34	6.52	5.71	5.30

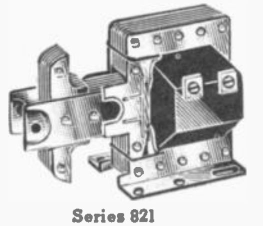
AC & DC SOLENOIDS



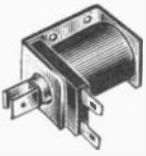
Series 801



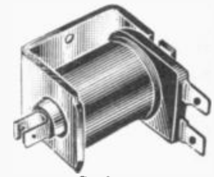
Series 812
Series 813



Series 821



Series 860-300



Series 860-200

AC and DC solenoids are available in both intermittent and continuous duty. Coil windings are imbedded in a heavy shock resistant layer of epoxy. Zinc dichromate finish made by the world's largest manufacturer of solenoids.

Stk. No.	Part Number	Volts	Current	Duty	Ohms	Amps.	Adj. Stroke (in.)	Max-Lift Minimum Stroke	Shpg. Wt-Oz.	1-24	25-49	50-99	100-249	250-499	500-999
24F1600	801-101-2	115	AC	Con.	71	.30	1/8-5/8	53	8	3.60	3.25	3.05	2.90	2.50	2.25
24F1601	801-102-2	115	AC	Int.	48.8	.50	1/8-5/8	75	8	3.60	3.25	3.05	2.90	2.50	2.25
24F1602	801-103-2	230	AC	Con.	284	.15	1/8-5/8	53	8	3.60	3.25	3.05	2.90	2.50	2.25
24F1603	812-101-2	115	AC	Con.	17.7	.58	1/8-1 1/16	154	18	4.90	4.40	4.20	3.90	3.40	3.15
24F1604	812-102-2	115	AC	Int.	12.35	.97	1/8-1 1/16	192	18	4.90	4.40	4.20	3.90	3.40	3.15
24F1605	812-103-2	230	AC	Con.	70.8	.29	1/8-1 1/16	154	18	4.90	4.40	4.20	3.90	3.40	3.15
24F1606	813-101-2	115	AC	Con.	12.6	.60	1/8-1 1/16	196	22	5.70	5.00	4.60	4.30	3.60	3.35
24F1607	813-102-2	115	AC	Int.	8.04	1.41	1/8-1 1/16	292	22	5.70	5.00	4.60	4.30	3.60	3.35
24F1608	813-103-2	230	AC	Con.	50.4	.30	1/8-1 1/16	196	22	5.70	5.00	4.60	4.30	3.60	3.35
24F1609	821-101-2	115	AC	Con.	4.68	.97	1/8-1 3/8	300	40	7.30	6.45	5.90	5.50	4.60	4.30
24F1610	821-102-2	115	AC	Int.	3.17	1.77	1/8-1 3/8	460	40	7.30	6.45	5.90	5.50	4.60	4.30
24F1611	821-103-2	230	AC	Con.	18.7	.485	1/8-1 3/8	300	40	7.30	6.45	5.90	5.50	4.60	4.30
24F1616	860-201-3	115	AC	Con.	743	.07	1/32-1/2	12	1 5/8	2.25	2.20	1.90	1.80	1.55	1.40
24F1617	860-202-3	115	AC	Int.	417	.130	1/32-1/2	18	1 5/8	2.25	2.20	1.90	1.80	1.55	1.40
24F1618	860-256-3	12	DC	Con.	26.2	.46	1/32-3/8	16	1 5/8	2.25	2.20	1.90	1.80	1.55	1.40
24F1619	860-259-3	12	DC	Int.	17.7	.68	1/32-3/8	20	1 5/8	2.25	2.20	1.90	1.80	1.55	1.40
24F1620	860-301-3	115	AC	Con.	490	.08	1/32-1/2	16	3 1/4	2.85	2.60	2.45	2.30	2.00	1.80
24F1621	860-302-3	115	AC	Int.	315	.12	1/32-1/2	22	3 1/4	2.85	2.60	2.45	2.30	2.00	1.80
24F1622	860-356-3	12	DC	Con.	20.3	.59	1/32-3/8	24	3 1/4	2.85	2.60	2.45	2.30	2.00	1.80
24F1623	860-359-3	12	DC	Int.	13.5	.89	1/32-3/8	40	3 1/4	2.85	2.60	2.45	2.30	2.00	1.80

TYPE 700 TIME DELAY SWITCH

Type 700-150 Time Delay Switch. Gives positive make and break action. Time delay is pneumatically controlled. Nonsensitive to vibration and shock. Variable—3 to 40 sec. Rating: 10 amp 250v AC; 10 amp 125v AC; 1/3hp 125/250v AC. SPDT contacts. Listed by Underwriters Laboratories, Inc. Size: 2 31/32x3 3/16" dia. Shpg. wt., 5 oz.

Stk. No.	Type	Travel	Press.	1-9	10-24	25-49	50-99	100-199
24F1637	700-150	11/64" to 13/64"	1 1/2 lbs.	5.10	4.59	4.08	3.57	3.32

SERIES 701 TIME SWITCHES

The solenoid-operated time delay switch may be operated cn variable time sequence 2 to 60 seconds. Silver contacts provide excellent electrical contact and overload protection. Can be mounted at any angle: 360° orientation. 60 cps. frequency.

60F951. Type 701-112. Time delay after de-energizing 110V AC.
60F956. Type 701-212. Time delay after energizing 110V AC.
1-9..........14.40 10-24..........13.15 25-49..........12.10
50-99..........10.20 100-249..........9.00

302-050-030 INDUSTRIAL RECYCLING TIMER KIT

Assembled basic timer, 4 synchronous timing motors operate on 115 V AC 60 cycle, 3 gear reductions, 2 S.P.D.T. snap switches rated at 15 Amps.
Kit features 11 different total time cycles — 7 1/2 sec., 15 sec., 30 sec., 1 min., 2 min., 2 1/2 min., 5 min, 7 1/2 min., 10 min., 15 min., and 30 min. Cams adjustable from 3% to 97% of total time cycle to switch current "on" or "off". Wt. 1 3/4 lbs.
24F1658. NET..........24.95

302-051-036 EIGHT SWITCH EXPANDER KIT

A supplementary 8 switch expander kit to be used with the KVC200-1 consists of 6 SPDT snap switches, rated at 15 Amps. non inductive, 2 end brackets, 6 sets of adjustable cams, cam shaft and 4 spacer rods. Total of 8 SPDT switches can be achieved when integrated with KVC200-1. Shpg. wt. 18 oz.
24F1659. NET..........19.95

TYPE 750 SNAP ACTION SWITCHES

Instantaneous, positive make and break action. High contact pressure. Nonsensitive to vibration and shock. Stable under momentary high overload. 15 amp 125v AC; 10 amp 250v AC; 1/2hp 125/250v AC. Case: molded phenolic. Listed by Underwriters' Laboratories, Inc. Sizes: Type 750, 1 7/8x2 5/32x1 9/32". Type 755, 1 7/8x1 1/8x1 9/32". Shpg. wt., 4 oz.

Stock No.	Type	Description	Total Trav.	Oper. Press	1-9	10-24	25-49	50-99	100-249
24F1625	750-150	Pin Plunger SPDT	3/32"-1/8"	6 to 8 oz	.72	.68	.62	.52	.46
24F1626	750-250	Lever Action SPDT	7/32"-9/32"	4 to 9 oz	.81	.78	.72	.60	.52
24F1627	750-251	Lever Action SPDT	17/32"-3/4"	4 to 6.5 oz	.85	.82	.76	.63	.55
24F1628	750-350	Panel Mount SPDT	1/4"-3/4"	6 to 13 oz	1.01	.96	.89	.74	.64
24F1629	755-150	Double Circuit DPDT Pin Plunger	3/32"-5/32"	10 to 26 oz	1.44	1.30	1.17	1.05	.98

SERIES 760 SNAP SWITCHES

Direct control for high capacity in industrial uses. Easily gang mounted. Silver contacts for overload protection. Shock proof design. Approved to 250V AC at 7.5 amps. SPDT.

Stk. No.	Model	Type	Oper. Press.	Pre. Travel	1-9	10-24	25-49	50-99	100-249
60F964	760-150	Pin	12 oz.	3/64"	.68	.61	.55	.48	.32
60F965	760-250	Lever	12 oz.	27/64"	.76	.68	.61	.54	.36
60F966	760-350	Panel	12 oz.	3/64"	.94	.86	.77	.68	.53

831 SERIES INDUSTRIAL SOLENOIDS

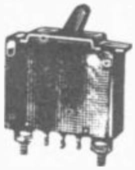
Double T plunger design provides virtually level pull characteristics. No power drop off at 2/3 stroke. Beryllium copper core. Moisture proof: heavy epoxy encapsulation protected coil and frame. Universal mounting. 60 cps operation.

Stk. No.	Type	Volts	Max. Stroke	Max. Pull	1-9	10-24	25-49	50-99	100-249
PULL TYPE									
60F960	831-101	115	1"	2.51 lb.	8.05	7.24	6.24	6.05	5.86
60F961	831-201	230	1"	3.93 lb	12.32	11.10	9.56	9.30	9.02
PUSH TYPE									
60F962	831-401	115	1"	2.51 lb.	8.05	7.24	6.24	6.05	5.86
60F963	831-501	230	1"	3.93 lb.	12.32	11.10	9.56	9.30	9.02

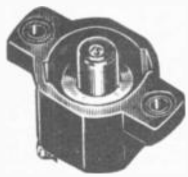
KLIXON® Circuit Breakers


2MC1

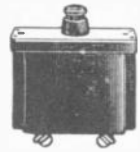

3MC1


4MC1


Type 6363


Type CM


Type 6752-12


Type 6752-2


Type 7274

MINIATURE MAGNETIC CIRCUIT BREAKERS

Type 2MC1-100-3. Toggle actuated. Instantaneous series trip. Current sensing to 32VDC/120VAC. 1⅓x1¾x⅝".

Stk. No.	AC Type Amps	1-9	10-24	25-99	100-Up
59F932	2MC1-100-1	10.70	9.65	9.05	7.25
59F933	2MC1-100-2	10.70	9.65	9.05	7.25
59F935	2MC1-100-5	10.70	9.65	9.05	7.25
59F938	2MC1-100-15	10.70	9.65	9.05	7.25

Stk. No	DC Type Amps	1-9	10-24	25-99	100-Up
59F946	2MC1-3-5	10.70	9.65	9.05	7.25
59F948	2MC1-3-10	10.70	9.65	9.05	7.25
59F949	2MC1-3-15	10.70	9.65	9.05	7.25
59F950	2MC1-3-20	10.70	9.65	9.05	7.25

Type 2MC1-101-4. Same as types 2MC1-100-3, except for .1 to 1 sec. time delay at 200% rated current. 1⅓x1¾x⅝".

Stk. No.	AC Type Amps	1-9	10-24	25-99	100-Up
59F957	2MC1-101-5	10.70	9.65	9.05	7.25

Stk. No.	DC Type Amps	1-9	10-24	25-99	100-Up
59F970	2MC1-4-10	10.70	9.65	9.05	7.25

Type 3MC1-100-3. Push button actuated. Instantaneous series trips. Current sensing to 32VDC/120VAC. 1⅓x1¾x⅝".

Stk. No.	AC Type Amps	1-9	10-24	25-99	100-Up
59F977	3MC1-100-2	10.70	9.65	9.05	7.25
59F979	3MC1-100-5	10.70	9.65	9.05	7.25

Stk. No.	AC Type Amps	1-9	10-24	25-99	100-Up
59F987	3MC1-3-1	10.70	9.65	9.05	7.25
59F989	3MC1-3-3	10.70	9.65	9.05	7.25

Type 3MC1-101-4. Same as 2MC1-101 and 2MC1-4 except for .1 to 1second time delay at 200% rated current.

Stk. No.	AC Type Amps	1-9	10-24	25-99	100-Up
59F998	3MC1-101-1	10.70	9.65	9.05	7.25
59F1001	3MC1-101-5	10.70	9.65	9.05	7.25

Type 4MC1-106-1. Instantaneous series trip with SPDT auxiliary circuit for interlocking or remote indications. Low voltage drop; 20% less than comparable units.

Stk. No.	AC Type Amps	1-9	10-24	25-99	100-Up
59F1026	4MC1-106-10	8.00	7.20	6.75	5.38
59F1027	4MC1-106-15	8.00	7.20	6.75	5.38

Stk. No.	DC Type Amps	1-9	10-24	25-99	100-Up
59F1039	4MC1-1-10	8.00	7.20	6.75	5.38
59F1040	4MC1-1-15	8.00	7.20	6.75	5.38

Type CDLA & CDLM. Similar to CA. Ratings 35-150 amps. CDLA automatic reset CDLM manual. Both have dust covers. Wt. 3¼ oz. Type CLA. Same as CDLA without dust cover.

Stk. No.	Type	Amp	1-9	10-24	25-99	100-Up
59F908	CLA	40	3.42	4.28	3.71	2.71
59F909	CLA	60	3.42	4.28	3.71	2.71
59F913	CDLA	40	4.17	5.22	4.52	3.30
59F914	CDLA	60	4.17	5.22	4.52	3.30
59F915	CDLA	90	4.17	5.22	4.52	3.30
59F917	CDLA	150	4.17	5.22	4.52	3.30
59F918	CDLM	50	5.98	5.48	5.93	4.34

Type PDLM-105. Manual reset. Trip free. Same as CDLM type, except will hold 110% rating indefinitely. Will trip ultimately at 130% of nominal rating.

Stk. No.	Amp	1-9	10-24	25-99	100-Up
59F919	105	6.90	7.10	6.67	5.31

Type 6752-2. Push-pull type. Thermal magnetic circuit breaker meets MIL-C-5809. Trip free. 30VDC-120VAC. Trip 15-60 sec. at 200% load. Wt. 2.5 oz.

Stk. No.	Type	Amp	1-9	10-24	25-99	100-Up
59F806	6752-2-5	5	6.74	6.06	5.68	4.53
59F808	6752-2-10	10	6.74	6.06	5.68	4.53
59F809	6752-2-15	15	6.74	6.06	5.68	4.53
59F810	6752-2-20	20	6.74	6.06	5.68	4.53
59F812	6752-2-30	30	6.74	6.06	5.68	4.53

Type 6363. Thermal type toggle circuit breaker. 30VDC-115VAC. Holds 110% trip at 130% rated current. Wt. 1.75 oz.

Stk. No.	Type	Amp	1-9	10-24	25-99	100-Up
59F800	6363-1-2	2	7.39	6.66	6.27	4.87
59F801	6363-1-5	5	7.39	6.66	6.27	4.87
59F803	6363-1-15	15	7.24	6.51	6.12	4.87
59F804	6363-1-20	20	7.24	6.51	6.12	4.87

Type 7270. Miniature trip free thermal breaker meets MS24509. Toggle type. Wt. 1.4 oz.

Stk. No.	Type	Amp	1-9	10-24	25-99	100-Up
59F834	7270-1-5	5	9.77	8.88	8.22	6.57
59F835	7270-1-7	7.5	9.77	8.88	8.22	6.57
59F836	7270-1-10	10	9.77	8.88	8.22	6.57
59F837	7270-1-15	15	9.62	8.66	8.12	6.47

Type 7271. Same as above, but Push-Button type, instead of 7270's toggle type.

Stk. No.	Type	Amp	1-9	10-24	25-99	100-Up
59F841	7271-8-5	5	9.77	8.82	8.27	6.57
59F843	7271-8-10	10	9.77	8.82	8.27	6.57

Type CA & CM. Will hold 100% of nominal rating. Trip ultimately at 125%. Rating 30VDC or 110/220VAC. Type CA automatic reset; Type CM manual. Wt. 1 oz.

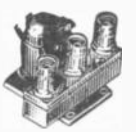
Stk. No.	Type	Amp	1-9	10-24	25-99	100-Up
59F874	CA	2	2.11	1.84	1.71	1.34
59F875	CA	3	2.11	1.84	1.71	1.34
59F868	CA	5	2.11	1.84	1.71	1.34
59F869	CA	8	2.11	1.84	1.71	1.34
59F876	CA	10	2.11	1.84	1.71	1.34
59F871	CA	15	1.96	1.67	1.56	1.24
59F872	CA	20	1.96	1.67	1.56	1.24
59F877	CA	30	1.96	1.69	1.56	1.24
59F873	CA	40	1.96	1.67	1.56	1.24
59F884	CM	2	2.33	2.04	1.90	1.49
59F885	CM	3	2.33	2.04	1.90	1.49
59F878	CM	5	2.33	2.04	1.90	1.49
59F886	CM	8	2.33	2.04	1.90	1.49
59F879	CM	10	2.33	2.04	1.90	1.49
59F880	CM	12.5	2.18	1.89	1.75	1.39
59F881	CM	15	2.18	1.89	1.75	1.39
59F882	CM	20	2.18	1.89	1.75	1.39
59F887	CM	30	2.18	1.89	1.75	1.39
59F883	CM	40	2.18	1.89	1.75	1.39

Type CDA & CDM. Same as above except with dust cover. CDA automatic reset. CDM manual reset.

Stk. No.	Type	Amp	1-9	10-24	25-99	100-Up
59F889	CDA	10	2.73	2.37	2.18	1.73
59F890	CDA	15	2.73	2.37	2.18	1.73
50F891	CDA	20	2.73	2.37	2.18	1.73
59F892	CDA	25	2.73	2.37	2.18	1.73
59F893	CDA	30	2.73	2.37	2.18	1.73
59F895	CDM	10	3.44	2.98	2.76	2.18
59F896	CDM	15	3.44	2.98	2.76	2.18
59F897	CDM	20	3.44	2.98	2.76	2.18
59F899	CDM	30	3.44	2.98	2.76	2.18
59F894	CDM	40	3.44	2.98	2.76	2.18

AMPHENOL


315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321


322


Type 323


324

COAXIAL SWITCHES — MANUAL AND SOLENOID-OPERATED

20 millisecond max. operate and release time. Mech. life exceeds 1,000,000 Hz. Silver plated for complete shielding. Gold-over-sil. plated contacts 100 watt RF power rating. Vacuum impregnated coils withstand high humidity. Rated for cont. duty from —65°C to +85°C. Terminations are all shorting except (*). ** INDICATES that the marked switches are either rotary manual (57F1108) or lever manual (57F1104 and 57F1106).

Stk. No.	Type No.	Freq. MC	Volts	Func.	Plug	1-4	5-9	10-24	25-49	50-Up
57F1100	315-010002-3*	1000	26DC	SPDT	BNC	25.30	21.00	18.10	15.94	14.05
57F1104	318-010381-0*	2750	**	SPDT	BNC	28.27	23.4,	20.22	17.82	15.70
57F1106	321-011062-0*	1000	**	DPDT	BNC	38.94	32.33	27.85	24.54	21.62
57F1107	321-011064-3*	1000	26DC	DPDT	BNC	38.94	32.33	27.85	24.54	21.62
57F1108	322-011431-0*	2750	**	SP4T	BNC	62.70	52.04	44.84	39.50	34.80
57F1109	323-011506-3	900	26DC	SP4T	BNC	55.88	46.34	39.96	35.21	31.02
57F1110	324-011442-0*	900	26DC	SP6T	BNC	54.40	45.40	40.80	36.15	32.65
57F1112	316-010102-8	2750	115AC	SPDT	BNC	30.47	25.30	21.79	19.21	16.92
57F1113	323-011651-3	1250	26VDC	SP4T	BNC	55.80	46.39	39.96	35.21	31.02
57F1114	325-011641-3	500	26VDC	SP6T	BNC	70.40	58.43	50.34	44.35	39.07
57F1115	327-010582-3	1000	26VDC	Trans.	BNC	39.27	32.60	28.08	24.75	21.80

Snap Switches by Acro Division Robertshaw

MINIATURE MODEL CM

Mechanical life of up to 50 million cycles. Light operating force. Electrical rating: 3 amps, 125-250 VAC; 3 amps, 28 VDC. Environmental temperature —90°F to 250°F.

Stock No.	Type	Operating Force	Pretravel	Overtravel	Terminal	1-9	10-19	20-49	50-99	100-199	200-499
23F415	1CMD1-2AXX	20-27 g.	.040 in. Max.	.050 in. Max.	.....	1.32	1.19	1.06	.92	.86	.83
23F426	2CMD1-2AXX	33-44 g.	.040 in. Max.	.050 in. Max.	Solder	1.32	1.19	1.06	.92	.86	.83
60F1900	3CMD1-2AXX	45-60 g.	.040 in. Max.	.050 in. Max.	Solder	1.32	1.19	1.06	.92	.86	.83
60F1901	1CMD1-2AXX-A22	2.5 g. Max.	.....	.....	Solder	1.63	1.47	1.30	1.14	1.06	1.03
60F1902	1CMD1-1AXX-A23M	5-8 oz.	.040 in. Max.	.050 in. Max.	.....	1.63	1.47	1.30	1.14	1.06	1.03
23F416	1CMD1-2AXX-A24	2.5 g. Max.	.....	.....	.....	1.63	1.47	1.30	1.14	1.06	1.03
23F427	2CMD1-2AXX-A24	4 g. Max.	.....	.....	.....	1.63	1.47	1.30	1.14	1.06	1.03

ICMDI-2AXX

ICMDI-1AXX-A23M

ICMDI-2AXX-A22

ICMDI-2AXX-A24

SNAP-ACTION PUSHBUTTON SWITCHES

Overtravel plug type. 250 VAC; 12 amps.

Stock No.	Type	Operating Force	Pretravel	Overtravel	Terminal	1-9	10-19	20-49	50-99	100-199	200-499
60F1935	3D05-5P	10-15 oz.	0.10"	.007"	Solder	1.87	1.68	1.50	1.31	1.22	1.18

3 DO5-5P

IMDI-1A

MINIATURE MODEL M

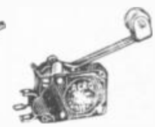
Mechanical life of up to 10 million cycles. U.L. electrical rating: 10 amps, 125-250 VAC. All have solder terminals and stainless steel actuator pins. Temp. —90°F to 250°F.

Stock No.	Type	Operating Force	Pretravel	Overtravel	Description	1-9	10-19	20-49	50-99	100-199	200-499
23F414	1MD1-1A	6 oz. Max.	1/32 in. Max.	.025 in. Max.	Pin Plunger	1.32	1.19	1.06	.92	.86	.83
23F428	2MD1-1A	10 oz. Max.	1/32 in. Max.	.025 in. Max.	Pin Plunger	1.32	1.19	1.06	.92	.86	.83
23F425	3MD1-1A	16 oz. Max.	1/32 in. Max.	.025 in. Max.	Pin Plunger	1.32	1.19	1.06	.92	.86	.83

ACTUATORS FOR ABOVE MINIATURE MODEL M PIN PLUNGERS

Stk. No.	Type	Description	1-9	10-19	20-49	50-99	100-199	200-499
23F429	A18	Flat leaf, side mount actuator.	.40	.36	.32	.28	.26	.25
23F430	A18M	Roller leaf, side mount actuator.	.60	.54	.48	.42	.39	.38
60F1903	A14	Plunger actuator for two switches.	1.20	1.08	.96	.84	.78	.76

IMDI-1A-A18



IMDI-1A-A18M

GENERAL PURPOSE MODEL B

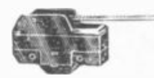
Mechanical life of over 10 million cycles. High contact pressure rolling spring has minimum contact bounce and low traverse time. Uniform mating cover onto base. Spring loaded assembly. Contacts rated at 15 amps, 120-240-480 volts AC; 1/4 amp, 240 VDC. 1/2 amp, 120 VDC. Step Base 6-32. Screw terminals are standard. Flat base available on special order.

Stock No.	Type	Operating Force	Pretravel	Overtravel	Movement Differential	1-9	10-19	20-49	50-99	100-199	200-499
60F1904	BRD2-1A-1S	9-13 oz.	.020" Max.	.005" Min.	.003" Max.	1.75	1.58	1.40	1.23	1.14	1.10
23F402	BRD2-5L-1S	5 oz. Max.	.156" Max.	1/32" Min.	.050" Max.	2.00	1.80	1.60	1.40	1.30	1.26
23F406	BRD2-LW8-1S	2 1/2 oz. Max.	9/32"-13/32"	.187" Min.	.016"-.078"	2.15	1.94	1.72	1.51	1.40	1.36
60F1905	BRD2-LW48-1S	1 oz. Max.	.156"-.328"	.187" Min.	.016"-.078"	2.15	1.94	1.72	1.51	1.40	1.36
23F407	BRD2-2M-1S	5 oz. Max.	.156" Max.	1/32" Min.	.050" Max.	2.50	2.25	2.00	1.75	1.63	1.58
23F409	BRD2-LW228-1S	6 oz. Max.	.045"-.140"	.080" Min.	.006"-.031"	2.65	2.39	2.12	1.86	1.72	1.67
60F1907	BRD2-LW28-1S	3 1/2 oz. Max.	.125"-.281"	.156" Min.	.012"-.062"	2.70	2.43	2.16	1.89	1.76	1.70
23F401	BRD2-70-1S	9-13 oz.	.010"-.025"	1/16" Min.	.003" Max.	2.15	1.94	1.72	1.51	1.40	1.36
23F405	BRD2-10-1S	9-13 oz.	.010"-.025"	1/16" Min.	.003" Max.	2.15	1.94	1.72	1.51	1.40	1.36
60F1908	BRD2-3P-1S	9-13 oz.	.010"-.025"	7/32" Min.	.003" Max.	3.06	2.75	2.45	2.14	1.99	1.96
23F404	BRD2-1P-1S	9-13 oz.	.010"-.025"	7/32" Min.	.003" Max.	3.65	3.29	2.92	2.56	2.37	2.30
60F1909	BRD2-8PR-1S	9-13 oz.	.010"-.025"	.140" Min.	.003" Max.	6.25	5.63	5.00	4.38	4.06	3.94
60F1912	BRD2-24P-1S	9-13 oz.	.010"-.025"	.140" Min.	.003" Max.	6.35	5.72	5.08	4.45	4.13	4.00
60F1913	BRD2-LW6-1S	8 oz. Max.	3/64"-7/64"	3/64" Min.	.020" Max.	3.25	2.93	2.60	2.28	2.11	2.05

IMDI-1A-A14

BRD2-5L1S

BRD2-LW228-1S



BRD2-24P-1S

SUBMINIATURE MODEL Z

Switches have post terminals. Pin actuator can be ordered with any one of five terminals: post (solder), turret, double turret, baton (.057 dia.), ano quick connect (.110 wide). Other actuators are available only with post terminal (solder).

Stk. No.	Type	Optrating Force	Pretravel	Overtravel	Movement Differential	1-9	10-19	20-49	50-99	100-199	200-499
60F1936	ZD-0024	85-140 gms.	.008-.020 in.	.010 in. min.	.001-.004 in.	1.18	1.06	.94	.83	.77	.73
60F1937	ZLD-0036	2 oz. max.	1/32 in. max.	.045 in. min.	.015 in. max.	1.64	1.48	1.31	1.15	1.07	1.03
60F1938	ZLD-0037	2 oz. max.	1/32 in. max.	.045 in. min.	.015 in. mar.	1.98	1.78	1.58	1.39	1.29	1.25
60F1939	ZLD-0038	10 oz. max.	.050 in. max.	.125 in. min	.030 in. max.	4.55	4.10	3.64	3.19	2.96	2.87
60F1940	ZPD-0101	10 oz. max.	.050 in. max.	.125 in. min.	.030 in. max.	6.25	5.63	5.00	4.38	4.06	3.94
60F1941	ZTD-0081	(Hand Operated)				3.35	3.02	2.68	2.35	2.18	2.11
60F1942	ZPD-0092	15 oz. max.	.010 in. max.	.010 in. min.	.010 in. max.	4.90	4.41	3.92	3.43	3.19	3.09

ZLD-0036

BRD2-LW8-1S

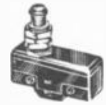
ZLD-0037

ZLD-0038

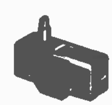
ONE-PIECE METAL ENCLOSURE MODEL BH

Each switch packaged for side or flange mounting #6-32 x 1 1/2" Round Head Machine Screws with lead sealing washers supplied for side mount. Flange mount uses #8 screws. U.L. and C.S.A. listed. Supplied with sealed plungers. Dust and oil tight. Enclosure is 3" L. x 1 25/32" H. x 1" W. Approx. shipping weight 1 lb.

Stock No.	Type	Operating Force	Pretravel	Overtravel	Movement Differential	1-9	10-19	20-49	50-99	100-199	200-499
23F410	SF-BRD2-7PN	9-24 oz.	.078" Max.	.218" Min.	.003"	6.66	5.99	5.33	4.66	4.33	4.20
23F411	SF-BRD2-6PQ	9-13 oz.	.020" Max.	7/32" Min.	.003"	5.12	4.61	4.10	3.58	3.33	3.23
23F413	SF-BRD2-8PR	9-13 oz.	.020" Max.	9/64" Min.	.003"	9.05	8.15	7.24	6.34	5.88	5.70
60F1928	SF-BRD2-8PR1	9-13 oz.	.020" Max.	9/64" Min.	.003"	9.05	8.15	7.24	6.34	5.88	5.70
23F412	SF-BRD2-8PQ2	10-18 oz.	9/64" Max.	7/32" Min.	.006"	9.05	8.15	7.24	6.34	5.88	5.70
60F1929	SF-BRD2-2PN2	10-20 oz.	.172" Max.	7/32" Min.	.008"	10.30	9.27	8.24	7.21	6.70	6.49
60F1930	SF-BRD2-2PN28	8-20 oz.	13/64" Max.	7/32" Min.	.008"	11.95	10.76	9.56	8.37	7.77	7.53
60F1931	SF-BRD2-8PQ4	10-18 oz.	.266" Max.	.219" Min.	.006"	9.60	8.64	7.68	6.72	6.24	6.05
60F1932	SF-BRD2-2PN4	10-20 oz.	11/64" Max.	7/32" Min.	.006"	10.62	9.56	8.50	7.43	6.90	6.69
60F1933	SF-BRD2-8PQ26	2-5 oz.	.718" Max.	.838" Min.	.229"	9.50	8.55	7.60	6.65	6.18	5.99



BRD2-1P-1S



BRD2-10-1S

SF-BRD2-2PN-2

SF-BRD2-8PR

Wood Electric Circuit Breakers

Wood Electric thermal and magnetic circuit breakers are precision calibrated and inspected to rigid quality control standars. All have unique trip free mechanism which prevents contacts from closing as long as overload persists. Meet requirements of Mil-E-5272C for humidity and salt spray. Withstand vibration of 10 g's at 10-55 hz, shock of 25 g's.

SINGLE POLE MAGNETIC—TOGGLE TYPE

Model 122. Designed for use on circuits requiring protection up to 50 amps on voltages up to 250 volts AC 60 hz. Calibrated to carry 100% of rated load and to trip between 101% and 125%. Trip times at 200% of rated load are 3-10 seconds.

Stock No.	AC Type	Amps	1-9	10-25	26-99	100-249
56F762	122-201-101	1	7.20	6.00	5.20	4.60
65F763	122-202-101	2				
56F764	122-203-101	3				
56F765	122-204-101	4				
56F766	122-205-101	5				
56F767	122-207-101	7				
56F768	122-210-101	10				
56F769	122-215-101	15				
56F770	122-220-101	20				
56F771	122-225-101	25				
56F772	122-230-101	30				
56F773	122-235-101	35				
56F774	122-240-101	40				
56F775	122-250-101	50				

TWO POLE MAGNETIC—TOGGLE TYPE

Model 190. Designed for use on circuits requiring protection up to 50 amps on voltages up to 250 volts AC 60 hz. Calibrated to carry 100% of rated load and to trip between 101% and 125%. Trip times at 200% of rated load are 3-10 seconds. Both poles are internally interlocked to insure simultaneous tripping in the event of an overload.

Stock No.	AC Type	Amps	1-9	10-25	26-99	100-249
56F790	190-201-101	1	18.63	15.53	13.46	11.90
56F791	190-202-101	2				
56F792	190-203-101	3				
56F793	190-204-101	4				
56F794	190-205-101	5				
56F795	190-207-101	7				
56F796	190-210-101	10				
56F797	190-215-101	15				
56F798	190-220-101	20				
56F799	190-225-101	25				
56F810	190-230-101	30				
56F811	190-235-101	35				
56F812	190-240-101	40				
56F813	190-250-101	50				

THREE POLE MAGNETIC—TOGGLE TYPE

Model 220. Designed for use on circuits requiring protection up to 50 amps on voltages up to 250 volts AC 60 hz. Calibrated to carry 100% of rated load and to trip between 101% and 125%. Trip times at 200% of rated load are 3-10 seconds. All three poles are internally interlocked to insure simultaneous tripping in the event of an overload.

Stock No.	AC Type	Amps	1-9	10-25	26-99	100-249
56F828	220-201-101	1	28.71	23.93	20.74	18.34
56F829	220-202-101	2				
56F830	220-203-101	3				
56F831	220-204-101	4				
56F832	220-205-101	5				
56F833	220-207-101	7				
56F834	220-210-101	10				
56F835	220-215-101	15				
56F836	220-220-101	20				
56F837	220-225-101	25				
56F838	220-230-101	30				
56F839	220-235-101	35				
56F840	220-240-101	40				
56F841	220-250-101	50				

SINGLE POLE THERMAL—PUSH/PULL TYPE

Model 105. Designed to meet requirements of Mil-C-5809 and MS dwg. no. 25244. Maximum operating voltages are 250 volts AC and 32 volts DC. Calibrated to hold 115% of rated load indefinitely and trip within 138% at 25°C.

Stk. No.	Type	Amp	MS25244-	1-9	10-25	26-99	100-249
56F708	105-205-101	5	5	8.10	6.75	5.85	5.18
56F709	105-507-101	7.5	75				
56F710	105-210-101	10	10				
56F711	105-215-101	15	15				
56F712	105-220-101	20	20				
56F713	105-225-101	25	25				
56F740	105-230-101	30	30				
56F714	105-235-101	35	35				
56F741	105-240-101	40	40				
56F715	105-250-101	50	50				

SINGLE POLE THERMAL—PUSH/PULL TYPE

Model 109. Designed for circuits requiring protection from 5 to 50 amps. Maximum operating voltages are 250 volts AC and 32 volts DC. Calibrated to hold 100% of rated load indefinitely and trip within 135% at 25°C.

Stock No.	Type	Amp	1-9	10-25	26-99	100-249
56F716	109-205-101	5	4.41	3.68	3.19	2.82
56F717	109-507-101	7.5				
56F718	109-210-101	10				
56F719	109-215-101	15				
56F720	109-220-101	20				
56F721	109-225-101	25				
56F722	109-230-101	30				
56F723	109-235-101	35				
56F724	109-250-101	50				

SINGLE POLE THERMAL—PUSH/PULL TYPE

Model 111. Designed for circuits requiring protection from 1 to 4 amps. Maximum operating voltages are 250 VAC or 32 volts DC. Calibrated to hold 100% of rated load indefinitely and trip within 135% at 25°C.

Stock No.	Type	Amp	1-9	10-25	26-99	100-249
56F734	111-201-101	1	8.64	7.20	6.24	5.52
56F735	111-202-101	2				
56F736	111-203-101	3				
56F737	111-204-101	4				

SINGLE POLE THERMAL—TOGGLE TYPE

Model 112. Designed for circuits requiring protection from 5 to 50 amps. Main contacts 250 VAC to 400 hz, 32 VDC. Aux. contacts rated 3A/115 VAC, 1A/50 VDC. Calibrated to hold 100% of rated load indefinitely and trip within 135% at 25°C.

Stock No.	Type	Amp	1-9	10-25	26-99	100-249
56F725	112-205-101	5	4.59	3.83	3.32	2.93
56F726	112-507-101	7.5				
56F727	112-210-101	10				
56F728	112-215-101	15				
56F729	112-220-101	20				
56F730	112-225-101	25				
56F731	112-230-101	30				
56F732	112-235-101	35				
56F742	112-240-101	40				
56F733	112-250-101	50				

SINGLE POLE THERMAL—PUSH TO RESET

Model 374. Designed for circuits requiring protection from 1 to 4 amps. Max. oper. volts: 250V AC to 400 hz, 32V DC. Push to reset, only cannot be interrupted manually. Calibrated to hold 100% of rated load indefinitely and will trip within 145% at 25°C.

Stock No.	Type	Amp	1-9	10-25	26-99	100-249
56F870	374-201-101	1	2.77	2.31	2.00	1.77
56F871	374-202-101	2				
56F872	374-203-101	3				
56F873	374-204-101	4				

SINGLE POLE THERMAL—PUSH TO RESET

Model 375. Designed for circuits requiring protection from 5 to 20 amps. Max. oper. volts: 250V AC to 400 hz, 32V DC. Push to reset, only cannot be interrupted manually. Calibrated to hold 100% of rated load indefinitely and will trip within 145% at 25° C.

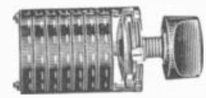
Stock No.	Type	Amp	1-9	10-25	26-99	100-249
56F874	375-205-101	5	1.71	1.43	1.24	1.09
56F875	375-207-101	7				
56F876	375-210-101	10				
56F877	375-214-101	15				
56F878	375-220-101	20				

SHALLCROSS

SERIES 1 — ONE INCH PRECISION ROTARY SWITCHES

Reduced contact resistance, voltage breakdown failures, and noise. Enclosed construction makes unit dustproof and explosionproof. Positive, long-life indexing. Silver plate or alloy carrying parts and glass filled diallyl phthalate stator. Easily adjusted stops for setting positions/poles. Meet MIL-S-3786 style SR04 requirements.

Shaft, 1x1/4" dia.; 3/8"-32 bushing, 5/16" long. Ratings: 50,000 cycles for breaking loads; .25 amps at 100 VDC and 125VAC; .5 amps at 30 VDC. 30° index in gangle.



SHORTING TYPES

Stk. No.	Mfr's Type	Total Poles	Pos/ Poles	No. of Sec.	1-9	10-24	25-49
23F1000	1J04A6-1	1	2-6	1	5.90	4.70	4.05
23F1001	1J04A6-2	2	2-6	2	6.75	5.55	4.85
23F1002	1J04A6-3	3	2-6	3	7.70	6.50	5.60
23F1003	1J02A12-1	1	2-12	2	6.50	5.40	4.60
23F1004	1J02A12-2	2	2-12	4	8.00	6.75	5.85
23F1005	1J02A12-3	3	2-12	6	10.00	8.20	7.40
23F1006	1J00A12-1	1	2-12	2	6.50	5.40	4.60
23F1007	1J00A12-2	2	2-12	4	8.00	6.75	5.85
23F1008	1J00A12-3	3	2-12	6	10.00	8.20	7.40

NON SHORTING TYPES

Stk. No.	Mfr's Type	Total Poles	Pos/ Poles	No. of Sec.	1-9	10-24	25-49
23F1015	1J54A6-1	1	2-6	1	5.90	4.70	4.05
23F1016	1J54A6-3	2	2-6	2	6.75	5.55	4.85
23F1017	1J54A6-2	3	2-6	3	7.70	6.50	5.60
23F1012	1J52A12-1	1	2-12	2	6.50	5.40	4.60
23F1013	1J52A12-2	2	2-12	4	8.00	6.75	5.85
23F1014	1J52A12-3	3	2-12	6	10.00	8.20	7.40
23F1009	1J50A12-1	1	2-12	2	6.50	5.40	4.60
23F1010	1J50A12-2	2	2-12	4	8.00	6.75	5.85
23F1011	1J50A12-3	3	2-12	6	10.00	8.20	7.40

SERIES 2 — 1 3/4 INCH ROTARY SWITCHES

Series 2 switches offer exceptional structural strength, contact resistance, insulation resistance and thermal E.M.F. characteristics sought for the mos stringent military tests. Conforms to requirements of MIL-386/SR14. Contacts are constructed of solid silver alloy. Indexing provided by dual balance balls riding hill-and-dale type detent with special lubricant applied to all friction points. Position stops can be adjusted to alter the number of positions available.

Load (breaking) v.s. life (cycles): 10VDC-25000@ 10amps, 40000 @ 5amps.; 30VDC-10000 @ 4amps., 20000 @ 2amps., 50000 @ 1amp.; 100VDC- 20000 @ 0.5amp. ,2500 @ 0.25amp; 250VDC- 5000 @ 0.1amp.; 300VDC- 50000 @ 0.05amp.; Shaft, 1x1/4" dia.; 3/8" -32 bushing, 5/16" long.

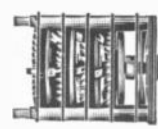
SHORTING TYPES

Stock No.	Type	Max. Pos.	Index Deg.	Poles Deck	Decks	1-9	10-24	25-49
23F1027	2E00A24-1	24	15	1	1	11.70	10.62	8.52
23F1030	2E06A11-1	11	15	2	1	12.60	11.40	9.18
23F1033	2E18A5-1	5	15	4	1	15.54	13.02	10.44
23F1018	2C00A32-1	32	11 1/4	1	1	11.70	10.62	8.52
23F1021	2C06A15-1	15	11 1/4	2	1	12.60	11.40	9.18
23F1024	2C18A7-1	7	11 1/4	4	1	15.54	13.02	10.44
23F1028	2E00A24-2	24	15	1	2	17.10	15.48	12.42
23F1031	2E06A11-2	11	15	2	2	18.60	16.80	13.50
23F1034	2E18A5-2	5	15	4	2	22.50	19.50	15.66
23F1019	2C00A32-2	32	11 1/4	1	2	17.10	15.48	12.42
23F1022	2C06A15-2	15	11 1/4	2	2	18.60	16.80	13.50
23F1025	2C18A7-2	7	11 1/4	4	2	22.50	19.50	15.66
23F1029	2E00A24-3	24	15	1	3	22.50	20.34	16.38
23F1032	2E06A11-3	11	15	2	3	24 60	22.20	17.80
23F1035	2E18A5-3	5	15	4	3	30.00	25.98	20.88
23F1020	2C00A32-3	32	11 1/4	1	3	22.50	19.50	15.66
23F1023	2C06A15-3	15	11 1/4	2	3	24.60	16.80	13.50
23F1026	2C18A7-3	7	11 1/4	4	3	30.00	25.95	20.88

NON-SHORTING TYPES

Stock No.	Type	Max. Pos.	Index Deg.	Poles Deck	Decks	1-9	10-24	25-49
23F1045	2J50A12-1	12	30	1	1	11.70	10.62	8.52
23F1048	2J56A6-1	6	30	2	1	12.60	11.40	9.18
23F1051	2J68A3-1	3	30	4	1	15.54	13.02	10.44
23F1036	2H50A16-1	16	22 1/2	1	1	11.70	10.62	8.52
23F1039	2H56A8-1	8	22 1/2	2	1	12.60	11.40	9.18
23F1042	2H68A4-1	4	22 1/2	4	1	15.54	13.02	10.44
23F1046	2J50A12-2	12	30	1	2	17.10	15.48	12.42
23F1049	2J56A6-2	6	30	2	2	18.60	16.80	13.50
23F1052	2J68A3-2	3	30	4	2	22.50	19.50	15.66
23F1037	2H50A16-2	16	22 1/2	1	2	17.10	15.48	12.42
23F1040	2H56A8-2	8	22 1/2	2	2	18.60	16.80	13.50
23F1043	2H68A4-2	4	22 1/2	4	2	22.50	19.50	15.66
23F1047	2J50A12-3	12	30	1	3	22.50	20.34	16.38
23F1050	2J56A6-3	6	30	2	3	24 60	22.20	17.80
23F1053	2J68A3-3	3	30	4	3	30.00	25.98	20.88
23F1038	2H50A16-3	16	22 1/2	1	3	22.50	20.34	16.38
23F1041	2H56A8-3	8	22 1/2	2	3	24.60	22.20	17.88
23F1044	2H68A4-3	4	22 1/2	4	3	30.00	25.98	20.88

SERIES 4 — 2 1/2 INCH PRECISION SQUARE ROTARY SWITCHES



An enlarged version of the Series 2 switches, this model increases the total positions available per pole to 48 (shorting type) or 24 (non-shorting), on the 2 1/2" deck. Both offer an initial contact resistance maximum of .002 ohms. The indexing angle is 7 1/2° on shorting switches and 15° on the non-shorting type.

Dual leaf wiper arms provide low and stable contact resistance. Terminal lugs are flared to promote wiring ease. Meets MIL spec MIL-S-3786/SR15.

SHORTING TYPES

Stock No.	Mfr's Type	Max. Pos.	Poles Deck	Decks	1-9	10-24	25-49
23F1054	4A00A48-1	48	1	1	17.50	15.63	13.44
23F1057	4A06A23-1	23	2	1	18.75	16.56	14.19
23F1060	4A18A11-1	11	4	1	21.25	18.44	15.69
23F1055	4A00A48-2	48	1	2	25.63	21.88	20.00
23F1059	4A06A23-2	23	2	2	38.13	32.81	28.50
23F1061	4A18A11-2	11	4	2	33.13	27.50	24.50
23F1056	4AC0A48-3	48	1	3	34.38	30 00	26.25
23F1059	4A06A23-3	23	2	3	38.13	32.81	28.50
23F1062	4A18A11-3	11	4	3	45.63	38.44	33.00

NON-SHORTING TYPES

Stock No.	Mfr's Type	Max. Pos.	Poles Deck	Decks	1-9	10-24	25-49
23F1063	4E50A24-1	24	1	1	17.50	15.63	13.44
23F1066	4E56A12-1	12	2	1	18.75	16.56	14.19
23F1069	4E68A6-1	6	4	1	21.25	18.44	15.69
23F1064	4E50A24-2	24	1	2	25.63	21.88	20.00
23F1067	4E56A12-2	12	2	2	28.13	23.75	21.50
23F1070	4E68A6-2	6	4	2	33.13	27.50	24.50
23F1065	4E50A24-3	24	1	3	34.38	30.00	26.25
23F1068	4E56A12-3	12	2	3	38.13	32.81	28.50
23F1071	4E68A6-3	6	4	3	45.63	38.44	33.00

ALCOSWITCH

PROXIMITY MAGNETIC SWITCH

Model RS-24PR. Encased Alnico-5 magnet provides the force to actuate the reed switch within distances of one-inch apart (center to center). Current rating of .5 amperes break, 1.0 ampers carry. Voltage breakdown 300 volts DC. Life operations 18 million (100 ma. @ 48 volts). Switch function is normally open (unmagnetized). Includes one reed switch assembly and one magnet assembly.

Stk. No. 61F971

1-24	25-99	100-499	500-999
2.85	1.90	1.71	1.42

Oak Rotary Switches and Assemblies

MINIATURE PHENOLIC SWITCHES

Series F. Dual ball, 30° indexing. Meet MIL-S-3786, 50-Hr. salt spray finishes. Frame dim. 1⁵⁄₁₆" H. x 1¼" W; 1⅜" over clips; ¼" dia. x 2⅜" L., shaft break-off points @ ¾", 1⅛", 1⅞" from mtg. surf., adj. stop, except 2-pos. fixed stop. Sect. spacing, 1st spacer ⁵⁄₁₆", 2nd, ⅜" approx. 1000V peak breakdown voltage 1 amp @ 28 VDC, 0.5 amp @ 115 VAC. Av. Shpg. wt. 3 oz

SHORTING TYPE "F"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F616	399322F	1	1	2-11	2.64	2.20	1.98	1.88	1.76	1.58
57F618	399324F	2	2	2-11	3.18	2.65	2.39	2.27	2.12	1.91
57F620	399326F	1	2	2-5	2.64	2.20	1.98	1.88	1.76	1.58
57F622	399328F	2	4	2-5	3.18	2.65	2.39	2.27	2.12	1.91
57F624	399330F	1	3	2-3	2.64	2.20	1.98	1.88	1.76	1.58
57F626	399332F	2	6	2-3	3.18	2.65	2.39	2.27	2.12	1.91
57F628	399334F	1	4	2	2.64	2.20	1.98	1.88	1.76	1.58
57F630	399336F	2	8	2	3.18	2.65	2.39	2.27	2.12	1.91

NON-SHORTING TYPE "F"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F617	399323F	1	1	2-11	2.64	2.20	1.98	1.88	1.76	1.58
57F619	399325F	2	2	2-11	3.18	2.65	2.39	2.27	2.12	1.91
57F621	339327F	1	2	2-5	2.64	2.20	1.98	1.88	1.76	1.58
57F623	399329F	2	4	2-5	3.18	2.65	2.39	2.27	2.12	1.91
57F625	399331F	1	3	2-3	2.64	2.20	1.98	1.88	1.76	1.58
57F627	399333F	2	6	2-3	3.18	2.65	2.39	2.27	2.12	1.91
57F629	399335F	1	4	2	2.61	2.20	1.98	1.88	1.76	1.58
57F631	399337F	2	8	2	3.18	2.65	2.39	2.27	2.12	1.91

SHORTING TYPE FC

50 hr. salt spray. Steel and brass parts are cadmium plated and chromite dipped. Phenolic PBE-P per MIL-P-3115; steatite per MIL-I-10A, grade L422 Silicone fiberglass; GSG per MIL-P-997. Contacts: Brass-silver plated. Electrical: Break 1 amp at 28VDC or 0.5 amp. at 110VAC, resistive. Carry 5 amps.

Stk. No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-8	10-24	25-49	50-99	100-499
57F632	399366-FC	1	1	2-11	2.94	2.45	2.21	2.10	1.96	1.76
57F634	399368-FC	2	2	2-11	4.17	3.48	3.13	2.97	2.78	2.50
57F636	399370-FC	1	2	2-5	2.94	2.45	2.21	2.10	1.96	1.76
57F640	399374-FC	1	3	2-3	2.94	2.45	2.21	2.10	1.96	1.76
57F638	399372-FC	2	4	2-5	4.17	3.48	3.13	2.97	2.78	2.50
57F644	399378-FC	1	4	2	2.94	2.45	2.21	2.10	1.96	1.76
57F642	399376-FC	2	6	2-3	4.17	3.48	3.13	2.97	2.78	2.50
57F646	399380-FC	2	8	2	4.17	3.48	3.13	2.97	2.78	2.50

NON-SHORTING TYPE FC

Stk. No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-8	10-24	25-49	50-99	100-499
57F633	399367-FC	1	1	2-11	2.94	2.45	2.21	2.10	1.96	1.76
57F635	399369-FC	2	2	2-11	4.17	3.48	3.13	2.97	2.78	2.50
57F637	399371-FC	1	2	2-5	2.94	2.45	2.21	2.10	1.96	1.76
57F641	399375-FC	1	3	2-3	2.94	2.45	2.21	2.10	1.96	1.76
57F639	399373-FC	2	4	2-5	4.17	3.48	3.13	2.97	2.78	2.50
57F645	399379-FC	1	4	2	2.94	2.45	2.21	2.10	1.96	1.76
57F643	399377-FC	2	6	2-3	4.17	3.48	3.13	2.97	2.78	2.50
57F647	399381-FC	2	8	2	4.17	3.48	3.13	2.97	2.78	2.50

STEATITE CERAMIC INSULATION SWITCHES

Series JC. Single ball, 30° indexing. Meet MIL-S-3786, 50-Hr. salt spray finishes. Frame dim. 1¹⁷⁄₃₂" H. x 1⅜" W., 1½" over clips. ¼" dia. x 2⅜" L., shaft break-off points @ ¾", 1⅛", 1⅞" from mtg. surf., adj. stop. Sect spacing, 1st spaces ⅜", 2nd ⁷⁄₁₆", 3rd 1³⁄₃₂", 4th 1⁵⁄₃₂"; approx. 1800V peak break-down voltage; 1 amp @ 28 VDC, .5 amp @ 115 VAC. Av. shpg. wt., 5 oz.

SHORTING TYPES JC

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F666	399468JC	1	1	2-12	2.46	2.05	1.85	1.76	1.64	1.48
57F668	399470JC	2	2	2-12	3.54	2.95	2.66	2.53	2.36	2.12
57F670	399472JC	3	3	2-12	4.50	3.75	3.38	3.21	3.00	2.70
57F672	399474JC	4	4	2-12	5.40	4.50	4.05	3.85	3.60	3.24
57F674	399476JC	1	2	2-6	2.46	2.05	1.85	1.76	1.64	1.48
57F676	399478JC	2	4	2-6	3.54	2.95	2.66	2.53	2.36	2.12
57F678	399480JC	3	6	2-6	4.50	3.75	3.38	3.21	3.00	2.70
57F680	399484JC	1	6	2	2.46	2.05	1.85	1.76	1.64	1.48
57F682	399486JC	2	12	2	3.54	2.95	2.66	2.53	2.36	2.12
57F855	399696JC	2	6	2-5	3.54	2.95	2.72	2.54	2.36	2.18
57F857	399698JC	4	8	2-5	5.40	4.50	4.15	3.87	3.60	3.33
57F542	399704JC	1	3	2-5	2.46	2.05	1.85	1.76	1.64	1.52
57F544	399706JC	4	8	2-6	5.33	4.45	4.00	3.82	3.56	3.29
57F546	399708JC	3	9	2-5	4.50	3.75	3.38	3.21	3.00	2.70
57F548	399710JC	2	10	2-3	3.54	2.95	2.66	2.53	2.36	2.12
57F550	399712JC	5	10	2-6	5.53	4.62	4.15	3.97	3.69	3.40
57F552	399714JC	6	12	2-6	7.57	6.30	5.67	5.42	5.03	4.66
57F554	399716JC	3	15	2-3	4.50	3.75	3.38	3.21	3.00	2.70
57F556	399718JC	3	18	2	4.50	3.75	3.38	3.21	3.00	2.70

NON-SHORTING TYPES JC

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F667	399469JC	1	1	2-12	2.46	2.05	1.85	1.76	1.64	1.48
57F669	399471JC	2	2	2-12	3.54	2.95	2.66	2.53	2.36	2.12
57F671	399473JC	3	3	2-12	4.50	3.75	3.38	3.21	3.00	2.70
57F673	399475JC	4	4	2-12	5.40	4.50	4.05	3.85	3.60	3.24
57F675	399477JC	1	2	2-6	2.46	2.05	1.85	1.76	1.64	1.48
57F677	399479JC	2	4	2-6	3.54	2.95	2.66	2.53	2.36	2.12
57F679	399481JC	3	6	2-6	4.50	3.75	3.38	3.21	3.00	2.70
57F681	399485JC	1	6	2	2.46	2.05	1.85	1.76	1.64	1.48
57F683	399487JC	2	12	2	3.54	2.95	2.66	2.53	2.36	2.12
57F856	399697JC	2	6	2-5	3.54	2.95	2.72	2.54	2.36	2.18
57F858	399699JC	4	8	2-5	5.40	4.50	4.15	3.87	3.60	3.33
57F543	399705JC	1	3	2-5	2.46	2.05	1.85	1.76	1.64	1.52
57F545	399707JC	4	8	2-6	5.33	4.45	4.00	3.82	3.56	3.29
57F547	399709JC	3	9	2-5	4.50	3.75	3.38	3.21	3.00	2.70
57F549	399711JC	2	10	2-3	3.54	2.95	2.66	2.53	2.36	2.12
57F551	399713JC	5	10	2-6	5.53	4.62	4.15	3.97	3.69	3.40
57F553	399715JC	6	12	2-6	7.57	6.30	5.67	5.42	5.03	4.66
57F555	399717JC	3	15	2-3	4.50	3.75	3.38	3.21	3.00	2.70
57F557	399719JC	3	18	2	4.50	3.75	3.38	3.21	3.00	2.70

PHENOLIC INSULATION SWITCHES

Series K. 50 Hr. Salt Spray finish. Meet MIL-S-3786. Single ball 30° indexing. Frame dim. 1¹⁷⁄₃₂H.x1¹³⁄₃₂" W; 1⁹⁄₁₆ over clips; ¼" dia. x 2⅜" L., shaft breakoff points @ ¾", 1⅛", 1⅞" from mtg. surf., bushing ⅜"-32 thread, ⅜" L. nut & washer on all switches. Sect. spacing, 1st spacer ⅜", 2nd, 3rd, 4th ½" ea. approx. 1800 V, peak breakdown voltage 1 amp. @ 28 VDC, .5 amp @ 115 VAC. Av. shpg. wt. 4 oz.

SHORTING TYPE "K"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F648	399418K	1	1	2-12	1.86	1.55	1.40	1.33	1.24	1.12
57F650	399420K	2	2	2-12	2.67	2.28	2.05	1.95	1.78	1.60
57F656	399426K	1	2	2-6	1.86	1.55	1.40	1.33	1.24	1.12
57F658	399428K	2	4	2-6	2.67	2.28	2.05	1.95	1.78	1.60
57F660	399430K	3	6	2-6	3.36	2.80	2.52	2.39	2.24	2.02
57F652	399422K	3	3	2-12	3.36	2.80	2.52	2.39	2.24	2.02
57F654	399424K	4	4	2-12	3.96	3.30	2.97	2.82	2.64	2.38
57F662	399432K	1	6	2	1.86	1.55	1.40	1.33	1.24	1.12
57F664	399434K	2	12	2	2.67	2.28	2.05	1.95	1.78	1.60
57F859	399490K	1	3	2-5	1.86	1.55	1.40	1.33	1.24	1.12
57F861	399492K	2	6	2-5	3.30	2.75	2.52	2.38	2.20	2.04
57F863	399494K	3	9	2-5	3.96	3.30	3.04	2.84	2.64	2.44
57F562	399732K	5	5	2-11	4.68	3.90	3.51	3.35	3.12	2.89
57F564	399734K	2	6	2-3	2.67	2.28	2.05	1.95	1.78	1.60
57F566	399736K	6	6	2-11	5.40	4.50	4.05	3.87	3.60	3.33
57F568	399738K	4	8	2-5	3.96	3.30	2.97	2.82	2.64	2.38
57F570	399740K	3	12	2	3.36	2.80	2.52	2.39	2.24	2.02
57F572	399742K	5	10	2-5	4.68	3.90	3.52	3.35	3.12	2.89
57F574	399744K	6	12	2-5	5.40	4.50	4.05	3.87	3.60	3.33

NON-SHORTING TYPE "K"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F649	399419K	1	1	2-12	1.86	1.55	1.40	1.33	1.24	1.12
57F651	399421K	2	2	2-12	2.67	2.28	2.05	1.95	1.78	1.60
57F653	399423K	3	3	2-12	3.36	2.80	2.52	2.39	2.24	2.02
57F655	399425K	4	4	2-12	3.96	3.30	2.97	2.82	2.64	2.38
57F657	399427K	1	2	2-6	1.86	1.55	1.40	1.33	1.24	1.12
57F659	399429K	2	4	2-6	2.67	2.28	2.05	1.95	1.78	1.60
57F661	399431K	3	6	2-6	3.36	2.80	2.52	2.39	2.24	2.02
57F663	399433K	1	6	2	1.86	1.55	1.40	1.33	1.24	1.12
57F665	399435K	2	12	2	2.67	2.28	2.05	1.95	1.78	1.60
57F860	399491K	1	3	2-5	1.86	1.55	1.40	1.33	1.24	1.12
57F862	399493K	2	6	2-5	3.30	2.75	2.52	2.38	2.20	2.04
57F864	399495K	3	9	2-5	3.96	3.30	3.04	2.84	2.64	2.44
57F563	399733K	5	5	2-11	4.68	3.90	3.51	3.35	3.12	2.89
57F565	399735K	2	6	2-3	2.67	2.28	2.05	1.95	1.78	1.60
57F567	399737K	6	6	2-11	5.40	4.50	4.05	3.87	3.60	3.33
57F569	399739K	4	8	2-5	3.96	3.30	2.97	2.82	2.64	2.38
57F571	399741K	3	12	2	3.36	2.80	2.52	2.39	2.24	2.02
57F573	399743K	5	10	2-5	4.68	3.90	3.52	3.35	3.12	2.89
57F575	399745K	6	12	2-5	5.40	4.50	4.05	3.87	3.60	3.33

WRITE OR CALL NEWARK FOR PRICES ON LARGER QUANTITIES

Oak Rotary Switches, Assemblies

PHENOLIC INSULATION SWITCHES

Series H. Dual ball, 30° indexing. Meet MIL-S-3786, 50-Hr. salt spray finishes. Frame dim. 1⅞"H. x 1 19/32"W., 1 13/16" over clips. ¼" dia. x 2⅜"L., shaft break-off points @ ¾", 1⅛", 1⅞" from mounting surf. Adj. stop. Sect. spacing 1st spacer ½"; 2nd 1"; 3rd 1" Approx. 2500V peak break-down voltage. 1 amp @ 28 VDC, .5 amp @ 115 VAC. Av. shpg. wt. 4 oz.

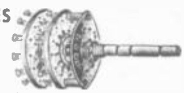
SHORTING TYPES "H"

Stk. No.	Type	Sec.	Poles Tot.	Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F684	399512H	1	1	2-11	2.64	2.20	1.98	1.88	1.76	1.58
57F686	399514H	2	2	2-11	3.18	2.65	2.39	2.27	2.12	1.91
57F692	399520H	2	4	2-5	3.18	2.65	2.39	2.27	2.12	1.91
57F688	399516H	3	3	2-11	4.05	3.88	3.49	3.32	2.70	2.43
57F690	399518H	1	2	2-5	2.64	2.20	1.98	1.88	1.76	1.58
57F694	399522H	3	6	2-5	4.05	3.88	3.49	3.32	2.70	2.43

NON-SHORTING TYPES "H"

Stk. No.	Type	Sec.	Poles Tot.	Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F685	399513H	1	1	2-11	2.64	2.20	1.98	1.88	1.76	1.58
57F687	399515H	2	2	2-11	3.18	2.65	2.39	2.27	2.12	1.91
57F689	399517H	3	3	2-11	4.05	3.88	3.49	3.32	2.70	2.43
57F691	399519H	1	2	2-5	2.64	2.20	1.98	1.88	1.76	1.58
57F693	399521H	2	4	2-5	3.18	2.65	2.39	2.27	2.12	1.91
57F695	399523H	3	6	2-5	4.05	3.88	3.49	3.32	2.70	2.43
57F597	399529H	4	4	2-11	4.71	3.93	3.54	3.36	3.14	2.83
57F865	399525H	1	4	2	2.62	2.19	1.97	1.87	1.75	1.57
57F866	399527H	2	6	2-3	3.18	2.65	2.39	2.28	2.12	1.92

STEATITE CERAMIC INSULATION SWITCHES



Series HC. 50-Hr. salt spray finishes. Meet MIL-S-3786 Dual ball. 30° indexing. Frame dim. 1⅞"H.x1⅝"W. 1⅞" over clips ¼" dia.x2⅜"L. shaft break-off points @ ¾, 1⅛, 1⅞, from mounting surf. Adj. stop; Sect. spacing 1st spacer ½"; 2nd 1 5/16"; 3rd 1". Approx. 2500V. peak break-down voltage, 1 amp @ 28 VDC, .5 amp 115 VAC. Av. Wt., 5 oz.

SHORTING TYPES "HC"

Stk. No.	Type	Sec.	Poles Tot.	Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F696	399563HC	1	1	2-11	2.94	2.45	2.21	2.10	1.96	1.76
57F698	399564HC	2	2	2-11	4.17	3.48	3.13	2.97	2.78	2.50
57F700	399566HC	3	3	2-11	5.37	4.48	4.03	3.83	3.58	3.22
57F702	399568HC	1	2	2-5	2.94	2.45	2.21	2.10	1.96	1.76
57F704	399570HC	2	4	2-5	4.17	3.48	3.13	2.97	2.78	2.50
57F706	399572HC	3	6	2-5	5.37	4.48	4.03	3.83	3.58	3.22
57F540	399574HC	1	1	2-6	2.94	2.45	2.21	2.10	1.96	1.76

NON-SHORTING TYPES "HC"

Stk. No.	Type	Sec.	Poles Tot.	Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F697	399563HC	1	1	2-11	2.94	2.45	2.21	2.10	1.96	1.76
57F699	399565HC	2	2	2-11	4.17	3.48	3.13	2.97	2.78	2.50
57F701	399567HC	3	3	2-11	5.37	4.48	4.03	3.83	3.58	3.22
57F703	399569HC	1	2	2-5	2.94	2.45	2.21	2.10	1.96	1.76
57F705	399571HC	2	4	2-5	4.17	3.48	3.13	2.97	2.78	2.50
57F707	399573HC	3	6	2-5	5.37	4.48	4.03	3.83	3.58	3.22

MINIATURE SILICONE SWITCHES

Series A. Dual ball, 30° indexing finishes. Meet MIL-S-3786, 200-hr. salt spray finishes. Frame dim. 1"Hx1 5/16"W; 1 5/16" over clips; ¼" dia. x 2⅜"L shaft break-off points @ ¾", 1⅛", 1⅞" from mtg. surf., Adj. stop. Sect. spacing, 1st spacer 17/64", 2nd 5/32", 3rd 5/32" approx. 750V peak breakdown voltage 1 amp @ 28 VDC, 5 amp @ 115 VAC. Av. shpg. wt. 4 oz.

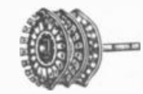
SHORTING—TYPE "A"

Stock No.	Type	Sec.	Poles Tot.	Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F600	399216A	1	1	2-12	5.40	4.50	4.05	3.85	3.60	3.24
57F602	399218A	2	2	2-12	6.90	5.75	5.18	4.92	4.60	4.14
57F604	399220A	3	3	2-12	8.70	7.25	6.53	6.20	5.80	5.22
57F606	399222A	1	2	2-6	5.40	4.50	4.05	3.85	3.60	3.24
57F608	399224A	2	4	2-6	6.90	5.75	5.18	4.92	4.60	4.14
57F610	399226A	3	6	2-6	8.70	7.25	6.53	6.20	5.80	5.22
57F612	399234A	1	4	2	5.40	4.50	4.05	3.85	3.60	3.24
57F614	399236A	2	8	2	6.90	5.75	5.18	4.92	4.60	4.14

NON-SHORTING TYPE "A"

Stock No.	Type	Sec.	Poles Tot.	Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F601	399217A	1	1	2-12	5.40	4.50	4.05	3.85	3.60	3.24
57F603	399219A	2	2	2-12	6.90	5.75	5.18	4.92	4.60	4.14
57F605	399221A	3	3	2-12	8.70	7.25	6.53	6.20	5.80	5.22
57F607	399223A	1	2	2-6	5.40	4.50	4.05	3.85	3.60	3.24
57F609	399225A	2	4	2-6	6.90	5.75	5.18	4.92	4.60	4.14
57F611	399227A	3	6	2-6	8.70	7.25	6.53	6.20	5.80	5.22
57F613	399235A	1	4	2	5.40	4.50	4.05	3.85	3.60	3.24
57F615	399237A	2	8	2	6.90	5.75	5.18	4.92	4.60	4.14

PHENOLIC INSULATED SWITCHES



Series L. Single ball, 20° indexing. 50-hr. salt spray finishes. Meet MIL-S-3786 Frame dim. 2 5/16"H.x1 31/32"W. 2⅛ over clips. ¼" dia.x2 3/8"L., shaft, break-off points @ ¾, 1⅛, 1⅞, from mounting surf. Adj. stop 2-17 pos. adjustable. Sect. spacing all ½". Approx. 1000V, peak break-down voltage 1 amp @ 28 VDC, 5 amp @ 115 VAC. Av. shpg. wt., 4 oz.

SHORTING TYPES "L"

Stk. No.	Type	Sec.	Poles Tot.	Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F708	399608L	1	1	2-17	2.34	1.95	1.76	1.67	1.56	1.40
57F710	399610L	2	2	2-17	3.36	2.80	2.52	2.39	2.24	2.02
57F712	399612L	3	3	2-17	4.38	3.65	3.29	3.13	2.92	2.63
57F714	399614L	4	4	2-17	4.95	4.03	3.63	3.45	3.30	2.97

NON-SHORTING TYPES "L"

Stk. No.	Type	Sec.	Poles Tot.	Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F709	399609L	1	1	2-17	2.34	1.95	1.76	1.67	1.56	1.40
57F711	399611L	2	2	2-17	3.36	2.80	2.52	2.39	2.24	2.02
57F713	399613L	3	3	2-17	4.38	3.65	3.29	3.13	2.92	2.63
57F715	399615L	4	4	2-17	4.95	4.03	3.63	3.45	3.30	2.97

SHORTING TYPE "MF" SERIES

50 hour salt spray. MIL-P-3115, MIL-P-997. Ball type indexing, one fixed and adjustable stop per switch. Break one amp at 28 VDC or 0.5 amp at 110 VAC, resistive. Carry 5 amps.

Stk. No.	Type	Sec.	Poles tot.	pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F716	399658-MF	1	1	2-23	2.52	2.10	1.89	1.80	1.68	1.51
57F718	399660-MF	2	2	2-23	3.60	3.00	2.70	2.57	2.40	2.16
57F720	399662 MF	3	3	2-23	4.71	3.93	3.54	3.36	3.14	2.83
57F722	399664-MF	4	4	2-23	5.34	4.45	4.01	3.81	3.56	3.20

NON SHORTING TYPE "MF" SERIES

Stk. No.	Type	Sec.	Poles tot.	pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F717	399659-MF	1	1	2-23	2.52	2.10	1.89	1.80	1.68	1.51
57F719	399661-MF	2	2	2-23	3.60	3.00	2.70	2.57	2.40	2.16
57F721	399663-MF	3	3	2-23	4.71	3.93	3.54	3.36	3.14	2.83
57F723	399665-MF	4	4	2-23	5.34	4.45	4.01	3.81	3.56	3.20

SPECIAL FUNCTIONS SECTIONS

Same dimensions and materials as complete switches. Wt. 2 oz.

10 Posit. Consecutive Shorting Function—Type A

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-499
57F782	399056A	2.10	1.75	1.58	1.50	1.40	1.26

12 Continuous Positions
Binary Coded Decimal Output Switch—Type A, Non-Shorting

57F783	399061A	2.10	1.75	1.58	1.50	1.40	1.26

SPECIAL FUNCTIONS SECTIONS

12 Continuous Positions
Resistor Decade—Type A, Non-Shorting

57F784	399057A	2.10	1.75	1.58	1.50	1.40	1.26

12 Continuous Positions
Capacitor Decade—Type A, Non-Shorting

57F785	399059A	2.10	1.75	1.58	1.50	1.40	1.26

ADD-ON SECTIONS — SHORTING

Suffix letter indicates Oak type; see descriptions, this and preceding page. 1 pole, 2-11 positions, except (*) 2-17, (†) 2-23.

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-499
57F786	399058A	2.10	1.75	1.58	1.50	1.40	1.26
57F787	399060F	1.56	1.30	1.17	1.11	1.04	.94
57F788	399062FC	2.10	1.75	1.58	1.50	1.40	1.26
57F789	399064K	1.35	1.13	1.02	.97	.90	.81
57F790	399066JC	1.86	1.55	1.40	1.33	1.24	1.12
57F791	399068F	1.65	1.38	1.24	1.18	1.10	.99
57F792	399078HC	2.10	1.75	1.58	1.50	1.40	1.26
57F793	399080L*	1.71	1.43	1.29	1.23	1.14	1.03
57F794	399082MF†	1.80	1.50	1.35	1.28	1.20	1.08

CONSECUTIVE SHORTING FUNCTION TYPES "JC," & "K"

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-499
57F854	399438JC	1.26	1.05	.95	.90	.84	.76
57F852	399252K	.90	.75	.68	.65	.60	.54

OPPOSITE ROTATION TYPES "JC" & "K"

Stk. No.	Type	1-4	4-9	10-24	25-49	50-99	100-499
58F853	399436JC	1.26	1.05	.95	.90	.84	.76
57F851	399250K	.90	.75	.68	.65	.60	.54

Write Or Call For Prices On Larger Quantities.

Oak Switches

200 HOUR SALT SPRAY SWITCHES

All switches are OEM preferred types. These switches have silver alloy contacts, with .000030" of an inch thick gold plating. All frame materials are stainless steel or nickel plated brass. Stainless parts are passivated. Insulation—Silicone Fiberglass: GSC 4 KEL-F; Per MIL-P-997. Switches feature ball-type indexing; one fixed & one adjustable stop per switch. Shafts are cadmium plated steel (2⅜" long); grooved for breakoff at ¾", 1⅛", and 1⅞". Double wiping self cleaning contacts are used throughout. Break 1 amp at 28 VDC or 0.5 amp at 110 VAC, resistive. Carrier 5 amps. ⅜-32 Mounting nuts & lock washes supplied.

SHORTING

Stk. No.	Type	Sec	Poles tot.	Poles pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F724	399240A	1	1	2-12	5.70	4.75	4.28	4.07	3.80	3.42
57F726	399338F	1	1	2-11	3.24	2.70	2.43	2.31	2.16	1.94
57F728	399382FC	1	1	2-11	3.54	2.95	2.66	2.53	2.36	2.12
57F580	399724JC	2	1	2-12	4.90	4.10	3.68	3.52	3.27	3.03

NON SHORTING

Stk. No.	Type	Sec	Poles tot.	Poles pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F725	399241A	1	1	2-12	5.70	4.75	4.28	4.07	3.80	3.42
57F727	399339F	1	1	2-11	3.24	2.70	2.43	2.31	2.16	1.94
57F729	399383FC	1	1	2-11	3.54	2.95	2.66	2.53	2.36	2.12
57F581	399725JC	2	1	2-12	4.90	4.10	3.68	3.52	3.27	3.03

STANDARD ROTATION CONSECUTIVE SHORTING TYPES JC & K

9 active contacts. All open in full CCW position & progressively picked-up & shorted to common contact.

Stk. No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F559	399722JC	1	1	2-10	2.16	1.80	1.62	1.54	1.44	1.30
57F578	399748K	1	1	2-10	1.86	1.55	1.40	1.33	1.24	1.12

OPPOSITE ROTATION CONSECUTIVE SHORTING TYPES JC & K

9 active contacts, all shorted to common contact CCW position, & progressively opened and dropped.

57F558	399720JC	1	1	2-10	2.16	1.80	1.62	1.54	1.44	1.30
57F576	399746K	1	1	2-10	1.86	1.55	1.40	1.33	1.24	1.12

60° INDEXING SWITCHES (PHENOLIC, NON-SHORTING)

57F577	399747K	1	1	2-6	1.86	1.55	1.40	1.33	1.24	1.12
57F579	399749K	2	1	2-6	2.64	2.20	1.98	1.88	1.76	1.58

60° HAM SWITCHES (CERAMIC, NON-SHORTING)

57F845	399729-JC	1	1	2-6	2.16	1.80	1.62	1.54	1.44	1.30
57F846	399731-JC	2	2	2-6	3.05	2.58	2.33	2.22	2.07	1.87
57F541	399581HC	3	3	2-6	4.37	3.65	3.29	3.13	2.93	2.64

130 PUSHBUTTON SWITCH

4 PDT per plunger. 2 to 12 buttons. 8 to 48 poles. Mechanism permits modification to momentary operations. ⅝ and ¾" button spacing. Buttons interlocked by common latch bar. Push rods extend 2" from mounting surface. Double wiping with gold-plate on the contacts. Rated, 1 amp at 28 VDC operation; 0.5 amp at 110 VAC. Carries 5 A. Insulation: Phenolic punching stock, conforming to MIL-P-3115 grade PBG. Slider insulators: PBE-P.

¾" BUTTON SHORTING

Stk. No.	Type	No. of Buttons	Tot. No. Poles	1-9	10-24	25-49	50-99	100-499
57F824	399850-130	2	8	4.86	4.05	3.24	2.75	2.11
57F827	399854-130	4	16	8.16	6.80	5.44	4.62	3.54
57F830	399858-130	6	24	11.70	9.75	7.80	6.63	5.07
57F833	399862-130	8	32	15.09	12.58	10.06	8.55	6.54
57F836	399866-130	10	40	18.87	15.73	12.58	10.69	8.18
57F839	399870-130	12	48	22.68	18.90	15.12	12.85	9.82

¾" BUTTON NON-SHORTING

Stk. No.	Type	No. of Buttons	Tot. No. Poles	1-9	10-24	25-49	50-99	100-499
57F825	399851-130	2	8	4.86	4.05	3.24	2.75	2.11
57F826	399853-130	3	12	6.54	5.45	4.36	3.71	2.83
57F828	399855-130	4	16	8.16	6.80	5.44	4.62	3.54
57F829	399857-130	5	20	9.99	8.33	6.66	5.66	4.33
57F831	399859-130	6	24	11.70	9.75	7.80	6.63	5.07
57F832	399861-130	7	28	13.41	11.18	8.94	7.60	5.81
57F834	399863-130	8	32	15.09	12.58	10.06	8.55	6.54
57F835	399865-130	9	36	17.16	14.30	11.44	9.72	7.44
57F837	399667-130	10	40	18.87	15.73	12.58	10.69	8.16
57F838	399869-130	11	44	21.15	17.63	14.10	11.99	9.16
57F840	399871-130	12	48	22.68	18.90	15.12	12.85	9.82

⅝" BUTTON SHORTING

Stk. No.	Type	No. of Btns.	Tot. No. Poles	1-9	10-24	25-49	50-99	100-499
57F867	399872-130	2	8	4.86	4.05	3.24	2.75	2.11
57F870	399876-130	4	16	8.16	6.80	5.44	4.62	3.54
57F873	399880-130	6	24	11.70	9.75	7.80	6.63	5.07
57F876	399884-130	8	32	15.09	12.58	10.06	8.55	6.54
57F879	399888-130	10	40	18.87	15.73	12.58	10.69	8.18
57F882	399892-130	12	48	22.68	18.90	15.12	12.85	9.82

⅝" BUTTON NON-SHORTING

Stk. No.	Type	No. of Btns.	Tot. No. Poles	1-9	10-24	25-49	50-99	100-499
57F868	399873-130	2	8	4.86	4.05	3.24	2.75	2.11
57F869	399875-130	3	12	6.54	5.45	4.36	3.71	2.83
57F871	399877-130	4	16	8.16	6.80	5.44	4.62	3.54
57F872	399879-130	5	20	9.99	8.33	6.66	5.66	4.33
57F874	399881-130	6	24	11.70	9.75	7.80	6.63	5.07
57F875	399883-130	7	28	13.41	11.18	8.94	7.60	5.81
57F877	399885-130	8	32	15.09	12.58	10.06	8.55	6.54
57F878	399887-130	9	36	17.16	14.30	11.44	9.72	7.44
57F880	399889-130	10	40	18.87	15.73	12.58	10.69	8.18
57F881	399891-130	11	44	21.15	17.63	14.10	11.99	9.16
57F883	399893-130	12	48	22.68	18.90	15.12	12.85	9.82

DELUXE BUTTONS FOR 130 SWITCH

Lighting accomplished by flooding back of panel with light. Translucent buttons light up when depressed.

57F841. Type 399930-001. NET EACH .18

TYPE 200 SERIES SLIDE SWITCHES

SPST-DPST-SPDT-DPDT. 1 & 2 poles. 2-6 contacts. 30% narrower than ordinary slide switches; gold-plated, Double-Wiping contacts which are self-cleaning. All slide switches rated 3 amps at 125 VAC operation. All non-shorting.

Stk. No.	Type	Funct.	Poles	Cont.	1-99	100-499	500-999
57F816	399275-275	SPST	1	2	.16	.15	.144
57F817	399276-276	DPST	2	4	.21	.19	.16
57F818	399277-277	SPDT	1	3	.16	.15	.144
57F819	399278-278	DPDT	2	6	.21	.19	.16

SWITCH HARDWARE

Listed for the convenience of design engineers to assist in assembling switches. Sets include hardware to build 5 1-section, spacers, strut screws, washers, nuts, sockwashers, and stopwashers.

Stk. No.	Part No.	For Types	1-4	5-9	10-24	25-49	50-99	100-499
57F842	399960	A	6.24	5.59	5.20	4.68	4.16	3.62
57F843	399961	F, FC, JC, K	14.40	12.90	12.00	10.80	9.60	8.70
57F844	399962	H, HC, L, MF	13.44	12.04	11.20	10.08	8.96	8.12

175 PUSHBUTTON SWITCH

Designed for circuit applications requiring a single pushbutton switch with low contact resistance. Shorting & non-shorting. 2 PDT: 6 contacts. 4 PDT: 12 contacts. Push-push Latching.

Stk. No.	Type	Funct.	Cont.	1-4	5-9	10-24	25-49	50-99	100-499
57F820	399810-175*	2PDT	6	2.63	2.18	1.91	1.84	1.72	1.13
57F822	399812-175*	4PDT	12	3.01	2.49	2.19	2.11	1.98	1.29
57F821	399811-175**	2PDT	6	2.63	2.18	1.91	1.84	1.72	1.13
57F823	399813-175**	4PDT	12	3.01	2.49	2.19	2.11	1.98	1.29

TYPE 189 PUSH BUTTON SWITCHES

2 poles, 3 positions. Double wiping contacts. Single sect. Gold plated contacts.

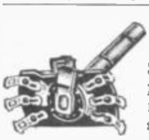
Stk. No.	Type	Poles	Pos.	Index.	1-4	5-9	10-24	25-49	50-99	100-499
57F801	399160-189*	2	3	Positive	1.31	1.10	1.00	.95	.89	.85
57F802	399161-189**	2	3	Positive	1.31	1.10	1.00	.95	.89	.85

TYPE 184 LEVER SWITCHES

5 & 6 poles, 2 & 3 positionos. Molded stator adapts to miniature circuitry. Features Double-Wiping gold-plated contacts.

57F803	399162-184*	5	3	Positive	4.94	4.09	3.60	3.45	2.82	1.83
57F805	399164-184*	6	2	Positive	4.90	4.06	3.57	3.43	3.22	2.10
57F804	399163-184**	5	3	Positive	4.94	4.09	3.60	3.45	2.82	1.83
57F806	399165-184**	6	2	Positive	4.90	4.06	3.57	3.43	3.22	2.10

TYPE 20 SERIES ROTARY SWITCHES



Shorting and non-shorting. 1 and 2 poles, 2 to 4 positions. These economical switches provide more flexibility and adaptability to circuit design. Ideally suited for all light duty circuit switching such as radio-phono, stereo channel reversing, meters, speakers and related equipment. Shaft is 2⅜" long. Grooved for break-off at ¾", 1⅛" and 1⅞" from the mounting surface. Long life and quality construction assured.

57F809	399190-23*	1	2	Positive	1.13	.95	.86	.82	.77	.70
57F810	399192-27*	1	3	Positive	1.13	.95	.86	.82	.77	.70
57F813	399196-29*	1	4	Positive	1.13	.95	.86	.82	.77	.70
57F811	399194-22*	2	2	Positive	1.13	.95	.86	.82	.77	.70
57F815	399198-28*	2	3	Positive	1.13	.95	.86	.82	.77	.70
57F812	399195-29**	1	4	Positive	1.13	.95	.86	.82	.77	.70
57F814	399197-22**	2	2	Spr. Ret	1.13	.95	.86	.82	.77	.70
57F807	399188-28*	2	3	Spr. Ret	2.04	1.72	1.55	1.48	1.39	1.26
57F808	399189-28**	2	3	To Cntr.	2.04	1.72	1.55	1.48	1.39	1.26

*Shorting **Non-shorting

WRITE OR CALL FOR PRICES ON LARGER QUANTITIES

SHAFT & INDEX ASSEMBLIES

Complete hardware consisting of mounting nut and lockwasher, stop washer, assembly tie rods and spacers, washers, nuts. Shpg. wt., 3 oz.

Stk. No.	Type	Sec.	DIM-K	Pole Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F776	399029A	A	6 3/64	2-12	2.25	1.88	1.69	1.60	1.50	1.35
57F795	399022A	A	4 19/32	2-12	3.00	2.50	2.25	2.14	2.00	1.80
57F777	399039F-FC	F	1 1/4	2-12	1.56	1.30	1.17	1.11	1.04	.94
57F796	399021F-FC	F	6 1/8	2-12	2.49	2.08	1.88	1.79	1.66	1.50
57F778	399043K	K	2 17/32	2-12	1.44	1.20	1.08	1.03	.96	.86
57F797	399024K	K	6 1/8	2-12	2.37	1.98	1.78	1.69	1.58	1.42
57F779	399785MF	H	3 3/32	2-12	1.71	1.43	1.29	1.23	1.14	1.03
57F798	399023H	H	6 1/8	2-12	2.64	2.20	1.98	1.88	1.76	1.59
57F780	399789L	L	2 19/32	2-18	1.80	1.50	1.35	1.28	1.20	1.08
57F799	399025L	L	6 1/8	2-18	2.73	2.28	2.06	1.96	1.82	1.64
57F781	399793MF	MF	2 17/32	2-24	1.95	1.63	1.47	1.40	1.30	1.17
57F800	399026MF	MF	6 1/8	2-24	2.88	2.40	2.16	2.06	1.92	1.73

SECTIONS

50 hour salt spray. Steel and brass parts are cadmium plated and chromate dipped 200 hour salt spray. Nickel plated brass and stainless steel. (+) Notched blade sections.

NON-SHORTING "A"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F731	399033A	A	1	2-12	3.09	2.58	2.32	2.20	2.06	1.85
57F735	399037A	A	4	2	3.09	2.58	2.32	2.20	2.06	1.85
57F733	339035A	A	2	2-6	3.09	2.58	2.32	2.20	2.06	1.85

NON-SHORTING "F"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F737	399071F	F	1	2-11	1.11	.93	.84	.80	.74	.67
57F739	399073F	F	2	2-5	1.11	.93	.84	.80	.74	.67
57F741	399075F	F	3	2-3	1.11	.93	.84	.80	.74	.67
57F743	399077F	F	4	2	1.11	.93	.84	.80	.74	.67

NON-SHORTING "FC"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F745	399091FC	FC	1	2-11	1.41	1.18	1.06	1.01	.94	.85
57F747	399093FC	FC	2	2-5	1.41	1.18	1.06	1.01	.94	.85
57F749	399095FC	FC	3	2-3	1.41	1.18	1.06	1.01	.94	.85
57F751	399097FC	FC	4	2	1.41	1.18	1.06	1.01	.94	.85

NON-SHORTING "K"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F753	399131K	K	1	2-12	.90	.75	.68	.65	.60	.59
57F755	399133K	K	2	2-6	.90	.75	.68	.65	.60	.59
57F757	399135K	K	6	2	.90	.75	.68	.65	.60	.59
57F583	339243-K	K	1	2-11	.90	.75	.68	.65	.60	.59
57F585	399245-K	K	2	2-5	.90	.75	.68	.65	.60	.59
57F587	399247-K	K	3	2-3	.90	.75	.68	.65	.60	.59
57F885	399255-K	K	3	2-5	.90	.75	.68	.65	.60	.56
57F589	399249-K	K	4	2	.90	.75	.68	.65	.60	.59

NON-SHORTING "JC"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F759	399151JC	JC	1	2-12	1.26	1.05	.95	.90	.84	.76
57F761	399153JC	JC	2	2-6	1.26	1.05	.95	.90	.84	.76
57F591	399445-JC	JC	3	2-5	1.26	1.05	.95	.90	.84	.76
57F593	399447-JC	JC	5	2-3	1.26	1.05	.95	.90	.84	.76
57F763	399155-JC	JC	6	2	1.26	1.05	.95	.90	.84	.76

NON-SHORTING "H"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F765	399751H	H	1	2-11	1.11	.93	.84	.80	.74	.67
57F767	399753H	H	2	2-5	1.11	.93	.84	.80	.74	.67
57F594	399767H	H	3	2-3	1.11	.93	.84	.80	.74	.67
57F595	399769H	H	4	2	1.11	.93	.84	.80	.74	.67

NON-SHORTING "HC"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F769	399761HC	HC	1	2-11	1.41	1.18	1.06	1.01	.94	.84
57F771	399763HC	HC	2	2-5	1.41	1.18	1.06	1.01	.94	.84

NON-SHORTING "L"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F773	399173L	L	1	2-17	1.14	.95	.86	.82	.76	.69

NON-SHORTING "MF"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F775	399181MF	MF	1	2-23	1.14	.95	.86	.82	.76	.69

SHORTING "A"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F730	399032A	A	1	2-12	3.09	2.58	2.32	2.20	2.06	1.85
57F732	399034A	A	2	2-16	3.09	2.58	2.32	2.20	2.06	1.85
57F734	399036A	A	4	2	3.09	2.58	2.32	2.20	2.06	1.85

SHORTING "F"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F736	399070F	F	1	2-11	1.11	.93	.84	.80	.74	.67
57F738	399072F	F	2	2-5	1.11	.93	.84	.80	.74	.67
57F740	399074-F	F	3	2-3	1.11	.93	.84	.80	.74	.67
57F742	399076-F	F	4	2	1.11	.93	.84	.80	.74	.67

SHORTING "FC"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F744	399090FC	FC	1	2-11	1.41	1.18	1.06	1.01	.94	.85
57F746	399092FC	FC	2	2-5	1.41	1.18	1.06	1.01	.94	.85
57F748	399094-FC	FC	3	2-3	1.41	1.18	1.06	1.01	.94	.85
57F750	399096-FC	FC	4	2	1.41	1.18	1.06	1.01	.94	.85

SHORTING "K"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F752	399130K	K	1	2-12	.90	.75	.68	.65	.60	.59
57F754	399132K	K	2	2-6	.90	.75	.68	.65	.60	.59
57F756	399134K	K	6	2	.90	.75	.68	.65	.60	.59
57F582	399242-K	K	1	2-11	.90	.75	.68	.65	.60	.59
57F584	399244-K	K	2	2-5	.90	.75	.68	.65	.60	.59
57F586	399246-K	K	3	2-3	.90	.75	.68	.65	.60	.59
57F884	399254-K	K	3	2-5	.90	.75	.69	.65	.60	.56
57F588	399248-K	K	4	2	.90	.75	.68	.65	.60	.59

SHORTING "JC"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F758	399150JC	JC	1	2-12	1.26	1.05	.95	.90	.84	.76
57F760	399152-JC	JC	2	2-6	1.26	1.05	.95	.90	.84	.76
57F590	399444-JC	JC	3	2-5	1.26	1.05	.95	.90	.84	.76
57F592	399446-JC	JC	5	2-3	1.26	1.05	.95	.90	.84	.76
57F762	399154-JC	JC	6	2	1.26	1.05	.95	.90	.84	.76

SHORTING "H"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F764	399750H	H	1	2-11	1.11	.93	.84	.80	.74	.67
57F766	399752H	H	2	2-5	1.11	.93	.84	.80	.74	.67

SHORTING "HC"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F768	399760HC	HC	1	2-11	1.41	1.18	1.06	1.01	.94	.84
57F770	399762HC	HC	2	2-5	1.41	1.18	1.06	1.01	.94	.84
57F596	399764-HC	HC	2	2-6	1.41	1.18	1.06	1.01	.94	.84

SHORTING "L"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F772	399172L	L	1	2-17	1.14	.95	.86	.82	.76	.69

SHORTING "MF"

Stock No.	Type	Sec.	Poles Tot.	Poles Pos.	1-4	5-9	10-24	25-49	50-99	100-499
57F774	399180MF	MF	1	2-23	1.20	1.00	.90	.85	.80	.72

WRITE OR CALL FOR PRICES ON LARGER QUANTITIES

Centralab Switches

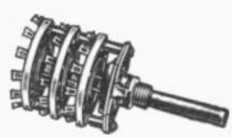
CENTRALAB

Laminated phenolic insulated rotary switches with low intercircuit capacitance. Bushing 3/8" L. cadmium-plated steel. Shaft 1/4" D. full round cadmium-plated steel, 2 1/4" L. from mtg. surface. Index angle pos. 30° except (*) 60°. 3/8" spacing between front plate and first section; 1/2" space between sections. Brass silver-plated clips and rotor contacts; other metal parts cadmium-plated steel. Make and break res. load; 5.5 amp. @ 6 VDC; 2.75 amp. @ 28 VDC; 230 MA @ 115 VAC; based on 10,000 cycles. Avg. initial res. 3 milliohms. Includes mtg. nut, lockwasher, and 1 1/4" blk. pointer knob. Shpg. wt., 3 oz. per section.

MINIATURE PHENOLIC SWITCHES

Shorting Stk. No.	Shorting PA Type	Non-Short. Stk. No.	Non-Short. PA Type	Tot. Pol.	No. Pos.	Sec.	1-4	5-9	10-24	25-49	50-99	100-249
22F800	1000	22F801	1001	1	2-11	1	1.98	1.65	1.49	1.42	1.32	1.19
22F802	1002	22F803	1003	2	2-5	1	1.98	1.65	1.49	1.42	1.32	1.19
22F804	1004	22F805	1005	2	2-11	2	2.82	2.35	2.12	2.01	1.88	1.69
22F806	1006	22F807	1007	3	2-3	1	1.98	1.65	1.49	1.42	1.32	1.19
22F808	1008	22F809	1009	3	2-11	3	3.57	2.98	2.68	2.55	2.38	2.14
22F810	1010	22F811	1011	4	2	1	1.98	1.65	1.49	1.42	1.32	1.19
22F812	1012	22F813	1013	4	2-5	2	2.82	2.35	2.12	2.01	1.88	1.69
22F814	1014	22F815	1015	4	2-11	4	4.17	3.48	3.13	2.97	2.78	2.50
22F816	1016	22F817	1017	5	2-11	5	4.92	4.10	3.69	3.51	3.28	2.95
22F818	1018	22F819	1019	6	2-3	2	2.82	2.35	2.12	2.01	1.88	1.69
22F820	1020	22F821	1021	6	2-5	3	3.57	2.98	2.68	2.55	2.38	2.14
22F822	1022	22F823	1023	6	2-11	6	5.55	4.63	4.17	3.96	3.70	3.33
22F824	1024	22F825	1025	8	2	2	2.82	2.35	2.12	2.01	1.88	1.69
22F826	1026	22F827	1027	8	2-5	4	4.17	3.48	3.13	2.97	2.78	2.50
22F828	1028	22F829	1029	12	2	3	3.57	2.98	2.68	2.55	2.38	2.14
22F830	1030	22F831	1031	10	2-5	5	4.92	4.10	3.69	3.51	3.28	2.95
22F832	1032	22F833	1033	12	2-5	6	5.55	4.63	4.17	3.96	3.70	3.33
22F590	1040	22F835	*1035	1	2-10	1	1.98	1.65	1.49	1.42	1.32	1.19
....	....	22F837	*1037	2	2-6	2	2.82	2.35	2.12	2.01	1.88	1.69

MINIATURE CERAMIC ROTARY SWITCHES



Offers maximum voltage flash-over with high-Q-low-loss steatite body. Bolted construction with single hole bushing mount. Bushing is 3/8" L. cad.-plated steel and locating lug on 7/16" R. 1/4" D. shaft 2 1/4" L. from mounting surface. Index angle is 30° except (*) 60° adjustable stop or continuous rotation. 3/8" spacing between front plate and first section; 1/2" spacing between sections. Voltage breakdown: 1500 VAC-RMS. Clips and rotor contacts are brass, silver plated. Make and break res. load: 5.5 amp. @ 6 VDC; 2.75 amp. @ 15 VDC; 1.5 amp. @ 28 VDC; 230 MA @ 115 VAC; based on 10,000 cycles life test. Avg. initial res. 3 milliohms. Rotational life 25,000 cycles min. Includes mtg. nut, lockwasher, and 1 1/4" blk. pointer knob. Shpg. wt., 3 oz. per section.

Shorting Stock No.	Shorting Type	Non-Short. Stock No.	Non-Short. Type	Tot. Pol.	Tot. Sec.	No. Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F600	PA2000	22F601	PA2001	1	1	2-12	2.61	2.18	1.96	1.86	1.74	1.57
22F602	PA2002	22F603	PA2003	2	1	2-6	2.61	2.18	1.96	1.86	1.74	1.57
22F604	PA2004	22F605	PA2005	2	2	2-12	3.72	3.10	2.79	2.65	2.48	2.23
22F606	PA2006	22F607	PA2007	3	1	2-5	2.61	2.18	1.96	1.86	1.74	1.57
22F608	PA2008	22F609	PA2009	3	3	2-12	4.74	3.95	3.56	3.38	3.16	2.84
22F610	PA2010	22F611	PA2011	4	2	2-6	3.72	3.10	2.79	2.65	2.48	2.23
22F612	PA2012	22F613	PA2013	4	4	2-12	5.70	4.75	4.28	4.07	3.80	3.42
22F614	PA2014	22F615	PA2015	5	1	2-3	2.61	2.18	1.96	1.86	1.74	1.57
22F616	PA2016	22F617	PA2017	5	5	2-12	6.81	5.68	5.11	4.85	4.54	4.09
22F618	PA2018	22F619	PA2019	6	1	2	2.61	2.18	1.96	1.86	1.74	1.57
22F620	PA2020	22F621	PA2021	6	2	2-5	3.72	3.10	2.79	2.65	2.48	2.23
22F622	PA2022	22F623	PA2023	6	3	2-6	4.74	3.95	3.56	3.38	3.16	2.84
22F624	PA2024	22F625	PA2025	6	6	2-12	7.92	6.60	5.94	5.64	5.28	4.75
22F626	PA2026	22F627	PA2027	8	4	2-6	5.70	4.75	4.28	4.07	3.80	3.42
22F628	PA2028	22F629	PA2029	9	3	2-5	4.74	3.95	3.56	3.38	3.16	2.84
22F630	PA2030	22F631	PA2031	10	2	2-3	3.72	3.10	2.79	2.65	2.48	2.23
22F632	PA2032	22F633	PA2033	10	5	2-6	6.81	5.68	5.11	4.85	4.54	4.09
22F634	PA2034	22F635	PA2035	12	2	2	3.72	3.10	2.79	2.65	2.48	2.23
22F636	PA2036	22F637	PA2037	12	6	2-6	7.92	6.60	5.94	5.64	5.28	4.75
22F638	PA2038	22F639	PA2039	15	3	2-3	5.37	4.48	4.03	3.83	3.58	3.22
22F640	PA2040	22F641	PA2041	18	3	2	5.37	4.48	4.03	3.83	3.58	3.22
22F642	PA2042	22F643	PA2043*	1	1	2-6	2.37	1.98	1.78	1.69	1.58	1.42
....	....	22F645	PA2045*	2	2	2-6	3.30	2.75	2.48	2.35	2.20	1.98

MINIATURE INDEX ASSEMBLIES

Use with PA sections. Includes all hardware and knob.

30° INDEXING

Stock No.	Type	For Switches	Shaft	1-4	5-9	10-24	25-49	50-99	100-249
22F650	PA-300	1 to 3 sec.	2"	1.50	1.25	1.13	1.07	1.00	.90
22F651	PA-301	4 to 6 sec.	4"	1.98	1.65	1.49	1.42	1.32	1.19
22F652	PA-302	7 to 9 sec.	6"	2.58	2.15	1.94	1.84	1.72	1.55

60° INDEXING

Stock No.	Type	For Switches	Shaft	1-4	5-9	10-24	25-49	50-99	100-249
22F654	PA-304	1 to 3 sec.	2"	1.50	1.25	1.13	1.07	1.00	.90
22F655	PA-305	4 to 6 sec.	4"	2.10	1.75	1.58	1.50	1.40	1.26
Intersections Shield									
22F680	P-320	....	....	.30	.25	.23	.22	.20	.18

SEPARATE MINIATURE CERAMIC SECTIONS

For use with index assemblies PA-300, PA-301, PA-302 for assembly of special units of your own design. Provide maximum flexibility. Sections are .105" thick ceramic (steatite). *Unused contacts one side of common connected and shorted out. †All unused contacts connected and shorted out. ‡Progressively shorting with clockwise rotation. **Progressive shorting with counterclockwise rotation. ††60° indexing, use with PA-304 and 305 indexes. Shipping weight, 3 oz.

Shorting Stk. No.	Shorting Type	Non-Short Stk. No.	Non-Short Type	Pls.	Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F660	PA-0	22F661	PA-1	1	2-12	1.32	1.10	.99	.94	.88	.79
22F662	PA-2	22F663	PA-3	2	2-6						
22F664	PA-4	22F665	PA-5	3	2-5						
22F666	PA-6	22F667	PA-7	5	2-3						
22F668	PA-8	22F669	PA-9	6	2						
22F670*	PA-10	22F679*	PA-19	1	2-5						
22F671†	PA-11	22F678†	PA-18	2	2-11						
22F672‡	PA-12	....	....	1	2-10						
22F673**	PA-13	....	....	1	2-10						
22F674††	PA-20	22F677††	PA-17	1	2-6						

SEPARATE MINIATURE PHENOLIC SECTIONS

For use with index assemblies PA-300, PA-301, PA-302 for assembly of special switches to meet your requirements. Meet rigorous commercial or military applications. Sections are of 1/16" thick phenolic. *All unused contacts one side of common connected and shorted out. †All unused contacts connected and shorted out. ‡Active contacts all shorted to common contact in full CCW progressively opened and dropped with CW rotation. PA-45 is 60° indexing section, use with PA-304, 305 indexes. Shpg. wt., 2 oz.

Shorting Stk. No.	Shorting Type	Non-Short. Stk. No.	Non-Short. Type	Total Poles	Index.	Positions	1-4	5-9	10-24	25-49	50-99	100-249
22F840	PA-30	22F841	PA-31	1	30°	2-11	.96	.80	.72	.68	.64	.58
22F842	PA-32	22F843	PA-33	2	30°	2-5						
22F844	PA-34	22F845	PA-35	3	30°	2-3						
22F846	PA-36	22F847	PA-37	4	30°	2						
22F848	PA-38*	22F849	PA-39*	1	30°	2-5						
22F850	PA-40†	22F851	PA-41†	2	30°	2-11						
22F852	PA-43‡	....		1	30°	2-10						
....	....	22F853	PA-45	1	60°	2-6						

PK-20-S SWITCH KIT

Contains components including rotors, contacts, retainers, clips, stators, eyelets, and stops, for 25 special four section switches. Enables you to build switches to individual specifications. Has a contact nibbling tool to construct a special switch with factory precision. With instructions.

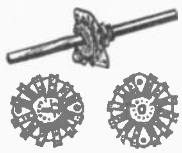
22F399 NET **200.00**

● *NEW PSA SUB-MINIATURE ROTARY SWITCHES*

Index mechanism with adjustable stops for extra switching arrangement and versatility. Bushing: 3/8". Index angle: positive 30°. Index stop strength: 10 inch pounds. Section spacing: 9/32" between front plate and clip surface of first section, 5/32" spacing between sections. Insulation: Diallyl Phthalate with high quality molded thermosetting plastic type SDG per MIL-M-14F. Resistive load; 0.550 amps at 28 volts VDC; 170 ma. at 115 VAC. Weight of each switch is less than one ounce.

Shorting Stk. No.	Shorting Type	Non-Short. Stk. No.	Non-Short. Type	Poles	Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F700	PSA-200	22F712	PSA-201	1	2-12	4.80	4.00	3.60	3.42	3.20	2.88
22F701	PSA-202	22F713	PSA-203	2	2-6	4.80	4.00	3.60	3.42	3.20	2.88
22F702	PSA-204	22F714	PSA-205	2	2-12	6.00	5.00	4.50	4.28	4.00	3.60
22F703	PSA-206	22F715	PSA-207	3	2-5	4.80	4.00	3.60	3.42	3.20	2.88
22F704	PSA-208	22F716	PSA-209	3	2-12	7.20	6.00	5.40	5.13	4.80	4.32
22F705	PSA-210	22F717	PSA-211	4	2-6	6.00	5.00	4.50	4.28	4.00	3.60
22F706	PSA-214	22F718	PSA-215	5	2-3	4.80	4.00	3.60	3.42	3.20	2.88
22F707	PSA-220	22F719	PSA-221	6	2-5	6.00	5.00	4.50	4.28	4.00	3.60
22F708	PSA-222	22F720	PSA-223	6	2-6	7.20	6.00	5.40	5.13	4.80	4.32
22F709	PSA-228	22F721	PSA-229	9	2-5	7.20	6.00	5.40	5.13	4.80	4.32
22F710	PSA-230	22F722	PSA-231	10	2-3	7.20	6.00	5.40	5.13	4.80	4.32
22F711	PSA-238	22F723	PSA-239	15	2-3	7.80	6.50	5.85	5.55	5.20	4.68

SEPARATE CERAMIC SECTIONS



Separate sections. Use with index assemblies P-270, P-271 and P-272, below to assemble switches with special characteristics. Special section PISD, one off position, nine progressively shorting positions. Sections NSD and PSD combine for resistance decade. Section QSD special for capacitance decade. Special sections GGD and FFD all unused contacts connected and shorted. Wt., 4 oz.

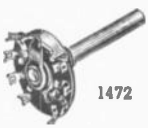
Shorting Stk. No.	Shorting Type	Non-Short. Stk. No.	Non-Short. Type	Poles	Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F482	TD	22F488	XD	1	2-6	1.35	1.13	1.02	.97	.90	.81
22F483	UD	22F489	YD	1	2-11						
22F484	RD	22F490	RRD	2	2-5						
22F485	SD	22F491	SSD	3	2-3						
22F486	VD	22F492	ZD	4	2						
22F495	PISD	22F538	FFD	See Text	...						
22F496	QSD	....	....	See Text	...						
22F493	NSD	....	....	See Text	...						
22F494	PSD	....	....	See Text	...						
22F487	GGD	....	....	See Text	...						

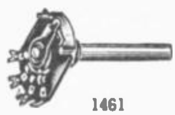
INDEX ASSEMBLIES

Use with above sections. Pos. 30° index, adjustable stop includes all hardware and knob. Shipping weight, 3 oz.

Stk. No.	Type	No. Sec.	1-4	5-9	10-24	25-49	50-99	100-249
22F540	P-270	1-3	1.65	1.38	1.24	1.18	1.10	.99
22F541	P-271	3-5	2.10	1.75	1.58	1.50	1.40	1.26
22F542	P-272	5-10	2.85	2.38	2.14	2.03	1.90	1.71

GENERAL PURPOSE SWITCHES

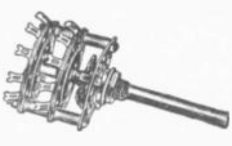

1472


1461

Die-cast, one piece frame except 1463, 1464, 1465, stamped steel frames. Make and break resistive load; 230 MA @ 115 VAC-RMS; 1.5 amps @ 28VDC. Pos. indexing exc. 1463 and 1464. Spring return. 1463. 1464 and 1472 non-shorting type, others shorting. Ship. wt., 5 oz.

Stk. No.	Type	Poles	Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F574	1460	1	2	1.08	.90	.81	.77	.72	.65
22F575	1461	1	3						
22F576	1462	2	2						
22F577	1463	1	2						
22F578	1464	2	2						
22F564	1465	1	4	1.80	1.50	1.35	1.28	1.20	1.08
22F585	1472	2	3	1.08	.90	.81	.77	.72	.65
22F586	1473	2	3	1.08	.90	.81	.77	.72	.65
22F587	1483	1	3	.75	.63	.57	.54	.50	.45
22F588	1484	1	3	.90	.75	.68	.65	.60	.54

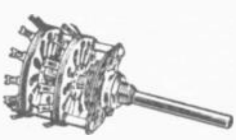
ROTARY SELECTOR SWITCHES — PHENOLIC INSULATION



Series 1400 offers compact design and quality construction. Laminated phenolic insulation. Mounting bushings 3/8 NEF-2A thread, 3/8" long. Shafts 1 7/8" from end of bushing. Positive 30° index with adjustable stop. Size and current rating same as 2500 series. Breakdown voltage 1000 VAC. includes pointer knob, nut and lockwasher. Shpg. wt., 4 oz per section.

Shorting Stk. No.	Shorting Type	Non-Short. Stk. No.	Non-Short. Type	Tot. Pls.	Tot. Sec.	No. Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F422	1400	22F438	1401	1	1	2-6	2.52	2.10	1.89	1.80	1.68	1.51
22F423	1402	22F439	1403	1	1	2-11						
22F424	1404	22F440	1405	2	1	2-5						
22F425	1406	22F441	1407	3	1	2-3						
22F426	1408	22F442	1409	4	1	2						
22F427	1410	22F443	1411	2	2	2-6	3.06	2.55	2.30	2.19	2.04	1.84
22F428	1412	22F444	1413	2	2	2-11						
22F429	1414	22F445	1415	4	2	2-5						
22F430	1416	22F446	1417	6	2	2-3						
22F431	1418	22F447	1419	8	2	2						
22F432	1420	22F448	1421	3	3	2-6	3.90	3.25	2.93	2.78	2.60	2.34
22F433	1422	22F449	1423	3	3	2-11						
22F434	1424	22F450	1425	6	3	2-5						
22F435	1426	22F451	1427	4	4	2-6	4.50	3.75	3.38	3.21	3.00	2.70
22F436	1428	22F452	1429	4	4	2-11						
22F437	1430	22F453	1431	8	4	2-5						

ROTARY SELECTOR SWITCHES — STEATITE INSULATION



Series 2500. Compact, efficient, shorting and non-shorting rotary selector switches. Low loss steatite wafers. Positive 30° index. Adjustable stop. Bushing 3/8"-32thd. 3/8" lg. Shaft 1/4" full round 1 7/8" from bushing. Dia. 1 5/8"x1 7/8". Rated 2.75 amps at 15 VDC, 350 ma. at 115 VAC. Breakdown voltage 1500 VAC. Includes pointer knob, nut and lockwasher. Shpg. wt., 4 oz. per section.

Shorting Stk. No.	Shorting Type	Non-Short. Stk. No.	Non-Short. Type	Tot. Pls.	Tot. Sec.	No. Pos.	1-4	5-9	10-24	25-49	50-99	249 100-
22F400	2500	22F411	2501	1	1	2-6	2.82	2.35	2.12	2.01	1.88	1.69
22F401	2502	22F412	2503	1	1	2-11						
22F402	2504	22F413	2505	2	1	2-5						
22F403	2506	22F414	2507	3	1	2-3						
22F404	2510	22F415	2511	2	2	2-6	4.02	3.35	3.02	2.87	2.68	2.41
22F405	2512	22F416	2513	2	2	2-11						
22F406	2514	22F417	2515	4	2	2-5						
22F407	2516	22F418	2517	6	2	2-3						
22F408	2520	22F419	2521	3	3	2-6	5.16	4.30	3.87	3.68	3.44	3.10
22F409	2522	22F420	2523	3	3	2-11						
22F410	2524	22F421	2525	6	3	2-5						

DUAL SPEAKER SWITCH KIT

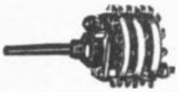
Type PK-300. Kit includes switch, etched bracket, dial plate, knob, mounting hardware, and instructions. Ship wt. 10 oz.

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-249
22F799	PK-300	1.05	.88	.79	.75	.70	.63

Centralab Switches

CENTRALAB

SUB-MINIATURE CERAMIC SWITCHES



Ultra-small ceramic rotary switches ideal for use in transistor circuits, aircraft instruments, etc. Bolt construction with single hole bushing mount; locating lug on 3/8" radius; 1/8" D. shaft, cadmium plated steel, 1¼" long from mounting surface. Index angle positive 30° with index stop strength of 10 in.-pounds. 5/32 spacing between front plate and first section. Make, break, resistive load; 3.5 amps. at 6 V. DC; 170 ma at 115 VAC (based on 10,000 cycles). Avg. initial resistance 5 milliohms. Includes mounting nut, lockwasher, and 11/16" D. black pointer knob. Wt., 2 oz. per section.

Shorting		Non-Short.										
Stk. No.	Type	Stk. No.	Type	Sec.	Total Poles	No. Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F761	PS-100	22F773	PS-101	1	1	11	4.80	4.00	3.60	3.42	3.20	2.88
22F762	PS-102	22F774	PS-103	2	2	11	6.00	5.00	4.50	4.28	4.00	3.60
22F763	PS-104	22F775	PS-105	1	2	5	4.80	4.00	3.60	3.42	3.20	2.88
22F764	PS-106	22F776	PS-107	3	3	11	7.20	6.00	5.40	5.13	4.80	4.32
22F765	PS-108	22F777	PS-109	1	3	3	4.80	4.00	3.60	3.42	3.20	2.88
22F766	PS-110	22F778	PS-111	2	4	5	6.00	5.00	4.50	4.28	4.00	3.60
22F767	PS-112	22F779	PS-113	1	4	2	4.80	4.00	3.60	3.42	3.20	2.88
22F768	PS-114	22F780	PS-115	3	6	5	7.20	6.00	5.40	5.13	4.80	4.32
22F769	PS-116	22F781	PS-117	2	6	3	6.00	5.00	4.50	4.28	4.00	3.60
22F770	PS-118	22F782	PS-119	2	8	2	7.20	6.00	5.40	5.13	4.80	4.32
22F771	PS-120	22F783	PS-121	3	9	3	7.20	6.00	5.40	5.13	4.80	4.32
22F772	PS-122	22F784	PS-123	3	12	2	7.20	6.00	5.40	5.13	4.80	4.32

SEPARATE ASSEMBLY SECTIONS FOR SUB-MINIATURE SWITCHES

These assembly sections are for use with shaft and index assemblies listed below (P-501 thru P-511). Carry same ratings as above switches. Shpg. wt., 2 oz.

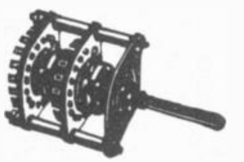
Shorting		Non-Short.									
Stk. No.	Type	Stk. No.	Type	Tot. Pls.	No. Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F785	PS-20	22F789	PS-21	1	2-11	2.10	1.75	1.58	1.50	1.40	1.26
22F786	PS-22	22F790	PS-23	2	2-5						
22F787	PS-24	22F791	PS-25	3	2-3						
22F788	PS-26	22F792	PS-27	4	2						

SHAFT AND INDEX ASSEMBLIES

Hardware for sub-miniature switches. All index assemblies listed are designed for a maximum 3 sections and contain one index and shaft assembly, one P-106 pointer knob, six 5/32" spacers, two 1/16" spacers, two 1/8" spacers, two 3/16" spacers, two 1⅛" tie bolts, nuts, lockwashers, washers, and sixteen plastic spacer washers. Shipping weight, 2 oz.

Stock No.	Type	Ind.	Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F681	P-501	30°	2	1.95	1.63	1.47	1.40	1.30	1.17
22F682	P-502	30°	3						
22F683	P-503	30°	4						
22F684	P-504	30°	5						
22F685	P-505	30°	6						
22F686	P-506	30°	7						
22F687	P-507	30°	8						
22F688	P-508	30°	9						
22F689	P-509	30°	10						
22F690	P-510	30°	11						
22F691	P-511	30°	con't						

HEAVY DUTY ROTARY POWER SWITCHES



Steatite insulation; 3/8" bushing mounted; ¼" D shaft, double flat steel, 2¼" L. from mounting surface. Index angle is 20° with 2 adjustable stops. 1" spacing between front plate and first section. Make and break res. load: 9 amps @ 110 VAC-RMS; 15 MA @ 2500 MAC-RMS; 30 amp. @ 5 VDC, 20 amp. @ 12 VDC; 11 amp. @ 28 VDC.. Contact resistance 7 milliohms with rotational life 25,000 hz min. Comes with 2" double setscrew pointer knob, dial plate, adjustable stop pin and nut and instruction sheet. Shpg. wt., 6 oz.

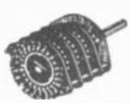
Shorting		Non-Short.									
Stk. No.	Type	Stk. No.	Type	Tol. Pol.	Tol. Sec.	No. Pos.	1-4	5-9	10-24	25-49	50-99
22F731	JV9000	22F746	JV9001	1	1	2-17	10.50	8.75	7.88	7.49	7.00
22F732	JV9032	22F747	JV9033	2	1	2-8	10.50	8.75	7.88	7.49	7.00
22F733	JV9004	22F748	JV9005	2	2	2-17	17.40	14.50	13.05	12.40	11.60
22F734	JV9002	22F749	JV9003	3	1	2-5	10.50	8.75	7.88	7.49	7.00
22F735	JV9008	22F750	JV9009	3	3	2-17	24.30	20.25	18.23	17.32	16.20
22F736	JV9034	22F751	JV9035	4	2	2-8	17.40	14.50	13.05	12.40	11.60
22F737	JV9012	22F752	JV9013	4	4	2-17	31.20	26.00	23.40	22.23	20.80
22F738	JV9016	22F753	JV9017	5	5	2-17	38.10	31.75	28.58	27.15	25.40
22F739	JV9006	22F754	JV9007	6	2	2-5	17.40	14.50	13.05	12.40	11.60
22F740	JV9036	22F755	JV9037	6	3	2-8	24.30	20.25	18.23	17.32	16.20
22F741	JV9020	22F756	JV9021	6	6	2-17	45.30	37.75	33.98	32.28	30.20
22F742	JV9038	22F757	JV9039	8	4	2-8	31.20	26.00	23.40	22.23	20.80
22F743	JV9010	22F758	JV9011	9	3	2-5	24.30	20.25	18.23	17.32	16.20
22F744	JV9014	22F759	JV9015	12	4	2-5	31.20	26.00	23.40	22.23	20.80
22F745	JV9018	22F760	JV9019	15	5	2-5	38.10	31.75	28.58	27.15	25.40

PA-3000 SERIES 18 POSITION SWITCH

Phenolic insulation per MIL-P-3115B. Voltage breakdown between parts 1000 VAC. Sections 2 3/16" highx2 11/64" wide, 1/16" thick. Rated 5.5 amp at 6 VDC; 2.75; 15VDC; 1.5 amp at 28 VDC; 230 ma at 115VAC. Adjustable stop or continuous rotation. Wt., 4 oz. per sect.

Shorting		Non-Short.										
Stk. No.	Type	Stk. No.	Type	Pol.	Pos.	Sec.	1-4	5-9	10-24	25-49	50-99	100-249
57F922	PA-3000	57F923	PA-3001	1	2-17	1	2.04	1.70	1.53	1.45	1.36	1.22
57F924	PA-3002	57F925	PA-3003	2	2-17	2	2.94	2.45	2.21	2.09	1.96	1.76
57F926	PA-3004	57F927	PA-3005	3	2-17	3	3.84	3.20	2.88	2.74	2.56	2.30
57F928	PA-3006	57F929	PA-3007	4	2-17	4	4.68	3.90	3.51	3.33	3.12	2.81

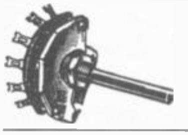
PA-4000 SERIES 24-POSITION PHENOLIC SWITCH



High quality laminated phenolic insulation, meets MIL-P-3115B. Sections; 2 3/16"H, 1¾" W, 1/16" thick. Rating same as PA-3000 series. Shpg. wt., 4 oz.

Shorting		Non-Short.										
Stk. No.	Type	Stk. No.	Type	Pol.	Pos.	Sec.	1-4	5-9	10-24	25-49	50-99	100-249
57F930	PA-4000	57F931	PA-4001	1	2-23	1	2.16	1.80	1.62	1.54	1.44	1.30
57F932	PA-4002	57F933	PA-4003	2	2-23	2	3.18	2.65	2.39	2.27	2.12	1.91
57F934	PA-4004	57F935	PA-4005	3	2-23	3	4.17	3.48	3.13	2.97	2.78	2.50
57F936	PA-4006	57F937	PA-4007	4	2-23	4	4.98	4.15	3.74	3.55	3.32	2.99

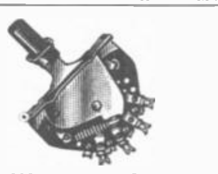
UNIVERSAL FLAT SWITCHES



Rated 1.75 amps at 28 VDC,350 ma at 115 VAC. Phenolic insulation. Bushing 3/8x3/8". Shaft 1⅞ lg. from bushing. Includes hardware 4 oz.

Stk. No.	Type	Poles	Pos.	Index	1-4	5-9	10-24	25-49	50-99	100-249
22F570	1450	4	2	Pos.	1.65	1.38	1.24	1.18	1.10	.99
22F571	1451	4	2	S. R.	2.40	2.00	1.80	1.72	1.60	1.44
57F991	1488	6	3	S. R.	3.60	3.00	2.70	2.57	2.40	2.16
57F992	1489	6	3	Pos. & S. R.	3.60	3.00	2.70	2.57	2.40	2.16

LEVER SWITCHES



Coil spring index design. Phenolic insulation. Single switch. 1⅞ high x 7/16" wide x 1¼" deep behind panel. With knob and hardware Rated at 1.5 amps at 28 VDC. 230 ma at 115 volts AC. No. 1475 is the tube tester replacement switch. Weight, 3 oz.

Shorting		Non-Short										
No.	Type	No.	Type	Poles	Pos.	Index	1-4	5-9	10-24	25-49	50-99	100-249
22F550	1452	22F555	1454	2	3	Pos.	1.47	1.23	1.10	1.05	.98	.88
22F551	1453	22F556	1455	2	3	S. R.	1.47	1.23	1.10	1.05	.98	.88
22F552	1456	22F557	1457	4	2	S. R.	1.62	1.35	1.22	1.15	1.08	.97
22F553	1459	22F558	1458	4	2	Pos.	1.62	1.35	1.22	1.15	1.08	.97
22F554	1466	22F559	1467	2	3	Pos. & S. R.	1.47	1.23	1.10	1.05	.98	.88
		22F539	1475	1	3	Pos.	1.47	1.23	1.10	1.05	.98	.88

Rotary and Lever Switches

J-B-T INSTRUMENTS

SUB-MINIATURE ROTARY SWITCHES INCLUDING SRO5 STYLE TO MIL-S-3786B

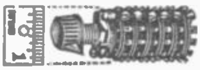


Fig. A

Fig. B

(Contacts bent only on special order) Deck wafers are epoxy-glass fabric laminations per MIL-P-18177C GEB. Deck rotor meets MIL-I-10A. Wafer contacts are 90% silver alloy, gold-plate, double wiping for low contact resistance, and self cleaning. Frame, detent mechanism, and shaft are stainless steel. Dielectric strength 1000 volts RMS. Insulation resistance exceeds 100,000 megohms. Current carrying capacity: 5 amp. Current breaking capacity: 750MA at 30 DCV, 300 MA at 120 DCV; 1 amp at 115 ACV. non-inductive. Include A7505 knob. Positive 30° indexing. (Also available with 60° or 90° indexing). Nominal 1" diameter. Patented Series 7000 provides a full 12 live switching contacts per deck. Series 5000 has the same wafer design but provides nearly twice the switching capability per deck, with up to 12 contacts on the front and up to 12 contacts on the rear of the same deck. SRO5 types designed for high performance ratings of MIL-S-3786B. C indicates superior temp., —65°C to +125°C; 3 for vibration grade 3, 10 to 2000 cps; M for medium-impact.

SINGLE DECK, NON-SHORT, SUB-MINIATURE LEVER SWITCHES—Fig. B

Stock No.	Type	Poles Deck	Pos. Pole	Shaft Dia.	NET
26F790	VL71031N	1	3	1/4"	4.80
26F792	VL72031N	2	3	1/4"	5.05
26F793	VL58021N	8	2	1/4"	5.35

Non-shorting V and X Types—Fig. A

Stock No.	Type	Decks	Per Deck	Pos. Per Pole	Shaft Dia.	NET Each
26F745	V71121N	ONE	1	12	1/4"	4.90
26F747	X71121N		1	12	1/8"	4.70
26F749	V72061N		2	6	1/4"	5.00
26F750	V74031N		4	3	1/4"	5.20
26F751	V52111N	ONE	2	11	1/4"	5.25
26F755	V58021N		8	2	1/4"	5.55
26F756	V71122N	TWO	1	12	1/4"	6.75
26F768	X71124N	FOUR	1	12	1/8"	11.40
26F769	V71126N	SIX	1	12	1/4"	16.0

Non-shorting Military SR05 Type MIL-S-3786B—Fig. A

Stock No.	Designation SRO5N30C2MGC	Decks	Poles Per Deck	Pos. Per Pole	Shaft Dia.	NET Each
26F770	V71121N-SR05	ONE	1		1/4"	5.25
26F772	V72061N-SR05		2	6	1/4"	5.35
26F773	V74031N-SR05		4	3	1/4"	5.50
26F781	V72062N-SR05	TWO	2	6	1/4"	7.40
26F783	V52112N-SR05	TWO DUAL	2	11	1/4"	8.65
26F787	V74033N-SR05	3 DUAL	4	3	1/4"	10.45

MULTI POLE MOLDED ROTARY SWITCHES

Series 20M. Made of superior molded materials, bonded and ruggedized Provides 19 positions and off. Versatile up to four poles per deck. Uses melamine stators and rotors Built-in panel locator non-turn device. Rotor brushes made of phosphor bronze, heavily silver plated. All are non-shorting. Same size as MS-20 except 1/4" longer behind panel.

1-3/16" DEPTH BEHIND PANEL

Stk. No.	Type	No. of Decks	Poles Deck	No. of Pos.	NET Each
22F976	20M-1201N	1	1	Cont	3.75
22F977	20M-1191N	1	1	1-19	3.75
22F978	20M-2101N	1	2	20-15	4.15
22F979	20M-3051N	1	3	20-9	4.50
22F980	20M-4051N	1	4	20-4	4.85

1½" DEPTH BEHIND PANEL

Stk. No.	Type	No. of Decks	Poles Deck	No. of Pos.	NET Each
22F981	20M1202N	2	1	Cont	5.00
22F982	20M2102N	2	2	20-9	5.80
22F983	20M3052N	2	3	20-4	6.50
22F984	20M-4052N	2	4	20-4	7.20

1-13/16" DEPTH BEHIND PANEL

Stk. No.	Type	No. of Decks	Poles Deck	No. of Pos.	NET Each
22F985	20M-1203N	3	1	Cont	6.25
22F986	20M-2103N	3	2	20-9	7.45
22F987	20M-3053N	3	3	20-4	8.50
22F988	20M4053N	3	4	20-4	9.55

2-3/16" DEPTH BEHIND PANEL

Stk. No.	Type	No. of Decks	Poles Deck	No. of Pos.	NET Each
22F989	20M-1204N	4	1	Cont	7.70
22F990	20M2104N	4	2	20-9	9.30
22F991	20M-3054N	4	3	20-4	10.70
22F992	20M-4054N	4	4	20-4	12.10

2-13/16" DEPTH BEHIND PANEL

Stk. No.	Type	No. of Decks	Poles Deck	No. of Pos.	NET Each
22F993	20M-1206N	6	1	Cont	10.00
22F994	20M-2106N	6	2	20-9	13.20

NOTE. 1) Panel Seal Per MIL-S-3786B requirement special order. Add 1.75 per switch and prefix (PS) to type no. 2) Shorting also available special order add suffix (S) to type no. Do not include Stk. No. Add .05 per pole, per deck to price.

ENCLOSED MOLDED ROTARY SWITCHES

Interchangeable with J-B-T, SS-14 and SS-20 laminated types but offer enclosed construction. Heavy silver plated contacts are rated at 1 amp —125 VAC. inductive. Double-grip collector arms reduce contact resistance to an average of .007 ohm. Type MS-14 has a diameter of 2 3/32", while type MS-20 is 2 5/8". With bar knob. Type MS-14 switches require 25° 43', and Type MS-20 takes 180 plates. 5 oz. one-deck switch 27/32" deep behind panel. Extra decks 5/16" each. **All non-shorting except (**) shorting *2 position fixed stop, with no "off" position.**

MS-14 TYPE

Stk. No.	Type	Poles	Decks	Positions	NET
22F933	MS-14-1	1	1	14	2.45
22F934	MS-14-2	2	2	14	3.10
22F935	MS-14-3	3	3	14	3.75
22F936	MS-14-4	4	4	14	4.85
22F937	MS-14-6	6	6	14	7.05

MS-20 TYPE

Stk. No.	Type	Poles	Decks	Positions	NET
22F938	MS-20-1S**	1	1	20	3.15
22F939	MS-20-2S**	2	2	20	4.00
22F940	MS-20-1	1	1	20	3.10
22F941	MS-20-2	2	2	20	3.90
22F942	MS-20-3	3	3	20	5.00
22F943	MS-20-4	4	4	20	6.20
22F944	MS-20-1-6DT	6	1	2*	3.90
22F945	MS-20-6	6	6	20	8.60

ADJUSTABE STOP 14-POS. MOLDED SWITCHES

Like molded switches above, except have adjustable stop to permit use of as many positions as desired. Enclosed adjustable stop mechanism increases overall depth 5/32" behind panel. Angular indexing is 25° 43'. Shpg. wt., 4 oz.

MAS-14 TYPE

No.	Type	Poles	Decks	Positions	NET
22F949	MAS-14-1	1	1	2-14	3.10
22F950	MAS-14-2	2	2	2-14	3.80
22F951	MAS-14-3	3	3	2-14	4.60
22F952	MAS-14-4	4	4	2-14	5.70
22F953	MAS-14-6	6	6	2-14	8.00

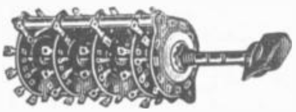
ETCHED DIAL PLATES

For all rotary switches on this page. Dull black. 2 3/4" diameter. Shpg. wt., 2 oz.

No.	Type	Calibration	Index	NET
22F954	EP-13	Off thru 13	25°43'	.23
22F955	EP-14	1 thru 14	25°43'	
22F956	EP-19	Off thru 19	18°	
22F957	EP-20	1 thru 20	18°	

MALLORY Quality Switches

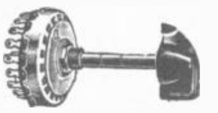
1200L AND 1300L SERIES GANG SWITCHES



Has one fixed, one adjustable stop, silver-plated contacts and phosphor-bronze springs. 3- and 4-gang spaced 1"; all others, ½". 2" notched shaft. Shorting-type make before break. Require 7/16" mtg. hole. With bar knob and mtg. hardware, less mtg. plate. *Has additional "off" position with all circuits open. Wt. av., 8 oz.

Shorting No.	Shorting Type	Non-Shorting No.	Non-Shorting Type	Gangs	Total Poles	Pos. per Pole	1-4	5-9	10-24	25-49	50-99	100-249
22F000	1211L	22F016	1311L	1	1	11	2.10	1.75	1.58	1.50	1.40	1.26
22F001	1215L*	22F017	1315L*	1	2	5	2.10	1.75	1.58	1.50	1.40	1.26
22F002	1213L*	22F018	1313L*	1	3	3	2.10	1.75	1.58	1.50	1.40	1.26
22F003	1212L*	22F019	1312L*	1	4	2	2.10	1.75	1.58	1.50	1.40	1.26
22F004	1221L	22F020	1321L	2	1	11	2.58	2.15	1.94	1.84	1.72	1.55
22F005	1225L*	22F021	1325L*	2	2	5	2.58	2.15	1.94	1.84	1.72	1.55
....	....	22F023	1322L*	2	4	2	2.58	2.15	1.94	1.84	1.72	1.55
22F008	1231L	22F024	1331L	3	1	11	3.24	2.70	2.43	2.31	2.16	1.94
22F009	1235L*	22F025	1335L*	3	2	5	3.24	2.70	2.43	2.31	2.16	1.94
22F010	1241L	22F026	1341L	4	1	11	3.81	3.18	2.86	2.71	2.54	2.29
22F011	1245L*	22F027	1345L*	4	2	5	3.81	3.18	2.86	2.71	2.54	2.23
....	....	22F028	1351L	5	1	11	4.11	3.43	3.08	2.93	2.74	2.47
....	....	22F029	1356L	5	2	6	4.53	3.78	3.40	3.23	3.02	2.72
22F014	1261L	22F030	1361L	6	1	11	4.83	4.03	3.62	3.44	3.22	2.90
22F015	1266L	22F031	1366L	6	2	6	5.52	4.60	4.14	3.93	3.68	3.31
....	.....	22F022	1323L*	2	3	3	2.58	2.15	1.94	1.84	1.72	1.55

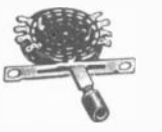
SINGLE GANG SWITCHES



Well-constructed and versatile units for servicing and industrial use. Compact, enclosed switches with 2" notched shaft, 3/8" threaded bushing 3/8" long. With bar knob and nut. All have adjustable stops. For band switching, etc. Use plates listed at right. A volume plate and a 0-100 plate are also available. 1¼" dia. 30°; 1 11/16 dia. 20°. Shpg. wt., 4 oz.

Shorting No.	Shorting Type	Non-Shorting No.	Non-Shorting Type	Poles	Pos.	Base Dia.	1-4	5-9	10-24	25-43	50-99	100-249
22F040	3115J	22F052	3215J	1	5	1¼"	1.02	.85	.77	.73	.68	.61
22F041	31112J	22F053	32112J	1	12	1¼"	1.02	.85	.77	.73	.68	.61
22F042	3122J	22F054	3222J	2	2	1¼"	1.02	.85	.77	.73	.68	.61
22F043	3123J	22F055	3223J	2	3	1¼	1.02	.85	.77	.73	.68	.61
22F044	3126J	22F056	3226J	2	6	1¼"	1.02	.85	.77	.73	.68	.61
22F045	3134J	22F057	3234J	3	4	1¼"	1.05	.88	.79	.75	.70	.63
22F046	3142J	22F058	3242J	4	2	1¼"	1.05	.88	.79	.75	.70	.63
22F047	3143J	22F059	3243J	4	3	1¼"	1.05	.88	.79	.75	.70	.63
22F048	31117J	22F060	32117J	1	17	1 11/16"	1.56	1.30	1.17	1.11	1.04	.94
22F049	3129J	22F061	3229J	2	9	1 11/16"	1.56	1.30	1.17	1.11	1.04	.94
22F050	3136J	22F062	3236J	3	6	1 11/16"	1.65	1.38	1.24	1.18	1.10	.99
22F051	3163J	22F063	3263J	6	3	1 11/16"	1.65	1.38	1.24	1.18	1.10	.99

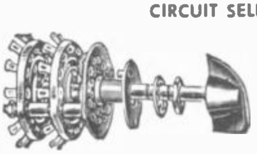
LEVER ACTION SWITCHES



5000 Series elongated mounting holes with mounting centers of 29/32". The 6000 Series have round holes spaced 1⅝" ctrs. May be mounted singly or grouped with ¾" between lever arm centers. Voltage breakdown rating 500 V AC-DC. Maximum and minimum breaking currents, resistive load .125A@300V DC, 3A@6V DC, .2A@300V AC and 5A@6V AC.

Shorting Stk. No.	Shorting Type	Non-shorting Stk. No.	Non-shorting Type	No. of Poles	No. of Position	1-4	5-9	10-24	25-49	50-99	100-249
22F131	5124	22F134	5224	2	4	1.38	1.15	1.04	.98	.92	.83
22F132	6142	22F135	6242	4	2	1.20	1.00	.90	.86	.80	.72
22F133	6143	22F136	6243	4	3	1.20	1.00	.90	.86	.80	.72

CIRCUIT SELECTOR SWITCHES



Ceramic-section switches with low RF losses. Adjustable stop. 2 gang spaced ½"; 3 gang, 1". With 2" grooved shaft, knob, and hardware. *Has 1 circuit and 11 positions. †Has 2 circuits and 5 positions and ‡has 3 circuits and 3 positions per gang. # additional "off" pos. Wt. 8 oz.

Stk. No.	Types	Gang	1-4	5-9	10-24	25-49	50-99	100-249
22F070	172C	1*	2.37	1.98	1.78	1.69	1.58	1.42
22F071	173C#	1†	2.37	1.98	1.78	1.69	1.58	1.42
22F072	174C#	1‡	2.37	1.98	1.78	1.69	1.58	1.42
22F073	176C#	2*	3.39	2.83	2.54	2.42	2.26	2.03
22F074	177C#	2†	3.39	2.83	2.54	2.42	2.26	2.03
22F075	178C#	2‡	3.39	2.83	2.54	2.42	2.26	2.03
22F077	180C	3*	4.32	3.60	3.24	3.08	2.88	2.59
22F078	181C#	3†	4.32	3.60	3.24	3.08	2.88	2.59

MALLORY DECADE SWITCHES

Use for capacitors or resistors for full decade. 153L for capacitors, 154L for resistors. Phenolic insulation. Mtg. depth behind panel 1". Lateral mtg. space 2". Steel shaft is ¼" dia. x 2" long. Complete with knob and instructions. Wt. 6 oz.

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-249
22F087	153L	2.70	2.25	2.03	1.92	1.80	1.62
22F088	154L	2.94	2.45	2.21	2.09	1.96	1.76

DIAL PLATES FOR ROTARY SWITCHES

Types 372 to 390 for switches 1200L, 1300L and 1¼" base 3100J, 3200J types. Others are designed for 1 11/64" base 3100J and 3200J types. All are etched aluminum.

Shpg. wt., 1 oz.

PLATES FOR 1¼" BASE SWITCHES 30° SPACING

No.	Type	Mark
22F150	372	1 to 2
22F151	373	1 to 3
22F152	374	1 to 4
22F153	375	1 to 5
22F154	376	1 to 6
22F155	377	1 to 7
22F156	378	1 to 8
22F157	379	1 to 9
22F158	380	1 to 10
22F159	381	1 to 11
22F160	382	1 to 12
22F161	383	off 1 to 3
22F162	384	off 1 to 4
22F163	385	off 1 to 5
22F164	386	off 1 to 6
22F165	387	off 1 to 7
22F166	388	off 1 to 8
22F167	389	off 1 to 9
22F168	390	off 1 to 10

NET EACH .12

PLATES FOR 1-11/16" BASE SWITCHES 20° SPACING

No.	Type	Mark
22F169	453	1 to 3
22F170	454	1 to 4
22F171	455	1 to 5
22F172	456	1 to 6
22F173	457	1 to 7
22F174	458	1 to 8
22F175	459	1 to 9
22F176	460	1 to 10
22F177	461	1 to 11
22F178	462	1 to 12
22F179	467	1 to 17
22F180	473	off 1 to 3
22F181	474	off 1 to 4
22F184	477	off 1 to 7
22F185	478	off 1 to 8
22F186	479	off 1 to 9
22F187	480	off 1 to 10

NET EACH .12

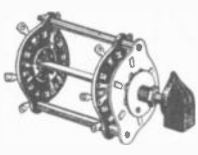
22F188. Type 369. 0-100 plate for either type switch. EA. .21

22F189. Type 391. Volume plate for either type switch .15

22F190. Type 395. 0-10 plate for standard controls .21

22F292. Type 393. 0-10 for "E" type potentiometers .21

MALLORY "HAMSWITCHES"



Type 151L. 2-section. 5-position switch Non-shorting type. For switching meter circuits. 2¼" spacing between sections. Rated at 1000 volts AC or 1500 volts DC, 60° indexing between positions. With knob, nut, washer. Shpg. wt., 6 oz.

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-249
22F080	151L	2.70	2.25	2.03	1.92	1.80	1.62

Type 1312L Tap Switch. Single circuit 24-position non-shorting switch. Continuous rotation. 3/8" bushing. 2" notched shaft. 15° indexing between positions. With bar knob, dial plate and mtg. hardware. Wt., 6 oz.

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-249
22F085	13124L	2.76	2.30	2.07	1.97	1.84	1.66

Type 1400L Circuit Opening Switch. Opens any one of 12 "lines" for insertion of current reading meter. Maintains circuit on other 11 lines. Resistors can be wired so that switch not only opens line, but also cuts in selected resistor. With bar knob, dial plate, and hardware. Wt., 6 oz.

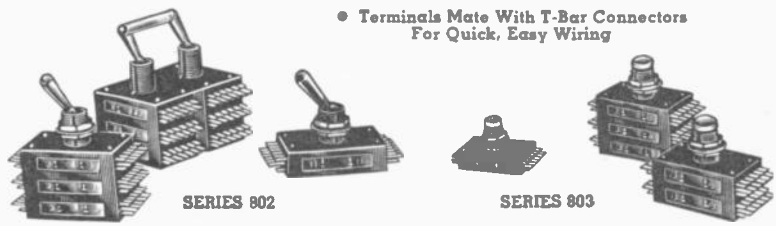
Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-249
22F086	1400L	4.68	3.92	3.51	3.33	3.12	2.81

ELECTRONIC CONTROLS INC.

T-BAR SWITCHES

- Switch Up To 108 Circuits in Minimum Space
- Gold Bonded Silver Contacts

- Terminals Mate With T-Bar Connectors For Quick, Easy Wiring



SERIES 802 SERIES 803

T-BAR SWITCHES

Multi-pole switches employing stacked-up enclosed contact wafers. Rated 5 amps at 115 VAC. Silver plated terminals fit T-Bar Connectors (listed under T-Bar Relays—see index), or may be soldered. Temperature rating: —55 to +85°C. Dielectric strength 1000V RMS, terminal to terminal.

SERIES 802 TOGGLE SWITCHES

All types are double throw (Form C). Contacts are in dust-tight plastic enclosures. Behind-panel depth, only 15/32" per 12 poles. Mechanical life: 50,000 hz.

Stock No.	Type No.	Pls.	1-24	25-49	50-74	75-99
59F724	802-4C	4	8.51	8.09	7.66	7.24
59F725	802-8C	8	10.79	10.25	9.74	9.25
59F726	802-12C	12	11.96	11.36	10.79	10.25
59F729	802-24C	24	23.45	22.28	21.16	20.11
59F731	802-36C	36	32.45	30.83	29.29	27.82
59F744	802-48C	48	53.10	48.00	43.00	38.70
59F745	802-60C	60	66.60	60.00	54.00	48.50
59F746	802-72C	72	80.00	72.00	65.00	59.10
59F747	802-84C	84	93.00	83.60	75.50	68.00
59F748	802-96C	96	106.00	95.50	86.00	77.50
59F749	802-108C	108	120.00	108.00	97.00	87.80

SERIES 803 PUSHBUTTON SWITCHES

All types are momentary contact. Button travel, 0.07" approx. Electrically identical to Series 802: rated 5 amps at 115VAC, mechanical life 500,000 operations, dielectric strength 1000 V RMS terminal to terminal.

Stk. No.	Type	Action	1-24	25-49	50-74	75-99
59F760	803-4A	4PST(NO)	6.00	8.09	7.66	7.24
59F732	803-4C	4PDT	6.73	6.39	6.07	5.77
59F761	803-8A	8PST(NO)	7.74	7.35	6.99	6.64
59F733	803-8C	8PDT	9.00	8.55	8.12	7.72
59F762	803-12A	12PST(NO)	8.41	7.99	7.59	7.21
59F734	803-12C	12PDT	10.16	9.65	9.17	8.71
59F763	803-24A	24PST(NO)	17.66	16.78	15.94	15.14
59F737	803-24C	24PDT	21.66	20.58	19.55	18.57
59F740	803-36C	36PDT	30.66	29.13	27.67	26.29

ECI "T-Bar" relays and tools listed in relay section—see index

DAVEN

ADJUSTABLE STOP SWITCHES

Allow number of switch positions to be changed at any time for maximum flexibility on all types of switch applications. All applicable paragraphs of MIL-S-3786 and MIL-E-5272 are met or exceeded. Continuous current carrying capacity (not make or break) 10 amps. Switch contacts and rotor arms are solid silver alloy.

1 Deck Non-Shorting 30° Between Positions
BB Series 1⅜" sq.; EB Series 2¼" sq.

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9
10F289	111-BB-12	....	1	12	16.25	13.00
10F291	121-BB-6	....	2	6	17.40	13.90
10F293	111-EB-12	....	1	12	21.00	16.80
1 ¾" SQUARE						
1 Deck Shorting 15° Between Positions						
10F204	111CM-24A	111CM-2-24	1	24	18.50	14.80
10F206	131CM-7A	131CM-2-7	3	7	22.50	18.00
3 Decks Shorting 15° Between Positions						
10F262	311CM-24A	311CM-2-24	1	24	42.40	33.90
1 Deck Non-Shorting 30° Between Positions						
10F200	111CB-12A	111CB-2-12	1	12	18.50	14.80
10F201	121CB-6A	121CB-2-6	2	6	20.50	16.40
10F202	131CB-4A	131CB-2-4	3	4	22.50	18.00
10F203	141CB-3A	141CB-2-3	4	3	24.50	19.60
2 Decks Non-Shorting 30° Between Positions						
10F229	211CB-12A	211CB2-12	1	12	30.45	24.35

1¾" SQUARE
1 Deck Shorting 11¼° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1.4	5-9
10F212	112CM-32A	112CM-2-32	1	32	18.50	14.80
10F213	122CM-15A	122CM-2-15	2	15	20.50	16.40
2 Decks Shorting 11¼° Between Positions						
10F241	212CM-32A	212CM-2-32	1	32	30.45	24.35

1¾" SQUARE (Continued)
1 Deck Non-Shorting 22½° Between Positions

Stk. No	Type	Replaces	Poles	Pos.	1-4	5-9
10F208	112CB-16A	112CB-2-16	1	16	18.50	14.80
10F210	132CB-5A	132CB-2-5	3	5	22.50	18.00
2 ¼" SQUARE						
1 Deck Shorting 15° Between Positions						
10F220	121DM-24A	121DM-2-24 121EM-2-24	2	24	22.85	18.30
10F222	141DM-11A	141DM-2-11	4	11	28.55	22.90
1 Deck Non-Shorting 15° Between Positions						
10F216	113DB-24A	113DB-2-24 113EB-2-24	1	24	20.00	16.00
2 Decks Non-Shorting 15° Between Positions						
10F245	213DB-24A	213DB-2-24 213EB-2-24	1	24	33.50	26.80
1 Deck Non-Shorting 30° Between Positions						
10F217	121DB-12A	121DB-2-12 121EB-2-12	2	12	22.85	18.30
10F219	141DB-6A	141DB-2-6 141EB-2-6	4	6	28.55	22.90
2 Decks Non-Shorting 30° Between Positions						
10F246	221DB-12A	221DB-2-12 221EB-2-12	2	12	39.20	31.40
10F247	231DB-6A	231DB-2-6 231EB-2-6	3	6	44.90	36.00
3 Decks Non-Shorting 30° Between Positions						
10F277	341DB-6A	341DB-2-6 341EB-2-6	4	6	72.65	58.30
1 Deck Shorting 11¼° Between Positions						
10F226	122DM-32A	122DM-2-32 122EM-2-32	2	32	22.85	18.30
1 Deck Non-Shorting 22½° Between Positions						
10F225	142DB-8A	142DB-2-8	4	8	28.55	22.90

ATTENUATORS

"Knee action" rotor blades make these attenuators tamper proof. Gives positive contact in operation under all types of conditions. "Lock-Tite" dust cover. Low loss molded terminal board. *Tapered on last steps to cut off (infinity). †Have detents. ‡Have cue position.

Knobs for Switches and Attenuators. Specify Unit. NET 1.12

Dials for Switches and Attenuators. Specify Unit.
AVAILABLE ON SPECIAL ORDER ONLY. NET 5.00

Stk. No	Model	Imped.	Steps	DB per Step	1-4	5-9
10F102	LA350EF	*250/500	20	2	26.56	21.27
10F103	LA350G	*600/600	20	2	26.56	21.27
10F104	LA350AH	*30/60	20	2	26.56	21.27
†10F105	CP350Y	500000	20	2	17.42	13.75
†10F108	CP350T	100000	20	2	17.42	13.75
‡10F109	LAQ350EF	*250/500	20	2	28.06	22.77
10F112	T330-G	*600/600	30	1.5	43.53	35.23
10F114	T321-G	*600/600	20	2	36.31	29.25

DAVENOIL. ½ oz. container with applicator.
10F116. NET 25c

Special Purpose Components

APM

HIGH PRESSURE SEALS FOR STANDARD TOGGLE SWITCHES

N-1030 N.1030B 2030B

Silicone rubber chemically and mechanically bonded to nut, make these boots impervious to salt water, acids, and ozone. Flexible from —160°F to +500°F. Meets MIL-B-5423. Pressure Range 15 PSI Internal and External. Wt. approx. 1 oz. per 5.

Stk. No.	Type	Thread Size	Description	1-99	100-499
30F000	N1030	15/32-32	Bush. Mtg. (Enclosed)	.69	.54
30F001	N1030A	15/32-32	Bush. Mtg. (Metal Cap)	1.25	1.05
30F002	N1030B	15/32-32	Bush. Mtg. (Open Top)	.69	.54
30F004	2030B	3 hole mtg.	Flush Mtg.	.49	.41
30F011	N5030	¼-40	Bush. mtg. (enclosed)	.99	.84

SNAPSEELS

Designed to make standard push-button, toggle, and rotary switches both watertight and dust-proof. Material: Neoprene. Color: Black. Operating Temperatures: —40°F to +225°F. Bushing dia. for type 1211/5 & 1312/7: ⅜"; type 1111/4: 15/32". Push, toggle & rotary dia.: ¼".

Stk. No.	Type	To Switch	1-99	100-999	1000-2499	2500-4999	5000-9999
30F097	1211/5	Push-button	.40	.199	.169	.139	.119
30F098	1111/4	Toggle					
30F099	1312/7	Rotary					

HEXSEAL

Seats for locking type potentiometers and variable capacitors. Temp. Range: —160°F to +500°F. Shaft size: ¼". Thread size: ⅜-32". Ht. 17/32". Width ⅝".

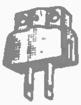
Stock No.	Type No.	1-99	100-499
30F060	NLK-9030-¼	1.05	.89

HIGH PRESSURE SEALS

Designed for shafts which pass through panels or housings. Meets MIL-B-5423/9. For standard rotary switches. Wt. approx. 1 oz. per 5.

Stock No.	Mfg. No.	Thread Size	Shaft Size	Depth	Hex Size	1-99	100-499
30F013	N-9030-¼	⅜-32	¼"	7/32"	½"	.55	.43
30F014	N-9040-⅛	¼-32	⅛"	15/64"	7/16"	.59	.47
30F015	N-9060-¼	15/32-32	¼"	5/16"	¾"	1.15	.92

BLADED POWER CONNECTORS



Type UP120M. Miniature. Rated 125 V-15 amps to 250 V-10 amps. Meets MIL-C-3767/3. High impact glass-filled melamine insert. 2 parallel blades.
Type UP121M or UP221M. 3 blades gnd. type MIL-C-3767/13.

Stk. No.	Type	1-99	100-499	500-999
30F016	UP120M	.83	.78	.70
30F017	UP121M, UP221M	.86	.81	.73

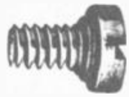
HIGH PRESSURE SEALS FOR STANDARD PUSHBUTTON SWITCHES

N-3030 NH-3030 NC-3030 N-5040 4080 Series

Meet MIL-B-5423. High pressure sealing is maintained by a gasket rib, which seats firmly against any panel surface to keep out moisture, dust, or combustible vapors. Temp. Range: —160°F to +500°F.

Stock No.	Mfg. No.	Thread Size	Description	1-99	100-499
30F006	N-3030	15/32-32	Bush. Mtg.	.59	.47
30F007	NC-3030	15/32-32	Bush. Mtg.	.59	.47
30F008	NH-3030	½-32	Bush. Mtg.	.69	.54
30F009	4080	⅝-24	Dial-light seal (trans)	1.48	1.15
30F010	4082	15/32-32	Dial-light seal (trans)	1.48	1.15
30F012	N-5040	¼-40	Bush. Mtg.	.99	.84
30F065	N-5040G	¼-32	Bush. Mtg.	.99	.84
30F066	N-5040R	¼-40	Bush. Mtg.	.99	.84

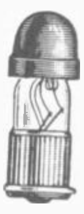
SEELSKREWS



Single unit fasteners which form an absolute seal against any surface. Grooved under head and have a silicone rubber o-ring pressed into the groove. Maintain seal even after frequent removal from equipment. Range: —160°F to +500°F.

Stock No.	Size	Head Depth	Head Dia.	1-99	100-499	500-999	1000-2499
30F018	4/40x¼"	.069	.220	.13	.0975	.0675	.0585
30F019	4/40x⅜"	.069	.220	.13	.0975	.0675	.0595
30F020	4/40x½"	.069	.220	.13	.0975	.0675	.0605
30F039	4/40x1"	.069	.220	.13	.0975	.0775	.0705
30F021	6/32x¼"	.083	.271	.13	.0975	.0675	.0575
30F022	6/32x⅜"	.083	.271	.13	.0975	.0675	.0585
30F023	6/32x½"	.083	.271	.13	.0975	.0675	.0595
30F040	6/32x⅝"	.083	.271	.13	.0975	.0775	.0675
30F042	6/32x⅞"	.083	.271	.13	.0975	.0775	.0695
30F043	6/32x1"	.083	.271	.13	.0975	.0775	.0695
30F024	8/32x⅜"	.097	.323	.13	.0975	.0675	.0600
30F025	8/32x½"	.097	.323	.13	.0975	.0775	.0670
30F044	8/32x⅝"	.097	.323	.13	.0975	.0775	.0695
30F045	8/32x¾"	.097	.323	.13	.0975	.0775	.0695
30F047	8/32x1"	.097	.323	.13	.0975	.0775	.0700
30F027	10/32x⅜"	.113	.374	.16	.122	.0975	.0690
30F028	10/32x½"	.113	.374	.16	.122	.0975	.0730
30F048	10/32x⅝"	.113	.374	.16	.12	.0975	.0785
30F029	10/32x¾"	.113	.374	.16	.122	.0975	.0785
30F051	10/32x1"	.113	.374	.16	.12	.0975	.0830
30F030	10/24x⅜"	.113	.374	.16	.122	.0975	.0690
30F055	10/24x1"	.113	.374	.16	.12	.0975	.0830
30F056	¼/20x⅜"	.148	.493	.16	.12	.0975	.0825
30F033	¼/20x½"	.148	.493	.16	.122	.0975	.0825
30F057	¼/20x⅝"	.148	.493	.16	.12	.1025	.0875
30F058	¼/20x⅞"	.148	.493	.16	.12	.1025	.0975
30F035	¼/20x1"	.148	.493	.16	.122	.1025	.0955
30F059	¼/20x1¼"	.148	.493	.16	.12	.1025	.0955

SILIKROME COLORED FILTERS

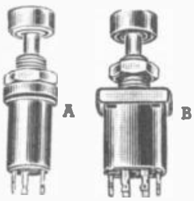


Silikrome colored filters can change the colors of clear incandescent miniature lamps instantly! Eliminates need for large inventories of colored lamps. Non-breakable, lightweight silikromes will operate at 500° for 1000 hours without appreciable change in color or the properties of the elastomers. Establishes parameters of color intensity and transmission which will define your requirements. Temperature range: —160°F to 500°F. Flexible, acts as a shock mount; resistant to weather, sunlight, ozone, most acids and salt spray. **Mil. Spec. models available on special order.**

Stk. No.	Type	Color	Lamp Size	Overall Ht.	OD	1-99	100-499
30F780	1813/2-LW-1	Lunar Wh.				.189	.1238
30F781	1813/2-R-2	Red					
30F782	1813/2-G-1	Green	T-1¾	5/16"	¼"		
30F783	1813/7-LW-3	Lunar Wh.					
30F784	1813/7-R-3	Red	T-¾	7/32"	⅛"		
30F785	1813/8-LW-1	Lunar Wh.				.21	.1475
30F786	1813/8-B-1	Blue Aviati					
30F787	R-14-13	Red					
30F788	1813/8-G-1	Green					
30F789	1813/8-G-11/16	Green					
30F790	1813/8-A-2	Amber	T-3¼	11/16"	7/16"		
30F791	1813/9-LW-3	Lunar Wh.				.21	.1375
30F792	1813/9-R-5	Red	T-1	10/64"	5/32"		

GRAYHILL

SERIES 46 PUSH BUTTON SWITCH



A B

Rated to make and break ¼ amp, 115 VAC resistive; contact res. .010 ohms max.; cont. & term. are silver plated phosphor bronze. .187" button travel.

Series 46-100. SPDT; ¼-32NEF mtg. bushing. 46-101 (not illus.) has .125" diam. button, 46-102 (Fig. A) has .375"D cap.

Series 46-200. (Fig. B) DPDT; ¼-32NEF mtg. bushing. Wt., 1 oz.

Break before make except (*) which are make before break.

Stk. No.	Type	Button Color	1-49	50-99	100-499	500-999
23F894	46-101B	Black	1.40	1.05	.84	.77
23F895	46-101R	Red	1.40	1.05	.84	.77
23F896	46-102B	Black	1.85	1.39	1.11	1.018
23F897	46-102R	Red	1.85	1.39	1.11	1.018
23F918	46-110R*	Red Button	1.55	1.16	.93	.85
23F919	46-110B*	Black Button	1.55	1.16	.93	.85
23F920	46-111R*	Red Button Cap	2.00	1.50	1.20	1.10
23F921	46-111B*	Black Button Cap	2.00	1.50	1.20	1.10
23F898	46-200B	Black	3.10	2.33	1.86	1.705
23F899	46-200R	Red	3.10	2.33	1.86	1.705
23F922	46-201R*	Red Button Cap	3.40	2.55	2.04	1.87
23F923	46-201B*	Black Button Cap	3.40	2.55	2.04	1.87

SERIES 50 ADJUSTABLE ROTARY TAP SWITCH

10 post. Single deck. Make or break 50 ma. @ 6 amps, 115 VAC. MD style with shaft-bushing-panel seal. CD style without. Mtg. bushing has 1/4/28 UNF thread. Behind panel dim. .617". Weight, 1/2 oz. *Printed circuit terminals.

Stk. No.	Type	Poles	1-49	50-99
57F1537	50CD36-01-1-ADJN	1	7.05	5.29
57F1538	50CD36-01-2-ADJN	2	8.20	6.15
57F1539	50MD36-01-1-ADJN	1	8.35	6.26
57F1540	50MD36-01-2-ADJN	2	9.50	7.13
57F1590	50MDP36-01-1-AJN	1*	8.35	6.26
57F1591	50MDP36-01-2-AJN	2*	9.50	7.13

SERIES 51. Similar to series 50 except 12 position (30 angle of throw). 9/16 diameter. Behind panel approximately .617".

SOLDER LUG TERMINAL				
57F1592	51MD30-01-1-AJN	1	8.90	6.68

PRINTED CIRCUIT TERMINAL				
57F1593	51MDP30-01-1-AJN	1	8.90	6.68

SERIES 42D AND 44D ADJUSTABLE STOP ROTARY TAP SWITCHES

10 position (42D), 12 position (44D), fully enclosed switches, interchangeable with fixed stop 42A and 44A series. 10 amps. @ 115 VAC. Bushing 3/8-32 NEF. Behind panel: 1-deck, 1.025"; 2-deck, 1.371"; 3-deck, 1.717". 1.162" Diam. Wt., 1 1/2 oz.

Stk. No.	Type	Decks	1-49	50-99
57F1541	42D36-01-1-ADJN	1	6.30	4.73
57F1542	42D36-02-1-ADJN	2	7.55	5.66
57F1543	42D36-03-1-ADJN	3	8.80	6.60
57F1544	42D36-01-2-ADJN	1*	7.10	5.33
57F1545	44D30-01-1-ADJN	1	6.50	4.88
57F1546	44D30-02-1-ADJN	2	7.85	5.89
57F1547	44D30-03-1-ADJN	3	9.20	6.90
57F1548	44D30-01-2-ADJN	1*	7.30	5.48

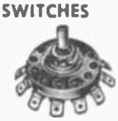
***Indicates 2 poles/deck.**

SERIES 8 ULTRA-MINIATURE TAP SWITCHES

Single pole. 1/4 amp at 115 V.A.C. Resistive make and break. Carry 4 amp. continuous. Voltage breakdown is at 1000 volts AC. Life expectancy is about 100,000 operations. Solder terminals and non-shorting contacts. Length behind panel for single deck is .960". 3/4 oz.

Stk. No.	Type	Pos.	1-49	50-99
57F1515	8A36-01-1-2N	2	7.10	5.33
57F1516	8A36-01-1-3N	3	7.20	5.40
57F1517	8A36-01-1-4N	4	7.30	5.48
57F1518	8A36-01-1-5N	5	7.40	5.55
57F1519	8A36-01-1-6N	6	7.50	5.63
57F1520	8A36-01-1-7N	7	7.60	5.70
57F1521	8A36-01-1-8N	8	7.70	5.78
57F1522	8A36-01-1-9N	9	7.80	5.85
57F1523	8A36-01-1-10N	10	7.90	5.93

SERIES 19 POWER TAP SWITCHES



U.L. listed. Single pole. Single deck. Non-shorting contacts with 15 amp 115 VAC resistive rating. Breakdown is rated for 2500 VAC. Wt., 1 3/4 oz.

Stk. No.	Type	Taps	1-49	50-99
57F1500	19101-2UL	2	3.20	2.40
57F1501	19101-3UL	3	3.30	2.48
57F1502	19101-4UL	4	3.40	2.55
57F1503	19101-5UL	5	3.50	2.63
57F1504	19101-6UL	6	3.60	2.70
57F1505	19101-7UL	7	3.70	2.78
57F1506	19101-8UL	8	3.80	2.85
57F1507	19101-9UL	9	3.90	2.93
57F1508	19101-10UL	10	4.00	3.00
57F1509	19101-11UL	11	4.10	3.08

SERIES 24 MINIATURE TAP SWITCH

One pole per. Break 1 amp., carries 5 amps. 3/8 bushing. 1 1/32" O.D. Cam operate from —55° C to +85°C. 5 oz. *Depth behind panel.

Stk. No.	Type	Taps	1-49	50-99
SINGLE-DECK SWITCHES *.58:				
23F950	24001-2	2	2.90	2.18
23F951	24001-3	3	3.00	2.25
23F952	24001-4	4	3.10	2.33
23F953	24001-5	5	3.25	2.44
23F954	24001-6	6	3.35	2.51
23F955	24001-7	7	3.45	2.59
23F956	24001-8	8	3.55	2.66
23F957	24001-9	9	3.65	2.74
23F958	24001-10	10	3.80	2.85
2-DECK SWITCHES *1.39"				
23F959	24002-2	2	4.75	3.56
23F960	24002-3	3	4.85	3.64
23F961	24002-4	4	4.95	3.71
23F962	24002-5	5	5.05	3.79
23F963	24002-6	6	5.20	3.90
23F964	24002-7	7	5.30	3.98
23F965	24002-8	8	5.40	4.05
23F966	24002-9	9	5.50	4.13
23F967	24002-10	10	5.60	4.20

SERIES 5000 TAP SWITCHES

Break one amp at 115V AC, carry 5 amps. All have stops except 10-tap units, continuous rotation. 3/8" bushing. 1 1/32" diameter, 1 pole per deck. 4 oz. *Depth behind panel.

Stk. No.	Type	Taps	1-49	50-99
SINGLE-DECK SWITCHES *.47"				
24F225	5-001-2	2	1.85	1.39
24F226	5-001-3	3	1.90	1.43
24F227	5-001-4	4	1.95	1.46
24F228	5-001-5	5	2.00	1.50
24F229	5-001-6	6	2.05	1.54
24F230	5-001-7	7	2.10	1.58
24F231	5-001-8	8	2.15	1.61
24F232	5-001-9	9	2.20	1.65
24F233	5-001-10	10	2.25	1.69
2-DECK SWITCHES *1.25"				
23F900	5-002-2	2	4.00	3.00
23F901	5-002-3	3	4.10	3.08
23F902	5-002-4	4	4.20	3.15
34F903	5-002-5	5	4.30	3.23
23F904	5-002-6	6	4.40	3.30
23F905	5-002-7	7	4.50	3.38
23F906	5-002-8	8	4.60	3.45
23F907	5-002-9	9	4.70	3.53
23F908	5-002-10	10	4.80	3.60

PUSH BUTTON SWITCHES

Series 2000. Momentary contact SPST. Rated 10 amps, 115 volts A.C. res. solder terminals. Size: 1.92"Lx87"D. Aug. wt. 1 oz. (*) NO † NC. Designations R and B in type number indicate red & black buttons.
Type 7Z1047. Plastic button cap for 2000 series.

Stk. No.	Type	1-49	50-99	100-Up
24F200	2201*	2.30	1.73	1.38
24F201	2202†	2.30	1.73	1.38
24F212	7-26R	3.50	2.63	2.10
23F973	7-26B	3.50	2.63	2.10
BUTTON CAPS				
24F234	7Z1047R	.40	.30	...
24F235	7Z1047B	.40	.30	..

ULTRA-MINIATURE SWITCH

Series 39-1. SPST. 1/2 A. 115 VAC 1,000,000 operation life. Phenolic button and base. 1/4"Dx19/32"L. 11/64" mtg. hole. Wt., 1 oz.

Stk. No.	Type	Contacts	1-49	50-99	100-Up
24F209	39-1	Open	1.15	.86	.69
24F236	39-2	Closed	1.50	1.13	.90

Two circuit, SPDT, printed circuit push button switch. One normally open, one normally closed. Ratings same as 39-2. 1/2"x1/4"x13/32". Button color: R-Red B-Black.

Stk No.	Type	1-49	50-99	100-Up
24F237	39-201R	2.65	1.99	1.59
24F238	39-201B	2.65	1.99	1.59
Same as 39-201 except for stand-off pads.				
24F239	39-204R	2.75	2.06	1.65
24F240	39-204B	2.75	2.06	1.65

LIGHTED PUSH BUTTON SWITCH

Series 40. Integrated switch and indicator light. Silent action, SPST, momentary contact, normally open. Life expectancy, 500,000 operations at rated load of 1 ampere, 115 VAC. 25/64" mtg. hole required. Solder-type terminals. Overall length 1.84". Shpg. wt. 1 oz.

Stk. No.	Type	Cont.	1-49	50-99	100-Up
24F210	40-1	NO *	2.45	1.84	1.47
24F241	40-2	NC *	2.70	2.03	1.62
24F242	40-100	NO †	2.75	2.06	1.65
24F208	40-102	NC †	3.00	2.25	1.80

***Neon, †Incad. (20 VAC/DC)**

MINIATURE MOMENTARY CONTACT SWITCH

Normally open SPST. 1/4 amp. 114 volts. AC non-inductive. Length 1.047" and maximum diameter. 1/2". Solder terminals. Red button. Shpg. wt. 1 oz.

Stk. No.	Type	1-49	50-99	100 & Up
24F204	23-1	1.10	.83	.66

SUB-MINIATURE SWITCH

Push button switch with coin silver contacts and terminals. SPST. Momentary contact. Rated 1 amp.—115 VAC. OP—.375" length behind panel—.592. Length 63/64". Shpg. Wt., 1 oz.
Type 30-1. SPST-NO. Red button.
Type 30-2. SPST-NC. Black button.

Stk. No.	Type	1-49	50-99	100 & Up
24F205	30-1	.95	.71	.57
24F206	30-2	.95	.71	.57

PUSH-PULL SWITCH

SPST1. amps. @ 115 VAC. 31/64" mtg. hole; approx. .90" behind panel protection. Wt. 2 oz.

Stk. No.	Type	1-49	50-99	100 & Up
24F205	30-16B	1.60	1.20	.96
24F206	30-16R	1.60	1.20	.96

POSITIVE FEEL SWITCHES

Series 30-17. SPST. Butt contact, positive feel with audible click. Rated 1 amp., 115 VAC resistive. 31/64" mtg. hole, approx. behind panel proj., .90" Wt., 2 oz.

Stk. No.	Type	1-49	50-99	100 & Up
24F224	30-17B	1.50	1.13	.90
23F975	30-17R	1.50	1.13	.90

SERIES 35-1

Pushbutton, silent, N.O., mom. cont. DPST. 1/2 amp., 115 VAC Molden phenolic button housing. 117/64"L. x 51/64" Dia. Solder term. 100.000—operation life. Wt. 1/2 oz.

Stk. No.	Type	1-49	50-99	100 & Up
24F207	35-1	1.40	1.05	.84

MOMENTARY CONTACT SWITCH

Series 4000. Non-stop action switch, momentary contact, SPST. 1/2 amp—500M operations, 1 amp —100M operations. 115V. AC. Solder terminals. Size: 1.53"L. x 80"D. Shpg. Wt., 1 oz.
Type 4001. Normally open. Red Button.
Type 4002. Normally open. Black Button.

Stk. No	Type	1-49	50-99	100 & Up
24F202	4001	1.00	.75	.60
24F203	4C02	1.00	.75	.60

BUTTON GUARD FOR SERIES 2000, 4000 & 35-1

Type 10C1015. Provides protective recess for buttons. Brass cadmium plated, fits 15/32"—32 thread. Wt., 1/2 oz.

Stk. No.	Type	1-49	50-99
23F496	10C1015	.25	.19
DECORATIVE MTG. NUT			
57F1514	7C1040	.15	.11

Control Switches

LINEMASTER FOOT SWITCHES

A. 4141-D B. 122-S C. 491-S D. B-2-S E. T-51-S F. 632-S G. L-2-S H. 476-S

Fig. A. Model 4141-D. Leave both hands. Just press lightly with your foot or knee. You can mount this DPST single phase switch on a wall or on the side of a bench. Maintained contact unit. Precision-built for long life. Rated 20 amps. AC or DC, 125 to 250 v 1 horsepower. 4x7x3¼". Shpg. wt., 5¼ lbs.

Model 4141-D1. Switch interior repl. for above.

Model 4141-S. Momentary contact.

Model 4141-S1. Switch interior repl. for above

Fig. B. Model 122-S. A momentary contact switch for lightest pressure contact. Can be used as Single Pole, normally open or closed, or as an SPDT. 20 Amps at 115-200 V. 5½x3¼x1¼. 1 lb.

Fig. C. Model 491-S. Many industrial and commercial uses for this small, compact, and lightweight SPDT switch. Precision-made for accurate operation and sturdily built for long life. Steel housing. Skid-proof rubber base pad. Less cord and plug. Ratings: 10 amps. at both 115 v. and 230 v. Wt., 7 oz.

Model 491-SC. As above but with 2-prong series plug & 6' cord.

Model 491-S1. Replacement interior for above.

Model 491-SC3. As above but with 3-prong series plug & 8' cord.

Fig. D. The Executive. B-2-S. Two Switches in one using the teeter-totter principle to operate only one circuit at a time. SPDT. 15 Amps at 125-250 Volts. 4x4⅝x1⅛". Shpg. wt., 14 oz.

Stk. No.	Type	1-9	10-19	20-49
24F160	4141-D	11.00	9.90	8.80
24F172	4141-D1	4.00	3.60	3.20
24F164	4141-S	11.00	9.90	8.80
24F173	4141-S1	4.70	4.23	3.76
24F161	122-S	8.50	7.65	6.80
24F165	491-S	3.25	2.93	2.60
24F162	491SC	5.00	4.50	4.00
24F174	491-S1	1.70	1.53	1.35
24F154	491-SC3	5.85	5.27	4.69
24F169	B-2-S	7.50	6.75	6.00

Fig. E. The Treadlite. A small, yet versatile and rugged foot switch designed to give instantaneous and accurate control at low amperage loads. Less cord and plug set. 7 Amps at 110-250 Volts. 3½x2⅝x1". Shipping weight, 8 oz.

Model T-51-S. Single pole, double throw, momentary contact only. Can be used normally open or closed, as desired.

Model T-51-SC. As above with 2-prong series plug and 6' cord set.

Model T-51-SC3. As above with 3-prong series plug and 8' cord set.

Model T-51-S1. Replacement interior for T-51-S.

Model T-52-S. Has interiors so constructed and positioned that a partial downward stroke of the treadle actuates one interior and either opens or closes a circuit. Continued heavier pressure will either open or close a second circuit. Both are SPDT.

Fig. F. The Clipper. A rugged Unit designed for continued operation under heavy loads. Rated 20 Amps at 125-250 Volts. SPDT. 4½x3½x1½". Shipping weight, 2¼ lbs. Two models. 632-S momentary, 632-D maintained contact.

Fig. G. The Lektro-Lok. L-2-S. This switch operates on the teeter-totter principle with selective circuits. Mechanical interlock prevents both circuits from being operative at the same time. SPDT. Can be wired normally open or normally closed. Rated 15 amps at 125-250 Volts. AC only. 10 oz.

Fig. H. Model 476S. Two SPDT switches in double-pressure housing. Light spring for seated operation, may be wired as Single Pole, normally open or closed, are 8½x3½x2". Shipping weight, 1¾ lbs.

Stk. No.	Type	1-9	10-19	20-49
24F163	T-51-S	2.75	2.48	2.20
24F155	T-51-SC	4.00	3.60	3.20
24F156	T-51-SC3	5.00	4.50	4.00
24F175	T-51-S1	.75	.68	.60
24F167	T-52-S	4.65	4.19	3.71
24F170	632-S	8.25	7.43	6.60
24F171	632-D	11.00	9.90	8.80
24F168	L-2-S	5.80	5.22	4.64
24F166	476S	14.00	12.60	11.20

STACKPOLE SWITCHES

SIZE CHART

A 17/32x1 3/8x9/32"
B 17/32x1 3/8x11/32"
C 17/32x1 57/64x31/64"
D 17/32x1 57/64x9/32"
E 17/32x1 57/64x11/32"

Attractive low-cost AC-DC switches for hundreds of different applications. Mtg. holes are .136 .140" clearance holes. All switches are non-shorting types, break before make. Solder lug terminals designed to accept AMP Faston Series 110 or the equivalent. U.L. and CSA listed except SS-47 and SS-47-1.

SLIDE SWITCHES

The triggers are made of a high impact resistant molded black phenolic or nylon. 11/32" high. †Push button, momentary contact.

Stock No.	Type	Action	Amps @ 125VAC	Sz.	1-24	25-49	50-99	100-499	500-999
60F3300	SS-15-1	SPST†	3.0	A	.34	.27	.22	.179	.129
60F3301	SS-26	SPST	4 0	A	.28	.22	.17	.142	.092
60F3302	SS-26-1	SPDT	4 0	A	.29	.23	.18	.144	.094
60F3303	SS-50	DPDT	3.0	B	.30	.24	.19	.158	.108
60F3304	SS-16	DP3T	6.0	C	.40	.32	.26	.212	.162
60F3305	SS-18	DP4T	6 0	C	.44	.35	.28	.233	.183
60F3306	SS-34	3PDT	6.0	C	.55	.44	.35	.287	.237
60F3307	SS-36	SPST	6.0	A	.30	.24	.19	.159	.109
60F3308	SS-36-1	SPDT	6.0	A	.30	.24	.19	.159	.109
60F3309	SS-31	SP3T	6.0	A	.35	.28	.23	.185	.135
60F3310	SS-33	DPDT	6.0	C	.39	.31	.25	.209	.159
60F3311	SS-38	DP3T	6.0	C	.44	.35	.28	.233	.183
60F3312	SS-47	SPST	10 0	A	.38	.30	.24	.198	.148
60F3313	SS-47-1	SPDT	10 0	A	.41	.33	.26	.214	.164

Slide Switch

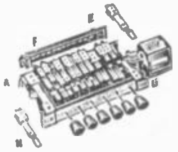
Flush Bracket

Offset Bracket

ROCKER SWITCHES

Rocker knobs made of molded Delrin. Approx. 11/16" above switch body. Three bracket configurations available. Fig. A, flush bracket (FB), Fig. B offset bracket (OB). SPST and SPDT types rated 4 amps @ 125 VAC, DPDT rated 3 amps @ 125 VAC.

Stock No.	Type & Bracket	Action	Knob Color	Sz.	1-24	25-49	50-99	100-499	500-999
60F3314	RS-26-FB	SPST	Blk	A	.48	.38	.30	.248	.198
60F3315	RS-26-FB	SPST	Wt	A	.53	.42	.33	.273	.209
60F3316	RS-26-FB	SPST	Red	A	.53	.42	.33	.273	.209
60F3317	RS-26-OB	SPST	Blk	D	.49	.39	.31	.255	.205
60F3318	RS-26-OB	SPST	Wt	D	.54	.43	.34	.28	.216
60F3319	RS-26-OB	SPST	Red	D	.54	.43	.34	.28	.216
60F3320	RS-26-1-FB	SPDT	Blk	A	.48	.38	.30	.248	.198
60F3321	RS-26-1-FB	SPDT	Wt	A	.53	.42	.33	.273	.209
60F3322	RS-26-1-FB	SPDT	Red	A	.53	.42	.33	.273	.209
60F3323	RS-26-1-OB	SPDT	Blk	D	.49	.39	.31	.255	.205
60F3324	RS-26-1-OB	SPDT	Wt	D	.54	.43	.34	.28	.216
60F3325	RS-26-1-OB	SPDT	Red	D	.54	.43	.34	28	.216
60F3326	RS-50-FB	DPDT	Blk	B	.50	.40	.32	.266	.216
60F3327	RS-50-FB	DPDT	Wt	B	.59	.47	.37	.291	.227
60F3328	RS-50-FB	DPDT	Red	B	.59	.47	.37	.291	.227
60F3329	RS-50-OB	DPDT	Blk	E	.53	.42	.33	.273	.223
60F3330	RS-50-OB	DPDT	Wt	E	.60	.48	.38	.298	.234
60F3331	RS-50-OB	DPDT	Red	E	.60	.48	.38	.298	.234



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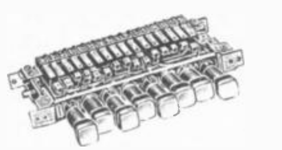

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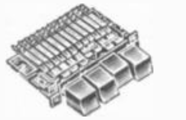

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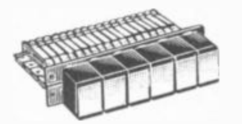


D

J

FIG. A—SERIES 7000 NON-ILLUMINATED FRAMES

Mount on panels up to 3/8" thick, 3 11/16" depth behind panel. Brown push-on button for each station, extra red button for release. Buttons on 5/8" centers by adjusting "Stop Plate" interlock switch changes to non-lock; by re-positioning changes to all-lock. Frames available from 1 to 37 stations. Frames less switches. Shpg. wt. 1 1/2 lbs.

Stk. No.	Type	Stns.	1-9	10-24	25-49	50-99	100-249	250-499	500-999
22F350	7200	2	6.80	5.10	4.68	4.25	3.40	3.23	3.06
22F352	7400	4	9.60	7.20	6.60	6.00	4.80	4.56	4.32
22F354	7600	6	12.80	9.60	8.80	8.00	6.40	6.08	5.76
22F356	7800	8	16.00	12.00	11.00	10.00	8.00	7.60	7.20
22F358	71000	10	19.20	14.40	13.20	12.00	9.60	9.12	8.64
22F360	71200	12	22.40	16.80	15.40	14.00	11.20	10.64	10.08

FIG. C—SERIES 35000 littel NON-ILLUMINATED FRAMES

Non-illuminated frames similar to Series 7000, but new compact low silhouette design. Only 3/4" height; 2 5/16" depth behind panel. Plunger on 5/8" centers. All functions available. Only interlock function with "built-in" lock-out listed below—other functions available on special order. Other frames available from 1 to 18 stations. Frames less switches. Shpg. wt. 1 1/2 lbs.

Stk. No.	Type	Stns.	1-9	10-24	25-49	50-99	100-249	250-499	500-999
26F867	35021	2	6.80	5.10	4.68	4.25	3.40	3.23	3.06
26F868	35041	4	9.60	7.20	6.60	6.00	4.80	4.56	4.32
26F869	35061	6	12.80	9.60	8.80	8.00	6.40	6.08	5.76
26F870	35081	8	16.00	12.00	11.00	10.00	8.00	7.60	7.20
26F871	35101	10	19.20	14.40	13.20	12.00	9.60	9.12	8.64
26F872	35121	12	22.40	16.80	15.40	14.00	11.20	10.64	10.08

FIG. J — SERIES 39000 "MULTI SLIDE" SWITCH

Switch features interlock, non-lock, and all-lock functions. Special slide to release cancelling operation. 1 to 18 stations. To 3PDT circuitry per station. 3/4" depth. Shpg. wt. 1 1/4 lbs.

Stk. No.	Type	Stns.	1-9	10-24	25-49	50-99	100-249	250-499	500-999
27F036	39021	2	7.60	5.70	5.23	4.75	3.80	3.61	3.42
27F037	39041	4	11.60	8.70	7.98	7.25	5.80	5.51	5.22
27F038	39061	6	14.40	10.80	9.90	9.00	7.20	6.84	6.48
27F039	39081	8	18.00	13.50	12.38	11.25	9.00	8.55	8.10
27F040	39101	10	21.60	16.20	14.85	13.50	10.80	10.26	9.72
27F041	39121	12	25.20	18.90	17.33	15.75	12.60	11.97	11.34

65000 SERIES DW "MULTI-SWITCH"

Requires only 1 1/16" depth behind panel. Feature double-wipe bifurcated contactors of silver plating and are rated at 3 amps A.C., 5 amp. D.C. 125V, non-inductive load. Solder lug terminals. Shpg. wt. 3 oz.

Stk. No.	Type	Sta.	1-9	10-24	25-49	50-99	100-249	250-499	500-up
INTERLOCK									
22F137	65021K-206	2	2.24	1.68	1.54	1.40	1.12	1.06	1.01
22F138	65041K-206	4	4.00	3.00	2.75	2.50	2.00	1.90	1.80
22F139	65061K-206	6	5.76	4.32	3.96	3.60	2.88	2.74	2.59
22F140	65081K-206	8	7.52	5.64	5.17	4.70	3.76	3.57	3.38
22F141	65101K-206	10	9.24	6.93	6.35	5.78	4.62	4.39	4.16
22F142	65121K-206	12	11.00	8.25	7.56	6.88	5.50	5.23	4.95
ALL-LOCK									
22F143	65023-206	2	2.24	1.68	1.54	1.40	1.12	1.06	1.01
22F144	65043-206	4	4.00	3.00	2.75	2.50	2.00	1.90	1.80
22F145	65063-206	6	5.76	4.32	3.96	3.60	2.88	2.74	2.59
22F146	65083-206	8	7.52	5.64	5.17	4.70	3.76	3.57	3.38
22F147	65103-206	10	9.24	6.93	6.35	5.78	4.62	4.39	4.16
22F148	65123-206	12	11.00	8.25	7.56	6.88	5.50	5.23	4.95
NON-LOCK									
22F090	65022-206	2	2.12	1.59	1.46	1.33	1.06	1.01	.95
22F091	65042-206	4	3.88	2.91	2.67	2.43	1.94	1.84	1.75
22F092	65062-206	6	5.60	4.20	3.85	3.50	2.80	2.66	2.52
22F093	65082-206	8	7.36	5.52	5.06	4.60	3.68	3.50	3.31
22F094	65102-206	10	9.04	6.78	6.22	5.65	4.52	4.29	4.07
22F095	65122-206	12	10.80	8.10	7.43	6.75	5.40	5.13	4.86

FIG. G—SOLENOID RELEASE

For Series 7000, 21000. Automatic remote release of depressed stations. 115V A.C., 60 cycle with mtg. brkt. and screws.

Stock No.	Type	Function	1-9	10-24	25-49	50-99	100-249	250-499	500-999
22F295	J-1	Interlock	7.60	5.70	5.23	4.75	3.80	3.61	3.42
22F296	J-3	All-Lock	8.00	6.00	5.50	5.00	4.00	3.80	3.60
22F293	NJ-1	Interlock	8.00	6.00	5.50	5.00	4.00	3.80	3.60
22F294	NJ-3	All-Lock	8.00	6.00	5.50	5.00	4.00	3.80	3.60

FIG. B—SERIES 21000 ILLUMINATED FRAMES

Similar to Series 7000 but feature modern sq. buttons. Knurled retaining collar holds lamp securely and diffuses light. Buttons light in "IN" positions. Use either 6V or 28V lamps. Frames supplied less lamps and stack switches. Shpg. wt. 1 1/2 lbs.

Stk. No.	Type	Stns.	1-9	10-24	25-49	50-99	100-249	250-499	500-999
26F728	21200	2	11.60	8.70	7.98	7.25	5.80	5.51	5.22
26F730	21400	4	19.60	14.70	13.48	12.25	9.80	9.31	8.82
26F732	21600	6	27.60	20.70	18.98	17.25	13.80	13.11	12.42
26F734	21800	8	36.00	27.00	24.75	22.50	18.00	17.10	16.20
26F736	211000	10	44.00	33.00	30.25	27.50	22.00	20.90	19.80
26F738	211200	12	52.00	39.00	35.75	32.50	26.00	24.70	23.40

FIG. D — SERIES 37000 LITTEL ILLUMINATED FRAMES

All operating functions are available in this new illuminated multiple station pushbutton switch. Each pushbutton station serves as a color coded panel indicator light which actuates up to 6PDT switching. "L" type button lights in "IN" position. "M" type button lights in "OUT" position. "N" type button lights in "IN" and "OUT" position. Supplied less lamps and switches. Use 6V or 28V lamps. Avg. Shpg. wt. 5 oz.

Stk. No.	Type	Stns.	1-9	10-24	25-49	50-99	100-249	250-499	500-999
26F873	37021	2	9.52	7.14	6.55	5.95	4.76	4.52	4.28
26F874	37041	4	15.44	11.58	10.62	9.65	7.72	7.33	6.95
26F875	37061	6	21.36	16.02	14.69	13.35	10.68	10.15	9.61
26F876	37081	8	27.68	20.76	19.03	17.30	13.84	13.15	12.46
26F877	37101	10	33.60	25.20	23.10	21.00	16.80	15.96	15.12
26F878	37121	12	39.52	29.64	27.17	24.70	19.76	18.77	17.78

LAMPS FOR SERIES 21000 AND 37000

25F123. Ind. No. 328 6 volt lamp. Each .53. Lots of 10 each 3.29
25F122. Ind. No. 327 28 volt lamp. Each .71. Lots of 10 each 4.20

FIG. H — STACK SWITCHES

For Series 7000, 21000. Series 70, silver contacts for power circuits; Series 70P. welded cross bar palladium contacts for low level circuits. Both rated at 3 amps, 300 watts, max., A.C. non-inductive load. If more than one circuit is required specify two or more stacks in order to balance load on switch plunger. Two mtg. screws and one pressure plate furnished. Shp. wt., 1 oz.

Stk. No.	Type	Cont.	1-9	10-24	25-49	50-99	100-249	250-499	500-999
SERIES 70 SILVER CONTACTS									
22F361	71	1-A	.48	.36	.33	.30	.24	.228	.216
22F362	72	1-B	.48	.36	.33	.30	.24	.228	.216
22F363	73	1-C	.56	.42	.385	.35	.28	.266	.252
22F365	74	2-A	.80	.60	.55	.50	.40	.38	.36
22F366	75	2-B	.80	.60	.55	.50	.40	.38	.36
22F367	76	2-C	.92	.69	.633	.575	.46	.437	.414
22F385	701P	1-A	.56	.42	.385	.35	.28	.266	.252
22F386	703P	1-C	.72	.54	.495	.45	.36	.342	.324
22F387	701	1-A	.48	.36	.33	.30	.24	.228	.216
22F388	703	1-C	.64	.48	.44	.40	.32	.304	.288
SERIES 70P PALLADIUM CONTACTS									
22F369	71P	1-A	.56	.42	.385	.35	.28	.266	.252
22F370	72P	1-B	.56	.42	.385	.35	.28	.266	.252
22F371	73P	1-C	.72	.54	.495	.45	.36	.342	.324
22F373	74P	2-A	.92	.69	.633	.58	.46	.437	.414
22F374	75P	2-B	.92	.69	.633	.58	.46	.437	.414
22F375	76P	2-C	1.08	.81	.743	.675	.54	.513	.486
27F042	83PD	1-D	.80	.60	.55	.50	.40	.38	.36

FIG. F—LOCK-OUT BAR

Prevents operation of more than one button at a time. Mounts on back of Series 7000, 21000 frame. Supplied with mtg. hardware.

Stk. No.	Type	Stns.	1-9	10-24	25-49	50-99	100-249	250-499	500-999
22F280	K-02	2	2.40	1.80	1.65	1.50	1.20	1.14	1.08
22F282	K-04	4	2.60	1.95	1.79	1.63	1.30	1.24	1.17
22F284	K-06	6	2.80	2.10	1.93	1.75	1.40	1.33	1.26
22F286	K-08	8	3.00	2.25	2.06	1.88	1.50	1.43	1.35
22F288	K-10	10	3.40	2.55	2.34	2.13	1.70	1.62	1.53
22F290	K-12	12	3.80	2.85	2.61	2.38	1.90	1.81	1.71
22F281	K-15	15	4.40	3.30	3.03	2.75	2.20	2.09	1.98

Fig. E — STACK SWITCHES FOR littel "MULTI-SWITCHES"

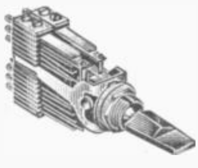
Switch stacks for Series 35000, 37000. Series 80P cross-bar welded palladium contacts rated at 3 amps, 300 watts, max., A.C. non-inductive load. Order 80P for switching only, H-83P for lighting (2 per station). With pressure plate and screws. Shpg. wt., 1 oz.

Stk. No.	Type	Cont.	1-9	10-24	25-49	50-99	100-249	250-499	500-999
26F882	81P	1-A	.56	.42	.39	.35	.28	.266	.252
26F883	82P	1-B	.56	.42	.39	.35	.28	.266	.252
26F884	83P	1-C	.72	.54	.50	.45	.36	.342	.342
26F885	H83P	1-C	1.00	.75	.69	.63	.50	.475	.450
22F396	801P	1-B	.56	.42	.385	.35	.28	.266	.252
22F397	803P	1-C	.72	.54	.495	.45	.36	.342	.324
22F398	H803P	1 C	1.00	.75	.688	.625	.50	.475	.45

All other Switchcraft "Multi-Switches" available from NEWARK. Write for FREE Catalog 26F739 and 26F741.

SWITCHCRAFT® Switches

"LT" SWITCH SERIES 41000



Telever telephone type lever switch. Features unique "U" shaped construction with a "Can't Cheat" detent guide which prevents accidental actuator by-pass of a switching position. Welded cross bar palladium contacts rated at 3 amps., 200 watts max., A.C., non-inductive load, are standard. Mounts on 23/32" centers, in a 15/32" dia. hole, in panels up to 1/4". Insulation is paper base phenolic with plastic tubing through the stack assembly. Frame is steel, iridescent iridite finish over cadmium plating. With mtg. hdwe.

2-POSITION TYPE

Type	Non-Lock	Lock-ing	Cont. Form	1-24	25-99	50-99	100-249	250-499	500-999
41203	22F341	22F345	1-C	2.40	2.20	2.00	1.60	1.52	1.44
41206	22F342	22F346	2-C	3.00	2.75	2.50	2.00	1.90	1.80
41208	22F343	22F347	4-A	3.30	3.03	2.75	2.20	2.09	1.98
41212	22F344	22F348	4-C	4.05	3.71	3.38	2.70	2.57	2.43
3-POSITION TYPE									
41306	22F377	22F381	1-C	3.00	2.75	2.50	2.00	1.90	1.80
41308	22F378	22F382	2-A	3.30	3.03	2.75	2.20	2.09	1.98
41312	22F379	22F383	2-C	4.05	3.71	3.38	2.70	2.57	2.43
41324	22F380	22F384	4-C	6.00	5.50	5.00	4.00	3.80	3.60

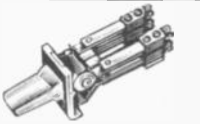
LEVER LITE 25000 SERIES SWITCH

An illuminated switch to color code switching position. Available in 2 or 3 position models. Individual colors to indicate individual circuit. Requires only 2¼" behind panel. Ideal for multi operation. Complete with 6 volt 200 Ma lamp and six color chips. 2¼x39/64x1-11/32". Wt. 5 oz. *Kit contains 5 colors: green, amber, yellow, blue and white.

2 POSITION TYPE

Type	Non-lock	Lock-ing	Cont. Form	1-24	25-49	50-99	100-249	250-499	500-999
25201	26F704	26F700	1-A	2.40	2.20	2.00	1.60	1.52	1.44
25203	26F705	26F701	1-C	2.55	2.34	2.13	1.70	1.62	1.53
25206	26F706	26F702	2-C	3.00	2.75	2.50	2.00	1.90	1.80
25209	26F707	26F703	3-C	3.45	3.16	2.88	2.30	2.19	2.07
3 POSITION TYPE									
25304	26F712	26F708	1-A	2.70	2.48	2.25	1.80	1.71	1.62
25306	26F713	26F709	1-C	3.00	2.75	2.50	2.00	1.90	1.80
25308	26F714	26F710	2-A	3.30	3.03	2.75	2.20	2.09	1.98
25312	26F715	26F711	2-C	3.60	3.30	3.00	2.40	2.28	2.16
K-105	26F716	Color Chip Kit*		.24	.22	.20	.16	.152	.144
531	26F740	Escutcheon Plate		.09	.08	.07	.06	.057	.054

"LEVER LITE" SWITCH SERIES 27000



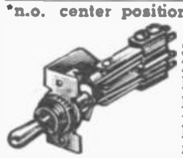
Same as 25000 Series except lever and filters. Mounts on ¾" centers, panels to 3/32" thk., depth 2 11/16". On 2 pos., AMBER in "Neutral"; GREEN in "Down". On 3 pos., RED in "Up"; AMBER in "Neutral"; GREEN in "Down". W/6V lamp. 2 oz.

2 POSITION TYPE

Type	Non-lock	Lock-ing	Cont. Form	1-24	25-49	50-99	100-249	250-499	500-999
27206	26F832	26F834	2-C	3.90	3.58	3.25	2.60	2.47	2.34
27212	26F833	26F835	4-C	4.80	4.40	4.00	3.20	3.04	2.88
3 POSITION TYPE (+Ea. sec.)									
27306	26F836	26F839	+1-C	3.90	3.58	3.25	2.60	2.47	2.34
27307	26F837	26F840	+1-C*	3.99	3.66	3.33	2.66	2.53	2.39
27312	26F838	26F841	+2-C	4.80	4.40	4.00	3.20	3.04	2.88
532	26F842	Escutchen Pl.		.15	.14	.13	.10	.095	.09
P1864	26F879	Lt. shld. F/above		.06	.055	.05	.04	.038	.036

*n.o. center position off. @ See below replacement bulbs.

SERIES 29000 FEATHER-LEVER SWITCH



Steel frame, nylon roller, silver contacts at 2 amps., 200 W max., A.C., non-inductive load. Bushing mount, in 4/16: O.D., hole in panels to ⅛" thk. Depth behind panel, 1 9/32", + n. o. cir. position off. ‡ InterCom "Talk-Listen" switch leverlock on one side of neutral and on-locking on other. 3 oz.

2 POSITION TYPE

Type	Non-lock	Lock-ing	Cont. Form	1-24	25-49	50-99	100-249	250-499	500-999
29201	26F843	26F847	1-A	1.17	1.07	.98	.78	.741	.702
29203	26F844	26F848	1-C	1.35	1.24	1.13	.90	.855	.81
29204	26F845	26F849	2-A	1.50	1.38	1.25	1.00	.95	.90
29206	26F846	26F850	2-C	1.65	1.51	1.38	1.10	1.05	.99
3 POSITION TYPE (+ea. sec.)									
29304	26F852	26F857	+1-A	1.56	1.43	1.30	1.04	.988	.936
29306	26F853	26F858	+1-C	1.74	1.60	1.45	1.16	1.10	1.04
29312	26F855	26F860	+2-C	2.25	2.06	1.88	1.50	1.43	1.35
‡ Intercom. switches									
29303T	26F861	....	1-C	1.50	1.38	1.25	1.00	.95	.90
29307T	26F862	....	2-C	1.77	1.62	1.48	1.18	1.12	1.06
532	26F842	Escutcheon Plate		.14	.15	.13	.10	.095	.09

NOTE: On all switches listed on this page add suffix letter L to manufacturer's type number to indicate locking type.

LEV-R SWITCHES SERIES 3000 + 13000

Types 3033-3037 and 13033-13037 are three position switches with one form C only. Fine silver contracts rated at 3 amps, 300 watts max. AC non-inductive load. Non-locking types have spring return series 3000 mounts in panels up 3/32 thick; series 13000 mounts in panels up to ¼ thick. Both series are ⅝" wide; requires 2¼" behind panel; mounts in single ½" dia. hole, 1 N.O. center position off. †"Talk-Listen" switches, lever locks on one side of neutral and non-locking on other side. 3 position switches have same contact for both sections or each side. Supplied with lock nut and screw-on black knob. Wt: 3 oz.

2 POSITION TYPE

Type	Stk. No. Non-lock	Stk. No. Lock-ing	Cont. Form	1-24	25-49	50-99	100-249	250-499	500-999
3001	22F300	22F311	1-A	1.20	1.10	1.00	.80	.76	.72
3002	22F301	22F312	1-B	1.20	1.10	1.00	.80	.76	72
3003	22F302	22F313	1-C	1.41	1.29	1.18	.94	.893	.846
3005	22F303	22F314	2-B	1.56	1.43	1.30	1.04	.988	.936
3006	22F305	22F316	2-C	1.71	1.57	1.43	1.14	1.08	1.03
13001	27F043	27F051	1-A	1.32	1.21	1.10	.88	.836	.792
13003	27F044	27F052	1-C	1.50	1.38	1.25	1.00	.95	.90
13006	27F045	27F053	2-C	1.71	1.57	1.43	1.14	1.08	1.03
13009	27F046	27F054	3-C	2.40	2.20	2.00	1.60	1.52	1.44
3 POSITION TYPE									
3033	22F306	22F317	1-C†	1.56	1.43	1.30	1.04	.988	.936
3034	22F307	22F318	1-A	1.62	1.49	1.35	1.08	1.03	.972
3035	22F308	22F319	1-B	1.62	1.49	1.35	1.08	1.03	.972
3036	22F309	22F320	1-C	1.80	1.65	1.50	1.20	1.14	1.08
3037	22F310	22F321	1-C†	1.83	1.68	1.53	1.22	1.16	1.10
13033	27F047	27F055	1-C†	1.65	1.51	1.38	1.10	1.05	.99
13034	27F048	27F056	1-A	1.71	1.57	1.43	1.14	1.08	1.03
13036	27F049	27F057	1-C	2.01	1.84	1.68	1.34	1.27	1.21
13037	27F050	27F058	1-C†	2.01	1.84	1.68	1.34	1.27	1.21

SERIES 6000 TELEVER SWITCHES

Featuring "T-Beam" construction with Irridite finished steel frame. Palladium contacts rated at 3 A., 120 volts, non-inductive load. Size, 4 9/32x1⅝x⅞". Wt., 3 oz.

2-POSITION TYPE

Type	Non-Lock	Lock-ing	Cont. Form	1-24	25-49	50-99	100-249	250-499	500-999
6006	22F322	22F331	2-C	3.00	2.75	2.50	2.00	1.90	1.80
6008	22F323	22F332	4-A	3.36	3.08	2.80	2.24	2.13	2.02
6009		22F333	3-C	3.60	3.30	3.00	2.40	2.28	2.16
60012	22F325	22F334	4-C	4.08	3.74	3.40	2.72	2.58	2.45
3-POSITION TYPE									
6036	22F327	22F336	1-C	3.00	2.75	2.50	2.00	1.90	1.80
6038	....	22F337	2-A	3.36	3.08	2.80	2.24	2.13	2.02
60312	22F329	22F338	2-C	4.08	3.74	3.40	2.72	2.58	2.45
60324	22F330	22F339	4-C	6.00	5.50	5.00	4.00	3.80	3.60
22F340	530	Escutcheon Plate.		.36	.33	.30	.24	.228	.216
22F399	MT1178-2	Knob		.21	.193	.175	.14	.133	.126

SERIES 16000 TELEVER SWITCHES

Similar to the 6000 Series. Single hole mounting; mounts in ½" dia. hole for panels up to ¼" thick. Size: 4 7/16x1⅞x⅞". Shpg. wt., 3 oz. **May be converted to "locking" by removing stop plate.**

2-POSITION TYPE

Non-locking Stk. No.	Type	Contact Form	1-24	25-49	50-99	100-249	250-499	500-999
22F215	16006	2-C	3.00	2.75	2.50	2.00	1.90	1.80
22F216	16006D	2-D	3.36	3.08	2.80	2.24	2.13	2.02
22F217	16008	4-A	3.36	3.08	2.80	2.24	2.13	2.02
22F218	16009	3-C	3.60	3.30	3.00	2.40	2.28	2.16
22F219	160012	4-C	4.08	3.74	3.40	2.72	2.58	2.45
22F220	160012D	4-D	4.50	4.13	3.75	3.00	2.85	2.70
22F221	160024	8-C	6.00	5.50	5.00	4.00	3.80	3.60
3-POSITION TYPE								
22F222	16036	1-C	3.00	2.75	2.50	2.00	1.90	1.80
22F224	16038	2-A	3.36	3.08	2.80	2.24	2.13	2.02
22F225	160312	2-C	4.08	3.74	3.40	2.72	2.58	2.45
22F226	160312D	2-D	4.50	4.13	3.75	3.00	2.85	2.70
22F227	160316	4-A	5.28	4.84	4.40	3.52	3.34	3.17
22F228	160324	4-C	6.00	5.50	5.00	4.00	3.80	3.60

LAMPS FOR "LEVER-LITE" AND "LITTEL-LITE" SWITCHES

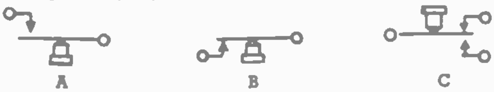
Stk. No.	Type	Volt.	Base	Current	1-9	10-99	100-499	500-up
25F149	1768	6V	Screw	200 Ma	.92	.553	.500	.500
26F508	335	28V	Screw	40 Ma	1.54	.93	.82	.709

Switches and Connectors SWITCHCRAFT INC.

LITTEL SWITCHES

These are momentary contact switches, no bigger than a small phone jack. Available in three circuits with red or black, one-piece push-button (non-locking only). All contacts are thoroughly insulated from panel bushing with interlocking phenolic washers. Springs are special nickel-silver alloy. Integral contacts; recommended for low current circuits only. Plastic button and shaft need not be removed for mounting. Mounts in 3/8" dia. hole in panels up to 1/4". Complete with locknut and washer. Shpg. wt., 1 oz.

CONTACT CIRCUITS FOR LITTEL SWITCHES



BLACK BUTTON

Stock No.	Type	Circuit Figure	Switch Action	1-24	25-49	50-99	100-249
22F207	201	1-A	SPST NO	.57	.52	.48	.38
22F208	202	1-B	SPST NC	.57	.52	.48	.38
22F209	203	1-C	SPDT	.66	.61	.55	.44

RED BUTTON

Stock No.	Type	Circuit Figure	Switch Action	1-24	25-49	50-99	100-249
22F210	101	1-A	SPST NO	.57	.52	.48	.38
22F211	102	1-B	SPST NC	.57	.52	.48	.38
22F212	103	1-C	SPDT	.66	.61	.55	.44

ILLUMINATED "LITTEL-LITE" SWITCHES

Series 210 are small, momentary contact, illuminated pushbutton types. One piece, clear plastic button and shaft is illuminated by a single miniature lamp. Includes kit of 4 color chips (red, amber, green, and yellow). Recommended for low level circuits. Switches with suffix "S" have fine silver contacts rated at 3 amps. 300 watts, max., AC, non-inductive load. Lighting circuit is independent of switching circuit. Mounts on 3/8" centers, panels to 1/4" thick.

Stock No.	Type	Circuit Figure	Switch Action	1-24	25-49	50-99	100-249
26F800	211	1-A	SPST NO	1.02	.94	.85	.68
26F801	212	1-B	SPST NC	1.02	.94	.85	.68
26F802	213	1-C	SPDT	1.20	1.10	1.00	.80
26F803	211S	1-A	SPST NO	1.17	1.07	.98	.78
26F804	212S	1-B	SPST NC	1.17	1.07	.98	.78
26F805	213S	1-C	SPDT	1.35	1.24	1.13	.90
26F806	K106	....	Chip Kit	.18	.17	.15	.12

LAMPS FOR "LEVER-LITE" AND "LITTEL-LITE" SWITCHES

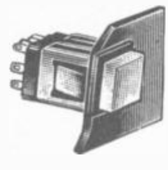
Stk. No.	Type	Volt.	Base	Current	Ea.	10 for	100 for
25F149	1768	6V	Screw	200 Ma	.87	5.21	47.09
26F508	335	28V	Screw	40 Ma	1.45	8.76	78.84

SERIES DA SWITCH

Miniature momentary action pushbutton switch. Meets Human Factor Engineering considerations. Mounts on 17/32" centers. Available in six colors for control panel coding. Body of anodized aluminum protects the contacts. Terminals come straight out in back for easy wiring. Data Switches provide an A A - B arrangement, which may be wired externally to provide 1-C switching. Hard-gold contacts rated 500 ma., 50 watts max. A.C., non-inductive load.

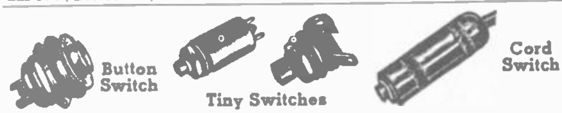
Stock No.	Type No.	Color	1-24	25-49	50-99	100-249	250-499	500-999
27F000	DA-01-3	Red	1.35	1.24	1.13	.90	.855	.81
27F001	DA-02-3	Black						
27F002	DA-03-3	Green						
27F003	DA-04-3	Blue						
27F004	DA-05-3	White						
27F005	DA-08-3	Yellow						

● NEW BOX SWITCH



A flush mounted, momentary action push-button switch. Offers broad switching capabilities in minimum panel space. For control panel application in computers, data processors, ground support equipment, machine and process controls, test equipment, and telephones. 11/16" square. 4 switching poles; 2 limited to single throw. Solder lug terms. Silver plated, brass integral contacts.

Stock No.	Type	Contact Assembly	Button Color	1-24	25-49	50-99	100-249	250-499	500-999
22F960	BX-01-1	1-A	Red	1.95	1.79	1.63	1.30	1.24	1.17
22F961	BX-01-3	1-C	Red	2.04	1.87	1.70	1.36	1.29	1.22
22F962	BX-01-6	2-C	Red	2.25	2.06	1.88	1.50	1.43	1.35
22F963	BX-01-10	2-C, 2-A	Red	2.55	2.34	2.13	1.70	1.62	1.53
22F964	BX-02-1	1-A	Black	1.95	1.79	1.63	1.30	1.24	1.17
22F965	BX-02-3	1-C	Black	2.04	1.87	1.70	1.36	1.29	1.22
22F966	BX-02-6	2-C	Black	2.25	2.06	1.88	1.50	1.43	1.35
22F967	BX-02-10	2-C, 2-A	Black	2.55	2.34	2.13	1.70	1.62	1.53
22F968	BX-03-1	1-A	Green	1.95	1.79	1.63	1.30	1.24	1.17
22F969	BX-03-3	1-C	Green	2.04	1.87	1.70	1.36	1.29	1.22
22F970	BX-03-6	2-C	Green	2.25	2.06	1.88	1.50	1.43	1.35
22F971	BX-03-10	2-C, 2-A	Green	2.55	2.34	2.13	1.70	1.62	1.53
22F972	BX-05-1	1-A	White	1.95	1.79	1.63	1.30	1.24	1.17
22F973	BX-05-3	1-C	White	2.04	1.87	1.70	1.36	1.29	1.22
22F974	BX-05-6	2-C	White	2.25	2.06	1.88	1.50	1.43	1.35
22F975	BX-05-10	2-C, 2-A	White	2.55	2.34	2.13	1.70	1.62	1.53



BUTTON SWITCHES

Non-locking, push button switch. Rated at 250 mils., non-inductive load, AC, 30 watts max. Size: 1/2"Dx1"L. Wt. 2 oz. *Numeral indicates No. of sets of contacts.

Stk. No.	Type	Description	Contact* Arrange.	1-24	25-49	50-99	100-249
22F229	903	Red button	1C	.84	.77	.70	.56
22F230	903D	Red button	1D				
22F233	913	Black button	1C				
22F234	913D	Black button	1D				
22F231	923	Red button	1C	.90	.83	.75	.60
22F232	923D	Red button	1D				
22F235	933	Black button	1C				

TINY SWITCHES

Subminiature design. Integral silver contacts for low level circuits where low contact resistance is not a factor. Size: 7/16D.x1 1/16"L.

Stk. No.	Type	Description	Contact Arrange.	1-24	25-49	50-99	100-249
22F237	951	Red button	1A	.57	.52	.48	.38
22F238	952	Red button	1B				
22F240	961	Black button	1A				
22F241	962	Black button	1B				
22F239	953	Red button	1C	.66	.61	.55	.44
22F242	963	Black button	1C				

CORD OR PENDANT SWITCHES

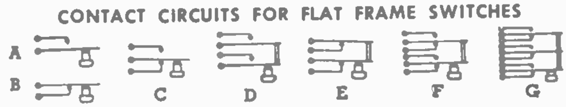
Nickel plated housing incorporates Series 903 and 913 button switches shown above. Dia. 11/16". Approx. length 2 3/16". Wt. 3 oz.

Stk. No.	Type	Description	Contact Arrange.	1-24	25-49	50-99	100-249
22F243	E903	Red button	1C	1.35	1.24	1.13	.90
22F244	E903D	Red button	1D				
22F245	E913	Black button	1C				
22F246	E913D	Black button	1D				

FLAT FRAME PUSH BUTTON SWITCHES

One piece, black plastic, push button, all common circuit model. Fine silver contacts used for minimum resistance. Rated at 3 amps, 300 watts, max. AC non-inductive load. Shaft and button need not be removed for mounting. Mounts in single 3/8" hole, panels up to 1/4" thick. Size: 1 29/32" l. by 3/4" w. Shpg. wt., each 2 oz.

CONTACT CIRCUITS FOR FLAT FRAME SWITCHES



Stock No.	Type	Circuit Figure	Switch Action	1-24	25-49	50-99	100-249
22F200	FF1001	A	SPST NO	.69	.63	.58	.46
22F201	FF1002	B	SPST NC	.69	.63	.58	.46
22F202	FF1003	C	SPDT	.78	.72	.65	.52
22F203	FF1004	D	DPST NO	.87	.80	.73	.58
22F204	FF1005	E	DPST NC	.87	.80	.73	.58
22F205	FF1006	F	DPDT	1.02	.94	.85	.68
22F206	FF1009	G	3PDT	1.38	1.27	1.15	.92

SWITCHCRAFT® Plugs and Jacks

MIL-P-642(A) DESIGN PHONE PLUGS

These "Littel Plugs" meet exacting JAN specs. Handle type—Black. Lug type—Screw, except * metal handle. Fit standard phone jacks. Extremely rugged. Shpg. wt., 2 oz.

Stock No.	Mfr's. Type	JAN	Signal Corps	Cond.	1-24	25-49	50-99	100-249	250-499	500-999
39F792	440	PJ-055B	PL-55	2	.90	.83	.75	.60	.57	.54
39F791	480	PJ-068	PL-68	3	2.16	1.98	1.80	1.44	1.37	1.30
22F276	430	PJ-054B	PL-54	2	.90	.83	.75	.60	.57	.54
22F277	470	PJ-055M	PL-125	2	1.26	1.16	1.05	.84	.798	.756
22F278	*475	PJ-636	....	2	1.32	1.21	1.10	.88	.836	.792
"LITTEL-PLUGS"—MIL DESIGN										
22F389	420	PJ047B	PL47	2	1.05	.96	.88	.70	.665	.63
22F391	482	PJ051R	PL51	3	2.40	2.20	2.00	1.60	1.52	1.44
"TWIN-PLUGS"—MIL DESIGN										
22F392	411	PJ327	491242	2	3.15	2.89	2.63	2.10	2.00	1.89

"LITTEL-PLUG" PHONE PLUGS

A  B 

For 2 and 3-conductor cables. Fit standard jack, except S-250* and S-280*. Solder types have cable clamp that clamps over metal braid of shielded cable, or outer cover of insulated cable. Screw terminal types have no cable clamp. †Shielded plugs nickel-plated brass handles. Size, 2 57/64"x1/2". Shpg. wt., 3 oz.
*Special thin-shank ((.206 dia.) plug. Mates with Switchcraft S-11, S-12B, S-13B jacks above. R-280 mates with No. 126 "Ext. Jax".
**Special two-conductor plug with wide insulator between tip and sleeve for use in 3-conductor jack without shorting.

Stock No.	Mfr. Typ	Descrip.	No. Cond.	Lug Type	1-24	25-49	50-99	100-249	250-499	500-999
Fig. A										
39F761	245	Red Plastic	2	Screw	.51	.47	.43	.34	.323	.306
39F674	255	Red Plastic	2	Solder	.48	.44	.40	.32	.304	.288
39F676	269	Red Plastic	3	Solder	.72	.66	.60	.48	.456	.432
39F760	240	Blk. Plastic	2	Screw	.51	.47	.43	.34	.323	.306
39F763	250*	Blk. Plastic	2	Solder	.48	.44	.40	.32	.304	.288
39F675	260	Blk. Plastic	3	Screw	.81	.74	.68	.54	.513	.486
39F771	267	Blk. Plastic	3	Solder	.72	.66	.60	.48	.456	.432
39F677	S-250	Blk. Plastic	2	Solder	.51	.47	.43	.34	.323	.306
Fig. B										
39F765	270	Shielded†	2	Screw	.72	.66	.60	.48	.456	.432
39F764	280*	Shielded†	2	Solder	.69	.64	.58	.46	.437	.414
39F766	290	Shielded†	3	Screw	.96	.88	.80	.64	.608	.576
39F767	297	Shielded†	3	Solder	.90	.83	.75	.60	.57	.54
39F678	288**	Shielded†	2	Solder	.72	.66	.60	.48	.456	.432
39F762	S-280	Shielded†	2	Solder	.69	.64	.58	.46	.437	.414
39F784	R-280	Shielded†	2	Solder	.90	.83	.75	.60	.57	.54
22F275	170	Shielded†	2	Screw	1.11	1.02	.93	.74	.703	.666

FLAT PLUGS

Flat design . . . projects only 15/32" from jack! Ideal where conventional plug interferes with operation or placement of equipment. Screw-type terminals. Accept standard phone jacks. Black handle. Wt. 4 oz.

Stk. No.	Type	Cond.	1-24	25-49	50-99	100-249	250-499	500-999
39F768	220	2	.75	.69	.63	.50	.475	.45
39F769	230	3	.93	.85	.78	.62	.589	.558

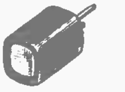
"MICRO-JAX" AND "MICRO-PLUG" SERIES

TR-2A 850

TR-2A. "Micro-Jax." Ultra-Miniaturized jacks. A 2 conductor single closed circuit design with keyed nylon insulation, interlock springs and solder lugs. Size: 7/16" L, 1/4" Dia. THD .101".
Type 850. Ultra-min. plug. Features screw-on black aluminum handle. Clamp Lug. Cable up to 7/64" Dia. Size: 1 1/64" L; 1/4" O.D.

Stk. No.	Type	1-24	25-49	50-99	100-249	250-499	500-999
22F394	TR-2A	.30	.28	.25	.20	.19	.18
22F395	850	.45	.41	.38	.30	.285	.27

GLO-BUTTON



Although non-illuminated, provides a clear color legend display. Use on all pushbutton switches with standard .050" x .187" plungers. Good for computer control panels. Plastic.

Type X21248 Black Opaque				X51248 White Opaque			
Stk. No.	Nos.	Stk. No.	Nos.	Stk. No.	Nos.	Stk. No.	Nos.
27F008	1	27F015	8	27F022	1	27F029	8
27F009	2	27F016	9	27F023	2	27F030	9
27F010	3	27F017	10	27F024	3	27F031	10
27F011	4	27F018	11	27F025	4	27F032	11
27F012	5	27F019	12	27F026	5	27F033	12
27F013	6	27F020	ON	27F027	6	27F034	ON
27F014	7	27F021	OFF	27F028	7	27F035	OFF

1-9	10-24	25-49	50-99	100-249	250-499	500-999
1.00	.75	.69	.62	.50	.475	.45

"LITTEL-JAX" PHONE JACKS

Parts interlocked firmly to prevent rotation of contacts. Nickel-silver springs long lasting, hold mating plug firmly. Mount in 3/8" hole. C-11 equals Jan JJ-034, C12-A equals JJ-089, C-12B equals JJ-033.
*Special jack for thin-shank (.206 dia.) plugs. Also mates with S-250 and S-280 plugs below.
**S-11, S-12B, S-13B sleeve bushing to fit WE plug 309 and Signal Corps plug PL-68. + Mates with 440 plug.

Stock No.	Mfr. Type	No. Cond.	Circuit Type	1-24	25-49	50-99	100-249	250-499	500-999
39F782	11	2	Open	.27	.25	.23	.18	.171	.162
39F662	C-11	2	Open	.39	.36	.33	.26	.247	.234
39F663	S-11*	2	Open	.30	.28	.25	.20	.190	.180
39F783	12-A	2	Single Closed	.30	.28	.25	.20	.190	.180
39F664	C12-A	2	Single Closed	.48	.44	.40	.32	.304	.288
39F665	12-B	3	Open	.36	.33	.30	.24	.228	.216
39F666	S-12B**	3	Open	.45	.41	.38	.30	.285	.27
39F667	C-12B	3	Open	.48	.44	.40	.32	.304	.288
39F668	13B	3	Single Closed	.51	.47	.43	.34	.323	.306
39F669	S-13B**	3	Single Closed	.63	.58	.53	.42	.399	.378

"HI-D JAX" PHONE JACKS

Compact jacks; mate with 1/4". plugs. Silver-plated, nickel silver springs. Low contact resistance and elec. leakage; mounts on 5/8" centers. For P.C. board mounting. Mounts in single 3/8" hole, in panels up to 5/32" thick. depth behind panel, 1 3/32". Wt. 7 1/8g.

Stock No.	Type	Schem. No.	Mating Plug	1-24	25-49	50-99	100-249	250-499	500-999
TWO-CONDUCTOR TYPES									
39F656	111	A	250	.27	.25	.23	.18	.171	.162
39F657	112A	B	250	.30	.28	.25	.20	.19	.18
THREE-CONDUCTOR TYPES									
39F658	112B	C	267	.33	.30	.28	.22	.209	.198
39F659	113B	D	267	.45	.41	.38	.30	.285	.27
39F660	113F	E	267	.45	.41	.38	.30	.285	.27
39F661	114B	F	267	.51	.47	.43	.34	.323	.306

JACK PANELS

Polished Black phenolic panels, reinforced with steel, supports "T-Jax" or "MT-Jax". Slotted mounting brackets for standard 19" relay racks. Less jacks.
Series 1200. Single row 1 3/4" wide for 24 Jacks. Spaced so no shorting results. Shpg. wt., 3 1/4 lbs.
Series 2400. Double row Panel, 2 1/8" wide for 48 Jacks. Jacks spaced 5/8" to permit use of double plug. Shpg. wt., 5 lbs.
Series 2600. Double row Panel 1 3/4" wide for 52 Jacks. Jacks spaced 5/8" centers. Shpg. wt., 5 lbs.

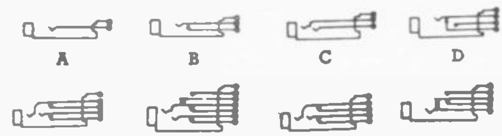
Stk. No.	Type	1-24	25-49	50-99	100-249
22FX252	1200	8.70	7.98	7.25	5.80
22FX253	2400	9.00	8.25	7.50	6.00
22FX254	2600	10.80	9.90	9.00	7.20

"MT-JAX"

Long frame type, commonly referred to as telephone switchboard Jack. Pressure welded steel frame provides rigidity. Welded cross bar palladium contacts in all switching circuits. Mating plug: (*) PJ-055. (**) PJ-051. (†) PJ-068.

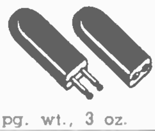
Stock No.	Type	Sch.	Mil. Spec.	Ht.	1-24	25-49	50-99	100-249	250-499	500-999
22FX255	MT-331*	A	JJ-086	7/16"	.75	.69	.63	.50	.475	.45
22FX256	MT-332A*	B	JJ-024	1/2"	.87	.80	.73	.58	.551	.522
22FX257	MT-332B**	C	JJ-022	9/16"	.87	.80	.73	.58	.551	.522
22FX258	MT-332C**	D	JJ-016	9/16"	1.02	.94	.85	.68	.646	.612
22FX259	MT-334B**	E	JJ-042	5/8"	1.05	.96	.88	.70	.665	.63
22FX260	MT-336C**	F	JJ-073	3/4"	1.50	1.38	1.25	1.00	.95	.90
22FX261	MT-344B†		....	5/8"	1.20	1.10	1.00	.80	.76	.72
22F297	MT-334F*		JJ035	5/8"	1.05	.96	.88	.70	.665	.63

"MT-JAX" ELECTRICAL SCHEMATICS



PLUG AND JACK

Make ideal connectors for hearing aids, speaker extensions, carbon microphones and other devices where space is limited. Only 1⅝" long by 1⅞₂" wide by ⅜" thick. Two-conductor precision. Army type Molded black bakelite case. Machined brass pins and sockets. Sockets have strong spring contacts and solder lugs. Shpg. wt., 3 oz.



Stk. No.	Type	MIL	1-24	25-49	50-99	100-249	250-499	500-999
39F798	410 Plug	PJ291	.60	.55	.50	.40	.380	.360
39F799	810 Jack	JJ048	.72	.66	.60	.48	.456	.432

"4-LEAF CLOVER JACK"

Offers dual contact surfaces for min. shunt resistance. Tip spring with shunt form dual contact around pin of phono plug upon insertion. High di-electric body for low leakage. Requires no hand adjusting. Mates with any phono jack with a ⅛" diameter. Mounts on ¾" centers in a 13⁄32" hole, in panels 13⁄64" thick. Depth behind panel, ⅜". Shpg. wt. 2 oz.

Stk. No.	Type	Circuit	1-24	25-49	50-99	100-249	250-499	500-999
26F863	3511	Open	.18	.17	.15	.12	.114	.108
26F864	3511A	Open-Grd.	.18	.17	.15	.12	.114	.108
26F865	3512	Closed	.21	.19	.18	.14	.133	.126
26F866	3512A	Closed-Grd.	.21	.19	.18	.14	.133	.126

EXTENSION JACKS

Clamp-type terminals provide solid cable anchor. Solder lug terminals mechanically interlock. Shielded types have nickel-plated brass shell. All fit standard phone plugs, except * special jack for thin-shank (.206" dia) plugs. Shpg. wt ea., 4 oz.

A

B

HANDLE TYPE—BLACK

Stock No.	Mfr. Type	Fig.	No. Cond.	Lug Type	1-24	25-49	50-99	100-249	250-499	500-999
39F670	80	A	2	Screw	.75	.69	.63	.50	.475	.450
39F671	88	A	2	Solder	.66	.61	.55	.44	.418	.396
22F269	830	A	3	Screw	1.02	.94	.86	.68	.646	.612

HANDLE TYPE—SHIELD

Stock No.	Mfr. Type	Fig.	No. Cond.	Lug Type	1-24	25-49	50-99	100-249	250-499	500-999
39F672	120	B	2	Screw	1.02	.94	.85	.68	.646	.612
22F247	121		2	Solder	1.08	.99	.90	.72	.684	.648
39F785	126	B	2	Solder	1.14	1.05	.95	.76	.722	.684
39F673	128	B	2	Solder	.93	.85	.78	.62	.589	.558
39F757	1230	B	3	Screw	1.32	1.21	1.10	.88	.836	.792
39F772	S-128*	B	2	Solder	.99	.91	.83	.66	.627	.594

"TINI-JAX" MINIATURE PHONE JACKS AND PLUGS

"Tini-Jax" is a sub-min. phone jack weighing less than ⅛ ounce. Mounts in ¼" dia. hole in panels up to ⅛" thick "Tini-Plugs" all are sub-min 2 conductor phone plugs designed for use with the above jacks. For use with cables up to 3⁄16" O.D. Available in black or red plastic handles or shielded brass nickel plated handle.

E

F

Stock No.	Mfr. Type	Fig.	Description	1-24	25-49	50-99	100-249	250-499	500-999
39F744	41	E	2-conductor open circuit jack	.27	.25	.23	.18	.171	.162
39F745	42A	E	2-conductor closed circuit jack	.30	.28	.25	.20	.190	.180
39F689	43A		2-cond closed circuit jack	.48	.44	.40	.32	.304	.288
39F746	750	F	Blk. plastic clamp lug handle plug	.48	.44	.40	.32	.304	.288
39F747	755	F	Red plastic clamp lug handle plug	.48	.44	.40	.32	.304	.288
39F748	780	F	2 cond. solder lug Shielded ext jack	.66	.61	.55	.44	.418	.396
22F248	125		2-cond. solder lug Shielded ext. jack	.81	.75	.68	.54	.513	.486

PHONE PLUGS

High quality general-purpose phone plugs for two or three conductors. Fit all standard phone jacks. Offered with black plastic or nickel-plated brass handles. Shpg. wt., 5oz. *Solder term.

Stock No.	Mfr's. Type	Cond.	Handle Type	Handle Length	1-24	25-49	50-99	100-249	250-499	500-999
39F679	40	2	Black	2⅛₆"	.51	.47	.43	.34	.323	.306
39F680	70	2	Shield	2⅛₆"	.84	.77	.70	.56	.532	.504
39F681	160	2	Shield	1"	.66	.61	.55	.44	.418	.396
39F682	60*	3	Black	2⅛₆"	.69	.63	.58	.46	.437	.414
39F683	90*	3	Shield	1"	.90	.83	.75	.60	.570	.540

PHONO PLUGS AND JACKS

Type 3501FP

Type 3501FR

Type 3502

Type 3503

Type 3501MC

Model 3501FP. Standard phono jack mounts through panel and chassis with ¼"-32 nut. Fits panels up to ⅛" thick. Outside dia. 7⁄16". Shpg. wt., 3 oz.

Model 3501FR. Standard phono jack mounts from rear. Uses ⅜"-32 threaded locknut on panels up to 13⁄64" thick. 7⁄16" mtg. hole dia. Shpg. wt., 3 oz.

Model 3502. Connects easily to cable. Terminals are designed so they may be crimped with a pliers for all temp. connection. "Handle" can be removed to expose terminals. Pin ⅝" long. Shpg. wt., 3 oz.

Model 3503. Removable handle, shielded cable clamp. Durable nickel plated body and handle. Max. cable dia. 11⁄64". Jack length 1⅞₂". Shpg. wt., 3 oz

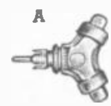
Model 3501MC is a simple Phono Plug that provides a convenient cable clamp. It eliminates the problem of shielded cable "breaking" loose from the old style Phono Plugs.

Model 3501M Phono Connector, (same as A3501MC except less cable clamp)

Stk. No.	Type	1-24	25-49	50-99	100-249	250-499	500-999
39F684	3501FP	.21	.19	.18	.14	.133	.126
39F686	3501FR	.27	.25	.23	.18	.171	.162
39F685	3502	.30	.28	.25	.20	.190	.180
22F250	3503	.39	.36	.33	.26	.247	.234
39F687	3501MC	.09	.08	.07	.06	.057	.054
39F688	3501M	.07	.068	.065	.06	.057	.054

SWITCHCRAFT CONNECTORS

A



C

E

G

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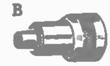

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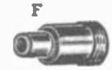


For PA, Hi-Fi, etc. Shpg. wt., 3 oz.

Stock No.	Type	Fig.	Input Conn.	Output Conn.	EACH
22F265	330F	A	Phono jack (2)	Phono plug	1.17
22F266	334A	B	Phono jack	Female mike	.96
22F267	336A	C	Phono jack	Phone plug	1.17
22F268	345A	D	Phono jack	Phone plug	.87
22F270	349A	E	Phono plug	Phone plug	.75
22F273	334B	F	Phono jack	Male mike	.87
22F274	330M	G	Phono plug	Male mike (2)	1.35

MICROPHONE CONNECTORS

Microphone type connectors used with miniaturized audio equipment. Accepts single conductor shielded cables up to 3⁄16". O.D. nickel plated brass bodies. Connectors are about ½ the size of standard. Coupling ring on Type 5501F is removable for quick change of female to male type. Type 5501MF mounts by locknut on front side of panel in ⅜" hole. Type 5501MP mounts back side of panel in 3⁄16" dia. hole.

2501FT

2501MT

5501MF

5501MP

Stock No.	Type	Description	1-24	25-49	50-99	100-249	250-499	500-999
22F396	2501F	female	.39	.358	.325	.26	.247	.234
22F397	2501MP	male	.30	.275	.25	.20	.19	.18
22F398	2501M	male	.30	.275	.25	.20	.19	.18
22F271	2501FT	female	.75	.69	.63	.50	.475	.45
22F272	2501MT	male	.75	.69	.63	.50	.475	.45
39F776	5501F	female	.39	.36	.33	.26	.217	.234
39F777	5501M	male	.30	.28	.25	.20	.190	.180
39F778	5501MP	male, panel	.24	.22	.20	.16	.152	.144
22F213	5501MF	pnl, con. male	.30	.28	.25	.20	.190	.180
22F214	5501MPC	pnl, con male	.48	.44	.40	.32	.304	.288

SWITCHCRAFT® Audio Connectors

A B C D F G H I L M S AA BB

Exact replacement plugs and recepticles for most foreign built tape recorders, radios, computers, and test equipment. Designed for all low level circuitry. Nickel plated barrel with plastic "snap-on" shells.

Molded phenolic in all inserts, and silver plated contact pins provide low mechanical interference, reduce noise and lower contact resistance, lock-ring coupling to prevent shock. Exclusive automatic grounding and polarization provision.

PLUGS

FIG. A—STRAIGHT CORD WITH 30° LOCK RING PIN

Stk. No.	Type	Description	1-24	25-49	50-99	100-249	250-499	500-Up
22F454	05CL3M	3 Pins at 180°	1.05	.96	.875	.70	.665	.63
22F455	05CL5M	5 Pins at 180°	1.17	1.07	.975	.78	.741	.702
22F456	09CL4M	4 Pins at 210°	1.11	1.02	.925	.74	.703	.666
22F457	12CL5M	5 Pins at 240°	1.17	1.07	.975	.78	.741	.702
FIG. B—STRAIGHT CORD PLUG WITH SHIELDED BARREL								
22F458	05GM3M	3 Pins at 180°	.66	.605	.55	.44	.418	.396
22F459	05GM5M	4 Pins at 210°	.78	.715	.65	.52	.494	.468
22F465	09GM4M	5 Pins at 180°	.72	.66	.60	.48	.456	.432
22F466	12GM5M	5 Pins at 240°	.78	.715	.65	.52	.494	.468
FIG. C—STRAIGHT CORD PLUG WITH EXTENDED BARREL								
22F467	05BL3M	3 Pins at 180°	.99	.908	.825	.66	.627	.594
22F468	05BL5M	5 Pins at 180°	1.11	1.02	.925	.74	.703	.666
22F469	12BL5M	5 Pins at 240°	1.11	1.02	.925	.74	.703	.666
FIG. D—STRAIGHT CORD PLUG WITH FLUSH SOCKET INSERT								
22F470	06AL3F	3 Cont. at 180°	.99	.908	.825	.66	.627	.594
22F471	06AL5F	5 Cont. at 180°	1.11	1.02	.925	.74	.703	.666
22F472	13AL5F	5 Cont. at 240°	1.11	1.02	.925	.74	.703	.666

FEMALE PLUG

FIG. F—STRAIGHT CORD PLUG WITH EXTENDED SOCKET

Stk. No.	Type	Description	1-24	25-49	50-99	100-249	250-499	500-Up
22F473	07FL3F	3 Cont. at 180°	.96	.88	.80	.64	.608	.576
22F474	14FL5F	5 Cont. at 240°	1.08	.99	.90	.72	.684	.648
FIG. G—STRAIGHT CORD WITH LOCK-FLANGE								
22F475	06EL3F	3 Cont. at 180°	.99	.908	.825	.66	.627	.594
22F476	06EL5F	5 Cont. at 180°	1.11	1.02	.925	.74	.703	.666
22F477	13EL5F	5 Cont. at 210°	1.11	1.02	.925	.74	.703	.666

MALE PLUGS

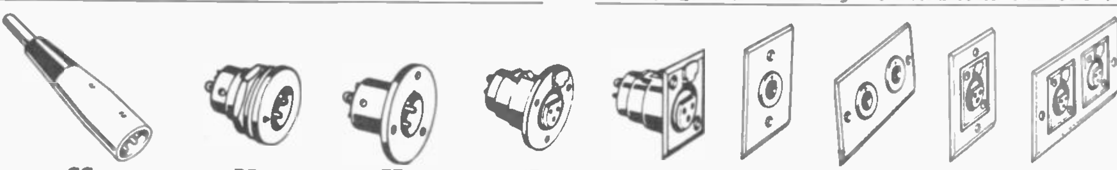
FIG. H—STRAIGHT CORD PLUG WITH SNAP-LOCK PLASTIC SHELL

Stk. No.	Type	Description	1-24	25-49	50-99	100-249	250-499	500-999
22F478	05LK3M	3 Pins at 180°	.54	.495	.45	.36	.342	.324
22F479	05LK5M	5 Pins at 180°	.66	.605	.55	.44	.418	.396
22F480	09LK4M	4 Pins at 210°	.60	.55	.50	.40	.38	.36
22F481	12LK5M	5 Pins at 240°	.66	.605	.55	.44	.418	.396
FIG. I—STRAIGHT CORD PLUG WITH SHORT PLASTIC SHELLS								
22F534	05QK3M	3 Pins at 180°	.36	.33	.30	.24	.228	.216
22F535	05QK5M	5 Pins at 180°	.48	.44	.40	.32	.304	.288
22F536	12QK5M	5 Pins at 240°	.48	.44	.40	.32	.304	.288

FEMALE RECEPTACLES

FIG. L—RECEPTACLES FOR LOCKING PLUGS

Stk. No.	Type	Description	1-24	25-49	50-99	100-249	250-499	500-999
22F537	57HA3F	3 Cont. at 180°	.60	.55	.50	.40	.38	.36
22F543	60HA4F	4 Cont. at 210°	.66	.605	.55	.44	.418	.396
22F544	61HA5F	5 Cont. at 240°	.72	.66	.60	.48	.456	.432
FIG. M—FLANGE MOUNT RECEPTACLE FOR SHIELDED BARREL PLUGS								
22F545	57GA3F	3 Cont. at 180°	.42	.385	.35	.28	.266	.252
22F546	57GB5F	5 Cont. at 180°	.54	.495	.45	.36	.342	.324
22F547	60GA4F	4 Cont. at 210°	.48	.44	.40	.32	.304	.288
22F548	61GA5F	5 Cont. at 240°	.54	.495	.45	.36	.342	.324
FIG. S—MALE RECEPTACLE FOR RECESSED MOUNTING								
22F549	57JD3M	3 Pins at 180°	.60	.55	.50	.40	.38	.36
22F565	61JD5M	5 Pins at 240°	.72	.66	.60	.48	.456	.432
CONTROL AND SWITCHING PLUGS WITH SNAP-ON SHELLS								
22F566	11QK2M	Male Plug	.24	.22	.20	.16	.152	.144
22F567	02QK2F	Memale Plug	.30	.275	.25	.20	.19	.18



CC DD EE FF GG HH II KK LL

Switchcraft's "Quick-Ground" connectors feature a separate "Ground-Terminal" electrically integral with the connector shell. Ground continuity between mating plugs automatically accomplished through the exclusive "Ground Contactors." Possible loss of insert screw is eliminated by "Captive Design" Insert Screw. Socket and pin assemblies utilize "wedge-action" to insure firm, reliable positioning in connector shell. Q-G series 3 and 4-contact audio connectors offer 4 and 5-contact versatility when "Ground Terminal" is utilized. Can be used interchangeably with Cannon type XLR-3, XLR-4 and Amphenol type 91-850 Series.

Stk. No.	Type	Description	No. Pins	Fig.	1-24	25-49	50-99	100-249	250-499	500-Up
27F066	A3F	Straight Female Plug	3	CC	1.38	1.27	1.15	.92	.874	.828
27F067	A4F	Straight Female Plug	4	CC	1.71	1.57	1.43	1.14	1.08	1.03
27F068	A3M	Straight Male Plug	3	CC	1.20	1.10	1.00	.80	.76	.72
27F069	A4M	Straight Male Plug	4	CC	1.26	1.16	1.05	.84	.798	.756
27F062	B3M	Panel Locknut Socket	3	DD	1.74	1.60	1.45	1.16	1.10	1.04
27F065	B4M	Panel Locknut Socket	4	DD	1.80	1.65	1.50	1.20	1.14	1.08
27F060	C3M	Panel Flange Socket Male	3	EE	.84	.77	.70	.56	.532	.504
27F064	C4M	Panel Flange Socket Male	4	EE	.90	.825	.75	.60	.57	.54
27F059	C3F	Female Flange Socket	3	FF	1.86	1.71	1.55	1.24	1.18	1.12
27F063	C4F	Female Flange Socket	4	FF	1.92	1.76	1.60	1.28	1.22	1.15
27F070	D3F	Female Flange Socket	3	GG	1.92	1.76	1.60	1.28	1.22	1.15
27F071	D4F	Female Flange Socket	4	GG	1.98	1.82	1.65	1.32	1.26	1.19
27F072	D3M	Male Flange Socket	3	HH	1.14	1.05	.95	.76	.722	.684
27F073	D4M	Male Flange Socket	4	HH	1.20	1.10	1.00	.80	.76	.72
27F1000	G3MS	Male Wall Plate, S. Steel	3	HH	3.00	2.75	2.50	2.00	1.90	1.80
27F1001	G4MS	Male Wall Plate, S. Steel	4	HH	3.15	2.89	2.63	2.10	2.00	1.89
27F1002	H3M	Male Wall Plate, Brass	3	II	3.90	3.58	3.25	2.60	2.47	2.34
27F1003	H3MS	Male Wall Plate, S. Steel	3	II	4.20	3.85	3.50	2.80	2.66	2.52
27F1004	H4M	Male Wall Plate, Brass	4	II	4.20	3.85	3.50	2.80	2.66	2.52
27F1005	H4MS	Male Wall Plate, S. Steel	4	II	4.50	4.13	3.75	3.00	2.85	2.70
27F1006	J3FS	Female Wall Plate, S. Steel	3	KK	3.12	2.86	2.60	2.08	1.98	1.87
27F1007	J4FS	Female Wall Plate, S. Steel	4	KK	3.27	3.00	2.73	2.18	2.07	1.96
27F1008	K3FS	Female Wall Plate, S. Steel	3	LL	4.44	4.07	3.70	2.96	2.81	2.66
27F1009	K4FS	Female Wall Plate, S. Steel	4	LL	4.74	4.35	3.95	3.16	3.00	2.84
27F1010	AC3	AC Receptacle (ungrounded)	3	. .	.48	.44	.40	.32	.304	.288
27F1011	AC3G	AC Receptacle (grounded)	3*	.	.45	.413	.375	.30	.285	.27

*Includes self-aligning feature. Pins #1 and #3 move, #2 is stationary 115V, 7 amp.

ITT-CANNON AUDIO PLUGS

XLR SERIES

Protects against mechanical interference. Integral cable clamp, neoprene cable relief, and time tested latch lock. Shpg. wt. 3 oz.

STEEL & SATIN NICKEL FINISH SHELLS

Stk. No.	Type	Description	Pins	1-9	10-49	50-99
39F475	XLR-3-11SC	Cable Conn. F	3	4.54	4.16	3.78
39F476	XLR-3-12SC	Cable Conn. M	3	3.48	3.32	3.02
39F477	XLR-4-11SC	Cable Conn. F	4	4.62	4.24	3.85
39F478	XLR-4-12SC	Cable Conn. M	4	3.73	3.42	3.11
39F481	XLR-4-11C	Cable Conn. F	4	1.80	1.65	1.51
39F483	XLR-4-12C	Cable Conn. M	4	1.32	1.21	1.10
39F465	XLR-4-13	Panel Mt.-Flg. F	4	2.12	1.95	1.77
39F466	XLR-4-13N	Panel Mt.-Nut F	4	2.86	2.63	2.39
39F467	XLR-4-14	Panel Mt.-Flg. M	4	.96	.88	.80
39F468	XLR-4-14N	Panel Mt. Nut M	4	2.43	2.22	2.03
39F469	XLR-4-15	90° Cable Conn. F	4	4.43	4.07	3.71
39F485	XLR-4-31	Wall Mt. F	4	2.19	2.00	1.83
39F487	XLR-4-32	Wall Mt. M	4	1.59	1.46	1.33
39F480	XLR-3-11C	Cable Conn.F	3	1.42	1.30	1.19
39F482	XLR-3-12C	Cable Conn. M	3	1.24	1.13	1.03
39F455	XLR-3-13	Panel Mt.-Flg. F	3	2.04	1.89	1.71
39F456	XLR-3-13N	Panel Mt. F	3	2.78	2.55	2.31
39F457	XLR-3-14	Panel Mt.-Flg. M	3	.91	.84	.77
39F458	XLR-3-14N	Panel Mt. M	3	2.25	2.07	1.89
39F459	XLR-3-15	90° Cable Conn. F	3	4.39	4.03	3.67
39F484	XLR-3-31	Wall Mt. F	3	2.12	1.95	1.77
39F486	XLR-3-32	Wall Mt. M	3	1.21	1.11	1.01
39F460	XLR-3-35	Single Box Mt. F	3	5.24	4.81	4.37

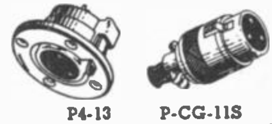
STANDARD TELEVISION CAMERA PLUGS FOR REPLACEMENT

Replacement units for connecting TV cameras. Shells are made of die-cast aluminum with cadmium-plated finish. All are 24-contact types. Shpg. wt., 4 oz.

Stk. No.	Type	1-9	10-49	50-99
39F403	LKT-R24C-22⅞	40.22	36.20	30.17
39F408	LKT-R24C-21⅞	44.63	40.17	33.47

P SERIES AUDIO PLUGS

Plugs have split shell. 2-6 contact inserts take #10 wire. 8 contact takes #14 wire. Panel mtg. except *Cable connector. Avg. shpg. wt. 4 oz.

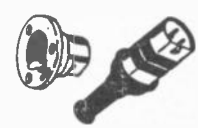


P4-13 P-CG-11S

Stk. No.	Pins	Male	1-24	25-99	100-499
39F531	3	P3-CG-12S*	7.20	6.12	5.40
39F532	4	P4-CG-12S*	7.22	6.14	5.42
39F533	5	P5-CG-12S*	7.47	6.35	5.60
39F534	6	P6-CG-12S*	7.90	6.72	5.93
39F535	8	P8-CG-12S*	7.27	6.18	5.45
39F543	3	P3-14	4.73	4.02	3.55
39F546	6	P6-14	6.01	5.11	4.51
39F547	8	P8-14	5.54	4.71	4.16

Stk. No.	Pins	Female	1-24	25-99	100-499
39F537	3	P3-CG-11S*	7.84	6.66	5.88
39F538	4	P4-CG-11S*	8.42	7.16	6.32
39F539	5	P5-CG-11S*	8.36	7.11	6.27
39F540	6	P6-CG-11S*	8.88	7.55	6.66
39F541	8	P8-CG-11S*	8.88	7.55	6.66
39F549	3	P3-13	5.74	4.88	4.31
39F551	5	P5-13	6.68	5.88	5.01
39F553	8	P8-13	7.19	6.11	5.39

UA RETMA STANDARD PLUGS



Standard 3-contact microphone plugs. Latch-locking, gold-plated contacts, rubber relief collar and bushings on plugs, with flat-top polarized. 15 amps. ½" cbl. entry. St. plg. shell. *Pin insert

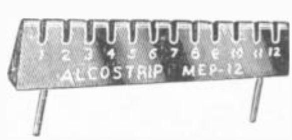
Stk. No.	Type	Description	1-24	25-99	100-499
39F570	UA-3-11	Straight cord plug	11.20	9.52	8.40
39F571	UA-3-12	*Straight cord plug	7.10	6.04	5.33
39F572	UA-3-13	Round wall mount	8.66	7.36	6.50
39F573	UA-3-14	*Round wall mount	4.70	4.00	3.53
39F575	UA-3-32	*Rect. wall mount	4.72	4.01	3.54

ALCOSWITCH

CERAMIC TERMINAL STRIPS

Silver plated and tinned to facilitate soldering of components and leads without harm to strip. Features permanent bond between metal and ceramic has tinned copper plate on silvered ceramic. Available in thread or snap mounting. Extra long stud can be cut to any desired length. Board ht. 0.590" (above studs) # board depth 0.119" at top, sloping to 0 276" at bottom. Depth of slots 0.197". Dielectric Strength: more than 10 seconds at 1500VDC between terminals. Insulated resistance: over 1,000 Megaohms at 500VDC megger. Materials: terminal strip, steatite, bushing, polypropolyne.

Snap Mount



Threaded-Mount

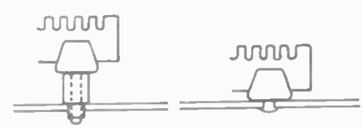
SNAP MOUNT TYPES

Stk. No.	Type	Terms.	Dimensions Overall Width	Dimensions Mtg. Ctrs.	Each 1-4	Per Pkg. of 5 1-4	Per Pkg. of 5 5-19	Per Pkg. of 5 20-99	Per Pkg. of 5 100-199
61F924	MEP-NB-3	3	.600	....	.72	2.40	1.63	1.45	1.30
61F925	MEP-NB-5	5	.885	.490	.99	3.30	2.25	1.97	1.77
61F926	MEP-NB-7	7	1.165	.490	1.20	4.05	2.72	2.40	2.17
61F927	MEP-NB-9	9	1.445	.750	1.30	4.35	2.95	2.60	2.35
61F928	MEP-NB-13	13	2.140	1.500	1.65	5.55	3.77	3.32	3.00
61F929	MEP-NB-16	16	2.440	1.500	2.00	6.75	4.60	4.05	3.65
61F930	MEP-NB-20	20	3.020	2.520	2.50	8.25	5.60	4.95	4.45

THREAD MOUNT TYPES

Stk. No.	Type	Terms.	Overall Width	Mtg. Ctrs.	Each 1-4	1-4	5-19	20-99	100-199
61F931	MEP-2	2	.650	. . . .	.54	1.80	1.20	1.05	.85
61F932	MEP-4	4	1.161	.512	.67	2.25	1.50	1.25	1.05
61F933	MEP-6	6	1.673	1.024	.90	3.00	2.00	1.70	1.40
61F934	MEP-8	8	2.185	1.535	1.10	3.75	2.50	2.10	1.75
61F935	MEP-10	10	2 697	2.047	1.30	4.35	2.90	2.45	2.05
61F936	MEP-12	12	3.209	2 560	1.50	4.95	3.30	2.80	2.30

MOUNTING SUGGESTIONS



ELEVATED FLUSH*

*Cut and fuse

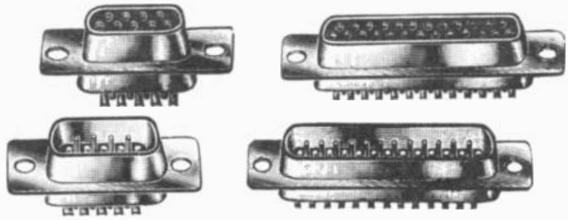
SPECIAL AT ½ PRICE! MEP and MEP-NB SAMPLER KITS

- 2 each, MEP-NB Snap Mount Terminal Strips listed above—14 pcs.
61F945. NET **10.00**
- 2 each, MEP Thread Mount Terminal Strips listed above—12 pcs.
61F946. NET **6.00**

Cinch-Jones Connectors

"D" SUBMINIATURE CONNECTORS

Original "D" Connectors utilize a 2-piece nylon insulator housed in a variety of 5 basic shell sizes, E, A, B, C and D. Shell sizes contain 9, 15, 25, 37 and 50, #20 solder pot contacts. Std. contact terminations accommodate up to #20 AWG stranded wire. Current rating is .5 amperes. Operating temp. range:—65°F to +250°. Shells: steel cadmium plated with yellow chromate supplementary coating. pin contacts: brass, gold plated (.00003) over silver plate (.0002). Phosphor bronze socket contacts, gold plated (.00003) over silver plate (.0002). Shpg. wt. 2 oz.



ORIGINAL "D" (NYLON INSULATORS)

Stock No.	Description	DWG Number	1-9	10-49	50-99	100-249	250-499
43F200	DE 9P	019808-0002	1.15	1.04	.87	.69	.64
43F201	DE 9S	019808-0001	1.65	1.48	1.24	.99	.90
43F202	DA 15P	019603-0002	1.63	1.46	1.23	.98	.89
43F203	DA 15S	019603-0001	2.41	2.17	1.81	1.44	1.32
43F205	DB 25P	019604-0002	2.36	2.12	1.77	1.41	1.29
43F206	DB 25S	019604-0001	3.69	3.32	2.77	2.22	2.03
43F208	DC 37P	019605-0002	3.70	2.88	2.40	1.93	1.77
43F209	DC 37S	019605-0001	5.23	4.71	3.92	3.14	2.88
43F210	DD 50P	019606-0002	4.17	3.76	3.13	2.51	2.30
43F211	DD 50S	019606-0001	6.89	6.20	5.17	4.13	2.79

JUNCTION SHELLS—STRAIGHT CLAMP TYPE

43F212	(DA-19678-1)	019678-0001	1.01	.91	.76	.61	.55
43F213	(DB-19678-2)	019678-0002	1.19	1.07	.90	.72	.66
43F214	(DC-19678-3)	019678-0003	1.42	1.28	1.07	.85	.78
43F215	(DD-19678-4)	019678-0004	1.56	1.40	1.16	.93	.85

JUNCTION SHELLS—RIGHT ANGLE TYPE

Stock No.	Description	DWG Number	1-9	10-49	50-99	100-249	250-499
43F216	(DA-19977-1)	019977-0001	1.31	1.17	.98	.78	.72
43F217	(DB-19977-2)	019977-0002	1.44	1.30	1.08	.86	.79
43F218	(DC-19977-3)	019977-0003	1.52	1.37	1.14	.91	.83
43F219	(DD-19977-4)	019977-0004	1.65	1.48	1.24	.99	.90
43F220	(DE-19977-5)	019977-0005	1.67	1.50	1.26	1.00	.91

DATAPHONE CONNECTORS & HOODS

Stock No.	Description	DWG No.	1-9	10-49	50-99	100-249	250-499
43F246	DA-19603-404 15-cont. socket	230-15-61-099	5.87	5.39	4.90	4.41	3.92
43F247	DB-19604-433 25-cont. socket	230-25-61-099	9.20	8.43	7.66	6.89	6.13
43F248	DC-19605-403 37-cont. socket	230-37-61-099	12.08	11.08	10.07	9.06	8.06
43F249	DA-19603-403 15-pin plug	231-15-61-133	2.61	2.44	2.20	1.96	1.88
43F250	DB-19604-432 25-pin plug	231-25-61-125	3.59	3.36	3.01	2.65	2.54
43F251	DC-19605-402 37 pin plug	231-37-61-12[illegible]	4.65	4.34	3.87	3.41	3.25

MOLDED HOODS FOR ABOVE PLUGS OR SOCKETS

43F252	DA-51225-1 for 15 cont.	239-13-99-069	1.31	1.17	.94	.86	.79
43F253	DB-51226-1 for 25 cont.	239-13-99-070	1.45	1.22	.97	.88	.81

SCREW LOCK ASSEMBLIES *Male †Female

43F230	D20418-2† (DA-DB-DC-DD-DE)	020418-0002	.39	.35	.30	.24	.22
43F231	D20419* (DA-DB-DC-DE)	020419-0000	.24	.22	.18	.13	.14
43F232	D20420* (DD)	020420-0000	.36	.33	.27	.22	.20

MARK I GOLDEN "D" CONNECTORS

Features solder pot closed entry contacts in a monobloc insulator for improved temperature characteristics and increased moisture resistance. Shells: steel, cadmium plated with yellow chromate supplementary coating. Diallyl phthalate, glass fibre filled insulators, per MIL-M-14F. #20 contacts: pins and sockets, brass, gold plated (.00003) over silver (.0002). Insulation resistance greater than 5,000 megohms in accordance with MIL-STD-202A, Method 302.

Stock No.	Description	DWG Number	1-9	10-49	50-99	100-249	250-499
43F233	DEM 9P	053516-0012	2.28	2.05	1.71	1.37	1.25
43F234	DEM 9S	053516-0013	3.15	2.83	2.37	1.90	1.74
43F235	DAM 15P	053512-0028	3.29	2.96	2.46	1.97	1.81
43F236	DAM 15S	053512-0029	4.67	4.20	3.50	2.80	2.57
43F238	DBM 25P	053513-0022	4.84	4.36	3.64	3.81	2.67

Stock No.	Description	DWG Number	1-9	10-49	50-99	100-249	250-499
43F239	DBM 25S	053513-0023	7.19	6.47	5.40	4.31	3.95
43F241	DCM 37P	053514-0017	6.77	6.09	5.08	4.06	3.72
43F242	DCM-37S	053514-0018	10.24	9.22	7.68	6.14	5.64
43F243	DDM 50P	053515-0014	8.77	7.89	6.57	5.27	4.82
43F244	DDM 50S	053515-0015	13.44	12.10	10.08	8.06	7.39

DUST CAPS (CLEAR POLYPROPYLINE)

Stock No.	Type	For Use With	1-9	10-49	50-99	100-249	250-499
43F267	DE-59-20	DE-9S	.16	.14	.12	.10	.09
43F268	DE-60-20	DE-9P					
43F269	DA-59-20	DA-15S					
43F270	DA-60-20	DA-15P					
43F271	DB-59-20	DB-25S					

Stock No.	Type	For Use With	1-9	10-49	50-99	100-249	250-499
43F272	DB-60-20	DB-25P	.16	.14	.12	.10	.09
43F273	DC-59-20	DC-37S					
43F274	DC-60-20	DC-37P					
43F275	DD-59-20	DD-50S					
43F276	DD-60-20	DD-50P					

PLUGS

13A. Phono plug. Nickel plated ⅛ in. dia. tube pin. 9/16 in L. Use with 81A and 81B phono jacks. Shpg. wt. 3 oz.

13B. Motorola type antenna plug. Nickel plated ⅛ tube extends 7/32 from cadmium plated split brass shell. Use with 81C or 81F connector. Shpg. wt. 4 oz.

Stk. No.	Type	Mfr. No.	1-24	25-49	50-99	100-249	250-499
39F796	13A	1336	.09	.08	.07	.06	.05
39F396	13B	1320	.15	.12	.10	.09	.08

PLUG CAP

Type 18A-1. Cadmium plated steel shell with rolled edge on 5/16" diameter neck opening. Outside diameter at base .625. Four ⅛" prongs coincide with notches on plugs. Designed for use with Cinch No. 5A1 and 5B1A type battery plugs.

Stk. No.	Type	Mfg. No.	1-24	25-49	50-99	100-249	250-499
29F612	18A-1	16A20377P24	.10	.09	.08	.07	.06

Cinch-Jones Connectors

Fig. A—HINGE CONNECTORS

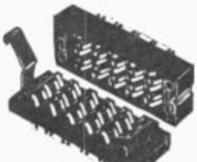


Fig. A

Fig. B

Maximum number of contacts in a minimum space. Designed to take alternate lock when required. Easy engagement and disengagement an outstanding feature. Engaged with normal pressure, disengaged by spring action of contacts when lock is released. Simple locking device insures positive contact. Type 37 plugs and sockets are of black Bakelite type CFG. All 1⅛" wide.

SOCKETS WITH LOCKS—FIG. A

Stk. No.	Type No.	1-24	25-49	50-99	100-249	250-499
29F906	37F20L	2.76	2.20	1.84	1.47	1.40
29F907	37F30L	3.25	2.60	2.17	1.74	1.65
29F908	37F40L	3.75	2.99	2.50	2.00	1.90
29F909	37F50L	4.25	3.39	2.83	2.27	2.15
29F910	37F60L	4.74	3.78	3.16	2.53	2.40
29F911	37F70L	5.24	4.18	3.49	2.79	2.65
29F912	37F80L	5.73	4.53	3.82	3.06	2.89
29F913	37F90L	6.23	4.97	4.15	3.32	3.16
29F914	37F100L	6.72	5.37	4.48	3.59	3.40

PLUGS W/O LOCKS Mates With Sockets At Left

Stk. No.	Type No.	1-24	25-49	50-99	100-249	250-499
29F933	37M20	2.48	1.98	1.65	1.32	1.25
29F934	37M30	2.70	2.16	1.80	1.44	1.37
29F935	37M40	3.47	2.77	2.31	1.85	1.76
29F936	37M50	3.96	3.17	2.64	2.11	2.00
29F937	37M60	4.46	3.56	2.97	2.38	2.26
29F938	37M70	4.95	3.96	3.30	2.64	2.51
29F939	37M80	5.45	4.36	3.63	2.90	2.76
29F940	37M90	5.94	4.75	3.96	3.17	3.01
29F941	37M100	6.44	5.15	4.29	3.43	3.26

SOCKETS W/O LOCKS—FIG. A

Stk. No.	Type No.	1-24	25-49	50-99	100-249	250-499
29F915	37F20	2.48	1.98	1.65	1.32	1.25
29F916	37F30	2.97	2.38	1.98	1.58	1.51
29F917	37F40	3.47	2.77	2.31	1.85	1.76
29F918	37F50	3.96	3.17	2.64	2.11	2.00
29F919	37F60	4.46	3.56	2.97	2.38	2.26
29F920	37F70	4.95	3.96	3.30	2.64	2.51
29F921	37F80	5.45	4.36	3.63	2.90	2.76
29F922	37F90	5.94	4.75	3.96	3.17	3.01
29F923	37F100	6.44	5.15	4.29	3.43	3.26

PLUGS WITH LOCKS Mates With Sockets At Left

Stk. No.	Type No.	1-24	25-49	50-99	100-249	250-499
29F924	37M20L	2.76	2.20	1.84	1.47	1.40
29F925	37M30L	3.26	2.60	2.17	1.74	1.65
29F926	37M40L	3.74	2.99	2.50	2.00	1.90
29F927	37M50L	4.25	3.39	2.83	2.27	2.15
29F928	37M60L	4.73	3.78	3.16	2.53	2.40
29F929	37M70L	5.24	4.18	3.49	2.79	2.65
29F930	37M80L	5.72	4.58	3.82	3.06	2.89
29F931	37M90L	6.23	4.97	4.15	3.32	3.16
29F932	37M100L	6.72	5.37	4.48	3.59	3.40

Fig. B—CAPS TO FIT HINGE CONNECTORS LISTED ABOVE

Caps are furnished with liners, cable clamps and designed to take the alternate lock when required. Caps are finished in black wrinkle and cable clamps are steel cadmium. Liners are formed fibre. The cable entrance hole is in the top of the cap.

Stk. No.	Type	For Types	Hole Size	1-24	25-49	50-99	100-249	250-499
29F942	37C20	M/F20	¾"	3.84	3.07	2.56	2.05	1.95
29F943	37C30	M/F30	1³⁄₁₆x1"	3.88	3.10	2.59	2.07	1.97
29F944	37C40	M/F40	1³⁄₁₆x1"	3.92	3.14	2.62	2.09	1.99
29F945	37C50	M/F50	1³⁄₁₆x1"	3.96	3.17	2.64	2.11	2.00
29F946	37C60	M/F60	1³⁄₁₆x1½"	4.00	3.20	2.67	2.13	2.04

Stk. No.	Type	For Types	Hole Size	1-24	25-49	50-99	100-249	250-4.99
29F947	37C70	M/F70	1³⁄₁₆x1½"	4.05	3.23	2.70	2.16	2.05
29F948	37C80	M/F80	1³⁄₁₆x1½"	4.08	3.27	2.72	2.18	2.07
29F949	37C90	M/F90	1³⁄₁₆x1½"	4.13	3.30	2.75	2.20	2.09
29F950	37C100	M/F100	1³⁄₁₆x1½"	4.17	3.33	2.78	2.22	2.11

ALTERNATE LOCK NO. 37AL

For secure locking, has hook at the top that fits into a cut-out in the cap. Prevents accidental unlocking of the cap. Shpg. wt. 2 oz.

Stk. No.	Type	1-24	25-49	50-99	100-249	250-499
29F951	37AL	.65	.52	.43	.34	.33

TYKON EDGE CONNECTORS

Outstanding high density (.050" centers) edge connectors for .062" printed circuit boards. Potential applications include diode on insulating substrates, memory planes (standard and thin film types) and almost any type of modular plug-in unit. Tykon connectors are furnished with conventional wiring tails suitable for welding or soldering. Highly rated electrical and mechanical performances.

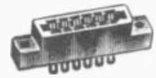
Stock No.	Type No.	Description	1-24	25-49	50-99	100-249	250-499
29F980	50-12A-40	6 dbl. row contacts	3.35	2.68	2.23	1.78	1.76
29F981	50-20A-40	10 dbl. row contacts	4.13	3.30	2.75	2.20	2.09
29F982	50-30A-40	15 dbl. row contacts	5.10	4.09	3.41	2.72	2.59
29F983	50-40A-40	20 dbl. row contacts	6.08	4.86	4.05	3.24	3.08
29F984	50-50A-40	25 dbl. row contacts	7.05	5.64	4.70	3.76	3.57
29F985	50-MC	Mounting Clip	.17	.13	.11	.10	.09
29F986	50-PK	Polarizing Key	.17	.13	.11	.10	.09

BIFURCATED CONTACT EDGE CONNECTORS

Have two flexing surfaces to provide positive contact. Accommodates irregularities in printed circuit boards. One plastic polarizing key is furnished unassembled with each connector.

TYPE 250

Insulation is glass filled diallyl phthalate, type SDGF per Mil. M-14F. Contacts are phosphor bronze with .00003 Min. Sel-Rex gold plate.



Stk. No.	Type	Cont. Pos.	Cont.	1-24	25-49	50-99	100-249	250-499
29F952	50- 6A-20	6	6	1.23	.98	.82	.66	.62
29F953	50-10A-20	10	10	1.65	1.32	1.10	.88	.84
29F954	50-12A-20	12	12	1.86	1.49	1.24	.99	.94
29F955	50-15A-20	15	15	2.18	1.74	1.45	1.16	1.10
29F956	50-18A-20	18	18	2.49	1.99	1.66	1.33	1.26
29F957	50-22A-20	22	22	2.91	2.33	1.94	1.55	1.47
29F978	50-25A-20	25	25	3.47	2.77	2.31	1.85	1.76

TYPE 251

Similar to type 250 except that the contact positions have two contacts instead of one. Insulation material and finish are the same type as type 250.

Stk. No.	Type	Cont. Pos.	Cont.	1-24	25-49	50-99	100-249	250-499
29F958	50-12A-30	6	12	1.23	.98	.82	.66	.62
29F959	50-20A-30	10	20	1.65	1.32	1.10	.88	.84
29F960	50-24A-30	12	24	1.86	1.49	1.24	.99	.94
29F961	50-30A-30	15	30	2.18	1.74	1.45	1.16	1.10
29F962	50-36A-30	18	36	2.49	1.99	1.66	1.33	1.27
29F963	50-44A-30	22	44	2.91	2.33	1.94	1.55	1.47
29F979	50-50A-30	25	50	3.47	2.77	2.31	1.85	1.76

MOLDED EDGE CONNECTORS

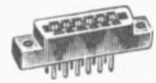
Meets Military Specification MIL-C-21097B. These date-coded connectors are molded of glass-filled diallyl phthalate.

Stk. No.	Type	MIL No.	1-24	25-49	50-99	100-249	250-499
28F1112	50-6A-20M	M21097/1-001	1.58	1.26	1.05	.84	.80
28F1113	50-10A-20M	M21097/1-037	2.21	1.76	1.47	1.18	1.12
28F1114	50-15A-20M	M21097/1-073	2.99	2.39	2.00	1.60	1.52
28F1115	50-18A-20M	M21097/1-109	3.47	2.77	2.31	1.85	1.76
28F1116	50-22A-20M	M21097/1-145	4.10	3.28	2.73	2.18	2.08

Stk. No.	Type	MIL No.	1-24	25-49	50-99	100-249	250-499
28F1117	50-12A-30M	M21097/1-019	1.58	1.26	1.05	.84	.80
28F1118	50-20A-30M	M21097/1-055	2.21	1.76	1.47	1.18	1.12
28F1119	50-30A-30M	M21097/1-091	2.99	2.39	2.00	1.60	1.52
28F1120	50-36A-30M	M21097/1-127	3.47	2.77	2.31	1.85	1.76
28F1121	50-44A-30M	M21097/1-163	4.10	3.28	2.73	2.18	2.08

TYPE 252

Similar to type 251 except contact tails are for DIP soldering and will fit into .051 dia. holes. Contact positions contain two contacts.



Stk. No.	Type	Cont. Pos.	Cont.	1-24	25-49	50-99	100-249	250-499
29F964	50-12B-10	6	12	1.23	.98	.82	.66	.62
29F965	50-20B-10	10	20	1.65	1.32	1.10	.88	.84
29F966	50-24B-10	12	24	1.86	1.49	1.24	.99	.94
29F967	50-30B-10	15	30	2.18	1.74	1.45	1.16	1.10
29F968	50-36B-10	18	36	2.49	1.99	1.66	1.33	1.26
29F969	50-44B-10	22	44	2.91	2.33	1.94	1.55	1.47

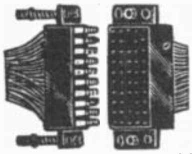
TYPE 253—STANDARD CONTACT

Similar to type 251 except that the contact tails are for WRAPOST connections. Contact positions contain two contacts.

Stk. No.	Type	Cont. Pos.	Cont.	1-24	25-49	50-99	100-249	250-499
29F970	50-12B-20	6	12	3.00	2.40	2.00	....	....
29F971	50-20B-20	10	20	3.75	3.00	2.50	....	....
29F972	50-24B-20	12	24	4.13	3.30	2.75	....	....
29F973	50-30B-20	15	30	4.69	3.75	3.13	....	....
29F974	50-36B-20	18	36	5.25	4.20	3.50	....	....
29F975	50-44B-20	22	44	6.00	4.80	4.00	....	....

Cinch-Jones Connectors

MINI-JONES CRIMP-ON, SNAP-IN CONNECTORS



"MINI-JONES" is a light-duty, multiple-contact connector, consisting of casting and bulk pins or contacts to make complete unit of your choice. No insertion tool needed. Applications include computers, communications systems and automatic vending equipment. Contact density of 25 contacts per square inch results in space saving. Can be used for rack and panel, cable-to-cable mounting or cable-to-chassis. Pin and contact terminations accommodate following stranded wire sizes: one AWG 18, 20, 22, or 24; also two AWG 22 or 24. Voltage rating: 830 VRMS, 1230 VDC; Current rating 4.0 amps; Contact resistance: .0065 ohms maximum; Low level contact resistance: current flow at 0.1 micro volts, no variation of contact res. at 6.5ma and 16.25 ma; Insulation resistance: 1000 megohms. Contacts are of Phosphor and Bronze material. Polarizing pins and lock nuts—brass; Locking screw—steel; Locking spring—music wire. MJP-2/MJS-2 series have provision for MJ-SL screw locks.

Stock No.	Mfg. No.	Pins or Contacts Supplied	1-24	25-49	50-99	100-249	250-499
28F1122	MJP-19	19	2.10	1.68	1.40	1.12	1.06
28F1123	MJP-29	29	2.48	1.98	1.65	1.32	1.25
28F1124	MJP-39	39	2.85	2.28	1.90	1.52	1.44
28F1125	MJP-48	48	3.15	2.58	2.10	1.68	1.60
28F1126	MJP-58	58	3.53	2.82	2.35	1.88	1.79
28F1127	MJP-68	68	3.90	3.12	2.60	2.08	1.98
28F1128	MJP-2-19	19	3.00	2.40	2.00	1.60	1.52
28F1129	MJP-2-29	29	3.38	2.70	2.25	1.80	1.71
28F1130	MJP-2-39	39	3.75	3.00	2.50	2.00	1.90
28F1131	MJP-2-48	48	4.05	3.24	2.70	2.16	2.05
28F1132	MJP-2-58	58	4.43	3.54	2.95	2.36	2.24
28F1133	MJP-2-68	68	4.80	3.84	3.20	2.56	2.43
28F1134	MJS-19	19	1.88	1.50	1.25	1.00	.95
28F1135	MJS-29	29	2.14	1.71	1.43	1.14	1.08
28F1136	MJS-39	39	2.40	1.92	1.60	1.28	1.22
28F1137	MJS-48	48	2.59	2.07	1.73	1.38	1.31
28F1138	MJS-58	58	2.85	2.28	1.90	1.52	1.44
28F1139	MJS-68	68	3.11	2.49	2.08	1.66	1.58
28F1140	MJS-2-19	19	2.72	2.22	1.85	1.48	1.41
28F1141	MJS-2-29	29	3.04	2.43	2.03	1.62	1.54
28F1142	MJS-2-39	39	3.30	2.64	2.20	1.76	1.67
28F1143	MJS-2-48	48	3.49	2.79	2.33	1.86	1.77
28F1144	MJS-2-58	58	3.75	3.00	2.50	2.00	1.90
28F1145	MJS-2-68	68	4.01	3.21	2.68	2.14	2.03

SCREW LOCK AND SPRING

Type MJ-SL. Spring-loaded stud-lock which fits MJP-2/MJS-2 series plugs and sockets interchangeably to complete lock.

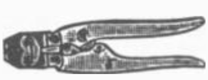
Stock No.	Type	1-24	25-49	50-99	100-249
28F1146	MJ-SL	.75	.60	.50	.40

PLUG PINS AND SOCKET CONTACTS

Type MJP-P. Extra plug pins available for the Cinch Mini-Jones crimp-on, snap-in connector series. 100 plug pins per bag.
Type MJS-C. Extra socket contacts available for the Cinch Mini-Jones crimp-on, snap-in connector series. 100 per bag.

S'ock No.	Type	1-24	25-49	50-99	100-249
28F1147	MJP-P	.10	.07	.04	.03
28F1148	MJS-C	.10	.07	.04	.03

CRIMPING TOOL



Type CT-SB. Versatile, manually operated tool for crimping wire to "MINI-JONES" plug or receptacle contacts. Cycle controlled to assure correct crimping operation.
28F1149. NET **43.75**

PIN REMOVAL TOOL

Type CT-5A. Special nylon hand tool with separate tips for removing contacts from "MINI-JONES" plug or receptacle.
28F1150. NET .... **.75**

PHONO JACKS

81A

81A. Single prong positive grip phono jack mounted on 1/16" chocolate bakelite disc with 1 1/16" mtg. centers. Use 13A phono plug with this jack. Shpg. wt. 4 oz.

81B

81B. Two positive grip phono jacks mtg. on 1/16" bakelite panel with 1 3/16 mtg. centers. Jacks are spaced on 7/16" centers. Panel size: 1½"x1". Use 13A phono plug with this jack. Shpg. wt. 4 oz.

Stk. No.	Type	Mfr. No.	1-24	25-49	50-99	100-249	250-499
39F797	81A	14H20604	.11	.09	.08	.07	.06
39F795	81B	8113	.15	.12	.10	.09	.08

SERIES 300 SB AND DB PLUGS AND SOCKETS

DB

SB

Designed for medium duty applications small in size with good separation between contacts. Arranged for either cap or panel mounting. All plugs and sockets are polarized. Plugs with 24 to 33 contacts have a special polarizing pin to facilitate correct positioning of mating plug and socket. Insulating material is molded bakelite. Phosphor-bronze "knife-switch" type socket contacts engage both sides of flat plug contacts, providing double contact area. All contacts are cadmium plated. Plug prongs are 5/32" wide and 3/64" thick. Formed metal caps are finished in black wrinkle. Feature MONO-BLOCK construction which is compatible with the old two-piece types. New construction eliminates internal moisture traps and permits external pre-wiring as well as removal and replacement of individual contacts if necessary. Contacts are "locked-in" to withstand wiring stress. Rated Voltage: 730 Volts rms; Contact Resistance: 016 Ohms max. Rated Current: (2-12 contacts) . . . 7.5 amperes, (15-33 contacts) . . . 4.5 amperes; Rated Wattage: (2-12 contacts) . . . 1875 watts, (15-33 contacts) . . . 1125 watts.

Type SB. Sockets with shallow bracket for flush mounting.

Type DB. Sockets with deep bracket for recessed mounting.

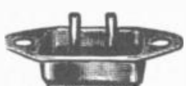
PLUGS

Stk. No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
28F1092	P-302-DB	2	.72	.58	.48	.38	.37
28F1093	P-303-DB	3	.73	.58	.49	.39	.37
28F1094	P-304-DB	4	.77	.61	.51	.41	.39
28F1095	P-306-DB	6	.86	.68	.57	.46	.43
28F1096	P-308-DB	8	.92	.74	.62	.49	.54
28F1097	P-312-DB	12	1.06	.85	.71	.56	.54
28F1098	P-315-DB	15	1.30	1.04	.87	.69	.66
28F1099	P-318-DB	18	1.55	1.24	1.04	.83	.79
28F1100	P-321-DB	21	1.86	1.49	1.24	.99	.94
28F1101	P-324-DB	24	2.18	1.75	1.46	1.16	1.11
28F1102	P-327-DB	27	2.50	2.00	1.67	1.33	1.27
28F1103	P-330-DB	30	2.81	2.25	1.88	1.50	1.43
28F1104	P-333-DB	33	3.12	2.50	2.08	1.66	1.58
28F1105	P-315-SB	15	1.30	1.04	.87	.69	.66
28F1106	P-318-SB	18	1.55	1.24	1.04	.83	.79
28F1107	P-321-SB	21	1.86	1.49	1.24	.99	.94
28F1108	P-324-SB	24	2.18	1.75	1.46	1.16	1.11
28F1109	P-327-SB	27	2.50	2.00	1.67	1.33	1.27
28F1110	P-330-SB	30	2.81	2.25	1.88	1.50	1.43
28F1111	P-333-SB	33	3.12	2.50	2.08	1.66	1.58

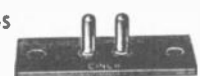
SOCKETS

Stk. No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
29F873	S-302-DB	2	.74	.59	.50	.40	.38
29F874	S-303-DB	3	.74	.59	.50	.40	.38
29F875	S-304-DB	4	.79	.63	.53	.42	.40
29F876	S-306-DB	6	.89	.71	.59	.47	.45
29F877	S-308-DB	8	.99	.79	.66	.53	.50
29F878	S-312-DB	12	1.22	.97	.81	.65	.62
29F893	S-315-DB	15	1.45	1.16	.97	.77	.73
29F894	S-318-DB	18	1.68	1.34	1.12	.90	.85
29F895	S-321-DB	21	2.00	1.60	1.33	1.06	1.01
29F896	S-324-DB	24	2.32	1.85	1.55	1.24	1.17
29F897	S-327-DB	27	2.63	2.10	1.75	1.40	1.33
29F898	S-330-DB	30	2.96	2.37	1.98	1.58	1.50
29F899	S-333-DB	33	3.27	2.62	2.18	1.74	1.66
29F886	S-315-SB	15	1.45	1.16	.97	.77	.73
29F887	S-318-SB	18	1.68	1.34	1.12	.90	.85
29F888	S-321-SB	21	2.00	1.60	1.33	1.06	1.01
29F889	S-324-SB	24	2.32	1.85	1.55	1.24	1.17
29F890	S-327-SB	27	2.63	2.10	1.75	1.40	1.33
29F891	S-330-SB	30	2.96	2.37	1.98	1.58	1.50
29F892	S-333-SB	33	3.27	2.62	2.18	1.74	1.66

TV PLUGS



2RP-1



2FP

Type 2RP-1. Recessed sub-panel mounting type plug. UL approved for 125 volts 7 amps. 1¼" mtg. centers. Length 1⅝", width ⅝", depth 5/16". Shpg. wt. 4 oz.

Type 2FP connector plug. Two prongs mounted on 1/16" Bakelite. 1⅝" x ¾". .135" mounting holes are on 1¼" centers.

Stk. No.	Type	Mfr. No.	1-24	25-49	50-99	100-249	250-499
36F881	2RP-1	15M14684	.11	.09	.08	.07	.06
29F619	2FP	15F17982	.11	.09	.08	.07	.06

Jones Plugs and Sockets

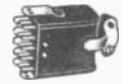
JONES SERIES 300 PLUGS AND SOCKETS

AB

FP

CCT

RP



CCT-L

CCT-K

Compact connectors with phosphor-bronze "knife switch" type socket contacts. Black crystal-finished metal caps cover bakelite body. Rated: 730 volts rms at 10 amps. 2-contact types are round, all others are rectangular. Shpg. wt., 3 oz.

WITH ANGLE BRACKETS

PLUGS

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F200	P-302-AB	2	.29	.23	.20	.16	.15
39F201	P-303-AB	3	.33	.26	.22	.18	.17
39F202	P-304-AB	4	.37	.29	.25	.20	.19
39F203	P-306-AB	6	.46	.37	.31	.24	.23
39F204	P-308-AB	8	.53	.42	.35	.28	.27
39F205	P-310-AB	10	.59	.47	.40	.32	.30
39F206	P-312-AB	12	.66	.53	.44	.35	.33
39F207	P-315-AB	15	.89	.71	.59	.47	.45
39F208	P-318-AB	18	1.07	.85	.71	.57	.54
39F209	P-321-AB	21	1.34	1.07	.89	.71	.68
39F210	P-324-AB	24	1.62	1.30	1.08	.86	.82
39F211	P-327-AB	27	1.90	1.52	1.27	1.01	.96
39F212	P-330-AB	30	2.18	1.74	1.45	1.16	1.10
39F213	P-333-AB	33	2.45	1.96	1.63	1.30	1.24

SOCKETS

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F220	S-302-AB	2	.31	.25	.21	.17	.16
39F221	S-303-AB	3	.35	.28	.23	.19	.18
39F222	S-304-AB	4	.39	.31	.26	.21	.20
39F223	S-306-AB	6	.49	.39	.33	.26	.25
39F224	S-308-AB	8	.59	.47	.40	.32	.30
39F225	S-310-AB	10	.69	.55	.46	.37	.35
39F226	S-312-AB	12	.82	.65	.55	.44	.41
39F227	S-315-AB	15	1.04	.83	.69	.55	.52
39F228	S-318-AB	18	1.19	.95	.80	.64	.60
39F229	S-321-AB	21	1.47	1.18	.98	.78	.75
39F230	S-324-AB	24	1.75	1.40	1.17	.93	.89
39F231	S-327-AB	27	2.03	1.62	1.35	1.08	1.03
39F232	S-330-AB	30	2.33	1.86	1.55	1.24	1.18
39F233	S-333-AB	33	2.60	2.08	1.73	1.38	1.32

WITH FLUSH PLATE

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F240	P-302-FP	2	.49	.39	.33	.26	.25
39F241	P-303-FP	3	.52	.42	.35	.28	.26
39F242	P-304-FP	4	.56	.44	.37	.30	.28
39F243	P-306-FP	6	.65	.52	.43	.34	.33
39F244	P-308-FP	8	.71	.57	.48	.38	.36
39F245	P-310-FP	10	.78	.62	.52	.42	.40
39F246	P-312-FP	12	.85	.68	.57	.45	.43

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F250	S-302-FP	2	.51	.41	.34	.27	.26
39F251	S-303-FP	3	.53	.43	.36	.38	.27
39F252	S-304-FP	4	.58	.46	.39	.31	.29
39F253	S-306-FP	6	.68	.54	.45	.36	.34
39F254	S-308-FP	8	.78	.62	.52	.42	.40
39F255	S-310-FP	10	.88	.70	.59	.47	.45
39F256	S-312-FP	12	1.00	.80	.67	.54	.51

WITH CABLE CLAMP IN TOP

PLUGS

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F280	P-302-CCT	2	.60	.48	.40	.32	.30
39F281	P-303-CCT	3	.66	.53	.44	.35	.33
39F282	P-304-CCT	4	.70	.56	.47	.37	.35
39F283	P-306-CCT	6	.80	.64	.53	.42	.40
39F284	P-308-CCT	8	.86	.69	.58	.46	.44
39F285	P-310-CCT	10	.95	.76	.64	.51	.48
39F286	P-312-CCT	12	1.03	.82	.69	.55	.52
39F287	P-315-CCT	15	1.37	1.10	.92	.73	.70
39F288	P-318-CCT	18	1.60	1.28	1.07	.85	.81
39F289	P-321-CCT	21	1.91	1.53	1.28	1.02	.97
39F290	P-324-CCT	24	2.24	1.79	1.50	1.20	1.14
39F291	P-327-CCT	27	2.57	2.05	1.71	1.37	1.30
39F292	P-330-CCT	30	2.89	2.31	1.20	1.54	1.46
39F293	P-333-CCT	33	3.20	2.56	1.71	1.71	1.62

SOCKETS

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F300	S-302-CCT	2	.62	.50	.42	.33	.32
39F301	S-303-CCT	3	.68	.54	.45	.36	.34
39F302	S-304-CCT	4	.72	.58	.48	.38	.37
39F303	S-306-CCT	6	.83	.66	.55	.44	.42
39F304	S-308-CCT	8	.93	.74	.62	.50	.47
39F305	S-310-CCT	10	1.05	.84	.70	.56	.53
39F306	S-312-CCT	12	1.19	.95	.79	.63	.60
39F307	S-315-CCT	15	1.52	1.22	1.02	.81	.77
39F308	S-318-CCT	18	1.73	1.38	1.15	.92	.87
39F309	S-321-CCT	21	2.05	1.64	1.37	1.09	1.04
39F310	S-324-CCT	24	2.37	1.90	1.58	1.26	1.20
39F311	S-327-CCT	27	2.69	2.15	1.80	1.44	1.36
39F312	S-330-CCT	30	3.04	2.43	2.03	1.62	1.54
39F313	S-333-CCT	33	3.35	2.68	2.24	1.79	1.70

WITH RECESSED PLATE

Stk. No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F260	P-302-RP	2	.56	.45	.38	.30	.29
39F261	P-303-RP	3	.59	.47	.40	.32	.30
39F262	P-304-RP	4	.63	.50	.42	.34	.32
39F263	P-306-RP	6	.72	.58	.48	.38	.37
39F264	P-308-RP	8	.83	.66	.55	.44	.42
39F265	P-310-RP	10	.93	.74	.62	.50	.47
39F266	P-312-RP	12	1.04	.83	.69	.55	.52

Stk. No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F270	S-302-RP	2	.59	.47	.39	.31	.30
39F271	S-303-RP	3	.61	.49	.41	.32	.31
39F272	S-304-RP	4	.65	.52	.44	.35	.33
39F273	S-306-RP	6	.75	.60	.50	.40	.38
39F274	S-308-RP	8	.89	.71	.60	.48	.45
39F275	S-310-RP	10	1.04	.83	.69	.55	.52
39F276	S-312-RP	12	1.19	.95	.80	.64	.60

PLUGS — CABLE CLAMP IN TOP WITH LATCHES

Stk. No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
29F859	P-302-CCT-L	2	.75	.60	.50	.40	.38
29F860	P-303-CCT-L	3	.81	.65	.54	.43	.41
29F861	P-304-CCT-L	4	.85	.68	.57	.45	.43
29F862	P-306-CCT-L	6	.95	.76	.63	.50	.48
29F863	P-308-CCT-L	8	1.01	.81	.68	.54	.51
29F864	P-310-CCT-L	10	1.10	.88	.74	.59	.56
29F865	P-312-CCT-L	12	1.18	.94	.79	.63	.60

SOCKETS — CABLE CLAMP IN TOP WITH KEEPERS

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
29F866	S-302-CCT-K	2	.77	.62	.52	.41	.39
29F867	S-303-CCT-K	3	.83	.66	.55	.44	.42
29F868	S-304-CCT-K	4	.87	.70	.58	.46	.44
29F869	S-306-CCT-K	6	.98	.78	.65	.52	.49
29F870	S-308-CCT-K	8	1.08	.86	.72	.58	.55
29F871	S-310-CCT-K	10	1.20	.96	.80	.64	.61
29F872	S-312-CCT-K	12	1.34	1.07	.89	.71	.68

SERIES 202 PLUGS AND SOCKETS

P-202-CCT

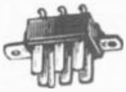
S-202-B

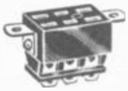
Phosphor bronze "knife switch" type socket contacts engage both sides of flat brass plug contacts, doubling contact area. Have two polarized contacts. Metal parts are brass with bright nickel finish. Molded bakelite insulation. Formed fibre linings in caps. Knurled nut as ¾"-27 threads. Socket mounting holes—No. 30 drill size on 1" centers.

29F507	P-202-CCT	Plug with cable clamps	.98	.78	.66	.53	.50
29F508	S-202-CCT	Socket with cable clamps	1.01	.80	.67	.54	.51
29F509	S-202-CCT-THR	S-202-CCT w/ threaded body	1.33	1.07	.89	.70	.67
29F512	S-202-B	Socket with mtg. base	1.20	.96	.80	.64	.61
29F513	P-202-B	Plug with mtg. base	1.18	.94	.78	.63	.59

Plugs, Sockets & Terminal Blocks

SERIES 400 AND 2400 PLUGS AND SOCKETS


P-406-AB


S-406-AB


P-406-CCT


S-406-CCT


P-406-DB


S-2406-DB

Series 400 plugs and sockets are made in 2, 4, 6, 8, 10, and 12 contacts. Phosphor bronze knife switch type socket contacts engage both sides of plug. Plug prongs are of heavy brass ¼" wide x 1/16" thick. Caps are finished in black crystal and equipped with fibre lining. Body of Molded Bakelite. Rated at 1100 RMS volts at 15 amps.

Series 2400 sockets and plugs are designed for high electrical and mechanical efficiency. They are similar to the 400 series except that their design increases the creepage distances and can take higher voltages. They are interchangeable with the 400 series. Rated at 1700 RMS Volts at 15 amps. Shpg. wt., 5 oz.

SERIES 400 PLUGS WITH ANGLE BRACKETS

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F320	P-402-AB	2	.71	.57	.48	.38	.36
39F321	P-404-AB	4	.87	.70	.58	.46	.44
39F322	P-406-AB	6	1.03	.82	.69	.55	.52
39F323	P-408-AB	8	1.19	.95	.79	.63	.60
39F324	P-410-AB	10	1.34	1.07	.90	.72	.68
39F325	P-412-AB	12	1.50	1.20	1.00	.80	.76

SERIES 400 PLUGS WITH CABLE CLAMP ON TOP

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F340	P-402-CCT	2	1.19	.95	.79	.63	.60
39F341	P-404-CCT	4	1.35	1.08	.90	.72	.68
39F342	P-406-CCT	6	1.55	1.24	1.04	.83	.79
39F343	P-408-CCT	8	1.72	1.37	1.15	.92	.87
39F344	P-410-CCT	10	1.98	1.58	1.32	1.06	1.00
39F345	P-412-CCT	12	2.16	1.73	1.44	1.15	1.09

SERIES 400 PLUGS WITH DEEP BRACKET FOR RECESSED MOUNTING

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
29F514	P-402-DB	2	.95	.76	.63	.50	.48
29F515	P-404-DB	4	1.15	.92	.77	.61	.58
29F516	P-406-DB	6	1.35	1.08	.90	.72	.68
29F517	P-408-DB	8	1.55	1.24	1.04	.83	.79
29F518	P-410-DB	10	1.76	1.40	1.17	.94	.89
29F519	P-412-DB	12	1.96	1.57	1.31	1.04	.99

SERIES 2400 PLUG WITH CABLE CLAMP ON TOP

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
29F523	P-2402-CCT	2	1.25	1.00	.83	.66	.63
29F524	P-2404-CCT	4	1.42	1.13	.95	.76	.72
29F525	P-2406-CCT	6	1.59	1.27	1.06	.85	.81
29F526	P-2408-CCT	8	1.76	1.41	1.18	.94	.89
29F527	P-2410-CCT	10	1.94	1.55	1.29	1.03	.98
29F528	P-2412-CCT	12	2.03	1.63	1.36	1.08	1.03

SERIES 400 SOCKETS WITH SHALLOW BRACKET FOR FLUSH MOUNTING

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F380	S-402-SB	2	1.03	.82	.69	.55	.52
39F381	S-404-SB	4	1.31	1.05	.88	.70	.67
39F382	S-406-SB	6	1.60	1.28	1.07	.85	.81
39F383	S-408-SB	8	1.88	1.51	1.26	1.00	.95
39F384	S-410-SB	10	2.17	1.73	1.45	1.16	1.10
39F385	S-412-SB	12	2.45	1.96	1.64	1.31	1.24

SERIES 400 SOCKETS WITH ANGLE BRACKETS

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F330	S-402-AB	2	.83	.66	.55	.44	.42
39F331	S-404-AB	4	1.07	.85	.71	.57	.54
39F332	S-406-AB	6	1.31	1.04	.87	.70	.66
39F333	S-408-AB	8	1.55	1.24	1.03	.82	.78
39F334	S-410-AB	10	1.79	1.43	1.19	.95	.90
39F335	S-412-AB	12	2.03	1.62	1.35	1.08	1.03

SERIES 400 SOCKETS WITH CABLE CLAMP ON TOP

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F346	S-402-CCT	2	1.34	1.07	.89	.71	.68
39F347	S-404-CCT	4	1.60	1.28	1.07	.85	.81
39F348	S-406-CCT	6	1.86	1.49	1.24	.99	.94
39F349	S-408-CCT	8	2.12	1.70	1.42	1.13	1.08
39F350	S-410-CCT	10	2.39	1.91	1.60	1.28	1.21
39F351	S-412-CCT	12	2.66	2.12	1.77	1.42	1.35

SERIES 2400 SOCKETS WITH DEEP BRACKET FOR RECESSED MOUNTING

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
29F900	S-2402-DB	2	1.05	.84	.70	.56	.53
29F901	S-2404-DB	4	1.22	.98	.82	.65	.62
29F902	S-2406-DB	6	1.40	1.12	.93	.74	.71
29F903	S-2408-DB	8	1.57	1.25	1.05	.84	.79
29F904	S-2410-DB	10	1.74	1.39	1.16	.93	.88
29F905	S-2412-DB	12	1.91	1.53	1.28	1.02	.97

SERIES 2400 SOCKET WITH CABLE CLAMP ON TOP

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
29F529	S-2402-CCT	2	1.36	1.09	.91	.72	.69
29F530	S-2404-CCT	4	1.50	1.20	1.00	.80	.76
29F531	S-2406-CCT	6	1.68	1.34	1.12	.90	.85
29F532	S-2408-CCT	8	1.86	1.49	1.24	.99	.94
29F533	S-2410-CCT	10	2.04	1.63	1.36	1.09	1.03
29F534	S-2412-CCT	12	2.22	1.78	1.48	1.18	1.13

SERIES 2400 SOCKETS WITH SHALLOW BRACKET FOR FLUSH MOUNTING

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
29F535	S-2402-SB	2	.98	.78	.65	.52	.49
29F536	S-2404-SB	4	1.15	.92	.77	.61	.58
29F537	S-2406-SB	6	1.32	1.06	.88	.70	.67
29F538	S-2408-SB	8	1.49	1.19	1.00	.80	.76
29F539	S-2410-SB	10	1.67	1.33	1.11	.89	.84
29F540	S-2412-SB	12	1.84	1.47	1.23	.98	.93

SERIES 140 AND 140-Y BARRIER TERMINAL BLOCKS


140


140-Y

Series 140. Base: ⅞" W x 1 3/32" H molded bakelite. Eyelets and binder head screws are brass, nickel plated. 5-40 x 3/16" screws. Leakage path ½". Shpg. wt., 3 oz. Use with Series 160 Fanning strips listed on following page.

Series 140-Y. Same as Series 140 but with Thru-panel solder lugs.

SERIES 140

Stk. No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
28F700	2-140	2	.23	.19	.16	.13	.12
28F701	3-140	3	.27	.22	.18	.15	.14
28F702	4-140	4	.33	.26	.22	.18	.17
28F703	5-140	5	.41	.32	.27	.22	.21
28F704	6-140	6	.47	.37	.31	.25	.24
28F705	7-140	7	.53	.43	.36	.28	.27
28F706	8-140	8	.61	.49	.41	.32	.31
28F707	9-140	9	.68	.54	.45	.36	.34
28F708	10-140	10	.75	.60	.50	.40	.38
28F709	11-140	11	.81	.65	.54	.43	.41
28F710	12-140	12	.89	.71	.59	.47	.45
28F869	13-140	13	.95	.76	.64	.51	.48
28F870	14-140	14	1.03	.82	.69	.55	.52
28F871	15-140	15	1.10	.88	.73	.58	.56
28F872	16-140	16	1.16	.93	.78	.62	.59
28F873	17-140	17	1.23	.98	.82	.66	.62
28F874	18-140	18	1.30	1.04	.87	.69	.66
28F875	19-140	19	1.37	1.09	.91	.73	.69
28F876	20-140	20	1.43	1.15	.96	.76	.73
28F877	21-140	21	1.51	1.21	1.01	.80	.76

SERIES 140-Y

Stk. No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
29F749	2-140-Y	2	.29	.23	.20	.16	.15
29F750	3-140-Y	3	.36	.29	.24	.19	.18
29F751	4-140-Y	4	.46	.37	.31	.24	.23
29F752	5-140-Y	5	.56	.45	.38	.30	.29
29F753	6-140-Y	6	.66	.53	.44	.35	.33
29F754	7-140-Y	7	.76	.61	.51	.40	.38
29F755	8-140-Y	8	.86	.69	.58	.46	.44
29F756	9-140-Y	9	.97	.77	.65	.52	.49
29F757	10-140-Y	10	1.07	.86	.72	.57	.54
29F758	11-140-Y	11	1.16	.93	.78	.62	.59
29F759	12-140-Y	12	1.27	1.01	.85	.68	.64
29F760	13-140-Y	13	1.37	1.10	.92	.73	.70
29F761	14-140-Y	14	1.48	1.18	.99	.79	.75
29F762	15-140-Y	15	1.58	1.26	1.05	.84	.80
29F763	16-140-Y	16	1.67	1.34	1.12	.89	.85
29F764	17-140-Y	17	1.78	1.42	1.19	.95	.90
29F765	18-140-Y	18	1.88	1.50	1.25	1.00	.95
29F766	19-140-Y	19	1.97	1.58	1.32	1.05	1.00
29F767	20-140-Y	20	2.07	1.66	1.38	1.10	1.05
29F768	21-140-Y	21	2.18	1.75	1.46	1.16	1.11

Barrier Terminal Blocks & Accessories

SERIES 140 BARRIER BLOCKS AND ACCESSORIES CONT.

IMPRINTED MARKER STRIPS FOR USE WITH SERIES 140

Strips are of 1⁄32" black fibre and have same mounting holes as barrier strips. Shpg. wt., 2 oz.

TYPE MS-140

Stock No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
29F804	MS- 2-140	2	.13	.10	.09	.08	.07
29F805	MS- 3-140	3	.13	.10	.09	.08	.07
29F806	MS- 4-140	4	.13	.10	.09	.08	.07
29F807	MS- 5-140	5	.13	.10	.09	.08	.07
29F808	MS- 6-140	6	.13	.10	.09	.08	.07
29F809	MS- 7-140	7	.15	.12	.10	.09	.08
29F810	MS- 8-140	8	.15	.12	.10	.09	.08
29F811	MS- 9-140	9	.15	.12	.10	.09	.08
29F812	MS-10-140	10	.17	.13	.11	.10	.09
29F813	MS-11-140	11	.17	.13	.11	.10	.09
29F814	MS-12-140	12	.17	.13	.11	.10	.09
29F815	MS-13-140	13	.19	.15	.13	.11	.10
29F816	MS-14-140	14	.19	.15	.13	.11	.10
29F817	MS-15-140	15	.19	.15	.13	.11	.10
29F818	MS-16-140	16	.21	.17	.14	.12	.11
29F819	MS-17-140	17	.21	.17	.14	.12	.11
29F820	MS-18-140	18	.21	.17	.14	.12	.11
29F821	MS-19-140	19	.23	.19	.16	.13	.12
29F822	MS-20-140	20	.23	.19	.16	.13	.12
29F823	MS-21-140	21	.23	.19	.16	.13	.12

SOLDER TERMINALS FOR USE WITH SERIES 140

Stk. No.	Type	1-24	25-49	50-99	100-249	250-499
28F791	¾W-140	.09	.08	.07	.06	.05
28F797	W-140	.09	.08	.07	.06	.05
28F794	Y-140	.09	.08	.07	.06	.05

JUMPERS FOR 140 BARRIER BLOCK SERIES

Units are used for making permanent connections between adjacent barrier block terminals. for Barrier block series 140.

Stock No.	Type No.	1-24	25-49	50-99	100-249	250-499
28F833	140J-1	.07	.06	.05	.04	.03

SERIES 160 FANNING STRIPS

Fits 140 Series Barrier Strips. Brass, cadmium plated .032" terminals are mounted on 3⁄32" bakelite, ½" wide and on ⅜" centers. Wt., 3 oz.

Mounting hole on left.

Stock No.	Type	Cont.	1-24	25-49	50-99	100-229	250-499
28F750	2-160-L	2	.22	.17	.15	.13	.12
28F751	3-160-L	3	.26	.22	.18	.15	.14
28F752	4-160-L	4	.33	.26	.23	.18	.17
28F753	5-160-L	5	.39	.31	.26	.21	.20
28F754	6-160-L	6	.44	.35	.29	.23	.22
28F755	7-160-L	7	.51	.40	.33	.26	.25
28F756	8-160-L	8	.55	.44	.37	.30	.28
28F757	9-160-L	9	.63	.51	.43	.33	.32
28F758	10-160-L	10	.70	.56	.47	.37	.36
28F759	11-160-L	11	.77	.61	.52	.41	.39
28F760	12-160-L	12	.86	.69	.58	.46	.44

Mounting hole on right.

Stock No.	Type	Cont.	1-24	25-49	50-99	100-229	250-499
28F800	2-160-R	2	.22	.17	.15	.13	.12
28F801	3-160-R	3	.26	.22	.18	.15	.14
28F802	4-160-R	4	.33	.26	.23	.18	.17
28F803	5-160-R	5	.39	.31	.26	.21	.20
28F804	6-160-R	6	.44	.35	.29	.23	.22
28F805	7-160-R	7	.51	.40	.33	.26	.25
28F806	8-160-R	8	.55	.44	.37	.30	.28
28F807	9-160-R	9	.70	.56	.47	.37	.36
28F808	10-160-R	10	.70	.56	.47	.37	.36
28F809	11-160-R	11	.77	.61	.52	.41	.39
28F810	12-160-R	12	.86	.69	.58	.46	.44

SERIES 170 TERMINAL BLOCKS

.032" brass, tin plated Solder Term. Black molded Bakelite. Size: 5⁄16" W. x ¼" H. Mtg. on ⅜" ctrs.

Stock No	Type	Contact	1-24	25-49	50-99	100-249	250-499
29F740	2-170	2	.28	.23	.19	.16	.15
29F741	3-170	3	.36	.28	.24	.19	.18
29F742	4-170	4	.40	.32	.26	.21	.20
29F743	5-170	5	.45	.36	.30	.24	.23
29F744	6-170	6	.50	.40	.34	.27	.25
29F745	7-170	7	.57	.45	.38	.30	.28
29F746	8-170	8	.62	.49	.42	.34	.32
29F747	9-170	9	.68	.55	.45	.36	.35
29F748	10-170	10	.75	.59	.49	.40	.36

SERIES 164 TERMINAL BLOCKS

Same as Series 140 except has 6-32 binder head screws instead of 5-40. Maximum volts r.m.s. without marker strip: 1100; with marker strip: 1200. Max. current in amps: 15. Max. watts per terminal: 3750.

Stock No.	Type No.	Contacts	1-24	25-49	50-99	100-249	250-499
28F840	2-164	2	.26	.20	.17	.14	.13
28F841	3-164	3	.32	.25	.21	.17	.16
28F842	4-164	4	.40	.32	.27	.21	.20
28F843	5-164	5	.47	.38	.32	.25	.24
28F844	6-164	6	.56	.44	.37	.30	.28
28F845	7-164	7	.63	.50	.42	.34	.32
28F846	8-164	8	.71	.57	.48	.38	.36
28F847	9-164	9	.79	.63	.53	.42	.40
28F848	10-164	10	.87	.70	.58	.46	.44
28F849	11-164	11	.95	.76	.63	.50	.48
28F891	12-164	12	1.03	.82	.69	.55	.52
28F892	13-164	13	1.11	.89	.74	.59	.56
28F893	14-164	14	1.20	.96	.80	.64	.61
28F894	15-164	15	1.29	1.02	.85	.68	.65
28F895	16-164	16	1.37	1.09	.91	.73	.69
28F896	17-164	17	1.43	1.15	.96	.76	.73
28F897	18-164	18	1.52	1.22	1.02	.81	.77
28F898	19-164	19	1.60	1.28	1.07	.85	.81
28F899	20-164	20	1.69	1.35	1.13	.90	.86
28F900	21-164	21	1.77	1.42	1.18	.94	.90

SERIES 141 AND 141-Y BARRIER TYPE TERMINAL BLOCKS

Increased insulation barriers placed between each terminal. Long leakage path prevents direct shorts from frayed wire at terminal. Base: 1⅛" Wx½" H. molded bakelite. Series 141-Y has thru panel solder lugs. 6-32x¼" screw. Use with Series 161 Fanning Strips. Shp. Wt. 3 oz.

141

141-Y

SERIES 141

Stk. No	Type	Cont.	1-24	25-49	50-99	100-249	250-499
28F711	2-141	2	.26	.20	.17	.14	.13
28F712	3-141	3	.34	.27	.23	.18	.17
28F713	4-141	4	.43	.34	.29	.23	.22
28F714	5-141	5	.52	.41	.35	.28	.26
28F715	6-141	6	.59	.47	.40	.32	.30
28F716	7-141	7	.70	.56	.47	.37	.35
28F717	8-141	8	.78	.62	.52	.42	.40
28F718	9-141	9	.86	.69	.58	.46	.44
28F719	10-141	10	.96	.77	.64	.51	.49
28F720	11-141	11	1.04	.83	.70	.56	.53
28F721	12-141	12	1.13	.90	.75	.60	.57
28F878	13-141	13	1.22	.97	.81	.65	.62
28F879	14-141	14	1.31	1.04	.87	.70	.66
28F880	15-141	15	1.39	1.11	.93	.74	.70
28F881	16-141	16	1.48	1.18	.99	.79	.75
28F882	17-141	17	1.57	1.25	1.05	.84	.79
28F883	18-141	18	1.66	1.33	1.11	.88	.84
28F884	19-141	19	1.75	1.40	1.17	.93	.89
28F885	20-141	20	1.84	1.47	1.23	.98	.93

SERIES 141-Y

Stk. No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
29F769	2-141-Y	2	.35	.28	.23	.18	.18
29F770	3-141-Y	3	.47	.38	.32	.25	.24
29F771	4-141-Y	4	.61	.49	.41	.32	.31
29F772	5-141-Y	5	.74	.59	.49	.39	.37
29F773	6-141-Y	6	.85	.68	.57	.45	.43
29F774	7-141-Y	7	1.00	.80	.67	.53	.51
29F775	8-141-Y	8	1.12	.89	.75	.60	.57
29F776	9-141-Y	9	1.24	.99	.83	.66	.63
29F777	10-141-Y	10	1.38	1.10	.92	.74	.70
29F778	11-141-Y	11	1.51	1.21	1.01	.80	.76
29F779	12-141-Y	12	1.64	1.31	1.09	.87	.83
29F780	13-141-Y	13	1.78	1.42	1.19	.95	.90
29F781	14-141-Y	14	1.91	1.53	1.28	1.02	.97
29F782	15-141-Y	15	2.04	1.63	1.36	1.09	1.03
29F783	16-141-Y	16	2.18	1.75	1.46	1.16	1.11
29F784	17-141-Y	17	2.32	1.85	1.55	1.24	1.17
29F785	18-141-Y	18	2.45	1.96	1.64	1.31	1.24
29F786	19-141-Y	19	2.60	2.08	1.73	1.38	1.32
29F787	20-141-Y	20	2.73	2.18	1.82	1.46	1.38

SOLDER TERMINALS FOR SERIES 141 BARRIER STRIPS

Stk. No.	Type	1-24	25-49	50-99	100-249	250-499
28F792	¾W-141	.09	.08	.07	.06	.05
28F798	W-141	.09	.08	.07	.06	.05
28F795	Y-141	.10	.09	.08	.07	.06

Terminal Blocks and Accessories

SERIES 141 TERMINAL BLOCKS AND ACCESSORIES

IMPRINTED MARKER STRIPS FOR USE WITH SERIES 141 BARRIER TERMINAL BLOCKS

Strips are of 1/32" black fibre and have same mounting holes as barrier strips. Serves as an insulator on metal.

Stk. No.	Type	Cont.	1-24	25-49	50-49	100-249	250-499
29F824	MS- 2-141	2	.13	.10	.09	.08	.07
29F825	MS- 3-141	3	.13	.10	.09	.08	.07
29F826	MS- 4-141	4	.13	.10	.09	.08	.07
29F827	MS- 5-141	5	.15	.12	.10	.09	.08
29F828	MS- 6-141	6	.15	.12	.10	.09	.08
29F829	MS- 7-141	7	.15	.12	.10	.09	.08
29F830	MS- 8-141	8	.17	.13	.11	.10	.09
29F831	MS- 9-141	9	.17	.13	.11	.10	.09
29F832	MS-10-141	10	.17	.13	.11	.10	.09
29F833	MS-11-141	11	.19	.15	.13	.11	.10
29F834	MS-12-141	12	.19	.15	.13	.11	.10
29F835	MS-13-141	13	.21	.17	.14	.12	.11
29F836	MS-14-141	14	.21	.17	.14	.12	.11
29F837	MS-15-141	15	.23	.19	.16	.13	.12
29F838	MS-16-141	16	.23	.19	.16	.13	.12
29F839	MS-17-141	17	.26	.20	.17	.14	.13
29F840	MS-18-141	18	.26	.20	.17	.14	.13
29F841	MS-19-141	19	.27	.22	.18	.15	.14
29F842	MS-20-141	20	.27	.22	.18	.15	.14

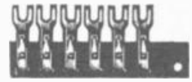
Type 141-J. JUMPER for Series 140 and 141 Terminal Blocks.

Stock No.	Type	1-24	25-49	50-99	100-249	250-499
28F790	141-J	.08	.07	.06	.05	.04

Type QC-1. QUICK CLAMP TERMINAL for Series 141 and 541.

28F740	QC-1	.13	.10	.09	.08	.07

SERIES 161 FANNING STRIPS

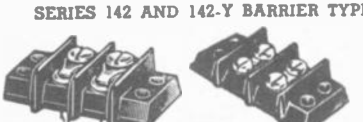


Series 161. Fit Series 141 Barrier Strips. Brass, cadmium plated .032" terminals are mounted on 3/32" bakelite, 5/8" wide and on 7/16" ctrs. Ave. Shpg. wt.: 3 oz. Mounting holes on left.

Stk. No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
28F761	2-161-L	2	.24	.20	.16	.14	.13
28F762	3-161-L	3	.30	.23	.20	.16	.15
28F763	4-161-L	4	.33	.26	.23	.18	.17
28F764	5-161-L	5	.40	.32	.28	.22	.21
28F765	6-161-L	6	.46	.37	.31	.24	.23
28F766	7-161-L	7	.53	.43	.36	.28	.26
28F767	8-161-L	8	.58	.46	.39	.31	.30
28F768	9-161-L	9	.63	.51	.43	.33	.32
28F769	10-161-L	10	.72	.58	.48	.39	.37
28F770	11-161-L	11	.82	.66	.55	.44	.41
28F771	12-161-L	12	.89	.71	.60	.47	.45
Mounting hole on right.							
28F811	2-161-R	2	.24	.20	.16	.14	.13
28F812	3-161-R	3	.30	.23	.20	.16	.15
28F813	4-161-R	4	.33	.26	.23	.18	.17
28F814	5-161-R	5	.40	.32	.28	.22	.21
28F815	6-161-R	6	.46	.37	.31	.24	.23
28F816	7-161-R	7	.53	.43	.36	.28	.26
28F817	8-161-R	8	.58	.46	.39	.31	.30
28F818	9-161-R	9	.63	.51	.43	.33	.32
28F819	10-161-R	10	.72	.58	.48	.39	.37
28F820	11-161-R	11	.82	.66	.55	.44	.41
28F821	12-161-R	12	.89	.71	.60	.47	.45

SERIES 142 TERMINAL BLOCKS AND ACCESSORIES

SERIES 142 AND 142-Y BARRIER TYPE TERMINAL BLOCKS



142-Y   142

Series 142. Increased insulation is provided by having barriers placed between each terminal. Long leakage path prevents direct shorts from frayed wire at terminal. Base: 1 5/16"W x 5/8"H. molded bakelite. Eyelets and binder head screws are brass, nickel plated. 8-32 x 5/16" screw. Use with Series 162 Fanning Strips. Shpg. wt., 3 oz.

Stock No.	Type No.	Cont.	1-24	25-49	50-99	100-249	250-499
28F722	2-142	2	.30	.24	.20	.16	.15
28F723	3-142	3	.41	.32	.27	.22	.21
28F724	4-142	4	.51	.41	.34	.27	.26
28F725	5-142	5	.62	.49	.41	.33	.31
28F726	6-142	6	.73	.58	.49	.39	.37
28F727	7-142	7	.84	.67	.56	.45	.43
28F728	8-142	8	.95	.76	.63	.50	.48
28F729	9-142	9	1.05	.84	.70	.56	.53
28F730	10-142	10	1.17	.94	.78	.62	.59
28F731	11-142	11	1.28	1.02	.85	.68	.65
28F732	12-142	12	1.39	1.11	.93	.74	.70
28F886	13-142	13	1.50	1.20	1.00	.80	.76
28F887	14-142	14	1.61	1.29	1.08	.86	.82
28F888	15-142	15	1.73	1.38	1.15	.92	.87
28F889	16-142	16	1.84	1.47	1.23	.98	.93
28F890	17-142	17	1.95	1.56	1.30	1.04	.99

Series 142-Y. Same as above but with Thru-panel solder lugs.

Stock No.	Type No.	Cont.	1-24	25-49	50-99	100-249	250-499
29F788	2-142-Y	2	.42	.34	.28	.22	.21
29F789	3-142-Y	3	.57	.46	.38	.30	.29
29F790	4-142-Y	4	.74	.59	.49	.39	.37
29F791	5-142-Y	5	.89	.71	.60	.48	.45
29F792	6-142-Y	6	1.07	.85	.71	.57	.54
29F793	7-142-Y	7	1.23	.98	.82	.66	.62
29F794	8-142-Y	8	1.39	1.11	.93	.74	.70
29F795	9-142-Y	9	1.55	1.24	1.03	.82	.78
29F796	10-142-Y	10	1.73	1.38	1.15	.92	.87
29F797	11-142-Y	11	1.88	1.51	1.26	1.00	.95
29F798	12-142-Y	12	2.05	1.64	1.37	1.09	1.04
29F799	13-142-Y	13	2.22	1.78	1.48	1.18	1.13
29F800	14-142-Y	14	2.38	1.90	1.59	1.27	1.21
29F801	15-142-Y	15	2.55	2.04	1.70	1.36	1.29
29F802	16-142-Y	16	2.72	2.18	1.82	1.45	1.38
29F803	17-142-Y	17	2.88	2.30	1.92	1.54	1.46

SOLDER TERMINALS FOR SERIES 142 TERMINAL BLOCKS

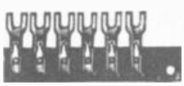
Stock No.	Mfg. No.	For Use With	1-24	25-49	50-99	100-249	250-499
28F793	3/4W-142	142	.10	.09	.08	.07	.06
28F799	W-142	142					
28F796	Y-142	142					

QUICK CLAMP TERMINALS

For use with 142 Barrier Block Series. For wire gauge 8-16.

Stock No.	Type No.	1-24	25-49	50-99	100-249	250-499
28F741	QC-2	.13	.10	.09	.08	.07

SERIES 162 FANNING STRIPS

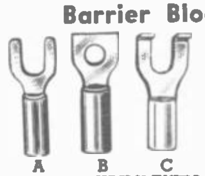


Series 162. Fit 142 Series Barrier Strips. Brass, cadmium plated .432" terminals mounted on 3/32" bakelite, 5/8" wide on 9/16" mtg. centers. Ave. shpg. wt., 3 oz. Mounting hole on left.

Stk. No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
28F772	2-162-L	2	.26	.22	.18	.15	.14
28F773	3-162-L	3	.31	.25	.21	.17	.16
28F774	4-162-L	4	.29	.31	.26	.21	.20
28F775	5-162-L	5	.44	.35	.29	.23	.22
28F776	6-162-L	6	.51	.44	.37	.30	.28
28F777	7-162-L	7	.55	.44	.37	.30	.28
28F778	8-162-L	8	.63	.51	.43	.33	.32
28F779	9-162-L	9	.75	.60	.51	.40	.38
28F780	10-162-L	10	.75	.60	.51	.40	.38
28F781	11-162-L	11	.84	.67	.56	.45	.43
28F782	12-162-L	12	.94	.75	.63	.51	.47
Mounting holes on right.							
28F822	2-162-R	2	.26	.22	.18	.15	.14
28F823	3-162-R	3	.31	.25	.21	.17	.16
28F824	4-162-R	4	.39	.31	.26	.21	.20
28F825	5-162-R	5	.44	.35	.29	.23	.22
28F826	6-162-R	6	.51	.44	.37	.30	.28
28F827	7-162-R	7	.55	.44	.37	.30	.28
28F828	8-162-R	8	.63	.51	.43	.33	.32
28F829	9-162-R	9	.68	.54	.45	.36	.35
28F830	10-162-R	10	.75	.60	.51	.40	.38
28F831	11-162-R	11	.84	.67	.56	.45	.43
28F832	12-162-R	12	.94	.75	.63	.51	.47

WALDOM

Barrier Block Solderless Terminals



A   B   C

To eliminate circuit failure in barrier blocks, WALDOM has produced exactly the right shape and width terminal to fit the above barrier blocks. They cannot turn sideways, loosen, arc, or fail. Give neat, line appearance.

For Jones Series	Wire Range	Stud Size	Spade Stk. No.	Flanged Spade Stk. No.	Rect. Stk. No.	Pkg. of 100	Pkg. of 1000
KRIMPTITE®—NON-INSULATED TERMINALS							
140	22-18	5	31F519	31F526	28F2022	2.16	15.55
	16-14		31F522	31F529	28F2023	2.26	16.25
141	22-18	6	28F2014	28F2018	28F2024	2.16	15.55
	16-14		28F2015	28F2019	28F2025	2.26	16.25
142	22-18	8	28F2016	28F2020	28F2026	2.16	15.55
	16-14		28F2017	28F2021	28F2027	2.26	16.25
INSULKRIMP—VINYL INSULATED TERMINALS							
140	22-18	5	31F533	31F540	28F2008	4.47	33.05
	16-14		31F536	31F543	28F2009		
141	22-18	6	28F2000	28F2004	28F2010		
	16-14		28F2001	28F2005	28F2011		
142	22-18	8	28F2002	28F2006	28F2012		
	16-14		28F2003	28F2007	28F2013		

IMPRINTED MARKER STRIPS FOR USE WITH SERIES 142 BARRIER TERMINAL BLOCKS

Type MS-142. 1/32" black fibre. Have same mounting holes as barrier strips. Serve as an insulator on metal. Wt., 2 oz.

Stk. No.	Type	Cont.	1-24	25-49	50-99	100-249	250-500
29F843	MS- 2-142	2	.13	.10	.09	.08	.07
29F844	MS- 3-142	3	.13	.10	.09	.08	.07
29F845	MS- 4-142	4	.15	.12	.10	.09	.08
29F846	MS- 5-142	5	.15	.12	.10	.09	.08
29F847	MS- 6-142	6	.15	.12	.10	.09	.08
29F848	MS- 7-142	7	.17	.13	.11	.10	.09
29F849	MS- 8-142	8	.17	.13	.11	.10	.09
29F850	MS- 9-142	9	.24	.23	.22	.21	.13
29F851	MS-10-142	10	.24	.23	.22	.21	.13
29F852	MS-11-142	11	.24	.23	.22	.21	.13
29F853	MS-12-142	12	.25	.24	.23	.22	.15
29F854	MS-13-142	13	.25	.24	.23	.23	.15
29F855	MS-14-142	14	.25	.24	.23	.23	.15
29F856	MS-15-142	15	.25	.24	.23	.23	.15
29F857	MS-16-142	16	.30	.29	.28	.27	.19
29F858	MS-17-142	17	.30	.29	.28	.27	.19

JUMPERS FOR SERIES 142 BARRIER TERMINAL BLOCKS

Stk. No.	Type	1-24	25-49	50-99	100-249	250-500
28F789	95B	.15	.12	.10	.09	.08
28F742	142J-1	.09	.08	.07	.06	.05
28F743	142J-2	.08	.07	.06	.05	.04

SERIES 150

Fits std. 50 amp. solder lug for 6 Ga. stranded wire. Base: 1 13/16" W. x 25/32" H. Molded bakelite. Screws: 10-32x5/16" brass, burnished nickel plate. 1 1/16" mtg. ctrs.

Stk. No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
29F731	2-150	2	.75	.60	.50	.40	.38
29F732	3-150	3	1.05	.84	.70	.56	.53
29F733	4-150	4	1.36	1.09	.91	.72	.69
29F734	5-150	5	1.67	1.33	1.11	.89	.84
29F735	6-150	6	1.97	1.58	1.32	1.05	1.00
29F736	7-150	7	2.28	1.82	1.52	1.21	1.16
29F737	8-150	8	2.59	2.07	1.73	1.38	1.31
29F738	9-150	9	2.90	2.32	1.93	1.54	1.47
29F739	10-150	10	3.20	2.56	2.14	1.71	1.62

SERIES 171

Miniature 1 3/32" W. x 5/16" H. Single Screw Terminals. 2-56x1/4" binder head screws. 1/8" Dia. Mtg. Holes, 1/4" Mtg. Centers.

Stk. No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
28F901	2-171	2	.27	.22	.18	.14	.14
28F902	3-171	3	.32	.27	.23	.18	.17
28F903	4-171	4	.40	.32	.27	.21	.20
28F904	5-171	5	.46	.37	.31	.24	.23
28F905	6-171	6	.53	.42	.35	.28	.27
28F906	7-171	7	.59	.47	.39	.31	.30
28F907	8-171	8	.65	.52	.43	.34	.33

SERIES 172

Double screw terminals. 5/8" W. x 5/16" H. Mtg. on 1/4" centers. 2-56x1/4" binder head screws. 1/8" Dia. Mtg. holes.

Stk. No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
28F909	2-172	2	.47	.37	.31	.25	.24
28F910	3-172	3	.59	.47	.40	.32	.30
28F911	4-172	4	.72	.58	.48	.38	.37
28F912	5-172	5	.84	.67	.56	.45	.43
28F913	6-172	6	.97	.77	.65	.52	.49
28F914	7-172	7	1.10	.88	.73	.58	.56
28F915	8-172	8	1.22	.97	.81	.65	.62
28F916	9-172	9	1.34	1.07	.90	.72	.68
28F917	10-172	10	1.47	1.18	.98	.78	.75
28F918	11-172	11	1.59	1.27	1.06	.85	.81
28F919	12-172	12	1.72	1.37	1.15	.92	.87
28F920	13-172	13	1.84	1.47	1.23	.98	.93
28F921	14-172	14	1.97	1.57	1.31	1.28	1.22

SERIES 173

Single screw terminals. 3/8"Wx1/2"H. Mtg. on 3/8" centers. 4-40x5/16". Sems type Binder head screws. 5/32" Dia. Mtg. Holes.

28F923	2-173	2	.28	.22	.19	.15	.14
28F924	3-173	3	.38	.30	.25	.20	.19
28F925	4-173	4	.47	.38	.32	.25	.24
28F926	5-173	5	.57	.46	.38	.30	.29
28F927	6-173	6	.67	.53	.45	.36	.34
28F928	7-173	7	.77	.61	.51	.41	.39
28F929	8-173	8	.86	.68	.57	.46	.43
28F930	9-173	9	.95	.76	.64	.51	.48
28F931	10-173	10	1.05	.84	.70	.56	.53

500 SERIES BARRIER TERMINAL BLOCKS

For especially critical electrical and mechanical performance requirements. Enclosed bottoms; Knockouts molded into base for Y terminals. Heavy construction adds strength to the block, minimizing warpage and shrinkage. Screws and terminals are brass-nickel plated. Material of the block is general purpose black bakelite.

Series 540. 1 to 21 contacts. Base: 1 1/8" wide, barrier: 1 1/8" wide by 5/8" high, body 19/32" wide by 5/16" high. Web at base, 5/64" thick. 5-40x3/16" screw. Wt., 5 oz.

Stk. No.	Type	Terms.	1-24	25-49	50-99	100-249	250-499
28F1000	2-540	2	.50	.40	.34	.27	.26
28F1001	3-540	3	.62	.50	.42	.33	.32
28F1002	4-540	4	.75	.60	.50	.40	.38
28F1003	5-540	5	.88	.70	.59	.47	.45
28F1004	6-540	6	1.00	.80	.67	.53	.51
28F1005	7-540	7	1.13	.90	.75	.60	.57
28F1006	8-540	8	1.25	1.00	.84	.67	.64
28F1007	9-540	9	1.37	1.10	.92	.73	.70
28F1008	10-540	10	1.50	1.20	1.00	.80	.76
28F1009	11-540	11	1.63	1.30	1.09	.87	.83
28F1010	12-540	12	1.75	1.40	1.17	.93	.89
28F1011	13-540	13	1.88	1.50	1.25	1.00	.95
28F1012	14-540	14	2.00	1.60	1.34	1.07	1.02
28F1013	15-540	15	2.12	1.70	1.42	1.13	1.08
28F1014	16-540	16	2.25	1.80	1.50	1.20	1.14
28F1015	17-540	17	2.38	1.90	1.59	1.27	1.21
28F1016	18-540	18	2.50	2.00	1.67	1.33	1.27
28F1017	19-540	19	2.63	2.10	1.75	1.40	1.33
28F1018	20-540	20	2.75	2.20	1.84	1.47	1.40
28F1019	21-540	21	2.87	2.30	1.91	1.52	1.46
28F1064	22-540	22	3.00	2.40	2.00	1.60	1.52
28F1065	23-540	23	3.13	2.50	2.09	1.67	1.59
28F1066	24-540	24	3.25	2.60	2.17	1.73	1.65
28F1067	25-540	25	3.38	2.70	2.25	1.80	1.71
28F1068	26-540	26	3.50	2.80	2.34	1.87	1.78
28F1069	27-540	27	3.62	2.90	2.41	1.93	1.84
28F1070	28-540	28	3.75	3.00	2.50	2.00	1.90
28F1071	29-540	29	3.88	3.10	2.59	2.07	1.97
28F1072	30-540	30	4.00	3.20	2.67	2.13	2.03
28F1073	31-540	31	4.13	3.30	2.75	2.20	2.09

Series 541. 2 to 30 contacts. Base: 1 3/8" wide. Barrier: 1 3/8" by 11/16" high. Body, 3/4" wide by 3/8" high. Web 7/64" thick at base. 6-32x1/4" screw. Shpg. wt. 5 oz.

Stk. No.	Type	Terms.	1-24	25-49	50-99	100-249	250-499
28F1020	2-541	2	.62	.50	.42	.33	.32
28F1021	3-541	3	.75	.60	.50	.40	.38
28F1022	4-541	4	.88	.70	.59	.47	.45
28F1023	5-541	5	1.00	.80	.67	.53	.51
28F1024	6-541	6	1.13	.90	.75	.60	.57
28F1025	7-541	7	1.28	1.02	.85	.68	.65
28F1026	8-541	8	1.40	1.12	.93	.74	.71
28F1027	9-541	9	1.52	1.22	1.02	.81	.77
28F1028	10-541	10	1.65	1.32	1.10	.88	.84
28F1029	11-541	11	1.77	1.42	1.18	.94	.90
28F1030	12-541	12	1.92	1.54	1.28	1.02	.97
28F1031	13-541	13	2.04	1.67	1.36	1.09	1.03
28F1032	14-541	14	2.17	1.73	1.45	1.16	1.10
28F1033	15-541	15	2.30	1.84	1.53	1.22	1.16
28F1034	16-541	16	2.42	1.93	1.61	1.29	1.22
28F1035	17-541	17	2.57	2.05	1.71	1.37	1.30
28F1036	18-541	18	2.68	2.14	1.79	1.43	1.36
28F1037	19-541	19	2.81	2.25	1.88	1.50	1.43
28F1038	20-541	20	2.94	2.35	1.96	1.57	1.49
28F1074	21-541	21	3.06	2.45	2.04	1.63	1.55
28F1075	22-541	22	3.21	2.56	2.14	1.71	1.63
28F1076	23-541	23	3.34	2.67	2.23	1.78	1.69
28F1077	24-541	24	3.46	2.77	2.31	1.84	1.75
28F1078	25-541	25	3.59	2.87	2.39	1.91	1.82
28F1079	26-541	26	3.71	2.98	2.48	1.98	1.88
28F1080	27-541	27	3.86	3.08	2.57	2.06	1.95
28F1081	28-541	28	3.98	3.19	2.66	2.12	2.02
28F1082	29-541	29	4.10	3.28	2.74	2.19	2.08
28F1083	30-541	30	4.23	3.38	2.82	2.26	2.14

Terminal Strips & Sockets

500 SERIES BARRIER TERMINAL BLOCKS (CON'T.)

Series 542. 2 to 26 contacts. Base: 1⅝" wide. Barrier: 1⅝" wide by ⅞" high. Body ⅞" wide by ½" high. Shpg. wt., 5 oz.

Stk. No.	Type	Terms	1-24	25-49	50-99	100-249	250-499
28F1039	2-542	2	.67	.53	.45	.36	.34
28F1040	3-542	3	.83	.67	.56	.44	.42
28F1041	4-542	4	1.00	.80	.67	.53	.51
28F1042	5-542	5	1.16	.93	.78	.62	.59
28F1043	6-542	6	1.33	1.06	.89	.71	.67
28F1044	7-542	7	1.50	1.20	1.00	.80	.76
28F1045	8-542	8	1.67	1.33	1.11	.89	.84
28F1046	9-542	9	1.83	1.46	1.22	.98	.93
28F1047	10-542	10	2.00	1.60	1.33	1.06	1.01
28F1048	11-542	11	2.17	1.73	1.45	1.16	1.10
28F1049	12-542	12	2.33	1.86	1.55	1.24	1.18
28F1050	13-542	13	2.50	2.00	1.67	1.33	1.27
28F1051	14-542	14	2.66	2.13	1.78	1.42	1.35
28F1052	15-542	15	2.82	2.26	1.89	1.51	1.43
28F1053	16-542	16	3.00	2.40	2.00	1.60	1.52
28F1054	17-542	17	3.17	2.53	2.11	1.69	1.60
28F1055	18-542	18	3.33	2.66	2.22	1.78	1.69
28F1056	19-542	19	3.50	2.80	2.33	1.86	1.77
28F1057	20-542	20	3.67	2.93	2.45	1.96	1.86
28F1058	21-542	21	3.83	3.07	2.56	2.04	1.94
28F1059	22-542	22	4.00	3.20	2.67	2.13	2.03
28F1060	23-542	23	4.16	3.33	2.78	2.22	2.11
28F1061	24-542	24	4.33	3.46	2.89	2.31	2.19
28F1062	25-542	25	4.50	3.60	3.00	2.40	2.28
28F1063	26-542	26	4.67	3.73	3.11	2.49	2.36

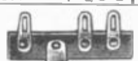
JUMPERS FOR SERIES ABOVE

Stock No.	Type No.	For A.W.G.	1-24	25-49	50-99	100-249	250-499
28F744	540-J	540	.29	.23	.20	.16	.15
28F745	541-J	541	.32	.25	.21	.17	.16
28F746	542-J	542	.34	.27	.23	.18	.17

QUICK CLAMP TERMINALS

Stock No.	Type No.	For Use With	For A.W.G.	1-24	25-49	50-99	100-249	250-499
28F740	QC-1	141, 541	14-22	.11	.09	.08	.07	.06
28F741	QC-2	142, 542	8-16	.13	.10	.09	.08	.07

LUG TYPE TERMINAL STRIPS



53E

Solder coated steel lugs on ⅜" centers with .140 mtg. holes. Bakelite strips 1/16" thick and ⅜" wide. Shpg. wt., 1 oz.

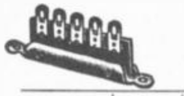
Stock No.	Type No.	Description	Mtg. Ctr.	1-24	25-49	50-99	100-249	250-499
28F650	51	1 Lug	....	.06	.05	.04	.03	.02
29F567	51A	2 Lugs; 1 Gnd.	....	.06	.05	.04	.03	.02
29F568	51B	1 Lug	....	.06	.05	.04	.03	.02
29F569	51C	2 Lugs; 1 Gnd.	....	.06	.05	.04	.03	.02
29F570	51F	1 Lug	....	.06	.05	.04	.03	.02
29F573	51T	Double Lug	....	.07	.06	.05	.04	.03
28F651	52	2 Lugs	....	.06	.05	.04	.03	.02
29F574	52A	3 Lugs; 1 Gnd.	....	.06	.05	.04	.03	.02
29F575	52B	2 Lugs	....	.06	.05	.04	.03	.02
29F576	52C	3 Lugs; 1 Gnd.	....	.06	.05	.04	.03	.02
29F578	52T	2 Double Lugs	....	.08	.07	.06	.05	.04
28F652	53	3 Lugs	1½"	.07	.06	.05	.04	.03
29F582	53E	3 Lugs	....	.07	.06	.05	.04	.03
29F583	53F	4 Lugs; 1 Gnd.	....	.07	.06	.05	.04	.03
29F584	53T	3 Double Lugs	....	.09	.08	.07	.06	.05
28F653	54	4 Lugs	1⅞"	.07	.06	.05	.04	.03
29F585	54A	6 Lugs; 2 Gnd.	1⅞"	.07	.06	.05	.04	.03
29F586	54B	4 Lugs	....	.07	.06	.05	.04	.03
29F587	54C	5 Lugs; 1 Gnd.	....	.07	.06	.05	.04	.03
28F654	55	5 Lugs	2¼"	.08	.07	.06	.05	.04
29F588	55A	7 Lugs; 2 Gnd.	2¼"	.08	.07	.06	.05	.04
29F590	55C	7 Lugs; 2 Gnd.	1½"	.08	.07	.06	.05	.04
28F655	56	6 Lugs	2⅝"	.08	.07	.06	.05	.04
29F591	56A	8 Lugs; 2 Gnd.	2⅝"	.08	.07	.06	.05	.04
29F593	56C	8 Lugs; 2 Gnd.	1⅞"	.08	.07	.06	.05	.04

SCREW TYPE TERMINAL STRIPS

Ideal for breadboard layouts. Solder coated brass term. .136" dia. mtg. holes. 1-6 lug strips 1/16" bakelite, 7-10 lug strips, 3/32" bakelite. Screws are captive to prevent removal. Terminals spaced on 7/16" centers.

Stk. No.	Type	Term.	Mtg. Ctr.	1-24	25.149	50-99	100-249	250-449
29F551	17-1	1	⅞"	.09	.08	.07	.06	.05
29F552	17-2	2	1 5/16"	.10	.09	.08	.07	.06
29F553	17-3	3	1¾"	.12	.10	.09	.08	.07
29F554	17-4	4	2 3/16"	.16	.13	.11	.10	.09
29F555	17-5	5	2⅝"	.18	.14	.12	.11	.10
29F556	17-6	6	3 1/16"	.22	.18	.15	.13	.12
29F557	17-7	7	3½"	.27	.21	.18	.15	.14
29F558	17-8	8	3 15/16"	.28	.23	.19	.16	.15
29F559	17-9	9	4⅜"	.34	.26	.22	.18	.17
29F560	17-10	10	4 13/16"	.36	.28	.24	.19	.18

JONES "2000" TERMINALS



Bakelite insulation with cadmium steel brackets. Terminals are made of .019" tinned brass on 5/16" centers. Wt., 3 oz.

Stk. No.	Type	Term.	1-24	25-49	50-99	100-249	250-499
28F680	2002	2	.10	.09	.08	.07	.06
28F681	2003	3	.12	.11	.09	.08	.07
28F682	2004	4	.13	.12	.10	.09	.08
28F683	2005	5	.13	.12	.10	.09	.08
28F684	2006	6	.15	.13	.11	.10	.09
28F685	2007	7	.15	.13	.11	.10	.09
28F686	2008	8	.18	.14	.12	.11	.10
28F687	2009	9	.19	.15	.13	.12	.11
28F688	2010	10	.19	.15	.13	.12	.11
28F689	2011	11	.21	.17	.15	.13	.12
28F690	2012	12	.21	.17	.15	.13	.12
28F691	2013	13	.24	.20	.17	.14	.13

NOVAR SOCKETS

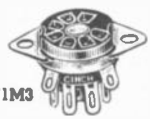
Molded from high dielectric black bakelite or mica-filled low-loss bakelite. Cadmium plated brass contacts. 1½" mounting centers.

Stk. No.	Type	Mfg.	Desc.	1-24	25-49	50-99	100-249	250-499
29F976	9NS-B	Bottom	Black	.16	.12	.11	.10	.09
29F994	9NS-M	Bottom	Mica	.18	.14	.12	.11	.10
29F995	9NS-B-1	Top	Black	.24	.20	.17	.14	.13
29F996	9NS-M-1	Top	Mica	.27	.21	.18	.15	.14

MINIATURE SOCKETS

7AB1

7EB



71M3

7 PIN MINIATURE SOCKETS—MOLDED SADDLE TOP MOUNT

Stk. No.	Type	Desc.	1-24	25-49	50-99	100-249	250-499
38F633	7AB1	Black	.14	.11	.10	.09	.08
38F634	7AM1	Mica	.17	.13	.11	.10	.09

7 PIN—MOLDED SADDLE TYPE—BOTTOM MOUNT

Stk. No.	Type	Desc.	1-24	25-49	50-99	100-249	250-499
38F636	7EB	Black	.12	.10	.09	.08	.07
38F637	7EM	Mica-Filled	.14	.11	.10	.09	.08

7 PIN—SHIELD BASE TYPE

Stk. No.	Type	Desc.	1-24	25-49	50-99	100-249	250-499
38F674	7XB1	Black	.17	.13	.11	.10	.09
38F675	7XM1	Mica-Filled	.21	.17	.14	.12	.11
38F676	7XC	Ceramic	.44	.35	.30	.23	.22

7 PIN—SHIELDED BASE—MIL-12883A

Stk. No.	Type	Mil. No.	Desc.	1-24	25-49	50-99	100-249	250-499
29F657	7JC-2	TS102C01	Ceramic	.39	.31	.26	.21	.20
29F658	7JC-3	TS102C03	Ceramic	.37	.30	.25	.20	.19
29F659	7JCN-1	TS102C02	Ceramic	.37	.30	.25	.20	.19
29F660	7JM-2	TS102P01	Mica	.29	.22	.19	.15	.14
29F661	7JM-3	TS102P03	Mica	.23	.19	.15	.13	.12
29F662	7JMN-1	TS102P02	Mica	.23	.19	.15	.13	.12

9 PIN SOCKETS

9 PIN MOLDED MIN. SOCKETS—SADDLE TYPE TOP MOUNT

Stk. No.	Type	Desc.	1-24	25-49	50-99	100-249	250-499
38F677	9AB	Black	.14	.11	.10	.09	.08
38F678	9AM	Mica-Filled	.17	.13	.11	.10	.09

9 PIN MOLDED SADDLE TYPE BOTTOM MOUNT

Stk. No.	Type	Desc.	1-24	25-49	50-99	100-249	250-499
38F679	9EB	Black	.14	.11	.10	.09	.08
38F680	9EM	Mica-Filled	.17	.13	.11	.10	.09

9 PIN MINIATURE SOCKETS—SHIELD BASE TYPE

Stk. No.	Type	Desc.	1-24	25-49	50-99	100-249	250-499
38F681	9XB	Black	.21	.17	.14	.12	.11
38F682	9XM	Mica	.23	.19	.15	.13	.12
38F683	9XC	Ceramic	.35	.28	.23	.19	.18

9 PIN SOCKETS WITH SHIELD BASE (MIL-12883A)

Mtg. hole: .125" dia.

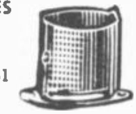
Stock No.	Type	Material	MIL No.	Mfg. Ctrs.	1-24	25-49	50-99	100-249	250-499
29F667	9JC-2	Ceramic	TS103C01	....	.42	.33	.28	.22	.21
29F668	9JC-3	Ceramic	TS103C03	⅞"	.44	.35	.30	.23	.22
29F669	9JLN-1	Ceramic	TS103C02	....	.44	.35	.30	.23	.22
29F670	9JM-2	Mica	TS103P01	....	.30	.24	.20	.17	.15
29F671	9JM-3	Mica	TS103P03	⅞"	.29	.22	.19	.15	.14
29F672	9JMN-1	Mica	TS103P02	....	.29	.22	.19	.15	.14

Sockets and Accessories

MINIATURE TYPE SHIELDS AND SHIELD BASES


7S2


7S1


7SB1

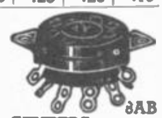
7 PIN—TUBE SHIELDS—"J" SLOT TYPE

Stk. No.	Type	Description	1-24	25.49	50-99	100-249	250-499
29F682	7S2	1⅜" Long	.17	.13	.11	.10	.09
29F683	7S3	1¾" Long	.19	.14	.12	.11	.10
29F684	7S4	2¼" Long	.25	.21	.18	.14	.13

TUBE SHIELDS—"J" SLOT TYPE (JAN S-28A)

Stk. No.	Type	Mil. No.	Description	1-24	25.49	50-99	100-249	250-499
29F673	7SJ2-1	TS102U01	7-pin 1⅜" L.	.25	.21	.18	.14	.13
29F674	7SJ3-1	TS102U02	7-pin 1¾" L.	.29	.22	.19	.15	.14
29F675	7SJ4-1	TS102U03	7-pin 2¼" L.	.32	.25	.22	.18	.17
7 PIN SHIELD BASES FOR "J" SLOT TYPE								
29F685	7SB1	....	⅝" H. Steel	.12	.10	.09	.08	.07
29F686	7SB2	....	⅝" H. Brass	.17	.13	.11	.10	.09
TUBE SHIELDS WITH "J" SLOT								
29F697	9S1	....	1½" Long	.35	.28	.23	.19	.18
29F698	9S2	....	1 15/16" Long	.23	.19	.15	.13	.12
29F699	9S3	....	2⅜" Long	.44	.35	.30	.23	.22
SHIELD BASE FOR 9 PIN WAFER OR SADDLE TYPE								
29F700	9SB1	.	1⅛" mtg. ctr.	.14	.11	.10	.09	.08
9 PIN TUBE SHIELD "J" SLOT (JAN-S-28A)								
29F676	9SJ1-1	TS103U01	1½" L.	.30	.24	.20	.17	.15
29F677	9SJ2-1	TS103U02	1 15/16" L.	.35	.28	.23	.19	.18
29F678	9SJ3-1	TS103U03	2⅜" L.	.37	.30	.25	.20	.19

MOLDED TUBE SOCKETS


8AB

Cinch sockets are standard! Precision-engineered for rugged use. All-brass solder-coated contacts. *Black, **Chassis thickness, †Mica, ‡Ceramic.

MOLDED OCTAL 1-5/16" MOUNTING CENTERS

Stk. No.	Type	Mtg. Hole	1-24	25.49	50-99	100-249	250-499
38F670*	8AB	.136 D.	.14	.11	.10	.09	.08
38F671†	8AM	.136 D.	.17	.13	.11	.10	.09
MOLDED OCTAL 1½" MOUNTING CENTERS							
38F672*	8EB	.143 D.	.14	.11	.10	.09	.08
38F673†	8EM	.140 D.	.17	.13	.11	.10	.09
RING MOUNT OCTAL							
29F689*	8R1	1/16"**	.21	.17	.14	.12	.11
29F690*	8R2	⅛"**	.35	.28	.23	.19	.18
29F691†	8R3	1/16"**	.25	.21	.18	.14	.13
29F692*	8R4	3/32"**	.35	.28	.23	.19	.18
29F693†	8R5	3/32"**	.48	.39	.32	.25	.24
29F694†	8R6	⅛"**	.48	.39	.32	.25	.24
29F695	8R0	Retainer ring.	.09	.08	.07	.06	.05

ADAPTER PLATE

Type 8AP. For use alone or in conjunction with above 8R1-8R6 Ring Mount Octal Sockets and 8R0 Retainer Ring.

Stk. No.	Type	1-24	25-49	50-99	100-249	250-499
29F696	8AP	.10	.09	.08	.07	.06

TOP MOUNTED RELAY SOCKETS

Mica, 1¼" mtg. ctr.

Stock No.	Type No.	Cont.	1-24	25.49	50-99	100-249	250-499
29F987	20RS	20	2.08	1.66	1.38	1.10	1.05

BOTTOM MOUNTED SOCKETS

Beryllium copper, silver-plated contacts with hot tinned tails. Steel saddle. 1 5/16" mtg. centers. Casting of mica insulation.

29F710	14RS	14	.82	.66	.56	.44	.42
29F988	20RS-1	20	2.08	1.66	1.38	1.10	1.05
29F989	16RS-1	16	1.67	1.34	1.11	.89	.85
29F990	14RS-1	14	1.38	1.10	.92	.74	.70

RELAY PIN SOCKETS

Mate with Automatic Electric "EIN" and C.P. Clare "J" relays. Molded of high dielectric black phenolic. Cadmium plated except (*) gold plated. 1.2" mtg. ctr.

29F499	16RS-2	16	.96	.77	.64	.51	.49
29F498	16RS-3*	16	1.17	.93	.78	.62	.59
29F497	28RS	28	1.44	1.16	.96	.77	.73
29F496	28RS-1*	28	1.77	1.41	1.18	.94	.90

CRYSTAL SOCKETS


2KB

2 prong. 31/64" Mtg. Ctrs.

Stk. No.	Type	Mfg.	1-24	25-49	50-99	100-249	250-499
29F705	2KB	9827	.18	.14	.12	.11	.10
29F706	2KM	9816	.20	.16	.14	.12	.11

VIDICON SOCKETS

Type 7VT. 7 contact socket for RCA Vidicon Tube Nos. 6198 and 7038. Casting material is mica. Contacts are silver-plated phosphor bronze. JETEC No. E8-11.

Stock No.	Type No.	1-24	25-49	50-99	100-249	250-499
29F997	7VT	2.55	2.03	1.70	1.36	1.29
29F999	8VT	2.55	2.03	1.70	1.36	1.29

PHOTO-MULTIPLIER SOCKET

Type 20-PM. 20 contact socket for RCA photo-multiplier tube nos. 6810, C7187A, C7122, and 7265. Casting material is MAI-60 Alkyd Glass Fiber. JETEC No. 20-102.

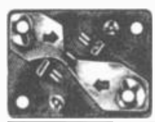
29F998	20-PM	4.75	4.60	3.84	3.07	2.92

CETRON TUBE SOCKET

Designed for use in such applications as electric eye doors and motion picture projectors. Contacts spring brass.

Stk. No.	Type	Descrip.	1-24	25.49	50-99	100-249	250-499
29F652	2B2	Black	.79	.63	.53	.42	.40
29F653	2M2	Mica	1.16	.92	.78	.62	.59
STRAP NUTS							
29F679	7SN	For 7-pin Min.	.29	.22	.19	.15	.14
29F680	9SN	For 9-pin Min.	.30	.24	.20	.17	.15

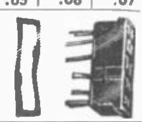
TRANSISTOR SOCKETS


2TS-1


2TS-2

Stk. No.	Type	Description	1-24	25.49	50-99	100-249	250-499
38F684	2TS-1	6-20 Threaded Mtg. Holes	.12	.10	.09	.08	.07
38F685	2TS-2	Unthreaded	.12	.10	.09	.08	.07

8-PIN RELAY SOCKET



Molded of mica filled phenolic and is attached to chassis with cold rolled steel clip that is cadmium plated. Contacts are beryllium copper, silver plated. Furnished with No. 20731 Mtg. Clip.

Stock No.	Type No.	1-24	25-49	50-99	100-249	250-499
29F729	8RS	.54	.43	.36	.29	.28

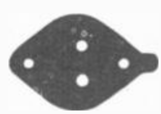
NUVISTOR SOCKETS


5NS

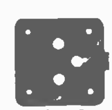
5NS fastens to chassis by two tabs. 5NS-1, conventional mtg., screws, eyelets, etc. 5NS-2 for P.C. circuits. 5NS-3, heat dissipating.

29F730	5NS	.18	.14	.12	.11	.10
29F992	5NS-1	.28	.21	.18	.15	.14
29F993	5NS-2	.45	.36	.30	.24	.22
29F991	5NS-3	.25	.20	.17	.14	.13

HEAT SINKS


2W-1


2W-2


2W-3

Stk. No.	Type	Mfr. No.	Description	1-24	25-49	50-99	100-249	250-499
29F654	2W1	294457	For Mot. 2N-179, 2N-176, 2N-554	.54	.43	.36	.29	.27
29F655	2W2	294665	For Delco 2N174	.42	.34	.28	.22	.21
29F656	2W3	294666	For Tex. Inst. 2N-389	.65	.52	.43	.34	.33

MOLDED CONNECTOR PLUGS AND SOCKETS


8PB


11PB


11RB

Stk. No.	Type	Mfr. No.	Contacts	1-24	25-49	50-99	100-249	250-499
29F701	8PB	54B16021	8 plugs	.22	.18	.15	.13	.12
29F702	11PB	54B13795	11 plugs	.28	.21	.18	.15	.14
29F703	11RB	54A13783	11 sockets	.31	.25	.21	.17	.16

Sockets & Accessories

GENERAL PURPOSE TRANSISTOR SOCKET

Type 2TS-4. Designed for triangular base layout .2"x.1" (JETEC-30) contact centers, as well as three-contact-in-line (.048x.192 contact centers). Casing molded of general purpose Bakelite; contacts are of phosphor bronze, cadmium-plated.

Stock No.	Type	1-24	25-49	50-99	100-249	250-499
38F687	2TS-4	.16	.13	.11	.10	.09

COMPACTRON TUBE SOCKETS

Designed for use with Compactron tube. 12-contact type for normal use and 8-contact type for high voltage available. Molded from high dielectric (*) black phenolic or (**) mica-filled low loss phenolic. Contacts cadmium-plated brass. mtg. hole centers: 1⁵⁄₁₆", dia. .144".

Stock No.	Type	No. of Contacts	1-24	25-49	50-99	100-249	250-499
39F386	8CS-B*	8	.46	.37	.30	.24	.23
39F387	8CS-M**	8	.44	.40	.34	.27	.25
39F388	12CS-B*	12	.16	.13	.11	.10	.09
39F389	12CS-M**	12	.62	.49	.41	.33	.32

PRINTED CIRCUIT SOCKETS WITH SHIELD BASES

These stand-off sockets have an attached bayonet-type shield base with ground tab. For use with ¹⁄₁₆" printed circuit boards. Castings are low-loss mica-filled phenolic (MFE). Contacts are phosphor bronze with a hot-tinned finish. Center shield and ground tab are brass, hot-tinned, and base is brass, nickel-plated.

Stk. No.	Type	Description	1-24	25-49	05-99	100-249	250-490
29F602	7PC-M2	7-pin Min.	.99	.79	.66	.53	.51
29F603	9PC-M2	9-pin Min.	1.05	.84	.70	.56	.54

CONVENTIONAL STAND-OFF TYPE PRINTED CIRCUIT SOCKETS

7PC-B 7PC-B1 8PC-B 9PC-B 9PC-B1

Stand-off sockets resting on shoulder of contact tail providing air gap for cooling and eliminating moisture. Designed for ¹⁄₁₆" printed circuit boards having bottom circuitry. Center shield and tabs * or none. **

Stk. No.	Type	1-24	25-49	50-99	100-249	250-499
29F604	7PC-B*	.12	.10	.09	.08	.07
29F605	7PC-B1**	.10	.09	.08	.07	.06
29F607	9PC-B*	.14	.11	.10	.09	.08
29F608	9PC-B1**	.14	.11	.10	.09	.08
29F520	8PC-B*	.14	.11	.10	.09	.08

TV PICTURE TUBE SOCKETS

3M11. Mica socket. Magnal—11 prong. For use with 5BP1, 2AP1, 1P21, 931A, and 3KP1 type CR tubes. Mica-filled low loss bakelite. Shpg. wt., 3 oz.

3R11. Steel mounting ring for above.

Stk. No.	Type	1-24	25-49	50-99	100-249	250-499
29F711	3M11	5.18	4.14	3.45	2.76	2.62
29F712	3R11	.61	.48	.40	.32	.31

3M12. Mica socket. Duodecal—12 prong. For use with 10BP4, 2BP1, 5TP4, etc. Tube types. Also RCA 6199 tube with JAN NO. B12-43. Mica-filled low loss bakelite. Shpg. wt. 3 oz.

3B12. Same as above but black bakelite.

29F714	3M12	2.09	1.67	1.39	1.12	1.06
29F713	3B12	.70	.56	.47	.37	.36

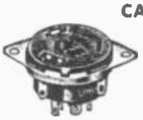
3M14. Mica socket. Diheptal—14 prong. For RCA 6217, 5819 photo tubes and JETEC No. B12-37. Mica-filled low loss bakelite 2⁷⁄₃₂"w x 1⅛h". Shpg. wt. 3 oz.

3B14. Same as above but high dielectric black bakelite.

3R14. Steel mounting ring for above.

29F715	3B14	1.82	1.46	1.22	.97	.92
39F390	3M14	1.92	1.53	1.28	1.02	.97
39F391	3R14	.68	.47	.45	.36	.35

CAPACITOR "PLUG IN" SOCKETS

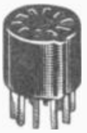


2C5. Designed for use with Mallory and Magnavox 1" FP type condensers. Molded black bakelite. Steel mounting saddle has 4 ground lugs. 1½" mtg. ctr. Mtg. hole diam. .140". Shpg. Wt. 5 oz.

2C7. Designed for use with Mallory and Magnavox 1⅜" FP type condensers. Molded black bakelite. Steel saddle has 1²⁷⁄₃₂" mtg. ctr. Mtg. hole diam. .156". Shpg. wt., 5 oz.

Stk. No.	Type	1-24	25-49	50-99	100-249	250-499
29F549	2C5	.52	.42	.35	.28	.27
29F550	2C7	.76	.61	.51	.41	.39

INTEGRATED CIRCUIT SOCKETS



6-ICS. Newly designed sockets for interconnection of integrated circuits mounted in 6-lead, TO-5 case. Molded of diallyl phthalate, type SDG per MIL-M-18794. Gold plated, beryllium copper contacts.

8-ICS. Similar to above but with 8 pins.

10-ICS. Similar to above but with 10 pins.

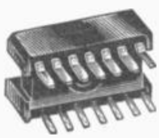
Stock No.	Type	1-24	25-49	50-99	100-249	250-499
29F541	6-ICS	.54	.43	.36	.29	.28
29F542	8-ICS	.65	.52	.44	.34	.33
29F521	10-ICS	.72	.57	.48	.39	.36

● *NEW* DUAL-IN LINE INTEGRATED CIRCUIT SOCKETS

● HIGH CONTACT RETENTION

● LOW CONTACT RESISTANCE

● HIGH ENVIRONMENTAL STABILITY



These sockets are designed for testing, prototype, or production applications. They offer excellent resistance to corrosive atmosphere and to extremes of temperature and humidity. The unique bowed contact provides high contact forces yet permits easy insertion or removal of the D.I.P. Contact resistance is .006 ohms maximum. They will accept any standard 14 or 16 dualinline package with round or flat heads. The socket leads are on the same centers as the D.I.P. leads, so they can be used with PC boards that are designed for direct insertion.

* Indicates Black Phenolic insulator, cadmium plated contacts.

† Indicates Diallyl Pthalate insulator, gold plated contacts.

Stock No.	Type	No. Contacts	1-24	25-49	50-99	100-249	250-499
29F545	14-DIP*	14	.82	.65	.55	.44	.41
29F546	14-DIP-1†	14	1.07	.85	.71	.57	.54
29F547	16-DIP*	16	.91	.73	.61	.48	.46
29F548	16-DIP-1†	16	1.17	.94	.78	.62	.59

STAND-OFF TYPE PRINTED CIRCUIT SOCKETS

Sockets have contact tails so they can be pressed into chassis holes. Provides mechanical retention prior to dip soldering in ¹⁄₁₆" printed circuit board. Center shield on B5 and M5 models made of brass, hot tin dipped. Insulator bodies available in (*)black phenolic or (†)mica-filled low loss phenolic.

Stk. No.	Type	1-24	25-49	50-99	100-249	250-499
29F594	7PC-B4*					
29F595	7PC-M4†	.12	.10	.09	.08	.07
29F596	7PC-B5*					
29F597	7PC-M5†					
29F598	9PC-B4*					
29F599	9PC-M4†	.14	.11	.10	.09	.08
29F600	9PC-B5*					
29F601	9PC-M5†					

MICA-FILLED SUB-MINIATURE SOCKETS

2H3 2H5 5PC 5WC 8SM

*Mounting Ring included. (**) Mtg. ring for 8SM. †with mtg. plate.

Stk. No.	Type	Mfr. No.	Prongs	1-24	25-49	50-99	100-249	250-499
38F639	2H3*	46A20928	3	.25	.21	.18	.14	.13
38F630	2H5*	46A11953	5	.21	.17	.14	.12	.11
38F631	2H6*	46A11955	6	.99	.79	.66	.53	.51
38F632	2H7*	46A11957	7	.37	.30	.25	.20	.19
38F629	8SM*	46A13886	8	.55	.44	.37	.30	.29
29F718	8SMP†	46B14513	8	.69	.55	.46	.37	.35
29F719	2MR**	20K13702		.07	.06	.05	.04	.03

CINCH JONES

110-250 VOLT 2 PRONG SOCKET

2R2. Rated at 15 amps 110V or 10 amps at 250V Molded from high dielectric black bakelite. Mounts in 25/64x25/32" hole. .144 diam. mtg. holes on 1⅛" centers. Shpg. wt. 4 oz.

2R2

Stk. No.	Type	Mfr. No.	1-24	25-49	50-99	100-249	250-499
39F394	2R2	›4A12844	.19	.15	.13	.11	.10

SECOND ANODE CONNECTOR

3A1. For diheptal based tubes. Snaps over .096 diam. prong on side of diheptal tubes. Shpg. wt. 4 oz.

3A1

Stk. No.	Type	Mfr. No.	1-24	25-49	50-99	100-249	250-499
29F649	3A1	8657P24	1.09	.87	.74	.59	.56

PLUG BUTTONS

Used to cover holes in metal, wood, fibre, etc. Nickel plated steel. Av. Shpg. wt. 2 oz.
*Screen Type for 1" diam. (Bright zinc plated)

Stk. No.	Type	Mfg. No.	Hole Dia.	1-24	25-49	50-99	100-249	250-499
29F633	41A	48151P34	1/4"	.07	.06	.05	.04	.03
29F634	41B	48192P34	3/8"	.07	.06	.05	.04	.03
29F635	41C	48152P34	1/2"	.07	.06	.05	.04	.03
29F636	41D	48172P34	5/8"	.07	.06	.05	.04	.03
29F637	41E	51026P34	3/4"	.08	.07	.06	.05	.04
29F638	41F	48155P34	7/8"	.08	.07	.06	.05	.04
29F639	41G	48143P34	1"	.08	.07	.06	.05	.04
29F640	41H	50726P34	1¼"	.11	.09	.08	.07	.06
29F641	41V*	99522P24	1"	.17	.13	.11	.10	.09

ANTENNA CONNECTOR

Shielded jack has flange with 13/16" mtg. ctrs. and .136 dia. mtg. holes. Mounts with screws or rivets. Use with 13B.

Stk. No.	Type	Descrip-tion	1-24	25-49	50-99	100-249	250-499
39F395	81F	Socket	.19	.15	.13	.11	.10

BATTERY PLUGS

5D 5D1

5F

5M

Plated brass pin mounted on laminated bakelite.

Stk. No.	Type	Mfg. No.	For Use With	1-24	25-49	50-99	100-249	250-499
39F830	5A1	2744	1½ "A"	.10	.09	.08	.07	.06
39F833	5A4	2793	6 "A"	.10	.09	.08	.07	.06
39F834	5A5	M-77	7½ "A"	.15	.11	.10	.09	.08
39F835	5B1A	2730	45 "B"	.10	.09	.08	.07	.06
39F839	5M	52384	67½ "B"	.08	.07	.06	.05	.04
39F840	5F	52383	67½ "B"	.08	.07	.06	.05	.04
35F1681	72*		45 "B"	.32	.25	.22	.19	.17
35F1683	74*		67½ "B"	.30	.24	.21	.18	.16
35F1684	77*		90 "B"	.32	.25	.22	.19	.18
35F1682	76*		67½ "B"	.30	.24	.21	.18	.16

* Manufactured by Keystone.

CABLE CLAMPS

85A 85B 85C 85D 85E 85F

Cadmium plated steel. Av. shpg. wt. 2 oz.

Stk. No.	Type	Mfg. No.	Dia. of Arc	1-24	25-49	50-99	100-249	250-499
29F627	85A	1065P24	1/8"	.08	.07	.06	.05	.04
29F628	85B	1051P24	3/16"	.08	.07	.06	.05	.04
29F629	85C	8545P24	5/16"	.08	.07	.06	.05	.04
29F630	85D	8339P27	5/16"	.08	.07	.06	.05	.04
29F631	85E	8522P24	1/2"	.08	.07	.06	.05	.04
29F632	85F	292-LP24	5/8"	.08	.07	.06	.05	.04

GENERAL RADIO

Double Banana Plug. 274 MB. Rated 4000 volts. 15 amps, peak. Spacing between prong centers ¾". Shpg. wt., 2 oz.
28F589. NET .... **.70**

WALDON / MOLEX

Provides a better mode of connection than can be obtained by hand soldering. Saves time and labor. Used in applications of business machines, home entertainment, appliance, communications, measurements and instrumentation industries. **Fig. A**—W/Mounting Ears Plugs. **Fig. B**—W/Holding Tabs Receptacle. **Fig. C**—W/Mounting Ears Receptacle. **Note: Suffix "P" in type number indicates Plug "R" indicates receptacle.**

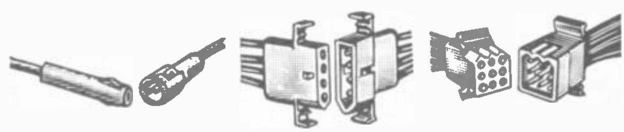


Fig. A Fig. B Fig. C

MINIATURE NYLON CONNECTOR HOUSING

Stk. No.	Type	Fig.	Descrip.	No. of Circuits	Std. Pkg.	Per Pkg.	100-499 Per C	500-Up Per C
31F1000	1625-1P	A	...	1	10	.70	4.80	4.00
31F1001	1625-1R	A	B	1	10	.60	4.15	3.50
31F1002	1625-3P	B	A	3	10	1.20	9.00	7.40
31F1003	1625-3R	B	B, C	3	10	1.40	10.15	8.35
31F1004	1625-4P	B		4	10	2.45	17.75	14.65
31F1005	1625-4R	B	B	4	10	2.55	17.90	14.70
31F1006	1625-5P	B		5	5	.95	13.30	10.95
31F1007	1625-5R	B	B, C	5	5	1.15	16.80	13.85
31F1008	1625-6P	C		6	5	.90	12.50	10.30
31F1009	1625-6R	C	B, C	6	5	1.05	14.10	11.60
31F1010	1625-8P	B	...	8	5	1.15	15.35	12.65
31F1011	1625-8R	B	B, C	8	5	1.30	18.55	14.80
31F1012	1625-9P	C	A	9	5	.95	13.30	10.95
31F1013	1625-9R	C	B, C	9	5	1.05	15.05	12.40
31F1014	1625-12P	C	A	12	5	1.15	15.70	12.90
31F1015	1625-12R	C	B, C	12	5	1.15	15.70	12.90
31F1016	1625-15P	C	A	15	5	1.50	21.90	18.05
31F1017	1625-15R	C	B, C	15	5	1.65	24.70	20.40
31F1018	1772-36P	C	A	36	4	5.75	84.00	68.15
31F1019	1772-36R	C	C	36	4	5.95	87.50	71.35

STANDARD NYLON CONNECTOR HOUSINGS

Stk. No.	Type	Fig.	Descrip.	No. Of Circuits	Std. Pkg.	Per Pkg.	100-499 Per C	500-Up Per C
31F1030	1619P	A		1	10	.72	5.20	4.05
31F1031	1619R	A	B	1	10	.61	4.55	3.55
31F1032	1545P	B	A	2	10	1.16	8.50	6.55
31F1033	1545R	B	B,C	2	10	1.20	8.80	6.70
31F1034	1396P	B	A	3	10	1.14	8.30	6.40
31F1035	1396R	B	B,C	3	10	1.26	9.40	7.25
31F1036	1490P	B	A	4	10	1.30	9.45	7.35
31F1037	1490R	B	B,C	4	10	1.47	10.70	8.25
31F1038	1653P	B		5	5	.80	12.70	9.85
31F1039	1653R	B	B	5	5	1.12	16.30	12.60
31F1040	1261P	C	A	6	9	.88	12.80	10.15
31F1041	1261R	C	B,C	6	9	.98	14.55	11.45
31F1042	1292P	C	A	9	9	1.00	15.10	11.90
31F1043	1292R	C	B,C	9	9	1.14	16.40	12.90
31F1044	1360P	C	A	12	7.5	1.17	17.00	13.35
31F1045	1360R	C	C	12	7.5	1.23	17.60	13.85
31F1046	1375P	C	A	15	7.5	1.40	19.90	15.65
31F1047	1375R	C	C	15	7.5	1.58	22.40	17.60

PIN TERMINALS

.093" Pin Terminals are used with Standard Connectors.
.062" are used with Miniature Connectors Std. Pkg. 100

Stk. No.	Type	Desc.	Mating Dia.	Wire Range	100-999 Per C	1000-4999 Per M	5000-Over Per M
31F1020	1189	Female	.093"	16-20	3.05	20.75	15.25
31F1021	1190	Male	.093"	16-20	3.05	20.75	15.25
31F1022	1380	Male	.093"	18-28	3.05	20.75	15.25
31F1023	1381	Female	.093"	18-28	3.05	20.75	15.25
31F1024	1433	Female	.093"	22-30	3.05	20.75	15.25
31F1025	1434	Male	.093"	22-30	3.05	20.75	15.25
31F1026	1560	Male	.062"	18-22	3.70	25.10	18.50
31F1027	1561	Female	062"	18-22	3.70	25.10	18.50
31F1028	1854	Male	.062"	24-30	3.70	25.10	18.50
31F1029	1855	Female	062"	24-30	3.70	25.10	18.50

TOOLING

Manual Production Tool comes with ejector tool.

Stk. No.	Type	Use With Pin Types	Description	NET
31F1048	HT-1919	1189-1190 1380-1381	Prototype Hand Tool	4.35
31F1049	HT-1921	1560-1561	Prototype Hand Tool	4.35
31F1050	HT-1031-C	1189-1190	Manual Production Tool	25.00
31F1051	HT-1780	1433-1434	Manual Production Tool	50.00
31F1052	HT-1719-C	1560-1561	Manual Production Tool	40.00

Amphenol Industrial Tube & Relay Sockets

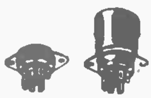
146-103, 146-104

146-817

146-101

Stk. No.	Type	Description	Wt.	1-24	25-99	100-249	250-499	500-999
38F930	146-103	8 contact standard socket without tie point inserts top mounted. Molded in one piece of Melamine. Removable contacts. 1250 V. RMS, 5 amps.	8 oz.	1.50	1.25	1.051	.900	.799
38F931	146-104	8 contact socket with 4 molded-in treaded inserts for tie points. Top mounted. Molded in one piece of Melamine. Removable contacts.	8 oz.	1.91	1.59	1.337	1.145	1.017
38F933	146-203	Same as 146-103 above except bottom mounted.	8 oz.	1.50	1.25	1.051	.900	.799
38F934	146-204	Same as 146-104 above except bottom mounted.	8 oz.	1.91	1.59	1.337	1.145	1.017
39F1247	146-817	11 contact socket with 4 molded-in threaded inserts. 600 VRMS, 10 Amps.	10 oz.	3.47	2.91	2.438	2.088	1.854
38F920	146-101	High Voltage Octal Socket. For 5Y4-G, 5U4-G, 6L6-G and others. Molded Melamine. Underwriters shield. 2.031" mtg. ctrs.	2 oz.	.88	.73	.62	.55	.49

MINIATURE SOCKETS



A B

147 series mount in 5/8" chassis hole and have 7/8" mounting centers with 1/8" screw holes. 59 series mount in 3/4" chassis hole and have 1 1/8" mounting centers with .095" rivet holes. All are Bottom-Mounting Type-Fig. A except those with *, which are Top-Mounting Type-Fig. B. (Tube Shield Base included) Shpg. wt. 2 oz.

Stock No.	Type	Insul.	Pins	1-24	25-99	100-249	250-499	500-999
38F870	147-500	Bakelite	7	.31	.259	.218	.186	.165
38F872	147-505	Mica	7	.31	.258	.216	.185	.164
38F875	*147-905	Bakelite	7	.35	.289	.242	.208	.184
38F877	*147-913	Mica	7	.34	.287	.241	.206	.183

Stock No.	Type	Insul.	Pins	1-49	50-249	250-499	500-999	1000-2500
38F873	59-409	Bakelite	9	.35	.292	.245	.210	.186
38F874	59-410	Mica	9	.36	.301	.253	.216	.192
38F878	*59-407	Bakelite	9	.41	.346	.291	.249	.221
38F879	*59-406	Mica	9	.40	.338	.283	.243	.215

MINIATURE TUBE SHIELDS

For 7 and 9 pin miniature sockets above. Steel shell, cadmium plated. Shpg. wt., 2 oz.

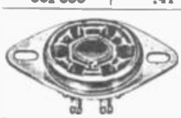
Stock No.	Type	Height	For	1-49	50-249	250-499	500-999	1M-2499
38F880	5-401	1 3/8"	7 pin	.21	.176	.147	.126	.112
38F881	5-402	1 3/4"	7 pin	.22	.181	.152	.130	.115
38F882	5-405	1 1/2"	9 pin	.21	.177	.149	.128	.113
38F883	5-408	1 15/16"	9 pin	.25	.211	.177	.151	.134
38F884	5-409	2 3/8"	9 pin	.31	.256	.215	.184	.163

FLOATING SOCKET

Type 77-MIP-8FK. Vibration proofed octal socket to eliminate microphonics. Has live rubber grommets, mounting screws, nuts and washers. Mounts in 1 3/16" holes on 1 1/2" ctrs. Shpg. wt., 5 oz.

Stock No.	1-49	50-249	250-499	500-999	1M-2499
38F855	.41	.341	.286	.245	.218

TYPE RS SOCKETS



Molded bakelite replacement sockets. Removable adapter plate permits replacement of wafer sockets. Slotted mtg. holes to fit centers from 1 1/2 to 1 7/8". Shpg. wt., 2 oz.

Stock No.	Type	Prongs	1-49	50-249	250-499	500-999	1M-2499
38F800	78RS4	4	.26	.218	.183	.156	.139
38F801	78RS5	5	.28	.233	.196	.168	.149
38F802	78RS6	6	.30	.251	.210	1.80	.160
38F803	78RS7S	7S	.32	.268	.225	.193	.171
38F806	78RS8	Octal	.29	.238	.200	.171	.152
38F807	78RS8L	Loktal	.40	.336	.282	.241	.214
38F808	78RS9	9	.31	.259	.218	.186	.165
38F809	78RS11	11	.35	.294	.247	.211	.188

TYPE RSS STEATITE SOCKETS

Low-loss steatite for high frequency transmitters, amplifiers and power supplies. Ideal for use in high temperatures. Mtg. hole, 1 3/16" except (*) 1 21/64". Universal removable mounting plate with slotted holes. Shpg. wt., 3 oz.

Stock No.	Type	Prongs	1-49	50-249	250-499	500-999	1M-2499
38F860	49RSS4	4	.92	.769	.645	.553	.491
38F861	49RSS5	5	.94	.783	.657	.563	.500
38F863	49RSS7S	7 small	1.31	1.100	.921	.789	.700
38F864	*49RSS7L	7 large	1.69	1.420	1.190	1.020	.904
38F865	49RSS8	Octal	1.12	.934	.784	.671	.596

TYPE MIP SOCKETS

High dielectric bakelite body with molded in steel plate. *Requires 1 1/8" hole for mounting. **Requires 1 9/32" hole. All others mount in 1 5/32" hole. †Mica-filled phenolic socket. Shpg. wt., 2 oz.

Stock No.	Type	Prongs	1-49	50-249	250-499	500-999	1M-2499
38F840	77MIP4	4	.19	.155	.130	.111	.099
38F841	77MIP5	5	.21	.172	.145	.124	.110
38F842	77MIP6	6	.23	.190	.159	.136	.121
38F843	77MIP7S	7S	.25	.209	.175	.150	.133
38F844	**77MIP7L	7L	.28	.231	.194	.166	.148
38F845	77MIP8	Octal	.21	.179	.150	.129	.114
38F839	†77MIP8T	Octal	.25	.212	.178	.153	.135
39F1244	†77MIP11T	11	.31	.261	.219	.188	.167
38F846	*88-8	Octal	.23	.188	.158	.135	.120
38F947	*88-8X	Loktal	.33	.273	.229	.196	.174
38F848	77MIP9	9	.25	.207	.174	.149	.132
38F849	77MIP11	11	.29	.238	.200	.171	.152
38F850	77MIP12	12	.30	.249	.209	.179	.159
39F149	77MIP20	20	.67	.559	.469	.401	.356

TYPE S SOCKETS

Retainer ring sockets. For easy assembly to chassis or panel from 19 gauge (.044") to 16 gauge (.062") with tempered steel retainer ring. High di-electric molded bakelite. Rotation feature permits lining up contacts. All mount in 1 11/64" to 1 7/32" hole. With retainer. Wt., 2 oz.

Stk. No.	Type	Prongs	1-49	50-249	250-499	500-999	1M-2499
38F810	78S4	4	.18	.153	.128	.110	.098
38F811	78S5	5	.20	.171	.143	.123	.109
38F812	78S6	6	.22	.186	.156	.134	.119
38F813	78S7S	7 small	.25	.205	.172	.148	.131
38F816	78S8	Octal	.21	.176	.147	.126	.112
39F1045	78S8T	8	.25	.209	.175	.150	.133
38F817	78S9	9	.24	.197	.165	.141	.125
38F818	78S8L	Loktal	.32	.271	.228	.195	.173
38F819	78-A7P	7 min.	.47	.390	.327	.280	.249
38F820	78-A9P	9 min.	.35	.289	.242	.208	.184
38F821	78-S11	11	.28	.231	.194	.166	.148
39F1046	78S11T	11	.32	.266	.223	.191	.170

MINIATURE RETAINER RING SOCKETS

For installation in compact electronic equipment. Black molded bakelite bodies. Mount in 5/8" round or "D" shaped hole with ring provided. Wt., 2 oz.

Stk. No.	Type	Prongs	1-49	50-249	250-499	500-999	1M-2499
38F825	78-S3S	3	.12	.101	.085	.073	.064
38F826	78-S4S	4	.16	.132	.111	.095	.084
38F827	78-S5S	5	.21	.176	.147	.126	.112
38F828	78-S6S	6	.22	.184	.155	.133	.118
38F830	78-7P	7	.29	.245	.206	.176	.157

CATHODE-RAY TUBE SOCKETS

Type 59-402. Duodecal socket for cathode-ray tubes with 12 equally spaced pins on circle dia. of 1.063". Bakelite body, removable cap.

Stock No.	1-49	50-249	250 499	500-999	1M-2499
38F901	.93	.778	.653	.559	.496

MAGNAL 11-CONTACT SOCKET

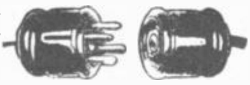
Type 49-SS11L. Has 1 1/16" pin circle for C-R tubes with magnal 11-prong base. Made of low-loss steatite. Has steel retaining ring for quick assembly. Requires 1 5/8" mounting hole.

Stock No.	1-49	50-249	250-499	509-999	1M 2499
38F900	1.59	1.33	1.12	.956	.849

Amphenol Connectors, Receptacles & Plugs

TYPE 86-PM SHIELDED MULTI-WIRE CONNECTORS

Consists of Amphenol "S" type sockets or "CP" plug and snap-on black steel caps with rubber grommets. Takes cable up to 7/16" dia. Size, 1 3/16x1 3/32". Wt., 2 oz.



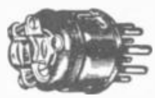
Stk. No.	Type	Contacts	1-49	50-249	250-499	500-999	1000-2499
		MALE					
39F120	86-PM4	4	.45	.376	.315	.270	.240
39F121	86-PM5	5	.45	.379	.318	.273	.242
39F122	86-PM6	6	.47	.395	.331	.284	.252
39F123	86-PM7S	7S	.57	.480	.403	.345	.306
39F125	86-PM8	8 oct.	.47	.397	.333	.285	.253
39F126	86-PM9	9	.48	.404	.339	.290	.258
39F127	86-PM11	11	.49	.411	.345	.295	.262
42F025	86-PM12	12	.50	.416	.349	.299	.265
42F026	86-PM20	20	.69	.567	.476	.408	.362
		FEMALE					
39F140	78-PF4	4	.41	.339	.285	.244	.216
39F141	78-PF5	5	.43	.357	.299	.256	.228
39F142	78-PF6	6	.45	.372	.312	.268	.238
39F143	78-PF7S	7S	.47	.392	.329	.281	.250
39F145	78-PF8	8 oct.	.43	.362	.304	.260	.231
39F146	78-PF9	9	.46	.385	.323	.276	.245
39F147	78-PF11	11	.50	.418	.350	.300	.266

CAPS AND CABLE CLAMPS

Stk. No.	Type	Description	1-49	50-249	250-499	500-999	1000-2499
42F017	3-13	Cap. with end grommet	.14	.117	.098	.084	.074
42F018	3-17	Cap. with side grommet	.20	.171	.143	.123	.109
42F019	3-24	Cap. with cable clamp	.23	.191	.161	.138	.122
39F150	79-CC4	Cable Clamp	.09	.075	.063	.054	.048

MULTI-WIRE CONNECTORS WITH CABLE CLAMPS

All specifications are as above, but with high quality cable clamps. Takes cable up to 7/16" dia. Size, 1 3/16x1 3/32". Shpg. wt. 3 oz.



Stk. No.	Type	Contacts	1-49	50-249	250-499	500-999	1000-2499
		MALE					
42F000	86-PM4-11	4	.54	.454	.381	.326	.289
42F001	86-PM5-11	5	.55	.459	.385	.330	.293
42F002	86-PM6-11	6	.57	.473	.397	.340	.302
42F003	86-PM7S-11	7S	.48	.402	.337	.289	.256
42F005	86-PM8-11	8	.57	.475	.399	.341	.303
42F006	86-PM9-11	9	.58	.482	.404	.346	.307
42F007	86-PM11-11	11	.58	.489	.410	.351	.312
42F027	86-PM12-11	12	.59	.496	.416	.356	.316
		FEMALE					
42F009	78-PF4-11	4	.50	.418	.350	.300	.266
42F010	78-PF5-11	5	.52	.435	.365	.313	.278
42F011	78-PF6-11	6	.54	.451	.378	.324	.287
42F012	78-PF7S-11	7S	.56	.470	.394	.338	.300
42F014	78-PF8-11	8	.53	.440	.369	.316	.281
42F015	78-PF9-11	9	.55	.463	.388	.333	.295
42F016	78-PF11-11	11	.60	.498	.418	.358	.317

"CP" PLUGS

Can be assembled in any one of the plug caps or receptacle shells. Ideal for use as chassis connectors, with plug-in units. Plugs with 4, 5, 6 and 7 contacts do not have center guide post. Current rating is 5 amps except (†) 3 amps. (*) Mica filled phenolic. Size: 1¾x7/16". Wt. 2 oz.

42F030	86-CP4	4	.23	.190	.159	.136	.121
42F031	86-CP5	5	.23	.193	.162	.139	.123
42F032	86-CP6	6	.25	.209	.175	.150	.133
42F033	86-CP7S	7 small	.26	.216	.181	.155	.138
42F034	86-CP8	8 octal	.25	.211	.177	.151	.134
42F035	86-CP8T*	8	.26	.218	.183	.156	.139
42F036	86-CP9	9	.26	.218	.183	.156	.139
42F037	86-CP11	11	.27	.224	.188	.161	.143
42F038	86-CP12†	12	.28	.230	.193	.165	.147

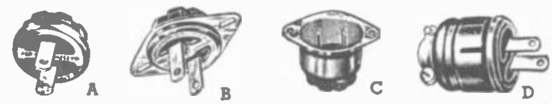
STEEL MOUNTING SHELLS

Type 23-1S extends 1 5/16" above or below chassis. Mounts in 1¾" hole. 3 notch holes for #6 screws. Type 61-61 recesses 1 3/16" only. Mounts in 1 7/16" hole. Two 5/32" screw holes on 1¾" center. Shpg. wt. 5 oz.

61-61 23-1S

Stock No.	Type	1-49	50-249	250-499	500-999	1000-2499
39F1242	23-1S	.26	.218	.183	.156	.139
39F1243	61-61	.14	.120	.101	.086	.077

RECEPTACLES AND PLUGS



A B C D

Mount on or below panels, or with cable terminals. Rated 110 volts, 15 amps or 250 volts, 10 amps. Bakelite insulation. Retainer ring types require 1 11/64" hole. Mounting plate types require 1 9/32" hole & mounting centers, slotted 1½" to 1⅞"; recessed shell types require 1⅜" hole with mounting centers, 1¾". Two pole female receptacles take standard or polarized plugs. Fig. A, with retainer ring, Fig. B, with removable mounting plate. Fig. C, with recessed shell. Fig. D, with shielded cable clamp. U.L. Approved. Av. shpg. wt., 3 oz.

Stk. No.	Type	Poles	Descrip.	Fig.	1-49	50-249	250-499	500-999	1000-2499
39F100	61-F	2	Fem. univ.	A	.37	.308	.258	.221	.196
39F101	60-F	3	Fem. Pol.	A	.45	.374	.314	.269	.239
39F102	61-M	2	Male Std.	A	.37	.310	.260	.223	.198
39F103	61-MP	2	Male Pol.	A	.35	.296	.248	.213	.189
39F104	60-M	3	Male Pol.	A	.52	.435	.365	.313	.278
39F110	61-F10	2	Fem. Univ.	C	.56	.472	.396	.339	.301
39F111	61-M10	2	Male Std.	C	.57	.473	.397	.340	.302
39F112	61-MP10	2	Male Pol.	C	.51	.480	.403	.345	.304
39F105	61-F1	2	Fem. univ	B	.44	.369	.310	.265	.235
39F106	60-F1	3	Fem. Pol.	B	.52	.433	.364	.311	.276
39F107	61-M1	2	Male Std.	B	.46	.388	.326	.279	.248
39F108	61-MP1	2	Male Pol.	B	.43	.357	.300	.256	.226
39F109	60-M1	3	Male Pol.	B	.59	.494	.415	.355	.315
39F113	61-F11	2	Fem. Univ.	D	.58	.482	.404	.346	.307
39F114	61-M11	2	Male Std.	D	.58	.484	.406	.348	.309
39F115	61-MP11	2	Male Pol.	D	.56	.470	.394	.338	.297
39F116	Type 61-M1P-61F. Molded in plate receptacle. Takes 2 pole plug.				.40	.331	.277	.238	.211

MINIATURE CABLE CONNECTORS

For cables up to six conductors. Bakelite elements are housed in cadmium plated brass shells. Plugs are 1 3/16" long. Chassis units mount on 1¼" centers.

E F G

SERIES 78 & 91

Stk. No.	Type	Fig.	Cont.	1-49	50-249	250-499	500-999	1000-2499
39F080	91-MPF3L	E	3	.47	.393	.330	.283	.251
39F082	91MPM3L	F	3	.42	.350	.293	.251	.223
39F084	91-MPM5L	F	5	.44	.369	.310	.265	.235
39F081	91-MPF4L	E	4	.49	.409	.343	.294	.261
39F083	91-MPM4L	F	4	.43	.360	.302	.259	.230
39F085	91-MPM6L	F	6	.47	.390	.327	.280	.249
Stock No.	**Type**	**Fig.**	**Cont.**	**1-49**	**50-249**	**250-499**	**500-999**	**1000-2499**
39F090	78-PCG3	G	3	.31	.259	.218	.186	.165
39F091	78-PCG4	G	4	.35	.289	.242	.208	.184
39F092	78-PCG5	G	5	.39	.322	.270	.231	.205
39F093	78-PCG6	G	6	.40	.331	.277	.238	.211

RECTANGULAR PLUGS AND SOCKETS

Molded of black bakelite with molded-in mounting plate. Type 70-26 is plug; 77-26 is a socket. Wt., 3 oz.

Stk. No.	Type	Pins	1-49	50-249	250-499	500 999	1000-2499
39F165	70-26	4	.15	.124	.104	.089	.079
39F166	77-26	4	.28	.230	.193	.165	.147

2-POLE GROUNDING TYPE RECEPTACLES AND PLUGS

160-2 160-4 160-9

Rated 15 amps, 110 volts. Mtg. Ctr. A mount in 1 9/32" dia. center hole and two 5/32" holes on 1½" to 1 55/64" centers. Mtg. Ctr. B mount in 1 7/16" hole; two 5/32" screw holes on 1¾" centers. Mtg. Ctr. C 7/16" I.D. grommet or clamp to ⅜" O.D. Mtg. Ctr. D meets MIL-M-14F req. Mount in 1 11/64" keyed hole. Wt. 3 oz. * w/Grommet. † w/Clamp.

Stk. No.	Type	Description	Mtg. Ctr.	1-24	25-99	100-249	250-499	500-999
39F1230	160-2	Fem. MIP	A	.93	.78	.654	.560	.497
39F1231	160-3	Male MIP	A	1.10	.92	.772	.661	.587
39F1232	160-4	Fem. Flush Mtr.	B	1.08	.90	.758	.649	.576
39F1233	160-5	Male Flush Mtr.	B	1.25	1.05	.880	.754	.669
39F1234	*160-6	Fem. Shl'd	C	.98	.82	.655	.586	.521
39F1235	*160-7	Male Shl'd	C	1.14	.95	.797	.683	.606
39F1236	†160-8	Fem. Shl'd	C	1.06	.88	.740	.634	.563
39F1237	†160-9	Male Shl'd	C	1.22	1.02	.853	.730	.648
39F1238	160-10	Fem. Insert	D	.85	.71	.596	.510	.453
39F1239	160-11	Male Insert	D	1.01	.85	.710	.608	.539

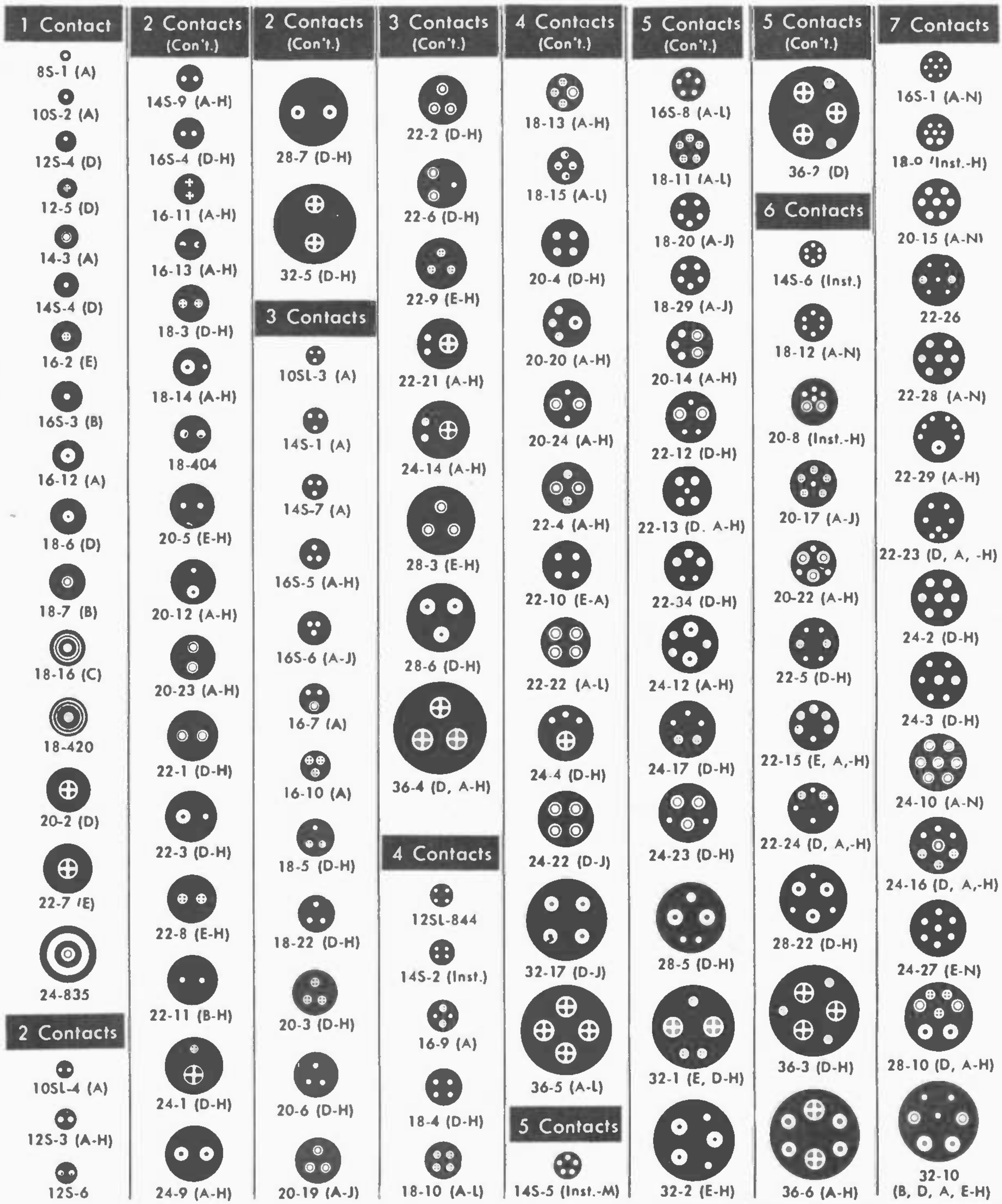
"MS" Connector Insert Contact Arrangements

Each insert is available with all male or female contacts. Contacts are non-rotating with all solder cups aligned for maximum wiring speed. Contact sizes correspond in number coding to wire sizes. Meet MIL-C-5015.

CURRENT RATING:						
Contact Size	20	16	12	8	4	0
Amperes..............	10	23	41	73	135	245

ALTERNATE INSERT POSITIONS—

(H) W, X, Y, or Z
(J) W, X, or Y
(K) W, Y, or Z
(L) X or Y
(M) X
(N) W or Z
(P) W or Y



1 Contact

8S-1 (A)
10S-2 (A)
12S-4 (D)
12-5 (D)
14-3 (A)
14S-4 (D)
16-2 (E)
16S-3 (B)
16-12 (A)
18-6 (D)
18-7 (B)
18-16 (C)
18-420
20-2 (D)
22-7 (E)
24-835

2 Contacts

10SL-4 (A)
12S-3 (A-H)
12S-6

2 Contacts (Con't.)

14S-9 (A-H)
16S-4 (D-H)
16-11 (A-H)
16-13 (A-H)
18-3 (D-H)
18-14 (A-H)
18-404
20-5 (E-H)
20-12 (A-H)
20-23 (A-H)
22-1 (D-H)
22-3 (D-H)
22-8 (E-H)
22-11 (B-H)
24-1 (D-H)
24-9 (A-H)

2 Contacts (Con't.)

28-7 (D-H)
32-5 (D-H)

3 Contacts

10SL-3 (A)
14S-1 (A)
14S-7 (A)
16S-5 (A-H)
16S-6 (A-J)
16-7 (A)
16-10 (A)
18-5 (D-H)
18-22 (D-H)
20-3 (D-H)
20-6 (D-H)
20-19 (A-J)

3 Contacts (Con't.)

22-2 (D-H)
22-6 (D-H)
22-9 (E-H)
22-21 (A-H)
24-14 (A-H)
28-3 (E-H)
28-6 (D-H)
36-4 (D, A-H)

4 Contacts

12SL-844
14S-2 (Inst.)
16-9 (A)
18-4 (D-H)
18-10 (A-L)

4 Contacts (Con't.)

18-13 (A-H)
18-15 (A-L)
20-4 (D-H)
20-20 (A-H)
20-24 (A-H)
22-4 (A-H)
22-10 (E-A)
22-22 (A-L)
24-4 (D-H)
24-22 (D-J)
32-17 (D-J)
36-5 (A-L)

5 Contacts

14S-5 (Inst.-M)

5 Contacts (Con't.)

16S-8 (A-L)
18-11 (A-L)
18-20 (A-J)
18-29 (A-J)
20-14 (A-H)
22-12 (D-H)
22-13 (D. A-H)
22-34 (D-H)
24-12 (A-H)
24-17 (D-H)
24-23 (D-H)
28-5 (D-H)
32-1 (E, D-H)
32-2 (E-H)

5 Contacts (Con't.)

36-7 (D)

6 Contacts

14S-6 (Inst.)
18-12 (A-N)
20-8 (Inst.-H)
20-17 (A-J)
20-22 (A-H)
22-5 (D-H)
22-15 (E, A,-H)
22-24 (D, A,-H)
28-22 (D-H)
36-3 (D-H)
36-6 (A-H)

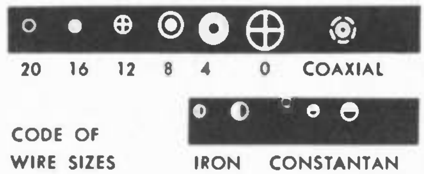
7 Contacts

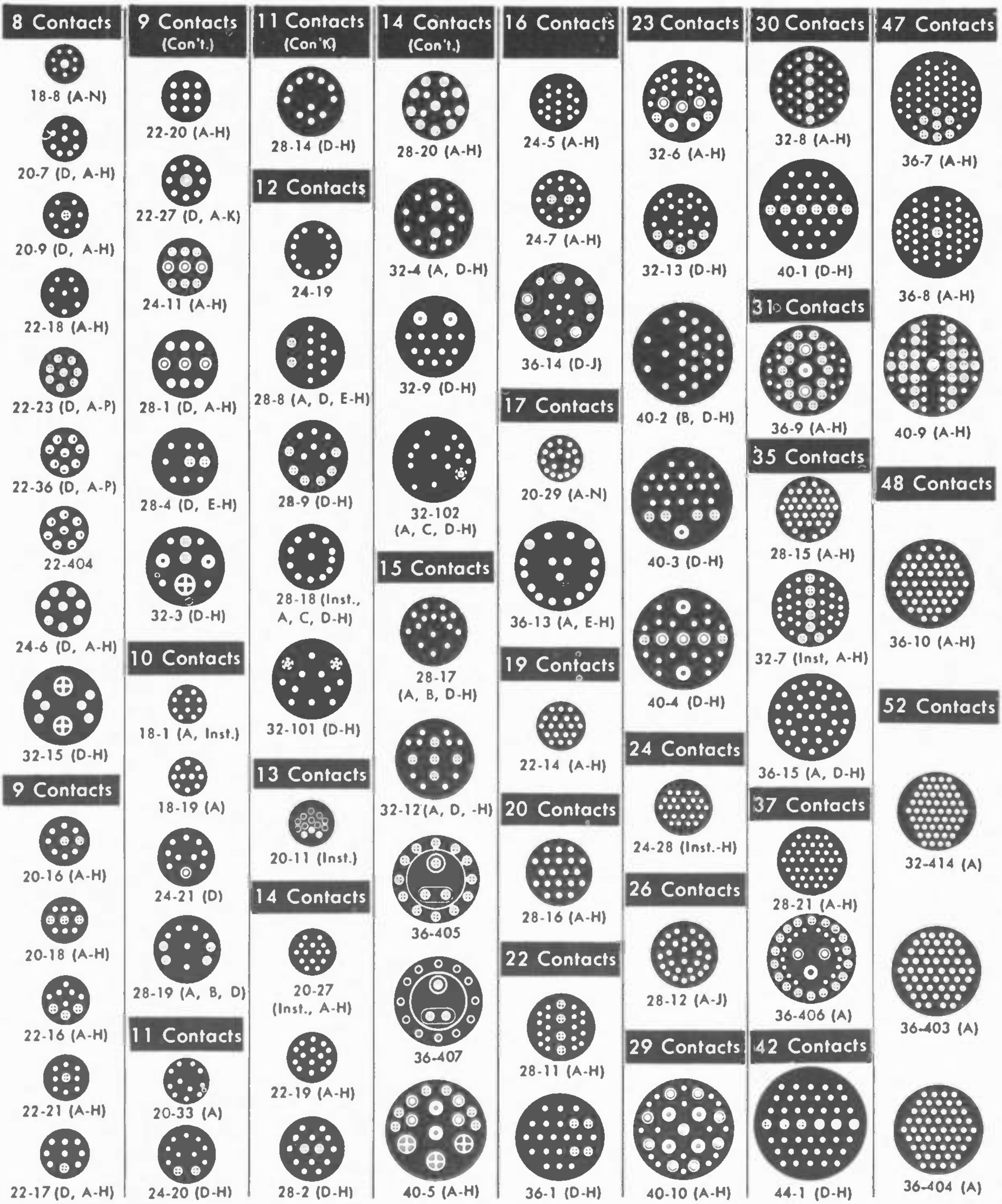
16S-1 (A-N)
18-9 (Inst.-H)
20-15 (A-N)
22-26
22-28 (A-N)
22-29 (A-H)
22-23 (D, A, -H)
24-2 (D-H)
24-3 (D-H)
24-10 (A-N)
24-16 (D, A,-H)
24-27 (E-N)
28-10 (D, A-H)
32-10 (B, D, A, E-H)

"MS" Connector Insert Contact Arrangements

Service—Limiting Operating Voltages @ Sea Level

	Inst.	A	D	E	B	C
DC	250	700	1250	1750	2450	4200
AC (rms)	200	500	900	1250	1750	3000





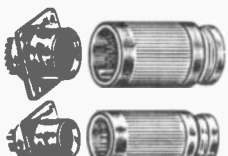
Amphenol "MS" & Miniature Connectors

AMPHENOL 67 SERIES MINNI "E" MINIATURE CONNECTORS

Amphenol's 67 Series of MINNI "E" connectors quick-disconnect, multi-contact, miniature bayonet lock types. First miniature connectors to fully meet the "E" requirements of MIL-C-5015. MINNI "E" Connectors are available as Plugs, Cable and Panel Receptacles and Single Hole Mounting Receptacles in four constructions, five shell sizes and 17 insert arrangements. Positive locking action. Type P construction for potting. Disposable polyethylene potting form. Type E has unitized grommet/clamp individually sealing conductor at back.

Shell	67-01						67-02			67-03			67-06					
	E			P			E			E			E			P		
Insert	1-24	25-99	100-199	1-24	25-99	100-199	1-24	25-99	100-199	1-24	25-99	100-199	1-24	25-99	100-199	1-24	25-99	100-199
12-60S	10.44	9.14	7.83	8.28	7.25	6.21	6.30	5.51	4.73	13.24	11.59	9.93	10.02	8.77	7.52	7.84	6.86	5.88
14-9S	10.02	8.77	7.52	7.76	6.79	5.82	6.48	5.67	4.86	7.00	6.13	5.25	10.14	8.87	7.61	7.56	6.62	5.67
14-12P	8.70	7.61	6.53	6.66	5.83	5.00	5.34	4.67	4.01	5.86	5.13	4.40	8.48	7.42	6.36	6.44	5.64	4.83
14-12S	10.14	8.87	7.61	8.10	7.09	6.08	7.14	6.25	5.36	7.66	6.70	5.75	9.92	8.68	7.44	7.88	6.90	5.91
18-24P	10.38	9.08	7.79	7.46	6.53	5.60	6.60	5.78	4.95	7.16	6.27	5.37	10.38	9.08	7.79	7.46	6.53	5.60
18-24S	13.82	12.09	10.37	10.90	9.54	8.18	9.92	8.68	7.44	10.52	9.21	7.89	13.82	12.09	10.37	10.90	9.54	8.18
18-64P	11.06	9.68	8.30	8.48	7.42	6.36	7.08	6.20	5.31	7.66	6.70	5.75	11.06	9.68	8.30	8.48	7.42	6.36
18-64S	12.04	10.54	9.03	9.46	8.28	7.10	8.12	7.11	6.09	8.70	7.61	6.53	12.04	10.54	9.03	9.46	8.28	7.10
20-37P	13.76	12.04	10.32	11.28	9.87	8.46	11.08	9.70	8.31	11.84	10.36	8.88	13.80	12.08	10.35	11.34	9.92	8.51
20-37S	18.62	16.29	13.97	16.22	14.19	12.17	14.58	12.76	10.94	15.38	13.46	11.54	18.66	16.33	14.00	16.20	14.18	12.15
22-48P	13.76	12.04	10.32	12.54	10.97	9.41	11.82	10.34	8.87	13.34	11.67	10.01	13.48	11.80	10.11	12.26	10.73	9.20
22-48S	19.86	17.38	14.90	18.64	16.31	13.98	17.66	15.45	13.25	19.18	16.78	14.39	19.58	17.13	14.69	18.36	16.07	13.77

AMPHENOL 165 SERIES MINIATURE MS TYPE CONNECTORS



Size	Small	Large
Plug diameter	57/64"	1 9/64"
Recpt. mtg. ctrs.	25/32"	.968"
Plug length	2 3/64"	2 3/64"
Cable opening	3/8"	21/32"
Recpt. flange	1 1/16"	1 5/16"
Mounting hole	13/16"	1 1/16"

165 Series. The 165 series are pressure-proof and completely waterproof, mated or apart. Weights average about one third that of standard "MS" connectors. Withstand government salt-spray tests by many hours in excess of standards. Extremely efficient in operation, the contacts are bronze, gold plated over silver. Features built-in cable clamp. Av. Shpg. wt., 3 oz.

No.	Type	Description	Contacts @ AWG	1-49	50-99
38F300	165-9	Sml. plug	12-#20 male	4.08	3.25
38F301	165-10	Sml. plug	12-#20 female	6.08	4.84
38F302	165-11	Sml. recpt.	12-#20 male	3.07	2.44
38F303	165-12	Sml. recpt.	12-#20 female	5.04	4.00

No.	Type	Description	Contacts @ AWG			1-49	50-99
38F304	165-13	Sml. plug	9-#20	-	male	3.87	3.09
38F305	165-14	Sml. plug	9-#20	-	fem.	5.95	4.74
38F306	165-15	Sml. recpt.	9-#20	-	male	2.87	2.28
38F307	165-16	Sml. recpt.	9-#20	-	fem.	3.67	2.93
38F308	165-17	Lge. plug	7-#20	4-#16	male	5.42	4.31
38F309	165-18	Lge. plug	7-#20	4-#16	fem.	6.63	5.28
38F310	165-19	Lge. recpt.	7-#20	4-#16	male	3.42	2.72
38F311	165-20	Lge. recpt.	7-#20	4-#16	fem.	4.61	3.67
38F312	165-25	Lge. plug	24-#20	-	male	6.41	5.10
38F313	165-26	Lge. plug	24-#20	-	fem.	8.42	6.70
38F314	165-27	Lge. recpt.	24-#20	-	male	4.42	3.53
38F315	165-28	Lge. recpt.	24-#20	-	fem.	6.41	5.10
38F316	165-29	Lge. plug	14-#16	-	male	5.53	4.40
38F317	165-30	Lge. plug	14-#16	-	fem.	7.68	6.12
38F318	165-31	Lge. recpt.	14-#16	-	male	3.56	2.84
38F319	165-32	Lge. recpt.	14-#16	-	fem.	5.68	4.52
38F320	165-33	Sml. plug	5-#20	-	male	3.73	2.94
38F321	165-34	Sml. plug	5-#20	-	fem.	5.05	4.03
38F322	165-35	Sml. recpt.	5-#20	-	male	2.64	2.11
38F323	165-36	Sml. recpt.	5-#20	-	fem.	3.20	2.54

"MS" CONNECTORS

Amphenol "MS" connectors approved under Specification MIL-C-5015-D. Connectors built to this new specification mate with connectors built to previous specs. Connectors and fittings will be furnished in olive drab finish as required by current military specs. Alternate insert positions available from stock, special insert materials and finishes are available on special order. By referring to the illustrations and the type descriptions at right, the correct number may be located to properly mate an existing connector or for a new application. Av. Shpg. wt. 3 oz.

> Newark can supply the Amphenol "MS" connectors for potting, as well as the pressurized, fireproof and explosion-proof types. Literature and prices on request.

Plug Dust Cap	1-49	50-99	100-999	Fits Conn. Size	Dust Cap	1-49	50-99	100-999
9760-10P	.75	.63	.50	10S, 10SL	**9760-10**	.50	.41	.33
9760-12P	.83	.69	.55	12, 12S, 12SL	**9760-12**	.56	.46	.37
9760-14P	.95	.79	.63	14, 14S	**9760-14**	.60	.50	.40
9760-16P	1.08	.90	.72	16, 16S	**9760-16**	.66	.55	.44
9760-18P	1.11	.93	.74	18	**9760-18**	.78	.65	.52
9760-20P	1.14	.95	.76	20	**9760-20**	.86	.71	.57
9760-22P	1.43	1.19	.95	22	**9760-22**	.98	.81	.75
9760-24P	1.71	1.43	1.14	24	**9760-24**	1.14	.95	.76
9760-28P	1.80	1.50	1.20	28	**9760-28**	1.37	1.14	.91
9760-32P	2.64	2.20	1.76	32	**9760-32**	1.59	1.32	1.06
9760-36P	2.73	2.28	1.82	36	**9760-36**	1.76	1.46	1.17

97-3057-10-6 Step down cable clamp for size 18 connector.
1-49.................... **.77** **50-99**.................... **.64** **100-999**.................... **.51**

97-3057-12-6 Step down cable clamp for size 20 and 22 connectors.
1-49.................... **.81** **50-99**.................... **.68** **100-999**.................... **.54**

CABLE CLAMP AND BOOT

MS3057-A Series. Clamp gives aid to cable at plug or receptacle. Relieves strain placed on soldered connections. Made of die-cast aluminum, insuring strength and light weight. Both sides of cable clamp move, automatically center cable. Includes AN3420 boot for added cable support. For small O.D. cables, additional AN3420 boots may be used. Shpg. wt. 1½ oz.

Part No.	Fits Connector Size	1-9	10-49	50-99	100-999
MS3057-4A	10SL, 12, 12S	.69	.62	.55	.45
MS3057-6A	12SL, 14, 14S	.69	.62	.55	.45
MS3057-8A	16, 16S	.72	.63	.56	.46
MS3057-10A	18	.79	.69	.62	.52
MS3057-12A	20, 22	.87	.77	.68	.56
MS3057-16A	24, 28	1.18	1.02	.92	.76
MS3057-20A	32	1.39	1.21	1.07	.89
MS3057-24A	36	1.79	1.46	1.29	1.15

TELESCOPING BOOTS

AN3420 Series. Neoprene boot weather & dust proofs cable clamp. Telescoping boots reduce clamp I.D. for pos. grip & strain relief of smaller cables. ¼ oz.

Part No.	1-9	10-49	50-99	100-999
AN3420-3	.09	.08	.07	.06
AN3420-4	.09	.08	.07	.06
AN3420-6	.10	.09	.08	.07
AN3420-8	.12	.09	.08	.07
AN3420-10	.15	.12	.11	.10
AN3420-12	.15	.12	.11	.10
AN3420-16	.19	.15	.14	.12
AN3420-20	.28	.23	.20	.18
AN3420-24	.34	.27	.24	.22

ECONOMY CABLE CLAMPS

Cable Clamp	Fits Connector Size	1-49	50-99	100-999	Cable Clamp	Fits Connector Size	1-49	50-99	100-999	Water Proof Cable Clamp	1-49	50-99	100-999
3057-3	8, 10S	.56	.46	.37	3057-12	20, 22	.75	.63	.50	....	....	....	....
3057-4	10SL, 12, 12S	.57	.48	.38	3057-16	24, 28	.92	.76	.61	....	....	....	....
3057-6	12SL, 14, 14S	.57	.48	.38	3057-20	32	1.13	.94	.75	9767-6	.68	.56	.45
3057-8	16, 16S	.59	.49	.39	3057-24	36	1.56	1.20	1.04	9767-8	.69	.58	.46
3057-10	18	.71	.59	.47	3057-28	40	1.94	1.61	1.29	9767-10	.87	.73	.58
					3057-32	44	2.33	1.94	1.55	....	....	....	....

Amphenol "MS" Connectors

3100A 3101A 3102A 3106A 3106B

FOR RIGHT ANGLE PLUGS MS-310BA -310BB SEE END OF THIS LISTING

Shell Insert	MS/3100 A				MS/3101 A				MS/3102 A				MS/3106 A				MS/3106 B			
	1-9	10-49	50-99	100-999	1-9	10-49	50-99	100-999	1-9	10-49	50-99	100-999	1-9	10-49	50-99	100-999	1-9	10-49	50-99	100-999
8S-1P	1.57	1.30	1.16	1.05	1.47	1.22	1.08	.98	.88	.73	.65	.59	1.02	.84	.75	.68				
8S-1S	1.57	1.30	1.16	1.05	1.47	1.22	1.08	.98	.88	.73	.65	.59	1.02	.84	.75	.68				
10S-2P	1.63	1.34	1.19	1.08	1.33	1.10	.98	.89	.61	.50	.44	.40	1.42	1.17	1.04	.94				
10S-2S	1.64	1.36	1.21	1.09	1.35	1.12	.99	.90	.62	.51	.46	.41	1.44	1.19	1.05	.95				
10SL-3P	1.04	.86	.76	.69	1.54	1.27	1.13	1.02	.80	.66	.58	.53								
10SL-3S													1.23	1.02	.90	.82				
10SL-4P	1.02	.84	.75	.68	1.45	1.20	1.07	.97	.80	.66	.58	.53								
10SL-4S													1.21	1.00	.89	.81				
12S-1P	1.23	1.02	.90	.82	1.42	1.17	1.04	.94	.71	.59	.52	.47	1.16	.96	.85	.77				
12S-1S	1.28	1.06	.94	.85	1.44	1.19	1.05	.95	.73	.60	.53	.48	1.18	.97	.86	.78				
12S-3P	1.11	.92	.81	.74	1.80	1.07	.95	.86	.59	.49	.43	.39	1.04	.86	.76	.69				
12S-3S	1.14	.94	.84	.78	1.33	1.10	.98	.89	.62	.51	.46	.41	1.07	.89	.79	.71				
12S-4P	1.16	.96	.85	.77	1.35	1.12	.99	.90	.64	.53	.47	.43	1.09	.90	.80	.72				
12S-4S	1.16	.96	.85	.77	1.35	1.12	.99	.90	.64	.53	.47	.43	3.48	.90	.80	.72				
12S-6P	3.55	2.93	2.60	2.36	3.74	3.09	2.74	2.48					3.70	2.87	2.55	2.31				
12S-6S	3.77	3.12	2.77	2.51	3.96	3.27	2.91	2.63	3.25	2.69	2.39	2.16		3.06	2.72	2.46				
12SL-844P									1.44	1.19	1.05	.95	2.66							
12SL-844S													1.37	2.20	1.96	1.77				
12-5P	1.35	1.12	.99	.90	1.51	1.24	1.10	1.00	.85	.70	.62	.56	1.47	1.13	1.00	.91				
12-5S	1.45	1.20	1.07	.97	1.61	1.33	1.18	1.07	.95	.79	.70	.63	1.19	1.22	1.08	.98				
14S-1P	1.19	.99	.88	.79	1.45	1.20	1.07	.97	.78	.64	.57	.52	1.21	.99	.88	.79	1.44	1.19	1.05	.95
14S-1S	1.21	1.00	.89	.81	1.47	1.22	1.08	.98	.80	.66	.58	.53	1.18	1.00	.89	.81	1.45	1.20	1.07	.97
14S-2P	1.18	.97	.86	.78	1.44	1.19	1.05	.95	.76	.63	.56	.51	1.26	.97	.86	.78	1.42	1.17	1.04	.94
14S-2S	1.26	1.04	.93	.84	1.52	1.26	1.12	1.01	.85	.70	.62	.56	1.12	1.04	.93	.84	1.51	1.24	1.10	1.00
14S-4P	1.12	.93	.83	.75	1.38	1.14	1.02	.92	.71	.59	.52	.47	1.15	.93	.83	.75	1.37	1.13	1.00	.91
14S-4S	1.16	.96	.85	.77	1.42	1.17	1.04	.94	.74	.61	.55	.49	1.30	.96	.85	.77	1.40	1.16	1.03	.93
14S-5P	1.30	1.07	.95	.86	1.56	1.29	1.14	1.04	.88	.73	.65	.59	1.35	1.07	.95	.86	1.54	1.27	1.13	1.02
14S-5S	1.35	1.12	.99	.90	1.61	1.33	1.18	1.07	.93	.77	.69	.62	1.35	1.12	.99	.90	1.59	1.32	1.17	1.06
14S-6P	1.35	1.12	.99	.90	1.61	1.33	1.18	1.07	.93	.77	.69	.62	1.38	1.12	.99	.90	1.59	1.32	1.17	1.06
14S-6S	1.38	1.14	1.02	.92	1.64	1.36	1.21	1.09	.97	.80	.71	.64	1.19	1.14	1.02	.92	1.63	1.34	1.19	1.08
14S-7P	1.19	.99	.88	.79	1.45	1.20	1.07	.97	.78	.64	.57	.57	1.21	.99	.88	.79	1.44	1.19	1.05	.95
14S-7S	1.21	1.00	.89	.81	1.47	1.22	1.08	.98	.80	.66	.58	.53	1.12	1.00	.89	.81	1.45	1.20	1.07	.97
14S-9P	1.12	.93	.83	.75	1.38	1.14	1.02	.92	.71	.59	.52	.47	1.14	.93	.83	.75	1.37	1.13	1.00	.91
14S-9S	1.14	.94	.84	.76	1.40	1.16	1.03	.93	.73	.60	.53	.48	1.30	.94	.84	.76	1.38	1.14	1.02	.92
14S-10P	1.30	1.07	.95	.86	1.56	1.29	1.14	1.04	.88	.73	.65	.59	1.40	1.07	.95	.86	1.54	1.27	1.13	1.02
14S-10S	1.40	1.16	1.03	.93	1.66	1.37	1.22	1.10	.99	.82	.72	.66	1.35	1.16	1.03	.93	1.64	1.36	1.21	1.09
16S-1P	1.51	1.24	1.10	1.00	1.63	1.34	1.19	1.08	.95	.79	.70	.63	1.51	1.12	.99	.90	1.73	1.43	1.27	1.15
16S-1S	1.66	1.37	1.22	1.10	1.78	1.47	1.31	1.18	1.11	.92	.81	.74	1.18	1.24	1.10	1.09	1.89	1.56	1.38	1.25
16S-3S	1.33	1.10	.98	.89	1.45	1.20	1.07	.97	.78	.64	.57	.52	1.18	.97	.86	.78	1.56	1.29	1.14	1.04
16S-4P	1.33	1.10	.98	.89	1.45	1.20	1.07	.97	.78	.64	.57	.52	1.23	.97	.86	.78	1.56	1.29	1.14	1.04
16S-4S	1.38	1.14	1.02	.92	1.51	1.24	1.10	1.00	.83	.69	.61	.55	1.26	1.02	.90	.82	1.61	1.33	1.18	1.07
16S-5P	1.42	1.17	1.04	.94	1.54	1.27	1.13	1.02	.87	.72	.64	.58	1.30	1.04	.93	.84	1.64	1.36	1.21	1.09
16S-5S	1.45	1.20	1.07	.97	1.57	1.30	1.16	1.06	.90	.74	.66	.60	1.30	1.07	.95	.86	1.68	1.39	1.23	1.12
16S-6P	1.45	1.20	1.07	.97	1.57	1.30	1.16	1.05	.90	.74	.66	.60	1.30	1.07	.95	.86	1.68	1.39	1.23	1.12
16S-6S	1.45	1.20	1.07	.97	1.57	1.30	1.16	1.05	.90	.74	.66	.60	1.31	1.07	.95	.86	1.68	1.39	1.23	1.12
16S-8P	1.47	1.22	1.08	.98	1.59	1.32	1.17	1.06	.92	.78	.67	.61	1.37	1.09	.97	.87	1.70	1.40	1.24	1.13
16S-8S	1.52	1.26	1.12	1.01	1.64	1.36	1.21	1.09	.97	.80	.71	.64	1.37	1.13	1.00	.91	1.75	1.44	1.28	1.16
16S-15P	1.52	1.26	1.12	1.01	1.64	1.36	1.21	1.09	.97	.80	.71	.64	1.42	1.13	1.00	.91	1.75	1.44	1.28	1.16
16S-15S	1.57	1.30	1.16	1.05	1.70	1.40	1.24	1.13	1.02	.84	.75	.68	1.37	1.17	1.04	.94	1.80	1.49	1.32	1.20
16-2P	1.45	1.20	1.07	.97	1.51	1.24	1.10	1.00	.81	.67	.60	.54	1.51	1.13	1.00	.91				
16-2S	1.59	1.32	1.17	1.06	1.64	1.36	1.21	1.09	.95	.79	.70	.63	1.68	1.24	1.10	1.00				
16-7P	1.76	1.46	1.30	1.17	1.82	1.50	1.33	1.21	1.12	.93	.83	.75	1.94	1.39	1.23	1.12				
16-7S	2.02	1.67	1.49	1.35	2.08	1.72	1.52	1.38	1.38	1.14	1.02	.92	1.57	1.60	1.42	1.29				
16-9P	1.66	1.37	1.22	1.10	1.71	1.42	1.26	1.14	1.02	.84	.75	.68	1.78	1.30	1.16	1.05				
16-9S	1.87	1.54	1.37	1.24	1.92	1.59	1.41	1.28	1.23	1.02	.90	.82		1.47	1.31	1.18				
16-10P	1.61	1.33	1.18	1.07	1.66	1.37	1.22	1.10	.97	.80	.71	.64	1.52	1.28	1.12	1.01				
16-10S	1.80	1.49	1.32	1.20	1.85	1.53	1.36	1.23	1.16	.96	.85	.77	1.71	1.42	1.26	1.14				
16-11P	1.51	1.24	1.10	1.00	1.56	1.29	1.14	1.04	.87	.72	.64	.58	1.42	1.17	1.04	.94				
16-11S	1.70	1.40	1.24	1.13	1.75	1.44	1.28	1.16	1.06	.87	.77	.70	1.61	1.33	1.18	1.07				
16-12P	1.73	1.43	1.27	1.15	1.78	1.47	1.31	1.18	1.09	.90	.80	.72	1.84	1.36	1.21	1.09				
16-13P	3.67	3.03	2.69	2.44	3.72	3.07	2.73	2.47	3.03	2.50	2.22	2.01	3.58	2.96	2.63	2.38				
16-13S	4.24	3.50	3.11	2.82	4.29	3.55	3.15	2.85	3.60	2.97	2.64	2.39	4.15	3.43	3.05	2.76				
18-1P	1.87	1.54	1.37	1.24	2.09	1.73	1.54	1.39	1.28	1.06	.94	.85	1.78	1.47	1.31	1.18	2.13	1.76	1.56	1.41
18-1S	2.02	1.67	1.49	1.35	2.25	1.86	1.65	1.50	1.44	1.19	1.05	.95	1.94	1.60	1.42	1.29	2.28	1.89	1.68	1.52
18-3P	1.49	1.23	1.09	.99	1.71	1.42	1.26	1.14	.90	.74	.66	.60	1.40	1.16	1.03	.93	1.75	1.44	1.28	1.16
18-3S	1.83	1.52	1.35	1.22	2.06	1.70	1.51	1.37	1.25	1.03	.91	.83	1.75	1.44	1.28	1.16	2.09	1.73	1.54	1.39
18-4P	1.51	1.24	1.10	1.00	1.73	1.43	1.27	1.15	.92	.76	.67	.61	1.42	1.17	1.04	.94	1.76	1.46	1.30	1.17
18-4S	1.63	1.34	1.19	1.08	1.85	1.53	1.36	1.23	.85	.86	.76	.69	1.54	1.27	1.13	1.02	1.89	1.56	1.38	1.25
18-5P	1.44	1.19	1.05	.95	1.66	1.37	1.22	1.10	1.04	.70	.62	.56	1.35	1.12	.99	.90	1.70	1.40	1.24	1.13
18-5S	1.63	1.34	1.19	1.08	1.85	1.53	1.36	1.23	.99	.86	.76	.69	1.54	1.27	1.13	1.02	1.89	1.56	1.38	1.25
18-6P	1.57	1.30	1.16	1.05	1.80	1.49	1.32	1.20	1.28	.82	.72	.66	1.49	1.23	1.09	.99	1.83	1.52	1.35	1.22
18-6S	1.87	1.54	1.37	1.24	2.09	1.73	1.54	1.39	.90	1.06	.94	.85	1.78	1.47	1.31	1.18	2.13	1.76	1.56	1.41
18-7P	1.49	1.23	1.09	.99	1.71	1.42	1.26	1.14	1.28	.74	.66	.60	1.40	1.16	1.03	.93	1.75	1.44	1.28	1.16
18-8P	1.87	1.54	1.37	1.24	2.09	1.73	1.54	1.39	1.40	1.06	.94	.85	1.78	1.47	1.31	1.18	2.13	1.76	1.56	1.41
18-8S	1.99	1.64	1.46	1.32	2.21	1.83	1.63	1.47	1.18	1.16	1.03	.93	1.90	1.57	1.40	1.27	2.25	1.86	1.65	1.50
18-9P	1.76	1.46	1.30	1.17	1.99	1.64	1.46	1.32	1.31	.97	.86	.78	1.68	1.39	1.23	1.12	2.02	1.67	1.49	1.35
18-9S	1.90	1.57	1.40	1.27	2.13	1.76	1.58	1.41	1.21	1.09	.97	.87	1.82	1.50	1.33	1.21	2.16	1.79	1.59	1.44
18-10P	1.80	1.49	1.32	1.20	2.02	1.67	1.49	1.35		1.00	.89	.81	1.71	1.42	1.26	1.14	2.06	1.70	1.51	1.37

Amphenol "MS" Conenctors

CONTINUED FROM PRECEDING PAGE

SEE END OF LISTING FOR RIGHT ANGLE PLUGS

Shell Insert	MS/3100 A				MS/3101 A				MS/3102 A				MS/3106 A				MS/3106 B			
	1-9	10-49	50-99	100-999	1-9	10-49	50-99	100-999	1-9	10-49	50-99	100-999	1-9	10-49	50-99	100-999	1-9	10-49	50-99	100-999
18-10S	1.99	1.64	1.46	1.32	2.21	1.83	1.63	1.47	1.40	1.16	1.03	.93	1.90	1.57	1.40	1.27	2.25	1.86	1.65	1.50
18-11P	1.80	1.49	1.32	1.20	2.02	1.67	1.49	1.35	1.21	1.00	.89	.81	1.71	1.42	1.26	1.14	2.06	1.70	1.51	1.37
18-11S	1.87	1.54	1.37	1.24	2.09	1.73	1.54	1.39	1.28	1.06	.94	.85	1.78	1.47	1.31	1.18	2.13	1.76	1.56	1.41
18-12P	1.68	1.39	1.23	1.12	1.80	1.57	1.40	1.27	1.09	.90	.80	.72	1.59	1.32	1.17	1.06	1.94	1.60	1.42	1.29
18-12S	1.80	1.49	1.32	1.20	2.02	1.67	1.49	1.35	1.21	1.00	.89	.81	1.71	1.42	1.26	1.14	2.06	1.70	1.51	1.37
18-13P	1.82	1.50	1.33	1.21	2.04	1.69	1.50	1.36	1.23	1.02	.90	.82	1.73	1.43	1.27	1.15	2.08	1.72	1.52	1.38
18-16P	1.63	1.34	1.19	1.08	1.85	1.53	1.36	1.23	1.04	.86	.76	.69	1.54	1.27	1.13	1.02	1.89	1.56	1.38	1.25
18-16S	1.90	1.57	1.40	1.27	2.13	1.76	1.56	1.41	1.31	1.09	.97	.87	1.82	1.50	1.33	1.21	2.16	1.79	1.59	1.44
18-18P	2.02	1.67	1.49	1.35	2.25	1.86	1.65	1.50	1.44	1.19	1.05	.95	1.94	1.60	1.42	1.29	2.28	1.89	1.68	1.52
18-18S	2.04	1.69	1.50	1.36	2.27	1.87	1.66	1.51	1.45	1.20	1.07	.97	1.95	1.62	1.44	1.30	2.30	1.90	1.69	1.53
18-19P	2.53	2.09	1.85	1.68	2.75	2.27	2.02	1.83	1.94	1.60	1.42	1.29	2.44	2.02	1.79	1.62	2.79	2.30	2.04	1.85
18-19S	2.06	1.70	1.51	1.37	2.28	1.89	1.68	1.52	1.47	1.22	1.08	.98	1.97	1.63	1.45	1.31	2.32	1.92	1.70	1.54
18-20P	1.61	1.33	1.18	1.07	1.83	1.52	1.35	1.22	1.02	.84	.75	.68	1.52	1.26	1.12	1.01	1.87	1.54	1.37	1.24
18-20S	1.71	1.42	1.26	1.14	1.94	1.60	1.42	1.29	1.12	.93	.83	.75	1.63	1.34	1.19	1.08	1.97	1.63	1.45	1.31
18-22P	1.49	1.23	1.09	.99	1.71	1.42	1.26	1.14	.90	.74	.66	.60	1.40	1.16	1.03	.93	1.75	1.44	1.28	1.16
18-22S	1.61	1.33	1.18	1.07	1.83	1.52	1.35	1.22	1.02	.84	.75	.68	1.52	1.26	1.12	1.01	1.87	1.54	1.37	1.24
18-29P	1.63	1.34	1.19	1.08	1.85	1.53	1.36	1.23	1.04	.86	.76	.69	1.54	1.27	1.13	1.02	1.89	1.56	1.38	1.25
18 29S	1.63	1.34	1.19	1.08	1.85	1.53	1.36	1.23	1.04	.86	.76	.69	1.54	1.27	1.13	1.02	1.89	1.56	1.38	1.25
18-420P	2.91	2.40	2.13	1.93	....			..	2.72	2.25	1.99	1.81	3.71	3.07	2.73	2.47	4.12	3.40	3.02	2.74
18-420S	3.30	2.73	2.43	2.20		...	...		2.94	2.43	2.16	1.96	3.91	3.25	2.88	2.61	4.31	3.56	3.16	2.86
20-2P	2.37	1.96	1.74	1.58	2.49	2.06	1.83	1.66	1.68	1.39	1.23	1.12	2.56	2.12	1.88	1.70	2.82	2.33	2.07	1.87
20-2S	2.61	2.16	1.92	1.74	2.73	2.26	2.01	1.82	1.92	1.59	1.41	1.28	2.80	2.32	2.06	1.86	3.06	2.53	2.25	2.04
20-3P	1.78	1.47	1.31	1.18	1.80	1.57	1.40	1.27	1.09	.90	.80	.72	1.97	1.63	1.45	1.31	2.23	1.84	1.64	1.48
20-3S	2.34	1.93	1.71	1.55	2.46	2.03	1.80	1.63	1.64	1.36	1.21	1.09	2.52	2.09	1.85	1.68	2.77	2.30	2.04	1.85
20-4P	1.89	1.56	1.38	1.25	2.01	1.66	1.47	1.33	1.19	.99	.88	.79	2.07	1.72	1.52	1.38	2.34	1.93	1.71	1.55
20-4S	2.15	1.77	1.57	1.43	2.27	1.87	1.66	1.51	1.45	1.20	1.07	.97	2.33	1.93	1.71	1.55	2.60	2.15	1.91	1.73
20-5P	1.85	1.53	1.36	1.23	1.97	1.63	1.45	1.31	1.16	.96	.85	.77	2.04	1.69	1.50	1.36	2.30	1.90	1.69	1.53
20-5S	2.01	1.66	1.47	1.33	2.13	1.76	1.56	1.41	1.31	1.09	.97	.87	2.19	1.82	1.61	1.46	2.46	2.03	1.80	1.63
20-6P	1.60	1.40	1.24	1.13	1.70	1.49	1.32	1.20	.99	.82	.72	.66	1.87	1.54	1.37	1.24	2.13	1.76	1.56	1.41
20-6S	1.71	1.42	1.26	1.14	1.83	1.52	1.35	1.22	1.02	.84	.75	.68	1.90	1.57	1.40	1.27	2.16	1.79	1.59	1.44
20-7P	1.89	1.56	1.38	1.25	2.01	...		..	1.19	.99	.88	.79	2.07	1.72	1.52	1.38	2.34	1.93	1.71	1.55
20-7S	2.04	1.69	1.50	1.36	2.16	1.79	1.59	1.44	1.35	1.12	.99	.90	2.23	1.84	1.64	1.48	2.49	2.06	1.83	1.66
20-8P	2.15	1.77	1.57	1.43	2.27	1.87	1.66	1.51	1.45	1.20	1.07	.97	2.34	1.93	1.71	1.55	2.60	2.15	1.91	1.73
20-8S	2.49	2.06	1.83	1.66	2.61	2.16	1.92	1.74	1.80	1.49	1.32	1.20	2.68	2.22	1.97	1.78	2.94	2.43	2.16	1.96
20-9P	2.02	1.67	1.49	1.35	2.15	1.77	1.57	1.43	1.33	1.10	.98	.89	2.21	1.83	1.63	1.47	2.47	2.04	1.82	1.64
20-9S	2.06	1.70	1.51	1.37	2.18	1.80	1.60	1.45	1.37	1.13	1.00	.91	2.25	1.86	1.65	1.50	2.51	2.07	1.84	1.67
20-11P	2.39	1.97	1.75	1.59	2.51	2.07	1.84	1.67	1.70	1.40	1.24	1.13	2.58	2.13	1.89	1.71	2.84	2.35	2.08	1.89
20-11S	3.65	3.02	2.68	2.43	3.77	3.12	2.77	2.51	2.96	2.45	2.17	1.97	3.84	3.17	2.82	2.55	4.10	3.39	3.01	2.73
20-12P	1.89	1.56	1.38	1.25	......	1.66	1.47	1.33	1.19	.99	.88	.79	2.08	1.72	1.52	1.38	2.34	1.93	1.71	1.55
20-15P	2.08	1.72	1.52	1.38	2 20	1.82	1.61	1.46	1.38	1.14	1.02	.92	2.27	1.87	1.66	1.51	2.53	2.09	1.85	1.68
20-15S	2.82	2.33	2.07	1.87	2.94	2.43	2.16	1.96	2.13	1.76	1.56	1.41	3.01	2.49	2.21	2.00	3.27	2.70	2.40	2.17
20-16P	2.09	1.73	1.54	1.39	2.21	1.83	1.63	1.47	1.40	1.16	1.03	.93	2.28	1.89	1.68	1.52	2.54	2.10	1.87	1.69
20-16S	2.23	1.84	1.64	1.48	2.35	1.94	1.73	1.56	1.54	1.27	1.13	1.02	2.42	2.00	1.78	1.61	2.68	2.22	1.97	1.78
20-17P	2.06	1.70	1.51	1.37	2.35	1.94	1.73	1.56	1.37	1.13	1.00	.91	2.25	1.86	1.65	1.50	2.51	2.07	1.84	1.67
20-17S	2.41	2.07	1.84	1.67	2.63	2.17	1.93	1.75	1.82	1.50	1.33	1.21	2.70	2.23	1.98	1.79	2.96	2.45	2.17	1.97
20-18P	2.18	1.80	1.60	1.45	2.30	1.90	1.69	1.53	1.49	1.23	1.09	.99	2.37	1.96	1.74	1.58	2.63	2.17	1.93	1.75
20-18S	2.40	1.99	1.77	1.60	2.53	2.09	1.85	1.68	1.71	1.42	1.26	1.14	2.60	2.15	1.91	1.73	2.85	2.36	2.10	1.90
20-22P	2.39	1.97	1.75	1.59	2.51	2.07	1.84	1.67	1.70	1.40	1.24	1.13	2.56	2.12	1.88	1.70	2.84	2.35	2.08	1.89
20-22S	2.82	2.33	2.07	1.87	2.94	2.43	2.16	1.96	2.13	1.76	1.56	1.41	3.01	2.49	2.21	2.00	3.27	2.70	2.40	2.17
20-23P	2.01	1.66	1.47	1.33	2.13	1.76	1.56	1.41	1.31	1.09	.97	.87	2.20	1.82	1.61	1.46	2.46	2.03	1.80	1.63
20-23S	2.20	1.82	1.61	1.46	2.32	1.92	1.70	1.54	1.51	1.24	1.10	1.00	2.39	1.97	1.75	1.59	2.65	2.19	1.94	1.76
20-24P	2.06	1.70	1.51	1.37	2.18	1.80	1.60	1.45	1.37	1.13	1.00	.91	2.25	1.86	1.65	1.50	2.51	2.07	1.84	1.67
20-24S	2.56	2.12	1.88	1.70	2.68	2.22	1.97	1.78	1.87	1.54	1.37	1.24	2.75	2.27	2.02	1.83	3.01	2.49	2.21	2.00
20-27P	2.15	1.77	1.57	1.43	2.27	1.87	1.66	1.51	1.45	1.20	1.07	.97	2.34	1.93	1.71	1.55	2.60	2.15	1.91	1.73
20-27S	2.35	1.94	1.73	1.56	2.47	2.04	1.82	1.64	1.66	1.37	1.22	1.10	2.54	2.10	1.87	1.69	2.80	2.32	2.06	1.86
20-29P	2.32	1.92	1.70	1.54	2.44	2.02	1.79	1.62	1.63	1.34	1.19	1.08	2.51	2.07	1.84	1.67	2.77	2.29	2.03	1.84
20-29S	2.58	2.13	1.89	1.71	2.60	2.23	1.98	1.79	1.89	1.56	1.38	1.25	2.77	2.29	2.03	1.84	3.03	2.50	2.22	2.01
20-33P	2.20	1.90	1.69	1.53	2.42	2.00	1.78	1.61	1.61	1.33	1.18	1.07	2.49	2.06	1.83	1.66	2.75	2.27	2.02	1.83
20-33S	2.37	1.96	1.74	1.58	2.49	2.06	1.83	1.66	1.68	1.39	1.23	1.12	2.56	2.12	1.88	1.70	2.82	2.33	2.07	1.87
22-1P	2.13	1.76	1.56	1.41	2.23	1.84	1.64	1.48	1.28	1.06	.94	.85	2.13	1.76	1.56	1.41	2.42	2.00	1.78	1.61
22-1S	2.47	2.04	1.82	1.64	2.50	2.13	1.89	1.71	1.66	1.37	1.22	1.10	2.47	2.04	1.82	1.64	2.80	2.32	2.06	1.86
22-2P	2.27	1.87	1.66	1.51	2.37	1.96	1.74	1.58	1.45	1.20	1.07	.97	2.27	1.87	1.66	1.51	2.60	2.15	1.91	1.73
22-2S	2.77	2.29	2.03	1.84	2.87	2.37	2.11	1.91	1.95	1.62	1.44	1.30	2.77	2.29	2.03	1.84	3.10	2.56	2.27	2.06
22-4P	2.35	1.94	1.73	1.56	2.46	2.03	1.80	1.63	1.54	1.27	1.13	1.02	2.35	1.94	1.73	1.56	2.68	2.22	1.97	1.78
22-4S	2.66	2.20	1.96	1.77	2.77	2.29	2.03	1.84	1.85	1.53	1.36	1.23	2.66	2.20	1.96	1.77	2.99	2.47	2.20	1.99
22-5P	2.10	1.82	1.61	1.46	2.20	1.90	1.69	1.53	1.38	1.14	1.02	.92	2.20	1.82	1.61	1.46	2.53	2.09	1.85	1.68
22-5S	2.21	1.83	1.63	1.47	2.32	1.92	1.70	1.54	1.40	1.16	1.03	.93	2.21	1.83	1.63	1.47	2.54	2.10	1.87	1.69
22-6P	2.16	1.79	1.59	1.44	2.27	1.87	1.66	1.51	1.35	1.12	.99	.90	2.16	1.79	1.59	1.44	2.49	2.06	1.83	1.66
22-7P	2.28	1.89	1.68	1.52	2.39	1.97	1.75	1.59	1.47	1.22	1.08	.98	2.28	1.89	1.68	1.52	2.61	2.16	1.92	1.74
22-7S	2.56	2.12	1.88	1.70	2.66	2.20	1.96	1.77	1.75	1.44	1.28	1.16	2.56	2.12	1.88	1.70	2.89	2.39	2.12	1.92
22-8P	1.85	1.53	1.36	1.23	1.95	1.62	1.44	1.30	1.04	.86	.76	.69	1.85	1.53	1.36	1.23	2.18	1.80	1.60	1.45
22-8S	2.34	1.93	1.71	1.55	2.44	2.02	1.79	1.62	1.52	1.26	1.12	1.01	2.34	1.93	1.71	1.55	2.66	2.20	1.96	1.77
22-9P	1.94	1.60	1.42	1.29	2.04	1.69	1.50	1.36	1.12	.93	.83	.75	1.94	1.60	1.42	1.29	2.27	1.87	1.66	1.51
22-9S	2.47	2.04	1.82	1.64	2.58	2.13	1.89	1.71	1.66	1.37	1.22	1.10	2.47	2.04	1.82	1.64	2.80	2.32	2.06	1.86
22-10P	1.94	1.60	1.42	1.29	2.04	1.69	1.50	1.36	1.12	.93	.83	.75	1.94	1.60	1.42	1.29	2.27	1.87	1.66	1.51
22-10S	2.02	1.67	1.49	1.35	2.13	1.76	1.56	1.41	1.21	1.00	.89	.81	2.02	1.67	1.49	1.35	2.35	1.94	1.73	1.56
22-11P	1.70	1.49	1.32	1.20	1.90	1.57	1.40	1.27	.99	.82	.72	.66	1.80	1.49	1.32	1.20	2.13	1.76	1.56	1.41
22-11S	1.94	1.60	1.42	1.29	2.04	1.69	1.50	1.36	1.12	.93	.83	.75	1.94	1.60	1.42	1.29	2.27	1.87	1.66	1.51
22-12P	2.35	1.94	1.73	1.56	2.46	2.03	1.80	1.63	1.54	1.27	1.13	1.02	2.35	1.94	1.73	1.56	2.68	2.22	1.97	1.78
22-12S	2.72	2.25	1.99	1.81	2.82	2.33	2.07	1.87	1.90	1.57	1.40	1.27	2.72	2.25	1.99	1.81	3.04	2.52	2.24	2.02
22-13P	2.18	1.80	1.60	1.45	2.28	1.89	1.68	1.52	1.37	1.13	1.00	.91	2.18	1.80	1.60	1.45	2.51	2.07	1.84	1.67

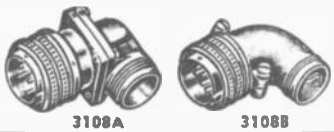
Amphenol "MS" Connectors

Shell Insert	MS/3100 A 1-9	MS/3100 A 10-49	MS/3100 A 50-99	MS/3100 A 100-999	MS/3101 A 1-9	MS/3101 A 10-49	MS/3101 A 50-99	MS/3101 A 100-999	MS/3102 A 1-9	MS/3102 A 10-49	MS/3102 A 50-99	MS/3102 A 100-999	MS/3106 A 1-9	MS/3106 A 10-49	MS/3106 A 50-99	MS/3106 A 100-999	MS/3106 B 1-9	MS/3106 B 10-49	MS/3106 B 50-99	MS/3106 B 100-999
22-13S	2.42	2.00	1.78	1.61	2.53	2.09	1.85	1.68	1.61	1.33	1.18	1.07	2.42	2.00	1.78	1.61	2.75	2.27	2.02	1.83
22-14P	2.60	2.15	1.91	1.73	2.70	2.23	1.98	1.79	1.78	1.47	1.31	1.18	2.60	2.15	1.91	1.73	2.92	2.42	2.15	1.94
22-14S	2.98	2.46	2.18	1.98	3.08	2.55	2.26	2.05	2.16	1.79	1.59	1.44	2.98	2.46	2.18	1.98	3.30	2.73	2.43	2.20
22-15P	2.32	1.92	1.70	1.54	2.42	2.00	1.78	1.61	1.51	1.24	1.10	1.00	2.32	1.92	1.70	1.54	2.65	2.19	1.94	1.76
22-15S	2.84	2.35	2.08	1.89	2.94	2.43	2.16	1.96	2.02	1.67	1.49	1.35	2.84	2.35	2.08	1.89	3.17	2.62	2.32	2.10
22-16P	2.42	2.00	1.78	1.61	2.53	2.09	1.85	1.68	1.61	1.33	1.18	1.07	2.42	2.00	1.78	1.61	2.75	2.27	2.02	1.83
22-16S	2.47	2.04	1.82	1.64	2.58	2.13	1.89	1.71	1.66	1.37	1.22	1.10	2.47	2.04	1.82	1.64	2.80	2.32	2.06	1.86
22-17P	2.32	1.92	1.70	1.54	2.42	2.00	1.78	1.61	1.51	1.24	1.10	1.00	2.32	1.92	1.70	1.54	2.65	2.19	1.94	1.76
22-17S	2.39	1.97	1.75	1.59	2.49	2.06	1.83	1.66	1.57	1.30	1.16	1.05	2.39	1.97	1.75	1.59	2.72	2.25	1.99	1.81
22-18P	2.16	1.79	1.59	1.44	2.27	1.87	1.66	1.51	1.35	1.12	.99	.90	2.16	1.79	1.59	1.44	2.49	2.06	1.83	1.66
22-18S	2.20	1.82	1.61	1.46	2.30	1.90	1.69	1.53	1.38	1.14	1.02	.92	2.20	1.82	1.61	1.46	2.53	2.09	1.85	1.68
22-19P	2.56	2.12	1.88	1.70	2.66	2.20	1.96	1.77	1.75	1.44	1.28	1.16	2.56	2.12	1.88	1.70	2.89	2.39	2.12	1.92
22-19S	2.60	2.15	1.91	1.73	2.70	2.23	1.98	1.79	1.78	1.47	1.31	1.18	2.60	2.15	1.91	1.73	2.92	2.42	2.15	1.94
22-20P	2.23	1.84	1.64	1.48	2.34	1.93	1.71	1.55	1.42	1.17	1.04	.94	2.23	1.84	1.64	1.48	2.56	2.12	1.88	1.70
22-20S	2.34	1.93	1.71	1.55	2.44	2.02	1.79	1.62	1.52	1.26	1.12	1.01	2.34	1.93	1.71	1.55	2.66	2.20	1.96	1.77
22-22P	2.61	2.16	1.92	1.74	2.72	2.25	1.99	1.81	1.80	1.49	1.32	1.20	2.61	2.16	1.92	1.74	2.94	2.43	2.16	1.96
22-22S	3.29	2.72	2.41	2.19	3.39	2.80	2.49	2.25	2.47	2.04	1.82	1.64	3.29	2.72	2.41	2.19	3.52	2.99	2.65	2.40
22-23P	2.51	2.07	1.84	1.67	2.61	2.16	1.92	1.74	1.70	1.40	1.24	1.13	2.51	2.07	1.84	1.67	2.84	2.35	2.08	1.89
22-23S	3.22	2.66	2.36	2.14	3.32	2.75	2.44	2.21	2.40	1.99	1.77	1.60	3.22	2.66	2.36	2.14	3.55	2.93	2.60	2.36
22-26P	2.40	1.99	1.77	1.60	2.51	2.07	1.84	1.67	1.59	1.32	1.17	1.06	2.40	1.99	1.77	1.60	2.73	2.26	2.01	1.82
22-26S	2.72	2.25	1.99	1.81	2.82	2.33	2.07	1.87	1.90	1.57	1.40	1.27	2.72	2.25	1.99	1.81	3.04	2.52	2.24	2.02
22-27P	2.47	2.04	1.82	1.64	2.58	2.13	1.89	1.71	1.66	1.37	1.22	1.10	2.47	2.04	1.82	1.64	2.80	2.32	2.06	1.86
22-27S	2.66	2.20	1.96	1.77	2.77	2.29	2.03	1.84	1.85	1.53	1.36	1.23	2.66	2.20	1.96	1.77	2.99	2.47	2.20	1.99
22-28P	2.37	1.96	1.74	1.58	2.47	2.04	1.82	1.64	1.56	1.29	1.14	1.04	2.37	1.96	1.74	1.58	2.70	2.23	1.98	1.79
22-28S	3.27	2.70	2.40	2.17	3.37	2.79	2.48	2.24	2.46	2.03	1.80	1.63	3.27	2.70	2.40	2.17	3.60	2.97	2.64	2.39
22-29P	2.58	2.13	1.89	1.71	2.68	2.22	1.97	1.78	1.76	1.46	1.30	1.17	2.56	2.13	1.89	1.71	2.91	2.40	2.13	1.93
22-29S	2.92	2.42	2.15	1.94	3.03	2.50	2.22	2.01	2.11	1.74	1.55	1.40	2.92	2.42	2.15	1.94	3.25	2.69	2.39	2.16
22-34P	2.18	1.80	1.60	1.45	2.28	1.89	1.68	1.52	1.37	1.13	1.00	.91	2.18	1.80	1.60	1.45	2.51	2.07	1.84	1.67
22-34S	2.27	1.87	1.66	1.51	2.37	1.96	1.74	1.58	1.45	1.20	1.07	.97	2.27	1.87	1.66	1.51	2.60	2.15	1.91	1.73
22-36P	11.33	9.37	8.32	7.53	11.44	9.45	8.39	7.60	10.52	8.69	7.72	6.99	11.33	9.37	8.32	7.53	11.44	9.64	8.56	7.75
22-36S	12.40	10.25	9.11	8.25	12.51	10.34	9.18	8.31	11.59	9.58	8.51	7.71	12.33	10.25	9.11	8.25	12.73	10.52	9.35	8.46
22-404P	11.33	9.37	8.32	7.53	11.44	9.45	8.39	7.60	10.52	8.69	7.72	6.99	11.33	9.37	8.32	7.53	11.66	9.64	8.56	7.75
22-404S	12.40	10.25	9.11	8.25	12.51	10.34	9.18	8.31	11.59	9.58	8.51	7.71	12.40	10.20	9.06	8.20	12.73	10.52	9.35	8.46
24-1P	2.77	2.29	2.03	1.84	2.79	2.30	2.04	1.85	1.82	1.50	1.33	1.21	2.82	2.33	2.07	1.87	3.41	2.82	2.50	2.27
24-1S	3.29	2.72	2.41	2.19	3.30	2.73	2.43	2.20	2.34	1.93	1.71	1.55	3.34	2.76	2.45	2.22	3.93	3.25	2.88	2.61
24-2P	2.63	2.17	1.93	1.75	2.65	2.19	1.94	1.76	1.68	1.39	1.23	1.12	2.68	2.22	1.97	1.78	3.27	2.70	2.40	2.17
24-2S	3.18	2.63	2.34	2.12	3.20	2.65	2.35	2.13	2.23	1.84	1.64	1.48	3.24	2.67	2.37	2.15	3.82	3.16	2.81	2.54
24-5P	2.92	2.42	2.15	1.94	2.94	2.43	2.16	1.96	1.97	1.63	1.45	1.31	2.98	2.46	2.18	1.98	3.56	2.95	2.62	2.37
24-5S	3.29	2.72	2.41	2.19	3.30	2.73	2.43	2.20	2.34	1.93	1.71	1.55	3.34	2.76	2.45	2.22	3.93	3.25	2.88	2.61
24-6P	2.73	2.26	2.01	1.82	2.75	2.27	2.02	1.83	1.64	1.47	1.31	1.18	2.79	2.30	2.04	1.85	3.37	2.79	2.48	2.24
24-6S	3.56	2.95	2.62	2.37	3.58	2.96	2.63	2.38	1.94	2.16	1.92	1.74	3.62	2.99	2.65	2.40	4.20	3.47	3.09	2.79
24-7P	3.04	2.25	2.24	2.02	3.06	2.53	2.25	2.04	2.85	1.73	1.54	1.39	3.10	2.56	2.27	2.06	3.68	3.05	2.71	2.45
24-7S	3.29	2.27	2.41	2.19	3.30	2.73	2.43	2.20	3.58	1.93	1.71	1.55	3.34	2.76	2.45	2.22	3.93	3.25	2.88	2.61
24-9P	2.60	2.15	1.91	1.73	2.61	2.16	1.92	1.74	2.30	1.36	1.21	1.09	2.65	2.19	1.94	1.76	3.24	2.67	2.37	2.15
24-9S	2.89	2.39	2.12	1.92	2.91	2.40	2.13	1.93	3.18	1.60	1.42	1.29	2.94	2.43	2.16	1.96	3.53	2.92	2.59	2.35
24-10P	3.81	3.15	2.79	2.53	3.82	3.16	2.81	2.54	2.44	2.36	2.10	1.90	3.86	3.19	2.83	2.56	4.45	3.68	3.26	2.96
24-10S	4.36	3.60	3.20	2.90	4.38	3.62	3.21	2.91	3.11	2.96	2.63	2.38	4.91	3.65	3.24	2.93	5.00	4.13	3.67	3.32
24-11P	3.25	2.69	2.39	2.18	3.27	2.70	2.40	2.17	1.42	1.90	1.69	1.53	3.30	2.73	2.43	2.20	3.89	3.22	2.86	2.59
24-11S	4.13	3.42	3.04	2.75	4.15	3.43	3.05	2.76	2.72	2.63	2.34	2.12	4.19	3.46	3.07	2.78	4.77	3.95	3.51	3.17
24-12P	3.39	2.80	2.49	2.25	3.41	2.82	2.50	2.27	1.97	2.02	1.79	1.62	3.44	2.85	2.53	2.29	4.03	3.33	2.96	2.68
24-12S	4.07	3.36	2.98	2.70	4.08	3.37	3.00	2.71	2.16	2.57	2.29	2.07	4.12	3.40	3.02	2.74	4.71	3.89	3.45	3.13
24-18P	2.37	1.96	1.74	1.58	2.39	1.97	1.75	1.59	1.76	1.17	1.04	.94	2.42	2.00	1.78	1.61	3.01	2.49	2.21	2.00
24-18S	3.67	3.03	2.69	2.44	3.68	3.05	2.71	2.45	1.80	2.25	1.99	1.81	3.72	3.07	2.73	2.47	4.31	3.56	3.16	2.86
24-19P	2.92	2.42	2.15	1.94	2.94	2.43	2.16	1.96	1.97	1.63	1.45	1.31	2.98	2.46	2.18	1.98	3.56	2.95	2.62	2.37
24-19S	3.11	2.57	2.29	2.07	3.13	2.59	2.30	2.08	2.15	1.79	1.59	1.44	3.17	2.62	2.32	2.10	3.75	3.10	2.76	2.50
24-20P	2.72	2.25	1.99	1.81	2.78	2.26	2.01	1.82	2.89	1.46	1.30	1.17	2.77	2.29	2.03	1.84	3.36	2.77	2.46	2.23
24-20S	2.75	2.27	2.02	1.83	2.77	2.29	2.03	1.84	2.82	1.49	1.32	1.20	2.80	2.32	2.06	1.86	3.39	2.80	2.49	2.25
24-21S	2.92	2.42	2.15	1.94	2.94	2.43	2.16	1.96	1.38	1.63	1.45	1.31	2.98	2.46	2.18	1.98	3.56	2.95	2.62	2.37
24-22P	3.10	2.56	2.27	2.06	3.13	2.57	2.29	2.07	1.45	1.77	1.57	1.43	3.15	2.60	2.31	2.09	3.74	3.09	2.74	2.48
24-22S	3.84	3.17	2.82	2.55	2.78	3.19	2.83	2.56	2.25	2.39	2.12	1.92	3.89	3.22	2.86	2.59	4.48	3.70	3.29	2.98
24-23S	3.77	3.12	2.77	2.51	2.77	3.13	2.78	2.52	2.66	2.33	2.07	1.87	3.82	3.16	2.81	2.54	4.41	3.65	3.24	2.93
24-27P	2.34	1.93	1.71	1.55	2.94	1.94	1.73	1.56	2.47	1.14	1.02	.92	2.39	1.97	1.75	1.59	2.98	2.46	2.18	1.98
24-27S	2.40	1.99	1.77	1.60	3.11	2.00	1.78	1.61	3.67	1.20	1.07	.97	2.46	2.03	1.80	1.63	3.04	2.52	2.24	2.02
24-28P	3.20	2.65	2.35	2.13	3.86	2.66	2.36	2.14	1.80	1.86	1.65	1.50	3.25	2.69	2.39	2.16	3.81	3.15	2.79	2.53
24-28S	3.82	2.99	2.65	2.40	3.79	3.00	2.67	2.42	2.44	2.20	1.96	1.77	3.67	3.03	2.69	2.44	4.26	3.52	3.12	2.83
24-768P	3.43	2.83	2.51	2.28	2.35	2.85	2.53	2.29	2.46	2.04	1.82	1.64	3.48	2.87	2.55	2.31	4.07	3.36	2.98	2.70
24-768S	4.62	3.82	3.39	3.07	2.42	3.83	3.40	3.08	2.09	3.03	2.69	2.44	4.67	3.86	3.43	3.11	5.26	4.35	3.86	3.50
24-835P	2.75	2.27	2.02	1.83	3.22	2.29	2.03	1.84	2.30	1.49	1.32	1.20	2.80	2.32	2.06	1.86	3.39	2.80	2.49	2.25
24-835S	3.39	2.80	2.49	2.25	3.63	2.82	2.50	2.27	2.20	2.02	1.79	1.62	3.44	2.85	2.53	2.29	4.03	3.33	2.96	2.68
28-1P	3.36	2.77	2.46	2.23	3.44	3.05	2.71	2.45	2.39	2.03	1.80	1.63	3.48	2.87	2.55	2.31	3.79	3.13	2.78	2.52
28-2P	2.99	2.47	2.20	1.99	4.64	2.75	2.44	2.21	2.09	1.73	1.54	1.39	3.13	2.59	2.30	2.08	3.43	2.83	2.51	2.28
28-2S	3.20	2.65	2.35	2.13	2.77	2.92	2.59	2.35	2.53	1.90	1.69	1.53	3.32	2.75	2.44	2.21	3.63	3.00	2.67	2.42
28-3P	3.10	2.56	2.27	2.06	3.41	2.83	2.51	2.28	2.73	1.82	1.61	1.46	3.22	2.66	2.36	2.14	3.53	2.92	2.59	2.35
28-3S	3.29	2.72	2.41	2.19	3.68	2.99	2.65	2.40	3.17	1.97	1.75	1.59	3.41	2.82	2.50	2.27	3.70	3.07	2.73	2.47
28-5P	2.99	2.47	2.20	1.99	3.32	2.75	2.44	2.21	2.20	1.73	1.54	1.39	3.11	2.57	2.29	2.07	3.43	2.83	2.51	2.28
28-5S	3.43	2.83	2.51	2.28	3.53	3.10	2.76	2.50	2.58	2.09	1.85	1.68	3.55	2.93	2.60	2.36	3.86	3.19	2.83	2.56
28-6P	3.63	3.00	2.67	2.42	3.43	3.27	2.91	2.63	2.09	2.26	2.01	1.82	3.75	3.10	2.76	2.50	4.07	3.36	2.98	2.70
28-6S	4.07	3.36	2.98	2.70	3.62	3.63	3.23	2.92	2.20	2.62	2.32	2.10	4.19	3.46	3.07	2.78	4.50	3.72	3.30	2.99
28-7P	3.10	2.56	2.27	2.06	3.32	2.83	2.51	2.28	2.27	1.82	1.61	1.46	3.22	2.66	2.36	2.14	3.53	2.92	2.59	2.35
28-7S	3.48	2.87	2.55	2.31	3.75	3.15	2.79	2.53	2.56	2.13	1.89	1.71	3.60	2.97	2.64	2.39	3.91	3.23	2.87	2.60
28-8P	2.99	2.47	2.20	1.99	3.96	2.75	2.44	2.21	......	1.73	1.54	1.39	3.11	2.57	2.29	2.07	3.43	2.83	2.51	2.28
28-8S	3.10	2.56	2.27	2.06	4.39	2.83	2.51	2.28	..	1.82	1.61	1.46	3.22	2.66	2.36	2.14	3.53	2.92	2.59	2.35
28-9P	3.17	2.62	2.32	2.10	3.43	2.89	2.57	2.32	....	1.87	1.66	1.51	3.29	2.72	2.41	2.19	3.80	2.97	2.64	2.39
28-9S	3.46	2.86	2.54	2.30	3.81	3.13	2.78	2.52	....	2.12	1.88	1.70	3.58	2.96	2.63	2.38	3.89	3.22	2.86	2.59

Amphenol "MS" Connectors

CONTINUED FROM PRECEDING PAGE

Shell Insert	MS/3100 A 1-9	MS/3100 A 10-49	MS/3100 A 50-99	MS/3100 A 100-999	MS/3101 A 1-9	MS/3101 A 10-49	MS/3101 A 50-99	MS/3101 A 100-999	MS/3102 A 1-9	MS/3102 A 10-49	MS/3102 A 50-99	MS/3102 A 100-999	MS/3106 A 1-9	MS/3106 A 10-49	MS/3106 A 50-99	MS/3106 A 100-999	MS/3106 B 1-9	MS/3106 B 10-49	MS/3106 B 50-99	MS/3106 B 100-999
28-10P	4.10	3.39	3.01	2.73	4.43	3.66	3.25	2.94	3.20	2.65	2.35	2.13	4.22	3.49	3.10	2.81	4.53	3.75	3.33	3.01
28-10S	5.17	4.28	3.80	3.44	5.50	4.55	4.04	3.66	4.27	3.53	3.14	2.84	5.29	4.38	3.89	3.52	5.61	4.63	4.11	3.73
28-11P	3.39	2.80	2.49	2.25	3.72	3.07	2.73	2.47	2.49	2.06	1.83	1.66	3.51	2.90	2.58	2.33	3.82	3.16	2.81	2.54
28-11S	4.12	3.40	3.02	2.74	4.45	3.68	3.26	2.96	3.22	2.66	2.36	2.14	4.24	3.50	3.11	2.82	4.55	3.76	3.34	3.02
28-12P	3.53	2.92	2.59	2.35	3.86	3.19	2.83	2.56	2.63	2.17	1.93	1.75	3.65	3.02	2.68	2.43	3.96	3.27	2.91	2.63
28-12S	4.12	3.40	3.02	2.74	4.45	3.68	3.26	2.96	3.22	2.66	2.36	2.14	4.24	3.50	3.11	2.82	4.55	3.76	3.34	3.02
28-13P	3.89	3.22	2.86	2.59	4.22	3.49	3.10	2.81	2.98	2.47	2.20	1.99	4.01	3.32	2.95	2.67	4.33	3.58	3.18	2.88
28-13S	4.52	3.73	3.31	3.00	4.84	4.00	3.56	3.22	3.62	2.99	2.65	2.40	4.64	3.83	3.40	3.08	4.95	4.09	3.63	3.29
28-14P	3.37	2.79	2.48	2.24	3.70	3.06	2.72	2.46	2.47	2.04	1.82	1.64	3.48	2.89	2.57	2.32	3.81	3.15	2.79	2.53
28-14S	3.70	3.06	2.72	2.46	4.03	3.33	2.96	2.68	2.80	2.32	2.06	1.86	3.82	3.16	2.81	2.54	4.13	3.42	3.04	2.75
28-15P	3.96	3.27	2.91	2.63	4.29	3.55	3.15	2.85	3.06	2.53	2.25	2.04	4.08	3.37	3.00	2.71	4.39	3.63	3.23	2.92
28-15S	4.57	3.78	3.35	3.04	4.90	4.05	3.59	3.25	3.67	3.03	2.69	2.44	4.69	3.88	3.44	3.12	5.00	4.13	3.67	3.32
28-16P	3.49	2.89	2.57	2.32	3.82	3.16	2.81	2.54	2.60	2.15	1.91	1.73	3.62	2.99	2.65	2.40	3.93	3.25	2.88	2.61
28-16S	3.53	2.92	2.59	2.35	3.86	3.19	2.83	2.56	2.63	2.17	1.93	1.75	3.65	3.02	2.68	2.43	3.96	3.27	2.91	2.63
28-17P	2.96	2.45	2.17	1.97	3.29	2.72	2.41	2.19	2.06	1.70	1.51	1.37	3.08	2.55	2.26	2.05	3.39	2.80	2.49	2.25
28-17S	3.17	2.62	2.32	2.10	3.49	2.89	2.57	2.32	2.27	1.87	1.66	1.51	3.29	2.72	2.41	2.19	3.60	2.97	2.64	2.39
28-18P	2.89	2.37	2.11	1.91	3.20	2.65	2.35	2.13	1.95	1.62	1.44	1.30	2.99	2.47	2.20	1.99	3.30	2.73	2.43	2.20
28-18S	3.13	2.59	2.30	2.08	3.46	2.86	2.54	2.30	2.23	1.84	1.64	1.48	3.25	2.69	2.39	2.16	3.56	2.95	2.62	2.37
28-19P	2.91	2.40	2.13	1.93	3.24	2.67	2.37	2.15	2.01	1.66	1.47	1.33	3.03	2.50	2.22	2.01	3.32	2.76	2.45	2.22
28-19S	3.53	2.92	2.59	2.35	3.86	3.19	2.83	2.56	2.63	2.17	1.93	1.75	3.65	3.02	2.68	2.43	3.96	3.27	2.91	2.63
28-20P	3.43	2.83	2.51	2.28	3.75	3.10	2.76	2.50	2.53	2.09	1.85	1.68	3.55	2.93	2.60	2.36	3.86	3.19	2.83	2.56
28-20S	3.81	3.15	2.79	2.53	4.13	3.42	3.04	2.75	2.91	2.40	2.13	1.93	3.93	3.25	2.88	2.61	4.24	3.50	3.11	2.82
28-21P	4.08	3.37	3.00	2.71	4.41	3.65	3.24	2.93	3.10	2.63	2.34	2.12	4.20	3.47	3.09	2.79	4.52	3.73	3.31	3.00
28-21S	4.64	3.83	3.40	3.08	4.97	4.10	3.64	3.30	3.74	3.09	2.74	2.48	4.76	3.93	3.49	3.16	5.07	4.19	3.72	3.37
28-22P	4.01	3.32	2.95	2.67	4.34	3.59	3.19	2.89	3.11	2.57	2.29	2.07	4.13	3.42	3.04	2.75	4.45	3.68	3.26	2.96
32-4S	3.88	3.20	2.84	2.58	4.17	3.45	3.06	2.77	2.89	2.39	2.12	1.92	4.60	3.80	3.38	3.06	4.64	3.83	3.40	3.08
32-5P	4.24	3.50	3.11	2.82	4.53	3.75	3.33	3.01	3.25	2.69	2.39	2.16	4.97	4.10	3.64	3.30	5.00	4.13	3.67	3.32
32-5S	4.60	3.88	3.44	3.12	4.98	4.12	3.66	3.31	3.70	3.06	2.72	2.46	5.41	4.48	3.98	3.60	5.45	4.50	4.00	3.62
32-6P	4.57	3.78	3.35	3.04	4.86	4.02	3.57	3.23	3.58	2.96	2.63	2.38	5.29	4.38	3.89	3.52	5.33	4.40	3.91	3.54
32-6S	6.49	5.36	4.76	4.31	6.78	5.61	4.98	4.51	5.50	4.55	4.04	3.66	7.21	5.96	5.30	4.80	7.25	5.99	5.32	4.82
32-7P	4.33	3.58	3.18	2.88	4.62	3.82	3.39	3.07	3.34	2.76	2.45	2.22	5.05	4.18	3.71	3.36	5.09	4.20	3.73	3.38
32-7S	5.50	4.55	4.04	3.66	5.80	4.79	4.25	3.85	4.52	3.73	3.31	3.00	6.23	5.15	4.57	4.14	6.26	5.18	4.60	4.16
32-8P	4.72	3.90	3.47	3.14	5.02	4.15	3.68	3.34	3.74	3.09	2.74	2.48	5.45	4.50	4.00	3.62	5.48	4.53	4.03	3.65
32-8S	4.79	3.96	3.52	3.19	5.09	4.20	3.73	3.38	3.81	3.15	2.79	2.53	5.52	4.56	4.05	3.67	5.55	4.59	4.08	3.69
32-9P	4.05	3.35	2.97	2.69	4.34	3.59	3.19	2.89	3.06	2.53	2.25	2.04	4.77	3.95	3.51	3.17	4.81	3.98	3.53	3.20
32-9S	4.62	3.82	3.39	3.07	4.99	4.06	3.61	3.27	3.63	3.00	2.67	2.42	5.35	4.42	3.92	3.55	5.38	4.45	3.95	3.58
32-12P	3.53	2.92	2.59	2.35	3.82	3.16	2.81	2.54	2.54	2.10	1.87	1.69	4.26	3.52	3.12	2.83	4.29	3.55	3.15	2.85
32-12S	4.39	3.63	3.23	2.92	4.69	3.88	3.44	3.12	3.41	2.82	2.50	2.27	5.12	4.23	3.76	3.40	5.16	4.26	3.78	3.43
32-13P	3.91	3.23	2.87	2.60	4.20	3.47	3.09	2.79	2.92	2.42	2.15	1.94	4.64	3.83	3.40	3.08	4.67	3.86	3.43	3.11
32-13S	4.46	3.69	3.28	2.97	4.76	3.93	3.49	3.16	3.48	2.87	2.55	2.31	5.19	4.29	3.81	3.45	5.22	4.32	3.84	3.47
32-15P	5.36	4.43	3.94	3.57	5.66	4.68	4.15	3.76	4.38	3.62	3.21	2.91	6.09	5.03	4.47	4.05	6.12	5.06	4.50	4.07
32-15S	5.90	4.88	4.33	3.92	6.19	5.12	4.55	4.12	4.91	4.06	3.61	3.27	6.63	5.48	4.86	4.40	6.66	5.51	4.89	4.43
32-17P	5.31	4.39	3.90	3.53	5.61	4.63	4.11	3.73	4.33	3.58	3.18	2.88	6.04	4.99	4.43	4.01	6.07	5.02	4.46	4.04
32-17S	5.81	4.80	4.27	3.86	6.11	5.05	4.48	4.06	4.83	3.99	3.54	3.21	6.54	5.41	4.80	4.35	6.57	5.43	4.83	4.37
32-101P	9.98	8.25	7.33	6.64	10.28	8.49	7.54	6.83	9.00	7.44	6.60	5.98	10.71	8.85	7.86	7.12	10.74	8.88	7.89	7.14
32-102P	7.35	6.08	5.40	4.89	7.65	6.32	5.61	5.08	6.37	5.26	4.67	4.23	8.08	6.68	5.93	5.37	8.11	6.71	5.96	5.39
32-102S	8.55	7.06	6.27	5.68	8.84	7.31	6.49	5.88	7.56	6.25	5.55	5.03	9.27	7.66	6.81	6.16	9.31	7.69	6.83	6.19
32-414P	6.54	5.41	4.80	4.35	6.83	5.65	5.02	4.54	5.55	4.59	4.08	3.69	7.27	6.01	5.33	4.83	7.30	6.03	5.36	4.85
32-414S	8.79	7.22	6.41	5.81	9.03	7.46	6.63	6.00	7.75	6.41	5.69	5.15	9.46	7.82	6.95	6.29	9.50	7.85	6.97	6.31
36-1S	5.59	4.62	4.10	3.71	5.73	4.73	4.20	3.81	4.12	3.40	3.02	2.74	6.18	5.11	4.53	4.11	6.30	5.21	4.62	4.19
36-2S	7.94	6.56	5.83	5.28	8.08	6.68	5.93	5.37	6.43	5.35	4.75	4.30	8.53	7.05	6.26	5.67	8.65	7.15	6.35	5.75
36-3P	6.40	5.29	4.70	4.26	6.54	5.41	4.80	4.35	4.93	4.08	3.62	3.28	6.99	5.78	5.13	4.65	7.11	5.88	5.22	4.73
36-3S	8.20	6.78	6.02	5.45	8.34	6.89	6.12	5.54	6.73	5.56	4.94	4.47	8.79	7.26	6.45	5.84	8.91	7.36	6.54	5.92
36-4P	6.37	5.26	4.67	4.23	6.50	5.38	4.78	4.32	4.90	4.05	3.59	3.25	6.95	5.75	5.11	4.62	7.08	5.85	5.19	4.70
36-4S	7.53	6.22	5.52	5.00	7.66	6.33	5.63	5.09	6.06	5.01	4.45	4.03	8.11	6.71	5.96	5.39	8.23	6.81	6.05	5.47
36-6P	7.79	6.44	5.72	5.18	7.92	6.55	5.82	5.27	6.31	5.22	4.64	4.20	8.37	6.92	6.15	5.57	8.49	7.02	6.24	5.65
36-7P	6.14	5.08	4.51	4.08	6.28	5.19	4.61	4.17	4.67	3.86	3.43	3.11	6.73	5.56	4.94	4.47	6.85	5.66	5.03	4.55
36-7S	6.78	5.61	4.98	4.51	6.92	5.72	5.08	4.60	5.31	4.39	3.90	3.53	7.37	6.09	5.41	4.90	7.49	6.19	5.50	4.98
36-8P	5.95	4.92	4.37	3.96	6.09	5.03	4.47	4.05	4.48	3.70	3.29	2.98	6.54	5.41	4.80	4.35	6.66	5.51	4.89	4.43
36-8S	6.37	5.26	4.67	4.23	6.50	5.38	4.78	4.32	4.90	4.05	3.59	3.25	6.95	5.75	5.11	4.62	7.08	5.85	5.19	4.70
36-9P	7.08	5.85	5.19	4.70	7.21	5.96	5.30	4.80	5.81	4.63	4.11	3.73	7.66	6.33	5.63	5.09	7.79	6.44	5.72	5.18
36-9S	8.58	7.09	6.30	5.70	8.72	7.21	6.40	5.80	7.11	5.88	5.22	4.73	9.17	7.58	6.73	6.10	9.29	7.68	6.82	6.18
36-10P	5.86	4.85	4.31	3.90	6.00	4.96	4.41	3.99	4.39	3.63	3.23	2.92	6.44	5.32	4.72	4.28	6.57	5.43	4.83	4.37
36-10S	6.33	5.23	4.65	4.21	6.47	5.35	4.75	4.30	4.86	4.02	3.57	3.23	6.92	5.72	5.08	4.60	7.04	5.82	5.17	4.68
36-14P	7.82	6.46	5.74	5.20	7.96	6.58	5.84	5.29	6.35	5.25	4.66	4.22	8.41	6.95	6.17	5.59	8.53	7.05	6.26	5.67
36-14S	8.37	6.92	6.15	5.57	8.51	7.04	6.25	5.66	6.90	5.71	5.07	4.59	8.96	7.41	6.58	5.96	9.08	7.51	6.67	6.04
36-15P	4.98	4.12	3.66	3.31	5.12	4.23	3.76	3.40	3.51	2.90	2.58	2.33	5.57	4.60	4.09	3.70	5.69	4.70	4.18	3.78
36-15S	5.47	4.52	4.01	3.63	5.47	4.52	4.01	3.63	3.97	3.30	2.93	2.66	6.06	5.01	4.45	4.03	6.18	5.11	4.53	4.11
36-403P	7.08	5.85	5.19	4.70	7.27	5.96	5.30	4.80	5.61	4.63	4.11	3.73	7.66	6.33	5.63	5.09	7.79	6.44	5.72	5.18
36-403S	9.50	7.85	6.97	6.31	9.84	7.97	7.07	6.41	8.03	6.64	5.89	5.34	10.09	8.34	7.40	6.70	10.21	8.44	7.49	6.79
36-404P	8.22	6.79	6.03	5.46	8.36	6.91	6.13	5.55	6.75	5.58	4.95	4.49	8.81	7.28	6.46	5.85	8.93	7.38	6.55	5.93
36-404S	9.72	8.04	7.14	6.46	9.86	8.15	7.24	6.56	8.25	6.82	6.06	5.49	10.31	8.52	7.57	6.85	10.43	8.62	7.66	6.93
36-405P	9.71	8.02	7.12	6.45	9.84	8.14	7.23	6.54	8.23	6.81	6.05	5.47	10.29	8.51	7.56	6.84	10.41	8.61	7.65	6.92
36-405S	12.18	10.07	8.94	8.10	12.32	10.18	9.04	8.19	10.71	8.85	7.86	7.12	12.77	10.55	9.37	8.49	12.89	10.65	9.46	8.57
36-406P	8.62	7.12	6.32	5.73	8.75	7.24	6.43	5.82	7.14	5.91	5.25	4.75	9.20	7.61	6.76	6.12	9.32	7.71	6.85	6.20
40-1P	6.16	5.09	4.52	4.09	6.26	5.18	4.60	4.16	4.24	3.50	3.11	2.82	8.10	6.69	5.94	5.38	....	....	....	....
40-1S	7.70	6.36	5.65	5.12	7.80	6.45	5.73	5.19	5.78	4.78	4.24	3.84	9.64	7.97	7.07	6.41	....	....	....	....
40-5P	10.47	8.65	7.68	6.96	10.57	8.74	7.76	7.03	8.55	7.06	6.27	5.68	12.40	10.25	9.11	8.25	....	....	....	....
40-5S	13.00	10.83	9.61	8.71	13.20	10.91	9.69	8.77	11.18	9.24	8.20	7.43	15.03	12.43	11.04	9.99	....	....	....	....
40-9P	8.22	6.79	6.03	5.46	8.32	6.88	6.11	5.53	6.35	5.21	4.62	4.19	10.16	8.39	7.45	6.75	....	....	....	....
40-9S	11.18	9.24	8.20	7.43	11.28	9.32	8.28	7.50	9.18	7.65	6.79	6.15	13.11	10.84	9.63	8.72	....	....	....	....
40-10P	11.69	9.67	8.59	7.77	11.80	9.75	8.66	7.84	9.77	8.08	7.18	6.50	13.63	11.27	10.01	9.06	....	....	....	....
40-10S	13.49	11.15	9.91	8.97	13.60	11.24	9.98	9.04	11.57	9.57	8.50	7.69	15.43	12.76	11.33	10.26	....	....	....	....



3108A 3108B

Shell Insert	MS/3108 A 1-9	A 10-49	A 50-99	A 100-999	B 1-9	B 10-49	B 50-99	B 100-999
8S-1P	1.75	1.44	1.28	1.16	. . .	.	. . .	.
8S-1S	1.75	1.44	1.28	1.16				.
10S-2P	2.23	1.84	1.64	1.48	1.16	.96	.85	.77
10S-2S	2.25	1.86	1.65	1.50	1.18	.97	.86	.78
10SL-3P								
10SL-3S	2.21	1.83	1.63	1.47	1.16	.96	.85	.77
10SL-4P								
10SL-4S	2.20	1.82	1.61	1.46	1.12	.93	.83	.75
12S-1P	2.63	2.17	1.93	1.75	1.47	1.22	1.08	.98
12S-1S	2.65	2.19	1.94	1.76	1.47	1.23	1.09	.99
12S-3P	2.49	2.06	1.83	1.66	1.35	1.12	.99	.90
12S-3S	2.53	2.09	1.85	1.68	1.30	1.14	1.02	.92
12S-4P	2.54	2.10	1.87	1.69	1.40	1.16	1.03	.93
12S-4S	2.54	2.10	1.87	1.69	3.79	3.13	2.78	2.52
12S-6P	4.93	4.08	3.62	3.28	4.01	3.13	2.78	2.52
12S-6S	5.16	4.26	3.78	3.43	.	3.32	2.95	2.67
12SL-844P		......						....
12SL-844S	4.01	3.32	2.95	2.67	1.45	. . .	..	
12-5P	2.47	2.04	1.82	1.64	1.56	1.20	1.07	.97
12-5S	2.58	2.13	1.89	1.71	1.33	1.29	1.14	1.04
14S-1P	2.46	2.03	1.80	1.63	1.35	1.10	.98	.89
14S-1S	2.47	2.04	1.82	1.64	1.31	1.12	.99	.90
14S-2P	2.44	2.02	1.79	1.62	1.40	1.09	.97	.87
14S-2S	2.53	2.09	1.85	1.68	1.26	1.16	1.03	.93
14S-4P	2.39	1.97	1.75	1.59	1.30	1.04	.93	.84
14S-4S	2.42	2.00	1.78	1.61	1.44	1.07	.95	.86
14S-5P	2.56	2.12	1.88	1.70	1.49	1.19	1.05	.95
14S-5S	2.61	2.16	1.92	1.74	1.49	1.23	1.09	.99
14S-6P	2.61	2.16	1.92	1.74	1.52	1.23	1.09	.99
14S-6S	2.65	2.19	1.94	1.76	1.33	1.26	1.12	1.01
14S-7P	2.46	2.03	1.80	1.63	1.35	1.10	.98	.89
14S-7S	2.47	2.04	1.82	1.64	1.26	1.12	.99	.90
14S-9P	2.39	1.97	1.75	1.59	1.28	1.04	.93	.84
14S-9S	2.40	1.99	1.77	1.60	1.44	1.06	.94	.85
14S-10P	2.56	2.12	1.88	1.70	1.54	1.19	1.05	.95
14S-10S	2.66	2.20	1.96	1.77	1.61	1.27	1.13	1.02
16S-1P	3.15	2.60	2.31	2.09	1.76	1.33	1.18	1.07
16S-1S	3.30	2.73	2.43	2.20	1.35	1.46	1.30	1.17
16S-3P	2.89	2.39	2.12	1.92	1.44	1.12	.99	.90
16S-3S	2.98	2.46	2.18	1.98	1.44	1.19	1.05	.95
16S-4P	2.98	2.46	2.18	1.98	1.49	1.19	1.05	.95
16S-4S	3.03	2.50	2.22	2.01	1.52	1.23	1.09	.99
16S-5P	3.06	2.53	2.25	2.04	1.56	1.26	1.12	1.01
16S-5S	3.10	2.56	2.27	2.06	1.56	1.29	1.14	1.04
16S-6P	3.10	2.56	2.27	2.06	1.56	1.29	1.14	1.04
16S-6S	3.10	2.56	2.27	2.06	1.57	1.29	1.14	1.04
16S-8P	3.11	2.57	2.29	2.07	1.63	1.30	1.16	1.05
16S-8S	3.17	2.62	2.32	2.10	1.63	1.34	1.19	1.08
16S-15P	3.17	2.62	2.32	2.10	1.68	1.34	1.19	1.08
16S-15S	3.22	2.66	2.36	2.14	1.75	1.39	1.23	1.12
16-2P	2.84	2.35	2.08	1.89	1.89	1.44	1.28	1.16
16-2S	2.98	2.46	2.18	1.98	2.06	1.56	1.38	1.25
16-7P	3.15	2.60	2.31	2.09	2.32	1.70	1.51	1.37
16-7S	3.41	2.82	2.50	2.27	1.95	1.92	1.70	1.54
16-9P	3.04	2.52	2.24	2.02	2.16	1.62	1.44	1.30
16-9S	3.25	2.69	2.39	2.16	1.90	1.79	1.59	1.44
16-10P	2.99	2.47	2.20	1.99	2.09	1.57	1.40	1.27
16-10S	3.18	2.63	2.34	2.12	1.80	1.73	1.54	1.39
16-11P	2.89	2.39	2.12	1.92	1.99	1.49	1.32	1.20
16-11S	3.08	2.55	2.26	2.05	2.02	1.64	1.46	1.32
16-12P	3.11	2.57	2.29	2.07	3.96	1.67	1.49	1.35
16-13P	5.05	4.18	3.71	3.36	4.53	3.27	2.91	2.63
16-13S	5.62	4.65	4.13	3.74	2.21	3.75	3.33	3.01
18-1P	3.62	2.99	2.65	2.40	2.37	1.83	1.63	1.47
18-1S	3.77	3.12	2.77	2.51	1.83	1.96	1.74	1.58
18-3P	3.24	2.67	2.37	2.15	2.18	1.52	1.35	1.22
18-3S	3.58	2.96	2.63	2.38	1.85	1.80	1.60	1.45
18-4P	3.25	2.69	2.39	2.16	1.97	1.53	1.36	1.23
18-4S	3.37	2.79	2.48	2.24	1.78	1.63	1.45	1.31
16-5P	3.16	2.63	2.34	2.12	1.97	1.47	1.31	1.18
18-5S	3.37	2.79	2.48	2.24	1.92	1.63	1.45	1.31
18-6P	3.32	2.75	2.44	2.21	2.21	1.59	1.41	1.28
18-6S	3.62	2.99	2.65	2.40	1.83	1.83	1.63	1.47
18-7P	3.24	2.67	2.37	2.15	2.21	1.52	1.35	1.22
18-8P	3.82	2.99	2.65	2.40	2.34	1.83	1.63	1.47
18-8S	3.74	3.09	2.74	2.48	2.11	1.93	1.71	1.55
18-9P	3.51	2.90	2.58	2.33	....	1.74	1.55	1.40

Shell Insert	MS/3108 A 1-9	A 10-49	A 50-99	A 100-999	B 1-9	B 10-49	B 50-99	B 100-999
18-9S	3.65	3.02	2.68	2.43	2.25	1.86	1.65	1.50
18-10P	3.55	2.93	2.60	2.36	2.15	1.77	1.57	1.43
18-10S	3.74	3.09	2.74	2.48	2.34	1.93	1.71	1.55
18-11P	3.55	2.93	2.60	2.36	2.15	1.77	1.57	1.43
18-11S	3.62	2.99	2.65	2.40	2.21	1.83	1.63	1.47
18-12P	3.43	2.83	2.51	2.28	2.02	1.67	1.49	1.35
18-12S	3.55	2.93	2.60	2.36	2.15	1.77	1.57	1.43
18-13P	3.56	2.95	2.62	2.37	2.16	1.79	1.59	1.44
18-16P	3.37	2.79	2.48	2.24	1.97	1.63	1.45	1.31
18-16S	3.85	3.02	2.68	2.43	2.25	1.86	1.65	1.50
18-18P	3.77	3.12	2.77	2.51	2.37	1.96	1.74	1.58
18-18S	3.75	3.13	2.78	2.52	2.39	1.97	1.75	1.59
18-19P	3.77	3.53	3.14	2.84	2.87	2.37	2.11	1.91
18-19S	4.25	3.15	2.79	2.53	2.40	1.99	1.77	1.60
18-20P	3.78	2.77	2.46	2.23	1.95	1.62	1.44	1.30
18-20S	3.34	2.86	2.54	2.30	2.06	1.70	1.51	1.37
18-22P	3.44	2.67	2.37	2.15	1.83	1.52	1.35	1.22
18-22S	3.36	2.77	2.46	2.23	1.95	1.62	1.44	1.30
18-29P	3.37	2.79	2.48	2.24	1.97	1.63	1.45	1.31
18-29S	3.37	2.79	2.48	2.24	1.97	1.63	1.45	1.31
20-2P	4.45	3.68	3.26	2.96	2.94	2.43	2.16	1.96
20-2S	4.69	3.88	3.44	3.12	3.18	2.63	2.34	2.12
20-3P	3.86	3.19	2.83	2.56	2.35	1.94	1.73	1.56
20-3S	4.41	3.65	3.24	2.93	2.91	2.40	2.13	1.93
20-4P	3.96	3.27	2.91	2.63	2.46	2.03	1.80	1.63
20-4S	4.22	3.49	3.10	2.81	2.72	2.25	1.99	1.81
20-5P	3.93	3.25	2.88	2.61	2.42	2.00	1.78	1.61
20-5S	4.08	3.37	3.00	2.71	2.58	2.13	1.89	1.71
20-6P	3.75	3.10	2.76	2.50	2.25	1.86	1.65	1.50
20-6S	3.79	3.13	2.78	2.52	2.28	1.89	1.68	1.52
28-7P	3.96	3.27	2.91	2.63	2.46	2.03	1.80	1.63
20-7S	4.12	3.40	3.02	2.74	2.61	2.16	1.92	1.74
20-8P	4.22	3.49	3.10	2.81	2.72	2.25	1.99	1.81
20-8S	4.57	3.78	3.35	3.04	3.06	2.53	2.25	2.04
20-9P	4.10	3.39	3.01	2.73	2.60	2.15	1.91	1.73
20-9S	4.13	3.42	3.04	2.75	2.63	2.17	1.93	1.75
20-11P	4.46	3.69	3.28	2.97	2.96	2.45	2.17	1.97
20-11S	5.73	4.73	4.20	3.81	4.22	3.49	3.10	2.81
20-12P	3.96	3.27	2.91	2.63	2.46	2.03	1.80	1.63
20-15P	4.15	3.43	3.05	2.76	2.65	2.19	1.94	1.76
20-15S	4.90	4.05	3.59	3.25	3.39	2.80	2.49	2.25
20-16P	4.17	3.45	3.06	2.77	2.66	2.20	1.96	1.77
20-16S	4.31	3.56	3.16	2.86	2.80	2.32	2.06	1.86
20-17P	4.13	3.42	3.04	2.75	2.63	2.17	1.93	1.75
20-17S	4.58	3.79	3.37	3.05	3.08	2.55	2.26	2.05
20-18P	4.26	3.52	3.12	2.83	2.75	2.27	2.02	1.83
20-18S	4.48	3.70	3.29	2.98	2.94	2.43	2.16	1.96
20-22P	4.46	3.69	3.28	2.97	2.96	2.45	2.17	1.97
20-22S	4.90	4.05	3.59	3.25	3.39	2.80	2.49	2.25
20-23P	4.08	3.37	3.00	2.71	2.58	2.13	1.89	1.71
20-23S	4.27	3.53	3.14	2.84	2.77	2.29	2.03	1.84
20-24P	4.13	3.42	3.04	2.75	2.63	2.17	1.93	1.75
20-24S	4.64	3.83	3.40	3.08	3.13	2.59	2.30	2.08
20-27P	4.22	3.49	3.10	2.81	2.72	2.25	1.99	1.81
20-27S	4.43	3.66	3.25	2.94	2.92	2.42	2.15	1.94
20-29P	4.39	3.63	3.23	2.92	2.89	2.39	2.12	1.92
20-29S	4.65	3.85	3.42	3.09	3.15	2.60	2.31	2.09
20-33P	4.38	3.62	3.21	2.91	2.87	2.37	2.11	1.91
20-33S	4.45	3.68	3.26	2.96	2.94	2.43	2.16	1.96
22-1P	4.17	3.45	3.06	2.77	2.58	2.13	1.89	1.71
22-1S	4.55	3.76	3.34	3.02	2.96	2.45	2.17	1.97
22-2P	4.34	3.59	3.19	2.89	2.75	2.27	2.02	1.83
22-2S	4.84	4.00	3.56	3.22	3.25	2.69	2.39	2.16
22-4P	4.43	3.66	3.25	2.94	2.84	2.35	2.08	1.89
22-4S	4.74	3.92	3.48	3.15	3.15	2.60	2.31	2.09
22-5P	4.27	3.53	3.14	2.84	2.68	2.22	1.97	1.78
22-5S	4.29	3.55	3.15	2.85	2.70	2.23	1.98	1.79
22-6P	4.24	3.50	3.11	2.82	2.65	2.19	1.94	1.76
22-7P	4.36	3.60	3.20	2.90	2.77	2.29	2.03	1.84
22-7S	4.64	3.83	3.40	3.08	3.04	2.52	2.24	2.02
22-8P	3.93	3.25	2.88	2.61	2.34	1.93	1.71	1.55
22-8S	4.41	3.65	3.24	2.93	2.82	2.33	2.07	1.87
22-9P	4.01	3.32	2.95	2.67	2.42	2.00	1.78	1.61
22-9S	4.55	3.76	3.34	3.02	2.96	2.45	2.17	1.97
22-10P	4.01	3.32	2.95	2.67	2.42	2.00	1.78	1.61
22-10S	4.10	3.39	3.01	2.73	2.51	2.07	1.84	1.67
22-11P	3.88	3.20	2.84	2.58	2.28	1.89	1.68	1.52
22-11S	4.01	3.32	2.95	2.67	2.42	2.00	1.78	1.61
22-12P	4.43	3.66	3.25	2.94	2.84	2.35	2.08	1.89
22-12S	4.79	3.96	3.52	3.19	3.20	2.65	2.35	2.13
22-13P	4.26	3.52	3.12	2.83	2.66	2.20	1.96	1.77

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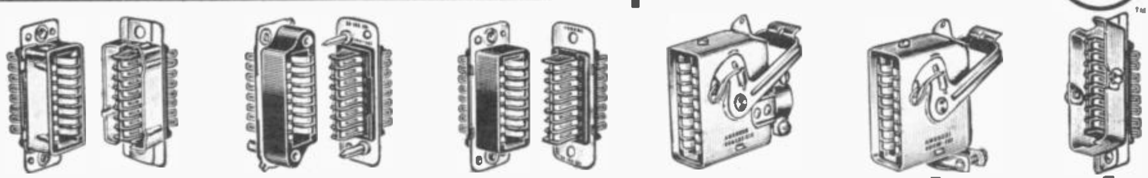
Amphenol "MS" Connectors

CONTINUED FROM PRECEDING PAGE

Shell Insert	MS/3108 A 1-9	A 10-49	A 50-99	A 100-999	B 1-99	B 10-49	B 50-99	B 100-999
22-13S	4.50	3.72	3.30	2.99	2.91	2.40	2.13	1.93
22-14P	4.67	3.86	3.43	3.11	3.08	2.55	2.26	2.05
22-14S	5.05	4.18	3.71	3.36	3.46	2.86	2.54	2.30
22-15P	4.39	3.63	3.23	2.92	2.80	2.32	2.06	1.86
22-15S	4.91	4.06	3.61	3.27	3.32	2.75	2.44	2.21
22-16P	4.50	3.72	3.30	2.99	2.91	2.40	2.13	1.93
22-16S	4.55	3.76	3.34	3.02	2.96	2.45	2.17	1.97
22-17P	4.37	3.63	3.23	2.92	2.80	2.32	2.06	1.86
22-17S	4.46	3.69	3.28	2.97	2.87	2.37	2.11	1.91
22-18P	4.24	3.50	3.11	2.82	2.65	2.19	1.94	1.76
22-18S	4.27	3.53	3.14	2.84	2.68	2.22	1.97	1.78
22-19P	4.64	3.83	3.40	3.08	3.04	2.52	2.24	2.02
22-19S	4.67	3.86	3.43	3.11	3.08	2.55	2.26	2.05
22-20P	4.31	3.56	3.16	2.86	2.72	2.25	1.99	1.81
22-20S	4.41	3.65	3.24	2.93	2.82	2.33	2.07	1.87
22-22P	4.69	3.88	3.44	3.12	3.10	2.56	2.27	2.06
22-22S	5.36	4.43	3.94	3.57	3.77	3.12	2.77	2.51
22-23P	4.58	3.79	3.37	3.05	2.99	2.47	2.20	1.99
22-23S	5.29	4.38	3.89	3.52	3.70	3.06	2.72	2.46
22-26P	4.48	3.70	3.29	2.98	2.89	2.39	2.12	1.92
22-26S	4.79	3.96	3.52	3.19	3.20	2.65	2.35	2.13
22-27P	4.55	3.76	3.34	3.02	2.96	2.45	2.17	1.97
22-27S	4.74	3.92	3.48	3.15	3.15	2.60	2.31	2.09
22-28P	4.45	3.68	3.26	2.96	2.85	2.36	2.10	1.90
22-28S	5.35	4.42	3.92	3.55	3.75	3.10	2.76	2.50
22-29P	4.65	3.85	3.42	3.09	3.06	2.53	2.25	2.04
22-29S	5.00	4.13	3.67	3.32	3.41	2.82	2.50	2.27
22-34P	4.26	3.52	3.12	2.83	2.66	2.20	1.96	1.77
22-34S	4.34	3.59	3.19	2.89	2.75	2.27	2.02	1.83
22-36P	13.41	11.08	9.84	8.91	11.82	9.77	8.67	7.85
22-36S	14.48	11.97	10.63	9.63	12.89	10.65	9.46	8.57
22-404P	13.41	11.08	9.84	8.91	11.82	9.77	8.67	7.85
22-404S	14.48	11.97	10.63	9.63	12.89	10.65	9.46	8.57
24-1P	5.05	4.18	3.71	3.36	3.11	2.57	2.29	2.07
24-1S	5.57	4.60	4.09	3.70	3.63	3.00	2.67	2.42
24-2P	4.91	4.06	3.61	3.27	2.96	2.46	2.18	1.98
24-2S	5.47	4.52	4.01	3.63	3.53	2.92	2.59	2.35
24-5P	5.21	4.30	3.82	3.46	3.27	2.70	2.40	2.17
24-5S	5.57	4.60	4.09	3.70	3.63	3.00	2.67	2.42
24-6P	5.02	4.15	3.68	3.34	3.08	2.55	2.26	2.05
24-6S	5.85	4.83	4.29	3.89	3.91	3.23	2.87	2.60
24-7P	5.35	4.40	3.91	3.54	3.39	2.80	2.49	2.25
24-7S	5.57	4.60	4.09	3.70	3.63	3.00	2.67	2.42
24-9P	4.88	4.03	3.58	3.24	2.94	2.43	2.16	1.96
24-9S	5.17	4.28	3.80	3.44	3.24	2.67	2.37	2.15
24-10P	6.09	5.03	4.47	4.05	4.15	3.43	3.05	2.76
24-10S	6.64	5.49	4.88	4.42	4.71	3.89	3.45	3.13
24-11P	5.54	4.58	4.06	3.68	3.60	2.97	2.64	2.39
24-11S	6.42	5.31	4.71	4.27	4.48	3.70	3.29	2.98
24-12P	5.67	4.69	4.17	3.77	3.74	3.09	2.74	2.48
24-12S	6.35	5.25	4.66	4.22	4.41	3.65	3.24	2.93
24-18P	4.65	3.85	3.42	3.09	2.72	2.25	1.99	1.81
24-18S	5.95	4.92	4.37	3.96	4.01	3.32	2.95	2.67
24-19P	5.21	4.30	3.82	3.46	3.27	2.70	2.40	2.17
24-19S	5.40	4.46	3.96	3.59	3.46	2.86	2.54	2.30
24-20P	5.00	4.13	3.67	3.32	3.06	2.53	2.25	2.04
24-20S	5.03	4.16	3.70	3.35	3.10	2.56	2.27	2.06
24-21S	5.21	4.30	3.82	3.46	3.27	2.70	2.40	2.17
24-22P	5.38	4.45	3.95	3.58	3.44	2.85	2.53	2.29
24-22S	6.12	5.06	4.50	4.07	4.19	3.46	3.07	2.78
24-23S	6.06	5.01	4.45	4.03	4.12	3.40	3.02	2.74
24-27P	4.62	3.82	3.39	3.07	2.68	2.22	1.97	1.78
24-27S	4.69	3.88	3.44	3.12	2.75	2.27	2.02	1.83
24-28P	5.48	4.53	4.03	3.65	3.55	2.93	2.60	2.36
24-28S	5.90	4.88	4.33	3.92	3.96	3.27	2.91	2.63
24-768P	5.71	4.72	4.19	3.80	3.77	3.12	2.77	2.51
24-768S	6.90	5.71	5.07	4.59	4.97	4.10	3.64	3.30
24-835P	5.03	4.16	3.70	3.35	3.10	2.56	2.27	2.06
24-836S	5.67	4.69	4.17	3.77	3.74	3.09	2.74	2.48
28-1P	5.69	4.70	4.18	3.78	3.82	3.16	2.81	2.54
28-2P	5.33	4.40	3.91	3.54	3.46	2.86	2.54	2.30
28-2S	5.54	4.58	4.06	3.68	3.67	3.03	2.69	2.44
28-3P	5.43	4.49	3.99	3.61	3.56	2.95	2.62	2.37
28-3S	5.62	4.65	4.13	3.74	3.75	3.10	2.76	2.50
28-5P	5.33	4.40	3.91	3.54	3.46	2.86	2.54	2.30
28-5S	5.76	4.76	4.23	3.83	3.89	3.22	2.86	2.59
28-6P	5.97	4.93	4.38	3.97	4.10	3.39	3.01	2.73
28-6S	6.40	5.29	4.70	4.26	4.53	3.75	3.33	3.01
28-7P	5.43	4.49	3.99	3.61	3.56	2.95	2.62	2.37
28-7S	5.81	4.80	4.27	3.86	3.94	3.26	2.90	2.62
28-8P	5.33	4.40	3.91	3.54	3.46	2.86	2.54	2.30
28-8S	5.43	4.49	3.99	3.61	3.56	2.95	2.62	2.37
28-9P	5.50	4.55	4.04	3.66	3.63	3.00	2.67	2.42
28-9S	5.80	4.79	4.25	3.85	3.93	3.25	2.88	2.61
28-10P	6.44	5.32	4.72	4.28	4.57	3.78	3.35	3.04
28-10S	7.51	6.21	5.51	4.99	5.64	4.66	4.14	3.75
28-11P	5.73	4.73	4.20	3.81	3.86	3.19	2.83	2.56
28-11S	6.45	5.33	4.74	4.29	4.58	3.79	3.37	3.05
28-12P	5.86	4.85	4.31	3.90	7.00	3.30	2.93	2.66
28-12S	6.45	5.33	4.74	4.29	4.58	3.79	3.37	3.05
28-13P	6.23	5.15	4.57	4.14	4.36	3.60	3.20	2.90
28-13S	6.85	5.66	5.03	4.55	4.98	4.12	3.66	3.31
28-14P	5.71	4.72	4.19	3.80	3.84	3.17	2.82	2.55
28-14S	6.04	4.99	4.43	4.01	4.17	3.45	3.06	2.77
28-15P	6.30	5.21	4.62	4.19	4.43	3.66	3.25	2.94
28-15S	6.90	5.71	5.07	4.59	5.03	4.16	3.70	3.35
28-16P	5.83	4.82	4.28	3.88	3.96	3.27	2.91	2.63
28-16S	5.86	4.85	4.31	3.90	4.00	3.30	2.93	2.66
28-17P	5.29	4.38	3.89	3.52	3.39	2.80	2.49	2.25
28-17S	5.50	4.55	4.04	3.66	3.63	3.00	2.67	2.42
28-18P	5.21	4.30	3.82	3.46	3.34	2.76	2.45	2.22
28-18S	5.47	4.52	4.01	3.63	3.60	2.97	2.64	2.39
28-19P	5.24	4.33	3.85	3.48	3.37	2.79	2.48	2.24
28-19S	5.86	4.85	4.31	3.90	4.00	3.30	2.93	2.66
28-20P	5.76	4.76	4.23	3.83	3.89	3.22	2.86	2.59
28-20S	6.14	5.08	4.51	4.08	4.27	3.53	3.14	2.84
28-21P	6.42	5.31	4.71	4.27	4.55	3.76	3.34	3.02
28-21S	6.97	5.76	5.12	4.63	5.10	4.22	3.75	3.39
28-22P	6.35	5.25	4.66	4.22	4.48	3.70	3.29	2.98
32-4S	7.20	5.95	5.28	4.78	4.90	4.05	3.59	3.25
32-5P	7.56	6.25	5.55	5.03	5.26	4.35	3.86	3.50
32-5S	8.01	6.62	5.88	5.32	5.71	4.72	4.19	3.80
32-6P	7.89	6.52	5.79	5.24	5.59	4.62	4.10	3.71
32-6S	9.81	8.11	7.20	6.52	7.51	6.21	5.51	4.99
32-7P	7.65	6.32	5.61	5.08	5.35	4.42	3.92	3.55
32-7S	8.82	7.29	6.48	5.87	6.52	5.39	4.79	4.34
32-8P	8.04	6.65	5.91	5.35	5.74	4.75	4.22	3.82
32-8S	8.17	6.71	5.96	5.39	5.81	4.80	4.27	3.86
32-9P	7.37	6.09	5.41	4.90	5.07	4.19	3.72	3.37
32-9S	7.94	6.56	5.83	5.28	5.64	4.66	4.14	3.75
32-12P	6.85	5.66	5.03	4.55	4.55	3.76	3.34	3.02
32-12S	7.72	6.38	5.66	5.13	5.41	4.48	3.98	3.60
32-13P	7.29	5.98	5.31	4.81	4.93	4.08	3.62	3.28
32-13S	7.79	6.44	5.72	5.18	5.48	4.53	4.03	3.65
32-15P	8.68	7.18	6.38	5.77	6.38	5.28	4.69	4.24
32-15S	9.22	7.62	6.77	6.13	6.92	5.72	5.08	4.60
32-17P	8.63	7.14	6.34	5.74	6.33	5.23	4.65	4.21
32-17S	9.13	7.55	6.71	6.07	6.88	5.65	5.02	4.54
32-101P	13.30	11.00	9.77	8.84	11.00	9.09	8.08	7.31
32-102P	10.67	8.82	7.84	7.10	8.37	6.92	6.15	5.57
32-102S	11.87	9.81	8.71	7.89	9.57	7.91	7.02	6.37
32-414P	9.86	8.15	7.24	6.56	7.56	6.25	5.55	5.03
32-414S	12.06	9.97	8.85	8.02	9.76	8.07	7.16	6.49
36-1S	8.98	7.42	6.59	5.97	6.69	5.48	4.86	4.40
36-2S	11.33	9.37	8.32	7.53	8.98	7.42	6.59	5.97
36-3P	9.97	8.09	7.19	6.51	7.44	6.15	5.46	4.95
36-3S	11.59	9.58	8.51	7.71	9.29	7.64	6.78	6.14
36-4P	9.76	8.07	7.16	6.49	7.40	6.12	5.44	4.92
36-4S	10.92	9.02	8.01	7.26	8.55	7.08	6.29	5.69
36-6P	11.18	9.24	8.20	7.43	8.82	7.29	6.48	5.87
36-7P	9.53	7.88	7.00	6.34	7.16	5.93	5.27	4.77
36-7S	10.17	8.41	7.47	6.76	7.82	6.46	5.74	5.20
36-8P	9.34	7.72	6.86	6.21	6.99	5.78	5.13	4.65
36-8S	9.76	8.07	7.16	6.49	7.40	6.12	5.44	4.92
36-9P	10.47	8.65	7.68	6.96	8.11	6.71	5.96	5.39
36-9S	11.97	9.90	8.79	7.96	9.52	7.95	7.06	6.39
36-10P	9.26	7.65	6.79	6.15	6.90	5.71	5.07	4.59
36-10S	9.72	8.04	7.14	6.46	7.37	6.09	5.41	4.90
36-14P	11.21	9.27	8.23	7.45	8.86	7.32	6.50	5.89
36-14S	11.76	9.72	8.64	7.82	9.41	7.78	6.91	6.26
36-15P	8.37	6.92	6.15	5.57	6.02	4.98	4.42	4.00
36-15S	8.86	7.32	6.50	5.89	6.50	5.38	4.78	4.32
36-403P	10.47	8.65	7.68	6.96	8.17	6.71	5.96	5.39
36-403S	12.87	10.65	9.46	8.57	10.54	8.71	7.73	7.00
36-404P	11.61	9.60	8.52	7.72	9.26	7.65	6.79	6.15
36-404S	13.11	10.84	9.63	8.72	10.76	8.89	7.90	7.15
36-405P	13.10	10.83	9.61	8.71	10.74	8.88	7.89	7.14
36-405S	15.57	12.87	11.43	10.35	13.22	10.93	9.70	8.79
36-406P	12.01	9.92	8.81	7.98	9.65	7.98	7.09	6.42
40-1P	....	....	....	....	7.66	6.33	5.63	5.09
40-1S	....	....	....	....	9.20	7.61	6.76	6.12
40-5P	....	....	....	....	11.97	9.90	8.79	7.96
40-5S[1]	....	....	....	....	14.60	12.07	10.72	9.71
40-9P	....	....	....	....	9.72	8.04	7.14	6.46
40-9S	....	....	....	....	12.68	10.48	9.31	8.43
40-10P	....	....	....	....	13.20	10.91	9.69	8.77
40-10S	....	....	....	....	15.00	12.40	11.01	9.97



A B C D E F

AMPHENOL BLUE RIBBON® CONNECTORS

Barrier polarization type connectors are designed for inter-connecting electronic sub-assemblies, circuit switching, rerouting and other multi-contact applications. Interlocking design of mating dielectric bodies provide positive polarization. The dimensional stability and high tensile strength of Amphenol "Blue" dielectric make this type of polarization possible. Float mounted receptacle corrects misalignment of plug and receptacle. Corrosion resistant, stainless steel molded-in mounting plates and housing. Rated: 5 amps, 800 volts DC at sea level, 300 volts at 70,000 ft. altitude. Av. Shpg. Wt., 3 oz.

(A) BARRIER POLARIZATION CONNECTORS WITH KEYED SHELLS

Stk. No.	Type	Con.	1-9	10-49	50-99	100-249	250-999
	Male						
42F182	26-4101-8P	8	2.08	1.75	1.42	1.28	1.05
42F183	26-4101-16P	16	3.14	2.65	2.14	1.93	1.59
42F184	26-4101-24P	24	3.62	3.05	2.48	2.23	1.83
42F185	26-4101-32P	32	4.16	3.50	2.84	2.55	2.10
	Female						
42F186	26-4201-8S	8	2.40	2.02	1.64	1.47	1.21
42F187	26-4201-16S	16	3.26	2.75	2.23	2.00	1.65
42F188	26-4201-24S	24	3.91	3.29	2.67	2.39	1.97
42F189	26-4201-32S	32	4.53	3.82	3.09	2.78	2.29

(B) PIN POLARIZATION TYPE CONNECTORS

Stk. No.	Type	Con.	1-9	10-49	50-99	100-249	250-999
	Male						
39F132	26-159-16	16	2.12	1.79	1.45	1.30	1.07
39F134	26-159-24	24	2.40	2.01	1.63	1.47	1.21
39F136	26-159-32	32	3.02	2.54	2.07	1.86	1.52
	Female						
39F133	26-190-16	16	2.70	2.27	1.85	1.66	1.37
39F135	26-190-24	24	3.23	2.72	2.21	1.98	1.63
39F137	26-190-32	32	3.81	3.20	2.60	2.34	1.92

(C) BARRIER POLARIZATION TYPE CONNECTORS

Stk. No.	Type	Con.	1-9	10-49	50-99	100-249	250-999
	Male						
39F130	26-182	8	1.16	0.98	0.79	0.71	.59
42F150	26-4100-8P	8	1.06	0.89	0.72	0.65	.54
42F151	26-4100-16P	16	1.98	1.67	1.35	1.22	1.00
42F152	26-4100-24P	24	2.38	2.01	1.63	1.46	1.20
42F153	26-4100-32P	32	2.77	2.33	1.89	1.70	1.40
	Female						
39F131	26-183	8	1.83	1.53	1.25	1.12	.92
42F154	26 4200-8S	8	1.73	1.46	1.19	1.06	.87
42F155	26 4200-16S	16	2.52	2.12	1.72	1.54	1.27
42F156	26 4200-24S	24	2.98	2.51	2.04	1.83	1.50
42F157	26-4200-32S	32	3.56	2.99	2.43	2.18	1.80

(D) CABLE TYPE—END OUTLET—KEYED LOCK SHELLS

Mate with 4401 series plugs and sockets.

Stk. No.	Type	Con.	1-9	10-49	50-99	100-249	250-999
	Male						
42F158	26-4301-8P	8	5.36	4.50	3.65	3.29	2.71
42F159	26-4301-16P	16	6.72	5.65	4.59	4.13	3.39
42F160	26-4301-24P	24	7.53	6.33	5.13	4.62	3.80
42F161	26-4301 32P	32	8.39	7.06	5.72	5.15	4.23
	Female						
42F162	26-4301 8S	8	6.51	5.48	4.44	4.00	3.29
42F163	26-4301-16S	16	7.26	6.10	4.95	4.45	3.66
42F164	26-4301-24S	24	8.47	7.13	5.79	5.20	4.28
42F165	26-4301-32S	32	9.17	7.71	6.26	5.63	4.63

(E) CABLE TYPE—SIDE OUTLET—KEYED LATCH LOCK SHELLS

Mate with 4401 Series plugs and sockets.

Stk. No.	Type	Con.	1-9	10-49	50-99	100-249	250-999
	Male						
42F174	26-4501-8P	8	5.36	4.50	3.65	3.29	2.71
42F175	26-4501-16P	16	6.72	5.65	4.59	4.13	3.39
42F176	26-4501-24P	24	7.53	6.33	5.13	4.62	3.80
42F177	26-4501-32P	32	8.39	7.06	5.72	5.15	4.23
	Female						
42F178	26-4501-8S	8	6.03	5.07	4.12	3.70	3.05
42F179	26-4501-16S	16	7.26	6.10	4.95	4.45	3.66
42F180	26-4501-24S	24	8.20	6.90	5.60	5.03	4.14
42F181	26-4501-32S	32	9.05	7.61	6.17	5.55	4.57

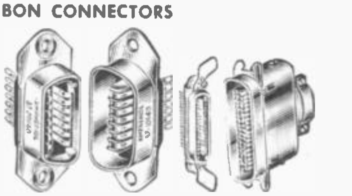
(F) CHASSIS TYPE—KEYED LATCH—LOCK SHELLS

Mate with 4301 and 4501 Series plugs and sockets.

Stk. No.	Type	Con.	1-9	10-49	50-99	100-249	250-999
	Male						
42F166	26-4401-8P	8	3.23	2.72	2.21	1.98	1.63
42F167	26-4401-16P	16	4.25	3.57	2.90	2.61	2.14
42F168	26-4401-24P	24	4.78	4.02	3.27	2.93	2.42
42F169	26-4401-32P	32	5.31	4.47	3.62	3.27	2.68
	Female						
42F170	26-4401-8S	8	3.93	3.31	2.68	2.42	1.98
42F171	26-4401-16S	16	4.81	4.04	3.28	2.95	2.43
42F172	26-4401-24S	24	5.43	4.57	3.71	3.33	2.74
42F173	26-4401-32S	32	6.12	5.15	4.18	3.76	3.09

MICRO-RIBBON CONNECTORS

Series 57. For cable-to-chassis connections. Molded of diallylphthalate. Cont.: gold plated over silver. Shells: cadmium plated brass. Float: .020 V. Rating: 5 amps; 700 V. sea level, 200 at 70,000 ft. altitude. *Cable-to-chassis plug: †Latch-type receptacle



Stk. No.	Type	Cont.	Descrip.	1-9	10-49	50-99	100-249	250-999
42F190	57-10140	14	Male	1.85	1.55	1.26	1.14	.94
42F193	57-20140	14	Female	1.90	1.60	1.29	1.17	.96
42F191	57-10240	24	Male	2.47	2.07	1.79	1.51	1.25
42F194	57-20240	24	Female	2.52	2.12	1.73	1.55	1.28
42F192	57-10360	36	Male	2.83	2.38	1.93	1.74	1.42
42F195	57-20360	36	Female	2.90	2.44	1.98	1.78	1.46
42F126	57-30140	14	Male	3.55	2.98	2.42	2.19	1.79
42F127	57-40140†	14	Female	2.33	1.97	1.60	1.44	1.18
42F128	57-30240*	24	Male	3.90	3.28	2.65	2.40	1.96
42F129	57-40240†	24	Female	2.78	2.33	1.90	1.71	1.40
42F130	57-30360*	36	Male	4.77	4.02	3.25	2.94	2.42
42F131	57-40360†	36	Female	3.00	2.52	2.04	1.83	1.51
42F132	57-10500	50	Male	3.73	3.15	2.55	2.28	1.87
42F133	57-20500	50	Female	3.77	3.19	2.58	2.32	1.91
42F134	57-30500*	50	Male	5.23	4.40	3.58	3.22	2.65
42F135	57-40500†	50	Female	3.92	3.30	2.67	2.40	1.98

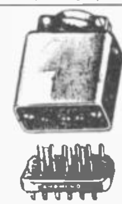
RIGHT-ANGLE MICRO RIBBON CONNECTORS

Rt. angle 50 contact connectors provide max. contact density in min. space. With polyethlyene dust covers, cadmium plated brass shell, 5 Amps, 700 VDC.

Stk. No.	Type	Cont.	Cont.	1-9	10-49	50-99	100-249	250-999
42F198	57-10500-7	50	Plug	4.42	3.73	3.03	2.62	2.22
42F199	57-20500-7	50	Recp.	4.70	3.96	3.22	2.88	2.37

RACK & PANEL CONNECTOR

Type 126. Cable units have protective can and clamp. Each connector accommodates No. 16 and No. 20 wire. Molded of mica-filled phenolic. Silver-plated brass male contacts, silver-plated beryllium copper female contacts. Gold flash on all contacts. Rated at 500 volts, 60 cycles AC. Wt., 3 oz.



CHASSIS PLUG

Stock No.	Mfrs. Type	Total	Contacts #16	Contacts #20	1-49	50-99	100-249
39FX050	126-804	11	2	9	.91	.72	.59
39FX054	126-151	11	3	12	1.20	.95	.78
39FX058	126-806	20	4	16	1.44	1.13	.94

CHASSIS SOCKET

Stock No.	Mfrs. Type	Total	Contacts #16	Contacts #20	1-49	50-99	100-249
39FX051	126-805	11	2	9	.94	.74	.62
39FX055	126-150	15	3	12	.91	.72	.59
39FX059	126-807	20	4	16	1.15	.90	.75

CABLE PLUG

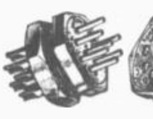
Stock No.	Mfrs. Type	Total	Contacts #16	Contacts #20	1-49	50-99	100-249
39FX052	126-809	11	2	9	1.49	1.17	.97
39FX056	126-152	15	3	12	2.33	1.84	1.52
39FX060	126-811	20	4	16	2.31	1.82	1.51

CABLE SOCKET

Stock No.	Mfrs. Type	Total	Contacts #16	Contacts #20	1-49	50-99	100-249
39FX053	126-808	11	2	9	1.52	1.20	1.00
39FX057	126-153	15	3	12	1.81	1.43	1.19
39FX061	126-810	20	4	16	2.02	1.59	1.32

Amphenol Connectors

MINIATURE CONNECTORS



For inter-connecting miniature equipment. Uses inter-changeable brass hardware and gold-finished contacts. Type 1-105 dielectric body molds, silver plated bases. For No. 20 AWG or No. 22 JAN-C-76 wire. Has 5/8" threaded body with hex nut for panel mounting. Ship wt., 2 oz.

Stock No.	Mfr. Type	Contacts	Description	1-49	50-9ᶜ	00-24
42FX100	126-010	5	Chassis Plug	.63	.50	.41
42FX101	126-011	5	Chassis Socket	1.01	.80	.66
42FX104	126-191	7	Chassis Plug	.74	.58	.48
42FX105	126-192	7	Chassis Socket	1.28	1.01	.84
42FX102	126-012	9	Chassis Plug	.86	.68	.56
42FX103	126-013	9	Chassis Socket	1.59	1.26	1.04
42FX108	126-1063	Hood and clamp assembly		.53	.42	.35
42FX109	126-1064	Locking sleeve for cord conn.		.31	.24	.20
42FX110	126-1069	Clip retainer for chassis unit		.05	.04	.04

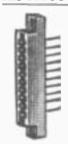
WITH HOOD AND CLAMP

Stock No.	Mfr. Type	Cont.	Desc.	1-49	50-99	100-249
42FX119	126-215	4	Socket	1.30	1.03	.85
42FX120	126-217	5	Plug	1.40	1.11	.92
42FX121	126-223	5	Socket	1.81	1.43	1.19
42FX122	126-195	7	Plug	1.54	1.22	1.01
42FX123	126-196	7	Socket	2.09	1.65	1.37
42FX124	126-220	9	Plug	1.66	1.31	1.09
42FX125	126-222	9	Socket	2.39	1.89	1.57

WITH LOCKING CLIP

Stock No.	Mfr. Type	Cont.	Desc.	1-49	50-99	100-249
42FX112	126-214	4	Plug	.77	.61	.50
42FX113	126-216	5	Plug	.67	.53	.44
42FX114	126-218	5	Socket	1.08	.85	.71
42FX115	126-197	7	Plug	.80	.63	.53
42FX116	126-198	7	Socket	1.35	1.07	.89
42FX117	126-219	9	Plug	.92	.73	.60
42FX118	126-221	9	Socket	1 66	1.31	1.09

SERIES 143 PRIN-CIR CONNECTORS



Fit .054"-.070" circuit boards or series 133 plugs. Gold-plated silver contacts have only 5 millivolt drop at 2 amps, readily withstand repeated insertions. Contacts are on .156" centers except for 28-cont. style which has .125" centers. Last 2 digits in type no. indicate contact style: —01 eyelet; —02 lug; —03 pin. Card insertion depth .333", height .458", weight 3 oz.

Stock No.	Type No.	Cont.	1-49	50-99	100-249	250-999	1M-2499
42F304	143-006-01	6	1.04	.87	.73	.63	.56
42F300	143-010-01	10	1.16	.97	.82	.70	.62
42F308	143-012-01	12	1.21	1.01	.85	.73	.64
42F301	143-015-01	15	1.25	1.04	.88	.75	.67
42F302	143-018-01	18	1.44	1.20	1.01	.86	.77
42F303	143-022-01	22	1.68	1.41	1.18	1.01	.90
42F306	143-022-02	22	1.81	1.51	1.27	1.09	.97
42F309	143-006-03	6	1.14	.96	.80	.69	.61
42F310	143-010-03	10	1.29	1.08	.91	.78	.69
42F311	143-012-03	12	1.33	1.11	.93	.80	.71
42F312	143-015-03	15	1.37	1.15	.96	.83	.73
42F313	143-018-03	18	1.58	1.32	1.11	.95	.84
42F314	143-022-03	22	1.87	1.57	1.31	1.13	1.00
42F315	143-036-03	36	3.70	3.10	2.60	2.23	1 98
42F305	143-953	Polarizing key for above. NET					.02

SERIES 133—MATES FOR SERIES 143

Double tail solder type, rated 600V RMS. 5 amp. Ht. .458".

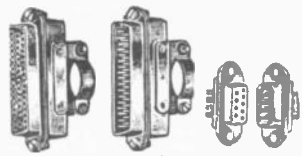
Stock No.	Type No.	Cont.	1-49	50-99	100-249	250-999	1M-2499
42F316	133-010-03	10	1.93	1.62	1.36	1.16	1.03
42F317	133-012-03	12	2.23	1.86	1.56	1.34	1.19
42F318	133-015-03	15	2.27	1.90	1.59	1.36	1.21
42F319	133-018-03	18	2.64	2.21	1.85	1.59	1.41
42F320	133-022-03	22	2.77	2.31	1.94	1.66	1.48
42F307	133-006-03	6	1.73	1.44	1.21	1.04	.92
42F196	133-006-21	6	1.77	1.48	1.24	1.06	.94
42F136	133-010-21	10	2.00	1.67	1.40	1.20	1.07
42F137	133-015-21	15	2.39	2.00	1.68	1.44	1.28
42F138	133-018-21	18	2.70	2.26	1.90	1.63	1.44
42F139	133-022-21	22	2.93	2.45	2.06	1.76	1.57

MIN RAC LOCKING ASSEMBLIES
CLEAR CHROMATE FINISH

For positive latching in cable to panel applications. Use with cable clamp assemblies.

Stk. No.	Type	Use With	1-9	10-49	50-99	100-249	250-499	500-999
39F1390	17-529	All except 50 cont. spring	.65	.59	.49	.40	.36	.30
39F1391	17-768	All sizes screw	.72	.65	.54	.44	.40	.33
39F1392	17-770	50 cont. spring	.65	.59	.49	.40	.36	.30
39F1393	17-769	All float screws	.61	.55	.46	.37	.34	.28

MIN RAC 17 MINIATURE RACK AND PANEL CONNECTORS



Newest in the Amphenol line, for solder type contacts. Weight saving of 50% over old style. Uniform assembly separate from the connector plus removability at any time for circuit changes. Contacts are gold over silver plated.

RECEPTACLES Chromate finish

Stk. No.	No. of Contacts	Type	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
39F1360	9	17-10090	1.48	1.32	1.09	.97	.81	.78	.74
39F1361	15	17-10150	2.02	1.81	1.49	1.32	1.11	1.06	1.01
39F1362	25	17-10250	3.04	2.72	2.23	1.99	1.67	1.60	1.52
39F1363	37	17-10370	4.18	3.74	3.07	2.74	2.30	2.20	2.09
39F1364	50	17-10500	5.38	4.82	3.95	3.52	2.96	2.83	2.69

RECEPTACLES gold iridite fin.

Stk. No.	No. of Contacts	Type	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
39F1365	9	17-11090	1.48	1.32	1.09	.97	.81	.78	.74
39F1366	15	17-11150	2.02	1.81	1.49	1.32	1.11	1.06	1.01
39F1367	25	17 11250	3.04	2.72	2.23	1.99	1.67	1.60	1.52
39F1368	37	17-11370	4.18	3.74	3.07	2.74	2.30	2.20	2.09
39F1369	50	17-11500	5.38	4.82	3.95	3.52	2.96	2.83	2.69

PLUGS Chromate finish

Stk. No.	Contact	Type	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
39F1370	9	17 20090	1.04	.93	.76	.68	.57	.55	.52
39F1371	15	17-20150	1.26	1.13	.93	.83	.69	.66	.63
39F1372	25	17-20250	1.82	1.63	1.34	1.19	1.00	.96	.91
39F1373	37	17-20370	2.50	2.24	1.84	1.63	1.38	1.31	1.25
39F1374	50	17-20500	3.22	2.88	2.37	2.11	1.77	1.69	1.61

PLUGS gold iridite fin.

Stk. No.	Contact	Type	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
39F1375	9	17-21090	1.04	.93	.76	.68	.57	.55	.52
39F1376	15	17-21150	1.26	1.13	.93	.83	.69	.66	.63
39F1377	25	17-21250	1.82	1.63	1.34	1.19	1.00	.96	.91
39F1378	37	17 21370	2.50	2.24	1.84	1.63	1.38	1.31	1.25
39F1379	50	17-21500	3.22	2.88	2.37	2.11	1.77	1.69	1.61

CABLE CLAMP ASSEMBLIES

For use with either receptacle or plug

Chromate fin.

Stk. No.	Contact	Type	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
39F1380	9	17-310 0	1.13	.95	.76	.68	.57	.52	.49
39F1381	15	17-311 01	1.18	.99	.78	.71	.59	.54	.50
39F1382	25	17-312-01	1.24	1.02	.82	.74	.62	.57	.53
39F1383	37	17-313 01	1.28	1.07	.86	.77	.64	.59	.55
39F1384	50	17-314-01	1.31	1.09	.87	.79	.65	.60	.56

Gold iridite

Stk. No.	Contact	Type	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
39F1385	9	17-310-02	1.13	.95	.76	.68	.57	.52	.49
39F1386	15	17-311-02	1.18	.99	.78	.71	.59	.54	.50
39F1387	25	17-312 02	1.24	1.02	.82	.74	.62	.57	.53
39F1388	37	17-313-02	1.28	1.07	.86	.77	.64	.59	.55
39F1389	50	17-314 02	1.31	1.09	.87	.79	.65	.60	.56

JACKS AND PLUGS

T W

Single-contact units of molded bakelite. Contacts recessed 1/8", to prevent shorts. All are for 3/32" jacks or plugs except * which are for 1/8", † 5/32", ‡ take standard phone tips. 2 oz.

FIG. T—SERIES 78 TIP JACKS

Stk. No.	Type	Color	1-49	50-249	250-499	500-999	1000-2499
39F180	78-1S	Red	.09	.073	.061	.053	.047
39F181	78-1S	Black	.12	.097	.082	.070	.062
39F182	78-1M	Red*	.08	.064	.054	.046	.041
39F183	78-1M	Black*	.08	.068	.057	.049	.043
39F184	78-1L	Red†	.08	.066	.055	.048	.042
39F185	78-1L	Black†	.08	.064	.054	.046	.041
39F186	78-1P	Red‡	.09	.073	.061	.053	.047
39F187	78-1P	Black‡	.09	.078	.066	.056	.050

FIG. W—SERIES 71 PLUGS

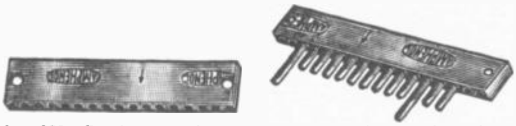
Stk. No.	Type	Color	1-49	50-249	250-499	500-999	1000-2499
39F188	71-1S	Red	.05	.044	.037	.031	.028
39F189	71-1S	Black	.05	.044	.037	.031	.028
39F190	71-1M	Red*	.06	.052	.044	.038	.033
39F191	71-1M	Black*	.06	.049	.041	.035	.031
39F192	71-1L	Red†	.06	.052	.044	.038	.033
39F193	71-1L	Black†	.06	.050	.042	.036	.032

BAKELITE MINIATURE CABLE PLUGS

For series 78 sockets. Have plated brass prongs. Wt., 2 oz.

Stk. No.	Type	Pins	1-49	50-249	250-499	500-999	1090-2499
39F160	71-3S	3	.11	.096	.080	.069	.061
39F161	71-4S	4	.14	.113	.095	.081	.072
39F162	71-5S	5	.15	.122	.102	.088	.078
39F163	71-6S	6	.17	.144	.121	.104	.092

MULTI-PURPOSE STRIP CONNECTORS



Series 221. Stack several strip connectors for a block breadboard connector, or cut with a knife or hacksaw for a smaller connector. Cutting eliminates the contact cavity. Connectors can be cut to any size of your various requirements. Guide pins are used to polarize, key, and pre-align contact. Less contacts and guide pins. Shpg. Wt. 1 oz.

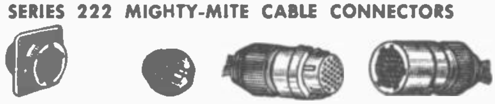
Stk. No.	Type	Contacts	Description	Spacing	1-9	10-49	50-99	100-249
39F1411	221-1160	60	6" plug	.100"	1.02	.85	.69	.58
39F1412	221-1260	60	6" rec.	.100"	.70	.57	.46	.39
39F1413	221-2153	53	4" plug	.075"	1.65	1.38	1.11	.94
39F1414	221-2253	53	4" rec.	.075"	1.22	1.02	.83	.70

MICRO-RAC CONNECTORS

Series 220. Designed for rack and panel or module applications. High contact density in an extremely small space. Guide hardware is supplied with receptacle and pre-aligns mating connectors. Monoblock body, injection molded of polycarbonate resin, with molded in contact identification numbers. Fifty-two contacts in a connector only 1.888" long, 104 contact connector only 3.017" long. Mounting centers for 52 contacts; 1,492. For 104; 2.6111. Less contacts. Shpg. Wt. 1 oz.

Stk. No.	Type	Contacts	Description	1-9	10-49	50-99	100-249
39F1405	220-1N052	52	plug	1.67	1.38	1.11	.95
39F1406	220-2N052	52	rec.	1.02	.83	.67	.58
39F1407	220-5	52	cable clamp	1.95	1.61	1.29	1.17
39F1408	220-1N104	104	plug	1.95	1.59	1.38	1.10
39F1409	220-2N104	104	rec.	1.35	1.11	.91	.78
39F1410	220-6	104	cable clamp	2.00	1.66	1.33	1.19

SERIES 222 MIGHTY-MITE CABLE CONNECTORS

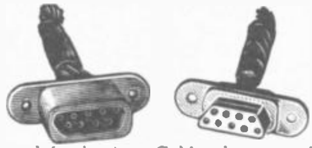


4-Hole Square Flange Receptacle **Receptacle w/o Clamp** **Fig. A—Plug with Clamp** **Fig. B—Receptacle with Clamp**

Designed for cable to cable, or panel to panel applications. To make cable connector use strain relief with either plug (Fig. A) or receptacle (Fig. B). Contacts are spaced on 0.085 centers. Less contacts. Shpg. wt., 3 oz.

Stock No.	Type	Contacts	Description	1-9	10-49	50-99	100-249
39F1416	222-11N19	19	plug	1.00	.83	.67	.57
39F1417	222-12N19	19	rec.	.80	.67	.54	.46
39F1397	222-22N19	19	sq. flange rec.	.83	.68	.55	.47
39F1418	222-518	19	cable clamp	1.68	1.39	1.13	.96
39F1419	222-11N31	31	plug	1.00	.82	.66	.57
39F1420	222-12N31	31	rec.	.80	.66	.54	.46
39F1398	222-22N31	31	sq. flange rec.	.75	.62	.50	.43
39F1421	222-519	31	cable clamp	1.80	1.48	1.20	1.02
39F1422	222-11N61	61	plug	1.06	.89	.72	.61
39F1423	222-12N61	61	rec.	.85	.71	.57	.49
39F1399	222-22N61	61	sq. flange rec.	.90	.73	.59	2.33
39F1424	222-520	61	cable clamp	4.10	3.39	2.74	.51

SERIES 223 TINY-TIM



Excellent for interconnection for circuit modules. For five to thirty-three contacts. Polycarbonate resin dielectric. The trapezoidal shape prevents mismating. Guide pins are used for keying. Cable clamp used for cable to panel or cable cable applications. Clamp fit plug or to receptacle. Mounting holes 0.10. Less contacts and guide pins. Shpg. wt., 1½ oz.

Stock No.	Type	Contacts	Description	1-9	10-49	50-99	100-249
39F1425	223-1105	5	plug	.60	.50	.41	.35
39F1426	223-1205	5	rec.	.57	.48	.38	.33
39F1427	223-1109	9	plug	.53	.44	.35	.30
39F1428	223-1209	9	rec.	.57	.48	.38	.33
39F1429	223-1117	17	plug	.62	.52	.42	.36
39F1430	223-1217	17	rec.	.60	.49	.39	.34
39F1431	223-1125	25	plug	.55	.46	.37	.32
39F1432	223-1225	25	rec.	.60	.50	.41	.34
39F1433	223-1133	33	plug	.67	.55	.45	.38
39F1434	223-1233	33	rec.	.62	.50	.41	.35

MICRO-MINIATURE CONNECTORS

220-P02 220-S02 220-S01 220-P01

Series 220. Contacts for 220, 221, 222 and 223 series connectors. Wire-Form contact has spring tension in the pin contact (wire pin contact is always recessed within the plug). Newly designed solid pin Relia-Tac contact (Relia-Tac socket contact recessed within the plug). Guide pins are used for polarization, keying, and/or pre-aligning the mating connectors. They take the place of one pair of connectors and are inserted in the plug. Wire range 22-28. Current rating: 3 amps. Shpg. wt., 2 oz.

Stk. No.	Type	Description	Per Pkg. of 100 1-9	10-99	100 up
39F1400	220-PO2*	Pin cont. Relia-tac	3.70	2.90	2.50
39F1401	220-S02**	Sock. Cont. wireform	8.90	7.10	6.10
39F1402	220-P01*	Pin	6.10	4.90	4.20
39F1403	220-S01**	Socket	2.80	2.2[illegible]	1.90
39F1404	221-535	Guide pins for 221, 223	Pkg. of 10	2.80	

*Male **Female

CONTACT REMOVAL TOOL

294-137

294-205

Stock No.	Type	Description	Net
39F1436	294-137	Wire Form	8.32
39F1437	294-205	Relia Tac	8.32

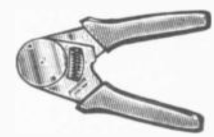
INSERTION TOOL

294-123

Stock No.	Type	Description	Net
39F1435	294-123	Contact insertion tool.	4.43

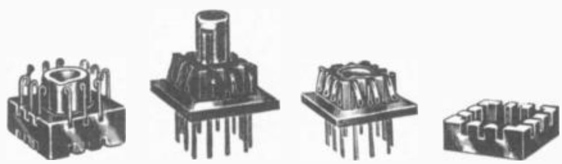
RELIA-TAC WIRE TOOLS

ECONOMY CRIMPING TOOL



Type 294-188. An economical 4 indent crimping tool used with both Wireform and Relia-Tac Contacts. 4 indent crimp insures most positive retention while causing no distortion of contact .For 220, 221, 222 and 223 series.
39F1415. NET....................**49.95**

MICRO-MOD CONNECTORS



96-1 96-2 96-4 96-3

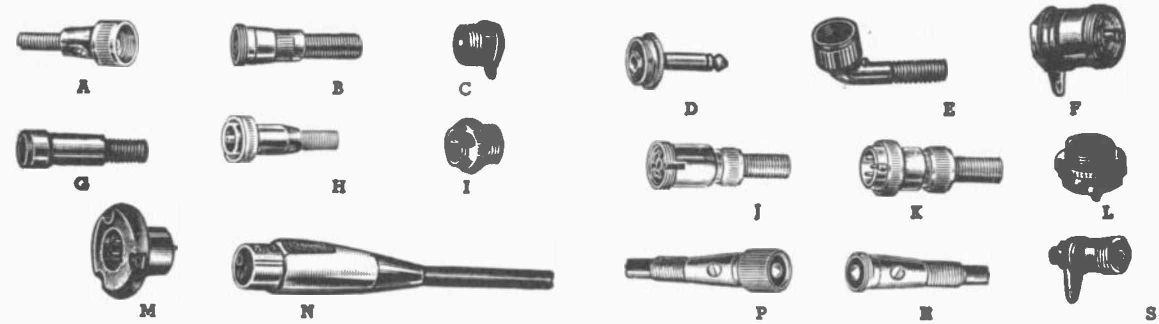
Micro-Mod connectors for modular or "stick" circuitry. Have unique double-spring design contacts with elastic reserve. Contacts, on .075" centers, are made of .010" beryllium copper wire, gold-over-silver plated. Micro-Mod connectors have durable glass-filled diallyl phthalate dielectric. The 96-4 plug mates with 96-3 receptacle, which is supplied without contacts (the module leads form the female contacts). This pair is recommended for modular or "stick" applications that have AWG #28 module leads (.012"). The 96-1 receptacle and 96-2 plug with polarizing key are supplied with contacts. The plug has a cadmium-plated molded-in brass polarizing key while the receptacle has a base ond a keyway. This version can be used for cable-to-chassis, cable-to-cable, or modular applications. Dimensions: Model 96-1 Receptacle .380" sq. x .170" H; Model 96-2 plug .380" sq. x .742" H; Model 96-3 Receptacle .380" sq. x .130" H; Model 96-4 Plug .380" sq. x .577" H. Av. Wt., .03 oz.

12 Contact

Stk. No.	Type	Descriptions	1-9	10-49	50-99	100-249
39F1355	96-1	pol. receptacle	4.14	3.33	2.99	2.62
39F1356	96-2	pol. plug	6.11	4.93	4.43	3.87
39F1357	96-3	receptacle	.52	.42	.38	.33
39F1358	96-4	plug	5.16	4.16	3.74	3.27

Amphenol Connectors

MICROPHONE CONNECTORS



"QUIK-MIKE" MICROPHONE CONNECTORS

Figs. M & N. Body is high grade zinc alloy. Gold plated contacts for easy soldering. Nickel finish insures resistance to corrosion. M—Male; F—Female. Av. shpg. wt. 5 oz.

Stk. No.	Type	Con.	Desc.	1-49	50-249	250-499	500-999	1M-2499
39F151	91-853	3M	Plug	1.73	1.45	1.216	1.041	.925
39F152	91-854	3F	Jack	2.27	1.90	1.591	1.363	1.210
39F153	91-855	3M	Recpt.	1.38	1.15	.968	.829	.736
39F154	91-856	3F	Recpt.	3.14	2.63	2.205	1.888	1.676
39F155	91-857	4M	Plug	1.82	1.52	1.276	1.093	.970
39F156	91-858	4F	Jack	2.52	2.11	1.767	1.513	1.343
39F157	91-859	4M	Recpt.	1.49	1.24	1.044	.894	.794
39F158	91-860	4F	Recpt.	3.37	2.82	2.365	2.025	1.798

SERIES 75 SINGLE BUTTON CONTACT

Flat button contact means no pins to bend. Straight plug may be converted to jack by removing coupling ring. Phono plug adapter, 75 MC1P; screws into plug. Av. shpg. wt., 3 oz.

Stk. No.	Type	Fg.	Con	Desc.	1-49	50-249	250-499	500-999	1M-2499
39F000	75-MC1F	A	1	Plug	.64	.53	.447	.383	.340
39F001	75-MC1M	B	1	Jack	.46	.38	.320	.274	.243
39F002	75-PC1M	C	1	Receptacle	.41	.35	.291	.249	.221
39F003	75-MC1P	D	1	Phone Plug Adapter	.52	.43	.364	.311	.276
39F004	75-MC1FA	E	1	90° Plug	1.31	1.09	.917	.785	.697
39F005	75-CL-PC1M	F	1	Receptacle Shorting	.67	.56	.472	.404	.359
39F1280	75-CCC1	....	....	Cap. Chain	.45	.37	.314	.269	.239

SERIES 80 ONE PIN CONTACT

Stk. No.	Type	Fg.	Con	Desc.	1-49	50-249	250-499	500-999	1M-2499
39F006	80-F	G	1F	Jack	.65	.541	.454	.389	.345
39F1281	80-F1	....	1F	Plug	.69	.576	.483	.414	.367
39F007	80-M	H	1M	Plug	.67	.559	.469	.401	.356
39F1282	80-M1	....	1M	Jack	.62	.522	.438	.375	.333
39F008	80-C	I	1F	Recpt.	.54	.447	.375	.321	.285
39F1283	80-C1	....	1M	Recpt.	.55	.461	.387	.331	.294

SERIES 80 TWO PIN CONTACT

Stk. No.	Type	Fg.	Con	Desc.	1-49	50-249	250-499	500-999	1M-2499
39F009	80-MC2F	G	2F	Jack	.71	.590	.495	.424	.376
39F1284	80-MC2F1		2F	Plug	.75	.626	.526	.450	.400
39F010	80-MC2M	H	2M	Plug	.69	.574	.482	.413	.366
39F1285	80-MC2M1	....	2M	Jack	.65	.539	.453	.388	.344
39F011	80-PC2F	I	2F	Recpt.	.60	.498	.418	.358	.317
39F1286	80-PC2M	.	2M	Recpt.	.57	.477	.400	.343	.304

SERIES 91 THREE PIN CONTACT

Stk. No.	Type	Fg.	Con	Desc.	1-49	50-249	250-499	500-999	1M-2499
39F012	91-MC3F	J	3F	Jack	1.07	.89	.749	.641	.569
39F1287	91-MC3F1	J	3F	Plug	1.10	.92	.771	.660	.586
39F013	91-MC3M	K	3M	Plug	1.01	.85	.710	.608	.539
39F1288	91-MC3M1	K	3M	Jack	.97	.81	.683	.585	.519
39F014	91-PC3F	L	3F	Recpt.	.73	.61	.515	.441	.392
39F1289	91-PC3M	....	3M	Recpt.	1.14	.95	.800	.685	.608

SERIES 91 FOUR PIN CONTACT

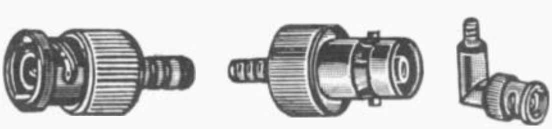
Stk. No.	Type	Fg.	Con	Desc.	1-49	50-249	250-499	500-999	1M-2499
39F015	91-MC4F	J	4F	Jack	1.10	.92	.774	.663	.588
39F1290	91-MC4F1	. .	4F	Plug	1.14	.95	.800	.685	.608
39F016	91-MC4M	K	4M	Plug	1.03	.86	.721	.618	.548
39F1291	91-MC4M1	. .	4M	Jack	.99	.83	.694	.594	.527
39F017	91-PC4F	L	4F	Recpt.	.72	.60	.505	.433	.384
39F1292	91-PC4M		4M	Recpt.	.98	.82	.686	.588	.522

SERIES 75 MINIATURE MICROPHONE CONNECTORS

Miniaturized version of the single contact mike connectors, have same rugged characteristics of standard 75 series mike connectors. Female is 1 11/64" long, male is 1" longer, chassis is 5/8" long. Threads are 3/8-32, all parts machined brass nickel plated. Coupling ring removable for versatility. Accepts maximum cable OD of .208 inches. Wt., 3 oz.

Stk. No.	Model	Desc.	Fig.	1-49	50-249	250-499	500-999	1M-2499
39F094	75-1	Str. Plug	P	.40	.34	.282	.241	.214
39F095	75-2	Cable Jack	R	.28	.24	.197	.169	.150
39F096	75-3	Receptacle	S	.50	.42	.349	.299	.265

AMPHENOL MIL-CRIMP BNC CONNECTORS



31-320 31-334 31-333

Terminates with either 100% crimp or with center contact soldered. Constant 50 ohm inped. VSWR identical to solder type BNC connectors up to 10,000 Mc. Sizes: plug, 1 17/64 x 9/16" dia. right angle plug, 1 9/16 x 1 1/8 x 9/16 cable jack, 1 11/32 x 9/16 dia. blkd. jack.

USE WITH RG58, RG58A, RG58C, RG-141, RG-141A

Stock No.	Mfgs. Type	Description	1-24	25-99	00-49	500-999	1000-2499
39F1438	31-320	Plug	1.20	.98	.82	.71	.63
39F1439	31-335	Ang. Pllug	3.62	2.97	2.49	2.15	....
39F1440	31-327	Jack	1.43	1.17	.98	....	....
39F1441	31-342	Blkhd. Jack	1.90	1.57	1.32	1.13	....

USE WITH RG55, RG55A, RG55B, RG-142, RG-142A, RG-142B, RG-223

Stock No.	Mfgs. Type	Description	1-24	25-99	00-49	500-999	1000-2499
39F1442	31-326	Plug	1.02	.83	.70	.60	.53
39F1443	31-334	Ang. Plug	3.62	2.97	2.49	....	... .
39F1444	31-333	Jack	1.43	1.17	.98	....	....
39F1445	31-341	Blkhd. Jack	1.90	1.57	1.32	1.13	....

USE WITH RG59, RG59A, RG59B, RG82, RG62B, RG62C, RG-140

Stock No.	Mfgs. Type	Description	1-24	25-99	100-499	500-999	1000-2499
39F1446	31-321	Plug	1.20	.98	.82	.71	.63
39F1447	31-336	Ang. Plug	3.62	2.97	2.49	2.15	....
39F1448	31-328	Jack	1.49	1.23	1.03		....
39F1449	31-343	Blkhd. Jack	1.90	1.57	1.32	1.13	1.00

USE WITH COAX CABLES RG71, RG71A, RG71B

Stock No.	Mfgs. Type	Description	1-24	25-99	100-499	500-999	1000-2499
39F1450	31-322	Plug	1.20	.98	.82	.71	....
39F1451	31-337	Ang. Plug	3.62	2.97	2.49	....	....
39F1452	31-329	Jack	1.49	1.23	1.03	....	....

USE WITH RG180, RG180A, RG180B, RG195, RG195A

Stock No.	Mfgs. Type	Description	1-24	25-99	100-499	500-999	1000-2499
39F1454	31-323	Plug	1.35	1.11	.94	.81	.71
39F1456	31-330	Jack	1.49	1.23	1.03	....	....
39F1457	31-345	Blkhd. Jack	1.90	1.57	1.32	....	....

USE WITH COAX CABLES RG122

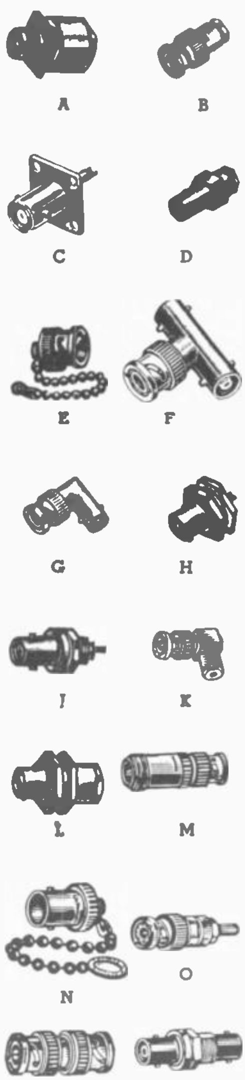
Stock No.	Mfgs. Type	Description	1-24	25-99	100-499	500-999	1000-2499
39F1458	31-324	Plug	1.35	1.11	.94	....	....
39F1461	31-345	Blkhd. Jack	1.90	1.57	1.32	....	....
39F1462	31-325	Plug	1.35	1.11	.94	.81	.71
39F1465	31-347	Blkhd. Jack	2.29	1.88	1.58	. ...	....

HEX CRIMP TOOLS—FOR BNC/TNC—BRAID CRIMPS

Stk. No.	Type	Die P/N Included	Die Cavity	RG Cable	NET
39F1466	227-350	227-292-1	A	55, 48, 141, 142, 233, 122, 180, 195. 21-597,	97.00
39F1467	227-375	227-920-2	B	421-637, 71, 59, 62, 140	97.00

Amphenol Connectors

Small, weatherproof low-voltage connectors with bayonet action for quick-disconnect applications. Non-constant impedance types for RG-55 and 58/U cables, and modified types for RG-59, 62, and 71/U cables. Shells, couplings, and male contacts are accurately machined from brass . . . springs are beryllium copper. All parts are silver-plated. Improved Series BNC connectors (Note 1) are constant-impedance 50 ohm types with excellent electrical performance up to 10,000 megacycles. Modified UG-290/U connector (Note 2) are for RG-62 and 71/U cables, and are not matched. Shp wt. 3 oz. ea.



A B C D E F G H J K L M N O P Q

TYPE "BNC" CONNECTORS

Stock No.	Type	JAN Type	Fig.	Description	RG/U Cables	Max. Jkt. Dia.	1-24	25-99	100-499	500-999	1M-2499
39F1000	31-006	CW-123/U	E	Cap & chain			.69	.57	.48	.41	.37
39F1009	31-026	CW123A/U	E	Cap & chain (1)			.45	.36	.31	.27	.24
39F072	31-007	CW155/U	....	Cap			.30	.25	.21	.18	.16
39F1010	31-027	CW155A/U		Cap			.44	.36	.30	.26	.23
39F1002	31-017	CW-159/U	N	Shorting plug			.94	.78	.65	.56	.50
39F1025	31-210	CW-282/U	E	Cap & chain (1)			.76	.63	.53	.45	
39F063	31-002	UG-88/U	B	Plug	55, 58	.206	.67	.55	.46	.40	.35
39F1003	31-018	UG-88B/U	B	Plug	55, 58	.206	.80	.66	.55	.48	.42
39F1018	31-202	UG-88C/U	B	Plug (1)	55, 58	.206	.73	.60	.51	.44	.38
39F064	31-005	UG-89/U	D	Jack	55, 58	.206	1.00	.82	.69	.59	.52
39F1004	31-019	UG-89A/U	D	Jack	55, 58	.206	1.08	.89	.75		
39F1021	31-205	UG-89B/U	D	Jack (1)	55, 58	.206	.96	.79	.67	.57	.51
39F1017	31-201	UG-291B/U	A	Panel jack (1)	55, 58	.206	1.24	1.02	.85	.73	.65
39F1001	31-016	UG-254A/U	H	Receptacle*			4.56	3.75	3.14	2.71	
39F065	31-012	UG-260/U	B	Plug	59, 62, 71	.250	.71	.58	.49	.43	.37
39F1006	31-021	UG-260A/U	B	Plug	59, 62, 71	.250	.82	.68	.56	.49	.43
39F1027	31-212	UG-260B/U	B	Plug (1)	59, 62, 71	.250	.84	.70	.58	.50	.45
39F066	31-015	UG-261/U	D	Jack	59, 62, 71	.250	1.22	1.00	.84	.72	.64
39F1007	31-022	UG-261A/U	D	Jack	59, 62, 71	.250	1.33	1.09	.92	.79	
39F1028	31-215	UG-261B/U	D	Jack (1)	59, 62, 71	.250	1.24	1.02	.85	.73	.65
39F067	31-011	UG-262/U	A	Panel jack	59, 62, 71	.250	1.31	1.08	.91	.78	.69
39F1008	31-023	UG-262A/U	A	Panel jack	59, 62, 71	.250	1.77	1.45	1.22		
39F1026	31-211	UG-262B/U	A	Panel jack (1)	59, 62, 71	.250	1.40	1.16	.96	.83	
39F068	31-008	UG-274/U	F	Tee adapter			2.24	1.83	1.54	1.33	1.18
39F1024	31-208	UG-274A/U	F	Tee adapter			2.36	1.94	1.63	1.40	1.24
39F1080	31-2208	UG-274B/U	F	Tee adapter			2.75	2.26	1.90	1.64	1.45
39F1081	31-350		O		55,142		3.30	2.71	2.28	1.97	1.73
39F069	31-003	UG-290/U	C	Receptacle			.75	.60	.52	.45	.40
39F1019	31-203	UG-290A/U	C	Receptacle (1)			.82	.68	.56	.49	.43
39F070	31-001	UG-291/U	A	Panel jack	55, 58	.206	1.14	.94	.79	.68	.60
39F1005	31-020	UG-291A/U	A	Panel jack	55, 58	.206	1.29	1.06	.89	.77	
39F071	31-009	UG-306/U	G	90° adapter			1.94	1.60	1.34	1.15	1.02
39F1071	31-209	UG-306A/U	G	90° adapter			2.18	1.79	1.50	1.30	1.14
39F1036	31-817	UG-447/U	C	Receptacle (2)			1.02	.83	.70	.60	.53
39F1031	31-218	UG-491A/U	P	Adapter (1)			2.29	1.88	1.58	1.36	1.20
39F1337	31-236	UG-625B/U	....	Receptacle, 7/16"			.75	.62	.52	.45	.40
39F073	31-102	UG-657/U	J	Receptacle*			1.18	.97	.81	.70	.61
39F1033	31-220	UG-492A/U	Q	Bulk. adapter*			2.63	2.15	1.81	1.56	1.37
39F1079	31-3220	UG-492D/U		Bulk. adapter			3.33	2.73	2.29	1.98	1.74
39F1022	31-206	UG-909/U	L	Bulk. jack (1)	55, 58	.206	1.49	1.33	1.03	.88	.79
39F1023	31-207	UG-910/U	L	Bulk. jack (1)	59, 62, 71	.250	1.65	1.36	1.14	.98	.86
39F1339	31-238	UG-912/U	....	Receptacle, 1 5/32"			1.86	1.52	1.29	1.10	.97
39F1020	31-204	UG-913/U	K	90° plug (1)	55, 58	.206	3.21	2.64	2.21	1.91	1.68
39F1030	31-217	JG-349A/U	M	Adapter†			2.49	2.05	1.73	1.49	1.31
39F1032	31-219	UG-914/U	....	St. adapter (1)			1.28	1.05	.88	.76	.68
39F075	31-221	UG-1094/U	....	Receptacle (2)			.71	.58	.49	.43	.37
39F1034	31-222	UG-1098/U	....	Bulk Recep.			2.75	2.26	1.90	1.64	1.45
39F1012	31-104		C	90° Receptacle			1.59	1.30	1.09	.94	
39F1013	31-105		C	Receptacle (2)			1.12	.93	.78	.67	
39F1035	31-759		....	Ground lug			.16	.14	.11	.09	.08
39F1039	31-842		C	Receptacle (2)			1.43	1.17	.98		
39F1040	31-850		K	90° plug	59, 62, 71	.250	3.37	2.76	2.32	2.01	1.77
39F1041	31-851		....	Cable feed-thru	58	.206	.67	.55	.46	.40	.36
39F1042	31-351		....	Plug	58,141		3.30	2.71	2.28	1.97	1.73
39F1043	31-356		....	Jack	58,141		2.94	2.33	1.95	1.70	
39F1044	31-359		....	Plug	59,62,140		3.30	2.71	2.28	1.97	1.73

BNC TYPE

Stock No.	Type	JAN Type	Fig.	Description	1-24	25-99	100-499	500-999	1M-2499
39F1302	1300	UG-90/U	M	Panel jack, sq. flange RG55, 58	3.90	3.20	2.69		
39F1311	4500	UG-185/U	....	Receptacle, sq. flange	1.10	.91	.76	.66	.58
39F1331	47000	UG-414/U	....	2 Female ends, sq. flange	1.67	1.37	1.16	.99	.87
39F1313	5675	UG-535/U		Angle receptacle,sq. flange	2.14	1.75	1.47	1.27	1.12
39F1312	5575	UG-625/U	....	Receptacle, 7/16" single hole mtg.	.69	.57	.48	.41	.37
39F1335	84975	UG-1033/U	L	Plug, improved, RG122	1.38	1.19	.95	.82	.73
39F1315	8525		....	Angle plug, RG55, 58	2.43	2.00	1.67	1.45	1.27
39F1072	36775			Straight plug, RG58. 141U	.96	.79	.67	.57	.51
39F1082	36875			Straight Plug RG-/055,142	.96	.79	.67	.57	.51
39F029	68175			Straight Plug RG/-062.140	.94	.78	.65	.56	.50
39F1083	79025			Receptical Sq. Flange	4.37	3.60	3.01	2.60	2.29
39F1084	79675			Receptical Sq. Flange	3.37	2.76	2.32	2.01	1.77
39F1085	95725		....	Panel Jacks Sq. Flange RG-/U58, 141	1.65	1.36	1.14	.98	.86

CAPTIVATED CONTACT CONNECTORS 50 OHM BNC SERIES

Stock No.	Type	Similar to	Fig.	Description	RG-/U Cables	Max. Jkt. Dia.	1-24	25-99	100-499	500-999	1M-2499
39F1220	31-301	UG-88C/U	B	Plug (1)	55,58,141,142	.206	1.49	1.23	1.03	.89	.79
39F1221	31-302	UG-89B/U	D	Jack (1)	55,58,141,142	.206	2.08	1.72	1.44	1.24	
39F1223	31-304	UG-260B/U	B	Plug (1)	59,62,71,140	.250	1.53	1.26	1.06	.92	.81
39F1219	31-300	UG-291B/U	A	Panel jack (1)	55,58,141,142	.206	2.32	1.90	1.60	1.38	

NOTES:
*Pressurized Types.
†Connects Male Series N and Female Series BNC.

1) Improved Series BNC Connectors.
2) Modified UG-290/U for RG-62 and 71/U Cables.

Amphenol Connectors

SUB-MINIATURE RF CONNECTORS

Machined brass gold finished, beryllium copper female contacts, brass male contacts. Teflon insulation except hermetically sealed receptacles which are glass and Teflon. Field serviceable types require no crimping. Av. shpg. wt. 3 oz.

75 OHM PUSH-ON

Stock No.	Type No.	Descrip.	Tool No.	1-24	25-99	100-499	500-999	1000-2499
42F213	27-13	Plug	227-901 & 227-902	1.36	1.12	.94	.81	.71
42F214	27-14	Jack	227-901 & 227-902	.79	.65	.54	....	....
42F215	27-15	Recep.	None	1.21	1.00	.84	.72	.64

75 OHM SCREW-ON

Stock No.	Type No.	Descrip.	Tool No.	1-24	25-99	100-499	500-999	1000-2499
42F219	27-19	Plug	227-901	.94	.77	.65	.56	.49
42F220	27-20	Jack	227-901	2.84	2.34	1.96	....	....
42F221	27-21	Recep.	None	1.21	1.00	.84	.72	.64
42F222	27-22	Jack, Blkh.	227-901	1.59	1.31	1.10	.95	.84

50 OHM PUSH-ON

Stock No.	Type No.	Descrip.	Tool No.	1-24	25-99	100-499	500-999	1000-2499
42F201	27-1	Plug	227.900	.72	.60	.50	.43	.38
42F202	27-2	Jack	227.900	.75	.61	.52	.45	.39
42F203	27-3	Recep. Blkh.	None	1.15	.94	.79	.68	.60
42F204	27-4	Jack Blkh.	227-900	1.02	.84	.70	.61	.54

50 OHM SCREW-ON

Stock No.	Type No.	Descrip.	Tool No.	1-24	25-99	100-499	500-999	1000-2499
42F207	27-7	Plug	227.900	.68	.56	.47	.41	.36
42F208	27-8	Jack	227-900	.77	.63	.53	.46	.40
42F209	27-9	Receptacle	None	.64	.53	.44	.38	.34
42F210	27-10	Jack, Blkh.	227-900	1.02	.84	.70	.61	.54
42F212	27-12	Recep. Herm.	227-900	1.47	1.20	1.01	....	....
42F226	27-26	Pptd.	None	1.68	1.38	1.16	1.00	.88
39F1217	27-28	Adap., Sub-minax to BNC	None	2.02	1.66	1.39	1.20	1.06


A


B


C

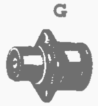

D


E


F


G


H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V

TYPE N CONNECTORS

Weatherproof low-voltage connectors of constant impedance. All are 50 ohm types except (1), which are 70 ohms.

Stk. No.	Type	Jan Type	Fig.	Description	For RG-/U Cable	Max. Jkt. Dia.	1-24	25-99	100-499	500-999	1000-2499
39F1101	82-86	UG-18B/U	C	Plug	5, 6, 21	.332	1.95	1.60	1.35	1.16	1.03
39F1119	82-203	UG-18C/U	C	Plug	5, 6, 21	.332	2.84	2.34	1.96	1.69	....
39F1103	82-88	UG-20B/U	E	Jack	5, 6, 21	.332	2.76	2.27	1.90	....	....
39F1124	82-210	UG-20C/U	E	Jack	5, 6, 21	.332	2.57	2.11	1.77	....	....
39F1108	82-96	UG-21C/U	C	Plug	8, 9. 10	.332	1.40	1.15	.97	.84	.74
39F019	82-61	UG-21B/U	C	Plug	8, 9, 10	.332	1.17	.96	.81	.70	.61
39F1118	82-202	UG-21D/U	C	Plug	8, 9, 10	.332	1.17	.96	.81	.70	.61
39F1107	82-95	UG-22C/U	D	Panel jack	8, 9, 10	.332	2.00	1.64	1.38	....	....
39F020	82-62	UG-22B/U	D	Panel jack	8, 9, 10	.332	1.76	1.45	1.22	1.05	....
39F1122	82-208	UG-22D/U	D	Panel jack	8, 9, 10	.332	1.98	1.62	1.36	....	....
39F021	82-63	UG-23B/U	E	Jack	8, 9, 10	.332	1.42	1.17	.98	.85	.75
39F1106	82-94	UG-23C/U	E	Jack	8, 9, 10	.332	1.76	1.45	1.22	1.05	....
39F1123	82-209	UG-23D/U	E	Jack	8, 9, 10	.332	1.62	1.33	1.11	.96	.85
39F076	82-64	UG-27A/U	F	90° adapter	....	......	3.06	2.51	2.11	1.82	1.60
39F1109	82-98	UG-27B/U	F	90° adapter	....	......	3.31	2.72	2.28	1.97	1.74
39F1127	82-213	UG-27C/U	F	90° adapter	....	......	2.76	2.27	1.90	1.64	1.45
39F1110	82-99	UG-28A/U		Tee adapter	....	......	3.31	2.72	2.28	1.97	....
39F077	82-65	UG-29A/U	G	St. adapter	....	......	1.89	1.55	1.30	1.13	.99
39F1112	82-101	UG-29B/U	G	St. adapter	....	......	1.68	1.38	1.16	1.00	.88
39F022	82-66	UG-30/U		Bulk. adapter	....	......	3.90	3.21	2.69	2.32	2.05
39F1117	82-201	UG-30C/U		Bulk. adapter	....	......	4.60	3.78	3.17	2.74	2.41
39F1111	82-100	UG-57B/U	H	St. adapter	....	......	2.15	1.78	1.48	1.28	1.13
39F023	82-24	UG-58/U	A	Receptacle	....	......	.81	.67	.56	.48	.43
39F028	82-97	UG-58A/U	A	Receptacle	....	......	.85	.70	.59	.51	.45
39F024	82-84	UG-94A/U	C	Plug (1)	11-13	.420	2.02	1.66	1.39	1.20	1.06
39F1104	82-89	UG-95A/U	E	Jack (1)	11-13	.420	2.15	1.76	1.48	1.28	....
39F025	82-90	UG-96A/U	D	Panel jack (1)	11-13	.420	2.25	1.85	1.55	....	....
39F018	82-36	UG-107A/U	B	Tee adapter	....	......	5.98	4.91	4.12	3.56	....
39F078	82-102	UG-107B/U	B	Tee adapter	....	......	5.73	4.70	3.95	3.41	3.00
39F1113	82-105	UG-204A/U	C	Plug	14, 74	.545	5.83	4.79	4.02	....	....
39F1128	82-811	UG-680/U	K	Bulk. recpt.	....	......	2.21	1.81	1.52	1.31	1.16
39F1114	82-106	MX-913/U		Cap & chain	....	......	.53	.44	.37	.32	.28
39F1115	82-112	....	B	Receptacle	....	......	1.78	1.47	1.23	1.06	.94
39F1129	82-835	....	C	Angle plug	8, 9, 10	.332	3.95	3.24	2.72	2.35	2.07
39F1130	82-1275	....		Grounding lug	....	......	.13	.11	.09	....	....
39F1340	91100	UG-30D/U	C	Adpg 2F Ends	....	......	3.01	2.47	2.08	1.79	1.58
39F1323	34000	UG-536/U		Plug R, 55, 58	....	......	1.98	1.62	1.36	1.18	1.04
39F1324	34025	UG-536B/U	C	Plug, Improved R, 55	....	......	1.45	1.19	1.00	.86	.76
39F1073	82-342	UG-1695/U	C	Plugs	11, -A, 149	.813	1.40	1.14	.96	.83	.73
39F1074	82-340	UG-1681/U	C	Plugs		.813	1.27	1.05	.87	.76	.67
39F1075	82-349	UG-1707/U	M	Angle plugs		.813	4.87	4.00	3.35	2.87	2.55
39F1076	82-337	UG-1688/U	P	Jacks	8, 8A,	.687	1.51	1.24	1.04	.90	.79
39F1077	82-343	UG-1697/U	N	Panel jacks	213	1.00	1.76	1.45	1.21	1.05	.93
39F1078	82-346	UG-1700/U	O	Bulkhead jacks		.875	2.75	2.26	1.89	1.63	1.44

TYPE "C" CONNECTORS

Improved design for 50 ohm RF cables. Will also fit 70 ohm cables where impedance match is not critical. Employ quick-disconnect bayonet-type lock. Silver-coated, has teflon dielectric. Shpg. wt., 4 oz.

39F087	82-530	UG-573A/U	T	Plug	8, 9	.420	2.22	1.83	1.53	1.33	1.17
39F1135	82-508	UG-564/U	....	....	......	......	3.67	3.01	2.53	....	....
39F1149	82-536	UG-566A/U	B	Tee adapter	......	......	9.99	8.20	6.88	....	....
39F1148	82-535	UG-567A/U	V	90° adapter	......	......	4.54	3.73	3.12	....	....
39F1133	82-504	UG-568/U	A	Receptacle	......	......	1.88	1.54	1.30	1.12	.98
39F1134	82-505	UG-569/U	R	Bulk. recpt.	......	......	2.53	2.07	1.74	....	....
39F1131	82-502	UG-570/U	N	Bulk. jack	8, 9	.420	3.02	2.48	2.08	1.80	....
39F086	82-501	UG-571/U	J	Panel jack	8, 9	.420	2.61	2.15	1.80	....	....
39F1132	82-503	UG-572/U	L	Jack	8, 9	.420	2.37	1.94	1.63	....	....
39F1145	82-532	UG-628A/U	T	HV plug	8, 9A	.420	3.05	2.51	2.11	1.81	1.60
39F1143	82-521	UG-632/U	N	Bulk. HV jack	8, 9A	.420	3.55	2.92	2.45	....	....
39F1140	82-514	UG-643/U	....	....	......	......	2.45	2.02	1.70	....	....
39F1141	82-515	UG-634/U	R	Bulk. recpt.	......	......	2.94	2.41	2.02	1.75	....
39F1137	82-511	UG-705/U	R	Bulk. recpt	......	......	4.76	3.91	3.28	2.83	....
39F1147	82-534	UG-709A/U	C	Plug	55, 58	.206	2.57	2.11	1.77	1.53	1.35
39F1144	82-531	UG-710A/U	V	90° plug	......	......	4.43	3.63	3.05	2.64	2.32
39F1138	82-512	MX-1142/U	....	Cap & chain	......	......	1.10	.91	.76	.66	.58

BETWEEN SERIES ADAPTERS

Stk. No.	MIL.	Type	Mates With	1-24	25-99	100-490	500-999	1000-2499
39F1038	UG-201/U	31-830	N female and BNC male	2.53	2.07	1.74	1.50	1.33
39F1029	UG-201A/U	31-216	N female and BNC male	1.75	1.44	1.20	1.04	.92
39F074	UG-273/U	31-028	BNC male and UHF 49194	1.45	1.19	.99	.86	.76
39F1030	UG-349A/U	31-217	N male and BNC female	2.49	2.05	1.73	1.49	1.31
39F1135	UG-564/U	82-508	C male and N female	3.67	3.01	2.53	...	...
39F1195	UG-565A/U	82-540	C female and N male	5.09	4.18	3.51	3.02	...
39F1217	...	27-28	BNC female to 50 ohm Screw-on subminax male	2.02	1.66	1.39	1.20	1.06
39F1310	UG-146/U	4400	UHF female and N male	3.23	2.66	2.22	1.92	1.70
39F1307	UG-255/U	2900	BNC male and UHF fem.	2.34	1.92	1.61	1.39	1.23
39F1320	UG-318/U	26700	N male and UHF female	5.96	4.89	4.10		...

TYPE UHF CONNECTORS

Series UHF RF connectors will operate satisfactorily at frequencies up to 200 megacycles without any special precautions, and used at frequencies up to 500 megacycles under certain conditions. These connectors will also handle all peak votages up to 500 without danger of breakdown. Large single and twin-contact connectors are provided with rubber sealing gasket for weather-proofing, while small single and twin-contact types can be waterproofed by application of Amphenol 307 Silicone Compound to mating insulator surfaces. Metal surfaces are silver-plated. Beaded chains for caps are nickel-plated brass. Shipping weight each, 4 oz. approx.

Stock No.	Type	Jan Type	Fig.	Description	For RG-/U Cables	Mx. Jkt. Dia.	1-24	25-99	100-499	500-999	1000-2499
39F034	83-1T	M-358	H	Tee adapter (1)	...	...	3.09	2.54	2.13	1.84	1.62
39F1060	83-58	M-359A	I	90° adapter (1)	...	...	1.71	1.39	1.18	1.01	.89
39F035	83-1J	PL-258	A	St. adapter (1)	...	...	1.15	.95	.79	.69	.60
39F030	83-1SP	PL-259	J	Plug (1)	8-13, 63	.420	.59	.49	.41	.35	.31
39F031	83-1SPN	PL-259A	J	Plug (1)	8-13, 63	.420	1.02	.83	.71	.60	.53
39F1065	83-756	49195	J	Plug (1)	8-12	.420	1.39	1.14	.96	.83	.73
39F047	83-22F	PL-275	K	Bulk adapter (2)	...	...	3.47	2.84	2.39	...	...
39F1056	83-2SP	PL-295	L	Plug (4)	57, 130	.625	5.09	4.18	3.51	...	...
39F039	83-1R	SO-239	M	Receptacle (1)	...	...	.55	.46	.38	.33	.29
39F1055	83-2R	SO-265	M	Receptacle (4)	...	...	4.29	3.52	2.95	...	...
39F043	83-22SP	UG-102/U	L	Plug (2)	22	.405	1.31	1.08	.91	.78	.69
39F048	83-22R	UG-103/U	M	Receptacle (2)	...	...	1.12	.93	.78	.67	.59
39F044	83-22AP	UG-104/U	I	90° Bulk adap. (2)	...	...	2.29	1.88	1.58	1.36	...
39F046	83-22J	UG-105/U	A	St. adapter (2)	...	...	1.67	1.37	1.16	.99	...
39F037	83-1H	UG-106/U	N	Hood (1-2)	22	.405	.33	.28	.23	.20	.18
39F1064	83-750	UG-111/U	J	Plug (1)	59, 62, 71	.250	.90	.75	.62	.54	.48
39F040	83-185	UG-175/U	A	Reducing adap.	58	.195	.18	.15	.12	.10	.09
39F041	83-168	UG-176/U	A	Reducing adap.	59, 62, 71	.250	.18	.15	.12	.10	.09
39F038	83-765	UG-177/U	N	Hood (1)	29, 55, 58	.206	.33	.28	.23	.20	.18
39F045	83-22T	UG-196/U		Tee adapter (2)	...	...	3.30	2.71	2.28	...	
39F032	83-776	UG-203/U	J	Plug (1)	55,59,62,71	.250	1.53	1.25	1.05	.90	.80
39F1051	83-1HP	UG-372/U	N	Hood (1)	8-13, 63	.420	.43	.34	.29	.25	.22
39F1058	83-21R	UG-357/U	M	Receptacle (2)	...	...	3.44	2.83	2.37	...	...
39F1059	83-21SP	UG-358/U	J	Plug (3)	34	.625	5.41	4.44	3.72	3.21	...
39F036	83-1F	UG-363/U	K	Bulk adapter (1)	...	...	2.36	1.94	1.63	1.40	1.24
39F033	83-1AP	UG-646/U	A	90° adapter (1)	...	...	1.68	1.38	1.15	1.00	.88
39F042	83-1AC	...	B	Cap & chain (1-2)	...	...	.75	.62	.52	.45	.40
39F1050	83-1BC	...	D	Cap & Chain (1-2)	...	...	1.24	1.02	.85	.74	.66
39F1052	83-1RTY	SO-239	M	Receptacle (1)	...	.870	.88	.73	.61	.53	.47
39F1061	83-59	...	P	90° Plug (1)	17, 18	...	3.64	3.00	2.51	2.16	1.91
39F1062	83-65	...	A	Reducing adap.	.250 Diam.	.870	.23	.19	.16	.14	.12
39F1070	83-86	...	E	UHF cable conn.	17	...	15.98	13.12	11.01	...	...
39F1063	83-716	...	M	Receptacle* (1)	...	...	4.01	3.30	2.77		...
39F1066	83-786	...	N	Hood & nut (1)	29, 55, 58	.206	.78	.63	.54	.47	.41
39F049	83-798	SO-239A	M		...	...	1.22	1.00	.84	.73	.63
39F1068	83-821	...	H	Plug (2) Teflon	22	.405	2.00	1.64	1.37	1.19	1.05
39F1225	83-822	49190	J	Plug (1) Teflon	...	...	.71	.58	.49	.43	.37
39F088	83-850	...	E	Solderless plug	11	.405	2.83	2.32	1.94		...
39F089	83-851	...	E	Solderless plug	8-13, 63	.420	1.97	1.61	1.35	1.18	

*Pressurized types

NOTES: 1) Small single-contact connectors 2) Small twin-contact connectors 3) Large single-contact connectors 4) Large twin-contact connectors

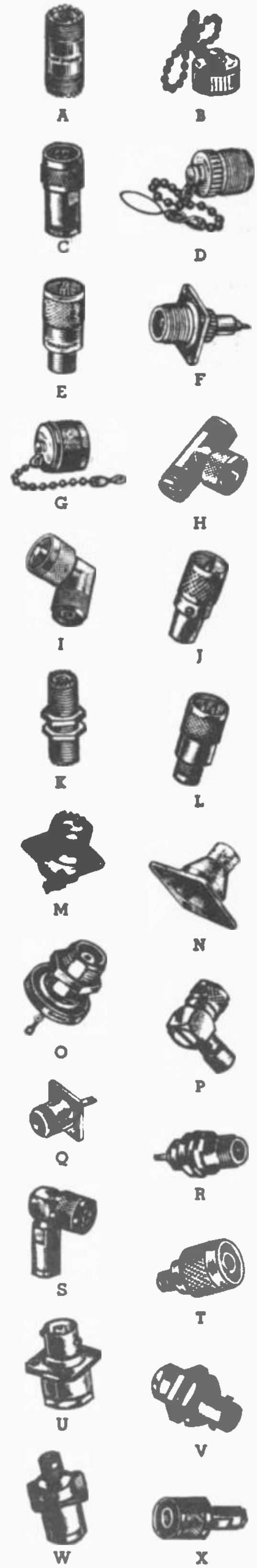
TYPE "HN" CONNECTORS

Have 5 kv peak rating, when used with Amphenol 307 Silicone compound. Machined brass. 4 oz.

39F026	82-804	UG-59B/U	U	Plug	8-10	.420	3.19	2.61	2.19	1.90	1.67
39F1150	82-38	UG-59A/U	U	Plug	8-10	.420	3.43	2.82	2.37	2.04	1.80
39F1151	82-39	UG-60A/U	V	Jack	8-10	.420	3.82	3.14	2.64	...	...
39F1164	82-814	UG-60B/U	V	Jack	8-10	.420	3.30	2.71	2.28	...	...
39F1152	82-40	UG-61A/U	V	Panel jack	8-10	.420	5.59	4.59	3.86		
39F1165	82-815	UG-61B/U	V	Panel jack	8-10	.420	5.43	4.46	3.74	...	
39F1156	82-91	UG-212A/U	W	90° adapter	...	...	6.56	5.38	4.51	...	...
39F1154	82-56	UG-333/U	X	Jack	17, 18	.870	16.29	13.37	11.21	...	...
39F1159	82-107	UG-333A/U	R	Panel jack	17, 18	.870	13.59	11.15	9.35	...	...
39F1160	82-108	UG-334A/U	Q	Panel jack	17, 18	.870	14.31	11.75	9.86	...	...
39F1158	82-92	UG-496/U	Q	Receptacle	...	...	2.75	2.26	1.90	1.64	1.45
39F027	82-805	UG-560/U	F	Receptacle	...	...	3.14	2.58	2.16	1.87	1.64
39F1163	82-130	...	G	Cap & chain	54A	...	1.53	1.26	1.06		
39F1166	82-816	...		Plug	8-10	.250	3.82	3.14	2.64	2.28	2.01
39F1167	82-833	...	T	Angle plug	...	.420	6.90	5.66	4.75	4.10	3.62
39F1168	82-836	...	S	Receptacle	...	...	5.04	4.14	3.48	3.00	2.65
39F1169	82-843	...	O	HV receptacle	8-10	...	6.80	5.58	4.69	4.05	
39F1170	82-856	...	T	Angle plug	...	.420	7.11	5.83	4.89	4.22	3.73

TAPERING TOOL

Model 103-301. Tapering tool for RG-/U cables. 8-10. Military No. MX-103/U. Shpg. wt., 2 oz.
42F246. NET 7.95



Amphenol RF Connectors

83-850—83-851

A

B

C

D

E

F

G

H

J

K

L

M

N

P

R

RF CONNECTORS

SOLDERLESS RF CONNECTORS

Solderless Amphenol connectors eliminate two common soldering operations in connector-cable assembly. Both are similar to the standard Amphenol 83-ISP plug.

Stock No.	Type	Max. Oper. Freq. (mc)	Shpg. Wt. (lbs.)	For RG-/U Cables	Max. Jkt. Dia.	1-24	25-99	100-499	500-999	1000-2499
39F088	83-850	200	.083	11	.405	2.83	2.32	1.94	....	......
39F089	83-851	200	.082	65	......	1.97	1.61	1.35	1.18	......

CABLE TERMINATIONS

Designed to terminate coax shield without soldering and permitting the inner conductor to extend beyond the termination. (*) Mount in 5/16" hole. Average wt., 4 oz.

Stock No.	Type	Jan Type	Fig.	RG/U Cable	Max. Jkt. Dia.	Mounting	1-24	25-99	100-499	500-999	1000-2499
39F1301	1050	MC1530/U*	A	59, 62, 71	.250	Locknut	.57	.48	.40	.35	.30
39F1300	1025	MX1684/U*	A	56, 58	.195	Locknut	.63	.51	.43	.37	.32
39F1309	4025	MX1801/U	B	59, 62, 71	.250	Rt. Strap	.73	.60	.51	....	....

COAXIAL PLUG-IN CONNECTORS

Commonly used on drawer-type chassis for direct plug-in connections. Plug and receptacle mount in 5/16" hole. 2,000 volts. Average wt., 4 oz.

Stock No.	IPC Type	Jan Type	Fig.	Description	1-24	25-99	100-499	500-999	1000-2499
39F1305	2225	UG1050/U	E	Male	.78	.65	.54	.46	.41
39F1304	2175	UG1051/U	E	Female	.94	.78	.65	.56	.50
39F1306	2325	....	....	Right angle hood	1.06	.86	.73	.63	.55
39F1308	3425	....	....	Male, gold plated	.96	.79	.67	....	....

MB COAXIAL CONNECTORS

Excellent electrical and mechanical properties at low cost. Extremely small, use up to 500 mc, 500 volts, 400°F. Bayonet lock. Average weight, 4 oz.

Stock No.	Jan Type	Fig.	Description	For RG-/U Cable	Max. Jkt. Dia.	1-24	25-99	100-499	500-999	1000-2499
39F1326	45000	G	Plug	58	.195	1.17	.96	.81	.70	.61
39F1329	45000	H	Receptacle, nylon	.... .	. ..	1.06	.87	.73	.63	.56
39F1330	46025	H	Receptacle, Kel-F	. .	. ..	1.06	.87	.73	.63	.56
39F1334	48850	G	Plug with Jacket Clamp	195	......	1.25	1.03	.87	.75	.66

MHV COAXIAL CONNECTORS

Miniature high voltage connectors are small bayonet-lock connectors for use up to 50 mc., 5,000 volts, 5 amps. Similar, but do not mate with BNC Connectors. Average Shpg. wt., 4 oz.

Stk. No.	IPC Type	Jan Type	Fig.	For RG-/U Cable	Max. Jkt. Dia.	1-24	25-99	100-499	500-999	1000-2499
39F1321	27000	UG931/U	C	...	......	1.84	1.51	1.26	1.09	.96
39F1322	28000	UG932/U	D	59	.242	1.86	1.52	1.29	1.10	.97

TWINAX

Have a nominal impedance of 95 ohms and are weather-proof. All are polarized to preserve continuity of the individual conductors. These conductors can normally be used at frequencies up to 200 mc, and in some cases to 500 mc with caution. Maximum peak operating voltage is 500 volts. Type 309-6275 plug for RG-U 22 cable. Average shpg. wt., 4 ounces.

Stk. No.	IPC Type	Jan Type	Fig.	Description	Max. Jkt. Dia.	1-24	25-99	100-499	500-999	1000-2499
39F1314	6275	UG-421/U	....	Plug	.405	3.07	2.53	2.12	1.83	1.61
39F1341	6225	UG-422/U	F	Receptacle, sq. flange	.. ...	3.30	2.71	2.28	1.97	1.73
39F1342	6175	UG-423/U	. . .	Panel Jack, sq. flange	......	3.62	2.97	2.49	....	....

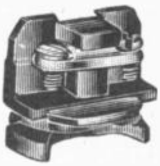
MISCELLANEOUS CONNECTORS AND ADAPTERS *55, 58, 59, 60, 71. †8-10, 87A, 115, 115A.

Stk. No.	Type	Jan Type	Fig.	Description	RG-/U Cables	Max. Jkt. Dia.	1-24	25-99	100-499	500-999	1000-2499
39F1171	82-21	UG-85/U	....	Plug	(*)	.242	6.39	5.25	4.41	....	....
39F1174	82-42	UG-87/U	....	Receptacle	......	.. ...	4.24	3.48	2.93	....	....
39F1175	82-59	UG-154/U	J	Plug	17, 18	.870	23.67	19.44	16.31	....	....
39F1176	82-80	UG-352/U	K	Receptacle	......	......	8.18	6.72	5.64	....	....
39F1177	82-110	UG-352A/U	K	Receptacle	......	......	14.20	11.65	9.78	....	....
39F1195	82-540	UG-565A/U	....	....	......	......	5.09	4.18	3.51	3.02	....
39F1213	82-538	UG-943A/U	L	Plug	10, 12	.405	4.70	3.86	3.24	....	....
39F1187	82-312	UG-1185/U	....	Plug	(†)	.425	1.40	1.15	.97	.84	.74
39F1188	62-313	UG-1186/U	....	Jack	(†)	.425	2.46	2.02	1.70	1.47	1.29
39F1190	82-320	UG-1213/U	....	Plug	(†)	.425	4.74	3.90	3.27	2.82	2.48
39F1180	82-150	....	....	Splice adpt.	8-10	.420	18.78	15.41	12.94	....	....
39F1196	82-830	....	M	Push-on plug	55, 58	.206	.65	.53	.44	.39	.33
39F1197	82-831	....	N	Push-on recpt.	......	......	1.12	.93	.78	.67	.59
39F1198	82-832	....	M	Push-on plug	62, 71	.250	.69	.57	.48	.41	.37
39F1199	82-841	....	N	Push-on recpt.	......	......	1.29	1.06	.89	.77	.68
39F1200	82-842	....	M	Push-on plug	......	......	.65	.53	.44	.39	....
39F1201	82-845	....	....	Push-on plug	55, 58	.206	1.04	.85	.71	.62	.56
39F1202	82-846	....	P	Push on jack	55, 58	.206	1.29	1.06	.89	.77	....
39F1205	82-888	....	R	....	......	......	1.79	1.47	1.23	1.07	.94

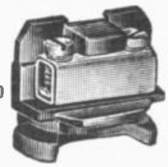
Terminal Boards and Accessories

CR151-C SECTIONAL TERMINAL BOARDS

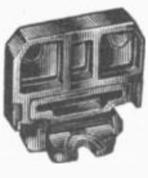
CR151C0100



CR151C0300
CR151C02300



CR151C1
CR151C10



CR151-C7 Mounting Clamp

CR151-C2 Mounting Channel

Well suited for use on any equipment where it is desireable to group wiring connections. 25 and 50 amp boards have creepage and clearance distances that meet 300 volt requirement for industrial control equipment. 50 amp boards meet 600 volt requirements. Factory assembled boards of any one terminal type are available with up to 12 points of 25 amp or 6 points of 50 amp or up to 99 points for channel mounting. Individual sections may be combined and terminal identification may be marked on forms.

Stock No.	Type CR151-	Description	1-249	250-499	500-999	1000-Up
40F5200	-C0100AB	Basic Screw-25 amp	.229	.217	.206	.194
40F5201	-C0300AB	Box clamp-25 amp	.300	.285	.270	.255
40F5202	-C02300AB	Box clamp-50 amp	.372	.353	.335	.316
40F5203	-C1	End-25 amp	.182	.173	.164	.155
40F5274	-C3	Vinyl mkg. strip 50"	.32	.310	.290	.280
40F5204	-C10	End-50 amp	.227	.215	.204	.193
40F5205	-C2	Mtg. channel 4'	2.41	2.29	2.17	2.05
40F5206	-C7	Mtg. clamp*	.109	.104	.098	.093
40F5275	-C8	Mkg. strip retainer†	.090	.086	.081	.077

*Need 2 per channel †Need 1per strip

ONE PIECE TERMINAL BOARDS—CR151-D

CR151D10117

One piece terminal boards available in 3 sizes, for use on equipment where it is desirable to group wiring connections. Terminal identification can be made on spaces provided on the board or on vinyl marking strips.

ONE PIECE TERMINAL BOARDS—CR151-D1—15 AMPERES

Stock No.	Type CR151-	No. of Pts.	1-24	25-49	50-99	100-249	250-499
40F5207	D10102	2	.18	.14	.12	.10	.09
40F5208	D10103	3	.25	.20	.16	.13	.12
40F5209	D10104	4	.32	.25	.21	.17	.15
40F5210	D10105	5	.38	.31	.25	.20	.18
40F5211	D10106	6	.44	.35	.29	.24	.21
40F5212	D10107	7	.51	.41	.34	.27	.24
40F5213	D10108	8	.58	.46	.38	.31	.27
40F5214	D10109	9	.64	.52	.43	.34	.31
40F5215	D10110	10	.71	.57	.47	.38	.34
40F5216	D10111	11	.77	.62	.51	.41	.37
40F5217	D10112	12	.84	.67	.56	.45	.40
40F5218	D10113	13	.91	.73	.60	.49	.43
40F5219	D10114	14	.98	.78	.65	.52	.47
40F5220	D10115	15	1.05	.84	.70	.56	.50
40F5221	D10116	16	1.12	.89	.74	.60	.53
40F5222	D10117	17	1.18	.94	.79	.63	.56
40F5223	D10118	18	1.25	1.00	.83	.67	.59
40F5224	D10119	19	1.31	1.05	.87	.70	.62
40F5225	D10120	20	1.38	1.11	.92	.74	.66
40F5226	D10121	21	1.44	1.15	.96	.77	.68

ONE PIECE TERMINAL BOARDS—CR151-D2—20 AMPERE

Stock No.	Type CR151-	No. of Pts.	1-24	25-49	50-99	100-249	250-499
40F5227	D20102	2	.23	.19	.15	.12	.11
40F5228	D20103	3	.31	.25	.21	.17	.15
40F5229	D20104	4	.40	.32	.27	.22	.19
40F5230	D20105	5	.48	.39	.32	.26	.23
40F5231	D20106	6	.56	.45	.37	.30	.27
40F5232	D20107	7	.66	.53	.44	.35	.31
40F5233	D20108	8	.74	.59	.49	.40	.35
40F5234	D20109	9	.82	.66	.55	.44	.39
40F5235	D20110	10	.91	.73	.61	.49	.43
40F5236	D20111	11	.99	.79	.66	.53	.47
40F5237	D20112	12	1.08	.86	.72	.58	.51
40F5238	D20113	13	1.17	.93	.78	.62	.55
40F5239	D20114	14	1.25	1.00	.83	.67	.60
40F5240	D20115	15	1.33	1.07	.89	.71	.63
40F5241	D20116	16	1.43	1.14	.95	.76	.68
40F5242	D20117	17	1.50	1.20	1.00	.81	.71
40F5243	D20118	18	1.59	1.27	1.06	.85	.76
40F5244	D20119	19	1.66	1.33	1.11	.89	.79
40F5245	D20120	20	1.76	1.41	1.17	.94	.84

ONE PIECE TERMINAL BOARDS—CR151-D3—30 AMPERES

Stock No.	Type CR151-	No. of Pts.	1-24	25-49	50-99	100-249	250-499
40F5246	D30102	2	.27	.22	.18	.14	.13
40F5247	D30103	3	.38	.31	.25	.20	.18
40F5248	D30104	4	.49	.39	.32	.26	.23
40F5249	D30105	5	.58	.47	.39	.31	.28
40F5250	D30107	6	.69	.55	.46	.37	.33
40F5251	D30106	7	.80	.64	.53	.43	.38
40F5252	D30108	8	.90	.72	.60	.48	.43
40F5253	D30109	9	1.01	.81	.67	.54	.48

Stock No.	Type CR151-	No. of Pts.	1-24	25-49	50-9	100-249	250-499
40F5254	D30110	10	1.12	.89	.74	.60	.53
40F5255	D30111	11	1.21	.97	.80	.65	.57
40F5256	D30112	12	1.32	1.05	.88	.70	.63
40F5257	D30113	13	1.43	1.14	.95	.76	.68
40F5258	D30114	14	1.53	1.22	1.02	.82	.73
40F5259	D30115	15	1.83	1.31	1.09	.87	.78
40F5260	D30116	16	1.74	1.39	1.15	.93	.82
40F5261	D30117	17	1.84	1.47	1.22	.98	.87

QUICK-CONNECT ACCESSORIES

Flat

Flat-Flat

45°-45°

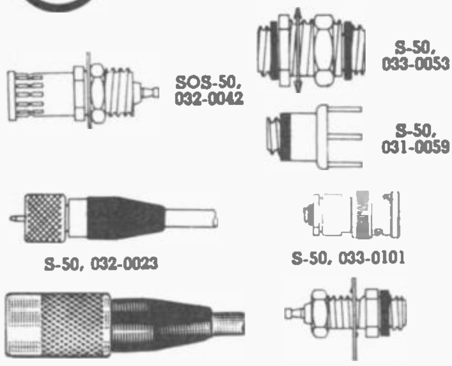
45°-Flat

For CR151 terminal boards. Terminal pieces for conversion of screw type terminal boards. One, two, or three may be added per terminal board point. Complete boards may be ordered to specifications in any combination of one, two, or three quick-connect terminals on either side, flat or wire angles of 45° or 90°.

Stk. No.	Type CR151-	Description	Use With	Per Pkg. of 100 1-4	5-9	10 Up
40F5262	—X102	Flat — None	CR151D1	2.00	1.50	1.00
40F5263	—X105	Flat — Flat	CR151D1	3.00	2.50	2.00
40F5264	—X106	45° — Flat	CR151D1	4.00	3.50	3.00
40F5265	—X108	45° — 45°	CR151D1	5.00	4.50	3.50
40F5266	—X202	Flat — None	CR151D2	2.50	2.25	2.00
40F5267	—X205	Flat — Flat	CR151D2	4.00	3.50	3.00
40F5268	—X206	45° — Flat	CR151D2	5.00	4.00	3.50
40F5269	—X208	45° — 45°	CR151D2	6.00	5.00	4.00
40F5270	—X302	Flat — None	CR151D3	3.00	2.50	2.00
40F5271	—X305	Flat — Flat	CR151D3	5.00	4.00	3.50
40F5272	—X306	45° — Flat	CR151D3	6.00	5.00	4.00
40F5273	—X308	45° — 45°	CR151D3	7.00	6.00	5.00

Complete set of G.E. catalogs covering terminal boards, relays, and switches listing applications, dimensions and engineering data.
39F2061. NET ....Free

Microdot Coaxial Cable and Connectors



MINIATURE COAXIAL CABLES

The variety of Microdot coaxial cables now being stocked at Newark offer design solution for your application. Features: light weight, small diameter, convenient bend radius and high operating temperatures. The dielectric material is "Teflon" for most types. 50-3804 is polyethylene attenuation. At 400 mhz (db/ft). Av. Shipping wt., 2½ lbs. per 100 ft.

COAXIAL CABLES

Stock No.	Type	Ohms	O.D. Max.	Price Per Foot 20-99	100-999	1000-4999	5000-9999
37F821	202-3932	160	.168	.48	.425	.36	.28
37F820	202-3927	125	.120	.40	.32	.25	.21
37F800	250-3804	54	.088	.18	.155	.13	.115
37F808	250-3808	50	.085	.45	.36	.29	.249
37F835	250-3866	52	.090	.47	.37	.301	.258
37F812	250-3902	50	.075	.14	.121	.107	.098
37F836	250-3908	50	.092	.36	.30	.268	.223
37F837	250-3909	50	.083	.10	.075	.065	.057
37F838	250-3943	50	.105	.12	.09	.075	.063
37F817	250-4012	50	.075	.19	.157	.133	.115
37F818	250-4049	50	.075/.110	.35	.295	.255	.23
37F839	250-4063	52	.087	.36	.30	.268	.223
37F840	250-4149	52	.080	.22	.177	.15	.123
37F841	260-3816	45	.048	.30	.255	.23	.217
37F815	260-3905	30	.045	.21	.166	.121	.111
37F842	260-3919	100	.130	.18	.137	.117	.10
37F843	275-3932	75	.155	.59	.47	.361	.30
37F844	275-3933	75	.155	.35	.27	.235	.217
37F845	275-3963	80	.102	.17	.139	.103	.088
37F811	293-3913	100	.130	.17	.129	.111	.095
37F846	293-3930	100	.130/.175	.25	.198	.17	.144

RG COAXIAL CABLES

Stock No.	Type	Ohms	O.D. Max.	Price Per Foot 20-99	100-999	1000-4999	5000-9999
37F847	RG-196/U	75	.110	.22	.179	.155	.121
37F848	RG-188/U	50	.110	.25	.195	.162	.147
37F827	RG-178B/U	50	.075	.16	.136	.118	.097
37F833	RG-196A/U	50	.080	.19	.156	.133	.116
37F849	RG-188A/U	50	.110	.25	.195	.162	.147
37F834	RG-187/U	75	.110	.29	.25	.208	.169
37F829	RG-179B/U	75	.105	.21	.171	.153	.137
37F850	RG-187A/U	75	.110	.29	.25	.208	.169
37F851	RG-195/U	95	.155	.50	.38	.33	.264
37F852	RG-180B/U	95	.145	.40	.307	.263	.238
37F853	RG-195A/U	95	.155	.50	.38	.33	.264
37F854	RG-142B/U	50	.200	.80	.617	.475	.395

QUICK CONNECT SERIES

Stock No.	Type	Dscpt.	1-24	25-99	100-249	250-499	500-999
39F1854	032-0002-0001*	QC-50	2.31	2.15	1.98	1.71	1.60
39F1991	031-0057-0001**	QC-50,	2.59	2.42	2.27	1.94	1.70
39F1994	032-0079-0001*	QC-70	2.31	2.15	1.98	1.71	1.60

(*)Plugs, use assembly tool 010-0007-000.
(**)Receptacle.

MICRODOT ASSEMBLY HAND TOOLS

Positive crimping of all Microdot connections. Light weight.

Stk. No.	Type	Description	Shpg. wt. oz.	Each
39F1919	010-0016-0000	Steel	2	3.25
39F1920	010-0003-0000	Stainless S	3	10.00
39F1884	010-0017-0000	Stainless S	2	3.25
39F1885	010-0007-0000	Stainless S	2	15.00

MICROMINIATURE CONNECTORS

50 ohm conductors matched to 50 ohm cables through S band. Specs. show the high performance. Voltage rating: rated 850 volts peak. Finish: shield parts silver plated .0002 min., for 48 hour salt spray rating; center contact parts are gold plated .00003 min. Dielectrics: "Teflon" (except for occasional Epoxy and other seals). Insulation Resistance: over 10^{11} ohms. Contact Resistance: all less than 0.002 ohms. Two types of connectors differentiated by "S" meaning Screw type and "SOS" meaning Slide-On type. Code with a suffix (of the type number) for characteristic impedance attaching cables, as "S-50", "SOS-93". Avg. Shipping wt., 1 oz.

SERIES S-50

Stk. No.	Type	Description	1-24	25-99	100-249	250-499	500-999
39F1900	031-0001-0001	Bulkhead receptacle for 1/16" panel, has solder pot, no keying	2.69	2.48	2.31	1.98	1.02
39F1901	031-0002-0001	Bulkhead receptacle for 1/8" panel, has solder pot, no keying	2.97	2.79	2.60	2.22	2.05
39F1902	031-0003-0001	Bulkhead receptacle for 1/8" panel, threads into panel, sold. pot	2.41	2.27	2.11	1.80	1.66
39F1903	031-0050-0001	Bulkhead receptacle for 1/8" panel with rnd. or "D" shaped hole for keying	2.59	2.42	2.27	1.94	1.78
39F1904	031-0034-0001	Jack 1/4" Dia. (A)	2.68	2.51	2.33	2.02	1.84
39F1905	031-0033-0001	Bulkhead jack (A)	3.34	3.15	2.93	2.51	2.31
39F1906	031-0059-0001	Printed Cir. Recpt.	3.50	3.30	3.06	2.51	2.40
39F1907	031-0061-0001	Printed circuit recept.—Right angle	6.00	5.67	5.28	4.51	4.14
39F1908	032-0015-0001	Angle plug 1/4" Dia. (B)	4.02	3.76	3.51	3.03	2.76
39F1909	032-0021-0001	Plug—solderless (A)	2.31	2.15	1.98	1.71	1.60
39F1910	032-0023-0001	Plug with 2 Teflon bushings (A)	2.31	2.15	1.98	1.71	1.60
39F1911	033-0001-0001	Coupling	2.75	2.59	2.31	1.98	1.82
39F1912	033-0053-0001	Bulkhead feedthru for S-50 series	3.52	3.30	3.08	2.64	2.42
39F1913	033-0101-0001	S-50 jack to BNC adapter with UG-88 C/U plug end	6.00	5.60	5.26	4.51	4.13
39F1914	033-0102-0001	Same as 33-101 with UG89B/U Jack end	9.85	9.24	8.58	7.37	6.77
39F1915	033-0103-0001	S-50 plug to BNC adapter with UG-88 C/U plug end	6.22	5.83	5.45	4.73	4.29
39F1916	033-0104-0001	Same as 33-103 with UG-89 B/U jack end	8.86	8.31	7.76	6.66	6.11
39F1960	031-0024-0001	Ins. Bulkhead Recept.	4.27	3.90	3.72	3.19	2.93
39F1917	051-0049-0001	Hermetic Seal Recept.	5.19	4.86	4.54	3.89	3.56
39F1881	051-0079-0001	Modified 31-01.	3.99	3.75	3.49	2.99	2.75

SERIES S-70

Stk. No.	Type	Description	1-24	25-99	100-249	250-499	500-999
39F1922	031-0017-0001	Bulkhead receptacle for 1/16" panel, has solder pot, no keying	3.19	2.99	2.79	2.40	2.20
39F1923	031-0051-0001	Bulkhead receptacle for 1/8" panel with round or "D" shaped hole for keying	2.68	2.53	2.38	2.02	1.85
39F1924	032-0010-0001	Plug—solderless	2.31	2.15	1.98	1.71	1.60
39F1925	032-0013-0001	Plug—Right angle (B)	4.02	3.76	3.51	3.03	2.76

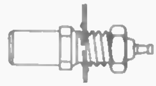
SERIES S-93

39F1928	031-0016-0001	Bulkhead receptacle for 1/16" panel, has solder pot, no keying	2.40	2.27	2.11	1.80	1.66
39F1929	031-0037-0001	Jack, 5/16" Dia.	2.68	2.51	2.33	2.02	1.87
39F1930	031-0052-0001	Bulkhead receptacle for 1/8" panel with round or "D" shaped hole for keying	2.51	2.35	2.20	1.89	1.73
39F1931	031-0067-0001	Printed cir. recept.	3.48	3.28	3.06	2.62	2.40
39F1932	032-0011-0001	Plug—solderless	2.31	2.15	1.98	1.71	1.60
39F1933	032-0014-0001	Plug—right angle (C)	4.02	3.76	3.51	3.03	2.76
39F1934	032-0017-0001	Plug 5/16" Dia.	2.31	2.15	1.98	1.71	1.60
39F1935	032-0068-0001	Angle plug—takes 95 ohm cable (C)	4.02	3.76	3.51	3.03	2.76
39F1882	033-0111-0001	S-93 plug—as above	6.22	5.83	5.45	4.73	4.29
39F1993	031-0085-0001	Receptacle	3.43	3.21	3.01	2.60	2.35

KEY TO ASSEMBLY TOOLS FOR MICROMINIATURE CONNECTORS

(A) Use assembly tool 010-0003-000
(B) Use assembly tool 010-0016-0000
(C) Use assembly tool 010-0017-0000
(D) Use assembly tool 010-0007-0000

MICRODOT CONNECTORS



SOS-50, 031-0049

SOS-50, 032-0055

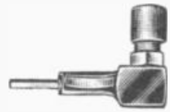
SERIES SOS (50-70-93)

Stock No.	Type	Description	1-24	25-99	100-249	250-499	500-999
39F1940	031-0049-0001	Bulkhead recept.	3.21	3.01	2.82	2.42	2.22
39F1942	031-0060-0001	Printed circuit recept.	2.42	2.27	2.11	1.82	1.66
39F1943	031-0070-0001	Printed circuit recept. —right angle	7.81	7.37	6.88	5.89	5.36
39F1945	032-0042-0001	Receptacle plug	3.26	3.06	2.85	2.44	2.24

SERIES SOS-50

Stock No.	Type	Description	1-24	25-99	100-249	250-499	500-999
39F1946	032-0055-0001	Plug-modified for min. mating force ((D)	2.71	2.54	2.38	2.04	1.86
39F1948	032-0063-0001	Right angle plug (B)	4.02	3.76	3.51	3.03	2.76

131-0135-0001



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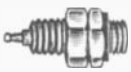
131-0141-0001



131-0138-0001

132-0112-0002

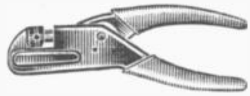
132-0112-0003

131-0134-0001

"GOLDEN CRIMP" CONNECTORS

Easy to assemble. Meets MIL-SPEC-C22557A. Temperature rating of 200° C. Withstand virbrations to 2000 Hz at 20 G'S.

Stock No.	Type (50 ohm RE 186)	1-24	25-49	50-99	100-249	250-499
39F1840	132-0112-0002	1.93	1.75	1.60	1.43	1.29
39F1841	132-0112-0003	2.04	1.86	1.71	1.54	1.40
39F1842	131-0134-0001	1.93	1.75	1.60	1.43	1.29
39F1843	131-0135-0001	1.93	1.75	1.60	1.43	1.29
39F1844	131-0138-0001	2.04	1.78	1.62	1.38	1.30
39F1845	131-0141-0001	2.31	2.04	1.84	1.68	1.47
39F1846	132-0116-0002	4.24	3.96	3.58	3.28	3.03



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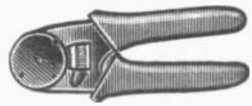
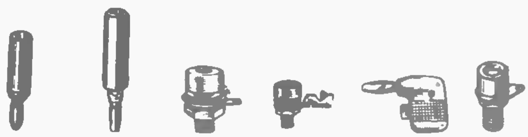


010-0065-0000

ASSEMBLY TOOLS FOR ABOVE

Stk. No.	Type	Description	NET
39F1849	010-0081-0000	50 ohm shield crimp tool	70.00
39F1848	010-0065-0000	Center conductor crimp tool	55.00

BIRNBACH



A B C D E F

INSULATED MIDGET BANANA PLUG FIG. A. Spring type. Fits all standard banana jacks. Wire soldered directly into plug. Size: 1³⁄₁₆x¼". †Nickel plated, *Silver plated.

Stk. No.	Type	Color	Spring	1-99	100-499	500-Up
29F020 29F021	455† 455†	Black Red	Phos. Brz. Phos. Brz.	.21	.187	.15
29F022 29F023	455BC* 455BC*	Black Red	Beryl. Cop. Beryl. Cop.	.33	.297	.237

INSULATED GIANT PLUG FIG. B. Spring type. Fits giant banana jacks. Plastic handle. Size: 2⅞x⅝". †Red, *Black.

Stk. No.	Type	Spring	1-99	100-499	500-Up
29F028 29F029	392* 392†	Phos. Brz. Phos. Brz.	.91	.827	.66
29F030 29F031	392B* 392B†	Beryl. Cop. Beryl. Cop.	.99	.90	.72

INSULATED BANANA JACK FIG. C. Takes all standard banana plugs. Molded head. Size: 1¹⁄₁₆x⁷⁄₁₆".

Stk. No.	Type	Color	1-99	100-499	500-Up
29F032 29F033	406 406	Black Red	.17	.154	.125

INSULATED BANANA JACK FIG. D. Accommodates all standard banana plugs. Molded head. Size: ²⁵⁄₃₂x½".

Stk. No.	Type	Color	1-99	100-499	500-Up
29F034 29F035	391 391	Black Red	.19	.176	.141

PUSH BUTTON BANANA PLUG FIG. E. Wire is fastened without soldering. Size: 1³⁄₁₆x¾".

Stk. No.	Type	Color	1-99	100-499	500-Up
29F036 29F037	122 122	Black Red	.44	.397	.318

INSULATED GIANT JACK FIG. F. Accommodates all giant plugs. Molded plastic head. Size: 1⁵⁄₁₆x⅝".

Stk. No.	Type	Color	1-99	100-499	500-Up
39F038 29F039	393 393	Black Red	.55	.496	.397

BANANA JACKS — Model 403. Hexed brass n.pl., with brass n.pl. hex nut and tinned copper lug. Mounts in ¼" hole in panels up to ⅜" thick. Fits standard plugs.
Model 394. Nickel-plated. Mounts in ⅜" hole in panels up to ⅞" thick. Complete with nut and lug.

Stk. No.	Type	1-99	100-499	500-Up
29F019	403	.15	.132	.106
29F018	394	.44	.40	.32

TRANSISTOR HEAT SINKS

BHS-3 BHS-3C BHS-5 BHS-8 BHS-18

Made of berylium oxide. Gives increased transistor life and output, freedom from outgassing, extremely shock resistant, and vibration and moisture resistant. Infinite shelf life.

Stock No.	Type	For Case Type	1-24	25-Up	Stock No.	Type	For Case Type	1-24	25-Up
29F044	BHS-1	MT-1	2.14	1.85	29F054	BHS-10	MT-10	2.07	1.82
29F045	BHS-3	TO-3	2.79	2.42	29F055	BHS-11	TO-11	1.39	1.22
29F046	BHS-3A	MT-3	2.07	1.82	29F056	BHS-12	TO-12	1.39	1.22
29F098	BHS-3C	TO-3	2.94	2.56	29F057	BHS-16	TO-16	1.39	1.22
29F047	BHS-4	DO-4	1.85	1.60	29F058	BHS-18	TO-18	1.05	.94
29F048	BHS-5	TO-5	1.39	1.20	29F059	BHS-33	TO-33	1.80	1.59
29F049	BHS-5A	DO-5	2.15	1.70	29F060	BHS-36	TO-36	2.91	2.54
29F050	BHS-5B	MT-5	1.24	1.09	29F061	BHS-38	TO-38	2.42	2.14
29F051	BHS-6	TO-6	2.89	2.54	29F062	BHS-39	TO-39	1.39	1.22
29F052	BHS-8	TO-8	1.60	1.40	29F063	BHS-43	TO-43	1.39	1.22
29F053	BHS-9	TO-9	1.39	1.22	29F064	BHS-46	TO-46	1.05	.94

HEAVY DUTY HIGH VOLTAGE TEST LEADS

Type 562. Tips brass nickel plated. Heavy duty bakelite prods. Color coded red and black. Uses our Hi-volt kinkless test lead wire. Overall length, 60".
29F040. 1-4 . 2.20 **5-Up** 1.98

HEAVY DUTY HIGH VOLTAGE TEST PROD HANDLE

Type 559. Tip, brass nickel plated. Bakelite finger guard. For 1N-34 diode and condenser for use as RF probe.
29F041. 1-9 .79 **10-Up** .71

● NEW SOLDERLESS PHONE TIP

Model 343A. Brass, nickel plated. Wire easily attached by threading thru hole provided, and tightening knurled nut. Threaded to take plastic handle.

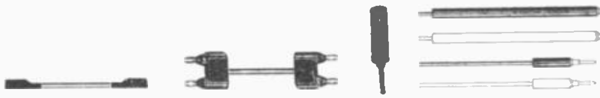
Stk. No.	1-99	100-499	500-Up
29F017	.15	.132	.106

● NEW INSULATED SOLDERLESS PHONE TIP

Model 409. Insulated handles, made of brass. Wire easily attached by threading through hole in handle and tightening knurled nut.

Stk. No.	Color	1-99	100-499	500-Up
29F016	Red	.18	.165	.132
29F015	Black	.18	.165	.132

H. H. Smith Miniature Components



1597 1599 348, 349 660

1751 3018 1753 3016 1755 112

PATCH CORDS

Made with co-axial cable connecting wire. All banana plug types have four-leaved beryllium copper, nickel plated springs. Molded butyrate handles meet military standards. Mate with standard or miniature banana jacks. One end mates ½" centers, other end mates ¾".

Stk. No.	Length	Type	NET
35F2700	12"	1729-12	4.35
35F2701	24"	1729-24	4.45
35F2702	36"	1729-36	4.55
35F2703	48"	1729-48	4.65
35F2704	60"	1729-60	4.75

Mates with binding posts or jacks having ½" centers. Ends terminate double banana and cross-patch banana plugs.

Stk. No.	Length	Type	NET
35F2705	12"	1599-12	4.35
35F2706	24"	1599-24	4.45
35F2707	36"	1599-36	4.55
35F2708	48"	1599-48	4.65
35F2709	60"	1599-60	4.75

Min. dual banana to standard cross-patch pin plugs. ½" center.

Stk. No.	Length	Type	NET
35F2710	12"	1535-12	5.35
35F2711	24"	1535-24	5.45
35F2712	36"	1535-36	5.55
35F2713	48"	1535-48	5.65
35F2714	60"	1535-60	5.75

Min. dual banana to insulated mini-clips. ½" center.

Stk. No.	Length	Type	NET
35F2715	12"	1739-12	5.35
35F2716	24"	1739-24	5.45
35F2717	36"	1739-36	5.55
35F2718	48"	1739-48	5.65
35F2719	60"	1739-60	5.75

Black alligator clip jumper w/vinyl plastic boots. Not a dual.

Stk. No.	Length	Type	Ea.	10-49	100-Up
35F2720	12"	1597-12	.47	.42	.40
35F2721	18"	1597-18	.48	.43	.41
35F2722	24"	1597-24	.49	.44	.42
35F2723	36"	1597-36	.51	.46	.43
35F2724	48"	1597-48	.53	.48	.45
35F2725	60"	1597-60	.55	.50	.47

TEST EQUIPMENT

Miniature tip lug and test prod for use in sub-miniature printed circuit tip jacks. Fits all standard .080" tips.

Stk. No.	Type	Length		Ea.	10-99	100-Up
		Handle	Overall			
35F2726	348	1"	1 5/16"	.33	.30	.28
35F2727	349	4"	4 5/16"	.42	.38	.36

Miniature test lead with machined butyrate handle and plug. Brass, nickel plated tips.

Stk. No.	Type	NET
35F2728	660	1.26

CLIP ADAPTERS

304 10C

Cadmium plated steel springs. Plastic handle. With brass body and bronze phosphor spring.

Stk. No.	Type	Col.	Description	1-99 ea.	1C-499 p. 100	5C-999 p. 100	1M-Up p. 100
28F604 28F605	304 304	Red Blk.	Adapts phone tip plug to alligator clip.	.33	29.70	28.05	26.40
35F948 35F949	305 305	Red Blk.	Adapts std. phone tip or banana plug to alligator clip.	.39	35.10	33.15	31.20
39F1652 39F1653	336 336	Red Blk.	As 304 except plastic insul.	.36	32.40	29.80	28.80
39F1650 39F1651	337 337	Red Blk.	As 336 but with solder conn., not jack.	.24	21.60	20.40	19.20
35F670	338		Min. clip. 3/16" jaw opening. Solder conn. & ears for crimp.	.04	3.60	3.40	3.20
35F671 35F683	301 301	Red Blk.	accepts std. banana plug in rear.	.08	7.20	6.80	6.40

MINIATURE BANANA JACKS

Either nickel or silver plated brass bodies. All are rated for 15 amps. Accept midget banana plugs.

Stk. No.	Type	Thickness		Ea.	100-499 Per 100	500-999 Per 100	1000-Up Per 100
		Chassis	Panel				
35F2729	2076	.105"	1/16"	.09	8.10	7.65	7.20
35F2730	2077	.135"	3/32"	.09	8.10	7.65	7.20
35F2731	2078	.165"	1/8"	.09	8.10	7.65	7.20
35F2732	195	.196"	1/8"	.08	7.20	6.80	6.40
35F2733	194		.	....	1.20	1.08	1.02
35F2734	193	...	....	.09	8.10	7.65	7.20
Insulated banana jack.							
35F2735	196	.250"	1/8"	.20	18.00	17.00	16.00
Supplied with hex nut.							
35F2736	112	.		.08	7.20	6.80	6.40

Dual assemblies rated for 5 amps. Mount in two ¼" round single or double "D" holes on ½" centers with panel thickness up to ¼". Brass, nickel plated bodies. Supplied with hex nuts.

Stk. No.	Type	Description	Ea.	10-99	100-Up
35F2737	3018	dual banana jack	.55	.50	.47
35F2738	3019	dual tip jack	.50	.45	.43

MINIATURE DUAL BINDING POSTS AND ADAPTERS

All have ½" centers and dual banana plugs on ½" centers for side stacking. Types 1752 and 1753 are shorting types.

Stk. No.	Type	Accepts	Ea.	10-99	100-Up
DUAL BANANA PLUG TIPS					
35F2739	1749	dual banana blk.	.72	.65	.61
35F2740	1751	dual .080 phone blk.	.81	.73	.69
35F2741	1752	dual banana blk.	.72	.65	.61
35F2742	1755	binding post blk.	2.25	2.02	1.91
DUAL .080" PHONE TIPS					
35F2743	1754	dual banana blk.	.72	.65	.61
35F2744	1753	dual banana blk.	.72	.65	.61

MINIATURE BINDING POSTS

Brass, gold plated bodies, rated for 5 amps. All meet rigid military standards and mount in both ¼" round or "D" holes. All accept .080" phone tip, #6 spade lug, miniature banana plug, alligator clip or wire.

Stk. No.	Type	Description	Ea.	10-99	100-Up
35F2745	3015	single post, black	.40	.36	.34
35F2746	3016BB	dual post, 2 blk. heads	.70	.63	.60
35F2747	3016RB	as above, red and black heads	.70	.63	.60
35F2748	3016RR	as above, 2 red heads	.70	.63	.60
35F2749	3017	single, press-fit Teflon, black	.55	.50	.47

MINIATURE BANANA PLUGS

All have brass, silver plated bodies and are rated for 10-15 amps. Springs are four-leaved beryllium copper, silver plated.

Stk. No.	Type	Thickness		Ea.	100-499 Per 100	500-499 Per 100	1000-Up Per 100
		Chassis	Panel				
35F2750	191	.109"	1/16"	.15	13.50	12.75	12.00
35F2751	2073	.105"	1/16"	.15	13.50	12.75	12.00
35F2752	2074	.135"	3/32"	.15	13.50	12.75	12.00
35F2753	2075	.165"	1/8"	.15	13.50	12.75	12.00
35F2754	268	......	....	.19	17.10	16.15	15.20
35F2755	111	Cross-slotted		.10	9.00	8.50	8.00

INSULATED JUMBO ALLIGATOR CLIPS

Solder connection with plastic handle. ⅝" jaw opening. For heavy terminal use.

Stk. No.	No.	Type	Color	1-99 ea.	1C-499 p. 100	5C-999 p. 100	1M-Up p. 100
35F848	397	Solid copper	Red	.24	21.60	20.40	19.20
35F849	397	Solid copper	Black	.24	21.60	20.40	19.20

TELEPHONE PLUGS AND JACKS

226 276

Type 226. Telephone plug Brass, nickel plated. Has tubular insulation. Tested at 1000 VAC. Fits above jack and all standard phone jacks. Solder terminals.

Type 276. Telephone jack. Brass, nickel plated bushing. Has Bakelite insulation. Comes with brass hex nut and with steel mounting washer, 2-conductor closed.

Stk. No.	Type	Description	1-99 ea.	100-4999 per 100	500-999 per 100	1M-Up /100
35787	276	2-Conductor Closed	.27	24.30	22.93	21.60
35788	226	2-Circuit Solder	.60	54.00	51.00	48.00

MOLDED CROSS PATCH CORDS

Consist of 10,000V. rubber covered flexible wire (65 stds. #36) O.D. .140" cabled to two molded plastic banana plugs with four leaved beryllium copper, nickel plated springs. Interconnects unlimited number of multiple circuits. Contacts for banana plugs on top and side. With 19/32"* or 13/32"† spring plug.

Stk. No. Red	Stk. No. Black	Type	Lt.	Each	10-99	100-Up
35F910	35F911	1510-8*	8"	1.30	1.17	1.11
35F912	35F913	1515-8†	8"	1.30	1.17	1.11
35F833	35F834	1510-12*	12"	1.30	1.17	1.11
35F835	35F836	1515-12†	12"	1.30	1.17	1.11
35F791	35F792	1510-24*	24"	1.35	1.22	1.15
35F793	35F794	1515-24*	24"	1.35	1.22	1.15
35F795	35F796	1510-36*	36"	1.40	1.26	1.19
35F797	35F798	1515-36*	36"	1.40	1.26	1.19

JUMPERS (STANDARD ALLIGATOR CLIPS BOTH ENDS)

Stock No.	Type	Color	Descript. Length	Each	10-99	100-Up
35F677	1596-12	Red	12"	.47	.42	.40
35F684	1596-12	Black	12"	.47	.42	.40
35F678	1596-36	Red	36"	.51	.46	.43
35F685	1596-36	Black	36"	.51	.46	.43

MINIATURE ALLIGATOR CLIP BOTH ENDS

Stk. No. Red	Stk. No. Black	Type	Lt.	Each	100-499 per 100	500-999 per 100	1000-Up per 100
35F893	35F894	1597-12	12"	.47	42.30	39.95	37.60
35F895	35F896	1597-18	18"	.48	43.20	40.80	38.40
35F897	35F898	1597-24	24"	.49	44.10	41.65	39.20
35F899	35F900	1597-36	36"	.51	45.90	43.35	40.80
35F901	35F902	1597-48	48"	.53	47.70	45.05	42.40
35F903	35F904	1597-60	60"	.55	49.50	46.75	44.00

STANDARD ALLIGATOR CLIP TO BANANA PLUG POLYETH INSULATED

Stk. No. Red	Stk. No. Black	Type	Each	10-99	100-Up
35F722	35F723	1886-36	.61	.55	.52

DOUBLE PLUG—36"

Stock No.	Type	Color	Insul.	Each	10-99	100-Up
35F724	1530-36	Grey	Vinyl	4.55	4.10	3.87
35F725	1540-36	Grey	Polyeth.	4.55	4.10	3.87
35F726	1580-36	Black	Polyeth.	4.55	4.10	3.87

RUBBER GROMMETS

Stock No.	Type	Hole Dia.	O.D.	Thck.	1-99 Ea.	1C-499 p. 100	5C-999 p. 100	1M-Up p. 100
35F520	2185	⅛"	5/16"	3/16"	.05	2.31	2.08	1.85
35F521	2172	3/16"	7/16"	3/16"	.04	1.98	1.78	1.58
35F522	2170	¼"	⅝"	¼"	.05	2.31	2.08	1.85
35F523	2174	5/16"	⅝"	¼"	.05	2.16	1.95	1.73
35F524	2175	⅜"	21/32"	¼"	.05	2.31	2.08	1.85
35F525	2177	7/16"	¾"	¼"	.05	2.16	1.95	1.73
35F526	2186	½"	1 1/16"	5/16"	.10	4.80	4.32	3.84
35F527	2187	⅝"	1⅛"	5/16"	.09	4.20	3.78	3.36
35F528	2188	9/16"	1 1/16"	5/16"	.09	4.20	3.78	3.36
35F529	2189	¾"	1"	5/32"	.10	5.10	4.59	4.08

FIBRE WASHERS

Stock No.	Type	Description	Hole Size	O.D.	Thk.	Per 100	Per 1000
35F886	2150	Fibre Shoulder	.140"	.375"	.093"	.94	6.90
35F500	2151	Fibre Shoulder	.110"	.250"	.062"	.82	5.70
35F887	2152	Fibre Shoulder	.136"	.250"	.093"	.85	6.00
35F888	2153	Fibre Shoulder	.136"	.312"	.093"	.91	6.60
35F501	2154	Fibre Shoulder	.250"	.500"	.068"	.97	7.20
35F502	2155	Fibre Shoulder	.172"	.375"	.093"	.91	6.60
35F889	2156	Fibre Shoulder	.196"	.375"	.093"	.91	6.60
35F890	2157	Fibre Shoulder	.375"	.750"	.093"	1.20	10.00
35F891	2158	Fibre Shoulder	.385"	.625"	.093"	1.12	8.40
35F892	2159	Fibre Shoulder	.265"	.500"	.097"	1.09	7.20
35F503	2162	Flat Fibre	.140"	.375"	.063"	.78	5.10
35F504	2163	Flat Fibre	.172"	.375"	.063"	.76	5.10

NYLON STRAIN RELIEF BUSHINGS

Stock No.	Type	Description	1-99 Ea.	1C-499 p. 100	5C-999 p. 100	1M-Up p. 100
35F673	937	For small mike cables.	.08	3.60	3.24	2.88
35F674	938	For line cords.	.08	3.60	3.24	2.88
35F675	939	For Co-Ax Wire.	.09	4.20	3.78	3.36
35F676	164	Flexible Coupling	2.45	165.00	148.50	132.00

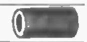
MIL-F-1148A FIBRE SPACERS

Stock No.	Type	Thrd.	Lgth.	O.D.	1-99 Ea.	1C-499 p. 100	5C-999 p. 100	1M-Up p. 100
35F547	2130	#6	¼"	¼"	.08	3.90	3.51	3.12
35F548	2133	#6	¾"	¼"	.14	7.20	6.48	5.76
35F549	2134	#6	1"	¼"	.16	8.25	7.43	6.61
35F550	2140	#8	¼"	¼"	.08	3.90	3.51	3.12
35F566	2143	#8	¾"	¼"	.14	7.20	6.48	5.76

BRASS THREADED SPACERS—CADMIUM PLATED

35F551	2372	4-40	½"	¼"	.12	6.00	5.40	4.80
35F552	2373	4-40	¾"	¼"	.17	8.40	7.56	6.72
35F553	2120	6-32	¼"	¼"	.08	3.90	3.51	3.12
35F562	2124	6-32	1"	¼"	.20	10.40	9.36	8.32
35F554	2122	6-32	½"	¼"	.12	6.00	5.40	4.80
35F555	2123	6-32	¾"	¼"	.17	8.40	7.56	6.72
35F561	2121	6-32	⅜"	¼"	.10	4.95	4.46	3.97
35F556	2125	8-32	¼"	¼"	.08	3.90	3.51	3.12
35F557	2126	8-32	⅜"	¼"	.10	4.95	4.46	3.97
35F558	2127	8-32	½"	¼"	.12	6.00	5.40	4.80
35F559	2128	8-32	¾"	¼"	.17	8.40	7.56	6.72
35F560	2129	8-32	1"	¼"	.20	10.40	9.36	8.32
35F883	2370	4-40	¼"	¼"	.08	3.90	3.51	3.12
35F884	2371	4-40	⅜"	¼"	.18	4.95	4.46	3.97
35F885	2374	4-40	1"	¼"	.20	10.40	9.36	8.32

BRASS SPACERS—CADMIUM PLATED



Stock No.	Type	For Screw	Lgth.	O.D.	1-99 Ea.	1C-499 p. 100	5C-999 p. 100	1M-Up p. 100
35F533	2340	#4	¼"	¼"	.07	3.30	2.97	2.64
35F534	2341	#4	⅜"	¼"	.09	4.35	3.92	3.49
35F535	2342	#4	½"	¼"	.10	5.28	4.76	4.24
35F536	2100	#6	¼"	¼"	.07	3.30	2.97	2.64
35F537	2101	#6	⅜"	¼"	.09	4.35	3.92	3.49
35F538	2102	#6	½"	¼"	.10	5.28	4.76	4.24
35F539	2103	#6	¾"	¼"	.13	6.30	5.67	5.04
35F540	2104	#6	1"	¼"	.14	7.20	6.48	5.76
35F541	2105	#8	¼"	¼"	.07	3.30	2.97	2.64
35F563	2106	#8	⅜"	¼"	.09	4.35	3.92	3.49
35F564	2107	#8	½"	¼"	.10	5.28	4.76	4.24
35F565	2109	#8	1"	¼"	.14	7.20	6.48	5.76
35F542	2115	#8	¼"	⅜"	.10	5.28	4.76	4.24
35F543	2116	#8	⅜"	⅜"	.13	6.30	5.67	5.04
35F544	2117	#8	½"	⅜"	.16	8.00	7.20	6.40
35F545	2118	#8	¾"	⅜"	.22	10.90	9.81	8.72
35F546	2119	#8	1"	⅜"	.28	14.20	12.78	11.36

BRASS HEX SPACERS — CADMIUM PLATED

Stock No.	Type	For Screw	Lgth.	O.D.	1-99 Ea.	1C-499 p. 100	5C-999 p. 100	1M-Up p. 100
35F875	2300	#6	.250	¼"	.08	3.60	3.24	2.88
35F876	2302	#6	.500	¼"	.10	5.58	5.03	4.48
35F877	2303	#6	.750	¼"	.13	6.75	6.08	5.41
35F878	2304	#6	1.000	¼"	.16	7.80	7.02	6.24
35F879	2310	#6	.250	⅜"	.13	6.18	5.57	4.96
35F880	2312	#6	.500	⅜"	.16	8.25	7.43	6.61
35F881	2313	#6	.750	⅜"	.25	12.50	11.25	10.00
35F882	2314	#6	1.000	⅜"	.32	15.90	14.31	12.72

BRASS THREADED HEX SPACERS—CADMIUM PLATED

Stock No.	Type	For Screw	Lgth.	O.D.	1-99 Ea.	1C-499 p. 100	5C-999 p. 100	1M-Up p. 100
35F871	2320	#6	.250	¼"	.09	4.20	3.78	3.36
35F872	2322	#6	.500	¼"	.13	6.30	5.67	5.04
35F873	2323	#6	.750	¼"	.19	9.20	8.28	7.26
35F874	2324	#6	1.000	¼"	.23	11.20	10.18	9.16

NYLON CABLE CLIPS

MIL P17091A. Amend 2. For Temp. —60 to 250°.

Stk. No.	Type	Hole Dia.	1-99 Ea.	1C-499 p. 100	5C-999 p. 100	1M-Up p. 100
35F505	771	⅛	.08	3.60	3.24	2.88
35F506	772	3/16	.08	3.90	3.51	3.12
35F507	773	¼	.09	4.20	3.78	3.36
35F508	774	5/16	.10	4.65	4.19	3.73
35F509	775	⅜	.10	4.80	4.32	3.84
35F510	776	7/16	.10	5.10	4.59	4.08
35F511	777	½	.11	5.40	4.86	4.32
35F512	778	9/16	.13	6.60	5.94	5.28
35F513	779	⅝	.14	7.20	6.48	5.76
35F514	780	11/16	.15	7.50	6.75	6.00
35F515	781	¾	.17	8.10	7.29	6.48
35F516	782	⅞	.18	8.70	7.83	6.96
35F517	783	1	.21	10.20	9.18	8.16
35F518	784	1⅛	.24	12.00	10.80	9.60
35F519	785	1¼	.28	13.80	12.42	11.40

RECESSED RUBBER BUMPERS

*Supplied with 6/32x½" screw and nut.

Stock No.	Type	Cap. Dia.	O.D.	Ht.	1-99 Ea.	1C-499 p. 100	5C-999 p. 100	1M-Up p. 100
35F530	2193	¼"	⅝"	5/16"	.04	1.95	1.76	1.57
35F531	2194	9/32"	¾"	⅜"	.06	3.00	2.70	2.40
35F532	2198*	9/32"	¾"	⅜"	.15	7.50	6.75	6.00

H. H. Smith Connectors

ALL NYLON TIP JACKS


1502 1501
1506 1505

Self insulating nylon molded body. Hex nut: brass nickel plated. Mounts in 1/4 inch hole in panels up to 1/4 inch thick.

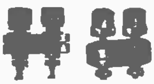
Stk. No.	Type	Color	Description	1-99 ea.	1C-499 per 100	5C-999 per 100	1M-Up per 100
35F750	1505	White	Wrap around				
35F751	1505	Red	type. Fits all				
35F752	1505	Black	standard	.21	18.90	17.85	16.80
35F753	1505	Green	phone tip				
35F754	1505	Blue	plugs.				
35F755	1505	Yel.	L. 59/64".				
35F756	1506	White	Spade				
35F757	1506	Red	terminal type.				
35F758	1506	Black	Fits all	.30	27.00	25.50	24.00
35F759	1506	Green	standard				
35F760	1506	Blue	phone tip				
35F761	1506	Yel.	plugs. L. 63/64".				
35F700	1501	White	Wrap around				
35F701	1501	Red	type. With				
35F702	1501	Black	metal shell.	.30	27.00	25.50	24.00
35F703	1501	Green	Meets MS-				
35F704	1501	Blue	16108. L. 59/64".				
35F705	1501	Yel.					
35F706	1502	White	Spade				
35F707	1502	Red	terminal type.				
35F708	1502	Black	With metal	.42	37.80	35.70	33.60
35F709	1502	Green	shell. Meets				
35F710	1502	Blue	MS-16108.				
35F711	1502	Yel.	L. 59/64".				

RIGHT ANGLE PRINTED CIRCUIT TEST JACK

Double entry design. Accepts probes .074-.084".

Stk. No.	Type	1-99 ea.	1C-499 per 100	5C-999 per 100	1M-Up per 100
35F672	430	.10	9.00	8.50	8.00

DUAL ASSEMBLIES



284 269

Molded black styrene washer, cross slotted to accept std. phone tips in post either forward, or side ways. Mts. in two 1/2" holes on 3/4" mtg ctrs. in panels up to 1/4" thick. Supplied with 4 hex nuts and 2 washers. 284 connectors have captive type nylon heads with nickel plated brass insert; 269 connectors have captive type plated brass insert and accepts std. dual banana plug.

Stk. No.	Type	Color	Ea.	10-99	100-Up
39F1654	284BB	2 black heads	.65	.59	.55
39F1655	284RR	2 red heads	.65	.59	.55
39F1656	284RB	1 black—1 red head	.65	.59	.55
35F845	269BB	2 black heads	.70	.63	.60
35F846	269RR	2 red heads	.70	.63	.60
35F847	269RB	1 black—1 red head	.70	.63	.60

BINDING POSTS






136 265 266 220 379 257

Brass nickel plated head and body. Accepts std. phone tips or banana plug. 3/8" head dia. 11/16" long.

Stk. No.	Type	Description	1-99 ea.	1C-499 per 100	5C-999 per 100	1M-Up per 100
38F293	136	Metal Binding Post	.21	18.90	17.85	16.80
35F628	137	Metal Binding Post	.25	22.50	21.25	20.00

Molded bakelite head with molded in brass threaded insert. Complete with 8-32 threaded screw 1/2" long and nickel plated brass lockwasher. 1/2" head dia.

Stk. No.	Type	Color	Description	1-99 ea.	1C-499 per 100	5C-999 per 100	1M-Up per 100
35F827	265	Red	Binding Post	.24	21.60	20.40	19.20
35F832	265	Black	Binding Post	.24	21.60	20.40	19.20
35F828	266	Red	Binding Post	.24	21.60	20.40	19.20
35F831	266	Black	Binding Post	.24	21.60	20.40	19.20

Captive, molded plastic head and nickel plated brass body. Accepts phone tip plug, spade lug, banana plug, alligator clip or wire strand. Insulating washer supplied. 2 hex nuts supplied. 8-32 x 1/2 long threaded stud length 11/32 x 1/2".

Stk. No.	Type	Color	Description	1-99 ea.	1C-499 per 100	5C-999 per 100	1M-Up per 100
38F296	220	Red	5-way grnd.	.22	19.80	18.70	17.60
38F297	220	Blk.	5-way grnd.	.22	19.80	18.70	17.60
35F629	230	Red	5-way insul. washer	.22	19.80	18.70	17.60
35F630	230	Blk.	5-way insul. washer	.22	19.80	18.70	17.60
35F799	379	Red	grnd. type	.25	22.50	21.25	20.00
35F748	379	Blk.	grnd. type	.25	22.50	21.25	20.00
35F749	257	Blk.	5-way insu. washer	.40	36.00	34.00	32.00
35F844	257	Red	5-way insul. washer	.40	36.00	34.00	32.00

INSULATED MIDGET BANANA JACK

221

Molded nylon 3/8" head and washer. Nickel plated brass body. W/hex nut and brass tinned lug. For std. banana plugs. 1 3/8' L.

Stk. No.	Style	Color	Description	1-99 ea.	1C-499 per 100	5C-999 per 100	1M-Up per 100
39F972	221	Red	Insul. from				
39F973	221	Black	panel. Mounts				
39F974	221	Yel.	in 1/4" hole	.24	24.30	22.95	21.60
39F975	221	Green	in panels up				
39F976	221	Blue	to 5/16" thick.				
35F865	101	Red		.12	10.80	10.20	9.60
35F866	101	Black		.12	10.80	10.20	9.60

INSULATED BANANA JACKS



219 205 251

Nickel plated brass body and molded bakelite head. Supplied w/hex nut and fibre washer. Mount in 5/16 inch holes in panels up to 3/8 inch thick.

Stk. No.	Style	Color	Description	1-99 ea.	1C-499 per 100	5C-999 per 100	1M-Up per 100
39F967	219	Red	Body is	.16	14.40	13.60	12.80
39F968	219	Black	recessed.	.16	14.40	13.60	12.80
39F969	219	Yel.	Also supplied	.16	14.40	13.60	12.80
39F970	219	Green	w/lockwasher	.16	14.40	13.60	12.80
39F971	219	Blue	and brass tinned lug. L. 47/64".	.16	14.40	13.60	12.80
39F868	205	Red	Accepts std.	.14	12.60	11.90	11.20
39F869	205	Black	banana plug.	.14	12.60	11.90	11.20
39F870	205	Green	Also supplied	.14	12.60	11.90	11.20
39F871	205	Yel.	w/brass tinned lug. L. 47/64".	.14	12.60	11.90	11.20
35F631	251	Red	Suitable	.21	18.90	17.85	16.80
35F632	251	Black	where long	.21	18.90	17.85	16.80
35F633	251	Yel.	leads are	.21	18.90	17.85	16.80
35F634	251	Green	required. Ac-	.21	18.90	17.85	16.80
35F867	196	Black	cepts std.	.20	18.00	17.00	16.00
35F868	196	Red	banana plugs. L. 1 1/2"	.20	18.00	17.00	16.00

COMBINATION-PHONE TIP AND BANANA JACK

206

Insulated. Accepts std. phone tip or banana plug. Length: 15/32".

Stk. No.	Type	Color	1-99 ea.	1C-499 per 100	5C-999 per 100	1M-Up per 100
39F860	206	Red	.17	15.30	14.45	13.60
39F861	206	Black	.17	15.30	14.45	13.60

NYLON BANANA JACK—FULL ROUND BODY

Molded nylon per MIL-P-20693A. Brass, cadmium plated contact.

Stk. No.	Type	Color	Description	1-99 Ea.	1C-499 per 100	5C-999 per 100	1M-Up per 100
35F712	1508	White					
35F713	1508	Red	Accepts std.				
35F714	1508	Black	banana plug.				
35F715	1508	Green	Mounts in 5/16"	.12	10.80	10.20	9.60
35F716	1508	Blue	hole in panels				
35F717	1508	Yel.	up to 5/16" thick				
35F869	1509	Black	thick. 29/32" L.				
35F870	1509	Red					

INSULATED PHONE TIP JACK AND PLUGS


202 203

Nickel plated brass body. Molded 7/16 inch bakelite head w/hex nut and fibre washer. Mounts in 5/16 inch holes in panels up to 3/8 inch thick.

Stk. No.	Type	Color	Description	1-99 ea.	1C-499 per 100	5C-999 per 100	1M-Up per 100
39F856	202	Red	Accepts std.	.14	12.60	11.90	11.20
39F857	202	Black	Phone tip	.14	12.60	11.90	11.20
39F858	202	Green	plug. Length	.14	12.60	11.90	11.20
39F859	202	Yel.	1".	.14	12.60	11.90	11.20
35F687	203R	Red	Ins. short	.12	10.80	10.20	9.60
35F688	203B	Black	tip plug	.12	10.80	10.20	9.60

NON-INSULATED JACKS


109 107

Type 107. Phone Tip Jack. Accepts std. phone tip plugs. Supplied w/hex nut.
Type 109. Banana Jack Accepts std. banana plugs. W/hex nut and brass tinned lug.

Stk. No.	Type	Description	1-99 ea.	1C-499 per 100	5C-999 per 100	1M-Up per 100
39F855	107	29/32" H.	.12	10.80	10.20	9.60
39F867	109	5/8" H.	.12	10.80	10.20	9.60

H. H. Smith Connectors

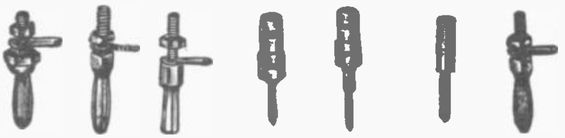
200 270 235 491 201 215 237 212 242 211 204 213 255 1511 1512 455 236

INSULATED TIP PLUGS

Nickel Plated Brass Plugs. Fit Std. Phone Tip Jack.

Stk. No.	Type	Color	Description	Ea.	100-499 per 100	500-999 per 100	1000-Up per 100
39F852	200	Red	Solderless	.15	13.50	12.75	12.00
39F853	200	Black	Threaded type.				
39F848	200	Green	$2\frac{1}{8}$" l. Bake-				
39F849	200	Yel.	lite handle.				
39F846	270	Red	Sum-miniature	.18	16.20	15.30	14.40
39F847	270	Black	type. $1\frac{23}{32}$" l. Fibre handle.				
39F963	235	Red	Meter type.	.27	24.30	22.95	21.60
39F964	235	Black	Bakelite handle.				
35F7[illegible]	491	White	Short tip type.	.15	13.50	12.75	12.00
35F770	491	Red	$1\frac{3}{8}$" l. Nylon				
35F771	491	Black	handle.				
35F772	491	Green					
35F773	491	Blue					
35F774	491	Yel.					
35F775	201	Red	Solderless insul.	.15	13.50	12.75	12.00
35F776	201	Black	Threaded type.				
35F777	201	Green	$1\frac{29}{32}$" l. Bake-				
35F778	201	Yel.	lite handle.				
35F689	237R	Red	Ins. tip plug	.11	9.90	9.35	8.80
35F690	237B	Black	Solder type	.11	9.90	9.35	8.80
35F785	215	Red	Adapter. Ac-	.15	13.50	12.75	12.00
35F786	215	Black	cepts std. banana plug, adapts to std. tip plug. $1\frac{3}{4}$" l.				

NON INSULATED PLUGS



102 103 104 106 105 108 403

Solderless tip plugs. Wire fits through body of tip, and is wrapped around screw portion and tightened with knurled collar. Fits std. phone tip jacks.

Stk. No.	Type	Description	Ea.	100-499	500-999	1000-Up
39F850	105	Sr. type $1\frac{29}{32}$" long	.12	10.80	10.20	9.60
39F851	106	Jr. type $1\frac{5}{16}$" long	.12	10.80	10.20	9.60

Solder type. For std. phone tip jacks.

39F854	108	Phone cord repl. tip	.03	2.70	2.55	2.40

Banana plugs. Supplied with hex nut and phosphor bronze lug. Hex brass nickel plated body. Fits std. banana jacks. With phos.-spring, except (*) 104. Thread: $\frac{6}{32}$ x ½ except (†) x ⅜.

38F292	104*	Split type cross slotted body	.14	12.60	11.90	11.20
38F298	403	4 leaved spring	.20	18.00	17.00	16.00
38F290	102†	4 leaved spring	.20	18.00	17.00	16.00
38F291	103†	4 leaved spring	.20	18.00	17.00	16.00

GIANT BANANA PLUGS AND JACKS

285 186 286 187

TYPE 285 AND 186 PLUGS. Hex brass, nickel plated body, 6 leaved, phosphor bronze, nickel plated spring.
TYPE 286 JACK. Supplied with hex nut fibre washer, lockwasher, screw and tinned copper lug. Mtgs. in ½" hole, ¾" thick hex nut and brass tinned lug. Mtg. hole ⅜", ½" thick.
TYPE 187 JACK. With hex nut and brass tinned lug.

Stk. No.	Type	Color	Description	Ea.	10-99	100-Up
32F829	285	Red	Insul. Large in-	.75	.68	.64
32F830	285	Black	ternal well. $2\frac{25}{32}$"	.75	.68	.64
3[illegible]5	186	Nickl. Platd.	Screw and lug. $1\frac{5}{32}$"	.35	.32	.30
35F789	286	Red	Mtgs. in ½"	.46	.42	.39
35F946	286	Black	Mtgs. in ½"	.46	.42	.39
35F947	187	Brass	Mtgs. in ½"	.30	.27	.26

INSULATED BANANA PLUGS AND ADAPTERS

Nickel Plated Brass Plugs. Fit Std. Banana Jack.

Stk. No.	Type	Color	Description	Ea.	100-499 per 100	500-999 per 100	1000-Up per 100
39F934	212	Red	4 leaved phos-	.23	20.70	19.55	18.40
39F935	212	Black	phor bronze				
39F936	212	Yellw.	nickel plated				
39F937	212	Green	springs. $1\frac{13}{16}$"				
39F938	212	Blue	long. Bake-				
39F939	212	White	lite handle.				
39F844	242	Red	Same as 212	.32	28.80	27.20	25.60
39F845	242	Black	except 4 leaved beryllium copper, nickel plated spring.				
39F944	211	Red	Same as 212	.19	17.10	16.15	15.20
39F940	211	Black	except $1\frac{5}{8}$"				
39F941	211	Yellw.	long. Bake-				
39F942	211	Green	lite handle.				
39F943	211	Blue					
39F945	211	White					
39F863	204	Red	With side wire	.19	17.10	16.15	15.20
39F864	204	Black	locking set				
39F865	204	Green	screw. 4 leaved				
39F866	204	Yel.	phosphor bronze spring. $1\frac{9}{16}$" long				
39F957	213	Red	Split type with	.18	16.20	15.30	14.40
39F958	213	Black	side screw.				
39F959	213	Yel.	No soldering.				
39F960	213	Green	Cross slotted				
39F961	213	Blue	for spring ten-				
39F962	213	White	sion. $1\frac{9}{16}$" long.				
39F965	255	Red	Meter type	.36	32.40	30.60	28.80
39F966	255	Black	Bakelite handle.				
35F914	1511	Red	Stack type Fits	.33	29.70	28.05	26.40
35F915	1511	Black	std. banana plugs in top and side. 4 leaved phosphor bronze spring. 2" long.				
35F916	1512	Red	Same as 1511	.36	32.40	30.60	28.80
35F917	1512	Black	but with beryllium copper spring. Solderless.				
35F779	455	White	Solderless. $1\frac{1}{2}$"	.21	18.90	17.85	16.80
35F780	455	Red	l. Nylon handle.				
35F781	455	Black					
35F782	455	Green					
35F783	455	Blue					
35F784	455	Yel.					
35F635	236	Red	4-leaved phos-	.35	31.50	29.75	28.00
35F640	236	Black	phor bronze, nickel plated. Hex brass, nickel plated. Fits std. banana jacks.				
35F636	245	Red	Brass insert.	.24	21.60	20.40	19.20
35F641	245	Black	Banana plug splice. Accepts std. banana plugs.				
35F637	295	Yel.	Similar to 236.	.25	22.50	21.25	20.00
35F642	295	Green	Solderless.				
35F643	295	Blue					
35F644	295	White					

1-11/16" INSULATED SPADE LUG

With banana jack. .030" hot tinned steel.

Stk. No.	Type	Color	Ea.	100-499 per 100	500-999 per 100	100-Up per 100
39F977	218	Red	.11	9.90	9.35	8.80
39F978	218	Black				

POMONA Patch Cords, Test Leads and Plugs

PECO STACK-UP PATCH CORDS, TEST AND CONNECTING LEADS

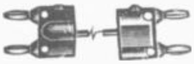


Fig. A

Fig. B

Fig. C

Fig. D

Fig. E

Fig. F

Fig. G

¾" double banana plug cabled to a variety of plugs, connectors, clips and tips as indicated below. The double banana plug permits parallel multiple stacking and has a clearly marked ground connection. Color of plug body matches cable color, av. wt., 5 oz. *Two conductor twisted 18 ga. (65x36) wire. Viny ljacket and insulation. Nom. cap. 30 mmf/ft., gray color. **Shielded microphone cable. Polyethylene insulation. Vinyl jacket. Nom. cap. 25 mmf/ft., gray color. †Coaxial shielded cable ,RG 58 c/u clr: blk.

WITH DOUBLE PLUGS EACH END—Fig. A

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F801	2BA-36*	36"	4.85	4.37	4.13	3.40
34F803	2BB-36**	36"				
34F805	2BC-36†	36"				

WITH ALLIGATOR CLIPS — Fig. B

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F807	2BA-AL-36*	36"	5.85	5.27	4.97	4.10
34F809	2BB-AL-36**	36"				
34F811	2BC-AL-36†	36"				

WITH UG88E/4 MALE BNC CONNECTOR—Fig. C

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F813	2BB-BNC-36**	36"	5.85	5.27	4.97	4.10
34F815	2BC-BNC-36†	36"	5.85	5.27	4.97	4.10

WITH .080 DIA. PHONE TIP PLUG—Fig. D

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F821	2BC-PP-36†	36"	7.50	6.75	6.38	5.25

WITH MINIGATOR CLIPS—Fig. E

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F823	2BA-MG-36*	36"	5.85	5.27	4.97	4.10
34F825	2BB-MG-36**	36"				
34F827	2BC-MG-36†	36"				

UG88E/U MALE BNC CONNECTOR BOTH ENDS—Fig. F

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F842	BNC-C-36†	24"	5.85	5.27	4.97	4.10
34F843	BNC-C-24†	36"	5.85	5.27	4.97	4.10

ALLIGATOR CLIPS TO UG88E/U MALE BNC CONNECTOR—Fig. G

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F839	AL-C-BNC-36†	36"	5.85	5.27	4.97	4.10

TEST LEAD HOLDER

Model 1508. Patch cords and cable assemblies can be filed for instant selection. Holder mounts easily on any vertical surface. Test leads are easy to store and easy to remove. Accepts cables up to .210" diameter. Cold rolled steel with orange baked enamel finish. Wt. 5 oz.

Model 2708. RG cable holder. Similar to 1508, but with .450" slots for coax cable. Blue finish. 11"Lx3.5"W; p slots.

Stk. No.	Type	1-24	25-49	50-99	100-249
34F956	1508	2.95	2.65	2.51	2.07
34F957	2708	2.95	2.65	2.51	2.07

MINIATURE-INSULATED DOUBLE BINDING POST

Model No. 2440. Double binding post body on ½" centers, with one red and one black binding post. Mounts ¼" dia. "D" hole; panels up to 3/16" thick; .082 dia. Cross hole; Nickel Plated per QQ-N-290 Class 2. Oper. Temp. —65c to 150c 1500 WVDC 5 Amps Cont., 10 Amps Int. Choice of Black or Red plate.

Stk. No.	Type	Plate Color	1-24	25-49	50-99	100-249
34F846	2440-0	Black	1.50	1.35	1.28	1.05
34F847	2440-2	Red	1.50	1.35	1.28	1.05

BREAK-OUT CABLE

Model 2630. BNC jack — alligator clips. 2.18-AWG stranded leads. Cable and clips are color coded, 1 red & 1 black. 500V peak. Operating temp. range: —25 to 85°C. 7" long.
Model 2631. Same as 2630, except with minigator clips.

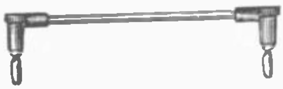
Stk. No.	Type	1-24	25-49	50-99	100-249
34F964	2630	3.45	3.10	2.93	2.42
34F965	2631	3.45	3.10	2.93	2.42

STACK-UP CONNECTING LEADS

Model B. Fits all standard banana jacks. Permit stack-up and side connections.

Stk. No.	Type	Length	Color	1-24	25-49	50-99	100-249
34F875	B-4	4"	Red	1.50	1.35	1.28	1.05
34F876	B-4	4"	Black				
34F877	B-8	8"	Red				
34F878	B-8	8"	Black				
34F879	B-12	12"	Red				
34F880	B-12	12"	Black				
34F881	B-18	18"	Red				
34F882	B-18	18"	Black				
34F848	B-24	24"	Red				
34F849	B-24	24"	Black				
34F850	B-36	36"	Red				
34F851	B-36	36"	Black				

STACK-UP 90° PATCH CORDS



Model 2700. 18 AWG Cable, rated 15 amps, 90° banana plug at each end. Volt, 10,000 VDC. Operating temp. range: 0-105°C. Plugs fit standard banana jacks. Heat treated beryllium spring. Nickel plate finish.

Stk. No.	Type	Color	Length	1-24	25-49	50-99	100-249
34F940	2864-12	Red	12"	1.50	1.35	1.28	1.05
34F941	2864-12	Black	12"				
34F942	2864-18	Red	18"				
34F943	2864-18	Black	18"				
34F944	2864-24	Red	24"				
34F945	2864-24	Black	24"				

● NEW MINIATURE STACK-UP CONNECTING LEADS

Model 1081. Miniature patch cords for use with .104 dia. banana jacks. For miniaturization of test equipment and high density packaging. WIRE: 20AWG, Strand. RATED: 5 A. Cont., 10 A. Int., 5,000 V.D.C. OPER. TEMP.: O C to +105°C.

Stk. No.	Type	Length	Color	1-24	25-49	50-99	100-249
34F891	1081-4	4"	Red	1.50	1.35	1.28	1.05
34F892	1081-4	4"	Black				
34F893	1081-12	12"	Red				
34F894	1081-12	12"	Black				
34F895	1081-24	24"	Red				
34F896	1081-24	24"	Black				
34F897	1081-36	36"	Red				
34F898	1081-36	36"	Black				

¾" MOLDED DOUBLE PLUG STACK-UP ACCESSORIES

MDP

MDP-X

2244

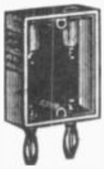
1269

1296

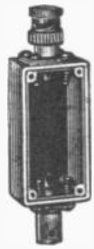
Model MDP. Internal set screws for cable connection. Has .171" dia. stack up connections. 15A cont., 30A int. Working V.: 5000 VDC. Cap: 0.8 mmf at 10 mc.
Model MDP-S. Has internal solder bonded shorting bar.
Model MDP-X. Jacks and plugs lead to 4 isolated terminals.
Model 1269. Adapter: BNC jack to double banana plug.
Model 1296. Adapter: binding posts to BNC plug.
Model 2244. Mini-double Banana Plug on ½" centers.

Stock No.	Model	Color	1-24	25-49	50-99	100-249
34F856	MDP	Red	.75	.68	.64	.53
34F857	MDP	Black	.75	.68	.64	.53
34F858	MDP-S	Natural	.95	.86	.81	.67
34F859	MDP-X	Red	3.25	2.93	2.76	2.28
34F860	1269	Black	2.85	2.57	2.42	2.00
34F870	1296	Black	4.85	4.37	4.13	3.40
34F844	2244	Black	.75	.68	.64	.53
34F845	2244-2	Red	.75	.68	.64	.53

COMPONENT MOUNTING BOXES



2098



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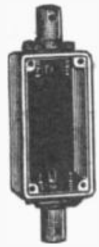
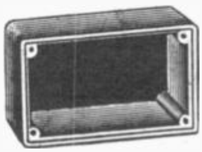
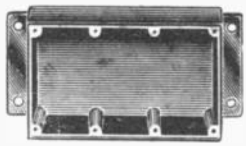


2390



2417



2901

MODEL 2098 BANANA JACKS TO DOUBLE BANANA PLUG. Junior size "black box." Ideal for packaging components and circuitry. Upper end—Banana jacks: 166" dia; solder turret terminals on 3/4" centers; brass, nickel plate; and polarity indicator. Lower end; Banana plugs on 3/4" centers; beryllium copper spring, nickel plated. 1.75 x 1.44 x .69". Shpg. Wt: 4 oz.
Model 2224. King size "black box." Like above, but 2.38 x 1.53 x 1.53".

MODEL 2390 BNC RECEPTACLE BOTH ENDS. Shielded die cast aluminum housing with blue baked enamel finish. Has UG290-A/U jack at both ends. 2.25 x 1.13 x .88". With cover plate. Shipping weight: 4 oz.

MODEL 2391 BNC JACK TO BNC PLUG. Shielded die cast aluminum housing with blue baked enamel finish. UG290-A/U jack at one end & UG1104-A/U plug at other end. 2.25 x 1.13 x .88" with cover plate.

MODEL 2397 SHIELDED "BLACK BOXES." Fulfill requirements for RF applications. Die cast aluminum. Finish is blue baked enamel. 2.09 x .97 x .88". Cover plate.

Model 2417. Shielded black box. Like 2397, except 2.09 x 1.22 x 1.00". Both 2 oz.

MODEL 2901 LARGER SHIELDED "BLACK BOX." Shielded die cast aluminum housing, Alloy #A380. Box measures 4.25 x 2.63 x 1.5". Blue baked enamel finish per Federal Stanard 595. Cover is .080" aluminum, clear anodized finish.

Stk. No.	Type	1-24	25-49	50-99	100-249
34F950	2098	3.45	3.10	2.93	2.42
34F951	2224	3.45	3.10	2.93	2.42
34F952	2390	6.85	6.17	5.84	4.80
34F953	2391	7.85	7.05	6.67	5.48
34F954	2397	1.50	1.35	1.28	1.05
34F955	2417	1.50	1.35	1.28	1.05
34F966	2901	5.85	5.27	4.97	4.10

SOCKET SAVERS

SS-7 SS-9 SS-8

Designed to be installed on tube checkers and other electronic equipment to prevent wear and tear of sockets on original equipment. Easy to install and remove. Beryllium Copper long-life contacts.

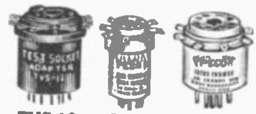
Stk. No.	Type	Description	1-49	50-99	100-249
34F861	SS-7	7-pin min.	1.75	1.50	1.40
34F862	SS-9	9-pin min.	1.75	1.50	1.40
34F863	SS-8	8-octal	1.75	1.50	1.40

NOVAR MODEL 1751 SOCKET SAVER

Beryllium Copper—long life contacts. Shpg. wt., 2 oz.

Stock No.	1-49	50-99	100-249
34F868	1.95	1.66	1.56

TEST SOCKET ADAPTERS



TVS-12 TVS-7 TVS-8

Features extended test tabs for ease of use with test prods or alligator clips. Low R.F. loss, phenolic construction: power factor less than 0.010 at 10 Mc. Insulation exceeds 500,000 megohms

Stk. No.	Type	Description	1-49	50-99	100-249
34F527	TVS-7	7 pin. min.	1.65	1.40	1.35
34F545	TVS-8	Octal	1.75	1.50	1.40
34F546	TVS-9	9 pin min.	1.85	1.57	1.52
34F548	TVS-1	Duo-Ducal	2.55	...	....
34F869	TVS-12	Compactron	2.55	2.29	2.17
34F883	1779	Novar	2.55	1.91	1.80

BREADBOARD SURFACE MOUNTED SOCKETS

XS-7 XS-9 XS-8

An insulated base prevents connection from shorting to the chassis. Eliminates double chassis design. Circuits may be wired in enclosed unit, base connections are numbered for easy identification. Phosphor bronze spring contacts.

Stk. No.	Type	Description	1-49	50-99	100-249
34F864	XS-7	7-pin min.	.65	.59	.55
34F865	XS-9	9-pin min.	.75	.68	.64
34F866	XS-8	Octal	.75	.68	.64

COLOR TV TEST ADAPTERS

Model 2887. Pin saver-color CRT. Miniature Diheptal. Accept .040 Dia. Pins—.800 Dia. Pin Circle. Provision for spark gaps.

34F888. NET **4.95**

Model 2380. Test adapter-color CRT. As above, with test tabs on outer circumference.

34F886. NET **4.95**

Model 2599A. Novar-6JE6-6KM6 cathode current horizontal output color test adapter. 9QL basing, with pin No. 3 interrupted. Test tab on Pin No. 2 for control grid horizontal drive measurement.

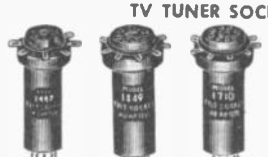
34F884. 1-49.....3.75 50-99.....3.19 100-249 3.00

MODEL TS-187 TRANSISTOR TEST SOCKET

For use in testing 3 lead transistors with .017 dia. leads. Beryllium copper springs for long life. Withstands temperature over 300°C. Insulation resistance 10,000 megohms min. at 40% R.H. at 24 C. Useful for aging racks, incoming inspection life testing etc. Color: Black.

Stock No.	1-24	25-49	50-99	100-249
34F867	1.75	1.58	1.50	1.23

TV TUNER SOCKET TUBE ADAPTERS



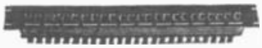
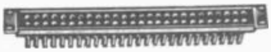
1447 1449 1710

The 7, 9 or 10-HIGH adapter rises above the shields and places testing in the open. Shields or tuner covers do not have to be removed. All construction is the highest quality. Interelement distributed capacity is approximately 1.5 micro-micro farad. Voltage breakdown elements exceed 1800 VAC or DC.

Stk. No.	Type	Description	1-49	50-99	100-249
34F872	1710	10 pin. min.	2.25	1.91	1.80
34F873	1449	9 pin min.	1.95	1.66	1.56
34F874	1447	7 pin min.	1.85	1.57	1.52
34F885	2610	10 pin Decal	2.55	2.17	2.04
34F889	2749	9 pin Novar	3.25	2.76	2.60
34F890	2742	12 pin Comp.	3.55	3.02	2.84

ADC Panel Connectors, Terminal Blocks

JACK PANELS

Panels are molded of solid phenolic, reinforced with steel to provide maximum rigidity and strength. Jacks are spaced to permit use of any standard double plug with ⅝" spacing. Mounting brackets and designation strips furnished with each panel. Fit standard relay rack.

Stk. No.	Type	Description	Hgt.	1-9	10-24
57F106	PJ-31	Dbl. pan. less jacks	2⅛"	9.45	7.88
57F107	PJ-341	Dbl. pan. w/PJ-318 jacks	2⅛"	42.75	35.63
57F108	PJ-30	Dbl. pan. less jacks	1¾"	12.90	10.75
57F109	PJ-340	Dbl. pan. w/PJ-318 jacks	1¾"	49.50	41.25
57F110	PJ-33	Sngl. pan. less jacks	1¾"	8.52	7.10
57F111	PJ-343	Sngl. pan. w/PJ-318 jacks	1¾"	25.14	20.95

BANTAM JACK PANELS

Designed for more compact patch-fields in modern electronic and communication equipment. Requiring only ½ of rack space the new panel assembly weighs only 65% of older conventional units. Offering 96 jacks 48 pairs in 1¾"x19" standard panel. The jacks are spaced to prevent cross patching from adjacent circuits when using double plugs. Constructed of Aluminum alloy with Anodized black finish incorporating a clear plastic designation strip.

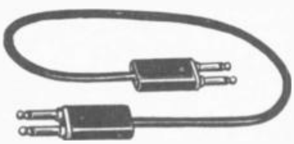
Stk. No.	Type	Description	1-9	10-24
57F173	PJ731	Dbl. pan. less jack	19.20	16.00
57F174	PJ737	Dbl. pan. w/ PJ818 jacks	92.40	77.00
57F175	PJ739	Dbl. pan. w/ PJ839 jacks	116.40	97.00
57F177	PJ700	pan. inst. blank	1.20	1.00

TERMINAL BLOCKS

The one piece base and individual terminal separators molded. Interchangeable with popular telephone type blocks 100A through 100D and L3A through L6A. Terminals are .040 brass. Rows of terminals are graduated in length for ease of wiring and the top row of terminals is identified by numbering. The PJ-106 terminal block provides 120 terminals six rows of 20 terminals each.

Stock No.	Type	Rows of Terms.	No. of Terms.	Height	NET
57F100	PJ-101	1	20	1 29/32	3.45
57F101	PJ-102	2	40	2¼	4.65
57F102	PJ-103	3	60	2 19/32	5.85
57F103	PJ-104	4	80	2 15/16	7.05
57F104	PJ-105	5	100	3 9/32	8.25
57F105	PJ-106	6	120	3⅝	9.45

PATCH CORDS



Shielded cords made of tinned copper conductor wire. Cords, as well as cord assemblies with PJ-1 double plugs. PJ-055B or PJ-051R single plugs and standard black patch cords with shields grounded both ends.

Cord With PJ-051R Plugs / **Replacement Cords for PJ-051R**

Stock No.	Type	Lgth.	1-24	25-49	Stock No.	Type	Lgth.	Net
57F133	PJ-82	2-feet	5.82	4.85	57F136	PJ-62	2-feet	2.22
57F134	PJ-84	4-feet	6.48	5.40	57F137	PJ-64	4-feet	2.76
57F135	PJ-86	6-feet	7.26	6.05	57F138	PJ-66	6-feet	3.39

Cord With PJ-1 Plugs

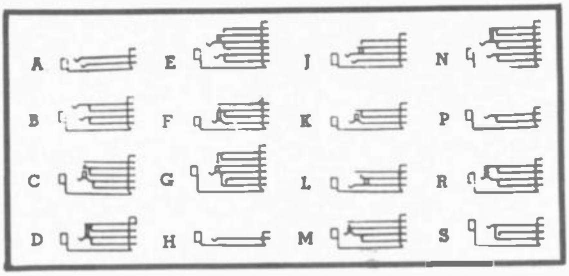
57F139	PJ-10½	6-inch	6.38	5.32	57F143	PJ-14	4-feet	7.13
57F140	PJ-11	1-foot	6.60	5.50				
57F141	PJ-12	2-feet	6.75	5.63	57F145	PJ-16	6-feet	7.58
57F142	PJ-13	3-feet	6.90	5.75				

Cord With PJ-055B Plugs

57F147	PJ-50½	6-inch	3.84	3.20	57F151	PJ-54	4-feet	4.86
57F148	PJ-51	1-foot	3.99	3.33	57F153	PJ-56	6-feet	5.79
57F149	PJ-52	2-feet	4.20	3.50	57F154	PJ-50	10-feet	6.39
57F150	PJ-53	3-feet	4.53	3.78				

Replacement Cords For PJ-1 and PJ-055B

57F157	PJ-22	2-feet	2.22	1.85	57F156	PJ-21	1-foot	2.07
57F158	PJ-23	3-feet	2.37	1.97	57F160	PJ-25	5-feet	3.03
57F159	PJ-24	4-feet	2.76	2.30				

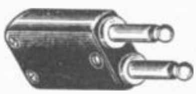


JACKS

Unique one-piece frame, which provides both dimensional stability and maximum strength. Connecting lugs are hot-tinned. Coin silver contacts are welded to springs. Insulation is XXX phenolic to meet military requirements. Shpg. wt., 3 oz.

Stock No.	Type	W.E. Equiv.	Config.	NET
57F112	PJ238	238A	A	.66
57F113	PJ240	240C	E	1.23
57F114	PJ241	241A	J	1.04
57F115	PJ242	242C	N	1.23
57F116	PJ339	239A	B	.92
57F117	PJ226	226A	F	1.02
57F119	PJ318	218A	P	.66
57F120	PJ336	236C	C	1.14
57F121	PJ338	438C	G	1.23
57F122	PJ418	218C	P	.69
57F123	PJ115	215A	L	.90
57F125	PJ117	217A	D	.90
57F126	PJ123	223A	H	.60
57F127	PJ125	225A	M	1.02
57F128	PJ203	303A	S	.78

PLUGS



PJ-327. Twin plug. Provides two electrically independent, 2 conductor plugs in a phenolic shell. Self aligning plug sleeves are on ⅝" ctrs. For MIL P-642A & WE 327. **57F163.** NET **2.55**

PJ-1. Equivalent, WE-241, heavy duty die cast frame. Black phenolic shell. Self aligning plug prongs on ⅝" center for use with all standard jack panels. Two tip conductors, plus sleeve connection common to both sleeves.
57F130. 1-24 .... **2.55** 25-49 .... **2.13**

PJ-051, WE-310. Designed for use with ¼" tip, ring and sleeve jacks. Molded insulation, red plastic shell. Three conductor.
57F131. 1-24 .... **1.32** 25-up **1.10**

PJ-055 (old style PL-55), WE-47, fits ¼" phone jacks. Black plastic shell. Screw terminals. Two conductor.
57F129. 1-24 ..... **.78** 25-up .... **.65**

PJ-6. Equivalent, WE-213. Designed for applications requiring two separate 3 conductor circuits. Self aligning plug prongs on 11/16" centers.
57F132. 1-24 ..... **5.40** 25-up **4.50**

BANTAM PATCH CORDS

Plastic jacketed, shielded tinned copper conductor. Plugs of connector are brass with a molded polystyrene insulation which also aids strain relief.

Stk. No.	Type	Length	1-24	25-49
2 CONDUCTOR—SINGLE PLUG				
57F185	PJ-701	6"	3.60	3.00
57F187	PJ-704	24"	3.78	3.15
57F188	PJ-706	36"	3.90	3.25
2 CONDUCTOR—DOUBLE PLUG				
57F192	PJ-754	24"	4.74	3.95
57F193	PJ-756	36"	4.86	4.05
3 CONDUCTOR—SINGLE PLUG				
57F195	PJ-711	6"	4.32	3.60
57F196	PJ-712	12"	4.38	3.65
57F197	PJ-714	24"	4.50	3.75
57F198	PJ-716	36"	4.62	3.85
57F199	PJ-718	48"	4.74	3.95

MOLDED INSULATING WASHERS

Molded insulating washers made from black electric grade phenolic. Manufactured under specifications MIL-P-14 Type CFG. The finest grade of insulating washers. For all applications. Overall dia. .500" except (*) .625 and (†) .375. Shoulder dia. .375" except (*) .500 and (†) .250. Base height .063". Shoulder height .031". Shpg. wt. 2 oz.

Stk. No.	Mfg. No.	Screw Size	Per Pkg. of 10 1-49	50-99
28F572	21B1001-2	No. 6	1.00	.80
28F573	21B1002-2	No. 8		
28F574	21B1003-2	No. 10		
28F575	21B1004-2	1/4"		
28F576	21B1005-2	5/16"		
28F577	21B1006-2*	3/8"		
28F578	21B1021-2†	No. 6		

MATING INSULATING WASHERS

No. 21B78-2. Insulates jack with 3/8" bushing from panel. Molded black electric grade phenolic (MIL-P-14). Rear washer index hole fits non-turn jack tab. Front washer fits under hex mtg. nut. 1/16" min. panel thickness. Wt., 1 oz.

28F579. 1-49 PKG. 10 .... **2.50**
50-99 PKG. 10 .... **2.00**

TRANSISTOR SOCKETS

Designed for JETEC series transistor. Leads fit 100 MIL printed circuit grid. Dia. of pin centers .200. Contacts: are wrap-around type, silver plated beryllium copper with gold flash. **22-11** and **22-16** have bases molded of mica filled phenolic per Mil-M-14, type MFE. **22-18** bases are molded Melamine per Mil-M-14 type CMG. **22-11** fits ehrough 3/8" hole for fastening with rivets or #2 screws. **22-16** is designed for soldering directly into printed circuits. Type 22-101-3. For TO-18, 28, and 46 outlines. Shpg. wt. 2 oz.

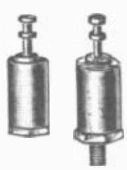
22-11

22-16-3

22-18-3

Stk. No.	Type	Pins	Cir.	1-49	50-99
28F632	22-11	4	Nat	.40	.30
28F633	22-16-3	3	Nat	.35	.263
28F634	22-16-4	4	Nat	.40	.30
28F620	22-18-3-10	3	Blk	.45	.338
28F621	22-18-3-12	3	Red	.45	.338
28F622	22-18-4-10	4	Blk	.50	.375
28F623	22-18-4-12	4	Red	.50	.375
28F635	22-101-3	3	Nat	1.45	1.088
28F555	22-101-4	4	Nat	1.65	1.24

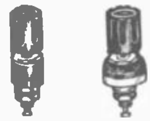
STANDOFF INSULATORS



Bodies are molded of mica-filled phenolic (MIL-M-14 type MFE) for low loss at high frequencies, low moisture absorption and fungus resistance. Offer high dielectric strength. The brass solder terminals are silver plated for ease in soldering. Length, front of panel, 15/16" — diameter 5/16". Average Shipping Weight is 3 oz.

Stock No.	Type	Description	1-499	500-999
37F198	18-1	Female 4-40	.40	.32
37F199	18-2	Male 4-40	.45	.36

COMPACT BINDING POSTS



Series 29. 1/2" and 3/8" mounting hole. Phenolic washers to MIL-M-14, with nickel-plated brass metal parts. Integral solder studs. For panels to 3/16". Wt., 3 oz. *Spring loaded.

Stk. No.	Type	Color	Hole	1-499	500-999
28F567	29-1B	Black	3/8"	.50	.43
28F566	29-1R	Red	3/8"		
28F569	29-3B	Black	1/2"		
28F568	29-3R	Red	1/2"		
*28F631	29-33B	Black	1/2"		
*28F630	29-33R	Red	1/2"		

BINDING POST BASES

Designed for use with No. 29-1 binding post to make assembled units of two or three posts. Post placed at 3/4" centers. Insulates from chassis. Molded phenolic to MIL-M-14. Shpg. wt. 2 oz.

Stk. No.	Mfg. No.	Color	Per Pkg. of 10 1-49	50-99
28F557	29B11-1	Black	1.50	1.31
28F558	29B11-2	Red		

PUSH POST

Type 29-100. Quick positive connections by depressing plunger. To operate, button is depressed, lead is placed in slot, and button is released. Spring pressure assures firm positive contact. Extends only 7/8" above mounting surface. Nickel plated brass with a molded phenolic button cap. #8-32 threaded stud. Shpg. wt. 2 oz.

29-100

29-101

Type 29-101. Similar to 29-100 except mounted on standard banana plug.

29-104

Type 29-104. Similar to 29-100 except supplied with molded insulating washers.

Stock No.	Mfg. No.	Color	1-499	500-999
28F417	29-100R	Red	.40	.348
28F418	29-100B	Black	.40	.348
28F419	29-101R	Red	.60	.522
28F420	29-101B	Black	.60	.522
28F421	29-104R	Red	.55	.479
28F422	29-104B	Black	.55	.479

PLUG-IN ADAPTER

Type 2-2. Plug-in Adapter. Useful in testing resistors and other pigtail units. Two nickel-plated clips on molded phenolic board to MIL-M-14. Banana plugs spaced on centers 3/4". Shpg. wt. 3 oz.

2-2

28F553. NET . **1.60**

Type 2-7. Similar to Type 2-2 Plug-in-Adapter above except adjustable from 3/4 to 1 1/4 centers.
28F413. NET **1.75**

TEST CLIPS

2-0

Type 2-0. Threaded stud mounts on insulated panel. Leads of device under test slip easily in and out of clamp. Adjustable spring action. 1 9/16" long. Shpg. wt. 2 oz.
28F550. NET **20c**

2-1

Type 2-1. Banana Plug Clip For "Q" meters and other equipment with irregularly spaced jacks. 1 1/8" long. Shpg. wt. 2 oz.
28F554. NET **40c**

2-4

Type 2-4. Insulated Clip has molded phenolic washers to insulate from metal panel. Wt., 2 oz.
28F411. NET **35c**

2-6

Type 2-6. Phone Tip Clip. Mounted on standard phone tip to fit jacks. Shpg. wt. 2 oz.
28F412. NET **50c**

INSULATED ALLIGATOR CLIPS

Series 16. Fully insulated test clips that can be placed side-by-side without electrical short-circuit! Silver overlay contacts. Shpg. wt. 2 oz.
28F551. Type 16R. Red. **NET** 1.40
28F552. Type 16B. Black. **NET** 1.40

MINIATURE TEST CLIPS

2-20

Type 2-20. Rapid connections without manually opening and closing jaws. Extends 3/4" above surface. Nickel plated brass with 6-32 thrd. stud. Hex nut tension adjustment. 2 oz.
28F414. NET **25c**

2-21

Type 2-21. Similar to 2-20 except mounted on a standard banana plug. Rapid connections without manually opening and closing jaws. Extends 3/4" above surface
28F415. NET **45c**

2-24

Type 2-24. Similar to 2-20 except with two shoulder insulating washers. Nickel plated brass with 6-32 thrd. stud. Hex nut tension adjustment.
28F416. NET **40c**

2-41

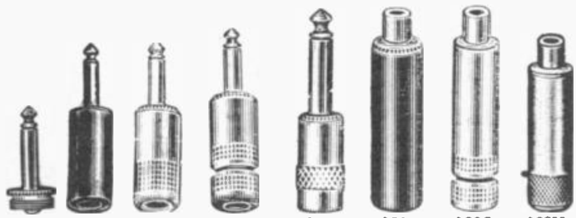
Type 2-41 & 2-42. For simplified, rapid testing of "pig-tail" components, also single wire connections and bread board work. Panel area, exclusive of nut; single unit—3/16" x 1/8", double unit—1/4" x 1/8". Mtg. stud—3/8" long. Nickel plated brass with nickel plated, heat treated beryllium copper spring. Hex nut under spring adjusts tension.

2-42

28F624. 2-41 single. **NET EA.** .25
28F625. 2-42 double. **NET EA.** .30

Plugs and Jacks

PHONE AND MICROPHONE JACKS



Type 55. Adapts standard microphone connector for use with conventional jack. Length, 1-7/16". Shpg. wt., 4 oz.

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
39F742	55	.30	.27	.25	.225	.20

Type 75. Two-way phone plug with tie-cord anchor and insulated phenolic shell. Brass terminals for either phone tips or wire. Length 2-13/16". Handle, 1-9/16" long. Shpg. wt., 3 oz.

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
39F700	75	.45	.41	.38	.338	.30

Type 75N. Two-way phone plug with tie-cord anchor and polished shielded nickel shell. Brass screw terminals. Overall length, 2-13/16". Handle, 1-5/8". Shpg. wt., 8 oz.

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
39F701	75N	.66	.59	.55	.495	.44

Type 75A. Two-way phone plug with tie-cord anchor and polished, shielded nickel shell and cable clamp. Brass screw terminals. Length 3-1/16". Handle, 1-13/16". Shpg. wt., 4 oz.

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
39F702	75A	1.05	.95	.88	.788	.70

Type 76. Similar to type 75. Three-way microphone plug with insulated phenolic shell. Silver-plated lug terminals. Overall length, 2-13/16". Handle, 1-9/16" long. Shpg. wt., 3 oz.

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
39F703	76	.90	.81	.75	.675	.60

Type 76A. Similar to 75A. Three way mike plug in polished, shielded nickel shell with cable clamp. Silver-plated lug terminals. Length, 3". 1-13/16" handle. Shpg. wt., 4 oz.

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
39F704	76A	1.17	1.05	.98	.878	.78

Type 85. Two-way miniature phone plug. 2-1/4" long. Wt., 4 oz.

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
39F743	85	.36	.32	.30	.27	.24

EXTENSION TYPE JACKS

Type 100. Two-way extension jack for type 75 phone plug. Fiber shell. 2-3/4" long. Overall length, 3-1/4". Shpg. wt., 4 oz.

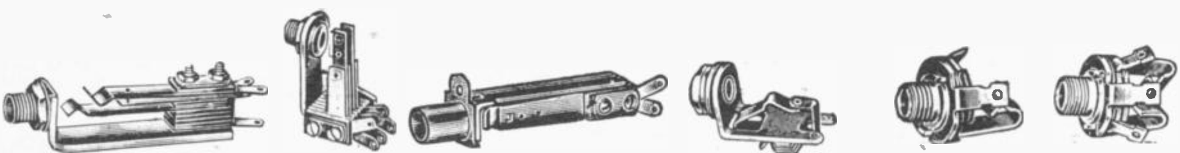
Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
39F705	100	1.08	.97	.90	.81	.72

Type 100N. Two-way extension jack for type 75N phone plug. Highly polished, shielded nickel shell. Overall length, 3-5/16". Shpg. wt., 6 oz.

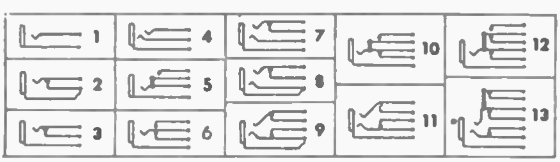
Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
39F706	100N	1.08	.97	.90	.81	.72

Type 100A. Two-way extension jack for type 75A phone plug. Shielded nickel shell with built-in cable clamp. Overall length, 3-1/16". Shpg. wt., 5 oz.

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
39F707	100A	1.50	1.35	1.25	1.125	1.00



CIRCUIT DIAGRAM



LONG FRAME JACKS

Fig. A. Long-frame jacks mount in 7/16" hole in panels up to 1/4" thick by means of a 3/8" diameter threaded shank. All take standard 1/4" plugs. Nickel-plated alloy springs, silver contacts, cadmium-plated frames. Supplied with mounting nut and washer. Shpg. wt., 4 oz.

Stk. No.	Type	Cir. Diag.	1-9	10-49	50-99	100-249	250-499
39F708	1	1	.45	.41	.38	.338	.30
39F709	2	2	.57	.51	.48	.428	.38
39F710	2A	3	.57	.51	.48	.428	.38
39F711	2B	4	.57	.51	.48	.428	.38
39F712	3	5	.60	.54	.50	.45	.40
39F714	3B	7	.60	.54	.50	.45	.40
39F717	4A	10	.75	.68	.63	.563	.50
39F718	4B	11	.75	.68	.63	.563	.50
39F719	5	12	.90	.81	.75	.675	.60
39F720	6	13	1.05	.95	.88	.788	.70

JUNIOR JACKS

Fig. B. "Junior" jacks for standard 1/4" plugs. Mounts in 3/8" hole in panels up to 5/16" thick. Nickel plated brass frames and bushings. Supplied with mounting nut & washer. Shpg. wt., 3 oz.

39F724	701	1	.45	.41	.38	.338	.30
39F725	702	2	.51	.46	.43	.383	.34
39F726	702A	3	.57	.51	.48	.428	.38
39F727	702B	4	.57	.51	.48	.428	.38
39F728	703	5	.60	.54	.50	.45	.40
39F729	703A	6	.60	.54	.50	.45	.40
39F730	703B	7	.60	.54	.50	.45	.40
39F731	703C	8	.60	.54	.50	.45	.40
39F732	704	9	.69	.62	.58	.518	.46
39F733	704A	10	.69	.62	.58	.518	.46
39F734	704B	11	.69	.62	.58	.518	.46
39F735	705	12	.75	.68	.63	.563	.50

SWITCHBOARD AND INDUSTRIAL JACKS

Fig. C. Industrial jacks similar to long frame jacks but have special frame angle for greater support; plain unthreaded bushing. Mount with single screw. Fits standard plugs. Shpg. wt., 4 oz.

Stk. No.	Type	Cir. No.	Description	1-9	10-49	50-99	100-249	250-499
39F721	XP-1	1	Open Cir. Jack	.63	.57	.53	.473	.42
39F722	XP-2B	3	Mike Jack	.75	.68	.63	.563	.50
39F723	XP-3B	6	Sgl. Cir. Make Brk.	.90	.81	.75	.675	.60

MIDGET TYPES

Fig. D. Midget jacks have a shorter frame and spring than the Junior jack. For minimum clearance positions. Extend 19/32" behind panel; take standard plugs. Shpg. wt., 2 oz.

39F737	A-1	1	Open Cir. Jack	.33	.30	.28	.248	.22
39F738	A-2	2	Shorting Jack	.48	.43	.40	.36	.32
39F739	A-2A	3	Closed Cir. Jack	.57	.51	.48	.428	.38
39F740	A-3A	6	Sgl. Cir. Make Brk.	.66	.59	.55	.495	.44
39F741	GJ-1	1	Aircraft Grounding Jack	.36	.32	.30	.27	.24

SC JACKS

Fig. E. SC-1A Phone Jack. 2-conductor. Commercial equivalent of military jack No. JJ-034. Requires 7/8" mounting space behind panel. Designed to receive these plugs: Mallory 75, West. Electric 47A and 47B, Signal Corps PL-47, PL-48, PL-55, PL-148, PL-155, PL-125 and Jan plugs PJ-055, PJ-155, PJ-634, PJ-636, and PJ-047. Shpg. wt., 2 oz.

Fig. F. SCA-2B. Microphone Jack. 3 conductor. Commercial equivalent of Military Jack No. JJ-033. Requires 7/8" mounting space behind panel. Designed to receive these plugs: West. Electric 109, and Signal Corps PL-68, PL-168, and Jan plugs PJ-068, PJ-168, and PJ-309. Shpg. wt., 2 oz.

LA JACKS

Similar to SCIA and SCA2B Signal Corps jacks but have commercial construction for use in electronic equipment. Have 3/8" x 32 brass bushings, cadmium-plated. Contact springs silver plated; spring brass to assure low contact resistance. Insulation high-grade phenolic. Mounting behind panel 1". Mounting radius approximately 1/2". Use with No. 75, 75N, 75A or 85 phone plugs. Shpg. wt., 2 oz.

Stk. No.	Type	Cir. Diag.	Description	1-9	10-49	50-99	100-249	250-499
39F780	SC-1A	1	Open Circuit	.36	.32	.30	.27	.24
39F781	SCA-2B	4	Open Circuit	.42	.38	.35	.315	.28
35F838	LA-1	1	Open Cir. Jack	.36	.32	.30	.27	.24
35F839	LA-2	2	Shorting Jack	.42	.38	.35	.315	.28
35F840	LA-2A	3	Closed	.48	.43	.40	.36	.32

Superior Plugs & Connectors

DOUBLE ASSEMBLY 5-WAY BINDING POST

Fig. A

Fig. B

Fig. A. For instrument and equip. panels requiring ¾" centers. Rated for a current capacity of 30 amps. & working voltage of 1000 V. Gold plated brass pts. 5 ways to make connections. 0.098" diam. wire holes. Color coded captive thumbnuts.
Fig. B. Dual adapter type. 125VAC, 15A

Stk. No.	Type	Color Thumbnut	Fig.	1-9	10-99
6F078	DAP15BWC	Black & White	B	1.80	1.53
6F085	DF30-2-BWTC	Black & White	A	1.00	.75
6F086	DF30-2-BBC	Black & White	A		
6F087	DF30-2-BRC	Red & Black	A		

HEX-NUT 5-WAY BINDING POSTS

Can mount and lock in any panel from 1/16" to ¼" thick. For permanent clamping, spade lug, clip-lead, banana plug, or looping and clapping. Shaft has ⅛" solder tip and 0.098" dia. wire holes. Rated: 1000 V. 30 amp. Gold-plated metal parts. Plastic parts are of nylon compounded to meet military specifications MIL-P-20693. Shpg. wt. 1 oz.

Stk. No.	Type	Color	1-99	100-900
5F760	DF30BC	Black	.45	.34
5F761	DF30BLC	Blue		
5F762	DF30RC	Red		
5F763	DF30GNC	Green		
5F764	DF30WTC	White		
5F765	DF30YC	Yellow		
5F759	GP30NC	Nickel		

MINIATURE 5-WAY BINDING POSTS

Rated for 15 amperes, 1000 working volts. Nylon plastic parts meet Mil Spec MIL-P-20693. Gold-plated brass parts. Fluted thumb nut design only.

Stk. No.	Type	Color	1-99	100-900
6F079	DF21RC	Red	.45	.34
6F080	DF21WTC	White		
6F081	DF21BC	Black		
6F082	DF21BLC	Blue		
6F083	DF21YC	Yellow		
6F084	DF21GNC	Green		

FLUTED NUT 5-WAY BINDING POSTS

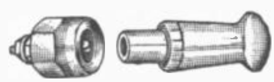
Plastic parts of standard size types molded of Lexan polycarbonate resin; brass parts are gold-plated. Rated for 30 amperes, 1000 volts working. Shipping wt. 2 oz.

Stk. No.	Type	Color	1-99	100-900
6F088	DF31RC	Red	.45	.34
6F089	DF31BLC	Blue		
6F090	DF31GNC	Green		
6F091	DF31WTC	White		
6F092	DF31BC	Black		
6F093	DF31YC	Yellow		

SUPERCON ELECTRICAL CONNECTORS

- **Positive-Grip Design**
- **Nylon Plastic Parts**

Supercon flexible soldered or solderless plugs and receptacles



Stock No.	Type	Color	Desc.	1-19	20-99	100-199
6F054	RP25GB	black	25 amp Pin Receptacles	2.50	2.00	1.75
6F055	RP25GY	yellow				
6F056	RP25GR	red				
6F057	RP25GBL	blue				
6F058	RP25GGN	green				
6F059	RP25GWT	white				
6F066	PS25GB	black	25 amp Socket Plugs	2.50	2.00	1.75
6F067	PS25GY	yellow				
6F068	PS25GR	red				
6F069	PS25GBL	blue				
6F070	PS25GGN	green				
6F071	PS25GWT	white				
6F024	PS50GB	black	50 amp Socket Plugs	3.25	2.60	2.28
6F025	PS50GY	yellow				
6F026	PS50GR	red				
6F027	PS50GBL	blue				
6F028	PS50GGN	green				
6F029	PS50GWT	white				
6F006	RP50GB	black	50 amp Pin Receptacles	3.25	2.60	2.28
6F007	RP50GY	yellow				
6F008	RP50GR	red				
6F009	RP50GBL	blue				
6F010	RP50GGN	green				
6F011	RP50GWT	white				
6F012	RS100GB	black	100 amp Socket Receptacles	4.25	3.40	2.98
6F013	RS100GY	yellow				
6F014	HS100GR	red				
6F015	RS100GBL	blue				
6F016	RS100GGN	green				
6F017	RS100GWT	white				
6F042	PP100GB	black	100 amp Pin Plugs	4.25	3.40	2.98
6F043	PP100GY	yellow				
6F044	PP100GR	red				
6F045	PP100GBL	blue				
6F046	PP100GGN	green				
6F047	PP100GWT	white				
6F675	RP250GB	black	250 amp Pin Receptacles	7.25	5.80	5.08
6F676	RP250GY	yellow				
6F677	RP250GR	red				
6F148	RP250GBL	blue				
6F149	RP250GGN	green				
6F150	RP250GWT	white				

Stock No.	Type	Color	Desc.	1-19	20-99	100-199
6F048	RS25GB	black	25 amp Socket Receptacles	2.50	2.00	1.75
6F049	RS25GY	yellow				
6F050	RS25GR	red				
6F051	RS25GBL	blue				
6F052	RS25GGN	green				
6F053	RS25GWT	white				
6F060	PP25GB	black	25 amp Pin Plugs	2.50	2.00	1.75
6F061	PP25GY	yellow				
6F062	PP25GR	red				
6F063	PP25GBL	blue				
6F064	PP25GGN	green				
6F065	PP25GWT	white				
6F000	RH50GB	black	50 amp Socket Receptacles	3.25	2.60	2.28
6F001	RH50GY	yellow				
6F002	RS50GR	red				
6F003	RS50GBL	blue				
6F004	RS50GGN	green				
6F005	RS50GWT	white				
6F030	PP50GB	black	50 amp Pin Plugs	3.25	2.60	2.28
6F031	PP50GY	yellow				
6F032	PP50GR	red				
6F033	PP50GBL	blue				
6F034	PP50GGN	green		4.25	3.40	2.98
6F035	PP50GWT	white				
6F036	PS100GB	black	100 amp Socket Plugs	4.25	3.40	2.98
6F037	PS100GY	yellow				
6F038	PS100GR	red				
6F039	PS100GBL	blue				
6F040	PS100GGN	green				
6F041	PS100GWT	white				
6F018	RP100GB	black	100 amp Pin Receptacles	4.25	3.40	2.98
6F019	RP100GY	yellow				
6F020	RP100GB	red				
6F021	RP100GBL	blue				
6F022	RP100GGN	green				
6F023	RP100GWT	white				
6F672	PS250GB	black	250 amp Socket Plugs	7.25	5.80	5.08
6F673	PS250GY	yellow				
6F674	PS250GR	red				
6F145	PS250GBL	blue				
6F146	PS250GGN	green				
6F147	PS250GWT	white				

E. F. JOHNSON Plugs and Jacks

NYLON INSULATED SOLDERLESS TIP PLUG

Companion unit for the famous JOHNSON nylon tip jack. Durable molded nylon insulating sleeve designed so no metal surfaces are exposed when plug is inserted in jack. Quick, sure solderless connection of up to 16 gauge stranded wire. Withstands extremely high voltages and a wide temperature range. Current rating is 10 amperes. Standard .081 inch diameter pin fits all standard tip jacks. Size: 1⁷⁄₁₆" x ⅜". Shpg. wt., 2 oz.

No.	Type	Color	1-49	50-99	100-499	500-up
39F1513	105-301	White	.15	.135	12.40 Per 100	11.30 Per 100
39F1514	105-302	Red				
39F1515	105-303	Black				
39F1516	105-304	Green				
39F1518	105-306	Orange				
39F1519	105-307	Yellow				
39F1520	105-308	Brown				
39F1522	105-310	Blue				
39F1524	105-312	Violet				
39F1525	105-313	Gray				

BANANA JACKS

Completely insulated banana jack. Retains low-loss characteristics through wide temp. range and high rel. humidity conditions. Voltage breakdown: 12,500 V. DC. For banana plugs of nom. .175" diam. Shpg. wt., 2 oz.

No.	Type	Color	1-49	50-99	100-499	500-up
39F1573	108-901	White	.10	.09	8.25 Per 100	7.55 Per 100
39F1574	108-902	Red				
39F1575	108-903	Black				
39F1576	108-904	Green				
39F1578	108-906	Orange				
39F1579	108-907	Yellow				
39F1580	108-908	Brown				
39F1582	108-910	Blue				
39F1584	108-912	Violet				
39F1585	108-913	Gray				

NYLON TIP JACKS

Molded of tough, low-loss nylon. Have high DC breakdown, 11,000 volts, and low capacity to panel, 2.0 mmf. Contacts recessed to avoid accidental shorting. Silver plated beryllium copper contacts. Mating pin, .081" diameter. Mtg. hole req. ¹⁷⁄₃₂". Head diam. ⅜". Body threaded ¼"-32. Wt., 1 oz.

39F878	105-601	White	.15	.135	12.40 Per 100	11.30 Per 100
39F879	105-602	Red				
39F880	105-603	Black				
39F881	105-604	Green				
39F882	105-606	Orange				
39F883	105-607	Yellow				
39F884	105-608	Brown				
39F885	105-610	Blue				
39F1558	105-612	Violet				
39F1559	105-613	Gray				

NYLON JACKS AND SLEEVE ASSEMBLIES

Nylon tip jack equipped with an inside threaded molded nylon insulating sleeve. Shpg. wt., 3 oz.

39F1500	105-701	White	.20	.18	16.55 Per 100	15.10 Per 100
39F1501	105-702	Red				
39F1502	105-703	Black				
39F1503	105-704	Green				
39F1505	105-706	Orange				
39F1506	105-707	Yellow				
39F1507	105-708	Brown				
39F1509	105-710	Blue				
39F1511	105-712	Violet				
39F1512	105-713	Gray				

BANANA PLUGS AND JACKS

A B C

Complete selection. Banana plugs have nickel silver springs. Jacks are nickeled brass. Type 108-740 is ⅝" long. 108-760 is 1" long. Studs extend full length of sleeves for added support. With nuts and lugs. Shpg. wt., 2 oz.

No.	Type	Fig.	Descriptions	1-49	50-99	100-499 Per 100	500-up Per 100
39F888	108-750	A	Plug, ⅜" stud	.15	.14	12.40	11.30
39F889	108-750-2	A	Plug, ¾" stud	.16	.14	13.20	12.10
39F890	108-753	B	Plug, 6-32 screw	.16	.14	13.20	12.05
39F891	108-770	A	Jumbo type plug	.35	.32	29.00	26.40
39F892	108-771	B	Jumbo type plug	.50	.45	41.40	37.70
39F893	108-740	C	Standard jack	.13	.12	10.75	9.80
39F894	108-760	C	Jumbo jack	.45	.41	37.25	34.00

NYLON SIX-WAY BINDING POST

Compact, completely insulated, pre-assembled 6-way binding post. Molded nylon body. Silver-plated brass shank. Current capacity 15 amps. Voltage breakdown 8000 V DC. Single ⁵⁄₁₆"-32 nut furnished for mounting — no auxiliary hardware needed. Shpg. wt., 3 oz.

No.	Type	Color	1-49	50-99	100-499	500-up
39F1545	111-101	White	.30	.27	24.80 Per 100	22.60 Per 100
39F1546	111-102	Red				
39F1547	111-103	Black				
39F1548	111-104	Green				
39F1550	111-106	Orange				
39F1551	111-107	Yellow				
39F1552	111-108	Brown				
39F1554	111-110	Blue				
39F1556	111-112	Violet				
39F1557	111-113	Gray				

INSULATED BANANA PLUGS

Compact high voltage insulated plug for a wide variety of applications. Easy solderless connection of up to 16 gauge stranded wire. Nylon insulating sleeve retains strength and low loss characteristics over a wide range of temperatures and withstands high voltages. Shpg. wt., 3 oz.

39F1530	108-301	White	.19	.17	15.70 Per 100	14.30 Per 100
39F1531	108-302	Red				
39F1532	108-303	Black				
39F1533	108-304	Green				
39F1535	108-306	Orange				
39F1536	108-307	Yellow				
39F1537	108-308	Brown				
39F1539	108-310	Blue				
39F1541	108-312	Violet				
39F1542	108-313	Gray				

LOW COST NYLON TIP JACKS

Low cost nylon tip jacks with formed silver-plated phosphor bronze contact. Current rating: 10 amps. Voltage breakdown: 9000 volts DC; capacity to ⅛" panel, 2.0 mmf ¼"-32 nut furnished; mounts in ¹⁷⁄₆₄" hole. Shpg. wt., 2 oz.

39F1560	105-801	White	.13	.12	10.75 Per 100	9.80 Per 100
39F1561	105-802	Red				
39F1562	105-803	Black				
39F1563	105-804	Green				
39F1565	105-806	Orange				
39F1566	105-807	Yellow				
39F1567	105-808	Brown				
39F1569	105-810	Blue				
39F1571	105-812	Violet				
39F1572	105-813	Gray				

METAL-CLAD NYLON TIP JACK TIPS

Shock-proof nylon and metal construction. Nickel-plated machined brass jacket protects nylon body—assures positive fastening to mounting surface. Current rating: 10 amperes, internal silver-plated contact recessed in head—accommodates tip plugs of nominal .081" diameter. ¼"-32 nut furnished. Mounts in ¹⁷⁄₆₄" diameter hole. Capacity to ⅛" metal is 3.8 Mmf. Variations of two available grades listed below. Av. shpg. wt., 3 oz.

STANDARD TYPE

These low cost metal-clad jacks have nylon tips for extremely long wear. Each is provided with formed silver-plated phosphor-bronze contact to insure optimal performance. Voltage breakdown is 7,000 volts DC.

Stk. No.	Mfg. No.	Color	1-49	50-99	100-499 per C	500-Up per C
39F1700	105-251-1	White	.18	.16	14.90	13.55
39F1701	105-252-1	Red				
39F1702	105-253-1	Black				
39F1703	105-254-1	Green				
39F1705	105-256-1	Orange				
39F1706	105-257-1	Yellow				
39F1707	105-258-1	Brown				
39F1709	105-260-1	Blue				
39F1711	105-262-1	Violet				
39F1712	105-263-1	Grey				

MILITARY TYPE

Military type designed to comply with MS-16108 R2V f 08 MIL-STD-242A. Heavy nickel plated brass jacket. High insulation resistance of nylon body. Gold plated beryllium copper contact spring. Voltage breakdown: 8,000 volts DC.

Stk. No.	Mfg. No.	Color	1-49	50-99	100-499 per C	500-Up per C
39F1726	105-201-200	White	.30	.27	24.80	22.60
39F1727	105-202-200	Red				
39F1728	105-203-200	Black				
39F1729	105-204-200	Green				
39F1731	105-206-200	Orange				
39F1732	105-207-200	Yellow				
39F1733	105-208-200	Brown				
39F1735	105-210-200	Blue				
39F1737	105-212-200	Violet				
39F1738	105-213-200	Grey				

DUAL SOLDERLESS BANANA PLUG

Extremely versatile. Molded body incorporates polarity indication and strain relief hole for wire leads. Springs are high quality nickel silver—bodies are nickel-plated. Accurately machined brass studs extend the full length of pins for extra strength. Voltage breakdown: 10,000 volts DC. Capacity plug to plug: 1.3 mmf. Current carrying capacity: 15 amps.

Stk. No.	Type 108-	Color	1-49	50-99	100-499 per 100
39F895	202	Red	.70	.63	58.00
39F896	203	Black	.70	.63	58.00

GRID BY-PASS CAPACITORS

Type 124-113-1. 1450 pf circular silvered-mica screen grid by-pass capacitor. Dielectric strength tested at 1000 volts, DC. Low inductance silver plated beryllium copper, screen grid contact fingers are heat treated. Shpg. wt. 4 oz.

Stk. No.	Type	1-9	10-49
39F1527	124-113-1	4.25	3.75

INSULATED BANANA PLUGS

Standard size. With plastic handles, brass nickel-plated bodies, nickel-silver springs. 2⅛" L. x 7/16" Max. Dia.

Stk. No.	Type 108-	Color	1-49	50-99	100-499 per 100
39F897	752-1	Black	.30	.27	24.80
39F898	752-2	Red	.30	.27	24.80

BAYONET SOCKETS

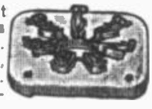
Type 123-210-1. Porcelain base socket for tubes with 4 prong "UX" base. Has phosphor bronze contacts, aluminum shell. Takes 852, 860, 866 tubes. etc. HV spacing between contacts and shell. 2 mtg. holes, 2 1/16" between ctrs. Shpg. wt., 10 oz.

Type 123-211-1. Porcelain base socket for "jumbo" 4-pin tubes. Takes 211, 872, etc. 2 13/16" mtg. ctrs. Wt., 1 lb.

Typs 123-209-1. Porcelain base. Top, sides glazed. For med. 4 pin tubes A4-10. 2 9/16" mtg. ctrs. Wt., 10 oz.

Stk. No.	Type	1-9	10-49	50-99
39F756	123-210-1	1.95	1.79	1.63
39F757	123-211-1	2.60	2.39	2.18
39F762	123-209-1	2.00	1.84	1.68

JUMBO STEATITE SOCKETS



Type 122-237-1. Perfect for transmitting tubes with "giant" 7-pin base. Takes 813, 8001, 3D22, 4E27, HK257, etc. 2⅝" sq. 4 mtg. holes, 1⅞" between ctrs.

Type 122-247-1. For 7-pin tubes. Aluminum shield. Ceramic base, 2⅝" sq. Wt., ½ lb. Can be used with 7094 tube.

Type 122-275-1. Giant 5-pin wafer socket for tubes such as 4-125A, 4-250A and RK-48. .190" mtg. holes on 2¼" sq. Shipping wt., ½ lb

Stk. No.	Type	1-9	10-49	50-99
39F770	122-237-1	1.55	1.43	1.30
39F771	122-247-1	1.75	1.61	1.48
39F778	122-275-1	2.35	2.16	1.98

LIGHTWEIGHT BASIC SOCKET

Type 124-114-1. Insulated cathode terminals. Mounts below chassis through 1 21/32" dia. hole.

39F1528. 1-9 .... 5.10
10-49 .... 4.52

SOCKETS FOR RCA 8072, 8121, 8122, AND SIMILAR TUBES

For high frequency tubes. Continuous heat resistance to 500°F. Glass-filled silicon base. Heat treated beryllium copper contacts. Base material of low dielectric constant, which results in low pin-to-pin and shunt capacity. Teflon chimney. Elevation pads. Socket contacts grip tube pins at base of tube—providing minimum inductance. Barriers between terminals. Large center hole and basic configuration results in low capacity; three mounts provide stable mounting. With numbered terminals. Low inductance screen by-pass capacitor available for VHF and UHF operation.

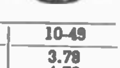
Stk. No.	Cat. No.	Description	Net
39F772	124-311-100	Socket	1.25
39F773	124-119-1	Teflon chimney	.66

VHF SEPTAR SOCKETS

Takes ⅓ less space than previously available types—permits compact design with medium button septar bases such as the 5894, 6524, and 6252 with E.I.A. Base No. E7-20. Molded contact recesses in the base prevents turning. Aluminum shell submounts tube for maximum input and output shielding. ⅜" holes provide adequate ventilation.

Stk. No.	Cat. No.	Type	Net
39F774	122-105-100	Industrial	1.95
39F775	122-105-200	Military	2.40

SOCKET FOR 4X150A, 4X150D, 4X250B, & 4X250F.



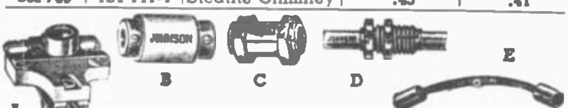
For ultra high freq. use with high power tubes. Two section construction. One for insulation, one for strength.

Stk. No.	Type	Desc.	1-9	10-49
39F763	124-109-1	1 21/32" Mtg.	4.25	3.78
39F766	124-107-1	Mtg. Saddle	5.30	4.70
39F767	124-108-1	Saddle, grd.	5.50	4.90
39F768	124-111-1	Steatite Chimney	.45	.41

STANDARD STEATITE WAFERS

For receiving and low-power transmitting tubes. Cadmium plated contacts reinforced with plated steel springs and recessed in wafer. Size, 2 5/16 x 1 11/16". Mtg. ctrs. 1 11/16" to 1 13/16". 4 oz.

Stk. No.	Type	Contacts	1-9	10-49	50-99
39F780	122-224-1	4	.76	.70	.64
39F781	122-225-1	5	.83	.76	.70
39F785	122-228-1	Octal	1.10	1.00	.92



COUPLINGS

Provide flexibility without backlash. Steatite insulation except * bakelite, for low voltage. Wt., 2 oz.

Stk. No.	Type	Fig.	Use	1-9	10-49	50-99
26F240	104-250	A	For ¼" shaft	1.20	1.10	1.00
26F241	104-251-1	A	For ⅜" shaft	1.85	1.69	1.50
26F242	104-252	B	Solid ¼"	1.05	.96	.88
26F243	104-258	C	¼" clamp	.50	.46	.42
26F249	104-264	A*	For ¼" shaft	.95	.87	.80

PANEL BEARINGS FOR ¼" SHAFTS

Nickel plated brass for ¼" shaft and up to ⅜" panels. Also 3" and 6" nickel plated brass shafts. Shpg. wt., 2 oz.

Stk. No.	Type	Fig.	Length	1-49	50-99	100-499 Per C
26F244	115-255	D	Bearing only	.21	.193	17.60
26F245	115-256	D	3"	.43	.395	36.00
26F246	115-256-2	D	6"	.61	.56	51.00

¼" FLEXIBLE SHAFTS

Phosphor bronze, non-rusting. Permit out of line or up to 90° angular control. 3 oz.

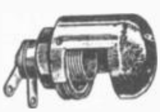
26F248	115-254	E	6"	.86	.79	72.45
26F247	115-253	E	3"	.60	.55	50.15

COUNTER DIAL

Vernier dial calibrated 0-100 over 360°, making possible accurate return to any pre-determined setting. Built-in dial lock. Furnished with mounting template for easy installation. Shpg. Wt. 1 lb.

26F033. 116-208-1. 1-9 .... 12.35 10-49 .... 10.90

PANEL LIGHT



For front panel illumination. Has polished nickel plated hood. Rotates to any position. Fits ½" mounting hole. T3¼ or G3½ type bulbs. 3 oz.

Stk. No.	Type	Base	1-9	10-49	50-99
25F[illegible]	147-330	Screw	1.25	1.15	1.05
25F321	147-329	Bayonet	1.35	1.24	1.13

ETCHED ALUMINUM MOUNTING PLATE

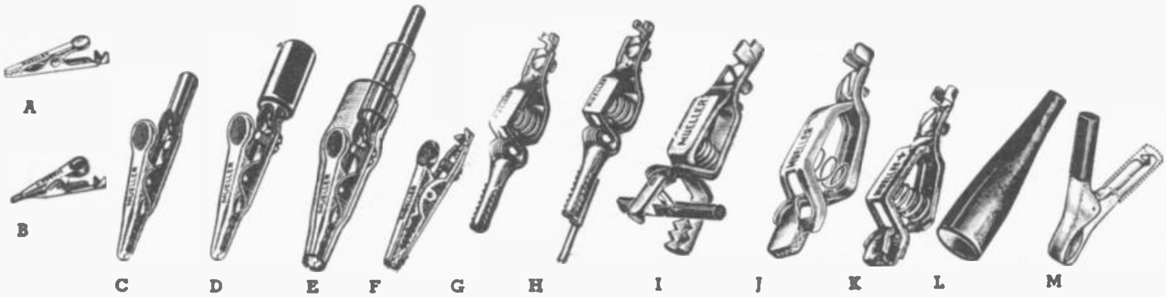
Type 111-20. Pre-punched, etched aluminum mounting plate permits simple, accurate and fast mounting of either two nylon binding posts, or two nylon banana jacks in 21/64" diameter holes on exact ¾" centers.

Shipping weight, 1 oz.

39F1526. 1-99 Each .... .03

100-499, per 100 .... 2.48 500-up, per 100 .... 2.25

Mueller Clips



MINI-GATOR CLIPS

Miniaturized clip designed for No. 20 wire, provides quick, strong connection even in smallest areas. Penetrates corrosion. Easily removed. 1 1/16" length, 5/16" jaw spread. Shpg. wt. 1/4 lb. per 100.

No.	Type	Fig.	Description	1-9	10-99	100-Up
28F528	30	A	Steel Cad. Plated	.07	.05	.043
28F529	30C	A	Copper	.09	.061	.053

MICRO-GATOR CLIPS

Designed for printed circuits, tight spots, and crowded tiny terminals. Tip is no bigger than the head of a pin yet will stand up straight on the smallest terminals. Uses No. 20 or smaller wire. Length, 1 3/32". Jaw spread, 7/32". Tips, 1/32" across. Shpg. wt., 1/4 lb. per 100.

Stk. No.	Type	Fig.	Description	1-9	10-99	100-Up
28F496	34	B	Cad. Plated Steel	.06	.041	.036
28F497	34C	B	Copper	.08	.053	.046

ALLIGATOR CLIPS

Stock No.	Mfr's. Type	Fig.	Description	Size	1-9	10-99	100-Up
28F500	60	C	†Solder connection	2"	.08	.054	.047
28F501	60-S	C	†Screw connection	2"	.09	.063	.054
28F502	60-CS	C	*Screw connection	2"	.14	.096	.082

INSULATED ALLIGATOR CLIPS

Fully insulated alligator clips. Consists of Mueller No. †60S or *60CS complete with skin-tight flexible insulation. Barrel takes wire or banana plug. 2 1/8" long.

28F503	60-HS	D	†Screw conn. Red	2 11/32"	.13	.089	.076
28F504	60-HS	D	†Screw conn. Black	2 11/32"	.13	.089	.076
28F505	60CHS	D	*Screw conn. Red	2 11/32"	.17	.118	.101
28F506	60CHS	D	*Screw conn. Black	2 11/32"	.17	.118	.101

Clip 60-S with skin-tight two-piece flexiable vinyl cover.

28F533	63	E	†Screw conn. Black	.19	.13	.11
28F534	63	E	†Screw conn. Red	.19	.13	.11
28F535	63C	E	*Screw conn. Black	.22	.15	.13
28F536	63C	E	*Screw conn. Red	.22	.15	.13

INSULATION PIERCING ALLIGATOR CLIP

Needle in nose pierces insulation on wire gripped in jaws. Ideal for trailer-light hook-up, etc.

28F469	60NS	C	†Screw connection	2"	.18	.13	.11

SERIES 70 CLIPS

Designed similar to No. 30 mini-gator clip but with dimensions of popular No. 60 alligator. In either *solid copper or †cadmium plated steel. Strong spring gives bite. Meshing teeth and slim jaws.

No.	Type	Fig.	Description	1-9	10-99	100-Up
28F530	70	F	†Solder connection	.07	.045	.038
28F531	70S	F	†Screw connection	.08	.054	.046
28F532	70CS	F	*Screw connection	.12	.085	.073

CROCODILE CLIPS

Nesting teeth give solid contact along entire length of jaw. Jaws open 5/16". Shpg. wt.: 1 1/2 lbs. per 100.

Stock No.	Type	Fig.	Description	Size	1-9	10-99	100-Up
28F507	85	G	†Screw connection	2 1/8"	.11	.076	.065
28F508	85-C	G	*Screw connection	2 1/8"	.21	.148	.127
28F509	85-T	H	†"Tip Clip" phone tip	2 5/8"	.27	.187	.16
28F510	50-C	I	‡Needle clip, screw conn.	2 1/4"	.32	.22	.188
28F511	51-C	I	‡Less needle, screw conn.	2 1/4"	.22	.153	.131

"PEE WEE" CLIPS

Type 45. Steel, cadmium plated. A very small clip for general test purposes. Jaw teeth mesh. Shipping weight: 1 lb. per 100. **Type 45C.** Solid copper, phosphor bronze spring, brass screw connection. No heating from hysteresis effect. 1 1/4 lbs. per 100.

Stock No.	Mfr's. Type	Fig.	Amp.	Size	Open	1-9	10-99	100-Up
28F513	45†	K	5	1 1/2"	5/16"	.09	.061	.052
28F514	45C*	K	10	1 1/2"	1/4"	.15	.107	.092

KEY
TO CLIP CONSTRUCTION MATERIAL

*solid copper — †cadmium-plated steel
**lead-plated steel — ‡solid bronze

3-SIDED MESH TEETH CLIPS

Stock No.	Type	Fig.	Amp.	Size	Open	1-9	10-99	100-Up
28F523	27†	J	20	2 1/16"	5/8"	.16	.107	.092
28F524	27C*	J	40	2 1/16"	5/8"	.27	.187	.16
28F515	48B†	J	10	2"	1/2"	.13	.09	.078
28F538	48C*	J	20	2"	1/2"	.20	.139	.119

HEAVY DUTY SOLID COPPER CLIPS

Type 25-C shipping weight is 6 3/4 lbs. per 100, type 21-c is 18 lbs. per 100, and types 11-C and 33-C are 41 lbs. per 100.

28F519	25C*	J	75	3"	3/4"	.49	.34	.29
28F520	21C*	K	100	4 1/2"	1 1/16"	1.20	.84	.72
28F521	11C*	K	200	6"	1 5/8"	2.34	1.64	1.40
28F522	33C*	K	300	7 3/4"	2 1/4"	4.48	3.14	2.64

BATTERY CLIPS

Type 24 features a 25 ampere capacity; type 21A has a 50 ampere capacity; and the 11-A has a 100 ampere capacity.

28F516	24A**	K	25	2 7/8"	3/4"	.26	.177	.152
28F517	21A**	K	50	4"	1 1/16"	.46	.32	.276
28F518	11A**	K	100	6"	1 5/8"	1.27	.89	.76

PLIER-TYPE BATTERY CLIPS

Type 41. Clip for fast chargers, battery booster cables. 100 amp capacity. Steel, bright copper plated. 41 lbs. per 100.

Stock No.	Mfr's. Type	Color	Fig.	Amp.	Size	Open	NET
28F468	46A	Red	M	50	3"	1 1/8"	.16
28F467	46A	Black	M	50	3"	1 1/8"	.16
28F465	41A	Red	M	100	6"	1 9/16"	.51
28F466	41A	Black	M	100	6"	1 9/16"	.51

FLEXIBLE INSULATORS FOR CLIPS LISTED ABOVE—Fig. L

Protect against electric shock and short circuit. Vinylite except (*) rubber compound. Vinyl insuluators available also in white, blue, yellow and green on special order. Add 10% to price.

Stock No.	Type	Color	For Clip	1-9	10-99	100-Up
28F476	47	Red	45, 45C	.07	.05	.042
28F477	47	Blk	45, 45C	.07	.05	.042
28F478	49	Red	48B-C, 50-51C	.10	.069	.059
28F479	49	Blk	48B-C, 50-51C	.10	.069	.059
28F480	35*	Red	33C	3.48	2.43	2.09
28F481	35*	Blk	33C	3.48	2.43	2.09
28F482	26	Red	24A, 25, 25C	.23	.16	.138
28F483	26	Blk	24A, 25, 25C	.23	.16	.138
28F484	23	Red	21A-21C	.41	.287	.246
28F485	23	Blk	21A-21C	.41	.287	.246
28F472	32	Red	30, 30C	.05	.033	.029
28F473	32	Blk	30, 30C	.05	.033	.029
28F498	36	Blk	34, 34C	.05	.033	.029
28F499	36	Red	34, 34C	.05	.033	.029
28F474	72	Red	70, 70S, 70CS	.06	.04	.033
28F475	72	Blk	70, 70S, 70CS	.06	.04	.033
28F486	29	Red	27, 27C	.17	.12	.104
28F487	29	Blk	27, 27C	.17	.12	.104
28F488	13	Red	11C, 11A	.81	.57	.49
28F489	13	Blk	11C, 11A	.81	.57	.49
28F490	87	Red	85, 85C, 85T	.07	.05	.042
28F491	87	Blk	85, 85C, 85T	.07	.05	.042
28F492	62	Red	60, 60CS, 60S	.06	.04	.033
28F493	62	Blk	60, 60CS, 60S	.06	.04	.033

CRADLECLIP WIRING SYSTEMS

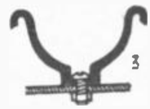
The Electrovert Cradleclip Wiring System consists of Binders and Endless Extensible Clips for unsupported wiring and Cradles and Endless Extensible Clips for supported wiring. Both the Binders and Cradles are molded from special nylon material and are virtually unbreakable. The Endless Extensible Clips are molded Neoprene which combines the right degree of toughness with the necessary flexibility to hold any type of cable securely and without damage. Temperature range of the system is approximately —76°F to +212°F. Wiring systems are in accordance with MIL-STD-202A. Methods of attaching Cradles to panels include: Conventional Bolt and Nut, Speed Drives, Drive-Rivets, and Special Cradle with Captive Nut.

Stk. No.	Type	Desc.	Size (IN.)	1-99	Per 100	Per 1000
30F300	C1	Cradle	.937 x .562	.10	6.66	60.50
30F301	C2	Cradle	1.375 x .750	.11	7.50	68.20
30F302	C3	Cradle	1.875 x 1.000	.12	8.35	75.90
30F303	C1-M*	Cradle	.937 x .562	.17	11.22	102.00
30F304	C2-M*	Cradle	1.375 x .750	.19	12.54	114.00
30F305	C3-M*	Cradle	1.875 x 1.000	.21	13.86	126.00
30F306	B1	Binder	.875 x .187	.07	4.55	41.50
30F314	B12	Binder	.937 x .400	.09	5.68	51.60
30F307	B2	Binder	1.875 x .812	.11	7.79	70.80
30F308	N1	Clips	.500 x .937	.05	3.17	28.80
30F309	N3	Clips	1.000 x 1.000	.07	4.44	40.40
30F310	N5	Clips	1.750 x 1.000	.09	5.68	51.70
30F311	N7	Clips	2.562 x 1.000	.10	6.71	61.10
30F312	CO—NO	Min. cradle	.500 x .335	.12	8.14	74.00

*with captive nut.

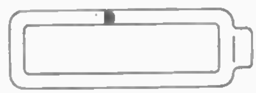
RECOMMENDED COMBINATIONS

Diameter of Cable Form in inches	Use For Supported Wiring Cradle + Clip		Use For Unsupported Wiring Binder	Clip
⅛"—5⁄16"	C0 —	N0	CO —	NO
¼"—⅝"	C1	N1	B1	N1
½"—1 1⁄16"	C1	N3	B1	N5
1 1⁄16"—1 5⁄16"	C2	N3	B12	N3
1 5⁄16"—1 1⁄16"	C2	N5	B12	N5
1"—1¼"	C3	N3	B2	N3
1¼"—1½"	C3	N5	B2	N5
1½"—2"	C3	N7	B2	N7

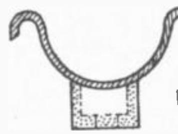


C1-C2-C3

B1-B2-B12



N1-N3-N5-N7



C1-M

ADJUSTABLE P-CLIPS

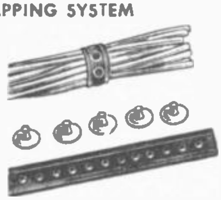
In 4 sizes to fit any loop diameter from 3⁄16" through ⅞". Light wt. chemical and abrasion resistant, of natural virgin nylon. Used with cables, components, piping and tubing, wherever a clamp strain or relief strap is required. High tensile strength and excellent dielectric properties.

Sold in multiples of 100 only.

Stk. No.	Size No.	Loop Diameter Min.	Loop Diameter Max.	Screw Clearance	100-2400	2500-9900
30F842	0	⅛"	3⁄16"	No. 4	1.92/C	15.30/M
30F843	1	3⁄16"	¼"	No. 4	2.22/C	17.75/M
30F844	2	¼"	⅜"	No. 6	2.37/C	18.90/M
30F845	3	⅜"	9⁄16"	No. 6	2.53/C	20.25/M
30F846	4	9⁄16"	⅞"	No. 6	3.57/C	28.60/M

WIRE AND CABLE STRAPPING SYSTEM

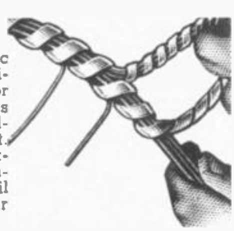
- **Two simple components**
- **Lowest Cost**



High-grade PVC Strapping with holes conveniently spaced for easiest and fastest assembling. Nylon studs. Extremely strong, and applicable within a temperature range of —26° - +180°F.

Type AV5. 5⁄16" wide, .035" thick.
30F830. 100 ft. coil in "feed-out" box. 1-24 .... **3.00**
25-49 .... **2.70** **50-up** **2.45**
30F850. 500 ft. reel. 1-4 .... **13.50**
5-9 .... **12.15** **10-up** **10.80**
Type AV8. ½" wide, .050" thick.
30F831. 100 ft. coil in "feed-out" box. 1-24 .... **5.00**
25-49 .... **4.50** **50-up** **4.05**
30F851. 500 ft. reel. 1-4 .... **22.50**
5-9 .... **20.25** **10-up** **18.00**
Type AVS. Box of 1000 studs for above.
30F832. NET per box. 1-49 .... **5.00**
50-up **4.50**

SPIROBAND



Spiral wrapping for flexible electric harnesses and cables. Unusual flexibility and elasticity make it ideal for temporary and experimental as well as permanent applications. Permits lead-offs or additions of wire at any point. High dielectric strength provides excellent insulation. Moisture proof, non-staining, non-toxic, grease and oil proof at ordinary temp. Made of clear Polyethylene.

Stk. No.	Size	Thick.	Bundle	Coil Size	1-9	10-49	50-up
30F839	⅛"	.032	1⁄16 to ½"	100′	3.15	2.80	2.50
30F840	¼"	.045	3⁄16 to 2"	100′	5.60	5.00	4.60
30F841	½"	.062	⅜ to 4"	25′	3.50	3.50	3.20

● NEW EL CABLE TIES

Self-locking; providing permanent, neat harnessing. Made of virgin nylon for use in or out of doors. Requires only light hand tension to install. Can be used for virtually any harnessing configuration. Acid and alkalie resistant.

Stock No.	Type	MS-17821-	Bundle Min.	Bundle Max.	Per Pkg. of 100 1-4	5-9	10-249	250-up
30F847	EL-A	-4	1⁄16"	1"	3.75	3.00	2.45	2.32
30F848	EL-B	-1	1⁄16"	1 15⁄16"	5.25	4.20	3.50	3.15
30F849	EL-C	-2	1⁄16"	4 3⁄16"	11.88	9.50	7.50	6.75

ELECTROVERT "Z" MARKERS

- **Saves to 50% in installation time.**
- **Instant wire recognition — Ready for installation in seconds!**

Cable Markers permanently identify every wire or group of wires for instant recognition. Can be installed in seconds. Feature flexible "accordion" type backs for easy installation and sturdy gripping on wires. Made of durable P.V.C. material. Comply with military, civil, and trade associations. (J.I.C., MIL-E-5400B (ASG), MIL-E-4158A (USAF), etc.).

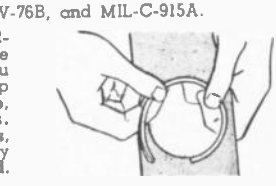
Please specify Letter (A-Z) or Numeral (0-9) desired when ordering. Minimum order is one package of 50 of any Letter or Numeral.

TYPE Z MARKERS—WHITE WITH BLACK MARKING

Stock No.	AWG Size	For Cable Diameter	Per Pkgs. of 50 1-49	50-99	100-249	250-up
30F833	22	.045" - .065"	.55	.50	.44	.39
30F834	20	.066" - .085"	.55	.50	.44	.39
30F835	18	.086" - .115"	.55	.50	.44	.39
30F820	16	.110" - .135"	.55	.50	.44	.39
30F821	14	.130" - .160"	.55	.50	.44	.39

POLYETHYLENE GROMMET STRIPS

Meet MIL-C-17D, MIL-W-76B, and MIL-C-915A.



Suitable for sizes from the smallest hole, up to 75 ft. around the peripheral of the opening, you have the advantage of one strip only application to round, square, rectangular, and oval holes. Comes in 5 sizes. for all gauges, from 20 gauge to ¼" thick. Easily applied. No special tools required.

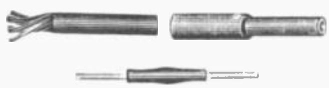
Stk. No.	Size	Application*	Pkg.	Per Pkg. 1-9	10-19	20-49	50-Up
30F315	GS2	.0200- 0399	100 ft.	4.00	3.60	3.60	3.40
30F320	GS2A	.0400-.0624	100 ft.	4.35	4.05	4.05	3.60
30F316	GS3	.0625-.0999	100 ft.	4.65	4.30	4.30	3.75
30F317	GS4	.1000-.1449	100 ft.	5.35	4.95	4.95	4.45
30F318	GS5	.1450-.1870	100 ft.	9.35	8.50	8.50	7.80
30F319	GS6	3⁄16-¼	50 ft.	6.75	6.75	6.00	6.00

*Min./Max. inches

Alpha Fit Shrinkable Products

Alpha Wire a division of Loral Corporation

THE INDUSTRY'S MOST COMPREHENSIVE LINE OF IRRADIATED HEAT SHRINKABLE TUBING



Packaged Assortments — (6" lengths) FIT-221. 6 tubing in various sizes and colors. Each length identified.

Type	Stock No.	Tubing Size	Lengths Per Box	Net
FIT-221-MS-1	37F1182	3/64x3/16	30	3.60
FIT-221-MS-2	37F1183	1/4x3/4	16	8.00
FIT-221-MS-3	37F1184	1 - 4	10	7.00

FIT-221 — POLYOLEFIN HEAT SHRINKABLE TUBING

FIT-221. This improved all purpose extruded tubing shrinks 50% (2:1 ratio) with only 5% longitudinal shrinkage. Fewer sizes cover more applications. When a temperature of approximately 275°F is applied for seven seconds, the tubing returns to predetermined size and forms permanent tight fitting mechanical bond, even over irregularly shaped materials. Tubing retains form stability throughout its temperature range of —67°F to +572°F. Shrinking done by Heat Gun, oven radiant heat, dipping in hot liquid, or hot iron. Clear tubing may be used where jacketed, printed components or cable data is visible and inspection of components is desired. Supplied in lengths of 4 feet and 6 inches. *6 inch package colors: black, white, red, yellow, blue, clear. Specify color. 4 foot **lengths stocked in black and clear. Also supplied in packaged assortments.**

Type	Min. I.D. Before Shrink.	Recovered I.D. After Shrink.	Wall Thk. Recovered	Assorted Colors Stk. No.	Standard Pkg. 6" Lengths		Net	Clear or Blk. only Stk. No.	25 4-Ft. Lengths Per Box		
					Tot. Ftg.	No. Lgths.			1-4	5-9	10-49
FIT-221-3/64"	.046"	.023"	.016"	37F1165	20'	40	3.60 EA.	37F398	13.80	11.70	10.20
FIT-221-1/16""	.063"	.031"	.017"	37F1166	18'	36		37F399	14.60	12.30	10.70
FIT-221-3/32"	.093"	.046"	.020"	37F1168	16'	32		37F401	16.90	14.25	12.40
FIT-221-1/8"	.125"	.062"	.020"	37F1170	14'	28		37F403	17.90	15.20	13.25
FIT-221-3/16"	.187"	.093"	.020"	37F1171	12'	24		37F404	21.90	18.50	16.15
FIT-221-1/4"	.250"	.125"	.025"	37F1173	10'	20		37F406	27.60	23.20	20.25
FIT-221-3/8"	.375"	.187"	.025"	37F1174	8'	16		37F407	30.60	25.75	22.45
									5 4-Ft. Lengths Per Box		
									1-4	5-24	25-49
FIT-221-1/2"	.500"	.025"	.025"	37F1176	7'	14	3.60	37F409	6.90	5.85	5.10
FIST-221-3/4"	.750"	.375"	.030"	37F1178	6'	12	3.60	37F411	8.25	7.98	6.80
FIT-221-1"	1.000"	.500"	.035"	37F1180	4'	8	3.60	37F413	13.00	10.92	9.52
FIT-221-1 1/2"	1.500"	.750"	.040"	37F194	2.5'	5	3.60	37F397	19.60	16.38	14.28
FIT-221-2"	2.000"	1.000"	.045"	37F195	1.5'	3	3.60	37F395	27.00	22.62	19.72

FIT-105 POLYVINYLCHLORIDE TUBING

Type No.	Size	I.D. Before Shrink.	I.D. After Shrink.	Nom. Wall Thick.	500 ft. Coil Stock No.	Ea.	2-9 Coils Ea.	10-19 Coils Ea.	100 ft. Coils Stock No.	NET	25 ft. Coils Stock No.	EACH
FIT-105-3/64"	3/64	.046"	.023"	.020"	37F249	31.75	26.75	25.25	37F249A	9.15	37F249B	2.95
FIT-105-1/16"	1/16	.062"	.031"	.020"	37F250	33.25	29.00	26.25	37F250A	9.50	37F250B	3.06

Type No.	Size	I.D. Before Shrink.	I.D. After Shrink.	Nom. Wall Thick.	200 ft. Coil Stock No.	1-2 Coils Ea.	3-4 Coils Ea.	5-24 Coils Ea.	100 ft. Coils Stock No.	Ea.	25 ft. Coils Stock No.	EACH
FIT-105-3/32"	3/32	.093"	.046"	.020"	37F251	20.30	15.40	13.00	37F251A	10.15	37F251B	3.48
FIT-105-1/8"	1/8	.125"	.062"	.020"	37F252	21.40	18.20	13.80	37F252A	10.70	37F252B	3.25
FIT-105-3/16"	3/16	.187"	.093"	.025"	37F253	25.60	22.50	16.80	37F253A	12.80	37F253B	3.90
FIT-105-1/4"	1/4	.250"	.125"	.025"	37F254	32.60	28.26	21.10	37F254A	16.30	37F254B	4.40
FIT-105-3/8"	3/8	.375"	.187"	.030"	37F255	35.50	31.28	23.40	37F255A	17.75	37F255B	4.75

Type No.	Size	I.D. Before Shrink.	I.D. After Shrink.	Nom. Wall Thick.	100 ft. Coil Stock No.	1-4 NET Ea.	5-9 NET Ea.	10-49 NET Ea.	25 ft. Coils Stock No.	EACH
FIT-105-1/2"	1/2	.500"	.250"	.030"	37F256	22.00	17.36	13.30	37F256A	5.50
FIT-105-3/4"	3/4	.775"	.375"	.035"	37F257	27.60	24.50	17.75	37F257A	6.90
FIT-105-1"	1	1.000"	.500"	.040"	37F258	39.20	35.60	25.60	37F258A	9.30

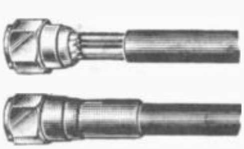
Highly flexible, ideal for cable jacketing! Conforms to MIL-1-631D. Grade C. Has 50% shrinkage ratio for insulation of components and cables with a wide variety of shape and diameter differences. FIT-105 shrinks to form a jacket like the finest extruded plastic jackets. Shrinkage temperature at 325°F. Tubing will not cold flow or melt but retains form stability within its temperature range. No radioactivity exists in or on the material, and will not emit radiation. Op. temp. cont.: 221°F. Minimum tensile strength: 1800 PSI. Supplied only in lengths shown. **Color: Black.**

Type FIT-105-MS. Assorted sizes. Every 6" length identified as to size. Black only.

PACKAGED ASSORTMENT OF POLYVINYLCHLORIDE TUBING

Type No.	Stk. No.	Tubing Size Range	6" Lengths Per Box	Per Box
FIT-105-MS-1	37F245	3/64" thru 1/4" (6 sizes)	10 lengths/size (60 lengths)	4.00
FIT-105-MS-2	37F246	3/8" thru 1" (4 sizes)	10 lengths/size (40 lengths)	8.00
FIT-105-MS-3	37F247	1 1/2" and 2" (2 sizes)	7 lengths/size (14 lengths)	7.00

FIT-295 POLYOLEFIN SEMI-RIGID TUBING



Engineered to provide maximum mechanical strength at stress or connection points. Strong, heavy wall abrasion-resistant, extruded tubing slips easily over object to be covered. FIT-290 is clear—can be used so that jacketed printed component or cable data is clearly visible. Also allows inspection of insulated components, cable or terminations. Shrinkable temperature at 275°F or 135°C. Will not cold-flow or melt, but retains form stability throughout temperature range. Shrinkage ratio: 2:1 (50%). Tensile strength (min.) 2500 PSI. Non-corrosive. Shrinking method: hot air gun, oven heat, radiant heat. hot liquids or heating with soldering iron or flame.

Each Size of FIT-295 Sold only in the ONE color and Standard Packages as shown.

Type No.	Colors	ID Before Shrink. (Inches)	ID After Shrink. (Inches)	Nom. Wall Thick. (Inches)	Stock No.	Standard Package 6 inch Lengths		NET	Stock No.	25 4-Ft. Lengths Per Box		
						Tot. Fig.	No. Lgths.			1-4	5-9	10-49
FIT-295-3/64"	Yellow	.046	.023	.020	37F260	20'	40	4.00	37F280	14.10	11.70	10.20
FIT-295-1/16"	White	.063	.032	.020	37F261	18'	36		37F281	14.80	12.30	10.70
FIT-295-3/32"	Blue	.093	.045	.020	37F262	16'	32		37F282	17.15	14.25	12.40
FIT-295-1/8"	Red	.125	.063	.020	37F263	14'	28		37F283	18.35	15.20	13.25
FIT-295-3/16"	Green	.187	.093	.025	37F264	12'	24		37F284	22.35	18.50	16.15
FIT-295-1/4"	Slate	.250	.125	.025	37F265	10'	20		37F285	27.95	23.20	20.25
FIT-295-3/8"	Brown	.375	.187	.030	37F266	8'	16		37F286	31.00	25.75	22.45

FIT-295-MS1 37F1641 Assortment of above. 5 lengths per size. Tubing size: 3/64 thru 1/2"........ **4.00**

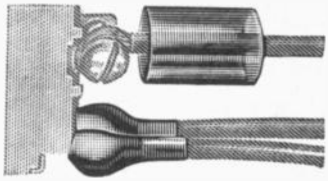
Sold Only In Standard Packages As Listed

 Newark-New Orleans Electronic Corp., 100 Jefferson Highway, New Orleans, La. 70121

alpha
Alpha Wire a division of Loral Corporation

FIT-350 IRRADIATED KYNAR TUBING

High Temperature Tubing

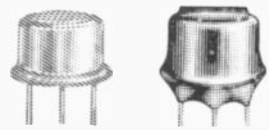


Tough thin wall tubing with outstanding cut-through and abrasion resistance. Shrinkage is 50% when a temperature of 347°F (175°C) is applied. Forms a tough mechanical bond on shrinking. Longitudinal shrinkage is only 5%. Will never cold flow or melt and will not split when shrunk over sharp objects. Non-flammable. Will operate continuously at temperatures from −55°C to +175°C. Standard packages have either 6" or 4" lengths. Clear only. **Sold only in standard pkgs. as shown.**

Type	Min. I.D. Before Shrink.	Recvrd. I.D. After Shrink.	Stk. No. Clear Only	Standard Pkg. 6" Lengths: Total Ftg.	Standard Pkg. 6" Lengths: No. Lgths.	Net	Stk. No. Clear Only	25 4-Ft. Lengths Per Box: 1-4	5-9	10-49
FIT-350-3/64"	.046	.023	37F165	16'	32	4.00 Ea.	37F1555	14.70	12.05	10.40
FIT-350-1/16"	.063	.031	37F166	14'	28		37F1556	16.05	13.20	11.40
FIT-350-3/32"	.093	.046	37F167	12'	24		37F1557	19.30	15.85	13.65
FIT-350-1/8"	.125	.062	37F168	10'	20		37F1558	21.20	17.40	15.00
FIT-350-3/16"	.187	.093	37F169	8'	16		37F1559	32.85	26.95	23.25
FIT-350-1/4"	.250	.125	37F170	6'	12		37F1560	41.20	33.80	29.15
FIT-350-3/8"	.375	.187	37F171	4'	8		37F1561	58.90	48.35	41.70
								5-4 Ft. Lengths Per Box		
FIT-350-1/2"	.500	.250	37F172	2'	4	4.00 Ea.	37F1562	22.46		
FIT-350-3/4"	.750	.375	37F173	1'	2		37F1563	41.27		
FIT-350-1"	1.000	.500	37F174	5'	10		37F1564	75.88		

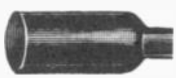
FIT-300 SELF ENCAPSULATING POLYOLEFIN TUBING

Easily-used encapsulation tubing product. When a temperature of 275°F (135°C) is applied, the outer wall shrinks while the inner wall melts and flows to eliminate voids and provide moisture proof encapsulation. Becomes a hard, tough, homogenous molding upon cooling. Good for use on electrical cable junctions and splices; as a mechanical shield for rough edges; and as a vibration shield. Fraction in Type No. shows size. **Sold only in standard pkgs. as shown.**



Type	Color	Min. I.D. Before Shrink.	Max I.D. After Shrink.	Stk. No.	Standard Pkg.: Total Ftg.	Standard Pkg.: No. Lghts.	Net	Stk. No.	25-4 Ft. Lengths Per Box: 1-4	5-9	10-49
FIT-300-1/8"	Brown	.125	.023	37F175	7'	14	4.00	37F1565	28.80	24.00	20.80
FIT-300-3/16"	Gray	.187	.060	37F176	6'	12		37F1566	35.10	29.25	25.40
FIT-300-1/4"	White	.250	.080	37F177	5'	10		37F1567	43.80	36.50	31.70
FIT-300-3/8"	Red	.375	.135	37F178	4'	8		37F1568	48.85	40.70	35.35
FIT-300-5/16"	Blue	.300	.050	37F181	2'	4		37F1571	100.05	83.40	74.20
									5-4 Ft. Lengths Per Box: 1-4	5-24	25-49
FIT-300-1/2"	Blue	.500	.195	37F179	3'	6	4.00	37F1569	13.82	11.51	9.59
FIT-300-3/4"	Yellow	.750	.313	37F180	2'	4	4.00	37F1570	21.35	17.77	14.81

IRRADIATED POLYOLEFIN FIT-CAPS



Sealed on one end, these short lengths of shrinkable tubing act as effective termination caps over wire, cable, and splices. Caps form a tight-fitting, moisture-resistant mechanical bond over terminations. Shrinkage (ratio: 2:1) takes place within seven seconds at 275°F to 300°F.

Stock No.	Type	Shrinkage: Min I.D. Before	Shrinkage: I.D. After	Nom. Wall Thick	Color	Pkg. of 100 Per Pkg.
37F1423	CAP-1	.063"	.025"	.016"	White	4.14
37F1424	CAP-2	.125"	.050"	.020"	Red	5.09
37F1425	CAP-3	.250"	.100"	.025"	Slate	6.19
37F1426	CAP-4	.500"	.250"	.035"	Black	7.61
37F1427	CAP-5	.350"	.175"	.040"	Brown	6.26

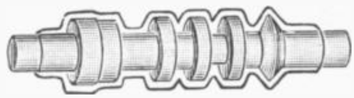
SELF-ENCAPSULATING FIT-CAPS

Caps produce permanent, abrasion resistant, moisture proof enclosures without molding, potting, or special tools. Made of molded, heat shrinkable, cross-linked polyolefin with 2 inserts. Insert at closed end melts and flows between the splice forming a moisture proof encapsulation. Shrinks and melts at 275°F. Black only.

Stock No.	Type	Shrinkage: Min I.D. Before	Shrinkage: I.D. After	Wall Thick.: Inner	Wall Thick.: Outer	Pkg. of 10 Per Box
37F1428	CAP-11	.160"	.080"	.013"	.040"	9.20
37F1429	CAP-12	.250"	.120"	.020"	.050"	10.50
37F1430	CAP-15	.360"	.180"	.030"	.060"	11.90

ALPHA PRODUCTS SOLD ONLY IN STANDARD PACKAGES AS SHOWN

FIT-500 HEAT-SHRINKABLE HIGH TEMPERATURE TEFLON TUBING



Offers all the outstanding physical, electrical and chemical advantages of Teflon in heat-shrinkable tubing. Continuous operating range −67°C to +250°C. Outstanding chemical and solvent resistance. Non-inflammable. High mechanical strength and lowest coefficient of friction. At 327°C the tubing shrinks to 65% of its supplied size returning to predetermined dia. Longitudinal shrinkage is less than 10%. **(Sold only in standard pkgs. as shown).**

Type	Stock No.	(Inches) Min. I.D. Before Shrinkage	(Inches) Recovered I.D. After Shrinkage	Nominal Recovered Wall Thickness	50-2 Ft. Lengths Per Box
FIT-500-30	37F1625	.030	.022	.009	19.45
FIT-500-28	37F1626	.035	.025	.009	20.30
FIT-500-26	37F1627	.040	.028	.010	22.05
FIT-500-24	37F1628	.050	.032	.010	27.40
FIT-500-22	37F1629	.055	.037	.010	29.40
FIT-500-20	37F1630	.060	.044	.012	36.75
FIT-500-18	37F1631	.076	.052	.012	40.40
FIT-500-16	37F1632	.093	.063	.012	46.60
FIT-500-14	37F1633	.121	.078	.012	52.40
					25-2 Ft. Lengths Per Box
FIT-500-12	37F1634	.153	.096	.012	38.28
FIT-500-10	37F1635	.191	.116	.012	44.15
FIT-500-8	37F1636	.240	.144	.015	65.98
					10-2 Ft. Lengths Per Box
FIT-500-6	37F1637	.302	.178	.015	31.81
FIT-500-4	37F1638	.370	.224	.015	38.24
FIT-500-2	37F1639	.430	.278	.015	46.76
FIT-500-0	37F1640	.470	.347	.015	56.91

alpha Wiring Accessories, Insulation, Heat Guns

Alpha Wire a division of Loral Corporation

PVC-105 PLASTIC ALL PURPOSE INSULATING TUBING

Conforms to MIL-I-631C, ASTM-D876, ASTM-D922. Dielectric strength 800V per MIL. 105°C temp. rating. Nonflammable. Tensile strength: 2500 psi. Insulation resistance: over 1,000,000 megs. Size No. 24 to 5/8" stocked in 100' coils, 3/4" & larger stocked in 50' coils. Longer continuous runs available special order. Min. order 100'. Wt., 2 lb. per 100 ft. **Specify Color.**

Stock Colors — Specify Color.
Even Numbered Sizes Available in Clear, Black, White, Yellow, Red, and Green.
Odd Numbered Sizes Available Only in Clear, Black, and White.

Colors—1 thru 6 — Even Sizes 1-3 Odd Sizes

Type	Stk. No.	Size	I.D.	Price Per 100' Coil 1-4	5-9	10-49	50-99
105-24	37F600	24	.022"	2.43	2.11	1.80	1.58
105-22	37F601	22	.027"	2.44	2.12	1.81	1.59
105-20	37F602	20	.034"	2.49	2.16	1.85	1.61
105-19	37F707	19	.038"	2.55	2.21	1.85	1.63
105-18	37F603	18	.042"	2.58	2.23	1.88	1.64
105-17	37F706	17	.047"	2.61	2.26	1.90	1.65
105-16	37F604	16	.053"	2.72	2.35	1.96	1.71
105-15	37F705	15	.059"	2.80	2.42	1.99	1.73
105-14	37F605	14	.066"	2.89	2.49	2.04	1.78
105-13	37F704	13	.076"	2.94	2.54	2.10	1.81
105-12	37F606	12	.085"	3.07	2.64	2.16	1.88
105-11	37F703	11	.095"	3.15	2.71	2.22	1.95
105-10	37F607	10	.106"	3.27	2.81	2.35	2.05

Colors—1 thru 6 — Even Sizes 1-3 Odd Sizes

Type	Stk. No.	Size	I.D.	Price Per 100' Coil 1-4	5-9	10-49	50-99
105-9	37F702	9	.118"	4.27	3.64	2.96	2.58
105-8	37F608	8	.113"	4.57	3.89	3.16	2.73
105-7	37F701	7	.148"	4.84	4.12	3.33	2.85
105-6	37F609	6	.166"	5.19	4.41	3.52	3.01
105-5	37F700	5	.186"	5.58	4.73	3.73	3.18
105-4	37F610	4	.208"	6.00	5.08	3.97	3.34
105-3	37F1438	3	.234"	6.38	5.40	4.19	3.54
105-2	37F611	2	.263"	6.91	5.84	4.50	3.82
Colors—1 and 2							
105-1	37F1439	1	.294"	7.42	6.27	4.81	4.06
105-0	37F613	0	.330"	7.98	6.73	5.14	4.39
105-5/16"	37F612	5/16"	.312"	9.42	7.94	6.04	5.14
105-3/8"	37F614	3/8"	.375"	10.81	9.09	6.91	5.99
105-7/16"	37F1440	7/16"	.438"	11.58	9.65	7.25	6.20
105-1/2"	37F615	1/2"	.500	12.77	10.64	8.07	6.87
105-5/8"	37F616	5/8"	.625"	18.38	15.30	11.73	9.83
105-9/16"	37F1441	9/16"	.562"	17.00	14.17	10.77	9.07

Type	Stk. No.	Size	I.D.	Price Per 50' Coil 1-9	10-19	20-99	100-199
105-3/4"	37F617	3/4"	.750"	12.67	10.56	8.05	7.62
105-7/8"	37F618	7/8"	.875"	14.25	11.86	9.19	7.66
105-1"	37F619	1"	1.000"	15.92	13.27	10.26	8.50
105-1 1/8"	37F1572	1 1/8"	1.125"	20.88	17.40	13.26	10.99
105-1 1/4"	37F1573	1 1/4"	1.250"	22.07	18.39	14.29	11.95
105-1 3/8"	37F1574	1 3/8"	1.375"	23.59	19.66	15.15	12.67
105-1 1/2"	37F1575	1 1/2"	1.500"	28.60	23.84	18.39	15.56
105-1 3/4"	37F1576	1 3/4"	1.750"	35.66	29.72	23.06	19.64
105-2"	37F1577	2"	2.000"	49.00	40.84	31.31	26.56
105-2 1/4"	37F1578	2 1/4"	2 250"	58.26	48.55	36.94	31.41
105-2 1/2"	37F1579	2 1/2"	2.500"	69.07	57.56	43.65	37.03

MASTER APPLIANCE HEAT GUNS

A handy, quick, safe way to get instant heat in the laboratory or for plant production. Ideal for fitting heat shrinkable insulation and wire markers. The Master Heat Gun, Model 751, delivers up to 1000°F, without the dangers of open flames. Its many features include an adjustable air intake for controlling the air-blast temperature; a double jacketed heater housing; a sturdy die-cast aluminum housing and an 8 ft. neoprene-jacketed 3-wire cord and plug that is oil and grease resistant. Turbo type fan blade is efficient and quiet in operation. All models for 115V A.C. or D.C. operation. Equipped with adaptor for 2 prong receptacle. 230V models available on special order. Shipping wt. 5 lbs.

Model	Stk. No.	Voltage	Amp.	Temp. F.	Net Each	3 or More Net Ea.
HG301	37F1437	115	12	300/500	44.30	39.87
HG501	37F415	115	14	500/750	49.90	44.81
HG751	37F422	115	20	750/1000	59.95	53.96

Write or call for special quantity price

ACCESSORIES

Type 100. Air Flow Adaptor. Placed in nozzle to adapt for easy insertion of baffle plate below.
37F1197. Net 2.95
Type 145. Baffle Plate. Used with heat guns listed above to aid in concentration of heat flow. For tubing up to 3/4" O.D.
37F1199. Net 2.75
Type 150. Baffle Plate for tubing up to 1 1/4" O.D.
37F424. .... 2.95
Type 27L. Replacement Element for HG 501 Gun.
37F1198. Net 3.75
Type 27A. Replacement Element for HG751 Gun.
37F423. .... 3.75

ALPHA FIT KIT

Perfect engineering or prototype sampler. A variety of sizes and colors of all Fit Tubing types (with the exception of FIT-500, Teflon). FIT-Caps (irradiated polyolefin, molded, and self encapsulating) & FIT-Markers packaged in a handy compartmented plastic case. Especially designed for laboratory, prototype, or service work.

37F1436. NET **10.00**
3 or more. NET EA. 7.50

FIT SHRINKABLE WIRE MARKERS ASSORTMENT

Preprinted lengths of abrasion-resistant irradiated polyolefin tubing designed for permanent wire and cable identification. Shrinkage ratio: 2:1. Shrinkage achieved by hot air gun, or flame. Wall thk: .016". Marker length: 3/4". Pkgd. 100 per box.

FIT SHRINKABLE WIRE MARKER ASSORTMENT— —Color: Black

Stk. No.	Type	Description	100 Net Ea.
37F239	MRK-A-NS	Numbers 1-50 (2 of ea. number)	3.00
37F240	MRK-B-NS	Numbers 1-50 (2 of ea. number)	
37F241	MRK-C-NS	Numbers 1-50 (2 of ea. number)	
37F242	MRK-A-LS	Letters A-Z (4 of ea. letter)	
37F243	MRK-B-LS	Letters A-Z (4 of ea. letter)	
37F244	MRK-C-LS	Letters A-Z (4 of ea. letter)	

Insulating, Tubing, Lacing Cords

alpha

Alpha Wire a division of Loral Corporation

TEFLON EXTRUDED TUBING

TFT-200 THIN WALL TEFLON TUBING—NATURAL COLOR

Type No.	Stock No.	Size	Nom. ID	Wall Thk.	Per 100 Ft. Coil Ea.	2-4	5-9	10-49	50-99
TFT-200/30	37F488	30	.012"	.009"	9.00	6.62	5.95	5.34	4.89
TFT-200/28	37F489	28	.015"	.009"	8.00	5.70	5.28	4.39	4.20
TFT-200/26	37F490	26	.018"	.010"	7.70	5.60	5.03	3.99	3.80
TFT-200/24	37F491	24	.022"	.010"	7.70	5.60	5.03	4.32	4.13
TFT-200/22	37F492	22	.027"	.010"	9.50	7.12	6.08	4.84	4.65
TFT-200/20	37F493	20	.034"	.012"	12.00	9.33	7.78	6.15	5.98
TFT-200/18	37F494	18	.042"	.012"	12.98	10.73	9.04	7.24	6.97
TFT-200/16	37F495	16	.053"	.012"	14.53	12.67	10.53	8.64	8.12
TFT-200/14	37F496	14	.066"	.012"	16.04	13.76	11.55	9.35	8.97
TFT-200/12	37F481	12	.085"	.012"	18.48	16.63	13.65	11.35	10.79
TFT-200/10	37F482	10	.106"	.012"	22.04	19.36	15.48	13.54	13.00
TFT-200/8	37F483	8	.133"	.015"	27.52	25.75	23.15	21.03	20.18
TFT-200/6	37F484	6	.166"	.015"	31.82	30.28	27.50	25.05	24.28
TFT-200/4	37F485	4	.208"	.015"	38.10	36.78	33.73	30.86	29.92
TFT-200/2	37F486	2	.263"	.015"	48.13	45.56	41.85	38.23	37.07
TFT-200/0	37F487	0	.330"	.015"	59.14	56.31	51.[illegible]	47.12	45.78

- **Will not Crack or Become Brittle During Aging!**
- **Will not Shrink During Soldering!**
- **Conforms to MIL-1-22129B**

Unmatched by any other type of tubing for use in electrical applications at high frequencies and temperatures; continuous operation at 250° C. retaining its flexibility throughout temperature range. At high frequencies, dieelectric strength is many times that of other insulating materials; is chemically inert having a moisture absorption. Thin wall tubing, **TFT 200.** permits miniaturization and compactness. Application where high heat resistant, flexible, non-flammable, chemical solvent and erosion-resistant material is required. Electrical and chemical properties conform to MIL-1-22129B. **Natural only.** Standard wall tubing, **TFT-250** has characteristics similar to TFT-200, but for use in application where additional dielectric values and mechanical strength are necessary. Colors: **Natural only. Min. order 100 feet.**

TFT-250 STANDARD WALL TEFLON TUBING—NATURAL COLOR

Type No.	Stock No.	Size	Nom. ID	Wall Thk.	Per 100 Ft. Coil Ea.	2-4	5-9	10-49	50-99
TFT-250/24	37F1580	24	.022"	.012"	10.01	8.01	6.89	5.52	5.24
TFT-250/22	37F1581	22	.027"	.012"	11.23	8.98	7.62	6.09	5.79
TFT-250/20	37F1582	20	.034"	.016"	15.19	12.15	10.31	8.37	7.96
TFT-250/19	37F1583	19	.038"	.016"	16.31	13.05	11.21	9.09	8.64
TFT-250/18	37F1584	18	.042"	.016"	18.70	14.68	12.50	9.84	9.36
TFT-250/17	37F1585	17	.047"	.016"	20.39	15.93	13.61	10.72	10.20
TFT-250/16	37F1586	16	.053"	.016"	21.78	17.64	14.90	11.46	10.94
TFT-250/15	37F1587	15	.059"	.016"	22.26	18.32	15.22	11.72	11.18
TFT-250/14	37F1588	14	.066"	.016"	24.03	18.96	15.81	12.66	12.07
TFT-250/13	37F1589	13	.076"	.016"	25.33	20.40	16.63	14.07	13.43
TFT-250/12	37F1590	12	.085"	.016"	27.41	22.02	18.25	15.20	14.53
TFT-250/11	37F1591	11	.095"	.016"	30.43	24.48	19.89	16.87	16.11
TFT-250/10	37F1592	10	.106"	.016"	33.02	25.57	21.06	18.32	17.55
TFT-250/9	37F1593	9	.118"	.020"	45.86	34.00	28.77	26.18	25.14
TFT-250/8	37F1594	8	.133"	.020"	47.43	35.96	31.60	28.73	27.57
TFT-250/7	37F1595	7	.148"	.020"	49.56	38.68	34.04	30.94	29.73
TFT-250/6	37F1596	6	.166"	.020"	53.55	41.82	36.81	33.45	32.13
TFT-250/5	37F1597	5	.186"	.020"	58.99	46.07	40.55	36.85	35.36
TFT-250/4	37F1598	4	.208"	.020"	64.09	50.07	44.07	40.00	38.38
TFT-250/3	37F1599	3	.234"	.020"	70.89	55.34	48.75	44.29	42.97
TFT-250/2	37F1600	2	.263"	.020"	73.14	60.95	53.64	48.75	47.30
TFT-250/1	37F1601	1	.294"	.020"	81.26	67.66	59.50	54.15	52.53
TFT-250/0	37F1602	0	.330"	.020"	91.38	76.16	67.02	60.95	58.57

ZIP31 ZIPPER TUBING AND SEALER

Type No.	Black No.	Clear No.	Dia.	100' Spools Per Spool 1-4	5-9	10-49
31-½"	37F642	37F622	½"	34.00	31.00	29.00
31-⅝"	37F643	37F638	⅝"	34.50	31.50	29.50
31-¾"	37F644	37F623	¾"	35.00	32.00	30.00
31-⅞"	37F645	37F639	⅞"	36.00	32.50	30.50
31-1"	37F646	37F624	1"	36.00	33.00	31.00
31-1⅛"	37F647	37F640	1⅛"	37.50	34.00	32.00
31-1¼"	37F648	37F625	1¼"	38.00	34.50	32.50
31-1½"	37F649	37F626	1½"	39.50	36.00	34.00
31-1¾"	37F662	37F627	1¾"	41.00	37.00	35.00
31-2"	37F663	37F628	2"	42.00	38.00	36.00

SPECIAL SEALER TYPE PB-200

Type	Stock No.	Capacity	NET
PB-200	37F634	4 oz.	1.00

Plastic tubing equipped with a longitudinal plastic zipper that eliminates costly work of lacing and tying of harness assemblies. It can be opened and closed any time, so the conductors are readily accessible. May also be permanently sealed to protect the conductors against moisture or abrasion.

20 MIL wall thickness. Vinyl per specification MIL-I-631C. For ease in closing us¹ tubing size ¼ larger than O.D. of wires to be covered. One metal slider supplied with every 25 feet.

Sold only in standard sizes as shown. Stocked in the underflap construction. Specify Black or Clear. **100 ft. spools.**

LACING CORD AND TAPES

Recommended for all harness work. Prevents "cold flow". *Dacron. ³⁄₃₂" size. .014" thick. 50 lb. test.

MIL-T-713A NYLON FLAT BRAID TAPE

Type	Stock No.	Color	Finish	500-Yd. Spool 1-9	10-24	25-49
LC132	37F658	White	Resin	8.45	7.88	7.35
LC132	37F659	Black	Resin	9.14	8.61	7.98
LC134	37F666	White	Wax	5.41	5.04	4.75
LC134	37F667	Black	Wax	6.09	5.78	5.41
LC136	37F668	White	Wax	8.45	7.88	7.35
LC136	37F669	Black	Wax	9.14	8.61	7.98
LC140	37F670	White	Rubber	8.45	7.88	7.35
LC140	37F671	Black	Rubber	9.14	8.61	7.98
LC143	37F660	White	Resin	8.45	7.88	7.35
LC143	37F661	Black	Resin	9.14	8.61	7.98
LC158*	37F664	White	Resin	8.45	7.88	7.35
LC158*	37F665	Black	Resin	9.14	8.61	7.98
LC162*	37F678	White	Wax	8.45	7.88	7.35
LC162*	37F679	Black	Wax	9.14	8.61	7.98
MIL-T-713A ROUND TWISTED NYLON 8 OZ. SPOOLS						
LC113	37F672	White	Wax	4.73	4.20	3.68
LC113	37F673	Black	Wax	5.51	4.99	4.31
LC114	37F674	White	Wax	4.73	4.20	3.68
LC114	37F675	Black	Wax	5.51	4.99	4.31
LC115	37F676	White	Wax	4.73	4.20	3.68
LC115	37F677	Black	Wax	5.51	4.99	4.31

PLASTIC IMPREGNATED FIBERGLASS TUBING

Conforms to MIL-1-3190B—Grade B

Used widely where tubing is subject to bending, knotting, and high torque. will not p¹el or crack or lose its dielectric values even under extreme conditions. Not affected by prolonged usage as high as 130°C. Supplied in 100' lengths. Black only.

Type	Stock No.	Size	Wall Thickness Max.	Min.	100' Spool Ea.
PIF-130/24	37F1603	24	.022	.016	4.79
PIF-130/22	37F1604	22	.022	.016	5.05
PIF-130/20	37F1605	20	.022	.016	5.12
PIF-130/18	37F1606	18	.022	.016	5.21
PIF-130/16	37F1607	16	.028	.020	5.43
PIF-130/14	37F1608	14	.028	.020	5.62
PIF-130/12	37F1609	12	.028	.020	6.11
PIF-130/10	37F1610	10	.028	.020	6.86
PIF-130/8	37F1611	8	.028	.020	7.51
PIF-130/6	37F1612	6	.028	.020	8.42
PIF-130/4	37F1613	4	.036	.026	10.24
PIF-130/2	37F1614	2	.036	.026	12.88
PIF-130/0	37F1615	0	.042	.030	16.50
PIF-130/⅜"	37F1616	⅜"	.042	.030	21.05
PIF-130/½"	37F1617	½"	.042	.030	36.39
PIF-130/¾"	37F1618	¾"	.042	.030	53.72
PIF-130/1"	37F1619	1"	.042	.030	79.37

alpha

Alpha Wire a division of Loral Corporation

Hookup Wire

MIL-W-76B TYPE MW

Hook-up wire with thermoplastic insulation impervious to oils, acids, moisture and flame. Nom. insul., .016". Voltage rating, 1000 V. 1 lb. per 100 ft. Temp. —40°C. to +80°C. **Available in colors 1-19. Specify Color.**

Alp. No.	Stock No.	Co. Sz.	Cond. Strand	100 Feet	PER 1000 FT. 1-9	10-14	15-24	25-49
1550	37F500	24	7/32	1.35	8.65	7.21	6.86	6.49
1551	37F501	22	7/30	1.48	10.23	8.55	8.12	7.70
1553	37F502	20	10/30	1.69	11.55	9.63	9.15	8.67
1555	37F503	18	16/30	2.14	15.84	13.20	12.54	11.88
ON TRACER COLORS ADD TO ABOVE				.15	1.50	1.25	1.00	1.00
Available in colors 1-10. Specify Color.								
1557	37F504	16	26/30	2.85	22.27	18.56	17.63	16.71
1559	37F505	14	41/30	4.03	34.32	28.75	27.32	25.88
1560	37F506	12	65/30	5.68	47.85	39.88	37.89	35.90
Available in colors 1-10. Specify Color.								
1561	37F507	22		1.27	7.92	6.60	6.27	5.94
1563	37F508	20		1.48	9.90	8.25	7.84	7.43
1565	37F509	18		1.89	13.53	11.28	10.72	10.16

TYPE MW—SHIELDED—NYLON JACKET

Temperature rating —40° to +90°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus. **Available in White only.**

Alp. No.	Stk. No.	MIL Type	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	Net per 1000 Ft. 1-4	5-up
1371	37F685	C22(7)SJ	22	7/30	.092"	5.70	48.34	40.29
1372	37F686	C20(7)SJ	20	7/28	.100"	6.36	55.44	46.20
1373	37F687	C18(19)SJ	18	19/30	.119"	7.09	62.86	52.39
1374	37F688	C16(19)SJ	16	19/29	.120"	9.00	81.84	68.20

MIL-W-16878
TYPE "B" UNCOVERED PLASTIC HOOKUP WIRE

Stranded tinned copper conductor. 105°C PVC .010" insulation. Specification **MIL-W-16878D.** 600 V rating for miniature and sub-miniature high temperature hook-ups. Stranded spool, put-up; 100 ft., 1000 ft. **Specify color. Stock colors 1 through 19.**

Alp. No.	Stock No.	Co. Sz.	Cond. Strand	100-Feet	PER 1000 FEET 1-9	10-14	15-24	25-49
1850	37F593	32	7/40	1.81	11.88	9.90	9.41	8.91
1851	37F544	39	7/38	1.42	9.48	7.90	7.51	7.11
1852	37F545	28	7/36	1.36	8.58	7.15	6.80	6.44
1853	37F546	26	7/34	1.48	9.90	8.25	7.84	7.43
1854	37F547	24	7/32	1.41	9.24	7.70	7.32	6.93
1854/19	37F1326	24	19/36	1.74	10.96	9.14	8.69	8.23
1855	37F548	22	7/30	1.53	10.06	8.34	7.93	7.51
1855/19	37F1327	22	19/34	1.81	11.55	9.63	9.15	8.67
1856	37F549	20	7/28	1.72	11.29	9.41	8.94	8.47
1856/19	37F1328	20	19/32	1.93	14.02	11.68	11.10	10.52
1857	37F570	18	7/26	1.89	14.68	12.24	11.63	11.02
1857/19	37F1329	18	19/30	2.14	16.41	13.68	13.00	12.32
1858/19	37F571	16	19929	2.31	18.97	15.81	15.02	14.23
1859/19	37F1331	14	19/27	3.67	31.92	26.60	25.27	23.94
ON TRACER COLORS ADD TO ABOVE				.15	1.50	1.25	1.00	1.00

TYPE B PRE-BONDED UNCOVERED PLASTIC WIRE

Double tinned, then heated for easy stripping. Color coded. .010" polyvinylchloride insulation. Meets MIL-W-16878D requirements. Temperature rating—55°C to +105°C. 600 volt rating. **Stock colors—1 thru 10. Specify colors.**

Alp. No.	Stock No.	Co. Sz.	Cond. Strand	100 Feet	Per 1000 Feet 1-9	10-14	15-24	25-49
3154	37F1332	24	7/32	1.65	11.56	9.64	9.16	8.68
3155	37F1333	22	7/30	1.93	14.58	12.15	11.65	10.94
3156	37F1334	20	7/28	2.38	18.91	15.76	14.98	14.19
3157	37F1335	18	7/26	3.16	26.66	22.21	21.10	19.99

TYPE B NYLON JACKET

Stranded tinned copper, color coded. Has .010" polyvinylchloride insulation. Rating —55°C to +115°C. Voltage rating 600 volts. Meets MIL-W-16878D specs. Nom. Jkt. Thk. .003", except 1869/19: .004". **Stock Colors—1 thru 10. Specify color.**

Alp. No.	Stock No.	Co. Sz.	Cond. Strand	100 Feet	Per 1000 Feet 1-9	10-14	15-24	25-49
1864/19	37F1321	24	19/36	1.93	14.68	12.24	11.63	11.02
1865/19	37F1322	22	19/34	2.20	16.83	14.03	13.33	12.63
1866/19	37F1323	20	19/32	2.26	17.49	14.58	13.85	13.12
1867/19	37F1324	18	19/30	2.71	21.28	17.74	16.76	15.97
1868/19	37F580	16	19/29	2.88	23.67	19.73	18.75	17.76
1869/19	37F1325	14	19/27	4.45	39.60	33.00	31.35	29.70

SAVE TIME! At Newark—fast, efficient service always!

MIL-W-16878 (Continued)
TYPE C—UNCOVERED PLASTIC

Stranded tinned copper, color coded .016" polyvinylchloride insulation. Temperature rating —55°C to +105°C. Voltage rating 1000 volts. MIL-W-16878D. **Available in colors. 1-10. *White only.**

Alp. No.	Stock No.	Co. Sz.	Cond. Strand	100 Feet	1-9	10-14	15-24	25-49
1830	37F550	24	7/32	1.59	11.29	9.41	8.94	8.47
1831	37F581	22	7/30	1.72	12.37	10.31	9.80	9.28
1832	37F582	20	7/28	1.98	14.85	12.38	11.77	11.15
1833	37F583	18	7/26	2.31	18.15	15.13	14.38	13.62
1834	37F551*	16	19/20	2.88	23.92	19.94	18.95	17.95
1835	37F552*	14	19/27	4.36	35.47	29.56	28.09	26.61
1836	37F553*	12	19/25	6.60	61.38	51.15	48.60	46.04

TYPE C — NYLON JACKET

Stranded tinned copper, color coded .016" polyvinylchloride insulation, MIL-W-16878D. Temp. rtg. —55°C to +115°C. Volt rtg. 1000v. Jacket thk. .003" exc. * .002". **Available in colors 1-10.**

Alp. No.	Stock No.	Co. Sz.	Cond. Strand	100 Feet	Per 1000 Feet 1-9	10-14	15-24	25-49
1840	37F554*	24	7/32	2.08	15.97	13.31	12.65	11.98
1841	37F555	22	7/30	2.31	16.50	13.75	13.07	12.38
1842	37F556	20	7/28	2.47	19.80	16.50	15.68	14.85
1843	37F557	18	7/26	2.80	23.10	19.25	18.29	17.33
Same as above—Available in white only. .004" jkt., exc. * .005".								
1844	37F558	16	19/29	3.30	29.70	24.75	23.52	22.57
1845	37F559	14	19/27	4.53	41.25	34.38	32.67	30.95
1846	37F560*	12	19/25	7.68	71.88	59.90	56.91	53.91

TYPE C—SHIELDED—NYLON JACKET

Stranded tinned copper, white .016" polyvinylchloride insulation, braided tinned copper shield. MIL-W-16878D Rating —55°C to +115°C. Voltage rating 1000 volts. .005" jkt. **White only.**

Alp. No.	Stock No.	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	NET Per 1000 Ft. 1-4	5-9
1471	37F1030	22	7/30	.098"	7.75	68.97	57.48
1472	37F1031	20	7/28	.105"	8.50	76.56	63.80
1473	37F1032	18	19/30	.115"	9.90	90.42	75.35

GENERAL STOCK COLORS—Check Specific Color Codes shown for wire types on this page and next page.

1—White	8—Orange	15—White/Blue
2—Black	9—Gray (slate)	16—White/Brown
3—Red	10—Violet (purple)	17—White/Orange
4—Green	11—White/Black	18—White/Gray
5—Yellow	12—White/Red	19—White/Violet
6—Light Blue	13—White/Green	
7—Brown	14—White/Yellow	

UL/CSA POPULAR PRICED HOOK-UP WIRE

Stranded tinned copper conductor, color coded polyvinylchloride insulation. Resistant to acids, alkalis, oil, flame, moisture, and fungus. **Stocked in colors 1 thru 10. Specify color.**

300 VOLT 80°C—STYLE 1007

Alp. No.	Stk. No.	Conductor Size	Strand	100 Feet	Per 1000 Feet 1-9	10-14	15-24	25-49
3050	37F1300	24	7/32	1.42	8.46	7.05	6.70	6.35
3051	37F1301	22	7/30	1.56	10.56	8.80	8.36	7.92
3053	37F1302	20	10/30	1.60	11.13	9.28	8.82	8.36
3055	37F1303	18	16/30	2.19	15.21	12.68	12.02	11.42
3057	37F1304	16	26/30	3.04	23.82	19.85	18.86	17.87
UL STYLE 1015, CSA "TEW"								
3071	37F1305	22	7/30	1.89	12.78	10.65	10.12	9.59
3073	37F1306	20	10/30	2.14	14.89	12.41	11.97	11.17
3075	37F1307	18	16/30	2.55	20.04	16.70	15.87	15.03
3077	37F1303	16	26/30	3.21	26.57	22.14	21.04	19.93
3079	37F1309	14	41/30	4.95	37.45	31.21	29.65	28.09

U.L. SEMI-RIGID BUSINESS MACHINE WIRE

Stranded tinned copper. Color coded semi-rigid polyvinylchloride insulation. .009" thick wall. Temperature rating: —10°C to +80°C. 300 volt rating in business machine or electronic computers only.
Stocked in colors 1-10. Specify color.

300 Volt, 80°C—Style No. 1061

Alpha No.	Stk. No.	Conductor Size	Strand	100' Spool Each	1000' Spool Each
3250	37F1420	24	7x32	1.65	12.37
3251	37F1421	22	7x30	1.81	13.62
3252	37F1422	20	7x28	2.07	16.26

Wire and Cable – Shielded and Teflon

alpha

Alpha Wire a division of Loral Corporation

AIRCRAFT HOOK-UP WIRE — MIL-W-5086A

All single conductor stranded tinned copper with white polyvinylchloride insulation. AN-22 thru AN-12 have clear nylon jacket overall. AN-10 thru AN-8 have white PVC, white glass braid, flame retardant nylon lacquered braid overall. *Type 11.

UNSHIELDED (MIL-W-5086A—Types I and II)

Alpha No.	Stock No.	MIL Type	Co. Sz.	Con. Strand	Nom. O.D.	100 Feet	Net per 1000 ft. 1-4	Net per 1000 ft. 5-up
1381	37F532	AN-22	22	19/34	.068"	3.39	25.90	21.59
1382	37F533	AN-20	20	19/32	.078"	3.79	30.19	25.16
1383	37F534	AN-18	18	19/30	.088"	4.54	37.29	31.08
1384	37F535	AN-16	16	19/29	.098"	4.95	40.92	34.10
1385	37F536	AN-14	14	19/27	.117"	6.52	56.92	47.44
1386	37F537	AN-12	12	19/25	.137"	9.16	83.22	69.44

Alpha No.	Stock No.	MIL Type	Co. Sz.	Con. Strand	Nom. O.D.	100 Feet	Net per 1000 ft. 1-2	Net per 1000 ft. 3-up
1387*	37F683	AN-10	10	49/27	.189"	16.50	156.75	130.63
1388*	37F684	AN- 8	8	133/29	.240"	31.35	297.00	247.78

MULTI-CONDUCTOR CABLE
TYPE B. PLASTIC SHIELDED. NYLON JACKET. MIL-W-18878D

Each conductor stranded tinned copper, .010" polyvinylchloride insulation. Color coded, clear nylon (polyamide) jacket, conductors cabled, braided tinned copper shield 90% coverage. White polyvinylchloride jacket overall. Temperature rating: —55°C to +105°C. Voltage rating: 600 volts. Resistant to acids, alkalies, oil, flame, moisture, fungus, and solvents. Nominal wall thickness: .010". Nominal nylon thickness: .003". Color code: 1-white, 2-black, 3-red.

Alpha No.	Stock No.	No. of Cond.	Conductor Size	Conductor Strand	Nom. O.D."	100 Ft.	500 Ft.
3200	37F1500	1	26	7/34	.087	7.87	36.07
3201	37F1501	2	26	7/34	.138	10.87	51.27
3202	37F1502	3	26	7/34	.142	15.04	72.93
3203	37F1503	4	26	7/34	.162	17.17	82.77
3210	37F1260	1	24	19/36	.092	7.72	37.41
3211	37F1261	2	24	19/36	.152	11.73	56.94
3212	37F1262	3	24	19/36	.161	16.23	78.28
3213	37F1504	4	24	19/36	.162	18.12	87.25
3220	37F1263	1	22	19/34	.100	8.50	39.45
3221	37F1264	2	22	19/34	.168	12.84	60.96
3222	37F1265	3	22	19/34	.178	17.80	85.99
3223	37F1267	4	22	19/34	.174	19.45	94.18
3230	37F1266	1	20	19/32	.106	8.89	41.43
3231	37F1505	2	20	19/32	.186	14.10	67.33
3232	37F1268	3	20	19/32	.196	19.06	92.29
3233	37F1506	4	20	19/32	.193	20.79	100.72
3240	37F1269	1	18	19/30	.120	9.93	45.60
3241	37F1270	2	18	19/30	.210	16.45	79.54
3242	37F1271	3	18	19/30	.227	22.05	107.10
3243	37F1507	4	18	19/30	.218	24.96	121.51
3245	37F1508	1	16	19/29	.137	10.56	49.62
3246	37F1509	2	16	19/29	.236	17.49	84.58
3247	37F1510	3	16	19/29	.240	24.88	118.29
3248	37F1511	4	16	19/29	.274	31.42	154.27

GENERAL STOCK COLORS—Check Specific Color Codes shown for wire types on this page and next page.

1—White	8—Orange	15—White/Blue
2—Black	9—Gray (slate)	16—White/Brown
3—Red	10—Violet (purple)	17—White/Orange
4—Green	11—White/Black	18—White/Gray
5—Yellow	12—White/Red	19—White/Violet
6—Light Blue	13—White/Green	
7—Brown	14—White/Yellow	

SHIELDED TEFLON CABLES

Each conductor stranded silver plated copper, type E extruded TFE .010" insulation, braided silver plated copper shield over conductor(s). 90% coverage. Temperature rating —65° to +200°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus. NO OUTER COVERING OVER SHIELD.

Alpha No.	Stock No.	No. Cond.	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet
2812	37F1033A	1	22	19/34	.075"	21.75
2812/2	37F1034A	2	22	19/34	.124"	45.45
2812/3	37F1035A	3	22	19/34	.132"	65.25
2812/4	37F1036A	4	22	19/34	.146"	78.75
2815	37F1037A	1	20	19/32	.083"	25.50
2815/2	37F1038A	2	20	19/32	.142"	57.75
2815/3	37F1039A	3	20	19/32	.151"	77.25
2815/4	37F1040A	4	20	19/32	.168"	96.75
2818	37F1041A	1	18	19/30	.093"	30.45

MIL-W-16878D TEFLON WIRE TYPE E 600 VOLTS

Stranded silver plated copper with .010 inch nominal wall thickness. Extruded TFE Teflon insulation from —65°C. to +200°C. Standard spool put-up of 100 ft., and 1000 ft. Nom. insul. thickness .010. **Available in colors 1-19. Specify color.**

Alpha No.	Stk. No.	Cond. AWG	Cond. Str.	100 ft.	Per 1000 Feet 1M-2999	3M-4999	5M-9999	10M-24999	25M-49999
5850	37F1670	32	7/40	5.18	65.00	58.50	52.00	32.00	15.88
5851	37F650	30	7/36	5.18	63.25	56.92	50.60	32.00	15.88
5852	37F651	28	7/34	5.55	67.50	60.75	54.00	34.50	17.28
5853	37F652	26	7/34	5.63	70.50	63.45	56.40	35.10	18.57
5854	37F653	24	19/36	6.00	80.65	72.58	64.50	37.40	24.96
5854/7	37F561	24	7/32	5.25	70.15	63.13	56.10	32.60	20.05
5855	37F654	22	19/34	6.60	90.15	81.13	72.10	41.50	28.23
5855/7	37F562	22	7/30	5.63	82.50	74.25	66.00	35.25	23.83
5856	37F655	20	19/32	7.43	115.65	104.09	92.50	46.80	36.38
5856/7	37F563	20	7/28	6.53	102.50	92.25	82.00	41.25	32.30
5857	37F656	18	19/30	10.65	131.75	118.57	105.40	66.10	47.78
5858	37F657	16	19/29	12.68	175.75	158.17	140.60	79.60	65.44
Available in Colors 1-6 and 11-19. Specify Color.									
5859	37F1671	14	19/27		235.00	211.50	188.00	114.71	95.25
Available in Colors 1 and 11-19. Specify Color.									
5859/12	37F1672	12	19/25		350.00	3.15	280.00	139.72	118.26
On Tracer Colors Add to Above					1.05	7.00	6.00	5.00	4.00

TYPE EE — EXTRUDED (1000 VOLTS)

Single conductor stranded silver plated copper, TFE extruded Teflon insulation. Temperature rating —65°C to +200°C. 1000 volts. Nom. wall thickness .014".
Avalable in Colors 1-19. Specify Color.

Alpha No.	Stk. No.	Cond. AWG	Cond. Str.	100 Feet	Per 1000 Feet 1M-2999	3M-4999	5M-9999	10M-24999	25M-49999
5874	37F564	24	19/36	8.69	86.13	77.52	68.98	41.04	37.31
5875	37F565	22	19/34	10.31	100.65	90.58	80.50	48.33	43.94
5876	37F566	20	19/32	12.66	128.00	115.20	102.40	58.59	53.26
5877	37F567	18	19/30	15.38	150.00	135.00	120.00	72.28	65.71
On Tracer Colors Add to Al				1.05	7.00	6.00	5.00	4.00	3.00

MIL-W-16878D TEFLON WRAP JACKET OVER SHIELD

Each conductor stranded silver plated copper. Type E extruded .010" TFE teflon insl. Color coded, cabled, braided silver plated copper shield. Sintered wrapped white teflon tape jacket overall. Temp. Rating: —65°C to +200°C, voltage rating: 600 V.

Alpha No.	Stock No.	No. Cond.	Co. Sz.	Con. Strand	Nom. O.D.	100 Feet
2824	37F1029A	1	22	19/34	.102"	47.25
2824/2	37F1042A	2	22	19/34	.154"	87.15
2826	37F1028A	1	16	19/29	.130"	93.75
2826/2	37F1027A	2	16	19/29	.230"	153.00
2827	37F1045A	1	20	19/32	.110"	55.95
2827/2	37F1046A	2	20	19/32	.170"	99.75
2829	37F1049A	1	18	19/30	.120"	66.75
2829/2	37F1050A	2	18	19/30	.190"	125.25

MIL-W-16878D TEFLON FEP EXTRUDED JACKET OVER SHIELD

Stranded silver plated copper type E extruded TFE insulation, color coded. Rated —65°C to +200°C. 600v.

Alpha No.	Stock No.	No. Cond.	Co. Sz.	Con. Strand	Nom. O.D.	100 Feet
2831	37F1053A	1	24	19/36	.085"	38.53
2831/2	37F1054A	2	24	19/36	.130"	64.35
2831/3	37F1055A	3	24	19/36	.135"	94.65
2834	37F1056A	1	22	19/34	.091"	43.50
2834/2	37F1057A	2	22	19/34	.150"	78.75
2834/3	37F1058A	3	22	19/34	.158"	103.65
2837	37F1059A	1	20	19/32	.100"	50.25
2837/2	37F1060A	2	20	19/32	.160"	89.85
2837/3	37F1061A	3	20	19/32	.170"	123.15
2839	37F1062A	1	18	19/30	.110"	60.45
2839/2	37F1063A	2	18	19/30	.188"	121.20
2839/3	37F1064A	3	18	19/30	.207"	150.60
2836	37F1065A	1	16	19/29	.123"	87.75
2836/2	37F1066A	2	16	19/29	.220"	147.75

UNINSULATED TINNED COPPER WIRE Meet MIL-W-3861
Type S—QQ-W-343 Type S—ASTM-B-33

Pure electrolytic soft, drawn, solid, copper properly annealed and tinned. Used for coil winding, ground wire, etc.

Alpha No.	Stock No.	AWG	Cir. MIL	Nom. O.D.	100 Ft.	1000 Ft.
299/3	37F1131	30	100.5	.010"	.79	3.79
299/2	37F1132	28	159.8	.013"	.79	3.88
299/1	37F1133	26	254.1	.016"	.81	3.96
299	37F1134	24	404.0	.020"	.87	4.62
298	37F1135	22	642.4	.025"	.94	5.28
297	37F1136	20	1022.0	.033"	1.20	7.92
296	37F1137	18	1642.0	.040"	1.74	12.54
295	37F1138	16	2583.0	.051"	2.07	16.17
286	37F1139	14	4107.0	.065"	3.39	25.24
289	37F1140	12	6530.0	.082"	4.71	38.77

alpha Cords, Braid & Test Lead Wire

Alpha Wire a division of Loral Corporation

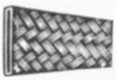
SHIELDING AND BRAIDING

TUBULAR BRAID
Meet MIL QQ-B-575

Woven tinned copper braid. Completely round and self-supporting. Shielding coverage is 95% or more. Current capacity in amps is rated in free air at 65°F.

Alp. No.	Stock No.	I.D.	AWG Equiv.	Cir. MIL	Amp.	100 Ft.
2160	37F1156	1/32"	22	640	7	3.72
2162	37F1157	1/16"	19	1290	11	7.26
2164	37F1158	7/64"	16	1620	19	11.22
2166	37F1159	1/8"	15	3260	25	12.04
2168	37F1160	11/64"	14	4100	32	14.85
2170	37F1161	13/64"	11	7640	46	22.77
2172	37F1162	3/8"	10	10400	53	30.36
2174	37F1163	1/2"	9	13100	62	43.56
2176	37F1164	25/32"	7	20900	88	59.40

Flat Braid



A woven braid composed of tinned copper strands which is rolled flat at the time of manufacture to a specific width. High current carrying capacity. Extremely flexible.

Alp. No.	Stock No.	Flat Width	Thick	AWG Equiv.	Cir. MILS	A.	Ft. 100	1000 Ft.
1221	37F1144	.025	.015	26	200	4.0	4.78	39.76
1222	37F1145	1/32"	.020	24	400	6.0	5.11	42.57
1223	37F1146	3/64"	.020	22	600	7.0	5.37	45.37
1224	37F1147	3/32"	.020	19	1200	11.0	6.03	53.29
1229	37F1148	1/8"	.020	18	1800	16.0	6.76	59.56
1230	37F1149	3/16"	.020	15	3000	25.0	7.42	66.33
							100'	500'
1231	37F1150	1/4"	.030	14	4200	32.0	10.06	47.11
1232	37F1151	3/8"	.030	11	7200	46.0	16.09	77.97
1233/2	37F1152	1/2"	.030	10	9600	53 0	20.46	100.08
1233	37F1153	5/8"	.030	10	9600	53.0	21.61	105.60
1234	37F1154	3/4"	.040	7	20800	85.0	49.50	242.55
1235	37F1155	1"	.045	7	20800	85.0	52.96	259.87
1239	37F1547	1 3/8"	.050"	5	33700	100.0	60.06	295.35
							100'	....
1240	37F1548	1 1/2"	.060"	3	53064	150.0	84.15	....
1241	37F1549	1 3/4"	.080"	00	125424	280.0	168.30	....
1242	37F1550	2"	.120"	000	154368	310.0	211.20	....
							100'	
1242/1	37F1551	2 1/4"	.150"	000	168840	320.0	227.70	....
1242/2	37F1552	2 1/2"	.170"	000	192000	340.0	298.65	....
1243/3	37F1553	2 3/4"	.180"	0000	216000	370.0	326.70	....
1242/4	37F1554	3"	.200"	0000	225000	390.0	407.55	

TEST LEAD WIRE

For apparatus requiring extra flexible insulated wire. Single conductor, stranded tinned copper, rubber insulation.

Heavy Duty Type

Alp. No.	Stock No.	Color	Cond. Size	Cond. Strand	Nom. O.D.	100 Ft.	1000 Ft.
1638	37F1403	Red	18	65/36	.230"	5.91	51.03
1638	37F1404	Black	18	65/36	.230"	5.91	51.03
Military Type Meet MIL-W-13169B							
1639	37F1405	Red	18	65/36	.150"	4.57	37.65
1639	37F1406	Black	18	65/36	.150"	4.57	37.65

Standard Type

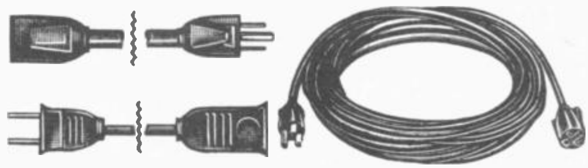
Alp. No.	Stock No.	Color	Cond. Size	Cond. Strand	Nom. O.D.	100 Ft.	1000 Ft.
1632	37F1397	Red	20	41/36	.125"	3.07	26.46
1632	37F1398	Black	20	41/36	.125"	3.07	26.46
1635	37F1399	Red	20	41/36	.140"	3.15	27.72
1635	37F1400	Black	20	41/36	.140"	3.15	27.72
1636	37F1401	Red	18	65/36	.140"	3.78	30.24
1636	37F1402	Black	18	65/36	.140"	3.78	30.24

AIR CONDITIONER EXTENSION CORDS

Flat gray plastic cord with molded 3-blade rt. angle plug on 1 end and 3 wire U ground connector molded on other. Rated. 15 A. 125 working volts. 3 conductor U.L. approved U.L. type: SPT-3. Nom. O.D. of cord: .175" x .475".

Alpha No.	Stock No.	Conductor Size	Conductor Strand	Cord L. (feet)	1-9	10-24	25-up
645	37F1445	14	41/30	3	1.86	1.68	1.55
646	37F1446	14	41/30	6	2.34	2.11	1.95
647	37F1447	14	41/30	9	2.82	2.54	2.35
648	37F1448	14	41/30	12	3.70	3.33	3.09
649	37F1449	14	41/30	15	4.48	4.04	3.74

EXTENSION CORD SETS



2 or 3 conductor cords with black molded plastic male and female plug on either end. 3 conductor cords have 3 pronged plugs. 15 Amps, 125 Volts. Application: Small business machines, vacuum cleaners, lamps, movie projectors, or any other home appliance. 3 conductor cord used when 1 conductor requires grounding. UL and CSA approved. All SJ except 620 and 622-SV. All 7 Amp rating except *10 Amp.

2 CONDUCTOR CORDS

Alp. No.	Stock No.	Co. Sz.	Cond. Strand	Nom. O.D.	Cord Lgth.	1-9	10-24	25-up
620	37F1114	18	41/34	.245"	6	.97	.88	.81
622	37F1115	18	41/34	.245"	9	1.11	1.00	.93
624	37F1116	18	16/30	.300"	19	1.29	1.07	1.08
626	37F1117	18	16/30	.300"	25	3.00	2.70	2.50
628*	37F1118	16	26/30	.325"	10	1.48	1.34	1.24
630*	37F1119	16	26/30	.325"	25	4.42	3.98	3.69
632*	37F1120	16	26/30	.325"	50	6.46	5.82	5.39
634*	37F1121	16	26/30	.325"	100	11.65	10.49	9.71

3 CONDUCTOR CORDS

Alp. No.	Stock No.	Co. Sz.	Cond. Strand	Nom. O.D.	Cord Lgth.	1-9	10-24	25-up
636	37F1122	18	16/30	.365"	10	1.81	1.63	1.54
638	37F1123	18	16/30	365"	25	3.52	3.17	2.94
639	37F1416	18	16/30	.330"	50	7.80	7.02	6.50
640	37F1417	16	26/30	.365"	10	3.31	2.98	2.76
642	37F1418	16	26/30	365"	25	6.37	5.73	5.31
644	37F1419	16	26/30	365"	50	9.93	8.94	8.28

REPLACEMENT STRAIGHT CORD SETS

2 conductor black rubber cord with black molded plastic plug on one end, the other end has stripped conductors. They are U.L. and CSA approved. Can be used for business machines, small electrical tools, and home appliances. 300 volt rating.

#18—7 Amp 2 Conductor Cord Sets #16—10 Amp

Alp. No.	Stock No.	Co. Sz.	Cond. Strand	U.L. Type	Cord Lgth.	1-9	10-24	25-up
600	37F1107	18	41/34	SV	6	.89	.80	.74
602	37F1108	18	41/34	SV	9	1.05	.95	.88
604	37F1109	18	41/34	SV	12	1.30	1.17	1.09
606	37F1110	18	16/30	SJ	8	1.05	.95	.88
608	37F1111	18	16/30	SJ	10	1.14	1.03	.95
610	37F1112	16	26/30	SJ	8	1.18	1.07	.99
612	37F1113	16	26/30	SJ	10	1.32	1.19	1.10
#18—7 Amp 3 Conductor Cord Sets #16—10 Amp								
615	37F1412	18	16/30	SJ	6	1.12	1.01	.94
616	37F1413	18	16/30	SJ	9	1.29	1.17	1.07
618	37F1414	16	26/30	SJ	6	1.54	1.39	1.29
619	37F1415	16	26/30	SJ	9	1.74	1.57	1.45

FLAT RIBBON CABLE

MULTI-CONDUCTOR **PLASTIC INSULATION**
CONDUCTORS PER MIL-W-16878D **TYPE C**

Each conductor stranded copper, color coded .016" polyvinyl-chloride insulation. Conductors bonded together to form flat ribbon cable. Temp. ratings: —55°C to +105°C. Voltage rating: 1000 v. Conductors fully color coded and easily separated for neat terminations. All size #22 (7/30) stranding.

Alpha No.	Stock No.	No. of Cond.	Nom. O.D.	100' Spl. Each	1000' Spl. Each
3504	37F1255	4	.065 x .260"	15.19	143.95
3508	37F1256	8	.065 x .520"	24.81	240.34
3512	37F1257	12	.065 x .780"	40.48	396.58
3516	37F1258	16	.065 x 1.040"	56.07	544.95
3520	37F1259	20	.065 x 1.300"	69.15	675.21

— Audio, Control & Instrumentation Cable

alpha
Alpha Wire a division of Loral Corporation

PLASTIC INTERCOM CABLE

For use in balanced intercom systems, annunciators, telephones, signal systems and alarm systems. Conductor tinned copper. Conductor size: #22 solid. Outer Jacket: gray polyvinylchloride.

Alpha No.	Stock No.	No. of Pairs	No. of Cond.	Nom. Jacket	Nom. O.D.	100 Ft.	500 Ft.
1300	37F1383	1	2	.020"	.130"	2.91	11.41
1302	37F1384	2	4	.020"	.195"	4.72	20.47
1304	37F1385	3	6	.020"	.220"	6.22	27.96
1307	37F1386	5	12	.020"	.275"	10.56	48.82
1307/7	37F1387	7	14	.020"	.285"	13.15	63.31
1307/9	37F1388	9	18	.020"	.310"	14.97	71.67
1308/11	37F1389	11	22	.020"	.340"	18.12	88.20
1309	37F1390	13	26	.025"	.380"	20.64	100.80
1309/15	37F1391	15	30	.025"	.400"	24.57	119.70
1310	37F1392	16	32	.025"	.420"	32.44	155.92
1313	37F1393	27	54	.035"	.510"	43.32	213.42
1313/31	37F1394	31	62	.035"	.555"	94.18	452.02
1313/41	37F1395	41	82	.035"	.630"	132.30	645.75
1314	37F1396	51	102	.045"	.735"	170.10	819.00

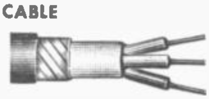
MULTI-CONDUCTOR AUDIO CABLE
Outer Plastic Jacket

For unbalanced intercom systems, low voltage relay control cable, PA systems and electronic computer cable. Suitable for outdoor installations. Each conductor stranded tinned copper with polyvinylchloride insulation, color coded for easy identification. .010 wall—All .020 jacket except (*) .025" (**) .035".

Alpha No.	Stock No.	No. of Cond.	Nom. O.D.	Cond. Size	Cond. Strand	100 Ft.	500 Ft.
1172	37F1336	2	.140"	22	7/30	3.46	14.34
1173	37F1337	3	.145"	22	7/30	4.26	18.12
1174	37F1338	4	.170"	22	7/30	5.35	23.62
1175	13F1339	5	.175"	22	7/30	6.52	29.53
1176	37F1340	6	.185"	22	7/30	8.67	40.32
1177	37F1341	7	.190"	22	7/30	10.08	47.41
1178	37F1342	8	.200"	22	7/30	10.95	51.58
1179	37F1343	9	.225"	22	7/30	12.21	57.81
1180	37F1344	10	.235"	22	7/30	13.23	63.00
1181	37F1345	12	.255"	22	7/30	14.34	68.52
1181/15	37F1346	15	.280"	22	7/30	33.87	155.92
1181/20	37F1347	20	.310"	22	7/30	46.47	213.42
1181/25	37F1348	25	.340"	22	7/30	59.07	275.62
1181-30	37F1349	30	.365"	22	7/30	74.02	338.62
1181/40*	37F1512	40	.425"	22	7/30	119.70	535.00
1181/50**	37F1513	50	.500"	22	7/30	144.90	653.62
1181/60	37F1514	60	.530"	22	7/30	171.67	787.50

UNSHIELDED RUBBER CABLE

Designed for heavy duty use. Each conductor stranded tinned copper with tough black rubber jacket. Size #20, strand 26/34. Nom. wall thickness .020", Nominal jacket .035":



Type	Stock No.	No. of Cond.	Nom. O.D.	100 Ft.	500 Ft.
1244	37F1350	2	.280"	13.15	62.68
1245	37F1351	3	.285"	14.41	69.69
1246	37F1352	4	.300"	16.23	78.91
1247	37F1353	5	.340"	21.73	102.37
1247/6	37F1354	6	.360"	26.46	126.00
1247/7	37F1355	7	.380"	29.05	138.99
1247/8	37F1356	8	.400"	32.76	157.50
1247/10	37F1357	10	.440"	53.55	248.85
1247/12	37F1358	12	.540"	72.45	346.50

LOW CAPACITANCE SHIELDED MICROPHONE CABLE
PLASTIC JACKET CELLUAR FOAM POLYETHELENE INSULATION

Stranded tinned copper conductor (S), white foam low loss polyethelene insulation. Braided tinned copper shield, chrome gray polyvinlychloride jacket. All .030" jacket except 2310 which is .020". Foam polyethelene provides lower capacitance and loss for long runs of cable. All single Cond. except 2323 which is 2 conductor.

Alpha No.	Stock No.	Cond. Size	Cond. Strand	Capacity* Nom./Ft.	Nom. O.D.	100 Ft.	1000 Ft.
2310	37F1295	26	3/34** 4/34**	30 MMF	.115"	7.09	63.31
2311	37F1296	24	10/34	20 MMF	.180"	8.50	77.80
2312	37F1297	24	10/34	15 MMF	.225"	11.10	103.00
2323	37F1298	22	16/34	11 MMF	.300"	18.58	170.10

*Between one cond. and remaining cond. connected to shield
**3 strands of tinned copper and 4 strands of tinned copperweld

SHIELDED MICROPHONE CABLE

Single conductor stranded tinned copper, white polyethylene insulation. Braided or spiral wrapped shield, gray polyvinylchloride jacket overall. For lapel, ribbon, crystal mikes, and Hi-Fi connections. B-Braid, S-Spiral.

Type	Stock No.	Cond. Size	Cond. Strand	Nom. O.D.	Shield Type	100 Ft.	1000 Ft.
1702	37F1376	26	7/34	.110"	S	4.65	43.15
1703	37F1377	24	10/34	.145"	B	4.89	44.89
1704	37F1378	24	10/34	.190"	B	6.61	62.22
1705	37F1379	24	10/34	.110"	S	5.28	48.82
1706	37F1380	20	26/34	.175"	B	8.98	81.90

2 CONDUCTOR MIKE CABLE

1709	37F1381	24	10/34	.190"	S	10.78	99.85
1710	37F1382	22	16/34	.230"	B	9.37	85.68

UNSHIELDED AUDIO CABLE

Multi-conductor cable with plastic jacket. Each conductor tinned copper, color-coded polyvinylchloride insulation. Conductors twisted. Gray jacket. Suitable for outdoor installations, intercoms, remote control switches, telephones. Operating temperature: —20 C to +60 C. Nominal jacket: .020". Operating voltage 350V, except *200V.

SOLID

Alpha No.	Stock No.	No. of Cond.	Conductor Sz.	Conductor Strand	Nom. O.D.	100 Feet	500 Feet
*1793	37F1642	2	22	1	.130"	3.46	14.02
*1794	37F1643	3	22	1	.140"	4.72	20.55
*1794/4	37F1644	4	22	1	.160"	6.78	28.98
1795	37F1645	2	20	1	.170"	5.74	25.68
1796	37F1646	3	20	1	.180"	7.87	36.22
1796/4	37F1647	4	20	1	.200"	9.45	43.95
1797	37F1648	2	18	1	.190"	6.30	28.51
1798	37F1649	3	18	1	.200"	8.74	40.63
1798/4	37F1650	4	18	1	.220"	11.02	51.90
1799	37F1651	2	16	1	.215"	11.19	53.40
1799/3	37F1652	3	16	1	.230"	13.30	64.11
1799/4	37F1653	4	16	1	.250"	18.12	88.20

STRANDED

1893	37F1654	2	22	7/30	.135"	4.41	17.01
*1894	37F1655	3	22	7/30	.145"	5.52	24.49
*1894/4	37F1656	4	22	7/30	.170"	7.48	34.18
1895	37F1657	2	20	10/30	.180"	5.04	21.97
1896	36F1658	3	20	10/30	.190"	8.58	39.76
1896/4	37F1659	4	20	10/30	.215"	10.24	47.88
1897	37F1660	2	18	16/30	.200"	6.85	31.03
1898	37F1661	3	18	16/30	.210"	10.87	51.19
1898/4	37F1662	4	18	16/30	.240"	14.88	71.19
1899	37F1663	2	16	26/30	.225"	9.61	45.67
1899/3	37F1664	3	16	26/30	.245"	16.86	77.80
1899/4	37F1665	4	16	26/30	.270"	22.68	107.10
1891	37F1666	2	14	41/30	.260"	16.23	77.97
1891/3	37F1667	3	14	41/30	.280"	21.66	105.21
1892	37F1668	2	12	65/30	.300"	22.53	110.25
1892/3	37F1669	3	12	65/30	.320"	33.87	166.95

SHIELDED MICROPHONE CABLE
Neoprene Jacket—Heavy Duty

Each conductor stranded tinned copper, color coded rubber insulation, cotton wrap, braided tinned copper shield, cotton wrap, tough black neoprene jacket overall. Shielded microphone and electronic power cable. Control circuits. Video and Audio interconnecting cable. Oil and acid resistant. Will resist aging and rough usage All .035" nom. jacket thickness.

Alpha No.	Stock No.	No. Cond.	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	500 Feet
1449	37F689	1	18	41/34	.240"	19.96	96.52
1450	37F690	2	18	41/34	.295"	26.23	128.70
1451	37F691	3	18	41/34	.305"	48.51	222.75
1452	37F692	4	18	41/34	.330"	59.40	277.20
1450/16	37F470	2	16	65/34	.335"	69.13	235.87
1451/16	37F471	3	16	65/34	.355"	60.72	283.80
1452/16	37F472	4	16	65/34	.385"	69.13	225.87

NEWARK — YOUR ONE-POINT SOURCE
FOR ALL YOUR ELECTRONIC NEEDS

Audio, Control & Instrumentation Cable

SHIELDED AUDIO & DATA CABLE

INDIVIDUALLY Shielded Multiple Pairs—Plastic Jacket

For audio, R.F. and pulse applications requiring superior circuit isolation. Each conductor tinned copper, color coded, high density polyethylene, .010 wall thickness conductors twisted into pairs, 22 gauge tinned copper drain wire. Mylar supported aluminum foil shield. Chrome grey PVC jacket overall.

No. 22 SOLID

Alp. No.	Stock No.	No. Cond.	Cond. Strand	Nom. Jkt. Thick. (In.)	Nom. O.D.(In.)	100 Feet	500 Feet
6000	37F1535	6	1	.025	.235	13.39	63.63
6002	37F1536	12	1	.030	.318	23.23	113.01
6004	37F1537	18	1	.030	.371	32.61	159.87
6006	37F1538	22	1	.035	.414	38.59	222.07
6008	37F1539	30	1	.040	.485	50.40	248.07

No. 22 STRANDED

Alp. No.	Stock No.	No. Cond.	Cond. Strand.	Nom. Jkt. Thick. (In.)	Nom. O.D.(In.)	100 Feet	500 Feet
6010	37F1540	6	7/30	.025	.252	14.34	68.52
6012	37F1541	12	7/30	.030	.342	26.31	128.37
6014	37F1542	18	7/30	.035	.410	38.59	190.57
6016	37F1543	22	7/30	.040	.457	44.89	222.87
6018	37F1544	30	7/30	.040	.523	59.38	263.02
6020	37F1545	38	7/30	.050	.570	81.75	407.14
6022	37F1546	54	7/30	.055	.687	119.70	592.20

CONTROL AND INSTRUMENTATION CABLE

MULTI-CONDUCTOR SHIELDED PLASTIC CABLE PER MIL-W-16878D

Each conductor stranded tinned copper. Color coded, polyvinylchloride insulation, cabled. mylar wrap. Braided tinned copper shield 90% coverage, chrome gray polyvinylchloride jacket overall. Temperature rating: —55°C to +105°C. Resistant to acids, alkalis, oils, flame, moisture, fungus, and solvents. May be used as interconnecting cables for electronic equipment, instrumentation and control cable, for telemetry data, or for remote control of sensitive recording instruments.

Miniature Shield Control Cable—600 Volt

All: Cond. Sz., B-28; Cond. Strand, 7/36; .010" insul. thick.

Alpha No.	Stock No.	Cond. No.	Nom. Jacket	Nom. O.D.	100 Feet	1000 Feet
3302	37F1272	2	.012"	.125"	11.65	108.99
3303	37F1273	3	.012"	.130"	15.36	145.53
3304	37F1274	4	.012"	.140"	18.58	177.66
3306	37F1275	6	.015"	.170"	23.47	227.11
3308	37F1276	8	.015"	.175"	26.62	258.61
3310	37F1277	10	.018"	.210"	33.63	328.39
3312	37F1278	12	.018"	.215"	38.74	371.70
3315	37F1279	15	.020"	.230"	46.62	451.71
3320	37F1280	20	.022"	.260"	57.96	563.85

Heavy Duty Shielded Control Cable—1000 Volt

All: Cond. Sz., B-28; Cond. Strand, 7/36; .010" insul. thick.

3405	37F1281	5	.025"	.300"	47.25	458.01
3410	37F1282	10	.035"	.405"	83.47	819.00
3415	37F1283	15	.040"	.470"	113.40	1118.25
3420	37F1284	20	.045"	.530"	152.00	1512.00
3430	37F1285	30	.050"	.650"	228.37	2236.50

SHIELDED PLASTIC JACKET CABLE SPIRAL WRAPPED COPPER SHIELD

Each conductor stranded or solid tinned copper, color coded polyvinylchloride insulation, conductors twisted, spiral wrapped copper shield, gray polyvinylchloride jacket overall. Provides close to 100% shielded coverage for audio and RF frequencies.

† 2256/1 formerly 2156, 2256/3 formerly 3256. .020 wall jacket.

Alpha No.	Stock No.	No. Cond.	Cond. Size	Cond. Strand	Nom. O.D.	100 Feet	500 Feet
2254	37F1086	2	22	7/30	.195"	5.83	27.88
2254/3	37F1087	3	22	7/30	.190"	8.19	37.72
2255	37F1088	2	22	Solid	.170"	5.04	24.01
2256/1†	37F1089	1	20	10/30	.130"	5.04	24.10
2256	37F1090	2	20	10/30	.195"	6.06	29.22
2256/3†	37F1091	3	20	10/30	.210"	8.50	39.45
2258	37F1092	2	18	16/30	.230"	7.63	35.13
2258/3	37F1093	3	18	16/30	.235"	10.08	47.10

SHIELDED PLASTIC JACKETED CABLE

Braided Copper Shield

Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted, braided copper shield—gray polyvinylchloride jacket overall. Suitable for outdoor installation. A conventional type of braided shield providing approximately 75% coverage is particularly desirable where flexibility is required. All have .016" wall except 1750 and 1751—.020". 350 V. suggested working voltage except (*) 450 V.

Stranded

Alp. No.	Stock No.	No. Cond.	Cond. Size	Cond. Strand	Nom. O.D.	100 Feet	500 Feet
1736	37F1075	2	22	7/30	.185"	7.56	34.50
1737	37F1076	3	22	7/30	.200"	10.00	46.69
1738	37F1299	4	22	7/30	.210"	12.76	60.79
1741	37F1077	2	20	10/30	.200"	9.52	44.58
1742	37F1078	3	20	10/30	.220"	11.97	56.70
1743	37F1407	4	20	10/30	.230"	17.49	85.05
1746	37F1079	2	18	16/30	.240"	12.13	58.12
1747	37F1080	3	18	16/30	.245"	17.25	83.95
1748	37F1081	2	16	26/30	.250"	17.25	83.86
1749	37F1408	3	16	26/30	.255"	23.63	115.77
1750*	37F1082	2	14	41/30	.290"	23.16	113.40
1751*	37F1409	3	14	41/30	295"	32.76	157.50

SHIELDED MULTI-CONDUCTOR CABLE

Plastic Jacket—Heavy Duty

Gray polyvinylchloride jacket overall. .035" jacket. .014" wall thickness. Suggested operating voltage 600V.

1712	37F1515	2	20	26/34	.230"	11.97	56.85
1713	37F1410	3	20	26/34	.250"	11.97	56.77
1715	37F1411	4	20	26/34	.260"	13.86	66.07
1716	37F473	5	20	26/34	.275"	15.91	76.23
1717	37F474	6	20	26/34	.300"	31.50	155.14
1719	37F475	8	20	26/34	.330"	40.48	200.02
1721	37F476	10	20	26/34	.375"	50.40	248.85
1723	37F1516	12	20	26/34	.380"	78.75	390.00
1726	37F1517	15	20	26/34	.410"	124.42	606.37
1728	37F1518	20	20	26/34	.455"	160.65	787.50

SHIELDED PLASTIC JACKETED CABLE MYLAR SUPPORTED ALUMINUM FOIL SHIELD

Each conductor tsranded tinned copper, color coded polyethylene insulation. Conductors cabled, wrapped mylar supported aluminum foil shield, 100% coverage, with drain wire laid parallel. Aluminum foil facing outward to provide maximum grounding contact. Chrome gray polyvinylchloride jacket overall. Temperature rating: —20°C to +60°C. Voltage rating: 400 V. Wall thickness: .016". Jacket thickness: .020".

Alpha No.	Stock No.	No. Cond.	Cond. Size	Cond. Strand	Nom. O.D.	100 Feet	500 Feet
2402	37F1286	2	22	7/30	.195	4.89	21.10
2403	37F1287	3	22	7/30	.210	5.91	26.31
2404	37F1288	4	22	7/30	.225	9.76	45.60
2412	37F1289	2	20	10/30	.210	5.83	25.83
2413	37F1290	3	20	10/30	.225	7.17	32.68
2414	37F1291	4	20	10/30	.240	11.73	55.44
2422	37F1292	2	18	16/30	.230	6.69	30.31
2423	37F1293	3	18	16/30	.245	8.82	41.02
2424	37F1294	4	18	16/30	.265	13.39	64.74
2432	37F1531	2	16	26/30	.255	12.52	60.24
2433	37F1532	3	16	26/30	.275	16.38	79.30
2443	37F1533	2	14	41/30	.290	17.17	83.47
2442	37F1534	3	14	41/30	.310	23.16	113.47

SHIELD MULTI-CONDUCTOR CABLE

Neoprene Jacket—Heavy Duty

Designed for outdoor rough usage as interconnecting cables for electronic equipment, control cables for generator units, video and audio interconnecting cables, and for ground support equipment related to guided missile systems. .035 jacket.

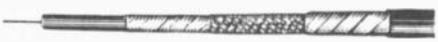
Alp. No.	Stock No.	No. Cond.	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	500 Feet
1454	37F693	6	18	41/34	.370"	82.17	391.05
1456	37F478	8	18	41/34	.420"	108.07	520.57
1458	37F479	10	18	41/34	.480"	132.33	641.85
1459	37F480	12	18	41/34	.555"	181.50	872.85

ALPHA WIRE

RUBBER & NEOPRENE JACKETED CABLE

SHIELDED CONTROL CABLE

Rubber Insulated — Rubber Jacket



General purpose multi-conductor. For control circuits, video and audio interconnecting cable, broadcast and heavy duty studio use. Each conductor stranded tinned copper, color coded rubber insulation. Black rubber jacket over cotton wrap and braided tinned copper shield. Suggested operating temperature: —20°C to +60°C. Wall thickness: .020".

Alp. No.	Stock No.	No. Cond.	Cond. Size	Cond. Strand	Nom. O.D.	100 Feet	500 Feet
1250/18	37F1519	2	18	41/34	.295"	22.21	108.67
1250	37F1520	2	20	26/34	.270"	13.71	66.22
1251	37F1521	3	20	26/34	.285"	15.19	73.63
1252	37F1522	4	20	26/34	.305"	17.17	83.47
1253	37F1523	5	20	26/34	.330"	22.21	108.67
1254	37F1524	6	20	26/34	.345"	27.40	130.72
1255	37F1525	7	20	26/34	.355"	30.24	146.47
1255/8	37F1526	8	20	26/34	.385"	33.87	164.59
1255/10	37F1527	10	20	26/34	.440"	69.30	330.75
1255/12	37F1528	12	20	26/34	.525"	96.07	464.62
1255/15	37F1529	15	20	26/34	.595"	124.42	606.37
1255/20	37F1530	20	20	26/34	.660"	154.35	756.00

BIRNBACH

BIRFLON TFE TEFLON EXTRUDED TUBING

Extruded from DuPont Tetrafluoroethylene Resin. Used in electronic and electrical equipment for connection of components. High temperature Class C insulation. Thin Wall can be processed into flexible and rigid printed circuits. Low power factor, low dielectric constant, high volume and surface resistivity, good dielectric strength (500 to 1000 V/MIL). U.I. approved. Color: Natural only. Other colors available on special order.

STANDARD WALL — MIL-1-22129C

Type	Stk. No.	B&S Gauge Size No.	Nom. I.D.	Per 100' Spool 1-9	10-49	50-up
T550-24	36F1500	24	.022	5.55	4.80	4.45
T550-22	36F1501	22	.027	6.15	5.35	4.90
T550-20	36F1502	20	.034	6.90	6.00	5.50
T550-18	36F1503	18	.042	8.55	7.40	6.85
T550-16	36F1504	16	.053	10.50	9.10	8.40
T550-14	36F1505	14	.066	12.75	11.05	10.20
T550-12	36F1506	12	.085	15.75	13.65	12.60
T550-10	36F1507	10	.106	19.50	16.90	15.60
T550- 8	36F1508	8	.133	24.00	20.80	19.20
T550- 6	36F1509	6	.166	30.00	26.00	24.00
T550- 4	36F1510	4	.234	36.75	31.80	29.40
T550- 2	36F1511	2	.263	45.75	39.60	36.60
T550- 0	36F1512	0	.330	57.00	49.40	45.60

THIN WALL MIL-1-22129C

Type	Stk. No.	B&S Gauge Size No.	Nom. I.D.	Per 100' Spool 1-9	10-49	50-up
T500-32	36F1513	32	.011	3.95	3.00	2.85
T500-30	36F1514	30	.012	3.45	2.95	2.75
T500-28	36F1515	28	.015	3.80	3.30	3.05
T500-26	36F1516	26	.018	4.20	3.65	3.35
T500-24	36F1517	24	.022	4.65	4.05	3.70
T500-22	36F1518	22	.027	5.10	4.40	4.10
T500-20	36F1519	20	.034	5.70	4.95	4.55
T500-18	36F1520	18	.042	7.20	6.25	5.75
T500-16	36F1521	16	.053	8.70	7.55	6.95
T500-14	36F1522	14	.066	10.65	9.25	8.55
T500-12	36F1523	12	.085	13.35	11.55	10.70
T500-10	36F1524	10	.106	16.10	13.95	12.90
T500- 8	36F1525	8	.133	20.55	17.80	16.45
T500- 6	36F1526	6	.166	24.45	21.20	19.55
T500- 4	36F1527	4	.208	29.55	25.60	23.65
T500- 2	36F1528	2	.263	39.45	34.20	31.55
T500- 0	36F1529	0	.330	52.00	45.10	41.65
T500- 3/8	36F1530	3/8	.390	76.50	66.35	61.25
T500- 7/16	36F1531	7/16	.453	84.00	72.75	67.25
T500- 1/2	36F1532	1/2	.515	96.00	83.20	76.75

EXTRUDED PLASTIC TUBING

Approved for 105°C operation, this tubing meets MIL specs 1-631-D. A quality plastic vinyl tubing designed for electronic and electrical insulation work. High dielectric strength, extreme flexibility, non-flammability, abrasion resistance, impervious to oil, water, alkalies, alcohol, solvents, etc. High heat stability and resistance to aging.

Stock Colors, Specify Color: 1—Clear 2—Black 3—White

Stk. No.	Type	B & S Gauge	Nom. I.D.	Nom. Wall	Per 100' Coil 1-9	10-49	50-Up
36F1624	B105-24	24	.022	.012	1.61	1.30	1.08
36F1625	B105-22	22	.027	.012	1.62	1.31	1.09
36F1626	B105-20	20	.034	.016	1.66	1.35	1.11
36F1627	B105-18	18	.042	.016	1.73	1.38	1.14
36F1628	B105-16	16	.053	.016	1.85	1.46	1.21
36F1629	B105-14	14	.066	.016	1.99	1.54	1.28
36F1630	B105-12	12	.085	.016	2.14	1.66	1.38
36F1631	B105-10	10	.106	.016	2.31	1.85	1.55
36F1632	B1C5-8	8	.133	.020	3.39	2.66	2.23
36F1633	B105-6	6	.166	.020	3.91	3.02	2.57
36F1634	B105-4	4	.208	.020	4.58	3.47	2.84

Stk. No.	Type	B& S Gauge	Nom. I.D.	Nom. Wall	Per 100' Coil 1-9	10-49	50-99
36F1635	B105-2	2	.263	.020	5.34	4.00	3.32
36F1636	B105-0	0	.330	.020	6.23	4.64	3.89
36F1637	B105-3/8"	3/8"	.375	.025	8.59	6.41	5.49
36F1638	B105-1/2"	1/2"	.500	.025	10.64	8.07	6.87
36F1639	B105-5/8"	5/8"	.625	.030	15.30	11.73	9.83
36F1640	B105-3/4"	3/4"	.750	.035	21.12	16.09	13.44

Stk. No.	Type	B & S Gauge	Nom. I.D.	Nom. Wall	Per 50' Coil 1-9	10-49	50-99
36F1641	B105-1"	1"	1.000	.035	13.27	10.26	8.50
36F1642	B105-1 1/4"	1 1/4"	1.125	.040	18.39	14.29	11.95
36F1643	B105-1 1/2"	1 1/2"	1.500	045	23.84	18.39	15.56
36F1644	B105-2"	2"	2.000	.060	40.84	31.31	28.56
36F1645	B105-2 1/2"	2 1/2"	2.500	.070	57.56	43.65	37.03

VINYL COATED/FIBERGLASS SLEEVING

Class B insulation of non-organic fiberglass and heat resistant plastic with a temperature rating of 130°C. Dielectric strength 4000 V. Meets spec for MIL-1-3190. **Stocked in Black only.**

Stk. No.	Type	Nom. I.D.	Per 100' Spool 1-4	5-9
36F1646	B130-24	.022	4.79	3.90
36F1647	B130-22	.027	5.05	3.90
36F1648	B130-20	.037	5.12	4.00
36F1649	B130-18	.042	5.21	4.15
36F1650	B130-16	.053	5.43	4.35
36F1651	B130-14	.066	5.62	4.70
36F1652	B130-12	.085	6.11	4.95
36F1653	B130-10	.106	6.86	5.45
36F1654	B130-8	.133	7.51	6.05
36F1655	B130-6	.166	8.42	7.25
36F1656	B130-4	.208	10.24	8.75
36F1657	B103-2	.263	12.88	10.95
36F1658	B130-0	.330	16.50	14.70
36F1659	B130-3/8	3/8"	21.05	18.60
36F1660	B130-1/2	1/2"	36.39	31.10
36F1661	B130-3/4	3/4"	53.72	46.00

Birnbach Brand Rex Wire & Cable

TELEVISION CAMERA CABLES — MONOCHROME AND COLOR

This cable has been furnished as standard equipment with leading monochrome and color cameras for better than ten years. Distortion free transmission for sharper more detailed color and monochrome pictures. Stable operation over a wide range of temperatures. Abrasion resistant sound absorbent jacket. Individual wires that are color coded. Weather and moisture resistant. Stable electrical characteristics even when bent, compressed and twisted.

Min. Order 50 Ft.

Stk. No.	Type	Application	Material	Max. O.D.	Approx. wt. (lbs./ft.)	Price/foot 50'-249'	Price/foot 250'-499'
36F1671	BR-23/M	mono or color	PVC	.680"	.33	2.10	1.05
36F1672	BR-25/M	mono or color	Neoprene	.865"	.41	2.98	1.48
36F1673	BR-33/M	mono or color	Neoprene	.800"	.41	3.00	1.50
36F1674	BR-79/C	color	Neoprene	1.075"	.83	5.50	2.75
36F1675	BR-81/C	color	Neoprene	1.100"	.86	5.50	2.75
36F1676	BR-82/C	color	Neoprene	1.280"	.92	5.60	2.80

Color Coding for All Items on This Page—Specify Color.

1. Brown 2. Red 3. Orange 4. Yellow 5. Green 6. Light Blue 7. Violet 8. Gray 9. White 10. Black 13. Dark Blue

VINYL HOOK-UP WIRE — TYPE B, 600V UNCOVERED

Vinyl insulation. Oper. temp: —55°-105°C. Nom. wall .010. Nom. O.D. .051. **Colors 1-10. Specify colors. MIL-W-16878D**

Stk. No.	Type No.	AWG Size	Stranding	100'	1000' Spools Net Each 1-4	1000' Spools Net Each 5-9
36F1595	HH280907	28	7/36	1.46	8.58	5.72
36F1596	HH260907	26	7/34	1.58	9.90	6.60
36F1597	HH241019	24	19/36	1.84	10.90	7.31
36F1598	HH221019	22	19/34	1.91	11.55	7.70
36F1599	HH201019	20	19/22	2.03	14.06	9.35
36F1600	HH181019	18	19/30	2.24	16.41	10.94
36F1601	HH161019	16	19/29	2.41	18.97	12.65
36F1602	HH141019	14	19/27	3.76	31.92	21.28

VINYL-NYLON JACKETED HOOK UP WIRE

Vinyl insulation with nylon jacket. Type BN. Jkt. thick: .003 Max. O.D. .069. Temp. —55°-105°C. **Specify colors 1-10. MIL-W-16878D**

Stk. No.	Type No.	AWG Size	Stranding	100'	Net Per 1000' 1-4	Net Per 1000' 5-9
36F1603	HH241019N	24	19/36	2.03	14.68	9.74
36F1604	HH221019N	22	19/34	2.30	16.83	11.22
36F1605	HH201019N	20	19/32	2.36	17.49	11.66
36F1606	HH181019N	18	19/30	2.81	21.28	14.19
36F1607	HH161019N	16	19/29	2.98	23.67	15.78

TEFLON HOOK UP WIRE — TYPE E

Teflon TFE insulation. Operating temp. —65° - 260°C. Nom. O.D. .052. **Colors 1-10. Specify colors. MIL-W-16878D**

Stk. No.	Type No.	AWG Size	Stranding	100'	Net Per 1000' 1-4	Net Per 1000' 5-9
36F1608	33261019	26	19/38	5.82	53.65	36.10
36F1609	33241007	24	7/32	5.35	48.90	32.60
36F1610	33241019	24	19/36	6.10	56.10	37.40
36F1611	33221019	22	19/34	6.70	62.25	41.50
36F1612	33201007	20	7/28	6.62	61.67	41.25
36F1613	33201019	20	19/32	7.52	70.20	46.80
36F1614	33181019	18	19/30	10.95	99.15	66.10

TEFLON COAXIAL CABLE

Teflon TFE core dielectric. Silver coated, copper covered steel. For high temperature and severe environment. MIL-C-17D

Stk. No.	Type No.	Finished Max. O.D.	Inner Conductor	100'	500'	1000'
36F1662	RG178B/U	.075	7/.0040	16.55	82.25	109.91
36F1663	RG179B/U	.105	7/.0040	26.30	131.00	157.00
36F1664	RG180B/U	.145	7/.0040	36.20	180.50	281.00
36F1665	RG187A/U	.110	7/.0040	23.60	117.50	164.44
36F1666	RG188/U	.110	7/.0040	24.25	121.75	174.88
36F1667	RG188A/U	.110	7/.0067	23.15	115.25	163.88
36F1668	RG195/U	.155	7/.0067	41.60	207.50	275.61
36F1669	RG195A/U	.155	7/.0040	40.40	201.50	263.61
36F1670	RG196A/U	.080	7/.0040	19.10	95.00	114.84

UL APPROVED SEMI-RIGID HOOK UP WIRE

Style 1061, 300 Volt, 80°C (.010 wall) Vinyl insulation—80°C. For wiring of computer back panel boards, etc. **Specify colors 1-5, 9, 10, 13.**

Stk. No.	Type No.	AWG Size	Strand	Nom. O.D.	100 Ft.	1000' Spools Net Per 1000 1-4	1000' Spools Net Per 1000 5-9
36F1615	RO2610	solid	26	.038	1.58	10.20	6.60
36F1616	RO2410	solid	24	.042	1.82	10.76	7-11
36F1617	RO2210	solid	22	.047	1.63	10.06	6.71
36F1618	RO2010	solid	20	.053	1.92	11.29	7.53
36F1619	RO1810	solid	18	.061	1.95	11.59	7.83
36F1620	RR261007	7/34	26	.041	1.16	9.43	6.39
36F1621	RR241007	7/32	24	.045	1.33	7.47	5.08
36F1622	RR221007	7/30	22	.051	1.46	8.82	5.98
36F1569	RR201010	10/30	20	.057	1.58	7.27	6.25
36F1570	RR181016	16/30	18	.066	1.11	7.62	7.10
36F1623	RR161026	26/30	16	.072	1.79	11.90	8.47

EDP HOOK-UP WIRE—105°C

Teflon TFE and FEP insulation. Long life, maintenance free operation, and high reliability, TFE insulation. **Color white only.**

Stk. No.	Type No.	AWG Size	Strand	Nom. O.D.	100	Net Per 1000'
36F1571	202610	Solid	26	.036	3.55	34.50
36F1572	202410	Solid	24	.042	4.24	41.40
36F1573	202210	Solid	22	.045	4.93	48.30
36F1574	202010	Solid	20	.051	5.80	57.00
36F1575	22261007	7/34	26	.039	4.63	45.30
36F1576	22261019	19/38	26	.040	5.60	54.95
36F1577	22241007	7/32	24	.044	4.80	46.95
36F1578	22241019	19/36	24	.047	5.50	54.00
36F1579	22221007	7/30	22	.050	5.23	51.30
36F1580	22221019	19/34	22	.051	6.09	59.85
36F1581	22201007	7/28	20	.058	6.28	61.75
36F1582	22201019	19/32	20	.060	6.90	67.95
FEP INSULATION						
36F1583	FO2610	26	Solid	.036	2.80	27.50
36F1584	FO2410	24	Solid	.042	3.22	31.20
36F1585	FO2210	22	Solid	.045	3.57	34.65
36F1586	FO2010	20	Solid	.051	4.15	40.50
36F1587	FF261007	26	7/34	.039	3.33	32.25
36F1588	FF261019	26	19/38	.040	3.81	37.05
36F1589	FF241007	24	7/32	.044	3.85	37.50
36F1590	FF241019	24	19/36	.047	3.93	38.25
36F1591	FF221007	22	7/30	.050	4.26	41.55
36F1592	FF221019	22	19/34	.051	4.38	42.75
36F1593	FF201007	20	7/28	.058	5.19	50.85
36F1594	FF201019	20	19/32	.060	5.49	53.85

RUBBER KINKLESS TEST LEAD WIRE (SPECIFY COLOR, BLACK OR RED)

Extremely flexible and limp. Excellent dielectric properties. Of annealed tinned copper. **Specify color: black or red.** *Mil Type MIL-W-13169B. WS16/U Black, WS17/U Red.

Type	Size AWG	Strand	Nom. O.D.	Stk. No.	100'	Stk. No.	250'	Stk. No.	500'	Stk. No.	1000'
61	20	41/36	.137"	36F1553A	3.00	36F1553E	7.28	36F1553F	14.10	36F1553	26.40
66	18	65/36	.145"	36F1554A	3.60	36F1554E	8.28	36F1554F	15.15	36F1554	28.80
70*	18	65/36	.145"	36F1555A	3.96	36F1555E	9.10	36F1555F	16.67	36F1555	31.68

PLASTIC KINKLESS TEST LEAD WIRE (SPECIFY COLOR)

Vinyl compound insulation allows maximum flexibility. One conductor tinned copper stranded. **Specify color: Black, red, yellow, green, white, blue.** MIL-1-3930A Type UP (PVC).

Type	Size AWG	Strand	Nom. O.D.	Stk. No.	100'	Stk. No.	250'	Stk. No.	500'	Stk. No.	1000'
1922	22	26/36	.100"	36F1556A	4.53	36F1556E	10.08	36F1556F	19.64	36F1556	38.52
1920	20	26/34	.104"	36F1557A	5.62	36F1557E	12.80	36F1557F	24.89	36F1557	49.04
1918	18	65/36	.112"	36F1558A	6.27	36F1558E	14.38	36F1558F	28.03	36F1558	54.96
1916	16	65/34	.129"	36F1559A	9.37	36F1559E	22.28	36F1559F	43.24	36F1559	84.79

Birnbach Retractile Cords

POWER RETRACTILE COILED CORDS

Stranded copper conductors with rubber insulation. For appliances and tools. 2 and 3 conductor, 18 gauge at 7 amps, 300V. 4 conductor 18 gauge at 5.3 amps and 300V. Two and 3 conductor, 16 gauge at 10 amps, 300V. Retracted lengths, 1, 2 and 4 ft., extended to 6, 12 and 25 feet.

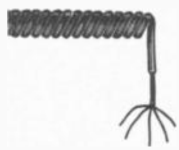
Stk. No.	Type	Cond/Size/Length	1-24	25-99	100-249	250-499
36F1400	886-1	2/18 ga 12" SVO	1.16	1.05	.94	.83
36F1401	889/3-2	3/18 ga 12" SJO	1.75	1.58	1.42	1.25
36F1402	891/3-1	3/16 ga 12" SJO	1.78	1.61	1.43	1.25

Stk. No.	Type	Cond/Size/Length	1-24	25-49	50-99	100-Up
36F1403	886-2	2/18 ga 2' SVO	3.25	2.28	1.95	1.76
36F1404	889-2	2/18 ga 2' SJO	4.25	2.98	2.55	2.30
36F1405	889/3-2	3/18 ga 2' SJO	4.88	3.42	2.93	2.64
36F1406	889/4-2	4/18 ga 2' SJO	5.88	4.12	3.53	3.18
36F1407	891-2	2/16 ga 2' SJO	5.00	3.58	3.00	2.70
36F1408	891/3-2	3/16 ga 2' SJO	4.75	3.33	2.85	2.57
36F1409	886-4	2/18 ga 4' SVO	6.50	4.55	3.90	3.51
36F1410	889-4	2/18 ga 4' SJO	10.50	7.35	6.30	5.67
36F1411	889/3-4	3/18 ga 4' SJO	13.75	9.63	8.25	7.43
36F1412	889/4-4	4/18 ga 4' SJO	14.75	10.33	8.85	7.97
36F1413	891-4	2/16 ga 4' SJO	14.25	9.98	8.55	7.70
36F1414	891/3-4	3/16 ga 4' SJO	17.25	12.08	10.35	9.32

COMMUNICATION COILED CORDS

SHIELDED

Individual shields eliminate external interference. Extra flexible #23 AWG-21/36 rated at 1 amp, 120V, and have rubber jacket. For microphones, headsets, etc. Retracted lengths 1, 2 and 4 ft., extend to 6, 12 and 25 feet.



Stk. No.	Type	Cond/Size/Length	1-24	25-99	100-249	250-499
36F1415	2323R-11½	3/23 ga 1 sh 11½"	1.61	1.45	1.30	1.14
36F1416	2124R-7½	1/24 ga sh 7½"	1.08	.98	.88	.78
36F1417	2423R-12	4/23 ga 2 ind sh 12"	1.90	1.72	1.53	1.34
36F1418	895-2	1/24 ga sh 2'	3.58	3.22	2.87	2.52
36F1419	896-2	2/1-23 1-24 sh 2'	4.95	4.46	3.96	3.47
36F1420	897-2	3/2-23 1-24 sh 2'	7.15	6.44	5.72	5.01
36F1421	898-2	4/2-23 2-24 ind sh 2'	8.31	7.48	6.66	5.83
36F1422	895	1/24 ga sh 4'	11.25	7.88	6.75	6.08
36F1423	896	2/1-23 1-24 sh 4'	16.25	11.38	9.75	8.78
36F1424	897	3/2-23 1-24 sh 4'	22.50	15.75	13.50	12.29
36F1425	898	4/2-23 2-24 ind sh 4'	24.50	17.15	14.70	13.23
		TINSEL				
36F1426	2428R-12 TIN	4/28 ga 12" 1 sh	1.76	1.60	1.43	1.27
36F1427	2528R-12 TIN	5/28 ga 12" 1 sh	1.98	1.78	1.58	1.39

UNSHIELDED

Extra flexible conductors rated at 1 amp and 120V. Jacket is long-life rubber compound for good flexibility. Used in communications equipment to eliminate hazards caused by tangled straight cords. Retracted lengths 1, 2 and 4 feet extend to 6, 12 and 25 ft.

Stk. No.	Type	Cond/Size/Length	1-24	25-49	50-99	100-Up
36F1428	1428R-12	4/28 ga 12"	3.88	2.72	2.33	2.10
36F1429	1423R-11½	4/23 ga 11½"	4.50	3.15	2.70	2.43
36F1430	1523R-11½	5/23 ga 11½"	5.25	3.68	3.15	2.84
36F1431	875-2	2/23 ga 2'	7.00	4.90	4.20	3.78
36F1432	876-2	3/23 ga 2'	6.50	4.55	3.90	3.51
36F1433	877-2	4/23 ga 2'	9.00	6.30	5.40	4.86
36F1434	878-2	5/23 ga 2'	9.50	6.65	5.70	5.13
36F1435	875-4	2/23 ga 4'	12.75	8.93	7.65	6.89
36F1436	876-4	3/23 ga 4'	5.50	4.95	4.40	3.85
36F1437	877-4	4/23 ga 4'	6.60	5.94	5.28	4.62
36F1438	878-4	5/23 ga 4'	8.70	7.83	6.96	6.09
36F1450	878-4	6/23 12'	12.75	8.43	7.65	6.89
36F1451	878/6-4	6/23 25'	15.50	10.85	9.30	8.37
36F1452	878/7-2	7/23 12'	9.63	6.14	5.78	5.20
36F1453	878/7-4	7/23 25'	17.50	12.25	10.50	9.45

TINSEL CONDUCTORS

36F1439	1428R-12 TIN	4/28 ga 12"	1.55	1.40	1.24	1.16
36F1440	1528R-12 TIN	5/28 ga 12"	1.65	1.49	1.32	1.09

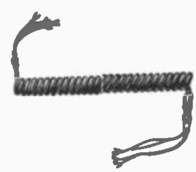
MINIATURE RETRACTILE TEST LEADS

Type 1120R-8. Single conductor rubber jacket. 12 inch retracted length, with 6 in. straight lead and extend to 6 ft., available in red or black specify color. Type **875/28** and **877/28** are manufactured of polyvinylchloride. 2 ft. retracted length with 6 in. straight lead ends extend to 10 ft.

Stk. No.	Type	Cond/Size/Length	1-24	25-49	50-99	100-Up
36F1442	64-Blk. or Red	1/20 ga 8" Rubber	1.75	1.23	1.05	.95
36F1443	875/28	2/28 ga 2' PVC	7.65	5.36	4.59	4.13
36F1444	877/28	4/28 ga 2' PVC	8.45	5.92	5.07	4.56

TELEPHONE REPLACEMENT RETRACTILE CORDS

Replace old cords or extend your present headset to 35'. Includes all hardware and instructions. Also available are cords to extend or replace the wire connecting the telephone to the wall outelt. Choice of colors, specify white, beige or black when ordering.



Stk. No.	Type	Length (extended)	1-24	25-99
36F1445	0500- 4.5	4½'	1.32	1.19
36F1446	0500- 9	9'	2.48	2.23
36F1447	0500-15	15'	3.85	3.47
36F1448	0500-25	25'	6.05	5.45
36F1449	0500-35	35'	8.25	7.43

RETRACTILE POWER CORD SETS

Excellent for portable use. All mobile equipment and office equipment wherever the device application is synonymous with repetitive movement. The answer to most tough hazard problems. 2 and 3 conductors SVO and SJO retractile cord sets with molded male plug on one end, the other is stripped. Adds reliability, compactness and portability. Retracted, 18", extendeds to 9'.

Stk. No.	Type	Conduct./AWG size	Strand	1-24	25-49	50-99	100-Up
36F1454	881	2/18	41/34	4.63	3.24	2.78	2.50
36F1455	881/3	3/18	41/34	7.13	4.99	4.28	3.85
36F1546	882	2/16	65/34	5.00	3.50	3.00	2.70
36F1457	882/3	3/16	65/34	8.25	5.78	4.95	4.46

BELDEN Mil Spec and U/L Hookup Wire

MIL-W-76B TYPE MW — VINYL AND VINYL-NYLON — 1000V

Tinned copper conductor with vinyl insulation rated at 80°C, except +nylon-jacketed vinyl, rated to 90°C. Flame and ozone resistant; inert to most chemicals, oil and solvents. Specify color and color No. when ordering—SEE CHART BELOW. ***For Tracer colors add .12 per 100 ft.**

MW VINYL

MW VINYL NYLON

TYPE B

Type	Mil. No.	AWG	Nom. O.D."	100' Spools Stk. No.	Net	500' Spools Stk. No.	Net	1000' Spools Stk. No.	Net	Stock Colors*
8525	MW-C-24-7U	24(7x32)	.058	36F641A	1.34	36F641F	4.60	36F641	8.55	1-22
8530	MW-C-22-1U	22(solid)	.059	36F640A	1.23	36F640F	4.05	36F640	7.80	1-22
8524	MW-C-22-7U	22(7x30)	.064	36F660A	1.47	36F660F	5.40	36F660	10.05	1-22
8537+	MW-C-22-7J	22(7x30)	.069	36F633A	2.16	....	.	36F633	14.95	1-10 14-22
8529	MW-C-20-1U	20(solid)	.066	36F650A	1.47	36F650F	5.20	36F650	9.75	1-22
8523	MW-C-20-10U	20(10x30)	.070	36F670A	1.67	36F670F	6.10	36F670	11.35	1-22
8536+	MW-C-20-10J	20(10x30)	.076	36F634A	2.28	....	....	36F634	17.35	1.10
8528	MWC-18-1U	18(solid)	.074	36F642A	1.86	36F642F	7.00	36F642	13.30	1-13
8522	MW-C-18-16U	18(16x30)	.080	36F690A	2.10	36F690F	8.10	36F690	15.60	1-22
8535+	MW-C-18-16J	18(16x30)	.086	36F635A	3.20	....		36F635	22.75	1-10
8521	MW-C-16-26U	16(26x30)	.098	36F632A	2.81	36F632F	11.20	36F632	21.90	1-22
8520	MW-C-14-41U	14(41x30)	.111	36F643A	4.00	36F643F	18.00	36F643	33.75	1-22
8527	MW-C-12-65U	12(65x30)	.130	36F644A	5.70	36F644F	24.75	36F644	47.25	1-10

COLOR CODING

First color in stripe combination is body color and second color is tracer. **Specify color when ordering. All colors are not available in all types. See stock color columns.**

1. Brown
2. Red
3. Orange
4. Yellow
5. Green
6. Light Blue
7. Violet
8. Gray
9. White
10. Black
11. Tan
12. Pink
13. Dark Blue

Tracer colors Add .12/100 ft.

14. White/Black
15. White/Red
16. White/Green
17. White/Yellow
18. White/Blue
19. White/Brown
20. White/Orange
21. White/Gray
22. White/Violet

MIL-W-16878D TYPE B VINYL 600V-105C TIGHT NO-FRAY STRANDING

Tinned copper wire; stranded for greater flexibility. Wall thickness. 010. Vinyl insulation for high resistance to moisture, flame, ozone, solvents and most chemicals. SPECIFY COLOR AND COLOR NO. WHEN ORDERING. **Colors available only in sizes listed. See stock color columns. *For tracer colors add .12 per 100 ft. Shpg. wt. 100' 1 lb; 1000' 6 lbs.**

Mfr. Types	Mil. Types	AWG	O.D.	100' and 1000' Stock Colors	Stk. No.	100 Ft.	Stk. No.	500-Ft. Spools Colors 1-10 Only	Stk. No.	1000 Ft.
8505	B-26	26(7x34)	.039"	1-10, 14-22*	36F595A	1.40	36F595F	5.25	36F595	9.75
8509	B-24	24(19x36)	.045"	9, 14-22	36F602A	1.73	....	......	36F602	10.80
8504	B-24	24(7x32)	.044"	1-10, 14-22*	36F594A	1.40	36F594F	4.80	36F594	9.10
8508	B-22	22(19x34)	.051"	9, 14-22*	36F603A	1.79	....	......	36F603	11.35
8503	B-22	22(7x30)	.050"	1-10, 14-22*	36F593A	1.52	36F593F	5.55	36F593	9.90
8507	B-20	20(19x32)	.059"	9, 14-22*	36F604A	1.92	....	......	36F604	13.80
8502	B-20	20(7x28)	.058"	1-10, 14-22*	36F592A	1.71	36F592F	6.00	36F592	11.10
8501	B-18	18(7x26)	.068"	1-10, 14-22*	36F591A	1.86	36F591F	7.30	36F591	13.95
8500	B-16	16(19x29)	.077"	1-10, 14-22*	36F590A	2.27	36F590F	9.40	36F590	17.55

MIL-W-16878D TYPE E — TFE TEFLON — 600V — 200°C

Silver coated copper conductor, concentrically stranded, with extruded TFE Teflon insulation rated to 600V and 200°C. Spools may contain several pieces of min. length 25'. Specify color and color No. See chart at left. Plain colors only.

Mfr. Type	MIL. Type	AWG & (Stranding)	O.D."	Colors	Stock No.	100 Ft.	Stock No.	500' Spools	Stock No.	1000' Spools
83000	E-30	30(7x38)	.033"	1-10	36F610A	3.60	36F610F	12.53	36F610	23.55
83001	E-28	28(7x36)	.036"	1-10	36F611A	3.75	36F611F	13.20	36F611	24.90
83002	E-26	26(7x34)	.041"	1-10	36F612A	4.15	36F612F	14.93	36F612	28.35
83003	E-24	24(19x36)	.046"	1-10	36F613A	5.20	36F613F	19.13	36F613	....
83004	E-24	24(7x32)	.045"	1-10	36F614A	4.35	36F614F	15.75	36F614	30.00
83005	E-22	22(7x30)	.051"	1-10	36F615A	5.20	36F615F	19.13	36F615	36.75
83006	E-22	22(19x34)	.052"	1-10	36F616A	5.70	36F616F	21.50	36F616	41.50
83007	E-20	20(19x32)	.060"	1-10	36F617A	6.90	36F617F	25.50	36F617	49.50
83008	E-20	20(7x28)	.059"	1-10	36F618A	6.30	36F618F	23.85	36F618	....
83009	E-18	18(19x30)	.071"	1-10	36F619A	9.30	36F619F	36.38	36F619	71.25
83010	E-16	16(19x29)	.080"	1-10	36F620A	11.55	36F620F	45.53	36F620	89.55

U/L TYPE HOOKUP AND LEAD WIRE — 600V

CSA Type TEW vinyl insulated; rated 600V to 105°. **Specify color & color No.—see chart above and stock order column.**

TYPE E

TYPE TEW

TYPE TRB

Type	AWG	O.D.	Stk. Colors	Stk. No.	100'	Stk. No.	500'	Stk. No.	1000'
8920	22(7x30)	.095"	1-5,9,10,13	36F580A	1.62	....	....	36F580	10.95
8919	20(10x30)	.102"	1-5,9,10,13	36F581A	1.86	....	....	36F581	13.80
8918	18(16x30)	.112"	1-5,9,10,13	36F582A	2.28	....	....	36F582	17.20
8917	16(26x30)	.126"	1-5,9,10,13	36F583A	3.10	36F583F	12.30	....	....
8916	14(41x30)	.141"	1-5,9,10,13	36F584A	4.05	36F584F	16.65	....	....

CSA type TRB, vinyl insulation, lacquered cotton braid jacket; rated 600V to 90°C.

Type	AWG	O.D.	Stk. Colors	Stk. No.	100'	Stk. No.	500'	Stk. No.	1000'
8937	22(7x30)	.091"	1-5,9,10,13	36F585A	1.95	....	....	36F585	14.05
8936	20(10x30)	.098"	1-5,9,10,13	36F586A	2.16	....	....	36F586	16.65
8935	18(16x30)	.113"	1-5,9,10,13	36F587A	2.76	....	....	36F587	21.25
8934	16(26x30)	.126"	1-5,9,10,13	36F588A	3.41	36F588F	14.25	....	....
8933	14(41x30)	.177"	1-5,9,10,13	36F589A	5.20	36F589F	22.20	....	....

BELDEN WORKBENCH HOOKUP WIRE KITS

For R&D labs, engineers, servicemen, hobbyists. Belden hookup wire in an assortment of colors. Each kit contains a portable metal dispenser rack for work bench or wall mounting. The dispenser rack provides a complete, compact, and convenient wire department for every working area. See the chart at the top of this page for colors in each kit.

Type	Stk. No.	No. of Spools	Spool Lengths	Type of Wire	Colors in kit	NET
8822	36F179	10	25'	20 solid Type MW vinyl (8529-25)	1,2,3,4,5 6,7,8,9,10	6.60
8823	36F180	5	100'	20 solid Type MW vinyl (8529-100)	2,5,6,9,10	7.35
8824	36F181	8	25'	20 strd. Type MW vinyl 8523-25	1,2,3,4,5, 6,9,10	5.76
8825	36F182	5	100'	20 strd. Mil-W-16878D vinyl 8507-100	9,14,15, 16,17	10.10
8826	36F183	5	100'	22 strd. Mil-W-16878D vinyl 8508-100	9,14,15, 16,17	9.40
8816	36F1350	8	25'	18 stranded vinyl (8522-25)	1,2,3,4,5, 6,9,10	6.72

Microphone and Instrumentation Cable BELDEN

MICROPHONE AND INSTRUMENTATION CABLES—SHIELDED

General purpose shielded cables, for all stage, studio and instrumentation applications. Rubber types have rubber-insulated tinned copper conductors, tinned copper-braid shield, black rubber jacket overall, (†)except black Neoprene jacket. **8402 & 8408 have brown hypalon jacket. Vinyl types are similar, but have polyethylene-insulated conductors, chrome vinyl jacket. *Miniature cables having tinned cadmium-bronze conductors. Rubber cables have greater abrasion and impact resistance, are extra-flexible—will lie flat without kinking. Plastic cables have lower capacitance, greater ozone and oil resistance, lighter weight. Neoprene and rubber types are recommended for outside use, cold weather applications. All types available only in spool sizes listed.

Type	A.W.G. and Cond.	O.D.	Work Volt.	Stk. No.	50 Ft.	Stk. No.	100 Ft.	Stk. No.	250 Ft.	Stk. No.	500 Ft.	Stk. No.	1000 Ft.
SINGLE CONDUCTOR — RUBBER													
8410	25-1	245"	3000	36F010B	5.25	36F010A	9.75	36F010E	22.65	36F010F	45.30		
MULTIPLE CONDUCTOR — RUBBER HYPALON**													
8413*	24-2	.190"	300	36F026B	5.50	36F026A	10.15	36F026E	23.50	36F026F	46.95		
8406*	24-3	223"	300			36F202A	13.05	36F202E	30.55	36F202F	61.10		
8412	20-2	.268"	600	36F011B	5.80	36F011A	10.75	36F011E	24.70	36F011F	49.45	36F011	98.85
8402**	20-2	268"	600			36F1355A	12.15	36F1355E	28.35	36F1355F	56.70		
8423	20 3	.277"	600	36F012B	6.65	36F012A	12.55	36F012E	29.20	36F012F	58.35	36F012	116.70
8424	20-4	295'	600	36F013B	7.50	36F013A	14.10	36F013E	33.25	36F013F	66.45	36F013	132.90
8425	20-5	323"	600			36F014A	16.95	36F014E	41.25				
8426	20-6	.349'	600			36F015A	20.65	36F015E	51.00				
8427	20-7	360"	600			36F016A	22.20	36F016E	54.45				
8418	20-8	.386'	600			36F018A	25.50	36F018E	61.80				
8428†	18-2	295"	600			36F017A	14.65			36F017F	68.25	36F017	136.50
8408**	16-2	.385"	600			36F1356A	20.85	36F1356E	48.75	36F1356F	97.50		
8407†	16-4	422"	600			36F132A	25.50	36F132E	61.50				
SINGLE CONDUCTOR — VINYL PLASTIC													
8401	25-1	.200"	5000	36F020B	2.91	36F020A	5.35	36F020E	11.35	36F020F	22.65	36F020	45.30
8411	25-1	.144"	3500	36F021B	2.25	36F021A	4.20	36F021E	8.95	36F021F	17.90	36F021	35.80
MULTIPLE CONDUCTOR — VINYL PLASTIC													
8420*	24-2	.185"	500	36F027B	4.00	36F027A	7.45	36F027E	17.50	36F027F	34.95		
8422	22-2	231"	1000	36F022B	4.50	36F022A	7.85	36F022E	17.40	36F022F	34.80	36F022	69.60
8403	20 3	.244"	600	36F023B	5.60	36F023A	10.35	36F023E	23.25	36F023F	46.40	36F023	93.00
8404	20-4	.255"	600			36F024A	11.40	36F024E	26.25	36F024F	52.50	36F024	105.00
8405	20-5	275"	600					36F1358E	31.00	36F1358F	62.00	36F1358	124.00

SHIELDED CABLE FOR AUDIO AND INSTRUMENTATION APPLICATIONS

Shielded cables for a variety of AF applications. Types with patented BELDFOIL aluminum-mylar shield provide 100% shielding, are recommended for the most critical audio and instrumentation applications; these types have tinned copper drain wire for shield connection. Spiral and braid shields are made of tinned copper for direct connection. Stocked in listed spool sizes only.

2 CONDUCTOR CABLES — TEFLON

*Black and White Fep Insulated Cond, Cable, Tinned Copper Braid Shield, White Fep Jkt. Oper. Temp. —70°C to +200°C.

Type	A.W.G.	Nom. O.D.	Work Volt	Stk. No.	NET 25 Ft.	Stk. No.	NET 100 Ft.	Stk. No.	NET 500 Ft.
83390*	22 Strd.	.180"	1000	36F1326C	8.85	36F1326A	33.00	36F1326F	166.25
83393	20 Strd.	245"	1000	36F1359C	10.50	36F1359A	43.50	36F1359F	210.00

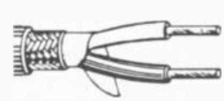
2 CONDUCTOR CABLES—VINYL PLASTIC

Broadcast cable; black vinyl jacket, copper braid shield. *Miniature cable; has BELDFOIL shield.

Type	A.W.G.	Nom. O.D.	Work Volt.	Stk. No.	NET per 100	Stk. No.	250 Ft.	Stk. No.	500 Ft.	Stk. No.	1000 Ft.
8450*	22 Solid	.118"	200	36F028A	3.85	36F028E	7.20	36F028F	14.20	36F028	28.35
8451*	22 Strd.	.135"	200	36F029A	4.38	36F029E	8.95	36F029F	17.85	36F029	35.70
8437	22 Solid	.200"	200					36F093F	22.65	36F093	45.30
8441	22 Strd.	.210"	200	36F036A	5.85			36F036F	25.90	36F036	51.75
Chrome vinyl jacket; BELDFOIL shield and polyethylene insulation, except *spiral shield, vinyl insulated; †braided shield. rubber insulation.											
8641	24 Strd.	.160"	350	36F157A	3.75			36F157F	15.00	36F157	30.00
8761	22 Strd.	.167"	350					36F165F	15.60	36F165	31.20
8762	20 Strd.	.196'	350	36F166A	4.80	36F166E	10.00	36F166F	19.90	36F166	39.75
8780	18 Strd.	.222"	450			36F164E	12.60	36F164F	24.00	36F164	48.00
8739*	22 Solid	.160"	350	36F081A	3.85			36F081F	16.20	36F081	32.40
8737*	22 Strd.	170"	350	36F084A	4.05	36F084E	8.95	36F084F	17.85	36F084	35.70
8759*	20 Strd.	195"	350	36F085A	5.05			36F085F	21.00	36F085	42.00
8780*	16 Strd.	.266"	450	36F106A	7.65			36F106F	34.45	36F106	68.85
8790*	18 Strd.	231"	450	36F107A	6.25	36F107E	13.35	36F107F	26.70	36F107	53.40
8208†	18 Strd.	.255"	200	36F195A	7.90			36F195F	34.80	36F195	69.60
Braided shield, vinyl insulated, no outer jacket.											
8738	22 Solid	.130"	350							36F080	32.40
8758	20 Strd.	.165"	350	36F086A	4.70			36F086F	19.05	36F086	38.10
8789	18 Strd	.204"	450					36F102F	27.90	36F102	55.80

Type 8759

Type 8450



Type 8208

Type 8758

3 CONDUCTOR CABLES — TEFLON

Blk, Red, & White Fep Insulated Cond, Cabled, Tinned Copper Braid Shield, White Fep Jkt. Oper. Temp. —70°C to +200°C.

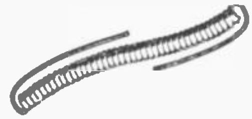
Type	A.W.G.	Nom. O.D.	Work Volt.	Stk. No.	NET 100 ft.	Stk. No.	250	Stk. No.	500 ft.	Stk. No.	1000 ft.
83391	22 Strd.	.190"	1000	36F1327A	42.00			36F1327F	205.50		

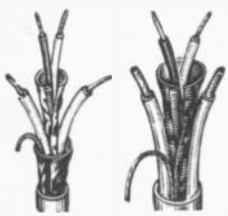
3 CONDUCTOR CABLES—VINYL PLASTIC

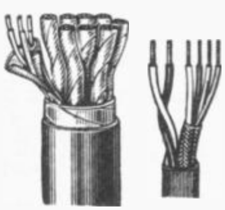
Chrome vinyl jacket; polyethylene insulation with BELDFOIL shield, except *braided shield, vinyl insulated (**)spiral shield.

Type	A.W.G.	Nom. O.D."	Work Volt.	Stk. No.	100 Ft.	Stk. No.	250 Ft.	Stk. No.	500 Ft.	Stk. No.	Ft. 1000
8618	16 Strd.	.300"	600					36F1360F	43.90	36F1360	87.75
8735*	22 Strd.	.199"	350	36F083A	5.70			36F083F	24.30	36F083	48.60
8771	22 Strd.	.175"	350			36F168E	9.85	36F168F	19.65	36F168	39.30
8772	20 Strd.	.200"	350					36F169F	24.75	36F169	49.50
8770	18 Strd.	.236"	450					36F167F	30.40	36F167	60.75
8791**	18 Strd.	.236"	450	36F135A	7.65					36F135	68.10
8643*	30 Strd.	.086"	200	36F1361A	6.30	36F1361E	14.85				

BELDEN Retractile Cords/Instrumentation Cables







Note: All types are sold only in spool lengths shown EXCEPT types listed "per foot" are cut to order — min. order 25 feet.

RETRACTILE (COILED) MICROPHONE CABLES—SHIELDED AND UNSHIELDED

Cadmium bronze wire microphone cables with neoprene or vinyl jacket. Retracts when not in use. Neoprene cables are resistant to effects of sun, oil and ozone and are recommended for outside use.

Type	Stock No.	AWG (standing)	Retracted Length (in.)	Extended Length (ft.)	Nom. OD (in.)	Jacket Material	Conductors	NET
8409	36F1329	28 (7x36)	12"	6'	.165	Neoprene	4 unshielded	1.14
8415	36F038	23 (21x36)	11½"	6'	.250	Neoprene	4 unshielded	1.50
8497	36F207	23 (21x36)	11½"	6'	.250	Neoprene	3 cond-1 shield	1.56
8499	36F208	24 (45x40)	7½"	4'	.160	Neoprene	1 shielded	1.05
8491	36F1330	23 (21x36)	12"	6'	.300	Neoprene	4 cond-2 shield	1.86
8490	36F1331	23 (21x36)	11½"	6'	.265	Neoprene	5 unshield'd	1.62

RETRACTILE NEOPRENE POWER CONTROL CABLES—UNSHIELDED

For telephone use. Cadmium bronze, black vinyl jacket. 8494 has one end stripped 7¾", spade terminals attached and hook strain relief clamped over jacket. Other end stripped 6¼" and spade terminals attached. 8495 is similar, but end with strain relief stripped 2¾", other end stripped 3 7/16".

8494	36F203	23 (21x36)	10"	4½	.245	Vinyl	4 Unshielded	1.80
8495	36F204	23 (21x36)	10"	4½	.220	Vinyl	3 Unshielded	1.41
8601	36F1342	18 (41x34)	12"	6'	.270	Neoprene	2 "SVO"	1.14
8602	36F1343	18 (41x34)	12"	6'	.360	Neoprene	3 "SJO"	1.73
8603	36F1344	16 (65x34)	12"	6'	.370	Neoprene	3 "SJO"	1.76
8604	36F1345	16 (65x34)	22"	12'	.370	Neoprene	3 "SJO"	2.70

SPECIAL PURPOSE SHIELDED CABLES

Multiple conductor cables having a variety of shielding arrangements for special applications. Types having BELDFOIL aluminum-mylar shield provide 100% shielding and are recommended for the most critical AF and instrumentation applications. Sold only in spool sizes listed.

Strain Gauge Cable. 8434 has chrome vinyl jacket; BELDFOIL shield overall; one pair of conductors has individual BELDFOIL shield. 8723 is similar, but has both pairs individually BELDFOIL shielded.

Type	AWG & No.	Nom. O.D.	Work. Volt.	Stk. No.	100'	Stk. No.	500'	Stk. No.	1000'
8434	25-4	.179"	400	36F1032A	6.10	36F1032F	27.60	36F1032	55.20
8723	22-4	.165"	400	36F1033A	5.85	36F1033F	25.90	36F1033	51.75
8728	22-4	.188"	400	... .	.	36F1353F	38.25	36F1353	76.50

Shielded and Unshielded Conductor Cables. All have chrome vinyl jacket, polyethylene or vinyl insulated tinned copper stranded conductors, and BELDFOIL shields with drain wire for ground connection (except *copper braid shield, tinned for direct connection). †individually shielded. Rated 350 volts.

Type	Cond.: AWG & No. Shielded	Cond.: AWG & No. Unshielded	Nom. O.D.	Stk. No.	100'	Stk. No.	500'	Stk. No.	1000'
8724	22-2	22-2	.165"	....	.. ....	36F1346F	25.95	36F1346	51.90
8722	20-2	20-2	.260"	....	. .....	36F185F	30.75	36F185	61.50
8732	22-2*	22-2	.296"	36F173A	5.05	36F173F	27.60	36F173	55.20
8734	22-1*	22-2	.194"	36F186A	6.55	36F186F	21.00	36F186	42.00
8763	20-2	20-1	.210"	....	. . . .	36F187F	24.30	36F187	48.60
8733	22-3†	... .	.205"	36F188A	6.55	36F188F	27.60	36F188	55.20

38- and 51-Pair Cables. Have 22 AWG solid copper conductors, 8751 vinyl insulated, 8752 polypropylene insulated. BELDFOIL shield overall, chrome vinyl jacket. Cut to length—min. order 25 ft.

Type	No. Cond.	Nom. O.D.	Lbs. per 100'	Stk. No.	Per 1000'	Price Per Ft.
8751	51 pr.	.725"	32	36F079	907.50	1.10
8752	38 pr.	.600"	25	36F074	943.50	1.06

Miniature Instrumentation Cables. Solid copper. BELDSOL enamel film (solderable—no stripping required) insulated paired conductors; each pair BELDFOIL shielded; white vinyl jacket.

Type	AWG & Cond.	Nom. O.D.	Work. Volt.	Stk. No.	100'	Stk. No.	250'	Stk. No.	500'	Stk. No.	1000'
8640	26-2	.089"	100	....	....	36F087E	7.00	36F087F	13.15	....	....
8642	26-6	.140"	100	....	....	36F088E	19.65	36F088F	36.45	....	....

Solid copper conductor, polypropylene insulation, copper braid shield in coaxial construction; black vinyl jacket. May be steam sterilized—ideal for medical research instrumentation.

Type	AWG & Cond.	Nom. O.D.	Work. Volt.	Stk. No.	25'	Stk. No.	50'	Stk. No.	100'	Stk. No.	250'
8700	28-1	.054"	100	36F082C	1.80	36F082B	2.95	36F082A	5.25	36F082E	12.15

Multiple-Pair Individually Shielded Audio Cable. All have #22 AWG solid tinned copper .013 vinyl insulated conductors, each pair with drain wire under a BELDFOIL aluminum-mylar shield. Chrome vinyl jacket. Recommended for superior circuit isolation.

Type	No. Pairs	Nom. O.D.	Stock No.	100'	Stock No.	250'	Stock No.	500'	Stock No.	1000'
8767	3	.270"	36F190A	9.90	36F190E	22.65	36F190F	45.30	36F190	90.60
8768	6	.394:	36F191A	19.50	36F191E	46.15	36F191F	92.25	36F191	184.50
8764	9	.440"	36F192A	27.25	36F192E	66.40	36F192F	132.75	36F192	265.50
8765	11	.485"	36F193A	32.25	36F193E	78.40	36F193F	156.75	36F193	313.50
8766	15	.540"	36F194A	43.50	36F194E	105.00	36F194F	210.00	36F194	420.00

Multiple Pair Individually Shielded Cables. Same as above, except .010 Polypropylene insulated. Recommended for audio, pulse, & radio frequency applications—operating temperature 105°C. 7x30 stranded conductors.

Type	No. Pairs	Nom. O.D.	Stock No.	100'	Stock No.	250'	Stock No.	500'	Stock No.	1000'
8777	3	.270"	36F1332A	11.40	36F1332E	27.00	36F1332F	54.00	36F1332	108.00
8778	6	.394"	36F1333A	22.50	36F1333E	55.30	36F1333F	110.55	36F1333	221.10
8774	9	.440"	36F1334A	33.00	36F1334E	78.40	36F1334F	156.75	36F1334	313.50
8775	11	.485"	36F1335A	38.70	36F1335E	93.40	36F1335F	186.75	36F1335	373.50
8776	15	.540"	36F1336A	51.45	36F1336E	124.50	36F1336F	249.00	36F1336	498.00
8769	19	.620"	36F1337A	69.30	36F1337E	165.00	36F1337F	330.00	36F1337	660.00
8773	27	.760"	36F1338A	Cut to Order—25' Min.—1.17 Per Ft.					36F1338	999.00

4 CONDUCTOR CABLES — TEFLON

Blk, Red, White & Green Fep Insulated Cond, Cabled, Tinned Copper Braid Shield, White Fep Jkt. Oper. Temp. —70°C to +200°C.

Type	A.W.G.	Nom. O.D.	Work Volt.	Stk. No.	NET 100 ft.	Stk. No.	250 ft.	Stk. No.	500'	Stk. No.	1000 ft.
83392	22 Strd.	.205"	1000	36F1328A	51.00	....	....	36F1328F	249.00	....	....

TV Studio/Audio/Instrumentation Cable BELDEN

TV STUDIO CABLE

• Fits RG 59/U connectors

Type 8281. 75 ohm precision video cable. Single #20 AWG solid copper conductor, polytheylene insulated, double copper-braid shield, black polyethylene jacket. Nominal O.D., .304", nom. capacitance, 21mmf/ft. 100% sweep tested. Wt. 37 lbs. per 500 ft.
36F141F. 500 ft. spool. NET........ **82.90**
36F141. 1000 ft. spool **165.75**

Type 8299 Adapter. For use with 8281 cable only; increases OD to fit PL-259 connector.
36F143. Box of 25. NET........ **3.75**

Type 8280. 28 conductor TV (monochrome) camera cable. Conductors arranged as follows: 4-#18 and three groups of 7-#22 AWG stranded tinned copper conductors, all color-coded and vinyl insulated; three color-coded coaxial cables of 51 ohm nom. impedance; tinned copper-braid shield and chrome vinyl jacket overall. Nom. O.D. is .750". Cut to order. Min. order 25 ft.
36F140. NET, per foot .... **.93**

Type 8286. Miniature 75 ohm video cable similar to Type 8280 except BELDFOIL shield over the 4 #18 AWG conductors. BELDFOIL shield over one group of seven conductors. 3-75 ohm coaxial cables, jacket over shield is black hypalon. .730 O.D. Cut to order (25' min.).
36F1339. NET, per foot .... **.96**

• For color or b&w TV transmission

Type 8283. 82 conductor TV (color) camera cable. Conductor arrangement: 4 #14 and 3 #16 AWG stranded tinned copper conductors, color-coded and vinyl insulated, all inside a BELDFOIL aluminum-mylar shield: 67-#22 AWG stranded tinned copper, color-coded and vinyl insulated, of which 7 are under a conductive textile shield, the rest unenclosed; 8 coxial cables, of 53.5 ohm nom. impedance, color coded; tinned copper braid shield and chrome vinyl jacket overall. Nom. O.D., 1.22". Cut to order. Min. order 25 ft.
36F1300. NET, per foot **3.38**

Type 8279. Similar to 8281 except with 23 AWG conductor, single tinned copper braid shield, and .220 O.D.
36F1340A. 100' NET **9.45**
36F134E. 250' NET **22.05**
36F1340F. 500' NET **40.95**

Type 8284. 24 conductor TV camera cable, 4 #16 GA color coded vinyl insulated conductors. Beldfoil shield over 3 of the 17 #22 GA color coded vinyl insulated conductors, 3-53.5 ohm coaxial cables tinned copper braid, heavy cotton braid, chrome vinyl jacket. .800 O.D.
36F1341. NET. per ft........ **1.15**

SHIELDING & BONDING CABLE

Type	Oval I.D.	Flat Width	Cir. Mil area	Stk. No.	10'	Stk. No.	50'	Stk. No	250'
8676	1/32"	3/64"	400	36F215G	.62	36F215B	1.13	36F215E	5.25
8674	3/64"	1/16"	600	36F216G	.68	36F216B	1.64	36F216E	7.45
8660	5/32"	7/32"	3800	36F220G	.75	36F220B	2.25	36F220E	10.20
8668	3/16"	5/16"	4700	36F223G	1.07	36F223B	3.06	36F223E	13.35
8663	5/16"	7/16"	6700	36F225G	1.13	36F225B	3.80	36F225E	17.85
8661	1/2"	9/16"	7600	36F221G	1.05	36F221B	3.65	36F221E	16.80
8669	5/8"	11/16"	13,300	36F224G	1.80	36F224B	7.60	36F224E	36.30
8672	.....	9/16"	13,200	36F217G	1.98	36F217B	8.80	36F217E	39.60
8662	.....	19/32"	22,900	36F222G	2.45	36F222B	10.75	36F222E	52.00
8670	....	3/4"	48,000	36F218G	3.65	36F218B	16.50	36F218E	79.20
8671	......	11/16"	21,600	36F219G	2.73	36F219B	12.40	36F219E	61.05

Tinned copper braid provides approx. 90% shield coverage when applied over recommended diameter.

HI-FI AND STEREO CABLES

Phono Pick-Up Cable. Type 8421, Hi-Fi connecting cable,Spiral wrapped shield, chrome vinyl jacket with cellular polyethylene insulate dconductor. 8431 is rubber insulated, shield and brown cotton braid. 8419, and 8429, are vinyl insulated. *No shield, no jacket. color-coded polyethylene insulation and individual spiral wrapped shields; chrome vinly jacket. *per channel, Fig. A below.

Type	No. of Cond.	AWG and (stranding)	Nom. O D.	Nom. mmf/ft.	Stock No.	25 Ft.	Stock No.	100 Ft.	Stock No.	250 Ft.	Stock No.	500 Ft.
8430*	2	32 (7x40)	.050"	21	36F158C	.87	....	......	36F158E	5.20	....	......
8429	2	32 (7x40)	.057"	22	36F150C	2.45	....	......	36F150E	10.05	....	......
8419	3	32 (7x40)	.067"	30	36F159C	1.71	....	......	36F159E	12.25	....	......
8431	1	24 (16x36)	.095"	96	36F152C	1.38	36F152A	4 38	....	......	36F152F	.81
8421	1	25 (7x33)	.180"	18	36F226C	1.75	36F226A	5.05	36F226E	11.20	....	......

Dual-Channel Audio Cable. Designed for stereo and language lab hookup applications. Tinned copper/copperweld conductors, with color-coded polyethylene insulation and individual spiral wrapped shields: chrome vinyl jacket. *per channel, †50 ft. Fig. A below.

8416	2	25 (7x33)	.213	35*	36F126C	1.86	36F126A	5.95	36F126E	13.65	....	......

Miniature Audio Connecting Cable. Double BELDFOIL aluminum-mylar shields provide total shielding for critical audio and instrumentation applications. Copper-copperweld conductor. cellular polyethylene insulation, chrome vinyl jacket. Fig. B below.

8417	1	25 (7x33)	.140"	25	36F127C	1.41	36F127A	4.30	36F127E	9.30	....	......

Juke Box Control Cable. Tinned, stranded copper conductors, vinyl insulated, with chrome vinyl jacket. Type 8783 is unshielded; 8786 has 4-#24 under BELDFOIL shield, 2-#22 unshielded.

Mfr. No.	AWG & Cond.	Nom. O.D.	Work. Volt.	100'	NET	500'	NET
8783	20-1, 16-2	.250"	450	36F108A	6.45	36F108F	28.90
8786	24-4, 22-2	.256"	350	36F138A	7.65	36F138F	34.50

Fig. A

Fig. B

UNSHIELDED CABLE FOR AUDIO AND INSTRUMENTATION APPLICATIONS

Unshielded cables for instrumentation and intercom hookup, speaker lines etc.

TWO CONDUCTOR CABLES

Unjacketed. Twisted pair cable, vinyl insulated. Fig. C.

Mfr. No.	AWG	Nom. O.D.	Work. Volt.	Stk. No.	100'	Stk. No.	250 Ft.	Stk. No.	500'	Stk. No.	1000'
8481	22 (solid)	.112"	350	36F068A	1.95	....	......	36F068F	6.25	36F068	12.45
8482	19 (solid)	.130"	350	36F1009A	2.45	....	......	36F1009F	8.80	36F1009	17.55
8460	18 (strd.)	.175"	450	36F1010A	3 45	....	......	36F1010F	13.35	36F1010	26.70
8470	16 (strd.)	.195"	600	....	...	....	......	36F1011F	17.85	36F1011	35.70

Jacketed. As above, but with chrome vinyl overall jacket. Fig. D.

8740	22 (solid)	.150"	200	36F060A	2.40	36F060E	4.80	36F060F	8.55	36F060	17.10
8442	22 (strd.)	.165"	350	....	...	....	......	36F039F	10.05	36F039	20.10
8205	20 (strd.)	.190"	350	36F197A	3.10	....	......	36F197F	11.40	36F197	22.80
8461	18 (strd.)	.226"	450	36F1014A	4.40	....	......	36F1014F	17.85	36F1014	35.70
8471	16 (strd.)	.256"	600	....	...	....	......	36F1015F	22.30	36F1015	44.55
8473	14 (strd.)	.332"	600	....	...	....	......	36F1021F	36.75	36F1021	73.50
8477	12 (strd.)	.384"	600	....	...	....	......	36F1354F	49.50	36F1354	99.00

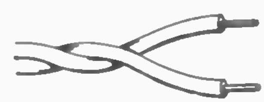


Fig. C

Fig. D

Shielded Grid and Hookup Wire. #20 (10x30) AWG stranded tinned copper conductor, rubber insulated, textile braid, tinned copper braid shield. Jacketless.

Type	Nom. O.D.	Work. Volt.	25'	NET	100'	NET	500'	NET
8885	.117"	300	36F151C	1.50	36F151A	4.50	36F151F	21.00

BELDEN Unshielded Cable

ALL BELDEN HI FI CABLE, AUDIO, & INSTRUMENTATION CABLE COMES IN EXACT LENGTH ONE-PIECE SPOOLS

MULTIPLE CONDUCTOR CABLES — PAIRED

Solid. All types below have #22 AWG solid tinned copper conductors, vinyl insulated and cabled in pairs. Chrome vinyl jacket overall.

Mfr. No.	No. of Pairs	Nom. O.D.	Work. Volt.	Stk. No.	100′	Stk. No.	250′	Stk. No.	500′	Stk. No.	1000′
8741	2	.201″	200	36F061A	4.05	36F061E	8.85	36F061F	16.20	36F061	32.40
8742	3	.240″	200	36F062A	5.35	36F062E	12.00	36F062F	22.75	36F062	45.45
8757	4	.255″	200	....	....	....	....	36F069F	28.90	36F069	57.75
8743	6	.305″	200	36F063A	8.40	36F063E	19.45	36F063F	38.85	36F063	77.70
8744	9	.354″	200	36F064A	12.00	36F064E	28.15	36F064F	56.25	36F064	112.50
8753	11	.384″	200	36F067A	14.85	36F067E	35.65	36F067F	71.25	36F067	142.50
8745	15	.420″	200	36F065A	20.65	36F065E	47.65	36F065F	95.25	36F065	190.50

Stranded. As above, but Type 22 AWG stranded (7x30) conductors provide greater flexibility, can be run in intricate bands. See preceding pages ("S.P. Shielded Cable") for 38-pr. (8752) and 51-pr. (8751).

Type	No. of Pairs	Nom. O.D.	Work Volt	Stk. No.	100′	Stk. No.	250′	Stk. No.	500′	Stk. No.	1000′
8747	6	.340″	200	36F075A	10.45	36F075E	24.00	36F075F	48.00	36F075	96.00
8748	9	.389″	200	36F076A	14.70	36F076E	35.25	36F076F	70.50	36F076	141.00
8749	15	.425″	200	36F077A	25.50	36F077E	60.70	36F077F	121.50	36F077	243.00
8750	27	.595″	200	Cut to order: 25′ min. order. Price per 1000′						36F078	462.00

See preceding pages ("Special Purpose Shielded Cable") for 38-pr. (8752) and 51-pr. (8751).

MULTIPLE CONDUCTOR CABLES — NOT PAIRED

Fig. E

Fig. E. Stranded tinned copper conductors, color-coded, vinyl plastic insulated, with vinyl jacket overall. Ideal for a multitude of audio, instrumentation, and control applications. Voltage ratings: #22 AWG types, 200V; #18 types, 400V; #16 types, 600V. Available only in spool sizes listed.

Mfr. No.	AWG & No. of Cond.	Nom. O.D.	Lbs. 100′	Stk. No.	25′	Stk. No.	100′	Stk. No.	250′	Stk. No.	500′	Stk. No.	1000′
8443	22-3	.150″	2	36F040C	1.20	36F040A	3.10	36F040E	6.10	36F040F	12.15	36F040	24.30
8444	22-4	.168″	2¼	36F041C	1.41	36F041A	4.15	36F041E	8.50	36F041F	16.95	36F041	33.90
8445	22-5	.180″	2½	36F042C	1.60	36F042A	4.80	36F042E	10.15	36F042F	20.25	36F042	40.50

Mfr. No.	AWG & No. of Cond.	Nom. O.D.	Lbs. 100′	Stk. No.	15′	Stk. No.	100′	Stk. No.	250′	Stk. No.	500′	Stk. No.	1000′
8446	22-4, 18-2	222	4	36F043D	1.60	36F043A	7.15	36F043E	15.55	36F043F	31.05	36F043	62.10
8447	22-5, 18 2	246′	4¾	....	....	36F044A	7.95	36F044E	17.55	36F044F	35.10	36F044	70.20
8448	22 6, 18 2	250′	5	36F045D	1.74	36F045A	8.55	36F045E	19.20	36F045F	38.40	36F045	76.80
8449	22-7, 18-2	261″	5¼	36F046D	1.91	36F046A	9.25	36F046E	21.00	36F046F	42.00	36F046	84.00

Mfr. No.	AWG & No. of Cond.	Nom. O.D.	Lbs. 100′	Stk. No.	100′	Stk. No.	250′	Stock No.	500′	Stk. No.	1000′
8456	22-10	.260″	5	36F200A	9.40	....	....	36F200F	42.90	36F200	85.80
8457	22-12	.260″	5½	36F201A	10.05	....	....	36F201F	46.50	36F201	93.00
8458	22-15	.320″	8	36F198A	17.40	....	....	36F198F	78.00	36F198	156.00
8459	22-25	.370″	11½	36F199A	26.40	....	....	36F199F	122.25	36F199	244.50
8465	18-5	.286″	6	36F1017A	8.80	36F1017E	20.05	36F1017F	40.05	36F1017	80.10
8467	18-7	.324″	8½	36F1018A	11.70	36F1018E	26.80	36F1018F	53.65	36F1018	107.25
8469	18-9	.375″	10¼	36F1019A	15.70	36F1019E	36.75	36F1019F	73.50	36F1019	147.00
8466	18-12	.412″	113½	36F144A	21.90	36F144E	53.65	36F144F	107.25	36F144	214.50
8468	18-15	.490″	18	36F145A	29.70	....	....	36F145F	140.25	36F145	280.50
8619	18-19	.505″	20	....	....	....	....	36F1351F	157.50	36F1351	315.00
8620	16-4	.375″	8	36F146A	11.55	....	....	36F146F	53.65	36F146	107.25
8621	16-7	.455″	13	36F147A	19.65	....	....	36F147F	87.75	36F147	175.50
8622	16-12	.600″	21¼	36F148A	33.00	....	....	36F148F	153.00	36F148	306.00

PRIMARY, SPEAKER & PORTABLE POWER CABLES

2, 3, AND 4-CONDUCTOR PRIMARY WIRE

8677

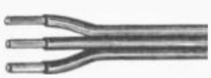
Cables especially designed for primary circuits and other applications requiring heavily insulated high amperage cable. All types or color coded. Sold only in lengths listed.

Duplex. Two parallel conductors, stranded and tinned, with vinyl insulation and chrome vinyl jacket.

Mfr. No.	AWG & Cond.	Nom. Width	Insul. Thickness	Stk. No.	100 Ft.	Stk. No.	500 Ft.
8677	16-2	.164 x .276	.032″	36F170A	5.65	36F170F	26.55
8675	14-2	.189 x .326	.037″	36F171A	7.45	36F171F	34.80
8673	12-2	.213 x .384	.040″	36F172A	9.60	36F172F	46.80

Three- and four-conductor. Bonded-parallel-conductor construction, jacketless. Stranded bare copper with vinyl insulation.

Mfr. No.	AWG & Cond.	Nom. Width	Insul. Thickness	Stk. No.	100 Ft.	Stk. No.	500 Ft.
8475	16-3	.102 x .295	.023″	36F124A	6.45	36F124F	29.10
8476	16-4	.102 x .400	.023″	36F125A	9.60	36F125F	42.00



8701

SPEAKER CABLE

Parallel conductor cables especially designed for speaker lines, but also ideal for a variety of other audio and instrumentation applications. Chrome vinyl insulation. Solid, except *stranded.

Mfr. No.	AWG & Cond.	Cable Width	Work. Volt.	25′	NET	50′	NET	100′	NET	500′	NET	1000′	NET
8781	22-2	.120″	100	....	....	....	....	36F133A	1.79	36F133F	5.25	36F133	10.50
8782	24-2*	.115″	300	36F105C	.74	36F105B	1.11	36F105A	1.65	36F105F	5.50	36F105	10.95
8701	22-3	.190″	100	....	....	....	....	36F134A	2.45	36F134F	8.55	36F134	17.10

8453

RUBBER-VINYL MULTICONDUCTOR PORTABLE CORDAGE — 300V-60°C

Types 8462 and 8888 are standard household "lamp cord"; other types have color-coded rubber insulation, black rubber jacket overall. All conductors stranded copper. *Rubber insulated, in brown, white or black — specify color. † Vinyl insulated, in brown, white or grey—specify color.

Mfr. No.	U/L Type	AWG & Cond.	Nom. O.D.	Stk. No.	25′	Stk. No.	50′	Stk. No.	100′	Stk. No.	250′	Stk. No.	500′	Stk. No.	1000′
8462*	SP-1	18-2	.223″	36F047C	1.38	....	....	36F047A	4.15	36F047E	9.55	....	....	....	....
8888†	SPT-1	18-2	.207″	36F048C	3.41	....	....	36F048A	3.41	36F048E	7.30	....	....	....	....
8452	SV	18-2	.245″	36F030C	2.10	36F030B	3.57	36F030A	6.25	36F030E	14.20	36F030F	28.35	36F030	56.70
8453	SV	18-3	.265″	....	....	36F031B	4.40	36F031A	8.25	....	....	36F031F	40.50	....	....
8454	....	18-4	.265″	....	....	36F032B	5.05	36F032A	9.55	....	....	36F032F	43.80	....	....
8472	SJ	16-2	.325″	36F049C	2.85	....	....	36F049A	9.90	36F049E	23.55	....	....	....	....
8474	....	14-2	.360:	....	....	....	....	36F050A	11.55	36F050E	27.75	....	....	....	....
8479	....	14-3	.380″	....	....	....	....	36F1352A	13.20	36F1352E	32.10	....	....	....	....

TWIN LEAD AND ANTENNA ROTOR CABLE

Fig. 1

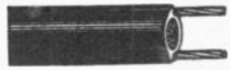


Fig. 3

Fig. 5

Fig. 2.

Fig. 4

Fig. 6

Type 8290. SHIELDED & JACKETED ENCAPSULATED TWIN LEAD. TV lead-in for best color and 82 channel reception. Low losses per 100 ft., eliminates interference caused by line pick up, can run thru gutters, conduits, and underground. No matching transformers. Terminals on both ends.

Fig. 2. Type 8285. PERMOHM All-Weather 300-ohm twinlead. 2 parallel Copperweld conductors, orange polyethylene insulation and web between conductors, encapsulated in cellular polythylene oval jacket. Delivers 3 to 136 times more power than ordinary flat lead-in for strong, clear signals on all channels despite industrial contamination, salt spray, wet weather, rain, ice, fringe area reception. An excellent color, UHF, VHF cable. See Antenna Hardware page for "E-Z" standoff insulators.

Fig. 3. Type 8275. CELLULINE. 2 parallel Copperweld conductors with inert-gas-filled unicellular polyethylene core. Lower losses because of lower dielectric constant. Uniform electrical characteristics, because moisture between conductors is eliminated. Thick polyethylene outer jacket and wind-resistant round shape result in longer lasting, more efficient line for UHF, VHF and color. No end sealing required.

Fig. 4. Type 8230. ..WELDOHM. Copperweld conductors have 1½ times greater strength than plain copper for long-lasting installation.

Type 8225. 300-ohm flat twinlead with bare copper conductors, brown polyethylene insulation for best weathering.

Fig. 5. Type 8222. 72-ohm transmission line. 2 parallel copper conductors, brown polyethylene insulation.

Fig. 6. Type 8464. 4-conductor flat rotor cable. Bare copper conductors, one tinned for polarity. Chrome vinyl insulation. **Type 8488.** Eight-conductor round rotor cable. Bare copper conductors, color-coded insulation, chrome vinyl jacket.

Mfr. No.	AWG & Cond.	Imp. Ohms	O.D.	50'	NET	75'	NET	100'	NET
8290	22-2	300	.515"	36F2000B	5.95	36F2000H	8.05	36F2000A	10.15
8285	22-2	300	.468"	36F211B	2.85	36F211H	3.85	36F211A	4.90
8275	20-2	300	.400"	36F212B	2.70	36F212H	3.80	36F212A	4.65
8225	20-2	300	.400"	36F210B	1.20	36F210H	1.56	36F210A	1.97
8230	20-2	300	.400"	36F209B	1.34	36F209H	1.77	36F209A	2.22
8222	20-2	72	.128"	......	......	......	......	36F213A	1.80
8463	20-5	......	.375"	36F232B	2.51	36F232H	3.48	36F2324	4.65
8464	20-4	......	.390"	36F231B	2.15	36F231H	2.91	36F231A	3.72
8488	22-8	......	.205"	......	......	......	......	36F056A	5.70

RG/U TRANSMISSION LINE CABLE

Has low-loss flexible polyethylene inner jacket covered by copper shield, with either vinyl or polyethylene outer jacket overall. All are single conductor type. *Mil spec. †TV Distribution Cable-Black, R659V type.

Type	RG No.	JAN Spec.	Nom. Imp.	AWG and stranding	Nom. O.D.	Stk. No.	100'	Stk. No.	250'	Stk. No.	500'	Stk. No.	1000'
8237	RG-8/U	C-17A	52.0	13 (7x21)	.405"	36F113A	13.75	36F113E	29.10	36F113F	55.20	36F113	110.40
8238	RG-11/U	C-17A	75.0	18 (7x26)	.405"	36F114A	11.85	36F114E	27.60	36F114F	47.55	36F114	95.10
8240	RG-58/U	C-17A	53.5	20 solid	.195"	36F111A	4.95	36F111E	10.70	36F111F	18.30	36F111	36.60
8259	RG-58A/U	C-17A	50.0	20 (19x.0071)	.195"	36F118A	5.85	......	......	36F118F	21.30	36F118	42.60
8262	RG-58C/U	C-17D*	50.0	20 (19x.0071)	.195"	......	......	......	......	36F057F	23.25	36F057	46.50
8241	RG-59/U	C-17A	73.0	22 Copperweld	.242"	36F110A	5.75	36F110E	12.90	36F110F	19.95	36F110	39.90
8254	RG-62/U	C-17A	93	22 Copperweld	.242"	36F1347A	6.45	......	......	36F1347F	24.00	36F1347	48.00
8216	RG-174/U	C-17D	50.0	26 (7x34)	.100"	36F058A	3.75	......	......	36F058F	13.80	36F058	27.80
†8221	......	....	75	22 Copperweld	.242"	36F1357A	6.30	......	......	36F1357F	21.30	36F1357	42.60

SPECIAL PURPOSE RF WIRE AND GROUNDWIRE

Type 8014. Indoor Aerial Wire. 25# (13x36) tinned copper conductor with chrome vinyl insulation. Nom. OD: .044"; wt. 4 oz/25 ft.

36F153C. Type 8014. 25 ft. spool. **NET**........ **.62**

Type 8018. Ground Wire. Soft-drawn #8 AWG solid aluminum wire, approved for all grounding applications in TV, FM, Amateur, and other antenna systems.

36F763. 50 ft. spool. **NET**........ **1.20**

Type 8817. Litz Wire. 5x44 Celenamel insulated strands with nylon wrap; .008" nom. O.D. Ideal for winding loop antennas, etc. 1¼ oz/100'.

36F154A. 100 ft. spool. **NET**........ **.71**

ALL BELDEN PRODUCTS SOLD IN LISTED LENGTHS ONLY

● *NEW* HIGH VOLTAGE AND CATHODE RAY TUBE CABLE

Type 8866. Small diameter 40 KVDC tinned copper cable. Used in repair of cathode ray tube leads in color TV and oscilloscopes. Breakdown voltage greater than 80 KVDC.

36F1362C. 25'. **NET**........1.80 **36F1362A.** 100'. **NET**........5.55

36F1362F. 500'. **NET**........23.40

HIGH VOLTAGE AND CATHODE RAY TUBE CABLE

Type 8868. CRT cable. #22(7x30) conductor, with conductive polyethylene, polyethylene insulation, and red vinyl jacket. 50KV breakdown voltage. Nom. O.D., .150".

36F070C. 25'. **NET**........1.19 .... **36070A.** 100'. **NET**........2.93

36F070F. 500'. **NET**........11.35

Type 8869. 22GA with conductive polyethylene, polyethylene insulated, black vinyl jacket, 35 KV, O.D. .120.

36F1325A. 25'. **NET**........1.02 **36F1325C.** 100'. **NET**........2.43

36F1325F. 500'. **NET**........9.10

Type 8870. 80 KV DC high voltage cable. #22 AWG solid Copperweld conductor, polyethylene dielectric and jacket. Conduction polyethylene over inner conductor combined with copper braid equipotential shield over dielectric. Breakdown: 160 KVDC. Nom. O.D. .440 inch.

36F059A. 100 ft. **NET**........ **34.80**

TEST PROD WIRE — STRAIGHT AND COILED

Stranded tinned copper conductors, separator wrapping, red or black rubber insulated. Working voltages listed are AC RMS values **Straight types.** 8897 is manufactured per MIL-W-13169 specs: 8890 is miniature type. See following page for retractible types.

Type	Color	A.W.G.	Nom. OD	WV	10'	NET	25'	NET	100'	NET	500'	NET	1000'	NET
8898	Black	18-65x36	.230"	10000	36F001G	1.14	36F001C	2.10	36F001A	5.40	36F001F	22.65	....	....
8898	Red	18-65x36	.230"	10000	36F000G	1.14	36F000C	2.10	36F000A	5.40	36F000F	22.65	....	....
8899	Red	18-65x36	.144"	5000	36F005G	.81	36F005C	1.23	36F005A	3.90	36F005F	14.05	36F005	28.10
8899	Black	18-65x36	.144"	5000	36F006G	.81	36F006C	1.23	36F006A	3.90	36F006F	14.05	36F006	28.10
8897	Red	18-65x36	.144"	5000	....	....	....	....	....	....	36F128F	15.75	36F128	31.50
8897	Black	18-65x36	.144"	5000	....	....	....	....	....	....	36F129F	15.75	36F129	31.50
8890	Black	24-45x40	.066"	1000	....	....	36F007C	.99	36F007A	2.45	36F007F	10.20	....	....
8890	Red	24-45x40	.066"	1000	....	....	36F008C	.99	36F008A	2.45	36F008F	10.20	....	....

36F004J. Type 8899. 14 Ft. Spool, consists of 7 Ft. Red and 7 Ft. Black. Ready for use. **NET**........ .89

BELDEN Bus Bar/Magnet Wire & Power Cords

BUS BAR WIRE

Made in accordance with Federal spec. QQ-W-343. Solid tinned copper; available in spools of 100' and 1000' only. Use where a high current conductor is needed.

Type	AWG	Stk. No.	100'	Stk. No.	1000'	Type	AWG	Stk. No.	100'	Stk. No.	1000'
8025	30	36F1022A	.72	36F1022	3.00	8020	20	36F1027A	.93	36F1027	6.40
8024	28	36F1023A	.72	36F1023	3.30	8019	18	36F1028A	1.20	36F1028	9.00
8023	26	36F1024A	.75	36F1024	3.55	8013	16	36F1029A	1.73	36F1029	14.50
8022	24	36F1025A	.77	36F1025	3.98	8012	14	36F1030A	2.55	36F1030	21.45
8021	22	36F1026A	.78	36F1026	4.65	801L	12	36F1031A	3.85	....	....

SINGLE BELDSOL-130° C

Dual film insulated magnet wire that combines excellent dielectric characteristics of polyurethane and the known toughness and solvent resistance of nylon. May be soldered without insulation removal at 750°F. ½ lb. spools sizes 14 thru 36. ¼ lb. spools sizes 38 and 40.

Mfr. No.	AWG	Feet	Stk. No.	NET	Mfr. No.	AWG	Feet	Stk. No.	NET
8047	14	40	36F1310	1.26	8054	28	1020	36F1317	1.47
8048	16	63	36F1311	1.26	8055	30	1615	36F1318	1.64
8049	18	100	36F1312	1.29	8056	32	2515	36F1319	1.83
8050	20	160	36F1313	1.29	8057	34	4060	36F1320	1.95
8051	22	254	36F1314	1.29	8058	36	6400	36F1321	2.28
8052	24	404	36F1315	1.32	8045	38	5070	36F1322	1.67
8053	26	645	36F1316	1.38	8046	40	8050	36F1323	2.25

HEAVY POLYTHERMALEZE HIGH TEMPERATURE MAGNET WIRE

Dual polyester film insulated magnet wire, rated for use to 155°C. Has exceptional ability to resist chemical solvents and abuse in intricate windings. One pound spools.

Mfr. No.	AWG	Feet	Stk. No.	NET	Mfr. No.	AWG	Feet	Stk. No.	NET
8073	14	80	36F767	2.16	8080	28	1990	36F774	2.87
8074	16	126	36F768	2.25	8081	30	3140	36F775	3.23
8075	18	199	36F769	2.37	8082	32	4880	36F776	3.56
8076	20	315	36F770	2.37	8083	34	7860	36F777	4.14
8077	22	501	36F771	2.37	8084	36	12400	36F778	5.13
8078	24	793	36F772	2.45	8085	38	19400	36F779	6.18
8079	26	1260	36F773	2.61	8086	40	32100	36F780	8.04

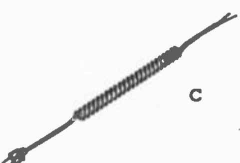
COILED (RETRACTILE) TEST PROD WIRE

Retracted length 8". Stretches to 5'. 8878 with prods. 8879 without prods. One black. one red lead.

Type	AWG (Stranding)	O.D.	WV	Stk. No.	PR.
8878	20(42x36)	.173"	5000	36F130	3.45
8879	20(42x36)	.173"	5000	36F131	1.49

A

B



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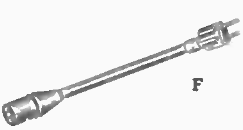
D

E



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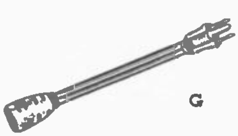

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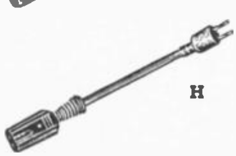


H

TWO CONDUCTOR POWER SUPPLY CORDS

For small appliances and electronic equipment. U/L green flag label. All are rubber, except **vinyl, †neoprene. Molded plugs.

Mfr. No.	Stk. No.	Length. ft.	AWG (stranding)	U/L Type	Color	Fig.	1-24	25-Up	Bulk Pkd.—50, or *100 Stk. No.	Each
17126S	36F854	6	18 (41x34)	SP-1	brown	B	.43	.39	36F854A*	.27
17129S	36F839	9	18 (41x34)	SP-1	brown	B	.53	.47	....	....
17205S	36F840	6	18 (41x34)	SVT**	black	A	.56	.50	36F840A	.37
17206S	36F851	6	18 (41x34)	SV	gray	A	.66	.59	36F851A	.44
17249S	36F841	1 ft.-6 ft.	18 (41x34)	SVO†	black	C	1.23	1.10	....	....

THREE CONDUCTOR POWER SUPPLY CORDS

For applications requiring grounding wire. Rubber, except †neoprene. All have molded vinyl plugs.

Mfr. No.	Stk. No.	Length ft.	AWG (standing)	U/L Type	Color	Fig.	1-24	25-up	....Bulk Pkd.—50.... Stk. No.	Each
17236S	36F1037	6	18 (41-34)	SV	black	B	.76	.69	36F1037A	.56
17238S	36F1038	8	18 (41-34)	SV	black	B	.88	.79	36F1038A	.66
17406S	36F842	6	18 (16x30)	SJ	black	B	.82	.73	36F842A	.59
17408S	36F857	8	18 (16x30)	SJ	black	B	.94	.84	36F857A	.70
17419S	36F843	9	16 (65x34)	SJ	black	B	1.25	1.12	36F843A	.96
17425S	36F849	15	16 (65x34)	SJ	black	B	1.89	1.69	....	....
17447S	36F844	1-6	18 (41x34)	SJO†	black	C	1.62	1.44	....	....
17448S	36F845	1-6	16 (65x34)	SJO†	black	C	1.92	1.72	....	....

TWO CONDUCTOR EXTENSION CORDS

Standard cube-tap cords for general light-duty. Vinyl cord and plug with phenolic 3-way socket.

Mfr. No.	Stk. No.	Length Ft.	AWG (standing)	U/L Type	Color	Fig.	1-24	25-Up	Bulk Pkd.—50 Stk. No.	Each
17156S	36F1301	6	18 (41x34)	SPT-1	brn, ivory	D	.46	.41	....	....
17159S	36F1302	9	18 (41x34)	SPT-1	brn, ivory	D	.53	.47	.. ..	....
17162S	36F1307	12	18 (41x34)	SPT-1	brn, ivory	D	.66	.59	.. ..	....
17165S	36F1308	15	18 (41x34)	SPT-1	brn, ivory	D	.74	.66	.. ..	....
Standard rubber extension cord with vinyl connectors.										
17259S	36F846	9	18 (41x34)	SV	gray	E	.90	.80	....	....
17361S	36F868	10	16 (26x30)	SJ	black	F	1.07	.96	. ...	....
All-rubber extension cord with round female connector.										
17370S	36F1034	10	16 (26x30)	SJ	black	F	1.26	1.13	....	....

THREE CONDUCTOR EXTENSION CORDS

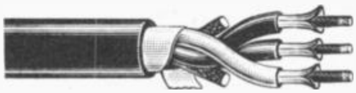
For equipment and appliances requiring grounding; have U/L Blue Flag Label. Rubber, except *vinyl, Molded vinyl connectors.

Mfr. No.	Stk. No.	Length. ft.	AWG (stranding)	U/L Type	Color	Fig.	1-24	25-Up	Bulk Pkd.—50 Stk. No.	Each
17194S	36F847	25	16 (65x34)	SPT-2*	yellow	G	2.61	2.33	....	....
17460S	36F1039	10	18 (16x30)	SJ	black	G	1.30	1.16	....	....
17491S	36F848	25	18 (16x30)	SJT*	yellow	G	2.32	2.07	....	....

SPECIAL PURPOSE AND APPLIANCE CORDS

Replacement appliance cord; rated 10 amps, 125V. Neoprene.										
17806S	36F1036	6	18 (41x34)	HPN	black	B	.46	.41	36F1036A	.33
Neoprene cord has standard appliance plug with contacts on 11/16" centers for waffle irons, etc. Rated 10 amps, 125V.										
17866S	36F873	6	17 (52x34)	HPN	black	H	.62	.56	36F873A	.46
Molded strain relief for attachment, with connector for blade prongs. Perfect vacuum cleaner and floor polisher cord.										
17270C	36F855	20	18 (41x34)	SV	gray	E	1.39	1.24		
Air-conditioner extension cord, rated 15A/125V. Rubber.										
17659S	36F1035	9	14 (41x30)	S	gray	G	2.78	2.49	....	....
3 conductor business machine cord for Friden, Victor, Marchant, & Hewlett Packard. Also for Revere & Kodak projectors—Dukane audio eq.										
17258S	36F1324	8	18 (41x34)	SVT	gray	E	1.06	.94	....	....

BELDEN



S-3

SO-2

SO-3

SJ-3

SJO-3

PORTABLE CORDAGE

Quality cordage designed for extra flexible service in many higher amperage applications. Cables available in various types of insulation and meet the highest standards of quality control.

Thoroughly tested. In spools of 250 feet. Covered with black rubber. Listed by Underwriters Laboratories.

S-3 CONDUCTOR-RUBBER JACKET 600V-60°C

Type	Stk. No.	Size AWG & Strand	Nom O.D. (Inches)	Lbs.	250' Coil NET	1000'-4999'	5000'-up
18109	36F1363	18 (41 x 34)	.401	22	36.52	33.99	31.45
18108	36F1364	16 (65 x 34)	.426	27	42.70	39.74	36.78
18107	36F1365	14 (41 x 30)	.558	45	67.52	62.84	58.15

SO-2 CONDUCTOR-NEOPRENE JACKET 600V-60°C

Type	Stk. No.	Size AWG & Stand	Nom. O.D. (Inches)	Lbs.	250' Coil NET	1000-4999'	5000'-Up
18204	36F1366	18 (41 x 34)	.386	46	34.74	32.33	29.92
18203	36F1367	16 (65 x 34)	.401	51	39.92	37.15	34.38
18202	36F1368	14 (41 x 30)	.528	39	63.60	59.19	54.78

SO-3 CONDUCTOR-NEOPRENE JACKET 600V-60°C

Type	Stk. No.	Size AWG & Strand	Nom. O.D. (Inches)	Lbs.	250' Spool NET	1000'-4999'	5000'-up
18209	36F1369	18 (41 x 34)	.401	23	47.70	44.39	41.08
18208	36F1370	16 (65 x 34)	.426	28	54.30	50.53	46.77
18207	36F1371	14 (41 x 30)	.558	48	87.60	81.52	75.45

SJ-3 CONDUCTOR-RUBBER JACKET 300V-60°C *Flex

18129	36F1372	18 (16 x 30)*	.328	35	21.92	20.40	18.88
18130	36F1373	16 (26 x 30)*	.353	42	31.24	29.07	26.91

SJO-3 CONDUCTOR NEOPRENE JACKET 300V-60°C *Flex

18229	36F1374	18 (16 x 30)*	.328	36	27.12	25.24	23.36
18230	36F1375	16 (26 x 30)*	.353	42	38.04	35.40	32.76

TV INTERLOCK CORD

Molded plastic 8895 TV power supply line cord. 6 ft. long. Mold-on, all-rubber female connector. U. L. approved. Shpg. wt., 8 oz.

36F880. NET .... **.45**

Male Connector. Flush mounting type for use with cord above. Wt., 2 oz.

36F881. .... 1-24, .13 25-49, .10 50-99, .09 100-249, .08 250-499, .07

● NEW THREE CONDUCTOR TOOL CORDS

Designed for most popular portable electric tools. Conductors extend 8" from strain relief for easy termination. .353 Neoprene for heavy-duty service. 3.28 Vinyl for light-duty service. Molded on strain relief. *Vinyl. †Neoprene. Color: Black.

Stk. No.	Type No.	Length feet	AWG (strand)	UL TYPE cordage	NET EA.	Lots of 50 NET EA.
36F1380	17410	6	18(16x30)	SJT*	1.04	.93
36F1381	17420	10	18(16x30)	SJT*	1.11	.99
36F1382	17430	10	16(26x30)	SJO†	1.50	1.42

UL APPROVED MACHINE TOOL WIRE

Vinyl insulated machine tool wire with not tinned stranded copper conductors. Specifically intended for wiring of industrial machine tools where exposed to oil, coolants, or other liquids. This wire meets not only UL requirements for Type MTW but also the National Electrical Code and the UL assigned voltage rating is 600 volts. Temperature rating is 90°C in dry locations; except *, 105°C. Standard putup 500' spools.

COLOR CODE: SPECIFY CODE

1 Black	3 Red	5 Green	7 Orange
2 White	4 Blue	6 Yellow	8 Brown

2/64" Wall; Colors 1-8 Specify Colors

Stk. No.	AWG Size	NOM. O. D.	Strand	500 to 4500' per spool	5000' Up per spool
36F1458	*18	.114	16/30	9.25	8.60
36F1459	16	.124	26/30	11.70	10.90

Colors 1-6 Specify Colors

36F1460	14	.171	16/30	16.65	15.50

3/64" Wall; Colors 1-8 Specify Colors

36F1461	12	.189	19/.0185	22.10	20.55
36F1462	10	.213	19/.0234	32.75	30.45
36F1463	8	.246	19/.0295	48.45	45.05

MICRODOT COAXIAL CABLES

The variety of Microdot coaxial cables now being stocked at Newark offer design solution for your application. Features: light weight, small diameter, convenient bend radius and high operating temperatures. The dielectric material is "Teflon" for most types. 50-3804 is polyethylene. *At 400 mc. (db/ft). Av. Shipping wt., 2½ lbs. per 100 ft.

Constructed with an inner conductor surrounded by a dielectric which is enclosed by an outer conductor that also acts as a shield. A protective jacket covers the outer conductor and acts as insulation.

Cable is composed of two insulated single conductor cables or hookup wires twisted together, having a common shield and protective jacket.

Stk. No.	Type	Ohms	O.D. Max.	20-99	100-999	1000-4999	5000-9999	10,000-24,999
37F821	202-3932	160	.168	.49	.425	.36	.28	.24
37F820	202-3927	125	.120	.40	.32	.25	.21	.175
37F800	250-3804	54	.088	.18	.155	.13	.115	.101
37F808	250-3808	50	.085	.45	.36	.29	.249	.22
37F835	250-3866	52	.090	.47	.37	.301	.258	.23
37F812	250-3902	50	.075	.14	.121	.107	.098	.089
37F836	250-3908	50	.092	.36	.30	.268	.223	.185
37F837	250-3909	50	.083	.10	.075	.065	.057	.05

Stk. No.	Type	Ohms	O.D. Max.	20-99	100-999	1000-4999	5000-9999	10,000-24,999
37F838	250-3943	50	.105	.12	.09	.075	.063	.055
37F817	250-4012	50	.075	.19	.157	.133	.115	.10
37F818	250-4049	50	.075/.110	.35	.295	.255	.23	.20
37F839	250-4063	52	.087	.36	.30	.268	.223	.185
37F840	250-4149	52	.080	.22	.177	.15	.123	.11
37F841	260-3816	45	.048	.30	.255	.23	.217	.195
37F815	260-3905	30	.045	.21	.166	.121	.111	.10
37F842	260-3919	100	.130	.18	.137	.117	.10	.089
37F843	275-3932	75	.155	.59	.47	.361	.30	.273
37F844	275-3933	75	.155	.35	.27	.235	.217	.189
37F845	275-3963	80	.102	.17	.139	.103	.088	.075
37F811	293-3913	100	.130	.17	.129	.111	.095	.083
37F846	293-3930	100	.130/.175	.25	.198	.17	.144	.12

RG COAXIAL CABLES

Stk. No.	Type	Ohms	O.D. Max.	20-99	100-999	1000-4999	5000-9999	10,000-24,999
37F847	RG-196/U	75	.110	.22	.179	.155	.121	.10
37F848	RG-188/U	50	.110	.25	.195	.162	.147	.131
37F827	RG-178B/U	50	.075	.16	.136	.118	.097	.085
37F833	RG-196A/U	50	.080	.19	.156	.133	.116	.095
37F849	RG-188A/U	50	.110	.25	.195	.162	.147	.131
37F804	RG-187/U	75	110	.29	.25	.208	.169	.147
37F829	RG-179B/U	75	.105	.21	.171	.153	.137	.125
37F850	RG-187A/U	75	.110	.29	.25	.208	.169	.147
37F851	RG-195/U	95	.155	.50	.38	.33	.264	.23
37F852	RG-180B/U	95	.145	.40	.307	.263	.238	.214
37F853	RG-195A/U	95	.155	.50	.38	.33	.264	.23
37F854	RG-142B/U	50	.200	.80	.617	.475	.395	.359

Amphenol Coaxial Cable

Fabricated in accordance with the rigid requirements set forth in the latest military specs. Polyethylene dielectric for general RF and HF applications. Teflon permits operation at temperatures from —73°C to +200°C. All cables meet the latest Navy, Air Force and Signal Corps specifications. Connector selection chart available upon request. Min. order 100 ft. except teflon 30 ft.

RG-/U COAXIAL CABLES—Polyethylene and Teflon Dielectrics

Stock No.	Amphenol Number	RG-/U No.	Jacket O.D.	Dielec-tric O.D.	Dielec-tric Type*	Center* Cond.	V.P. %	Cap. MMF/ Ft.	Max. Oper. V RMS	Nom. IMP Ohms	Uses Connector Series	100 Ft.	500 Ft.	1000 Ft.
36F240	21-004	8/U	.405	.285	P	7/21C	65.9	29.5	5000	52	N,C,HN,UHF	12.75	54.04	108.08
36F234	21-290	8A/U	.405	.285	P	7/21C	65.9	29.5	5000	52	N,C,HN,UHF	14.40	63.00	127.50
36F484	21-332	9B/U	.420	.280	P	7/21S	65.9	30	5000	50	N,C,HN,UHF	42.00	206.25	412.50
36F241	21-007	11/U	.405	.285	P	7/26T	65.9	20.5	5000	75	N,C,HN,UHF	11.93	47.52	95.03
36F487	21-298	17A/U	870	.680	P	.188C	65.9	29.5	11000	52	N,C,HN,LC	317.50	63.50	610.00
36F1116	21-802	55B/U	.206	.116	P	20S	65.9	28.5	1900	53.5	TNC,BNC,BN,C,UHF	11.96	55.50	86.65
36F243	21-024	58/U	.195	.116	P	20C	65.9	28.5	1900	53.5	TNC,BNC,BN,C,UHF,N	4.65	17.89	34.50
36F245	21-199	58A/U	.195	.116	P	19/.0-071T	65.9	30	1900	50	TNC,BNC,BN,C,UHF,N	5.40	20.82	41.25
36F491	21-316	58C/U	.195	.116	P	19/.0-071T	65.9	30	1900	50	TNC,BNC,BN,C,UHF,N	5.55 5.48	22.77 21.00	44.25 39.98
36F244	21-025	59/U	.242	.146	P	22CW	65.9	21.5	2300	73	TNC,BNC,BN,C,UHF,N	5.87	25.09	50.18
36F1118	21-794	59B/U	.242	.146	P	.023CW	65.9	21	2300	75	TNC,BNC,BN,C,UHF,N	5.85	23.52	45.00
36F472	21-026	62/U	.242	.146	SSP	22CW	84	13.5	750	93	TNC,BNC,BN,C,UHF,N	6.23	27.53	55.05
36F1160	21-771	62B/U	.242	.146	SSP	7/32CW	84	13.5	750	93	TNC, BNC, BN, C, UHF, N, Plug-in	9.45	42.75	73.35
36F1120	21-804	71B/U	.250‡	.146	SSP	22CW	84	13.5	750	93	TNC,BNC,BN,C,UHF,N			
36F1124	21-327	108A/U	.235	.079 ea.	P	Two 7/28T	68	23.5	1000	78	Twin	6.93 13.49	31.84 59.44	63.68 118.50
36F1159	21-779	213/U	.405	.285	P	7/.0296C	65.9	29.5	5000	50	UHF, N, C, HN			
36F1145	21-780	214/U	.425	.285	P	7/.02-96S	65.9	29.5	5000	50	N,C,HN,UHF	40.70	202.87	403.05
36F1154	21-788	223/U	216	.116	P	.035S	65.9	29.5	1900	50	TNC.BNC,BN.C,UHF,N	14.99	72.42	144.83

Stock No.	Amphenol No.	RG-/U No.	Jacket O.D.	Dielec-tric O.D.	Dielec-tric Type	Center Cond.	V.P. %	Cap. MMF/ Ft.	Max. Oper. VRMS	Nom. IMP Ohms	Uses Connector Series	1-99 Per Foot	100-Up Per Foot
36F1162	421-176	142B/U	.195	.116	TF	.039 SCW	69.5	28.5	1900	50	C, N	.68	.65
36F1156	421-135	225/U	.430	.285	TF	7/103-125	69.5	29.5	5000	50	N, C, HN, UHF	2.77	2.19

SUB. MIN. RG CABLES

Stk. No.	Amphenol Number	RG-/U No.	Jacket O.D.	Dielectric O.D.	Dielectric Type	Center Cond.	V.P. %	Cap. MMF/ Ft.	Max. Oper. VRMS	Nom. Imp. Ohms	Uses Connector Series	100 Ft.	500 Ft.	1000 Ft.
36F497	21-597	....	.150	.100	P	7/.00-56CW	69.5	20	2500	75	Subminax	4.58	20.25	36.75
36F498	21-598	174/U	.100	.060	P	7/34CW	65.9	30	1500	50	Subminax	3.30	14.63	26.95

Stk. No.	Amphenol Number	RG-/U No.	Jacket O.D.	Dielectric O.D.	Dielectric Type	Center Cond.	V.P. %	Cap. MMF/ Ft.	Max. Oper. VRMS	Nom. Imp. Ohms	Uses Connector Series	1-99 Per Foot	100-Up Per Foot
36F434	421-106	187U	.110	.060	TF	7/38SCW	69.5	19.5	1200	75	Subminax	.205	.184
36F435	421-109	196/U	.080	.034	TF	7/38SCW	69.5	28.5	1000	50	Subminax	.153	.139
36F1163	421-079	187A/U	.110	.060	TF	7/38SCW	69.5	19.5	1200	75	BNC, Subminax	.23	.20
36F1164	421-077	188A/U	.110	.060	TF	7/.0067SCW	69.5	29.0	1200	50	BNC, Subminax	.24	.22
36F1165	421-075	195A/U	.155	.102	TF	7/38SCW	69.5	15.0	1500	95	BNC, Subminax, TNC	.44	.40
36F1166	421-073	196A/U	.080	.034	TF	7/38SCW	69.5	28.5	1000	50	Subminax	.19	.16

*S—Silvered Copper C—Copper T—Tinned Copper KW—Karma Wire CW—Copperweld P—Polyethylene
SSP—Semi-Solid Polyethylene TF—Teflon SST—Semi-Solid Teflon N—Nichrome SCW—Silver-coated Copperweld
TT—Teflon Tape ‡Maximum.

POLYFOAM COAXIAL CABLES

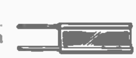
Cellular polyethylene dielectric material provides lower weight, cost, capacitance, and attenuation than standard RG types. Widely used in commercial transmitter applications such as community TV and in ham stations. The dielectric constant is 1.50 as compared to 2.25 for solid polyethylene. It has a specially compounded non-contaminating black polyethylene jacket providing improved weather and abrasion resistance. *Sweep tested—1000 ft. min. order.

Stock No.	Amphenol No.	R G Equiv.	Lbs./ 1000 ft.	Jacket O.D.	Jacket Type	Dielec-tric OD	Center Cond.	Cap. MMF/Ft.	Max. Oper. Volts	Nom. Imp. Ohms	Net Per Foot	Net Per 100 Ft.	Net Per 500 Ft.	Net Per 1000 Ft.
36F1208	621-111	8/U	104	.405	Black Vinyl	.285	7/19C	24.5	1,500	50	.16	13.45	64.58	120.75
36F1211	621-186	59/U	32	.242	Black Poly.	.146	20CW	17.3	1,000	75	....	....	....	43.00

TWIN LEAD TRANSMISSION LINE

TWIN 300 LEAD

Twin lead recommended for UHF-VHF television and FM antenna installations. Use of brown virgin polyethylene dielectric assures minimum signal loss and a more constant impedance over its exceptionally long life. Resistant to sun, chemical fumes, salt laden and gas polluted air.



*Coils, unassembled.

AMPHENOL TWIN LEADS—300 Ohm Television Receiving Types

Description	Type	Lbs. 100 Ft.	25 Ft. Pre-Assembled Hank	NET	50 Ft. Pre-Assembled Hank	NET	100 Ft. Pre-Assembled Hank	NET	500 Feet Stk No.	500 Feet NET	1000 Feet Stk No.	1000 Feet NET
Standard 7/28 Copper Conductors, Brown Poly, 60 Mil Web.	214-056	1⅔	36F249C	.76	36F249B	1.13	36F249A	1.73	36F249F	7.85	36F249	15.60

CONSOLIDATED WIRE

SOLID ENAMELED COPPER ANTENNA WIRE

Stk. No.	Mfg. No.	Description	NET
36F260A	3851	100-ft. Coil #14 Solid Enamel Copper Wire	2.25
36F260B	3851	200-ft. Coil #14 Solid Enamel Copper Wire	4.50
36F260	3851	1000-ft. Spool #14 Solid Enamel Copper Wire	22.50
36F261A	3861	100-ft. Coil #12 Solid Enamel Copper Wire	3.30
36F261B	3861	200-ft. Coil #12 Solid Enamel Copper Wire	6.60
36F261	3861	1000-ft. Spool #12 Solid Enamel Copper Wire	33.00
36F262A	3871	100-ft. Coil #10 Solid Enamel Copper Wire	6.00
36F262B	3871	200-ft. Coil #10 Solid Enamel Copper Wire	12.00
36F262	3871	1000-ft. Spool #10 Solid Enamel Copper Wire	53.63
36F263	3891	100-ft. Coil #8 Solid Enamel Copper Wire	7.50

TINNED COPPER BUS BAR WIRE

Solid soft drawn copper and brightly tinned for all types of soldering connections and other applications. 1000-ft. and 100-ft. spools only.

Type	Nom. Dia.	Size Solid	Circular Mil. Area	Stk. No.	1000 Ft. NET	Stk. No.	100 Ft. NET
3845	.129"	8	16510	36F296	80.25	36F296A	8.51
3841	.102"	10	10380	36F295	55.13	36F295A	5.93
3831	.082"	12	6530	36F294	32.18	36F294A	3.23
3821	.064"	14	4110	36F293	20.93	36F293A	2.10
3815	.051"	16	2583	36F292	12.75	36F292A	1.73
3816	.040"	18	1624	36F291	10.88	36F291A	1.43
3817	.032"	20	1022	36F290	6.90	36F290A	.90
3818	.025"	22	642	36F289	4.43	36F289A	.68
3819	.020"	24	404	36F285	3.75	36F285A	.65
3848	.016"	26	254.1	36F286	3.53	36F286A	.66
3847	.013"	28	159.8	36F287	4.73	36F287A	.63
3848	.010"	30	100.5	36F288	2.85	36F288A	.53

HEAVY FORMVAR MAGNET WIRE

For use in transformers, chokes, transmitters, and the repair and construction of motors. 1 lb. spools.

Stk. No.	Type	Size	NET
36F521	2000	#14	1.59
36F522	2000	#15	1.59
36F523	2000	#16	1.67
36F524	2000	#17	1.68
36F525	2000	#18	1.79
36F526	2000	#19	1.80
36F527	2000	#20	1.80
36F528	2000	#21	1.86
36F529	2000	#22	1.80
36F530	2000	#23	1.84
36F531	2000	#24	1.89
36F532	2000	#25	1.93
36F533	2000	#26	2.04
36F534	2000	#27	2.16
36F535	2000	#28	2.22
36F536	2000	#29	2.40
36F537	2000	#30	2.52
36F538	2000	#31	2.75
36F539	2000	#32	2.79
36F540	2000	#33	2.85
36F541	2000	#34	3.36
36F542	2000	#35	3.67
36F543	2000	#36	4.22
36F544	2000	#37	5.14
36F545	2000	#38	5.61
36F546	2000	#39	7.20
36F547	2000	#40	7.30

MAGNET WIRE ON SPOOLS

Insul. copper wire of highest quality. Standard B&S Ga. We can supply magnet wire in all sizes, types. Write for quantity prices.

PLAIN ENAMELED ½-LB. SPOOLS

Stk. No.	Size	Feet	NET
36F700	14	38	.78
36F701	16	63	.83
36F702	18	101	.86
36F703	20	159	.89
36F704	22	253	.92

PLAIN ENAMELED ½1LB. — Cont.

Stk. No.	Size	Feet	Wt.	NET
36F705	24	253	½ lb.	.95
36F706	26	640	½ lb.	1.01
36F707	28	1013	½ lb.	1.07
36F708	30	1602	½ lb.	1.14
36F709	32	2543	½ lb.	1.20
36F710	34	4042	½ lb.	.94
36F711	36	6410	½ lb.	1.09

DOUBLE COTTON ½-LB. SPOOLS

Stk. No.	Size	Feet	Wt.	NET
36F720	14	40	½ lb.	1.23
36F721	16	60	½ lb.	1.29

DOUBLE COTTON SPOOLS (Continued)

Stk. No.	Size	Feet	Wt.	NET
36F722	18	95	½ lb.	1.40
36F723	20	150	½ lb.	1.51
36F724	22	225	½ lb.	1.67
36F725	24	350	½ lb.	1.86
36F726	26	525	½ lb.	2.01
36F727	28	825	½ lb.	2.39
36F728	30	1200	½ lb.	2.71
36F729	32	1750	½ lb.	3.21
36F730	34	2500	½ lb.	4.05
36F731	36	3725	½ lb.	5.03

3M COMPANY SCOTCH TAPE

ELECTRICAL TAPE

Type 33. General purpose insulation that is strong and conformable. Dielectric strength: 10,000 volts. Is .007" thick and has black plastic backing.

Stk. No.	Type	Size	Color	1-9	10-99
36F898	33	¾"x66'	Blk.	1.39	1.15
36F899	33	¾"x20'	Blk.	.52	.43
36F897	33	¾"x20'	Blk.	.32	.27

COLOR CODED TAPE

Type 35. Vinyl plastic electrical tape for color coding and general purpose insulation. Strong and conformable.

Stk. No.	Type	Size	Color	1-9	10-99
36F900	35	½"x20'	Red	.39	.33
36F901	35	½"x20'	Wh.	.39	.33
36F902	35	½"x20'	Yel.	.39	.33
36F903	35	½"x20'	Gray	.39	.33

ALL-WEATHER TAPE

Type 88. A super-tough flame-retardant black plastic backing provides excellent resistance to abrasion, oil, acids, etc. Extra pliability and conformability at temperatures down to 0°F. The thickness of Type 88 is .0085".

Stk. No.	Type	Size	Color	1-9	10-99
36F886	88	¾"x66'	Blk.	1.62	1.33
36F887	88	¾"x20'	Blk.	.61	.50

TINNED COPPER SHIELDING TAPE

Type 24. All metal 100% tinned copper shielding braid continues electrostatic shielding. Knitted from No. 36AWG wire. Highly conformable.

Stk. No.	Type	Size	Color	1-9	10-99
36F904	24	1"x15'	Tin	2.18	1.92

GLASS-CLOTH INSULATED TAPE

Type 27. For operating temperatures requiring high-heat insulated wires. Thermosetting pressure-sensitive adhesive assures a permanent bond at temperatures up to 300°F. High tensile strength.

Stk. No.	Type	Size	Color	1-9	10-99
36F905	27	½"x66'	Wh.	1.88	1.58

SILICON RUBBER TAPE

Type 70. High temperature splicing tape composed of fully cured inorganic silicone backing with a silicone pressure sensitive adhesive. Excellent conformability, high temperature characteristics, electric strength, and ozone resistance. Self cleaning rubber backing.

Stk. No.	Type	Size	Color	1-9	10-99
36F906	70	¾"x30'	Blk.	5.52	4.65

G.E.

VINYL PLASTIC TAPES

Type AW-1. Flexible, heavy-duty, all-weather electrical tape. Excellent holding at either elevated or below freezing from 0°F to 150°F. PVC backing. Resistant to water, acid, alkali, and oil. Excellent conformability. ¾"x66'

36F912. 1-9; . 1.52 10-99; **1.26**

GENERAL PURPOSE TAPE

Type GP-1. Can be used for all applications normally associated with standard grades of vinyl pressure-sensitive tapes. Excellent conformability allows for use in hundreds of applications. ¾"x66'.

36F913. 1-9;. **1.39** 10-99;.... **1.15**

Wire Markers, Cable Wrappings and Lacing Cord

BRADY WIRE MARKERS

Sub-surface printed under tough, transparent Mylar cover. Self-sticking, thermo-resistant adhesive. Insensitive to moisture, solvents, abrasion; will not dry out or embrittle. Furnished on convenient dispenser cards. Standard strips are 1½" long, for use on cable of up to 3/8" O.D. Miniature sizes are ½" long for use on hookup wire and miniature cable of up to 7/64" O.D. Made-to-order markers on request.

B600 STANDARD SIZE TYPES

SOLID NUMBERS

Stk. No.	Number	1-24	25-99	100-up
30F213	0-200	.22	.20	.16

When ordering, specify individual number(s) desired. Cards contain 36 markers, except numbers 100 and over come 25 per card.

SOLID LETTERS

Stk. No.	Letter	1-24	25-99	100-up
30F214	A-Z	.22	.20	.16

When ordering specify individual letter A to Z. 36 markers per card.

CONSECUTIVE NUMBERS & LETTERS

Stk. No.	Marking	1-24	25-99	100-up
30F215	1-33	.22	.20	.16
30F216	34-66			
30F217	67-99			
30F218	100-124			
30F219	A-Z			

Cards contain one marker for each number or letter in the range listed.

CONNECTOR STRIPS

B-204 black precision slit tape with transparent adhesive conforms to angles and curves readily. Strip Rolls available in 10 fractional widths. Rolls 18 yds long on 1" dia. core.

Stk No.	Type	Size	1-24	25-99	100-up
30F225	CSR015	.015"x18 yds.	.75	.70	.65
30F226	CSR031	.031"x18 yds.	.75	.70	.65
57F1055	CSR062	.062"x18 yds.	.80	.75	.70
57F1056	CSR080	.080"x18 yds.			
57F1057	CSR093	.093"x18 yds.			
57F1058	CSR100	.100"x18 yds.			
30F227	CSR125	.125"x18 yds.			
57F1059	CSR156	.156"x18 yds.	.90	.85	.80
57F1060	CSR200	.200"x18 yds.			
30F228	CSR250	.250"x18 yds.			
30F229	CSR500	.500"x18 yds.	1.50	1.45	1.40

8700 VINYL MINIATURE TYPES

SOLID NUMBERS

Stock No.	Numbers	1-24	25-99	100-up
57F1061	1-25	.30	.27	.22

Each card contains 150 identical markers. Specify number(s) desired when ordering.

SOLID LETTERS

Stock No.	Letters	1-24	25-99	100-up
57F1062	A-Z	.30	.27	.22

Each card contains 150 identical letters. Specify letter(s) desired when ordering.

CONSECUTIVE NUMBERS

Stock No.	Numbers	1-24	25-99	100-up
57F1063	0-49	.30	.27	.22
57F1064	50-99			
57F1065	100-132			
57F1066	133-165			
57F1067	166-198			

Cards contain 3 markers of each number in the range listed.

STOCK TERMINAL CIRCLES

Terminal circles are pre-cut to precise dimensions. Concentricity held to ±.005". Mounted on convenient Blue Streak Dispenser Cards. Available in B-202 Black with smudge-proof transparent adhesive. Always order by number of cards, and not by individual pieces.

Stk. No.	Type	O.D.	I.D.	1-24	25-99	100-up
30F220	TC125-031	.125	.031	.33	.30	.24
30F221	TC187-062	.187	.062			
30F222	TC250-062	.250	.062			
30F223	TC312-062	.312	.062			
30F224	TC375-062	.375	.062			
57F1050	TC375-094	.375	.094			
57F1051	TC400-095	.400	.095			
57F1052	TC437-062	.437	.062			
57F1053	TC500-062	.500	.062			
57F1054	TC500-125	.500	.125			

QUIK-LINE TAPE PEN

30F230. BCA-1. Beam Compass Attachment for TP-4 .... 12.50
30F231. TP-4. Tape Pen and parts in case 14.95

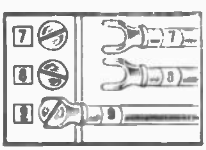
QUIK-ALIGN LETTER AND NUMBER KITS

Do-it-yourself lettering kits. Easy to apply lettering, interlocking notches guarantee professional results. No glueing or moistening tools necessary; self adhesive letters stick tight permanently. Kits contain letters and numbers in relation to the quantities used.

Stock No.	Type Black	Stock No.	Type White	Letter Size	Shpg. Weight	NET
57F1068	QAV533-1B	57F1076	QAV533-1W	1"	1 lb. 6 oz	34.50
57F1070	QAV533-2B	57F1072	QAV533-2W	2"	2 lb. 5 oz.	41.50
57F1073	QAV533-3B	57F1075	QAV533-3W	3"	4 lb. 3 oz	52.00

Stock No.	Type Yellow	Stock No.	Type Red	Letter Size	Shpg. Weight	NET
57F1069	QAV533-1Y	57F1077	QAV533-1R	1"	1 lb. 6 oz.	34.50
57F1071	QAV533-2Y	57F1078	QAV533-2R	2"	2 lb. 5 oz.	41.50
57F1074	QAV533-3Y	57F1079	QAV533-3R	3"	4 lb. 3 oz	52.00

PORTA-PACK WIRE MARKERS



Pocket-size book of 450 vinyl cloth wire markers, which are self sticking, moisture and abrasion resistant; plus matching terminal markers. Flip-Strip Dispenser Cards "pop up" the markers you choose. Card snaps back into place when marking is completed. "Ten Pack" Flip-Strip Dispenser Cards are stocked in 121 different sequences.

Stk. No.	Type	Porta-Pack Books of Markers
57F1081	PWM-PK-1	45 each, 0-9
57F1082	PWM-PK-2	10 each, A-Z and 0-15, +, —, 1
57F1083	PWM-PK-3	10 each, 1-45
57F1084	PWM-PK-4	150 each, 1,2,3
57F1085	PWM-PK-5	150 each, A,B,C
57F1086	PWM-PK-6	150 each, T1, T2, T3
57F1087	PWM-PK-7	150 each, L1, L2, L3
57F1088	PWM-PK-8	6 ea., 1-15; 4 ea. 16-90; 2 ea., A-Z, +, —, 1, 0
57F1089	PWM-PK-9	45 ea., 1-3, A-C; 30 ea., T1-T-3 L1-L3
57F1090	PWM-PK-10	45 ea., 10 different NEMA colors
57F1091	PWM-PK-11	15 each, 1-30
57F1092	PWM-PK-12	15 ea., A-Z, 21 blanks 8 ea. +, 7 ea. —
57F1093	PWM-PK-13	45 ea., +, —, AC, DC,; 33 ea., POS. NEG. GND. 27 NEUT; 21 ea., SPARE. blk

No. of Packs	1-9	10-49	50-99	100-249	250-499	500-999
Price each	2.50	2.25	2.00	1.75	1.63	1.56

ICORE ELECTRO PLASTICS

Spirally cut polyethylene tubing, desirable for cabling loose wires into neat cables. Replaces cable lacing, prevents wire abrasion, replaces spaghetti, and will insulate tools. Allows individual wires to leave cable at any point, excellent insulator, low initial cost. Reusable. Shpg. wt., 1 lb./ft. *Elec. cable wrapping.

Stk. No.	Type	Min. OD	Color	Per Ft. 1-99	Per 100 Feet 100-999	Per 100 Feet 1000-up
36F267	SWP-¼	¼	Red	.08	6.00	5.55
36F269	SWP-¼	¼	Black	.08	6.00	5.55
36F270	SWP-3/8	3/8	White	.13	9.50	8.40
36F271	SWP-3/8	3/8	Red	.13	9.50	8.40
36F273	SWP-3/8	3/8	Black	.13	9.50	8.40
36F274	SWP-3/16	3/16	White	.07	5.30	4.95
36F275	SWP-¼*	¼	White	.08	6.00	5.55

LUDLOW

CABLE LACING CORD

Type N. Number 6 hard twist pure flax electric cable lacing cord. Waxed. The cord tests at 33 lbs. It is completely mildew-proof to meet military specifications number MIL-T-713A. Type N class III. Approximate weight, 1 lb.

36F885. NET **4.40**

DATAK PRODUCTS

INSTANT LETTERING

Individual letters or words can be transferred quickly and neatly to any oil-free surface. Completely dry pressure sensitive ink. Gives a professional finish to chassis, schematics. Each box contains 12 sheets in easy-to-handle 3x5" size. All letters and numbers 1/8" high.

Stk. No.	Type	Character	Color	Each
31F395	9601	Alphabet only	Black	2.50
31F396	9611	Alphabet only	White	2.50
31F397	9612	Numerals only	Black	2.50
31F398	9631	Numerals only	White	2.50

TITLE KIT FOR ELECTRONIC EQUIPMENT

Preprinted dry transfer titles—hundreds of pre-set words. 95% of all electronic panel markings included. 24 sheets—3x5".

Stk. No.	Type	Character	Color	Each
31F393	9581	Alph./words/numerals	Black	4.95
31F394	9591	Alph./words/numerals	White	4.95

METER AND DIAL MARKINGS

Switch patterns, arcs, etc., plus letters and numbers for standard and special rotary tap switches, potentiometers; #968.
31F401. NET **4.95**

MODEL 970-2 DRAFTING SYMBOL—SPECIAL ASSORTMENT

970 Symbol Set with Rapidograph pen, ink, burnishing tool.
31F406. NET **18.95**

TERMINAL & CHASSIS MARKING KIT

Set contains all the standard component identification letters, letter combinations, and numerals used in marking chassis, printed circuit and terminal boards, electronic panels. Marks any oil-free surface. In black or white.
31F400. Type 967 White. **NET** **4.95**
31F402. Type 966 Black. **NET** **4.95**

971 LOGIC SYMBOLS DIAGRAM KIT

Line width .020". Opaque black. Eight 4¾ x 7½ sheets. 3 oz.
31F399 NET **3.50**

ELECTRONIC DRAFTING SYMBOL SET

All common schematic symbols. Line widths and symbol sizes fit in with standard military and industrial drawing procedures. 20 mil line width meet MIL. STD. 15-1. #970 Black.
31F403. NET **15.95**

DATAKOAT PROTECTIVE COATING KIT

Type 04176. Protective coating for lettering transfers effective non-porous surfaces. Kit contains 1 oz. bottle of Datakoat with brush-on cap and 1 oz. bottle of thinner.
31F404. NET **1.00**

DATAKOAT CLEAR PROTECTIVE SPRAY

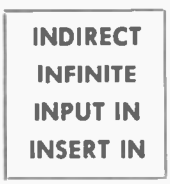
Type 04177. Large, 16 oz. supply of DATAKOAT protective covering under pressure for aerosol spraying. Protects large areas.
31F405. NET **2.95**

TYPE 04178 DATAKOAT MATTE PROTECTIVE SPRAY

For panels, displays, where gloss is objectionable.
31F407. NET **2.95**

RUSSELL INDUSTRIES MARKITS

DRY TRANSFER LETTERING



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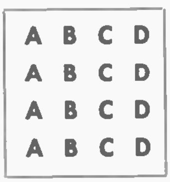
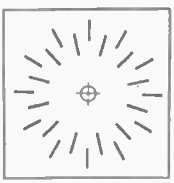
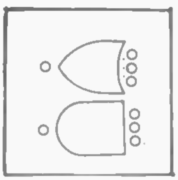


Alphabet

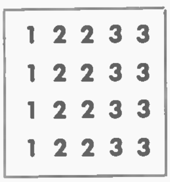


Dial Marking



Logic Symbols

Printed Circuit



Numerals

ELECTRONIC WORDS

An electronics glossary containing over 1000 words from "AC" to "zooms" in alphabetical order.

Stk. No.	Type	Color	1-5	6-11	12 & Up
30F400	EM-1	Black	4.95	4.50	4.25
30F426	EM-1W	White	4.95	4.50	4.25

ALPHABET

Complete alphabet. W suffix indicates white letters — without suffix indicates black letters.

Stk. No.	Type	Size	1-5	6-11	12 & up
30F402	AM-1	1/8"	4.95	4.50	4.25
30F403	AM-1W	1/8"	4.95	4.50	4.25
30F404	AM-2	1/4"	4.95	4.50	4.25
30F405	AM-2W	1/4"	4.95	4.50	4.25
30F406	AM-3	3/8"	4.95	4.50	4.25
30F407	AM-3W	3/8"	4.95	4.50	4.25
30F408	AM-4	1/2"	4.95	4.50	4.25
30F409	AM-4W	1/2"	4.95	4.50	4.25

DIAL MARKING—DM-1

Contains 14 sheets in black and 13 sheets in white dial patterns, switch symbols arcs, wedges, dots, lines, calibrated meter dials, graduation lines, etc.
30F427. 1-5. NET **4.95**
6-11 .... 4.50 **12-Up** 4.25

TERMINAL CHASSIS—TC-1

Contains 15 sheets in black and 12 in white of numbers 0 to 200 plus complete alphabets. Size 1/8".
30F428. 1-5. NET **4.95**
6-11 .... 4.50 **12-Up** 4.25

LOGIC DIAGRAM SYMBOLS

LD-1. Contains Flip Flops, Arrows, arrow heads, time delays, And, Nand, Or, Nor, registers, shift registers, connection dots, Schmidt triggers, single shots.
30F429. 1-5. NET **4.95**
6-11 .... 4.50 **12-Up** 4.25

ETCHING SOLUTION—PCE-1

One pint liquid in unbreakable plastic container. Weight 28 ozs.
30F430. NET **3.00**

PRINTED CIRCUIT PADS

PC-1. Containing thousands of printed circuit pads: circles (with center hole), teardrops (with vanishing point), double end teardrops, double end teardrops (with vanishing points), elbows, terminal), T-connectors, fillets, ovals.

Stk. No.	1-5	6-11*	12 & up*
30F401	4.95	4.50	4.25

NUMERAL

W suffix indicates white numbers—without suffix indicates black letters.

Stk. No.	Type	Size	1-5	6-11*	12 & up*
30F414	NM-1	1/8"	4.95	4.50	4.25
30F415	NM-1W	1/8"	4.95	4.50	4.25
30F416	NM-2	1/4"	4.95	4.50	4.25
30F417	NM-2W	1/4"	4.95	4.50	4.25
30F418	NM-3	3/8"	4.95	4.50	4.25
30F419	NM-3W	3/8"	4.95	4.50	4.25
30F420	NM-4	1/2"	4.95	4.50	4.25
30F421	NM-4W	1/2"	4.95	4.50	4.25

*assorted.

● NEW SCHEMATIC SYMBOLS

DST-1. Thermistors, photocells, zener diodes and SCR's.
30F431. Pkg. of 3 sheets 4.95

BRS-1. Bridge rectifiers, diodes, SCR's.
30F432. Pkg. of 3 sheets 4.95

UNP-1. FET, Unijunction, NPN and PNP transistors.
30F433. Pkg. of 3 sheets 4.95

RCT-1. Capacitors, tubes, resistors, potentiometers and varistors.
30F434. Pkg. of 3 sheets 4.95

BFP-1. Plugs, jacks, switches, lights, and fuses.
30F435. Pkg. of 3 sheets 4.95

CC-1. Ground, shields, contactors and connections.
30F436. Pkg. of 3 sheets 4.95

IRM-1. Relays, contactors, heaters, reactors, rotating components, thermal delay relays, inductors and transformers.
30F437. Pkg. of 3 sheets 4.95

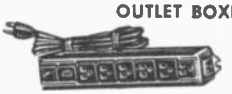
LAB-1. Antennas, amplifiers, speakers, mikes and boxes.
30F438. Pkg. of 3 sheets 4.95

● NEW ESK-1 ELECTRONIC SYMBOL TRANSFER KIT

Eight sheets, one each of schematic symbols at left. The dri-transfers are pressure sensitive and adhere to any oil-free surface. Kit includes transfers of rectifiers, diodes, relays, tubes, potentiometers and more.
30F439. NET **9.95**

waber Powerline Outlet Boxes

"IN-LINE" TYPE "U" GROUND OUTLET BOXES



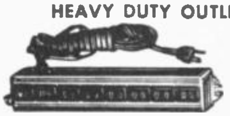
Model 15

Model 17

Series stringing possible. Model 15 is control unit, with fuse or circuit breaker, on-off switch, neon pilot light, and 7 "U" ground outlets. Model 17 is slave unit with 9 outlets; can be used independently when outlets only are required. UL approved components. Size $13\frac{1}{8}$"x$2\frac{3}{8}$"x$1\frac{5}{8}$"; rated 15 amps., 130v cont. Steel case, tough neoprene cord set.

Stk. No.	Model	Description	NET
60F2407	15	fuse, 6' cd. set	8.75
60F2408	15-15	fuse, 15' cd. set	9.75
60F2440	15CB	ckt. brkr., 6' cd. set	9.75
60F2409	15CB-15	ckt. brkr., 15' cd. set	10.75
60F2410	17	6' cord set	6.75
60F2411	17-15	15' cord set	7.75

HEAVY DUTY OUTLET BOXES



Model 20

Model 24

Features of both model types include: Panel mtd. fuse or ckt. brkr.; On-Off switch; Bright neon pilot light; UL approved components; Rated 15 amps, 130V continuous duty; $12\frac{3}{4}$" mtg. ctrs.; Size, $13\frac{1}{8}$"x$2\frac{3}{8}$"x$1\frac{5}{8}$"; Steel case.

St. No.	Model	Description	NET
Model 20 2-Wire Outlet Box			
60F2402	20	fuse, 10' crd. set	5.95
60F2403	20CB	ckt. brkr., 10' cd. set	6.95
Model 24 "U" Ground Outlet Box			
60F2400	24	fuse, 6' cd. set	8.50
60F2438	24-15	fuse, 15' cd. set	9.50
60F2401	24CB	ckt.-bkr., 6' cd. set	9.50
60F2439	24CB-15	ckt.-bkr., 15' cd. set	10.50

"U" GROUND OUTLETS

Model 602

Model 603

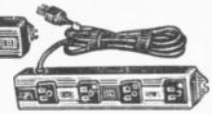
Model 605

Models 602, 603, and 605. Tough neoprene cord set. UL approved, Rated at 15 amperes, 130 volts continuous duty. Steel case finished in silver gray textured hammertone. Fuse or push to reset circuit breaker. $8\frac{1}{4}$" mounting ctrs. Size: $8\frac{5}{8}$x$2\frac{1}{4}$x$1\frac{1}{2}$".

Stk. No.	Model	Description	Net
Model 602. "U" Ground Outlets Only			
60F2420	602	6' cord set	4.80
60F2421	602-15	15' cord set	5.80
Model 603. "U" Ground Outlets—Fuse or Circuit Breaker			
60F2422	603	Fuse 6' cord set	5.25
60F2443	603-15	Fuse 15' cord set	6.25
60F2444	603CB	Ckt. brkr. 6' cord set	6.25
60F2445	603CB-15	Ckt. brkr. 15' cd. set	7.25
Model 605. "U" Ground Outlets Pilot Light On-Off Switch Fuse or Circuit Breaker			
60F2446	605	Fuse, 6' cord set	5.95
60F2447	605-15	Fuse 15' cord set	6.95
60F2448	605CB	Ckt. brkr. 6' cd. set	6.95
60F2449	605CB-15	Ckt. brkr. 15' cd. set	7.95

COLOR CODED SWITCH-OUTLET BOXES

Model 30

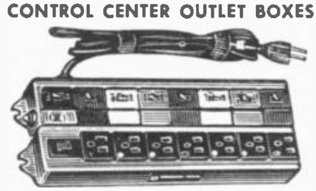


Model 32

Four color keyed switch-outlet groups. Both models available with panel mounted fuse or circuit breaker. Model 30 is the two wire type with a rugged 10' Neoprene cordset. Model 32 is the "U" ground type with a choice of six or fifteen foot Waber high quality neoprene cord-set.

Stk. No.	Model	Description	Net
Model 30-2-Wire Type			
60F2404	30	Fuse, 10' cord set	5.95
60F2405	30CB	Ckt. brkr. 10' cd. set	6.95
Model 32-"U" Ground Type			
60F2412	32	Fuse 6' cord set	8.50
60F2413	32-15	Fuse 15' cord set	9.50
60F2414	32CB	Ckt. brkr. 6' cd. set	9.50
60F2415	32CB-15	Ckt. brkr. 15' cd. set	10.50
Model 32P. "U" Ground Type with neon lite for each switch to show power is on.			
60F2450	32P	Fuse 6' cord set	10.50
60F2451	32P-15	Fuse 15' cord set	11.50
60F2452	32PCB	Ckt. brkr. 6' cd. set	11.50
60F2453	32PCB-15	Ckt. brkr. 15' cd. set	12.50

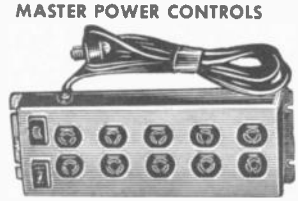
DELUXE COLOR CODED POWER CONTROL CENTER OUTLET BOXES



Model 25 and Model 35 series feature: Individual control, Master control, and Center write-on strip; Master on-off switch plus seven switch outlet sets. Plus other general characteristics featured on listed, preceding series of Waber Industrial Outlet Boxes.

Stk. No.	Model	Description	Net
Model 35-2-Wire Type			
60F2418	35	Fuse 10' cord set	13.50
60F2419	35CB	Ckt. brkr. 10' cd. set	14.50
Model 25. "U" Ground Type			
60F2416	25	Fuse 6' cord set	15.50
60F2417	25-15	Fuse 15' cord set	16.50
60F2441	25CB	Ckt. brkr. 6' cord set	16.50
60F2442	25CB-15	Ckt. brkr. 15' cd. set	17.50
Model 25P. "U" Ground Type with neon lite for each switch to show power is on.			
60F2454	25P	Fuse 6' cord set....	19.50
60F2455	25P-15	Fuse 15' cord set	20.50
60F2456	25PCB	Ckt. brkr. 6' cord set	20.50
60F2457	25PCB-15	Ckt. brkr. 15' cd. set	21.50

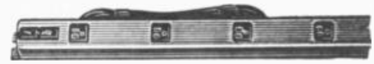
800 SERIES DUPLEX MASTER POWER CONTROLS



"U" Ground outlets. Features: $12\frac{7}{8}$x$2\frac{7}{8}$" mtg. ctrs.; On-Off switch; Rated at 15 amps, 130V continuous duty; Neoprene cord set; Choice of fuse or push-to-reset ckt. bkr.; Steel case of textured hammertone; bright neon pilot light. Size, $13\frac{1}{4}$x$4\frac{1}{4}$x$1\frac{1}{2}$".

Stk. No.	Model	Description	Net
60F2429	800	Fuse 6' cord set	13.50
60F2430	800CB-15	Ckt. brkr. 15' cd. set	15.50
60F2458	800-15	Fuse 15' cord set	14.50
60F2459	800CB	Ckt. brkr. 6' cord set	14.50

"LONG JOHN" SERIES HEAVY DUTY OUTLET BOXES



Model 700

Model 705

Giant 4' outlet boxes. Features: $48\frac{3}{4}$" mtg ctrs.; Size, 49x2x$1\frac{1}{2}$"; UL app'd. components; Rated at 15 amps, 130V continuous duty; Neon pilot light; Neoprene cords; On-Off switch; Steel case finished in silver gray textured hammertone.

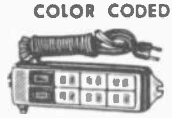
Stk. No.	Model	Description	Net
Model 700 Series. 8 "U" Ground Outlets On-Off Switch, Bright Pilot Light			
60F2423	700	Fuse 6' cord set	14.95
60F2424	700-15	Fuse 15' cord set	15.95
60F2406	700CB	Ckt. brkr. 6' cord set	15.95
60F2460	700CB-15	Ckt. brkr. 15' cd. set	16.95
Model 705 Series, 15 "U" Ground Outlets On-Off Switch, Bright Pilot Light			
60F2425	705	Fuse 6' cord set	18.95
60F2426	705CB	Ckt. brkr. 6' cd. set	19.95
60F2427	705CB-15	Ckt. brkr. 15' cd. set	20.95
60F2461	705-15	Fuse 15' cord set	19.95
Model 710 Series, 8 "U" Ground Outlets Only			
60F2428	710	6' cord set	12.95
60F2462	710-15	15' cord set	13.95
Model 715 Series. 15. "U" Ground Outlets Only			
60F2463	715	6' cord set	16.95
60F2464	715-15	15' cord set	17.95

"STRING BEAN" SERIES OUTLET BOXES

Space-saver size in a sturdy steel case. Completely wired for instant use. Other features include: Tough neoprene cord set; On-Off switch; UL approved components; Rated at 15 amps, 130V continuous duty; Size, 49x$1\frac{1}{2}$x$1\frac{1}{8}$"; Steel case finished in silver gray textured hammertone.

Stk. No.	Model	Description (Set)	Net
Model 1000 Series, 12. "U" Ground Outlets On-Off Switch, Bright Pilot Light.			
60F2465	1000	Fuse 6' cord	15.95
60F2466	1000-15	Fuse 15' cord	16.95
60F2435	1000CB	Ckt. brkr. 6' cord	16.95
60F2468	1000CB-15	Ckt. brkr. 15' cd.	17.95
Model 1002 Series 12. "U"-Ground Outlets Only			
60F2469	1002	6' cord	13.95
60F2470	1002-15	15' cord	14.95
Model 1010 Series. Master On-Off Switch Pilot Light & 8 Sets of "U" Ground Outlets, Pilot Lights and On-Off Switches.			
60F2467	1010	Fuse 6' cord	19.95
60F2471	1010-15	Fuse 15' cord	20.95
60F2436	1010-CB	Ckt. brkr. 6' cord	20.95
60F2472	1010CB-15	Ckt. brkr. 15' cd.	21.95

COLOR CODED CONTROL CENTER



11

12

Built-in circuit breaker protection. 15 amps. 130v continuous duty rating. 10-ft. tough neoprene chrome plated steel case. U.L. listed. Four 2 wire outlets.

Model 11. On-Off Switch and Pilot Light

60F2494. NET **6.95**

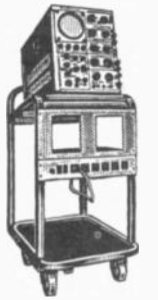
Model 12. Separate On-Off Switch for each outlet

60F2495. NET **6.95**

Electrical Accessories

WABER

LAB ON WHEELS



Low 4 **Low 6**

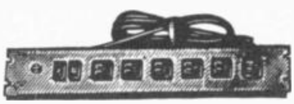
Lab on Wheels. For school, lab, or industrial plant. Features 1 inch square steel tubing for rigidity, strength and durability. Zinc plated with a clear, irridite post plate treatment. Heavy duty, 5 inch wheels with heavy plate casters. Quiet, fast, easy swiveling. Adjustable shelves. Provisions made for mounting Waber outlet boxes. NOTE: Low 3 & 4 each have 5 hardboard shelves. Equipment shown, not included.

Low-3 Single Cantilever.
Size: 28 x 26 x 66"
60F2474 (less outlet box) **NET** .. **149.00**

Low-4 Double Cantilever.
Size: 48 x 26 x 71"
60F2475 (less outlet box) **NET**...... **188.00**

Low-6 "Scope" Dolly. Size 29½x19¼x36½"
60F2476 (less outlet box) **NET**.............89.00
62F2477 ACO-1 Plug-in Shelf..........**NET 17.50**

RACK MOUNTS—MASTER POWER CONTROLS



Model 900

Model 900. Has 6 "U" ground outlets controlled by an on-off switch, with a pilot light, and fuse or ckt. bkr. Cord-set is of tough neoprene.

Stk. No.	Model	Description	Net
60F2431	900	Fuse, 6' cord set	10.95
60F2490	900-15	Fuse, 15' cord set	11.95
60F2432	900CB	Ckt. bkr. 6' cd. set	11.95
60F2491	900CB-15	Ckt. bkr. 15' cd. set	12.95

Model 904 series very similar to 900 series, but with 2 outlets in front, 4 in back. Made to be mtd. on a rack panel for remote control of other Waber power outlet boxes mtd. inside the rack cabinet. Size, 3½x19".

60F2433	904	Fuse, 6' cord set	12.95
60F2434	904-15	Fuse, 15' cd. set	13.95
60F2492	904CB	Ckt. Bkr. 6' cd. set	13.95
60F2493	904CB-15	Ckt. Bkr. 15' cd. set	14.95

CARRIERS

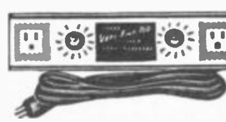
Carriers for use in the lab for equipment mobility, audio-visual applications, or for any other job requiring a sturdy, mobile carrier with shelves. Constructed of one-inch square chrome-plated steel tubing. Shelves are made of durable one-half inch thick plywood laminated with black ribbed non-slip top. All models are 21" x 29", with heights varying from model to model. Capacity of all models is 600 pounds, except the LOW 17 which is 400 pounds. All models feature an outlet box with 3 "U-Ground" outlets, on-off switch, pilot light, fuse protection, and a fifteen-foot neoprene cord set. The outlet box is rated at 15 amps, continuous duty. All models are also equipped with large rubber casters mounted in swivels for easy movement.

MODEL LOW-13
Four-shelf model with a guard rail along the long dimension of the top shelf. Height: 60", Shpg. Wt. 102 lbs.
60F2570. NET **125.00**

MODEL LOW-14
Three shelf model with guard rails on the ends of the top shelf. Height: 58". Shpg. Wt. 72 lbs.
60F2571. NET **120.00**

"VARI-FINE" SOLID STATE AC-DC AC-DC MOTOR SPEED CONTROLLERS

Model 201



Model 202

Space savings "twins" tops for test and production application!

Solid state devices for speed and light control, featuring stepless changes from zero to maximum. Provide infinite control of motor speed and light intensity, and can be used to vary the speed of AC/DC motors of the universal type. Handle load currents up to the maximum rating at 117 volts ,60 hz. Self contained units may be plugged into any wall outlet and are fused for circuit protection. Compact . . . portable. Ideal for applications in the home, laboratory, school, or industry where regulation of motors or light is desirable.

Stock No.	Type	Rated @ 117 VAC	NET
60F2473	200	7 amp	14 95
60F2561	201	12 amp	19.95
60F2562	202	Twin; 7 amp each side	26.95
60F2563	203	Twin; 12 amp each side	34.95

MODEL LOW-15
Dual shelf cart with push handle on one end. Height: 36". Shpg. Wt. 40 lbs.
60F2572. .... **110.00**

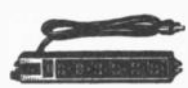
MODEL LOW-17
Dual-shelf model. Height: 32". Shpg. wt. 40 lbs.
60F2573. NET **90.00**

● NEW PORTABLE SCOPE DOLLYS

Model Low 8. Versatile, roll-around scope dolly with built-in 3 section outlet box. The top shelf will take a large variety of instruments and can be adjusted for convenient viewing angles. Size is 34" H. x 19" W. x 31" L.. Outlet box has pilot light, on-off switch, and a panel-mounted fuse. Rated 15 amps, continuous rating. Shpg. Wt. 38 lbs.
60F2568. NET **79.50**

MODEL LOW-25
Rolls in any direction and adjusts to take various sizes of instruments. Equipped with an outlet box featuring a fuse post, switch, pilot light, and 3 grounded outlets. Size: 28" x 32" x 19". Top shelf is at a 20° angle. Shipping weight 32 pounds.
60F2569. NET **42.50**

METER MODELS



24M

607M

220M

230M

Model 220M. Line Voltage Checker. Illuminated, wide angle AC Voltmeter. Reads 0-150 volts. 6 foot cord. Drawn steel case, 4¾ x 2⅛ x 4⅜ inches. Shpg. wt. 2 lbs.
60F2567. NET **5.97**

Model 230M. Outlet Box with Illuminated AC Voltmeter. Reading 0-150 volts for continous monitoring of line.

Stk. No.	Model	Description	Net
60F2478	230M	Fuse, 6' cord	7.50
60F2479	230M-15	Fuse 15' cord	8.50
60F2480	230MCB	Ckt. bkr. 6' cd.	8.50
60F2481	230MCB-15	Ckt. bkr, 15' cd.	9.50

Model 607M. Outlet Box w/AC Voltmeter. Illuminated meter reads 0-150 V. On-off switch and three "U" grounded outlets.

60F2482	607M	Fuse, 6' cord	8.95
60F2483	607M-15	Fuse, 15' cord	9.95
60F2484	607MCB	Ckt. bkr, 6' cd.	9.95
60F2485	607MCB-15	Ckt. bkr, 15' cd.	10.95

Model 24M. Outlet Box w/AC Voltmeter. On-off switch and 6 "U" ground outlets. Illuminated 0-150 AV Voltmeter.

60F2486	24M	Fuse, 6' cord	11.95
60F2487	24M-15	Fuse, 15' cord	12.95
60F2488	24MCB	Ckt. bkr, 6' cd.	12.95
60F2489	24MCB-15	Ckt. bkr, 15' cd.	13.95

WOODHEAD PROTEX

SERVICE LIGHT

Type 611. For servicing hard to get at areas business machines, television equipment and other places where lighting aid becomes necessary. Made with an oil proof "Safety Yellow" Neotex handle.

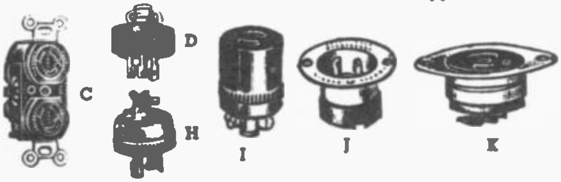
Comes equipped with a 10' oil proof cord, molded 2 prong AC plug, and an insulated 8" tubular guard. Max. O.O. 1⁵⁄₃₂" Wt. 13 oz.

58F825. NET.................. **3.50**
No. 10C7. 10 watt lamp for Type 611 above
58F826. NET ....**.27**

Electrical Components

TWIST-LOCK CONNECTORS

Positive contact connectors that never disconnect accidentally. Simply "plug-in"—twist—and they're locked. Wherever motor-driven tool or portable electrical apparatus are used.
Twist-Lock connecting devices provide maximum safety and efficiency. Conform to National Electrical Code. UL approved.

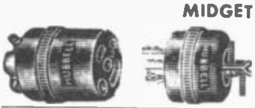


TWIST-LOCK PLUGS AND SOCKETS

3 wire grounding type, 15 amperes, 125 volts.

Stk. No.	Type	Fig.	Description	Std. Pkg.	Ctn.	Net Ea.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F721	4700	C	Receptacle	50	10	3.18	2.81	2.43
32F722	4713	...	Receptacle	50	10	2.12	1.87	1.62
32F723	4715		Receptacle	50	10	2.33	2.06	1.78
32F724	4716	J	Plug	50	10	1.80	1.59	1.37
32F725	4720	D	Plug	50	10	1.54	1.36	1.18
32F726	4726	D	Plug	50	10	1.28	1.13	.98

MIDGET TWIST LOCK



7500 series twist lock for 15 amp 115 volt Cylindrical hollow brass split ring for ground provision. Non-interchangeable unit with UL requirements.

Stk. No.	Type	Std. Pkg.	Ctn.	Net Ea.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F742	7593	50	10	1.99	1.76	1.52
32F743	7594	50	10	1.48	1.31	1.13

MIDGET SIZED CONNECTORS

10 ampere, 3 wire connectors, midget size and polarized. Accomodate .281" to .421" cable. Rated 250 volts at 10 amps; 125 volts and at 15 amps.

32F747	7432	....	Male Plug	.	....	2.05	1.81	1.57
32F748	7433	...	Fem. Con.			2.57	2.27	1.96
38F504	7485	H	Male Plug	50	10	1.13	1.00	.87
38F505	7486	I	Fem. Con.	50	10	1.63	1.44	1.25
38F506	7487	J	Male Plug	50	10	1.45	1.28	1.11
38F507	7486	K	Fem. Con.	50	10	1.76	1.56	1.35

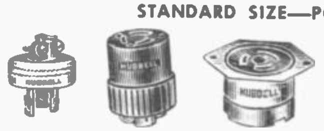
10 AMP 2-WIRE CONNECTORS MIDGET SIZE—UNPOLARIZED

Cord-grip connectors accommodate .312" to .500" diameter cords. Brown bakelite, with metal casings plated to resist corrosion. Female receptacles will accept either polarized or non-polarized caps. 250 volts at 10 amps; 125 volts at 15 amps. U.L.

38F500	7428	H	Male Plug	50	10	.48	.42	.36
38F501	7427	I	Fem. Con.	50	10	.88	.77	.67
38F502	7466	J	Male Base	50	10	1.04	.92	.79
38F503	7468	K	Fem Base	50	10	1.25	1.11	.96
38F518	7479*	H	Male Cap	50	10	.57	.50	.43

*Has one wide and one narrow blade to fit corresponding polarized slots of receptacles.

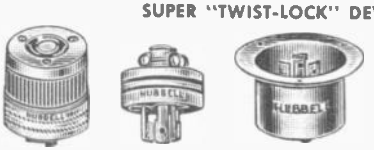
STANDARD SIZE—POLARIZED



10 amp -3 wire cable connectors accommodate .296" to .562" dia. cables. Type 7572 is armored cap. Rated: 250 volts at 10 amps; 125 volts at 15 amps.

38F509	7572	L	Male Plug	50	10	1.34	1.19	1.03
38F510	7555	M	Fem. Con.	50	10	2.13	1.88	1.63
38F511	7556	N	Male Base	50	10	1.76	1.56	1.35
38F512	7557	N	Fem. Base	50	10	1.95	1.72	1.49

SUPER "TWIST-LOCK" DEVICES



Rated: 600 volts at 10 amps.; 250 volts at 20 amps. Take .437" to .750" cables. 20 amp.-3 wire connectors.

38F513	7311	P	Male Plug	30	10	1.93	1.70	1.48
38F514	7313	R	Fem. Con.	30	10	2.97	2.62	2.27
38F515	7327	S	Male Base	30	10	2.29	2.02	1.75
38F516	7328	S	Fem. Base	30	10	3.51	3.10	2.68

SPECIALIZED ELECTRICAL COMPONENTS

SCREW BASE ADAPTER

Type 5612. Converts Medium Screw Base socket to female Edison. Double T-slotted to accept polarized plugs. 660 watts, 125 volts.

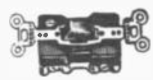
Stk. No.	Net Ea.	Net Ea. Ctn.—10	Ne: Ea. Std. Pkg.—100
32F706	.77	.68	.59

FEMALE GROUNDING-TYPE MOTOR BASE OUTLET

Type 5256. A good, standard grade outlet meeting FED. SPEC. W-C-596(S). Parallel-blade with U-ground. Rated: 15 amps, 125 volts AC or DC. Nickel-plated brass construction. U.L. approved.

Stk. No.	Net. Ea.	Net Ea. Ctn.—10	Net Ea. Std. Pkg.—100
32F746	1.70	1.50	1.30

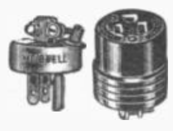
A. C. PILOT LIGHT SWITCH



Type 1277. Operates simultaneously with pilot light. Single pole, 15 A. 120 VAC pilot light "presswitch" with red handle. Brown front, yellow back. Size: 3.281" x 2.437". Shpg. wt., 4 oz.

32F720	2.35	2.07	1.80

3-WIRE GROUNDING TYPE SINGLE OUTLETS



Polarized for grounding exposed metal parts of portable electrical equipment. 5279 has flush housing with permanent type mounting plate (2.437 Dia.). Male recessed 5278 may be permanently attached. 5207 (Dia. 1.531) is "insulpdene" connector body 5280 (1.531 Dia.) grounding cap may be anchored permanently by thumb screw. All are 15A., 125 V.

Stk. No.	Type	Fig.	Description	Std. Pkg.	Ctn.	Net Ea.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F727	5278	....	Male Base	50	10	1.22	1.08	1.30
32F728	5279	....	Female Base	50	10	2.35	2.07	1.24
32F729	5280	E	Male Cap.	50	10	1.62	1.43	1.80
32F730	5207	F	Fem. Con.	50	10	1.70	1.50	.94

DUPLEX GROUNDING ADAPTER

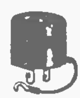
Type 5291. Converts existing parallel or "t" slot duplex receptacles to 3 wire, 15A., 125V. grounding receptacles. Captive mounting screw threads into existing receptacles. Phosphor bronze prongs connect metal plate to ground circuit. 3.328"x1.750"x1.421". Shpg. wt., 6 oz.

32F731	5291	......	Brwn. Bak.	50	10	2.21	1.95	1.69

Type 5266. 3-Wire grounding type caps and bodies, polarized. 15 amps, 125 v. Fitted with "U" shaped blade for grounding.

32F707	5266	....	Rubber Cap	50	10	.96	.85	.73

3-WIRE GROUNDING TYPE ADAPTER



Type 5273-L. For grounding exposed metal parts of portable electrical equipment. Designed to adapt standard 2-wire convenience outlets for use with new 3-wire grounding caps. 15 amps. 125 volts. Shpg. wt., 4 oz. Std. pkg.—50; Carton—10.

Stk. No.	Type	Fig.	Description	Std. Pkg.	Ctn.	Net Ea.	Net Ea. Ctn.	Net Ea. Std. Pkg.
38F517	5273-L	....	....	50	10	1.02	.90	.78

RUBBER FINGER GRIP CAPS

Type 9972. 15 amps. 125V. Parallel Blades. Without cord-grips. Cord hole dia. .312" to .437".

38F520	9972	....	Par. blades	100	25	.41	.36	.31

38F508. 9754. Standard rubber plug with cord-grip. For .296" to .625" diameter cord. Rated: 125 volts at 15 amps.

38F508	9754	....	Rubber plug	50	10	.67	.59	.51

2-WIRE PLUG — ARMORED

Type 7057. Metal body, parallel-blade. Rated: 15 amps, 125V ac/dc. Accepts cord dia. .296-.562. Exposed metal, finished to resist corrosion. Caps feature molded-in blade anchoring inserts.

Stk. No.	Type	Description	Std. Pkg.	Ctn.	Net Ea.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F705	7057	Par. Blades	50	10	.73	.65	.56

HARVEY HUBBELL

CONVENIENCE OUTLETS

Type 95995. Duplex convenience outlets. Side wired-double T-Slots. 15 amps, 125 volts. Breakoff feature for two-circuit installations. Washer ears.

Type 5252. 3-Wire grounding type convenience outlets. Polarized side wired only. Duplex flush mounting receptacle. For grounding exposed metal parts of portable electrical equipment. Unit is side wired with 2 grounding terminals and with parallel slots.

Stock No.	Type	Description	Std. Pkg.	Ctn.	Net Ea. Brkn. Ctn.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F700	9595	Brn. Bakelite	100	10	.60	.53	.46
32F701	5242	Brn. Bakelite	50	10	1.18	1.04	.90

SAFETY GROUNDING RECEPTACLE

Type SG-62. Accepts all U-shaped or round-pin std. grounding caps. Shunts current harmlessly around objects inserted in slots by children. Grounds tools and appliances equipped with std. grounding caps. 15 amps, 125 v. silver plated contact springs. Shpg. wt., 4 oz.

Stk. No.	Type	Descrip.	Std. Pkg.	Ctn.	Net Ea.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F717	SG-62	3-Wire	50	10	2.80	2.46	2.14

TYPE 'T' GROUNDING DEVICE

For use in conjunction with circuits up to 20 amps. Provides for grounding as well as polarized connection. Ideal for use with kitchen appliances and movable equipment.

Stk. No.	Type	Description	Std. pkg.	Ctn.	Net Ea. Brkn. Ctn.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F732	5361*	Sin. rect. slt. & U grd.	50	10	1.88	1.66	1.44
32F733	5362	Dux. rect. slt. & U grd.	50	10	2.63	2.32	2.01
32F734	5364	Am. cap	50	10	1.58	1.40	1.21
32F735	5374	Conn. body	50	10	2.67	2.36	2.04
32F736	5375	Insulprene Cap	50	10	1.81	1.60	1.39

CORD CONNECTORS

Type 7084. Cord connector bodies with double T-Slots—Blk. Bakelite. 15 amps, 125 v. With cord grip.

Type 9952. Rubber cord connector bodies with double T-Slots. 15 amps, 125 v. Cord diameter: .312" to .468".

Type 5269. 3-Wire cord connectors grounding type 15 amps, 125 v. With cord grip. Cord diameter: .296" to .625".

A B

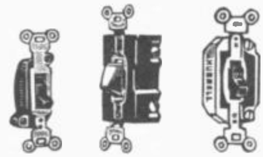
Stock No.	Type	Fig.	Description	Std. Pkg.	Ctn.	Net Ea. Brkn. Ctn.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F702	7084	A	Body	50	10	1.19	1.05	.91
32F703	9952	B	Body	50	10	.77	.68	.59
32F704	5269	A	Body	50	10	1.49	1.32	1.14

SWITCHES

Type 9711. Mercury silent switches. 10 amp, 125 v. 15 amp, 120 v. AC-5 amp, 250 v. Single pole indicating.

Type 1251. 15 amp, AC single pole 120-277 v. Presswitch with feed through terminal.

Type 8801. Flush toggle switches. T-rated—porcelain base—Bakelite handles. 125 v., 10 amp; 250 v., 5 amp.



C D E

Stock No.	Type	Fig.	Description	Std. Pkg.	Ctn.	Net Ea. Brkn. Ctn.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F708	9711	C	Brn. Handle	50	10	1.04	.92	.79
32F709	1251	D	Brn. Button	50	10	1.36	1.20	1.04

AC SWITCHES — 1121 SERIES

For use in shallow base 1¼" boxes. Conforms with MIL-Spec. W-S-896-A; Silver alloy contacts for long life and smooth operation. 20 amps, 120-277V.

Stk. No.	Type	Description	Std. Pkg.	Ctn.	Net Ea. Brkn. Ctn.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F738	1121	S.P.	100	10	1.49	1.32	1.14
32F739	1122	D.P.	10	2	1.76	1.56	1.35
32F740	1123	3-Way	50	10	1.76	1.56	1.35
32F741	1124	4-Way	10	2	4.50	3.97	3.44

CHROME-X (STAINLESS STEEL) PLATES

Type 97071. Toggle switch plates.

Type 97101. Convenience outlet plates.

F G

Stock No.	Type	Fig.	Description	Std. Pkg.	Ctn.	Net Ea. Brkn. Ctn.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F711	97071	F	1-Gang	100	10	.40	.35	.30
32F712	97101	G	1-Gang	100	10	.40	.35	.30

ANGLE CAP

4 position angle cap permit cord entrance from one of four different angles without bending or squeezing behind heavy equipment which often damages or severs the power cord.

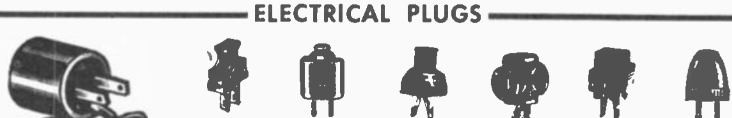
Stock No.	Type	Net Each	Ctn. of 10 Net Each	Std. Pkg. 50 Net Each
32F737	5287	1.59	1.41	1.22

NEWARK

FLOURESCENT STARTER

Stk. No.	Type	Description	1-9	10-99	100-Up
32F713	FS-2	14, 15 & 20 Watt	.26	.23	.20
32F714	FS-4	13, 30 & 40 Watt	.26	.23	.20
32F715	FS-850	90, 100 Watt	1.08	.96	.83
32F716	FS-40	40 Watt	.71	.63	.55

ELECTRICAL PLUGS



A B C D E F G

Fig. A. Parallel Ground Adapter. Adapts the 3-wire grounding cap for use with 2-wire outlets. Shpg. wt. 2 oz.
36F995. NET .... **.30**

Fig. B. Bakelite Plug. Cap size, 1⅜x1¹⁄₁₆x⁹⁄₁₆". Brown. Wt., 4 oz.
36F863. NET .... **.10**

Fig. C. Fused Plug. Small fuses for each side of line fit snugly in cylindrical receptacles. Blown fuse easily removed. Interchangeable with AC plug. Less 3AG fuses. Wt., 3 oz.
36F875. NET .... **.45**

Fig. D. Rubber-handle Plug. Unbreakable soft rubber black plug. Screw terminals. U.L. Approved. Wt., 2 oz.
36F864. NET .... **.10**

Fig. E. Cube Tap. 3 taps. Brown bakelite. Rated at 15 amps 125 volts; 10 amps 250 volts. U.L. approved 4 oz.
36F862. NET .... **.17**

Fig. F. Rubber Cube Tap. New 3-way outlet of one-piece, unbreakable soft rubber. U.L. Approved. 4 ounces.
36F871. NET .... **.21**

Fig. G. Molded Rubber Plug.
36F866. NET .... **.23**

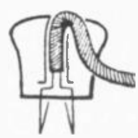
CORDS

Replacement Cord. 6-ft. rubber covered cord with molded plug. Wire ends tinned.
36F860. NET .... **.26**

Vinyl Cube-Tap Extension Cord. Solderless, 3-way extension cord set. With 9-ft. cord and plug. Shpg. wt., 8 oz.
36F872. NET .... **.63**

EAGLE

JIFFY PLUG



Model 900B. Eagle push-pull Jiffy Plug gives better contact w/out stripping wires. Simple 3-step method anyone can do: 1) insert wire through side hole, 2) push wire down for contact, 3) pull wire taut.
36F1002. NET .... **.15**

NEWARK—

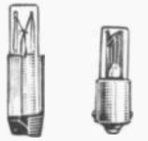
YOUR DEPENDABLE

SOURCE FOR ALL YOUR

ELECTRONIC NEEDS

Sylvania Miniature Lamp Products

PILOT LAMPS



Slide Base Bayonet Base

Slide or bayonet base pilot lamps have increased size, 1.056" high x 1/4" diameter, to permit use of supports for fillament, thus allowing use in vibration and shock conditions. Bayonet base offers same shock resistant feature and is for use where it may not be advantageous to replace older apparatus. All bulbs offer long life, 5,000-hour. Min. life. Wt. 2 oz.

Slide Base		Min. Bayonet					
Stk. No.	Type	Stk. No.	Type	Volts	Watts	Amps	Ohms
35F2800	6PSB	35F2807	6MB	6	.8	.14J	5
35F2801	12PSB	35F2808	12MB	12	2.0	.170	7
35F2802	24PSB	35F2809	24MB	24	1.7	.073	28
35F2803	28PSB	35F2810	28MB	28	1.1	.040	82
35F2804	48PSB	35F2811	48MB	48	2.5	.053	95
35F2805	60PSB	35F2812	60MB	60	3.0	.050	118
35F2806	120PSB	35F2813	120MB	120	3.0	.025	625
....	..	35F2814	120MB/6	120	6.0	.052	275

PRICES	1-9	10-99	100-499	500-999	1000-Up
	.51	.44	.42	.37	.34

PANEL LIGHT SOCKETS AND LENSES

Model 30152-0 is made of phenolic for use with pilot lamps (PSB Series). Model 30153-0 is nylon, to be used with indicator lamps (ESB Series). Sockets are designed for use with slide base indicator lamps and are rated for 75 watts, 125 volts. Contacts are nickel plated, matching lamps base, to prevent freezing in socket. Quick mounting with a Tinnerman speed clip. Lenses are made of a high-temperature polycarbon material which eliminates lens warping and signal distortion due to heat. Unique internal design of lens allows for a wider viewing range. 2 oz. U. L. approved.

Stk. No'	Type	1-9	10-99	100-499	500-999	1000-Up
35F2815	30152-0	.30	.27	.25	.23	.21
35F2816	30153-0	.28	.25	.23	.21	.19

Round Lens		Square Lens		
Stk. No.	Type	Stk. No.	Type	Color
35F2817	30160-0	35F2823	30170-0	Red
35F2818	30161-0	35F2824	30171-0	Clear
35F2819	30162-0	35F2825	30172-0	Amber
35F2820	30163-0	35F2826	30173-0	White
35F2821	30164-0	35F2827	30174-0	Green
35F2822	30165-0	35F2828	30175-0	Blue

PRICES	1-9	10-99	100-499	500-999	1000-Up
	.19	.17	.15	.13	.11

UNIVERSAL PILOT LIGHT HOUSING

Two types: a rugged, general purpose housing made entirely of phenolic with a threaded metal bezel (30099-0); all-phenolic type (30094-0) where chrome bezel is not wanted. For use with slide base lamps only. (PSB Series).

Stk. No.	Type	1-9	10-99	100-499	500-999	1000-Up
35F2829	30099-0	.65	.56	.51	.49	.47
35F2830	30094-0	.51	.50	.45	.39	.34

LENSES

Made of Lexan, a high temperature plastic that performs well up to 290°F. Lexan provides wider visability than glass.

Jeweled		Transparent		Translucent		
Stk. No.	Type	Stk. No.	Type	Stk. No.	Type	Color
35F2831	30100-0	35F2835	30110-0	35F2841	30130-0	Red
35F2832	30106-0	35F2836	30111-0	....		Amber
35F2833	30102-0	35F2837	30112-0	35F2842	30132-0	Green
35F2834	30103-0	35F2838	30113-0	....		Blue
....	....	35F2839	30114-0	35F2843	30131-0	Yellow
....	. . . . .	35F2840	30116-0	....	.. .	Clear
....	.. ..	....	....	35F2844	30133-0	White

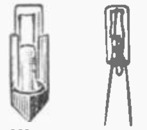
PRICES	1-9	10-99	100-499	500-999	1000-Up
	.20	.19	.17	.15	.14

ANNUNCIATOR LAMPS

Long life annunciator lamps designed for use in elevator panels, call boards, etc. Lamps are 7/8" wide and 1 3/16 inches long. Each lamp operates a minimum of 5,000 hours. Their unique light control is made possible by a self-contained reflector. Available with candelabra or bayonet base.

Candelabra		Bayonet							
Stk. No.	Type	Stk. No.	Type	Vts.	1-9	10-99	100-499	500-999	1000-Up
35F2845	12RC	35F2848	12RB	12	.73	.69	.65	.62	.52
35F2846	60RC	35F2849	60RB	60	.73	.69	.65	.62	.52
35F2847	120RC	35F2850	120RB	120	.73	.69	.65	.62	.52

INDICATOR LAMPS



Slide Base Unbased

Indicator lamps which offer 5,000 hours of use minimum, are 1/4" in diameter. A slide type base has two metal contacts embedded in molder nylon insulator. Straight sidewall design provides for a stronger base. All unbase lamps have 7/8 inch lead length. Life ratings range from 5000 to 15,000 hours. Shpg. wt. 2 oz.

SLIDE BASE

Stk. No.	Type	V	Watts	Amps	Ohms	1-9	10-99	100-499	500-999	1000-Up
35F2851	4ESB	4	.16	.040	12	.46	.40	.38	.31	.31
35F2852	5ESB	5	.20	.040	17	.46	.40	.38	.31	.31
35F2853	6ESB	6	.24	.040	19	.46	.40	.38	.31	.31
35F2854	10ASB	10	.10	.010	157	.70	.60	.53	.50	.46
35F2855	10CSB	10	.18	.017	115	.46	.40	.38	.31	.31
35F2856	10ESB	10	.40	.040	28	.46	.40	.38	.31	.31
35F2857	12ESB	12	.36	.040	33	.46	.40	.38	.31	.31
35F2858	16CSB	16	.28	.017	126	.46	.40	.38	.31	.31
35F2859	16ESB	16	.64	.040	43	.46	.40	.38	.31	.31
35F2860	18ESB	18	.72	.040	46	.46	.40	.38	.31	.31
35F2861	24CSB	24	.42	.017	157	.46	.40	.38	.31	.31
35F2862	24ESB	24	.96	.040	67	.46	.40	.38	.31	.31
35F2863	28ESB	28	1.12	.040	80	.46	.40	.38	.31	.31
35F2864	48ESB	48	1.92	.040	185	.51	.48	.42	.37	.35

UNBASED

Stk. No.	Type	V	Watts	Amps	Ohms	1-9	10-99	100-499	500-999	1000-Up
35F2865	4ES	4	.16	.040	12	.36	.31	.28	.25	.23
35F2866	5ES	5	.20	.040	17	.36	.31	.28	.25	.23
35F2867	6ES	6	.24	.040	19	.36	.31	.28	.25	.23
35F2868	6.3ES	6.3	.....	.170	......	.40	.35	.30	.25	.20
35F2869	1779D	6	.20	.040	17	.40	.35	.30	.25	.20
35F2870	1868D	8	.70	.090	9	.40	.35	.30	.25	.20
35F2871	10AS	10	.10	.010	157	.51	.48	.42	.37	.35
35F2872	10CS	10	.18	.017	115	.36	.31	.28	.25	.23
35F2873	2143D	10	.18	.017	115	.40	.35	.30	.25	.20
35F2874	2138D	10	.40	.040	28	.40	.35	.30	.25	.20
35F2875	10ES	10	.40	.040	28	.36	.31	.28	.25	.23
35F2876	10E	10	.40	.040	28	.36	.31	.28	.25	.23
35F2877	12ES	12	.36	.040	33	.36	.31	.28	.25	.23
35F2878	16CS	16	.28	.017	126	.36	.31	.28	.25	.23
35F2879	16ES	16	.64	.040	43	.36	.31	.28	.25	.23
35F2880	18ES	18	.72	.040	46	.36	.31	.28	.25	.23
35F2881	24CS	24	.42	.017	157	.36	.31	.28	.25	.23
35F2882	24ES	24	.96	.040	67	.36	.31	.28	.25	.23
35F2883	1757D	24	......	.030	......	.40	.35	.30	.25	.20
35F2884	2116D	24	.90	.040	......	.40	.35	.30	.25	.20
35F2885	2137U	28	1.12	.040	80	.40	.35	.30	.25	.20
35F2886	28ES	28	1.12	.040	80	.36	.31	.28	.25	.23
35F2887	1785D	30	2.2	.072	39	.40	.35	.30	.25	.20
35F2888	2117D	35	1.4	.040	86	.40	.35	.30	.25	.20
35F2889	1776D	48	4.8	.100	50	.40	.35	.30	.25	.20
35F2890	1786D	48	1.7	.035	160	.40	.35	.30	.25	.20
35F2891	2125D	48	1.0	.021	390	.40	.35	.30	.25	.20
35F2892	48ES	48	1.92	.040	185	.41	.35	.33	.28	.26
35F2893	1799D	55	2.90	.052	115	.40	.35	.30	.25	.20
35F2894	1787D	60	3.0	.050	123	.40	.35	.30	.25	.20

SINGLE INDICATOR SOCKETS

Square type socket is made of nylon, the round socket of phenolic. Tinnerman clips allow for quick and easy front-of-panel mounting.

Stk. No.	Type	Description	1-9	10-99	100-499	500-999	1000-Up
35F2897	30150	Round socket	.26	.24	.22	.19	.18
35F2898	30151	Rectangle	.26	.24	.22	.19	.18

STRIP SOCKETS

Twelve sockets strips that may be used in line or separately. Sockets cut easily from strip.

Stk. No.	Type	Distance Between Centers	1-9	10-19	20-49	50-99	100-Up
35F2895	31250	1/2"	2.98	2.79	2.54	2.39	2.24
35F2896	31275	3/4"	2.98	2.79	2.54	2.39	2.24

END COLOR CAPS

Pyrex caps for lamps exceeding 1.5 watts; profax caps for lesser wattages.

Profax		Pyrex							
Stk. No.	Type	Stk. No.	Type	Color	1-9	10-99	100-499	500-999	1000-Up
35F2899	38001	35F2904	38071	Red	.07	.065	.06	.055	.05
35F2900	38002	35F2905	38072	Yellow	.07	.065	.06	.055	.05
35F2901	38003	35F2906	38073	White	.07	.065	.06	.055	.05
35F2902	38004	35F2907	38074	Green	.07	.065	.06	.055	.05
35F2903	38005	35F2908	38075	Blue	.07	.065	.06	.055	.05

LAMP T-LITE

For printed circuit boards, indicator panels, call boards, etc. Offers a minimum of 5,000 hours of operation at 5-6 volts, 60 MA. Lighted area is 5/16-inch in diameter. Simple plug in installation.

Stk. No.	Color	1-9	10-99	100-499	500-999	1000-Up
35F2909	Red	.90	.87	.78	.71	.65
35F2910	Yellow	.90	.87	.78	.71	.65
35F2911	White	.90	.87	.78	.71	.65

SYLVANIA

CARTRIDGE LAMPS

The cartridge lamps provide a far sharper signal in all lens colors than outmoded neon lights and save cost by eliminating expensive transformers. Constructed of black anodized metal sleeves. All cartridge lamps have clear ends. For use with housing at right.

PILOT CARTRIDGE LAMPS

Stock No.	Type	Volts	Watts	Amps	1-9	10-24	25-99	100-249	250-499	500-Up
35F2912	21	6	.8	.140	.97	.87	.80	.72	.63	.56
35F2913	31	12	2.0	.170	.97	.87	.80	.72	.63	.56
35F2914	41	24	1.7	.073	.97	.87	.80	.72	.63	.56
35F2915	51	28	1.1	.040	.97	.87	.80	.72	.63	.56
35F2916	61	48	2.5	.053	.97	.87	.80	.72	.63	.56
35F2917	71	60	3.0	.050	.97	.87	.80	.72	.63	.56
35F2918	81	120	3.0	.025	.97	.87	.80	.72	.63	.56

INDICATOR CARTRIDGE LAMPS

Stock No.	Type	Volts	Watts	Min. Amps	1-9	10-24	25-99	100-249	250-499	500-Up
35F2919	901	4	.16	.035	.97	.87	.80	.72	.63	.56
35F2920	905	5	.20	.035	.97	.87	.80	.72	.63	.56
35F2921	909	6	.24	.035	.97	.87	.80	.72	.63	.56
35F2922	913	10	.10	.009	1.09	.99	.92	.84	.75	.68
35F2923	914	10	.18	.015	.97	.87	.80	.72	.63	.56
35F2924	915	10	.40	.035	.97	.87	.80	.72	.63	.56
35F2925	918	12	.36	.035	.97	.87	.80	.72	.63	.56
35F2926	925	16	.28	.015	.97	.87	.80	.72	.63	.56
35F2927	926	16	.64	.035	.97	.87	.80	.72	.63	.56
35F2928	930	18	.72	.035	.97	.87	.80	.72	.63	.56
35F2929	933	24	.42	.015	.97	.87	.80	.72	.63	.56
35F2930	934	24	.96	.035	.97	.87	.80	.72	.63	.56
35F2931	938	28	1.12	.035	.97	.87	.80	.72	.63	.56
35F2932	941	48	1.92	.035	1.00	.90	.80	.72	.63	.56

CARTRIDGE LIGHT HOUSING

Cartridge light housing and facing nut are of black anodized aluminum as per MIL-A-8625. Base insulation is molded phenolic. With turret lugs. Mounts in .375" hole. For cartridge lamps at left. SM-1 and SM-1A for indicator lamps; SM-2 and SM-2A for pilot lamps. "A" designated solder lugs; others turret lugs.

Stk. No.	Type	1-9	10-24	25-99	100-249	250-499	500-Up
35F2933	SM-1	.91	.82	.76	.68	.61	.55
35F2934	SM-1A	.91	.82	.76	.68	.61	.55
35F2935	SM-2	.91	.82	.76	.68	.61	.55
35F2936	SM-2A	.91	.82	.76	.68	.61	.55

CARTRIDGE LENSES

Constructed of polycarbons with high working temperatures that eliminates signal distortion and lens melting. Black anodized aluminum bezels. For housings listed above. Dia., .505".

Transparent		Translucent								
Stk. No.	Type	Stk. No.	Type	Color	1-9	10-24	25-99	100-249	250-499	1000-Up
35F2937	30140			Amber	.26	.25	.24	.23	.22	.21
35F2938	30141			Clear	.26	.25	.24	.23	.22	.21
35F2939	30142	35F2942	30147	Red	.26	.25	.24	.23	.22	.21
35F2940	30143	35F2943	30148	Blue	.26	.25	.24	.23	.22	.21
35F2941	30144	35F2944	30149	Green	.26	.25	.24	.23	.22	.21
		35F2945	30145	Yellw	.26	.25	.24	.23	.22	.21
		35F2946	30146	White	.26	.25	.24	.23	.22	.21

ALCO READOUT INDICATORS

MOSAIC SERIES — FIGURE G

Numerals 0-9 and some alphabet displayed by simple operation of diode-matrix or encording switch (not supplied). High illumination display is provided with low voltage, low intensity lamps. Closely interlocked illuminated segments provide bright, wide viewing angle. Figure size 25/32" high. Bulb life is 20,000 hours. Body size .827 x 1.73" x 1.69".

Stk. No.	Type	Description	1-9	10-24	25-49	50-99
INDICATORS						
61F962	MS-6A	6.3 Volts	9.95	7.95	6.95	6.35
61F963	MS-14A	14 Volts	9.95	7.95	6.95	6.35
SOCKETS AND FILTERS						
61F964	MS-SKT	Socket	.80	.66	.58	.48
61F965	MS-FLV	Violet Filter				
61F966	MS-FLR	Red Filter				
61F967	MS-FLG	Green Filter				
ACCESSORIES FOR RK, RKP AND RKF SERIES						
61F985	RK-SKT	Pr. Socket	1.95	1.56	1.36	1.24
61F986	RK-SKT-C*	Pr. Socket	2.95	2.36	2.06	1.92
61F987	RKA-2-8**	Bracket	1.95	1.56	1.36	1.24
61F988	RK-FLV	Filter	.50	.40	.36	.31

*With cover **Holds 2 to 8 readouts (RK, RKP)

RKP SERIES — FIGURE H

Designed for ease of use and interchangeability. .55" high numerals. Unique in-line design provides clear display without focusing problems. Long-life bulbs give 20,000-50,000 hours. .78" wide x 2.56" high x .83" deep body size.

Stk. No.	Type	Volts	1-9	10-24	25-49	50-99
61F976	RKP-6	6.3	10.45	8.34	7.29	6.66
61F977	RKP-14	14.	10.45	8.34	7.29	6.66
61F978	RKP-24	24.	10.95	8.74	7.64	6.98

Fig. G

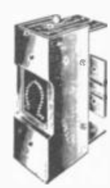


Fig. J

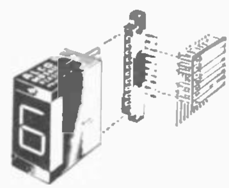


Fig. H

RKF SERIES — FIGURE I

Bright, one-inch high numerals lighted by two bulbs. The added bulb also acts as a safety feature in the event one of the lamps should fail. Large body 3.30" high x 1.18 wide and deep. Reads out numerals 0 to 9 and period. One-piece aluminum body.

Stk. No.	Type	Volts	1-9	10-24	25-49	50-99
61F979	RFK-6	6.3	18.95	15.16	13.26	12.13
61F980	RFK-14	14.	18.95	15.16	13.26	12.13
61F981	RFK-24	24.	19.95	15.96	13.97	12.77

RK SERIES — FIGURE J

Precision machined from one-piece aluminum which also serves as a heat sink for the bulbs. Front and rear tapped mounting holes for choice of positioning. Illuminates numerals 0 to 9 and a period. .55" high numerals. Body size: 2.56" x .78" x .83".

Stk. No.	Type	Volts	1-9	10-24	25-49	50-99
61F982	RK-6	6.3	9.95	7.95	6.95	6.35
61F983	RK-14	14	9.95	7.95	6.95	6.35
61F984	RK-24	24	10.45	8.34	7.29	6.66

MALLORY "SOLID STATE" AUDIBLE SIGNAL DEVICE

Models SC-628 and SC-628H

Model SCA-628A SCA-628P and SC-110

Respond to 3 milliamps of current with a sound output of 70 decibles. Ideal replacement for conventional high-power signaling devices—suitable for use as light indicator. Mounts in seconds! Has no mechanical linkage or contacts, is free from arching, creates no RF fields and provides reliable remote communication. Eliminates need for supervision of light indicators. Low power drain assures extended battery life.

Model SC-628. Occupies less than 2.9 cubic inches. 6 to 28 VDC. 2800 CPS.

SPECIFICATIONS

Type	Freq.	Volts	mA	dB	Temp. F°
SC628	2.5 kHz	6-28DC	3-14	68-80	—40. + 130
SC628	2.5 kHz	6-28DC	3-14	65-77	—40. + 130
SC628H	4.5 kHz	6-28DC	3-14	68-80	—40. + 130
SC628A	2.5 kHz	6-28AC/DC	3-14	68-80	—40. + 130
SC110	2.5 kHz	110AC/DC	14	80	—40. + 130

ORDERING INFORMATION

Stock No.	Type	1-24	25-49	50-99	100-249	250-499	500-Up
64F300	SC628	5.50	5.40	5.15	4.65	4.15	3.85
64F304	SC628P	9.95	9.75	9.30	8.40	7.45	6.85
64F301	SC628H	6.35	6.25	5.95	5.40	4.80	4.40
64F302	SC628A	8.75	8.60	8.20	7.40	6.60	6.10
64F303	SC110	8.75	8.60	8.20	7.40	6.60	6.10

DIALCO® Datalites

ULTRA-MINIATURE INDICATOR LIGHTS


A


B


C


D

Ideal for data-processing equipment, computers and automation applications. All units fully insulated. Conforms to applicable military specifications. Lamp Cartridges consist of unbased A1B Neon Lamps or T-1¾ wire-lead Incandescent Lamps, mounted in aluminum sleeves and caped with plastic lenses.

(FIGS. A-B) NEON GLOW

The A1B Neon Glow Lamp has formed tip and double length electrodes; 1/25 watt; starting voltage of 65 AC and 90 DC. Use 100K ohm resistor for 105 to 125 volts. Overall size of lamp cartridge, 1¹⁹⁄₆₄"x²¹⁄₆₄". Ave. Shpg. Wt., 1 oz.

FIG. A STOVEPIPE TRANSPARENT NEON CARTRIDGES

Stk. No.	Type	Lens Color	1-9	10-24	25-99	100-249	250-499	500-999
25F1100	507-3835-0931-600	Red	.88	.81	.74	.64	.58	.52
25F1101	507-3835-0933-600	Amber						
25F1102	507-3835-0935-600	White						
25F1103	507-3835-0936-600	Lt. Yel.						
25F1104	507-3835-0937-600	Clear						

As above, but with A1C High Brightness Lamp.

Stk. No.	Type	Lens Color	1-9	10-24	25-99	100-249	250-499	500-999
25F1229	507-3836-0931-600	Red	.88	.81	.74	.64	.58	.52
25F1230	507-3836-0933-600	Amber						
25F1231	507-3836-0935-600	White						
25F1232	507-3836-0936-600	Lt. Yel.						
25F1233	507-3836-0937-600	Clear						

FIG. B. LONG CYLINDRICAL NEON GLOW LAMP CARTRIDGES

Stk. No.	Type	Lens Color	1-9	10-24	25-99	100-249	250-499	500-999
25F1105	507-3835-1531-600	Red	.88	.81	.74	.64	.58	.52
25F1106	507-3835-1533-600	Amber						
25F1107	507-3835-1535-600	White						
25F1108	507-3835-1536-600	Lt. Yel.						
25F1109	507-3835-1537-600	Clear						

As above, but with A1C High Brightness Lamp.

Stk. No.	Type	Lens Color	1-9	10-24	25-99	100-249	250-499	500-999
25F1234	507-3836-1531-600	Red	.88	.81	.74	.64	.58	.52
25F1235	507-3836-1533-600	Amber						
25F1236	507-3836-1535-600	White						
25F1237	507-3836-1536-600	Lt. Yel.						
25F1238	507-3836-1537-600	Clear						

FIG. D STOVEPIPE INCANDESCENT LAMP CARTRIDGES (TRANSLUCENT)

(6-Volt, 0.2-Amp.)

Stk. No.	Type	Lens Color	1-9	10-24	25-99	100-249	250-499	500-999
25F1110	507-3906-0971-600	Red	1.15	1.06	.97	.88	.81	.73
25F1111	507-3906-0972-600	Green						
25F1112	507-3906-0973-600	Amber						
25F1113	507-3906-0974-600	Blue						
25F1114	507-3906-0975-600	White						
25F1115	507-3906-0976-600	Lt. Yel.						

(6.3-Volt, 0.2-Amp.)

Stk. No.	Type	Lens Color	1-9	10-24	25-99	100-249	250-499	500-999
25F1239	507-3909-0971-600	Red	1.21	1.12	1.02	.92	.85	.77
25F1240	507-3909-0972-600	Green						
25F1241	507-3909-0973-600	Amber						
25F1242	507-3909-0974-600	Blue						
25F1243	507-3909-0975-600	White						
25F1244	507-3909-0976-600	Lt. Yel.						

(14-Volt, 0.08-Amp.)

Stk. No.	Type	Lens Color	1-9	10-24	25-99	100-249	250-499	500-999
25F1116	507-3913-0971-600	Red	1.20	1.11	1.01	.92	.84	.76
25F1117	507-3913-0972-600	Green						
25F1118	507-3913-0973-600	Amber						
25F1119	507-3913-0974-600	Blue						
25F1120	507-3913-0975-600	White						
25F1121	507-3913-0976-600	Lt. Yel.						

As above, but with Long Life Bulb of approximately 50,000 hours.

Stk. No.	Type	Lens Color	1-9	10-24	25-99	100-249	250-499	500-999
25F1245	507-3914-0971-600	Red	1.28	1.18	1.08	.98	.90	.81
25F1246	507-3914-0972-600	Green						
25F1247	507-3914-0973-600	Amber						
25F1248	507-3914-0974-600	Blue						
25F1249	507-3914-0975-600	White						
25F1250	507-3914-0976-600	Lt. Yel.						

(28-Volt, 0.04-Amp.)

Stk. No.	Type	Lens Color	1-9	10-24	25-99	100-249	250-499	500-999
25F1122	507-3917-0971-600	Red	1.10	1.02	.93	.84	.76	.68
25F1123	507-3917-0972-600	Green						
25F1124	507-3917-0973-600	Amber						
25F1125	507-3917-0974-600	Blue						
25F1126	507-3917-0975-600	White						
25F1127	507-3917-0976-600	Lt. Yel.						

Connections are brought out as stainless steel pins mounted in nylon insulation and offset to provide polarization. Datalites with permanent NE-2 Series Neon Glow Lamps are designed for use where lamp replacement is not necessary. Legends can be hot-stamped on the flat front surfaces of the cylindrical lenses.

See following page for listing of Dialco Holders

(A—C) LAMP CARTRIDGES

For Twin Lamp & Single Lamp Holder

A1B Neon Lamps or T-1¾ wire-lead incandescent Lamps, in alum. sleeves with plastic lenses. Connections — stainless steel pins in nylon insul. and offset to provide polarization.

FIG. C SHORT CYLINDRICAL INCANDESCENT LAMP CARTRIDGES

(6-Volt, 0.2-Amp.)

Stk. No.	Type	Lens Color	1-9	10-24	99	100-249	250-499	500-999
25F1128	507-3906-1471-600	Red	1.15	1.06	.97	.88	.81	.73
25F1129	507-3906-1472-600	Green						
25F1130	507-3906-1473-600	Amber						
25F1131	507-3906-1474-600	Blue						
25F1132	507-3906-1475-600	White						
25F1133	507-3906-1476-600	Lt. Yel.						

(14-Volt, 0.08-Amp.)

Stk. No.	Type	Lens Color	1-9	10-24	25-99	100-249	250-499	500-999
25F1134	507-3913-1471-600	Red	1.20	1.11	1.01	.92	.84	.76
25F1135	507-3913-1472-600	Green						
25F1136	507-3913-1473-600	Amber						
25F1137	507-3913-1474-600	Blue						
25F1138	507-3913-1475-600	White						
25F1139	507-3913-1476-600	Lt. Yel.						

(28-Volt, 0.04-Amp.)

Stk. No.	Type	Lens Color	1-9	10-24	25-99	100-249	250-499	500-999
25F1140	507-3917-1471-600	Red	1.10	1.02	.93	.84	.76	.68
25F1141	507-3917-1472-600	Green						
25F1142	507-3917-1473-600	Amber						
25F1143	507-3917-1474-600	Blue						
25F1144	507-3917-1475-600	White						
25F1145	507-3917-1476-600	Lt. Yel.						

NEON CARTRIDGES

Has BUILT-IN RESISTOR (1/10) watt). For the 507-4537, the resistance value is 56,000 ohms for use on 105-125 volts AC or DC. For the 507-4538 (High Brightness), the resistance value is 22,000 ohms for use on 110-125 volts AC.

Type 507-4537. With built-in 56K resistor for 105-125 ohms volts, AC or DC. *Colorless.

Fig. A. Stovepipe		Fig. B Long Cyl.		
Stock No.	Type 507-4537	Stock No.	Type 507-4537	Lens Color
25F1180	-0931-640	25F1185	-1531-640	Red
25F1181	-0933-640	25F1186	-1533-640	Amber
25F1182	-0935-640	25F1187	-1535-640	White
25F1183	-0936-640	25F1188	-1536-640	Lt. Yel.
25F1184	-0937-640	25F1189	-1537-640	Clear*

Type 507-4538. With built-in 22K resistor for 110-125 volts AC.

Fig. A. Stovepipe		Fig. B Long Cyl.		
Stock No.	Type 507-4538	Stock No.	Type 507-4538	Lens Color
25F1190	-0931-610	25F1195	-1531-610	Red
25F1191	-0933-610	25F1196	-1533-610	Amber
25F1192	-0935-610	25F1197	-1535-610	White
25F1193	-0936-610	25F1198	-1536-610	Lt. Yel.
25F1194	-0937-610	25F1199	-1537-610	Clear*

1-9	10-24	25-99	100-249	250-499	500-999
1.18	1.09	1.01	.92	.83	.75

FLAT INCANDESCENT DATALAMP CARTRIDGES

Not for use with Datalamp or Data Twin assembly. Use only with separate 515-0050 or 515-0012 Datalamp Cartridge Connector and 515-0051 Speed Clip.

(28-Volt 1.35 Amp.)

25F1093	507-3917-0371-600	Red	1.10	1.02	.93	.84	.76	.68
25F1094	507-3917-0372-600	Green						
25F1095	507-3917-0373-600	Amber						
25F1096	507-3917-0375-600	White						

To Serve You Better—Eleven Stocking Warehouses from Coast-to-Coast
Use the Services of the NEWARK Facility Nearest You

DATALITES WITH PERMANENT NEON LAMPS

Lamps are built-in—not replaceable. Units mount in 3/8" clearance hole.

Built-in: a rugged, long-life NE-2E Neon Glow Lamp with formed tip and double length electrodes—1/25 watt, starting voltage of 65 AC and 90 DC. (*) With built in resistor of 100,000 ohms for 105-125 V. service. Resistors to Mil-R-11 spec.

Lightweight construction of aluminum, black anodized finish. Plastic lenses give wide angle visibility. 2 insulated terminals of low carbon steel, solder plating. With mounting hardware.

Conform to military specifications (Mil-L-3661)

Stovepipe: Without Built-In Resistor
(1 25/64x1/2" Overall: 1 1/2 Oz. Shpg. Wt.)

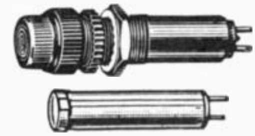
Stock No.	Type 249—	Lens	1-9	10-24	25-99	100-249	250-499	500-999
25F1146	7840-0931-504	Red	1.13	1.06	1.00	.93	.86	.79
25F1147	7840-0933-504	Amber						
25F1148	7840-0935-504	White						
25F1149	7840-0936-504	Lt. Yellow						
25F1150	7840-0937-504	Clear						
(*) With Built-In 100-K Resistor (1 53/64"x1/2" Overall; 2 Oz. Shpg. Wt.)								
25F1151	7841-0931-574	Red	1.35	1.27	1.19	1.11	1.02	.94
25F1152	7841-0933-574	Amber						
25F1153	7841-0935-574	White						
25F1154	7841-0936-574	Lt. Yellow						
25F1155	7841-0937-574	Clear						

Short Cylindrical: Without Built-In Resistor
(1 25/64"x1/2" Overall; 1 1/2 Oz. Shpg. Wt.)

Stock No.	Type 249—	Lens	1-9	10-24	25-99	100-249	250-499	500-999
25F1156	7840-1431-504	Red	1.13	1.06	1.00	.93	.86	.79
25F1157	7840-1433-504	Amber						
25F1158	7840-1435-504	White						
25F1159	7840-1436-504	Lt. Yellow						
25F1160	7840-1437-504	Clear						
(*) With Built-In 100-K Resistor (1 53/64"x1/2" Overall; 2 Oz. Shpg. Wt.)								
25F1161	7841-1431-574	Red	1.35	1.27	1.19	1.11	1.02	.94
25F1162	7841-1433-574	Amber						
25F1163	7841-1435-574	White						
25F1164	7841-1436-574	Lt. Yellow						
25F1165	7841-1437-574	Clear						

GREEN or BLUE LENSES are not recommended for use with Neon lamps.

SERIES 250 INCANDESCENT DATALITE ASSEMBLY



Complete indicator assembly. Takes the lamp cartridge illustrated, available in voltages from 6V to 120V Polycarbonate lens with matted back. Cartridge fits into assembly leaving slots to permit easy removal. Unit designed for insertion from the rear of the panel in a 3/8" clearance hole. Comes with screw-on "Data Cap" for high light transmission. Transparent lenses available in 6 colors. Terminals phosphor bronze, gold plated. Max. dim., 2.022" L. x .515" dia.

COMPLETE ASSEMBLIES

Stock No.	Solder Cup Terminals 250-7558	Cap Color	1-9	10-24	25-99	100-249	250-499	500-999
60F1216	3331-504	Red	1.68	1.54	1.42	1.30	1.19	1.10
60F1217	3332-504	Green						
69F1218	3333-504	Amber						
60F1219	3334-504	Blue						
60F1220	3335-504	White						
60F1221	3337-504	Clear						

Stock No.	Turret Terminals 250-8758-	Cap Color	1-9	10-24	25-99	100-249	250-499	500-999
60F1222	3331-504	Red	1.68	1.54	1.42	1.30	1.19	1.10
60F1223	3332-504	Green						
60F1224	3333-504	Amber						
60F1225	3334-504	Blue						
60F1226	3335-504	White						
60F1227	3337-504	Clear						

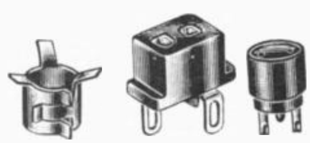
CLEAR LENS DATALAMP CARTRIDGE FOR ABOVE

Stk. No.	Type 507-	V	1-9	10-24	25-99	100-249	250-499	500-999
60F1228	5819-0747-600	6	1.72	1.62	1.53	1.43	1.35	1.26
60F1229	5820-0747-600	12	1.38	1.30	1.23	1.15	1.09	1.02
60F1230	5821-0747-600	28	1.38	1.30	1.23	1.15	1.09	1.02

Stk. No.	Type 507-	Volts	1-9	10-24	25-99	100-249	250 499	500-999
60F1231	5822-0747-600	48	1.46	1.38	1.30	1.22	1.15	1.08
60F1232	5823-0747-600	60	1.38	1.30	1.23	1.15	1.09	1.02
60F1233	5824-0747-600	120	1.38	1.30	1.23	1.15	1.09	1.02

SPRING CLIP

Effective when conventional mounting is not practical. For all Dialco Plug-in Neon and Incandescent Lamp Cartridges. Self-retaining. Of tubular heat treated spring steel. For use with above cartridges.



515-0051 515-0050 515-0012

Stock No.	Type	1-9	10-24	25-99	100-249	250-499	500-999
25F1253	515-0051	.11	.10	.09	.08	.07	.06

CARTRIDGE CONNECTORS FOR ABOVE CARTRIDGES

Type 515-0050. Molded phenolic; solder lug terminals are of beryllium copper, cadmium plated, with elongated slots.

Stock No.	Type	1-9	10-24	25-99	100-249	250-499	500-999
25F1251	515-0050	.22	.20	.19	.18	.17	.16

Type 515-0012. Sleeve of aluminum with black anodized finish. Insulation of black molded phenolic. Solder cup terminals of phosphor bronze, gold plated.

Stk. No.	Type	1-9	10-24	25-99	100-249	250-499	500-999
25F1252	515-0012	.70	.61	.53	.46	.40	.35

TWIN LAMP ASSEMBLY

No. 253-6939-1437-504. Compact dual unit housing 2 Dialco lamp cartridges. Mounts in 3/4" clearance hole. Conform to mil specs. Permits independent operation of each lamp—indicates 4 possible conditions, or lamps can be parallel wired. Cartridges replace from front. Clear plastic lens. Less cartridge. 1 53/64x7/8". 3 ozs.

Stock No.	Type 253-6939	1-9	10-24	25-99	100-249	250-499	500-999
25F1166	1437-504	3.32	3.06	2.81	2.56	2.38	2.20

No. 253-6939-1435-504. Dual unit housing 2 Dialco Lamp Cartridges. Similar to 253-6939-1437, above. White lens. 1 53/64x7/8'

Stock No.	Type 253-6939	1-9	10-24	25-99	100-249	250-499	500-999
25F1254	1435-504	3.32	3.06	2.81	2.56	2.38	2.20

SINGLE LAMP HOLDER

Compact. Two terminals insulated, marked, and offset for correct polarity when replacing lamps in DC circuits. Shown, lamp holder less cartridge. 1 13/16x1/2" overall, less lamp. 1 5/8" long with lamp. Mounting hardware. 2 oz. *with turret terminals.

Stock No.	Type No.	1-9	10-24	25-99	100-249	250-499	500-999
25F1167	508-7538-504	1.22	1.12	1.02	.92	.82	.76
25F1291	508-8738-504*						

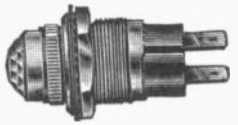
SINGLE LAMP HOLDER

Similar to 508-7538-504 but is 5/64" longer to accommodate the new Neon Cartridges 4537 & 4538. *with turret terminals.

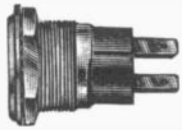
Stock No.	Type No.	1-9	10-24	25-99	100-249	250-499	500-999
25F1209	508-7545-504	1.22	1.12	1.02	.92	.82	.76
25F1292	508-8745-504*						

Indicator Lights

DIALCO



81-1059-0431-102
Complete Assembly



81-1059-01-102
Base Assembly

Type 81
Faceted

Type 135
Cylindrical
(Translucent)

Type 52
Stove Pipe
(Internally Fluted
Translucent)

Type 95
Stove Pipe
(Smooth Face
Translucent)

BASE ASSEMBLY

Accommodates T-2 incandescent bulb with telephone slide base (PSB Type) in a range of voltages from 6 to 120 volts. (See Chicago Miniature listing below). Uses any of the 4 styles of high temperature Lexan in different colors listed. Phenolic housing, white nickel finish. Rated 75 watts, 125 volts. Solder terminals. Electrical contact can be made with AMP connector 42452-2. Mounting is 11/16" clearance hole. 1 27/32" long.

Stock No.	Type No.	1-9	10-24	25-99	100-249	250-499	500-999
60F1550	81-1059-01-102	.65	.61	.57	.54	.51	.48

LENSES FOR HOUSING ABOVE

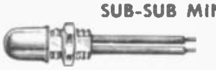
	Transluc. Cyl.		Transpar. Fluted		Transluc. Smooth	
Color	Stock No.	Type	Stock No.	Type	Stock No.	Type
Red	60F1551	135-3271	60F1558	52-3191	60F1565	95-3171
Green	60F1552	135-3272	60F1559	52-3192	60F1566	95-3172
Amber	60F1553	135-3273	60F1560	52-3193	60F1567	95-3173
Blue	60F1554	135-3274	60F1561	52-3194	60F1568	95-3174
White	60F1555	135-3275	60F1562	52-3195	60F1569	95-3175
Yellow	60F1556	135-3276	60F1563	52-3196	60F1570	95-3176
Clear			60F1564	52-3197		

PRICES	1-9	10-24	25-99	100-249	250-499	500-999
	.23	.21	.20	.19	.18	.17

SERIES 81—TRANSPARENT FACETED LENSES

Color	Stock No.	Type	1-9	10-24	25-99	100-249	250-499	500-999
Red	60F1572	81-0431	.28	.26	.24	.23	.22	.21
Green	60F1573	81-0432						
Amber	60F1574	81-0433						
Blue	60F1575	81-0434						
White	60F1576	81-0435						
Yellow	60F1577	81-0436						
Clear	60F1578	81-0437						

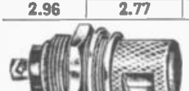
SUB-SUB MINIATURE INDICATOR LIGHTS



MS25446. High reliability T-1 filament lamp in high impact plastic cap. Molded to mounting bushing. Dustproof, moistureproof. Antirotation construction. Flexible 6" Type E wire leads. .193" panel mounting hole clearance. Lens cap dia.: 7/32" long. Lamp rating: 5.0 volt at .06 amps 60,000 hr. of life. 6.3 volts, .07 amps, 6000 hrs. Sealed unit, non-replaceable lamp.

Lens	Stock No.	Type No.	Mil. Spec.
Blue	25F1293	252-9951-0974	25446-2
Green	25F1294	252-9951-0972	25446-3
Red	25F1295	252-9951-0971	25446-4
White	25F1296	252-9951-0975	25446-5
Amber	25F1297	252-9951-0973	25446-6
Clear	25F1298	252-9951-0937	25446-7

1-9	10-24	25-99	100-249	250-499	500-999
2.96	2.77	2.58	2.41	2.27	2.15



1 TERMINAL LIGHT SHIELD ASSEMBLY SUB-MINIATURE FOR DIALS, INSTRUMENTS, CONTROL PANELS

Mtg. hole 15/32" d. Opening is 1/4"x3/16". Same features as the 2-terminal assemblies except for use on grounded circuits and with either soldering or binding screw terminal. Molded phenolic insulation material of military specification grade. Meets MIL-SPEC. MIL-L-7806A. Uses T-1 3/4 lamp. Black nickel finish. Overall size, approx. 1 1/4"x1/2", unscrews for bulb replacement. With lockwasher and nut. Less lamp. Shpg. wt., 1 1/2 ozs. 201 suffix indicates black nickel. 301, chrome. *indicates solder terminal, **screw terminal.

Stk. No.	Mfg. No.	1-9	10-24	25-99	100-249	250-499	500-999
25F910A*	4-1930-2900-201	1.61	1.49	1.39	1.29	1.20	1.11
25F911A**	4-1830-2900-201	1.88	1.74	1.62	1.51	1.40	1.29
25F911B**	4-1830-2900-301	1.88	1.74	1.62	1.51	1.40	1.29
25F910B*	4-1930-2900-301	1.61	1.49	1.39	1.29	1.20	1.11

2-TERMINAL DIMMER TYPES—SUB-MIN. MECHANICAL OR POLAROID

Conforms to all applicable MIL specifications. Polaroid: produces some reduced intensity at all settings but gives full diameter opening. Mechanical: varies opening size to complete blackout or has permanent small opening as in "semi-blackout" type. Complete with lockwasher and nut; use T-1 3/4 lamp. Less lamps. Shpg. wt. 1 1/2 ozs. All frosted on back except *Translucent unfrosted. Mounts in 15/32" dia. hole.

Semi-Blackout

Lens	Stock No.	Type 109-3830	1-9	10-24	25-99	100-249	250-499	500-999
Red	25F582	0111-201	2.15	2.02	1.89	1.77	1.66	1.55
Green	25F583	0112-201						
Amber	25F584	0113-201						
Blue	25F585	0114-201						
White*	25F586	0135-201						
Yellow	25F587	0116-201						
Clear	25F588	0117-201						

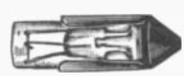
Complete Blackout

Lens	Stock No.	Type 108-3830	1-9	10-24	25-99	100-249	250-499	500-999
Red	25F575	0111-201	2.15	2.02	1.89	1.77	1.66	1.55
Green	25F576	0112-201						
Amber	25F577	0113-201						
Blue	25F578	0114-201						
White*	25F579	0135-201						
Yellow	25F580	0116-201						
Clear	25F581	0117-201						

Polaroid

Lens	Stock No.	Type 112-3830	1-9	10-24	25-99	100-249	250-499	500-999
Red	25F589	0111-201	2.09	1.97	1.85	1.74	1.63	1.52
Green	25F590	0112-201						
Amber	25F591	0113-201						
Blue	25F592	0114-201						
White*	25F593	0135-201						
Yellow	25F594	0116-201						
Clear	25F595	0117-201						

CHICAGO MINIATURE LAMP WORKS



Special Units for Use with DIALCO Housing Listed at Left.
- 5,000 Hour Life
- 1.075" Long—1/4" Diameter

Stock No.	Type	Volts	Amps	End. Foot Candles	1-9	10-99	100-499
27F075	6PSB	6	.140	800	.51	.44	.42
27F076	12PSB	12	.170	2500			
27F077	24PSB	24	.073	2200			
27F078	28PSB	28	.040	2000			
27F079	48PSB	48	.053	1500			
27F080	60PSB	60	.050	2600			
27F081	120PSB	120	.025	1500			

TELEPHONE SLIDE BASE LAMPS

- 5,000 Hour Life
- 1.688" Long — 1/2" Diameter
- Specifically designed for use in telephone switchboards.

Stock No.	Type		Amps	End. Foot Candles	1-9	10-99	100-499
27F082	12B		.032-.038	. .	.69	.62	.41
27F083	24B		.035-.045	750			
27F084	24C		.06 -.085	875			
27F085	24E		.032-.038	600			
27F086	24F		.032-.038	1120			
27F087	24X		.032-.038	600			
27F088	30B		.09 -.11	1050			
27F089	48C		.032-.038	475	.72	.64	.42
27F090	48D		.017-.025	100			
27F091	55C		.045-.06	1025			

SERIES 101 & 140 INDICATOR LIGHTS
ONE TERMINAL — FULLY INSULATED


Cylindrical Series 140


Stovepipe Series 101


Front Mounting


Front or Back Mounting

Meet MIL requirements. Available for mounting from front or back of panel in 1⅜₂"; also from front in 1⅟₃₂" clearance hole. Phenolic insulated. Lens cap assembly unscrews from front of panel for easy replacement of the lamp. Two terminals (soldering) are provided for electrical connections. Anti-rotation (locked) construction provides for secure locking of the socket terminal assembly and the center terminal. Stovepipe and cylindrical lenses molded of high heat plastic. Avg. size range: ½x1¼". Will withstand usual vibration and corrosion tests. Light source is the T-1¾ midget flange base lamp; voltage range: 1.35 to 28. Order holder and lens separately to obtain necessary parts for self-assembly of complete unit. Less lamp.

HOLDERS

Front mounting in 1⅟₃₂" cleanance hole

Stk. No.	Type	1-9	10-24	25-99	100-249	250-499	500-999
25F1615	101-5030-09-201	1.01	.94	.87	.81	.75	.69

Front or back mounting in 1⅗₂" clearance hole.

Stk. No.	Type	1-9	10-24	25-99	100-249	250-499	500-999
25F1228	101-3830-09-201	1.01	.94	.87	.81	.75	.69

STOVEPIPE LENS CAP

Lens	TRANSLUCENT Stk. No.	TRANSLUCENT Mfg. No.	TRANSPARENT Stk. No.	TRANSPARENT Mfg. No.
Red	25F1269	101-0971	25F1588	101-0931
Green	25F1270	101-0972	25F1589	101-0932
Amber	25F1271	101-0973	25F1590	101-0933
Blue	25F1272	101-0974	25F1591	101-0934
White	25F1273	101-0975	25F1592	101-0935
Yellow	25F1274	101-0976	25F1593	101-0936

Prices	1-9	10-24	25-99	100-249	250-499	500-999
	.25	.23	.21	.19	.17	.16

FLAT CYLINDRICAL LENS CAP

Lens	TRANSLUCENT Stk. No.	TRANSLUCENT Mfg. No.	TRANSPARENT Stk. No.	TRANSPARENT Mfg. No.
Red	25F1616	140-1471	25F1622	140-1431
Green	25F1617	140-1472	25F1623	140-1432
Amber	25F1618	140-1473	25F1624	140-1433
Blue	25F1619	140-1474	25F1625	140-1434
White	25F1620	140-1475	25F1626	140-1435
Yellow	25F1621	140-1476	25F1627	140-1436
Clear			25F1628	140-1437

Prices	1-9	10-24	25-99	100-249	250-499	500-999
	.25	.23	.21	.19	.17	.16

NON-DIMMING INDICATOR LIGHTS

Type 111-3830-011-201. Frosted back lens finish. Order lens and holder for complete assembly. Less lamp. *Translucent unfrosted.

HOLDER

For front or back mounting (in 1⅗₂" clearing hole).

Stk. No.	Type	1-9	10-24	25-99	100-249	250-499	500-999
25F1228	101-3830-09-201	1.01	.94	.87	.81	.75	.69

LENS

Lens Color	Stk. No.	Mfg. No.
Red	25F1629	111-0111-200
Green	25F1630	111-0112-200
Amber	25F1631	111-0113-200
Blue	25F1632	111-0114-200
White*	25F1633	111-0135-200
Yellow	25F1634	111-0116-200
Clear	25F1635	111-0117-200

Prices	1-9	10-24	25-99	100-249	250-499	500-999
	.62	.59	.56	.53	.50	.47

INCANDESCENT SUB-MINIATURES MS 25256

Similar to MS25257 except it uses T-1¾ incandescent lamps of 1.35 to 28 v. Overall unit size: 1⅗₂x ⅝". Shipping weight, 1½ oz. Less lamp.

Stock No.	Type No.	Mil. Std. Dwg. No.	Lens Color
25F1203	162-8430-0933-502	MS25256-2	Aviat. Yel.
25F1204	162-8430-0932-502	MS25256-4	Aviat. Green
25F1205	162-8430-0931-502	MS25256-6	Ident. Red
25F1206	162-8430-0937-502	MS25256-8	Aviat. White
25F1207	162-8430-0975-502	MS25256-10	Transl. White
25F1208	162-8430-0934-502	MS25256-12	Aviation Blue

Prices	1-9	10-24	25-99	100-249	250-499	500-999
	1.21	1.13	1.05	.97	.90	.84

NEON SUB-MINIATURES MS25257

Uses T-2 Neon Glow Lamp (designated as NE-2D). Since Neon lamps require resistor to limit the lamp current, resistor is built-in. For use on 105-125 volts AC or DC with 62K resistor. Stovepipe lens is plastic with 180° lens spread. Shank of lens holder is crimped in 3 places to secure the lamp. Lens holder unscrews from front of panel for easy replacement of lamp. An anti-rotation notch on face of flange prevents rotation of unit while mounting nut is being tightened. Mounting bushing is aluminum with black anodize finish. Steel internal tooth lockwasher and hex mounting nut are cadmium plated and coated with iridite. Terminals are brass, hot-tinned, with elongated slots. Less lamp. Size 1½x⅝". Shpg. wt. 2 oz.

Stock No.	Type No.	Mil. Std. Dwg. No.	Lens Color
25F1200	137-8836-0933-552	MS25257-2	Aviat. Yel.
25F1201	137-8836-0931-552	MS25257-4	Ident. Red
25F1202	137-8836-0937-552	MS25257-6	Clear

Prices	1-9	10-24	25-99	100-249	250-499	500-999
	2.02	1.88	1.74	1.61	1.48	1.36

SERIES 137-8864

For bright light when used with NE-2J on 110-125 VAC 22-K res.

Stock No.	Type No.	Color	1-9	10-24	25-99	100-249	250-499	500-999
25F1275	137-8864-0931-512	Red	2.02	1.88	1.74	1.61	1.48	1.36
25F1276	137-8864-0933-512	Amber						
25F1277	137-8864-0935-512	White						
25F1278	137-8864-0937-512	Clear						

SERIES 137-8864

Same as above, except 33K resistor, 25,000 hour lamp life, 110-125 VAC.

Stk. No.	Type No.	Color	1-9	10-24	25-99	100-249	250-499	500-999
25F1279	137-8864-0931-532	Red	2.02	1.88	1.74	1.61	1.48	1.36
25F1280	137-8864-0933-532	Amber						
25F1281	137-8864-0935-532	White						
25F1282	137-8864-0937-532	Clear						

SERIES 181-8836

Same as 137-8836 Series, except with retained "O" ring seal, water-tight construction. With 62K. resistor.

Stock No.	Type No.	Color	1-9	10-24	25-99	100-249	250-499	500-999
25F1283	181-8836-0931-553	Red	2.46	2.30	2.14	2.00	1.86	1.73
25F1284	181-8836-0933-553	Amber						
25F1285	181-8836-0935-553	White						
25F1286	181-8836-0937-553	Clear						

SERIES 181-8864

Same as 137-8864 Series except with retained "O" ring seal, water-tight construction. With 22K. resistor.

Stk. No.	Type No.	Color	1-9	10-24	25-99	100-249	250-499	500-999
25F1287	181-8864-0931-513	Red	2.46	2.30	2.14	2.00	1.86	1.73
25F1288	181-8864-0933-513	Amber						
25F1289	181-8864-0935-513	White						
25F1290	181-8864-0937-513	Clear						

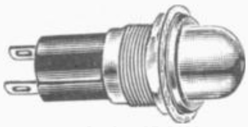
LIGHT EMITTING TOP ASSEMBLIES

Stk. No.	Type No.	Filter	1-9	10-24	25-99	100-249	250-499	500-999
SOLDER TERMINAL								*MS25010A13A
25F975	270-1930-3111-702	Red*	.75	.68	.62	.56	.50	.45
25F977	270-1930-3221-702	Green	.90	.82	.74	.67	.60	.54
25F979	270-1930-3331-702	Amber	.90	.82	.74	.65	.59	.54
25F981	270-1930-3771-702	Clear	.90	.82	.74	.65	.59	.54
SCREW TERMINALS								†MS25010B13A
25F976	270-1830-3111-702	Red†	.90	.81	.72	.65	.59	.54
25F978	270-1830-3221-702	Green	1.05	.95	.84	.76	.69	.63
25F980	270-1830-3331-702	Amber	1.05	.95	.84	.76	.69	.63
25F982	270-1830-3771-702	Clear	1.05	.95	.84	.76	.69	.63

DIALCO® Indicator Lights

NEON INDICATOR LIGHTS WITH BUILT-IN RESISTORS

Series 52-0408



Series 95-0408

FOR NE-51 NEON LAMP 52-0408, 95-0408 (lugs), and 52-1308, 95-1308 (screws). 56K ohm, ⅓ watt built-in resistor. 105-125V. AC-DC. FOR NE-51H HIGH BRIGHTNESS NEON LAMP: 52-0463, 95-0463 (lugs) and 52-1363, 95-1363 (screws). 22K ohms resistor, built-in. 110-125 V. AC. Assemblies 2$\frac{1}{16}$" L., mount in $\frac{11}{16}$" clearance hole. Meet Mil-L-3661. Assemblies supplied less lamps.

FOR NE-51 LAMP
Fluted Stovepipe Lens

Lens	Stk. No.	Type (Lugs)	Stk. No.	Type (Screws)
Red	25F1476	52-0408-0991-241	25F1484	52-1308-0991-241
Amber	25F1477	52-0408-0993-241	25F1485	52-1308-0993-241
White	25F1478	52-0408-0995-241	25F1486	52-1308-0995-241
Clear	25F1479	52-0408-0997-241	25F1487	52-1308-0997-241

Prices	Type	1-9	10-24	25-99	100-249	250-499	500-909
	Lug	1.26	1.20	1.14	1.08	1.02	.96
	Screw	1.34	1.27	1.20	1.13	1.07	1.01

Plain Stovepipe Lens

Lens	Stk. No.	Type (Lugs)	Stk. No.	Type (Screws)
Red	25F1010	95-0408-0931-241	25F1014	95-1308-0931-241
Amber	25F1011	95-0408-0933-241	25F1015	95-1308-0933-241
White	25F1012	95-0408-0935-241	25F1016	95-1308-0935-241
Clear	25F1013	95-0408-0937-241	25F1017	95-1308-0937-241

Prices	Type	1-9	10-24	25-99	100-249	250-499	500-999
	Lug	1.26	1.20	1.14	1.08	1.02	.96
	Screw	1.34	1.27	1.20	1.13	1.07	1.01

FOR NE-51H HIGH BRIGHTNESS LAMP
Short Fluted Stovepipe Lens

Lens	Stk. No.	Type (Lugs)	Stk. No.	Type (Screws)
Red	25F1480	52-0463-0991-211	25F1488	52-1363-0991-211
Amber	25F1481	52-0463-0993-211	25F1489	52-1363-0993-211
White	25F1482	52-0463-0995-211	25F1490	52-1363-0995-211
Clear	25F1483	52-0463-0997-211	25F1491	52-1363-0997-211

Prices	Type	1-9	10-24	25-99	100-249	250-499	500-999
	Lug	1.26	1.20	1.14	1.08	1.02	.96
	Screw	1.34	1.27	1.20	1.13	1.07	1.01

Short Plain Stovepipe Lens

Lens	Stk. No.	Type (Lugs)	Stk. No.	Type (Screws)
Red	25F1085	95-0463-0931-211	25F1089	95-1363-0931-211
Amber	25F1086	95-0463-0933-211	25F1090	95-1363-0933-211
White	25F1087	95-0463-0935-211	25F1091	95-1363-0935-211
Clear	25F1088	95-0463-0937-211	25F1092	95-1363-0937-211

Prices	Type	1-9	10-24	25-99	100-249	250-499	500-999
	Lug	1.26	1.20	1.14	1.08	1.02	.96
	Screw	1.34	1.27	1.20	1.13	1.07	1.01

Same as above but plastic lens phenolic body. 2$\frac{1}{16}$" long, $\frac{1}{16}$" mtg. hole. Less lamp. UL approved. Shpg. wt., 3 oz.

FOR NE-51 LAMP. INTEGRAL RESISTOR

Stk. No.	Type (Lugs)	Lens	1-9	10-24	25-99	100-249	250-499	500-999
25F1050	95-9108-0931-142	Red	.87	.82	.77	.72	.68	.64
25F1051	95-9108-0933-142	Amber						
25F1052	95-9108-0935-142	White						
25F1053	95-9108-0937-142	Clear						

FOR NE-51H HIGH BRIGHTNESS LAMP. INTEGRAL RESISTOR.

Stk. No.	Type (Lugs)	Lens	1-9	10-24	25-99	100-249	[illegible] 499	500-999
25F1170	95-9163-0931-112	Red	.87	.82	.77	.72	.68	.64
25F1171	95-9163-0933-112	Amber						
25F1172	95-9163-0935-112	White						
25F1173	95-9163-0937-112	Clear						

INTERIOR FLUTED STOVEPIPE LENS CAP FOR
Series 52-9408; 52-0408; 52-0463; 52-1308

Short fluted stovepipe type, except (*) long fluted stovepipe.

Lens	Stk. No.	Type No.	Stk. No.	Type No.	1-9	10-24	25-99	100-249	250-499	500-999
Red	25F340	53-0991*	25F334	52-0991	.19	.18	.17	.16	.15	.14
Grn	25F341	53-0992*	25F335	52-0992						
Amb	25F342	53-0993*	25F336	52-0993						
Blue	25F343	53-0994*	25F337	52-0994						
Clr	25F344	53-0997*	25F338	52-0997						
Wht	25F345	53-0995*	25F339	52-0995						

HALF-INCH ENCLOSED INDICATOR LIGHT

Meets Mil Specs

Series 81-0410. (With Soldering Lugs) . . . and Series 81-1310 (With Screw Terminals). Newly designed aviation type. Socket shell encased in moulded phenolic of Mil-M-14 grade. Ideal for use under severe conditions. Smooth faced jewels in ½" brass holder with black nickel finish. For T-3¼ lamp, removable from front of unit. 2½" long, mounts in $\frac{11}{16}$" hole in panels up to ⅜" thick. Less lamp. Shpg. wt. 3 ozs.

Lens Color	Stk. No.	Type (Lug)	Stk. No.	Type (Screw)
Red	25F1035	81-0410-0111-201	25F1042	81-1310-0111-201
Green	25F1036	81-0410-0112-201	25F1043	81-1310-0112-201
Amber	25F1037	81-0410-0113-201	25F1044	81-1310-0113-201
Blue	25F1038	81-0410-0114-201	25F1045	81-1310-0114-201
White	25F1039	81-0410-0135-201	25F1046	81-1310-0135-201
Yellow	25F1040	81-0410-0116-201	25F1047	81-1310-0116-201
Clear	25F1041	81-0410-0117-201	25F1048	81-1310-0117-201

Prices	Type	1-9	10-24	25-99	100-249	250-499	500-999
	Lug	1.26	1.18	1.12	1.06	1.00	.94
	Screw	1.35	1.27	1.20	1.13	1.07	1.01

As above, but with plastic stovepipe lens.

Lens Color	Stock No.	Type (Lug)	Stock No.	Type (Screws)
Red	25F1020	95-0410-0931-201	25F1027	95-1310-0931-201
Green	25F1021	95-0410-0932-201	25F1028	95-1310-0932-201
Amber	25F1022	95-0410-0933-201	25F1029	95-1310-0933-201
Blue	25F1023	95-0410-0934-201	25F1030	95-1310-0934-201
White	25F1024	95-0410-0935-201	25F1031	95-1310-0935-201
Yellow	25F1025	95-0410-0936-201	25F1032	95-1310-0936-201
Clear	25F1026	95-0410-0937-201	25F1033	95-1310-0937-201

Prices	Type	1-9	10-24	25-99	100-249	250-499	500-909
	Lug	1.07	1.01	.96	.91	.86	.81
	Screw	1.16	1.10	1.04	.98	.93	.88

LOW VOLTAGE ENCLOSED SIGNAL ASSEMBLIES

Signal assemblies in ½" white nickel-plated brass holders. Use T-3¼ bayonet base lamp, replaceable from front. 2¼" long; requires $\frac{11}{16}$" mtg. hole. For panels up to ⅜" thick. Less lamp.

SMOOTH LENS

Lens Color	Stk. No.	Type No. (Lugs)	1-9	10-24	25-99	100-249	250-499	500-999
Red	25F1075	81-9110-0111-102	.82	.77	.72	.68	.64	.60
Green	25F1076	81-9110-0112-102						
Amber	25F1077	81-9110-0113-102						
White	25F1078	81-9110-0135-102						
Blue	25F1079	81-9110-0114-102						

FACETED LENS

Lens Color	Stk. No.	Type No. (Lugs)	1-9	10-24	25-99	100-249	250-499	500-999
Red	25F1492	81-9110-0431-102	.82	.77	.72	.68	.64	.60
Green	25F1493	81-9110-0432-102						
Amber	25F1494	81-9110-0433-102						
Blue	25F1495	81-9110-0434-102						
White	25F1496	81-9110-0435-102						
Lt. Yel.	25F1497	81-9110-0436-102						
Clear	25F1498	81-9110-0437-102						

FOR T-3¼ LAMPS. WITHOUT INTEGRAL RESISTOR.

Like assembly shown above less resistor for applications in which low voltage, T-3¼ min. bayonet base lamps are needed.

Lens	Stk. No.	Type (Lugs)	1-9	10-24	25-99	100-249	250 499	500-999
Red	25F1060	95-9110-0931-102	.73	.69	.65	.61	.57	.53
Green	25F1061	95-9110-0932-102						
Amber	25F1062	95-9110-0933-102						
Blue	25F1063	95-9110-0934-102						
White	25F1064	95-9110-0935-102						
Yellow	25F1065	95-9110-0936-102						
Clear	25F1066	95-9110-0937-102						

PLAIN SHORT STOVEPIPE LENS CAPS FOR
Series 95-0408; 95-1308; 95-0463; 95-1363; 95-9108; 95-9163

Lens	Stk. No.	Type No.	1-9	10-24	25-99	100-249	250 499	500-999
Red	25F466	95-0931	.19	.18	.17	.16	.15	.14
Green	25F465	95-0932						
Amber	25F467	95-0933						
Blue	25F474	95-0934						
Clear	25F469	95-0937						

FOR LOW VOLTAGE T-3¼ MINIATURE BAYONET BASE LAMP

Fluted Stovepipe Lens — Frosted Back Stovepipe Lens

Stock No.	Type No.	Color	Stock No.	Type No.
25F537	125-0410-1191-403	Red	25F544	125-0410-1111-403
25F538	125-0410-1192-403	Green	25F545	125-0410-1112-403
25F539	125-0410-1193-403	Amber	25F546	125-0410-1113-403
25F540	125-0410-1194-403	Blue	25F547	125-0410-1114-403
25F541	125-0410-1195-403	White*	25F548	125-0410-1135-403
25F542	125-0410-1196-403	Yellow	25F549	125-0410-1116-403
25F543	125-0410-1197-403	Clear	25F550	125-0410-1117-403

*Translucent unfrosted. Less lamp.

1-9	10-24	25-99	100-249	250-499	500-999
1.81	1.72	1.62	1.54	1.47	1.41

OIL-TIGHT PILOT LIGHTS FOR USE WITH NE 51

For 11/16" Mounting Hole

Fluted Stovepipe Lens — Plain Stovepipe Lens

Stock No.	Type No.	Color	Stock No.	Type No.
25F528	125-0408-1191-443	Red	25F532	125-0408-1131-443
25F529	125-0408-1193-443	Amber	25F533	125-0408-1133-443
25F530	125-0408-1196-443	Yellow	25F534	125-0408-1136-443
25F531	125-0408-1197-443	Clear	25F535	125-0408-1137-443
......		Clear*	25F536	125-0408-1117-443

* Back frosted. Less lamp.

1-9	10-24	25-99	100-249	250-499	500-999
1.98	1.88	1.77	1.69	1.61	1.54

OIL-TIGHT ASSEMBLIES

Enclosed assemblies for heavy duty industrial aplications. Gasketed lens. Glass lens gives 180° light spread. Takes 6S6 incandescent (bayonet or screw mt.) lamp. Supplied less lamp. 1$\frac{9}{16}$x1⅞". Mounting Wt. 3 oz.

FOR 6S6 SCREW BASE LAMP

Torpedo Faceted Lens — Dome Lens (Frosted Back)

Stk. No.	Type No.	Color	Stk. No.	Type No.
25F500	103-3101-1331-403	Red	25F507	103-3101-1211-403
25F501	103-3101-1332-403	Green	25F508	103-3101-1212-403
25F502	103-3101-1333-403	Amber	25F509	103-3101-1213-403
25F503	103-3101-1334-403	Blue	25F510	103-3101-1214-403
25F504	103-3101-1335-403	White	25F511	103-3101-1235-403
25F505	103-3101-1336-403	Yellow	25F512	103-3101-1216-403
25F506	103-3101-1337-403	Clear	25F513	103-3101-1217-403

1-9	10-24	25-99	100-249	250-499	500-999
2.64	2.40	2.20	2.00	1.84	1.70

SAME AS ABOVE, BUT FOR 6S6 BAYONET BASE LAMP

Torpedo Faceted Lens — Dome Lens (Frosted Back)

Stk. No.	Type No.	Color	Stk. No.	Type No.
25F514	103-3502-1331-403	Red	25F521	103-3502-1211-403
25F515	103-3502-1332-403	Green	25F522	103-3502-1212-403
25F516	103-3502-1333-403	Amber	25F523	103-3502-1213-403
25F517	103-3502-1334-403	Blue	25F524	103-3502-1214-403
25F518	103-3502-1335-403	White	25F525	103-3502-1235-403
25F519	103-3502-1336-403	Yellow	25F526	103-3502-1216-403
25F520	103-3502-1337-403	Clear	25F527	103-3502-1217-403

1-9	10-24	25-99	100-249	250-499	500-999
2.77	2.53	2.31	2.10	1.93	1.78

PILOT BULB REMOVER

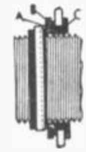
Type 506-0045. Molded of rubber. Has two hollow ends which stretch over and engage lamps tightly. One end for T-3¼ type bulbs; the other for T-4½ type bulbs. Core of solid rubber provides needed rigidity for sure grip. Wt.. 4 oz.

Stock No.	Type No.	1-9	10-24	25-99	100-249	250-499	500-999
25F1544	506-0045	.26	.23	.20	.19	.18	.17

Type 506-0073. Molded rubber. One end for T-3¼ types. Other for S6 candelabra screw base bulbs.

Stock No.	Type No.	1-9	10-24	25-99	100-249	250-499	500-999
25F480	506-0073	.26	.23	.20	.19	.18	.17

ADAPTOR SET



Type 515-1316. For mounting any 1" Dialco assembly in 1$\frac{3}{16}$" clearance hole. Reducer (A) is equipped with gasket (B) to fit the 1$\frac{3}{16}$" clearance hole, and a washer (C) for under panel mounting. Retained oil-resistant gasket on the reducer assures the same oil-water-and-dust tightness that is obtained on standard Dialco assemblies. Wt., 1 oz.

Stk. No.	Type No.	1-9	10-24	25-99	100-249	250-499	500-999
25F912	515-1316	.68	.62	.56	.51	.47	.43

SERIES 270

For Plastic Plate Edge Lighting

For Mil-P-7788 plastic plate panels. Emits light through red filter into the plastic panel. Meets Mil-L-7806. Mounts in $\frac{15}{32}$" clearance hole. Complete unit, hardware, supplied. Less T-1¾ lamp. Available with light emitting top in various colors. ½" x 1$\frac{7}{16}$". Shpg. wt. 1½ oz.

EDGE LIGHTING ASSEMBLIES

Stk. No.	Type No.	Color	1-9	10-24	25-99	100-249	250-499	500-999
SOLDER TERMINAL								
25F967	270-1930-0111-702	Red*	.75	.68	.62	.56	.50	.45
25F969	270-1930-0121-702	Green	.90	.82	.74	.67	.60	.54
25F971	270-1930-0131-702	Amber	.90	.82	.74	.67	.60	.54
25F973	270-1930-0171-702	Clear††	.75	.68	.62	.56	.50	.45
SCREW TERMINAL								
25F968	270-1830-0111-702	Red†	.90	.81	.72	.65	.59	.54
25F970	270-1830-0121-702	Green	1.05	.95	.84	.76	.69	.63
25F972	270-1830-0131-702	Amber	1.05	.95	.84	.76	.69	.63
25F974	270-1830-0171-702	Clear	.90	.81	.72	.65	.59	.54

*MS25010A11A †MS25010B11A ††MS25010B12A

WATER-TIGHT 2-TERMINAL SUB-MINIATURE LIGHTS

(Also see other Dialco pages for large oil-tight indicator lights)

With retained "0" ring seal. Front mounting in $\frac{15}{32}$" clearance hole. Takes T-1¾ midget flange base incandescents (MS-25237). From 1.35 to 28 volts. Translucent stovepipe lens. Two terminals. Lugs of brass and hot-tinned. Lockwasher, hex-nut supplied. Overall size, ⅝"x1$\frac{5}{16}$" long. Less lamp. Wt., 2 oz.

25F1212	177-8430-0971-503	Red	1.51	1.41	1.32	1.24	1.17	1.10
25F1213	177-8430-0972-503	Green						
25F1214	177-8430-0973-503	Amber						
25F1215	177-8430-0974-503	Blue						
25F1216	177-8430-0975-503	White						
25F1217	177-8430-0976-503	Yellow						

T-1 ¾ LAMPS

Stk. No.	Lamp No.	Volts	Amps	Life hr.	1-9	10-99	100-Up
25F125	331	1.35	.06	500	.89	.532	.479
25F126	338	2.7	.06	500	.89	.532	.479
25F123	328**	6.0	.2	1000	.55	.329	.296
25F124	330	14.0	.08	750	.79	.467	.420
25F122	327*	28.0	.04	1000	.71	.420	.378

*MS25237—327. **MS25237—328.

TELEPHONE SLIDE BASE INDICATOR LIGHTS

Series 70-0428

Series 37-0428

Mount from back of panel in $\frac{9}{16}$" clearance hole. Accommodates T-2 incandescent bulb with telephone slide base. Stovepipe lenses with smooth face and back. Lamp protrudes into lens cavity for easy replacement from front of panel without tools. Furnished with knurled ring, internal-tooth lockwasher, and hex mounting nut. Soldering terminals. Size: 1$\frac{3}{16}$" x 2$\frac{15}{16}$". Less lamps. Avg. shpg. wt., 3 oz.

Stk. No.	Type No.	Lens	1-9	10-24	25-99	100-249	250-499	500-999
25F1218	70-0428-1131-306	Red	1.76	1.67	1.58	1.49	1.40	1.32
25F1219	70-0428-1132-306	Green						
25F1220	70-0428-1133-306	Amber						
25F1221	70-0428-1134-306	Blue						
25F1222	70-0428-1135-306	White						
Same as above, but lens shape is convex. *Translucent.								
25F1223	37-0428-0111-306	Red	1.57	1.48	1.40	1.32	1.25	1.18
25F1224	37-0428-0112-306	Green						
25F1225	37-0428-0113-306	Amber						
25F1226	37-0428-0114-306	Blue						
25F1227	37-0428-0135-306	White*						

MAKE NEWARK YOUR ONE STOP SOURCE FOR ALL DIALCO LIGHT ASSEMBLIES AND ACCESSORIES. FAST DELIVERY FROM ON-THE-SHELF STOCKS.

DIALCO Pilot Light Assemblies

U.L. APPROVED NEON PANEL ASSEMBLY

SERIES 32-0914. A line of assemblies for use with NE-45 neon glow lamps in 115 volt circuits. Candelabra socket; lamp removable from front. 2⅝" long. Require 1" hole for mounting. Available in four colors. Supplied less neon glow lamps. 4 oz.

Stock No.	Type 32-0914	Color	1-9	10-24	25-99	100-249	250-499	500-999
25F410	0111-302	Red	1.74	1.59	1.45	1.32	1.21	1.11
25F411	0113-302	Amber						
25F413	0117-302	Clear						
25F414	0135-302	White						

1" ENCLOSED PILOT LIGHTS

SERIES 32-3101

U.L. approved types. 115 volt enclosed pilot light assemblies. Brass and phenolic. Faceted jewel chrome plated brass holder. Candelabra socket. S6 bulb removable from front. Requires 1" clearance hole for mounting. Less bulb. Weight, 5 oz.

Stock No.	Type 32-3101	Color	1-9	10-24	25-99	100-249	250-499	500-999
25F370	0431-302	Red	1.46	1.33	1.22	1.11	1.02	.94
25F371	0432-302	Green						
25F372	0433-302	Amber						
25F373	0437-302	Clear						

OIL-TIGHT ASSEMBLIES FOR 1" MOUNTING HOLE

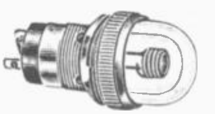
Uses Neon Glow Lamps

For use with the NE-45 candelabra screw base lamp. Resistor built-in the lamp base. Overall size approx. 1$\frac{3}{16}$x2$\frac{7}{32}$". Comes with split lockwasher and hex nut. Less lamp. Shpg. wt., 3 ozs.

Dome Style Unfrosted Lens except † Frosted back.

Stock No.	Type 103-3114	Lens	1-9	10-24	25-99	100-249	250-499	500-999
25F551	1231-403	Red	2.64	2.40	2.20	2.00	1.84	1.70
25F552	1233-403	Amber						
25F553	1236-403	Yellow						
25F554	1237-403	Clear						
25F555	1217-403	Clear†						

SERIES 159-5437 PILOT LIGHT ASSEMBLIES



Use NE-79 Neon lamps, which have long lives, low wattage, and excellent resistance to shock. 3000 ohm resistors are built-in for bright light on 105-125 volts.

Stock No.	Type 159-5437	Color	1-9	10-24	25-99	100-249	250-499	500-999
25F1528	0931-403	Red	3.95	3.61	3.29	3.01	2.76	2.54
25F1529	0933-403	Amber						
25F1530	0935-403	White						
25F1531	0937-403	Clear						

SERIES 125-0463

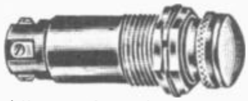
For use with NE-51H Neon lamp. 22K resistor for bright light on 110-125 VAC.

Fluted Lens

Stock No.	Type 125-0463	Lens	1-9	10-24	25-99	100-249	250-499	500-999
25F1532	1191-413	Red	1.98	1.88	1.77	1.69	1.61	1.54
25F1533	1193-413	Amber						
25F1534	1197-413	Clear						
Plain Lens								
25F1535	1131-413	Red	1.98	1.88	1.77	1.69	1.61	1.54
25F1536	1133-413	Amber						
25F1537	1137-413	Clear						

PRESS-TO-TEST SERIES 820-2701

Conform to All Applicable Military Specifications



Press-to-test assemblies (without dimmer). Mounts in 1" clearance hole. Overall size approx. 1¼x3¼". Three rugged binding screw terminals: 2 for "normal" circuit; 1 for "test" circuit. Uses S6 bulbs with candelabra screw base. Supplied less lamp. Shpg. wt. 3 oz. *Translucent unfrosted.

Stock No.	Type 820-2701	Lens	1-9	10-24	25-99	100-249	250-499	500-999
25F999	0111-502	Red	6.01	5.62	5.24	4.86	4.50	4.16
25F1000	0112-502	Green						
25F1001	0113-502	Amber						
25F1002	0114-502	Blue						
25F1003	0135-502	White*						
25F1004	0116-502	Yellow						
25F1005	0117-502	Clear						

PRESS-TO-TEST INDICATOR LIGHTS

806-1710

804-1710

803-1710

813-1030

800-1030

812-1030

Built-in bulb-testing device. Units light when pressed if lamp is satisfactory. 3 solder lugs. 180° visible light beam for daylight, indirect "halo" light for night. Less lamps.

FOR T-3¼ LAMP

Formerly Series VM-911. Assemblies take T-3¼ lamp. Size approx. ⅞"x2¼". Shpg. wt., 1½ oz.

Stk. No.	Type 804-1710	Mil. Type No.	Lens Color
WITH MECHANICAL SHUTTER DIMMER—⅝" LENS			
25F998	0337-504	MS25331-1	Clear
25F991	0331-504	MS25331-2	Red
25F992	0332-504	MS25331-3	Green
25F993	0333-504	MS25331-4	Amber
25F1507	0334-504	....	Blue
WITHOUT DIMMER—½" LENS			
Stk. No.	**803-1710**	**Mil. Type No.**	**Lens Color**
25F994	0337-504	MS25331-5	Clear
25F995	0331-504	MS25331-6	Red
25F996	0332-504	MS25331-7	Green
25F997	0333-504	MS25331-8	Amber
25F1508	0334-504	....	Blue
WITHOUT DIMMER—1" LENS			
Stk. No.	**806-1710**	**Mil. Type No.**	**Lens Color**
25F1509	0437-504	....	Clear
25F1510	0431-504	....	Red
25F1511	0432-504	....	Green
25F1512	0433-504	....	Amber
25F1513	0434-504	....	Blue

	1-9	10-24	25-99	100-249	250-499	500-999
⅝" Lens	2.67	2.50	2.35	2.19	2.03	1.89
½" Lens	2.44	2.28	2.13	1.98	1.83	1.69
1" Lens	2.81	2.62	2.45	2.28	2.11	1.95

FOR T-1-¾ LAMP

Formerly VM-911M Series. ⅝" x 1⅜". ⅜" lens. Mounts in $\frac{15}{32}$" clearance hole.

Stk. No.	801-1030	Mil. Type No.	Lens Color
WITH MECHANICAL SHUTTER DIMMER			
25F983	0337-504	MS25041-1	Clear
25F984	0331-504	MS25041-2	Red
25F985	0332-504	MS25041-3	Green
25F986	0333-504	MS25041-4	Amber
25F1514	0334-504	MS25041-10	Blue
WITHOUT DIMMER			
Stk. No.	**800-1030**	**Mil. Type No.**	**Lens Color**
25F987	0337-504	MS25041-5	Clear
25F988	0331-504	MS25041-6	Red
25F989	0332-504	MS25041-7	Green
25F990	0333-504	MS25041-8	Amber
25F1515	0334-504	MS25041-11	Blue

	1-9	10-24	25-99	100-249	250-499	500-999
With Dimmer	2.26	2.12	1.99	1.86	1.73	1.62
Without Dimmer	1.95	1.82	1.70	1.58	1.46	1.35

SERIES 812 AND 813

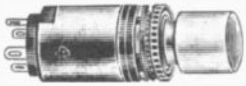
Body for 813 and 812 series lens caps. Listed below.

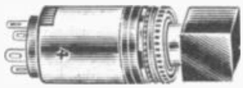
Stk. No.	Type	1-24	25-49	50-99	100-249	250-499	500-999
25F1600	812-1030-09-506	1.46	1.36	1.27	1.18	1.09	1.01

Stk. No.	Type	Lens Color	1-24	25-49	50-99	100-249	250-499	500-999
Non-dimmer transparent ½" cylindrical lens caps.								
25F1601	813-1437	Clear	.68	.63	.59	.55	.51	.47
25F1602	813-1431	Red						
25F1603	813-1432	Green						
25F1604	813-1433	Amber						
Non-dimmer translucent ½" cylindrical lens caps.								
25F1605	813-1475	White	.68	.63	.59	.55	.51	.47
25F1606	813-1471	Red						
25F1607	813-1472	Green						
25F1608	813-1473	Amber						
Non-dimmer translucent ½" stovepipe lens caps.								
25F1609	812-0975	White	.68	.63	.59	.55	.51	.47
25F1610	812-0971	Red						
25F1611	812-0972	Green						
25F1612	812-0973	Amber						

Switches and Indicator Lights DIALCO

SUB-MINIATURE PUSHBUTTON SWITCHES AND INDICATOR LIGHTS


Switch with Round Lens


Switch with Square Lens


Indicator light with fixed flange


Indicator light with Knurled Flange


Round and Square Lens Caps

Fits a ½" mounting hole in panels up to 3⁄16" thick. Lenses are interchangeable from switches to indicators of the same grouping. All are momentary contact. Aluminum base assembly. 125 VAC. breakdown. Contact parts silver on series 513-0101-604, 513-0201-604, 513-0301-604. Gold on 513-0401-604, 513-0501-604, 513-0601-604. 3 amps, 125 VAC. 3 amps VDC (non-conductive). To relamp pushbutton, simply pull it out. Uses T 1¾ lamp.

SWITCH BASE ASSEMBLIES FOR DRY CIRCUITS

Stock No.	Type 513-	Description	1-9	10-24-	25-49	100-249	250-449	500-999
60F1003	0401-604	1 Cir. N.O.	3.45	3.24	3.04	2.84	2.66	2.48
60F1004	0501-604	1 Cir. N.C.	3.45	3.24	3.04	2.84	2.66	2.48
60F1005	0601-604	2 Cirs. N.O.N.C.	3.77	3.55	3.33	3.11	2.91	2.71

PUSH BUTTON SWITCH BASE ASSEMBLIES

Stock No.	Type 513-	Description	1-9	10-24	25-99	100-249	250-499	500-999
60F1000	0101-604	1 Cir. N.O.	3.12	2.94	2.76	2.57	2.41	2.25
60F1001	0201-604	1 Cir. N.C.	3.12	2.94	2.76	2.57	2.41	2.25
60F1002	0301-604	2 Cirs. N.O.N.C.	3.45	3.24	3.04	2.84	2.66	2.48

MATCHING INDICATOR LIGHTS

Companion series designed to match pushbutton switches. Lens caps can be used as illuminated pushbutton on the switch or as a lens cap on the indicator light. Incorporates unique anti-rotation (locked) feature for secure locking of socket terminal assembly in the mounting bushing and of the center terminal to the insulating disc. Insulation 125 VAC breakdown.

Base with fixed flange for front mounting in 15⁄32" clearance hole.

Stock No.	Type 183-	1-9	10-24	25-99	100-249	250-499	500-999
60F1006	9730-14-602	1.01	.94	.87	.81	.75	.69

Base with movable knurled flange nut for front or rear mounting in ½" clearance hole.

Stock No.	Type 183-	1-9	10-24	25-99	100-249	250-499	500-999
60F1007	9830-14-604	1.01	.94	.87	.81	.75	.69

½" AND ¾" LENS CAPS FOR ABOVE SWITCH AND INDICATOR LIGHT BASES

Seven colors of round or square caps; rotatable and non-rotatable units. High strength plastic. Brass shank, white nickle plated. Rotatable lens allow alignment after installation; non-rotatable lens position is determined by base mount.

½" LENS CAPS WITH SOLID COLOR TRANSLUCENT FACE AND SIDES

Color	Round Caps Stock No.	Rotatable	Stock No.	Non-Rotatable	Square Caps Stock No.	Rotatable	Stock No.	Non-Rotatable	1-9	10-24	25-99	100-249	250-499	500-999
Red	60F1047	183-1471	60F1054	186-1471	60F1061	185-1871	60E1068	184-1871	.59	.55	.51	.47	.43	.39
Green	60F1048	183-1472	60F1055	186-1472	60F1062	185-1872	60F1069	184-1872						
Amber	60F1049	183-1473	60F1056	186-1473	60F1063	185-1873	60F1070	184-1873						
Blue	60F1050	183-1474	60F1057	186-1474	60F1064	185-1874	60F1071	184-1874						
White	60F1051	183-1475	60F1058	186-1475	60F1065	185-1875	60F1072	184 1875						
Lt. Yellow	60F1052	183-1476	60F1059	186-1476	60F1066	185-1876	60F1073	184-1876						
Ivory	60F1053	183-1478	60F1060	186-1478	60F1067	185-1878	60F1074	184-1878						

½" LENS CAPS WITH TRANSLUCENT COLORED FACE, BLACK OPAQUE SIDES

Color	Round Caps Stock No.	Rotatable	Stock No.	Non-Rotatable	Square Caps Stock No.	Rotatable	Stock No.	Non-Rotatable	1-9	10-24	25-99	100-249	250-499	500-999
Red	60F1075	183-5071	60F1082	186-5071	60F1089	185-5071	60F1096	184-5071	.59	.55	.51	.47	.43	.39
Green	60F1076	183-5072	60F1083	186-5072	60F1090	185-5072	60F1097	184-5072						
Amber	60F1077	183-5073	60F1084	186-5073	60F1091	185-5073	60F1098	184-5073						
Blue	60F1078	183-5074	60F1085	186-5074	60F1092	185-5074	60F1099	184-5074						
White	60F1079	183-5075	60F1086	186-5075	60F1093	185-5075	60F1100	184-5075						
Lt. Yellow	60F1080	183-5076	60F1087	186-5076	60F1094	185-5076	60F1101	184-5076						
Ivory	60F1081	183-5078	60F1088	186-5078	60F1095	185-5078	60F1102	184-5078						

½" LENS CAPS WITH TRANSLUCENT COLORED FACE, GRAY OPAQUE SIDES

Color	Round Caps Stock No.	Rotatable	Stock No.	Non-Rotatable	Square Caps Stock No.	Rotatable	Stock No.	Non-Rotatable	1-9	10-24	25-99	100-249	250-499	500-999
Red	60F1103	183-5171	60F1110	186-5171	60F1117	185-5171	60F1124	184-5171	.59	.55	.51	.47	.43	.39
Green	60F1104	183-5172	60F1111	186-5172	69F1118	185-5172	60F1125	184-5172						
Amber	60F1105	183-5173	60F1112	186-5173	60F1119	185-5173	60F1126	184-5173						
Blue	60F1106	183-5174	60F1113	186-5174	60F1120	185-5174	60F1127	184-5174						
White	60F1107	183-5175	60F1114	186-5175	60F1121	185-5175	60F1128	184-5175						
Lt. Yellow	60F1108	183-5176	60F1115	186-5176	60F1122	185-5176	60F1129	184-5176						
Ivory	60F1109	183-5178	60F1116	186-5178	60F1123	185-5178	60F1130	184-5178						

NON-ROTATABLE ¾" LENS CAP WITH SOLID COLOR TRANSLUCENT FACE AND SIDES

ROUND CAPS

Stock No.	Type	Color	1-9	10-24	25-99	100-249	250-490	500-999
60F1138	188-1471	Red	.83	.78	.73	.68	.63	.58
60F1139	188-1472	Green						
60F1140	188-1473	Amber						
60F1141	188-1474	Blue						
60F1142	188-1475	White						
60F1143	188-1476	Lt. Yel.						
60F1144	188-1478	Ivory						

SQUARE CAPS

Stock No.	Type	Color	1-9	10-24	25-99	108-249	258-499	500-999
60F1152	187-1871	Red	.83	.78	.73	.68	.63	.58
60F1153	187-1872	Green						
60F1154	187-1873	Amber						
60F1155	187-1874	Blue						
60F1156	187-1875	White						
60F1157	187-1876	Lt. Yel.						
60F1158	187-1878	Ivory						

SELF-FLASHING INDICATOR LIGHT ASSEMBLIES

Series 928. Self-flashing units complete with replaceable aged, selected 521-8018 high brightness Neon lamp for 110-125 VAC. Mount from rear of panel in ½" MTG. Clearance hole up to 3⁄16" panel thickness. Solder eyelet terminals. Lens cap is cylindrical with refractive inner surface. Units flash at approx. 120 cycles per min. The two terminal unit will be a straight flasher operation.

Stock No.	Color	Mfg. No.	1-9	10-24	25-99	100-249	250-499	500-999
25F1595	Red	928-1422-1631-638	5.51	5.07	4.78	4.30	4.05	3.81
25F1596	Amber	928-1422-1633-638	5.51	5.07	4.78	4.30	4.05	3.81

Series 913

Series 922

Series 915

ILLUMINATED PUSHBUTTON SWITCHES

Series 913. 0.1 amp. —125V AC; 0.1 amp. —30VDC (non-inductive). High brightness NE-2H Neon Lamp, non-replaceable. Min. 20,000 hours. For use in 110-125VAC circuits. Integral 33K resistor, gold plated contact parts. Mts. from back of panel in ⅜" clearance hole for ⅛" panel thickness.

SPST—N.O.

Lens Color	Type 913	Stk. No.	1-9	10-24	25-99	100-249	250-499	500-999
Red	1156-1631-525	60F1235	2.56	2.41	2.26	2.11	1.97	1.77
Amber	1156-1633-525	60F1236						
White	1156-1635-525	60F1237						
Clear	1156-1637-525	60F1238						

SPST—N.C.

Lens Color	Type 913	Stk. No.	1-9	10-24	25-99	100-249	250-499	500-999
Red	1430-1631-525	60F1239	2.56	2.41	2.26	2.11	1.97	1.77
Amber	1430-1633-525	60F1240						
White	1430-1635-525	60F1241						
Clear	1430-1637-525	60F1242						

SPDT—TWO CIRCUITS—N.O.—N.C.

Lens Color	Type 913	Stk. No.	1-9	10-24	25-99	100-249	250-499	500-999
Red	1436-1631-525	60F1243	2.71	2.55	2.39	2.23	2.09	1.88
Amber	1436-1633-525	60F1244						
White	1436-1635-525	60F1245						
Clear	1436-1637-525	60F1246						

MOUNTING WRENCHES

No-Mar mounting wrenches for quick, secure fastening. Type 506-0375, for series 913, 922, and 915 mounting panel. Type 506-0500 for base assemblies 513 Series sub. — min. switches.

Stk. No.	Type	1-9	10-24	25-99	100-249	250-499
60F1046	506-0375	4.08	3.88	3.67	3.47	3.26
60F1215	506-0500	4.08	3.88	3.67	3.47	3.26

Series 922. SPST momentary cont. N.O.; 0.1 amp. 125 VAC; 0.1 amp, 30 VDC Non-inductive. Life of over 1,000,000 operations at rated values. Gold plated contact parts. Mts. from back of panel in ⅜" clear. hole for ⅛" panel thickness. Uses replaceable T-1¾ incand. 1 amp. Double turret (soldering) terminals. Long cylindrical lens cap. Single circuit, normally open. For dry circuits or with low currents at higher voltages. 6 colors available. Less lamp.

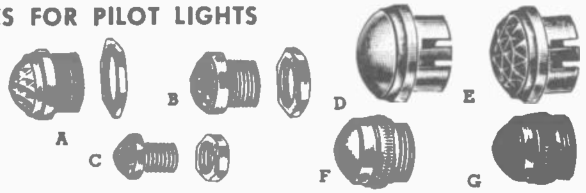
Color	Type 922-1141-	Stk. No.	1-9	10-24	25-99	100-249	250-499	500-999
Red	1631-523	60F1032	3.46	3.27	3.06	2.86	2.68	2.49
Green	1632-523	60F1033						
Amber	1633-523	60F1034						
Blue	1634-523	60F1035						
White	1635-523	60F1036						
Clear	1637-523	60F1037						

NEON INDICATOR LAMP†

Series 915. Neon Indicator Lights. *stovepipe lens cap; **long cylindrical lens cap. All have internal Fresnel diffusing rings. Integral 56K resistor. Mounts from back of panel in ⅜" hole for ⅛" panel thickness. 3 terminals provided; 2 are common to one side of the internal circuit. Insulation 1250 VAC breakdown. †Non- replaceable NE-2E lamp-min. 5000 Hr. life on 110-125 VAC.

Color	Type 915-1120-	Stock No.	1-9	10-24	25-99	100-299	250-499	500-999
Red	1631-523**	60F1042	1.79	1.69	1.58	1.48	1.39	1.29
Amber	1633-523**	60F1043						
White	1635-523**	60F1044						
Clear	1637-523**	60F1045						
Red	1731-523*	60F1038						
Amber	1733-523*	60F1039						
White	1735-523*	60F1040						
Clear	1737-523*	60F1041						

LENS CAP ASSEMBLIES FOR PILOT LIGHTS



SERIES 514-2512, 514-1012, 514-0512 ASSEMBLIES

Threaded shanks ⅜" long. Required ¹¹⁄₁₆", ⁷⁄₁₆", and ⁹⁄₃₂" mounting holes.

FIG. A SERIES 514-2512—⅝" DIA.

Lens	Stk. No.	Type 514-2512	1-9	10-24	25-99	100-249	250-499	500-999
Red	25F430	0431-302	.50	.46	.42	.38	.34	.32
Green	25F431	0432-302						
Amber	25F432	0433-302						
Blue	25F433	0434-302						
White	25F434	0435-302						

FIG. B SERIES 514-1012

Lens	Stk. No.	Type 514-1012	1-9	10-24	25-99	100-249	250-499	500-999
Red	25F435	2131-102	.18	.16	.14	.13	.12	.11
Green	25F436	2132-102						
Amber	25F437	2133-102						
Blue	25F438	2134-102						
White	25F439	2135-102						

FIG. C SERIES 514-0512

Lens	Stk. No.	Type 514-0512	1-9	10-24	25-99	100-249	250-499	500-999
Red	25F440	2131-102	.17	.15	.14	.12	.11	.10
Green	25F441	2132-102						
Amber	25F442	2133-102						
Blue	25F443	2134-102						
White	25F444	2135-102						

FIG. F SERIES 81 LENS ASSEMBLIES

Replacement lens cap assemblies for series 81-0410 and 81-1310 Black nickel finish to meet requirements of MIL-L-3661A. *Translucent White Unfrosted.

Lens	Stk. No.	Type 81	1-9	10-24	25-99	100-249	250-499	500-999
Red	25F1569	-0111-200	.38	.35	.33	.31	.29	.27
Green	25F1570	-0112-200						
Amber	25F1571	-0113-200						
Blue	25F1572	-0114-200						
White	25F1573	-0135-200						
Lt. Yel.	25F1574	-0116-200						
Clear	25F1575	-0117-200						

(F) & (G) SERIES 81 LENS HOLDERS

Replacement lens caps for 81-2210, 81-5910, 502-8140 and 502-8137-8136 Series. (White Nickel). *Translucent White Unfrosted.

Lens	Stk. No.	Type 81-	1-9	10-24	25-99	100-249	250-499	500-999
Red	25F1555	0111-100	.28	.26	.24	.23	.22	.21
Green	25F1556	0112-100						
Amber	25F1557	0113-100						
Blue	25F1558	0114-100						
White	25F1559	0135-100*						
Lt. Yel.	25F1560	0116-100						
Clear	25F1561	0117-100						

Fig. G Faceted

Lens	Stk. No.	Type 81-21	1-9	10-24	25-99	100-249	250-499	500-999
Red	25F1562	31-100	.19	.18	.17	.16	.15	.14
Green	25F1563	32-100						
Amber	25F1564	33-100						
Blue	25F1565	34-100						
White	25F1566	35-100						
Lt. Yel.	25F1567	36-100						
Clear	25F1568	37-100						

SERIES 32 LENS CAP ASSEMBLIES

Polished chrome finish. For use with 502-3228, 32-2901 and 502-3241 Series Pilot Lights.

	Convex Frosted Back. Fig. D		Faceted Fig. E							
Lens	Stk. No.	Type 32-01	Stk. No.	Type 32-04	1-9	10-24	25-99	100-249	250-499	500-999
Red	25F1576	11-300	25F1582	31-300	.43	.40	.37	.34	.32	.30
Green	25F1577	12-300	25F1583	32-300						
Amber	25F1578	13-300	25F1584	33-300						
Blue	25F1579	14-300	25F1585	34-300						
Lt. Yel.	25F1580	16-300	25F1586	36-300						
Clear	25F1581	17-300	25F1587	37-300						

Indicator Lights, Sockets, and Accessories

DIALCO

HALF-INCH MINIATURE OPEN TYPE

Miniature screw and bayonet socket assemblies with faceted jewels. Mounts in 11⁄16" hole. Bulb removable from front. With tinned solder lugs. Uses T-3¼ Bulb. Less bulbs. Wt., 3 oz.

Lens	Stk. No.	Screw	Stk. No.	Bayonet
Red	25F400	502-8137-2131-102	25F405	502-8136-2131-102
Green	25F401	502-8137-2132-102	25F406	502-8136-2132-102
Amber	25F402	502-8137-2133-102	25F407	502-8136-2133-102
Blue	25F403	502-8137-2134-102	25F408	502-8136-2134-102
White	25F404	502-8137-2135-102	25F409	502-8136-2135-102

Prices	1-9	10-24	25-99	100-249	250-499	500-999
	.50	.46	.43	.40	.37	.34

HALF-INCH OPEN BAYONET TYPE

Open type pilot light assembly. Has min. bay. socket. Half-inch jewel. 2" long. Requires 11⁄16" mtg. hole. Designed for mounting on panels up to ¼" thick. With mtg. washers. Uses T-3¼ lamp. Less lamp. Tinned lugs. 4 oz.

Lens	Faceted Stk. No.	Faceted Type	Convex-frosted Back Stk. No.	Convex-frosted Back Type
Red	25F470	502-8140-2131-100	25F1548	502-8140-0111-100
Green	25F471	502-8140-2132-100	25F1549	502-8140-0112-100
Amber	25F472	502-8140-2133-100	25F1550	502-8140-0113-100
Blue	25F473	502-8140-2134-100	25F1551	502-8140-0114-100
White	25F1545	502-8140-2135-100	25F1552	502-8140-0135-100
Yellow	25F1546	502-8140-2136-100	25F1553	502-8140-0116-100
Clear	25F1547	502-8140-2137-100	25F1554	502-8140-0117-100

Prices		1-9	10-24	25-99	100-249	250-499	500-999
	Faceted	.63	.58	.53	.49	.45	.42
	Convex	.72	.66	.60	.56	.52	.49

¾-INCH CANDELABRA SOCKET

115 volt pilot light assemblies with faceted jewels, chrome-plated brass holder. Candelabra socket for S6 Lamp requires 11⁄16" hole for mounting. Less lamp. 4 oz.

Lens	Stk. No.	Type 502-2511-	1-9	10-24	25-99	100-249	250-499	500-999
Red	25F395	0431-302	.70	.64	.58	.53	.48	.45
Green	25F396	0432-302						
Blue	25F397	0434-302						
Amber	25F398	0433-302						
White	25F399	0435-302						

HALF-INCH OPEN TYPE

Complete with candelabra, bayonet or min. screw base sockets for standard pilot light bulbs. Faceted jewels in nickel plated brassholders. Lug terminals. Requires 7⁄16" hole for mtg. Uses T-3¼ Bulb. Less bulbs. Wt., 2 oz.

Lens	Min. Screw Stk. No.	Min. Screw Type 502-1015-	Min. Bayonet Stk. No.	Min. Bayonet Type 502-1024	Cand. Screw Stock No.	Cand. Screw Type 502-1010
Red	25F350	2131-102	25F355	2131-102	25F360	2131-102
Green	25F351	2132-102	25F356	2132-102	25F361	2132-102
White	25F352	2135-102	25F359	2135-102	25F364	2135-102
Amber	25F353	2133-102	25F357	2133-102	25F362	2133-102
Blue	25F354	2134-102	25F358	2134-102	25F363	2134-102

Prices		1-9	10-24	25-99	100-249	250-499	500-999
	Screw-Bayonet	.34	.31	.28	.26	.24	.22
	Cand. Screw	.35	.32	.29	.27	.25	.23

1-INCH OPEN PLATED TYPE ASSEMBLY

Polished chrome-plated brass jewel holders. *Uses T¾ bay. base. †Uses T¾ min. screw. #Uses 56 cand. screw. 1½"L. Reg. 1" mtg. holes. Less lamps. 3 oz.

Lens	Stk. No.	502-3241-	Stk. No.	502-3242-	Stk. No.	502-3214-
Red	25F380	0431-302*	25F385	0431-302†	25F390	0431-302#
Green	25F381	0432-302*	25F386	0432-302†	25F391	0432-302#
Amber	25F382	0433-302*	25F387	0433-302†	25F392	0433-302#
Blue	25F383	0434-302*	25F388	0434-302†	25F393	0434-302#
White	25F384	0435-302*	25F389	0435-302†	25F394	0435-302#

Prices		1-9	10-24	25-99	100-249	250-499	500-999
	3241 & 3242	.88	.81	.75	.68	.64	.59
	3214	.92	.84	.77	.71	.66	.61

1" 115 VOLT CANDELABRA ASSEMBLIES

115 volt pilot light assemblies with faceted jewels in holder. Candelabra socket for S6 lamp. Require 1" hole. Less Lamp. Wt. 5 oz.

Lens	Stk. No.	Type 502-3228-	1-9	10-24	25-99	100-249	250-499	500-999
Red	25F374	0431-302	.98	.91	.83	.76	.71	.66
Green	25F375	0432-302						
Amber	25F376	0433-302						
Blue	25F377	0434-302						
White	25F378	0435-302						

LEECRAFT

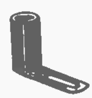

A

B

C

D

E

F

G

H

J


Series 47

Series 200. Miniature bayonet sockets with insulating sleeves. Brackets made of .025/.032" steel cadmium plated. Wire leads, 22 gauge, 6" long.

Stk. No.	Type	Fig.	1-24	25-99	100-249	250-499	500-999
25F1300	2-01	A	.41	.27	.23	.142	.111
25F1301	2-04	B					
25F1302	2-06	D					
25F1303	2-13	G					
25F1304	2-15	J					

Series 300. Miniature bayonet sockets of molded bakelite. 300 type housing provides insulation where low voltage lamps are to be used. UL listed and CSA approved. Wire leads, 22 gauge, 6" long.

Stk. No.	Type	Fig.	1-24	25-99	100-249	250-499	500-999
25F1305	3-01	A	.45	.34	.28	.205	.174
25F1306	3-02	B					
25F1307	3-05	C					
25F1308	3-06	D					
25F1309	3-13	G					
25F1310	3-15	J					
25F1311	3-20	H					

Series 400. Candelabra screw base in molded bakelite. #18 gauge wire leads in black and white, 6" long, ends stripped ½". UL listed, CSA App.

Stk. No.	Type	Fig.	1-24	25-99	100-249	250-499	500-999
25F1312	4-01	A	.45	.34	.28	.187	.176
25F1313	4-04	B					
25F1314	4-05	C					
25F1315	4-06	D					
25F1316	4-08	E					
25F1317	4-15	J					

Series 500. Miniature screw sockets with soldering terminals. Terminals are tinned and brackets are cadmium plated.

Stk. No.	Type	Fig.	1-24	25-99	100-249	250-499	500-999
25F452	5-01	A	.29	.23	.18	.09	.079
25F453	5-04	B					
25F450	5-05	C					
25F454	5-06	D					
25F451	5-07	F					
25F447	5-08	E					
25F1318	5-13	G					
25F1319	5-15	J					

Series 600. Candelabra screw sockets with solder terms. Brackets are .025/.032",

Stk. No.	Type	Fig.	1-24	25-99	100-249	250-499	500-999
25F463	6-01	A	.34	.23	.18	.095	.082
25F461	6-05	C					
25F446	6-06	D					
25F462	6-07	F					
25F448	6-08	E					
25F1321	6-13	G					

Series 700. Miniature bayonet sockets with soldering terminals, for low voltage incdse. lamps. *For printed circuits.

Stk. No.	Type	Fig.	1-24	25-99	100-249	250-499	500-999
25F457	7-01	A	.35	.23	.18	.09	.079
25F458	7-04	B					
25F455	7-05	C					
25F459	7-06	D					
25F456	7-07	F					
25F449	7-08	E					
25F1323	7-11	H					
25F1324	7-13	G					
25F1325	7-15	J					
25F460	7-20	E					
25F1326	7-35	*	.56	.44	.34	.263	.179

SIDELITE SIDE SWITCH LIGHT COMBINATION

Switch rating 3 amps. AC or 5 amps DC at 125V. 115V. Lamp with 230V resistor. UL listed. 110-125 volts.

Lens	Stk No.	Type	1-24	25-99	100-249	250-499	500-999
Red	60F1400	51-2151T	1.50	1.05	.90	.75	.675
Amber	60F1401	51-2153T					
White	60F1402	51-2155T					

SERIES 47 INDICATOR LIGHT

Fits into 9⁄16 x ⅝ panel opening. Built in lamps, resistor and solder terms. 110-125 volts.

Lens	Stk. No.	Type	1-24	25-99	100-249	250-499	500-999
Red	60F1416	47-3	1.00	.75	.50	.485	.392
Amber	60F1417	47-9					
White	60F1418	47-2					

LEECRAFT Indicator Lights & Sockets

SNAPLITE NEON PILOT LIGHTS




Fig. A Fig. B Fig. C Fig. D

Long-life irreplaceable lamp. One piece nylon housing snaps into standard ½" hole. Body size: 1⅟₁₆" behind panel x .495" dia. Retainer: ⅟₁₆" thick x ⅝" O.D. Lens: 2⅟₆₄" O.D. Have #18 gauge. 6" wire leads, except "T" suffix indicates .187" tab terminals. All rated 110-125V except * 210-250V. UL and CSA approved.

SQUARE LENS — FIG. A

Color	Stk. No.	Type	1-24	25-99	100-249	250-499	500-999
Red	60F1290	32R2911	.84	.69	.45	.42	.385
Amber	60F1291	32R2913					
White	60F1292	32R2915					
Red	60F1293	32R2911T					
Amber	60F1294	32R2913T					
White	60F1295	32R2915T					

STOVEPIPE — FIG. B

Color	Stk. No.	Type	1-24	25-99	100-249	250-499	500-999
Red	60F1274	32-2211	.78	.63	.42	.39	.35
Amber	60F1275	32-2213					
Clear	60F1276	32-2217					
White	60F1277	32-2215					
Red	60F1278	32-2211T					
Amber	60F1279	32-2213T					
Clear	60F1280	32-2217T					
White	60F1281	32-2215T					
Red*	60F1426	35-2211					
Red*	60F1427	35-2211T					

FLAT CYLINDRICAL LENS — FIG. C

Color	Stk. No.	Type	1-24	25-99	100-249	250-499	500-999
Red	25F1375	32-2111	.78	.63	.42	.39	.35
Amber	25F1376	32-2113					
Clear	25F1377	32-2117					
White	25F1378	32-2115					
Red	25F1379	32-2111T					
Amber	25F1380	32-2113T					
Clear	25F1381	32-2117T					
White	25F1382	32-2115T					
Red*	60F1428	35-2111					
Red*	60F1429	35-2111T					

FLUSH LENS — FIG. D

Color	Stk. No.	Type	1-24	25-99	100-249	250-499	500-999
Red	60F1282	32-2311	.78	.63	.42	.39	.35
Amber	60F1283	32-2313					
Clear	60F1284	32-2317					
White	60F1285	32-2315					
Red	60F1286	32-2311T					
Amber	60F1287	32-2313T					
Clear	60F1288	32-2317T					
White	60F1289	32-2315T					
Red*	60F1424	35-2311					
Red*	60F1425	35-2311T					

INCANDESCENT SNAPLIGHTS 6V/2A & 14V/.08A

All have chrome bezel to fit .500-513" hole. 18 AWG, 6" wire leads, except "T" suffix indicates .187 tab terminals.

SQUARE LENS CAP — FIG. A

Lens Color	6-Volt Types		14-Volt Types	
	Stk. No.	Type	Stk. No.	Type
Red	25F1362	32R-G1-2911	25F1367	32R-G3-2911
Green	25F1363	32R-G1-2912	25F1368	32R-G3-2912
Amber	25F1364	32R-G1-2913	25F1369	32R-G3-2913
Blue	25F1365	32R-G1-2914	25F1370	32R-G3-2914
White	25F1366	32R-G1-2915	25F1371	32R-G3-2915

FLAT CYLINDRICAL LENS CAP — FIG. C

Lens Color	6-Volt Stk. No.	6-Volt Type	14-Volt Stk. No.	14-Volt Type
Red	60F1470	32R-G1-2111	60F1480	32R-G3-2111
Green	60F1471	32R-G1-2112	60F1481	32R-G3-2112
Amber	60F1472	32R-G1-2113	60F1482	32R-G3-2113
Blue	60F1473	32R-G1-2114	60F1483	32R-G3-2114
White	60F1474	32R-G1-2115	60F1484	32R-G3-2115
Red	60F1475	32R-G1-2111T	60F1485	32R-G3-2111T
Green	60F1476	32R-G1-2112T	60F1486	32R-G3-2112T
Amber	60F1477	32R-G1-2113T	60F1487	32R-G3-2113T
Blue	60F1478	32R-G1-2114T	60F1488	32R-G3-2114T
White	60F1479	32R-G1-2115T	60F1489	32R-G3-2115T

FLUSH LENS CAP — FIG. D

Lens Color	6-Volt Stk. No.	6-Volt Type	14-Volt Stk. No.	14-Volt Type
Red	60F1430	32R-G1-2311	60F1440	32R-G3-2311
Green	60F1431	32R-G1-2312	60F1441	32R-G3-2312
Amber	60F1432	32R-G1-2313	60F1442	32R-G3-2313
Blue	60F1433	32R-G1-2314	60F1443	32R-G3-2314
White	60F1434	32R-G1-2315	60F1444	32R-G3-2315
Red	60F1435	32R-G1-2311T	60F1445	32R-G3-2311T
Green	60F1436	32R-G1-2312T	60F1446	32R-G3-2312T
Amber	60F1437	32R-G1-2313T	60F1447	32R-G3-2313T
Blue	60F1438	32R-G1-2314T	60F1448	32R-G3-2314T
White	60F1439	32R-G1-2315T	60F1449	32R-G3-2315T

Prices	Type	1-24	25-99	100-249	250-499	500-999
	32R-G1	1.20	.95	.587	.565	.546
	32R-G3	1.15	1.00	.607	.593	.551

PRESS FIT MINIATURE NEON TINEON INDICATORS WITH ALUMINUM BEZELS

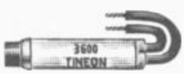


Fig. E

Fig. F

Long-life, high-brightness neon lamps. Press fits into ⁵⁄₁₆" diameter hole. Bezel is aluminum anodized. Housing, white nylon. Has transparent plastic lens available in various colors. Wire leads are #18 gauge insulated plastic. Standard length: 6", ½" stripped. Speed nut furnished for maximum security.

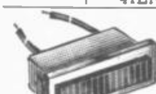
Tineon 36EN Series. With built-in resistor for 110-125V.

Lens Color	Flush Lens — Fig. E		High-hat Lens — Fig. F	
	Stk. No.	Type	Stk. No.	Type
Red	60F1254	36EN2311	60F1250	36EN2111
Amber	60F1255	36EN2313	60F1251	36EN2113
Clear	60F1256	36EN2317	60F1252	36EN2117
White	60F1257	36EN2315	60F1253	36EN2115

Tineon 41EN Series. Less resistor, external resis. required.

Lens Color	Flush Lens Stk. No.	Flush Lens Type	High-hat Lens Stk. No.	High-hat Lens Type
Red	60F1262	41EN2311	60F1258	41EN3111
Amber	60F1263	41EN2313	60F1259	41EN2113
Clear	60F1264	41EN2317	60F1260	41EN2117
White	60F1265	41EN2315	60F1261	41EN2115

Prices	Type	1-24	25-99	100-249	250-499	500-999
	36EN	.89	.73	.52	.46	.387
	41EN	.84	.68	.48	.44	.358



RECTANGULAR 3100 AND 3100T

Rectangular pilot light. No replacement of lamp needed. Lens is made of plastic. Mounting hole size, 1.281 x 395". Housing depth ²¹⁄₃₂". Lens size, 1¹⁵⁄₃₂". Wt., 0.5 oz. (*) Translucent.

3100 SERIES — 6" WIRE LEAD

Lens	Stk. No.	Type	1-24	25-99	100-249	250-499	500-999
Red	25F1391	31-2111	.84	.68	.45	.41	.375
Amber	25F1392	31-2113					
Clear	25F1393	31-2117					
White*	25F1394	31-2115					

3100T SERIES — BRASS TAB TERM.

Lens	Stk. No.	Type	1-24	25-99	100-249	250-499	500-999
Red	25F1395	31-2111T	.84	.68	.45	.41	.375
Amber	25F1396	31-2113T					
Clear	25F1397	31-2117T					
White	25F1398	31-2115T					

WITH INCANDESCENT LAMPS

6V-.2A and 14V-.08A With .250 tab terminals.

Lens Color	6-Volt Types		14-Volt Types	
	Stk. No.	Type	Stk. No.	Type
Red	25F1410	31-G1-2111T	25F1415	31-G3-2111T
Green	25F1411	31-G1-2112T	25F1416	31-G3-2112T
Amber	25F1412	31-G1-2113T	25F1417	31-G3-2113T
Blue	25F1413	31-G1-2114T	25F1418	31-G3-2114T
White	25F1414	31-G1-2115T	25F1419	31-G3-2115T

Prices	Type	1-24	25-99	100-249	250-499	500-999
	31-G1	1.15	.95	.592	.57	.549
	31-G3	1.15	1.00	.612	.598	.569

WITH BEZEL — INCANDESCENT LAMPS

Similar to 41EN units above, but with incandescent lamps: 6V-.2A, and 14V-.08A. Plastic flush lens.

Lens Color	6-Volt Types		14-Volt Types	
	Stk. No.	Type	Stk. No.	Type
Red	25F1400	41EN-G1-2311	25F1405	41EN-G3-2311
Green	25F1401	41EN-G1-2312	25F1406	41EN-G3-2312
Amber	25F1402	41EN-G1-2313	25F1407	41EN-G3-2313
Blue	25F1403	41EN-G1-2314	25F1408	41EN-G3-2314
White	25F1404	41EN-G1-2315	25F1409	41EN-G3-2315

Prices	Type	1-24	25-99	100-249	250-499	500-999
	41EN-G1	1.25	.90	.602	.57	.558
	41EN-G3	1.20	.95	.622	.598	.578

WITHOUT BEZEL — FLUSH LENS CAP

3600 Series. With built-in resistor for 110-125V.
4100 Series. Less resistor; ext. resistance required. Both types are similar to Fig. E.

Lens Color	With Resistor		Less Resistor	
	Stk. No.	Type	Stk. No.	Type
Red	60F1266	36N2311	60F1270	41N2311
Amber	60F1267	36N2313	60F1271	41N2313
Clear	60F1268	36N2317	60F1272	41N2317
White	60F1269	36N2315	60F1273	41N2315

Prices	Type	1-24	25-99	100-249	250-499	500-999
	36N	.73	.58	.42	.39	.35
	41N	.69	.55	.42	.365	.305

GENERAL ELECTRIC PILOT LAMPS

GE NEON GLOW LAMPS

For 105-125 volts except (*) 210-250 volts. Screw types have series resistor in base, others require external resistor as listed. S.C. stands for single contact: D.C. for double contact. Prices include Fed. Excise Taxes. Av. shpg. wt., 3 oz.

Stk. No.	Type	Watts	Ohms	Base	Starting V. AC	Starting V. DC	Bulb Style	Each 1-9	Each 10-Up
25F030	NE-2(A1A)	1/17	150,000	Wire Term.	65	90	T-2	.10	.080
25F029	NE-2D(C7A)	1/12	100,000	S. C. Flange	65	90	T-2	.78	.624
25F027	NE-2E(A9A)	1/12	100,000	Wire Terms	65	90	T-2	.10	.080
25F026	NE-2H(C2A)	1/4	30,000	Wire Term.	95	135	T-2	.11	.089
25F050	NE-2J(C9A)	1/4	30,000	S. C. Flange	95	135	T-2	.78	.624
25F051	NE-2X	1/15	100,000	Wire Terms.	65	90	T-2	.10	.08
25F037	NE-16(7AA)			D. C. Bay.		67	T-4½	.63	.504
25F038	NE-17(B5A)	1/4	30,000	D. C. Bay.	65	90	T-4½	.86	.688
25F035	NE-21(B6A)	1/4	30,000	S.C. Bay	65	90	T-4½	.90	.720
25F041	NE-30(J5A)	1	7,500	Med Screw	65	90	S-11	1.14	.912
25F042	NE-31(L9A)	1	7,500	Sk. Cand. Screw	75	100	G-10	2.83	2.264
25F043	NE-32(L5A)	1	7,500	D. C. Bay.	75	100	G-10	1.14	.912
25F044	NE-34(R2A)	2	3,500	Med. Screw	95	130	S-14	1.76	1.408
25F045	NE-36(R5A)	2	3,500	Sk. D. C. Bay	65	90	S-14	2.28	1.824
25F046	NE-40(R6A)	3	2,200	Med. Screw	60	85	S-14	2.56	2.016
25F047	NE-42(R9A)	6	2,200	Sk. D. C. Bay	60	85	S-14	2.52	2.016
25F034	NE-45(B7A)	1/4	30,000	Cand. Screw	65	90	T-4½	.81	.648
25F033	NE-48(B9A)	1/25	30,000	D. C. Bay.	65	90	T-4½	.67	.536
25F031	NE-51(B1A)	1/4	220,000	S. C. Bay. Min.	65	90	T-3¼	.20	.160
25F028	NE-51H(B2A)	1/7	47,000	S. C. Bay. Min.	95	135	T-3¼	.22	.176
25F040	NE-56(J9A)	1	33,000	Med. Screw	75	100	S-11	1.19	.952
25F032	NE-57(F3A)	1/4	30,000	Cand. Screw	65	90	T-4½	.94	.752
25F036	NE-58*(F4A)	1/2	100,000	Cand. Screw	75	100	T-4½	.90	.720
25F052	NE-79(R1A)	1	7,500	D.C. Bay.	65	90	S-7	1.28	1.024

CIRCUIT COMPONENT NEON LAMPS

For use as voltage indicators, regulators, switching etc. T-2 bulbs. Parallel post electrodes. Temp. range: —0° - +165°F. Wire terminal base.

Stk. No.	Type	Starting DCV	Oper. DCV	DC Ma	Each 1-9	Each 10-Up
25F064	NE23(5AB)	60-90	59	0.3	.16	.128
25F065	NE83(5AH)	60-100	61	10.0	.20	.160
25F053	NE96(4AB)	120-150	60-80	0.5	.20	.160

PANEL & PILOT BULBS

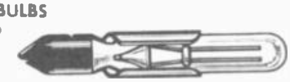
†Miniature bayonet base. ‡Single-contact bayonet base. **Double-contact bayonet. ††Single-contact midget flanged. ‡‡Mid - grocve. ***Min. 2-pin. *D.C. Pref. Others have min. screw base. Prices include F.E. Tax. Shpg. wt., 2 oz. 10, 4 oz.; 100, 2½ lbs.

Stock No.	Lamp No.	Volt	Amp	Each 1-9	Each 10-99	Each 100-Up
25F067	10***	2.5	.50	.27	.160	.144
25F166	12***	6.3	.15	.25	.151	.136
25F066	39†	6.3	.37	.36	.201	.181
25F100	40	6.3	.15	.15	.086	.077
25F101	41	2.5	.50	.22	.135	.122
25F116	42	3.2	.35	.28	.168	.151
25F102	43†	2.5	.50	.22	.135	.122
25F103	44†	6.3	.25	.15	.086	.077
25F104	45†	3.2	.35	.18	.113	.102
25F105	46	6.3	.25	.15	.086	.077
25F106	47†	6.3	.15	.15	.086	.077
25F107	48	2 0	.06	.22	.135	.122
25F108	49†	2 0	.06	.18	.113	.102
25F109	50	7.5	1 c.p.	.16	.092	.083
25F113	51†	7.5	1 c.p	.14	.084	.076
25F164	53†	14 4	1 c p	.14	.084	.076
25F110	55†	7.0	2 c.p.	.14	.084	.076
25F129	57†	14	.24	.14	.084	.076
25F121	81‡	6 5	6 c.p	.22	.133	.120
25F120	82**	6.5	6 c.p	.22	.133	.120
25F056	88**	6.75	15 c.p	.35	.210	.189

Stock No.	Lamp No.	Volt	Amp	Each 1-9	Each 10-99	Each 100-Up
25F068	123	1.25	.30	.17	.105	.095
25F069	246	3 8	.22	.84	.650	.584
25F114	313†	28	.17	.30	.180	.162
25F153	334‡‡	28	.04	.77	.403	.363
25F165	345‡‡	6	.04	1.54	.930	.837
25F159	346‡‡	18	.04	1.34	.799	.719
25F072	382††	14	.08	1.34	.799	.719
25F073	755†	6 3	.15	.28	.168	.151
25F074	756†	14	.08	.36	.201	.181
25F075	757†	28	.08	.46	.266	.238
25F076	1021‡	4.5	1.25	1.17	.699	.629
25F057	1130**	6 4	21 c p.	.40	.239	.215
25F117	1133‡	6.2	32 c.p.	.41	.242	.218
25F182	1446	12	.20	.26	.154	.139
25F111	1447	18 0	.15	.20	.123	.111
25F183	1487	14	.20	.26	.154	.139
25F112	1490†	3.2	.16	.18	.113	.102
25F181	1493**	6 5	2 75	1.08	.645	.581
25F161	1630*	6.5	2.75	1.44	.860	.774
25F058	1680‡	6.0	4 10	.87	.522	.470
25F149	1768	6.0	.20	.92	.553	.500
25F127	1813†	14.4	.10	.26	.154	.139
25F118	1815†	14	20	.20	.123	.111
25F119	1816†	13	.33	.24	.146	.131
25F133	1819†	28	.04	.35	.210	.189
25F167	1820†	28	.10	.31	.186	.167
25F115	1829†	28	.07	.36	.215	.194
25F180	1835†	55	.05	.67	.400	.360
25F059	1847†	6.3	.15	.18	.113	.102
25F070	1891†	14	24	.17	.102	.092

TELEPHONE LAMPS—T-2 BULBS

Bulb slide base lamps used for switchboards. Lamp functions in conjunction with either pieces of equipment and its design is controlled by the circuit characteristics. Incandescent except NE-3 which is glow.



Stk. No.	Type	Base	Volts	Amps	EACH 1-9	EACH 10-99	EACH 100-Up
25F178	NE-3	Tel. Slide	55	.0003	.63	.504	
25F060	24B-1	Tel. Slide	24	.032-.038	.67	.399	.359
25F061	24E-1	Tel. Slide	24	.032-.038	.67	.399	.359
25F062	24X-1	Spec. Tel Slide	24	.032-.038	.67	.399	.359
25F063	48C-1	Tel. Slide	43	.032-.038	.73	.431	.388
25F071	55C-1	Tel. Slide	55	.045-.06	.73	.431	.388

HERZOG 120 V 4-WATT PILOT LAMP

Clear, candelabra base 9/16" dia., 1 9/16" length. Wt., 4 oz.

Stk. No.	Color	EACH	10-Up
25F174	Clear	.65	.60

FLASHLIGHT BULBS

High mechanical strength, long life, top efficiency, and overall operating performance. No. 224 has special base slightly smaller dia. than miniature base and with approx. one and one-half turns of thread. Nos. PR-2, 3, 4, 6, 7, 8, and 12 are S.C. min. flanged. Others have min. screw base for Radar Lamps Shpg. wt., 3 oz.

Stock No.	Lamp No.	Cell	Volts	Amp	EACH 1-9	EACH 10-99	EACH 100-Up
25F142	PR-2	2D	2.38	0.50	.20	.123	.111
25F144	PR-3	3D	3.57	0.50	.20	.123	.111
25F138	PR-4	2C	2.33	0.27	.20	.123	.111
25F140	PR-6	2D	2.47	0.30	.20	.123	.111
25F150	PR-7	3D	3.70	0.30	.26	.153	.138
25F152	PR-12	5D	5.95	0.50	.20	.123	.111
25F143	13	3D	3.70	0.30	.17	.105	.095
25F132	14	2D	2.47	0.30	.17	.105	.095
25F145	31	5D	6.15	0.30	.22	.134	.121
25F130	112	1AA	1.20	0.22	.17	.105	.095
25F131	136	6A	1.25	0.60	.20	.123	.111
25F135	222	2AA	2.25	0.25	.17	.105	.095
25F136	223	2AA	2.25	0.25	.20	.123	.111
25F147	224	2AAA	2.15	0.22	.20	.123	.111
25F137	233	2C	2.33	0.27	.20	.123	.111
25F054	243	2C	2.33	0.27	.20	.123	.111
25F151	425	4F	5.00	0.50	.20	.123	.111
25F146	605	5D	6.15	0.50	.20	.123	.111
25F179	965	8D-8F	9.84	0.50	.63	.154	.139
					EA.	Box of 12	
25F055	4512	4F	4.70	0.50	2.75	20.16	
25F148	4546	4F	4.70	0.50	2.55	18.48	

T-1¾ MIDGET FLANGED BULBS

Single contact, tiny incandescent bulbs. *Recommended for use with transparent lenses only. 1⅞" L. Shpg. wt., 4 oz.

Stock No.	Lamp No.	Volt	Amp	Each 1-9	Each 10-99	Each 100-Up
25F122	327	28	.04	.71	.420	.378
25F123	328	6	.20	.55	.329	.296
25F124	330	14	.08	.79	.467	.420
25F125	331*	1.35	.06	.89	.532	.479
25F126	338*	2.7	.06	.89	.532	.479
25F160	344*	10	.015	1.54	.895	.774

SOCKETS FOR NEON LAMPS

A B C

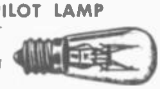
Sockets for neon type lamps. Edison Medium bases are for standard bulbs. *Denotes hard rubber insert in metal shell. S.C. stands for single contact type; D.C. for double contact type. 3 oz.

No.	Base	Fig.	EACH	10 for
25F300	Edison Med.	A	.25	2.18
25F303	Cand. Screw	A	.18	1.58
25F304	D.C. Bay. Cand	C*	.70	.56
25F305	D C Bay. Cand.	B	.75	.60
25F306	S C. Bay. Cand.	B	.71	.57

SYLVANIA

56 125 VOLT PILOT LAMP

Rated 1500 hours. Clear color. Candelabra base 1⅞" long. Shipping weight, 4 oz. *230V.



Stk. No.	Type	Watts	EACH	10-Up EA.
25F170	6S6	6	.21	.17
25F173	3S6	3	.37	.30
25F176	10S6	10*	.50	.40

Type 7C7. As above, but conical shaped. 2⅛" long. 7 watts Shpg. weight, 4 oz.

Stk. No.	Color	EACH	10 up, Ea.
25F171	Clear	.21	.17
25F172	White	.25	.20

6S6/DC—125 V. double contact bayonet base bulb.

25F175	Clear	.31	.25

Chicago Miniature Lamps

BASE STYLES

1 2 3 4 5 6 7 8 9 10 11

Lamps listed in this catalog are the more popular types available from Chicago Miniature. If your application requires a specail lamp or a lamp not shown, send Newark a description of your needs. We will be pleased to submit our recommendations. AS types are aged & selected for critical applications. W = wire terminals (*)Not illustrated

GENERAL SERVICE LAMPS

Stock No.	Type	Design V.	Design Amp.	Life Hours	Base	Bulb	1-9	10-99	100-Up
27F100	PR-2	2.38	.50	15	7	B-3½	.20	.123	.106
27F101	PR-3	3.57	.50	15	7	B-3½	.20	.123	.106
27F102	PR-4	2.33	.27	10	7	B-3½	.20	.123	.106
27F103	PR-6	2.47	.30	30	7	B-3½	.20	.123	.106
27F104	PR-7	3.70	.30	30	7	B-3½	.26	.153	.135
27F105	PR-12	5.95	.50	15	7	B-3½	.20	.123	.106
27F106	PR-13	4.75	.50	15	7	B-3½	.20	.123	.106
27F107	PR-16	12.5	.25	50	7	B-3½	.25	.156	.135
25F091	10	2.5	.5	3000	*	G-3½	.27	.160	.141
25F092	12	6.3	.15	L	*	G-3½	.25	.150	.133
27F111	13	3.7	.30	15	8	G-3½	.17	.105	.090
27F112	14	2.47	.30	15	8	G-3½	.17	.105	.090
25F006	19	14.4	.10		*	G-3½	.36	.217	.118
27F113	27	4.9	.30	30	8	G-4½	.20	.123	.106
27F114	31	6.15	.30	15	8	G-4½	.22	.134	.118
27F115	40	6.3	.15	3000	8	T-3¼	.15	.086	.074
27F116	42	3.2	.35	3000	8	T-3¼	.28	.168	.148
27F117	43	2.5	.50	3000	9	T-3¼	.22	.135	.119
27F118	44	6.3	.25	3000	9	T-3¼	.15	.086	.074
27F119	45	3.2	.35	3000	9	T-3¼	.18	.113	.100
27F120	46	6.3	.25	3000	8	T-3¼	.15	.086	.074
27F121	47	6.3	.15	3000	9	T-3¼	.15	.086	.074
27F122	48	2.0	.06	1000	8	T-3¼	.22	.135	.119
27F123	49	2.0	.06	1000	9	T-3¼	.18	.113	.100
27F124	50	7.5	.22	1000	8	G-3½	.16	.092	.081
27F125	51	7.5	.22	1000	9	G-3½	.14	.084	.072
27F126	53	14.4	.12	1000	9	G-3½	.14	.084	.072
27F127	55	7.0	.41	500	9	G-4½	.14	.084	.072
27F128	57	14.0	.24	500	9	G-4½	.14	.084	.072
27F129	64	7.0	.63	1000	11	G-6	.25	.155	.132
27F130	67	13.5	.59	L	10	G-6	.18	.107	.092
27F131	68	13.5	.59	L	11	G-6	.30	.180	.155
25F093	81	6.5	1.05	500	10	G-6	.22	.130	.115
27F133	82	6.5	1.05	500	11	G-6	.22	.122	.115
27F134	87	6.8	1.91	300	10	S-8	.35	.210	.181
27F135	88	6.8	1.90	300	11	S-8	.35	.210	.181
27F136	88L	6.8	2.0	750	11	S-8	1.02	.636	.564
27F137	90	13.0	.58	750	11	G-6	.22	.133	.113
25F007	93L	13.5	1.05	....	8	....	.70	.438	.388
27F138	93	12.8	1.04	500	10	S-8	.32	.190	.164
27F139	94	12.8	1.0	500	11	S-8	.35	.210	.181
25F094	112	1.2	.22	5	8	GTL-3	.17	.110	.090
27F140	113	1.3	.22	15	8	GTL-3	.22	.134	.118
25F089	130	6.0	2.8	200	11	S-8	.18	.113	.100
27F143	131	1.3	.10	50	8	G-3½	.18	.113	.100
25F090	159	6.3	1.15	L	*	T-3¼	.22	.130	.118
27F147	222	2.25	.25	5	8	GTL-3	.17	.105	.090
27F148	224	2.15	.22	5	*	GTL-2¾	.20	.123	.106
27F149	233	2.33	.27	10	8	G-3½	.20	.123	.106
25F095	239	6.3	.36	5000	9	T-3¼	.26	.150	.135
27F150	240	6.3	.36	L	9	T-3¼	.22	.134	.113
27F151	245	2.46	.50	15	8	G-3½	.22	.134	.113
27F152	252	2.5	.35	10000	4	GTL-1¾	2.66	1.62	1.43
27F153	253X	2.5	.35	10000	2	GTL-1¾	3.52	2.17	1.92
[illegible]	259	6.3	.25	3000	*	T-3¼	.20	.12	.108
27F154	261	2.5	.35	10000	2	GTL-1¾	7.67	4.63	4.11
27F156	304	28.0	.30	500	11	G-6	.41	.246	.212
27F158	307	28.0	.66	300	10	S-8	.51	.303	.261
27F159	309	28.0	.90	300	10	S-11	.72	.431	.372
27F160	313	28.0	.17	500	9	T-3¼	.30	.646	.155
26F500	323	3.0	.19	350	*	T-1¼	.92	.548	.472
27F161	323R	3.0	.19	350	*	T-1¼	1.08	.646	.557
26F537	324	3.0	.19	350	*	T-1¼	.62	.366	.323
26F538	325	3.0	.19	350	*	T-1¼	1.28	.769	.663
26F501	327	28.0	.04	1000	4	T-1¾	.70	.415	.357
26F502	327AS15	28.0	.04	....	4	T-1¾	2.09	1.25	1.08
26F503	327AS25	28.0	.04	....	4	T-1¾	1.74	1.15	1.10
26F913	327LSV	28.0	.06	....	4	T-1¾	1.40	.850	.784
26F504	328	6.0	.20	1000	4	T-1¾	.54	.325	.279
26F507	328L	6.0	.20	1000	4	T-1¾	1.53	.950	.85
26F541	330	14.0	.08	750	4	T-1¾	.78	.460	.397
26F542	331	1.35	.06	500	4	T-1¾	.89	.532	.469
26F544	334	28.0	.04	1000	2	T-1¾	.77	.403	.365
27F162	334LSV	28.0	.06	25000	2	T-1¾	1.80	1.100	.960
26F508	335	28.0	.04	25000	3	T-1¾	1.54	.930	.820
26F509	335AS15	28.0	.08	....	3	T-1¾	2.71	1.670	1.480
26F547	336	14.0	.04	750	2	T-1¾	1.54	.922	.795
26F548	337	6.0	.20	1000	2	T-1¾	1.65	.965	.850
27F163	337L	6.3	.20	3000	2	T-1¾	2.56	1.600	1.420
26F552	338	2.7	.06	3000	4	T-1¾	.89	.532	.469
26F511	342	6.0	.03	10000	3	T-1¾	1.54	.93	.82
26F554	344	10.0	.014	10000	4	T-1¾	1.54	.895	.769
26F555	345	6.0	.04	10000	4	T-1¾	1.54	.93	.82
26F914	346	18.0	.04	1000	2	T-1¾	1.34	.799	.703
25F008	349	6.3	.20	....	4	T-1¾	1.01	.599	.528
27F164	363	14.0	.20	250	9	G-3½	.22	.134	.118
27F165	365	3.69	.50	15	8	G-3½	.22	.134	.118

GENERAL SERVICE LAMPS CONT'D

Stock No.	Type	Design V.	Design Amp.	Life Hours	Base	Bulb	1-9	10-99	100-Up
26F915	367	10.0	.01	30000	4	T-1¾	1.65	.965	.850
27F166	370	18.0	.015	1000	4	T-1¾	1.34	.789	.703
27F167	375	3.0	.04	10000	4	T-1¾	2.16	1.300	1.14
26F916	380	6.3	.94	50000	4	T-1¾	1.85	1.130	.994
26F917	381	6.3	.20	50000	4	T-1¾	1.17	.699	.616
26F918	382	14.0	.08	50000	4	T-1¾	1.34	.799	.703
27F168	386	14.0	.08	50000	2	T-1¾	1.34	.799	.703
26F919	387	28.0	.04	25000	4	T-1¾	.73	.437	.400
27F169	388	28.0	.04	25000	2	T-1¾	1.44	.860	.785
25F009	399	28.0	.04	....	8	T-1¾	1.42	.890	.789
27F170	407	4.9	.30	50	8	G-4½	.21	.129	.112
27F171	425	5.0	.50	15	8	G-4½	.20	.123	.106
27F172	428	12.5	.25	250	8	G-4½	.17	.105	.093
27F178	502	5.1	.15	100	8	G-4½	.17	.105	.093
27F179	503	5.1	.15	100	9	G-4½	.22	.134	.118
27F180	509	24.0	.18	1000	5	G-6	.67	.400	.352
26F521	680	5.0	.06	200000	*	T-1	3.10	1.86	1.55
26F522	680AS15	5.0	.06	200000	*	T-1	3.59	2.20	1.79
26F523	682	5.0	.06	200000	1	T-1	3.88	2.32	1.93
26F524	682AS15	5.0	.06	200000	1	T-1	4.37	2.65	2.16
26F525	683	5.0	.06	100000	*	T-1	3.10	1.86	1.55
26F527	685	5.0	.06	100000	1	T-1	3.88	2.20	1.79
26F528	685AS15	5.0	.06	100000	1	T-1	4.37	2.65	2.16
26F923	713	5.0	.075	16000	*	T-1	3.20	1.96	1.60
26F529	713AS15	5.0	.075	16000	*	T-1	3.59	2.20	1.79
26F539	714AS15	5.0	.075	16000	1	T-1	4.37	2.05	2.16
26F533	715	5.0	.115	40000	*	T-1	3.10	1.86	1.55
26F534	715AS15	5.0	.115	40000	*	T-1	3.59	2.20	1.79
26F535	718	5.0	.195	40000	1	T-1	3.88	2.32	1.93
26F536	718AS15	5.0	.115	40000	1	T-1	4.37	2.65	2.16
25F097	737	28.0	.05	10000	*	T-1¼	2.23	1.40	1.24
25F010	757	28.0	....	....	9	T-3¼	.46	.266	.234
27F182	965	9.8	.50	15	8	T-4½	.26	.154	.136
27F183	1003	12.8	.94	100	10	B-6	.32	.190	.164
27F184	1004	12.8	.94	100	11	B-6	.32	.190	.164
27F186	1021	4.5	1.25	75	*	RP-11	1.17	.699	.616
27F187	1034	12.8	1.80	200L	*	S-8	.34	.204	.176
27F188	1047	26.0	2.70	25	*	RP-11	.72	.431	.372
27F189	1073	12.8	1.80	200	10	S-8	.32	.19	.164
27F190	1129	6.4	2.63	200	10	S-8	.32	.19	.164
27F192	1133	6.2	3.91	200	10	RP-11	.41	.242	.209
27F193	1141	12.8	1.44	500	10	S-8	.32	.190	.164
27F194	1142	12.8	1.44	500	11	S-8	.35	.210	.181
27F195	1143	12.5	2.00	400	10	RP-11	.53	.313	.270
27F196	1154	6.4	2.63	200	*	S-8	.40	.239	.206
27F197	1158	6.4	2.63	200	*	S-8	.40	.239	.206
27F198	1184	5.5	6.36	100	11	RP-11	.62	.370	.304
27F202	1251	28.0	.23	L	10	G-6	.41	.248	.214
27F203	1252	24.0	.23	L	11	G-6	.47	.300	2.58
27F205	1446	12.0	.20	250	8	G-3½	.26	.154	.136
27F206	1447	18.0	.15	250	8	G-3½	.20	.120	.108
27F207	1449	14.0	.20	250	8	G-3½	.16	.10	.088
27F208	1458	20.0	.25	250	9	G-5	.28	.170	.148
27F209	1471	12.0	.26	250	5	G-6	.62	.370	.323
27F210	1476	18.0	.17	250	8	T-3	.46	.270	.234
27F211	1477	24.0	.17	250	8	T-3	.55	.320	.293
27F212	1482	6.0	.45	100	8	G-4½	.28	.170	.148
27F213	1483	6.0	.04	250	8	G-4½	.28	.170	.148
27F214	1487	14.0	.21	3000	8	T-3¼	.26	.150	.136
27F215	1488	14.0	.15	200	9	T-3¼	.28	.170	.148
27F216	1489	6.5	2.75	125	10	T-5	2.88	1.770	1.57
27F217	1490	3.2	.16	3000	9	T-3¼	.18	.110	.10
27F218	1491	2.4	.80	75	11	G-8	.50	.300	.264
27F219	1492	2.5	1.50	15	11	S-8	1.51	.900	.93
27F220	1493	6.5	2.80	100	11	S-8	1.08	.650	.567
27F221	1503	5.9	6.53	200	*	RP-11	1.44	.870	.75
27F222	1606	6.4	2.69	200	6	S-8	.64	.390	.345
27F223	1630	6.5	2.75	100	*	S-8	1.44	.860	.756
25F098	1648	8.0	2.0	1500	11	S-8	.70	.430	.372
27F224	1651	5.0	.60	20	10	S-8	.67	.400	.352
25F011	1691	5.0	.60	1000	10	S-8	1.03	.620	.536
26F556	1705	14.0	.08	750	W	T-1¾	.67	.400	.352
26F557	1728	1.35	.06	500	W		.46	.266	.234
26F558	1730	6.0	.04	10000	W	T-1¾	1.01	.599	.528
26F559	1738	2.7	.06	6000	W	....	.39	.234	.206
27F225	1763	6.1	4.10	125	*	T-1¾	1.28	.810	.717
26F561	1764	28.0	.04	1000	*	S-11	.50	.299	.264
26F562	1764 LSV	28.0	.06	25000	*	S-11	.85	.520	.478
26F512	1767	2.5	.20	500	3	T-1¾	.67	.400	.352
26F513	1768	6	.20	1000	3	T-1¾	.92	.553	.487
26F516	1768L	6.3	.20	3000	3	T-1	1.46	.741	.657
26F564	1775	6.3	.075	500	3	....	.89	.532	.469
27F226	1783	2.5	.20	500	W	T-1	.55	.330	.293

Chicago Miniature Lamps

BULB SHAPES

GENERAL SERVICE LAMPS (CONT'D)

Stock No.	Type	Design V.	Design Amps	Life Hours	Base	Bulb	1-9	10-99	100-Up
27F227	1813	14.4	.10	1000	9	T-3¼	.26	.150	.136
27F228	1815	14	.20	3000	9	T-3¼	.20	.120	.108
27F229	1816	13	.33	1000	9	T-3¼	.24	.150	.126
27F230	1819	28	.04	1000	9	T-3¼	.35	.210	.181
27F231	1820	28	.10	1000	9	T-3¼	.31	.190	.160
27F232	1821	28	.17	500	8	T-3¼	.67	.400	.352
27F233	1822	36	.10	1000	9	T-3¼	.62	.370	.325
27F234	1828	37.5	.05	L	9	T-3¼	.67	.400	.352
27F235	1829	28	.075	1000	9	T-3¼	.36	.220	.189
25F085	1835	55.0	.05	....	9	T-3¼	.67	.400	.352
27F236	1847	6.3	.15	20000	9	T-3¼	.18	.110	.100
27F237	1850	5	.09	1500	9	T-3¼	.26	.150	.136
27F238	1855	6.3	.80	3000	9	T-4½	.36	.200	.177
26F570	1869	10.0	.014	....	W	T-1¾	1.17	.699	.616
27F239	1866	6.3	.25	20000	9	T-3¼	.22	.130	.118
27F240	1869	10.0	.014	10000	W	T-1¾	1.34	.800	.703
27F241	1891	14.0	.233	500	9	T-3¼	.17	.100	.090
27F242	1892	14.4	.12	1000	9	T-3¼	.26	.160	.137
27F243	1893	14.0	.33	L	9	T-3¼	.21	.120	.104
27F244	2102	18.0	.04	1000	W	T-1¾	.79	.470	.411
27F245	2107	10.0	.04	30000	W	T-1¾	1.34	.800	.703
25F099	2114	6.0	.06	3000	W	T-1¼	.73	.430	.380
27F247	2124	2.5	.35	10000	*	GTL-1¾	2.04	1.230	1.090
25F185	2128	3.0	.0125	....	W	T-1	5.04	3.000	2.840
25F086	2158	3.0	.015		W	T-1¾	1.38	.830	.731
27F250	2162	14.0	.088	10000	W	T-1¾	.62	.369	.337
25F186	2169	2.5	.350	10000	W	T-1¾	1.17	.710	.625
25F087	2181	6.3	.21		W	T-1¾	.55	.332	.293
25F187	2182	14.0	.08	50000	W	T-1¾	.67	.400	.352
27F096	6803	5.0	.060	7500	1	T-¾	1.20	1.050	.893
25F188	6832	5.0	.060	100000	W	T-1	3.43	3.00	2.330
25F189	6833	5.0	.060	100000	W	T-¾	1.85	1.20	1.050
25F191	6839	28.0	.024	16000	1	T-1	3.81	2.35	2.100
25F192	7152	5.0	.115	40000	W	T-1	3.43	3.00	2.330
25F193	7153	5.0	.115	40000	W	T-¾	1.85	1.20	1.050
27F280	8299	2.5	.35	10000	3	TL-1¾	1.68	1.05	.931
25F194	8623	28.0	.04	1000	*	T-1¼	1.97	1.230	1.09
25F195	8627	28.0	.04	1000	W	T-1¼	1.19	.741	.657
25F196	8632	28.0	.04	1000	4	T-1¼	1.79	1.120	.994
25F197	8635	28.0	.04	1000	*	T-1¼	1.97	1.230	1.090
25F198	8639	6.0	.20	500	*	T-1¼	1.98	.373	1.090
25F199	8666	5.0	.08	3000	W	T-¾	1.92	1.20	1.070

STANDARD VOLTAGE LAMPS

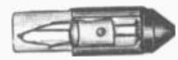
Stock No.	Type	Volts	Watts	Life Hours	Base	Bulb	1-9	10-99
27F259	3S6/5	120	3	3000	8	S-6	.37	.30
27F260	6S6	115	6	1500	8	S-6	.21	.17
27F261	6S6	145	6	1500	8	S-6	.43	.34
27F262	6S6/DC	120V	6	1500	11	S-6	.31	.25
27F263	6T4½/1	115-125	6	1500	8	T-4½	.67	.54
27F264	7C7	115-125	7	3000	8	C-7	.21	.17
27F265	10C7	115-125	10	......	8	C-7	.26	.21
27F266	10C7DC	115-125	10	. .	11	C-7	.29	.23
27F267	10S6/10	230	10	1500	8	S-6	.50	.40

NEON GLOW LAMPS

Stock No.	Type	V	Watts	Life Hours	Base	Bulb	Each 1-9	10-99
27F251	NE2(A1A)	105-125	1/25	25000+	W	T-2	.10	.068
27F252	NE2D(C7A)	105-125	1/10	5000+	*	T-2	.78	.500
27F253	NE2H(C2A)	105-125†	1/4	5000+	W	T-2	.11	.068
27F254	NE45(B7A)	110-125	1/4	7500	8	T-4½	.81	.528
27F255	NE48(B9A)	110-125	1/4	7500	11	T-4½	.67	.431
27F256	NE51(B1A)	110-125	1/25	15000+	6	T-3¼	.20	.145
27F257	NE51H(B2A)	110-125†	1/4	5000+	6	T-3¼	.22	.145
27F258	NE83(5AH)	60-100	..	.....	W	T-2	.20	.190
25F080	NE86(5AJ)	55		2000	W	T-2	.16	.130

†AVC

INDICATOR LAMPS



Special units for Dialco series 81 indicator lights. T-2 incandescent bulb with slide base; ¼" diam., 5000 hr life.

Stock No.	Type	Volts	Amps	End. Foot Candles	1-9	10-99	100-Up
27F075	6PSB	6	.140	800	.51	.44	.42
27F076	12PSB	12	.170	2500			
27F077	24PSB	24	.073	2200			
27F078	28PSB	28	.040	2000			
27F079	48PSB	48	.053	1500			
27F080	60PSB	60	.050	2600			
27F081	120PSB	120	.025	1500			

TELEPHONE SLIDE BASE LAMPS

Incandescent lamps specifically designed for use in telephone switchboards. 5000 hour life, ½" diameter.

Stock No.	Type	Volts	Amps	End. Foot Candles	1-9	10-99	100-Up
27F082	12B	12	.032-.038	—	.69	.62	.41
27F083	24B	24	.035-.045	750			
27F084	24C	24	.06 -.085	875			
27F085	24E	24	.032-.038	600			
27F086	24F	24	.032-.038	1120			
27F087	24X	24	.032-.038	600			
27F088	30B	30	.09 -.11	1050			
27F089	48C	48	.032-.038	475	.72	.64	.42
27F090	48D	48	.017-.025	100			
27F091	55C	55	.045-.06	1025			

CM7-SERIES BI-PIN LAMPS

Stock No.	Type	Design V.	Design Amps	Life Hours	Base	Bulb	1-9	10-99	100-Up
27F268	CM7-327	28.0	.04	1000	*	T-1¾	.96	.62	.53
27F269	CM7-328	6.0	.20	1000	*	T-1¾	.96	.62	.53
27F270	CM7-330	14.0	.08	750	*	T-¾	.98	.62	.55
27F271	CM7-338	2.7	.06	6000	*	T-1¾	.79	.50	.44

CM8-SERIES MINIATURE & SUB-MINIATURE LAMPS

Stock No.	Type	Design V	Design Amps	Life Hours	Base	Bulb	1-9	10-99	100-Up
27F273	CM8-60	6.0	5.5	9000	10	RP-11	1.16	.726	.644
27F276	CM8-109	6.0	1.0	1000	10	T-5	7.13	4.46	3.950
27F277	CM8-220	6.3	.33	50	6	TL-2¾	4.90	3.06	2.710
27F282	CM8-363	28.0	.04	.....	*	TL-1½	.94	.59	.520
27F283	CM8-373	2.5	.35	10000	2	TL-1¾	1.90	1.19	1.050
27F285	CM8-428	5.0	.18	3000	7	T-1¾	2.62	1.64	1.450
27F286	CM8-374	2.5	.35	10000	*	TL-1¾	1.58	.99	.880
27F287	CM8-428L	6.0	.22	3000	7	T-1¾	2.98	1.86	1.650
27F288	CM8-503	6.3	.35	1000	6	TL-3¾	4.63	2.90	2.570
27F292	CM8-610	6.3	.20	3000	*	T-1¼	.96	.60	.532
26F577	CM8-631	1.35	.06	1000	7	T-1¾	1.25	.78	.692
26F592	CM8-640	14.0	.08	1000	*	T-1¼	.93	.58	.572
26F605	CM8-661	6.0	.04	1000	W	T-1¼	1.43	.89	.790
27F294	CM8-715F1	5.0	.125	500	*	T-1	2.06	1.29	1.140
27F295	CM8-740	3.8	.38	500	1	SL-2½	4.18	2.61	2.310
27F296	CM8-750	6.3	.19	.	1	TL-2¾	3.46	2.16	1.920
27F297	CM8-805	5.0	.06	200000	1	T-1¾	2.28	1.43	1.260
27F298	CM8-806	5.0	.06	100000	1	T-1¾	2.28	1.43	1.260
27F299	CM8-807	5.0	.115	40000	1	T-1¾	2.28	1.43	1.260
27F099	CM8-967	120	.02	5000	6	T-2	.95	.59	.527

*Not Illustrated. W = wire terminals.

ERICSSON COMPONENTS

BUZZER FOR AC OPERATION

Suitable as an extra signalling device for telephone instruments. It provides somewhat fainter signals than the instruments bell. The buzzer is mounted on a base plate of zinc-plated sheet metal and has an ivory thermoplastic cover. Size: Height-100mm, Width-77mm, Depth-41mm.

Stock No.	Type	A.C. 25 c/s Oper. V.	A.C. 25 c/s Imp.	A.C. 50 c/s Oper. V.	A.C. 50 c/s Imp.	D.C. Resist	Wt.	NET
92F700	KLG-5105	22-90	5600	27-90	7000	3100	0.1	15.00

RAYTHEON Jacks & Hardware

TEST JACKS . . . Meets MS16108 (Rev. F) Specs

Meets all requirements of MS16108 (ships). Consists of a heavy nickel-plated brass bushing, protected by nylon sleeve. Contact assembly is silver plated with a gold wash for lowest contact resistance. Mounts in .261" dia. hole.

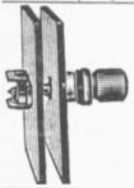
Stk. No.	Type	Mil. No.	Color	1-99	100-499	500-999	1000-4999
26F329	TJ101Y	MS16108-8A	Yellow	.29	.25	.23	.20
26F330	TJ102B	MS16108-4A	Brown				
26F331	TJ103R	MS16108-2A	Red				
26F333	TJ105BL	MS16108-3A	Black				
26F334	TJ106GN	MS16108-5A	Green				
26F335	TJ107MB	MS16108-7A	Blue				
26F336	TJ108W	MS16108-1A	White				

SUBMINIATURE FIXED-CONTACT JACK

Model MC122. Suitable for equipment of standard, miniature, or subminiature sizes. Beryllium-copper spring pin contact. No nuts or washers allows for fast and easy mounting. Accepts any standard test prods. Over all length .655" max. Insulator diameter .286. Insulator is made from DuPont Zytel (Nylon). Contact sleeve is brass, gold-plated. Mounting hole dia. .219. Range of acceptable panel thickness .031-.093. Weight is 1 lb. each.

Stock No.	Type	Color	1-49	50-249	250-499	500-999
26F939	TJ400N	Natural	.21	.18	.17	.16
26F940	TJ401Y	Yellow				
26F941	TJ402B	Brown				
26F942	TJ403R	Red				
26F943	TJ4040R	Orange				
26F944	TJ405BL	Black				
26F945	TJ40GN	Green				
26F946	TJ407MB	Marine Blue				
26F947	TJ408W	White				

THUMBSCREWS . . . Meets MIL-16400 Specs



Raytheon captive hardware, a line of stainless steel fastening hardware meeting government specifications. A slotted head thumb screw, insert bushing, captivated floating nut, gasket, and gasket retainer make up the full assembly. Meets MIL-E-16400 (Ships) specifications.

Stock No.	Type	Thread Size	L	1-499	500-999	1000-2499
26F350	CS-130	1/4-20NC-2	7/8	.76	.65	.61
26F351	CS-131	1/4-20NC-2	1"	.76	.65	.61
26F362	CS-100	8-32NC-2	5/8	.55	.47	.44
26F364	CS-102	8-32NC-2	7/8	.55	.47	.44
26F368	CS-122	10-32NC-2	1"	.60	.52	.49

PANEL INSERT

Thread Size: 1/4-20NC-2

Stock No.	Type	Thread Size	For Panel	1-499	500-999	1000-2499
26F381	PIN-132	1/4-20NC-2	.119-.156	.28	.24	.22
26F383	PIN-134	1/4-20NC-2	.250	.28	.24	.22

Thread Size: 5/16-18NC-2

Stock No.	Type	Thread Size	For Panel	1-499	500-999	1000-2499
26F384	PIN-140	5/16-18NC-2	.048-.072	.39	.33	.31
26F387	PIN-143	5/16-18NC-2	.188	.39	.33	.31

Thread Size: 8-32NC-2

Stock No.	Cat. No.	Thread Size	For Panels	1-499	500-999	1000-2499
26F389	PIN-100	8-32NC-2	.048-.072	.22	.19	.18
26F390	PIN-101	8-32NC-2	.074-.109			
26F391	PIN-102	8-32NC-2	.119-.156			

Thread Size: 10-32NC-2

Stock No.	Cat. No.	Thread Size	For Panels	1-499	500-999	1000-2499
26F395	PIN-122	10-32NC-2	.119-.156	.25	.21	.20
26F397	PIN-124	10-32NC-2	.250			

NUT BRACKET

Stk. No.	Type	Thread Size	1-499	500-999	1000-2499
26F369	NB-100	8-32NC-2	.10	.09	.08
26F371	NB-102	10-32NC-2	.12	.11	.10
26F372	NB-103	1/4-10NC-2	.18	.16	.15

GASKETS

Stk. No.	Type	Screw Size	1-19 Per 50	20-Up Per 50
26F399	GS101	1/4-20	1.00	.85
26F401	GS103	8-32		

GASKET RETAINER

Stk. No.	Type	Screw Size	1-19 Per 50	20-Up Per 50
26F402	GSR-115	10-24 or 10-32	1.00	.85
26F405	GSR-118	8-32		

RIGHT ANGLE PRINTED CIRCUIT TEST JACKS

Model MC123. Single .080" contact for use with closely spaced printed circuit boards. .3" mtg. centers. Rated: 5 amps. Oper. volts: 2000 RMS @ sea level. All metal surfaces are heavy gold over silver plating. Size: .231 x .48 x .449". Shpg. wt., 3 oz.

Stock No.	Type	Color	1-249	250-499	500-999	1000-2499
26F948	TJ201Y	Yellow	.19	.16	.15	.13
26F949	TJ202BR	Brown				
26F992	TJ203R	Red				
26F993	TJ2040R	Orange				
26F994	TJ205BL	Black				
26F995	TJ206GN	Green				
26F996	TJ207MB	Marine Bl.				
26F997	TJ208W	White				
26F998	TJ209GY	Gray				
26F999	TJ210V	Violet				
26F290	TJ251Y	Yellow				
26F291	TJ252BR	Brown				
26F292	TJ253R	Red				
26F293	TJ254OR	Orange				
26F294	TJ255BL	Black				
26F295	TJ256GN	Green				
26F296	TJ257MB	Blue				
26F297	TJ258W	White				
26F298	TJ259GY	Gray				
26F299	TJ260V	Violet				

PRINTED CIRCUIT TEST JACKS

Model MC121. For dip board application. Simple mounting on any circuit panel up to 1/4" thick. Accepts any standard test prod. Temperature cycling from —65°C to +85°C. Beryllium-Copper spring pin contact. 95% Relative humidity @ 40°C for 250 hrs. Gold plated contact sleeve. Maximum L .546. Maximum insulator dia. .228.

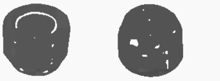
Stock No.	Type	Color	1-249	250-499	500-999	1000-2499
26F928	TJ300N	Natural	.19	.16	.15	.13
26F929	TJ301Y	Yellow				
26F930	TJ302B	Brown				
26F931	TJ303R	Red				
26F932	TJ304OR	Orange				
26F933	TJ305BL	Black				
26F934	TJ306GN	Green				
26F935	TJ307MB	Marine Blue				
26F936	TJ308W	White				

PANEL BRACKETS

Formed from .090" cold-rolled carbon steel, the bracket is available in four sizes to accommodate panels ranging in width from 1 3/8-3 7/16". A pair of brackets will mount either one or two panels. Meet the requirements of MIL-E-16400A (ships), MIL-E-5400, and MIL-P-11268B (Sig. C) Cadmium plated. Shpg. wt., 3 oz.

Stk. No.	Type	Wide Range	1-99	100-199	200-499	500 999
26F316	MB-125	1 3/8-1 15/16	.26	.22	.21	.20
26F317	MB-126	2-2 7/16	.27	.23	.22	.20
26F318	MB-127	2 1/2-2 15/16	.28	.24	.22	.21
26F319	MB-128	3-3 7/16	.30	.26	.24	.23

SHAFT LOCKS

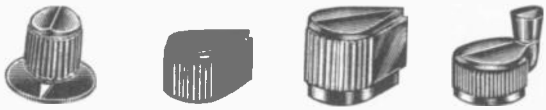


Mounted on the control bushing in place of the nut and washer, the shaft lock fits snugly around the control shaft, providing a constant drag which resists rotation caused by accidental contact, vibrations, etc., but which permits smooth adjustment. Shpg. wt., 1 oz.

Stock No.	Type	Shaft	Thread NEF2	1-99	100-199	200-499	500-999
26F314	SL-100B	1/4"	3/8-32	.33	.28	.26	.24
26F937	SL-101R	1/4"	....	.35	.30	.28	.26
26F315	SL-105B	1/8"	1/4-32	.25	.22	.20	.18
26F968	SL-110B	1/4"	....	.22	.19	.18	.16

STANDARD CONTROL KNOBS
MEETS MS91528 REV C. SPECS.

A B C D E

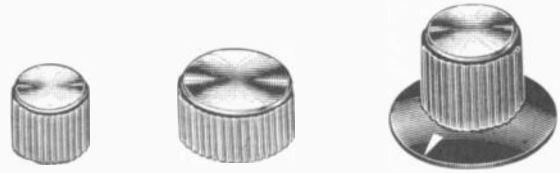


F G H I

Molded plastic knobs fitted with an aluminum insert. Two Allen head set screws fasten to the control shaft. * after type number indicates mirror finish for commercial equipment. G after type number indicates a non-reflecting "matte" finish, which conforms to military specifications. Ave. shp. wt. 3 oz.

Stk. No.	Type	Description	Fig.	1-99	100-199	200-499
50 Series—.45" Dia. For ⅛" shafts						
26F194	50-1-1*	Unskirted knob	A	.55	.47	.44
26F195	50-1-1G	Unskirted knob	A	.61	.52	.49
26F196	50-2-1*	Skirted knob	B	.64	.54	.51
26F197	50-2-1G	Skirted knob	B	.70	.60	.56
26F198	50-3-1*	Dil. Skt. Rd. w/pt.	C	.72	.61	.58
26F199	50-3-1G	Dil. Skt. Rd. w/pt.	C	.78	.66	.62
70 Series—.72" Dia. ⅛" Shaft Knobs						
26F339	70-1-1*	Round	D	.76	.65	.61
26F341	70-1-1G	Round	D	.82	.70	.66
26F342	70-2-1G	Skirted Round	E	.91	.77	.73
26F343	70-3-1G	Dil. Skt. Rd. w/pt	F	1.00	.85	.80
26F344	70-5-1*	Skirted Pointer	H	.85	.72	.68
26F345	70-4-1G	Pointer	G	.82	.70	.66
26F346	70-5-1G	Skirted Pointer	H	.91	.77	.73
70 Series—.72" Dia. For ¼" shafts						
26F150	70-1-2*	Round	D	.70	.60	.56
26F151	70-1-2G	Round	D	.76	.65	.61
26F152	70-2-2*	Skirted Round	E	.79	.67	.63
26F153	70-2-2G	Skirted Round	E	.85	.72	.68
26F154	70-3-2*	Dil. Skt. Rd. w/pt.	F	.88	.75	.70
26F155	70-3-2-G	Dil. Skt. Rd. w/pt.	F	.94	.80	.75
26F156	70-4-2*	Pointer	G	.70	.60	.56
26F157	70-4-2G	Pointer	G	.76	.65	.61
26F158	70-5-2*	Skirted Pointer	H	.79	.67	.63
26F159	70-5-2G	Skirted Pointer	H	.85	.72	.68
90 Series—.928" Dia. For ¼" shafts						
26F160	90-1-2*	Round	D	.74	.63	.59
26F161	90-1-2G	Round	D	.80	.68	.64
26F162	90-2-2*	Skirted Round	E	.83	.71	.66
26F163	90-2-2G	Skirted Round	E	.89	.76	.71
26F164	90-3-2*	Dil. Skt. Rd. w/pt.	F	.92	.78	.74
26F165	90-3-2G	Dil. Skt. Rd. w/pt.	F	.98	.83	.78
26F166	90-4-2*	Pointer	G	.79	.67	.63
26F167	90-4-2G	Pointer	G	.85	.72	.68
26F168	90-5-2*	Skirted Pointer	H	.88	.75	.70
26F169	90-5-2G	Skirted Pointer	H	.94	.80	.75
125 Series—1.269" Dia. For ¼" shafts						
26F170	125-1-2*	Round	D	.79	.67	.63
26F171	125-1-2G	Round	D	.85	.72	.68
26F172	125-2-2*	Skirted Round	E	.88	.75	.70
26F173	125-2-2G	Skirted Round	E	.94	.80	.75
26F174	125-3-2*	Dil. Skt. Rd. w/pt.	F	.96	.82	.77
26F175	125-3-2G	Dil. Skt. Rd. w/pt.	F	1.02	.87	.82
26F176	125-6-2*	Crank	I	2.32	1.97	1.86
26F177	125-6-2G	Crank	I	2.35	2.00	1.88
125 Series—2.516" Dia. For ¼" shafts—No skirt						
26F338	125-7-2G	Bar Pointer	....	1.32	1.12	1.06
175 Series—1.772" Dia. For ¼" shafts						
26F178	175-1-2*	Round	D	1.12	.95	.90
26F181	175-2-2G	Skirted Round	E	1.27	1.08	1.02
26F182	175-3-2*	Dil. Skt. Rd. w/pt.	F	1.34	1.14	1.07
26F183	175-3-2G	Dil. Skt. Rd. w/pt.	F	1.41	1.20	1.13
26F184	175-6-2*	Crank	I	2.51	2.13	2.01
26F185	175-6-2G	Crank	I	2.58	2.19	2.06
225 Series—2.272" Dia. For ¼" shafts						
26F186	225-1-2*	Round	D	1.29	1.10	1.03
26F187	225-1-2G	Round	D	1.36	1.16	1.09
26F190	225-3-2*	Dil. Skt. Rd. w/pt.	F	1.49	1.27	1.20
26F191	225-3-2G	Dil. Skt. Rd. w/pt.	F	1.57	1.33	1.26
26F192	225-6-2*	Crank	I	2.61	2.22	2.09
26F193	225-6-2G	Crank	I	2.67	2.27	2.14

"DESIGNER" SERIES



Molded black plastic knobs with spun aluminum cap inserts. Knobs withstand 25 in/lbs. of torque. Temperature: —55°C to 125°C. Ave. shp. wt. 3 oz.

Stk. No.	Type	Description	1-99	100-199	200-499
70 Series—.252 Shafts					
26F464	DS 70-1BD-2	Rd. No Skt. Dot	.88	.75	.70
26F465	DS 70-1BD-2G	Rd. No Skt. Dot	.90	.77	.72
26F466	DS 70-1-2	Rd. No Skt.	.78	.66	.62
26F467	DS 70-1-2G	Rd. No Skt.	.80	.68	.64
26F468	DS 70-2-2	Rd. Pln. Skt.	.91	.77	.73
26F469	DS 70-2-2G	Rd. Pln. Skt.	.95	.81	.76
26F470	DS 70-2BD-2	Rd. Pln. Skt. Dot	1.08	.92	.86
26F471	DS 70-2BD-2G	Rd. Pln. Skt. Dot	1.10	.94	.88
26F472	DS 70-3-2	Dl. Skt. Rd. w/pt.	.96	.82	.77
26F473	DS 70-3-2G	Dl. Skt. Rd. w/pt.	.98	.83	.78
26F474	DS 70-4-2	Pt. No Skt.	.85	.72	.68
26F475	DS 70-4-2G	Pt. No Skt.	.88	.75	.70
26F476	DS 70-5-2	Pt. Pln. Skt.	.95	.81	.76
26F477	DS 70-5-2G	Pt. Pln. Skt.	.99	.84	.79
70 Series—.190 Shafts					
26F478	DS 70-1-3	Rd. No Skt.	.88	.75	.70
26F479	DS 70-1-3G	Rd. No Skt.	.90	.77	.72
90 Series—.252 Shafts					
26F484	DS 90-1-2	Rd. No Skt.	.88	.75	.70
26F485	DS 90-1-2G	Rd. No Skt.	.90	.77	.72
26F486	DS 90-1BD-2	Rd. No Skt. Dot	1.05	.89	.84
26F487	DS 90-1BD-2G	Rd. No Skt. Dot	1.10	.94	.88
26F488	DS 90-2-2	Rd. Pln. Skt.	1.08	.92	.86
26F489	DS 90-2-2G	Rd. Pln. Skt.	1.10	.94	.88
26F490	DS 90-2BD-2	Rd. Pln. Skt. Dot	1.10	.94	.88
26F491	DS 90-2BD-2G	Rd. Pln. Skt. Dot	1.20	1.02	.96
26F492	DS 90-3-2	Rd. Dl. Skt. w/pt.	1.05	.89	.84
26F493	DS 90-3-2G	Dl. Skt. Rd. w/pt.	1.07	.91	.86
26F494	DS 90-4-2	Pt. No Skt.	1.03	.88	.82
26F495	DS 90-4-2G	Pt. No Skt.	1.05	.89	.84
26F496	DS 90-5-2	Pt. Pln. Skt.	1.12	.95	.90
26F497	DS 90-5-2G	Pt. Pln. Skt.	1.15	.98	.92
90 Series—.190 Shafts					
26F498	DS 90-1-3	Rd. No Skt.	1.08	.92	.86
26F499	DS 90-1-3G	Rd. No Skt.	1.10	.94	.88
125 Series—.252 Shafts					
26F444	DS 125-1-2	Rd. No Skt.	1.08	.92	.86
26F445	DS 125-1-2G	Rd. No Skt.	1.10	.94	.88
26F446	DS 125-2-2	Rd. Pln. Skt.	1.18	1.00	.94
26F447	DS 125-2-2G	Rd. Pln. Skt.	1.21	1.03	.97
26F448	DS 125-3-2	Dl. Skt. Rd. w/pt.	1.25	1.06	1.00
26F449	DS 125-3-2G	Dl. Skt. Rd. w/pt.	1.28	1.09	1.02

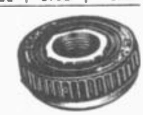
SPECIAL POINTER KNOB

With knob lock listed below. Knob features pointer arm which curves over skirt of lock toward chassis to increase accuracy. For ¼" shafts. Shpg. wt., 2 oz.

26F302	70-1LK-2	Mirror Finish	.93	.79	....
26F303	70-1LK-2G	Matte Finish	.99	.84	....
26F307	125-1LK-2G	Matte Finish	1.24	1.05	.98

KNOB LOCKS

For standard control knobs. Holds precise or critical control settings under shock or vibration. Use with 70, 90, and 125 round standard control knobs. Mirror finish except * Matte. ⅜-32 thread. Shpg. wt., 2 oz.

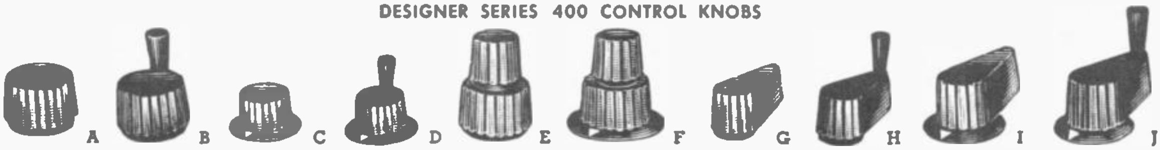


Stk. No.	Type	Series & Dia.	1-99	100-199	200-499	500-999
26F308	KL701	Series: 70 1" dia.	.87	.74	.70	.61
26F309	KL701G*	Series: 70 1" dia.	.93	.79	.74	.65
26F310	KL901	Series: 90 1$\frac{5}{16}$" dia.	1.02	.87	.82	.71
26F311	KL901G*	Series: 90 1$\frac{5}{16}$" dia.	1.07	.91	.86	.75
26F312	KL1251	Series: 125 1⅝" dia.	1.02	.87	.82	.71
26F313	KL1251G*	Series: 125 1⅝" dia.	1.09	.93	.87	.76

Control Knobs

RAYTHEON

DESIGNER SERIES 400 CONTROL KNOBS



High impact acrylonitrile-styrene (ABS), with lustreless black finish. Supplied with metal bushings and two set screws.

Stk. No.	Type	Description	Fig.	1-99	100-199	200-499
407 SERIES—1/8" SHAFTS—.720 DIA.						
26F671	407R1K1	Round	A	.42	.36	.34
26F672	407D1K1	Round dial skirted	C	.52	.44	.42
407 SERIES—1/4" SHAFTS—.720 DIA.						
26F675	407R2K1	Round	A	.39	.33	.31
26F676	407D2K1	Round dial skirted	C	.48	.41	.38
26F677	407P2K1	Bar pointer	G	.43	.37	.34
26F678	407PD2K1	Bar pointer dial skirted	I	.53	.45	.42
409 SERIES—1/8" SHAFTS—.875 DIA.						
26F679	409R1K1	Round	A	.44	.37	.35
409 SERIES—1/4" SHAFTS—.875 DIA.						
26F682	409R2K1	Round	A	.41	.35	.33
26F683	409D2K1	Round dial skirted	C	.51	.43	.41
26F684	409RB2K1	Round—for assemblies	A	.45	.38	.36
26F685	409P2K1	Bar pointer	G	.48	.41	.38
26F686	409PC2K1	Bar pointer w/crank	H	.65	.55	.52
26F687	409PD2K1	Bar pointer dial skirted	I	.58	.49	.46
26F688	409PDC2K1	Bar pointer w/crank, dial skirted	J	.75	.64	.60
26F689	409DB2K1	Round dial skirted—for assemblies	C	.52	.44	.42

412 SERIES—1/4" SHAFTS—1.25 DIA.

Stk. No.	Type	Description	Fig.	1-99	100-199	200-499
26F690	412R2K1	Round	A	.43	.37	.34
26F691	412RC2K1	Round w/crank	B	.60	.51	.48
26F692	412D2K1	Round dial skirted	C	.53	.45	.42
26F693	412DC2K1	Rnd. dial sktd. w/crank	D	.69	.59	.55
26F694	412RB2K1	Round—for assemblies	A	.45	.38	.36
26F695	412P2K1	Bar pointer	G	.54	.46	.43
26F696	412PC2K1	Bar pointer w/crank	H	.70	.60	.56
26F697	412PD2K1	Bar pointer dial skirted	I	.64	.54	.51
26F698	412PDC2K1	Bar pointer dial skirted w/crank	J	.80	.68	.64
26F699	412DB2K1	Rnd. dial sktd. for assem.	C	.54	.46	.43

CONCENTRIC ASSEMBLIES—FIG. E AND F.

Consists of two separate knobs which should be **ORDERED SEPARATELY FROM SERIES 407, 409, AND 412 LISTED ON THIS PAGE.** Easily assembled.

FIG. E.—ROUND/ROUND

Top Knob—1/8" Shaft	Bottom Knob—1/4" Shaft
407R1K1 .720 dia.	409RB2K1 .875 dia.
409R1K1 .875 dia.	412RB2K1 1.25 dia.

FIG. F.—ROUND/ROUND DIAL SKIRTED

407R1K1 .720 dia.	409DB2K1 .875 dia.
409R1K1 .875 dia.	412DB2K1 1.25 dia.

PUSH TO TURN KNOBS

DIAL

RING

- **For shock and vibration conditions**
- **Dial and ring skirted**

Knobs are designed for those applications in which control settings must be maintained under conditions of shock and vibration. The control setting can not be changed accidently since the knob must be fully depressed before movement. Push-to-turn knobs are supplied with a special lockwasher and a special mounting nut to be used for installation of knobs. Complies with MIL-K-3926B and MS91528C. Knobs are made of polycarbonate plastic with an internal mechanism of stainless steel. Available in black and gray. "G" suffix on type no. indicates matte finish, others are mirror finish.

Stk. No.	Type No.	Knob Dia.	Knob H	Shaft Dia.	Color	1-24	25-49	50-249
26F437	PT70-2-1	.730	.830	1/8"	Bl	12.10	10.90	9.70
26F438	PT70-2-1G	.730	.830	1/8"	Bl	12.00	10.80	9.60
26F439	PT70-2-2	.730	.830	1/4"	Bl	12.20	11.00	9.75
26F440	PT70-2-2G	.730	.830	1/4"	Bl	12.10	10.90	9.70
26F441	PT70-2-3	.730	.830	3/16"	Bl	12.25	11.00	9.80
26F442	PT70-2-3G	.730	.830	3/16"	Bl	12.15	10.95	9.75
26F443	PTG70-2-1	.730	.830	1/8"	G	12.20	11.00	9.75
26F091	PTG70-2-1G	.730	.830	1/8"	G	12.10	10.90	9.70
26F092	PTG70-2-2	.730	.830	1/4"	G	12.30	11.10	9.85
26F093	PTG70-2-2G	.730	.830	1/4"	G	12.20	11.00	9.75
26F094	PTG70-2-3	.730	.830	3/16"	G	12.25	11.00	9.80
26F095	PTG70-2-3G	.730	.830	3/16"	G	12.15	10.95	9.70
26F096	PT70-3NP-1	.730	.950	1/8"	Bl	12.20	11.00	9.75
26F097	PT70-3NP-1G	.730	.950	1/8"	Bl	12.10	10.90	9.70
26F098	PT70-3NP-2	.730	.950	1/4"	Bl	12.30	11.05	9.85
26F099	PT70-3NP-2G	.730	.950	1/4"	Bl	12.20	11.00	9.75
26F406	PT70-3NP-3	.730	.950	3/16"	Bl	12.40	11.15	9.90
26F407	PT70-3NP-3G	.730	.950	3/16"	Bl	12.30	11.05	9.85

Stk. No.	Type No.	Knob Dia.	Knob H	Shaft Dia.	Color	1-24	25-49	50-249
26F648	PT70-3-1	.730	.950	1/8"	Bl	12.25	11.00	9.80
26F649	PT70-3-1G	.730	.950	1/8"	Bl	12.15	10.95	9.70
26F666	PT70-3-2	.730	.950	1/4"	Bl	12.35	11.10	9.90
26F667	PT70-3-2G	.730	.950	1/4"	Bl	12.25	11.00	9.80
26F668	PT70-3-3	.730	.950	3/16"	Bl	12.45	11.20	9.95
26F669	PT70-3-3G	.730	.950	3/16"	Bl	12.35	11.10	9.90
26F670	PTG70-3NP-1	.730	.950	1/8"	G	12.25	11.00	9.80
26F743	PTG70-3NP-1G	.730	.950	1/8"	G	12.20	11.00	9.75
26F744	PTG70-3NP-2	.730	.950	1/4"	G	12.40	11.15	9.90
26F795	PTG70-3NP-2G	.730	.950	1/4"	G	12.30	11.05	9.85
26F796	PTG70-3NP-3	.730	.950	3/16"	G	12.50	11.25	10.00
26F797	PTG70-3NP-3G	.730	.950	3/16"	G	12.40	11.15	9.90
26F798	PTG70-3-1	.730	.950	1/8"	G	12.35	11.10	9.90
26F799	PTG70-3-1G	.730	.950	1/8"	G	12.25	11.00	9.80
26F896	PTG-70-3-2	.730	.950	1/4"	G	12.40	11.15	9.95
26F897	PTG70-3-2G	.730	.950	1/4"	G	12.35	11.10	9.90
26F898	PTG70-3-3	.730	.950	3/16"	G	12.55	11.30	10.05
26F899	PTG-70-3-3G	.730	.950	3/16"	G	12.45	11.20	9.95

ALCO SWITCH

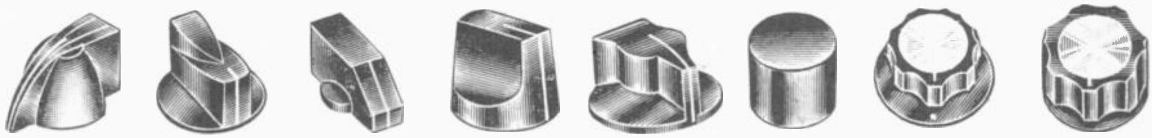
K-500A

KS-500A

KSP-700A

ALUMINUM KNOBS FOR 1/4" SHAFTS
(*WITH ALUMINUM SKIRTS, †CLEAR PLASTIC SKIRTS)

Stk. No.	Type	Dia.	Color	1-99	100-249	250-499	500-999
61F917	K-500A	1/2"	Natural	.45	.39	.37	.35
61F918	K-500B	1/2"	Black	.45	.39	.37	.35
61F937	K-700A	3/4"	Natural	.49	.44	.41	.38
61F938	K-700B	3/4"	Black	.49	.44	.41	.38
61F939	K-900A	7/8"	Natural	.55	.49	.47	.45
61F940	K-900B	7/8"	Black	.55	.49	.47	.45
61F920	KS-500A	1/2"*	Natural	.60	.55	.51	.49
61F921	KS-500B	1/2"*	Black	.60	.55	.51	.49
61F941	KS-700A	3/4"*	Natural	.65	.59	.56	.53
61F942	KS-700B	3/4"*	Black	.65	.59	.56	.53
61F922	KSP-700A	3/4"†	Natural	.60	.55	.51	.49
61F923	KSP-700B	3/4"†	Black	.60	.55	.51	.49
61F943	KSP-900A	7/8"†	Natural	.65	.59	.56	.53
61F944	KSP-900B	7/8"†	Black	.65	.59	.56	.53



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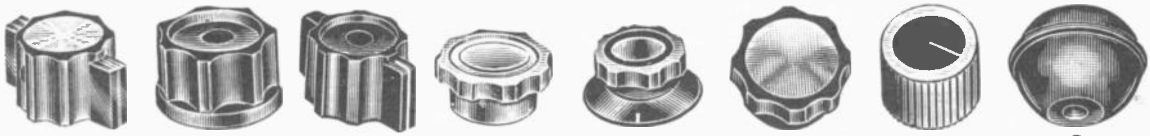


J K L M N O P R

POINTERS AND BAR KNOBS

Stock No.	Part No.	Fig.	Size OD	Inches Height	1-99	100-499	500-999
35F1300	S-292-1L	A	1 1/4	5/8	.11	.09	.078
35F1301	S-292-3L	A	1 1/4	5/8	.16	.13	.11
35F1302	S-293-1L	A	2 1/4	5/8	.18	.14	.13
35F1303	S-293-3L	A	2 1/4	5/8	.27	.20	.19
35F1304	S-246-1L	A	1 1/2	7/8	.21	.16	.15
35F1305	S-246-3L	A	1 1/2	7/8	.29	.22	.20
35F1306	AN-3219-1	A	1 1/4	5/8	.23	.17	.16
35F1307	AN-3220-1	A	1 1/2	7/8	.33	.25	.23
35F1308	AN-3220-3	A	1 1/2	7/8	.24	.18	.16
35F1309	S-658-1L	B	1 1/8	11/16	.12	.09	.085
35F1310	S-626-1L	C	1 1/2	5/8	.20	.15	.14
35F1311	S-400-1L	D	15/16	3/4	.31	.23	.214
35F1312	S-657-1L	E	1 1/8	5/8	.23	.17	.16
35F1313	S-657-3L	E	1 1/8	5/8	.29	.22	.20
35F1314	S-1657-1L	E	1 1/8	5/8	.44	.33	.29
35F1315	S-1657-3L	E	1 1/8	5/8	.52	.39	.34

PUSH BUTTONS

35F1316	S-328-30	G	1/2	15/32	.09	.07	.06
35F1317	S-330-30	G	7/16	15/32	.09	.07	.06
35F1318	S-343-30	G	7/16	5/8"	.09	.07	.06

INSTRUMENT KNOBS SERIES 600 (Without Inlay)

Standard with white indicator line.

35F1319	S-645-1L	H	3/4	7/16	.17	.13	.12
35F1320	S-645-3L	H	3/4	7/16	.24	.18	.16
35F1321	S-645-5L	H	3/4	7/16	.24	.18	.16
35F1322	S-645-21L	H	3/4	7/16	.18	.13	.12
35F1323	S-647-1L	H	1	19/32	.17	.13	.12
33F1324	S-647-3L	H	1	10/32	.23	.17	.16
35F1325	S-648-1L	H	1 1/4	21/32	.18	.13	.12
35F1326	S-648-3L	H	1 1/4	21/32	.24	.18	.17
35F1327	S-653-1L	H	1 1/2	3/4	.20	.15	.14
35F1328	S-653-3L	H	1 1/2	3/4	.27	.20	.19
35F1329	S-649-1L	H	2	7/8	.46	.34	.30
35F1330	S-649-3L	H	2	7/8	.55	.41	.35

INSTRUMENT KNOBS SERIES 1600 (With Aluminum Inlay)

Supplied with standard white indicator line.

35F1331	S-1645-1L	H	3/4	7/16	.34	.26	.24
35F1332	S-1645-3L	H	3/4	7/16	.42	.31	.27
35F1333	S-1645-5L	H	3/4	7/16	.43	.31	.27
35F1334	S-1645-21L	H	3/4	7/16	.36	.27	.25
35F1335	S-1647-1L	H	1	19/32	.34	.26	.24
35F1336	S-1647-3L	H	1	19/32	.40	.30	.27
35F1337	S-1648-1L	H	1 1/4	21/32	.37	.28	.26
35F1338	S-1648-3L	H	1 1/4	21/32	.44	.33	.28
35F1339	S-1653-1L	H	1 1/2	3/4	.37	.28	.26
35F1340	S-1653-3L	H	1 1/2	3/4	.45	.34	.30
35F1341	S-1649-1L	H	2	7/8	.66	.50	.45
35F1342	S-1649-3L	H	2	7/8	.76	.57	.51

ALUMINUM KNOBS SERIES 1000

Supplied with standard white indicator line.

35F1343	S-1000-21L	P	7/16	5/8	.92	.69	.60
35F1344	S-1001-21L	P	3/4	9/16	1.06	.80	.68
35F1345	S-1001-1L	P	3/4	9/16	1.06	.80	.68
35F1346	S-1002-1L	P	1	11/16	1.18	.88	.77
35F1347	S-1003-1L	P	1 1/4	3/4	1.60	1.19	1.03
35F1348	S-1004-1L	P	1 1/2	13/16	1.76	1.32	1.14

SUFFIX CODE

1—Molded hole for 1/4" shaft.
3—Brass insert for 1/4" shaft.
5—Brass insert for 1/8" shaft
21—Molded hole for 1/8" shaft.
30—Flatted to .052 x 3/16".
70—Heavy duty brass insert for 1/4" shaft.
BB—2 slotted head set screws available at extra cost: Add to regular cost. 1-99 80.00 per 1000; 100-499 60.00 per 1000, 500-999 56.00 per 1000.
L—Painted indicator line

INTRUMENT KNOBS SERIES 700 (Without Inlay)

Supplied with standard white indicator line.

Stock No.	Part No.	Fig.	Size OD	Inches Height	1-9	100-499	500-999
35F1349	S-745-1L	I	5/8	7/16	.24	.18	.16
35F1350	S-745-3L	I	5/8	7/16	.31	.23	.21
35F1351	S-745-5L	I	5/8	7/16	.31	.23	.21
35F1352	S-745-21L	I	5/8	7/16	.25	.19	.17
35F1353	S-747-1L	I	13/16	19/32	.25	.18	.17
35F1354	S-747-3L	I	13/16	19/32	.31	.23	.22
35F1355	S-748-1L	I	1	21/32	.26	.19	.18
35F1356	S-748-3L	I	1	21/32	.33	.24	.23
35F1357	S-753-1L	I	1 1/4	3/4	.28	.21	.20
35F1358	S-753-3L	I	1 1/4	3/4	.36	.27	.25
35F1359	S-749-1L	I	1 5/8	7/8	.57	.43	.37
35F1360	S-749-3L	I	1 5/8	7/8	.67	.50	.43

INSTRUMENT KNOBS SERIES 1700 (With Aluminum Inlay)

Supplied with standard white indicator line.

35F1361	S-1745-1L	I	5/8	7/16	.41	.31	.29
35F1362	S-1745-3L	I	5/8	7/16	.49	.36	.31
35F1363	S-1745-5L	I	5/8	7/16	.49	.36	.31
35F1364	S-1745-21L	I	5/8	7/16	.43	.32	.30
35F1365	S-1747-1L	I	13/16	19/32	.42	.31	.27
35F1366	S-1747-3L	I	13/16	19/32	.47	.35	.31
35F1367	S-1748-1L	I	1	21/32	.45	.34	.29
35F1368	S-1748-3L	I	1	21/32	.49	.37	.32
35F1369	S-1753-1L	I	1 1/4	3/4	.46	.34	.30
35F1370	S-1753-3L	I	1 1/4	3/4	.56	.42	.36
35F1371	S-1749-1L	I	1 5/8	7/8	.75	.56	.49
35F1372	S-1749-3L	I	1 5/8	7/8	.89	.66	.57

WING KNOB SERIES

S-1750-3L-BB, S-1751-3L-BB with decorative aluminum inlay.

35F1373	S-750-3L-BB	J	1 1/4	3/4	.75	.56	.49
35F1374	S-751-3L-BB	J	1 1/2	3/4	.65	.49	.42
35F1375	S-1750-3L-BB	J	1 1/4	3/4	.83	.62	.54
35F1378	S-1751-3L-BB	J	1 1/2	3/4	.78	.58	.50

CONCENTRIC SERIES

†Use with S-645, 1645 as top knob. ††Use with 1745 as top knob.

35F1379	S-656-1L†	K	1	39/64	.31	.23	.22
35F1380	S-656-3L†	K	1	39/64	.39	.29	.27
35F1381	S-750-3L-BB††	L	1 1/4	3/4	.72	.43	.37
35F1382	S-751-3LBB†	L	1 1/2	3/4	.74	.55	.48

HEAVY DUTY INSTRUMENT KNOBS

(*) With white inductor (†) With decoration aluminum inlay.

35F1383	S-319-3	M	1	5/8	.23	.17	.16
35F1384	S-308-3	M	1 1/8	5/8	.23	.17	.16
35F1385	S-385-3	M	1 3/8	11/16	.36	.27	.25
35F1386	S-309-3	M	1 5/8	3/4	.32	.24	.22
35F1387	S-310-3	M	2 3/8	7/8	.49	.36	.32
35F1388	S-380-3L*	N	1 1/8	13/16	.62	.46	.40
35F1389	S-381-70L*	N	1 3/8	27/32	.76	.57	.49
35F1390	S-311-3L*	N	1 5/8	7/8	.69	.52	.45
35F1391	S-312-70L*	N	2 3/8	15/16	1.21	.91	.79
35F1392	S-1319-3†	O	1	5/8	.41	.31	.29
35F1393	S-1308-3†	O	1 1/8	5/8	.42	.31	.29
35F1394	S-1385-3†	O	1 3/8	11/16	.61	.46	.40
35F1395	S-1309-3†	O	1 5/8	3/4	.53	.39	.34
35F1396	S-1310-3†	O	2 3/8	7/8	.72	.54	.47

GEAR AND CONTROL KNOBS

Supplied with molded threads.

Stock No.	Part No.	Fig.	OD	Size Height	Thread	1-99	100-499	500-999
35F1397	S-446-3	R	1 3/4	1 3/4	3/8-16	.37	.27	.26
35F1398	S-446-5	R	1 3/4	1 3/4	1/2-13	.37	.27	.26
35F1399	S-442-4	R	2	1 5/16	3/8-24	.27	.20	.19
35F1400	S-801-15C	R	1	1	5/16-18	.16	.12	.11
35F1401	S-801-15D	R	1	1	#10-32	.14	.10	.099
35F1402	S-801-15E	R	1	1	#10-24	.14	.10	.099
35F1403	S-801-15F	R	1	1	3/8-24	.16	.12	.11
35F1404	S-801-15G	R	1	1	#8-32	.14	.10	.099
35F1405	S-801-15Q	R	1	1	1/4-28	.16	.12	.11
35F1406	S-801-15T	R	1	1	1/4-20	.16	.12	.11
35F1407	S-801-15Z	R	1	1	5/16-24	.16	.12	.11
35F1408	S-801-15EE	R	1	1	3/8-16	.16	.12	.11

Knobs, Plates, Dials and Drives

HARRY DAVIES

AA BB A B C D E F G H I J

POINTER KNOBS

Black bakelite knobs for volume and tone controls. All have white indicator lines. Will fit ¼" shaft. All parts can be made available to JAN specifications at 10% extra. *Brass insert. †2 oz. ‡1 oz.

Stock No.	Type	Fig.	Size In.	1-24	25-99	100-499	500-999	1000-up
26F100	2300	AA	1¼	.11	.09	.08	.065	.058
26F101	2300A*	AA	1¼	.15	.13	.11	.105	.093
26F102	2350A*	BB	2	.22	.20	.17	.156	.140
26F103	2350	BB	2	.18	.17	.14	.126	.112
26F107	2150	A†	1¼	.14	.11	.10	.084	.075
26F115	1550	B†	1⅛	.12	.11	.09	.085	.076
26F116	1550*	B†	1⅛	.18	.17	.14	.126	.112
26F117	1500	C†	1⅛	.13	.11	.09	.088	.078
26F214	1510	C†	¾	.16	.14	.12	.114	.102

INSTRUMENT KNOBS

Black Bakelite finger grip knobs for use on ¼" shafts Complete with brass insert and set screw. Can be supplied to Jan specs. at 10% extra, as well as in compliance with MS-91531. Can also be furnished with imprinted skirt. Shpg. Wt., 3 oz.

Stk. No.	Type	Fig.	Dia. Skirt	1-24	25-99	100-499	500-999	1000-up
26F014	4102	I	1⅝	.30	.27	.23	.212	.190
26F016	4100	I	1⅛	.26	.22	.19	.179	.160
26F018	4102Q		1⅝	.42	.37	.32	.296	.275
26F020	4100Q		1⅛	.39	.34	.29	.274	.245

KNOBS WITH SKIRTS

Stk. No.	Type	Fig.	Knob Size	1-24	25-99	100-499	500-999	1000-up
26F022	4108	J	2 1/16"	.58	.51	.44	.406	.362
26F024	4104	J	1½"	.48	.42	.36	.336	.300

FINGER GRIP KNOBS

Finger Grip Knobs. Are Black bakelite fluted knobs for use on ¼" shafts. Set screw mounting. *Brass insert. Some are available with Spring Mount and CRL Knurl—(Write for prices). Can be furnished in compliance with government specifications—M-14E. Shpg. Wt., 1 oz.

Stock No.	Type	Fig.	Knob Size Dia.	Ht.	Hole Size	1-24	25-99	100-499	500-999	1000-up
26F126	1910	G	¾"	½"	¼"	.18	.16	.14	.124	.113
26F127	1910-C*	G	¾"	½"	¼"	.35	.31	.26	.245	.218
26F140	1914-C*	F	¾"	½"	¼"	.37	.32	.27	.256	.218
26F135	1919	H	1¼"	⅝"	¼"	.24	.21	.18	.168	.150
26F136	1919-2*	H	1¼"	⅝"	¼"	.30	.26	.23	.210	.187

CONTROL KNOBS

Black Bakelite knobs for all control and indicating uses. For ¼" shaft. Set screw furnished. Types 1470 and 1400 have molded pointers, 1600 and 1610 have paint filled indicator lines on skirt. Brass insert. Wt. 1 oz.

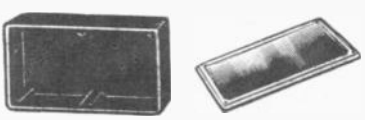
Stock No.	Type	Fig.	Bot. Dia.	Hole Depth	1-24	25-99	100-499	500-999	1000-up
26F110	1470	D	1"	7/16"	.15	.13	.11	.105	.09
26F109	1475	E	1"	7/16"	.12	.11	.09	.085	.076
26F123	1450	E	1 1/16"	11/32"	.10	.08	.07	.062	.054
26F122	1400	D	1 1/16"	11/32"	.10	.08	.07	.062	.054
26F120	1610	...	1 5/16"	7/16"	.15	.13	.11	.103	.092

LEVER KNOBS

Black bakelite lever knobs for any lever application. With metal pointer. Fit ¼" shaft. Furnished with set screw. *Brass insert. Meets Mil specs. Wt., 2 oz.

Stock No.	Type	Fig.	Size	1-24	25-99	100-499	500-999	1000-up
26F111	2100*	K	1⅝"	.22	.19	.17	.154	.137
26F112	2100E	K	2½"	.15	.13	.113	.105	.098
26F113	2110*	K	1⅝"	.20	.18	.150	.140	.130
26F114	2110E	K	1⅝"	.14	.13	.108	.101	.094

INSTRUMENT CASES



Made of molded plastic they can be drilled out to take any type of instrument. Covers available for all cases. Wt. 1 lb.

Type 260: 6 13/16x5 9/32x2 5/32". Type 240: 3¾x6¼x1⅞". Type 220: 2 21/32x3 25/32x1 15/32".

Stk. No.	Type	1-24	25-49	50-99
25F124	260	.96	.72	.60
25F125	240	.72	.66	.48
26F145	220	.42	.37	.32
Covers for Cases				
25F670	261 for 260	.64	.52	.46
25F669	241 for 240	.48	.42	.38
26F149	221 for 220	.30	.27	.22

WALDOM PLATES

DIRECT-DRIVE DIALS

For transmitting and test equip. 2¾" and 4" types have knob skirts 1⅛" have small knurled knob only instead of fluted type. 2¾" and 4" have micrometer for 1/10 of one division logging. Fit ¼" control shafts and 0-100 scale except 302A has 0-360 scale. 12 oz.

Stk. No.	Type	Dia.	Rot.	NET
25F639	27084	1⅛"	180°	1.56
25F640	27085	1⅛"	270°	
25F641	27086	1⅛"	325°	
25F642	27087	1⅛"	360°	
25F630	27068	1¾"	180°	1.68
25F631	27069	1¾"	270°	
25F643	27080	1¾"	325°	
25F644	27081	1¾"	360°	
25F632	294	2¾"	180°	2.76
25F633	295	2¾"	270°	
25F645	27082	2¾"	325°	
25F646	303	2¾"	360°	
25F634	292	4"	180°	3.60
26F635	293	4"	270°	
25F647	27083	4"	325°	
25F648	302	4"	360°	
25F638	302A	4"	360°	

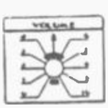
NEWARK — For Everything In Electronics

AZIMUTH DIALS

Outer numerals read 0 to 360 c.-c. w. Inner numerals read 0 to 360 c. w. Etched on heavy aluminum with black graduations. Shpg. wt., 2 oz.

Stk. No.	Type	Dia.	Shaft. Dia.	NET
25F691	27010	6"	⅜"	5.40
25F692	27011	6"	¼"	5.40
25F693	KD-12	4"	¼"	3.62

POLISHED ALUMINUM PLATES



Lithographed Aluminum Dial Plates Distinctive black lettering All 2 5/16" high x 2 9/16" wide Wt., 3 oz.

No.	Type	Title	NET
25F720	410A	Plain 0-10	.41
25F724	414A	Record 0-10	
25F729	423A	Arrow-Increase	
25F732	426A	Volume 0-10	

INDUSTRIAL TYPE MODERN KNOBS

Desirable when smooth finishes and simplicity are required. ¼" dia. hole—brass insert. Set screw.

Stk. No.	Type	Dia.	NET
25F769	6126	⅝"	.30
25F770	6129	⅞"	.48

ETCHED ALUMINUM PLATES

A B C

Dial plates are calibrated *0-10 in 300°, **0-100 in 180°. †0-100 in 270... Dial center hole: 260-264 ½" 272 15/32", 551 & 905 13/32". H 1 1/16"x1 11/16". †† ⅛" dia. 2 oz.

No.	Type	Fig.	Description	NET
25F700	260	A	3" dia.**	1.02
25F701	261	A	3" dia.†	1.02
25F702	262	A	1⅞" dia.**	.52
25F703	263	A	1⅞" dia.†	.52
25F704	264	A	2¼" dia.*	1.02
25F715	272	C	On-Off††	.20
25F718	278	B	On-Off††	.20
25F772	551	A	1⅞" Dia.†	.54
25F773	905	A	1¾" Dia.†	.34

PLANETARY DRIVES

Type 599. Two speed. Slow: 5:1, high: 1-1. Use as a single speed drive by omitting knobs on high speed sleeve. Sizes; inner 7/16" outer ¼" dia. Size 2 1/64x1 9/16. Ship. wt. 3 oz.

25F636. NET **10.56**

Type 6665. Concentric pair of Knobs. For two-speed planetary unit above.

25F621. NET **1.20**

Type 27067. One speed. Same as 599 but with threaded sleeve for high speed knob. ¼" dia. knob shaft and fits ¼" dia. shaft.

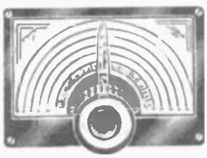
25F628. NET **10.01**

NATIONAL

DIAL ASSEMBLIES

Type N and AM. Features the original "velvet vernier" planetary drive. Knobs are black bakelite, with skirts of nickel-plated brass. Both have a 5-to-1 drive ratio and collars to fit ¼" shafts. Type N; 4" dia., 1⅜" depth, and flat skirt style, 12 oz. Type AM; 3" dia., 1⁷⁄₁₆" depth, beveled skirt. Wt. 8 oz.

Stk. No.	Type	Scale	Range	NET
26F053	N2	0-100	180°C	12.68
26F056	N5	200-0	360°C	12.68
26F054	N3	100-0	180°C	12.68
26F055	N4	150-0	270°C	12.68
26F075	AM2	0-100	180°C	5.25
26F077	AM4	150-0	150°C	5.25
26F078	AM5	200-0	360°C	5.25



Type MCN. Has three blank calibration rows and a 0-to-100, 180-degree logging scale. Holes in pointer make calibration marks. 5-to-1 "velvet vernier" drive. Fits ¼" shaft. Mounts on 3½" rack panel. Height: 2¾" (mechanism, extends ⁹⁄₃₂ inch below dial frame). Width 3⅞". Frame depth: ⅟₁₆". Shpg. wt. 10 oz.
26F052. NET **7.20**

COIL FORMS

Model XR-60. Purest unglazed ceramic material per JAN 1-10 and treated with Dow Corning Silicone. Cadmium plated bronze terminal lugs are mounted 90° apart on both top and bottom. There are four vertical rows of eight holes .038" dia. spaced .175" apart. Tuning core is iron with frequency range of 1.5 to 30 MC. Grooves per inch; 40. Slug, 1¹³⁄₁₆ long, ¾" dia. Shpg. wt. 4 oz. With hdwe.
40F479. NET **5.10**

TYPE HRS KNOBS

Plastic knobs with 1⁷⁄₁₆" diam. chrome flanges. Set screw types No. 3 marked "0-10" through 300° clockwise. No. 4 marked with single etched line, for use as center line index. No. 5 marked "O-10" through 180°C. Wt., 4 oz.

Stk. No.	Type	Color	NET
26F065	HRS-3	Black	.66
26F066	HRS-3	Gray	
26F087	HRS-4	Black	
26F088	HRS-4	Gray	
26F089	HRS-5	Black	
26F090	HRS-5	Gray	

Type HR Knobs. As above, less flange. Dial has white dot.

Stk. No.	Type	Color	NET
26F067	HR	Black	.39
26F068	HR	Gray	.39

TYPE HRT KNOBS

Plastic knob with chrome trim. Fits ¼" shaft. Set screw type. Diameter, 2⅛". Wt., 4 oz.
26F057. Black.
26F058. Gray. **NET EA.** **1.04**
Type HRT-M. Chrome inlay. 1½" dia.
26F059. Black. **NET**
26F060. Gray. **EACH** .... **.58**

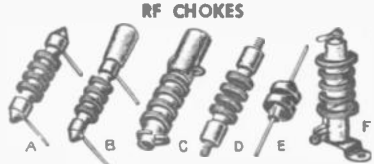
GRID CAPS FOR TRANSMITTING & RECEIVING TUBES

SPP types (fig. A) have ceramic insulation. All others (fig. B) released by slight pressure. Wt., 3 oz.

No.	Type	Description	NET
28F960	SPP-9	⁹⁄₁₆ dia. for 866	.24
28F961	SPP-3	⅜" dia. for 807	.24
28F962	GG-8	¼" dia. for octals	.08
28F963	GG-24	⅜" dia. for regulars	.05
28F964	GG-12	⁹⁄₁₆" dia. for 866	.08

Write for quantity prices up to 5000 on 28F960 and 28F961, up to 10,000 on 28F962, 963 and 964.

RF CHOKES



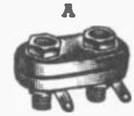
For use in transmitters, receivers, VFO's, etc. Wound on ceramic forms. *With small standoff insulators for vertical mounting. ‡Microhenries. Av. wt., 2 oz.

No.	Type	Fig.	mh	Ma	NET
40F322	R-50		2.5	125	.42
40F300	R-100	A	2.5	115	.57
40F301	R-100	A	5	70	.90
40F302	R-100	A	10	60	1.12
40F303	R-300	A	1	400	.57
40F304*	R-100U	B	2.5	115	.74
40F306*	R-100U	B	10	60	1.26
40F308*	R-100S	C	2.5	115	.99
40F311*	R-300S	C	1	400	1.00
40F315	R-300ST	D	2.5	375	.80
40F323	R-33	E	11‡	350	.36
40F317	R-33	E	50‡	225	.36
40F318	R-33	E	100‡	200	.36
40F320*	R-154U	F	1	600	2.01
40F321*	R-175A	F	145‡	800	4.46

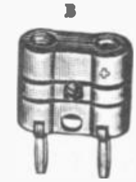
PLUGS & JACKS


A

Type FWH. Figure A. Banana jack binding posts with wire holes terminal assembly. Posts will accept the FWT plug at the top and grip fires at the bottom. Shipping weight 3 oz.
28F610. NET. ... **1.10**


B

Type FWJ. Figure B. Twin banana jack assembly. When used with FWT plug there is no exposed metal. Shipping wt. 3 ounces.
28F612. NET. .... **.87**


C

Type FWT. Figure C. Combination plug-socket that fits FWH and FWJ and is designed for the stacking of more FWT's. Provided with wire hole to accommodate up to 10 3 ounces.
28F613. NET. **1.56**

BIRNBACH

COUPLINGS AND EXTENSIONS


A


B

Couplings are for extending shafts, or for ganging. Extenders decrease or increase shaft diameter. 2 oz.

Stk. No.	Mater.	1-9	10-99	100-Up
Coupling. ¼" to ¼". Fig. A.				
26F250	Brass	.30	.27	.24
26F260	Insul.	.28	.24	.22
Coupling. ⅜" to ⅜". Fig. A.				
26F251	Brass	.24	.22	.20
26F261	Insul.	.28	.24	.22
Coupling. ¼" to ⅜". Fig. A.				
26F252	Brass	.28	.27	.24
26F262	Insul.	.28	.24	.22
Coupling. ¼" to ¼". Fig. B.				
26F253	Brass	.33	.30	.28
26F263	Insul.	.30	.27	.24
Coupling. ⅜" to ¼". Fig. B.				
26F254	Brass	.32	.29	.27
26F264	Insul.	.28	.24	.22
Coupling. ¼" to ⅜". Fig. B.				
26F255	Brass	.33	.30	.27
26F265	Insul.	.30	.27	.24

POLYSTYRENE RODS, TUBES AND SHEETS

Used for electronic application at ultra high frequencies because of its very low loss factor. Ideal for insulators, coil forms, shields, etc. Has excellent arc resistance, is non-tracking, has splendid insulating properties; Water absorption is practically zero.

TUBING IN 12" LENGTHS

Stk. No.	O.D.	I.D.	Per Qty.	Per Pkg. 1-9	Per Pkg. 10-up
37F310	¼"	⅛"	5	.70	.52
37F312	⅜"	¼"	3	.72	.54
37F313	½"	⅜"	2	.65	.49
37F314	⅝"	½"	2	.75	.58
37F315	¾"	⅝"	1	.45	.37
37F316	1"	⅞"	1	.60	.50

CLEAR POLYSTYRENE SHEETS

Stock No.	Overall Size	Thickness	Per Qty.	Per Pkg. 1-9	Per Pkg. 10-up
37F317	12x12"	⅟₁₆"	1	3.88	2.86
37F319	12x12"	⅛"	1	5.14	3.87
37F320	12x12"	³⁄₁₆"	1	6.48	4.86
37F321	12x12"	¼"	1	7.96	5.97

ROD IN 12" LENGTHS

Stk. No.	Dia.	Per Qty.	Per Pkg. 1-9	Per Pkg. 10-up	Stk. No.	Dia.	Per Qty.	Per Pkg. 1-9	Per Pkg. 10-up
37F300	⅛"	10	.40	.30	37F301	³⁄₁₆"	5	.45	33
37F302	¼"	3	.48	.36	37F303	⁵⁄₁₆"	3	.65	.48
37F304	⅜"	2	.60	.45	37F305	½"	1	.55	.44
37F308	⅝"	1	.82	.62	37F307	¾"	1	1.10	.88
37F306	⅞"	1	1.55	1.15	37F309	1"	1	2.10	1.68

Millen Knobs, Dials & Terminals

A061
10061

A062
10062

SHAFT LOCKS

Type A061. Clearance for 1/8" Dia. shaft. 2 oz.
26F276. NET .... .46
Type A062. As above but has knurled face.
26F277. NET .... .61
#10061 is combination mtg. nut and shaft lock; #10062 is similar, but with knurled control knob; and #10063 is chuck type lock w/lever control. 1/4" shaft. Wt. 2 oz.
26F045. (A) Type 10061. NET .... .46
26F046. (B) Type 10062. NET .... .66

DIAL LOCK

Has captive head for front panel mounting. Wt. 2 oz.
26F048. Type 10050. NET .... .67
Type A050. Miniature Dial Lock. Same as above, but for specialized miniaturized applications. Wt., 2 oz.
26F288. NET .... .66

COUPLINGS

Molded Coupling. Small size high flexibility. 4000 volt insul. High torque. 1 3/16" dia., 17/32" thick. For 1/4" shafts. Wt., 2 oz.
26F206. 39016. NET .... .75
Type 39017. Same as above except 1 5/16" dia. for 3/8" shaft.
26F278. NET .... .95

A B

FLEXIBLE COUPLINGS

Type 39001 is for angle drives up to 45°. Type 39006 is a slide action coupling for eccentric shafts. Wt., 2 oz.

Stk. No.	Type	Fig.	Insulation	NET
26F200	39001	A	Ceramic	.75
26F201	39002	B	Ceramic	
26F202	39005	A	All metal	
26F203	39006	B	Steatite	

Type 39003. Solid coupling for 1/4" shaft 3/4" long. Includes two 3/8" set screws made of hardened steel. Coupling is solid brass and is nickel plated. Wt. 2 oz.
26F275. NET .... .30

MINIATURE COUPLINGS

M003
M006

Model M003. Solid coupling for 1/8" dia. shaft, 3/8" long. N.P. brass. Wt., 2 oz.
26F272. NET .... .48
Model M006. Universal joint style flexible coupling. Spring finger. Steatite insulation. 1/8" dia. shaft hole. Nickel plated brass. Wt., 2 oz.
26F273. NET 1.05
Model M001. Insulated universal joint style flexible coupling for 1/8" dia. shafts 1 1/16" long. Wt., 2 oz.
26F285. NET .... .94
Model M005. Universal joint flex. coupling for 1/8" dia. shafts, 1 1/16" long, uninsulated. Ext. hub for max. flexibility. Wt. 2 oz.
26F286. NET .... .94
Model M004. Universal joint flex. coupling for 1/8" dia. shafts, uninsulated. Inverted hubs for short length. Wt., 2 oz.
26F287. NET .... .94
Model M008. Insulated coupling with N.P. brass inserts for 1/8" dia. shafts, 19/32" long. 600 V. Wt., 2 oz.
26F274. NET .... .69

KNOB DIALS

Nickel silver dials with fingergrip knobs. Bakelite hub insulates metal scale from shaft. Calibrated 0-100 clockwise 180°. 1/4" shaft. Wt., 7 oz.
26F042. Type 10008, 3 1/2" dia. NET 2.96
26F043. Type 10009, 2 3/4" dia. NET 2.06

BAR KNOB DIAL

Type 10007A. 1 5/8" dial with rectangular bar knob calibrated 10 to 0. 180° clockwise. 1/4" shaft. Wt. 7 oz.
26F044. NET .... .93
26F039. 10007B as above but 280° rotation. NET .... .93
Type A014A. 1" dial calibrated from 0 to 10. 180° clcokwise rotation. 1/8" shaft. 3 oz.
26F270. NET .... .89
26F271. A014B same as above but 280° rotation. NET .... .89

INSULATED SHAFT EXTENSION

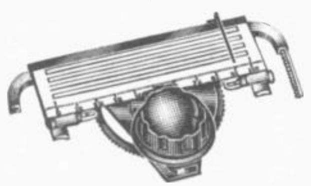
Type 39023. Safety insulated shaft extension. 1/4" shaft. Nickel-plated. 3/8-32 thr. Phenolic shell 5500 V. Length, 2". Shpg. wt., 2 oz.
26F205. NET 1.78
Type 39024. Same as above but includes shaft lock. Wt., 2 1/2 oz.
26F280. NET 2.11

MINIATURE KNOBS FOR 1/8" SHAFT

No. A018 No. A019 No. A007 No. A006

No. A018. Blk. plastic knob w. brass insert. Skt. diam. 3/8". Screwdriver slot on top. 5/8"Hx1/4"D. Avg. wt., 1 oz.
26F281. NET .... .49
No. A019. Above without flange.
26F282. NET .... .46
No. A007. A018 w. 5/8" diam. indexed dial.
26F283. NET .... .53
No. A006. Like std. knobs. 1/2"Hx3/4"D.
26F284. NET .... .61

● *NEW NO-STRING ILLUMINATED DIAL*



Type 10037. Eliminates annoyances of string-driven pointers. Provides positive pointer travel and resetability. Pointer driven by flexible non-elastic molded gear driven rack. Smooth friction drive mechanism with 180° output shaft. Teflon bearings never need oiling. 1/4" output shaft. Dial scale 0-100 plus blank scales, adjustable zero-set, anti-parallax pointer. Dial has scale bezel for front panel. Outside dimensions 8" w x 2 5/8" h. Behind panel space 8 1/2"w x 1 5/16"d overall.
26F209. NET 13.05

LIGHTED DIAL

Type 10035. Slide rule panel dial w. 2 pilot lights. 12:1 drive ratio knob. 4 blank, 1 0-100 log scale reads left to rt. 8 1/2x6 1/2". Wt. 2 1/2 lbs.
26F040. NET 10.54

MIDGET DIAL

Type 10039. Midget panel dial. 8:1 ratio. Self-contained mech. cuts interference. 0-100 log reads left to right. 5 blank scales. 4x3 29/32". Wt., 1 1/4 lbs.
26F041. NET 7.75

MILLEN A012 RIGHT ANGLE DRIVE

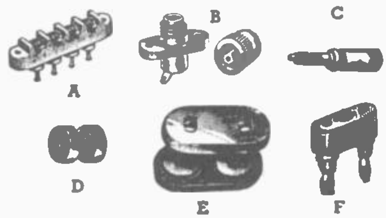
Designed for use in Millen equipment. Right angle drive. 1/8" diam. shafts. Single hole mounting bushing 1/4"-32 diam. Wt., 6 oz.
26F213. NET 7.18

MILLEN RIGHT ANGLE DRIVES

Type 10012. Compact bevel gear drive with 1:1 ratio. Mounts by threaded bushing; tapped holes in frame or "stand off" rods. Size, 1 1/2x3/4". Wt., 4 oz
26F210. NET 10.00

Type 10000A. Right angle worm drive assembly. May be panel or base mounted. Standard ratio, 16:1. Spring loaded split gears eliminate backlash. Cast aluminum frame. Wt. 4 oz.
26F211. NET 15.40

TERMINALS AND BINDING POSTS



BARRIER TERMINALS

Fig. A. Terminals are used for terminating high voltages in power supplies, receivers, and transmitters. Has 6/32 B.H. screws; rated 3500 V. Shpg. wt., 3 oz.

Stock No.	Type	Term	Mtg.	EA.
28F645	37302	2	1 1/2"	1.29
28F646	37303	3	2"	1.47
28F647	37304	4	2 1/2"	1.85
28F648	37305	5	3"	2.19
28F649	37306	6	3 1/2"	2.64

HV TERMINALS

Fig. B. Type 37001. Mount with insulated bushing extending thru chassis. Bakelite. Tapered plug and socket. Pin is swivel mounted in cap to prevent twisting of lead wire. 2 oz.

Stk. No.	Color	EACH
28F638	Red	.59
28F639	Black	.56

BINDING POSTS

Fig. C. Type 37222. Non-turning types with captive head. Banana jack tops. Mount on single or dual plates. Wt., 5 oz. Brass. Non-insulated.

Stk. No.	EACH
28F640	.37

DOUBLE DISC BINDING POSTS

Fig. E. Type 37202. Dual plates. Bakelite. Have captive heads and keyed mountings Meets most requirements. 5 oz.

Stk. No.	Color	EACH
28F642	Black	.43
28F658	Red	.43

DOUBLE BANANA PLUGS

Fig. F. Type 37212. Bakelite. Fits 37222 posts on dual plates. Wt., 3 oz.

Stk. No.	Color	EACH
28F643	Black	1.29
28F636	Red	1.29

PHENOLIC BINDING POST

The posts have captive heads and keyed mounting. Insulated Type 37223. 6 oz.

Stk. No.	Color	EACH
28F587	Red or Black	.37

Millen Miniaturized Components

PERMEABILITY TUNED SHIELDED FORMS

Permeability tuned, shielded form, plugs into octal socket. Low-loss octal base. Polystyrene ½" dia. coil form with iron tuning slug for frequencies up to 35 MHz. Adjusting screw extends through socket hole. Heavy aluminum shield.

40F729. Type 74001. NET **2.63**

40F730. Type 74002 less slug. NET 2.15

MIDGET COIL FORMS

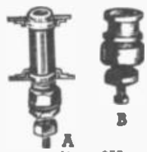
Low loss mica filled brown bakelite forms. For short-wave receivers and low-power transmitters. Size: 1" dia., 1 13/32" winding length; 2 5/16" overall. Shpg. wt., 2 oz.

40F732. Type 45004. 4 prongs. NET **.58**

40F731. Type 45000. Without prongs........45

40F733. Type 45005. Five prongs. NET .58

FORMS FOR RF COILS



A B

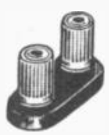
Type A: Ceramic permeability tuned unshielded forms perfect for any application. Supplied with all mounting hardware.

Type B: Compact forms for UHF coils. Feature high "Q" at minimum capacity. *Have copper slugs; †have powdered iron cores. Wt., 4 ounces

Stk. No.	Type	Winding Length	Freq. MHz	NET
40F439	69044*	3/10		1.61
40F440	69051*	3/8	14-300	1.08
40F441	69052†	3/8	10-30	1.08
40F442	69057*	5/8	14-300	.97
40F443	69058†	5/8	10-30	.97
40F444	69061*	3/4	14-300	1.08
40F445	69062†	3/4	10-30	1.08
40F725	69041*	7/32	14-300	1.74
40F722	69042†	7/32	.18-35	1.74
40F727	69045*	1 1/8	14-300	.89
40F728	69046†	1 1/8	.5-10	.87
40F729	69047*	3/8	14-300	1.68
40F724	69048†	3/8	.18-35	1.68

BINDING POSTS AND INSULATORS

E201



E202

Type E202 black plastic double binding post insulator is only 1 13/32" wide. Mounts in 5/16" dia. holes, ½" between centers. For use with Type E222 binding post. Shpg. wt. 2 oz.

28F938. Black or Red. NET ..... **.48**

Type E201 binding post insulators are the same as above except—single insulator. Shpg. wt. 2 oz.

28F939. Black. NET .... **.30**

28F937. Red. NET 30

Type E222 miniature binding post for use with above. Has jack top for miniature banana plug. Max. height: 7/16. Shpg. wt. 2 oz.

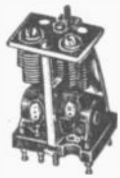
28F940. Single Post. NET EACH .... **.37**

OCTAL BASE AND SHIELD

Model 74400. Low loss phenolic base with octal socket plug and aluminum shield can. 1 7/16 x 1 7/8 x 3 15/16".

40F734. NET...... **1.78**

MINIATURE IF TRANSFORMERS



Extremely high Q—approximately 200-variable coupling—(under critical, and over) with all adjustments on top. Small size: 1 1/16x 1 9/16x1 7/8". Molded terminal base. Air capacitor tuned. Coils completely enclosed in cup cores. Tapped primary and secondary. Rugged construction. High electrical stability. Shpg. wt. 4 oz.

Stk. No.	Type	Application	NET
40F416	61455	455 KHz Universal	10.25
40F417	61453	455 KHz BFO	8.55
40F418	61160	1600 KHz BFO	10.25
40F419	61163	1600 KHz Universal	8.55

MINIATURE POWDERED IRON CHOKES

Powdered iron core chokes are 3/8" long. Have current capacity of 100 ma. Hi-Q. Designed for application in radio components. Excellent for use where miniaturization is paramount. Shipping weight 1 oz.

Stk. No.	Type	UH	NET
40F386	J300-25	25	.73
40F387	J300-50	50	
40F388	J300-100	100	
40F389	J300-250	250	
40F390	J300-500	500	.83
40F391	J300-1000	1000	.83
40F392	J300-2500	2500	.95

SMALL RF PI WOUND CHOKES

Expertly made and designed to operate under extremely trying conditions; chokes are dependable and have a long life. 250 ma current. Lead lengths 1½" wt., 1 oz.

Stk. No.	Type	UH	Ohms	NET
40F393	34300-25	25	3.1	.51
40F394	34300-50	50	5.2	
40F395	34300-100	100	7.1	
40F396	34300-250	250	12.1	
40F397	34300-500	500	22.3	
40F398	34300-750	750	30.4	
40F399	34300-1000	1000	21.7	

RF CHOKES

Pie-wound on steatite forms. *Supplied with standoff insulator; †have solid ends, ‡have 6-32 threaded ends. **One threaded end. Shipping weight 2 oz.

Stk. No.	Type	Mh.	Ma	NET
40F400	34100*	2.5	250	.83
40F401	34101**	2.5	250	.83
40F402	34103†	2.5	250	.64
40F403	34104‡	2.5	250	.74
40F404	34105*	1.0	300	.87
40F405	34106**	1.0	300	.87
40F406	34108†	1.0	300	.64

PLATE CAPS

Ceramic except 36011 and 36012 which are bakelite. Shpg. wt. 2 oz.

Stk. No.	Type	Size	EACH
28F950	36001	9/16" for 866's	.34
28F951	36002	3/8" for 807	.33
28F952	36004	1/4"	.39
28F953	36011	9/16"—snap lock	.90
28F959	36012	3/8"—snap lock	.90

• NEW RF-SWITCH

High voltage switch designed for high frequency requirements. Positive snap action. Non-shorting. Large air gaps. Insulated shaft. Available with two to six contacts.

Type 51001. 1 pole, 2/6 pos.
28F933 NET. **9.95**

Type 51001-D. 2 pole, 2/3 pos.
28F934 NET 15.12

Type 51002. 2 pole, 3/6 pos.
28F935. NET 19.40

Type 51002-D. 4 pole, 2/3 pos.
28F936 NET 27.75

TUBE CLAMPS

For holding down tubes to chassis. Fastens to base. Weight, 2 oz.

Stk. No.	Type	For	Each
28F955	33087A	1.125" Base	.46
28F956	33087B	1.165" Base	
28F957	33087C	1.250" Base	
28F958	33087D	1.275" Base	
28F954	33087E	1.375" Base	
28F965	33087F	1.156" Base	
28F967	33087G	1.625" Base	

CRYSTAL SOCKETS

Sockets for crystal holders. Steatite base for low-loss. Silver-plated phosphor-bronze contacts. Tinned solder lugs extend below chassis. *For CR-7 crystals. Shpg. wt., 2 ozs.

Stk. No.	Type	Space	Pins	NET
38F655	33002	3/4"	.125	.43
38F656	33102	.487"	.095	.43
38F657	33202	½"	.125	.43
38F658	33302*	.487"	.050	.30

STEATITE SOCKETS

Designed for use in transmitters and power supplies. Have higher body providing long "flashover" path to chassis. Mounting hole 1.172" Shipping weight, 3 ounces.

Stk. No.	Type	Contacts	Each
38F650	33004	4	.85
38F651	33005	5	
38F653	33008	8	

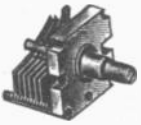
BAYONET SOCKET

Dual contact bayonet sockets for type 991 neon voltage-regulator tube. Metal construction with choice of black or low-loss mica-filled phenolic insulation. Mounting centers, 1⅛". Av. wt., 3 oz.

25F322. 33991. Black. NET .... **.79**

25F323. 33992. Mica. NET 89

E. F. JOHNSON Capacitors



TYPE "L" CAPACITORS

The rotor bearing and stator support rods are soldered directly to the Steatite end frames, making the unit virtually vibration-proof. Threaded 3/8-32, mounting nut provided. Plate spacing .030". Heavy brass soldered plates and large diameter tie rods provide great rigidity. Plating is heavy nickel. Mounting posts soldered to end frame are available on special order. Removable chassis mounting brackets can be used to mount auxiliary equipment. Shaft diameter: .250 shaft length: 25/32". Size: 1 3/8w.x1 3/8h. A special slit sleeve tension bearing and silver plated beryllium copper contact provide constant torque and smooth, silent capacity variation. Av. shpg. wt. 6 oz.

Single Section—Single End Plate

Stk. No.	Cat. No.	Type	MMFD	Lgth.	1-9	10-49	50-99
41F176	167-1	10L15	2.2-10	3/4"	2.05	1.90	1.71
41F177	167-2	25L15	2.9-25	61/64"	2.20	2.03	1.85
41F178	167-3	50L15	4.0-50	1 1/4"	2.50	2.28	2.08
41F179	167-4	75L15	5.2-75	1 9/16"	2.70	2.49	2.27

Single Section—Double End Plate

Stk. No.	Cat. No.	Type	MMFD	Lgth.	1-9	10-49	50-99
41F180	167-11	100L15	6.8-99	2 1/32"	4.35	4.00	3.65
41F181	167-12	200L15	11.6-202	2 21/64"	5.65	5.17	4.70

Butterfly

Stk. No.	Cat. No.	Type	MMFD	Lgth.	1-9	10-49	50-99
41F182	167-21	10LB15	2.3-10	55/64"	3.00	2.75	2.50
41F183	167-22	25LB15	3.7-25	1 1/4"	2.55	2.35	2.14
41F184	167-23	50LB15	5.9-50	1 3/4"	3.75	3.43	3.13

Differential

Stk. No.	Cat. No.	Type	MMFD	Lgth.	1-9	10-49	50-99
41F186	167-32	25LA15	3.5-27	61/64"	2.90	2.65	2.40
41F187	167-33	50LA15	4.6-51	1 1/4"	3.30	3.05	2.77

Dual Section

Stk. No.	Cat. No.	Type	MMFD	Lgth.	1-9	10-49	50-99
41F188	167-51	25LD15	4.2-27	1 5/8"	4.45	4.10	3.75
41F189	167-52	50LD15	5.4-51	2 15/64"	4.95	4.63	4.22
41F190	167-53	100LD15	7.8-99	3 7/16"	6.30	5.78	5.25

TYPE "M" JOHNSON MINIATURES

With .188" dia. x 1/2" slotted shaft. 1/4" mounting bushing. Steatite end frames. 3/4"Hx5/8"W. Shpg. wt. 4 oz.

SINGLE TYPE

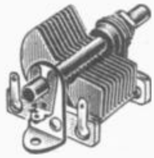
Stk. No.	Cat. No.	Type	MMFD	Depth	1-9	10-49	50-99
41F200	160-102	5M11	1.5- 5.0	45/64"	.90	.83	.76
41F201	160-104	9M11	1.8- 8.7	13/16"	.95	.88	.80
41F202	160-107	15M11	2.3-14.2	1"	1.00	.92	.85
41F203	160-110	20M11	2.7-19.6	1 1/64"	1.10	1.00	.92

DIFFERENTIAL TYPE

Stk. No.	Cat. No.	Type	MMFD	Depth	1-9	10-49	50-99
41F204	160-303	6MA11	1.5- 5.0	45/64"	1.25	1.16	1.06
41F206	160-308	15MA11	2.3-14.2	1"	1.65	1.52	1.39
41F207	160-311	19MA11	2.7-19.6	1 1/64"	1.85	1.72	1.58

BUTTERFLY TYPE

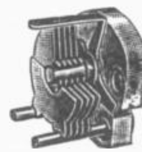
Stk. No.	Cat. No.	Type	MMFD	Depth	1-9	10-49	50-99
41F208	160-203	3MB11	1.5- 3.1	45/64"	1.20	1.11	1.02
41F209	160-205	5MB11	1.8- 5.1	13/16"	1.30	1.20	1.10
41F210	160-208	8MB11	2.2- 8.0	1"	1.45	1.33	1.22
41F211	160-211	11MB11	2.7-10.8	1 1/64"	1.60	1.47	1.35



TYPE "R" CAPACITORS

Featuring extra heavy steatite support insulators and .023" thick brass plates. All metal parts are heavy nickel plated for corrosion resistance. Plate spacing .024". bearing threaded 3/8"-32. Heavy brass end frames provide superior rigidity. Double bearing construction and silver plated beryllium copper wiring contacts provide smooth, reliable performance. Av. shp. 6 oz.

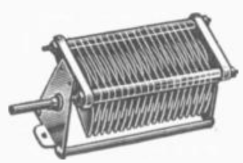
Stk. No.	Cat. No.	Type	MMFD	Lgth.	1-9	10-49	50-99
41F191	149-1	20R12	5-20	1 7/32"	2.75	2.52	2.30
41F192	149-2	35R12	6-35	1 7/32"	2.85	2.62	2.38
41F193	149-3	50R12	5.9-50	1 7/32"	2.95	2.71	2.47
41F195	149-5	100R12	7.1-102	1 15/32"	3.25	2.98	2.72
41F196	149-6	140R12	8.0-140	1 19/32"	3.50	3.22	2.93



TYPE "K" CAPACITORS

Features DC200 impregnated steatite end frames, notched stator terminals and extra rigid soldered plate construction. Square mounting studs tapped 4-40 on 21/32" centers. Plates are brass, nickel plated. Range is in mmf per section. Plate spacing is .015". Peak voltage rating 1,000 volts. Size: 1 3/16w.x1 7/32h. Av. shpg. 4 oz.

Stk. No.	Cat. No.	Type	MMFD	Lgth.	1-9	10-49	50-99
41F168	158-1	10K10	2.3-10	7/8"	1.20	1.10	1.00
41F169	158-2	25K10	2.7-26	1"	1.25	1.15	1.05
41F170	158-3	50K10	3.4-55	1 3/16"	1.35	1.24	1.16
41F171	158-4	75K10	4 0-78	1 3/8"	1.45	1.33	1.22
41F172	158-5	100K10	4.7-107	1 5/8"	1.60	1.47	1.34



TYPE "E" CAPACITORS

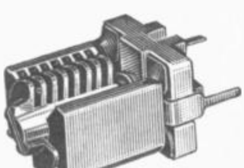
Aluminum plates .032" thick with rounded edges — stainless steel shafts — heavy phosphor bronze contact springs—center contact on duals—large 1/4" tie rods. Panel or chassis mounting. Shaft dia. 1/4". Shaft length: 5/8"; Size: 2 19/32x 2 5/8". Av. shpg. wt. 1 lb.

SINGLE SECTION

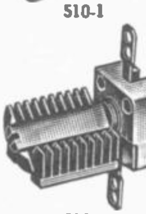
Spacing .075" except * .045" and † .125"

Stk. No.	Cat. No.	Type	MMFD	Pk.V	Lgth.	1-9	10-49
41F129	154-1	*250E20	12-244	2000	3 7/32"	7.45	6.60
41F130	154-2	*350E20	15-353	2000	3 31/32"	8.50	7.50
41F134	154-7	100E30	11-100	3000	3"	6.60	5.85
41F136	154-9	250E30	20-251	3000	5 3/8"	9.30	8.25
41F137	154-11	†35E45	9-38	4500	2 3/4"	5.90	5.25
41F138	154-12	†50E45	11-53	4500	3 13/32"	6.40	5.70
41F139	154-13	†70E45	13-74	4500	4 1/32"	7.00	6.25
41F140	154-14	†100E45	16-101	4500	4 31/32"	7.60	6.75
41F141	154-15	†150E45	20-145	4500	6 17/32"	8.95	7.90
41F142	154-16	†250E45	32-241	4500	10"	11.75	10.40

TYPE "U" AIR VARIABLE CAPACITORS — SINGLE SECTION



510-1



510-2

Sub-miniature Type "U" air variable capacitors cut costs, improve performance, and save valuable space in compact electronic equipment. Units offer high "Q" (greater than 1500 at 1 MHz), high torque (2 1/2 to 10 ounce inches), exceptionally low temperature coefficient (plus 45 ±15 PPM/°C), and absolute freedom from moisture entrapment found in trimmer capacitors of the enclosed or solid dielectric type. All metal parts silver-plated-ceramic is steatite, grade L-423 or better. Exceptionally uniform delta C and voltage characteristics. No special tools required for installation-slotted end accommodates large screwdriver for quick adjustment. Air gap .010 — Peak voltage breakdown on units listed — 650V. Lengths shown are ±1/32".

PRINTED CIRCUIT MOUNTING

Stk. No.	Cat. No.	Pf.	Plates	Lgth.	1-49	50-99	100-499
41F215	189-501-5	1.2- 4.2	4	27/64"	.56	.51	.45
41F216	189-502-5	1.3- 6.7	6	15/32"	.58	.52	.46
41F217	189-503-5	1.4- 9.2	8	33/64"	.56	.51	.45
41F218	189-504-5	1.5-11.6	10	9/16"	.58	.52	.46
41F219	189-505-5	1.7-14.1	12	39/64"	.60	.54	.48
41F220	189-506-5	1.8-16.7	14	43/64"	.62	.56	.49

TWO-HOLE MOUNTING

Stk. No.	Cat. No.	Pf.	Plates	Lgth.	1-49	50-99	100-499
41F221	189-501-4	1.2- 4.2	4	27/64"	.60	.54	.48
41F222	189-502-4	1.3- 6.7	6	15/32"	.62	.56	.49
41F223	189-503-4	1.4- 9.2	8	33/64"	.60	.54	.48
41F224	189-504-4	1.5-11.6	10	9/16"	.62	.56	.49
41F225	189-505-4	1.7-14.1	12	39/64"	.64	.58	.51
41F226	189-506-4	1.8-16.7	14	43/64"	.66	.60	.53

PRESS-IN FASTENER

510-3

New acetal fastener for chassis mounting of two-hole Type "U" capacitors permits rapid, low-cost mounting. Supplied with two-hole mtg. type listed.

Inductors and Variable Capacitors

BUD CHOKES

BUD LATTICE WOUND RF CHOKES

Unshielded type on ceramic bobbin. All are 125 ma except *100, †90, ‡80. Mounts with 6-32 screw. Dia., 1-1/16". With soldering lugs. 4 oz.

No.	Type CH-	MH	Ohms	1-49	50-99	100-149
40F200	1212	2.5	28	.90	.80	.70
40F202	1214	5.5	46	1.10	1.00	.90
40F203	1215	8	60	1.10	1.00	.90
40F205	1217	16	84	1.10	1.00	.90
40F206	1218*	30	190	1.10	1.00	.90
40F207	1219†	60	279	1.40	1.20	1.10
40F208	1220‡	80	332	1.50	1.40	1.20

BUD SHIELDED IRON CORE CHOKES

Improves "Q" of choke by providing 40 to 50% less DC resistance over air core types with equivalent reactance. Have finely divided molded metallic cores. Windings are silk-covered enamel. Solder lugs. Mounted in small shield cans. 1½"h.x. 1-7/16"dia. All 125 ma except* 100 ma and † 90 ma. Shpg. wt., 4 oz.

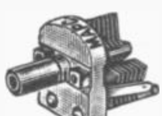
No.	Type CH-	MH	Ohms	1-49	50-99	100-149
40F215	1283	16	53	1.90	1.70	1.55
40F216	1284*	30	82	2.00	1.80	1.60
40F217	1285*	60	131	2.30	2.10	1.80
40F218	1286†	80	163	2.50	2.20	2.00
40F219	1287†	125	221	2.80	2.50	2.20

HAMMARLUND APC MICROS

Air-dielectric condensers. Steatite base. Air gap .015". Will fit 1¼" diameter coil frames. Screwdriver adj. Wt., 4 oz.

No.	Type	Range-mmf	NET
41F326	APC-25	3.0-25	1.20
41F327	APC-50	3.9-50	1.35
41F328	APC-75	4.6-75	1.45
41F329	APC-100	5.5-100	1.60
41F330	APC-140	7.8-140	1.80

MAPC CAPACITORS



General purpose capacitors similar to APC series. Tested at 840 volts peak, 60 Hz. MAPC series is provided with a hex collar on a slotted shaft for adjustment of the rotor positions. The MAPC "B" is furnished with an extended shaft 7-1/16" long. Silicon treated steatite bases and all brass nickel plated metal parts. Shpg. Wt. 4 oz.

Stk. No.	Type	Range-mmf.	Net
41F343	MAPC-15	2.3-15	1.00
41F344	MAPC-25	2.6-25	1.05
41F345	MAPC-35	2.9-35	1.10
41F346	MAPC-50	3.2-50	1.15
41F347	MAPC-75	3.9-75	1.20
41F348	MAPC-100	4.5-100	1.30
41F353	MAPC-15B	2.3-15	1.00
41F354	MAPC-25B	2.6-25	1.05
41F355	MAPC-35B	2.9-35	1.10
51F356	MAPC-50B	3.2-50	1.15
41F357	MAPC-75B	3.9-75	1.20
41F358	MAPC-100B	4.5-100	1.30

B & W "MINIDUCTORS"

Low-loss coil lengths for the experimenter. Air-wound turns molded in polystyrene strips. ½", ⅝" and ¾" diameters are 2" long. The lengths for other diameters are noted in the tables below. All are easily cut to desired length. Shpg. wt., 5 oz.

Stock No.	Mfrs. Type	Dia.	Turns Per In.	NET EACH
40F930	3001	½"	4	.50
40F931	3002	½"	8	.55
40F932	3003	½"	16	.65
40F933	3004	½"	32	.70
40F934	3005	⅝"	4	.50
40F935	3006	⅝"	8	.55
40F936	3007	⅝"	16	.65
40F937	3008	⅝"	32	.70

LENGTH, 3 INCHES

Stock No.	Mfrs. Type	Dia.	Turns Per In.	NET EACH
40F938	3009	¾"	4	.60
40F939	3010	¾"	8	.75
40F940	3011	¾"	16	.80
40F941	3012	¾"	32	.95
40F942	3013	1"	4	.65
40F943	3014	1"	8	.75
40F944	3015	1"	16	.85
40F945	3016	1"	32	.95

LENGTH, 4 INCHES

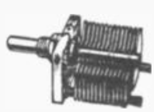
Stock No.	Mfrs. Type	Dia.	Turns Per In.	NET EACH
40F860	3017	1¼"	4	.75
40F861	3018	1¼"	8	.95
40F862	3019	1¼"	16	1.20
40F863	3020	1¼"	32	1.30
40F864	3021	1¾"	4	.95
40F865	3022	1¾"	8	1.00
40F866	3023	1¾"	16	1.25
40F867	3024	1¾"	32	1.35

Standard Inductors. 10" long. Wt., 5 oz.

Stock No.	Mfrs. Type	Dia.	Turns Per In.	NET EACH
40F949	3900	2"	8	2.45
40F946	3905-1	2½"	6	2.95
40F947	3906-1	2½"	8	2.80
40F948	3907-1	2"	10	2.40

HAMMARLUND

HF MICROS



For tuning or trimming critical HF circuits. Nickel plated. Steatite insulation. H F D are split stator. *Double space. 6 oz.

No.	Type	Range-mmf	NET
41F331	HF-15	2.8-17.5	1.30
41F332	HF-35	3.2-36	1.40
41F333	HF-50	3.7-52	1.60
41F334	HF-100	5.3-102	1.80
41F335	HF-140	6.3-142	1.95
41F336	*HF-15-X	3.6-15	1.30
41F337	*HF-30-X	5.2-30	1.70

Type MAC. VHF trimmer. Nickel plated. Steatite insulation. Screwdriver adjustment. Air gap: 00.017. Wt., 7 oz.

No.	Type	Range-mmf	NET
41F349	MAC-5	1.3-5.4	.90
41F350	MAC-10	1.5-9.6	.95
41F351	MAC-15	1.9-15.8	1.00
41F352	MAC-20	2.2-21.5	1.10

OHMITE

RF PLATE CHOKES

Small high frequency chokes wound on †steatite or ‡plastic cores. Insulated moisture-proof coating. Single layer winding avoids harmonic effects and prevents breakdown from high RF potentials. Z-7 has mounting brackets. *600 ma; all others 1000 ma rating. Wt., 3 oz.

No.	Type	µh	1-9	10-24	25-99
40F250	Z-460‡	0.20	.45	.38	.32
40F251	Z-235‡	0.84	.45	.38	.32
40F252	Z-144‡	1.8	.45	.38	.32
40F253	Z-50‡	7.0	.48	.41	.34
40F254	Z-28†*	21.0	.60	.51	.42
40F255	Z-14†*	44.0	.71	.60	.50
40F256	Z-7†	84.0	1.44	1.22	1.01

PARASITIC SUPPRESSOR

Type P-300. Prevents UHF parasitic oscillations in plate and grid leads of push-pull circuits. Non-inductive 50 ohm vitreous resistor with overwound .3 µh choke in parallel. Size, 1¾x2-1/32" dia. 2 oz.

No.	Type	µh	1-9	10-24	25-99
40F264	P-300	....	1.66	1.41	1.16

POWER LINE CHOKES

Prevent high frequency currents of transmitters and diathermy equipment from feeding into power lines. All 20 amps except *5, and †10. Use as filter with two .1 mfd capacitors. Wound on ceramic core with moisture-proof coating. Shipping weight, 2 oz. to 1½ lbs.

No.	Type	µh	Ohms	1-9	10-24	25-99
40F260	Z-20*	14	0.15	2.07	1.76	1.45
40F261	Z-21†	15	0.07	2.72	2.31	1.90
40F262	Z-22	18	0.045	6.26	5.32	4.38
40F263	Z-30	104	0.085	7.71	6.55	5.40

MC MIDGET CAPACITORS

Steatite - insulated condensers with plated brass plates. Double-bearing design. Wide bearing for perfect contact. Ideal for mobile units. ¼" shaft. Single-spaced types .0245", test at 1,000 volts AC; double-spaced types, .0715", test at 1,750 volts AC. Capacity increases clockwise *Semi-circular plates, all others midline. Shpg. wt., 10 oz.

SINGLE-SPACED MIDGETS

No.	Type	Range-mmf	NET
41F300	*MC-20-S	5.5-20	2.40
41F301	*MC-35-S	6.0-35	2.45
41F302	*MC-50-S	6.5-50	2.60
41F303	MC-50-M	6.3-50	2.55
41F304	*MC-75-S	8.0-80	2.85
41F305	MC-75-M	7.3-80	2.75
41F306	*MC-100-S	8.3-100	2.95
41F307	MC-100-M	7.7-100	2.90
41F308	MC-140-M	9.0-140	3.00
41F309	*MC-140-S	10.0-140	3.15
41F310	MC-200-M	10.3-200	3.40
41F311	MC-250-M	12.0-250	3.70
41F312	MC-325-M	13.5-320	4.20

DOUBLE-SPACED MIDGETS

No.	Type	Range-mmf	NET
41F314	*MC-20-SX	6.8-20	2.60
41F315	*MC-35-SX	8.5-32	2.75
41F316	MC-35-MX	7.8-32	2.75
41F317	*MC-50-SX	11.5-53	3.00
41F318	MC-50-MX	10.5-53	3.00
41F319	*MC-100-SX	16.5-100	3.95

DUAL MIDGETS

No.	Type	Range-mmf	NET
41F320	MCD-50-M	5.5-50	7.25
41F321	MCD-100-M	6.3-100	7.85
41F323	MCD-140-M	7.8-140	8.35

DOUBLE-SPACED DUAL MIDGETS

No.	Type	Range-mmf	NET
41F324	MCD-35-MX	6.0-31	7.85
41F325	*MCD-35-SX	6.8-31	7.50

Insulators and Circuit Boards

E. F. JOHNSON INSULATORS

STAND-OFF INSULATORS

135 Series. Highly glazed and smooth molded RF insulators. Nickel plated brass hardware. Types 65, 66 and 67 have drawn aluminum bases. All are threaded except. Hardware supplied. Average shpg. wt., 1 pound.

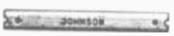
Stock No.	Type	Fig.	Body Hgt.	1-49	50-99	100-499
37F050	135 20	A	1 9/16"	.36	.33	30.10
37F052	135-22	A	1"	.22	.20	18.40
37F054	135-24	A	5/8"	.18	.17	14.95
37F055	135-60	C	4½"	1.20	1.10	100.50
37F056	135-62	C	2¾"	.68	.63	57.00
37F057	135-65	C	1 3/8"	.35	.32	29.50
37F059	135-66	D	2¾"	.85	.78	71.25
37F061	135-67	D	4½"	1.20	1.10	100.50

LEAD-IN BUSHINGS

Ideal for use as power supply and high voltage leads. Have many applications in transmitter and antenna installations. All are steatite except * white glaze porcelain. 50, 51, 52, 55 have nickeled brass rod and nuts. Average shipping weight, 8 ounces.

Stock No.	Type	Fig.	Top Hgt.	Panel Hole	1-49	50-99	100-499
37F071	135-50	H	½"	½"	.42	.39	35.20
37F072	135-51	H	1 3/16"	7/8"	.64	.54	53.50
37F073	135-52	H	1 1/8"	1¼"	.89	.82	74.50
37F074	135-53*	F	1¾"	1 7/8"	.41	.38	34.30
37F075	135-54*	E	4"	2¾"	1.30	1.20	109.00
37F076	135-55	G	¼"	½"	.33	.30	27.70

FEEDER SPREADERS



Unglazed porcelain bars, 3/8x½", treated with Silicone to resist moisture. With No. 14 ga. wire, 2" size will provide a characteristic line impedance of approximately 500 ohms, 4" approx. 575 ohms, and 6" approx. 625 ohms. With No. 12 ga. wire, 2" approx. 475 ohms, 4" approx. 550 ohms, and 6" approx. 600 ohms. Shipping weight, 3 ounces.

Stock No.	Type	Length	1-49	50-99	100-499 Per 100
37F077	136-122	2"	.18	.17	15.05
37F078	136-124	4"	.28	.26	23.40
37F079	136-126	6"	.45	.41	37.70

FEED THRU-PANEL INSULATORS

135 Series. Have high mechanical strength with long leakage paths. White glaze porcelain except † steatite. All are threaded, except * which have type 74 jacks. All hardware supplied. Shipping weight, 12 ounces.

Stock No.	Type	Fig.	Top Hgt.	Panel Hole	1-49	50-99	100-499
37F081	135-40†	I	1¼"	½"	.48	.44	40.25
37F082	135-40-2†*	I	1¼"	½"	.64	.59	53.60
37F083	135-42†	I	7/8"	7/16"	.44	.41	36.90
37F084	135-42-2†*	I	7/8"	7/16"	.51	.53	47.65
37F085	135-44†	I	5/8"	5/16"	.33	.30	27.60
37F086	135-45	J	1 3/8"	½"	.64	.59	53.50
37F087	135-45-2*	K	1 3/8"	½"	.78	.72	65.30
37F088	135-46	J	2¾"	¾"	1.40	1.29	117.30
37F090	135-47	J	4½"	1"	2.50	2.30	230.00

STEATITE CONE INSULATORS

135 Series. Recommended for use at high frequencies. Low moisture absorption. Threads tapped directly into steatite. Complete with screws, brass washers and cushion washer. Average shpg. wt., 5 oz.

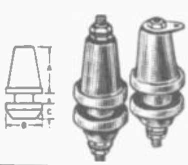
Stock No.	Type	Size	Thread	1-49	50-99	100-499 Per 100
37F063	135-500	5/8"	6-32	.23	.21	19.25
37F064	135-501	1"	8-32	.30	.28	25.15
37F065	135-502	1½"	8-32	.54	.50	46.00
37F066	135-503	2"	10-32	.80	.74	67.30
37F067	135-504	3"	10-32	1.40	1.29	117.00

ANTENNA INSULATORS

All are wet-process porcelain, with white glazing and 800 lbs. breaking strength except * dry process, 400 lbs. breaking.

Stock No.	Type	Size	Wt.	1-49	50-99	100-499 Per 100
37F068	136-104*	4x5/8" sq.	4 oz.	.30	.28	25.10
37F069	136-107	7x1" dia.	10 oz.	1.35	1.24	113.00
37F070	136-112	12x1" dia.	1¼ lbs.	1.95	1.79	164.00

BIRNBACH ELECTRONIC COMPONENTS

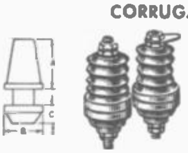


FEEDTHRU INSULATORS

Highly vitrified, low absorption smoothly glazed porcelain. Prevents gathering of dust. Max. strength achieved by proper proportions and flat mounting surfaces. Long insulating sleeves contribute much to their performance on high voltages. Brass Nickel-plated hardware.

Stock No.	Type	Height A	Dimen. B	Dimen. C	Mounting Hole	Hardware	NET
29F065	458	5/8"	11/16"	¼"	5/16"	6-32	.32
29F066	478	1"	13/16"	5/16"	7/16"	10-32	.41
29F067	478J	1"	13/16"	5/16"	7/16"	No. 403 Jack	.49
29F068	4125	1¼"	7/8"	3/8"	7/16"	10-32	.47
29F069	4125J	1¼"	7/8"	3/8"	7/16"	No. 403 Jack	.54
29F070	4234	2¾"	2"	1"	¾"	¼-20	1.05
29F071	4175	2¾"	1¼"	¾"	5/8"	¼-20	1.03
29F072	4175J	2¾"	1¼"	¾"	5/8"	No. 394 Jack	1.30

CORRUGATED FEEDTHRU INSULATORS



Has more than twice the leakage path of the straight type because of increased surface of the corrugations. Recommended where a straight side insulator of equal height is not satisfactory because of shorter leakage path. Brass nickel plated hardware. Cork mounting washer supplied.

Stock No.	Type	Height A	Dimen. B	Dimen. C	Mounting Hole	Hardware	NET
29F073	479	1 3/8"	1¼"	11/16"	9/16"	10-32	.71
29F074	479J	1 3/8"	1¼"	11/16"	9/16"	No. 403 Jack	.87
29F075	4276	2¾"	1 5/8"	1"	¾"	¼-20	1.26
29F076	4276J	2¾"	1 5/8"	1"	¾"	No. 403 Jack	1.44
29F077	4452	4½"	2 1/8"	1½"	1"	No. 403 Jack	1.79
29F078	4452J	4½"	2 1/8"	1½"	1"	No. 394 Jack	2.30

473 474

AIRPLANE INSULATORS

Used on mobile antenna installations. Made of white glazed low absorption porcelain.

Stk. No.	Type	Color	Size	NET
29F042	473	White	2"	.22
29F043	474	White	1½"	.23

STEATITE PILLARS

Jan-1-8 and Jan-1-10 Specs. (Less Hardware) Unmounted and threaded pillars. One hole mounting. Parallel mounting surfaces. L5 Glazed Steatite, threaded holes on both sides.

Stock No.	Type	Old Jan Type Designation	New Mil Type Designation	H	D	Length of Thread	Thread	NET
29F079	442A	NS5W0104	NL633W01-004	½"	3/8"	5/32"	6-32	.19
29F080	444B	NS5W0106	NL633W01-006	¾"	3/8"	¼"	6-32	.21
29F081	445B	NS5W0108	NL633W01-008	1"	3/8"	3/8"	6-32	.22
29F082	446B	NS5W0110	NL633W01-010	1¼"	3/8"	3/8"	6-32	.24
29F083	446A	NS5W0112	NL633W01-012	1½"	3/8"	3/8"	6-32	.25
29F084	446C	NS5W0116	NL633W01-016	2"	3/8"	3/8"	6-32	.26
29F085	440A	NS5W0206	NL633W02-006	¾"	½"	¼"	8-32	.19
29F086	440B	NS5W0208	NL633W02-008	1"	½"	3/8"	8-32	.20
29F087	440C	NS5W0210	NL633W02-010	1¼"	½"	3/8"	8-32	.23
29F088	440D	NS5W0212	NL633W02-012	1½"	½"	3/8"	8-32	.28
29F089	440E	NS5W0216	NL633W02-016	2"	½"	3/8"	8-32	.28
29F090	440F	NS5W0220	NL633W02-020	2½"	½"	3/8"	8-32	.31
29F091	440G	NS5W0224	NL633W02-024	3"	½"	3/8"	8-32	.35
29F092	445C	NS5W0308	NL633W03-008	1"	¾"	3/8"	10-32	.43
29F093	445D	NS5W0310	NL633W03-010	1¼"	¾"	3/8"	10-32	.31
29F094	445E	NS5W0312	NL633W03-012	1½"	¾"	3/8"	10-32	.38
29F095	445F	NS5W0316	NL633W03-016	2"	¾"	3/8"	10-32	.42
29F096	445G	NS5W0320	NL633W03-020	2½"	¾"	3/8"	10-32	.45
29F097	445H	NS5W0324	NL633W03-024	3"	¾"	3/8"	10-32	.50

Indiana General Corp. Ferrites & Magnets

FERRAMIC CUP CORE ASSEMBLIES

Temperature Compensated Cup Core Assemblies. Designed for filter applications requiring precision tuneable inductors having low loss characteristics over a wide temperature range. Used at frequencies from audio to 500 kHz with Q value as high as 850. Specific inductance (L/1000 turns) is accomplished by inserting a precision ground air gap in center post of one or both cup cores in a matched pair. Size and tolerance of air gap controls inductance per 1000 turns. Adjustment beyond specific inductance of cup cores is provided by trimmer assembly. All cup cores have a positive linear temperature coefficient of effective permeability and inductance. Over a given temperature interval this is expressed as:

MINIMUM Q FACTOR

Part #	Q	Test Frequency (KC)	Test Coil
TC7-01	280	300	50T 20/44 LITZ
TC7-02	450	150	100T 20/44 LITZ
TC7-04	500	75	100T 60/44 LITZ
TC7-06	625	50	75T 100/44 LITZ

$$TC. = \frac{\Delta L\ (10^6)}{L\ (\Delta T)} PPM/°C$$

Stk. No.	Part #	W1000T (MH)	Core Size (MM)	Dimensions Ht.	Dimensions Dia.	(In.) Mt. Hole Spacing	T.C. PPM	1-24	25-49	50-99	100-249	250-499	500-999
59F1500	TC7-01	100	14x8	.467	.591	.748	45-150	3.35	2.50	2.15	1.34	1.18	.95
59F1501	TC7-02	250	18x11	.553	.749	.906	100-300	3.35	2.50	2.15	1.43	1.18	.95
59F1502	TC7-04	400	26x16	.770	1.062	1.292	150-350	3.65	3.10	2.55	1.90	1.70	1.25
59F1503	TC7-06	1000	36x22	1.986	1.463	1.693	200-500	5.35	4.10	3.45	2.45	2.10	1.65

NOTE: For quantity prices of 1000 or more on TC or CF series, call or write NEWARK.

FERRAMIC® TOROIDS

For applications in filter coils, pulse transformers, delay lines, IF transformers, RF coils, loading coils, converter and wide band and impedance matching transformers.

Stk. No.	Type	Mat'l.	O.D.	I.D.	Thick.	1-24	25-49	50-99	100-249	250-499	500-999
59F1504	CF101	0-6	.230	.120	.060	1.10	.80	.60	.40	.20	.14
59F1505	CF101	H	.230	.120	.060						
59F1506	CF101	Q-1	.230	.120	.060						
59F1507	CF102	0-6	.375	.187	.125	1.20	.85	.65	.45	.25	.20
59F1508	CF102	H	.375	.187	.125						
59F1509	CF102	Q-1	.375	.187	.125						
59F1510	CF111	0-6	.870	.540	.250	2.05	1.55	1.35	1.15	.85	.55
59F1511	CF111	H	.870	.540	.250	2.05	1.55	1.35	1.15	.85	.55
59F1512	CF111	Q-1	.870	.540	.250	2.05	1.55	1.35	1.15	.85	.55
59F1513	CF117	0-5	1.875	1.375	.375	2.65	2.15	1.95	1.75	1.35	1.05
59F1514	CF117	H	1.875	1.375	.375	2.65	2.15	1.95	1.75	1.35	1.05
59F1515	CF117	Q-1	1.875	1.375	.375	2.30	1.80	1.60	1.40	1.10	.80
59F1516	CF123	0-5	2.400	1.400	.500	5.70	3.38	2.30	2.00	1.70	1.40
59F1517	CF123	H	2.400	1.400	.500	5.70	3.30	2.30	2.00	1.70	1.40
59F1518	CF123	Q-1	2.400	1.400	.500	5.50	3.10	2.10	1.80	1.50	1.20

FERRAMIC PROPERTIES

Material Properties	0-6	0-5	H	Q-1
Max. Freq.	400KC	400KC	1 MC	20 MC
Permeability	4700 @ 100KC	3000 @ 100KC	850 @ 1 MC	125 @ 1 MC
Sat'n Induc. —Gauss	4700	4700	3400	3300

FERRAMIC ANTENNA RODS

Stk. No.	Part	Material	Dia.	L.	1-24	25-99	100-249	250-499
59F1519	CF 501	Q-1	.250	7.500	1.25	.90	.60	.40
59F1520	CF 502	Q-1	.330	7.500	1.35	1.00	.70	.50
59F1521	CF 503	Q-1	.500	7.500	2.50	1.75	1.25	.90
59F1522	CF 504	Q-1	.620	7.500	4.00	3.00	2.50	2.00

INDOX I PERMANENT MAGNETS

Indox I is a non-oriented, barium ferrite permanent magnet material with an outstanding ability to withstand demagnetizing influences. The Coercive Force (H) 1825 oersted. The residual induction (B) 2200 gauss. A peak energy product (B H max.) 1.0×10^6.

Stk. No.	Type	Fig.	Dimensions (Inches) A	B	C	D	1-49	50-99	100-249	250-499
59F1523	F-1109	1	.937 x	.650 x	.210		1.00	.74	.524	.344
59F1524	F-1201	1	1.000 x	.750 x	.177 x	.187	1.05	.31	.253	.203
59F1525	F-1203*	1	1.000 x	1.000 x	.250 x	.218	1.15	.80	.568	.358
59F1526	F-1302	2	.519 x		.274		.95	.70	.493	.333
59F1527	F-1303	2	1.079 x		.250		1.00	.78	.548	.360
59F1528	F-1403	2	1.079 x	.597 x	.250		1.15	.84	.570	.348

* With counter bore hole to .312" x .062" deep. Note: All magnetized through thickness.

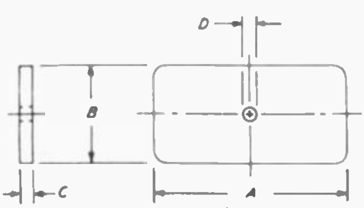


Figure 1

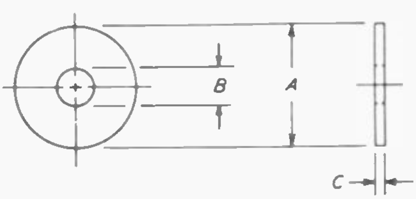
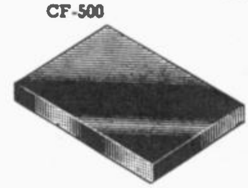


Figure 2

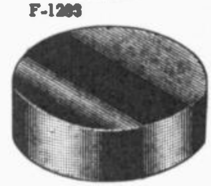

TC7 & Assembly Parts


CF100


CF-500


F-1201


F-1203


F-1303

NYTRONICS Fixed and Variable Inductors

DECI-DUCTOR

Subminiature inductor. Designed to meet all the environmental specifications of MIL-C-15305C, Grade 1, Class B. Inductance tolerance: ±10% over entire range. Dielectric strength: 700 volts RMS at sea level. Operating temp.: —55°C to +125°C. 10 hz to 2000 hz @ 15G ± 10% maximum for 12 logarithmic swings each of 20 minute duration repeated for each of three mutually perpendicular planes. Shock: 50G, 11 MS. Density characteristics: volume 0.002 cubic inches. Weight 0.35 grams. Dimensions: 0.100" diameter by 0.250" length. Inductance range: 0.10μH to 1000 μH. One hundred fit in one square inch space. Epoxy-molded reliability and uniformity.

PRICE LOCATOR

μH Range	1-24	25-49	50-99	100-249	250-499	500-999
.10-15	.81	.64	.56	.51	.47	.44
1.2-27	.88	.70	.61	.56	.51	.48
33-100	.93	.74	.65	.59	.54	.51
120-1000	.97	.78	.67	.61	.57	.53

Stk. No.	Type DD-	μH	Q Min	MC	Stk. No.	Type DD-	μH	Q Min	MC
35F1845	0.10	.10	40	25	35F1870	12.0	12.0	45	2.5
35F1846	0.12	.12	40	25	35F1871	15.0	15.0	47	2.5
35F1847	0.15	.15	38	25	35F1872	18.0	18.0	50	2.5
35F1848	0.18	.18	38	25	35F1873	22.0	22.0	50	2.5
35F1849	0.22	.22	35	25	35F1874	27.0	27.0	50	2.5
35F1850	0.27	.27	35	25	35F1875	33.0	33.0	50	2.5
35F1851	0.33	.33	32	25	35F1876	39.0	39.0	50	2.5
35F1852	0.39	.39	32	25	35F1877	47.0	47.0	50	2.5
35F1853	0.47	.47	32	25	35F1878	56.0	56.0	50	2.5
35F1854	0.56	.56	32	25	35F1879	68.0	68.0	52	2.5
35F1855	0.68	.68	33	25	35F1880	82.0	82.0	52	2.5
35F1856	0.82	.82	30	25	35F1881	100	100	50	2.5
35F1857	1.00	1.00	30	25	35F1882	120	120	28	0.79
35F1858	1.20	1.20	30	7.9	35F1883	150	150	28	0.79
35F1859	1.50	1.50	32	7.9	35F1884	180	180	28	0.79
35F1860	1.80	1.80	35	7.9	35F1885	220	220	26	0.79
35F1861	2.20	2.20	35	7.9	35F1886	270	270	26	0.79
35F1862	2.70	2.70	37	7.9	35F1887	330	330	26	0.79
35F1863	3.30	3.30	45	7.9	35F1888	390	390	25	0.79
35F1864	3.90	3.90	45	7.9	35F1889	470	470	27	0.79
35F1865	4.70	4.70	45	7.9	35F1890	560	560	27	0.79
35F1866	5.60	5.60	52	7.9	35F1891	680	680	28	0.79
35F1867	6.80	6.80	52	7.9	35F1892	820	820	28	0.79
35F1868	8.20	8.20	60	7.9	35F1893	1000	1000	28	0.79
35F1869	10.0	10.0	60	7.9					

WEE WEE-DUCTOR

This shielded inductor has great inductance-to-size ratio and meets the stringent requirements of MIL-C-15305C, Grade 1, Class B. The smallest shielded inductor for high density circuits. μH range: 0.10 to 10,000. Unique T lead construction used on all values from 1200μH to 10,000μH provides excellent reliability in ranges where fine wire sizes are used. Dimensions: 0.133" diameter x 0.335" length. Operating temperature: —55°C to +125°C. Dielectric strength: 700 volts RMS at sea level. Inductance tolerance: ±10%. Density characteristics: volume, 0.0041 cubic inches; weight, 0.50 grams max. To solve special problems in density circuit application.

PRICE LOCATOR

μH Range	1-24	25-49	50-99	100-249	250-499	500-999
.1-.82	1.50	1.20	1.10	1.00	.90	.80
1.0-12	1.60	1.30	1.20	1.10	1.00	.90
15-1000	1.85	1.50	1.35	1.25	1.10	1.00
1200-3300	2.35	1.88	1.63	1.49	1.37	1.28
3900-10000	2.94	2.35	2.04	1.86	1.72	1.60

Stk. No.	Type WEE-WEE	μH	Q MIN	MC	Stk. No.	Type WEE-WEE	μH	Q MIN	MC
35F1894	0.10	.10	42	25	35F1910	47	47	42	2.5
35F1895	0.15	.15	42	25	35F1911	68	68	46	2.5
35F1896	0.22	.22	42	25	35F1912	100	100	43	2.5
35F1897	0.33	.33	42	25	35F1913	150	150	49	0.79
35F1898	0.47	.47	41	25	35F1914	220	220	53	0.79
35F1899	0.68	.68	36	25	35F1915	330	330	57	0.79
35F1900	1.0	1.0	42	25	35F1916	470	470	50	0.79
35F1901	1.5	1.5	38	7.9	35F1917	680	680	56	0.79
35F1902	2.2	2.2	36	7.9	35F1918	1000	1000	49	0.79
35F1903	3.3	3.3	38	7.9	35F1919	1500	1500	55	0.25
35F1904	4.7	4.7	42	7.9	35F1920	2200	2200	55	0.25
35F1905	6.8	6.8	45	7.9	35F1921	3300	3300	55	0.25
35F1906	10	10	51	7.9	35F1922	4700	4700	55	0.25
35F1907	15	15	45	2.5	35F1923	6800	6800	50	0.25
35F1908	22	22	42	2.5	35F1924	10000	10000	50	0.25
35F1909	33	33	46	2.5					

SUPER WEE-DUCTOR

Ultra reliable molded shielded miniature inductor. Unique T design eliminates fine wire considerations. An R.F. inductor Specifically designed to meet the demanding requirements of MIL-C-15305C, Grade 1, Class B. Inductance range: 0.1μH to 100,000μH. Inductance tolerance: ±10% over the entire inductance range. Dielectric strength: 700 volts at sea level. Operating temperature: —55°C to +125°C. Density characteristics: volume, 0.0076 cubic inches; weight, 0.75 grams maximum; Shielding: at 1000 Hz two units assembled side by side exhibit less that 3% coupling. Maximum current: based on temperature rise not to exceed 35° C at 90°C ambient.

SWD — INDUSTRIAL TYPES

PRICE LOCATOR

μH Range	1-24	25-49	50-99	100-249	250-499	500-999
.1-15	1.20	.90	.80	.70	.65	.60
18-8200	1.40	1.00	.90	.80	.75	.70
10000-100000	1.50	1.30	1.20	1.15	1.05	1.00

Stk. No.	Type SWD-	μH	Q Min	MC	Stk. No.	Type SWD	μH	Q Min	MC
35F1925	0.10	.10	50	25	35F1961	100	100	52	2.5
35F1926	0.12	.12	51	25	35F1962	120	120	57	.79
35F1927	0.15	.15	51	25	35F1963	150	150	56	.79
35F1928	0.18	.18	50	25	35F1964	180	180	60	.79
35F1929	0.22	.22	49	25	35F1965	220	220	58	.79
35F1930	0.27	.27	47	25	35F1966	270	270	60	.79
35F1931	0.33	.33	46	25	35F1967	330	330	54	.79
35F1932	0.39	.39	44	25	35F1968	390	390	67	.79
35F1933	0.47	.47	44	25	35F1969	470	470	60	.79
35F1934	0.56	.56	43	25	35F1970	560	560	60	.79
35F1935	0.68	.68	42	25	35F1971	680	680	60	.79
35F1936	0.82	.82	40	25	35F1972	820	820	57	.79
35F1937	1.0	1.0	47	25	35F1973	1000	1000	65	.79
35F1938	1.2	1.2	46	7.9	35F1974	1200	1200	45	.25
35F1939	1.5	1.5	45	7.9	35F1975	1500	1500	49	.25
35F1940	1.8	1.8	43	7.9	35F1976	1800	1800	47	.25
35F1941	2.2	2.2	45	7.9	35F1977	2200	2200	50	.25
35F1942	2.7	2.7	46	7.9	35F1978	2700	2700	47	.25
35F1943	3.3	3.3	44	7.9	35F1979	3300	3300	43	.25
35F1944	3.9	3.9	44	7.9	35F1980	3900	3900	43	.25
35F1945	4.7	4.7	44	7.9	35F1981	4700	4700	44	.25
35F1946	5.6	5.6	47	7.9	35F1982	5600	5600	45	.25
35F1947	6.8	6.8	50	7.9	35F1983	6800	6800	43	.25
35F1948	8.2	8.2	50	7.9	35F1984	8200	8200	42	.25
35F1949	10	10	49	7.9	35F1985	10000	10000	39	.25
35F1950	12	12	55	2.5	35F1986	12000	12000	31	.079
35F1951	15	15	44	2.5	35F1987	15000	15000	31	.079
35F1952	18	18	45	2.5	35F1988	18000	18000	31	.079
35F1953	22	22	46	2.5	35F1989	22000	22000	27	.079
35F1954	27	27	49	2.5	35F1990	27000	27000	27	.079
35F1955	33	33	45	2.5	35F1991	33000	33000	27	.079
35F1956	39	39	53	2.5	35F1992	39000	39000	27	.079
35F1957	47	47	52	2.5	35F1993	47000	47000	23	.079
35F1958	56	56	49	2.5	35F1994	56000	56000	23	.079
35F1959	68	68	51	2.5	35F1995	68000	68000	23	.079
35F1960	82	82	45	2.5	35F1996	82000	82000	21	.079
					35F1997	100000	100000	18	.079

MS90537 — MILITARY TYPES

PRICE LOCATOR

μH Range	1-24	25-49	50-99	100-249	250-499	500-999
.10-15	1.23	.99	.86	.78	.72	.68
18-8200	1.46	1.17	1.02	.92	.85	.80
10000-100000	2.24	1.80	1.56	1.42	1.31	1.23

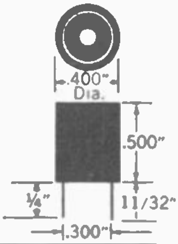
Stk. No.	Type 90537-	μH	Q Min	MC	Stk. No.	Type 90537-	μH	Q Min	MC
35F1998	1	0.10	50	25	35F2016	37	100	52	2.5
35F1999	3	0.15	51	25	35F2017	39	150	56	.79
35F2000	5	0.22	49	25	35F2018	41	220	58	.79
35F2001	7	0.33	46	25	35F2019	43	330	54	.79
35F2002	9	0.47	44	25	35F2020	45	470	60	.79
35F2003	11	0.68	42	25	35F2021	47	680	60	.79
35F2004	13	1.0	47	25	35F2022	49	1000	65	.79
35F2005	15	1.5	45	7.9	35F3023	51	1500	49	.25
35F2006	17	2.2	45	7.9	35F2024	53	2200	50	.25
35F2007	19	3.3	44	7.9	35F2025	55	3300	43	.25
35F2008	21	4.7	44	7.9	35F2026	57	4700	44	.25
35F2009	23	6.8	50	7.9	35F2027	59	6800	43	.25
35F2010	25	10	49	7.9	35F2028	61	10000	39	.25
35F2011	27	15	44	2.5	35F2029	63	15000	31	.079
35F2012	29	22	46	2.5	35F2030	65	22000	27	.079
35F2013	31	33	45	2.5	35F2031	67	33000	27	.079
35F2014	33	47	52	2.5	35F2032	69	47000	23	.079
35F2015	35	68	51	2.5	35F3033	71	68000	23	.079
					35F2034	73	100000	18	.079

Note—Unlistea military values listed in the SWD industrial types above are available on special order.

Fixed and Variable Inductors NYTRONICS

"VIV" MINIATURE VARIABLE INDUCTORS

This variable inductor offers reliability and stability over extreme temperature variations.. Vertical to facilitate mounting on printed circuit boards 0.40" dia. x 0.50" length. Range of 0.10 to 4700µH. Encapsulated in epoxy resin for reliability. Operating temperature: —55°C to +125°C. Turnable range: 0.33 to 4700µH, ±20%; 0.15 to 0.22µH, ±15%. 0.1, ±10%. The unit is designed to meet requirements of MIL-C-15305A.



PRICE LOCATOR

µH Range	1-24	25-49	50-99	100-249	250-499	500-999
.1-15	3.25	2.60	2.26	2.06	1.90	1.78
22-4700	3.48	2.78	2.42	2.20	2.04	1.90

Stk. No.	VIV-	µH	Q	@ mhz	Stk. No.	VIV-	µH	Q	@ mhz
35F2035	0.10	.10	85	25	35F2050	33.0	33.0	54	2.5
35F2036	0.15	.15	100	25	35F2051	47.0	47.0	51	2.5
35F2037	0.22	.22	100	25	35F2052	68.0	68.0	55	2.5
35F2038	0.33	.33	100	25	35F2053	100	100	50	2.5
35F2039	0.47	.47	100	25	35F2054	150	150	50	.79
35F2040	0.68	.68	100	25	35F2055	220	220	50	.79
35F2041	1.00	1.00	90	25	35F2056	330	330	48	.79
35F2042	1.50	1.50	70	7.9	35F2057	470	470	45	.79
35F2043	2.20	2.20	73	7.9	35F2058	680	680	42	.79
35F2044	3.30	3.30	80	7.9	35F2059	1000	1000	40	.79
35F2045	4.70	4.70	75	7.9	35F2060	1500	1500	40	.25
35F2046	6.80	6.80	80	7.9	35F2061	2200	2200	44	.25
35F2047	10.0	10.0	82	7.9	35F2062	3300	3300	46	.25
35F2048	15.0	15.0	65	2.5	35F2063	4700	4700	48	.25
35F2049	22.0	22.0	55	2.5					

Type B-305. Aligning tool for VIV variable inductors.
35F2213. NET .... .50

WEE V-L SUBMINIATURE VARIABLE SHIELDED INDUCTORS

Designed to accommodate close inductance adjustments in high density circuits that demand exceptional stability and high Q in the smallest size available. Magnetically shielded adjustable range: 0.1 to 100,000µH. Designed to MIL-C-15305C, Grade 1, Class B. Epoxy molded 0.300" dia. x 0.400" length. Oper. temp. —55°C to +125°C. Printed board mtg. is facilitated by 0.200 grid spacing.

PRICE LOCATOR

µH Range	1-24	25-49	50-99	100-249	250-499	500-999
0.10-1.0	5.70	4.56	3.96	3.60	3.33	3.10
1.2-10.000	4.75	3.80	3.30	3.00	2.77	2.58
12,000-100,000	6.78	5.43	4.71	4.29	3.96	3.69

Stk. No.	WEE V-L	µH	MC	Q nom	Stk. No.	WEE V-L	µH	MC	Q nom
35F2064	0.10	.10	25	70	35F2101	120	120	0.790	95
35F2065	0.12	.12	25	70	35F2102	150	150	0.790	90
35F2066	0.15	.15	25	70	35F2103	180	180	0.790	95
35F2067	0.18	.18	25	70	35F2104	220	220	0.790	95
35F2068	0.22	.22	25	70	35F2105	270	270	0.790	100
35F2069	0.27	.27	25	80	35F2106	330	330	0.790	100
35F2070	0.33	.33	25	80	35F2107	390	390	0.790	100
35F2071	0.39	.39	25	80	35F2108	470	470	0.790	100
35F2072	0.47	.47	25	80	35F2109	560	560	0.790	95
35F2073	0.56	.56	25	80	35F2110	680	680	0.790	100
35F2074	0.68	.68	25	80	35F2111	820	820	0.790	90
35F2075	0.82	.82	25	85	35F2112	1000	1000	0.790	90
35F2076	1.00	1.00	25	85	35F2113	1200	1200	0.250	95
35F2077	1.2	1.2	7.9	90	35F2114	1500	1500	0.250	90
35F2078	1.5	1.5	7.9	100	35F2115	1800	1800	0.250	100
35F2079	1.8	1.8	7.9	115	35F2116	2200	2200	0.250	100
35F2080	2 2	2.2	7.9	110	35F2117	2700	2700	0.250	95
35F2081	2.7	2.7	7.9	110	35F2118	3300	3300	0.250	90
35F2082	3.3	3.3	7.9	90	35F2119	3900	3900	0.250	85
35F2083	3.9	3.9	7.9	90	35F2120	4700	4700	0.250	85
35F2084	4.7	4.7	7.9	95	35F2121	5600	5600	0.250	85
35F2085	5.6	5.6	7.9	95	35F2122	6800	6800	0.250	75
35F2586	6.8	6.8	7.9	85	35F2123	8200	8200	0.250	80
35F2087	8.2	8.2	7.9	95	35F2124	10000	10000	0.250	70
35F2088	10	10	7.9	90	35F2125	12000	12000	0.079	70
35F2089	12	12	2.5	120	35F2126	15000	15000	0.079	70
35F2090	15	15	2.5	120	35F2127	18000	18000	0.079	70
35F2091	18	18	2.5	115	35F2128	22000	22000	0.079	70
35F2092	22	22	2.5	125	35F2129	27000	27000	0.079	70
35F2093	27	27	2.5	115	35F2130	33000	33000	0.079	70
35F2094	33	33	2.5	120	35F2131	39000	39000	0.079	70
35F2095	39	39	2.5	120	35F2132	47000	47000	0.079	70
35F2096	47	47	2.5	110	35F2133	56000	56000	0.079	70
35F2097	56	56	2.5	115	35F2134	68000	68000	0.079	60
35F2098	68	68	2.5	105	35F2135	82000	82000	0.079	60
35F2099	82	82	2 5	105	35F2136	100000	100000	0.079	60
35F2100	100	100	2.5	95					

Type B-469. Alignment tool for above WEE V-L.
35F2214. NET .... .50

ADJUSTOROID

A miniature variable toroid with stepless adjustment developed for printed circuit and similar lightweight applications Hermetically sealed, and there is no physical contact between the adjusting screw and the toroidal winding. Available to 12 henries. Fully shielded. Adjustable inductance range: not less than ±5% from nominal. Very high Q. Designed to meet MIL-C-15305A. Weight: ATE-11, 0.83 oz; ATE-0, 2.0 oz; ATE-4, 4.0 oz.

PRICE LOCATOR

Hy Range	1-24	25-49	50-99	100-249	250-499	500-999
0.010-0.068	14.00	12.75	9.50	7.35	5.40	4.50
0.082-0.180	15.67	14.25	10.88	8.19	5.90	5.14
0.220-1.50	18.45	16.77	12.80	9.66	7.02	6.14
1.80-3.30	19.88	18.08	13.78	10.43	7.63	6.59
3.90-6.80	20.62	18.75	14.31	10.85	7.97	6.89
8.20-12.0	23.50	21.38	16.31	12.35	9.05	7.89

Stk. No.	Type ATE-	Hy	Q	Freq. KHz	Stk. No.	Type ATE-	Hy	Q	Freq. KHz
35F2156	11-0.010	.010	75	15	35F2137	0-0.390	.390	90	6
35F2157	11-0.012	.012	75	15	35F2138	0-04.70	.470	90	6
35F2158	11-0.015	.015	75	15	35F2139	0-0 560	.560	90	6
35F2159	11-0.018	.018	75	15	35F2140	0-0.680	.680	85	6
35F2160	11-0.022	.022	75	15	35F2141	0-0.820	.820	85	6
35F2161	11-0.027	.027	75	15	35F2142	0-1.00	1.00	85	5
35F2162	11-0.033	.033	70	15	35F2143	0-1.20	1.20	80	5
35F2163	11-0.039	.039	70	15	35F2144	0-1.50	1.50	80	5
35F2164	11-0.047	.047	70	15	35F2145	4-1.80	1.80	100	4
35F2165	11-0.056	.056	70	15	35F2146	4-2.20	2.20	90	3
35F2166	11-0.068	.068	65	10	35F2147	4-2.70	2.70	90	3
35F2167	11-0.082	.082	65	10	35F2148	4-3.30	3.30	90	3
35F2168	11-0.100	.100	60	10	35F2149	4-3.90	3.90	80	2
35F2169	11-0.120	.120	60	10	35F2150	4-4.70	4.70	80	2
35F2170	11-0.150	.150	55	10	35F2151	4-5.60	5.60	80	2
35F2171	11-0.180	.180	55	10	35F2152	4-6.80	6.80	60	1.5
35F2172	0-0.220	.220	95	7	35F2153	4-8.20	8.20	60	1.5
35F2173	0-0.270	.270	95	7	35F2154	4-10.0	10.0	40	1
35F2174	0-0.330	.330	95	7	35F2155	4-12.0	12.0	40	1

WEE-DUCTOR

Subminiature shielded inductor with high inductance-to-size ratio. The WEE-DUCTOR is designed to meet the environmental requirements of MIL-C-15305C, Grade 1, Class B. Inductance tolerance: 0.1 to 22µH, ±10%; 27µH to 1000, ±5%; 1200µH to 56,000µH, ±10%; 68,000µH to 180,000µH, ±20%. Dielectric strength: 700 volts RMS. Operating temperature: —55°C to +125°C. This encapsulated non-flammable shielded unit in a 0.164" diameter by 0.450" long envelope offers the design engineer extremely high inductance for density packaging. Density characteristics: volume 0.0087 cubic inches; weight 0.75 gram maximum. Shielding: less than 3% coupling with 2 units measured at 1000 cycles.

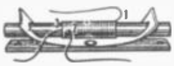
PRICE LOCATOR

µH Range	1-24	25-49	50-99	100-249	250-499	500-999
.10-0.82	.77	.62	.54	.49	.45	.42
1.0-15	.84	.68	.59	.53	.49	.46
18-1000	1.03	.82	.71	.65	.60	.56
1200-4700	1.16	.93	.80	.73	.68	.63
5600-56,000	1.38	1.10	.96	.87	.81	.75
68,000-180,000	2.11	1.69	1.47	1.34	1.23	1.15

Stk. No.	Type WEE-	µH	Q min	MC	Stk. No.	Type WEE-	µH	Q min	MC
35F2175	0.10	0.10	63	25	35F2194	150	150	63	.79
35F2176	0.15	0.15	59	25	35F2195	220	220	57	.79
35F2177	0.22	0.22	56	25	35F2196	330	330	50	.79
35F2178	0.33	0.33	48	25	35F2197	470	470	66	.79
35F2179	0.47	0.47	48	25	35F2198	680	680	71	.79
35F2180	0.68	0.68	45	25	35F2199	1000	1000	62	.79
35F2181	1.0	1.0	42	7.9	35F2200	1500	1500	51	.250
35F2182	1.5	1.5	41	7.9	35F2201	2200	2200	50	.250
35F2183	2.2	2.2	42	7.9	35F2202	3300	3300	52	.250
35F2184	3.3	3.3	40	7.9	35F2203	4700	4700	48	.250
35F2185	4.7	4.7	40	7.9	35F2204	6800	6800	45	.250
35F2186	6.8	6.8	40	7.9	35F2205	10000	10000	36	.079
35F2187	10	10	46	2.5	35F2206	15000	15000	38	.079
35F2188	15	15	47	2.5	35F2207	22000	22000	32	.079
35F2189	22	22	47	2.5	35F2208	33000	33000	32	.079
35F2190	33	33	43	2.5	35F2209	47000	47000	25	.079
35F2191	47	47	46	2.5	35F2210	68000	68000	20	.079
35F2192	68	68	40	2 5	35F2211	100000	100000	20	.079
35F2193	100	100	63	.79	35F2212	150000	150000	20	.060

J. W. Miller Antennas - If's - Coils - Chokes

FERRITE ROD LOOP ANTENNAS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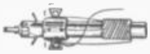
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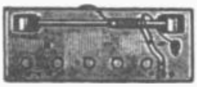

C


D


E

Ferrite Rod loop antennas designed to receive the standard broadcast band (540-1850Khz) when used with proper tuning capacitor. Figures C, D & E are supplied with a mounting board which can be easily removed if an alternate method of mounting is desired, others have mtg. bracket. They make excellent antenna for conventional vacuum tube and transistor receivers. Type 705-A has adjustable inductance to permit peaking antenna stage by sliding coil along ferrite rod. The 2000 series have a secondary which is over-coupled for maximum gain stability with a variation of output and are designed to match an input impedance of approximately 600 ohms. Type 6300 antenna coil replaces a loop antenna and is supplied with 18" of antenna wire. It is screw adjustable. Average Shpg wt.: 3 oz.

Stock No.	Type	Fig.	Size	Inductance	Max. Tun. Cap.	NET
40F194	705A	C	3¼x9½"	Adj.	400mmf	2.25
40F193	2000	D	¾x9"	240uh	365mmf	2.16
40F158	2001	A	¾x3¾"	240uh	365mmf	1.89
40F159	2002	B	½x2½"	40-300uh	450mmf	1.44
40F164	2003	A	¾x3¾"	700uh	130mmf	1.89
40F156	2004	E	¼x¾x3¾"	240uh	365mmf	2.10
40F157	2005	E	¼x¾x3¾"	700uh	130mmf	2.10
40F165	2007	B	½x2½"	150-1000uh	250mmf	1.86
40F128	6300	B	⅜x2¼"	Adj.	500mmf	1.23

MINIATURE TRANSISTOR I.F. TRANSFORMERS

Freq. 455 KHz

Miniature I.F. xformer having tuned primary and untuned secondary windings. Proper impedance match between primary and secondary insures optimum performance. Wt. 2 oz.

Stk. No.	Type	Imp.—Ohms	Use	NET
40F138	2031	10K600	Input	2.64
40F139	2032	10K1000	Output	
40F141	2042	25K1000	Output	
40F142	2051	100K-1000	Input	

SUB-MINIATURE

I.F. Freq. 455 Khz.

Dimensions: ⅜" sq. x ⅝" high. Wt. 2 oz.

Stk. No.	Type	Imp.-Ohms	Use	NET
40F136	9-C1	25K-600	Input	2.52
40F137	9-C2	25K-1000	Output	2.52
59F377	2021	B.C. osc. (Tuning cap. 78 (mm f.)		2.22

MICRO MINIATURE

Freq. 455 Khz

Dimensions: 9/32" sq. x 15/32" high. Wt. 2 oz.

Stk. No.	Type	Imp.-Ohms	Use	NET
59F378	2061	50k-800	Input	2.22
59F379	2062	30k-500	Instage	
59F380	2063	20k-5k	Output	

MINI MINIATURE

Freq. 455 Khz

Dimensions 13/32" sq. x ½" high. Wt. 2 oz.

Stk. No.	Type	Imp.-Ohms	NET
59F385	2065	B.C. osc. (Tuning cap. 78 to 110 mmfd. max.)	2.22

MINIATURE IF TRANSFORMERS

Shell core permeability tuned type. Assembled in molded plastic frames, with built-in silver mica condensers. Tunes from top and bottom of aluminum can. Supplied with snap ring mtg. clip and adapter plate for use over a standard tube socket hole. Dimensions, ¾" square x 2" high. *With diode filter condensers. Wt. 4 oz.

262 Khz TRANSFORMERS

40F115. 12-H1 Input. NET 1.83
40F117. 12-H6* Output. NET 1.89

455 Khz TRANSFORMERS

40F022. 12-C1 Output NET 1.74
40F023. 12-C2 Input NET 1.74

1500 Khz IF TRANSFORMERS

40F020. Type 12W-1. Input. NET 2.10

10.7 Mhz FM TRANSFORMERS

40F024. Type 1463. Inp. or int. NET ... 2.04

4.5-Mhz MINIATURE IF'S

Shell core permeability tuned transformers with built-in silver-mica capacitors. Tuning from top and bottom of aluminum shield. Dimensions: ¾" square by 2" high. Supplied with a snap spring mounting clip and adapter plate for use over standard tube socket hole. Wt., 8 oz.

40F078. Type 6203. Inp. or int. NET. ... 2.07

FM IF TRANSFORMERS

10.7 KHz. In aluminum shields. Overcoupled to provide standard RTMA bandwidth. 1⅛" sq. x 2½" high. Spade bolt mtg. Shpg. wt., 5 oz.

Type 1451. Inter
40F018. NET **2.10**
40F019. Type 1452. Discrim. NET 2.91
40F131. Type 1453. Ratio Det. NET ... 2.91

TV ANTENNA COUPLING TRANSFORMERS

For using 52 or 72 ohm coax cable on 300-ohm receiver inputs. Two transformers required.—one at antenna, other at receiver. Wt., 2 ozs.

92F111. Type 6162. 72 ohm. NET **2.04**
92F110. Type 6161. 52 ohm. NET 2.04

TRANSISTOR OSCILLATOR COIL

For use with transistor to supply local oscillator energy to mixer stage. Used with a variable capacitor having a maximum capacity of 365 mmf. Intermediate frequency 455 Khz. Mounting clip fits into 5/16" dia. hole. Size: ⅜x1" high. Frequency: 540-1650 Khz. Wt. 1 oz.

40F135. Type 2020. NET **1.74**

40F166. Type 2022. As above, but used with cut section variable. NET 1.74

40F167. Type 2023. (6-lug). For use when separate transistors are required for oscillator and mixer. Padder needed with 365-mmf variable. NET 1.74

UNSHIELDED RF COILS

High "Q" adjustable iron core coils for general replacement use. All 540-1600 Khz Type 70 Osc. has a primary and a tapped secondary. These may be adjusted to track with 100-500 Khz IF's. Shpg. wt., 4 oz.

40F125. Type 70-OSC. Osc. **1.20**
40F123. Type 70-A. Antenna 1.35

MIDGET OSCILLATOR COIL

Dowel type coils. For use with pentagrid converter tubes, antenna and RF coils or for general replacement. Cover the broadcast band from 540 to 1600 kc with a 365 mmf variable condenser. Unshielded. For use with 6SA7 and similar mixer tubes. §Requires .0004 mfd Padder. Size, 1" dia., 1" high. Wt., 5 oz.

Stk. No.	Type	Frequency	NET
40F013	5481-C*§	455 KHz	1.35

UNIVERSAL ADJUSTABLE OSCILLATOR COIL

Operates properly in all broadcast band receivers. Has 2 taps, allowing 6 different feed back combinations. Mtg. Clip fits 5/16" hole. Wt. 4 oz.

40F127. Type 71-OSC. NET **1.74**

VARIABLE CAPACITORS

Split outer plates permit accurate alignment. High frequency trimmers are on short side of capacitor. Mounting by tapped holes in frame. Counterclockwise rotation—capacity increase. Shaft diameter, ¼". Capacity Range: 10-365 mmf. except *Type, 1461BS, 6.6-23, used for FM or band spread.

No.	Type	Sec.	Oz.	Size—Inches	NET
41F000	1461*	3	5	3-3/16x1-13/16x1⅝	4.44
40F190	2111	1	3	1-3/16x1⅜x1-5/16"	2.31
40F191	2112	2	6	2-3/16x1-13/16x1⅝"	2.79
40F192	2113	3	9	3-3/16x1-13/16x1⅝	3.90
40F195	2110	2	2	1-5/16x1⅜x1-15/16	2.31

FM STEREO MULTIPLEX INDUCTORS

Stk. No.	Type	Description	NET
59F387	1351	Low pass Filter	2.04
59F388	1352	Band Pass Filter Series	1.89
59F389	1353	Band Pass Filter Shunt.	1.89
59F390	1354	Locked Oscillator 19KHz	2.67
59F391	1355	Output Zformer 38KHz	2.52

SUB-MIN 3-GANG VARIABLE CAPACITOR

Type 1460. Min cap. 5.7 uuf/sect. Trim. range: 2.0 uuf. Shaft: .250" dia. x 15/16" L. Size: 1-1/16 x 1-3/16 x 2".
L. Size: 1-1/16 x 1-3/16 x 2".

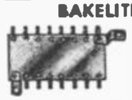
59F394. NET **4.32**

F.M. TRANSISTOR I.F. TRANSFORMERS

Makes possible the construction of a self-contained battery F.M. receiver. ¾" sq. x 2" high. 10.7 Mhz Freq.

Stk. No.	Type	Use	NET
40F143	1601	1st IF Trans.	2.40
40F144	1602	2nd IF Trans.	2.49
40F145	1603	3rd IF Trans.	2.49
40F146	1604	Discrim. Trans.	2.67
40F147	1605	Ratio Det. w/Diod.	5.04
40F148	1606	Ratio Det. w/o Dio.	2.67

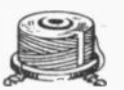
BAKELITE TERMINAL PLATES



Provides rigid mounting and means for assembling groups of resistors and capacitors. Lugs are on 1/16" thick bakelite sheet stock, terminal spacing 7/16". * Indicates number lugs per side. Shipping wt., approx. ½ oz.

No.	Type	Lugs*	Size	NET
40F183	420	6	1x3"	.48
40F184	430	5	1¾x2½"	.54
40F185	440	14	1x5¾"	.69
40F186	450	8	1¾x3¾"	.84
40F187	460	11	1¾x5¼"	1.08
40F188	470	19	1¾x8⅜"	1.20

MILLER IRON CORE CHOKES



Single section duo-lateral wound types. Core is ⅜" dia. x ½" long. Solder lugs. Single-hole mounting, impregnated. All 125 mA except *100 mA Size, 1⅛" dia x ⅝" high. Wt., 4 oz.

Stk. No.	Type	Mh	Ohms	NET
40F032	953	2.5	22.8	1.05
40F035	956	10.0	56.4	1.28
40F036	957*	25.0	99.5	1.38
40F037	958*	50.0	156	1.56
40F038	959*	75.0	204	1.74
40F039	960*	100.0	240	1.95
40F040	961*	150.0	312	2.07

J. W. Miller - Coils - Chokes

SUB-MINIATURE RF CHOKES

Ideally suited to network and filter design, delay lines and computer application. Rated at 50 mA Av. Shpg. Wt. 2 oz.

Stock No.	Type	Induct. •	Min. Q @ F	1-99	100-249	250-499	500-Up
59F212	70F106A1	1.0uH	41 @ 7.9 MHz	.60	.40	.30	.25
59F213	70F126A1	1.2uH	44 @ 7.9 MHz				
59F214	70F156A1	1.5uH	42 @ 7.9 MHz				
59F215	70F186A1	1.8uH	39 @ 7.9 MHz				
59F216	70F226A1	2.2uH	31 @ 7.9 MHz				
59F217	70F276A1	2.7uH	43 @ 7.9 MHz				
59F218	70F336A1	3.3uH	40 @ 7.9 MHz				
59F219	70F396A1	3.9uH	35 @ 7.9 MHz				
59F220	70F476A1	4.7uH	43 @ 7.9 MHz				
59F221	70F586A1	5.6uH	41 @ 7.9 MHz				
59F222	70F686A1	6.8uH	40 @ 7.9 MHz				
59F223	70F626A1	8.2uH	37 @ 7.9 MHz				
59F224	70F105A1	10 uH	36 @ 2.5 MHz	.69	.46	.35	.29
59F225	70F125A1	12 uH	52 @ 2.5 MHz				
59F226	70F155A1	15 uH	52 @ 2.5 MHz				
59F227	70F185A1	18 uH	52 @ 2.5 MHz				
59F228	70F225A1	22 uH	51 @ 2.5 MHz				
59F229	70F275A1	27 uH	49 @ 2.5 MHz				
59F230	70F335A1	33 uH	50 @ 2.5 MHz				
59F231	70F395A1	39 uH	48 @ 2.5 MHz				

*0.1 to 1.0 uH ±20%, 1.1 to 10uH ±10%, over 10 uH ±5%.

Stock No.	Type	Induct. •	Min. Q @ F	1-99	100-249	250-499	600-Up
59F232	70F475A1	47 uH	44 @ 2.5MHz	.69	.46	.35	.29
59F233	70F565A1	56 uH	45 @ 2.5MHz				
59F234	70F685A1	68 uH	41 @ 2.5 MHz				
59F235	70F825A1	82 uH	42 @ 2.5 MHz				
59F236	70F104A1	100 uH	25 @ 2.5 MHz				
59F237	70F154A1	150 uH	44 @ 790 KHz				
59F238	70F224A1	220 uH	45 @ 790 KHz				
59F239	70F334A1	330 uH	41 @ 790 KHz				
59F240	70F474A1	470 uH	35 @ 790 KHz	.75	.50	.38	.31
59F241	70F684A1	680 uH	37 @ 790 KHz				
59F242	70F824A1	820 uH	33 @ 790 KHz				
59F243	70F103A1	1.0 mh	30 @ 790 KHz				
59F244	70F153A1	1.5 mh	39 @ 250 KHz				
59F245	70F223A1	2.2 mh	40 @ 250 KHz	.81	.54	.41	.34
59F246	70F333A1	3.3 mh	52 @ 250 KHz	.84	.56	.42	.35
59F247	70F473A1	4.7 mh	49 @ 250 KHz	.84	.56	.42	.35
59F248	70F683A1	6.8 mh	51 @ 250 KHz	.84	.56	.42	.35
59F249	70F823A1	8.2 mh	48 @ 250 KHz	.99	.66	.50	.41
59F250	70F102A1	10.0 mh	41 @ 250 KHz				

RF CHOKES WITH AXIAL LEADS

Small size low capacity chokes with solenoid or 3-pi universal windings. Wound on low-loss molded phenolic or powdered iron core forms. Impregnated with a moisture and fungus-resistant varnish. The type of powdered iron allows operation up to UHF region. Tol. ±5%. Dimensions: Phenolic form—3/16" dia., 3/4" L. Iron core form: 7/32" dia., 7/8" long. Average Shipping weight 2oz.

Phenolic Form—Single Layer Solenoid

Stock No.	Type	Induct. uH	Ohms Max.	mA	1-99	100-249	250-499	500-Up
59F264	4580	0.1	.017	3000	.54	.36	.27	.23
59F265	4582	0.15	.018	2900				
59F266	4584	0.22	.020	2800				
59F267	4586	0.33	.024	2600				
59F268	4588	0.47	.034	2500				
59F269	4590	0.68	.036	2400				
59F270	4592	0.75	.040	2200				
59F271	4594	0.82	.043	2100				
59F272	4602	1.0	.050	2000				
59F273	4604	1.5	.093	1800				
59F274	4606	2.4	.190	1500				
59F275	4608	3.9	.450	1000				
59F276	4609	5.5	.670	850				
59F277	4610	6.2	.830	700	.57	.38	.29	.24
59F278	4611	8.2	1.20	600				
59F279	4612	10.0	1.50	500				

Iron Core Form—3 Section Pi Windings

Stock No.	Type	Induct. mH	Ohms Max	mA	1-99	100-249	250-499	500-Up
59F302	4662	1.0	8.6	160	.75	.50	.38	.34
59F303	4664	1.5	11	160	.78	.52	.39	.35
59F304	4666	2.4	15	160	.84	.56	.42	.38
59F305	4668	3.9	20	160	.93	.62	.47	.42
59F306	4669	5.5	25	160	1.05	.70	.53	.47
59F307	4670	6.2	37	100	1.05	.70	.53	.47
59F308	4671	8.2	46	100	1.10	.74	.56	.50
59F309	4672	10.0	50	100	1.29	.86	.65	.58

Iron Core Form—Single Layer Solenoid

Stock No.	Type	Induct.	Ohms Max.	mA	1-99	100-249	250-499	500-Up
59F282	4622	10uH	.11	1500	.60	.40	.30	.27
59F283	4624	15uH	.17	1000	.63	.42	.32	.26
59F284	4626	24uH	.34	800	.66	.44	.33	.28
59F285	4628	39uH	.65	600	.66	.44	.33	.28
59F286	4629	55uH	1.0	500	.69	.46	.35	.29
59F287	4630	62uH	1.2	475				
59F288	4631	82uH	1.9	450				
59F289	4632	100uH	3.0	400				

Phenolic Form—3 Section Pi Winding

Stock No.	Type	Induct.	Ohms Max.	mA	1-99	100-249	250-499	500-Up
59F292	4642	.10mH	5.4	160	.69	.46	.35	.29
59F293	4644	0.15mH	6.5	160				
59F294	4646	0.24mH	8.5	160				
59F295	4648	0.39mH	11.0	160	.75	.50	.38	.31
59F296	4649	0.55mH	13.0	160				
59F297	4650	0.62mH	15.0	160				
59F298	4651	0.75mH	16.0	160				
59F299	4652	1.0 mH	19.0	160				

Ferrite Core RF Chokes

High permeability ferrite cores. Combine high inductance with low DC resistance and small physical size. 3-pi universal windings insure low distributed capacity. Dimensions of core: 1/4" dia., 7/8" long. 1/2" long axial leads.

Stock No.	Type	Induct.	Ohms Max.	mA	1-99	100-249	250-499	500-Up
59F312	6302	2.5mH	9.0	160	.99	.66	.50	.41
59F313	6304	5.0mH	14	160	1.14	.76	.57	.48
59F314	6306	10.0mH	31	100	1.26	.84	.63	.53
59F315	6308	25.0mH	82	65	1.26	.84	.63	.53
59F316	6310	50.0mH	127	65	1.50	1.00	.75	.63

ADJUSTABLE CERAMIC FORMS AND RF COILS

Permeability tuned coils wound on silicone impregnated ceramic forfs. Forms alone supplied with freq. range of 1-30 Mhz for other ranges add suffix to type number (Y) 50-1000 Khz (W) 30-300 Mhz.

Standard RF Coils and Forms (3/8" Dia., 1-1/16" Long)

Stk. No.	Type	Ind. uH	1-99	100-249	250-499	500-Up
59F337	4400-2	Form only	1.38	.92	.69	.58
59F338	4403	.990-25.	1.83	1.22	.92	.76
59F339	4404	1.60 - 7.9	1.86	1.24	.93	.78
59F340	4405	3.30 - 7.9	1.89	1.26	.95	.79
59F341	4406	3.30 - 7.9	1.95	1.30	.98	.81
59F342	4407	16.0 - 2.5	2.01	1.34	1.01	.84
59F343	4408	33 0 - 2.5	2.10	1.40	1.05	.88
59F344	4409	74 0 - 2 5	2.16	1.44	1.08	.90
59F345	4410	138 - 2.5	2.19	1.46	1.10	.91
59F346	4411	270 - .79	2.22	1.48	1.11	.93
59F347	4412	495 - .39	2.25	1.50	1.13	.94
59F348	4413	825 - .79	2.28	1.52	1.14	.95
59F349	4414	1.40 - .25	2.28	1.52	1.14	.95

Miniature Adjustable RF Coils (1/4" Dia., 7/8" Long)

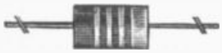
Stk. No.	Type	Ind. uH	1-99	100-249	250-499	500-Up
59F352	4500-2	Form only	1.23	.82	.62	.51
59F354	4502	1.10- 1.50	1.68	1.12	.84	.70
59F355	4503	1.70- 2.10	1.68	1.12	.84	.70
59F356	4504	3.10- 4.80	1.68	1.12	.84	.70
59F357	4505	5.50- 8.60	1.74	1.16	.87	.73
59F358	4506	9.90- 15.0	1.80	1.20	.90	.75
59F359	4507	17.0 - 23.0	1.86	1.24	.93	.78
59F360	4508	26.0 - 33.0	1.89	1.26	.95	.79
59F361	4509	38.0 - 57.0	1.92	1.28	.96	.80
59F362	4511	66.0 -114.0	1.95	1.30	.98	.81
59F363	4512	120. -190	1.98	1.32	.99	.83
59F364	4513	209 -314	2.01	1.34	1.01	.84
59F365	4514	350 -435	2.04	1.36	1.02	.85

Subminiature Adjustable RF Coils (3/16" Dia., 5/8" Long)

Stk. No.	Type	Ind. uH	1-99	100-249	250-499	500-Up
59F319	4300-2	Form only	1.14	.76	.57	.48
59F320	4301	.190- .250	1.14	.76	.57	.48
59F321	4302	.300- .390	1.14	.76	.57	.48
59F322	4303	.440- .620	1.14	.76	.57	.48
59F323	4304	.770- .900	1.14	.76	.57	.48
59F324	4305	1.00 -1.40	1.32	.88	.66	.55
59F325	4306	1.60 -2.40	1.14	.76	.57	.48
59F326	4307	2.70 -4.20	1.14	.76	.57	.48
59F327	4308	4.70- 6.80	1.80	1.20	.90	.75
59F328	4309	7.80- 12.0	1.83	1.22	.92	.76
59F329	4310	14.0 - 19.0	1.86	1.24	.93	.78
59F330	4311	22.0 - 31.0	1.89	1.26	.95	.79
59F331	4312	36.0 - 49.0	1.92	1.28	.96	.80
59F332	4313	56.0 - 97.0	1.56	1.04	.78	.65
59F333	4314	111 -171	1.95	1.30	.98	.81
59F334	4315	196 -285	1.95	1.30	.98	.81

J. W. Miller Chokes & Coils

MIL-SPEC MOLDED R.F. CHOKES



Small, hermetically sealed, R.F. chokes wound on †iron or ‡phenolic cores. Conform to MIL-C-15305 Class 7. Designed for use in transmitters, receivers, VFO's and all other electronic devices which require high quality, dependable performance and small sized chokes. Average shipping weight: 2 oz.

Series 9310

Conform to MS-16225 & MS-18130. Size: .155" dia. x .375" long. Leads: #22 TCW; 1.437" long. Power rating: 1/4 watt at 90°C.

Stk. No.	Type	uh	% Tol.	mA	1-99	100-249	Bulk Packed 250-499	Bulk Packed 500-Up
59F100	9310-10‡	.82	10	900	.60	.45	.40	.33
59F101	9310-12‡	1.00	10	830	.60	.45	.40	.33
59F102	9310-42†	18.0	10	280	.66	.49	.44	.36
59F103	9310-44†	22.0	10	265	.66	.49	.44	.36
59F104	9310-46†	24.0	10	265	.75	.56	.50	.41

Series 9320

Conform to MS-16224 & MS-75008. Size: .185" dia. x .437" long. Leads #22 TCW; 1.437" long. Power rating: 1/3 watt max. at 90°C.

Stk. No.	Type	uh	% Tol.	mA	1-99	100-249	250-499	500-Up
59F106	9320-12‡	1.5	10	700	.60	.45	.40	.33
59F107	9320-16‡	2.7	10	460	.60	.45	.40	.33
59F108	9320-18†	3.3	10	1350	.66	.49	.44	.36
59F109	9320-20†	3.9	10	1250	.66	.49	.44	.36
59F110	9320-22†	4.7	10	1100	.66	.49	.44	.36

Series 9330

Series conforms to MS-16222. Size: .215" dia. x .560" long. Leads: #22 TCW; 1.437 long. Power rating: 1/2 watt max. at 90°C.

Stk. No.	Type	uh	% Tol.	mA	1-99	100-249	Bulk Packed 250-499	Bulk Packed 500-Up
59F112	9330-18†	5.6	10	1340	.75	.56	.50	.37
59F113	9330-20†	6.8	10	1080				
59F114	9330-22†	8.2	10	1030				
59F115	9330-24†	10.0	10	950				
59F116	9330-30†	18.0	10	580				

Series 9340

Conform to MS-16221 & MS-91189. Size: .280" dia. x .900" long. Leads: #22 TCW 1.437" long. Power rating: 1 watt max. at 90°C.

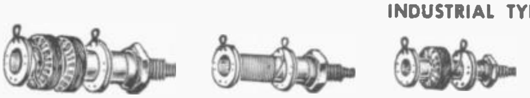
Stk. No.	Type	uh	% Tol.	mA	1-99	100-249	250-499	500-Up
59F118	9340-04‡	2.2	10	1600	.78	.59	.52	.38
59F119	9340-06‡	2.7	10	1350				
59F120	9340-08‡	3.3	10	1150				
59F121	9340-10‡	3.9	10	955				
59F122	9340-12‡	4.7	10	860				

Series 9350

Conform to MS-16223 & MS-75052. Size: .250" dia. x .560" long. Leads #22 TCW; 1.437 long. Power rating: 3/4 watt at 90°C.

Stk. No.	Type	uh	% Tol.	mA	1-99	100-249	250-499	500-Up
59F124	9350-00‡	47	10	195	1.02	.76	.68	.55
59F125	9350-02‡	56	10	185	1.02	.76	.68	.55
59F126	9350-04†	68	10	255	1.08	.81	.72	.55
59F127	9350-06†	82	10	245	1.08	.81	.72	.55
59F128	9350-08†	100	10	235	1.08	.81	.72	.55

INDUSTRIAL TYPE ADJUSTABLE R.F. COILS



Wound on ceramic forms. Feature terminal rings machined from the ceramic form material. They have high Q and good stability. The adjusting core is held rigidly at any setting through the use of a tension device on the bushing.

Sub-Miniature Coils

7/32" dia. x 19/32" L.

Stock No.	Type	uh max.	uh min.	1-99	100-249	Bulk Packed 250-499	Bulk Packed 500-Up
59F131	40A107CBI	.125	.091	2.10	1.40	1.05	.88
59F132	40A157CBI	.188	.124				
59F133	40A227CBI	.275	.184				
59F134	40A337CBI	.413	.265				
59F135	40A477CBI	.587	.327				
59F136	40A687CBI	.850	.482				
59F137	40A827CBI	1.02	.630	2.22	1.48	1.11	.93
59F138	40A106CBI	1.25	.730	2.22	1.48	1.11	.93
59F139	40A156CBI	1.88	1.06	2.22	1.48	1.11	.93
59F140	40A226CBI	2.75	1.50	2.25	1.50	1.13	.94
59F141	40A336CBI	4.13	2.15	2.25	1.50	1.13	.94
59F142	40A476CBI	5.87	3.00	2.34	1.56	1.17	.96
59F143	40A686CBI	8.50	4.40	2.34	1.56	1.17	.96
59F144	40A826CBI	10.2	5.25	2.34	1.55	1.17	.98
59F145	40A105CBI	12.5	8.06	2.40	1.64	1.23	1.03
59F146	40A155CBI	18.8	11.9	2.40	1.64	1.23	1.03
59F147	40A225CBI	27.5	17.1	2.46	1.64	1.23	1.03
59F148	40A335CBI	41.3	26.6	2.46	1.64	1.23	1.03
59F149	40A475CBI	58.7	39.0	2.55	1.70	1.28	1.06
59F150	40A685CBI	85.0	58.0	2.55	1.70	1.28	1.06
59F151	40A825CBI	102	69.0	2.76	1.84	1.38	1.15
59F152	40A104CBI	125	84.0	2.76	1.84	1.38	1.15
59F130	40A000CBI	Coil Form w/hdw. and Core		1.50	1.00	.75	.63

Miniature Coils

1/4" dia. x 13/16" L.

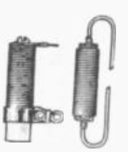
Stock No.	Type	uh max.	uh min.	1-99	100-249	Bulk Packed 250-499	Bulk Packed 500-Up
59F156	41A106CBI	1.25	.69	2.22	1.48	1.11	.93
59F157	41A156CBI	1.87	1.20				
59F158	41A226CBI	2.75	1.42				
59F159	41A336CBI	4.10	2.00	2.25	1.50	1.13	.94
59F160	41A476CBI	5.80	2.80				
59F161	41A686CBI	8.50	4.00				
59F162	41A826CBI	10.0	4.50	2.28	1.52	1.14	.95
59F163	41A105CBI	12.5	6.50				
59F164	41A155CBI	18.7	10.8				
59F165	41A225CBI	27.5	15.2	2.28	1.52	1.14	.95
59F166	41A335CBI	41.0	26.0	2.34	1.56	1.16	.96
59F167	41A475CBI	58.0	32.5	2.34	1.55	1.16	.96
59F168	41A685CBI	85.0	48.5	2.40	1.60	1.20	1.00
59F169	41A825CBI	100	61 0	2.40	1.64	1.23	1.03
59F170	41A104CBI	125	65.0	2.46	1.64	1.23	1.03
59F171	41A154CBI	187	110	2.46	1.64	1.23	1.03
59F172	41A224CBI	275	160	2.55	1.70	1.28	1.03
59F173	41A334CBI	410	253	2.55	1.70	1.28	1.03
59F174	41A474CBI	580	390	2.67	1.78	1.34	1.12
59F175	41A684CBI	850	560	2.76	1.84	1.38	1.15
59F176	41A824CBI	1.00 mh	670	2.82	1.88	1.41	1.18
59F177	41A103CBI	1 25 mh	700	2.88	1.92	1.44	1.20
59F155	41A000CBI	Coil Form w/ hdw. and core		1.59	1.06	.80	.66

Standard Coils

3/8" dia. x 1" L.

59F181	42A106CBI	1.25	.68	2.22	1.48	1.11	.93
59F182	42A156CBI	1.87	1.00				
59F183	42A226CBI	2.75	1.35				
59F184	42A336CBI	4.10	2.12	2.25	1.50	1.13	.94
59F185	42A476CBI	5.80	2.40	2.25	1.50	1.13	.94
59F186	42A686CBI	8.50	3.60	2.28	1.52	1.14	.95
59F187	42A826CBI	10.0	4.45	2.28	1.52	1.14	.95
59F188	42A105CBI	12.5	6.05	2.40	1.60	1.20	1.00
59F189	42A155CBI	18.7	9.40	2.40	1.60	1.20	1.00
59F190	42A225CBI	27.5	12.9	2.43	1.63	1.22	1.01
59F191	42A335CBI	41.0	18.8	2.43	1.63	1.23	1.03
59F192	42A475CBI	58.0	27.5	2.58	1.73	1.29	1.04
59F193	42A685CBI	85.0	37.5	2.61	1.75	1.31	1.05
59F194	42A825CBI	100	45.0	2.67	1.78	1.34	1.12
59F195	42A104CBI	125	54.0	2.76	1.84	1.38	1.15
59F196	42A154CBI	187	92.0	2.76	1.84	1.38	1.15
59F197	42A224CBI	275	123	2.76	1.84	1.38	1.15
59F198	42A334CBI	410	200	2.79	1.86	1.40	1.16
59F180	42A000CBI	Coil Form w/hdw. and Core		1.65	1.10	.83	.69

FREQUENCY SELECTIVE R.F. CHOKES



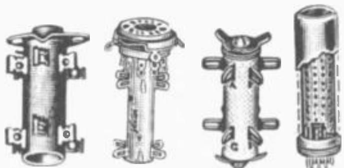
Designed for maximum efficiency and highest impedance at specific operating frequencies. Eliminates the designer's task of attempting to choose the best coil for a particular application from miscellaneous and often insufficient design data. Designed to cover the major amateur, industrial and citizens bands and will also operate efficiently at frequencies approximating the recommended frequencies.

Stk. No.	Type	uh	Freq. Mhz.	1-99	100-249	Bulk Packed 250-499	Bulk Packed 500-Up
59F253	RFC-3.5	266	1.8-5	1.32	.88	.66	.55
59F254	RFC-7	208	3-13	1.32	.88	.66	.55
59F255	RFC-14	84	7-20	1.17	.78	.59	.39
59F256	RFC-21	38.5	15-30	.93	.62	.47	.44
59F257	RFC-28	24	25-40	1.05	.70	.53	.49
59F258	RFC-50	8.2	30-90	.90	.60	.45	.38
59F259	RFC-144	1.72	75-180	.63	.42	.32	.26
59F260	RFC-220	.82	160-340	.63	.42	.32	.26
59F261	RFC-420	.22	350-500	.75	.50	.38	.31

 Newark-Denver Electronic Supply Corp., 2170 So. Grape St., Denver, Colo. 80222

TRANSISTOR TURRETS

Sockets will fit either 3-in-line or "top-hat" transistor pins. Saddle has 2 ground lugs and tapped 4/40 mounting holes spaced ¾". Socket requires 13/32" dia. hole. Those without saddle** have 4/40 nut. Turret post is grade XXXP phenolic. Casting is mica filled phenolic. Terminals are brass with fused tin finsh. Wt., 2 oz.



6-A-12T 10-0-12T 6-12 G2.1-8-4

Stk. No.	Type	Size	1-49	50-199	200-499	500-999
38F437	6-A-12T	⅞x7/32x1½"	1.17	1.14	.89	.78
38F438	8-A-12T	1⅜x7/32x2"	1.18	1.07	.84	.79
38F439	7-A-12T-440**	⅞x13/32x1¾"	1.14	1.03	.80	.77

TUBE SOCKET-TURRETS

Phenolic cylinders bonded to sockets. Mica-filled. Components mount on form Coils can be wound on turret and iron cores inserted. Turrets are ½" dia. Octals mount in 1¼ hole; novals, ¾" hole, min., ⅝" hole. Wt., 3 oz. For octal sockets. Have 9 or 12 terminals in 2 rings 1⅜" apart.

2½" Turrets. 9 or 12 terminals in 2 rings 1⅜" apart.

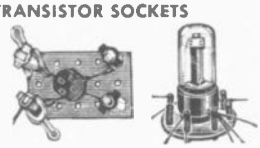
Stk. No.	Type	Socket	1.49	50-199	200-499	500-999
38F600	10-O-9T	Octal	.69	.62	.48	.46
38F429	10-O-12T	Octal	.73	.66	.51	.49
38F435	10-MB-12T	7-pin	.89	.80	.62	.60
38F436	10-NB-12T	9-pin	.89	.80	.62	.60
2" Turrets. 9 or 12 terminals in 2 rings 1" apart.						
38F601	8-O-9T	Octal	.65	.59	.46	.44
38F602	8-M-9T	7-pin miniature	.76	.68	.53	.51
38F603	8-N-9T	9-pin-noval	.76	.68	.53	.51
38F430	8-M-12T	7-pin	.79	.71	.55	.53
38F431	8-N-12T	9-pin	.79	.71	.55	.53

1½" Turrets. Have 6 terminals in 1 ring.

Stk. No.	Type	Socket	1-49	50-199	200-499	500-999
38F604	6-O-6T	Octal	.59	.53	.41	.40
38F605	6-M-6T	7-pin miniature	.69	.62	.48	.46
38F606	6-N-6T	9-pin noval	.69	.62	.48	.46
Terminal Turrets. Bolt to chassis.						
38F432	6-12	tubular terminal	.55	.50	.39	.37
38F433	8-12	tubular terminal	.58	.53	.41	.37
38F434	10-12	tubular terminal	.62	.55	.43	.42

SOLDERLESS TUBE AND TRANSISTOR SOCKETS

Provide quick solderless connection of up to 6 leads to any one tube or transistor lead through SPRING-CLIP Terminals surrounding socket contacts. Tube unit mounts with screws; transistor unit has 4 leads on .2 circle and press-fits into .093 holes center-spaced .265.



570B 567-1C

Stk. No.	Type	Description	1-49	50-199	200-499	500-999
38F1000	567-1C	Octal Socket	1.50	1.35	1.05	1.01
38F1001	568-1C	9 Pin Miniature	1.65	1.49	1.16	1.11
38F1002	569-1C	7 Pin Miniature	1.35	1.22	.95	.90
38F1046	570B	4 Lead Transistor	1.20	1.08	.84	.80

TRANSISTOR PLUG-IN UNITS

Round-case plug-ins. Available in 3 diameters: 1.25" for octal-type plugs; ¾" for noval plugs and ⅝" for 7 pin miniature plug. —4 in Type No. indicates vertical terminal board inside case mounted to plug. Shpg. wt., 1 oz.

Stk. No.	Type	Dia. x L.	1-49	50-199	200-499	500-999
38F453	G2-10	1.25x2½"	1.16	1.05	.81	.77
38F454	G2.1-8	¾x2"	1.45	1.31	1.01	.97
38F456	G2.2-8	⅝x2"	1.40	1.25	.98	.94
38F476	G2-10-4	1.25x2½"	2.24	2.02	1.57	1.51
38F477	G2.1-8-4	¾x2"	2.09	1.88	1.46	1.40
38F478	G2.2-8-4	⅝x2"	2.07	1.86	1.45	1.39

CURRENT TEST ADAPTERS

Permit making current measurements in operating tube circuits without cutting leads from tube side of chassis. Special dual sided test probe. Also allows voltage and waveform checks when probe leads joined and connected to meter. Fits inside shield bases and tube clamps. Weight: 2 oz.· Kit-10 ozs.

Stk. No.	Type	1-19	20-99	100-199	200-999
38F1041	T-7-M-C 7-Pin Min.	2.53	2.28	2.12	1.63
38F1042	T-9-N-C 9-Pin Min.	2.70	2.43	2.27	1.80
38F1043	T-8-O-C Octal	3.19	2.87	2.68	2.13
38F1044	P-2 Probe—Required with above	.79	.79	.79	.79
38F1084	T9RC Novar	3.65	3.29	3.07	2.45
38F1085	T12C Compactron	3.85	3.47	3.23	2.58
38F1045	T789C Kit of 3 adapters with probe in case	9.74	8.75	8.17	6.52

TUBE SOCKET TEST ADAPTER KIT

T-7-M T-8-O T-9-N PI TX-8-0

Tube Socket Test Adapters are inserted between the socket and the tube and provide test tab elements for making voltage, resistance, and wave form measurements from tube side of chassis. Connections are wired straight through from plug to socket. Beryllium copper socket contacts for long-life—molded tan phenolic bodies. Shpg. wt., 3 oz. *Shpg. wt., ½ lb.

Stock No.	Type	Socket	1-19	20-99	100-199	200-999
38F617	T-7-M	7 Pin Miniature	1.65	1.49	1.39	1.11
38F616	T-8-O	8 Pin Octal	1.75	1.58	1.47	1.17
38F615	T-9-N	9 Pin Octal	1.85	1.67	1.55	1.24
38F466	PI-Probe	Probe for above	.52	.47	.44	.35
38F618	T-789	Set of above in case*	5.90	5.31	4.96	3.95

ADAPTERS AND EXTENDERS

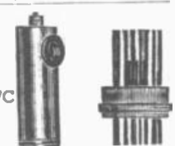
Basic plug and socket structure used in standard test adapters. Circuits can readily be opened for current measurements, or cross-connected in many ways for experimental purposes. Models 1262, 1263, and 1264 are socket extenders. These shift wear from the socket itself to the extender. Sockets have highest grade beryllium copper contacts. Av. shipping wt., 2 oz.

ADAPTERS

Stk. No.	Type	Socket	1-19	20-99	100-199	200-999
38F400	TX-8-0	8 pin octal	2.47	2.22	2.07	1.65
38F401	TX-9N	9 pin noval	.94	.85	.78	.63
38F402	TX-7M	7 pin min	.88	.79	.74	.59
EXTENDERS						
38F404	1262	8 pin octal	1.75	1.58	1.47	1.17
38F405	1263	9 pin noval	1.75	1.58	1.47	1.17
38F406	1264	7 pin min.	1.75	1.58	1.47	1.17

TUBE BASE AND CABLE CONNECTOR PLUGS

Tube base plugs are designed to fit 7-pin min. and 9-pin noval sockets. Castings are mica-filled phenolic. Pins are of phosphor bronze and cadmium plated. Aluminum shell. Weight, 1 oz.



P7C P9

TUBE BASE

Stk. No.	Type	For Socket	1-49	50-199	200-499	500-999
38F407	P7	7-pin min.	.47	.42	.33	.31
38F408	P7A	7-pin min.	.47	.42	.33	.31
38F411	P9	9-pin noval	.52	.47	.36	.35
38F412	P9A	9-pin noval	.52	.47	.36	.35

CABLE CONNECTOR PLUGS

Cable connector plugs are for connections with miniature and noval tube sockets. Wt., 1 oz.

Stk. No.	Type	Outlet	Pins	1-19	20-99	100-199	200-999
38F409	P7C	Side	7	1.24	1.12	1.05	.84
38F410	P7D	End	7	1.74	1.56	1.46	1.17
38F413	P9C	Side	9	1.39	1.24	1.17	.92
38F414	P9D	End	9	1.84	1.65	1.54	1.23

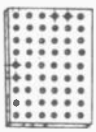
MODULAR PLUG-IN CASES

Consist of tube socket, tubular terminal post, octal plug and shield can Can be made into a variety of plug-in circuits with short leads for instant replacement. Tube shield base with bayonet lock included. *7-pin miniature. †9-pin noval. §Has two 9-pin noval sockets. C10MM, C10NN, and C12NN are 2-tube types. Wt., 6 oz.

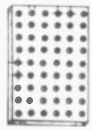
Stk. No.	Type	Size	1-49	50-199	200-499	500-999
38F440	B-8	1⅜x2x1⅜"	1.56	1.40	1.09	1.05
38F441	B-10	1⅜x2½x1⅜"	1.57	1.41	1.10	1.05
38F609	*B-10 M	1⅜x2½x1⅜"	2.28	2.05	1.60	1.53
38F610	†B-10-N	1⅜x2½x1⅜"	2.46	2.22	1.73	1.65
38F443	B-10-T	1⅜x2½x1⅜"	1.90	1.72	1.33	1.28
38F445	C-10	2x2½x2½"	1.50	1.35	1.05	1.01
38F613	*C-10 M	2x2½x2"	2.43	2.19	1.71	1.63
38F611	†C-10-N	2x2½x2"	2.46	2.22	1.73	1.65
38F612	§C-10-NN	2x2½x2"	3.39	3.05	2.38	2.27
38F446	C-10-T	2x2½x2"	2.04	1.84	1.43	1.36
38F447	C-12	2x3x2"	1.44	1.30	1.01	.97
38F449	*C-12-M	2x3x2"	2.46	2.22	1.73	1.65
38F450	†C-12-N	2x3x2"	2.50	2.25	1.75	1.67
38F452	§C-12-NN	2x3x2"	3.42	3.08	2.40	2.29
38F448	C-12-T	2x3x2"	2.11	1.90	1.47	1.42

Vector Structures For Circuitry

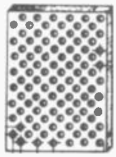
VECTORBORD AND MICRO VECTORBORD



A & AA



F



G

Pre-punched terminal boards provide overall grids of holes especially usefull in bread boarding as well as production. Holes on alternate intersections of a standard 0.1" grid make it possible to mount most "top-hat" transistors base down by passing the leads directly through the holes. *2 oz. copper 1 side **2 oz. copper, 2 sides.

BOARD PATTERNS

Patterns	A	B	C	F	G	H	P	M
Size	.093	.062	.093	.062	.062	.062	.042	.025
Spacing	.265	.187	.2	.2	.1x2	.1	.1	.05

Boards meet following mil. specs. Phenolic, MIL-P-3115, Max Temp. 250°; Epoxy paper MIL-P-22324 Max Temp. 250°; Epoxy Glass, Grade g-10, MIL-P-18177; Copper Clad Phenolic Boards, Mil-P13949.

Epoxy Paper

Stock No.	Type	Pattern	Size	1-19	20-99	100-199	200-999
38F423	64AA18EP	AA	3/32x4 13/16x17"	2.73	2.46	2.29	1.83
38F425	32AA18EP	AA	3/32x4 13/16x8 1/2"	1.40	1.26	1.18	.94
38F426	85F24EP	F	1/16x4 13/16x17"	2.06	1.85	1.73	1.38
38F1047	85F42EP	F	1/16x8.5x17"	3.17	2.85	2.66	2.12
38F427	85G24EP	G	1/16x4 13/16x17"	2.06	1.85	1.73	1.38
38F459	85G42EP	G	1/16x17x8 1/2"	3.17	2.85	2.66	2.12

XXXP Phenolic

Stock No.	Type	Pattern	Size	1-19	20-99	100-199	200-999
38F422	64AA18	AA	3/32x4 13/16x17"	1.60	1.44	1.34	1.07
38F424	32AA18	AA	3/32x4 13/16x8 1/2"	.84	.76	.71	.56
38F420	32AA9	AA	3/32x7 7/16x8 1/2"	.60	.54	.50	.40
38F421	64A18	A	1/16x4 13/16x17"	1.25	1.13	1.05	.84
38F460	64AA32	AA	3/32x17x8 1/2"	2.75	2.48	2.31	1.84
38F1048	45B30	B	1/16x5.69x8.51"	.84	.76	.71	.56
38F1049	90B30	B	1/16x5.69x16.97"	1.62	1.46	1.36	1.09
38F393	42F22C1*	F	8 1/2x4 1/2x1/16"	1.00	.90	.84	.67
38F392	42F22C2**	F	8 1/2x4 1/2x1/16"	1.32	1.19	1.11	.88

Epoxy Glass

Stock No.	Type	Pattern	Size	1-19	20-99	100-199	200-999
38F463	64A18WE	A	1/16x4 13/16x17"	3.72	3.35	3.12	2.49
38F391	42G22WEC1*	G	8 1/2x4 1/2x1/16"	2 50	2.25	2.10	1.68
38F390	42G22WEC2**	G	8 1/2x4 1/2x1/16"	2.60	2.34	2.18	1.74
38F1050	42G24WE	G	1/16x4.8x8.5"	1.89	1.70	1.59	1.27
38F464	85G24WE	G	1/16x4 13/16x17"	3.81	3.43	3.20	2.55
38F1051	85G42WE	G	1/16x8.5x17"	5.42	4.88	4.55	3.63
38F1052	166M76/032	M	1/32x8.5x4"	7.25	6.53	6.09	4.86
38F1053	169P59/032	P	1/32x17x6"	4.82	4.34	4.05	3.23
38F1019	170H48WE/032	H	17x4 4/5x1/32"	3.57	3.21	3.00	2.39
38F1070	170H48WE	G	17x4 13/16x1/16"	4.07	3.66	3.42	2.73

MICROVECTORBORD TERMINALS

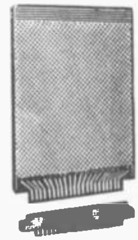
"Inbord" Terminal Pins press fit in Microvectorbord. Pins phos-phor bronze nickel plated and gold flashed. Knurled body flange in middle of pin cuts into insulating board and lightly holds pin. Pins protrude from both sides of board and serve as terminal post, test point, or male connector pin. Retainer eyelets or soldering will hold pins permanently inboard.

Type	Descrip.	Dia.	Lgth.	Stk. No.	Bag of 100	Stk. No.	Bag of 1000
K27A	Pin	.025"	3/8"	38F1071	.83	38F1086	10.73
K24A	Pin	.040"	5/8"	38F1072	1.38	38F1087	19.80
T103	Retainer	.025"	......	38F1073	1.25	38F1088	9.20
T102	Retainer	.040"	......	38F1074	.75	38F1089	4.00

Installing Tools for above

Stk. No.	Type	For	Each
38F1075	P132	K27A Holder	1.75
38F1076	P134	K24A Holder	1.75
38F1077	P131	T103 Holder	1.75
38F1078	P133	T102 Holder	1.75

PLUGBORDS AND RECEPTACLES



Plug-In Test Circuits. Prototype of To-Be-Printed Circuit Cards. Modular Plug-In Cards — Standard Plugboards made from 1/16" thick Epoxy Paper material or Epoxy Glass (WE) with all-over grid of .062" holes on alternate .1" centers. Locate Vector T-28 Push-In Miniclip Terminals and eyelets where required and lay out components to exactly duplicate printed card, if desired. For making manually wired prototypes which can later be made as etched or welded circuits. For short production runs, hand-wired boards (soldered or welded) can be made faster than etched boards. For general use epoxy paper boards may be punched, sawed or drilled if desired; —1 GN series has nickel plated gold flashed contacts and equally spaced notches in connector mounting: Elco Varicon contacts come attached to board or etched connector supplied on 838A and 838. Different sizes, hole patterns and materials readily available to order.

PLUGBORDS

Stock No.	Type	Size	Contact	1-19	20-99	100-199	200-999
38F471	837	3 x4 1/2"	12 Varicon	2.24	2.02	1.88	1.50
38F472	812	4 1/2x6 1/2"	16 Varicon	2.87	2.58	2.41	1.92
38F482	837WE	3 x4 1/2"	12 Varicon	2.48	2.23	2.08	1.66
38F483	812WE	4 1/2x6 1/2"	16 Varicon	3.39	3.05	2.85	2.27
38F484	838A	4 1/2x6 1/2"	22 Etched	2.70	2.43	2.27	1.81
38F485	838	4 1/2x6 1/2"	43 Etched	3.74	3.37	3.14	2.51
38F395	848WE	4 1/2x6 1/2"	35 Varicon	5.86	5.27	4.92	3.93
38F1079	838AWE	4 1/2x6 1/2	22 etched	3.05	2.75	2.56	2.04
38F1080	838WE	4 1/2x6 1/2	43 etched	3.71	3.34	3.12	2.49
38F1081	838AWE-1GN	4 1/2x6 1/2	22 etched	4.52	4.07	3.80	3.03
38F1082	838WE-1GN	4 1/2x6 1/2	43 etched	5.59	5.03	4.70	3.75

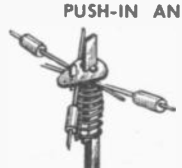
Receptacles for Varicon plugboards above.

Stk. No.	Type	Size	Cnts.	1-99	100-249	250-999
38F397	R612-1	2.880	12	1.80	1.32	1.12
38F396	R616-1	2.680	16	2.24	1.74	1.49
38F394	R635	3.934	35	4.91	3.27	2.73

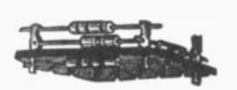
RECEPTACLES FOR ALL ETCHED PLUGBOARDS

Stk. No.	Type	Size	Cnts.	1-24	25-49
38F487	R644	3.584	44	2.62	2.10

PUSH-IN AND SOLDERLESS U-CLIP TERMINALS



T-32 Series



T-28 Series

T9.4

Use with .093" or .062" holes in 1/16" or 3/32" VECTORBORD and hold without staking (may be staked for maximum holding). Each terminal has serrated slots to grip inserted wires. Large slot holds most resistor and capacitor wires, small slot holds transistor leads. T9.6 also has a special slot for diodes. Both types have thru-shank construction. All fit .093" holes except .062".

Fused tin plated push-in type. T9.4 Brass, T9.6 Heat treated Beryllium Copper.

Type	Stk. No.	Bags of 100: 1-19	20-99	100-199
T9.4	38F457	1.38	1.24	1.16
T9.6	38F458	2.31	2.08	1.84
T28	38F465	1.55	1.40	1.30

Type	Stk. No.	Bags of 1000: 1-4	5-24	25-49
T9.4	38F1059	9.79	8.22	7.83
T9.6	38F1060	15.06	13.55	12.65
T28	38E1061	11.00	9.90	9.24

SOLDERLESS T32 SERIES U-CLIP TERMINALS

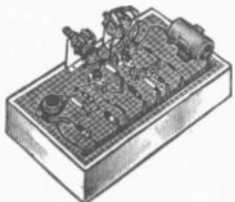
Reliable solderless terminal for experimenting life, or burn-in testing. "U" shaped slot opens instantly at a push of a finger and holds up to six leads in a low resistance (less than .002 ohms) connection. Nickel-plated brass with steel nickel spring. May be re-used over and over. T-32-1 version fits .062" holes; all others .093" holes. T30N-2 is nickel plated. T30-2 is silver plated and has a flanged washer on top of spring lead (held in body slot).

Type	Stock No.	Bags of 10 NET	Stock No.	Bags of 100 NET	Stock No.	Bags of 1000	
						1-4	5-9
T30-2	38F468	.99	38F1062	7.40	38F1063	52.86	47.57
T30N-2	38F388	.95	38F1064	6.95	38F1065	48.50	43.65
						1-4	5-24
T32A	38F1066	1.35	38F1040	9.90	38F1039	75.00	67.50

Insertion Tools.

Stk. No.	Type	Use	1-49	50-199	200-499	500-999
38F469	P-91	For T28	.50	.45	.35	.34
38F470	P-92A	For T30	.50	.45	.35	.34
38F1027	P-122B	For 9.4, 9.6	1.40	......	......	......

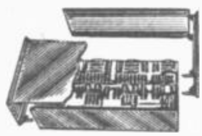
CHASSIS KITS



Provide quick set up of electronic circuitry with simple hand tools. Models 20X and 21X are intended mainly for mock-ups. Wiring deck made of XXXP Phenolic 3/32" thick. Holes .093" in dia. and spaced 0.265" on centers. 22X is supplied with transistor sockets. Push-in terminals. Shpg. wt., 24 oz. Kit 25X is a solderless circuit Set-up System for rapid testing on all electronic circuits. Contact resistance less than .002 ohms. Deck made of XXXP Phenolic 3/32" thick with holes .093" in dia. and spaced 0.265" on centers. Mounted on wooden frame. Shpg. wt., 2 lbs.

Stk. No.	Type	Size	1-49	50-199	200-499	500-999
38F417	20X	4¾x8½x3/32"	6.75	6.08	4.73	4.52
38F418	21X	4¾x17x3/32"	16.75	15.08	11.73	11.22
38F419	22X	8½x4¾x3/32"	11.50	10.35	8.05	7.71
38F475	25X	8½x17x3/32"	21.45	19.31	15.05	14.38

● NEW FRAME-LOC RAILS



Ideal for making circuit cases, packages, and chassis easily. Rails 2" wide (SR2 series) have .100" wide grooves spaced on .187" centers. Rails 3" wide (SR3 series) have .075" wide grooves spaced on .150" centers. Special Hardware Kit assortment HD-6 includes 8 rubber feet and attaching hardware.

Stk. No.	Type	Rails For	1-49	50-199	200-499	500-999
38F1160	SR1-31-062	3.1" Lgth. Panl.	1.07	.96	.75	.72
38F1161	SR1-46-062	4.6" Lgth. Panl.	1.18	1.06	.83	.79
38F1162	SR1-66-062	6.6" Lgth. Panl.	1.40	1.26	.98	.94
38F1163	SR1-240-062	24" Lgth Panl.	2.93	2.64	2.05	1.96
38F1164	SR1-31-062	3.1" Lgth. Panl.	1.23	1.11	.86	.82
38F1165	SR2-46-062	4.6" Lgth. Panl.	1.44	1.30	1.01	.96
38F1166	SR2-66-062	6.6" Lgth. Panl.	1.72	1.55	1.20	1.15
38F1167	SR2-100-062	10" Lgth. Panl.	2.21	1.99	1.55	1.48
38F1168	SR2-240-062	24" Lgth. Panl.	3.84	3.46	2.69	2.57
38F1029	SR2-30-093	3" Lgth. Panl.	1.23	1.11	.86	.82
38F1030	SR2-48-093	4.8" Lgth. Panl.	1.46	1.31	1.02	.98
38F1032	SR2-85-093	8.5" Lgth. Panl.	1.92	1.73	1.34	1.29
38F1033	SR2-100-093	10" Lgth. Panl.	2.21	1.99	1.85	1.48
38F1035	SR2-170-093	17" Lgth. Panl.	3.20	2.88	2.24	2.14
38F1169	SR3-31-062	3.1" Lgth. Panl.	1.31	1.18	.92	.88
38F1170	SR3-46-062	4.6" Lgth. Panl.	1.52	1.37	1.06	1.02
38F1171	SR3-66-062	6.6" Lgth. Panl.	1.85	1.67	1.30	1.24
38F1172	SR3-100-062	10" Lgth. Panl.	2.32	2.09	1.62	1.55
38F1173	SR3-240-062	24" Lgth. Panl.	4.19	3.77	2.93	2.81
38F1083	SR2-66-093	6.6" Lgth. Panl.	1.72	1.55	1.20	1.15
38F1174	SR2-240-093	24" Lgth Panl.	3.84	3.46	2.69	2.57
38F1175	SR3-49-062	4.9" Lgth. Panl.	1.53	1.38	1.07	1.03
38F1176	SR3-86-062	8.6" Lgth. Panl.	2.06	1.85	1.44	1.38
38F1177	SR3-171-062	17" Lgth. Panl.	3.49	3.14	2.44	2.34
38F1036	PL48-85	4 8x8½" Alum. Panl.	2.74	2.47	1.92	1.84
38F1037	PL48-170	4.8x17" Alum. Panl.	4.14	3.73	2.90	2.77
38F1038	PL85-170	8.5x17" Alum. Panl.	6:29	5.66	4.40	4.21

TUBE BASE SHIELDS

TUBE BASE SHIELDS are intended to be mounted above the socket as a base for convenient bayonet type tube shields.

Stk. No.	Type	Description	1-499
38F607	S7	7 Pin Steel Cad. Plated	.07
38F608	S9	9 Pin Steel Cad. Plated	.05

"RUB-ON" VECTORESIST

Type R322. To prepare circuit boards for etching. Place sheet on copper-clad board or VECTORBORD, rub; resist pattern transfers. Eliminates resist tapes and pens. Sheet contains lines, contact pads, etc.
38F1015. NET. per sheet **2.00**

Type 2594 Etchant. 2 plastic bags of dry etchant and activator ready for addition of water.

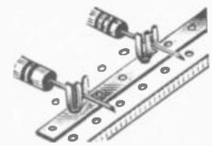
Stk. No.	Type	1-49	50-199	200-499	500-999
38F1016	2594	1.38	1.24	.97	.92

ETCHED CIRCUIT KIT

Model 27XA. Make etched circuits quickly and inexpensively. Kit contains: 1 XXXP Phenolic Vectorboard clad on 1 side with 2 oz. copper. Pre-punched grid of .062" holes on .2" centers. 1 XXXP Phenolic, unpunched 2 oz. copper clad 1 side. 1 Vectoresist, sheet 10"x15". 1 box with 2 polyethylene bags and etchant. 12 clips. 3 sheets grid layout paper. Complete etching and Vectoresist instructions. Shpg. wt., 24 oz.

Stk. No.	Type	1-49	50-199	200-499	500-999
38F1028	27XA	6.50	5.85	4.55	4.36

BUS STRIP



Punched brass tin plated strip punched with .093" holes spaced .265 or .062" holes spaced .2 to match VECTORBOARD A, C, F and G patterns. Fasten to board with Zip Push-In Terminals to speed wiring.

Stk. No.	Type	Description	Hole Size	1-49	50-199	200-499	500-999
38F1007	T-57	Pkg. X 10 pc. 8"L.x.020"W	.093"	1.21	1.09	.85	.81
38F1008	T-58	Pkg. X 10 pc. 16"L.x.020"W	.093"	.77	.69	.54	.52
38F1067	T104	Pkg. X 10 pc. 17"L.x.125"W	.062"	1.21	1.09	.85	.81

VECTORBORDS

Type 3070-1XXXP. Tan phenolic Vectorbord. 2 oz. copper clad. One side overall punched grid of .062" holes on .2" centers. 4½" x 6½" x 1/16".

Stk. No.	Type	1-19	20-99	100-199	200-999
38F1017	3070-1XXXP	.84	.76	.71	.56

Type CU65/45-1XXXP. Phenolic 4½" x 6½" x 1/16". Copper clad. One side unpunched.

Stk No.	Type	1-19	20-99	100-199	200-999
38F1018	CU65/45-1	.60	.54	.50	.40

POT AND SWITCH BRACKET

Mounts easily on the Vectorboards listed above.
Type B-20. Handy aluminum brackets for mounting pots and switches on breadboards. Two slots accommodate 3/8" or ½" diameter shaft bushing. Furnished with two 1/8" base mounting holes spaced .265" for easy mounting on any A or AA pattern Vectorboard.

38F1006. Bracket Pkg. (4) NET .... **.48**

PATCHBOARDS

Panels of black phenolic with beryllium copper gold flased contacts spaced .265 Front and back have white alpha numeric legend Aluminum frame. May be stacked or ganged, brackets incl. Max. current 5 amps. Contact resist. less than .001Ω. Max. voltage: 1 KVAC, 1.5 KVDC.

Stock No.	Type	Description and Size	1-49	50-199	200-499	500-999
38F1054	PB210-2	20 cont., 2.98x .865	4.25	3.83	2.98	2.85
38F1055	PB510-2	50 cont., 2.98x1.66	6.45	5.81	4.52	4.32
38F1056	PB1010-2	100 cont., 2.98x2.98	10.85	9.77	7.60	7.27
38F1057	PB1020-2	200 cont., 5.63x2.98	21.60	19.44	15.05	14.47
38F1058	PB1520-2	300 cont., 5.63x4.31	32.35	29.12	22.65	21.67

BUNDLE OF 25 PATCH CORDS FOR PATCHBOARDS

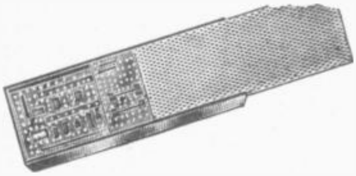
Stock No.	Type	Size	Color	Per Bundle
38F479	K2.06	6"	Black	2.65
38F480	K2.09	9"	Yellow	2.79
38F481	K2.15	15"	Blue	3.25

PIGGY BACK PATCH CORDS FOR MULTIPLE CONNECTIONS

Stk. No.	Type	Size	Color	1-999	1000-4999
38F1024	K9.06	6"	Black	.93	.84
38F1025	K9.09	9"	Yellow		
38F1026	K9.15	15"	Blue		

Integrated Circuit Equipment

VECTOR

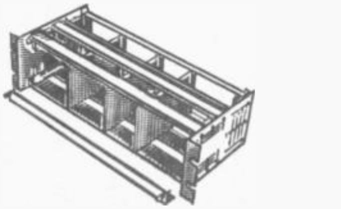


28X HIGH FREQUENCY CIRCUIT PACKING KIT

New inexpensive method for constructing and packaging circuits in the UHF and VHF ranges on up to where "plumbing" is generally used. Allows quick, easy circuit and component changes. 3 x 8.6 x 2" case provides RF tight, completely shielded enclosure with 2 slide-out shield sides for ready accessibility to the enclosed copper clad circuit board. Included in the 28X kit parts are 3 tetrode transistor sockets, 2 power transistor sockets, wrench socket holder, roll #24 copper vinyl covered wire and a roll tinned copper wire. Shpg. wt. 2 lbs.

Stk. No.	1-49	50-199	200-499	500-999
38F1014	27.50	24.75	19.25	18.43

H. H. SMITH



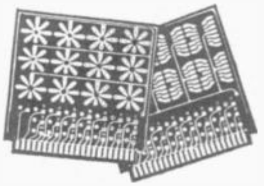
● *NEW* ADJUSTABLE PRINTED CIRCUIT RACK

A universally adjustable extruded aluminum printed circuit card rack that accommodates up to 39 cards and fits 19" rack. For card widths 2⅜" to 4¾", lengths 3½" to 7¼" and 1/16" thick. Adjustable card spacing at .400" increments. A locking bar holds cards securely against rear connectors. Includes card guides of molded plastic — four for each card. Size: (assemb.) 19x5¼x8". Wt. 2½ lbs.

Stk. No.	Type	1-9	10-24	25-99
65F020	30.50	27.95	25.95	23.95

39F1780 B051 Extra Card Guides. Pkg. of 100 .... 5.00

ERIE



INTIGRID CARDS

Kit A — Model 4217-00

Kit forms of Eire's famous Integred Circuit Boards that give the circuit builder and designer "building block" flexibility and mix and match, linking integrated circuits with discrete components. Kits contain 1 formed rail, 1 connector element, 1 strip pack, 1 Econo-grid. Type 4217-001 also has 2 T.O. 5 8-pin elements and 2 14-pin dual-in-line elements. Type 4217-002 has T.O. 5- 10-pin elements and 16-pin dual-in-line elements.

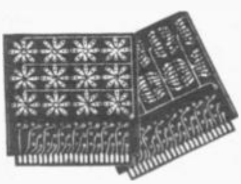
Stk. No.	Type	EACH
19F1960	4217-001	21.95
19F1961	4217-002	21.95

REPLACEMENT ELEMENTS

Stk. No.	Type	Function	1-49	50-99	100-249	250-499
19F1962	4217-201	14-pin dual-in-line	2.50	2.25	2.00	1.80
19F1963	4217-202	T. O. 5 8-pin	2.50	2.25	2.00	1.80
19F1964	4217-203	T. O. 5 10-pin	2.50	2.25	2.00	1.80
19F1965	4217-204	16-pin dual-in-line	2.50	2.25	2.00	1.80

Stk. No.	Type	Function	1-49	50-99	100-249	250-499
19F1966	4217-205	Connector element	5.50	4.95	4.45	4.00
19F1967	4217-207	Strip pack	.95	.85	.75	.65
19F1968	4217-208	Econo-grid	.95	.85	.75	.65
19F1969	4217-209	Rail, formed	1.75	1.60	1.45	1.30

INTEGRATED CIRCUIT CARDS



Unit constructed of G-10 glass epoxy. 1/16" thick and standard board is 4" x4". Gold plated contacts with solder plated circuitry. Utilizes the standard twenty-two position double readout edge tabs which can be used in multiples. Basic applications are considered for counters, shift registers, adders, subtractors, and other digital and linear systems.

Stk. No.	Type	Description	I.C. Modules	1-49	50-99
19F3441	4206-201	14 pin dual in-line (power on)	8	10.00	9.00
19F3442	4206-202	8 pin T. O. 5 (power on)	12	10.00	9.00
19F3443	4206-205	14 pin dual in-line (power off)	8	10.00	9.00
19F3444	4206-206	8 pin T. O. 5 (power off)	12	10.00	9.00
19F3445	4206-207	10 pin T. O. 5 (power off)	12	10.00	9.00

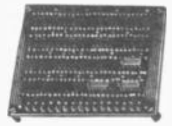
CAMBION

CAMBI-CARD CIRCUIT BOARDS

Feature patchable interconnections as well as point-to-point hard wiring, for dual in-line, flat pack and TO-5 integrated circuits. 8 unit boards only listed — size 4.5" x 6.062". Also available for 16 IC packages — size4.5" x 9.250".

Stk. No.	Type	Type IC	Board Hardware	1-9
40F6150	705-1000-01	In-line, flat pins*	Terminals	44.05
40F6151	705-1000-02	In-line, round pins*	Terminals	44.05
40F6152	705-0114-01	In-line, direct mtg.	Jack/Jacks	63.00
40F6153	705-0115-01	In-line, direct mtg.	Terminals	28.50
40F6154	705-2000-01	Flat Pack**	Jack/Jacks	81.80
40F6155	705-2000-02	Flat Pack**	Jack/Term.	52.10
40F6156	705-2002-01	Flat Pack**	Terminals	38.70
40F6157	705-0118-01	Flat Pack, direct mtg.	Jack/Jacks	63.70
40F6158	705-0119-01	Flat Pack, direct mtg.	Terminals	29.20
40F6159	705-0120-0	TO-5, 8 leads	Jack/Jacks	50.60
40F6160	705-0121-01	TO-5, 8 leads	Terminals	25.30
40F6161	705-0147-01	In-lines except Sylv.	Pluggable/	55.50
40F6162	705-0147-02	Sylv. In-lines only	Patchable	55.50
40F6163	705-0149-01	In-lines except Sylv.	Pluggable/	49.40
40F6164	705-0149-02	Sylv. In-lines only	Wireable	49.40

Boards supplied with — *In-line sockets. **Flat pack holders.



BREADBOARDS

Available in three sizes (4.5" x5.0", 8.0" x 5.0", 8.0" x 9.5") to allow plug-in interchangeability of 16, 32, or 64 standard 14 lead in-line IC's. Boards come with either jacks or terminals. For patching, permanent soldering.

Stk. No.	Type	For All IC Packages	For No. Of IC/Board	Description	1-9
40F6170	0164-01	Less Sylvania	64 Pattern	Plug-Patchable	240.00
40F6171	0164-02	Sylvania Only	64 Pattern	Plug-Wirable	240.00
40F6172	0166-01	Less Sylvania	64 Pattern	Plug-Wirable	176.00
40F6173	0166-02	Sylvania Only	64 Pattern	Plug-Patchable	176.00
40F6174	0264-01	Less Sylvania	32 Pattern	Plug-Patchable	140.00
40F6175	0264-02	Sylvania Only	32 Pattern	Plug-Wirable	140.00
40F6176	0266-01	Less Sylvania	32 Pattern	Plug-Wirable	99.90
40F6177	0266-02	Sylvania Only	32 Pattern	Plug-Wirable	99.90
40F6178	0364-01	Less Sylvania	16 Pattern	Plug-Patchable	82.50
40F6179	0364-02	Sylvania Only	16 Pattern	Plug-Patchable	82.50
40F6180	0366-01	Less Sylvania	16 Pattern	Plug-Wirable	61.50
40F6181	0366-02	Sylvania Only	16 Pattern	Plug-Wirable	61.50

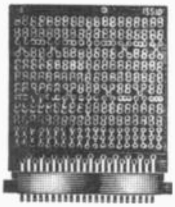
WIRE WRAP PANELS

Panels provide high density production packaging for all standard type, 14lead, in-line IC panels. Available for 60 and 100 patterns, each aligned for automatic wiring. Designed for low resistance; provide distrbiuted decoupling capacitance and noise-free power distribution.

Stk. No.	Type	No. of IC/Panel	IC Power Pins	Size	1-9
40F6185	1001-01	60 Pattern	4, 10	6.5x6.5	183.00
40F6186	1002-01	60 Pattern	1, 8	6.5x6.5	183.00
40F6187	1003-01	60 Pattern	7, 14	6.5x6.5	183.00
40F6188	1021-01	100 Pattern	7, 14	5.25x19	281.00

Circuit Cards and Accessories

TRIAD



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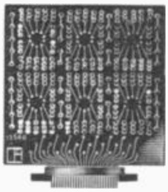
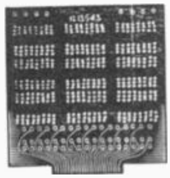


CO-13540



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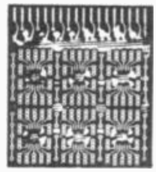
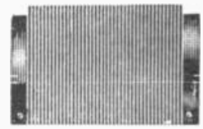


13546



EXTENDER CARD 13600

INTEGRATED CIRCUIT CARDS

Triad Integrated Circuit and Printed Circuit cards are made of either G-10 glass epoxy or paper epoxy. All models are available with a Winchester connector which mates with the edge contacts for plug-in versatility. PCM connectors are molded from flame resistant material per MIL-M-14. Contacts are beryllium copper, gold plated, maintaining constant contact.

No. 13540. 25 contact double readout type with 6 flat-pack pads on one side and 6 TO-5 pads on the other. Made of G-10 glass epoxy, gold plated.

No. 13541. Same as 13540 but with 18 contacts on .156" centers.

No. 13542. G-10 glass epoxy board for dual in-line packages. Size: 2.976" x 3.273". Used with an 18 contact double-sided type of connector with bifurcated contacts on .156" centers.

No. 13543. Board for dual in-line packages. Size: 3" x 3.187". Uses double-sided connector with 25 contacts on .050" centers. Meets MIL-M-14, type SDG-F.

No. 13544. Sixteen 8-pin TO-5 mounting pads. Size: 3" x 4.86", 1/16" thick G-10 glass epoxy.

No. 13545. Six 8-pin TO-5 pads on one side and six 14-pin flat pack pads on the other. Size: 3" x 3.187".Connector has 25 contacts and meets MIL-M-14, Type SDG-F, G-10 glass epoxy.

No. 13546. Same as 13545, but with overall dimensions 2.976" x 3.273", has 18 contact type.

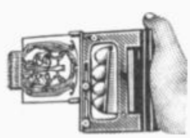
INTEGRATED CIRCUIT CARDS

Stk. No.	Type	1-9	10-24	25-49	50-99
2F976	13540	6.60	5.95	5.35	4.95
2F977	13541	6.60	5.95	5.35	4.95
2F985	13542	6.60	5.95	5.35	4.95
2F986	13543	6.60	5.95	5.35	4.95
2F850	13544	12.25	11.03	9.93	9.23
2F851	13545	6.60	5.95	5.35	4.95
2F852	13546	6.60	5.95	5.35	4.95

INTEGRATED CIRCUIT CARDS WITH WINCHESTER CONNECTORS

Stk. No.	Type	1-9	10-24	25-49	50-99
2F980	CO-13540	13.60	12.25	11.00	10.25
2F981	CO-13541	9.00	8.10	7.30	6.80
2F983	CO-13542	9.00	8.10	7.30	6.80
2F984	CO-13543	13.60	12.25	11.00	10.25
2F853	CO-13544	19.60	17.65	15.90	14.80
2F854	CO-13545	13.60	12.25	11.00	10.25
2F855	CO-13546	9.00	8.10	7.30	6.80

CIRCUIT CARD EXTRACTORS



Type CE-1. Cam action quick release. One-handed operation with 60-lb. pull. Small space requirement. Becomes integral part of card until release. Sturdy plastic 4¼x2½".

Type CE-4. Adjusts to fit card widths from 4 to 6". Heavy guage steel nickel finish. 6½x4⅜".

Type CE-5. For cards from 1" to 4" in width. Ideal for miniature integrated circuit cards and modules. Measured 4¼ x 4½".

Stk. No.	Type	1-9	10-24	25-49	50-99
2F967	CE-1	9.92	8.92	8.03	7.47
2F968	CE-4	11.50	10.35	9.32	8.67
2F872	CE-5	10.85	9.77	8.79	8.17

UNIVERSAL CIRCUIT CARDS

No. 13510-1. 0.1" grid design. Hole size: .052". Base material is 1/16" paper epoxy. 421 holes, Sizes: 4" x 7".
No. 13510-2. Same as 13510-1 but made of G-10 glass epoxy.
No. 13500-1. Similar to 13510 but 223 mounting pads, 444 holes. 22 plug-in fingers on .156" spacing. Hole size: .052". Overall size: 4" x 4½". Made of 1/16" paper epoxy.
No. 13500-2. Same as 13500-1 but made of G-10 glass epoxy.
No. 13511. Similar to 13510 but with 300 mounting pads, 650 holes. Size: 4" x 7".
No. 13125. NASA soldering training board. Made of G-10 glass epoxy, 1/16" thick. Size: 3½" x 6¼". Copper one side; conductor widths .062" and .031".
No. 13600-1. Extender card. Used to extend the fingers of a card into otherwise inaccessible places. Size: 5" x 8" with 43 extention strips per side. Made of paper-epoxy.
No. 13600-2. Same as above but made of G-10 glass epoxy.
No. 13750. Prototype fabrication board. Accepts 300 terminals in 7 rows of ½" spacing. 22 gold-plated fingers spaced .156". Size: 4" x 4½". 1/16" paper epoxy. .093 dia. holes.
No. 13751. Same as 13750 but with .063" holes.
No. 13800. An overall grid of holes for breadboarding. 646 holes (19 x 34) on 0.20" centers. 1/16" paper epoxy. Size: 4" x 7". .062" holes.
No. 13801. Same as 13800 but with .093" holes.

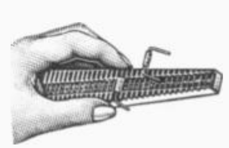
Stk. No.	Type	1-9	10-24	25-49	50-99
2F969	13510-1	6.60	5.95	5.35	4.95
2F856	13510-2	8.20	7.35	6.60	6.15
2F971	13500-1	6.60	5.95	5.35	4.95
2F857	13500-2	8.20	7.35	6.60	6.15
2F970	13511	14.25	12.85	11.55	10.75
2F858	13125	4.90	4.40	3.95	3.65
2F859	13600-1	9.20	8.25	7.45	6.95
2F860	13600-2	11.50	10.35	9.30	8.65
2F861	13750	3.92	3.53	3.18	2.96
2F862	13751	3.92	3.53	3.18	2.96
2F863	13800	1.40	1.26	1.13	1.05
2F864	13801	1.40	1.26	1.13	1.05

UNIVERSAL CIRCUIT CARDS WITH WINCHESTER CONNECTORS

Stk. No.	Type	1-9	10-24	25-49	50-99
2F982	CO-13500-1	9.30	8.10	7.15	6.55
2F865	CO-13500-2	10.85	9.50	8.40	7.75
2F866	CO-13511-A	16.60	14.95	13.45	12.50
2F867	CO-13511-B	19.35	17.40	15.65	14.55
2F868	CO-13510-1	9.30	8.10	7.15	6.55
2F869	CO-13510-2	10.85	9.50	8.40	7.75
2F870	CO-13750	6.65	6.00	5.40	5.00
2F871	CO-13751	6.65	6.00	5.40	5.00

LEAD BENDING GAUGES

Type MK-1. For ¼ watt resistors.
Type MK-2. For ½ watt resistors.
Type MK-3. For 1 watt resistors.
Type MK-4. For 2 watt resistors.
MK gauges may also be used on other similar components. Each has 40 different numbered positions, the sizes of which vary between the limits in the size column in the tab below.

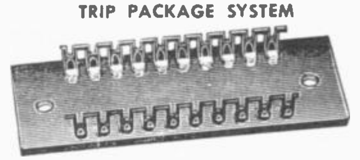


Stk. No.	Type	Size	1-9	10-24	25-49	50-99
2F972	MK-1	.375-1.50	3.58	3.22	2.90	2.70
2F973	MK-2	50-1.50	3.58	3.22	2.90	2.70
2F974	MK-3	75-2 50	4.42	3.98	3.58	3.33
2F975	MK-4	875-2.50	4.42	3.98	3.58	3.33

ERIE

Stk. No.	Type	Stat.	Overall Length	Dist. Bwtn. Mtg. Ctrns.	1-49	50-99	100-249	250-499	500-999
19F3069	3976-205-1	5	1.875	1.362	.30	.25	.22	.19	.16
19F545	3976-205-2	10	2.875	2.362	.35	.30	.24	.21	.18
19F546	3976-205-3	15	3.875	3.362	.38	.33	.28	.24	.21
19F547	3976-205-4	20	4.875	4.362	.42	.37	.33	.28	.24
19F548	3976-205-5	25	5.875	5.362	.50	.45	.40	.37	.32
19F549	3976-205-6	30	6.875	6.362	.55	.50	.45	.40	.35
19F3070	3976-228-1	5	1.875	.800	.45	.40	.37	.34	.31
19F1770	3976-228-2	10	2.875	1.800	.50	.45	.39	.36	.33
19F1771	3976-228-3	15	3.875	2.800	.55	.50	.45	.41	.37
19F1772	3976-228-4	20	4.875	3.800	.59	.54	.50	.45	.42
19F1773	3976-228-5	25	5.875	4.800	.67	.60	.55	.52	.47
19F1774	3976-228-6	30	6.875	5.800	.72	.67	.62	.57	.52

TRIP PACKAGE SYSTEM



Provides quick, more efficient assembly than with piece-by-piece construction. Features automatic clip assembly, connector cutting, component insertion, and component soldering. Tolerance: ±.005.

Kepro P. C. Kits & Materials

KEPRO PRINTED CIRCUIT KITS AND MATERIALS

Provide industrials with every means for establishing printed circuit facilities to answer the demands of bread-boarding, prototype productions and full quantity production. Kepro kits supply the materials, equipment and know-how to assure successful professional results from the initial stages of your program. Write for Quantity Prices.

STANDARD KIT

Type S-101A. An etching kit designed to custom fabricate your own circuit board. A liquid or tape resistant is manually applied to the XXXP Phenolic copper clad sheet in the desired pattern, then etched. A perforated copper clad panel is supplied with this kit to speed component mounting. Contents: 2 sheets 3x6x1/16" copper clad phenolic, unsensitized. 1 sheet 3x6x1/16" perforated copper clad phenolic, unsensitized. 1-Resist. Marking Pen. 1-Package assorted Tapes and Dots. 2-Bottles Etching Solution. 1-Plastic Etching Tray. 1-Cleaning Pad and instructions. Shpg. wt.. 2 lbs.

19F2000. NET **3.95**

Type S-101A-G. Identical to S-101A Kit except, base material is G-10 Glass Epoxy. Copper Clad.

19F2001. NET **5.25**

PROFESSIONAL KIT

Type P-101A. An etching kit designed to custom fabricate your own circuit board utilizing a photo engraving process. A sensitized sheet of XXXP Phenolic copper clad is exposed through your prepared negative, then developed and etched. Contents: 2 sheets 3x6x1/16" photosensitized copper clad phenolic, 1 sheet 3x3x1/16" photosensitized copper clad phenolic. 3 sheets Mech. Neg. 1-Print Frame Glass. 2-Print Frame Clamps. 1-Bottle Developer. 2-Bottles Etching Solution. 1-Aluminum Developing Tray. 1-Plastic Etching Tray. 1-Cleaning Pad. With complete instructions Shpg. wt., 3 lbs.

19F2002. NET **5.85**

Type P-101A-G. As above except base is G-10 Glass Epoxy. Copper Clad.

19F2003. NET **7.40**

ETCHED CIRCUIT LAB

Type L-505A. A complete lab which contains all materials required for circuit board development. Uses high quality photo processing. Contains: 1-8½x12 Developing Tray. 1-8½x12 Etching Tray. 1-Safelight 1-Printing Frame. 1-Photo Flood Lamp. 1-KEPRO Photo Layout Kit (PL-2A). 1-40x10 Mech. Neg. 1-Etching Solution (1 Pint). 1-Developing Solution (1 Pint). Resist. marking pen. 1-3⅛x7⅛x1½" Plastic Tray and Lid. 1-Aluminum Tray, 1-Etching Solution (4 oz.) 1-Developing Solution (4 oz.). 1-Eyelet Assortment. 1-Cleaning Pad. 1-Set of Instructions. Shpg. wt., 19 lbs.

19F2004. NET **34.75**

Type L-505A-G. Identical to L505A, except, base material is G-10 Glass Epoxy, Copper Clad. Shipping weight 20 pounds.

19F2005. NET **42.95**

PHOTO REVERSING KIT

Type FK-701. Simple two-step process prepares line negatives and positives from taped or inked artwork or reverses existing negatives or positives. No darkroom needed. Includes two pieces 10" x 24" reversing film, chemicals and instructions. Shpg. wt., 2 lbs.

19F2010. NET **7.20**

ETCHED CIRCUIT PROCESSING CHEMICALS

Stk. No.	Type	Description	Weight	EACH
19F2038	RMP700	Resist Marking Pen	....	.75
19F2030	R-2	2 oz. Paint Etch Resist	6 oz.	.60
19F2031	T-2	2 oz. Paint Resist Thinner	6 oz.	.50
19F2032	D-1PT	1 pt. Developing Solution	2¾ lb.	1.15
19F2033	D-1G	1 gal. Developing Solution	16 lb.	5.50
19F2034	E-1PT	1 pt. Etching Solution	2½ lb.	.85
19F2035	E-1G	1 gal. Etching Solution	16 lb.	3.50
19F2039	EP-1G	Etching Powder	1 gal.	3.00
19F2040	EP-4G	Etching Powder	4 gal.	7.50

PHOTO LAYOUT KIT

Type PL-2A. For preparing camera-ready artwork without inking and lettering. Reduced layout time by use of pressure-sensitive tapes, dots, letters and numerals. Contents: 96-¼" Tape Dot Terminations. 108"-⅛" Tape Conductor Strips. 216"-1/16" Tape Conductor Strips. 1-translucent-type (letters and numerals, assorted sizes) sheet. 1-Acetate Sheet (8"x10"). 1-Mech. Neg. (8"x10"). 2-Sheets of Graph paper, 1/10" grid 8x10". 1-Instruction sheet. Wt., 1 lb.

19F2006. NET **3.95**

MASTER PHOTO LAYOUT KIT

Type PL-200A. This package includes all necessary materials to make Master artwork on stable base drafting films. Utilizes the same time saving methods as the PL-2A. Contents: 2 pcs. 18"x24" Matte Surface Mylar. 2 pcs.—18"x24" Mech. Neg. mylar 1 pc 1/10" grid mylar sheet 18"x24" base. 4 pcs.—17"x21" Graph paper, 1/10" grid. 432-⅛" tape dot termination. 576-¼" tape dot termination. 252-½" dot terminations. 18 yds.-1/16" tape conductor strips. 21 yds.-⅛" tape conductor strips. 18 yds. ¼" tape conductor strips. 1 sheet—8½" x 11" translucent (letters and numerals, assorted sizes) sheet. 1 btl. — Opaquing fluid. 1-Brush. 1-Bow Compass (with knife cutters). 1-Center Dot Cutter. 1-Tweezers. 1-Cutting Knife Set. 1-Peeling Stylus. 1-Instruction and Data Sheet. Shpg. wt., 4 lbs.

19F2007. NET **36.30**

NAMEPLATE & PANEL KIT

Type NP-303A. Kit permits you to prepare name-plates by a simple photographic process. Plates are exposed to light source through artwork made from supplied materials. Panels art then dev., no fixing nec. Finished plates are aluminum and contrasting dk. blue. Contents: 2-8"x 10" Aluminum Sheet. 1-8"x10" Acetate Sheet. ¼-Sheet translucent-type, 1-8"x10" Print Glass. 1-1 oz. Bottle delevoper. 2-2x 2x¾" Appls. (sponges). 2-(8x10") pressure sensitive adhesive. Shpg. wt. 1 lb. 1 oz.

19F2008. NET **7.25**

ETCHED ANODIZED NAMEPLATE & PANEL KIT

Type NP-404. Produces etched name-plates and panels using anodized aluminum stock. Processed by exposing, developing, and etching plates. Finished plates are black anodized aluminum and natural color aluminum finish. Contents: 3-3x6" Aluminum Panels. 3-3x6" Acetate Sheets. ¼-Sheet translucent type. 1-Print Glass. 2-3" Clamps. 1-4 oz. Bottle Developer. 1-2 oz Package Etchant. 1-Dev. Tray. 1-Etch Tray. 3-(3x6") pressure sensitive adhesive. 1½ lbs.

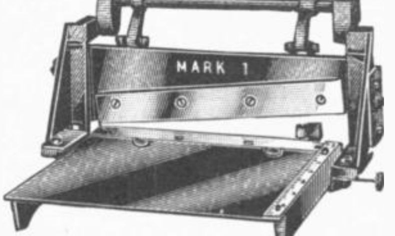
19F2009. NET **6.55**

SILK SCREEN KIT

Type SC-601A. Professional materials and equipment for producing lacquer resistant film type photo stencils with print area up to 7"x9" and to use these stencils to screen-print 1000 or more impressions per day. No dark room needed. Kit includes screen printing frame with one stretched silk in place plus silk and emulsion for two additional patterns, mounting hinges, squeegee, black and white inks, film printing frame, safe-light, photo-flood lamp, trays and all necessary chemicals and solutions. Shpg. wt., 13 lbs.

19F2011. NET **35.00**

KEPRO MARK 1 12" SHEAR



Used in shearing and trimming copper clad and unclad plastic laminate circuit board materials. Easily cuts through G-10 glass epoxy. XXXP paper base phenolic, FR3 paper epoxy and polyester laminates up to 3/32" thick. Also cuts metals up to 1/16" thick. Shear will cut a full 12" width. Blade clearance adjustable and shear blade may be reversed to provide a new cutting edge. Equipped with a fixed side squaring gauge, and an adjustable length gauge up to 5¼" long. Shipping weight: 18 lbs.

35F1501. Model MIS-12. **NET** **94.00**

KEPRO MODEL S-5 HAND EYELETER

S-5 Hand eyeleter is a helical screw hand operated press which features a simple hand-operated lever at the top of the machine to set the eyelet. Sturdily constructed, an adjustable and removable set cap holder is included for simple alignment of setting tools. Reach of 5/16". Adjustable stop limits the travel of the setting tool to obtain setting desired . . . 10⅜ inches long and only 3/16 inches wide. Mounting to a work bench is achieved by bolting through three holes in the base of the unit. Provides excellent mobility. Includes S-5 eyeleter, with 4 pairs of setting tools and electronic eyelet selection kit of more than 15,000 eyelets in 21 standard sizes. Shipping weight: 14 lbs.

35F1500. Model S-5E. NET........ **98.00**

KEPRO ELECTRONIC EYELETS

Eyelets provide miniaturization and reliability in both single and double sided circuit boards. Eyelets are offered in brass ("B" Suffix in type No.) and oxygen-free high conductive copper ("C" Suffix in typt No.). Both materials meet applicable Mil Standards. Eyelet heads supplied with either Flat or Funnel Flange for single or double clad circuit boards.

•Indicates eyelets designed for single clad board.

†Indicates eyelets used for double clad boards.

Flat flange eyelets may be used on either single or double clad materials. All eyelets listed are designed for 1/16" board thickness. 90

Type	Head Type	Pkg. of 1000 Stock No.	Each	Pkg. of 5000 Stock No.	Each	Pkg. of 10000 Stock No.	Each
S-6125-B	•Flat	35F1502	3.08	35F1503	11.65	35F1504	21.00
S-6125-C	•Flat	35F1505	3.08	35F1506	11.65	35F1507	21.00
S-6025-B	•Funnel	35F1508	3.08	35F1509	11.65	35F1510	21.00
S-6025-C	•Funnel	35F1511	3.08	35F1512	11.65	35F1513	21.00
S-6064-B	†Funnel	35F1514	3.08	35F1515	11.65	35F1516	21.00
S-6064-C	†Funnel	35F1517	3.08	35F1518	11.65	35F1519	21.00

Miniature Electronic eyelet Barrel OD .059, Barrel ID .045, Flange size .095

Type	Head Type	Pkg. of 1000 Stock No.	Each	Pkg. of 5000 Stock No.	Each	Pkg. of 10000 Stock No.	Each
S-6145-B	•Flat	35F1520	3.08	35F1521	11.65	35F1522	21.00
S-6145-C	•Flat	35F1523	3.08	35F1524	11.65	35F1525	21.00
S-6045-B	•Funnel	35F1526	3.08	35F1527	11.65	35F1528	21.00
S-6045-C	•Funnel	35F1529	3.08	35F1530	11.65	35F1531	21.00
S-6084-B	†Funnel	35F1532	3.08	35F1533	11.65	35F1534	21.00
S-6084-C	†Funnel	35F1535	3.08	35F1536	11.65	35F1537	21.00

COPPER CLAD GLASS EPOXY BOARDS

G-10 glass epoxy circuit boards, 1 oz. copper clad. 1/16" thick. Meet standard NEMA grade tolerances. Supplied unsensitized (Unsen.) for screen processed parts, or photosensitized (Sen.) for photo processed boards. Photosensitized materials are ready for exposure with no other sensitizing required.

G-10 GLASS EPOXY—INDIVIDUALLY PACKAGED

Stk. No.	Type	Description	Size	Wt. (oz.)	EACH
19F2022	P1-36G	Unsen. 1 side	3x6"	3⅛	1.08
19F2023	P1-1212G	Unsen. 1 side	12x12"	10¾	6.74
19F3213	P2-36G	Unsen. 2 sides	3x6"	3⅛	1.14
19F2024	P2-1212G	Unsen. 2 sides	12x12"	11½	7.14
19F2025	S1-36G	Sen. 1 side	3x6"	3⅛	1.52
19F3214	S1-66G	Sen. 1 side	6x6"	4½	2.78
19F2026	S1-710G	Sen. 1 side	7x10"	6¾	5.18
19F2027	S1-1212G	Sen. 1 side	12x12"	10¾	10.24
19F2028	S2-36G	Sen. 2 sides	3x6"	3⅛	1.84
19F3215	S2-66G	Sen. 2 sides	6x6"	4½	3.48
19F2029	S2-1212G	Sen. 2 sides	12x12"	11½	12.84

G-10 GLASS EPOXY—PACKAGES OF FIVE

Stk. No.	Type	Description	Inches	1-4	5-10	11-15	16-20
19F3216	P1-365G	Unsen. 1 side	3x6	4.60	4.10	3.85	3.60
19F3217	P1-12125G	Unsen. 1 side	12x12	29.90	22.40	21.25	....
19F3218	P2-365G	Unsen. 2 sides	3x6	4.85	4.35	4.10	3.85
19F3219	P2-12125G	Unsen. 2 sides	12x12	31.60	23.70	22.50	....
19F3220	S1-365G	Sen. 1 side	3x6	6.65	5.95	5.60	5.25
19F3221	S1-665G	Sen. 1 side	6x6	12.40	11.15	10.25	9.55
19F2037	SI-7105G	Sen. 1 side	7x10	23.55	18.60	16.85	16.30
19F3222	S1-12125G	Sen. 1 side	12x12	40.80	31.15	30.00	....
19F3223	S2-365G	Sen. 2 sides	3x6	8.15	7.35	6.90	6.45
19F3224	S2-665G	Sen. 2 sides	6x6	15.75	13.45	11.60	10.75
19F3225	S2-12125G	Sen. 2 sides	12x12	56.55	50.90	....	....

POLYESTER LAMINATE CIRCUIT BOARDS

Polyester laminate boards, one-ounce copper clad on one or both sides. Overall thickness is 1/16 inch. Electrical characteristics of this material exceed G-10 glass epoxy boards; mechanical characteristics approach those of G-10 laminates. Material is available unsensitized for silk-screen processing, etc., or photosensitized for photoprocessing. Sensitized materials are ready for exposure; no other processing is required. One board per package.

Stk. No.	Type	Description	Size	Wt., oz.	EACH
19F3226	P1-36M	Unsen. 1 side	3x6"	3⅛	.44
19F3227	P1-1212M	Unsen. 1 side	12x12"	10¾	2.73
19F3228	P2-36M	Unsen. 2 sides	3x6"	3⅛	.73
19F3229	P2-1212M	Unsen. 2 sides	12x12"	11½	3.59
19F3230	S1-36M	Sen. 1 side	3x6"	3⅛	.95
19F3231	S1-66M	Sen. 1 side	6x6"	4½	1.62
19F3232	S1-1212M	Sen. 1 side	12x12"	10¾	5.59
19F3233	S2-36M	Sen. 2 sides	3x6"	3⅛	1.30
19F3234	S2-1212M	Sen. 2 sides	12x12"	11½	8.17

.004" COPPER CLAD MYLAR BOARDS

Mylar, copper clad, for flexible circuitry. Overall thickness .004" with one side one-ounce copper clad. Available with copper clad side unsensitized or photosensitized. Photosensitized material is ready for exposure; no other sensitizing required.

Stk. No.	Type	Description	Size	Lbs.	EACH
19F3235	P1-621F	Unsen. 1 side	6x21"	1	2.52
19F3236	S1-621F	Photosen. 1 side	6x21"	1	4.95

ETCHED CIRCUIT COPPER CLAD MATERIALS

A quality selection of laminated 1 oz. (.00135) copper clad materials, one or two sides, both in 1/16" XXXP paper base phenolic and 1/16" G-10 glass epoxy. All copper clad materials meet standard NEMA grade tolerances. Materials supplied unsensitized (unsen.) for screen processed parts and photosensitized (sen.) for photo processed boards. Photosensitized materials are ready for exposure with no other sensitizing required. Materials 1/32", 1/16", 3/32" and 1/8", 1 oz. or 2 oz. foil weight, 1 or 2 sides cut and photosensitized to specification quoted upon request. Materials are individually packed or in packages of 5.

XXXP PAPER BASE PHENOLIC

Individually Packaged

Stk. No.	Type	Description	Size	Wt. (oz.)	EACH
19F3200	P1-33	Unsen. 1 side	3x3"	1¾	.40
19F2012	P1-36	Unsen. 1 side	3x6"	2⅛	.54
19F2013	P1-1212	Unsen. 1 side	12x12"	9¾	2.48
19F2014	P1-36PB	Unsen. 1 side	3x6"	2⅛	.62
19F2015	P2-1212	Unsen. 2 side	12x12"	10½	3.26
19F2016	S1-36	Sen. 1 side	3x6"	2⅛	.86
19F3201	S1-66	Sen. 1 side	6x6"	3½	1.47
19F2017	S1-710	Sen. 1 side	7x10"	5¾	2.63
19F2018	S1-1212	Sen. 1 side	12x12"	9¾	5.08
19F2019	S2-36	Sen. 2 side	3x6"	2⅛	1.18
19F2020	S2-66	Sen. 2 side	6x6"	3½	2.11
19F2021	S2-1212	Sen. 2 side	12x12"	10	7.43

XXXP PAPER BASE PHENOLIC

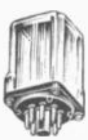
5 Pieces Per Package

Stk. No.	Type	Description	Size	Wt.	1-4	5-10	11-15	16-20
19F2036	PI-335	Unsen. 1 side	3x3"	9 oz.	1.35	1.25	1.20	1.10
19F3202	P1-365	Unsen. 1 side	3x6"	11 oz.	2.00	1.80	1.70	1.60
19F3203	P1-12125	Unsen. 1 side	12x12"	3 lb.	10.50	9.40	8.85	8.30
19F3204	P2-365	Unsen. 2 sides	3x6"	11 oz.	2.55	2.30	2.20	2.05
19F3205	P2-12125	Unsen. 2 sides	12x12"	3.3 lb.	14.20	12.30	11.55	9.85
19F3206	S1-365	Sen. 1 side	3x6"	11 oz.	3.55	3.15	3.00	2.80
19F3207	S1-665	Sen. 1 side	6x6"	1.4 lb.	6.30	5.65	5.30	4.95
19F3208	SI-7105	Sen. 1 side	7x10"	1.9 lb.	11.45	10.25	9.65	9.05
19F3209	S1-12125	Sen. 1 side	12x12"	3 lb.	22.60	17.25	15.95	....
19F3210	S2-365	Sen. 2 side	3x6"	11 oz.	5.05	4.55	4.25	4.00
19F3211	S2-665	Sen. 2 side	3x6"	1 lb.	9.30	8.35	7.85	7.35
19F3212	S2-12125	Sen. 2 side	12x12'	3.3 lb	31.65	24.65	23.50	....

Terminal Boards & Accessories

KEYSTONE

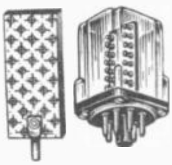
PLUG IN HOUSING



Durable housings are ideally suited for packaging relays, logic packages, networks and miniature circuitry. Headers are molded of G.P. black phenolic. Pins are brass, nickel plated. Guide hole tapped 8-32 for terminal board mntg. stud. Materials: Polystyrene: use up to 170°F conditions. Butyrate: High impact strength, use at 210°F Nylon at 300°F. Complete with Octal Header and Screws.

Stk. No.	Type	Size	Mat'l	Color	1-19	20-99	100-up
35F1667	660	Mini	Butyrate	Clear	.59	.49	.47
35F1668	661	Mini	Nylon	White	.64	.54	.52
35F1669	662	Mini	Polyst.	Clear	.55	.45	.43
35F1670	641	Mini	Polyst.	Opaq. Bl.	.55	.50	.43
35F1671	663	Small	Butyrate	Clear	.59	.49	.47
35F1672	664	Small	Nylon	White	.64	.54	.52
35F1673	665	Small	Polyst.	Clear	.55	.45	.43
35F1674	643	Small	Polyst.	Opaq. Bl.	.55	.50	.43
35F1675	650	Large	Butyrate	Clear	1.10	.95	.90
35F1676	668	Large	Polyst.	Clear	.74	.70	.65
35F1677	677	Large	Polyst.	Opaq. Bl.	.74	.70	.65
35F1678	639	X-L'ge	Polyst.	Clear	1.09	.95	.85
35F1679	669	Small	Steel	El. Tin Pl.	.64	.54	.52

TERMINAL BOARDS
(For Use With Above Housing)



Terminal boards are made of glass epoxy material. Spacing of holes is .100 and .200 alternates. An 8-32 threaded stud is firmly eyeletted to the board and is easily assembled into the tapped hole of the headers. Board thickness is 1/16". Diameter holes are .062. GEE MIL-P-18177.

Stk. No.	Type	Size—Board with Stud.	For Covers	1-19	20-99	100-up
35F1652	696	1x1 5/16"	Mini	.22	.17	.14
35F1653	697	1 1/8x1 3/4"	Small	.22	.17	.14
35F1654	698	1 1/2x2 3/4"	Large	.25	.20	.17
35F1655	699	1 1/8x1 7/16"	Metal	.22	.17	.14
35F1656	638	1 5/16x2 3/8"	X-L'ge	.26	.24	.20

ALL PURPOSE HAND PUNCH

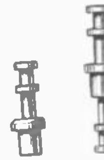
Equipped with adjustable gauge, this hand punch may be used as a nibbler. Also shears eyelets, punches holes for sheet material or tubing. 1 1/4" throat depth. Penetrates 1/16" thick untempered metal 3/32" phenolic, 1/4" masonite. Interchangeable die sets from 1/16" dia. in increments of 1/32" with largest die set at 1/4" dia. Punches tubing to 3/4".

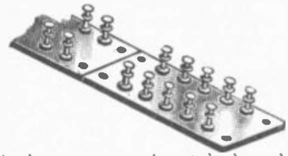
35F1680. Type 1330 NET. 10.50

INDIVIDUAL DIE SETS—Consists of Top and Bottom Tool

Stk. No.	Type	DIE SET For Hole	1-19
35F1659	1331	1/16	1.85
35F1660	1332	.072	
35F1661	1333	3/32	
35F1662	1334	1/8	
35F1663	1335	5/32	
35F1664	1336	3/16	
35F1665	1337	7/32	
35F1666	1338	1/4	

STANDARDIZED TURRET TERMINAL BOARDS





Terminals are securely staked and hot tinned. QQ-B626, comp 22, 1/4 hard. Hot dip solder finish. Mil-F-14072 Type 221. Materials: PBE indicates Paper base electrical, Mil-P-3115C, Temp. 250°F max. Type XXXP, GEE indicates Glass Epoxy, Mil-P-18177, 300°F max. Type G-10. All are 3/32" thick and double row of terminals (50 total) on 3/8" centers except (*) which has a single row with 25 terminals. All are 13 1/8" long.

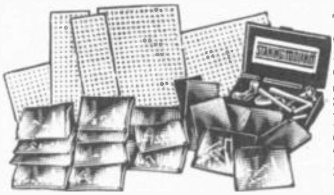
Double Turret—One Side

Stk. No.	Type	Width	Spacing Btw Row	Mat'l.	1-19	20-99	100-up
35F1640	15031*	1/2"	....	PBE	.98	.86	.75
35F1641	15036	1 1/2"	1 3/16"	PBE	1.95	1.85	1.75
35F1642	15236	2"	1 3/16"	GEE	2.65	2.50	2.40
35F1643	15033	2"	1 1/2"	PBE	2.05	1.95	1.80
35F1644	15233	2"	1 1/2"	GEE	3.10	2.90	2.80
35F1645	15034	2 1/2"	2"	PBE	2.20	1.98	1.85
35F1646	15234	2 1/2"	2"	GEE	3.30	3.15	3.00
35F1647	15035	3"	2 1/2"	PBE	2.25	2.10	1.95

Feed Thru Double Turret—Both Sides

Stk. No.	Type	Width	Spacing Btw Row	Mat'l.	1-19	20-99	100-up
35F1648	15046	1 1/2"	1 3/16"	PBE	3.90	3.60	3.50
35F1649	15043	2"	1 1/2"	PBE	4.00	3.80	3.70
35F1650	15044	2 1/2"	2"	PBE	4.15	3.95	3.80
35F1651	15045	3"	2 1/2"	PBE	4.30	4.10	3.95

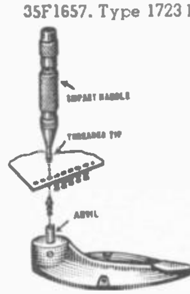
PROTOTYPE KIT



This complete assortment of basic materials and staking tools for experimental and production runs. For construction of 1/16" and 3/32" thick terminal boards. Eyelets, terminals, brackets, bushings and push-in terminals included with instructions.

35F1657. Type 1723 NET 17.00

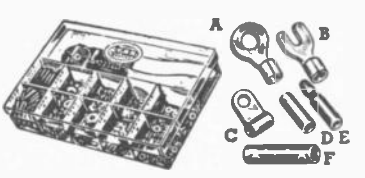
"IMPACT" STAKING KIT



Produces a light or heavy blow which is adjustable by turning of the spring tension cap. Uniform striking action attained by pressing down handle. Interchangeable tools supplied permit assembly of terminal boards, printed circuits and small components. Simple construction, automatic single hand operation. Kit includes: 1 No. 1301 Anvil Tool Holder, 1 impact handle (No. 1302), and the following tools: 1310, 1311, 1312, 1313, 1315, 1316, 1321, 1716, 1717, 1722, 1726. Instructions are also included. Stakes all dia. to 3/32" max.

35F1658. Type 1707 .... 23.00

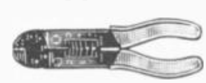
VACO TERMINAL KIT



Type 2195. With crimping tool & terminals. Tool cuts and strips wire and crimps terminal on stripped portion of wire. One compact unit needed for making clean, fast, trouble-free electrical connections. The kit consists of 11 bin plastic box with crimping tool and over 150 terminals in 10 sizes. Case 8 3/4x6x1 3/4". Wt., 2 lbs.

30F900. NET 8.75

AMP



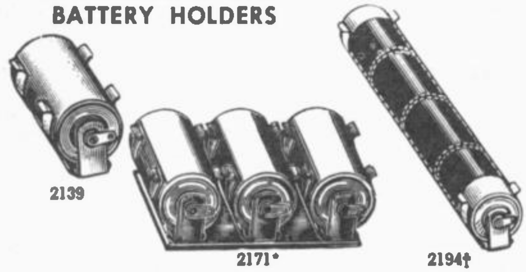
Terminal Crimping Tool. Also cuts and strips wire, shears bolts. Has B & S wire gauge. May be used with terminals listed above. Length, 7 3/8"; wt., 1 lb.

30F999. Type 49835. NET 4.95

NEWARK carries complete lines of the top quality electronic equipment. Newark can supply all your needs, whether or not they are listed in this catalog.

Keystone Battery Holders

NICKEL PLATED STEEL BATTERY HOLDERS



STANDARDIZED ALL STEEL BATTERY HOLDERS

Holders secure batteries under spring tension at a constant pressure assuring low resistance contact. Ideal for Nickel-Cadmium Alkaline, mercury, and carbon zinc cells. Made of SAE 1065 Carbon Steel to MIL Spec. 17919, heat treated to spring temper and nickel plated .0002 thick. Stainless steel eyelet, moisture proof vulcoid washers, and a coated copper solder lug compose the contact assembly. 2 mounting holes**. Side by side* clips mounted on phenolic $\frac{1}{16}$" thick MIL Spec 3115B. End to end† insulating tubes furnished.

PENCELL HOLDERS—ALL CONTACTS INSULATED

All Batteries listed below fit all sizes of Type No's.	Stock No.	Type	Cells	1-19	20-99	100-Up
Burgess: E9, E12, E91	35F1550	2139	1	.30	.28	.24
E133, E502, N46, 515	35F1551	2140*	2**	.45	.43	.36
915, 1015, BA58	35F1552	2171*	3**	.70	.65	.55
Eveready: Z, HG9,	35F1553	2182*	4**	.80	.75	.65
CD6, 9R, HG12R,	35F1554	2189†	2	.40	.38	.34
H133, HK502H	35F1555	2191†	3	.45	.40	.38
920, 930	35F1556	2194†	4	.55	.51	.47
"C" CELL HOLDERS						
Burgess: 1, P6, 120,	35F1557	2173	1	.35	.33	.29
130, H233, 302599	35F1558	2174*	2**	.60	.59	.54
Eveready: E93, 226,	35F1559	2187*	3**	.80	.75	.70
E233, 635, 935,	35F1560	2188*	4**	1.05	.95	.85
1035, BA42	35F1561	2185†	2	.50	.49	.44
	35F1562	2195†	3	.55	.51	.47
	35F1563	2198†	4	.60	.57	.53
"D" CELL HOLDERS						
Burgess: 2, 2R, CD7,	35F1564	2175	1	.35	.33	.29
210, 230	35F1565	2176*	2**	.60	.59	.53
Eveready: BA30, E42,	35F1566	2190*	3**	.85	.80	.75
N56, E95, D99,	35F1567	2192*	4**	1.05	.95	.85
A100, 950, 1050.	35F1568	2186†	2	.50	.49	.44
	35F1569	2199†	3	.60	.56	.51
	35F1570	2162†	4	.65	.62	.55

SPACE SAVER BATTERY CLIPS

Corrosion resistant nickel plated clips with stainless steel contacts. Available with insulated contact or dimple. Clips Carbon Steel, SAE 1065 per mil-S-17919 #4. Contact eyelets stainless steel.

Stock No.	Type	A Dia. Min.-Max.	Steel Thick.	For Cells	1-19	20-99	100-240
35F1572	86	.875 to 1.125	.020	C	.09	.08	.075
35F1573	87	.875 to 1.125	.020	C	.12	.11	.10
35F1574	88	1.187 to 1.350	.020	D	.13	.12	.105
35F1575	89	1.187 to 1.350	.020	D	.10	.09	.08
35F1576	99	.531 to .650	.015	AA	.05	.04	.036
35F1577	100	.531 to .650	.015	AA	.08	.07	.06

BATTERY AND COMPONENT HOLDERS

Clips for secure mounting of round or square battery cells or electric components. Aluminum clips# per QQ-A-362. Steel‡ like above.

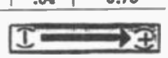
35F1578	71	.650 to 1.280	.015 ‡	T146X	.07	.06	.05
35F1579	91	.531 to .656	.020 #	AA	.07	.05	.04
35F1571	93	.875 to 1.125	.025 #	C	.07	.06	.05
35F1594	94	1.187 to 1.375	.032 #	D	.08	.07	.06

BATTERY RETAINER CLIPS

Prevent battery loosening in battery holder. Slips into ears of the clip. Made of hi-carbon steel, spring and nickel plated. M means mercury cells, P pen.

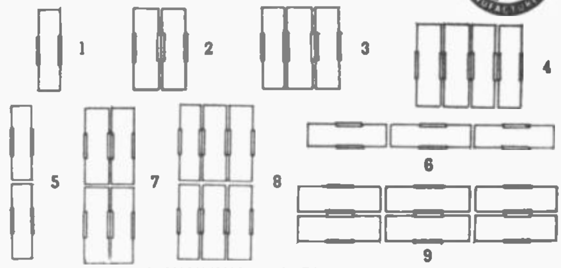
Stock No.	Type	For cells	1-19	20-90	100-Up/C
35F1580	61	M or Pencells	.05	.04	3.75
35F1581	62	"C" to 1$\frac{1}{32}$" dia.	.05	.04	3.90
35F1582	63	"D" to 1$\frac{11}{32}$" dia.	.06	.05	4.05
35F1583	66	M with dia. of .650"	.05	.04	3.75

TYPE 58 POLARITY INDICATING LABELS



Pressure sensitive adhesive back clings to surfaces without gluing or wetting.

35F1584. 100/pack — 100-900 .... **.90/pack**
35F1584A. 1000/pack ....**1M-4M — 5.50**..............**5M-up — 5.00**



ALUMINUM BATTERY HOLDERS

Features excellent electrical contact, low leakage current and snapfit clips. Brass eyelets are nickel plated. Copper lugs are cadmium plated. Fibre insulators moisture proofed. Frame and clip made of 2024-ST4 Aluminum. Custom built holders provided to the customer upon special order. Buyer must call Keystone engineering service directly.

MINIATURE CELL HOLDERS

All Batteries listed below fit all sizes of Type No's.	Stock No.	Type	Cell	Fig.	1-19	20-99	100-Up
Burgess: 7	35F1585	137	1	1	.23	.21	.18
Eveready: 912	35F1586	138	2	2	.38	.34	.30
	35F1587	169	3	3	.49	.44	.36
	35F1588	170	4	4	.64	.57	.51
PENCELL HOLDERS							
Burgess; CD6, 9R, Z,	35F1589	139	1	1	.23	.21	.18
HG9, HG12R, H133,	35F1590	140	2	2	.38	.34	.30
HG502R, 920, 930	35F1591	171	3	3	.49	.44	.36
Eveready: E9, E12,	35F1592	182	4	4	.64	.57	.51
E91, E133, 333, E502,	35F1593	189	2	5	.45	.36	.33
515, 915, 1015, N46	35F1595	192	4	7	.64	.54	.51
	35F1596	193	6	8	.93	.81	.75
"C" CELL HOLDERS							
Burgess: 1, P6, 120,	35F1597	173	1	1	.30	.26	.24
130, H233, 302599	35F1598	174	2	2	.38	.34	.30
Eveready: 226, E233,	35F1599	187	3	3	.45	.36	.33
635, 935, 1035, E93	35F1600	185	2	5	.45	.36	.33
	35F1601	195	3	6	.49	.44	.39
	35F1602	196	4	7	.64	.54	.51
	35F1603	197	6	8	.93	.81	.75
"D" CELL HOLDERS							
Burgess: 2, 2R, CD7,	35F1604	175	1	1	.30	.26	.24
210, 230	35F1605	176	2	2	.38	.34	.30
Eveready: E42, N56,	35F1606	190	3	3	.49	.44	.39
E95, D99, A100,	35F1607	186	2	5	.46	.37	.34
950, 1050	35F1609	200	4	7	.65	.55	.52
	35F1610	201	6	8	.95	.85	.78
	35F1611	205	6	9	.95	.85	.78
1½ VOLT CELL HOLDERS							
Burgess: N	35F1612	154	1	1	.21	.20	.16
Eveready: E340, 904	35F1613	155	2	2	.35	.32	.30
4½ VOLT CELL HOLDERS							
Eveready: 333	35F1617	139	1	1	.23	.21	.18
9 VOLT CELL HOLDERS							
Eveready: 206	35F1618	139A	1	1	.26	.24	.21
Burg.: 2U6; Ever.: 216	35F1619	203P	1	....	.44	.36	.30
15 VOLT CELL HOLDERS							
Burg.: U10; Ever.: 411	35F1622	161	1	1	.30	.26	.24
#161 mounts vertical	35F1623	166	1	1	.30	.26	.24
#166 mounts horiz.	35F1624	167	2	2	.38	.34	.30
Burgess: Y10	35F1625	225	1	1	.21	.20	.18
Eveready: 504	35F1626	226	2	2	.35	.32	.30
22½ VOLT CELL HOLDERS							
Eveready: 420	35F1628	168	1	1	.30	.26	.24
Burg.: U15; Ever.; 412	35F1629	177	1	1	.30	.26	.24
	35F1630	178	2	2	.38	.34	.30
Burg.: Y15; Ever.: 505	35F1631	139A	1	1	.26	.24	.21
30 VOLT CELL HOLDERS							
Burgess: U20	35F1637	183	1	1	.30	.26	.24
Eveready: 413	35F1638	184	2	2	.38	.34	.30

ECONOMY BATTERY HOLDERS

Stk. No.	Type	For Cells	1-19	20-90	100-240
35F1635	212	AA	.16	.14	.13
35F1636	213	C	.18	.16	.14
35F1639	214	D	.20	.17	.15

SPRING TEMPER STEEL AND NICKEL PLATED CLIPS

Stock No.	Type	Mtg. Hole	For Cells	1-9	20-99	100-up
35F1627	206	.128	AA	.04	.03	2.10/C
35F1632	207	.128	C	.04	.03	2.50/C
35F1633	208	.128	D	.05	.04	3.00/C
35F1634	67	.156	D	.05	.04	3.00/C

BURGESS • EVEREADY Radio and Industrial Batteries

BURGESS AND EVEREADY RADIO BATTERIES

Your choice of equivalent Burgess and Eveready batteries for portable radios, tape recorders and hearing aids; NEDA numbers are included in tables for your convenience. These well-known brands are used in government and industrial research labs. and are noted for high quality, dependable performance, and long life.

(*) Price per each in standard package quantity.

COMBINATION "A" AND "B" PACKS

BURGESS Stk. No.	Type	Std. Pack	Each*	Neda #	Volts	Max Dimensions	EVEREADY Stk. No.	Type	Std. Pack	Each*
49F203	6TA60	1	11.40	410	1½A, 90B	9 31/32x2 1/4x4 23/32"	......	......	......	......
49F206	T5Z50	1	8.25	403	6, 7½A, 75B	8 9/16x3 3/4x2 7/16	48F786	755	1	8.25
49F208	F6A60	1	8.95	401	7½, 9A, 90B	9 1/16x2 1/32x4 1/16	48F784	753	1	8.95
49F209	T6Z60	1	7.75	405	7½, 9A, 90B	8 15/16x2 1/8x3 13/16	48F787	756	1	7.75
49F213	T6Z60P	1	......	428	9A, 90B	8 15/16x2 1/8x3 13/16	......	......	......	......
49F210	F6A60P	1	9.25	406	9A, 90B	9 7/16x2 3/4x4 11/32	......	757	1	9.25
49F211	G6B60	1	9.25	400	9A, 90B	14 1/16x2 13/16x4 21/32	48F718	752	1	9.25
49F214	T5Z50P	1	......	431	7½A, 75B	8 1/2x3 5/8x2 3/8	......	......	......	......
49F146	4TZ60	1	7.65	425	1½A, 90B	7 13/16x2 7/32x3 27/32	......	729	1	7.65
......	MGD60	1	10.65	413	1½A, 90B	15 11/16x4 3/8x7 1/16	48F788	759	1	10.65

PORTABLE "B" BATTERIES

BURGESS Stk. No.	Type	Std. Pack	Each*	Neda #	Volts	Max Dimensions	EVEREADY Stk. No.	Type	Std. Pack	Each*
49F180	U30	1	1.75	213	45	1 1/32x5/8x3 11/16	49F351	415	1	1.75
49F160	XX45	1	2.70	200	67½	2 13/16x1 3/8x3 45/64	49F353	467	1	2.70
49F171	P45	1	2.70	211	67½	1 29/32x1x5 7/16	49F354	477	1	2.70
49F161	K45	1	2.70	203	67½	2 13/16x1 3/8x2 1/2	48F708	457	1	2.70
49F179	XX50	1	3.15	212	75	1 15/16x1 11/32x6 15/32	48F706	437	1	3.15
49F163	V60	1	3.15	204	90	3 23/32x1 3/8x3 45/64	48F709	490	1	3.15
49F173	U15	1	1.05	215	22½	1 1/32x5/8x2	49F350	412	1	1.05
49F183	P60	1	2.97	214	90	1 31/32x1 1/32x7 15/32	49F355	479	1	2.97
49F195	UX45	1	2.07	217	67½	1 21/64x63/64x3 1/2	49F352	416	1	2.07
49F196	N60X	1	6.50	216	90	1 15/16x1 15/32x7 7/8	......	......	......	......
49F148	V45	6	2.77	200C	67½	2 3/4x1 11/32x3 43/64	......	......	1	......

PORTABLE "A" BATTERIES

BURGESS Stk. No.	Type	Std. Pack	Each*	Neda #	Volts	Max Dimensions	EVEREADY Stk. No.	Type	Std. Pack	Each*
49F261	1	24	.1625	14F	1½	1 1/32Dx1 15/16	49F381	935	24	.1625
49F127	2F	1	1.22	11	1½	2 19/32x1 3/8x4 1/4	48F722	W353	1	1.22
49F144	21R	1	.52	20	1½	1 11/32Dx4 5/16	49F358	964	1	.52
49F100	2D	1	1.21	18	1½	2 25/32x1 13/32x3 1/32	......	720	......	......
49F101	2R	48	.1625	813	1½	1 11/32Dx2 13/32	49F380	950	48	.1625
49F143	D3	1	2.22	19	4½	4 3/32x1 7/16x2 15/16	......	726	......	......
49F107	Z4	1	.87	2	6	1 7/32x1 7/32x2 7/16	48F711	724	1	.87
49F108	B5	1	2.27	8	7½	3 29/32x7/8x2 27/32	48F710	713	1	2.27
49F109	C5	6	1.23	9	7½	2 7/32x1 15/16x3 1/32	49F357	717	6	1.23
49F104	F3	1	1.23	3	4½	4x1 7/16x4 1/8	48F712	736	1	1.23
49F106	F4PI	1	1.15	6	6	2 21/32x2 21/32x4 1/8	48F713	744	1	1.15
49F215	4D	1	1.35	......	1½	2 5/8x2 5/8x2 13/16	......	......	......	......

TRANSISTOR RADIO AND HEARING AID BATTERIES

BURGESS Stk. No.	Type	Std. Pack	Each	Neda #	Volts	Max Dimensions	EVEREADY Stk. No.	Type	Std. Pack	Each
49F292	NE	6	.08	910	1½	.445Dx1.18	49F385	904	6	.08
48F189	D6PI	1	1.92	1601	3, 6, 9	2 13/16x1 9/16x8	48F719	2506	1	1.92
49F186	2N6	1	1.30	1602	9	1 13/32x1 11/32x2 3/4	49F371	246	1	1.30
49F187	D6	1	1.36	1603	9	2 9/16x2 1/32x3 5/32	49F373	276	1	1.36
49F184	XX9	1	1.30	1900	9, 13½	1 21/64x1 1/32x2 11/16	49F370	239	1	1.30
49F188	2U6	12	.48	1604	9	1 1/32x1 1/16x1 29/32	49F368	216	12	.48
49F191	P5	6	.68	1600	9	1D.x1 15/16	49F369	226	6	.68
49F199	230	12	.19	13	1½	1 11/32D.x2 13/32	49F366	1050	48	.19
48F194	2Z3	1	1.30	1610	4½	1 13/32x1 13/32x2 3/4	48F752	243	1	1.30
49F326	A4	1	2.48		6	1 9/32x1 9/32x2 11/32	......	......	......	......
49F327	D5	1	1.15	26	7½	2 9/16x2 1/32x2 13/16	49F356	707	1	1.15
49F331	C6X	1	1.64	1612	9	2 5/16x1 5/32x6 1/4	48F758	2356N	1	1.64
49F198	130	12	.19	14	1½	1 1/32Dx1 15/16	49F384	1035	12	.19
48F197	930	12	.155	15	1½	9/16Dx1 31/32	49F386	1015	24	0.155
49F190	M6	1	1.36	1605	9	1 13/16x1 13/16x2 7/16	49F372	266	1	1.36
49F330	D6S	1	2.76	1608	9	2 9/32x1 1/4x7 31/32	48F749	2761N	1	2.76
49F124	8R	1	1.85	23	1½	1 11/32Dx4 1/16	......	960P	......	......
49F172	XX15	1	2.10	......	22½	1 23/64x1 1/32x3 15/16	48F733	425P	1	2.10
49F332	Y6 (YL6)	12	.83	1606	9	3/5x3/5x1 9/10	......	E177	......	......
49F334	L6	6	.62	1611	9	3/4Dx2	49F367	206	6	.62
......	......	...	......	......	12	1D.x2 7/16	48F751	333	6	.68
49F340	PM8	1	1.05	1810	12	43/64Dx1 31/32	49F383	228	1	1.05
......	......	......	......	......	9	1 13/32x47/64x4 11/16	49F392	2709N	1	1.05

PREMIUM GRADE TRANSISTOR RADIO BATTERIES

BURGESS Stk. No.	Type	Std. Pack	Each	Neda #	Volts	Max Dimensions	EVEREADY Stk. No.	Type	Std. Pack	Each
49F336	2MN6	12	.64	1604D	9	1 1/32x2 1/32x1 29/30	48F894	222	12	.64
49F335	PM6	6	.80	1600D	9	1Dx1 15/16	......	......	......	......

TAPE RECORDER BATTERIES

BURGESS Stk. No.	Type	Std. Pack	Each	Neda #	Volts	Max Dimensions	EVEREADY Stk. No.	Type	Std. Pack	Each
49F238	2VT8	1	2.00	1700	12	1 5/16x1 5/16x3 19/32	......	......	......	......
49F237	2X62X	1	7.45	......	1½, 9	2 1/2x1 25/32x2 11/32	......	......	......	......
49F298	2X7	1	4.00	......	10½	2 1/2x1 25/32x2 11/32	......	......	......	......

(*) Price per each in standard package quantity.

Industrial Type Batteries BURGESS • EVEREADY

BURGESS AND EVEREADY INDUSTRIAL-TYPE BATTERIES

All the batteries listed below are guaranteed fresh when they leave our stock and carry additional manufacturers' guarantees. Made to high standards and fully inspected, these batteries are of the highest quality. All types listed below have binding post terminals, except where U or K in the type number indicate flat terminals. Similarly, PI denotes plug-in, SC screw type terminals.
Equivalent NEDA numbers are included in tables for your convenience.

INDUSTRIAL AND ELECTRONIC "A" BATTERIES

BURGESS Stk. No.	Type	Std. Pkg.	Each	Neda #	Volts	Max Dimension	EVEREADY Stk. No.	Type	Std. Pkg.	Each
49F261	1	24	.1625	814	1½	1 1/32x1 15/16	49F381	935	24	.16
49F112	2FH	5	.79	700	1½	2 21/32x1 3/8x4 3/8	48F723	711	1	.79
49F102	4F	1	1.15	4	1½	2 3/32x2 5/8x4 3/32	48F782	742	1	1.15
49F103	6F	1	2.69	5	1½	4 3/32x2 3/4x4 1/16	48F757	743	1	2.69
49F113	2F2BP	1	5.35	....	3	5 3/16x1 5/16x4 5/32	....	....	....	....
49F114	2F2H	5	1.92	703	3	2 5/8x2 5/8x4 13/16	48F724	W356	1	1.92
49F115	B2BP	1	2.42	....	3	1 5/8x1 3/16x2 11/16	....	....	....	....
49F116	F2BP	5	1.33	701	3	2 21/32x1 3/8x4 9/16	48F721	W352	1	1.33
49F117	422	1	.79	704	3	1 11/32x2 3/32x2 5/16	48F742	750	1	.79
49F118	432	1	2.90	705	4½	2x1 1/16x2 21/32	48F743	751	1	.87
49F119	532	1	1.36	706	4½	2 15/32x2 7/32x3 1/16	48F740	703	1	1.36
49F142	2F4	1	2.87	1	6	4x2 13/16x5 7/16	....	....	....	....
49F120	F4BP	1	.92	915	6	2 5/8x2 5/8x4 3/8	48F754	510S	1	.92
49F131	5R	12	1.28	....	1½	49/64Dx2 15/64	....	....	....	....
49F133	8F	1	2.76	17	1½	3 29/32x2 23/32x5 1/2	....	....	....	....

INDUSTRIAL AND ELECTRONIC "B"

BURGESS Stk. No.	Type	Std. Pkg.	Each	Neda #	Volts	Max Dimension	EVEREADY Stk. No.	Type	Std. Pkg.	Each
49F178	U10	1	.81	208	15	1 1/32x5/8x1 29/64	48F704	411	1	.81
49F293	Y10	1	.81	220	15	5/8x1 9/32x1 3/8	48F775	504	1	.81
49F173	U15	1	1.05	215	22½	1 1/32x5/8x2	49F350	412	1	1.05
49F294	Y15	1	1.05	221	22½	5/8x1 9/32x1 63/64	48F776	505	1	1.05
49F166	4156	1	1.61	710	22½	3 17/32x2 1/8x2 15/16	48F744	763	1	1.61
49F167	5156PI	1	4.16	721	22½	4 7/64x2 3/8x2 55/64	....	....	....	....
49F168	5156SC	5	4.16	708	22½	4 1/8x2 17/32x3 7/16	48F747	778	1	4.16
49F175	U20	1	1.23	210	30	1 1/32x5/8x2 9/16	48F705	413	1	1.23
49F295	Y20	1	1.30	223	30	1 13/64x5/8x1 27/64	48F769	506	1	1.75
49F129	K10	1	1.28	224	15	1 5/16x3 1/32x1 9/16	48F714	417	1	1.56
49F130	K15	1	1.44	225	22½	1 5/16x3 1/32x2 9/32	48F715	420	1	1.65
49F174	K20	1	1.72	226	30	1 5/16x1x2 13/16	....	....	....	....
49F177	XX30PI	1	2.84	....	45	2 21/32x1 1/8x4 1/32	48F734	455P	1	2.27
49F170	Z30NX	5	2.69	711	22½,45	3 1/32x1 7/8x4 31/32	48F720	W350	1	2.69
49F169	5308	1	3.05	709	22½,45	4 3/32x2 9/16x5 7/16	48F767	762S	1	3.05

INDUSTRIAL AND ELECTRONIC "B" BATTERIES

BURGESS Stk. No.	Type	Std. Pkg.	Each	Neda #	Volts	Max Dimension	EVEREADY Stk. No.	Type	Std. Pkg.	Each
49F155	2308SC	1	7.66	723	45	8 1/32x2 31/32x7 5/8	48F731	W365F	1	7.66
49F156	10308PI	1	7.66	726	45	8 1/32x4 1/16x7 5/8	48F727	W363F	1	7.66
49F157	10308SC	1	7.66	716	45	8 1/32x4 1/16x7 5/8	48F728	W363P	1	7.66
49F158	21308PI	1	8.14	727	45	8 1/8x4 15/32x7 11/16	48F729	W364F	1	8.37
49F159	21308SC	1	8.25	715	45	8 1/8x4 15/32x7 11/16	....	....	....	....
49F165	U-200	1	8.37	722	300	2 3/4x2 9/32x3 29/32	48F738	493	1	8.37
49F150	A30	2	3.46	206	45	3 9/16x2 1/4x4 1/2	48F726	W359	1	3.46
49F151	B30	2	5.40	207	45	4 1/16x2 17/32x5 5/16	48F716	484	1	3.47
49F152	M30	1	2.97	202	45	3 19/32x1 3/4x5 1/2	48F770	482	1	2.97
49F153	XX30	1	2.27	201	45	2 21/32x1x3 11/16	49F707	455	1	2.27
49F154	Z30	1	4.95	205	45	3x2 5/16x4 1/8	48F768	738	1	2.76
49F162	A60	1	14.50		90	4 7/16x3 3/8x4 1/2	....	....	....	....
49F164	XX69	1	4.86	227	103½	1 11/32x1 11/32x11 23/32	....	....	....	....
49F296	Y20S	1	1.30	222	30	5/8x1 9/32x2 9/16	48F717	507	1	1.30
49F176	XX22	1	5.65	....	33	2 31/32x1 1/64x3 1/8	....	....	....	....
49F136	Z30T	1	2.82	....	45	3x2 5/16x4 1/8	....	....	....	....
49F138	Z60BP	1	17.50	....	90	3 3/4x2 11/32x5 15/16	....	....	....	....

INDUSTRIAL "C" CELL SIZE

BURGESS Stk. No.	Type	Std. Pkg.	Each	Neda #	Volts	Max Dimension	EVEREADY Stk. No.	Type	Std. Pkg.	Each
49F230	A3BPX	1	4.60	....	4½	1 31/32x2 3/32x2 1/4	....	....	....	....
49F231	2370PI	1	3.52	718	4½	4 1/16x1 27/64x3 1/16	....	....	....	....
49F232	2370ST	5	2.10	712	4½	4 1/16x1 5/32x3 1/32	....	....	....	....
49F233	5360	1	1.23	714	4½	2 15/32x55/64x3	48F748	781	1	1.23
49F234	W5BP	6	5.80	....	7½	2 31/32x2 3/32x1 3/4	....	....	....	....
49F235	5540	5	1.80	713	7½	4x7/8x3 1/8	48F746	773	1	1.75
49F236	A8BP	1	10.20	....	12	2 25/32x1 25/64x2 15/32	....	....	....	....
49F239	A9BP	1	10.70	....	13½	2 3/32x2 3/32x2 13/32	....	....	....	....

INDUSTRIAL "D" CELL SIZE

BURGESS Stk. No.	Type	Std. Pkg.	Each	Neda #	Volts	Max Dimension	EVEREADY Stk. No.	Type	Std. Pkg.	Each
49F265	210	48	.17	13C	1½	1 11/32Dx2 13/32	49F364	1150	48	.17

IGNITION AND TELEPHONE BATTERIES

BURGESS Stk. No.	Type	Std. Pkg.	Each	Neda #	Volts	Max Dimension	EVEREADY Stk. No.	Type	Std. Pkg.	Each
49F250	4FH	12	.84	900	1½	2 5/8x2 5/8x4 3/8	48F741	735	1	.84
49F251	4F2H	1	1.92	901	3	3 29/32x2 11/16x5 18/16	49F725	W357	1	1.92
49F252	4F4H	1	3.85	902	6	8 3/16x2 13/16x5 7/8	48F755	706	1	4.01
49F253	4F5H	1	4.86	903	7½	7 1/4x4 1/16x5 7/8	48F756	715	1	4.86
49F254	4F6H	1	5.53	904	9	8 37/64x4 1/16x5 7/8	48F773	716	1	5.53
49F140	6 Ign.	12	.91	905	1½	2 5/8Dx6 5/8	49F390	6 Ign.	1	.91
49F266	6 Ind.	12	.90	911	1½	2 5/8Dx6 5/8	....	....	....	....
49F141	S461	4	3.85	907	6	10 1/2x2 23/32x7 19/32	48F774	1461	1	3.85
....	....	....	....	906	1½	2 5/8Dx6 5/8	49F363	6GL	1	.91

Batteries MALLORY • EVEREADY • BURGESS

FLASHLIGHT AND LANTERN BATTERIES

BURGESS							EVEREADY			
Stk. No.	Type	Std. Pkg.	Each	Neda #	Volts	Max. Dimension	Stk. No.	Type	Std. Pkg.	Each
49F260	2	48	.1675	13F	1½	1 11/32Dx2 13/32D	49F380	950	48	.1625
49F265	210	48	.1625	13C	1½	1 11/32Dx2 13/32D	49F364	1150	48	.1625
....	....	....	....	813	1½	1 11/32Dx2 13/32D	49F399	D99	48	.19
49F261	1	24	.1625	19F	1½	1 1/32Dx1 15/16C	49F381	935	24	.1675
49F262	Z	12	.10	15E	1½	9/16x1 31/32AA	49F382	915	24	.13
49F263	7	12	.13	24F	1½	1 1/32Dx1 3/4AAA	49F359	912	12	.13
49F292	NE	6	.08	910	1½	0.445x5Dx1.18	49F385	904	6	.08
49F264	F4M	12	.92	908	6	2 5/8x2 5/8x4 13/32	48F771	509	1	.92
49F316	TW1	1	1.96	918	6	5 3/8x2 7/8x4 15/16	49F361	731	1	1.96
49F305	TW2	1	1.96	926	12	5 3/8x2 7/8x4 15/16	48F789	732	1	1.96
49F323	TW1-X	1	2.40	..	6	5 3/8x2 7/8x4 15/16	....	....	....	....
49F346	4FM	12	.84	922	12	10 1/2x7 13/32	48F750	1463	....	4.01
....	....	....	....	900	1½	2 5/8x2 5/8x4	48F741	735	....	.84
....	....	....	....	920	6	2 21/32x2 21/32x4 1/8	48F759	2744N	....	.85
....	....	....	....	925	6	2 31/32x2 31/32x3/8	48F761	2746N	....	.85
....	....	....	....	923	12	5 11/32x2 27/32x5/32	48F762	2780N	....	2.37
....	....	....	....	930	6	5 12/32x4 21/32x2 21/32	48F895	520	....	3.31

PHOTO FLASH BATTERIES

BURGESS							EVEREADY			
Stk. No.	Type	Std. Pkg.	Each	Neda #	Volts	Max. Dimension	Stk. No.	Type	Std. Pkg.	Each
49F342	120	24	.19	14P	1½	1 15/16Dx1 1/32C	49F388	835	24	.18
49F343	220	12	.19	13P	1½	1 11/32Dx2 13/32D	49F389	850	12	.19
49F344	720	24	.13	24P	1½	1 31/32Dx35/64	....	812	...	....
49F345	920	24	.13	15P	1½	9/16Dx1 31/32AA	49F387	815	24	.1625
49F173	U15	1	1.05	215	22½	1 1/32x5/8x2	49F350	412	1	1.05
49F277	XX150	1	7.20	....	225	4 11/32x2 11/16x4 3/16	48F735	489	1	8.96
49F278	N150	1	7.65	....	225	3 9/16x2 29/32x4 29/32	48F737	492	1	7.65
....	....	....	....	....	240	2 19/32x1 5/16x4 1/2	48F736	491	1	5.56
....	....	....	....	202	45	3x1 19/32x5 5/8	48F739	497	1	11.16
....	....	....	....	....	1½	1 3/32Dx1 3/4AAA	48F783	812	12	.1625
49F152	M30	1	2.97	....	510	3 19/32x1 3/4x5 1/2	48F770	482	1	2.97

RECHARGEABLE CELLS AND BATTERIES

Nickel cadium. Wide temperature range.

1.25 VOLTS

Burgess				Eveready		
Max Dimension	Stk. No.	Type	Each	Stk. No.	Type	Each
.460Dx.225	49F650	CD1	1.05	48F797	B20	1.05
.610Dx.236	49F651	CD2	.74	48F798	B50	.70
.988Dx.232	49F652	CD8	.85	48F799	B100	.77
.988Dx.257	49F653	CD8L	.95	48F800	B100T	.90
.988Dx.275	48F654	CD3	.87	48F801	B150	.80
.988Dx.300	49F655	CD3L	.97	48F802	B150T	.93
.988Dx.350	49F656	CD4	.88	48F803	B225	.83
.988Dx.375	49F657	CD4L	1.03	48F804	B225T	.97
.988Dx.347	....	....	....	48F805	BH225	.97
.988Dx.347	....	....	....	48F806	BH225T	1.10
1.700Dx.300	49F658	CD5	1.47	48F807	B450	1.47
1.700Dx.325	49F659	CD5L	1.60	48F808	B450T	1.60
1.355Dx.38	....	....	....	48F809	BH500	1.75
1.355Dx.38	....	....	....	48F810	BH500T	1.88
1.984Dx.394	....	....	....	48F811	B1	2.66
1.984Dx.394	....	....	....	48F812	BH1	2.79
1.984Dx.394	....	....	....	48F813	BH1T	2.92
1.984Dx.719	....	....	....	48F814	B2	4.69
1.984Dx.719	....	....	....	48F815	B2T	4.82
1.984Dx.988	....	....	....	48F816	B3	5.70
1.984Dx.988	....	....	....	48F817	B3T	5.83
.560Dx1.950	49F661	CD6(AA)	1.93	48F818	C450T	2.10
.560Dx2.275	49F660	CD6L(AA)	2.10	48F819	C450	1.93
.560Dx3.680	49F662	CD9	3.17	48F820	C900	3.17
1.310Dx2.425	49F669	CD12	2.58	48F821	CH750	2.08
1.310Dx2.775	49F696	CD12L	2.71	....	CH750T	2.21
1.031Dx1.969	....	....	....	48F822	CH1.5	4.06
1.344Dx1.508	49F670	CD13	5.18	....	....	....
1.344Dx1.508	49F697	CD13L	5.31	....	....	....
1.01Dx1.945	49F695	CD14	3.40	....	....	....
1.344Dx2.425	49F663	CD7(D)	4.06	48F823	C2	4.06
1.344Dx2.775	49F664	CL7L(D)	4.19	....		
1.300Dx2.425	49F667	CD11(D)	4.53	....	....	....
1.344Dx2.425	49F665	CD10(D)	5.69	48F824	CH4	5.69
1.344Dx2.775	49F666	CD10L(D)	5.84	....		
1.36x.75x3.36	49F683	CD100	6.43	....	....	....

6 VOLTS

Burgess				Eveready		
Max Dimension	Stk. No.	Type	Each	Stk. No.	Type	Each
1.065Dx1.525	49F671	CD21	5.32	....		....
1.065Dx2.650	49F672	CD22	5.32	48F825	N66	4.65
1.800Dx1.725	49F673	CD23	9.48	....		....
1.52Dx4.20	49F681	CD30	19.96	48F826	N67	18.38
3.875x1.562x4.03	49F682	CD31	25.65	48F827	N70	29.62

9.6 VOLTS

1.065Dx3.200	49F674	CD24	9.22	....	....	....
1.065Dx1.975	49F675	CD25	9.16	....	....	....
1.065Dx3.200	49F676	CD25L	9.09	....	....	....
1.800Dx2.575	49F677	CD26	15.52	....	....	....

12 VOLTS

1.065Dx2.925	49F678	CD27	11.04	....	....	....
1.065Dx3.600	49F679	CD28	11.82	....	....	....
1.800Dx3.100	49F680	CD29	17.86	....	....	....

ALKALINE RECHARGEABLE BATTERIES

Unique rechargeable power source. Uses a new electrochemical system, are maintenance free, hermetically sealed, and will operate in any position. Specifically designed for electronic applications where low initial and low operating cost are of paramount importance. Particularly suited for portable battery operated televisions and portable phonographs.

Stk. No.	Type	Volts	Size	Unit Pkg.	Each
48F793	560	7.5	2 21/32x1 7/32x7 5/32"	1	4.62
48F794	561	15	8 1/16x2 13/16x7 5/8"	1	10.62
48F795	563	4.5	12 3/64x2 13/16x5 5/8"	3	2.76
48F796	564	13.5	8 5/16x2 13/16x5 5/8"	1	9.94

BATTERY APPLICATIONS AND ENGR. DATA BOOK

Contains the basic data on All "Eveready" batteries currently in production. Complete line specifications, discharge curves and cross reference information is included.

48F898. NET **5.95**

SILVER OXIDE BATTERIES

Provide a higher voltage and greater milliwatt-hour ratings than existing batteries of similar size. Silver oxide batteries have good low temperature characteristics compared to existing batteries and their impedance is low and uniform. Silver oxide batteries are well suited, for example, for use in hearing aids, electric watches and as reference voltage sources.

Stk. No.	Type	Volts	Size	Unit Pkg.	Each
49F397	S41	1.5	.455Dx.x.165	6	.30
49F398	S76	1.5	.445Dx.20	6	.33

MALLORY

SPECIAL APPLICATION POWER-PAK BATTERIES

Stk. No.	Type	Application	Volts	Each
49F526	302642	Fire Alarm	7.	5.20
49F524	302351	Fire Alarm	5.4	6.30
49F521	302478	Recorder	9.8	6.90
49F528	303314	Forestry	16.8	11.00
49F588	302250	Radiation Equipt.	9.45	3.15
49F589	302358	Radiation Equipt.	10.8	4.10
49F590	302435	Radiation Equipt.	6.75	3.46
49F593	302465	Geophysical	47.25	22.50
49F594	302702	Geophysical	2.8	3.80
49F595	302651	Electronic	1.35	4.80
49F596	302904	Meter	5.4	6.75
49F597	302905	Test Equipt.	6.75	8.05
49F578	303145	Test Equipt.	8.4	6.75

Batteries MALLORY • EVEREADY • BURGESS

MERCURY BATTERY COMPARISON

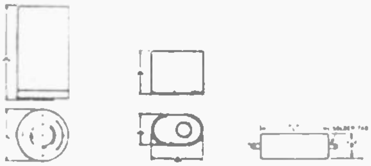
		MALLORY				EVEREADY				BURGESS			
Volts	Dimension	Stk. No.	Type	Std. Pkg.	Each	Stk. No.	Type	Unit Pkg.	Each	Stk. No.	Type	Std. Pkg.	Each
1.4	5/8Dx21/32	49F563	RM1	4	.57	48F843	E1	4	.57	49F750	Hg-1	4	.57
1.35	5/8Dx21/32	49F500	RM1R	4	.64	48F844	E1N	4	.64	49F751	Hg-1R	4	.64
1.35	5/8Dx21/32	49F564	RM1RT	4	.69								
1.35	5/8Dx21/32	49F565	RM1RT2	4	.74								
1.35	1Dx21/32	49F501	RM3R	4	1.05	48F845	E3	4	1.05	49F752	Hg-3R	4	1.05
1.35	1.2Dx21/32	49F502	RM4R	4	1.31	48F846	E4	4	1.31	49F753	Hg-4R	4	1.31
1.35	1.2Dx21/32	49F503	RM4RT	4	1.36								
1.4	1.2Dx1/2	49F504	RM4Z	4	1.00								
1.4	17/32Dx1 31/32	49F530	ZM9	24	.64	48F847	E9	4	.64	49F754	Hg-9	12	.64
1.35	5/8Dx2	49F532	RM12	2	.92	48F849	E12	2	.92	49F755	Hg-12	2	.92
1.35	5/8Dx2	49F505	RM12R	2	1.05	48F850	E12N	2	1.05	49F756	Hg-12R	2	1.05
1.35	5/8Dx2	49F566	RM12RT	2	1.10								
1.35	5/8Dx2	49F567	RM12RT2	2	1.15								
1.4	25/64Dx3/4	49F428	RM24	12	.53								
1.4	1.2Dx2 3/8	49F423	RM42	1	2.85	48F851	E42	1	2.85				
1.35	1.2Dx2 3/8	49F506	RM42R	1	3.15	48F852	E42N	1	2.85	49F757	Hg-42R	1	3.15
1.35	1 2Dx2 3/8	49F507	RM42RT	1	3.20								
1.35	1.2Dx2 3/8	49F568	RM42RT2	1	3.25								
4.05	21/32Dx53/64	49F533	TR113R	2	1.72	48F853	E113	1	1.72	49F758	H-113R	2	1.72
5.4	21/32Dx1 1/16	49F534	TR114R	2	1.85	48F854	E114	1	1.85	49F759	H-114R	2	1.85
6.75	21/32Dx1 5/16	49F535	TR115R	2	2.06	48F856	E115N	1	2.06	49F760	H-115R	2	2.06
11.2	21/32Dx2 1/32	49F450	TR118	10	2.80								
8.4	3/4Dx2	49F570	TR126	12	1.32	48F857	E126	1	1.32	49F761	H-126	12	1.32
2.8	21/32Dx1 5/16	49F431	TR132	2	1.05	48F858	E132	2	1.05				
2.7	21/32Dx1 5/16	49F508	TR132R	2	1.17	48F859	E132N	2	1.17	49F762	H-132R	2	1.17
4.2	21/32Dx2	49F536	TR133	12	1.32	48F860	E133	12	1.32	49F763	H-133	12	1.32
4.05	21/32Dx2	49F571	TR133R	2	1.35	48F861	E133N	2	1.35	49F764	H-133R	2	1.35
5.4	21/32Dx2 9/16	49F510	TR134R	2	1.72	48F862	E134N	2	1.72	49F765	H-134R	2	1.72
6.75	21/32D3 1/4	49F537	TR135R	2	2.00	48F863	E135N	1	2.00	49F766	H-135R	2	2.00
8.1	21/32Dx3 29/32	49F538	TR136R	2	2.40	48F864	E136N	1	2.40	49F767	H-136R	2	2.40
9.45	21/32Dx4 19/32	49F435	TR137R	12	2.76		E137N	1	2.76	49F768	H-137R	1	2.76
7.0	21/32Dx1 3/16	49F572	TR145	2	1.72	48F865	E145	1	1.98	49F769	H-145	2	1.72
8.4	1x19/32x1 15/16	49F511	TR146X	6	1.32	48F866	E146X	6	1.31	49F770	H-146	6	1.31
2.7	15/32Dx1 1/8	49F539	TR152R	2	1.05	48F867	E152N	1	1.05	49F771	H-152R	2	1.05
4.05	15/32Dx1 11/16	49F540	TR153R	2	1.35	48F868	E153N	1	1.39	49F772	H-153R	2	1.35
2.7	21/32Dx7/8	49F541	TR162R	2	1.05	48F869	E162	1	1.05	49F773	H-162R	2	1.05
4.2	21/32Dx1 5/16	49F542	TR163	2	1.31	48F870	E163	2	1.31	49F774	H-163	2	1.31
4.05	21/32Dx1 5/16	49F437	TR163R	2	1.35					49F775	H-163R	2	1.35
5.6	21/32Dx1 3/4	49F544	TR164	12	1.32	48F871	E164	12	1.32	49F776	H-164	12	1.32
5.4	21/32Dx1 3/4	49F439	TR164R	2	1.57					49F777	H-164R	2	1.57
7.0	21/32Dx2 3/16	49F546	TR165	2	1.70	48F872	E165	2	1.70	49F778	H-165	2	1.70
6.75	21/32Dx2 3/16	49F438	TR165R	2	1.90					49F779	H-165R	2	1.90
12.6	21/32Dx3 61/64	49F426	TR169	10	3.50	48F873	E169	1	3.50	49F800	H-169	1	3.50
7.0	31/64Dx1 3/32	49F548	TR175	10	1.05	48F874	E175	10	1.05				
9.8	35/64Dx1 29/32	49F549	TR177	12	1.32	48F701	E177	1	1.29	49F780	H-177	12	1.32
4.2	1 1/16Dx1 31/32	49F512	TR233	10	2.34	48F875	E233	1	2.34	49F781	H-233	1	2.34
4.05	1 1/16Dx1 31/32	49F440	TR233R	10	2.62								
5 4	1Dx2 19/32	49F441	TR234	1	2.76								
5.6	1Dx2 19/32	49F424	TR234R	1	3.15	48F876	E234N	1	3.15				
6.75	1Dx3 1/4	49F527	TR235R	1	3.67	48F877	E235N	1	3.64				
8.1	1Dx3 3/4	49F442	TR236R	5	4.15								
8.4	1Dx1 15/16	49F573	TR286	6	1.35	48F878	E286	6	1.35				
12.6	1Dx2 23/64	49F574	TR289	6	2.70	48F879	E289	6	2.70				
1.4	19/64Dx9/64	49F425	RM312	6	.24	48F880	E312	6	.24	49F782	Hg-312	6	.24
1.4	29/64Dx9/64	49F443	RM400	6	.24					49F783	Hg-400	6	.24
1.35	29/64Dx9/64	49F513	RM400R	6	.35	48F881	E400N	6	.35	49F784	Hg-400R	6	.35
1.35	29/64Dx9/64	49F445	RM400RT2	6	.45								
1.4	29/64Dx1 1/8	49F514	RM401	3	.50	48F882	E401	3	.50	49F785	Hg-401	3	.50
1.35	29/64Dx1 1/8	49F444	RM401R	2	.60					49F786	Hg-401R	2	.60
14.0	1x17/32x1 3/32	49F550	RM411	2	2.00								
22.4	1x17/32x1 5/16	49F551	RM412	2	2.76								
28.0	1x17/32x2 1/2	49F451	RM413	2	3.46								
42.0	1x17/32x3 1/2	49F553	RM415	2	5.10								
10.7	1 1/16x3 5/16	49F452	TR431	1	2.70								
1.35	29/64Dx9/16	49F554	RM450R	4	.53	48F883	E450	4	.53	49F787	Hg-450R	4	.53
1.35	1/2Dx1 31/32	49F427	RM502R	2	.87	48F884	E502	1	.87	49F788	Hg-502R	2	.87
1.4	1/2Dx17/64	49F519	RM520	6	.17	48F885	E520	6	.21	49F789	Hg-520	6	.17
1.4	1/2Dx1/8	49F446	RM575	6	.24							6	
1.35	5/8Dx1 [illegible]/32	49F555	RM601R	2	.83	48F886	E601	1	.83	49F790	Hg-601R	2	.83
1.4	5/8Dx1/4	49F447	RM625	4	.42		E625	4	.42	49F791	Hg-625	4	.42
1.35	5/8Dx1/4	49F556	RM625R	4	.53	48F887	E625N	4	.53	49F792	Hg-625R	4	.53
1.35	5/8Dx1/4	49F520	RM625RT	4	.58								
1.35	5/8Dx1/4	49F575	RM625RT2	4	.63								
1.4	5/8Dx1/4	49F557	RM630	4	.42	48F888	E630	4	.42	49F793	Hg-630	4	.42
1.4	5/8Dx1/4	49F448	RM630R	4	.53					49F794	Hg-630R	4	.53
1 35	5/8Dx7/16	49F559	RM640	4	.42	48F889	E640	4	.42	49F795	Hg-640	4	.42
1.4	29/64Dx13/64	49F561	RM675	6	.32	48F890	E675	6	.32	49F797	Hg-675	6	.32
5.6	17/32Dx1 31/32					48F839	EPX-4	1	1.57	49F798	HPX-4	1	1.57
8.4	17/32Dx4.415					48F840	EPX-6	1	2.75	49F799	HPX-6	1	2.75
1.35	610Dx.233					48F841	EPX-13	4	.50				
2.7	655Dx 614					48F842	EPX-14	1	1.05				
1.5	90Dx 220	49F552	PX825	4	.50								

ALKALINE BATTERIES

1.5"N"	29/64Dx1 1/8	49F586	MN9100	2	.27	48F700	E90	2	.27	49F723	AL-N	3	.27
1.5"AA"	17/32Dx1 31/32	49F583	MN1500	12	.325	49F376	E91	24	.325	49F720	AL-9	12	.325
1.5"AAA'	13/32Dx1 3/4	49F585	MN2400	12	.325	48F790	E92	12	.325	49F722	AL-7	12	.325
1.5"C"	63/64Dx1 15/16	49F582	MN1400	6	.43	49F374	E93	12	.43	49F721	AL-1	6	.43
1 5"1/2D"	1 11/32Dx1 7/32					49F377	E94	12	.39				
1.5"D"	1 21/24Dx2 13/32	49F580	MN1300	12	.60	49F378	E95	12	.60	49F719	AL-2	24	.60
1.5	1 11/32Dx5 7/32					48F702	523	1	.82	49F524	AL-133	12	.82
4.5XSTR	.662D	49F581	MN1306	12	.84	48F792	531	1	.84				
4.5	.662D												

Batteries

SEALED RECHARGEABLE NICKEL CADMIUM BATTERIES



Typical Cylindrical Cell

Typical Oval Cell

Typical Button Cell Battery

General Electric incorporates its own thin sintered plate construction into its nickel-cadmium batteries to produce a cell ideal for instruments, appliances, photo-flash and all portable devices. Sporting a 1.2 average voltage, these batteries can perform 5000 cycles at discharge depth not exceeding 25% of rated capacity. Will operate in temperatures ranging from —40°C to +60°C, with an optimum range of —20°C to +40°C. May be stored indefinitly at a range of —60°C to +60°C.

Button Cell

Cylindrical Cells

Button Cells. Compact size permits easy stacking to form multiple cell battery configurations with resulting optimum space utilization and power-volume ratio. Particularly suited for low-drain, high capacity applications.

BUTTON CELLS & BATTERIES

A-H Capacity: 1 hr. rate is .080, 10 hr. rate is .100, 8 MA charge

Stk. No.	Type	Nom. Volt.	DXL		Wt. Oz.	1-9	10-49	50-99
49F962	GB10	1.25	.900	.210	.23	1.35	1.23	1.08
49F600	2GB10	2.50	1.006	.806	.80	3.09	2.81	2.49
49F601	3GB10	3.75	1.006	1.028	1.20	4.64	4.22	3.73
49F602	4GB10	5.00	1.006	1.252	1.40	6.15	5.62	4.98
49F603	5GB10	6.25	1.006	1.475	1.60	7.73	7.03	6.21
49F604	6GB10	7.50	1.006	1.698	1.88	9.28	8.47	7.47
49F605	7GB10	8.75	1.006	1.921	2.16	10.80	9.84	8.70
49F606	8GB10	10.00	1.006	2.143	2.44	12.38	11.20	9.90
49F607	9GB10	11.25	1.006	2.366	2.72	13.90	12.65	11.20
49F608	10GB10	12.50	1.006	2.588	3.00	15.46	14.06	12.42
A-H Capacity: 1 hr. rate is .180, 10 hr. is .230; 18 MA charge								
49F963	GB18	1.25	.980	.300	.39	1.40	1.28	1.12
49F612	2GB18	2.50	1.081	.991	1.30	3.19	2.92	2.55
49F613	3GB18	3.75	1.081	1.306	1.70	4.79	4.38	3.83
49F614	4GB18	5.00	1.081	1.620	2.20	6.38	5.84	5.10
49F615	5GB18	6.25	1.081	1.934	2.50	7.97	7.30	6.38
49F616	6GB18	7.50	1.081	2.248	2.94	9.58	8.75	7.65
49F617	7GB18	8.75	1.081	2.561	3.38	11.15	10.20	8.93
49F618	8GB18	10.00	1.081	2.874	3.82	12.75	11.69	10.20
49F619	9GB18	11.25	1.081	3.188	4.26	14.33	13.13	11.50
49F620	10GB18	12.50	1.081	3.501	4.70	15.94	14.06	12.76
A-H Capacity: 1 hr. rate is .250, 10 hr. is .300; 25 MA charge								
49F965	GB25	1.25	1.350	.210	.58	1.46	1.33	1.16
49F966	2GB25	2.50	1.464	.811	2.00	3.34	3.04	2.64
49F624	3GB25	3.75	1.464	1.036	2.50	5.00	4.56	3.96
49F625	4GB25	5.00	1.464	1.260	3.20	6.68	6.08	5.28
49F626	5GB25	6.25	1.464	1.484	3.80	8.34	7.60	6.60
49F627	6GB25	7.50	1.464	1.708	4.40	10.00	9.12	7.92
49F628	7GB25	8.75	1.464	1.931	5.00	11.65	10.63	9.24
49F629	8GB25	10.00	1.464	2.154	5.60	13.34	12.15	10.55
49F967	9GB25	11.25	1.464	2.378	6.20	15.00	13.70	11.88
49F630	10GB25	12.50	1.464	2.601	6 80	16.68	15.20	13.20

A-H Capacity: 1 hr. rate is .500, 10 hr. is .600; 50 MA charge

Stk. No.	Type	Nom. Volt.	DXL		Wt. Oz.	1-9	10-49	50-99
49F968	GB50	1.25	1.350	.380	1.0	1.63	1.49	1.30
49F969	2GB50	2.50	1.464	1.151	2.9	4.00	3.65	3.20
49F632	3GB50	3.75	1.464	1.546	3.9	6.00	5.65	4.80
49F633	4GB50	5.00	1.464	1.941	5.0	8.00	7.30	6.40
49F634	5GB50	6.25	1.464	2.335	5.9	10.00	9.13	8.60
49F635	6GB50	7.50	1.464	2.729	6.9	12.00	10.95	9.60
49F636	7GB50	8.75	1.464	3.123	8.0	14.00	12.78	11.20
49F637	8GB50	10.00	1.464	3.517	9.1	16.00	14.60	12.80
49F638	9GB50	11.25	1.464	3.911	10.1	18.00	16.40	14.40
49F639	10GB50	12.50	1.464	4.305	11.2	20.00	18.26	16.00
A-H Capacity: 1 hr. rate is .750, 10 hr. is 1:00; 80 MR charge								
49F970	GB100	1.25	2.000	.340	2.25	3.08	2.82	2.47
49F971	2GB100	2.50	2.096	1.063	7.10	7.05	6.43	5.68
49F900	3GB100	3.75	2.096	1.414	9.40	10.58	9.70	8.52
49F901	4GB100	5.00	2.096	1.764	11.6	14.10	12.86	11.36
49F902	5GB100	6 25	2.096	2.114	13.9	17.67	16.15	14.20
49F930	6GB100	7.50	2.096	2.464	16.10	21.18	19.34	17.00
49F931	7GB100	8.75	2.096	2.813	18.30	24.60	22.60	19.85
49F905	8GB100	10.00	2.096	3.162	20.6	28.25	25.85	22.70
49F932	9GB100	11.25	2.096	3.512	22.90	31.80	29.10	25.55
49F907	10GB100	12.50	2.096	3.861	25.0	35.30	32.30	28.40
A-H Capacity: 1 hr. rate is 1.75, 10 hr. is 2.00; 175 MA								
49F964	1GB200	1.25	2.000	.610	3.5	4.70	3.85	3.36
49F925	2GB200-2	2.50	2.096	1.597	10.80	9.85	8.85	7.71
49F910	3GB200	3.75	2.096	2.215	14.3	14.45	13.25	11.57
49F926	4GB200-2	5.00	2.096	2.832	18.20	19.70	17.70	15.42
49F912	5GB200	6.25	2.096	3.449	22.1	24.10	22.10	19.30
49F927	6GB200-2	7.50	2.096	4.006	25.60	28.90	26.50	23.15
49F928	7GB200-2	8.25	2.096	4.682	29.20	33.75	30.90	27.00
49F915	8GB200	10.00	2.096	5.298	33.7	38.55	35.35	30.85
49F929	9GB200-2	11.25	2.096	5.915	37.60	43.45	39.80	34.70
49F917	10GB200	12.50	2.096	6.531	41.5	48.20	44.20	38.60

CYLINDRICAL CELLS — 1.25 VOLTS

Cylindricai Cells provides maximum discharge rates and capacity. Suited for cordless consumer and electronic products. General Electric cylindrical cells feature a resealable vent mechanism designed to relieve any harmful or unnecessary pressure build-up. This new development insures a longer life, even under infreauent and abnormal operation.

SOLDER TABS AND JACKET

Stk. No.	Type	A-H Capacity		Charge Current MA	Size	W x H Inches	Wt. Oz.	1-9	10-99	100-999
		1 hr.	10 hr.							
49F933	GC902-1	.150	.165	15	⅓ A	.625x .640	.4	1.61	1.48	1.29
49F935	GC903-1	.250	.275	.25	½ AA	.542x1.255	.6	1.47	1.35	1.19
49F937	GC5-1	.500	.660	50	AA	.554x1.935	1.0	1.49	1.32	1.20
49F955	GC6-1	.600	.880	60	A	.625x1.940	1 0	1.58	1.44	1.26
49F938	GC9-1	.900	1.200	80	⅘ C	1.038x1.154	1.5	1.77	1.62	1.43
49F958	GC10-1	1.000	.880	100	Sub C	.875x1.620	1.5	1.85	1.70	1.49
49F939	GC10A-1	.800	1.200	80	Sub C	.875x1.620	1.5	1.71	1.56	1.38
49F940	GC11-1	1.000	1.800	100	⅔ C	1.004x1.300	1.1	1.85	1.70	1.49
49F952	GC15-1	1.500	1.800	150	C	1.004x1.840	2.5	2.53	2.30	2.03
49F951	GC20-1	2.000	2.300	200	½ D	1.272x1.420	2.8	3.22	2.95	2.57
49F950	GC35-1	3.500	4.000	350	D	1.289x2.320	5.0	5.50	4.95	4.50
49F976	GC40-1	4.000	4.400	400	Oval	2.08 x1.26x 1.68	6.4	7.17	6.58	5.72
POSITIVE BUTTON AND JACKET										
48F934	GC902-2	.150	.165	.15	⅓ A	.625x .720	.4	1.61	1.48	1.29
49F936	GC5A-2	.450	.500	.45	AA	.542x1.969	1.0	1.47	1.35	1.19
49F972	GC5-2	.500	.550	50	AA	.554x1.969	1.0	1.49	1.32	1.20
49F973	GC15-2	1.500	1.800	150	C	1.004x1.940	2.7	2.53	2.30	2.03
49F975	GC35-2	3.500	4.000	350	D	1.272x2.420	5.2	5.50	4.95	4.50

RECTANGULAR CELLS

Rectangular Cells. Special-purpose sealed, pressure-relieved and vented rectangular cells provide higher discharge capability and permit faster charging rates than the button and cylindrical configurations. For communications equipment, tools.

Stock No.	Type	Nom Volts	A-H Capacity 10 hr rate	Size Inches LxWxH	Wt. Lbs.	1-9	10-99	100-Up
49F977	5GR4	6.25	4.4	3.6x2.6x3.0	2.3	58.80	53.90	47.00
49F978	10GR4	12.50	4.4	6.9x2.6x3.0	4.5	118.00	107.50	94.00

Rechargeable batteries of virtually any voltage may be obtained by simply connecting General Electric's cells in series. For example, to obtain 12 volts of power, ten G.E. 1.2 volt cells would be connected in series.

BIG BEAM

AUXILIARY EMERGENCY LIGHT

Model 2-75. Emergency Lighting System. Constructed of 20-gauge steel with acid-resistant enamel finish and full length piano-type hinged top. Built-in wall-mounting brackets, two snap catches for cover, and two wire, SJ type cord and plug. Equipped with heavy duty relay, voltmeter, neon indicator. Each lighting head illuminates 2,500 sq. ft. 5 hours continuously. U.L. Listed. Size: 7⅞ x 11¾ x 4$\frac{7}{16}$". Overall ht.: 14⅜". **Less battery.**

Stk. No.	Model	1-5	6-Up
49F860	2-75	29.96	23.96

Batteres for above (1 Req'd)

49F253. Burg. 4F5H 4.86
48F756. Ev. 751 .... 4.86

ECONOMY TRICKLE CHARGE LIGHT

Uses Lead Acid Battery

Model 2T30. Trickle charger restores battery to full capacity after each outage. Observation ports for inspection of hydrometer indicating discs and water level in cells. Unit uses 2 SJ type cord and plug. 2 silicon full wave rectifiers, heavy duty relay and transformer. Uses 6 volt plastic jar lead acid battery of 30 amp. hr. capacity. **Less battery — See below.** UL Listed. 9¼ x 12 x 6". Overall height: 15½".

Stock No.	Model	1-2	3-Up
49F850	2T30	46.35	43.78

Battery for above (1 req'd)

Stock No.	Model	1-2	3-Up
49F852	330	33.75	31.88

EVEREADY LIGHTS

RECHARGEABLE LANTERN

Type 3400. 1 amp sealed beam provides a bright light of 13,000 candlepower. Lantern comes with its own cord, and can be operated in home, car, or boat. Powered by "EVEREADY" NICKEL CADMIUM BATTERIES. Can be recharged from any standard AC household outlet. Guaranteed—listed by Underwriters Laboratories. Shpg. wt.: pkg. of 2—11 lbs.
48F900. NET **23.97**

Type 3112. "Commander" rechargeable lantern. Contains powerful, high quality, nickel cadmium batteries. More than one and three-quarter hours of continuous, bright light per charge. Self-contained electrical cord for recharging. Can be recharged in any 120V AC outlet.
48F908. NET **11.97**

RECHARGEABLE FLASHLIGHTS

Type 3300. Over 1 hour of dependable light per charge. Batteries: nickel cadmium. Bulb: PR-3. Recharges from any standard AC household outlet. Light equals a standard 3 cell flashlight. A 4 volt power pack. Guaranteed: listed by Underwriters' Laboratories.
48F897. NET **8.97**

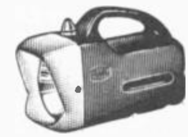
Type 3200. Compact rechargeable. Black. Bulb: 222. Battery: nick. cad.
48F904. NET **5.97**

Type 6300. Contains nickel cadmium batteries. Holds charge though stored for year. Bulb: PR2. Finish: Diablo red/Oyster white. Ready for immediate application. Over hour continuous light/charge.
48F905. NET **7.77**

Type 6200. Compact adaption of 6300. Finish: Frost blue/Oyster white. Bulb: PR-2.
48F906. NET **4.77**

ALL-AMERICAN LANTERNS

Type 108A. Waterproof switches and wiring. "Cord-ahide" construction — lightweight. Resists oils, greases, most chemicals, temp. extremes. Easy-to-hold large handle. In colors of red.
48F896. NET **2.65**



Type 112. Lantern features a unique "Power Cartridge" using 5 size "D" batteries. Powerful long distance beam. Rugged Cordahide polyethylene construction. Unbreakable lens. Non-tarnishing reflector. Resists oils Quite capable of withstanding temperature extremes of all kinds. Uses PR-12 buib.
48F907. NET **1.99**

EVEREADY UTILITY LIGHT

Type 330. Resists oils, most chemicals and withstands temperature extremes. Has insulated case, non-breakable lens and built-in bulb protector. Shpg. wt. 1 lb.
48F764. Type 330. NET .... **.70**
48F778. Type 337. As above, w/magnet.
NET .... **.94**

FLASH LIGHTS FOR INDUSTRY

TYPE 1251

Impervious to water, gasoline, alcohol, temperature extremes; Bureau of Mines and U.L. listed. Shpg. wt. ⅔ lb.
48F901. NET **1.93**

TYPE 1259

As above. but approved by Bureau of Mines and U.L. listed for use in hazardous locations. Shpg. wt. ⅔ lb.
48F902. NET **2.74**

TYPE 308 CT

Combination spotlight-continuity tested, High quality tool for professionals. Shpg. wt. ⅔ lb.
48F903. NET **4.15**

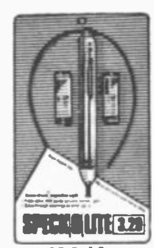
KURZ-KASCH

● *NEW* SPECK-O-LITE

The amazing Speck-O-Lite takes advantage of a new breakthrough in the science of optics: the fiber optic light guide. The Speck-O-Lite can effectively bend light around corners, take light into tiny crevices, and slide light through narrow slits that completely frustrate conventional lighting devices. Use the shock-proof Speck-O-Lite to illuminate impossible-to-reach parts in a sophisticated assembly; read code markings on small parts without removing them from the recesses of an enclosure; light enclosed components from the inside if you have an opening as small as ⅛" thick.

Stock No.	Type	NET
35F1440	SL-11 (Complete Unit)	3.29
35F1441	SLA-10 (Adapter)	1.49
35F1442	RBA-8 (Replacement Bulb)	.49

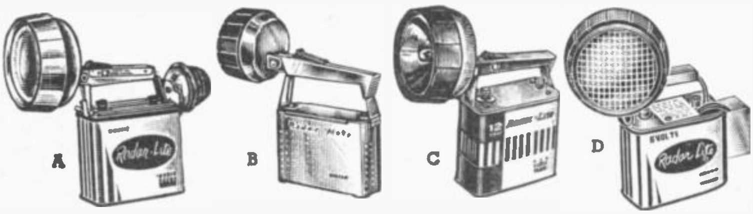
SL-11



SLA-10

Batteries, Lanterns and Accessories

BURGESS



A B C D

SAFARI LIGHT

Safe, bright, economical fluorescent lantern for tents, boats, patios. Battery or AC powered. Requires 2 No. Z46 batteries. Operates for only a few cents per hour. Size: 4"x 7¾" x 12¾". Shpg. wt., 11 lbs. (With Battery)
49F801. .... **18.31**

49F802. Pkg. of 2 batteries 5.86

Fig. A—HANDY RADARLITE

Model TW3. 40,000 CP sealed beam headlight unit penetrates a half mile. Automatic red flasher is visible a mile down the highway. With battery. Size: 5⅛x2⅞x4¹⁵⁄₁₆". Shpg. wt. 5¼ lbs.
49F314. NET **8.96**

Model TW4. Not shown. As above, but less red flasher.
49F315. NET 7.06

49F316. TW1 battery for above. **NET** 1.96

25F148. Replacement lamp. **NET** 2.55

49F329. TWI-G battery in grey finish. **NET** 1.96

49F323. TWIX extended life battery. **NET** 2.40

Fig. B—BURGESS RADAR MATE

Model JR1. The Radarlite concept applied to a smaller portable light. Features: separate head and battery container. Light beam from sealed head, weatherproof switch and corrosion-proof construction. Uses 3 Burgess No. 2 (D) flashlight batteries. Less batteries. Shpg. wt., 1½ lbs.
49F319. NET **3.32**

Fig. C—12-VOLT PORTABLE LIGHT

Model TW-12. 12 volt Radar-Lite offers the brightest light possible in a portable light. Combines heavy-duty 12 volt Burgess battery with powerful reflector type lamp. Reflector is made from multi-faceted, vacuum aluminized material to provide a more powerful evenly distributed light. With battery.
49F322. NET **7.14**

Model TW-2. Replacement battery.
49F305. NET 1.96

Fig. D—POWER FAILURE EMERGENCY LANTERN

Automatic relay turns lamp on the instant AC-power fails. Plug and 6-ft. extension cord connect to any 110 volt, 60 cycle outlet. 40,000 Candlepower, **sealed beam. Shpg. wt., 6 lbs.**

Stk. No.	Type	Description	NET
49F320	TW6E	Flood beam (Lamp No. 4512)	14.60
49F321	TW4E	Spot beam (Lamp No. 4546)	19.46
49F316	TWI	Replacement battery for above	1.96
49F323	TW1X	Extended life battery	2.40

357 563 263

No. 357.—Enamel finish; chrome trim. Locking on-off switch. Requires two No. 2 cells. Shpg. wt., 8 oz. Less battery.
49F300. NET **1.43**

No. 257.—Baby-sized version of No. 357. Requires two No. 1 cells. 5 oz. Less battery.
49F301. NET **1.43**

No. 361. Same as 357 except all-chrome finish. Requires two No. 2 cells. Shpg. wt., 8 oz. Less battery.
49F192. NET .... **.70**

No. 457. Prefocused 4 cell flashlight for extra strong beam.
49F324. NET **2.25**

No. 563. Penlight. Smart chrome pocket-size pen-type case with new push button switch. Requires two No. 7 cells. Shipping weight, 2 ounces. Less battery.
49F241. EACH .... **.90**

No. 663. Heavy duty penlight. Handsome chrome penlite case with push button switch. Requires two No. Z cells. Shipping weight, 3 ounces. Less battery.
49F242. EACH .... **.90**

No. 263. Same as #363, but with permanent Alnico magnet of 15 lb. gripping force. Shpg. wt., 10 oz. Less battery.
49F349. .... **1.46**

763 161 163

No. 763. Snap lite. Slim-line pocket lite with push-button control. Uses 2 No. 7 cells and No. 224 lamp. Less battery. 2 oz.
49F240. EACH .... **.90**

Type 163. Tuffy flashlight. Non-breakable case, full-size reflector, positive-action switch. Comes in variety of colors. Uses two No. 2 cells. **Less battery.**
49F338. EACH .... **.76**

Type 161. Magnet light which adheres to all metal surfaces. Non-breakable brite-glo head, positive action switch, aluminized reflector, and alnico magnet. Less battery. Shpg. wt., 8 oz.

Stock No.	Type No.	NET Each	Pkg. of 6 Each
49F299	161	1.46	1.33

Type K30P-K. Battery and bulb kit includes a 45 volt metal jacketed battery (type K30P), designed especially for wink-light operation and type 428 bulb.
49F337. EACH **1.67**

(Pkg. of 6 EACH) **1.67**

No. 363. Industrial flashlight with steel reinforced reflector. Flexible vinyl head. Replaceable switch. Uses 2 No. 2 cells and PR2 lamp. Less battery. Shpg. wt., 8 ounces.
49F313. EACH **1.25**

MALLORY

POWER BEAM COMPACT FLASHLIGHT

Model 807B. Throws a 250 foot beam. Unique, flat shape prevents rolling. With two Mallory MN-1500 magnesium batteries for five hours continuous lighting or eight hours of on-off operation. Rust proof, high impact casing.
49F598. NET **1.40**

NICKEL CADMIUM POWER PACK

Model CD-33. Six volt battery can be recharged hundreds of times. Includes cord which plugs into wall socket for recharging. Useful for hand lanterns, emergency lights, marine running lights and burglary alarms. After 60 recycles, the CD-33 has paid for itself. UL approved. Wt. 2½ lbs.
49F804. NET **27.70**

MAGNET WAND LIGHT

Model 267. High impact plastic with detachable nite-glow safety wand acts as signal or aims the beam for precision work. Strong magnet holds lite to metal surfaces, freeing both hands for work. Stores easily in glove compartment for emergency highway use. Ideal for boat, farm and home use. Impervious to oil, most chemicals and temperature extremes. Less batteries. Shpg. wt. 8 oz.
49F805. NET **1.20**

DOLPHIN LANTERN

Model 164. Features an air pocket in head which makes the lantern float when in water. Uses a Burgess Number F4M battery. Comes without batteries. All plastic—weatherproof. Rustproof.
49F341. NET **1.97**

ELECTRONIC COMPONENTS BATTERY CHARGERS

CHARGERS FOR NICKEL CADMIUM BATTERIES

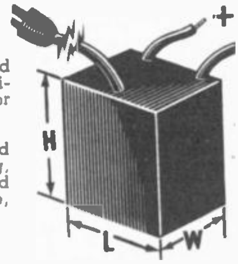
STANDARD CHARGERS

NUMBER OF CELLS @ 1.25V DC PER CELL

Nominal Charge Rate With 115 V AC 60 Cycle Input

	1	2	3	4	5	6	7	8	9	10	11	12
25 MA.	1-025 *	2-025	3-025	4-025	5-025	6-025	7-025	8-025	9-025	10-025	11-025	12-025
50 MA.	1-050 *	2-050	3-050	4-050	5-050	6-050	7-050	8-050	9-050	10-050	11-100	12-050
100 MA.	1-100	2-100 *	3-100 *	4-100 *	5-100 *	6-100	7-100	8-100	9-100	10-100 *	11-050	12-100
150 MA.	1-150	2-150	3-150	4-150	5-150	6-150	7-150	8-150	9-150	10-150	11-150	12-150
200 MA.	1-200	2-200	3-200	4-200	5-200	6-200	7-200	8-200	9-200	10-200 *	11-200	12-200
250 MA.	1-250	2-250	3-250	4-250	5-250	6-250	7-250	8-250	9-250	10-250	11-250	12-250
300 MA.	1-300	2-300	3-300	4-300	5-300	6-300	7-300	8-300	9-300	10-300 *	11-300	12-300
400 MA.	1-400	2-400 *	3-400 *	4-400 *	5-400 *	6-400	7-400	8-400	9-400	10-400 *	11-400	12-400
500 MA.	1-500	2-500	3-500	4-500	5-500	6-500	7-500	8-500	9-500	10-500 *	11-500	12-500

* "Off the shelf delivery." All others 1 week.



INPUT: UL approved line cord; 48" minimum free length, color cream white.

OUTPUT: UL approved lead wire. 10" long, ends stripped and tinned, red positive, black negative.

SIZE CHART

		L W H
	"A"	1⅜"x1$^{3}/_{16}$"x2$^{1}/_{16}$"
	"B"	1¾"x1¾x2¼"
	"C"	2⅜"x2⅜"x2¾"

HOW TO USE CHART

To determine the recommended ECC battery charger to be used 2 things must be known. (1) number of cells, and (2) amp hour capacity of cell. For example: a 4 cell battery with an amp hour rating of 1.0 ampere hours on each cell—charger to be used from chart would be No. 4 which denotes number of cells. Charge rate would be $^{1}/_{10}$ of an amp hour rating or 100MA. Top to bottom (left side of chart) where number of cells and MA ratings cross is recommended ECC charger to be used.

STANDARD CHARGER PRICE LIST

Group	Ecc Part Number	1-9	10-24	25-49	50-99	100-499
1	1-025, 2-025, 3-025	4.50	3.60	2.88	2.30	1.84
2	1-050, 2-050, 3-050, 4-025, 5-025, 6-025	4.90	3.92	3.14	2.51	2.01
3	1-100, 2-100*, 3-100*, 4-050, 5-050, 6-050, 7-025, 8-025, 9-025	5.30	4.24	3.40	2.72	2.18
4	1-150, 2-150, 3-150, 4-100*, 5-100*, 6-100, 7-050, 8-050, 9-050, 10-025*, 11-025, 12-025	5.70	4.56	3.66	2.93	2.34
5	1-200, 2-200, 3-200, 4-150, 5-150, 6-150, 7-100, 8-100, 9-100, 10-050*, 11-050, 12-050	6.10	4.88	3.92	3.14	2.51
6	1-250, 2-250, 3-250, 4-200, 5-200, 6-200, 7-150, 8-150, 9-150, 10-100*, 11-100, 12-100	6.50	5.20	4.18	3.34	2.67
7	1-300, 2-300, 3-300, 4-250, 5-250, 6-250, 7-200, 8-200, 9-200, 10-150, 11-150, 12-150	6.90	5.52	4.44	3.55	2.84
8	1-400, 2-400*, 3-400*, 4-300, 5-300, 6-300, 7-250, 8-250, 9-250, 10-200*, 11-200, 12-200	7.30	5.84	4.70	3.76	3.01
9	1-500, 2-500, 3-500, 4-400*, 5-400*, 6-400, 7-300, 8-300, 9-300- 10-250, 11-250, 12-250	7.70	6.16	4.96	3.97	3.18
10	4-500, 5-500, 6-500, 7-400, 8-400, 9-400, 10-300*, 11-300, 12-300	8.10	6.48	5.22	4.18	3.34
11	7-500, 8-500, 9-500, 10-400*, 11-400, 12-400	8.50	6.80	5.48	4.38	3.50
12	10-500*, 11-500, 12-500	8.90	7.12	5.74	4.58	3.66

BATTERY CHARGERS FOR NICKEL CADMIUM BATTERIES

Charger design provides complete isolation from line voltage and hence maximum safety to user. By means of an isolation transformer tested at 2000 volts RMS as well as complete potting, all possibility of shock and hazard due to accidental immersion in water or other liquid is eliminated. This unit consists of transformer, rectifier, and current limiting resistance which produces half wave rectification with constant current. UL and CSA approved.

* CHARGERS

Stk. No.	Type	MA	Cells	1-9	10-24	25-49	50 99	100-499
66F350	2-100	100	2	5.30	4.24	3.40	2.72	2.18
66F351	3-100	100	3	5.30	4.24	3.40	2.72	2.18
66F352	4-100	100	4	5.70	4.56	3.66	2.93	2.34
66F353	5-100	100	5	5.70	4.56	3.66	2.93	2.34
66F354	10-025	25	10	5.70	4.56	3.66	2.93	2.34
66F355	10-050	50	10	6.10	4.88	3.92	3.14	2.51
66F356	10-100	100	10	6.50	5.20	4.18	3.34	2.67
66F357	2-400	400	2	7.30	5.84	4.70	3.76	3.01
66F358	3-400	400	3	7.30	5.84	4.70	3.76	3.01
66F359	10-200	200	10	7.30	5.84	4.70	3.76	3.01
66F360	4-400	400	4	7.70	6.16	4.96	3.97	3.18
66F361	5-400	400	5	7.70	6.16	4.96	3.97	3.18
66F362	10-300	300	10	8.10	6.48	5.22	4.18	3.34
66F363	10-400	400	10	8.50	6.80	5.48	4.38	3.50
66F364	10-500	500	10	8.90	7.12	5.74	4.58	3.66

* See listing of charges, in stock, available. "Off the shelf" delivery.

SEE KEYSTONE PAGE FOR BATTERY HOLDERS AND CLIPS.

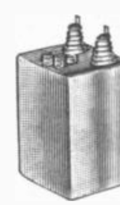
PLASTIC CAPACITORS, INC.

HIGH VOLTAGE D.C. POWER PACKS

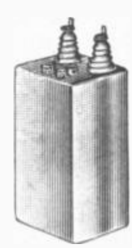
Hermetically sealed, oil filled, hot-tinned or lead coated plate steel container with enamel coating. 118 volt 60 Hz input. Output operation from zero to rated voltage by adjusting input. All units have positive or negative polarity. Long life selenium rectifiers requiring no warm-up for rectifier filaments. May be mounted in any position. Max ambient 85°C. Supplied with footed brackets.

	Type	KV	MA	Size	Wt. Lbs.	NET
19F3674	HV10-152M	0-1	1.5	3¾x1¾x3⅜	1	42.00
19F3673	HV10-103M	0-1	10	3¾x2¼x3⅜	2	51.20
19F3675	HV20-152M	0-2	1.5	3¾x1¾x3⅜	1	42.00
19F1285	HV20-502M	0-2	5	3¾x2¼x3⅜	2½	51.10
19F3677	HV25-103M	0-2.5	10	3¾x2¼x3¾	3	63.90
19F3676	HV50-152M	0-5	1.5	3¾x2¼x3⅜	2	47.50
19F1286	HV50-502M	0-5	5	3¾x2¼x3¾	3¼	64.50
19F3678	HV50-103M	0-5	10	3¾x4$^{9}/_{16}$x5⅞	8	99.00
19F3679	HV100-152M	0-10	1.5	3¾x3$^{1}/_{16}$x4½	4	73.50
19F1287	HV100-502M	0-10	5	3¾x4$^{9}/_{16}$x6⅞	8⅛	99.00
19F3680	HV100-103M	0-10	10	3¾x4$^{9}/_{16}$x8	12	144.00
19F3681	HV150-152M	0-15	1.5	3¾x3$^{1}/_{16}$x5½	5	99.00
19F3682	HV150-502M	0-15	5	3¾x4$^{9}/_{16}$x5⅛	9⅛	103.70
19F1288	HV200-152M	0-20	1.5	3¾x4$^{9}/_{16}$x5⅞	9	125.50
19F1289	HV200-502M	0-20	5	3¾x4$^{9}/_{16}$x8	12⅛	99.00

HV100



HV150



HV200

Stk. No.	Type	KV	MA	Size	Wt. Lbs.	NET
19F3683	HV300-152M	0-30	1.5	3¾x4$^{9}/_{16}$x7½	11	182.50
19F3684	HV300-502M	0-30	5	4$^{11}/_{16}$x6x8½	18	192.00
19F3685	HV500-152M	0-50	1.5	4$^{11}/_{16}$x6x8½	18	223.00
19F3686	HV500-502M	0-50	5	5⅝x7⅜x12$^{3}/_{16}$	26	311.00
19F3687	HV750-152M	0-75	1 5	5⅝x7⅝x12$^{3}/_{16}$	26	352.50

Battery Charger & Power Supplies

GENERAL ELECTRIC

BATTERY CHARGER & NICKEL CADMIUM BATTERIES

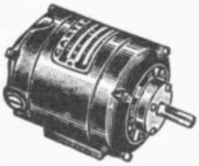
PERMA-CELL BATTERY CHARGER. Eliminates constant replacing of dead or weak batteries in any battery-operated appliance. It charges batteries automatically. Works on standard (60 hz AC) household current. Brings battery to peak performance in 15 hrs. Charges 2 or 4 of any nockel-cadmium battery types in any combination. Terminal configuration prevents reverse charging. Spring loaded to assure proper contact. $7^1/_8$"x$5^1/_2$"x$2^1/_2$" polystyrene case.

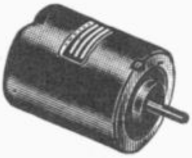
NICKEL CADMIUM BATTERIES. Can be brought to peak performance time and again Uniform power output for better performance. Always ready when stored in battery

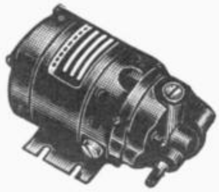
Stk. No.	Type No.	Description	Net
49F990	GC-1	"AA" size Twin Pack	2.49
49F991	GC-2	"C" size Twin Pack	2.79
49F992	GC-3	"D" size Twin Pack	2.79
49F993	BC-1	Battery Charger (with choice of 1 Twin Pack) Specify battery size.	9.95

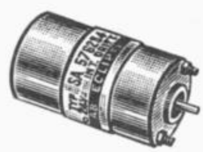
CARTER MOTOR

FHP MOTORS—CONVERTERS—GEARMOTORS—TACH—GENERATORS—FREQUENCY CHANGERS









CLASSIC AND REGENT MOTORS

Universal AC/DC type 12V to 230 VBDC, up to 1 HP. Sealed ball bearings. High quality construction. For machine tool drives, pumps, etc. DC shunt types ideal for SCR motor controllers, lab stirrers and variable speed applications. Base, face for flange mount.

DC TO AC ROTARY CONVERTERS

Dependable power for industrial service. Sealed ball bearings. 20 to 2000 watt output. 12 to 250 VDC input models. Ideal power for marine and industrial 2-way radio.

Special models for emergency standby service up to 750 watt output operate from batteries, start automatically should AC power fail. Shuts off when AC restored. For hospital and school paging systems, utilities, etc.

CLASSIC AND REGENT GEARMOTORS

Universal and DC shunt models from 1 to 750 RPM shaft speed at torques up to 30 in. lbs. Continous duty. Sealed ball bearings, high quality construction.

PM DC TACH GENERATORS

Ecliptic and classic models from 2.5 to 60V per 1000 RPM. High quality, ball bearing construction. 1% linearity. Reliable feed back reference voltage for precise speed control.

WRITE FOR CATALOGS AND PRICE LIST

SCHAUER BATTERY CHARGERS

SCHAUER AUTOMATIC MODEL BR-312 CHARGER

12 volt, 6 ampere charger charges battery, automatically shuts itself off, and then introduces a safe maintaining charge rate which keeps the battery in a fully charged condition until the charger is turned off. For batteries of boats, cars and other unattended equipment. Has accurate numeral dial ammeter. 9⅜" x 6 x 6½". Weight: 8½ lbs.

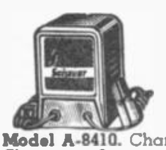
66F283. BR-312. NET **17.48**

MODEL H612C

1¼ amp. charger. A combination 6 and 12 volt charger. Ideal for car, motorcycle, boat and lawn mower batteries. Selenium rectifier, automatic circuit breaker, 6 or 12 volt selector switch. Rugged steel case with handsome red finish. Dimensions are 4¼ x 4⅜ x 4¾".

66F159. NET **5.78**

MODEL K412



An economical charger for 12-volt batteries. A small, efficient, and low-priced unit for charging 12 volt batteries at a three ampere rate.

66F160. NET **6.98**

Model A-8410. Charge battery through cigar lighter. For 6 volts. Shpg. wt., 3 oz.

66F164. NET **1.22**

Model A-8412. Same as Model A-8410, but for 12-volt batteries.

66F165. NET **1.22**

MODEL A-6612

4-amp charger for 6 and 12v batteries. Battery recharges in 5 to 15 hrs. Automatic circuit breaker, selector switch, numeral dial ammeter. Case: steel, gold colored finish. Brushed aluminum and maroon front panel trim. Size: 7¼x4½x5". Wt., 5¼ lbs.

66F282. NET **9.48**

MODEL B-6612

6-amp charger. Charges 6 and 12v batteries. Recharges average battery in 4 to 9 hrs. Equipped with an automatic circuit breaker, selector switch, and an accurate, numeral dial ammeter. Case is of rugged, steel with gold colored finish and two-tone brushed aluminum and maroon front panel trim. Size: 9⅜"x6"x6½". Wt., 8 lbs.

66F281. NET **12.98**

MODEL C-6612

10-amp. charger. Recharges aver. 6 or 12v. battery in 2 to 6 hrs. Has automatic circuit breaker, selector switch, numeral dial ammeter Case same as B6612. Size: 9⅜"x6"x$6^1/_2$". Wt., 11 lbs.

66F280. NET **16.98**

You Can Depend on NEWARK for Everything in Industrial Electronics

Inverters, Voltage Adjusters and Vibrators

TERADO

DUAL CONTINENTAL TRANSISTORIZED INVERTERS

Model 50-202. Converts 12 VDC to 110 VAC, 60 hz. Output: 550 watts continuous and 600 watts intermittent. Features a variable AC outlet. Frequency stable within ½ cycle with changing input and load. Filtered for use with tape recorders. Complete with remote control and battery cables. Heavy copper clad case with ventilating fan. Size: 10¾"x13"x7¼" Shipping wt., 60 lbs.
66F300. NET **323.16**

CONTINENTAL TRANSISTORIZED INVERTERS

Model 50-191. Similar to 50-202 except output: 275 watts continuous and 300 intermittent. Heavy copper clad case with ventilating fan. With remote control and battery cables. Filtered for use with tape recorders. Size: 10¾"x6"x6". Shipping wt., 30 lbs.
66F301. NET **153.13**

ATLAS TRANSISTORIZED INVERTERS

Model 50-200. Similar to Model 50-202 except output of 175 watts continuous to 200 watts intermittent. Size: 10¾"x6"x6". Shipping wt., 21 lbs.
66F302. NET **114.53**

GEMINI TRANSISTORIZED INVERTERS

Model 50-128. Converts 12 VDC to 110 VAC 60 hz. Designed for equipment not sensitive to frequency change. Perfect for lights, electric blankets, TV, and AC-DC electric motors. Capacity of 450 watts continuous and 500 intermittent. Complete with 12 ft battery cables (Not recommended for refrigerators with compressor.) Size: 12½"x6"x6" Shpg. wt., 20 lbs.
66F303. NET **97.17**

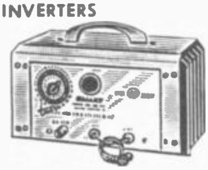
FALCON TRANSISTORIZED INVERTERS

Model 50-129. Similar to Model 50-128 except features a capacity of 275 watts continuous and 300 intermittent. Size: 12½"x 6"x6". Shpg. wt., 20 lbs.
66F304. NET **74.25**

Model 50-130. Remote control for Gemini and Falcon Units. 5 lbs.
66F314. NET **11.50**

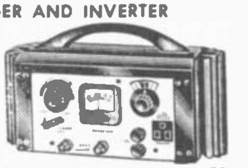
GALAXY TRANSISTORIZED INVERTERS

Model 50-205. Similar to Falcon. Converts 12 VDC to 110 VDC Capacity of 140 watts continuous and 175 intermittent. Adjustable voltage and frequency. Heavy copper clad steel case. Size: 10¾"x6"x6". Shpg. wt., 9½ lbs.
66F305. NET **39.90**



MARK I BATTERY CHARGER AND INVERTER

Model 50-131. Converts 12 VDC from a storage battery to 117 VAC. Also can be used to charge battery at 20 amps, 10 amps or a low trickle. Designed for cars, trailers, mobile homes, boats, or buses Can be used to operate any appliance, light, tool, or any equipment that requires a 117 VAC power supply Capacity is 450 to 500 watts,. Size 12½x6x6". Shipping weight 21 lbs. Battery cables included.
66F315 Model 50-131. **NET** **104.50**

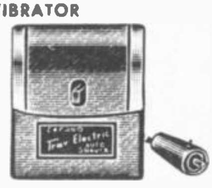


MARK II BATTERY CHARGER AND INVERTER

Model 50-132. Same specifications as 50-131 above except capacity is 275 to 300 watts.
65F316 Model 50-132. **NET** **89.50**

AUTO SHAVER VIBRATOR

Model 50-103. Operates all electric shavers from a 12 VDC battery. AC output: 15-20 watts Poly-ethylene non-breakable case. Simply plug into cigarette lighter. Size: 3⅝"x2¼"x4¼" Shpg. wt., 2 lbs
66F309. NET EACH **9.31**



SUPREME VIBRATOR TYPE

Model 50-153. Converts 12 VDC to 115 VAC. 60 hz. Output: 175 watts continuous and 200 watts intermittent. Remote control has variable AC output switch and signal light indicating proper AC output voltage Filtered for tape recorders. Complete with battery cables. Copper clad ventilated steel case. Size: 12½" x6"x6". Shpg. wt., 25 lbs.
66F306. NET .. **84.07**

SUPER VIBRATOR

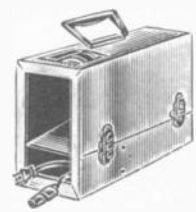
Model 50-127. Converts 12 VDC to 110 VAC. Output: 75 watts continuous and 100 watts intermittent. Easy installation into cigarette lighter of car. AC plug-in receptacle in front of case. Sealed brown baked enamel steel case. Size: 3½"x6½"x4". Shpg. wt., 8 lbs.
66F307. NET **38.47**

SENIOR VIBRATOR

Model 50-116. Converts 12 VDC to 110 VAC, 60 hz. Output: 40 watts continuous and 50 watts intermittent. Simple to install into cigarette lighter. Seal brown baked enamel aluminum case. Size: 2½" x 4½" x 2¼". Shpg. wt., 3 lbs.
66F308. NET **18.47**

"TRAV-ELECTRIC" PORTABLE POWER SUPPLY

Model 50-160. Operates anything using 117 VAC, 60 hz from 25 amps. Rechargeable wet storage battery enclosed Capacity of 125 watts continuous and 175 intermittent. Frequency stable within ½ hz with load change. Plugs into AC outlet or car cigarette lighter to recharge the battery. Charger has automatic overcharge protection. Meter shows charge rate and hours of anticipated output. Package silent electric power with self-contained power supply. Charger operates on AC, tapers from 6 to 0 amps. Copper clad steel case. Size: 12"x5½"x8".
66F310. NET EACH **63.40**



APOLLO VOLTAGE ADJUSTER

Model 50-141. Increases line voltage in two steps—10v and 15v. Especially designed to give peak efficiency to office duplicator copy machines when low voltage is encountered. Makes better copies faster. Capacity: 1200 watts continuous and 1500 watts intermittent. Size: 3½"x6½"x 4". Shipping wt., 8 lbs.
66F113. NET .. **22.75**

POLARIS VOLTAGE ADJUSTER

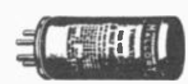
Model 50-204. For television, hi-fi, and AC motorized equipment. Changes high or low voltages over range of 95-135 V to normal. Capacity, 300 Watts cont., 500 Watts inter. Restores high fidelity to sound. Wt. 3 lbs. Size: 5½".
66F111. NET **9.90**

SATURN VOLTAGE ADJUSTER

Model 50-172. Same as Polaris above, except equipped with accurate AC voltmeter for visible voltage correction. Weight: 3 lbs Size: 5½".
66F112. NET **15.97**

—MALLORY REPLACEMENT VIBRATORS—

Springs are of high grade clock-spring steel, held in permanent alignment by rugged frame. 105 strand lead wire resists vibration—connections stay intact. "Floating" design isolates the virbration of the reed element from the case. Wt. 8 oz.



Stk. No.	Type	Volts	Size	NET
48F535	1601	6	1½x2⅝"	2.82
48F449	4-4	6	1½x2⅝"	1.60
48F451	12-3	12	1½x2⅝"	1.65
48F450	12-4	12	1½x2 9/16"	1.65
48F560	1501	6	1½x2⅞"	3.81
48F575	1610	6	1½x2⅝"	3.30
48F569	G1801	12	1½x2⅞"	4.11
48F571	1513	6/12	1½x2⅞"	4.14
48F572	1514	6	1½x2⅞"	4.14
48F573	G1601	12	1½x2⅝"	2.82
48F574*	1701A	6/12	1½x3"	5.76

Cornell Dubilier Filters

Type NFT. 15 amp rating +125°C maximum operating temperature. Can be used in place of 5 amp and 10 amp, +85°C or +125°C NFT units, and 10 amp CZ units with no sacrafice in case size. Recommended for prototype purposes as well as production runs. Commonly used in buffers, DC motors, drills, fans, ignition systems, relays, thermostats, etc. Tol.: 10%.

FEED-THROUGH SUPPRESSION CAPACITORS

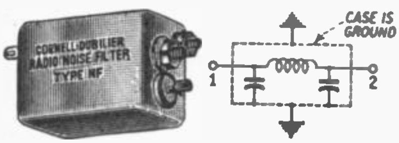
Stock No.	Type	Curr. Amps.	VDC	Cap. Mfd.	Line Freq. HZ	Case Dia.	Case Lngt.	1-24	25-49	50-99	100-499	500 Up
66F400	NFT3H1P1L-10	15	100	.1	—	.400	29/32	3.03	1.77	1.36	1.21	1.11
66F401	NFT3H1P22L-10	15	100	.22	—	.400	1 11/32	3.21	1.87	1.44	1.28	1.18
66F402	NFT3H1P33L-10	15	100	.33	—	.562	1 5/32	3.36	1.96	1.51	1.34	1.23
66F403	NFT3H1P47L-10	15	100	.47	—	.562	1 13/32	3.57	2.08	1.61	1.43	1.31
66F404	NFT3H1W1L-10	15	100	.1	—	.670	29/32	4.32	2.52	1.94	1.73	1.58
66F405	NFT3H6P1L-10	15	*600	1.0	0-400	.562	1 13/32	3.60	2.10	1.62	1.44	1.32
66F406	NFT3H6P22L-10	15	*600	.22	0-400	.670	29/32	4.05	2.36	1.82	1.62	1.49
66F407	NFT3H6P47L-10	15	*600	.47	0-400	.750	2 13/32	4.62	2.70	2.08	1.85	1.69

*also rated at 250 VAC.

Designed for high attenuation of RF interference over the ranges of 150KC to 10 GC(#) and 14KC to 10GC(+). Three terminal design for bulkhead or chassis shielded mounting.

TYPE NFR TUBULAR PI FILTERS

Stock No.	Type	Curr. Amps.	Volts AC	Volts DC	Line Freq. HZ	Case Size D. x L.	1-24	25-49	50-99	100-499	500 UP
66F408	NFR100-24	1.0+	120	300	0-60	5 13/16x1¼	21.75	12.69	9.78	8.70	7.98
66F409	NFR124-1	1.0#	250	600	0-400	2⅝x1	14.64	8.54	6.59	5.86	5.37
66F410	NFR100-6	1.0#	—	100	—	2 11/16x1	10.14	6.65	5.13	4.56	4.18
66F411	NFR110-10	5.0+	120	300	0-60	6 3/16x1½	29.64	17.29	13.34	11.86	10.87
66F412	NFR126-1	5.0#	250	600	0-400	3x1¼	18.60	10.85	8.37	7.44	6.82
66F413	NFR101-8	5.0#	—	100	—	3 7/16x1¼	14.49	8.45	6.52	5.80	5.31
66F414	NFR102-19	10.0+	120	200	0-60	6⅞x1¾	35.88	20.9[illegible]	16.15	14.35	13.16
66F415	NFR127-1	10.0#	250	600	0-400	3 11/16x1⅜	24.09	14.05	10.84	9.63	8.83
66F416	NFR136-1	10.0#	—	100	—	3 1/16x1⅜	20.49	11.95	9.22	8.20	7.51



Designed for high attenuation over the range of 150KHZ to 1MHZ. **Chassis shielded, flange mount. †Bulkhead shielded mount.

TYPE NF RECTANGULAR PI FILTERS

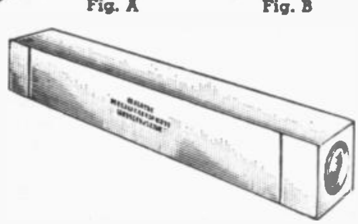
Stock No.	Type	Curr. Amps.	Volts AC	Volts DC	Line Freq. Hz	L. x W. x H.	1-24	25-49	50-99	100-499	500-Up
66F417	NF10457-7	1**	250	600	0-400	1¾x1¼x1⅛	13.14	7.68	5.91	5.26	4.82
66F418	NF10738	1†	250	600	0-400	1¾x1¼x1⅛	15.60	9.10	7.02	6.24	5.72
66F419	NF10459-5	5**	250	600	0-400	2 1/16x1¼x1¼	13.35	7.78	6.00	5.34	4.90
66F420	NF10744	5†	250	600	0-400	2x1¼x1¼	21.90	12.78	9.86	8.76	8.03
66F421	NF10561-5	10**	250	600	0-400	2x2x1½	16.86	9.84	7.59	6.74	6.18
66F422	NF10654-2	10†	250	600	0-400	2x2x1½	24.42	14.25	10.99	9.77	8.95

NF QUIETONE FILTERS

Offer a practical solution for the suppresion of interference from many types of household, industrial and heavy duty electrical equipment such as fluorescent fixtures, calculators and other office equipment. Fig. A—Flxible wire leads (NF10431-1 with mtg. brkt., direct replacement for GE89G365). Fig. B—Solder lug terminals.

Fig. A **Fig. B**

Stock No.	Type	Curr. Amps.	Volts AC	Fig.	L. x W. x H.	1-24	25-49	50-99	100-499	500-UP
66F423	NF10431	2x3.5	280	A	2½x2x1 5/16	3.30	2.85	2.35	2.18	2.01
66F424	NF10431-1	2x3.5	280	A	2½x2x1 7/32	4.39	3.63	3.30	2.78	2.58
66F425	NF10431-9	2x1	280	B	1¾x1¼x1⅛	6.70	5.90	4.50	4.00	3.70
66F426	NF10431-12	2x3.5	280	A	2½x2x1 5/16	7.00	6.15	4.75	4.20	3.85
66F427	NF10280-1	2x2.5	125	B	2x2x1⅛	7.87	6.62	5.25	4.67	4.32



Type CDF. Provide a minimum attenuation of 100 db over the range of 14KC to 10GC. Meet the requirements of MIL-F-15733 where applicable. Provide for versatile mounting either with threaded fitting lead termination for insertion through shield room enclosures, or with universal conduit mounting (Knockouts Both Ends) for shield room and other applications. Shpg. wt. 35 lbs.

POWER LINE AND SCREEN ROOM FILTERS
THREADED LEAD TERMINATION

Stock No.	Type	Curr. Amps.	Volts AC	Line Freq. HZ	Case L. x W. x H.	1-9	10-24	25-49
66F428	CDF25FA6-C	25A	250V	0-60	23 x 4 x 4	93.90	83.80	77.10
66F429	CDF25FA4-C	25A	250V	0-400	23 x 4 x 4	102.15	91.20	83.90
66F430	CDF50FA6-C	50A	250V	0-60	23 x 4 x 4	105.40	94.15	86.60
66F431	CDF50FA4-C	50A	250V	0-400	23 x 4 x 4	105.40	94.15	86.60
66F432	CDF100FA6-C	100A	250V	0-60	29 x 4½ x 4½	172.90	154.40	142.00
66F433	CDF100FA4-C	100A	250V	0-400	29 x 4½ x 4½	172.90	154.40	142.00
66F434	CDF150FA6-C	150A	250V	0-60	31 x 6 x 5 15/32	226.50	202.50	186.10
66F435	CDF200FA6-C	200A	250V	0-60	31 x 8 x 5 15/32	265.15	236.75	217.80
	KNOCKOUTS BOTH ENDS							
66F436	CDF25FA6	25A	250V	0-60	26 x 4 x 4	93.90	83.80	77.10
66F437	CDF25FA4	25A	250V	0-400	26 x 4 x 4	102.15	91.20	83.90
66F438	CDF50FA6	50A	250V	0-60	26 x 4 x 4	105.40	94.15	86.60
66F439	CDF50FA4	50A	250V	0-400	26 x 4 x 4	105.40	94.15	86.60
66F440	CDF100FA6	100A	250V	0-60	32 x 4½ x 4½	172.90	154.40	142.00
66F441	CDF100FA4	100A	250V	0-400	32 x 4½ x 4½	172.90	154.40	142.00
66F442	CDF150FA6	150A	250V	0-60	34 x 6 x 15/32	226.50	202.50	186.10
66F443	CDF200FA6	200A	250V	0-60	34 x 8 x 5 15/32	265.15	236.75	217.80

LECTROTECH

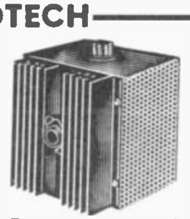
METERGARD

• **Protects Against Overload**

Protects meter movement against accidental overloads. Elinimates bent pointers, damaged pivots, overheated springs, and burned out coils. Protects as much as 10,000% overlead.
60F1650. NET **2.95**

LECTROCELL-MINIATURIZED REGULATED POWER SUPPLY

Eliminates the use of battery in VTVM. Unit is actually a miniaturized regulated power supply that furnishes the 1½ volt of DC necessary to measure resistance. Exact size and shape of battery it replaces. Installs in minutes . . . simply connect 3 wires. Size: 1½x2⅜".
60F1651. NET **3.95**



SOLID STATE MODULE TYPE REGULATED DC POWER SUPPLIES

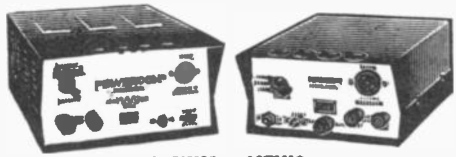
Electro-statically shielded transformers with line and load regulation of .005 volts maximum. Glass epoxy board, hand soldered. Ripple and noise less than 500 mv. Input line voltage: universal 105-125-210-250 volts. Input line freq. 48 to 440 cycles. 100% overload protection against any degree of overload. Output current: 1 amp. Remote programming and load sensing. External heat sink uncessary. Max. operating ambient: 50°C. Storage temperature range: —20°C to +85°C. 5x5x5¼". Shpg. wt., 4 lbs.

Stk. No.	Type	DC Voltage Range	1-5	6 up
60F1652	1015	10-15 volts	95.00	89.00
60F1653	1520	15-20 volts		
60F1654	2025	20-25 volts		
60F1656	2530	25-30 volts		
60F1655	3035	30-35 volts		

 Newark Industrial Electronics Corp., 2114 S. Division Ave., Grand Rapids, Mich. 49507

CORNELL DUBILIER

AC BATTERY DRIVEN INVERTER POWER SUPPLIES



12ESW25 12TV12

Changes DC to 115VAC at 60 Hz. Operates electrical appliances. Take 20% overload on $\frac{1}{4}$-duty cycle. Features remote control jack, voltage selector, on/off switch and replaceable fuse for overload protection. Frequency tolerance of $\pm\frac{1}{2}$ cps on items rated 100 watts and up. ±2 cps on lower power units. Two-tone gray baked enamel finish and integral finger holes provided, except (*) one color, less finger holes, supplied with cigarette lighter cord. CAUTION: avoid applications such as compressors, which have heavy starting load characteristics.

POWERCON INVERTERS—SINE WAVE OUTPUT

For all voltage and/or wave-form sensitive loads like TV radio, phono, hi-fi, recording, counting, testing and warning devices. Features automatic load regulation; 15% input change alters output only 5%. Operates loads with any power factor of 25% or more. Maintains output voltage of 110-120 VAC. Ideal for small motor-driven appliances (less than 1/10 hp), flourescent lights; only inverter widely approvde by TV set manufacturers for operation of portable sets. Filtered for quiet output. Heavy duty vibrators only.

Stock No.	Mfr's Type	Typical Applications	Input VDC	Watts Cont.	Watts Int.	Size, inches	Wt. Lbs.	1-9	10-Up
66F219	12DSW10	Portable TV, small appliances	12	100	125	$10\frac{3}{8}$x$9\frac{7}{8}$x$5\frac{1}{2}$	22	88.06	68.74
66F222	12ESW25	Any B&W TV, entertainment appl.	12	250	300	$12\frac{1}{4}$x$9\frac{7}{8}$x$5\frac{1}{2}$	26	117.51	91.73

POWERCON INVERTERS—SQUARE WAVE OUTPUT

Economy AC power at nominal ratings. Use with power factor of 70% and up. Linear voltage regulation (1%:1%).

Stock No.	Mfr's Type	Typical Applications	Input VDC	Watts Cont.	Watts Int.	Size, inches	Wt. Lbs.	1-9	10-Up
66F207	12SP2A*	Shaver only, intermittent duty	12	..	20	$3\frac{7}{8}$x$2\frac{7}{8}$x$2\frac{3}{4}$	2	14.46	14.46
66F224	12A4*	dcitation machines, small phonos	12	40	60	$6\frac{1}{4}$x$4\frac{1}{8}$x$3\frac{3}{8}$	6	25.48	19.89
66F208	12B8	radio, port. tape recorders	12	80	100	$8\frac{3}{4}$x$7\frac{5}{8}$x$3\frac{7}{8}$	12	39.84	31.10
66F209	12B10	amplifiers, office machines	12	100	125	$8\frac{3}{4}$x$7\frac{5}{8}$x$3\frac{7}{8}$	14	41.95	32.74
66F220	12TV12	spl. design/portable TV	12	120	140	$8\frac{3}{4}$x$7\frac{5}{8}$x$3\frac{7}{8}$	16	42.95	33.52
66F210	12D15	tools, business machines	12	150	175	$10\frac{3}{8}$x$9\frac{7}{8}$x$5\frac{1}{2}$	26	73.00	56.99
66F211	12D22	camping trailer, truck	12	220	250	$10\frac{3}{8}$x$9\frac{7}{8}$x$5\frac{1}{2}$	31	90.50	70.65
66F213	110B15	For small vessels, apartment	110	150	175	$8\frac{3}{4}$x$7\frac{5}{8}$x$3\frac{7}{8}$	13	55.00	42.93
66F214	110D25	houses, emergency power	110	250	300	$10\frac{3}{8}$x$9\frac{7}{8}$x$5\frac{1}{2}$	26	69.00	53.85

REPLACEMENT VIBRATORS FOR ABOVE

Stk. No.	Type	Repl. For	1-24	25-49	50-Up
48F077	6565	6L6, 12D6, 12L8	5.86	5.22	4.20
48F087	6567	6H10, 6SH15	6.51	5.80	4.66
48F088	12VB6H	12S10	13.00	9.10	7.48

Stk. No.	Mfg. No.	Repl. For	1-24	25-49	50-Up
48F089	12VD6H	12H15, 12SH20	21.20	14.84	12.19
48F084	110VB6H	110S15, 22F025, 110H25	14.78	10.39	8.47
48F085	110VC6H	110SH40, 110H35	25.24	17.75	14.46

ACCESSORY KITS FOR POWERCON INVERTERS

MK Mounting Kits: Complete with instructions; wt., $2\frac{1}{2}$ lbs.
RK Remote Control Kit: Dashboard or post mount. Switch, dual AC socket, 12' control cord to Powercon, pilot light. Wt. 1 lb.

Stk. No.	Type	For Powercon Types	1-9	10-Up
66F225	MK3544-4	12B8, 12B10, 12TV12	3.60	2.81
66F226	MK3544-5	All other 12-volt	3.90	3.04
66F227	RK112	Except 12A4, 12SP2A, 110v	10.81	9.62

TYPE IF FILTERS

Model IF Filters are over 5 amp portable devices designed for light interference applications. Electrical appliances are plugged into the line sockets provided. The dual-capacitance IF-6 will provide more attenuation than the IF-4. Greater attenuation is available from the LC circuit IF-18 and light duty IF-19. Model IF-24 and IF-54 are commercial wired-in devices designed for RFI suppression of flourescent light sources, office machines and other small electrical appliances. UL approved.

Stk. No.	Type	Volt/Amp	Cap. Mfd.	1-24	25-49	50-99	100-Up
48F043	IF 4	110/5	.1	1.08	.95	.82	.78
48F044	IF 6	110/5	2x.1	1.87	1.48	1.27	1.21
48F000	IF18	115/5	2x.25	7.67	6.36	5.34	5.09
48F001	IF19	115/5	2x.1	7.30	5.75	4.75	4.55
48F007	IF24	110/-	2x.1	1.14	.94	.78	.74
48F006	IF54	110-220/2	2x 25	3.12	2.33	2.06	1.99

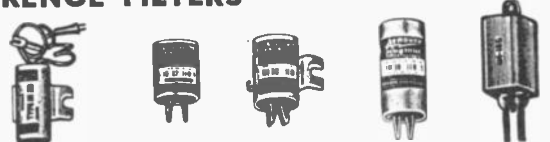
AEROVOX INTERFERENCE FILTERS

Type IN-27. Inexpensive filter to be placed between set and outlet when interference is slight. Also used on appliances causing low intensity interference. Eliminates noise on house wiring and power lines. Size, $1\frac{3}{8}$x$1\frac{1}{2}$". Shpg. Wt., 5 oz.
48F031. NET **1.80**

Type IN-28. Use where ground is at distance from point of application. Size, $1\frac{3}{8}$x2". Shpg. wt., 8 oz.
48F032. NET **2.40**

Type IN-30. Provides additional filtering action and inductance. Effective in heavier interference. Plug between set and receptacle or preferably between noisy appliance and receptacle. Size, $1\frac{3}{8}$x3". Shpg. wt., 7 oz.
48F033. NET **3.00**

Type IN-42. Overcomes serious causes of interference. Plugs into electric outlet. Interfering device plugs into receptacle of filter. Size, $2\frac{1}{2}$x$3\frac{3}{4}$". Rated at 6 amps for 110-220 volts AC. Shipping wt., 1 lb.
48F034. NET **9.00**



IN-23 IN-27 IN-28 IN-30 IN-105

Type IN-105. Low-Impedance delta connected capacitor for fluorescent light fixture in bathtub case, Size $1\frac{3}{4}$"x1"x$1\frac{3}{4}$".
48F008. NET **1.35**

Type IN-106. Best filter for fluorescents. Balanced network. Especially suited for radio and TV salesrooms. One unit per fixture in series where power leads enter. Metal container with 4 stranded wire leads. Rating: 125V AC or DC; 2.6 amps. Size: $1\frac{7}{8}$x3x$1\frac{3}{8}$".
48F009. NET **3.30**

SENCORE

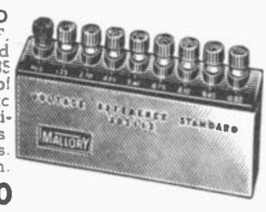
BATTERY ELIMINATOR

Type BE124. Regulated power supply replaces batteries during repair of transistor radios. $1\frac{1}{2}$ volt intervals from 0 to 12 VDC are available on front panel. Meter can be used to calibrate voltages or as current drain monitor (0 to 50 ma) for troubleshooting. Output is accurate and well-filtered. Can also be used to charge nickel-cadmium batteries. Shp. wt. 2 lbs.
62F429. NET **29.95**

MALLORY

VOLTAGE REFERENCE STANDARD

Stability is $\pm\frac{1}{2}$% of rated EMF. Withstands both electrical and physical abuse. Voltages from 1.35 v to 10.8 volts in increments of 1.35 volts. Voltages calibrated to .001 of a volt. Applicable in calibration of sensitive scope, VOM's VTVM's. temp. measuring bridges. Has internal res. of $\frac{1}{2}$ to 1 ohm. $6\frac{1}{2}$x1x$2\frac{1}{2}$".
49F531. NET **29.50**



Electro Power, Supplies, Inverters

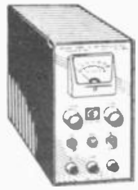


Fig. A

Fig. B

Fig. C

Fig. D

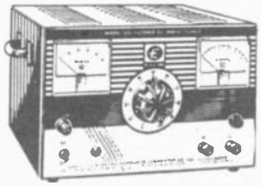


Fig. E

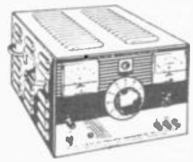


Fig. F

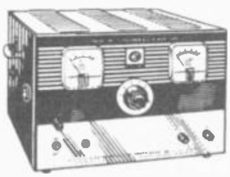


Fig. G

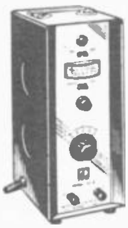


Fig. H

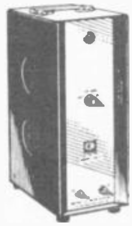


Fig. J

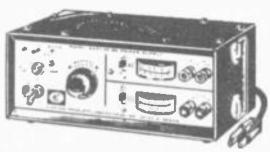


Fig. K

DC POWER SUPPLIES

Electro's power supplies offer DC output up to 1000 watts. Filtering is adequate for requirements from critical transistor circuitry to applications permitting up to 5% ripple.

Models GFL, GFLR used for designing and testing appliances, telephone circuits, relays and solenoids. Models D-612T, H, EC-1 and EC-2 recommended for servicing auto and portable radios, also popular for school labs and industrial research. Models NFB and NFBR for R/D, industrial power; City of Los Angeles approved. NFBR Federal Stock No. 6130-853-3172. Models EFB, EFBR also City of Los Angeles approved; EFB Federal Stock No. 6130-957-1450. Models PS-30, PS-50 ideal for thermo-electric cooling or other high-current 12V applications. PS-1000 series for high power at 32, 55 or 125V.

Highly regulated PSR-12 series ideal low-cost supplies for critical transistor, IC, etc. work. Regulated PSR-500 series offer higher power constant voltage output. Model 3301 especially designed for school labs offers DC and AC outputs, meters, terminals. Circuit breakers on input and output for overload and circuit protection. Features: Attractive enamel finish on steel; adjustable output voltage; clearly marked controls; easy-to-read volt and amp meters; isolated output terminals; instructions; one year warranty. Input — Regulated Models; 105-125 VAC, 60 Hz. Other Models, 117 VAC 50/60 Hz.

(*) No. Load to Full Load. (**) From 105 to 125 VAC. (†) Output volts change for each amp of output current change. (††) All 2% accuracy, except General Purpose Units, 5%. (‡) 19" rack mounting version.

REGULATED

Stk. No.	Mfr's Type	Output Volts	Output Current	Fig.	Line Reg.**	Load Reg.*	Max. Ripple. RMS	Meters	DC-Imp. Ohms*	Size (HWD)	Shpg. Wt. Lbs.	Each
66F454	PSR-12-25	0-25	0-500 mA	A	0.01%+2 mV	0.01%	100 uV	0-60V/600 mA	.006	5¼x3⅛x10"	7	110.00
66F455	PSR-12-50	0-50	0-250 mA	A	0.01%+2 mV	0.01%	100 uV	0-30V/300 mA	.02	5¼x3⅛x10"	7	110.00
66F269	PSR-500-32	2-32	0-15A	B	0.1%	1.0%	0.5%	0-50V, 0-25A	.02	9¾x14¼x14¼"	89	395.00
66F270	PSR-500-55	2-55	0-10A	B	0.1%	1.0%	0.5%	0-75V, 0-15A	.06	9¾x14¼x14¼"	88	395.00
66F271	PSR-500-125	2-125	0-5A	B	0.1%	1.0%	0.5%	0-150V, 0-5A	.25	9¾x14¼x14¼"	93	425.00

INDUSTRIAL

Stock No.	Model	Voltage Output	Amps. Output.	Fig.	Load Reg.* (V/A)†	Max. Ripple %	Meters‡	DC Imped., Ohms*	Size (HxWxD) inches	Weight lbs.	NET
66F272	EF	0-28	0-5	C	0.9(1-5A)	1	0-50V, 0-6A	0.9(1-5A)			
		0-14	0-5		0.6(1-5A)	1		0.6(1-5A)	7x12x8½	25	125.00
66F145	EFB	0-32	0-4	C	1.25	0.1	0-40/20V,	1.25			
		0-16	0-8		1.0	0.1	0-10A	1.0	7x12x8½	36	165.00
66F146	EFBR‡	0-32	0-4		1.25	0.1	0-40/20V,	1.25			
		0-16	0-8		1.0	0.1	0-10A	1.0	8¾x19x8½	47	185.00
66F264	GFL	0-125	0-5	E	1.5	0.5	0-150V, 0-5A	1.5	9¾x14¼x14¼	88	325.00
66F273	GFLR‡	0-125	0-5		1.5	0.5	0-150V, 0-5A	1.5	10½x19x14¼	100	345.00
66F118	NFB	0-32	0-15	E	0.4	0.75	0-50V, 0-25A	0.4	9¾x14¼x14¼	84	300.00
66F275	NFBR‡	0-32	0-15		0.4	0.75	0-50V, 0-25A	0.4	10½x19x14¼	97	320.00
66F260	PS-5	0-55	0-10	E	0.8	0.5	0-75V, 0-15A	0.8	9¾x14¼x14¼	70	325.00
66F276	PS-5R‡	0-55	0-10		0.8	0.5	0-75V, 0-15A	0.8	10½x19x14¼	89	345.00
66F277	PS 1000 32	0-32	0-30	F	0.2	0.75	0-50V, 0-50A	0.2	9¾x14¼x19¼	103	398.00
66F278	PS-1000-55	0-55	0-20	F	0.5	0.5	0-75V, 0-25A	0.5	9¾x14¼x19¼	113	398.00
66F456	PS-1000-125	0-125	0-8A	F	1.0	Less than 1%	0-150V, 0-10A	1.0	9¾x14¼x18¼	120	425.00

GENERAL PURPOSE

Stock No.	Model	Voltage Output	Amps. Output.	Fig.	Load Reg.* (V/A)†	Max. Ripple %	Meters‡	DC Imped., Ohms*	Size (HxWxD) inches	Weight lbs.	NET
66F119	D-612T	0-16	0-10	D	0.44(3-10A)	0.5@5A	0-20V, 0-10A	0.44(3-10A)			
		0-8	0-10		0.3(3-10A)	2@10A		0.3(3-10A)	7x12x8½	22	79.50
66F120	H	12(adjust.)	0-10	D	0.23(3-10A)	5	0-20V, 0 30A	0.23(3-10A)			
		6(adj.)	0-20		0.15(3-20A)	5		0.15(3-20A)	7x12x8½	30	99.50
66F262	EC-1	12(adj.)	C-5	J	1.4	0.5	None	1.4	10¾x4⅜x6½	12	37.50
66F261	EC-2	0-16	0-5	H	1.8	0.5	0-20V/10A	1.8	10¾x4⅜x6½	11	49.50
66F147	PS-30	12(adj.)	0-30	G	0.12(6-30A)	1	0-20V, 0-50A	0.27	9¾x14¼x14¼	68	198.00
66F279	PS-50	12(adj.)	0-50	G	0.17	1	0-20V, 0-50A	0.17	9¾x14¼x14¼	87	298.00
66F457	3301	0-16DC	0-3A	K	1.8(1-3A)	0.5%	0-20V/0-5ADC	2.4DC	9¾x14¼x19¼		
		O-20AC					0-20V/0-5ADC	0.5AC	4¾x10¾x6½	11	79.50

● NEW TRANSISTORIZED DC-AC INVERTERS/CHARGER

Model TI-620 Inverter. Produces 5A, 120 VAC, nom., 620 VA max. from 12 VDC. Frequency stable to 0.5Hz. Two 3-prong receptacles. Reverse polarity protected. 6⅝ x 12 x ⅞". 25 lbs.

66F450. NET **320.00**

Model TIC-620 Inverter/Charger. Combines inverter with 25A max, 12 VDC nom., battery charger. 3-position charge switch and pilot lite. 6⅝ x 12 8⅞". 30 lbs.

66F451. NET **400.00**

Model TI-250A Inverter. 250 VA, 117 VDC, 60Hz, nom. output from 12 VDC car, boat, truck battery. On-off and start switches, low charge/pilot light, power relay for reverse polarity protection, receptacle. 4½ x 10 x 7½". Weight 9 lbs.

66F452. NET **76.80**

MODEL RC-2. Remote control unit for TI-250A. 8' cable. 4¼ x 2¼ x 2¼. Wt. 1½ lbs.

66F453 NET **12.50**

Fig. A CHIMNEY MOUNTS
Extra heavy guage steel mast. Brackets support a mast up to 1¾". With stainless steel straps and hardware. Weight 4 pounds.
92F551. NET **3.44**

SNAP-IN CHIMNEY MOUNTS
Snap the mast in place and tighten the bolts. Masts up to 1¾". Clearance: 4". With stainless steel straps and mounting hardware. Shpg. wt., 4 lbs.
92F556. NET **4.05**

Fig. C—WALL MOUNTS
Snap-in wall mounts with 4 point contact. Will hold masts up to 1¾". Shpg. wt., 6 lbs.
92F557. 6" clear. **NET** **2.02**

Fig. D—CLOSE WALL MOUNTS
Ideal where large clearance is not needed. Will hold masts up to 1¾". Complete with all hardware. Shpg. wt., 2 lbs.
92F559. 2¼" clearance. **NET** **1.24**
92F560. 4" clearance. **NET** 1.60

2 PIECE MAST COUPLER

Sturdy 2-piece mast coupler for TV/FM masts. Will couple masts from 1" to 1¾". With all hardware. 8 oz.
NET **1.07**

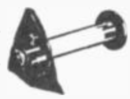
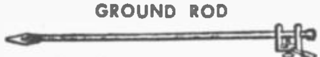
LEAD-IN TUBE

A universal style insulated lead-in for feeding all types of lead-in through the wall. Fits ¾" hole. 14 wall max. Shpg. wt., 5 oz.
92F428. Ivory. **NET** **1.55**

Fig. B—SNAP-IN WALL MOUNTS
DeLuxe Models. Connect to the wall at 5 points, rather than the standard 4. Eliminates side sway of antenna. Extra heavy gauge steel. For masts up to 1¾". 4 lbs.
92F552. 12" clearance **3.44**
92F553. 18" clearance **4.57**

GROUND ROD

Copper-plated steel rod for direct-to-earth ground. 4-ft. long, ⅜" dia. Shpg. weight, 2½ lbs
92F399. NET **1.12**

GUY WIRE CLAMPS

Fastens to mast to allow the use of guy wires. Has 2 hook eyes for easy fastening of guy wires. For masts from ¾" to 1½" 6 oz.
92F564. NET .... **.35**

GROUND PIPE CLAMP

Clamps on pipes from ⅝" to 1⅝" O.D. Wt., 4 oz.
92F581. EACH .... **.20**
10 for 1.40

DEGAUSSING COIL

Model 9317. Eliminates stray magnetic fields in color TV sets as required prior to purity adjustments. Completely enclosed in molded plastic. Supplied with 9' cord and momentary contact switch which permits de-energizing of coil without pulling plug. Coil is 12" in diameter
91F953. NET **19.95**

SURGISTOR
Model 25-896. Combines the functions of resistor and a relay, and eliminates destructive in-rush currents in Radio and Television sets. Limits inrush current until tube heaters are warm enough to accept full voltage without damage. Designed for 100 to 300 watts. Shpg. wt., 2 oz.
90F196. NET **1.60**

Fig. E—VENT MOUNTS
8803. A vent mount that will clamp on any size pipe or vent. Only two pieces to clamp on with bolts. Extra heavy gauge steel. 4" —6", 3 lbs.
92F563. NET **2.47**
Same as above but 2"—4", 3 lbs.
92F561. NET **2.47**

Fig. F—PEAK MOUNTS
Simply fasten brackets to peak and job is done. Extra heavy gauge angle iron. Will hold masts up to 1¾". Protected against rust. With all hdwe. Shpg. wt., 4 lbs.
92F566. 30" lower support. **NET** **4.19**

Fig. H—ROOF MOUNTS
A mount that will hold a mast up to 1¾" securely at any angle. Rust Resistant. Shpg. wt., 1 lb.
92F573. NET .... **.61**

FIG. I ANTENNA BASE
2' tri-pod tower antenna base. Super sturdy tower for supporting mast installations up to 10' without the use of guy wires. Provides extra support for higher masts where guying is necessary. Accept 1¼" D masts.

Stk. No.	Des.	Each
99F1997	2' tower	6.41

FIG. J & K TRI-POD
3' and 5' tri-pod towers. Designed to afford maximum mast support. Towers fold and unfold like umbrellas. Made of hot galvanized dipped. Adjustable for any roof pitch. All-weather finish for extra long life. Shipped fully assembled and ready to install.

Stk. No.	Des.	Each
99F1998	3' tower	7.80
99F1999	5' tower	11.96

MAST CLAMP ASSEMBLY

Complete clamp assembly to fasten a crossbar to mast. Edges serrated so will not turn on mast. Rustproofed. Shpg. wt., 2 oz.
92F425. NET .... **.41**
Bridle Rings. Handy bridle rings for tying guy wires. Will not rust.
92F426. NET EACH. .... **.08**

NAIL-IN STANDOFFS

Speed type nail-in insulators save time and labor. Universal for all lead-ins. Shpg. wt., per 10, 8 oz.
92F422. NET Each .... **.08**
Per 100 .... 6.47

UNIVERSAL STANDOFFS

L

M

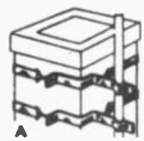
Standoffs that will hold securely any UHF, VHF, or other transmission line. Sturdily made, they will not rust. *Less mast strap.

Stk.No.	Fig.	Screw	Length	Each	10 for
92F400	L	wood	3½"	.04	.35
92F401	L	wood	5½"	.07	.60
92F402	L	wood	7½"	.08	.70
92F403	L	machine*	3½"	.05	.40
92F404	L	machine*	7½"	.08	.70
92F405	M	wood	7½"	.18	1.70
92F406	M	machine*	7½"	.18	1.70

Mast Straps only. For fastening standard Telco machine screw standoffs to mast. For masts up to 2¾" dia.
92F423. NET .... **.10**
Per 100 .... 8.44

TV ISOTAP

Use as high-med.-low isolation trans. for testing receivers at various settings of line volt. Outputs of 130, 115, and 105 volts at max. load & is tapped to match line volt. in six steps. Power ratings: "Direct" Pos.: 50 VA. "Isolated" Pos.: 275 VA. Freq.: 50-60 Hz 5¾"x5"x4⅜" steel case.
62F047. NET **27.50**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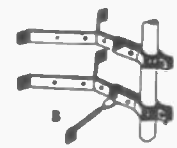
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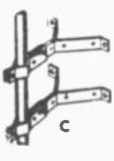
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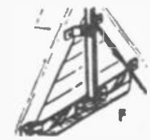
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K

MAST STANDOFFS

Mast stand-off with extruded threads. Made of heavy steel, galvanized 9" strap. Shpg. wt., 4 oz.

Stk. No.	Length	Each	10 for
92F410	7½"	.17	1.60

SNAP-ON STANDOFF

New, improved snap-on standoff that is easy to put on and really stays on. For UHF and VHF. No tools required. For 1¼" masts.
92F412. NET .... **.11**
Per 100 .... 9.53

"E-Z" STANDOFFS

Universal standoffs with E-Z locking. Merely put the lead-in in place and swing the stand-off shut. Locks surely and easily; with wood screw except *(machine). No tools needed. Shpg. wt./10, 9 oz.

Stk. No.	Length	Ea.	10 for
92F413	3½"	.11	1.00
92F414	7½"	.13	1.10
92F415	3½"	.10	.90

NEWARK STOCKS THE WORLD'S MOST COMPLETE INVENTORY OF INDUSTRIAL ELECTRONIC COMPONENTS

ALLIANCE TENNA-ROTORS

T-45 HEAVY DUTY ROTOR

"Tenna-Teller" needle pointer on face automatically follows antenna direction. Antenna may be turned through 360° cycle with slight pressure on control bar. Input 115 v. AC. Clockwise and counterclockwise revolution. Instantly reversible motor. Corrosion resistant components throughout, cadmium plated parts. Less 5-conductor cable. Shpg. wt., 12 lbs.

92F744. NET **24.03**

CABLES FOR ALLIANCE ROTATORS

Conductor Flat Cable. For use with U-100. Wt., per 100', 3 lbs.

Belden. Type 8464 Cable. 100 ft. Coil
36F231A. NET 3.72

Belden. Type 8464 Cable. 75 ft. Coil
36F231H. NET 2.91

Belden. Type 8464 Cable. 1000 ft. Coil
36F231. NET 32.70

5-Conductor Cable. For C-225 and T-45. Wt., per 100', 3 lbs.

Belden Type 8463 Cable. 100 ft. Coil
36F232A. NET 4.65

Belden. Type 8463 Cable. 50 ft. Coil
36F232B. NET 2.51

Belden. Type 8463 Cable. 500 ft. Coil
36F232F. NET 21.40

K-22 ALLIANCE TENNA-ROTOR

- **Die-Cast Aluminum**
- **Weather Proof Housing**

Provides instant fingertip control of antenna rotation. Reduces interference, helps eliminate "ghosts." Ideal for CB reception and transmission. Use Model TBB-2. Thrust Bearing Bracket for heavier type antennas. U-Bolts supplied. Cadmium headware.

92F742. NET **19.37**

C-225 TRANSISTORIZED AUTOMATIC ROTATOR SYSTEM

Type C-225. Fully automatic Tenna-Rotor reduces interference, provides instant rotation, brings more stations and brighter, clearer pictures. Automatically positions antenna toward television or FM station. For color and black and white TV sets. Pulls in more signals with clearer picture. Phase-sensing circuit for fine tuning. Positive 360° rotation. Reversible motor for instant position reversal. Die cast, corrosion proof rotor—stainless steel and zinc plated parts. Less 5-conductor cable. U.L. Approved. For 110-120 V., 60 hz AC. Shpg. wt., 12 lbs.

92F740. NET **35.97**

U-100 AUTOMATIC SYSTEM

Maintains perfect sychronization. Eliminates drifting and swinging. Reduces interference, gets brighter pictures, brings in more distant stations. Automatically turns antenna toward station of your choice for the best picture. To turn the antenna simply set the indicator knob at the direction desired; the U-100 does the rest. 115 volts, 60 hz AC. Clockwise or counterclockwise rotation. Instantly reversible motor. Magnetic brake eliminates over-travel. Rotates through 360° of arc at speed of one r.p.m. Factory lubricated for life. Moisture sealed. Corrosion resistant components throughout. Less 4-conductor cable. Shpg. wt., 12 lbs.

92F741. NET **28.78**

MODEL TBB-2 THRUST BEARING BRACKET

Minimize strain on rotator by use of TBB-2 when installing heavier type antennas. Not necessary for normal installations. Shpg. wt., 3 lbs.

92F743. NET **2.97**

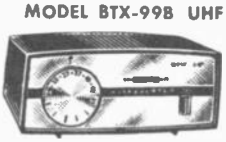
BLONDER TONGUE

HOMER VHF/FM 4-OUTPUT AMP

Model HVP-38. A single silicon transistor, 75 ohm VHF/FM amp for channels 2-13. Designed to provide quality reception in ciaxial systems with up to 4 TV/FM sets. Walnut grained panel. Five BTF-591 connectors included. Size: 4⅛ x 1⅞ x 1⅞". Wt., 2 lbs.

94F010.. Model HVB-3P. **NET** **17.90**

MODEL BTX-99B UHF CONVERTER



For channels 14-83. All transistor circuit. For operation from 110-120 VAC; 50/60 hz. Size: 6⅜ x 3 x 3¾". Shpg. wt. 2 lbs.

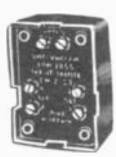
94F000. Model BTX-99B. **NET** **20.15**

MODEL BTX-11A CONVERTER AMPLIFIER

Combination for weak signal and fringe areas. Amplifier triples TV signal. Same size as Model BTX-99B. 110-120 VAC, UL approved. Shpg. wt. 2 lbs.

94F001. NET **30.90**

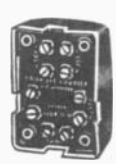
A-102 U/V



U/V deluxe 300-ohm 2-way UHF/VHF/FM coupler. Connects 2 sets to 1 twin-lead cable, or couple 2 antennas. Offers high isolation between sets. Backmatched to increase picture sharpness.

94F011. NET **1.98**

A-104 U/V



U/V 300-ohm UHF/VHF/FM coupler. Similar to A-102 U/V, but for connecting four sets to a single twin-lead cable.

94F012. NET **2.80**

UHF "GOLDEN ARROW" INDOOR ANT.

For channels: 14 to 83. Complete with lead-in. Wt., 1 lb.

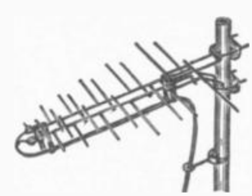
94F004. NET **3.95**

MODEL U/VAMP-2 AMPLIFIER

Mast-mounted, all-weather two-transistor, UHF-VHF amplifier provides power to turn fuzzy pictures into sharp, clear reception. Built-in FM filter. Wt. 2 lbs.

94F007. NET **35.25**

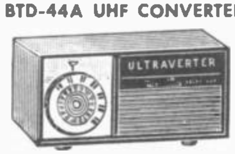
UHF "GOLDEN-DART" OUTDOOR ANT.



UHF periodic outdoor antenna. May be added to existing VHF mast or mounted separately. Pre-assembled. Welded for ruggedness. Shpg. wt. 2 lbs.

94F003. NET **4.15**

BTD-44A UHF CONVERTER



Cordless, UHF all-channel converter. Uses solid state components. Recommended for prime signal target areas. Operates on ordinary flashlight battery. Size: 6⅜ x 3 x 3¾". Shpg. wt. 1½ lbs.

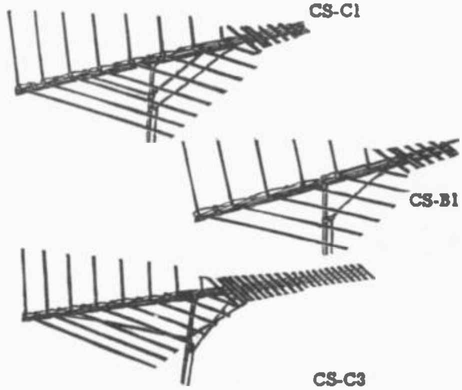
94F006. NET **13.45**

DEPEND ON NEWARK FOR EVERYTHING IN INDUSTRIAL ELECTRONICS

• **To Serve You Better — Eleven Stocking Warehouses Coast-to-Coast**

Antennas, TV Accessories and Fuses

FINCO COLOR SPECTRUM SERIES 300 OHM ANTENNA



CS-C1 CS-B1 CS-C3

MODEL CS-C3 FOR WEAK VHF SIGNAL AREAS — VERY WEAK UHF SIGNAL AREAS

Full length boom antenna. Thirty element UHF — VHF — FM. Eight VHF — FM elements, seven driven and one parasitic. Twenty-two UHF elements, ten driven and 12 parasitic. Boom length is 166½". Turning radius is 95". Complete with behind the set line splitter. 11 lbs.
92FA755. NET **35.97**

MODEL CS-C1 FOR WEAK VHF SIGNAL AREAS — STRONG UHF SIGNAL AREAS

Full length boom antenna. Sixteen element UHF — VHF — FM. Eight VHF — FM elements, seven driven and one parasitic. Eight UHF elements, five driven and three parasitic. Boom length is 123½". Turning radius is 66". Complete with behind the set line splitter. 9 lbs.
92FA756. NET **26.37**

MODEL CS-B1 FOR MODERATE VHF SIGNAL AREAS — STRONG UHF SIGNAL AREAS

Full length boom antenna. Thirteen element UHF — VHF — FM. Six VHF — FM elements, five driven and one parasitic. Seven UHF elements, five driven and two parasitic. Boom length is 93". Turning radius is 48". Complete with behind the set line splitter. 7 lbs.
92FA757. NET **17.97**

Model 3002. Four TV sets to one signal source by separating the TV Signal from one antenna down lead into 4 separate outputs.
92F758. NET **1.77**

Model 3004. Couples two TV sets to one signal source by separating the TV signal from one antenna down lead into two separate outputs.
92F759. NET **2.97**

Model 3014. Splits a combined UHF-VHF Signal (on a single down lead) into separate UHF-VHF, FM outputs. Combines signal outputs from UHF, VHF into a single antenna.
92F760. NET **2.55**

Model 3017. Splits the signal from a UHF antenna into two UHF outputs. Combines signal into single down lead.
92F761. NET **4.17**

Model 3019. Splits combined UHF-VHF, FM Signal from an all-channel antenna to three separate units. Then combines outputs.
92F762. NET **3.30**

Model 3020. Splits a combined UHF-VHF signal (on single down lead) into separate UHF, VHF outputs.
92F763. NET **1.77**

PERMA-POWER

PERMA POWER TV TUBE BRIGHTENER

Model C 202 for black and white TV sets 50% heater powerboost. Slide switches selects parallel or series wiring with deodecal 12 pin socket.
90F030. NET **2.25**

Model C 222 110° shell base, Sylvania Dumont type.
90F031. NET **2.25**

Model C 212 110° Button base. RCA type. Any heat rate.
90F032. NET **2.25**

PERMA-POWER TV VOLTAGE REGULATOR

Corrects low line voltage to restore full height and weight of TV picture. Rated 300 watts, 90-135 volts. Shpg. wt. 2½ lbs.
90F033. Model D-200. NET **8.25**

Model D-101. Manual version.
90F034. NET **5.70**

COLOR BRIGHT PICTURE TUBE BRIGHTENERS

Provides increased filament voltage to boost electronic emission. Parallel - wired filament Model C-501. For round tubes (70° shell neodiheptal 12-pin base). Shpg. wt. 1 lb.
90F035. NET 5.85

Model C-511 for Rectangular tubes (90° small-button diheptal 12-pin base) Shpg. wt. 1 lb.
90F036. NET 5.85

● *NEW* PERMA-POWER AUTOMATIC VOLTAGE REGULATOR

Model D-210. Maintains normal operating voltage on TV sets and other appliances operating on over-loaded circuits. Automatically boosts voltage 10 volts when line drops below 110 V. Eliminates picture flutter, shrinking, flop-over, loss of brightness and other similar disturbances. Has no tubes, ballasts, relays or other moving parts.
90F037. NET **14.95**

BUSSMAN

INDUSTRIAL FUSE BLOCKS

Takes all 13/32 x 1½" fuses. Barriers prevent arc-over. Silver plated clips to avoid corrosion. Ideal for protection of motors, transformers, diodes, solenoids, etc. Can be panel mounted or used on equipment.
Type 2807—55/64x3"; 2808—1⅝x3"; 2809—2⅜x3".

Stk. No.	Type	No. Poles	1-99	100-Up
28F357	2807	1	.58	.48
28F358	2808	2	.95	.80
28F359	2809	3	1.29	1.57

3743

4520

2807

ADD-ON-BLOCKS

Any number of singlepole fuseblocks and separate end-barrier lock together into single unit. Marking strips for circuit. Will take any 13/32 x ½" fuse.

Stock No.	Type Description	1-99	100-499	500-999
28F288	3742 End-Barrier Only	.11	.095	.082
28F289	3743 One-Pole Block Only	.79	.66	.56
28F290	Marking Strip in 50" lgth.	.38	.32	.28

FUSE BLOCKS

Molded Bakelite. One mounting hole. Countersunk for No. 6 flat head screws.

Stk. No.	Type	Size	1-99	100-499	500-999
28F040	4520	¼x1"	.18	.15	.13
28F041	4405	¼x1¼"	.18	.15	.13
28F042	4421	13/32x1½"	.41	.35	.30
28F043	3520	13/16x2"	2.45	2.05	1.76

● *NEW* TIME DELAY AUTO PROTECTOR

- **Thief can't get away with car or truck**
- **Permits car to start — then stops engine within blocks**

Model AP-1. Makes car or truck thief-proof. Permits car to start then stops engine within blocks, cannot be re-started until reset by owner. If car or truck is stolen thief will abandon it making recovery quick. Installs on any American or Foreign car or truck with 6 or 12 volt system.
28F294. NET **3.00**

SPARE FUSE REFILLS FOR BUSS AUTO PROTECTOR

Model AP-5. Spare Fuse For Buss Auto Protector contains 5-Fusetron time-delay MDL 1-6/10 dual element fuses especially designed to fit and operate properly the Buss Auto Protector.
27F295. NET **1.22**

BUSSMANN Fuses and Accessories

TYPE AGX FAST-ACTING FUSES

Provides high speed action necessary to protect sensitive instruments or delicate apparatus. 1/16 to 2 ampere sizes have straight through element/U.L. approved. Size: 1/4x1". Shpg. wt. .76 lbs. per 100.

Stk. No.	Amps.	Volts	1-99 Ea.	100-499 Ea.	500-999 Ea.
27F973	1/500	250	1.00	.91	.78
27F974	1/200	250	.45	.38	.32
27F975	1/100	250	.41	.35	.30
27F976	1/32	250	.35	.30	.25
27F977	1/16	250	.23	.19	.16
27F978	1/10	250	.16	.14	.12
27F979	1/8	250	.16	.14	.12
27F980	3/16	250	.16	.14	.12
27F981	1/4	250	.11	.09	.077
27F982	2/10	250	.16	.14	.12
27F983	3/8	250	.11	.09	.077
27F984	4/10	250	.11	.09	.077
27F985	½	250	.11	.09	.077
27F986	3/4	125	.11	.09	.077
27F987	1	125	.10	.055	.047
27F988	1½	125	.10	.055	.047
27F989	2	125	.10	.055	.047
28F049	5	125	.05	.036	.031

TYPE AGC FUSES

Formerly called 3AG. Test specifications - carry 110% open at 135% within 1 hour. Approved by Underwriter's Laboratories. Size 1/4x1 1/4". Shpg. wt., .91 lbs. per 100.

Stk. No.	Amps	Volts	1-99 Ea.	100-499 Ea.	500-999 Ea.
28F050	1/32	250	.35	.30	.25
28F051	1/16	250	.16	.14	.12
28F052	1/8	250	.16	.14	.12
28F053	1/4	250	.11	.09	.077
28F054	3/8	250			
28F055	1/2	250			
28F056	3/4	250			
28F057	1	250	.07	.055	.047
28F058	1½	250			
28F059	2	250			
27F880	3	250	.06	.05	.043
27F881	4	32	.06	.05	.043
27F882	5	32	.05	.036	.031
27F883	6	32			
27F884	7½	32			
27F885	10	32			
27F886	15	32			
27F048	20	32	.05	.041	.035
27F887	25	32	.05	.041	.035
27F888	30	32	.05	.041	.035

TYPE MTH FUSES

Formerly called 3AG. Test Specifications carry 110%, open at 135% within 1 hour. Listed as approved by Underwriters Laboratories. Size: 1 1/4"x1/4". Shpg. wt., .91 lbs. per 100.

Stk. No.	Amperes	Volts	1-99 Ea.	100-499 Ea.
27F877	4	250	.10	.07
27F878	5	250		
27F879	6	250		

BUSS GLR FUSES

Fuse and knob are in one piece. When fuse opens entire fuse-knob is replaced. Knob is insulated to guard against shock. GLR fuses are quick blowing type - carry 110%, open at 135% within 1 hour.

Stk. No.	Amps	Volts	1-99 Ea.	100-499 Ea.
28F300	½	300	.21	.17
28F301	1	300	.11	.09
28F302	1½	300		
28F303	1 6/10	300		
28F304	2	300		
28F305	2½	300		
28F306	3	300		
28F307	4	300		
28F308	5	300		

"MDL" FUSETRON DUAL-ELEMENT FUSES

Fuses with a long time lag. Avoid needless blows from starting currents or surges. At 200% load the approximate blowing time is 25 seconds. Size: 1/4x1 1/4". Wt., 1 lb. per 100.

Stk. No.	Amps.	Volts	1-99 Ea.	100-499 Ea.	500-999 Ea.
27F822	1/100	250	.31	.26	.22
27F823	1/32	250			
27F824	1/16	250	.22	.19	.16
27F825	1/10	250			
28F045	1/8	250			
27F826	15/100	250			
27F827	2/10	250			
28F046	1/4	250			
27F828	3/10	250			
27F829	4/10	250			
27F830	1/2	250			
27F831	6/10	250			
27F832	8/10	250			
27F833	1	250			
27F834	1¼	125	.20	.17	.15
27F835	1-6/10	125			
27F836	2	125			
27F837	2-1/2	125	.16	.14	.12
27F838	2-8/10	125			
27F839	3-2/10	125			
27F840	4	32			
27F841	5	32			
27F842	6-1/4	32			
27F843	8	32			
27F844	10	32			
28F047	15	32	.04	.033	.028
27F845	20	32	.16	.14	.12
27F846	25	32			
27F847	30	32			

TYPE MDX FUSES

These fuses have the same specifications as Type MDL. The only main difference being that at a load of 200% the fuse blows in approximately 12 sec. .93 lbs./100 Size: 1/4x1 1/4.

Stk. No.	Amps.	Volts	1-99 Ea.	100-499 Ea.	500-999 Ea.
27F890	1-1/4	250	.25	.21	.18
27F891	1-1/2	250			
27F892	1-6/10	250			
27F893	2	250			
27F894	3	125	.16	.14	.12
27F895	3-2/10	125			
27F896	4	125			
27F897	5	125			
27F898	6-1/4	125	.19	.16	.13
27F899	7	125			

TYPE GLD INDICATING FUSES

Fiber tube; silver plated indicating pin extends from end of fuse when fuse is blown. If desired, indicating pin can be used to activate a signal light by using fuses in an HKA fuseholder. Carry 110% of rated current, open at 135% in 1 hour. Size, 1/4x1 1/4"; shpg. wgt., .86 lbs. per 100.

Stk. No.	Amps.	Volts	1-19 Ea.	20-99 Ea.	100-199 Ea.
27F964	¾	125	.45	.38	.32
27F965	1	125	.35	.30	.25
27F966	2	125			
27F967	3	125			
27F968	5	125			

BUSS GBA VISUAL INDICATING FUSES

Physically and electrically identical to type GLD fuses listed above, except indicating pin is red-tipped for direct visual indication of opened element. Use with BUSS HLD fuseholder. Size: 1/4x1 1/4.

Stk. No.	Voltage	Amp.	1-99 Ea.	100-499 Ea.	500-999 Ea.
28F309	125	¾	.49	.41	.35
28F310	125	1	.38	.32	.27
28F311	125	1½			
28F312	125	2			
28F313	125	3			
28F314	125	5			

TYPE ABC CERAMIC BODY FUSES

Can take 25,000 amps. @ 125 v. without exploding. Carry 110%, open at 135% of rating. Size: 1/4x1 1/4".

Stk. No.	Amps.	Volts	EACH 1-99	EACH 100-499	EACH 500-999
27F952	2	250	.14	.12	.099
27F953	3	250			
27F954	5	250	.13	.11	.095
27F955	6	250			
27F956	8	250			
27F957	10	250			
27F958	12	250	.14	.12	.099
27F959	15	250			
27F960	20	250			
27F961	25	125	.17	.14	.12
27F962	30	125			

"FNM" SLOW-BLOWING FUSES

Dual element, fibre tube, slow blowing fuses avoid needless blows from starting currents or surges. Fuse link operates only on very high overloads, or short circuits. A thermal cutout functions on low overloads, and cannot operate quickly at any load, hence long time lag is obtained. Yet, complete protection is provided against shorts. 13/32"x1½". Shpg. wt., 1.5 lbs. per 100.

Stk. No.	Amps.	Volts	1-99 Ea.	100-499 Ea.
27F863	½	250	.32	.26
27F864	1	250		
27F865	1-6/10	250		
27F866	2	250		
27F872	2½	250		
27F867	3-2/10	250		
27F868	4	250		
27F869	5	250		
27F873	6-1/4	250		
27F874	8	250		
27F870	10	250		
27F875	12	125		
27F876	15	125		

FNA SIGNAL FUSES

DUAL-ELEMENT - SLOW BLOWING. Avoids needless blows from starting currents or surges. Has silver indicating pin which extends from fuse when fuse opens. Can be used in BUSS HPC-C indicating fuseholder or pin can be used to actuate a signal by using fuses in BUSS signal fuse block. Carry 110%, open at 135% in 1 hr. Size: 13/32x1½".

Stk. No.	Amps.	Volts	1-99 Ea.	100-499 Ea.
28F327	1/10	250	.58	.49
28F328	15/100	250		
28F329	2/10	250		
28F330	3/10	250		
28F331	4/10	250		
28F332	½	250		
28F333	6/10	250		
28F334	8/10	250		
28F335	1	125		
28F336	1⅛	125		
28F337	1¼	125		
28F338	1-4/10	125		
28F339	1-6/10	125		
28F340	1-8/10	125		
28F341	2	125		
28F342	2¼	125		
28F343	2½	125		
28F344	2-8/10	125		
28F345	3	125		
28F346	3-2/10	125		
28F347	3½	125		
28F348	4	125		
28F349	4½	125		
28F350	5	125		
28F351	5-6/10	125		
28F352	6	125		
28F353	6¼	125		
28F354	7	125		
28F355	8	125		
28F356	10	125		

Fuses and Accessories BUSSMANN

• NEW SUBMINIATURE FUSE HOLDER

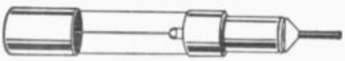
AF KNOB GMW FUSE HWA HOLDER

Has transparent window for visual inspection of element. Can be mounted into printed circuit boards. Fuse size .270x.250 inches. Carry 100%, open at 200% within 10 sec. or less. Interrupting rating—300 amps. at 125 volts. AF knob for holder makes holder waterproof.

Stk. No.	GMW-Amp.	1-99 Each	100-499 Each	500-999 Each
28F361	1/200	.71	.60	.51
28F362	1/100			
28F363	1/64			
28F364	1/32			
28F365	1/16			
28F366	1/10	.55	.46	..39
28F367	2/10			
28F368	1/4			
28F369	3/10			
28F370	4/10			
28F371	1/2			
28F372	6/10			
28F373	3/4			
28F374	1			
28F375	1-1/2			
28F376	2			
28F377	3			
28F378	4			
28F379	5			
28F380	HWA*	.60	.50	.43
28F381	HWA†	.68	.57	.49
28F382	AF‡	.09	.07	.06

* Holder. † With AF knob. ‡ Knob only.

• NEW BUSS SERIES "70" FUSES



For use in telephone and communication equipment. Has indicating pin that extends from end of fuse when fuse opens. Color coded indicating pin gives visual indication of open fuse and can activate an alarm. Size 9/32 x 1-25/32 in. Rated 160 volts or less.

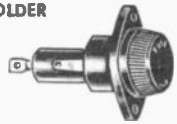
Stk. No.	Type 70-Amps.	Color	1-99 Each	100-499 Each	500-999 Each
28F383	E-18/100	Yellow	.64	.55	.46
28F384	X-2/10	Blk.			
28F385	K-1/4	Violet/Wht.			
28F386	F-1/4	Violet	.52	.44	.37
28F387	G-1/2	Red			
28F388	H-3/4	Tan			
28F389	P-1	Pink	.648	54.00	43.20
28F390	A1-1/3	Wht.	.52	.44	.37
28F391	B-2	Orange			
28F392	C-3	Blue			
28F393	D-5	Green			
28F394	71A-6	Grn./Wht.			
28F395	M-8	Wht./Red	.56	.48	.40
28F396	R-10	Purple			

LAMP INDICATING FUSEHOLDERS

Body of molded phenolic. Strong coil spring for constant pressure. Transparent knob permits indicating light to be seen. For ¼x1¼" fuses. HKL-X and HKL—Clear. HKR—Amber. Shpg. wt., 2 oz.

Stk. No.	Type	Volts	1-99 Each	100-499 Each	500-999 Each
27F813	HKL	90 to 250	1.61	1.35	1.16
27F814	HKL-X	90 to 250	1.61	1.35	1.16
27F812	HKR	22 to 33	2.65	2.21	1.90

PANEL MOUNTED HOLDER



Type HPC. Screw type knob. For 13/32 x 1½" fuse. Mounts on panels with flange outside. U. L. listed for 30 amp. 600V.

Stock No.	1-99 Each	100-499 per 100	500-999 per 100
27F818	.60	.50	.43

PANEL MOUNTED HOLDERS

Use on panels up to 5/16" thick. Wire hole .115". Carrying cap.: HJM and HKP, 15 amps; HCM, 18 amps.

Stk. No.	Type	For Fuses	1-99 Each	100-499 Each	500-999 Each
27F819	HJM	¼x1"	.40	.33	.28
27F820	HKP	¼x1¼"	.40	.33	.28
27F821	HCM	9/32x1¼ ¼x1¼"	.55	.46	.39

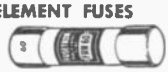
Knob available without holder to convert HKP holders to visual indicating type. 28F035. Type 5487 Trans. knob. .20

VISUAL INDICATING FUSEHOLDER

Has bayonet type transparent knob to permit indicating pin on open GBA fuse to be easily seen. Solder terminals. Locking keys obtainable without charge—1/16" long for panels up to 1/8" thick or 1/8" long for panels 1/8 to 5/16" thick. Body is molded phenolic. Takes all GBA fuses.

Stk. No.	Type	1-99 Ea.	100-499 Each	500-999 Each
28F293	HLD	.43	.36	.31

FUSETRON DUAL-ELEMENT FUSES



Type FRN. Long time-lag prevents opening on starting currents or other harmless overloads. U/L listed for motor protection up to 250 volts.

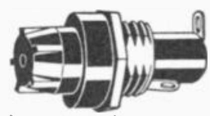
Stk. No.	Amps.	Sizes	1-99	100-499
28F250	1	½x2"	.37	.31
28F251	1¼	½x2"		
28F252	1-6/10	½x2"		
28F253	2	½x2"		
28F254	2½	½x2"		
28F255	3-2/10	½x2"		
28F256	4	½x2"		
28F257	5	½x2"		
28F258	6¼	½x2"		
28F259	8	½x2"		
28F260	10	½x2"		
28F261	12	½x2"		
28F262	15	½x2"		
28F263	17½	½x2"		
28F264	20	½x2"		
28F265	25	½x2"		
28F266	30	½x2"		
28F267	35	¾x3"	.73	.61
28F268	40	¾x3"		
28F269	45	¾x3"		
28F270	50	¾x3"		
28F271	60	¾x3"		
28F272	70	1x5⅞"	1.69	1.41
28F273	80	1x5⅞"		
28F274	90	1x5⅞"		
28F275	100	1x5⅞"		

HIGH INTERRUPTING CAPACITY FUSES

Type KTK. 13/32" x 1½". Glass fibre melamine tube with sand filler surrounding silver fuse element. For use on circuits capable of delivering currents as high as 100,000 amps at voltages of 600 or less. Test spec.—carry 110%, open at 135% in 1 hour or less. U.L. listed.

Stk. No.	Amps	Voltage	1-99	100-499	500-999
28F190	1/10	600 or less	1.02	.85	.77
28F191	1/8	600 or less			
28F192	2/10	600 or less			
28F193	¼	600 or less			
28F194	3/10	600 or less			
28F195	½	600 or less			
28F196	¾	600 or less			
28F197	1	600 or less			
28F198	1½	600 or less			
28F199	2	600 or less			
28F200	3	600 or less			
28F201	4	600 or less			
28F202	5	600 or less			
28F203	6	600 or less			
28F204	8	600 or less			
28F205	10	600 or less			
28F206	15	600 or less			
28F207	20	600 or less			
28F208	25	600 or less			
28F209	30	600 or less			

SPACE SAVER PANEL MOUNTED FUSE HOLDER



1⅝ inch long, extends 29/32" behind front of panel. Takes ¼x1¼" fuses. Converts to take 9/32x1¼" fuses. Flat part of molded phenolic body locks fuse against rotation when used on punched hole. Requires ½" mtg. hole except (*) ⅝".

Stock No.	Type	Fuse Size	Net Ea.	100-499 Each	500-999 Each
28F291	HLF*	¼x1¼"	.40	.33	.28
28F292	HCL*	9/32x1¼"			
27F810	HMB	¼x1¼"			
27F811	HMM	¼x1¼"			

TRON RECTIFIER FUSES

Especially designed for protection of semi-conductor rectifiers. Test specs.—carry 100% rating; open within 1 sec. of 250 rating. KAA & KAW—13/32 x 1½"; KAB—9/16x2".

Stock No.	Symbol & Amps	Volts	1-99	100-499
28F210	KAA 1	130	.90	.80
28F211	KAA 2	130		
28F212	KAA 3	130		
28F213	KAA 4	130		
28F214	KAA 5	130		
28F215	KAA 6	130		
28F216	KAA 7	130		
28F217	KAA 8	130		
28F218	KAA 9	130		
28F219	KAA 10	130		
28F220	KAA 12	130		
28F221	KAA 15	130		
28F222	KAA 20	130		
28F223	KAA 25	130		
28F224	KAA 30	130		
28F225	KAB 1	250	1.00	.90
28F226	KAB 2	250		
28F227	KAB 3	250		
28F228	KAB 4	250		
28F229	KAB 5	250		
28F230	KAB 6	250		
28F231	KAB 7	250		
28F232	KAB 8	250		
28F233	KAB 9	250		
28F234	KAB 10	250		
28F235	KAB 12	250		
28F236	KAB 15	250		
28F237	KAB 17½	250		
28F238	KAB 20	250		
28F239	KAB 25	250		
28F240	KAB 30	250		
28F241	KAW 1	130	.90	.80
28F242	KAW 2	130		
28F243	KAW 3	130		
28F244	KAW 5	130		
28F245	KAW 7	130		
28F246	KAW 10	130		
28F247	KAW 15	130		
28F248	KAW 20	130		
28F249	KAW 30	130		

BUSS GMT FUSES — HLT HOLDER

Permits multiple mounting of fuses in limited space. Colored indicator spring when released makes contact with alarm terminal which can activate signal circuit. Size: ¼x1 15/32".

Stk. No.	Amps	Color of Indicator	1-99 Each	100-499 Each	500-999 Each
28F315	18/100	Yellow	.42	.35	.30
28F316	¼	Violet			
28F317	½	Red			
28F318	65/100	Black			
28F319	¾	Brown			
28F320	1	Gray			
28F321	1⅓	White			
28F322	2	Orange			
28F323	3	Blue			
28F324	5	Green			
28F325	7½	Blk.-White			
28F326	10	Red-White			
28F360	HLT holder Fits all GMT		.43	.36	.31

LITTELFUSE Fuses and Accessories

3AG SLO-BLO FUSES

For circuits with high inductive surge.

Stk. No.	Type	Amps	1-99	100-499	500-999
27F680	313.010	1/100	.31	.255	.204
27F681	313.031	1/32			
27F682	313.062	1/16	.23	.185	.148
27F683	313.100	1/10			
27F915	313.125	1/8			
27F684	313.150	15/100			
27F666	313.175	1/75			
27F916	313.187	3/16			
27F685	313.200	2/10			
27F686	313.250	1/4			
27F687	313.300	3/10			
27F917	313.375	3/8			
27F688	313.400	4/10			
27F689	313.500	1/2			
27F690	313.600	6/10			
27F699	313.700	7/10			
27F918	313.750	3/4			
27F691	313.800	8/10			
27F692	313001	1			
27F693	3131.25	1¼	.21	.170	.136
27F705	31301.5	1½			
27F919	31301.6	1-6/10			
27F694	313002	2			
27F695	31302.5	2½	.17	.135	.108
27F920	313003	3			
27F706	31303.2	3-2/10			
27F696	313004	4			
27F697	313005	5			

3AG LITTELFUSES—32 VOLT OR LESS

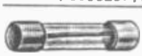
Straight type fuse element positioned to center of fuse. Wt., pkg. of 100 14 oz.

27F724	311005.	5	.05	.036	.029
27F725	31107.5	7½			
27F726	311010.	10			
27F728	311015.	15			
27F730	311025.	25	.05	.041	.032
27F731	311030.	30			

3AG 32 VOLT SLO-BLO LITTELFUSES

Withstands 110% rated load indefinitely. 135% up to 1 hour. 200% for 5 to 60 sec.

27F700	3136.25	6¼	.16	.135	.108
27F701	313008.	8			
27F702	313010.	10			
27F703	313015.	15			
27F704	313020.	20			



3AG AND 3AB U.L. APPROVED

Type 3AG. For low time-lag use. Max. volt 250 volt except *125 volt. 1¼x¼".

Stk. No.	Type	A	1-99	100-499	500-999
27F650	312 062	1/16	.17	.135	.108
27F651	312.125	1/8			
27F663	312.175	.175			
27F664	312.187	3/16			
27F652	312.250	1/4	.11	.090	.072
27F667	312.300	.3			
27F653	312.375	3/8			
27F654	312.500	1/2			
27F655	312.750	3/4			
27F656	312001.	1	.07	.055	.044
27F657	31201.5	1½			
27F658	312002.	2			
27F659	312003.	3	.06	.05	.04
27F660	312004.	4	.09	.070	.056
27F661	312005.	5			
27F662	312006.	6			
27F665	312008	8*	.13	.105	.084

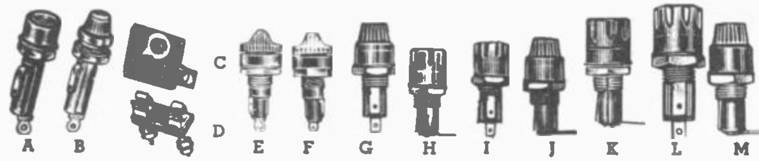
Type 3AB. Medium time lag.

27F670	314008	8	.13	.110	.088
27F671	314010	10	.13	.110	.088
27F672	314012.	12	.14	.115	.092
27F673	314015.	15			
27F674	314020.	20			

SFE ¼" AUTOMOBILE FUSES

¼" D. Wt.; pkg. of 100, 14 oz.

Stk. No	Type 307-	A.	Lgth. inch	1-99 Ea.	100-499 Ea.	500-999 Ea.
27F710	004	4	5/8	.05	.041	.032
27F711	006	6	3/4	.05	.041	.032
27F716	07.5	7.5	7/8	.04	.036	.029
27F712	009	9	7/8	.04	.036	.029
27F713	014	14	1 1/16	.04	.033	.026
27F714	020	20	1¼	.04	.033	.026
27F715	030	30	1 7/16	.05	.041	.032



Screw * Lug †

8AG FUSE MOUNTINGS

Stk. No.	Type	Fig.	Description	Base Dimensions	1-99	100-499	500-999
27F759	383002	C	Meter-back mtg.	1⅛"L x 1"W x 1 1/16"T	.34	.285	.228
27F761	383001	D	Panel mtg.	1-1/5"L x ½"W x 3/16"T	.51	.425	.340
27F751	371001	A	Pnl. Mtg*	2 7/32"L x .709/.722 Max. Dia.	.54	.450	.360
27F781	372001	B	Finger-Knob	2 7/32"L x .709/.722 Max. Dia.	.54	.450	.360
27F755	387001	D	Sgl. fuse†	½"L x 1⅝"W x 3/16"T	.18	.150	.120
27F757	387002		Dbl. fuse mtg.	1⅛"L x 1⅝"W x 3/16"T	.34	.285	.228
STANDARD FUSE POST FOR 3AG							
27F720	342012	G	miniature	2 3/32"L x .690/.680" Max. Dia.	.40	.33	.264
27F780	342005	H	dustproof	1 45/64"L x .690/.680" Max. Dia.	.54	.45	.36
27F779	342004	H	miniature	1 45/64"L x .690/.680" Max. Dia.	.45	.38	.30
27F668	342014	I	miniature	2 1/64"L x .690/.680" Max. Dia.	.40	.33	.264
27F669	342022	J	miniature	1 15/32"L x .690/.680" Max. Dia.	.45	.38	.30
28F150	342028	K	Quick-connect	1 45/64"L x .690/.680" Max. Dia.	.49	.405	.324
28F151	343038	L	Quick-connect	1 31/32"L x .690/.680" Max. Dia.	.49	.405	.324
28F152	342048	M	Quick-connect	1 5/32"L x .690/.680" Max. Dia.	.49	.405	.324
28F153	342058	..	Quick-connect	2 3/64"L x .690/.680" Max. Dia.	.49	.405	.324

MIL-F-19207A FUSE POST

Stk. No.	Type	MIL. #	Description	1-99	100-499	500-999
27F643	FHN-20G	342025	3AG Min.	1.28	1.070	.856
27F644	FHN-20G	340256A	3AG Min. RF Shield	4.50	3.750	3.000
27F645	FHN-26G-2	342024	3AG Min.	1.24	1.035	.828
27F646	FHN-31G-2	372003	8AG Min.	2.50	2.085	1.668
27F647	FHN-19W	442008	4AG Waterproof	4.10	3.420	2.736
27F648	FHN-26W	342021	3AG Waterproof	4.10	3.420	2.736

INDICATING FUSE POST FOR 3AG

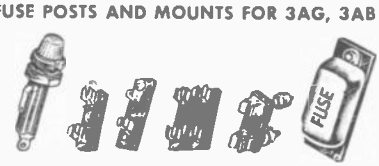
Indication Fuse Posts. Lgt., 2⅜". Front of panel: 13/16". Mtg. hole ⅝" D. Wt., 3 oz.

Stk. No.	Type	Fig.	Voltage Range	Knob Color	Design Lamp Current	1-99 Each	100-499 Each	500-999 Each
27F790	344006A	E	2.5-7V	Amber	.20 Amp	2.65	2.205	1.764
27F791	344012A	E	7-16V	Amber	.08 Amp	2.65	2.205	1.764
27F783	344024A	E	16-32V	Amber	.04 Amp	2.65	2.205	1.764
27F784	344125A	F	100-125V	Clear	.002 Amp	1.61	1.345	1.076
27F785	344250A	F	200-250V	Clear	.002 Amp	1.61	1.345	1.076

MIL VERSION OF SERIES 344 (Mil-F-19207A)

Stk. No.	Type	MIL. #	Voltage Range	Knob Color	1-99	100-499	500-999
28F154	FHL-17G-02	349250	90-300V	Clear	1.99	1.66	1.32
28F155	FHL-18G-1-02	349012	12-22V	Amber	3.00	2.50	2.00
28F156	FHL-18G-2-02	349023	23-33V	Amber	3.00	2.50	2.00
28F157	FHL-18G-3-02	349034	34-45V	Amber	3.00	2.50	2.00
28F158	FHL-18G-10-2	349046	46-60V	Amber	3.00	2.50	2.00
28F159	FHL-18G-5-02	349061	61-80V	Amber	3.00	2.50	2.00
28F160	FHL-18G-6-02	349081	81-90V	Amber	3.00	2.50	2.00

FUSE POSTS AND MOUNTS FOR 3AG, 3AB



A B C D E F

(*) Screw Slot (†) Lug terminal (**) Covered

Stk. No	Type	Fig.	Descrip.	1-99	100-499	500-999
27F760	353001	E	Pnl. mtg.	.51	.425	.340
27F765	351009	F	2 Pole**	1.48	1.235	.988
27F750	341001	....	Pnl. mtg.*	.54	.450	.360
27F752	342001	A	Fngr. knob	.54	.450	.360
27F754	357001	B	Pnl. mtg †	.18	.150	.120
27F756	356001	C	Sngl. fuse*	.36	.300	.240
27F758	357002	D	Dbl. mtg.	.34	.285	.228
27F769	356002	....	Fuse mt.	.69	.575	.460

LITTELFUSE CLIPS

Fits SFE, 3AG, 8AG and 3AB fuses. Phosphor bronze except * Beryllium copper. Shpg. wt., per 100, 5 lbs. † per 100.

Stock No.	Type	Fig.	For	1-99 Ea.	100-499†	500-999†
27F772	101001	A	3AG	.03	2.05	1.64
27F773	101002	B	3AG	.03	2.05	1.64
27F774	105002	B	5AG	.05	4.20	3.36
27F775	123002*	B	4AG	.08	7.00	5.60
27F776	127002	B	9/16"	.28	23.00	18.40

IN-LINE FUSE RETAINER

Furnished with SFE 9, 14, or 20 amp fuse. Also for 3AG or 3AB fuses.

Stk. No.	Type	1-99 Ea.	100-499 per 100	500-999 per 100
27F792	155009A	.40	.330	.264
27F793	155014A			
27F766	155020A			

3AG PIGTAIL LITTLEFUSES

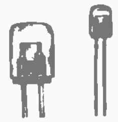
1½" pigtails, No. 20 tinned copper wire.

125 VOLT SLO-BLO

Stk. No.	Type	Amps	1-99	100-499	500-999
27F928	315.100	.1	.28	.230	.184
27F734	315.250	.25			
27F735	315.300	.3			
27F737	315 500	.5			
27F930	315.600	.6			
27F932	315001.	1.0			
27F934	31501.5	1.5	.26	.215	.172
27F935	31501.6	1.6			
27F936	315002	2.0			
27F937	315003	3.0	.22	.185	.148
27F940	315004	4.0			
27F941	315005	5.0			
250 VOLTS					
27F739	318.125	.125	.21	.17	.136
27F943	318001	1.0	.13	.105	.084
27F945	318002	2.0	.13	.105	.084
27F946	318003	3.0	.13	.105	.084
27F948	318005	5.0	.14	.110	.088
27F740	318.250	.25	.16	.135	.108
27F741	318.375	.375			
27F742	318.500	.500			
27F743	318.750	.750			

LITTELFUSE

SUBMINIATURE MICROFUSES



Only .250" dia. x .348" long exclusive of leads. Ideal for printed circuits. Features low resistance and high reliability in ultra-fast blowing characteristics. Series 279000 has 1 inch leads for wiring into circuit. Short circuit interrupting capacity 125 volts 10,000 amps DC.
Series 273000 has .170 inch leads for plugging into subminiature fuse holder (illustrated below). Blowing specifications: 110% life; 200% 0-10 seconds. Transparent glass cap. Rated at 125 V.

273000 Plug-in Type Stk. No.	Type	279000 Pigtail Type Stk. No.	Type	Amps.	1-99 Ea.	100-499 Ea.	500-999 Ea.
28F060	273.002	28F083	279.002	1/500	1.03	.855	.684
28F061	273.005	28F084	279.005	1/200			
28F062	273.010	28F085	279.010	1/100			
28F063	273.015	28F086	279.015	1/64			
28F064	273 031	28F087	279 031	1/32			
28F065	273.050	28F088	279.050	1/20	.86	.715	.572
28F066	273.062	28F089	279.062	1/16			
28F067	273.100	28F090	279.100	1/10			
28F068	273.125	28F091	279.125	1/8			
28F069	273.200	28F092	279.200	2/10			
28F070	273.250	28F093	279.250	1/4			
28F071	273.300	28F094	279.300	3/10			
28F072	273.400	28F095	279.400	4/10			
28F073	273.500	28F096	279.500	1/2			
28F074	273.600	28F097	279.600	6/10			
28F075	273.700	28F098	279.700	7/10			
28F125	273.750	28F128	279.750	3/4			
28F076	273.800	28F099	279 800	8/10			
28F077	273.001	28F100	279001	1			
28F078	27301.5	28F101	27901.5	1½			
28F079	273002	28F102	279002	2			
28F080	273003	28F103	279003	3			
28F081	273004	28F104	279004	4			
28F082	273005	28F105	279005	5			

MICROFUSE HOLDER

Type 281002. Front panel mount microfuse holder. Molded from high strength, high dielectric material. Knurled cap for easy grip. Rugged 'eye' type plated brass terminals separated by molded barrier to provide complete insulation. With positive 'O' ring seal.
28F111. NET EA. 1-99—.68 100-499—.57 500-999—.45

INDICATING MICROFUSE HOLDER

Type 284000. Indicator lamp glows when the fuse is blown. Knob molded from transparent material. Positive 'O' ring seal. High dielectric material.

Stk. No.	Type	Desc.	1-99 Ea.	100-499 Ea.	500-999 Ea.
28F107	284004	6 volt range	2.21	1.84	1.47
28F108	284005	12 volt range	2.21	1.84	1.47
28F109	284006	24 volt range	2.21	1.84	1.47
28F110	284003	125 volt range	1.55	1.29	1.03

SUBMINIATURE MICROFUSE HOLDER

Type 281001. Subminiature holder ideal for use in printed circuit board mounting. Mounts in .090" hole; solid terminals; ⅜" behind panel. W. Spring nut. Avg. Shpg. wt., 3 oz.
28F106. NET EA. 1-99—.28 100-499—.23 500-999—.18

334(000) SERIES PIN INDICATING FUSE

Medium acting fuses with silverplated visual indicating pin extending from end of fuse when fuse is blown. Tip can also be used to actuate an audible alarm circuit. Rated ¾ thru 5 amp. 125V, 6 thru 20 amp. 32V. *1¼ in length, ¼" in diameter.

Stk. No.	Type	Amp. Rating	1-99 Ea.	100-499 Ea.	500-999 Ea.
28F112	334-.750	¾	.45	.375	.300
28F113	334-001	1	.36	.295	.236
28F114	334-01.5	1½			
28F115	334-002	2			
28F116	334-003	3			
28F117	334-004	4			
28F118	334-005	5			
28F119	334-006*	6	.49	.405	.324
28F120	334-008	8			
28F121	334-010*	10			
28F122	334-012*	12			
28F123	334-015*	15			
28F124	334-020*	20			

SUB-MINIATURE PICOFUSES

- **Incredibly Small — Less Than ¼" Long!**
- **Ceramic Body for High Overload Capacity.**
- **High Accuracy in Blowing Time.**

Series 275. For circuits of 125 volts or less where short-circuit currents as high as 300 amperes occurs. A unique concept in fusing for computers, microelectronic and aero-space circuitry. High accuracy in blowing time at 300% or higher is ideal for sequential switching, or in circuits requiring redundancy. Blow time 4 hours min. at 100% of rating; 5 sec. max. at 200%. Ceramic body 7/32" x 5/64" dia.; tin-coated copper leads .025 dia. Picofuses can be encapsulated. 275 series has axial leads 1 9/16" long for diode clip or in-circuit mounting.

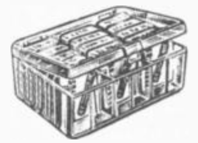
Stk. No.	Type	Amps.	1-99 Ea.	100-499 Ea.	500-999 Ea.
28F128	275.125	⅛	.43	.355	.284
28F129	275.250	¼			
28F130	275.375	⅜			
28F131	275.500	½			
28F132	275.750	¾	.38	.310	.248
28F133	275001	1			
28F134	27501.5	1.5			
28F135	275002	2			
28F136	275003	3			
28F137	275004	4			
28F138	275005	5			

8AG INSTRUMENT LITTELFUSES

361000 Series. Protects delicate voltmeters, microammeters, milliammeters, etc. 1 x ¼". 100, 10 oz. Max. voltage 250. Except 125 V.

Stk. No	Type 361-	Amps	For O/V VM	1-99 Ea.	100-499 Ea.	500-999 Ea.
27F614	.002	1/500	250	1.09	.905	.724
27F600	.005	1/200	1000 Up	.45	.375	.300
27F601	.010	1/100	1000	.42	.345	.276
27F602	.031	1/32	500-1000	.36	.295	.236
27F603	.062	1/16	100-500	.23	.190	.152
27F604	.125	1/8	20-100	.17	.135	.108
27F605	.250	1/4	10-20	.11	.090	.072
27F606	.375	3/8	5-10			
27F607	.500	1/2	3-5			
27F608	.750	3/4	....			
27F609	1.00	1	....	.07	.055	.044
27F610	1.50	1-1/2	....			
27F611	2.00	2	....			
27F612	3.00	3	....			
27F615	1.00	4	....			
27F613	5.00	5	....			

INDUSTRIAL FUSE CADDY



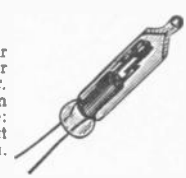
Type 094037. Specifically designed and stocked for almost universal use. Has any number of industrial or laboratory applications. Contains 3AG, Reg., Slo Blow, and 8AG Fuses and an emergency kit with assorted radio fuses. Has 14 boxes of fuses, 5 fuses per box. Case is clear plastic for quick and accurate fuse selection. Has three spare compartments. Size: 1⅞" x 3 x 4¼". Shpg. wt. 2 lbs.
27F677. NET **9.11**

L. C. FUSE CADDY #094041

An assortment of 75 popular C and N type fuses for use in television applications, in a sturdy plastic container. For your tube caddy, truck or shop.
27F676. NET **12.35**

SYLVANIA

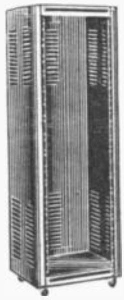
AUTOMATIC RESET "MITE-T-BREAKERS"



Type MB. Automatic reset units wire into your equipment to efficiently replace fusing. For use with transformers, motors, and appliances. Handle rated hold current @ 125 volts; min trip currents of 200% rated current. Sample: 1 ampere breaker holds at 1 amp; trips at 2 amps. Heremetically sealed. 1.26" x .39" dia. Has 1" copper leads. Shpg. wt. 1 oz.

Stock No.	Type	Amps	1-99	100-249	250-499	500-999
59F1640	MB-315	1	.30	.26	.23	.20
59F1641	MB-316	2				
59F1642	MB-317	3				
59F1643	MB-318	4				

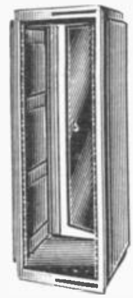
Cabinet Racks



Enclosed Relay Rack

Add-A-Rack

Two Door Rack



Prestige Racks

BUD ENCLOSED RELAY RACKS

Made of 16 gauge steel with 7/64" panel mounting supports which are recessed so that panel will be flush with face of rack. All standard panels fit these racks. Red-lined Chrome trim. Bottom supports use RC 7756 casters. Stk. No. 91F082. Shipped knocked-down with necessary assembly hardware.

Black	Grey	Ham. Grey	Type	H x W x D	Panel Space	Lbs.	1-9	10-14	15-19
91F050	91F056	91F062	CR-1772	66 9/16"x22"x17 1/8"	61 1/4"x19"	115	81.50	73.30	65.20
91F051	91F057	91F063	CR-1773	82 5/16"x22"x17 1/8"	77" x19"	135	93.80	84.40	75.00
91F058	91F061	91F078	CR-1771	47 5/16"x22"x17 1/8"	42" x19"	92	65.10	58.60	52.10
91F059	91F060	91F077	CR-1774	42 1/16"x22"x17 1/8"	36 3/4"x19"	82	57.50	51.80	46.00
93F134	93F142	93F150	CR-2471	47 5/16"x27"x17 1/8"	42" x24"	108	76.00	68.40	60.80
93F135	93F143	93F151	CR-2472	66 9/16"x27"x17 1/8"	61 1/4"x24"	135	96.30	86.70	77.00
93F136	93F144	93F152	CR-2473	82 5/16"x27"x17 1/8"	77" x24"	158	114.00	102.60	91.20
93F137	93F145	93F153	CR-2474	42 1/16"x27"x17 1/8"	36 3/4"x24"	96	67.40	60.60	53.90
93F138	93F146	93F154	CR-2481	47 5/16"x27"x22 1/8"	42" x24"	119	106.30	95.70	85.00
93F139	93F147	93F155	CR-2482	66 9/16"x27"x22 1/8"	61 1/4"x24"	160	133.30	119.90	106.60
93F140	93F148	93F156	CR-2483	82 5/16"x27"x22 1/8"	77" x24"	186	159.00	143.10	127.20
93F141	93F149	93F157	CR-2484	42 1/16"x27"x22 1/8"	36 3/4"x24"	115	94.70	85.20	75.80

ADD-A-RACK SERIES FOR ENCLOSED RACKS

Add panel space to present rack equipment without buying a new rack cabinet. Requires only four parts: door, top, bottom, and an Add-a-Rack coupling unit. Remove side of present rack and replace with coupling unit.

Black	Grey	Ham. Grey	Type	Add-A-Rack to Type	W x D x H	Lbs.	1-9	10-14	15-19
93F158	91F467	91F471	AR-1776	CR-1772	22x17 1/8x66 9/16"	100	74.60	67.20	59.70
93F159	91F468	91F472	AR-1777	CR-1773	22x17 1/8x82 5/16"	113	91.80	82.60	73.40
93F160	91F466	91F470	AR-1775	CR-1771	22x17 1/8x47 5/16"	74	60.10	54.00	48.00
93F161	91F465	91F469	AR-1778	CR-1774	22x17 1/8x42 1/16"	70	56.50	50.90	45.20
93F162	93F170	93F178	AR-4271	CR-2471	27x17 1/8x47 5/16"	87	65.80	59.20	52.65
93F163	93F171	93F179	AR-4272	CR-2472	27x17 1/8x66 9/16"	117	82.50	74.25	66.00
93F164	93F172	93F180	AR-4273	CR-2473	27x17 1/8x82 5/16"	132	98.90	89.00	79.10
93F165	93F173	93F181	AR-4274	CR-2474	27x17 1/8x42 1/16"	82	58.30	52.50	46.65
93F166	93F174	93F182	AR-3275	CR-2481	27x22 1/8x47 5/16"	119	92.30	83.05	73.85
93F167	93F175	93F183	AR-3276	CR-2482	27x22 1/8x66 9/16"	129	115.80	104.20	92.70
93F168	93F176	93F184	AR-3277	CR-2483	27x22 1/8x82 5/16"	152	139.30	125.40	114.40
93F169	93F177	93F185	AR-3278	CR-2484	27x22 1/8x42 1/16"	100	82.70	74.45	66.15

ENCLOSED RELAY RACK—GREY HAMMERTONE FINISH

These relay racks are made of 16 gauge steel with 7/64" panel mounting supports. Four sturdy supports in bottom for fastening casters for ready mobility.

Stk. No.	Type	Ht.	PS	Dep.	Lbs.	1-9	10-14	15-19
91F095	CR-2071	47 5/16"	42"x19"	22 1/8"	102	79.60	71.60	63.70
91F096	CR-2072	66 9/16"	61 1/4"x19"	22 1/8"	137	99.70	89.70	79.80
91F097	CR-2073	82 5/16"	77"x19"	22 1/8"	159	118.40	106.60	94.70
91F098	CR-2074	42 1/16"	36 3/4"x19"	22 1/8"	98	70.40	63.40	56.30

BUD ADD-A-RACK SERIES FOR ENCLOSED RELAY RACKS

For adding panel space to present rack equipment. Made of sturdy steel in a grey hammertone finish. Add to CR-2072, CR-2073 and CR-2074.

Stk. No.	Type	Add to	Ht.	PS	Dep.	Lbs.	1-9	10-14	15-19
91F474	AR-2276	CR-2072	66 9/16"	61 1/4" x 19"	22"	110	90.50	81.50	72.40
91F475	AR-2277	CR-2073	82 5/16"	77" x 19"	22"	130	110.20	99.20	88.20
91F476	AR-2278	CR-2074	42 1/16"	36 3/4" x 19"	22"	102	64.00	57.60	51.20

SUPER DELUXE TWO DOOR RACKS

Has panel mounting supports that are adjustable from front and back to enable panels to be used to any degree necessary. Clearance behind panels may be 15" to 9" in increments of 1". A solid front door is provided. The rear door and the sides are louvered to provide ventilation.

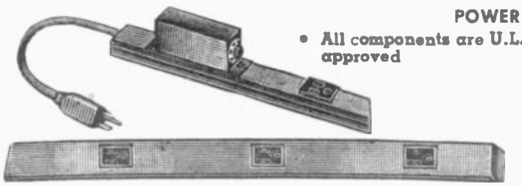
Black	Grey	Ham. Grey	Type	H x W x D	Panel Space	Lbs.	1-9	10-14	15-19
93F110	93F114	93F118	CR-2174	42 1/16"x22"x17 1/8"	36 3/4"x19"	102	75.10	67.60	60.10
93F111	93F115	93F119	CR-2171	47 5/16"x22"x17 1/8"	42" x19"	104	81.10	73.00	64.90
93F112	93F116	93F120	CR-2172	66 9/16"x22"x17 1/8"	61 1/4"x19"	138	104.60	94.10	83.70
93F113	93F117	93F121	CR-2173	82 5/16"x22"x17 1/8"	77" x19"	163	125.60	113.00	100.50
93F122	93F126	93F130	CR-2491	47 5/16"x27"x17 1/8"	42" x24"	122	108.70	97.80	87.00
93F123	93F127	93F131	CR-2492	66 9/16"x27"x17 1/8"	61 1/4"x24"	160	141.60	127.50	113.30
93F124	93F128	93F132	CR-2493	82 5/16"x27"x17 1/8"	77" x24"	190	169.50	157.60	135.60
93F125	93F129	93F133	CR-2494	42 1/16"x27"x17 1/8"	36 3/4"x24"	119	96.80	87.10	77.45

PRESTIGE RELAY CABINET RACKS

Has drilled, tapped panel mounting rails on all four vertical members of the frame. Rails will support 200 lbs. Base is slotted to accept ball cornered side panels on all sides of rack. Finished in Grey Hammertone only.

Stk. No.	Type	Panel	HxWxD	Lbs.	1-9	10-14	15-19
91F087	CR-2280	61 1/4"x19"	66 9/16x22x22"	179	137.00	123.30	109.60
91F088	CR-2281	66 1/2"x19"	71 13/16x22x22"	186	140.40	126.40	112.40
91F089	CR-2282	77"x19"	82 5/16"x22"x22"	213	157.80	142.00	126.30

POWER OUTLET STRIPS



- **All components are U.L. approved**

For use in racks or cabinets which require a number of power outlets. Double wipe contact receptacle and grounding terminal. 3/4" x 1 9/32" cross section. 6 foot cord. Light gray enamel finish with 15 amp overload breaker & pushbutton reset.

Stk. No.	Type	Outlets	Lgth.	Lbs.	1-5	6-11	12-17
90F396	POS-4	4	17 1/2"	2	21.70	19.50	17.30
90F397	POS-7	7	48"	3 1/2	22.70	20.50	18.20
90F398	POS-9	9	60"	4 1/4	25.00	22.50	20.00
90F399	POS-11	11	72"	4 3/4	27.30	24.60	21.80

Racks, Panels, Casters and Lights

SWIVEL TRUCK CASTERS

Type RC-7756. Heavy-duty casters for use on relay racks. Four casters will carry a load of 400 pounds. Wheels are high grade hard rubber composition. Ball-bearing mounted. With screws. 10 oz. **Type RC-7757.** Same as above, but with light duty casters for lighter loads. Shpg. wt., 8 oz. **Type RC-7758.** Truck Casters.

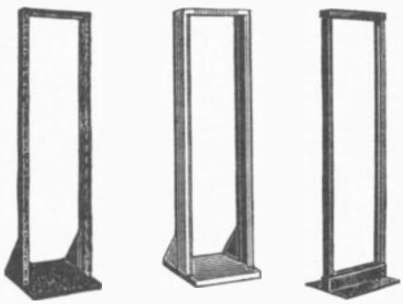
Stock No.	Type	Height	Weight	1-49	50-99	100-149
91F083	RC-7757	2"	1	.60	.55	.48
91F082	RC-7756	2 5/8"	1 3/4	1.10	1.00	.90
91F094	RC-7758	3 1/4"	6	2.70	2.40	2.20

"PAN-L-LITE" LIGHT

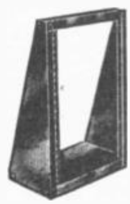
Type PL-5. Bright, glare-free lighting for areas requiring concentrated source of light. Mounted on standard Bud 1 3/4" x 19" steel rack panel with gray hammertone finish. Bronzetone aluminum frame. Translucent plastic light diffuser. Push button starter switch; convenience outlet. 6 ft. cord with plug. Less tube but uses 15 watt fluorescent tube. Wt. 2 lbs.

Stk. No.	Type	Size	1-9	10-14	15-19
91F746	PL-5	5"x18"x1 1/4"	9.80	8.80	7.80

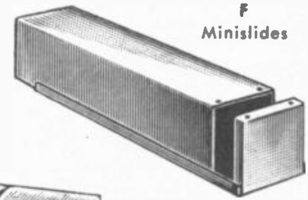
OPEN TYPE RELAY RACKS



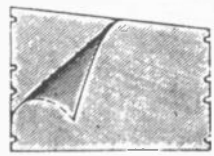
A B C



D
Desk Racks



F
Minislides



E
Surface Shields
Rack Panels

For mounting equipment where a complete enclosure is not necessary or advisable. Racks A and B may add casters for mobility. Fig. B has louvered "U" member which allows for ventilation.

Black	Type	Fig.	H x W x D	Panel Sp.	lbs.	1-9	10-14	15-19
91F052	RR1263B	A	35 39/64x19 3/4x22"	31 1/2x19"	38	25.40	22.80	20.30
91F053	RR1264B	A	70 39/64x19 3/4x22"	66 1/2x19"	46	29.00	26.10	23.20
91F054	RR1265B	C	72 1/4x20 3/8x13"	66 1/2x19"	68	67.00	60.30	53.40
93F634	RR1363B	A	40 55/64x19 3/4x22"	36 3/4x19"	37	24.50	22.00	19.60
93F635	RR1364B	A	75 55/64x19 3/4x22"	71 3/4x19"	48	30.50	27.40	24.40
93F636	RR1366B	A	81 7/64x19 3/4x22"	77 x19"	50	33.40	30.10	26.70
93F637	RR1464B	A	70 39/64x24 3/4x22"	66 1/2x24"	53	35.80	32.20	28.60
93F638	RR1463B	A	35 39/64x24 3/4x22"	31 1/2x24"	40	31.20	28.10	25.00
93F639	RR2463B	A	40 55/64x24 3/4x22"	36 3/4x24"	43	33.90	30.50	27.10
93F640	RR2464B	A	75 55/64x24 3/4x22"	71 3/4x24"	55	35.70	32.20	28.60
93F641	RR2466B	A	81 7/64x24 3/4x22"	77 x24"	58	45.60	41.10	36.10
93F642	RR1367B	B	64 5/8x20 7/8x26"	61 1/4x19"	89	47.80	43.00	38.20
93F643	RR1368B	B	73 3/8x20 7/8x26"	70 x19"	97	51.40	43.60	41.10
93F644	RR1369B	B	80 3/8x20 7/8x26"	77 x19"	105	57.20	51.50	45.80
93F645	RR2467B	B	64 5/8x25 7/8x26"	61 1/4x24"	102	55.20	49.70	44.20
93F646	RR2468B	B	73 3/8x25 7/8x26"	70 x24"	112	56.50	50.90	45.20
93F647	RR2469B	B	80 3/8x25 7/8x26"	77 x24"	121	66.90	60.20	53.50

DESK TYPE OPEN RELAY RACKS

Chassis type base for mounting heavy components. Supporting angles assure steady support. Panel mounting rails are recessed so that any standard 19" panel will fit flush with the front. Available in Black Wrinkle or Light Gray Hammertone.

Black	Type	Ham. Gray	Type	Fig.	Hgt.	Space	lbs.	1-14	15-24	25-34
91F030	RR-1248B	91F677	RR-1248HG	D	24"	21"	15	11.60	10.50	9.30
91F031	RR-1249B	91F678	RR-1249HG	D	31"	28"	18	13.70	12.30	11.00

Fig. E—"SURFACE SHIELD" RACK PANELS

Each panel is covered on both sides with sturdy pressure sensitive white paper which provides an excellent surface for indicating size and position of drilling or milling while protecting against any surface damage soiling. Panels have standard notching. Made of aluminum alloy.

1/8" Panels 19" Wide

Stk. No.	Type	Height	Lbs.	1-49	50-99	100-149
91F265	SFA-1831	1 3/4"	1/4	1.20	1.10	.95
91F266	SFA-1832	3 1/2"	3/4	1.80	1.70	1.50
91F267	SFA-1833	5 1/4"	1	2.40	2.20	1.90
91F268	SFA-1834	7"	1 3/4	2.90	2.60	2.30
91F269	SFA-1835	8 3/4"	2	3.50	3.20	2.80
91F270	SFA-1836	10 1/2"	2 1/2	4.50	4.10	3.60
91F271	SFA-1837	12 1/4"	2 3/4	5.10	4.60	4.10
91F272	SFA-1838	14"	3	5.80	5.30	4.70
91F273	SFA-1839	15 3/4"	3 1/2	6.60	5.90	5.30
91F274	SFA-1840	17 1/2"	4	7.30	6.50	5.80
91F275	SFA-1841	19 1/4"	4 1/4	8.00	7.20	6.40
91F276	SFA-1842	21"	5	8.80	7.90	7.00

3/16" Panels 19" Wide

Stk. No.	Type	Height	Lbs.	1-49	50-99	100-149
91F277	SFA-3161	1 3/4"	3/4	2.10	1.90	1.70
91F278	SFA-3162	3 1/2"	1 1/4	3.00	2.70	2.40
91F279	SFA-3163	5 1/4"	1 3/4	3.90	3.50	3.10
91F280	SFA-3164	7"	2 1/2	4.80	4.40	3.90
91F281	SFA-3165	8 3/4"	3	5.80	5.20	4.60
91F282	SFA-3166	10 1/2"	3 3/4	6.70	6.00	5.30
91F283	SFA-3167	12 1/4"	4 1/2	8.40	7.60	6.70
91F284	SFA-3168	14"	5	9.60	8.70	7.70
91F285	SFA-3169	15 3/4"	5 3/4	10.80	9.70	8.60
91F286	SFA-3170	17 1/2"	6 1/4	11.90	10.70	9.50
91F287	SFA-3171	19 1/4"	7	13.00	11.70	10.40
91F288	SFA-3172	21"	7 1/4	14.20	12.80	11.40

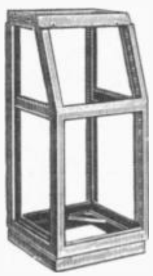
Fig. F—MINISLIDES

Used where access to internally mounted parts is necessary. .050 aluminum. Available in grey hammertone only.

Stk. No.	Type	L x W x H	Lbs.	1-49	50-99	100-149
91F862	MS-2150	13x3 1/8x2 5/8"	1	4.20	3.80	3.40
91F863	MS-2151	13x5 1/8x2 5/8"	1 1/2	4.80	4.40	3.90
91F864	MS-2152	17x3 1/8x2 5/8"	1 1/4	4.70	4.20	3.70

NEWARK Can Supply All Bud Products at OEM Prices—
Phone - Wire - Write for Items Not Listed in this Catalog.

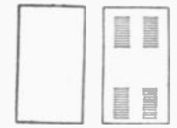
Series "60" Cabinet Racks



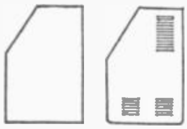
INCLINED

Basic frame welded in a solid unit composed of 14-gauge cold-rolled steel channels. Sides have "U" braces with perforated channels for fastening vertical mounting rails. Rails also support other types of equipment such as brackets, shelves, slides, etc. Eliminates need of drilling holes in the rack. Sides and rear door made of 16 gauge steel. Vertical Channel, 6" wide, welded to door to prevent vibration or whip. Two pairs of panel mounting rails are supplied; fully adjustable. Panels may be mounted in front and rear at the same time. Front rails drilled and tapped 10-32 W.E. spacing. Rear rails are drilled according to universal spacing.

All Series Sixty enclosures may be quickly combined with each other to create units of any width as shown in the Add-A-Rack series. In addition, such accessories as desk tops, turrets, drawers, slides, sloping panel supports and front door are easily installed. Standard finishes are smooth baked enamel over a primer, available in two-toned blue or two-toned grey. Standard Bud relay rack panels are available for the Series Sixty racks in light gray and light blue. Available in Louvered door and Louvered side, Louvered door-plain sides, Louvered sides-plain door on special order.



Plain Louvered
UPRIGHT



Plain Louvered
INCLINED

UPRIGHT CABINET RACKS

Completely assembled with sides, rear door, and top. Standard units have plain sides and door and a solid top. For greater ventilation, order the units with louvered sides and/or rear door. Both have solid tops. Width of all units: 24¹⁄₁₆". Inside depth: 20¼" clear on units with 22" outside depth. 23¾" on all others. Top opening: 18½" wide by 17 d. on units with 22" depth. Outside depth on all others: 18½" w x 20½" d.

Stock No. Grey	Stock No. Blue	With Plain Sides & Door—OD 22"—Net Each, Lots of				Ht.	Panel Space	Wt., Lbs.
		Type	1-3	4-6	7-9			
92F900	92F914	2300	117.00	105.30	93.60	29⅝"	21"	118
92F901	92F915	2301	144.70	130.20	115.80	40⅛"	31½"	156
92F902	92F916	2302	160 70	114.70	128.60	50⅝"	42"	173
92F903	92F917	2303	178.50	160.70	142.80	61⅛"	52½"	197
92F904	92F918	2304	198.40	178.60	158.70	69⅞"	61¼"	220
92F905	92F919	2305	220.40	198.40	176.40	78⅝"	70"	235
92F906	92F920	2306	240.60	216.60	192.50	87⅜"	78¾"	265

Stock No. Grey	Stock No. Blue	With Plain Sides & Door—OD 25½"—Net Each, Lots of				Ht.	Panel Space	Wt., Lbs.
		Type	1-3	4-6	7-9			
92F907	92F921	2307	138.10	124.30	110.50	29⅝"	21"	156
92F908	92F922	2308	160.50	144.40	128.40	40⅛"	31½"	176
92F909	92F923	2309	178.30	160.40	142.60	50⅝"	42"	185
92F910	92F924	2310	197.90	178.10	158.30	61⅛"	52½"	211
92F911	92F925	2311	219.90	197.90	176.00	69⅞"	61¼"	240
92F912	92F926	2312	244.40	220.00	195.50	78⅝"	70"	256
92F913	92F927	2313	266.70	240.00	213.40	87¾"	78¾"	267

INCLINED PANEL CABINET RACKS

Completely assembled with sides, rear door and solid top. Available in four combinations of plain or louvered sides and rear door. Size, 50⅝"h.x24¹⁄₁₆"w. x22"d.. outside; 20¼"d. clear inside. Weight 165 lbs.

Stk. No. Grey	Stk. No. Blue	With Plain Sides and Door				Incline Panel Hgt.	Vert. Panel Hgt.	Top Opening W. x D.
		Type	Net Each, Lots of 1-3	4-6	7-9			
93F023	93F020	2330	175.40	157.80	140.30	10½"	29¾"	18½"x11¾"
93F024	93F021	2331	185.90	167.30	148.70	15¾"	24½"	18½"x10"
93F025	93F022	2332	185.90	167.30	148.70	17½"	22¾"	18½"x9⅜"

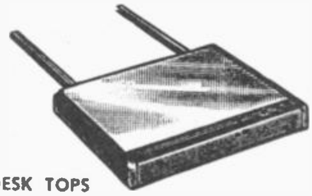
ADD-A-RACK SERIES

Each assembly consists of frame, top, bottom, rear door and cowlings; used as ar. add-on unit to join any of the Series Sixty enclosures into a bank of two or more. One standard rack plus several Add-A-Racks make any desired number of racks combined for optimum width. Colors same as above Racks.

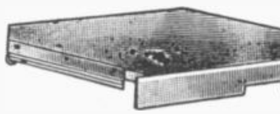
Stock No. Grey	Stock No. Blue	Plain Doors					Wt., Lbs.
		Type	For Add-on to Rack No. 60-	Net Each, Lots of 1-3	4-6	7-9	
93F077	93F060	2500	2300, 2600	95.00	85.50	76.00	92
93F078	93F061	2501	2301, 2601	111.33	100.20	89.00	113
93F079	93F062	2502	2302, 2602	121.90	109.70	97.60	115
93F080	93F063	2503	2303, 2603	133.20	119.90	106.50	145
93F081	93F064	2504	2304, 2604	148.80	133.90	119.00	148
93F082	93F065	2505	2305, 2605	165.70	149.20	132.60	152
93F083	93F066	2506	2306. 2606	178.00	160.20	142.40	158
93F084	93F067	2507	2307, 2607	106.30	95.70	85.00	120
93F085	93F068	2508	2308, 2608	124.60	112.10	99.70	132

Stock No. Grey	Stock No. Blue	Plain Doors					Wt., Lbs.
		Type	For Add-on to Rack No. 60-	Net Each, Lots of 1-3	4-6	7-9	
93F086	93F069	2509	2309, 2609	136.00	122.40	108.80	138
93F087	93F070	2510	2310, 2610	148.50	133.60	118.80	142
93F088	93F071	2511	2311, 2611	166.00	149.40	132.80	164
93F089	93F072	2512	2312, 2612	184.90	166.40	147.90	168
93F090	93F073	2513	2313, 2613	204.60	184.10	163.70	172
93F091	93F074	2530	2330, 2630	141.60	127.50	113.30	119
93F092	93F075	2531	2331, 2631	151.10	135.90	120.80	119
93F093	93F076	2532	2332, 2632	151.10	135.90	120.80	125

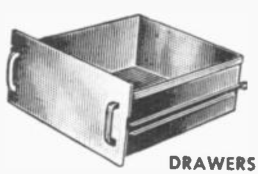
RACK ACCESSORIES



DESK TOPS



SLIDES



DRAWERS

SERIES "60" DESK TOPS

Desk tops designed for installation on Series Sixty Cabinet Racks. Writing surface or shelf for service operations on small assemblies. Two pre-drilled full length supporting channels are quickly bolted to panel mounting rails. Surface is light gray, wood-grained Formica. 24¹⁄₁₆" wide, 19½" deep, 3¹⁄₁₆" high. Supports 200 lbs. Gray or blue enamel finish.

Stk. No. Blue	Stk. No. Grey	Type	Fits "60" Series	Sup. Channel	Lbs.	1-3	4-6	7-9
93F017	93F016	60-2360	W/22"d.	21⁹⁄₃₂"	22	38.30	34.50	30.70
93F038	93F039	60-2362	W/25½"d.	24¾"	23	37.20	33.50	29.80

DRAWERS

Fit cabinet or cabinet rack with 19" panel space. Front panel drawer is 8¾" x 19" Slide easily on nylon rollers. **D-1721** has slide bracket which is adjustable from 16⅝" to 22⅞". Choice of Black, Grey Wrinkle or Grey Hammertone Finish. **60-2368** has slide bracket same size as drawer. Choice of Smooth Blue or Smooth Grey Finish

Stk. No.	Clr.	Stk. No.	Clr.	Stk. No.	Clr.	Type	Ins. Size	Lbs.	1-3	4-6	7-9
91F921	Blk.	91F922	Gr. WR.	91F923	G.H.	D-1721	16⅜x6⅜x16¼"	19½	45.50	41.00	36.40
		93F019	Sm. Bl.	93F018	Sm. Gr.	60-2368	16¹⁹⁄₃₂x6⅜x19⁵⁄₃₂	28	28.10	25.30	22.50

SERIES SIXTY SLIDING DESK TOP

Surface light gray Formica. Usable area 11"x16⅞". Supports 75 lbs. of distributed weight. Occupies 1¾" panel space (height). Fits flush with front of unit when not in use. Mounts directly to uprights in Series 60 Cabinet Racks.

Stk. No.	Type	Clr.	WxD	Panel Size	1-3	4-6	7-9
93F048	60-2361	Sm. Gr.	16⅞x15⅛"	19x1¾"	20.00	18.00	16.00

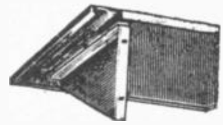
SERIES 60 DESK TOP DRAWER

Spacious drawer for small tools and components, circuit designs and manuals. Front panel: 3½" x 19". Hinged desk top is Formica bonded to aluminum and has piano-type hinge. Latch on front panel locks and releases drawer as well as releasing top. In smooth blue or smooth grey enamel. With hardware.

Stk No. Blue	Stk. No. Grey	Type	Size Inside	1-3	4-6	7-9
93F049	93F050	60-2363	16⅝x3¼x15"	55.70	50-10	44.60

Cabinet Accessories

SHELF ASSEMBLY



Shelf assembly does not require a panel for support. 16 gauge steel. Overall height 7 inches. Colors are Black wrinkle, Gray wrinkle and Light Gray Hammertone. Fits any standard relay rack.

Black	Gray	HG	Type	Size	Lbs.	1-14	15-24	25-34
91F878	91F880	91F882	SA-1719	16 x 22"	14	12.10	10.90	9.70
91F879	91F881	91F883	SA-1720	20 x 22"	15	12.30	11.10	9.80

CHASSIS SUPPORTING ANGLES

Afford ample support for standard 17" width chassis or shelves. ⅛" steel. Black. Supplied in pairs.

Stk. No.	Type	Length	Width	Lbs.	1-24	25-49	50-99
91F090	SA-1349	14½"	3"	4	2.70	2.40	2.20
91F091	SA-1350	12"	3"	3	2.70	2.40	2.20

CHASSIS MOUNTING BRACKETS

Insure proper support of chassis in rack. Formed of heavy gauge steel, cut away at bottom to provide clearance for flush mounting of chassis. Black enamel finish. *For chassis height of 4". Supplied in pairs.

Stk. No.	Type	Dimensions	Lbs.	1-49	50-99	100-149
91F070	MB-458	6½x 8"	1¼	1.50	1.40	1.20
91F071	MB-448	6½x10"	1¾	1.50	1.40	1.20
91F072	MB-459	6½x11"	2	1.70	1.50	1.30
91F073	MB-449	6½x12"	2	1.90	1.70	1.50
91F074	MB-460	6½x13"	2½	1.90	1.70	1.50
91F075	MB-450*	8½x10"	2¼	2.20	2.00	1.80
91F076	MB-451*	8½x13"	3	2.40	2.10	1.90

TRIANGULAR TYPE CHASSIS MOUNTING BRACKETS

These brackets will insure proper support of chassis in rack. Constructed of heavy 16 gauge steel with ¾" flange. Finished in black enamel. Made in a triangular shape for added convenience. Sold in pairs only.

Stk. No.	Type	Ht.	Dep.	Wt. Lbs.	1-49 Pair	50-99 Pair	100-149 Pair
91F484	MB1266	5"	5"	1	1.20	1.10	.95
91F485	MB1267	7"	7"	1	1.40	1.20	1.10
91F486	MB1268	9"	9"	1½	1.70	1.50	1.35

STEEL CHASSIS

Chassis is made from one piece of metal. Corners are reinforced and spot welded. Four sides are folded in at the bottom for additional strength. Zinc plated.
*22 gauge †20 gauge ‡18 gauge

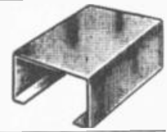
Stock No.	Type	Dimen.	Wt. Lbs.	1-24	25-49	50-99
90F780	CB-101	5½"x5½"x1"	¾*	1.70	1.50	1.30
90F781	CB-102	4½"x8"x1½"	1*	1.90	1.70	1.50
90F782	CB-103	5"x9"x1½"	1*	1.70	1.50	1.30
90F783	CB-104	6"x8"x2"	1½†	1.90	1.70	1.50
90F784	CB-105	5"x13"x3"	1¾†	2.70	2.40	2.20
90F785	CB-106	12"x12"x3"	2†	3.90	3.50	3.10
90F855	CB-629	5"x7"x2"	1*	1.60	1.40	1.30
90F786	CB-645	5"x9½"x2½"	1¼*	2.10	1.90	1.70
90F787	CB-776	5"x9½"x1½"	1*	2.10	1.90	1.70
90F831	CB-605	5"x10"x3"	1¼*	2.30	2.00	1.80
90F788	CB-756	6"x14"x3"	1¾†	2.50	2.30	2.00
90F832	CB-1191	7"x7"x2"	1½†	1.90	1.70	1.50
90F833	CB-1192	7"x9"x2"	1½†	1.90	1.30	1.50
90F834	CB-1193	7"x11"x2"	1½†	2.20	2.00	1.80
90F789	CB-793	7"x12"x3"	1¾†	2.60	2.40	2.10
90F835	CB-1194	7"x13"x2"	2†	2.40	2.10	1.90
90F790	CB-1198	5"x13½"x2½"	1¾†	2.70	2.40	2.20
90F791	CB-1189	7"x15"x3"	2†	3.00	2.70	2.40
90F792	CB-666	8½"x15"x3"	2½†	3.40	3.00	2.70
90F837	CB-1066	4"x17"x3"	2¼†	2.60	2.40	2.10
90F793	CB-1199	7"x17"x2½"	2½†	2.90	2.60	2.30
90F853	CB-758	7"x17"x3"	1¾†	3.20	2.90	2.60
90F794	CB-702	8"x10"x2½"	2†	2.40	2.20	2.00
90F795	CB-704	8"x12"x2½"	2½†	2.70	2.40	2.20
90F854	CB-760	8"x12"x3"	1¾†	2.90	2.60	2.30
90F838	CB774	8"x17"x2"	2½†	2.90	2.60	2.30
90F839	CB-775	8"x17"x3"	3¼†	3.20	2.90	2.60
90F840	CB-1195	10"x12"x3"	3†	3.00	2.70	2.40
90F841	CB-779	10"x14"x3"	4†	3.00	2.70	2.40
90F842	CB-769	10"x17"x2"	3¼†	3.00	2.70	2.40
90F796	CB-637	10"x17"x3"	4†	3.50	3.10	2.80
90F843	CB-1196	10"x17"x3"	5‡	3.70	3.30	3.00
90F797	CB-1197	10"x23"x3"	5½‡	4.20	3.80	3.40
90F846	CB-770	11"x17"x2"	4½‡	3.50	3.10	2.80
90F847	CB-771	11"x17"x3"	4½‡	4.30	3.90	3.50
90F848	CB-661	12"x17"x2"	4½‡	3.80	3.40	3.00
90F849	CB-662	12"x17"x3"	5¼‡	4.50	4.10	3.60
90F850	CB-772	13"x17"x2"	5‡	4.60	4.10	3.70
90F851	CB-773	13"x17"x3"	5½‡	5.00	4.50	4.00
90F844	CB-641	10"x17"x4"	6½‡	4.40	4.00	3.10
90F852	CB-643	13"x17"x4"	7½‡	5.80	5.20	4.60
90F798	CB-624	10"x17"x5"	7½‡	6.60	5.90	5.30
90F799	CB-626	13"x17"x5"	8‡	7.30	6.50	5.80

RACK SHELVES

Heavy gauge steel shelves. Slide in from rear of cabinet. Require chassis support angles. Black enamel finish.

Stk. No.	Type	Size	Lbs.	1-24	25-49	50-99
91F092	CB-1976	19x1x15"	6½	4.10	3.70	3.30
91F093	CB-1977	19x1x12"	5½	3.30	2.90	2.60

OPEN END CHASSIS BASES

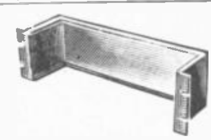


Precision-made of aluminum alloy 5005 H-14 with ¼" base flanges for attaching bottom plate or fastening down of chassis. Natural aluminum finish. Extremely useful for a wide variety of applications.

Stk.No.	Type	DxWxH	Lbs.	1-24	25-49	50-99
91F727	CB1623	2⅝x 2¾x1¼"	¼	.40	.35	.32
91F728	CB1624	1¾x 3⅛x1"	¼	.50	.45	.40
91F729	CB1625	3¼x 4½x2"	¼	.60	.55	.50
91F731	CB1627	3¾x 4⅛x1½"	¼	.60	.55	.50
91F732	CB1628	3 x 6⅛x1¼"	¼	.70	.65	.55
91F733	CB1629	5¾x 4⅞x1½"	¼	.70	.65	.55
91F734	CB1617	4 x 3⅛x1"	½	.50	.45	.40
91F735	CB1618	4 x 4⅛x1"	½	.60	.55	.50
91F736	CB1619	4 x 5⅛x1"	½	.70	.65	.55
91F737	CB1620	4 x 6⅛x1"	½	.70	.65	.55
91F696	CB1626	2¾x 4⅛x1"	¼	.60	.55	.50
91F1368	CB30	5 x 7 x1½"	⅛	1.20	1.10	.90
91F1369	CB38	7 x 6 x2"	¼	1.20	1.10	.90
91F1370	CB39	7 x 8 x2"	⅜	1.40	1.20	1.10
91F1371	CB40	7 x10 x2"	7/16	1.60	1.40	1.30
91F1372	CB996	5½x 9 x1½"	¼	1.40	1.20	1.10
91F1373	CB997	7 x11 x1½"	7/16	1.60	1.40	1.30
91F1374	CB998	7 x13 x1½"	½	1.90	1.70	1.55

VERTICAL PANEL CHASSIS

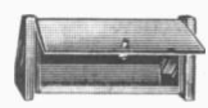
Panel mounting chassis for vertical installation where depth is limited or front service is desired. Made of .062" aluminum alloy 5005 H-14 in natural finish. Front flange has standard notching. Fits standard 19" panel space.



Stk. No.	Type	Ht.	Wt. Lbs.	1-24	25-49	50-99
91F493	CB1370	1¾"	¾	2.90	2.60	2.30
91F494	CB1371	3½"	1¼	3.20	2.90	2.60
91F495	CB1372	5¼"	1½	3.60	3.20	2.90
91F496	CB1373	7"	2	4.10	3.70	3.30
91F497	CB1374	8¾"	2¼	4.80	4.40	3.90
91F498	CB1375	10½"	2¾	5.70	5.10	4.50
91F499	CB1376	12¼"	3	6.30	5.60	5.00
91F479	CB1377	14"	3¼	6.80	6.20	5.50

MARK-T

Unique triangular 16 gauge steel welded cabinet. Features include: Front and rear removable panels (rear spring operated); recessed carrying handles; 4 rubber feet; charcoal gray body, light gray enam. panel and door. All models 6 17/32" H.



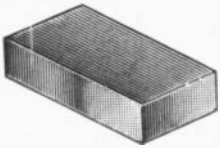
Stk. No.	Type	W	Panel	Weight	1-14	15-24	25-34
90F384	MT-214	16"	5¾x14"	9	28.10	25.30	22.50
90F385	MT-219	21"	5¾x19"	12	30.80	27.70	24.60
90F386	MT-224	26"	5¾x24"	14½	36.30	32.70	29.10

ZINC PLATED STEEL BOTTOM PLATE

Stk. No.	Type	Dem.	Wt.	1-49	50-99
90F876	BP-706	5x 7"	½	.80	.70
90F878	BP-538	5x10"	¾	.90	.85
90F879	BP-668	7x 7"	1	1.10	1.00
90F880	BP-669	7x 9"	1	1.10	1.00
90F881	BP-670	7x11"	1	1.20	1.10
90F875	BP-710	8x12"	1½	1.40	1.30
90F882	BP-671	7x13"	1¼	1.40	1.20
90F884	BP-1067	4x17"	1½	1.40	1.20
90F898	BP-673	7x17"	1½	1.50	1.40
90F885	BP-674	8x17"	1¾	1.70	1.50
90F887	BP-675	10x12"	1½	1.80	1.60
90F888	BP-514	10x14"	1½	1.70	1.50
90F889	BP-676	10x17"	1¾	1.80	1.60
90F893	BP-677	11x17"	1½	1.80	1.60
90F895	BP-678	12x17"	2	2.10	1.90
90F897	BP-679	13x17"	2¼	2.40	2.20

Chassis & Panels

ALUMINUM CHASSIS



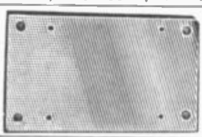
- Now in 63 sizes
- Heavy duty construction

Unsurpassed range of standard sizes. Made of one piece of 5005-H-14 aluminum alloy. Reinforced, welded corners to insure utmost strength and long lasting qualities. Folded over on bottom for extra strength.

Stock No.	Mfg. No.	Dimen.	Wt. Lbs.	1-24	25-49	50-99
91F1319	AC-1401	2½"x 4½"x1"	⅛	1.20	1.10	.95
91F1320	AC-1402	3½"x 4½"x1"	⅛	1.20	1.10	.95
91F1321	AC-1403	3½"x 5½"x1"	¼	1.20	1.10	.95
91F1322	AC-1404	4" x 5" x2"	¼	1.40	1.30	1.10
91F1323	AC-1405	4" x 6" x1½"	¼	1.40	1.30	1.10
90F940	AC-430	4" x 6" x3"	½	1.60	1.40	1.30
90F941	AC-431	4" x 6" x2"	½	1.40	1.30	1.10
91F1324	AC-1406	4" x 8" x2"	⅜	1.70	1.50	1.35
90F942	AC-432	4" x17" x3"	1¼	2.90	2.60	2.30
91F1325	AC-1407	4½"x 8" x1½"	⅜	1.40	1.30	1.10
90F943	AC-402	5" x 7" x2"	½	1.50	1.40	1.20
90F944	AC-429	5" x 7" x3"	¾	1.80	1.60	1.40
91F1326	AC-1408	5" x 9" x1½"	⅜	1.40	1.30	1.10
91F1327	AC-1409	5" x 9½"x1½"	⅜	1.50	1.40	1.20
90F945	AC-403	5" x 9½"x2"	½	1.70	1.50	1.35
90F939	AC-401	5" x 9½"x2½"	¾	1.90	1.70	1.50
90F946	AC-421	5" x 9½"x3"	¾	2.00	1.80	1.60
90F947	AC-404	5" x10" x3"	¾	2.00	1.80	1.60
90F948	AC-422	5" x13" x3"	¾	2.40	2.10	1.20
91F1328	AC-1410	5" x13½"x2½"	¾	1.90	1.70	1.50
91F1329	AC-1411	5½"x 5½"x1"	¼	1.40	1.30	1.10
91F1330	AC-1412	5½"x 9½"x1½"	7/16	1.50	1.40	1.20
91F1331	AC-1413	6" x 8" x2"	½	1.70	1.50	1.35
91F1332	AC-1414	6" x14" x3"	1	3.00	2.70	2.40
90F949	AC-433	6" x17" x3"	1¼	3.40	3.00	2.70
90F950	AC-405	7" x 7" x2"	½	1.70	1.50	1.35
90F951	AC-406	7" x 9" x2"	½	1.80	1.60	1.40
90F952	AC-407	7" x11" x2"	¾	2.00	1.80	1.60
90F953	AC-408	7" x12" x3"	1	2.40	2.20	2.00
90F954	AC-409	7" x13" x2"	¾	2.10	1.90	1.70
91F1333	AC-1415	7" x15" x2"	1	2.70	2.40	2.20
90F955	AC-411	7" x15" x3"	1½	3.40	3.00	2.70

Stock No.	Mfg. No.	Dimen.	Wt. Lbs.	1-24	25-49	50-99
91F1334	AC-1416	7" x17" x2"	1	3.10	2.80	2.50
91F1335	AC-1417	7" x17" x2½"	1½	3.20	2.90	2.60
90F956	AC-423	7" x17" x3"	1¾	3.40	3.00	2.70
91F1336	AC-1418	8" x10" x2½"	1	2.50	2.30	2.00
91F1337	AC-1419	8" x12" x2½"	1	3.00	2.70	2.40
90F957	AC-424	8" x12" x3"	1½	3.00	2.70	2.40
90F958	AC-425	8" x17" x2"	1½	3.10	2.80	2.50
90F959	AC-412	8" x17" x3"	1¾	3.50	3.10	2.80
91F1338	AC-1420	8½"x15" x3"	1½	3.30	2.90	2.60
91F1339	AC-1421	9" x15" x3"	1½	3.70	3.30	3.00
90F960	AC-413	10" x12" x3"	1½	3.40	3.10	2.70
90F961	AC-414	10" x14" x3"	1¾	3.50	3.10	2.80
90F962	AC-415	10" x17" x2"	1¼	3.40	3.00	2.75
90F963	AC-416	10" x17" x3"	2	3.90	3.51	3.10
90F969	AC-427	10" x17" x4"	3½	5.60	5.00	4.50
91F1340	AC-1422	10" x17" x5"	2½	8.00	7.20	6.40
91F1341	AC-1423	10" x23" x3"	3	5.80	5.20	4.60
90F964	AC-426	11" x17" x2"	2¼	4.30	3.80	3.40
90F965	AC-417	11" x17" x3"	2¾	4.90	4.40	3.90
91F1342	AC-1424	12" x12" x3"	1¾	3.50	3.20	2.80
91F1343	AC-1425	12" x17" x2"	1½	4.50	4.10	3.60
90F966	AC-418	12' x17" x3"	2¾	5.00	4.50	4.00
90F967	AC-419	13" x17" x2"	2½	4.40	4.00	3.10
90F968	AC-420	13" x17" x3"	2¾	5.30	4.70	4.20
90F970	AC-428	13" x17" x4"	3¾	6.50	5.90	5.20
91F1344	AC-1426	13" x17" x5"	3½	8.90	8.00	7.10
91F1345	AC-1427	14' x17" x3"	3	6.30	5.60	5.00
91F1346	AC-1428	15" x17" x4"	3½	8.90	8.00	7.10
91F1347	AC-1429	15" x17" x6"	3¾	12.10	10.90	9.60
91F1348	AC-1430	17" x17" x3"	3¼	7.40	6.70	5.90
91F1349	AC-1431	17" x17" x4"	4	10.50	9.40	8.40

ALUMINUM BOTTOM PLATES



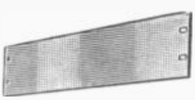
- Now in 42 sizes
- Protects wiring

Widest variety of standard sizes. Fit all BUD chassis. Made of 5005-H-14 aluminum alloy. Natural finish. Plates have four embossed feet to prevent damage to surface. Fit snugly on bottom of chassis.

Stock No.	Mfg. No.	Dimen.	Wt. Lbs.	1-24	25-49	50-99
91F1406	BPA-1501	2½"x 4½"	1/16	.60	.55	.50
91F1407	BPA-1502	3½"x 4½"	1/16	.70	.65	.55
91F1408	BPA-1503	3½"x 5½"	⅛	.70	.65	.55
91F1409	BPA-1504	4" x 5"	⅛	.70	.65	.55
91F1410	BPA-1505	4" x 6"	⅛	.80	.70	.65
91F1411	BPA-1506	4" x 8"	¼	.90	.80	.70
91F1413	BPA-1532	4" x17"	⅛	.90	.80	.75
91F1412	BPA-1507	4½"x 8"	3/16	1.00	.90	.80
90F860	BPA-1589	5" x 7"	¼	.90	.80	.70
91F1414	BPA-1508	5" x 9'	¼	.90	.80	.70
90F861	BPA-1590	5" x 9½"	¼	.90	.80	.70
90F862	BPA-1591	5" x10"	¼	.90	.80	.70
91F1415	BPA-1509	5" x13"	⅛	1.30	1.10	1.05
91F1416	BPA-1510	5" x13½"	¼	1.30	1.20	1.10
91F1417	BPA-1511	5½"x 5½"	3/16	.90	.80	.70
91F1418	BPA-1512	5½"x 9½"	⅜	.90	.80	.75
91F1419	BPA-1513	6" x 8"	7/16	1.00	.90	.80
91F1420	BPA-1514	6" x14"	⅓	1.30	1.10	1.05
91F1421	BPA-1515	6" x17"	⅓	1.60	1.40	1.30
90F863	BPA-1592	7" x 7"		.90	.80	.70
90F864	BPA-1593	7" x 9"		.90	.80	.70

Stock No.	Mfg. No.	Dimen.	Wt. Lbs.	1-24	25-49	50-99
90F865	BPA-1594	7" x11"	⅓	1.00	.90	.80
90F866	BPA-1595	7" x12"	½	1.10	1.00	.90
90F867	BPA-1596	7" x13"	½	1.30	1.15	1.05
91F1422	BPA-1516	7" x15"	7/16	1.40	1.30	1.15
91F1423	BPA-1517	7" x17"	7/16	1.40	1.30	1.15
91F1424	BPA-1518	8" x10"	⅜	1.40	1.20	1.10
91F1425	BPA-1519	8" x12"	⅜	1.70	1.50	1.35
91F1426	BPA-1520	8" x17"	11/16	1.70	1.50	1.35
91F1427	BPA-1521	8½"x15"	½	1.90	1.70	1.50
91F1428	BPA-1522	9" x15"	½	2.00	1.80	1.60
91F1429	BPA-1523	10" x12"	½	1.70	1.50	1.35
91F1430	BPA-1524	10" x14"	⅝	1.70	1.50	1.35
90F868	BPA-1597	10" x17"	¾	1.70	1.50	1.35
91F1431	BPA-1525	10" x23"	15/16	2.40	2.20	2.00
91F1432	BPA-1526	11" x17"	1	1.90	1.70	1.50
91F1433	BPA-1527	12" x12"	⅝	1.90	1.70	1.50
91F1434	BPA-1528	12" x17"	¾	2.20	2.00	1.80
90F869	BPA-1598	13" x17"	¾	2.40	2.10	1.90
91F1435	BPA-1529	14' x17"	15/16	2.40	2.10	1.90
91F1436	BPA-1530	15" x17"	1	3.20	2.90	2.60
91F1437	BPA-1531	17" x17"	1 1/16	3.20	2.90	2.60

FLANGED PANELS



An exact replacement for original equipment used in racks devoted to commercial sound application. Panels made of 16 gauge steel with ½" flange all around. Elongated hole is .250" x .500". Spacing of holes conforms to W.E. spacing on panel mtg. rails. Std. 19" panels. Finishes: gray wrinkle (G), black wrinkle (B), gray hammertone (HG), smooth light gray (SG), smooth light blue (SB), charcoal gray (CG), and sand (S).

B Stk. No.	G Stk. No.	HG Stk. No.	SG Stk. No.	SB Stk. No.	S Stk. No.	CG Stk. No.	Type	Height	Lbs.	1-49	50-99	100-149
91F1480	91F1492	91F1504	91F1516	91F1528	91F1540	91F1552	FPS-1230	1¾"	1	1.40	1.20	1.10
91F1481	91F1493	91F1505	91F1517	91F1529	91F1541	91F1553	FPS-1231	3½"	1½	1.40	1.20	1.10
91F1482	91F1494	91F1506	91F1518	91F1530	91F1542	91F1554	FPS-1232	5¼"	2	1.60	1.40	1.30
91F1483	91F1495	91F1507	91F1519	91F1531	91F1543	91F1555	FPS-1233	7"	2¾	1.80	1.60	1.40
91F1484	91F1496	91F1508	91F1520	91F1532	91F1544	91F1556	FPS-1234	8¾"	3¼	2.20	2.00	1.80
91F1485	91F1497	91F1509	91F1521	91F1533	91F1545	91F1557	FPS-1235	10½"	4	2.70	2.40	2.20
91F1486	91F1498	91F1510	91F1522	91F1534	91F1546	91F1558	FPS-1236	12¼"	4½	3.20	2.90	2.60
91F1487	91F1499	91F1511	91F1523	91F1535	91F1547	91F1559	FPS-1237	14"	5	3.50	3.20	2.80
91F1488	91F1500	91F1512	91F1524	91F1536	91F1548	91F1560	FPS-1238	15¾"	5¾	4.00	3.60	3.20
91F1489	91F1501	91F1513	91F1525	91F1537	91F1549	91F1561	FPS-1239	17½"	6¼	4.40	4.00	3.50
91F1490	91F1502	91F1514	91F1526	91F1538	91F1550	91F1562	FPS-1240	19¼"	6¾	4.80	4.40	3.90
91F1491	91F1503	91F1515	91F1527	91F1539	91F1551	91F1563	FPS-1241	21"	7½	5.30	4.70	4.20

STEEL RACK PANELS

Heavy duty panels made of ⅛" steel. 19" widths. All panels have standard notched edges which are able to fit the normal mounting screw spacing of all standard relay racks and telephone type relay racks. All rack panels are available in a choice of five colors: black, grey, wrinkle, hammertone grey, smooth blue, and smooth grey.

⅛" PANELS, 19" PANEL WIDTHS

Stock No. Black	Stock No. Grey	Stock No. Ham. Grey	Stock No. Smooth Blue	Stock No. Smooth Grey	Type	Lbs.	Height	1-49	50-99	100-149
91F300	91F320	91F435	91F400	91F412	PS-1250	1¼	1¾"	1.10	1.00	.90
91F301	91F321	91F436	91F401	91F413	PS-1251	2¼	3½"	1.30	1.10	1.05
91F302	91F322	91F437	91F402	91F414	PS-1252	3¼	5¼"	1.80	1.60	1.40
91F303	91F323	91F438	91F403	91F415	PS-1253	4½	7"	1.90	1.70	1.50
91F304	91F324	91F439	91F404	91F416	PS-1254	6	8¾"	2.40	2.20	1.90
91F305	91F325	91F440	91F405	91F417	PS-1255	7	10½"	2.80	2.60	2.30
91F306	91F326	91F441	91F406	91F418	PS-1256	8¼	12¼"	3.30	2.90	2.60
91F307	91F327	91F442	91F407	91F419	PS-1257	9½	14"	3.60	3.30	2.90
91F308	91F328	91F443	91F408	91F420	PS-1258	10¾	15¾"	4.00	3.60	3.20
91F309	91F329	91F444	91F409	91F421	PS-1259	11¾	17½"	4.40	4.00	3.50
91F310	91F330	91F445	91F410	91F422	PS-1260	13	19¼"	4.80	4.40	3.90
91F311	91F331	91F446	91F411	91F423	PS-1261	14¼	21"	5.50	5.00	4.40

ALUMINUM RACK PANELS

Available in ⅛" or 3/16" aluminum. Standard 19" width. All panels have notched edges which are made to fit the mounting screw spacing of all standard racks. Types PA-1131 to 3112 are made from a 2024 T-3 aluminum. Types PA-1101 to PA-1112 are made from a 5005 H-36 aluminum. Types PA-3121 to 3132 are of a 2024 T-3 "Hard Aluminum" panels. All rack panels are available in black, grey wrinkle, hammertone grey, smooth blue, and smooth grey.

⅛" PANELS 19" WIDTHS

Stock No. Black*	Stock No. Grey*	Stock No. Ham. Grey	Stock No. Smooth Blue	Stock No. Smooth Grey	Type	Lbs.	Height	1-49	50-99	100-149
91F340	91F360	91F388	91F240	91F252	PA-1101	¼	1¾"	1.40	1.20	1.10
91F341	91F361	91F389	91F241	91F253	PA-1102	¾	3½"	1.90	1.70	1.50
91F342	91F362	91F390	91F242	91F254	PA-1103	1	5¼"	2.40	2.20	2.00
91F343	91F363	91F391	91F243	91F255	PA-1104	1¾	7"	3.10	2.80	2.50
91F344	91F364	91F392	91F244	91F256	PA-1105	2	8¾"	3.60	3.30	2.90
91F345	91F365	91F393	91F245	91F257	PA-1106	2½	10½"	4.60	4.10	3.70
91F346	91F366	91F394	91F246	91F258	PA-1107	2¾	12¼"	5.30	4.80	4.30
91F347	91F367	91F395	91F247	91F259	PA-1108	3	14"	6.10	5.50	4.90
91F348	91F368	91F396	91F248	91F260	PA-1109	3½	15¾"	6.80	6.10	5.40
91F349	91F369	91F397	91F249	91F261	PA-1110	4	17½"	7.40	6.70	5.90
91F350	91F370	91F398	91F250	91F262	PA-1111	4¼	19¼"	8.10	7.30	6.50
91F351	91F371	91F399	91F251	91F263	PA-1112	5	21"	9.00	8.10	7.20
90F260	90F272	90F284	90F296	90F308	PA-1131	¼	1¾"	1.70	1.50	1.40
90F261	90F273	90F285	90F297	90F309	PA-1132	¾	3½"	2.10	1.90	1.70
90F262	90F274	90F286	90F298	90F310	PA-1133	1	5¼"	2.90	2.60	2.30
90F263	90F275	90F287	90F299	90F311	PA-1134	1¾	7"	3.70	3.30	2.90
90F264	90F276	90F288	90F300	90F312	PA-1135	2	8¾"	4.10	3.70	3.30
90F265	90F277	90F289	90F301	90F313	PA-1136	2½	10½"	5.30	4.70	4.20
90F266	90F278	90F290	90F302	90F314	PA-1137	2¾	12¼"	6.00	5.40	4.80
90F267	90F279	90F291	90F303	90F315	PA-1138	3	14"	7.00	6.30	5.60
90F268	90F280	90F292	90F304	90F316	PA-1139	3½	15¾"	7.60	6.80	6.10
90F269	90F281	90F293	90F305	90F317	PA-1140	4	17½"	8.20	7.40	6.50
90F270	90F282	90F294	90F306	90F318	PA-1141	4¼	19¼"	8.90	8.00	7.10
90F271	90F283	90F295	90F307	90F319	PA-1142	5	21"	10.10	9.10	8.10

3/16" PANELS, 19" WIDTHS

Stock No. Black*	Stock No. Grey*	Stock No. Ham. Grey	Stock No. Smooth Blue	Stock No. Smooth Grey	Type	Lbs.	Height	1-49	50-99	100-149
90F200	90F212	90F224	90F236	90F248	PA-3101	¾	1¾"	2.00	1.80	1.60
90F201	90F213	90F225	90F237	90F249	PA-3102	1¼	3½"	2.90	2.60	2.30
90F202	90F214	90F226	90F238	90F250	PA-3103	1¾	5¼"	3.80	3.40	3.00
90F203	90F215	90F227	90F239	90F251	PA-3104	2½	7"	4.80	4.30	3.80
90F204	90F216	90F228	90F240	90F252	PA-3105	3	8¾"	5.60	5.00	4.50
90F205	90F217	90F229	90F241	90F253	PA-3106	3¾	10½"	7.00	6.30	5.60
90F206	90F218	90F230	90F242	90F254	PA-3107	4½	12¼"	8.10	7.30	6.50
90F207	90F219	90F231	90F243	90F255	PA-3108	5	14"	9.00	8.10	7.20
90F208	90F220	90F232	90F244	90F256	PA-3109	5¾	15¾"	10.50	9.40	8.40
90F209	90F221	90F233	90F245	90F257	PA-3110	6¼	17½"	11.60	10.40	9.20
90F210	90F222	90F234	90F246	90F258	PA-3111	7	19¼"	12.60	11.30	10.00
90F211	90F223	90F235	90F247	90F259	PA-3112	7¼	21"	13.80	12.40	11.00

3/16" PANELS, 19" WIDTHS (2024T-3 HARD ALUMINUM PANELS)

Stock No. Black*	Stock No. Grey*	Stock No. Ham. Grey	Stock No. Smooth Blue	Stock No. Smooth Grey	Type	Lbs.	Height	1-49	50-99	100-149
90F320	90F332	90F344	90F356	90F368	PA-3121	¾	1¾"	2.90	2.60	2.30
90F321	90F333	90F345	90F357	90F369	PA-3122	1¼	3½"	3.50	3.10	2.80
90F322	90F334	90F346	90F358	90F370	PA-3123	1¾	5¼"	4.80	4.30	3.80
90F323	90F335	90F347	90F359	90F371	PA-3124	2½	7"	6.00	5.40	4.80
90F324	90F336	90F348	90F360	90F372	PA-3125	3	8¾"	7.10	6.40	5.70
90F325	90F337	90F349	90F361	90F373	PA-3126	3¾	10½"	8.70	7.60	6.90
90F326	90F338	90F350	90F362	90F374	PA-3127	4½	12½"	10.20	9.20	8.20
90F327	90F339	90F351	90F363	90F375	PA-3128	5	14"	11.80	10.60	9.40
90F328	90F340	90F352	90F364	90F376	PA-3129	5¾	15¾"	12.60	11.35	10.10
90F329	90F341	90F353	90F365	90F377	PA-3130	6¼	17½"	13.90	12.60	11.20
90F330	90F342	90F354	90F366	90F378	PA-3131	7	19¼"	14.70	13.25	11.75
90F331	90F343	90F355	90F367	90F379	PA-3132	7¼	21"	17.00	15.30	13.60

SLOPING PANEL SUPPORT

Designed for oblique view of instrument panel Engineered so that the entire assembly occupies no more space than the size of the supported panel. Panel support cover can be removed for easy servicing or installation of instruments. Made of heavy gauge steel with attractive contoured edges.

Stk. No. Black	Stk. No. Grey	Stk. No. HG	Supports Panel	Type	Lbs.	1-24	25-49	50-99
91F690	91F691	91F692	7"x19"	1P-1120	3½	5.10	4.60	4.10
91F693	91F694	91F695	10½"x19"	1P-1121	6¾	7.20	6.50	5.70

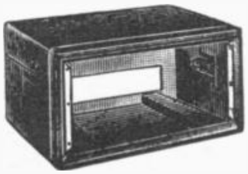
RUBBER FEET

Type F-7264A. 15/16x11/32" thick black rubber. With hardware.
91F084. NET Each .... .10 **Per 100** 8.00
Type F-8038. ⅛" thick x ¾" dia. Rubber protection pad. 3 oz.
91F085. NET Each .... .03 **Per 100** 1.92

NEWARK STOCKS THE WORLD'S MOST COMPLETE INVENTORY OF INDUSTRIAL ELECTRONIC COMPONENTS

Cabinets and Cases

"PRESTIGE" CABINETS

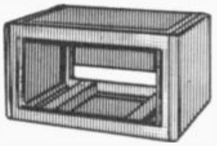


PRESTIGE CABINET

Stock cabinets of 16 gauge steel for housing quality instruments, etc. Hinged covers . . . solid or perforated. Grommeted finger holes for easy cover lifting. Cover closes by pressure fasteners. Chassis supporting channels and embossed feet. Width 21⅝, Depth 14¾. Finished in gray hammertone.

Stock No.	Type No.	Cover	Overall Height	Panel Space	Lbs.	1-14	15-24	25-34
91F064	C-1440	Solid	9 9/16	7"	26	34.70	31.20	27.70
91F065	C-1441	Solid	11 5/16	8¾"	27	36.60	32.90	29.30
91F066	C-1442	Solid	13 1/16	10½"	29	38.10	34.20	20.50
91F067	C-1550	Perf.	9 9/16	7"	26	37.50	33.80	30.00
91F068	C-1551	Perf.	11 5/16	8¾"	27	39.10	35.20	31.20
91F069	C-1552	Perf.	13 1/16	10½"	29	41.20	37.00	33.00

PRESTIGE VERSA CABINETS



PRESTIGE VERSA CABINET

Has sturdy framework with ball cornered sides. Unit also has solid bottom plate and two supporting channels. All of these parts are removable. Unit uses standard 19" panels. Cabinets are made to be stacked, or may be fastened side by side. Grey Hammertone finish.

Stk. No.	Type	Overall Height,	Panel Space	Rear Panel	Net Each, Lots of 1-14	15-24	25-34
91F906	PC-1700	8¾"	5¼"	3½"	33.10	29.80	26.50
91F907	PC-1701	10½"	7"	5¼"	35.10	31.60	28.10
91F908	PC-1702	12¼"	8¾"	7"	36.00	32.40	28.80
91F909	PC-1703	14"	10½"	8¾"	40.70	36.60	32.50
91F910	PC-1704	15¾"	12¼"	10½"	42.80	38.60	34.30

SLOPING PANEL PRESTIGE CABINETS

SLOPING PANEL PRESTIGE CABINET

Cabinet has ventilated top, full top opening, recessed handle, shielded handles in sides. Top panel swept back for easy viewing, rear opening for easy cable or control access. Panel trim bar removable. Provides for installation or removal of panels. Grey hammertone finish. Rear opening is 2½"x18", panel offset: 1¼", overall width: 22" pnl. ht. vert.: 3½".

Stock No.	Type	Ht. x Depth	Pan. Ht. Slope	Shpg. Wt.	1-14	15-24	25-34
91F743	C-1555	11⅞x14⅜"	7"	22 lbs.	41.70	37.50	33.30
91F744	C-1556	13¼x15⅛"	8¾"	28 lbs.	44.90	40.40	35.90
91F745	C-1557	14¾x16⅛"	10½"	31 lbs.	48.10	43.30	38.50

TRANSICASE

TRANSICASE

A portable instrument case. Made of .040 aluminum with a flush fitting panel. Transicase has two slide-off bright nickel plated hinges for easy removal of top and has two bright nickel toggle catches. Also, bright nickel handle. Two types of finishes are available: smooth blue or smooth grey. Rubber feet on base and back. Clear int. space above panel: 1 15/32".

Stk. No. BLUE	Stk. No. GREY	Type	W x D x H	Panel Size	Clear Int. Space Below Panel	Internal Aperture	Lbs.	1-49	50-99	100-149
91F911	91F916	TC-300	10 1/16x7x6"	8 15/16x5 15/16"	4 13/32"	8x5 31/32"	3¾	26.50	23.80	21.20
91F912	91F917	TC-301	11½x8¼x6"	10⅜x7¼"	4 13/32"	9 7/16x7 9/32"	4½	27.10	24.40	21.70
91F913	91F918	TC-302	13x9x7½"	11⅞x7 15/16"	5 29/32"	10 15/16x7 31/32"	6	27.60	24.90	22.10
91F914	91F919	TC-303	16½x9x7½"	15⅜x7 15/16"	5 29/32"	14 7/16x7 31/32"	8	28.10	25.30	22.50
91F915	91F920	TC-304	20⅛x8x9"	19x7"	7 11/32	18 1/16x7 1/32"	10	29.70	26.80	23.80

CONVERTA-BOX

CONVERTA-BOX

This new box enclosure consisting of a welded base and a two sided cover. Box may be easily mounted to any type of surface. Converta-Box is made of 20 gauge steel. Hardware furnished: 4 self-tapping screws. The box has a cadmium-plated finish.

Stk. No.	Type	HxWxD	Lbs.	1-24	25-49	50-99
91F554	CU-341	1½x4x3"	½	2.30	2.10	1.90
91F555	CU-452	2x5x4"	1	2.20	2.00	1.80
91F556	CU-482	2x8x4"	1¼	2.40	2.10	1.90
91F557	CU-592	2½x9½x5"	1¾	2.50	2.30	2.00
91F558	CU-622	2½x12x6"	2¾	2.80	2.50	2.20
91F559	CU-712	2½x15x7"	3½	3.70	3.30	3.00

MIDGET SPEAKER CASES

All metal cases, 4x4x4¼", that fit 2* and 3"** speakers. Black wrinkle finish. 2 lbs.* Type CS-1685. Hole dia. 2 5/16". **Type CS-1686. Hole diameter 2 13/16".

Stk. No.	1-24	25-49	50-99
91F606*	1.90	1.70	1.55
91F607**	1.90	1.70	1.55

UNIVERSAL METER CASES

Can accommodate either a 2" or 3" meter. Center hole is punched for 2" meter and has an easily removed knock-out ring which increases size of hole to fit 3" meter. One piece, detachable back and sides fastened to the body of case with four self tapping screws. Two ⅜" knock-out holes in top for installation of feed through insulators if required. May also be used for switches, etc. Available in steel or aluminum grey hammertone. 4¼"H.x4"W.x4"D. *CMA-1930. 4¼x6x4".

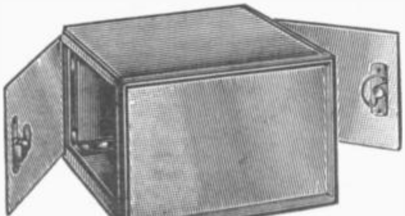
Stk. No.	Type	Wt.	1-49	50-99	100-149
91F598	CM-1935 Steel	1 lb.	1.50	1.40	1.20
91F599	CMA-1936 Alum.	¾ lb.	1.80	1.60	1.40
91F597	*CMA-1930 Alum.	¾ lb.	3.00	2.70	2.40

CARRYING CASES

Portable cases for transceivers, test units and other types of compact equipment. Front and back panels are fastened by self-tapping screws. Have easy grip handle. Black wrinkle finish.

Stk. No.	Type	HxWxD	Lbs.	1-24	25-49	50-99
91F608	CC-1095	9x6x5"	3¼	3.70	3.30	3.00
91F609	CC-1092	7x12x6"	4	5.20	4.70	4.10
91F610	CC-1100	10x10x8"	5	5.90	5.30	4.70
91F611	CC-1091	6x9x5"	3¼	3.70	3.30	3.00
91F612	CC-1096	12x7x6"	4	5.20	4.70	4.10
91F613	CC-1097	15x7¾x7"	5	5.80	5.20	4.60
91F614	CC-1093	9x15x7"	5	7.20	6.50	5.70

TUDOR CABINETS



Deviation from usual cabinet construction affords access from either side through hinged doors. Thus inspection and servicing of contents is greatly simplified. Features include: Bud Imlok 901 aluminum extrusions and corner connections, recessed front panel, piano type hinge on doors, and scratch resistant finish body and panel. Choice of charcoal gray (CG) or sand (S).

Stk. No. CG	Stk. No. S	Type	Lbs.	H	W	D	1-9	10-14	15-19
90F387	90F390	S-609	4¼	6"	9½"	8"	49.80	44.90	39.90
90F388	90F391	S-612	7	8"	12"	10"	54.90	49.10	43.90
90F389	90F392	S-614	9½	10"	14"	12"	59.40	53.40	47.50

CLASSIC CABINETS

.050 patterned aluminum panels (192) on 4 sides, with two heavy duty anodized aluminum handles. 6063-T5 extrusions. Also includes 2 chassis supports and 4 rubber feet. Finish is vinyl texture. Choice of Charcoal gray or sand. Accepts standard 19" panels.

Sand Stk. No.	CG Stk. No.	Type AGC	Height	Panel Space	Lbs. Wt.	1-4	5-9	10-14
91F1376	91F1391	266	4 57/64"	3½"	17	90.10	81.10	72.10
91F1377	91F1392	267	6 41/64"	5¼"	19	92.40	83.20	73.90
91F1378	91F1393	268	8 25/64"	7	20	97.40	87.70	78.00
91F1379	91F1394	269	10 9/64"	8¾"	22	99.80	89.80	79.80
91F1380	91F1395	270	11 57/64"	10½"	23	103.10	92.80	82.50
91F1381	91F1396	271	13 41/64"	12¼"	25	107.30	96.60	85.80
91F1382	91F1397	272	15 25/64"	14"	26	110.60	99.50	88.40
91F1383	91F1398	273	17 9/64"	15¾"	28	114.70	103.30	91.80
91F1384	91F1399	274	18 57/64"	17½"	29	118.10	106.30	94.50
91F1385	91F1400	275	20 41/64"	19¼"	31	120.70	108.70	96.60
91F1386	91F1401	276	22 25/64"	21"	32	124.70	112.20	99.70
91F1387	91F1402	277	24 9/64"	22¾"	34	128.00	115.20	102.40
91F1388	91F1403	278	25 57/64"	24½"	35	131.60	118.40	105.30
91F1389	91F1404	279	27 41/64"	26¼"	37	134.90	121.40	107.90
91F1390	91F1405	280	29 25/64"	28"	38	137.80	124.00	110.20

CLASSIC DOORS

For use with Classic Cabinets, racks with 19" panel space. ⅛" 5005-H36 aluminum alloy.

Sand Stk. No.	CG Stk. No.	Type	Height	Lbs.	1-4	5-9	10-14
91F1450	91F1465	AGD-366	3½"	½	6.80	6.10	5.40
91F1451	91F1466	AGD-367	5¼"	¾	8.30	7.40	6.60
91F1452	91F1467	AGD-368	7	2	9.60	8.60	7.70
91F1453	91F1468	AGD-369	8¾"	2¾	10.60	9.50	8.50
91F1454	91F1469	AGD-370	10½"	3	11.60	10.40	9.30
91F1455	91F1470	AGD-371	12¼"	3¼	12.40	11.20	10.00
91F1456	91F1471	AGD-372	14"	3½	12.70	11.40	10.20
91F1457	91F1472	AGD-373	15¾"	4	14.40	12.40	11.50
91F1458	91F1473	AGD 374	17½"	4½	15.50	14.00	12.40
91F1459	91F1474	AGD-375	19¼"	5¼	16.60	15.00	13.30
91F1460	91F1475	AGD-376	21"	6¼	17.70	15.90	14.20
91F1461	91F1476	AGD-377	22¾"	6¼	18.50	16.70	14.80
91F1462	91F1477	AGD-378	24½"	7	19.40	17.40	15.50
91F1463	91F1478	AGD-379	26¼"	7½	20.50	18.50	16.40
91F1464	91F1479	AGD-380	28"	8	22.00	19.80	17.60

STEEL HANDY BOXES

Two-piece steel cases Provides the maximum degree of accessibility, adequate shielding as well as complete protection from mechanical injury and dust particles. Formed of 22 gauge-steel. Finished in black wrinkle.

Stk. No.	Type	WxHxL	Wt.	1-49	50-99	100-149
91F541	HB-1621	1½x2¼x4¼"	½	1.50	1.30	1.20
91F542	HB-1622	2¾x2x4"	½	1.50	1.30	1.20

TILT-A-VIEW

Designed to present selective angles of vision to the viewer who may be observing the action of meters or the position of dials and recorders. Detachable legs change the position of the cabinet. Two piece construction permits immediate access to interior for installation and service. Cabinet fasteners are all positioned on the lower portion of the cabinet so that no fasteners appear on the front or rear panels. Color is charcoal gray with light sand front and rear panels. All models 18 gauge steel.

Stock No.	Type	Lbs.	H	W	D	1-14	15-24	25-34
90F393	TV2155	8½	4½"	15"	10"	7.50	6.80	6.00
90F394	TV2156	13	6½"	16"	12"	8.90	8.00	7.10
90F395	TV2157	17	8½"	17"	14"	12.80	11.50	10.20

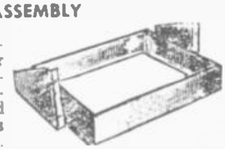
UNIVERSAL SLOPING PANEL CABINETS

One piece, detachable back and sides fastened to body with four self tapping screws permits easy access for mounting and servicing components. Available in steel or aluminum.

Alum.	Type	HxWxD	Lbs.	1-24	35-49	50-99
91F834	AC-1610	4x4x4¼"	½	2.30	2.00	1.80
91F835	AC1611	4x5x4¼"	½	2.20	2.00	1.80
91F836	AC1612	4x6x4¼"	¾	2.40	2.10	1.90
91F837	AC1613	4x7x4¼"	¾	2.60	2.40	2.10
Steel						
91F830	C-1606	4x4x4¼"	¾	1.80	1.60	1.40
91F831	C-1607	4x5x4¼"	¾	1.90	1.70	1.50
91F832	C-1608	4x6x4¼"	1⅛	2.00	1.80	1.60
91F833	C-1609	45x7x4¼"	1⅛	2.40	2.10	1.90

SLIDING DRAWER ASSEMBLY

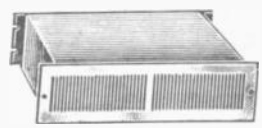
Used in mounting record players, portable typewriters, instruments, drawer space and many other purposes. Chassis and slide are light gray hammertone. Brackets and channel are etched **aluminum. Will support 50 lbs. Fits** standard relay rack. Size: 16¾x14x3".



Stk. No.	Type	Description	Lb.	1-14	15-24	25-34
91F826	SD-1717	Assembly	5	13.40	12.00	10.70
91F827	TP-1718	Drawer Plate	1½	3.30	3.00	2.60

TRANS-AIRE BLOWER FOR RACK MTG.

Used where excessive heat is generated by equip. in an enclosed rack. 2-speed motors have oilite bearings with oil impregnated wicks. Air Displacement; B-23, 100-200 cfm—B-25, 250-500 cfm—B-27, 350-700 cfm at 0 static pressure. Oil impregnated Fiberglass filter included. 110-120V., 60 hz AC.



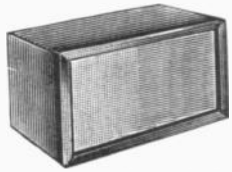
Stk. No.	Type	Motor	HxWxD	Lbs	1-9	10-14	15-19
91F902	B-23	1/20 h.p.	3½x19x12"	17¼	67.40	60.70	53.90
91F637	B-25	1/6 h.p.	5¼x19x14½"	33	77.10	69.40	61.70
91F903	B-27	1/4 h.p.	7x19x14½"	35¼	86.60	78.00	69.30

FILTERS

Stk. No.	Type	Description of Filters	1-24	25-49	50-99
91F904	BF-24	Filter for B-23 above	1.50	1.40	1.20
91F638	BF-26	Filter for B-25 above	1.70	1.50	1.30
91F905	BF-28	Filter for B-27 above	1.80	1.65	1.45

Cabinets & Cases

"FUTURA" CABINETS



Versatile housing for small equipment. Made of 20-gauge steel except for front panel, which is 18-ga. Top and sides are one piece, easily removable to expose interior. Front panel is held by flanges (no screws to mar appearance); is vertical, except † rises vertically 2", then has 15° incline. Chassis may be attached to base, rear, or front panels. Has four rubber feet. Dark blue body with light blue panel, or light gray hammertone body, smooth panel.

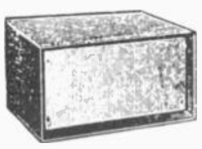
Gray Stk.No.	Blue Stk.No.	Type	HxWxD	Fits Chas.	Lbs.	1-24	25-49	50-99
91F1350	91F1356	MD-1960	7x13x8"	CB-40	6¾	8.40	7.50	6.70
91F1351	91F1357	MD-1961	8x14x9"	CF-997	7¾	8.90	8.00	7.10
91F1352	91F1358	MD-1962	8x16x9"	CB-998	8½	9.30	8.30	7.40
91F1353	91F1359	MD1963†	7x13x8"	CB-40	7	9.80	8.80	7.80
91F1354	91F1360	MD-1964†	8x14x9"	CB-997	8	10.50	9.40	8.40
91F1355	91F1361	MD-1965†	8x16x9"	CB-998	8¾	11.00	10.00	8.90

"GRAND PRIX" CABINETS

New concept in styling; ideal for audio equipment, medical electronics, or wherever appearance is of importance. Handles are brushed aluminum extrusions that slide over end flanges of the upper and lower body segments and are secured by setscrews; when removed, the upper body segment comes off to permit servicing contents. Made entirely of 20-gauge steel. With four rubber feet to prevent damage to desk tops, etc. Choice of light gray hammertone body with matching panels or smooth dark gray body with smooth light gray panels.

Dk.gray Stk.No.	L.gray Stk.No.	Type	HxWxD	Lbs.	1-24	25-49	50-99
91F1362	91F1365	MD-1	4 3/10x19⅛x10½"	7¼	15.20	13.70	12.20
91F1363	91F1366	MD-2	7 3/10x19⅛x10½"	7¾	15.90	14.40	12.80
91F1364	91F1367	MD-3	4 3/10x12⅛x8¾"	7	12.30	11.00	9.80

SHADOW CABINET



Extremely versatile housing since front rear and bottom may be removed for installation or servicing. One inch recessed front panel prevents accidental movement of controls, knobs, and switches attached to it. Body made of 18 gauge steel and panels of 16 gauge steel. Four rubber feet attached to base eliminates scratching. Finished in light gray hammertone.

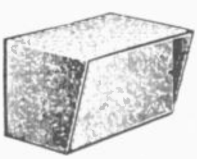
Stk. No.	Type	W x H x D	Lbs.	1-24	25-49	50-99
91F892	SB-2140	14¼x8x10"	11½	8.10	7.30	6.50
91F893	SB-2141	13¼x7½x9"	9¾	6.40	5.80	5.10
91F894	SB-2142	17x9½x11"	15¼	10.90	9.80	8.70
91F895	SB-2143	15½x6x9"	9½	6.20	5.60	4.90

PORTACAB

Desirable as housings for instrumentation requiring high stylized appearance. Body is one piece aluminum with contoured corners. Panel is also aluminum. Flexible recessed handle permits easy portability as well as vertical stacking. Louvers point inward permitting side-to-side placement without loss of space. Welded back has opening. Front panel recessed ½". Four detachable rubber feet are provided. Gray hammertone finish.

Stk. No.	Type	Lbs.	Dimensions D	W	H	1-24	25-49	50-99
91F615	WA-1540	2½	8"	6⅛"	8"	10.70	9.60	8.60
91F616	WA-1541	3	12"	8⅛"	9"	14.00	12.60	11.20
91F617	WA-1542	3½	8"	10⅛"	8"	12.50	11.20	10.00
91F618	WA-1543	6½	18"	11⅛"	11"	17.40	15.60	13.90
91F619	WA-1544	7¾	18"	14⅛"	12"	20.00	18.00	16.00

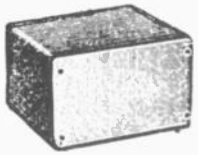
COWL TYPE MINIBOX



Has projecting cover which reduces glare on panel from overhead lighting and provides protection for controls and dials. Cover has two hex braces to which bottom is attached with sheet metal screws. When assembled this type of construction results in a sturdy, rigid housing. Fabricated of .040 aluminum. Overall dimensions and wt.: SC-2130 and SC-3030. 6x10x7". ¼ lb. SC-2131 and SC-3031, 7x12x8", 1½ lbs. SC-2132 and SC-3032, 3x8x5", 1 lb.; SC-2133 and SC-3033, 5x5x5", 1 lb.

Stk.No. G-H	Type	1-49	50-99	100-149	Stk.No. Nt'ral	Type	1-49	50-99	100-149
91F884	SC-2130	6.70	6.00	5.00	91F888	SC-3030	4.80	4.40	3.90
91F885	SC-2131	7.30	6.50	5.80	91F889	SC-3031	5.20	4.90	4.10
91F886	SC-2132	3.90	3.50	3.10	91F890	SC-3032	2.70	2.40	2.20
91F887	SC-2133	4.00	3.60	3.20	91F891	SC-3033	2.90	2.60	2.30

CONTOUR UTILITY CABINETS



Housing and flanged panels have rounded corners. Solid front and louvered rear panels are removable. Four rubber feet attached to base prevent scratching. Smooth dark gray enameled body and light gray enameled panel. All parts are 20 gauge steel.

Stk. No.	Type	Overall Size	Lbs.	1-24	25-49	50-99
91F896	CU-463	4 7/32x 6 7/32x3¾"	1¾	5.60	4.90	4.50
91F897	CU-465	4 7/32x 6 7/32x5¾"	2¼	6.40	5.90	5.10
91F898	CU-585	5 7/32x 8 7/32x5¾"	3	8.30	7.40	6.60
91F899	CU-587	5 7/32x 8 7/32x7¾"	3¾	9.10	8.20	7.30
91F900	CU-7125	7 7/32x12 7/32x5¾"	5	8.30	7.40	6.60
91F901	CU-7127	7 7/32x12 7/32x7¾"	6	8.80	7.90	7.00

INSTRUMENT AND RECEIVER CABINETS

For table mounting of test instruments and receivers. Each cabinet has an evenly recessed hinged cover with convenient finger lift. The panel on front of cabinet is readily attached with self-tapping screws. Louvers provide ample ventilation. Available in black wrinkle finish only. Require open-end chassis bases.

Stk. No.	Type	HxWxD	Lbs.	1-24	25-49	50-99
91F630	C-973	7x8x8"	5	5.20	4.70	4.10
91F631	C-993	7x10x8"	5½	5.90	5.30	4.70
91F632	C-994	7x12x8'	5¾	6.20	5.60	4.90
91F633	C-995	7x14x8"	6	6.50	5.90	5.20
91F634	C-1190	8x16x8"	7	9.30	8.30	7.40
91F635	C-975	9x15x11"	8	11.20	10.10	9.00
91F636	C-999	12x18x12"	15	12.20	11.00	9.80

STREAMLINED CABINETS

Ideal cabinets for electronic devices not requiring excessive depth. They have recessed hinged cover with convenient finger lift. Grey hammertone finish or black wrinkle. Overall ht. is 8" and overall depth is 8¼". Inside of cabinet easily accessible. Complete with panel.

Stk.No. Black	Stk.No. Ham. Grey	Type	Wid.	Panel	Top Opening	Lbs.	1-24	25-49	50-99
91F680	91F775	CD-1480	10½"	8x8"	5⅝x 7⅝"	5¾	6.90	6.20	5.50
91F681	91F776	CD-1481	12½"	8x10"	5⅝x 9⅛"	6	7.00	6.30	5.60
91F682	91F777	CD-1482	14½"	8x12"	5⅝x11⅛"	6½	7.40	6.70	5.90
91F683	91F778	CD-1483	16½"	8x14"	5⅝x13⅛"	7	7.90	7.10	6.30
91F684	91F779	CD-1484	18½"	8x16"	5⅝x15⅞"	7¾	8.60	7.10	6.90
91F685	91F780	CD-1485*	20⅝"	12x18"	10½x15½"	15	17.50	15.70	14.00

*Has ½" vert. chrome strip fastened to corners. 12" overall depth.

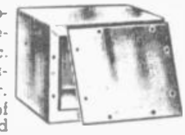
Newark-Detroit Electronics, Inc., 20700 Hubbell Ave., Oak Park, Mich. 48237

Cabinets & Miniboxes

BUD

STEEL UTILITY CABINETS

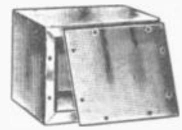
Stk. No. Black	Type	Stk. No. Ham. Grey	Type	HxWxD	Lbs.	1-49	50-99	100-149
91F620	CU-883	91F640	CU-883HG	4x4x2"	¾	1.40	1.20	1.10
91F621	CU-728	91F641	CU-728HG	4x5x3"	⅞	1.50	1.40	1.20
91F622	CU-729	91F642	CU-729HG	6x5x4"	1¼	1.70	1.50	1.35
91F623	CU-1098	91F643	CU-1098HG	6x6x6"	2½	2.60	2.40	2.10
91F624	CU-1099	91F644	CU-1099HG	9x6x5"	3	2.90	2.60	2.30
91F625	CU-880	91F645	CU-880HG	10x10x8"	5½	4.90	4.40	3.90
91F626	CU-882	91F646	CU-882HG	15x9x7"	7½	5.50	5.00	4.40
91F627	CU-879	91F647	CU-879HG	10x8x7"	5	4.10	3.70	3.30
91F628	CU-881	91F648	CU-881HG	12x11x8"	6	5.40	4.90	4.30
91F629	CU-1124	91F649	CU-1124HG	12x7x6"	4	4.00	3.60	3.20



Steel utility cabinets for electronic equipment, monitors, frequency meters, etc. Ideal for the amateur, experimenter. Accurately formed of sheet steel for rugged use. Have two removable sides. Black wrinkle and light grey hammertone finish.

ALUMINUM UTILITY CABINETS

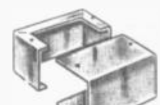
Stk. No.	Type	HxWxD	Lbs.	1-49	50-99	100-149
91F543	AU-1028	4x5x3"	¼	1.70	1.50	1.40
91F544	AU-1029	6x5x4"	½	1.90	1.70	1.50
91F545	AU-1039	6x6x6"	¾	2.70	2.40	2.20
91F546	AU-1040	9x6x5"	1	3.10	2.80	2.50
91F547	AU-1083	4x4x2"	¼	1.60	1.40	1.30
91F716	AU1083HG	4x4x2"	¼	1.90	1.70	1.50
91F717	AU1028HG	4x5x3"	¼	2.10	1.90	1.70
91F718	AU1029HG	6x5x4"	½	2.20	2.00	1.80
91F719	AU1039HG	6x6x6"	¾	3.00	2.70	2.40
91F720	AU1040HG	9x6x5"	1	3.70	3.30	3.00



Ideal for mounting amplifiers, meters, test instruments, etc. Removable front and back may be fastened to cabinet with self-tapping screws provided. Available in natural or light gray hammertone finish (HG). Rugged and attractive. Aluminum alloy 500S H14.

MINIBOXES

Grey Hammertone Stk. No.	Type	1-49	50-99	100-149	LxHxW	Wt. Lbs.	Natural Aluminum Stk. No.	Type	1-49	50-99	100-149
91F700	CU-2100A	.90	.80	.70	2¾x2⅛x1⅝"	¼	91F572	CU-3000A	.70	.60	.55
91F701	CU-2101A	.90	.80	.70	3¼x2⅛x1⅝"	¼	91F573	CU-3001A	.70	.60	.55
91F702	CU-2102A	.90	.80	.75	4x2⅛x1⅝"	¼	91F574	CU-3002A	.80	.70	.65
91F703	CU-2103A	1.00	.90	.80	4x2¼x2¼"	¼	91F575	CU-3003A	1.00	.90	.80
91F704	CU-2104A	1.10	1.00	.90	5x2¼x2¼"	¼	91F576	CU-3004A	1.00	.90	.80
91F705	CU-2105A	1.40	1.30	1.10	5x4x3"	½	91F577	CU-3005A	1.00	.90	.80
91F706	CU-2106A	1.20	1.10	.95	5¼x3x2⅛"	¼	91F578	CU-3006A	1.00	.90	.80
91F707	CU-2107A	1.80	1.60	1.40	6x5x4"	¾	91F579	CU-3007A	1.40	1.20	1.10
91F708	CU-2108A	2.00	1.80	1.60	7x5x3"	¾	91F580	CU 3008A	1.70	1.50	1.35
91F709	CU-2109A	2.60	2.40	2.10	8x6x3½"	1	91F581	CU-3009A	2.20	2.00	1.80
91F697	CU-2110A	2.90	2.60	2.30	10x6x3½"	1¼	91F582	CU-3010A	2.40	2.10	1.90
91F698	CU-2111A	3.90	3.50	3.10	12x7x4"	1¾	91F583	CU-3011A	3.30	3.00	2.60
91F535	CU-2112A	3.90	3.50	3.10	17x5x4"	2¼	91F584	CU-3012A	3.30	3.00	2.60
91F536	CU-2113A	1.50	1.40	1.20	10x2x1⅝"	½	91F585	CU-3013A	1.30	1.10	1.05
91F537	CU-2114A	2.00	1.80	1.60	12x2½x2¼"	¾	91F586	CU-3014A	1.60	1.40	1.30
91F538	CU-2115A	1.00	.90	.80	4x2x2¾"	¼	91F587	CU-3015A	.90	.80	.70
91F539	CU-2116A	1.00	.90	.80	4¼x2¼x1½"	¼	91F588	CU-3016A	.90	.80	.70
91F540	CU-2117A	.90	.80	.70	3¼x2⅛x1⅛"	¼	91F589	CU 3017A	.80	.70	.65



Two-piece aluminum design insures maximum degree of accessibility, adequate shielding as well as complete protection from mechanical injury and dust particles. Formed of .040 gauge aluminum. Comb. snap lock and screw type fastening. Excellent for constructing amplifiers, shielded oscillators, etc.

DELUXE METAL CABINET RACKS COMPLETE WITH PANELS

Finished with red lined, chrome strips on top and bottom of front. Will accommodate standard 19" panels. Five larger sizes only have hinged rear door. All sizes have top door for easy servicing or inspection. "No scratch" metal feet are embossed on bottom to minimize marring. Available in black wrinkle (B), gray wrinkle (G), or light gray hammetone (HG) finish. Specify when ordering.

Black	Grey	Type	HG Fin.	Type	DxWxH	Panel	Wt. Lbs.	1-14	15-24	25-34
91F687	91F688	CR-1726	91F689	CR-1726HG	14¾x22x8 23/32"	7"	24	18.80	16.90	15.00
91F650	91F656	CR-1741	91F671	CR-1741HG	14¾x22x10 9/16"	8¾"	28	20.10	18.10	16.10
91F662	91F664	CR-1740	91F668	CR-1740HG	14¾x22x12 5/16"	10½"	31	23.50	21.60	18.80
91F651	91F657	CR-1742	91F672	CR-1742HG	14¾x22x14 1/16"	12¼"	32	24.10	21.70	19.30
91F652	91F658	CR-1739	91F673	CR-1739HG	14¾x22x15 13/16"	14"	35	32.70	29.50	26.20
91F653	91F659	CR-1743	91F669	CR-1743HG	14¾x22x19 5/16"	17½"	40	32.10	28.90	25.70
91F654	91F660	CR-1744	91F670	CR-1744HG	14¾x22x28 1/16"	26¼"	51	37.00	33.30	29.60
91F666	91F667	CR-1728	91F674	CR-1728HG	14¾x22x33 5/16"	31½"	58	39.30	35.40	31.50
91F655	91F661	CR-1745	91F675	CR-1745HG	14¾x22x36 13/16"	35"	63	41.30	37.20	33.10
91F663	91F665	CR-1727	91F676	CR-1727HG	14¾x22x22 13/16"	21"	43	34.40	31.00	27.50

SLOPING PANEL CABINETS

Stk. No. Black	Type	Stk. No. HG Fin.	Type	HxWxD	Lbs.	1-24	25-49	50-99
91F782	C-1584	91F791	C-1584HG	6½x7 1/16x7 7/32"	2½	4.00	3.60	3.20
91F783	C-1587	91F792	C-1587HG	8x8 1/16x7 15/16"	2¾	5.30	4.80	4.30
91F784	C-1585	91F793	C-1585HG	6½x9 1/16x7 7/32"	3	4.40	4.00	3.50
91F785	C-1588	91F794	C-1588HG	8x10 1/16x7 15/16"	3¼	5.90	5.30	4.70
91F786	C-1586	91F795	C-1586HG	6½x11 1/16x7 7/32"	3½	5.10	4.60	4.10
91F787	C-1894	91F796	C-1894HG	8x14 1/16x7 15/16"	4	6.30	5.60	5.00
91F788	C-1892	91F797	C-1892HG	8x13 1/16x8 13/32"	5¼	7.00	6.30	5.60
91F789	C-1896	91F798	C-1896HG	9x18 1/16x8 1/16"	7	8.90	8.00	7.10
91F790	C-1893	91F799	C-1893HG	10x18 1/16x10 13/32"	8½	9.20	8.30	7.30

The entire front panel of this cabinet is removable if so desired. This cabinet is also provided with a hinged top for easy accessibility to tubes and other parts that are mounted on the chassis, without necessitating removal of the front panel. These cabinets are finished in black wrinkle or light grey hammertone enamel.

BUILT-IN CHASSIS CABINETS

Stk. No.	Type	HxWxD	Wt. Lbs.	1-49	50-99	100-149
91F487	C1793	4x4x2	¾	1.60	1.40	1.30
91F488	C1794	4x5x3"	1	1.90	1.70	1.50
91F489	C1795	5x4x3	1	2.00	1.80	1.60
91F490	C1796	6x5x4"	1¾	2.10	1.90	1.70
91F491	C1797	5x6x4"	1¾	2.40	2.10	1.90
91F492	C1798	6x6x6"	2¾	2.90	2.60	2.30

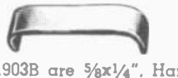
Has two removable panels. The front panel has a chassis attached. An ideal housing for constructing electronic devices using miniature tubes or transistors. Black wrinkle enamel finish only.

Drawer Slides and Handles

BUD

UTILITY HANDLES

Handles are fabricated from steel, brass or cast aluminum. Durable, attractive finish will provide long wear. The material and finish specifications for each handle is described below. They have unlimited applications in the electronic, electrical, and many other fields. Necessary Mounting hardware is furnished. Designed for rugged applications.



Type H-9100B. All models of this type have 1" hand clearance. All are made from solid brass and are Chrome plated. H-9100B and H-9101B are 1"x1/4". H-9102B and H-1903B are 5/8x1/4". Hardware is supplied on all models: two 6-32 by 1/2" screws.

Stk. No.	Type	Mtg. Ctrs.	Net Each 1-99	100-199	200-499
90F700	H-9100-B	4x1/2"	2.70	2.40	2.10
90F701	H-9101-B	8x1/2"	4.30	3.90	3.50
90F702	H-9102-B	4"	2.30	2.10	1.90
90F703	H-9103-B	6"	2.70	2.40	2.10

Type UH-70A. Useful for attaching to any small housing or speaker enclosure to achieve portability. Handle is made from aluminum and given an etched finish. Overall length is 5 1/8". Mounting centers are 4 5/8". Aver. Shpg. wt., 3 oz.

Stk. No.	Type	1-49	50-99	100-149
91F079	UH-70A	.50	.45	.43

Type H-9151B. Made from die cast aluminum. Silver anodized. 1 3/8" hand clearance. Hardware: four 10-32x1/2" screws. **Type H-9152.** Similar to H-9151B. Has 1 1/8" hand clearance. Also silver anodized. Hardware: two 10-32x1/2" screws. Aver. Shpg. Wt., 3 oz.

Stk. No.	Type	Mtg. Ctrs.	Net Each 1-99	100-199	200-499
90F711	H-9151-B	5[illegible]x5/8"	3.40	3.00	2.70
90F712	H-9152-B	3 7/8"	2.70	2.40	2.20

Type H-9150B. Made of die cast aluminum and finished in silver anodize. Has 1 1/4" hand clearance. Hardware: four 10-32x3/8" screws. Aver. shpg. wt. 3 oz.

Stk. No.	Type	Mtg. Ctrs.	Net Each 1-99	100-199	200-499
90F710	H-9150-B	4x5/8"	2.10	1.90	1.70

Type H-9131B. Made of die cast aluminum. Finish is silver anodize. Size: 4x2 7/8". Hardware: two 1/4-28x3/4" raised countersunk screws and nuts. Useful as cabinet handle replacement. Average shpg. wt. 3 oz.

Stk. No.	Type	Mtg. Ctrs.	Net Each 1-99	100-199	200-499
90F713	H-9131-B	2 1/4"	2.60	2.30	2.10

Type H-9130B. Made of die cast aluminum. This handle is finished in silver anodize. Ideal for use as a cabinet handle. Design permits almost flush fastening to a drawer. Size: 4 15/16x3". Hardware provided: two 10-32x3/8" screws. Shpg. wt., 4 oz.

Stk. No.	Type	Mtg. Ctrs.	Net Each 1-99	100-199	200-499
90F708	H-9130-B	3"	3.60	3.30	2.90

Type H-9140B. This handle is made of die cast aluminum with a silver anodized finish. Has a hand clearance of 3/4". This solid design handle provides a modern look to your cabinets or racks. Hardware provided for this model is two 10-32 1/2" screws. Shpg. wt. 6 oz.

Stk. No.	Type	Mtg. Ctrs.	Net Each 1-99	100-199	200-499
90F709	H-9140-B	3 1/2"	1.50	1.40	1.20

Type H-9120-B. Handle made of die cast aluminum and finish is silver anodize. Has hand clearance of 1". Hardware: four 6-32x1/2" screws. Shpg. wt., 5 oz.
Type H-9121-B. Similar to H-9120 except made of die cast alloy and is chrome plated.
Type H-9123-B. Similar to H-9120 except hardware: two 10-32x1/2" screws.

Stk. No.	Type	Mtg. Ctrs. Ins.	Mtg. Ctrs. Outs.	Net Each 1-99	100-199	200-499
90F705	H-9120-B	4 3/8"	5 3/8"	2.50	2.30	2.00
90F706	H-9121-B	4 3/8"	5 3/8"	3.20	2.90	2.60
90F707	H-9123-B	4 1/2"		1.60	1.40	1.30

Type H-9122B. Handle made of die cast aluminum with a silver anodized finish. This handle has a hand clearance of 1 1/2" and is hinged on 1/4" diameter pins with two hinge blocks. Hardware provided: four 10-32x3/8" screws. Shpg. wt., 5 oz.

Stk. No.	Type	Mtg. Ctrs. Ins.	Mtg. Ctrs. Outs.	Net Each 1-99	100-199	200-499
90F704	H-9122-B	6 1/2"	7 1/4"	4.30	3.90	3.50

Types H-9115B and H-9116B. These handles made of 3/8" steel rod, chrome plate finish. Have hand clearance of 1[illegible]/16". Ideal for use where a thin, durable handle is necessary or desirable. Hardware provided: two 1/4-28 nuts. Av. shpg. wt. 3 oz.

Stk. No.	Type	Mtg. Ctrs.	Net Each 1-99	100-199	200-499
90F746	H-9115-B	4"	1.50	1.40	1.20
90F732	H-9116-B	6"	1.70	1.55	1.35

Types H-9160B, H-9161B, H-9162B, H-9163B, H-9164B, H-9165B. All have chrome plated finish and are made of 3/8" diameter steel. All have 1 11/16" hand clearance. All are provided with two 1/4-28 hex nuts as hardware. Types differ in mounting centers only which are listed below.

Stk. No.	Type	Mtg. Ctrs.	Net Each 1-99	100-199	200-499
90F733	H-9160-B	3 1/2"	1.70	1.50	1.30
90F734	H-9161-B	5 1/4"	1.70	1.55	1.35
90F735	H-9162-B	7"	1.90	1.70	1.50
90F736	H-9163-B	8 3/4"	1.90	1.70	1.50
90F737	H-9164-B	10 1/2"	2.00	1.80	1.60
90F738	H-9165-B	12 1/4"	2.20	2.00	1.80

Types H-9166B and H-9168B. Both are made of 1/4" diameter brass and both have a chrome plated finish. These handles each have a 1" hand clearance and are provided with the same hardware: two 6—32x1/2" screws. They differ only in mounting centers which are listed below.

Stk. No.	Type	Mtg. Ctrs.	Net Each 1-99	100-199	200-499
90F739	H-9166-B	12 29/32"	.90	.80	.70
90F740	H-9168-B	3"	.90	.80	.70

All are made of 3/8" dia. steel chrome-plated except H-9114 1/2" Dia. All provided with two 10-32x1/2" screws except H-9114 two 1/4-28x1/2" screws. Hand clearance 1" except * 1 1/4" and ** 1 1/2". Shpg. Wt. 3 oz.

Stk. No.	Type	Mtg. Ctrs.	Net Each 1-99	100-199	200-499
90F741	H-9110-B*	6"	1.70	1.55	1.35
90F742	H-9111-B	4"	1.10	1.00	.90
90F743	H-9112-B	6"	1.20	1.10	.90
90F744	H-9113-B	8"	1.30	1.20	1.05
90F745	H-9114-B**	8"	1.90	1.70	1.50

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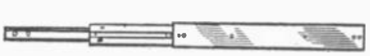
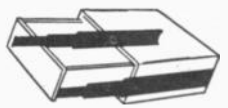




DRAWER SLIDES

Side-mounted, three-section, thin, full-extension slides offer smooth and safe operation. Minimum side space dequired. Positive stop halts slide at full extension, eliminating any possibility of drawer falling. Shpg. wt. 3 lbs.

Stock No.	Type	Description	Load Cap.	Per Set
73F617	328-12	12" Slide Lgth.	50 lb.	2.48
73F618	328-18	18" Slide Lgth.	50 lb.	3.08
73F619	168-22NT	22" Slide Lgth.	75 lb.	15.60
73F620	168-22T	22" Non-locking Tilt Position	75 lb.	15.60

Par Metal Relay Racks & Accessories

ENCLOSED AND CHANNEL TYPE RELAY RACKS

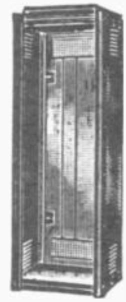
Models ER-223 and ER-227 are Deluxe type same as Figure A, Model ER-215 is standard model with rounded front corners. All racks are tapped for 10-32 screws. Shipped knocked down.

BLUE GREY WRINKLE DELUXE ENCLOSED TYPE RACKS

Stk. No.	Type	Fig.	H x W x D	Pan. Sp.	Lbs.	NET
91F000	ER-223A	A	43¼x22 x18"	36¾x19"	90	57.40
91F002	ER-227A	A	83½x22 x18"	77 x19"	140	85.50
91F004	ER-215A	A	66½x22 x18"	61¼x19"	110	60.40

BLACK WRINKLE OPEN TYPE RACKS

Stk. No.	Type	Fig.	H x W x D	Pan. Sp.	Lbs.	NET
90F998	RX-193	B	39 7/16x21 x20⅞"	36¾x19"	45	22.95
90F999	RX-195	B	74 7/16x21 x20⅞"	71¾x19"	55	30.40



(A) Type ER

(B) Type RX

All Above Chicago Stock and F.O.B. Chicago

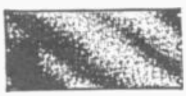
DESK TYPE OPEN RELAY RACKS

For mounting transmitters, PA systems, and other heavy components. Panels set in recess so that no edges are exposed. Black ripple finish. Depth 12". Shipped knocked-down. With hardware.

Stk. No.	Type	Hgt.	Panel Space	Lbs.	NET EACH
91F032	TR-2520	24"	21"hx19"w	17	9.75
91F033	TR-3220	31"	28"hx19"w	20	11.85

19" STEEL RACK PANELS

All are ⅛" thick. Uniformly slotted for racks with 1¼-½" spacings. Available in black or Blue Grey baked wrinkle finish.



Height	Black	Mfr. No.	Grey	Mfr. No.	Lbs.	NET
1¾"	91F100	6600	91F120	G-6600	2	.89
3½"	91F101	6601	91F121	G-6601	3	1.12
5¼"	91F102	6602	91F122	G-6602	4	1.42
7"	91F103	6603	91F123	G-6603	5	1.72
8¾"	91F104	6604	91F124	G-6604	7	2.10
10½"	91F105	6605	91F125	G-6605	8	2.31
12¼"	91F106	6606	91F126	G-6606	9	2.87
14"	91F107	6607	91F127	G-6607	10	3.18
15¾"	91F108	6608	91F128	G-6608	12	3.56
17½"	91F109	6609	91F129	G-6609	13	3.96
19¼"	91F110	6610	91F130	G-6610	14	4.60
21"	91F111	6611	91F131	G-6611	15	4.86

19" ALUMINUM RACK PANELS

Lightweight relay rack panels made of ⅛" thick half hard aluminum. Uniformly slotted for racks with 1¼-½" spacings. Available in black or Blue Grey baked wrinkle finish.

Height	Black	Mfr. No.	Grey	Mfr. No.	Lbs.	NET
1¾"	91F140	6675	91F160	G-6675	1	1.06
3½"	91F141	6676	91F161	G-6676	1	1.50
5¼"	91F142	6677	91F162	G-6677	2	2.05
7"	91F143	6678	91F163	G-6678	2	2.60
8¾"	91F144	6679	91F164	G-6679	3	3.15
10½"	91F145	6680	91F165	G-6680	3	3.80
12¼"	91F146	6681	91F166	G-6681	4	4.25
14"	91F147	6682	91F167	G-6682	4	5.00
15¾"	91F148	6683	91F168	G-6683	5	5.65
17½"	91F149	6684	91F169	G-6684	5	6.15
19¼"	91F150	6685	91F170	G-6685	6	6.70
21"	91F151	6686	91F171	G-6686	7	7.30

STREAMLINED METAL CABINET RACKS

Vertical front corners, rounded. Polished chrome trim. Made of 1/16" steel, all joints welded. Sides and back louvred. Holes tapped for 10-32 screws. For standard 19" panels. Black and Blue Grey ripple finish.

Black	Grey	Type	HxWxD	Panel	Door	Lbs.	NET
91F015	91F021	DL-128	10½x21½x15"	8¾"	top	28	20.30
91F016	91F022	DL-1225	14 x21½x15"	12¼"	top	30	23.20
91F017	91F023	DL-1413	15¾x21½x15"	14"	top	32	26.25
91F018	91F024	DL-1713	19¼x21½x15"	17½"	top/rear	38	29.10
91F019	91F025	DL-2613	28 x21½x15"	26¼"	top/rear	48	33.90
91F020	91F026	DL-3513	36¾x21½x15"	35"	top/rear	58	39.75

PAR METAL DELUXE DESK CONSOLES

Newark can supply these standardized units which are adaptable to individual requirements on special order only. The vast flexibility of these units enables you to design the console of your choice without costly, custom-built construction. Can be put together quickly and easily. Write for a complete catalog and price list.

STANDARD TYPE ROLLER TRUCKS

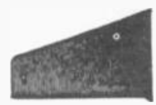
All have rounded corners at front and chrome finish. Blue Grey ripple finish. 2" wider than racks for better distribution of weight. Ball-bearing swivel-type casters with 2" rubber composition wheels.

91F040. Type RT-410. Inside clearance, 21¾"x15½". Will fit the following racks: Types DL-1713, DL-2613, DL-3513. Wt. 22 lbs. NET 11.50

91F042. Type RT-412. Inside clearance 23⅞x19½". Will fit types ER223A and ER215A, ER227A racks. Wt., 22 lbs. NET........14.25

CHASSIS BRACKETS

For use with steel chassis. Rack panels should be at least 7" high. Provide excellent chassis support Made of heavy gauge steel. Supplied in pairs. Black enamel finish. With mounting holes drilled.



Stk. No.	Type	Dimensions	Lbs.	Pair
91F046	SB-78	For 8" base	2	1.35
91F047	SB-710	For 10" base	2	1.55
91F048	SB-711	For 11" base	3	1.65
91F049	SB-713	For 13" base	3	1.85

CABINET SHELVES

Expressly designed to fit into enclosed racks of standard 19" width type. All shelves are 1" high. Shpg. wt., 10 pounds.

R-2128. For DL-1713, DL-2613, DL-3513 racks or others 15" deep, requiring shelf, 12"dx21 9/16"w.
91F037. Black ripple. **NET** 3.30

ER-2212. For ER 223A and ER227A racks, or others with a depth of 16¾", requiring shelf, size 15"dx21 11/16"w.
91F038. Black ripple. **NET** 4.20

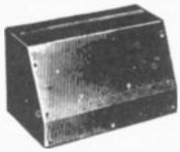
SLOPING FRONT AMPLIFIER CHASSIS

This sturdy, use-tested sloping front unit incorporates the most modern up-to-date styling. Its streamlined design utilizes round corners, and polished chrome molding and handy side handles. Separately removable grille cover and front panel. Panel extends 3 inches from face to cover. Covers are 6½ inches high. Bottom plate included. Blue Grey wrinkle finish.

Stk. No.	Type	Chassis Size	Lbs.	NET
91F521	F-10120	10x12x3"	11	12.15
91F522	F-10170	10x17x3"	13	14.70
91F523	F-13170	13x17x3"	15	15.90

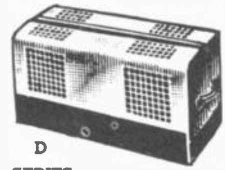
PAR METAL PRODUCTS

A
SERIES
CA-300



B
SERIES
SF-500

C
SERIES
CA-200



D
SERIES
DF

DELUXE TYPE DESK CABINETS

Fig. A. Attractive steel cabinets for Amateur and commercial equipment. Hinged and formed top; removable front panel and full width opening at rear for and formed leads. Louvered ends for ventilation. Slate gray ripple finish. Chrome trim.

Stk. No.	Type	HxWxD	Panel Size	For Chassis	Lbs.	NET
91F500	CA-300	9x12 9/16x 8"	8½x10"	7x 9x2"	6	10.60
91F501	CA-301	9x16⅛x 8"	8½x14"	7x13x2"	7	11.70
91F502	CA-302	10x17⅛x11"	9½x15"	10x14x3"	8	14.85
91F503	CA-303	10x20⅛x 9"	9½x18"	8x17x3"	11	14.85
91F504	CA-304	13x20⅛x12"	12½x18"	10x17x3"	15	18.30

SLOPING FRONT CABINETS

Fig. B. Latest-style utility cabinets. Full-sized removable sloping panel makes controls and meters readily accessible. Ventilated sides and rear. Opening at rear for cables. Slate gray ripple finish. Chrome trim.

Stk. No.	Type	HxWxD	For Chassis	Lbs.	NET
91F505	SF-500	8x 8x 8"	7x 7x2"	6	6.50
91F506	SF-501	8x10x 8"	7x 9x2"	7	7.20
91F507	SF-502	8x14x 8"	7x13x2"	8	7.80
91F508	SF-503	9x18x 8"	7x17x3"	10	9.75
91F509	SF-504	12x18x12"	10x17x3"	14	12.30

ROUNDED CORNER TYPE CABINETS

Fig. C. Rounded-corners for that custom-built look. Top door has full length piano hinge. Removable front panel. Louvres on sides and opening at rear for cables. Slate gray ripple finish.

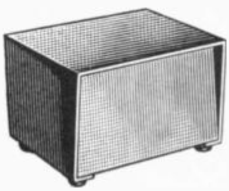
Stock No.	Type No.	HxWxD	Panel Size	For Chassis	Wt. Lbs.	NET
91F510	CA-200	8½x10 9/16x 8"	8½x 8"	7x 7x2"	6	6.00
91F511	CA-201	8½x12 9/16x 8"	8½x10"	7x 9x2"	7	6.40
91F512	CA-202	8½x16 9/16x 8"	8½x14"	7x13x2"	8	7.95
91F513	CA-203	9½x17 9/16x11"	9½x15"	10x14x3"	11	10.55
91F514	CA-204	12½x20 9/16x12"	12½x18"	10x17x3"	15	12.40

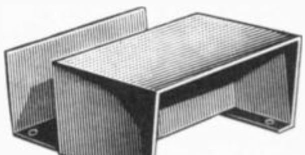
AMPLIFIER FOUNDATION CHASSIS

Fig. D. Red-striped chrome finished molding on top. Two chrome side handles. Slate gray ripple removable screen cover is 6" high. Black ripple chassis is drilled for bottom plates.

Stk. No.	Type	Chassis Size	Lbs.	NET
91F528	DF-510	5x10x3"	7	6.75
91F529	DF-615	6x14x3"	8	7.50
91F530	DF-717	7x17x3"	9	8.70
91F531	DF-1012	10x12x3"	9	8.90
91F532	DF-1017	10x17x3"	10	9.80
91F533	DF-1317	13x17x3"	12	10.50

LMB CABINETS





A housing for small instruments, amplifiers, intercoms, public address systems. Cover slides off exposnig the insides. Made of .040 aluminum.

Type	Size D	W	H	Plain Stk. No.	NET	Grey Stk. No.	NET
275N	2¾	x 3	x 4	91F1200	1.58	91F1210	1.65
2754N	2¾	x 2¾	x 4	91F1201	1.64	91F1211	1.76
342N	3	x 4¼	x 2⅜	91F1202	1.59	91F1212	1.79
442N	4	x 4½	x 2⅝	91F1203	1.71	91F1213	1.95
444N	4	x 4	x 4	91F1204	1.79	91F1214	2.03
453N	4	x 5	x 3	91F1205	1.85	91F1215	2.06
463N	4	x 6	x 3	91F1206	1.88	91F1216	2.25
555N	5	x 5	x 5	91F1207	2.40	91F1217	2.75
564N	5	x 6	x 4	91F1208	2.22	91F1218	2.60
685N	6	x 8	x 5	91F1209	3.33	91F1219	3.75

CB-1, 2

HA-1

CM-1

CO-1, 2

CO-3

MODEL C-B-1

Rectangular cabinet with chassis. Recessed front panel; ventilating slots in top. Size 8x10x4½. Aluminum. Shipping wt. 3 lbs.

91F1305. Gray. NET 5.35
91F1306. Plain. NET 4.47

MODEL C-B-2

Same as C-B-1, but size is 6x8x4½". Shipping wt. 2 lbs.

91F1307. Gray. NET 4.97
91F1308. Plain. NET 4.27

MODEL CM-1

Completely shielded cabinet is actually two cases in one. Two recessed solid front panels. Aluminum. Size, 6x8x3⅞"; shipping weight 2 lbs.
91F1313. Gray. NET 5.72
91F1314. Plain. NET 4.50

MODEL HA-1

For portable equipment. Front panel is hooded, removable. Hinged door at back for easy access to interior. Chrome carrying handle. Size 11½x10½x5. Aluminum. Shipping wt. 3 lbs.

91F1309. Gray. NET 9.75
91F1310. Plain. NET 8.85

MODELS CO-1 AND CO-2

Smoothly contoured and perforated. The top is removable. Gray with ivory trim, recess front panel dark gray. Made of aluminum. Shipping weight: 3½ lbs.

Stock No.	Type	Size	Color	NET
91F1192	CO-1	14½x13x6½"	Gray	19.95
91F1193	CO-1	14½x13x6½"	Plain	17.95
91F1194	CO-2	12 x10x6½"	Gray	17.95
91F1195	CO-2	12 x10x6½"	Plain	15.75

MODEL CO-3

Contoured aluminum cabinet with built-in chassis for smaller equipment. Three perforated sides provide excellent ventilation. Gray body, recessed front panel dark gray. Size, 7¼x5½x3⅛"; shipping weight 3 lbs.
91F1196. Gray. NET 5.40
91F1197. Plain. NET 4.48

MODEL SQ-1

Aluminum cabinet with recessed, bevelled front panel. Ventilation slots on bottom and sides; chassis attached to removable back panel. Size 4½x4½x8½, wt. 2 lbs.
91F1198. Gray. NET 5.35
91F1199. Plain. NET 4.65

UTILITY ENCLOSURES

Suitable as instrument, amp or transmitter case. Bottom plate of chassis and hood removes with release of 4 screws, allows quick entry to parts without removing front or back panels. Heavy gauge aluminum. Plain or grey hammertone. *Takes 11x17x3" chassis.

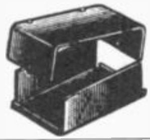
Type	Size	Lbs.	Stk. No. Plain	NET	Stk. No. GH	NET
W-1A	7x5x4½"	1½	91F1174	3.97	91F1083	4.84
W-1C	8½x6½x5"	2	91F1176	4.43	91F1085	5.33
W-1D*	18x9x11"	5	91F1177	9.75	91F1086	13.13

FLANGELOCK BOX CHASSIS

Dust proof in endlock construction. Water and rain proof if properly treated. Sturdy construction and 100% shielded. Aluminum. Plain or Gray Hammertone.

Type	Size	Lbs.	Stk. Pl.	NET	Stk. GH	NET
221EL	2¾x3½x1⅝"	¼	91F1154	1.13	91F1063	1.13
321EL	3¼x2⅛x1⅝"	¼	91F1155	1.13	91F1064	1.13
421EL	4x2⅛x1⅝"	¼	91F1156	1.13	91F1065	1.13
422EL	4x2¼x2¼"	¼	91F1157	1.29	91F1066	1.29
424EL	4x2x4"	⅜	91F1158	1.98	91F1067	1.98
435EL	4x3x5"	½	91F1159	2.19	91F1068	2.19
444EL	4x4x4"	½	91F1160	1.89	91F1069	1.89
531EL	5¼x3x1½"	⅜	91F1161	1.29	91F1070	1.29
532EL	5¼x3x2⅛"	⅜	91F1162	1.47	91F1071	1.47
534EL	5⅝x3x4"	⅝	91F1163	2.06	91F1072	2.06
543EL	5x4x3"	½	91F1164	1.87	91F1073	1.87
546EL	5x4x6"	¾	91F1165	2.74	91F1074	2.74
645EL	6x4x5"	¾	91F1166	2.60	91F1075	2.60
666EL	6x6x6"	1⅛	91F1167	3.39	91F1076	3.39
695EL	6x9x5"	1 5/16	91F1168	3.84	91F1077	3.84
753EL	7x5x3"	¾	91F1169	2.60	91F1078	2.60
754EL	7x5x4"	⅞	91F1170	2.76	91F1079	2.76
1063EL	10x6x3½"	1¼	91F1171	3.57	91F1080	3.57
1085EL	10x8x5"	2½	91F1172	4.42	91F1081	4.42
1221EL	12x2x1¾"	½	91F1173	1.87	91F1082	1.87

INTERLOCKING CHASSIS



Protects under-chassis wiring and components. Easily fabricated into amp, junction boxes, oscillators. Interlocking type. Simple and speedy to assemble—only 2 set screws to put in place. Gray Hammertone or Plain Aluminum finish.

Type	Size	Lbs.	Stk. No. Plain	NET	Stk. No. GH	NET
M00	2¼x1½x1⅜"	⅛	91F1105	.57	91F1000	.57
00Z	2 5/16x2⅛x1¾"	⅛	91F1106	.64	91F1001	.64
000	3¼x2⅛x1⅝"	¼	91F1107	.68	91F1002	.68
00	4x2⅛x1⅝"	¼	91F1108	.71	91F710	.71
100	2¾x2⅛x2⅝"	¼	91F1109	.89	91F1003	.89
101	4¼x2¼x1¼"	¼	91F1110	.87	91F1004	.87
102	4x2x2¾"	⅜	91F1111	1.02	91F1005	1.02
107	4x2¼x2¼"	¼	91F1112	.96	91F1006	.96
108	5x2¼x2¼"	⅜	91F1113	1.03	91F711	1.03
135	3¾x3x2⅛"	⅜	91F1114	.97	91F1007	.97
136	5¼x3x2⅛"	⅜	91F1115	1.08	91F712	1.08
650	6½x2⅛x1⅝"	¼	....	......	91F1015	1.05
137	8x3x2¾"	⅝	91F1116	1.61	91F1008	1.61
850	8½x2⅛x1⅝"	⅜	....	......	91F1016	1.35
138	6¼x3½x2⅛"	⅜	91F1117	1.32	91F1009	1.32
139	5½x3x1¼"	⅜	91F1118	1.01	91F1010	1.01
140	3x4x5"	½	91F1119	1.29	91F713	1.61
141	6x4x3"	⅝	91F1120	1.44	91F1011	1.72
142	6x4x5"	¾	91F1121	1.68	91F714	2.11
143	4x4x2"	⅜	91F1122	1.33	91F1012	1.33
144	10x4x2½"	⅝	91F1123	2.19	91F715	2.19
145	7x5x3"	¾	91F1124	2.11	91F1013	2.11
146	8x6x4½"	1⅜	91F1125	2.99	91F1014	2.99
15	12x2x1¾"	½	....	......	91F1017	1.61

MINIATURE BOX CHASSIS

With mounting ears. Cadmium plated, all steel construction. Ideal for subminiature assemblies. May be mounted in any position. **With covers. *Not supplied with mtg. ears.**

Stk. No.	Type	Size	Lbs.	NET
91F1100	*MO-12	2x1¼x1"	⅜	.42
91F1101	MO-17	2x1¾x1"	¼	.54
91F1102	MO-18	2x2x1¼"	¼	.54

SLIDE COVER BOXES

These boxes lend themselves to many uses including communication equipment, terminal block boxes, or custom equip. Aluminum. Finished in Gray Hammertone.

Stk. No.	Type	Size	Lbs.	NET
91F1191	16	13x3⅛x2⅝"	1⅛	3.38
91F1018	17	13x4⅛x2⅝"	1⅛	3.95
91F1019	18	13x5¼x2⅝"	1¼	4.30
91F1020	19	17x3⅛x2⅝"	1¼	4.15

"GLAMOR CABINETS"

Suitable for meter, transistor construction, and instrument cases. Outstanding appearance. Made of die folded aluminum. Plain Aluminum or Gray Hammertone.

Type	Size D W H	Lbs.	Stk. No. Plain	NET	Stk. No. GH	NET
W-2AP	3½x4x3" 2¼" meter hole	¼	91F1179	1.88	91F1088	2.18
W-2AP	3½x4x3" 3¼" meter hole	¼	91F1180	1.88	91F1089	2.18
W-2A	3½x4x3½"	¼	91F1178	1.98	91F1087	2.28
W-2B	3x7x3½" 2¼" meter hole	¾	....	......	91F1090	2.67
W-2B	3x7x3½" 3¼" meter hole	¾	91F1182	2.25	91F1091	2.67
W-2C	3⅜x7x3½"	¾	91F1183	2.93	91F1092	3.36

"DELUXE GLAMOR CABINETS"

Same as above but with built in chassis.

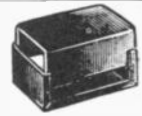
Type	Size D W H	Lbs.	St. No. Plain	NET	Stk. No. GH	NET
W-2F	7½x4½x5"	1¼	91F1187	4.40	91F1096	5.18
W-2G	13x10x5¾"	3	91F1188	9.36	91F1097	11.06
W-2H	7x11x6¼"	2⅜	91F1189	7.38	91F1098	8.63
W-2J	8x11½x7½"	3	91F1190	8.10	91F1099	9.35

TITE-FIT BOX CHASSIS

An orthodox construction that is engineered to insure greatest satisfaction for both industry and private users. Aluminum construction. Unfinished (Pl.) or Gray Hammertone (GH).

Type	Size	Lbs.	Stk. Pl.	NET	Stk. GH	NET
T-F770	2¾x2⅛x1⅝"	¼	91F1126	.62	91F1032	.81
T-F771	2¾x2⅛x2¾"	¼	91F1127	.68	91F1033	.95
T-F772	3¼x2⅛x1⅛"	¼	91F1128	.62	91F1034	.84
T-F773	3½x2⅛x1⅝"	¼	91F1129	.62	91F1035	.84
T-F774	4x2⅛x1⅝"	¼	91F1130	.62	91F1036	.95
T-F775	4x2¼x2¼"	¼	91F1131	.75	91F1037	.97
T-F776	4x2x2¾"	¼	91F1132	.75	91F1038	1.00
T-F777	4¼x2¼x1½"	¼	91F1133	.72	91F1039	1.00
T-F778	5x2¼x2¼"	¼	91F1134	.78	91F1040	1.03
T-F779	5x4x3"	½	91F1135	.94	91F1041	1.32
T-F780	5¼x3x2⅛"	¼	91F1136	.82	91F1042	1.12
T-F781	6x5x4"	¾	91F1137	1.47	91F1043	1.83
T-F782	7x5x3"	¾	91F1138	1.40	91F1044	1.86
T-F783	8x6x3½"	1	91F1139	1.72	91F1045	2.25

JIFFY BOX CHASSIS



Does not use screws. Closed by snap clamps. Opened by slight finger pressure. Ideal for use where box must be used quickly and often. Aluminum. Unfinished or Gray Hammertone.

Type	Size	Lbs.	Stk. Pl.	NET	Stk. GH	NET
J-870	2¾x2⅛x1⅝"	¼	91F1140	.62	91F1046	.81
J-871	2¾x2⅛x2¾"	¼	91F1141	.68	91F1047	.95
J-872	3¼x2⅛x1⅛"	¼	91F1142	.62	91F1048	.84
J-873	3½x2⅛x1⅝"	¼	91F1143	.62	91F1049	.84
J-874	4x2⅛x1⅝"	¼	91F1144	.62	91F1050	.95
J-875	4x2¼x2¼"	¼	91F1145	.75	91F1051	.97
J-876	4x2x2¾"	¼	91F1146	.75	91F1052	1.00
J-877	4¼x2¼x1½"	¼	91F1147	.72	91F1053	1.00
J-878	5x2¼x2¼"	¼	91F1148	.78	91F1054	1.03
J-879	5x4x3"	½	91F1149	.94	91F1055	1.32
J-880	5¼x3x2⅛"	¼	91F1150	.82	91F1056	1.12
J-881	6x5x4"	¾	91F1151	1.47	91F1057	1.83
J-882	7x5x3"	¾	91F1152	1.40	91F1058	1.86
J-883	8x6x3½"	1	91F1153	1.72	91F1059	2.25

UTILITY BOXES

No mounting flanges, affording more space for building. Aluminum construction. Gray Hammertone finish.

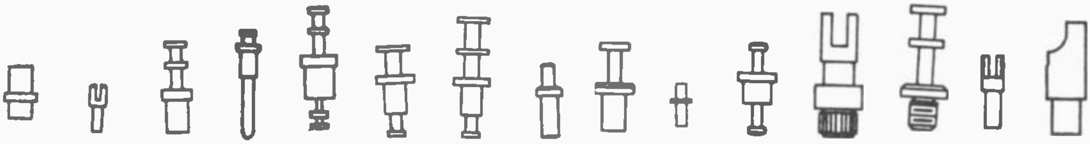
Stock No.	Type	Size	Lbs.	Aluminum Gauge	NET
91F1024	U-C 970	4x4x2"	¼	.040	1.82
91F1025	U-C 971	5x4x3"	½	.040	1.98
91F1026	U-C 972	6x5x4"	⅝	.040	2.52
91F1027	U-C 973	6x6x6"	1	.040	3.02
91F1028	U-C 974	7x5x3"	¾	.040	3.48
91F1029	U-C 975	9x6x5"	1½	.051	3.89

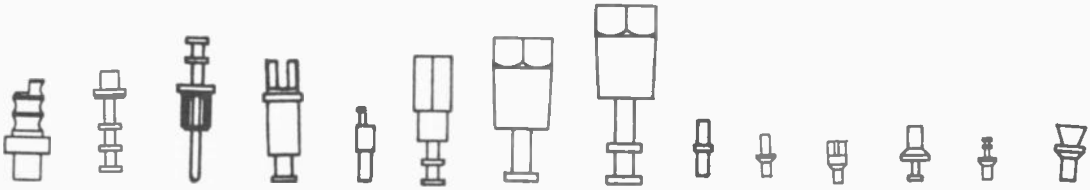
SHIELDED CHASSIS

For laboratory, industrial production, experimentation and wherever large shielded chassis is required. Aircraft aluminum construction. Plain finish.

Stock No.	Type	Size	Lbs.	NET
91F1021	20	7½x7x2"	¾	1.67
91F1022	21	13x10x3"	2	4.34

CAMBION® Solder Terminals and Swager





Terminals are available for boards with different thicknesses. Suffix in type number indicates the sizes available. Order from Board Thickness Chart at right adding the proper suffix to Type number for thickness desired.
EXAMPLE: Type 1521 - 1-thru-3 is available for boards 1/32" thick (1521-1) 1/16" thick (1521-2) and 3/32" thick (1521-3).
**-Silver Plate, ‡-Electro-Tin Plate §-Electro-Solder

BOARD THICKNESS CHART

Dash No. Suffix	Board Thickness	Dash No. Suffix	Board Thickness	Dash No. Suffix	Board Thickness
—1	1/32"	—3	3/32"	—5	3/16"
—2	1/16"	—4	1/8"		

Stk. No.	Type	Fig.	Descrip.	Net Lots of 100	Net Per 1000 Lots		
				100-900	1000-4999	5000-9999	10M-25M
40F6000	1015 2 thru 4	A	Taper recep.	4.58	34.10	31.90	27.90
40F6001	1018 1 thru 2	B	Thru hole	2.65	19.30	18.00	15.80
40F6002	1019 1 thru 3	B	Thru hole	2.93	21.40	20.00	17.50
40F6003	1025 2	B	Slotted	9.17	69.50	64.90	56.80
40F6004	1026 1 thru 4	C	Turret	2.11	15.10	14.10	12.30
40F6005	1031 2	D	Turret	4.19	31.10	29.10	25.50
40F6006	1032 1 thru 2	D	Turret	2.65	19.30	18.00	15.80
40F6007	1035 2 thru 3	E	Feed thru	3.59	26.50	24.80	21.70
40F6008	1041 2 thru 3	F	Turret	3.15	22.30	20.90	18.30
40F6009	1042 2 thru 3	G	Turret	3.85	28.50	26.60	23.30
40F6010	1043 2 thru 4	E	Turret	3.85	28.50	26.60	23.30
40F6011	1081 2 thru 4	E	Feed thru	6.95	52.40	49.00	42.80
40F6012	1131 2‡	H	Pin	2.88	21.00	19.70	17.20
40F6013	1132 2 thru 3‡	H	Pin	2.88	21.00	19.70	17.20
40F6014	1136 2‡	H	Pin	3.80	28.10	26.30	23.00
40F6015	1245 2 thru 3**	I	Turret	2.91	21.30	19.90	17.40
40F6016	1457 1 thru 4**	I	Turret	1.87	13.20	12.40	10.80
40F6017	1459 2	J	Printed	2.53	18.30	17.10	15.00
40F6018	1460 2	J	Cir.	2.53	18.30	17.10	15.00
40F6019	1461 2	J	eyelet thru	2.53	18.30	17.10	15.00
40F6020	1462 2	J	hole	2.53	18.30	17.10	15.00
40F6021	1463 1 thru 2**	K	Domed turret	2.59	18.80	17.60	15.40
40F6022	1548 1 thru 5**	C	Turret	2.63	19.10	17.90	15.60
40F6023	1558 1 thru 5**	C	Turret	1.91	13.60	12.70	11.10
40F6024	1578 2 thru 4**	L	Knurled	5.01	37.40	35.00	30.60
40F6025	1579 2 thru 4**	G	Feed thru	5.57	41.70	39.00	34.10
40F6026	1582 2**	M	Round base	5.49	41.10	38.80	33.60
40F6027	1597 1 thru 5**	C	Turret	2.11	15.10	14.10	12.30
40F6028	1604 2**	I	Turret	2.25	16.20	15.10	13.20
40F6029	1724 1 thru 4**	C	Turret	2.97	21.70	20.30	17.80
40F6030	1783 4**	L	Knurled	7.95	60.10	56.20	49.10
40F6031	1784 2 thru 4**	L	Knurled	4.55	33.90	31.70	27.70
40F6032	1785 1 thru 4**	N	Forked	2.51	18.20	17.00	14.90
40F6033	1797 1 thru 4**	I	Turret	2.85	20.80	19.40	17.00
40F6034	1798 2**	O	Turret	4.23	31.40	29.40	25.70

Stk. No.	Type	Fig.	Descrip.	Net Lots of 100	Net Per 1000 Lots		
				100-900	1000-4999	5000-9999	10M-25M
40F6035	1813 3 thru 4**	O	Solder pot	5.51	41.30	38.60	33.80
40F6036	1814 3 thru 4**	O	Solder pot	5.51	41.30	38.60	33.80
40F6037	1815 3 thru 4**	O	Solder pot	5.51	41.30	38.60	33.80
40F6038	1941 2**	N	Thru hole	2.55	18.50	17.30	15.10
40F6039	1969 1 thru 5**	N	Thru hole	3.67	27.10	25.30	22.20
40F6040	1979 2 thru 4**	P	Half slot	4.27	31.70	29.90	26.00
40F6041	2000 1 thru 4**	G	Feed thru	2.81	20.50	19.20	16.80
40F6042	2004 1 thru 4*	E	Feed thru	2.77	20.20	18.90	16.50
40F6043	2027 1 thru 4**	I	Thru hole	2.51	18.20	17.00	14.90
40F6044	2034 1 thru 4**	C	Turret	2.95	21.60	20.20	17.60
40F6045	2040 1 thru 4**	E	Turret	3.01	22.00	20.60	18.00
40F6046	2041 1 thru 3**	I	Turret	1.91	13.60	12.70	11.10
40F6047	2042 1 thru 2**	F	Turret	2.07	14.80	13.80	12.10
40F6048	2043 1 thru 4**	C	Turret	1.99	14.20	13.20	11.60
40F6049	2044 1 thru 4**	G	Turret	2.17	15.60	14.50	12.70
40F6050	2051 1 thru 2**	M	Hex Base	6.13	46.00	43.10	37.70
40F6051	2080 1 thru 4**	Q	Turret	2.61	18.90	17.70	15.50
40F6052	2081 1 thru 4**	R	Knurled	3.87	28.60	26.80	23.40
40F6053	2084 2 thru 4**	Q	Turret	4.95	37.00	34.60	30.20
40F6054	2085 1 thru 4**	I	Turret	1.65	11.60	10.80	9.40
40F6055	2086 2 thru 3**	S	Thru hole	4.88	36.00	33.70	29.50
40F6056	2089 1 thru 4**	B	Thru hole	3.19	23.40	21.90	19.20
40F6057	2100 1 thru 3**	I	Thru hole	2.57	18.20	17.00	14.90
40F6058	2113 4‡	C	.061 top	4.88	36.40	34.10	29.80
40F6059	2114 3‡	C	Taper	6.20	46.60	43.60	38.10
40F6060	2115 2 thru 3‡	F	Receptacle	8.03	60.70	56.70	49.60
40F6061	2141 2 thru 4**	F	Thru hole	5.11	38.20	35.70	31.20
40F6062	2154 1**	T	Half turret	5.21	39.00	36.40	31.90
40F6063	2186 2 thru 4‡	I	Taper recep.	6.01	45.10	42.20	36.90
40F6064	2187 1 thru 2§	B	Slotted	2.99	21.90	20.40	17.90
40F6065	2345 3*	U	Term. Spacer	8.11	61.30	57.30	50.10
40F6066	2380 1§	V	Tapped mount	10.42	79.10	73.90	64.70
40F6067	2381 1§	W	Tapped mount	10.27	77.90	72.70	63.80
40F6068	2750 2 thru 4§	X	PC pin	2.59	18.80	17.60	15.40
40F6069	2751 2 thru 4§	Y	PC pin	2.59	18.80	17.60	15.40
40F6070	2752 2 thru 4§	Z	PC thru hole	3.76	27.80	26.00	22.70
40F6071	2753 2 thru 3§	AA	PC turret	2.59	18.80	17.60	15.40
40F6072	2754 1 thru 4§	BB	PC turret	2.59	18.80	17.60	15.40
40F6073	2755 2 thru 3§	CC	PC thru hole	2.59	18.80	17.60	15.40
40F6074	2926 2§	Z	PC flared	6.22	46.70	43.70	38.20
40F6075	3653 1 thru 3*	C	Turret	2.09	14.90	14.00	12.20

HAND SWAGER

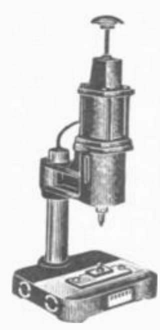
Designed for quick, uniform swaging of solder terminals on terminal boards. Adjustable to a wide range of terminal board thicknesses. Swaging in place as far as 1⅞" from board edge. Less tooling.

40F1500. Type 3802-1. 2½" Throat
NET **49.50**

40F1570. Type 3803-1. 5" Throat.
NET 79.50

40F1599. Type 6098-1. Adapter for converting to hand set use.
NET 7.50

ANVILS Stk. No.	Type	PUNCHES Stk. No.	Type	Net
40F1575	6401	40F1586	6604	
40F1530	6402	40F1591	6606	
40F1576	6404	40F1587	6611	
40F1577	6512	40F1589	6617	
40F1573	6418	40F1594	6618	7.50
40F1574	6419	40F1532	6619	
40F1582	6420	40F1533	6629	
40F1578	6430	40F1558	6654	
40F1531	6447	40F1534	6657	
40F1585	6601			



SOLENOID SWAGER WITH SWEEPGUARD

Model 3804-2. Semi-automatic staker designed primarily for requirements too large for hand swaging, yet not large enough for a Hopper Staker machine. A variable voltage auto-transformer of at least 5 ampere size 50-60 Hz, 115 VAC, required but not furnished or included in price. Size 25" H. (Approx) x 10" square base.

40F6290. NET **280.00**

Insulated Terminals, and Boards

CAMBION

STUD-TAPPED AND RIVET-MOUNTING INSULATED TERMINALS

Teflon for Nos. 1502 thru 1511, 1945 and 1947; phenolic for 1581 and 1795; diallyl for 4810 thru 4895; all others are ceramic. • Suffix —05 (cg. 1502-1-05) indicates electro-solder plating on terminal; —01, silver plating; —03, gold plating. † Final suffix indicates standard color: 16, blue for diallyl units; 19, white for Teflon units. MIL-T-55155 dash numbers (0/9) indicate range of colors available. To order non standard colors, delete stock No. replace 19 or 16 final endings ot Cambion No. with: —11 brown; —12 red; —13 orange; —14 yellow; —15 green; —17 violet; —18 gray; ‡ Dash numbers (cg., 1942-1-05 or 1942-2-05) indicate varying stud lengths available.

Stk. No.	Type	MIL-T-55155 Nos.	Each—Lots of 50 50-	100-450	500-1000
40F5147	1502-1-05	(FT20XA01)	.39	.33	.29
40F6200	1503-1-0519†	(SE09(0/9)E01)	.24	.21	.18
40F6201	1504-1-0519†		.24	.21	.18
40F6202	1510-1-0519†		.24	.21	.18
40F6203	1511-1-0519†		.24	.21	.18
40F1821	1581-1		.24	.21	.18
40F6204	1581-3		.24	.21	.18
40F6205	1581-4		.24	.21	.18
40F1831	1795-01-01		.43	.37	.32
40F1773	1942-1-05‡	(SE21X03/05)	.28	.24	.21
40F1774	1942-2-05	(SE21X03/05)	.28	.24	.21
40F6206	1942-1-01		.28	.24	.21
40F6207	1942-2-01		.28	.24	.21
40F1834	1945-1		.37	.32	.28
40F1835	1945-2		.37	.32	.28
40F1841	1947-1		.39	.33	.29
40F1842	1947-2		.39	.33	.29
40F6208	1980-05-01		.26	.22	.20
40F6209	1983-05-01		.26	.22	.20
40F6210	1992-05-01		.26	.22	.20
40F1737	1980-03-01		.26	.22	.20
40F1805	1990-1-05	(FT01XA01)	.52	.45	.39
40F6211	1990-1-01		.52	.45	.39
40F6212	1995-01-01		.26	.22	.20
40F1794	1994-01-01		.26	.22	.20
40F6213	1994-02-01		.26	.22	.20
40F6214	2012-1-05	(FT01YA0-2)	.92	.79	.69
40F6215	2012-1-01		.92	.79	.69
40F1755	2045-1-05‡	(SE21XE01)	.28	.24	.21
40F6216	2045-2-05	(SE21XE02)	.28	.24	.21
40F6217	2045-1-01		.28	.24	.21
40F6218	2045-2-01		.28	.24	.21
40F6219	2255-1-05‡	(SE22XE01)	.28	.24	.21
40F6220	2255-2-05‡	(SE22XE02)	.28	.24	.21
40F6221	2255-3-05‡	(SE22XE03)	.28	.24	.21
40F1700	2255-1-03		.28	.24	.21
40F1701	2255-2-03		.28	.24	.21
40F1702	2255-3-03		.28	.24	.21
40F6222	2384-2-01		.39	.33	.29
40F1771	2432-1-01		.34	.29	.25
40F6223	2432-2-01		.34	.29	.25
40F1781	3648-1-01		.28	.24	.21
40F1782	3648-2-01		.28	.24	.21
40F1762	3650-1-01		.28	.24	.21
40F1763	3650-2-01		.28	.24	.21
40F6224	4810-1-0516		.20	.17	.15
40F6225	4814-1-0516†	(SE20(0/9)D01)	.22	.19	.16
40F6226	4815-1-0516		.22	.19	.16
40F6227	4820-1-0516†	(SE20(0/9)D02)	.25	.22	..19
40F6228	4826-1-0516		.22	.19	.16
40F6229	4827-1-0516		.22	.19	.16
40F6230	4838-1-0516	(SE19(0/9)E01)	.22	.19	.16
40F6231	4862-1-0516		.24	.21	.18
40F6232	4863-1-0516		.24	.21	.18
40F6233	4870-1-0516		.18	.16	.14
40F6234	4872-1-0516		.20	.17	.15
40F6235	4878-1-0516		.20	.17	.15
40F6236	4884-1-0516		.20	.17	.15
40F6237	4894-1-0516	(SE18(0/9)E01)	.18	.16	.14
40F6238	4895-1-0516	(SE18(0/9)E02)	.20	.17	.15

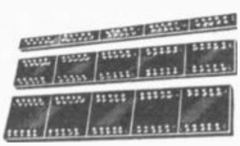
TEFLON • PRESS-MOUNT INSULATED TERMINALS

Press into hole for permanent, rigid installations.

40F6239	4015-1-0519		.17	.14	.13
40F1847	4025-1-0519		.15	.13	.115
40F6240	4025-2-0519		.15	.13	.115
40F6241	4025-3-0519		.15	.13	.115
40F6242	4026-1-0519		.17	.14	.13
40F6243	4026-2-0519		.17	.14	.13
40F6244	4026-3-0519		.17	.14	.13
40F6245	4027-1-0519		.17	.14	.13
40F6246	4027-2-0519		.17	.14	.13
40F6247	4027-3-0519		.17	.44	.13
40F6248	4029-1-0519†	SE08(0/9)B01	.14	.12	.105
40F6249	4033-1-0519		.17	.14	.13
40F6250	4033-2-0519		.17	.14	.13
40F6251	4034-1-0519		.17	.14	.13
40F6252	4034-2-0519		.17	.14	.13
40F6253	4034-3-0519		.17	.14	.13
40F6254	4051-1-0519†	SE07(0/9)B01	.17	.14	.13
40F6254	4078-1-0519		.18	.16	.14
40F5149	4115-1-0519		.22	.19	.16
40F6255	4122-1-0519		.34	.29	.25
40F6256	4132-1-0519		.34	.29	.25
40F6257	4140-1-0519†	SE07(0/9)B02	.14	.12	.105
40F6258	4152-1-0519†	FT05(0/9)B01	.18	.16	.14
40F6259	4167-1-0519†	FT06(0/9)B01	.17	.15	.13
40F6260	4168-1-0519†	FT05(0/9)B02	.17	.15	.13
40F5150	4176-1-0519†	FT03(0/9)B02	.17	.15	.13
40F1946	4182-1-0519†		.17	.15	.13
40F1947	4182-2-0519	FT04(0/9)B01	.17	.15	.13
40F6261	4182-3-0519	FT03(0/9)B01	.17	.15	.13
40F6262	4185-1-0519†	FT04(0/9)B01	.17	.15	.13
40F5151	4188-1-0519†	FT03(0/9)B01	.14	.12	.105
40F6263	4193-1-0519†	FT05(0/9)B03	.14	.12	.105
40F6264	4194-1-0519†	FT06(0/9)B02	.17	.15	.13
40F5152	4197-1-0519†	FT04(0/9)B02	.17	.15	.13
40F1812	4263-1-0519		.27	.23	.20
40F6265	4267-1-0519		.34	.29	.25
40F6266	4281-1-0519†	FT03(0/9)B03	.17	.15	.13
40F6267	4410-1-0519		.17	.15	.13

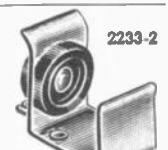
TERMINAL BOARDS

Standard All-Set terminal boards are scribed into 5 sections. Each section is drilled for 14 terminals, w/10 mounted except 1/2" and 5/16" widths which are drilled for 7, w/5 mounted. Materials used: cotton-fabric phenolic, Mil. Type FBE, Mil. Spec. MIL-P-15035B; epoxy glass-cloth, GEE, MIL-P-18177B; nylon-fabric phenolic, NPG, MIL-P-15047B.



Stk. No.	Type	Mat'l	thck x wd'th	Each 1-9	10-99	100-499
40F5135	1330-25-01-02	GEE	1 1/16x1/8"	4.10	2.95	2.58
40F2000	1401-35-01-01	FBE	3/32x1/2"	1.60	1.15	1.01
40F5136	1401-35-01-02	GEE	3/32x1/2"	2.45	1.76	1.54
40F2006	1402-35-01-01	FBE	3/32x2"	3.50	2.52	2.21
40F5137	1402-35-01-02	GEE	3/32x2"	5.70	4.10	3.50
40F5138	1402-35-01-03	NPG	3/32x2"	4.20	3.00	2.65
40F2007	1402-45-01-01	FBE	1/8x2"	3.50	2.52	2.21
40F5139	1402-45-01-02	GEE	1/8x2"	7.20	5.10	4.50
40F2011	1402-45-01-03	NPG	1/8x2"	4.20	3.00	2.65
40F2012	1403-35-01-01	FBE	3/32x2 1/2"	3.70	2.66	2.33
40F2013	1403-45-01-01	FBE	3/32x2 1/2"	3.70	2.66	2.33
40F2018	1404-35-01-01	FBE	3/32x3"	3.80	2.74	2.39
40F2019	1404-45-01-01	FBE	1/8x3"	3.80	2.74	2.39
40F5140	1405-35-01-01	FBE	3/32x1 1/16"	3.20	2.30	2.02
40F2024	1405-45-01-01	FBE	3/32x1 1/16"	3.20	2.30	2.02
40F5141	1405-45-01-02	GEE	1/8x1 1/16"	6.00	4.30	3.70
40F2028	1406-35-01-01	FBE	3/32x1 1/2"	3.35	2.41	2.11
40F2029	1406-45-01-01	FBE	1/8x1 1/2"	3.35	2.41	2.11

BATTERY HOLDERS



2233-2

For mercury ("C" size) and zinc nickel plated ("D" size) batteries; snap-in holders with locking strap to hold mercury batteries under extreme vibration and shock. Body material Phosphor Bronze.
*For "D" size only with steel body.

Stk. No.	Type	Battery Sale	Each Lots of 10 10-90	100-500
40F2128	2233-2	Mercury .620 Dx .650 L	.36	.31
40F2129	2234-2	Mercury .655 Dx 1.305 L	.47	.40
40F2130	2475-2	Mercury .655 Dx 1.960 L	.78	.67
40F2131	2477-2	Mercury .655 Dx 2.605 L	.91	.77
40F2133	2870-2	Mercury 1 190 Dx 2.375 L	1.23	1.05
40F2135	2890-2	Zinc Carb 1.344 Dx 2.406	1.23	1.05
40F2136	2895-2*	Zinc Carb 1.244 Dx 2.406 L	.86	.73

FERRULES

Stk. No.	Type	Stk. No.	Type	Handle Series	Each Lots of 10 10-90	100-490	500-1000
40F2300	1211-1	40F2301	1211-2	1280*	.115	.10	.095
40F2302	1212-1	40F2303	1212-2	1290#	.24	.21	.20
40F2304	1952-1	40F2305	1952-2	1220*	.13	.115	.105
40F2306	1953-1	40F2307	1953-2	1230#	.24	.21	.20
40F2308	1954-1	40F2309	1954-2	†*	.13	.115	.105
40F2224	1988-1	40F2225	1988-2	†*	.17	.15	.14
40F2226	1989-1	40F2310	1989-2	1270, 71#	.24	.21	.20

† For handles, 1075, 1252, 1965, 1250, 1264
* Brass ferrule; Suffix -1 is nickel finish, -2 is black oxide
# Alum ferrule; -1 is black anodize, -2 is semi-frost anodize.

CAMBION Coils, Coil Forms & Components

VARIABLE COILS

CAMBION tunable coils are available on either ceramic or phenolic forms, or in unitized housings offering both electromagnetic and electrostatic shielding. Tunable ranges provide overlapping inductances. Listing covers more popular ratings—if inductance range you want is not listed, order by Part No. and specify range desired.

Stk. No.	Type	Ind. Range Min-uh-Max	Fig.	1-9	10-99	100-499
40F4978	1505-1	.55-1.0	P	3.40	2.55	2.28
40F4981	1505-4	3.2-8.3	P	3.40	2.55	2.28
40F4982	1505-5	7.8-16.0	P	3.70	2.78	2.48
40F4983	1505-6	14.5-33.0	P	3.70	2.78	2.48
40F4984	1505-7	30.0-73.0	P	3.30	2.48	2.21
40F4988	1506-1	1.0-2.2	P	3.70	2.78	2.48
40F4991	1506-4	9.0-22.0	P	4.00	3.00	2.68
40F4995	1507-3	.27-.55	P	3.30	2.48	2.21
40F4996	1507-4	.5-1.1	P	3.30	2.48	2.21
40F4997	1507-5	.9-2.0	P	3.30	2.48	2.21
40F4998	1507-6	1.6-3.7	P	3.30	2.48	2.21
40F5043	1892-06	725-1250	N	1.68	1.26	1.13
40F5045	1892-04	45-75	N	1.56	1.17	1.05
40F5046	1892-03	2-4	N	1.56	1.17	1.05
40F5047	1892-02	.28-.35	N	1.48	1.11	..99
40F5052	2047-03	5-10	M	1.56	1.17	1.05
40F5053	2047-02	.45-.7	M	1.48	1.11	..99
40F5055	2060-1	0-23.7	L	1.54	1.16	1.03
40F5056	2060-2	3.5-7.0	L	1.54	1.16	1.03
40F5057	2060-3	6.5-10.6	L	1.68	1.26	1.13
40F5058	2060-4	10-18	L	1.68	1.26	1.13
40F5059	2060-5	16-30	L	1.82	1.37	1.22
40F5060	2060-6	28-63	L	1.96	1.47	1.31
40F5061	2060-7	61-122	L	2.04	1.53	1.37
40F5062	2060-8	120-243	L	2.24	1.68	1.50
40F5063	2060-9	238-450	L	2.38	1.79	1.59
40F5064	2060-10	440-800	L	2.38	1.79	1.59
40F5121	3338-1	.10-1.2	L	2.36	1.77	1.58
40F5122	3338-2	1.2-.27	L	2.62	1.97	1.76
40F5123	3338-5	.27-1.90	L	2.38	1.79	1.59
40F5124	3338-28	1.90-5.30	L	2.80	2.10	1.88
40F5125	3642-1	.090-.110	L	2.34	1.76	1.57
40F5126	3642-2	.108-.132	L	2.34	1.76	1.57
40F5127	3642-3	.130-.170	L	2.34	1.76	1.57
40F5128	3642-4	.156-.205	L	2.34	1.76	1.57
40F5129	3642-5	.173-38.5	L	2.32	1.74	1.55

TUNING TOOLS

Stk. No.	Type	Tip Material	1-9	10-90
40F3893	1971-1	Brass	1.27	.85
40F3894	2033-1	Brass	1.27	.85
40F3895	2230-1	Nylon	1.65	1.10
40F3896	2375-1	Brass	1.27	.85

MOUNTING STAND OFFS


1246

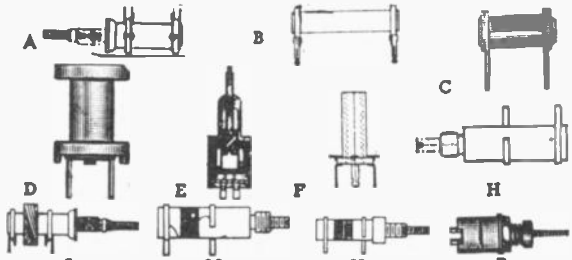

1300

1246 series—round; 6/32 tapped
1247 series—round; through hole
1299 series—hex; threaded stud
1300 series—round; 4/40 tapped
2188 series—round; 2/56 tapped

Stk. No.	Type	Above Board Hgth.	For Board Thknss.	1-99	100-499	500-999	1M-2500
40F2471	1299-1-07	.375"	.....	.105	.095	.08	.075
40F2472	1299-1-07	.500"	.....	.105	.095	.08	.075
40F2484	1300-9-07	.125"	1/16"	.13	.105	.095	.085
40F2485	1300-10-07	.188"	1/16"				
40F2486	1300-11-07	.250"	1/16"				
40F2487	1300-12-07	.375"	1/16"				
40F2488	1300-13-07	.500"	1/16"				
40F2569	1246-9-07	.125"	1/16"				
40F2570	1246-10-07	.188"	1/16"				
40F2571	1246-11-07	.250"	1/16"				
40F2573	1246-13-07	.500"	1/16"				
40F2575	1246-15-07	.750"	1/16"				
40F2577	1246-17-07	.175"	3/32"				
40F2579	1246-19-07	.250"	3/32"				
40F2580	1246-10-07	.....	....				
40F2592	1300-17-07	.125"	3/32"				
40F2600	1247-9-07	.125"	1/16"				
40F2601	1247-10-07	.188"	1/16"				
40F2602	1247-11-07	.250"	1/16"				
40F2611	2188-1-07	.125"	1/32"				
40F2619	2188-9-07	.125"	1/16"				
40F2620	2188-10-07	.188"	1/16"				
40F2621	2188-11-07	.250"	1/16"				
40F2622	2188-12-07	.375"	1/16"				
40F2623	2188-13-07	.500"	1/16"				

VARIABLE CAPACITORS

Stk. No.	Type	Description	Capac. PFD	1-99	100-500
40F5100	2068-01	Ceramic	.5-4.5	1.13	1.01
40F5102	2098-01	Ceramic	1.0-8.0	1.16	1.03
40F5103	2069-01	Ceramic	.5-4.5	1.13	1.01
40F5120	1869-1	Glass	.85-7.0	2.56	1.92



COILS FORMS ORDERING INSTRUCTION CHART

Example. 1150-4-1 for 1150 form with 50-200 slug and terminal board with 2 terminals 1532-2-1 for 1532 with 1-20 slug and 2 ring terminals etc.

SUFFIX NO. 1			SUFFIX NO. 2	
Dash	Clr.	Freq. Range	Dash	Terminal-Collar Locations
-1	Yel.	.2-1.5 MC	-1	2 Ring Terminals—2 Bd.
-2	Red	1-20 MC	-2	2 Collars-2 Term. Ea.—3 Bd.
-3	Gr.	20-50 MC	-3	2 Collars-1 Term. Ea.—4 Bd.
-4	Wh.	50-200 MC	-4	1 Top Collar-2 Term.—5 Bd.
-5	Bl.	100 MC and up	-5	1 Bot. Collar-2 Term.—6 Bd.
-6	Pur.	2-50 MC		
-7	Bl.	40-300 MC		

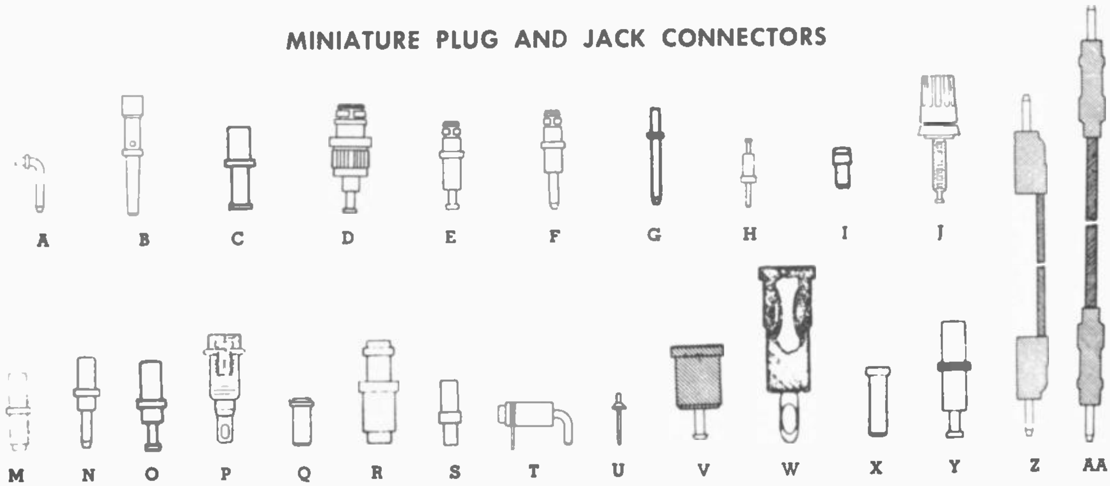
SHIELDED ASSEMBLY

Stk. No.	Type	Fig.	1-99	100-499	500-999
40F3512	1150-4-1	E	1.20	1.11	.99
40F3513	1150-2-1	E			
40F3515	1150-3-1	E			
40F3521	1150-2-3	E			
40F3523	1150-3-3	E			
40F3525	1155-2-1	E	1.25	1.16	1.03
40F3532	1155-4-3	E			
40F3533	1155-2-3	E			
40F3536	1160-4-1	E	1.07	.99	.88
40F3537	1160-2-1	E			
40F3544	1160-4-3	E			
40F3547	1160-3-3	E			

CERAMIC COIL FORM

Stk. No.	Type	Fig.	1-99	100-499	500-999	-1000 2500
40F3101	1532-4-1	A	.59	.50	.44	.40
40F3102	1532-2-1	A	.59	.50	.44	.40
40F3103	1532-1-1	A	.59	.50	.44	.40
40F3125	1536-4-1	A	.62	.53	.47	.42
40F3126	1536-2-1	A	.62	.53	.47	.42
40F3128	1536-3-1	A	.62	.53	.47	.42
40F3143	1534-4-1	A	.72	.62	.54	.49
40F3144	1534-2-1	A	.72	.62	.54	.49
40F3208	1532-2-3	A	.76	.65	.57	.51
40F3297	1536-4-2	A	.79	.68	.59	.54
40F3298	1536-2-2	A	.79	.68	.59	.54
40F3300	1536-3-2	A	.79	.68	.59	.54
40F3303	1536-4-3	A	.79	.68	.59	.54
40F3370	1534-2-2	A	.96	.82	.72	.65
40F3372	1534-3-2	A	.96	.82	.72	.65
PHENOLIC P.C.						
40F3618	2173-2-1	F	.30	.26	.23	.21
40F3619	2173-2-2	F				
40F3620	2173-2-3	F				
40F3623	2173-3-3	F				
40F3626	2173-1-3	F				
40F3629	2173-4-3	F				
CERAMIC P.C.						
40F3584	2175-2-3	G	.37	.32	.28	.25
40F3587	2175-3-3	G	.37	.32	.28	.25
40F3591	2175-1-1	G	.35	.30	.26	.24
40F3593	2175-4-3	G	.37	.32	.28	.25
CERAMIC STUD						
40F3572	2270-1	B	.71	.60	.53	.48
40F3574	2270-3	B	.71	.60	.53	.48
40F3575	2270-4	B	.71	.60	.53	.48
40F3578	2271-2	B	.81	.69	.60	.55
MOLDED DIALLYL						
40F3180	3104-1	C	.94	.81	.71	.64
40F3181	3104-2	C				
40F3182	3104-3	C				
40F3183	3104-4	C				
MOLDED POLYPROPYLENE						
40F3184	3623-1	D	.94	.81	.71	.64
40F3185	3623-2	D				
40F3186	3623-3	D				
40F3187	3623-4	D				
40F3188	3624-1	D	.96	.82	.72	.65
40F3189	3624-2	D				
40F3190	3624-3	D				
40F3191	3624-4	D				

MINIATURE PLUG AND JACK CONNECTORS



Wide variety of plugs and jacks make possible tight space-saving connections; offers reliable "pluggability" for individual components. Positive grip, with low contact resistance after many repeated insertions.
Terminals are available for boards with different thicknesses. Suffix in type number indicates the size available. Order from Board Thickness Chart at right adding the proper suffix to Type number for thickness desired.
Example: Type 1521-1 thru 3 is available for boards 1/32" thick (1521-1), 1/16" thick (1521-2) and 3/32" thick (1521-3)
Gold plated except (*) Electro-Tin (†) Electro-solder and (**) Bright Alloy plating. Available with (††) black or red insulation, (‡) black, red or blue wire insulation (#) black, red or white insulation.

BOARD THICKNESS CHART

Dash No. Suffix.	Board Thickness	Dash No. Suffix.	Board Thickness	Dash No. Suffix.	Board Thickness
-1	1/32"	-3	3/32"	-5	3/16"
-2	1/16"	-4	1/8"	-6	1/4"

Stk. No.	Type	Fig.	Descrip.	Pkg. 10	100-499	500-999	1000-2500
40F6090	1521-1 thru 3	A	Pin-plug	.97	5.88	5.15	4.58
40F6091	1781-1	B	Taper-pin	.93	5.61	4.91	4.36
40F6092	2186-1 thru 6*	C	Taper-pin	.74	4.22	3.69	3.28
40F6093	2265-1 thru 4	D	Jack	3.05	24.00	21.00	19.00
40F6094	2378-1 thru 5	E	Jack	3.05	24.00	21.00	19.00
40F6095	2378-1 thru 5**	E	Jack	2.55	20.00	18.00	16.00
40F6096	2650-1 thru 5	F	Plug-jack	3.05	24.00	21.00	19.00
40F6097	2970-1 thru 3	G	Pin	.59	3.15	2.75	2.45
40F6098	2971-1 thru 3	G	Pin	.52	2.65	2.32	2.06
40F6099	3202-1 thru 3	H	Pin	.52	2.61	2.29	2.03
40F6100	3220-1 thru 4†	G	Pin	.42	1.92	1.68	1.50
40F6101	3231-1 thru 3	I	Jack	2.40	20.00	18.00	16.00
40F6102	3230-1	G	Pin	.68	3.81	3.33	2.96
40F6103	3232-1 thru 3	G	Pin	.66	3.66	3.20	2.84
40F6104	3233-1 thru 3	G	Pin	.58	3.07	2.68	2.39
40F6105	3284-1††	J	Insul Post w/Jack	8.25	69.00	60.00	55.00
40F6106	3285-1††	J	Insul Post w/Jack	10.35	88.00	77.00	70.00
40F6107	3300-1 thru 3‡	Z	Patch Cord	6.90	59.00	52.00	47.00
40F6108	3304-4 thru 5‡	Z	Patch Cord	7.20	62.00	54.60	49.00
40F6109	3301-1‡	Z	Patch Cord	2.40	20.00	18.00	16.00
40F6110	3306-2 thru 3‡	AA	Patch Cord	4.40	37.00	33.00	30.00
40F6111	3308-1‡	B	Pin	.97	58.80	51.50	45.80
40F6112	3309-1 thru 4	M	Jack-Jack	3.05	24.00	21.00	19.00
40F6113	3310-1 thru 5	N	Plug-jack	2.85	23.00	20.00	18.00
40F6114	3320-1 thru 5	O	Jack	2.85	23.00	20.00	18.00
40F6115	3358-1††	P	Nylon Insul jack	3.65	30.00	26.00	24.00
40F6116	3359-1	P	Teflon Insul jack	3.65	30.00	26.00	24.00
40F6117	3381-1††	P	Nylon Insul jack	3.65	30.00	26.00	24.00
40F6118	3382-1	P	Teflon Insul jack	3.65	30.00	26.00	24.00
40F6119	3388-1	Q	Jack	2.55	20.00	18.00	16.00
40F6120	3392-1 thru 4	R	Jack-jack	3.15	26.00	23.00	21.00
40F6121	3393-1 thru 4	G	Pin	.45	2.33	2.03	1.81
40F6122	3394-1 thru 4	S	Jack	2.55	20.00	18.00	16.00
40F6123	3395-1 thru 5	O	Jack	2.85	23.00	20.00	18.00
40F6124	3422-1	T	Side mount	3.05	24.00	21.00	19.00
40F6125	3703-1	Q	jack	1.30	10.00	8.50	7.50

Stk. No.	Type	Fig.	Descrip.	Pkg. of 10	100-499	500-999	1000-2500
40F6126	3705-1 thru 3‡	Z	Jack	7.75	65.00	57.00	51.00
40F6127	3705-4 thru 5‡	Z	Molded patch crd	8.35	71.00	62.00	56.00
40F6128	3889-1	U	Modlded patch crd	.57	3.16	2.95	2.58
40F6129	4351-1#	V	Pin	4.35	36.00	32.00	29.00
40F6130	4352-1#	V	Teflon Insul jack	2.55	20.00	18.00	16.00
40F6131	4353-1#	V	Teflon Insul jack	2.55	20.00	18.00	16.00
40F6132	4354-1#	W	Teflon Insul jack	3.15	26.00	23.00	21.00
40F6133	4355-1#	W	Teflon Insul jack	1.85	15.00	13.00	11.50
40F6124	7004-1	X	Jack	2.55	20.00	18.00	16.00
40F6135	7005-1 thru 5	Y	Jack	2.85	23.00	20.00	18.00

HANDLES

A—Oval B—Round C—Folding

Brass, nickel except; * alum. w/black anodize; † alum. semi-frost; †† Brass, black oxide finish. ** Fig. B mounting center is adjustable from 4.5" to 6.58". # stainless steel.

Stk. No.	Type	Mfg. Cent.	Ht.	Fig.	1-9	10-99	100-499
40F2204	1075-01-02	4.562	1"	A	2.00	1.35	1.18
40F2311	1220-01-02	1.25	1"	A	1.92	1.28	1.12
40F2312	1220-02-02	2.0	1"	A	2.00	1.35	1.18
40F2313	1220-03-02	3.0	1"	A	2.10	1.41	1.23
40F2529	1250-01-02	2.0	1.312	A	1.76	1.14	1.00
40F2206	1250-02-02	3.0	1.312	A	1.83	1.22	1.07
40F2314	1264-01-02	3.0	1.312	A	1.83	1.22	1.07
40F2201	1270-01-14	4.0	1.875	A*	2.10	1.41	1.23
40F2181	1280-03-02	4.0	1.50	A	2.10	1.41	1.23
40F2187	1290-02-14	3.0	1.50	A*	1.36	.91	.79
40F2188	1290-02-18	3.0	1.5	A†	1.36	.91	.79
40F2315	1290-03-14	4.0	1.5	A*	1.56	1.05	.92
40F2527	1900-1-02	4.0	1.85	C	4.60	3.30	2.90
40F2202	1965-01-02	6.437	1.75	A	2.10	1.41	1.23
40F2220	2062-01-02	4.0	1.85	C	4.40	3.10	2.77
40F2222	2066-1-02	**	1.6	B	5.05	3.60	3.10
40F2208	2111-1-02	3.0	1.281	A	2.84	1.89	1.65
40F2211	2111-2-02	4.562	1.50	A	2.98	2.15	1.88
40F2316	2111-3-02	6.438	1.75	A	3.35	2.41	2.11
40F2217	2111-4-02	9.0	1.75	A	3.70	2.66	2.33
40F2210	2385-1-14	3.0	1.281	A*	2.14	1.43	1.25
40F2213	2385-2-14	4.562	1.50	A*	2.31	1.54	1.35
40F2216	2385-3-14	6.438	1.75	A*	2.55	1.70	1.49
40F5142	2720-1	4.000	1.459	C#	6.40	4.60	4.00

SPRING LOADED DIODE CLIPS

Stk. No.	Type	Dia.	1-99	100-499	500-999
40F2268	2146-1	..	.32	.28	.26
40F2270	2247-2	.094			
40F2271	2247-3	.125			
40F2272	2247-4	.156			
40F2274	2329-3	......	.38	.34	.32
40F2276	2330-1	.062			

Cable Clamps, Strap and Adapters


Fig. A


Fig. B


Fig. C


Fig. D


Fig. E


Fig. F


Fig. G


Fig. I


Fig. J

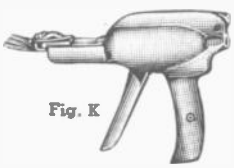


Fig. K

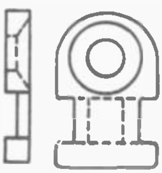


Fig. L


Fig. M


Fig N


Fig. O

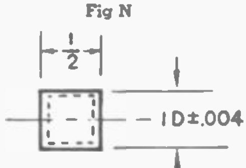


Fig. P


Fig. Q


Fig. R

TY-RAP CABLE TIES AND STRAP

Ideal for harnessing wire bundles up to 3¾" dia. Prevents concentration of pressures on one point. Does a complete job of tying, clamping and Type TY-542 has identification plate built in. Replaces all string and tape harnesses. Temp. Range. —65°F to +350°F Standard color: Natural white nylon. Available on special order· (Minimum order—100) black, brown, red, orange, yellow, green, blue, purple and gray. Av. wt. 4 lb. per 1000. (   )-1000 per bag.

Stock No.	Type	Fig.	Dia. Range	NET PER 100	NET PER 1000 1000-9999	10,000-24,999	25,000-UP
31F269	TY525M(TY25M)	A	1/16"x1¾"	5.25	46.00	35.00	31.50
31F271	TY503(TY3)	B	1/16"x ⅝"	3.00	23.00	17.00	16.50
31F272	TY505(TY5)	B	1/16"x1¾"	4.38	37.00	28.00	28.60
31F273	TY507(TY7)	B	3/16"x3¾"	15.00	120.00	100.00	95.00
31F275	TY535M(TY35M)	C	1/16"x1¾"	6.00	45.00	40.00	36.00
31F276	TY513(TY13)	C	1/16"x ⅝"	3.75	32.00	24.00	22.80
31F277	TY515(TY15)	C	1/16"x1¾"	5.00	41.00	31.00	29.45
31F2500	TY523M(TY23M)	A	1/16"x ⅝"	3.75	31.00	24.50	23.20
31F2523	TY504(TY4)	B	1/16"x1⅛"	3.50	30.00	25.00	23.70
31F2524	TY524M(TY24M)	A	1/16"x1⅛"	4.00	34.00	26.75	24.75
31F2525	TY506(TY6)	B	1/16"x3"	7.00	55.00	45.00	43.00
31F2501	TY527M(TY27M)	A	3/16"x3¾"	16.50	130.00	110.00	99.00
31F2502	TY528M(TY28M)	A	1/16"x4"	11.88	95.00	75.00	67.50
31F2526	TY533M(TY33M)	C	1/16"x ⅝"	4.50	37.50	29.50	28.30
31F2527	TY534M(TY34M)	C	1/16"x1⅛"	5.25	41.00	35.00	31.00
31F2528	TY535M(TY35M)	C	1/16"x1¾"	6.00	45.00	40.00	36.00
31F2503	TY537M(TY37M)	F	3/16"x3¾"	18.75	135.00	125.00	113.00
31F2529	TY538M(TY38M)	C	1/16"x¼"	6.00	45.00	40.00	36.00
31F2504	TY546M(TY46M)	C	⅜"x1¾"	12.00	70.00	53.10	53.10
31F2505	TY546MD(TY46MD)	E	⅜"x1¾"	26.25	210.00	175.00	166.00
31F2506	TY546MX(TY46MX)	E	⅜"x1¾"	6.00	45.00	40.00	36.00
31F2530	TY551M(TY51M)	G	3/16"x ⅝"				

TY-RAP INSTALLING TOOLS

Stock No.	Type	Fig.	For Use With TY-RAPS	NET
31F281	WT-183F	J	TY505, 515	24.00
31F282	WT-185F	J	TY503, 504, 513, 506	24.00
31F283	WT-186F	J	TY507, 527, 537	24.00
31F2531	WT-199	I	TY--23M, 24, 25, 38, 33, 35, 46, 34, 51	30.00
31F2532	WT-293	I	TY3, TY13	60.00
31F2533	WT-294	I	TY4, TY6, TY14	60.00
31F2534	WT-295	I	TY5, TY8, TY15, TY42	60.00

TY-RAP ROUTING CLAMPS

*Same as Fig. "O" except stud mount.

Stk. No.	Type	Fig.	Base Mount	Clamp Size	NET PER 100 100	500	1000
31F2535	TC88	O	snap-in	½"	10.00	8.47	7.70
31F2536	TC95	O	snap-in	1"	11.00	9.79	8.90
31F2537	TC158	O	snap-in	1½"	20.00	18.15	16.50
31F2538	TC164	O	snap-in	2"	30.00	27.17	24.70
31F2539	TC91	O	stud*	½"	10.00	8.47	7.70
31F2540	TC98	O	stud*	1"	11.00	9.79	8.90
31F2541	TC155	O	stud*	1½"	20.00	18.15	16.50
31F2542	TC161	O	stud*	2"	30.00	27.17	24.70

TY-RAP MOUNTING PLATE — CLAMP MOUNT

Stock No.	Type	Fig.	Description	NET PER 100 100	500	1000
31F280	TC501(TC101)	M	Fits all ties except Types TY507 and TY517	3.75	3.33	2.50
31F389	TC503 (TC103)	M	For TY507 and TY517	15.00	13.30	10.00
31F2508	TC502 (TC102)	L	Same as TC-501	3.25	2.66	2.00
31F2509	TC504 (TC104)	L	For TY-503 & TY-523M	2.50	2.00	1.60

Adapter for coaxial cable and Belden Silver plated brass.

Adapter Stk. No.	Type	I. D.	Cable Type	Mates with Outersleeve	Net Per 100 100-499	500-999	1000-Up
31F2520	GSA2590	.263	WE #724	GSC3275	48.30	41.30	36.30
31F2579	GSA2592	.179	RG 58/U	GSC2195	54.30	47.30	41.30
31F2580	GSA2593	.215	Belden 8279	GSC2615	48.30	41.30	36.30

Outer Sleeve Stk. No.	Type	O. D.	Cable Type	Mates with Adapter	Net per 100 100-499	500-999	1000-Up
31F2522	GSA3725	.327	WE #724	GSA2590	15.00	13.20	11.70
31F2581	GSA2195	.179	RG 58/U	GSA 2592	7.60	6.60	5.80
31F2582	GSA2615	.261	Belden 8279	GSA 2593	7.60	6.60	5.80

FIG Q — CRIMPING HAND TOOLS FOR ABOVE

Stk. No.	Type	Description	Shpg. Wt.	NET EA.
31F2521	WT-236	For GSA2590	1 lb. 13 oz.	60.00
31F2583	WT-408	For GSA2592	1 lb. 13 oz.	55.00
31F2584	WT-411	For GSA2593	1 lb. 13 oz.	55.00

AMP

Fig. 9. Terminal Crimping Tool. Also cuts and strips wire, shears bolts. Has B & S wire gauge. May be used with terminals listed above. Length, 7⅜"; wt., 1 lb.

30F999. Type 49835. NET. **4.95**

Connectors, Adapters And Terminal Blocks

T&B ENGINEERED

ONE PIECE CONNECTOR FOR SHIELDED AND COAXIAL CABLE

"Two piece" reliability in ONE connector. "Wobble-action" hard inner sleeve moves when shielded cable is inserted; soft outer sleeve is compression material. Nylon insulated. Use WT440 tool below.

Stk. No.	Type	Color	Coaxial Cable (RG)	NET PER 100: 100	NET PER 100: 1000	Stk. No.	Use Die No.	Net Price
31F2558	GSW- 90	Red	178A/U 178B/U 196/U	16.40	11.40	31F2568	4451	36.00
31F2559	GSW-100	Yellow	161/U	16.60	11.60	31F2569	4452	
31F2560	GSW-110	Blue	174/U 179A/U 179B/U 187/U 188/U	17.00	12.00	31F2570	4453	
31F2561	GSW-120	Green	122/U	17.40	12.40	31F2571	4454	
31F2562	GSW-130	Black	58/U 58A/U 58B/U 58C/U 141/U 141A/U 180/U 180A/U 195/U	17.70	12.70	31F2572	4455	
31F2563	GSW-150	Green	55/U 55A/U 55B/U 142/U 142A/U 223/U	18.10	13.10	31F2573	4456	
31F2564	GSW-160	Red	59/U 59A/U 59B/U 62/U 62A/U 62B/U 124/U 140/U 210/U	18.60	13.60	31F2574	4457	
31F2565	GSW-180	Blue	71/U 71A/U 71B/U 108/U	20.60	15.60	31F2575	4458	
31F2566	GSW-200	Yellow	54A/U 126/U 134/U 143A/U	23.20	18.20	31F2576	4459	

TWO PIECE CONNECTOR FOR SHIELDED AND COAXIAL CABLE

Permanent compression method for reliable grounding, termination and insulation of shielded and coaxial cable. Lowers production costs. Noise free; neat, simple, solderless, and dielectric preserved. See installation tool WT-440. Meets mil. std. appl. For add'l sizes to 3" O.D. available special order.

INNER SLEEVES

Stk. No.	Type	I.D.	O.D.	Color Code	MS Number	NET PER 100: 100	1000	5000
31F2543	GSB-134	.134	.156	Orange	MS21981-134	4.92	3.48	2.64
31F2544	GSB-156	.156	.193	Red	MS21981-156	4.92	3.48	2.64

OUTER SLEEVES

Stk. No.	Type	I.D.	O.D.	Color Code	MS Number	Crimp Die No.	NET PER 100: 100	1000	5000
31F2545	GSC-225	.225	.256	Purple	MS21980-225	WT-4409	4.92	3.48	2.64
31F2546	GSC-261	.261	.267	Yellow	MS21980-261	WT-4411	4.92	3.48	2.64

31F2577 WT4409 (DIE FOR GSC-225) NET 36.00
31F2578 WT4411 (DIE FOR GSC-261) NET 36.00

INSTALLATION TOOL FOR ONE & TWO PIECE CONNECTORS

Model WT-440. Lightweight aluminum hand tool with comfortable cushion-grip handles

31F2567. NET **52.00**

● *NEW* SECTIONAL TERMINAL BLOCKS AND MARKERS

Completely insulated blocks snap in and out on channel eliminates need for end sections and mounting clamps.

Stk. No.	Type	Description	NET PER 100: NET	NET 100	NET 1000
31F2547	MTB-1	Individual blocks	.30	20.00	156.00
31F2548	MTB-1M	10-20 sect. mark. strips	4.00	.....	....

VINYL SELF-INSULATED DISCONNECTS

Stock No.	Type	Fig.	Tab Size	Wire Range	Max. Ins.	Wgt. Per 100	NET PER 100: 100-999	1000-4999	5000-Up
31F2510	18RA-250F (RA257)	A	.250x.032	22-18	.150	3	9.34	6.22	4.67
31F2511	14RB-250F (RB257)	A	.250x.032	16-14	.170	3	9.34	6.22	4.67
31F2512	10RC-250F (RC257)	A	.250x.032	12-10	.210	4	14.26	9.50	7.13

*NON-INSULATED DISCONNECTS

Stock No.	Type	Fig.	Tab Size	Wire Range	Max. Ins.	Wgt. Per 100	100-999	1000-4999	5000-Up
31F2513	A18-250 (A-250)	A	.250x.032	22-18	.150	.3	6.53	4.35	3.26
31F2514	B14-250 (B-250)	A	.250x.032	16-14	.170	.3	6.53	4.35	3.26
35F2515	C10-250F (C-250)	A	.250x.032	12-10	.210	.4	12.84	8.56	6.42
31F2516	A18-110F (A-10)	A	.110x.032	22-18	.086	.3	9.19	6.13	4.60
31F2517	B14-110F (B-10)	A	.110x.032	16-14	.117	.3	9.19	6.13	4.60
31F2600	B14-250A (B252G)	C	.250x.032	20-14	.187	.4	6.58	4.38	3.29
31F2601	B14-250F (B250G)	A	.250x.032	20-14	.170	.4	5.18	3.46	2.59
31F2602	B14-250T (B251G)	B	.250x.032	20-14	.170	.3	5.18	3.46	2.59
31F2603	B14-D (B-23)	D		20-14	.187	.4	8.71	5.81	4.36

Note: Flat Tabs 1/4" Straight Female. *Use with above term blocks.

INSULATED COUPLER & DISCONNECT ADAPTER

Stock No.	Type	Fig.	Tab Size	Wgt. Per 1000	Net Per 100: 100-999	1000-4999	5000-Up
31F2518	RB14-250 (RBB250)	F	.250x.032	7	7.30	4.86	3.65
31F2519	F250-TA (FTA250)	E	.250x.032	3	7.22	4.82	3.61

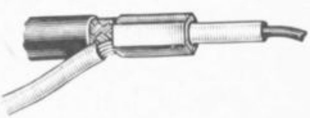
STA-KON INSTALLING TOOLS

Stock No.	Type	Fig.	For Use With STA-KON Type	NET
31F177	WT100M	G	A, B, C, AB, RA, AB, RC	6.00
31F265	WT111M	......	A, B C	5.00
31F179	WT-161	I	A, B, C, RA, RB, RC	7.70
31F266	WT145A	I	RA, RB, RC	55.00
31F267	WT130	I	A, B, C	35.00

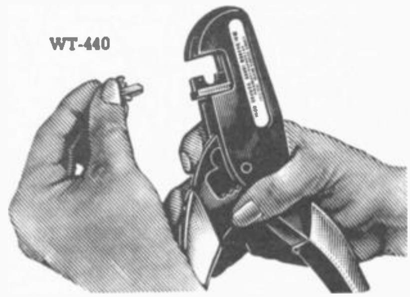
INSULATED STA-KON KITS

Stock No.	Type	Kit Contents	NET
31F264	PK4	WT152 tool plus 450 asst'd insul. terms	40.50
31F263	#20	WT-111M tool plus 100 Ea. A18-10, B14-10; 30 Ea. C10-10	12.30

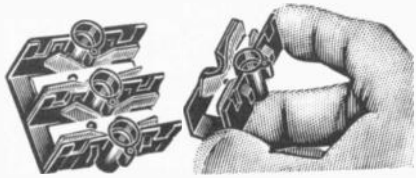
GSW Installed



GSB/GSC Installed



Featuring Interchangeable Dies



Sectional Terminal Blocks

Fig. A

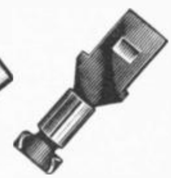


Fig. B

Fig. C

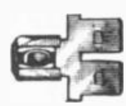


Fig. E

Fig. F

Fig. G

Fig. I

Fig. J

Thomas & Betts Terminals

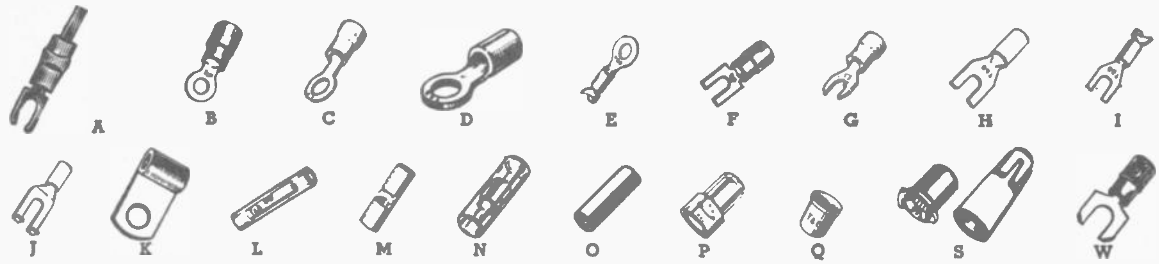


FIG. A LOCK-ON FORK TERMINALS WITH RELIABILITY OF A RING TONGUE TERMINAL

Combine a design configuration and a new vinyl insul. alloy; combines best advantages of all types of terminals.

Stk. No.	Type	Screw Size	Wire Size	Std. Pkg.	Net per 100: 100-900	1000-4999	5000-Up
31F2550	18RA-6FL (RA2217)	6	#22-18	1000	7.46	4.98	3.73
31F2551	...... (RA2227)	6	#22-18	1000			
31F2552	18RA-8FL (RA2247)	8	#22-18	1000			
31F2553	18RA-10FL (RA2257	10	#22-18	1000			
31F2554	14RB-6FL (RB2207)	6	#16-14	1000			
31F2555	14RB-8FL (RB2217)	6	#16-14	1000			
31F2556	(RB2237)	8	#16-14	1000			
31F2557	14RB-10FL (RB2257)	10	#16-14	1000			

FIG. F—NYLON INSULATED FORK TONGUE TERMINALS

Stk. No.	Type	Screw Size	Wire Size	Std. Pkg.	100-900	1000-4999	5000-Up
31F236	RA18-6F (RA1103)	6	22-16	2000	9.50	6.34	4.75
31F237	RA18-8F (RA1123)	8	22-16	500			
31F238	RA18-10F (RA1153)	10	22-16	500			
31F125	RA18-14F (RA713)	1/4	22-16	500	10.68	7.12	5.34
31F231	RB14-6F (RB1113)	6	16-14	2000	9.50	6.34	4.75
31F232	RB14-8F (RB1123)	8	16-14	500			
31F233	RB14-10F (RB1153)	10	16-14	2000			
31F126	RB14-14F (RB713)	1/4	16-14	500	10.68	7.12	5.34
31F127	RC10-6F (RC333)	6	12-10	500	11.30	7.54	5.65
31F234	RC10-10F (RC1153)	10	12-10	2000	11.86	7.90	5.93
31F235	RC10-14F (RC1163)	1/4	12-10	500	14.47	9.65	7.24

FIG. G—VINYL FORK TONGUE TERMINALS

Stk. No.	Type	Screw Size	Wire Size	Std. Pkg.	100-900	1000-4999	5000-Up
31F129	18RA-6F* (RA1167)	6	22-18	500	6.48	4.32	3.24
31F130	18RA-8F* (RA1147)	8	22-18	500			
31F131	18RA-10F* (RA1157)	10	22-18	500			
31F132	14RB-6F* (RB647)	6	16-14	500			
31F133	14RB-8F* (RB657)	8	16-14	500			
31F134	14RB-10F* (RB297)	10	16-14	1000			
31F136	19RC-10F* (RC1157)	10	12-10	1000	7.70	5.14	3.85

(*) Avail. with exp. insul.

FIG. H—NON-INSULATED FORK TONGUE TERMINALS

Stk. No.	Type	Screw Size	Wire Size	Std. Pkg.	100-900	1000-4999	5000-Up
31F214	A18-6F (A116)	6	22-18	1000	4.70	3.14	2.35
31F138	A18-8F (A114)	8	22-18	1000			
31F215	A18-10F (A29)	10	22-18	1000			
31F139	A18-14F (A71F)	1/4	22-18	500	5.60	4.38	3.50
31F216	B14-6F (B64)	6	20-16	2000	4.70	3.14	2.35
31F140	B14-8F (B65)	8	20-16	2000			
31F217	B14-10F (B115)	10	20-16	5000			
31F141	B14-14F (B71F)	1/4	20-16	500	5.60	4.38	3.50
31F142	C10-6F (C33F)	6	16-10	500	5.92	4.63	3.70
31F143	C10-8F (C114)	8	16-10	500	5.93	3.95	2.96
31F218	C10-10F (C115)	10	16-10	5000			
31F144	C10-14F (C116)	1/4	16-10	500	9.34	6.22	4.67
31F158	B14-6FS† (B19)	6	20-14	500	4.70	3.14	2.35

†Fig. J

SPLICES

Stock No.	Type	Fig.	Wire Range	Std. Pkg.	Net per 100: 100-900	1000-4999	5000-Up
31F250	2RA18* (RAA217)	L	22-18	500	8.23	5.49	4.12
31F251	2RB14* (RBB217)	L	16-14	1000	8.23	5.49	4.12
31F252	2RC10* (RCC217)	L	12-10	500	11.50	7.66	5.75
31F247	2A18 (AA2)	M	22-18	2000	5.18	3.46	2.59
31F248	2B14 (BB2)	M	20 14	2000	5.18	3 46	2.59
31F249	2C10 (CC2)	M	16-10	2000	7.22	4.82	3.61
31F260	2A20 (RA24)	N	22-20	500	5.26	3.50	2.63
31F261	2B16 (RB25)	N	18-16	500	6.82	4.54	3.41
31F163	2A22-20 ("A" BAR.)	O	22-20	500	3.74	2.50	1.87
31F164	2B18-16 ("B" BAR.)	O	18-16	500	3.74	2.50	1.87
31F165	2C14-12 ("C" BAR.)	O	14-12	500	4.75	3.17	2.38
31F239	RB44 (RB4)	P	2#20-2#16	2000	4.18	2.78	2.09
31F240	RC55 (RC6)	P	3#16-3#14	2000	7.10	4.74	3.55
31F171	PT66M (—)	S	3#12	1000	5.12	4.00	3.20
31F172	PT70 (—)	Q	3#12	2000	2.24	1.75	1.40
31F173	PT70M (—)	Q	4#12	2000	2.24	1.75	1.40
31F174	PT80 (—)	Q	4#10	500	5.12	4.00	3.20

FIG. B—NYLON INSULATED RING TONGUE TERMINALS

Stock No.	Type	Wire Size	Stud Size	Std. Pkg.	Net per 100: 100-900	1000-9999	5000-Up
31F100	RZ22-2 (RZ23)	26-22	2	500	9.77	6.34	4.75
31F101	RZ22-2 (RZ43)	26-22	4	500			
31F104	RZ22-10 (RZ103)	26-22	10	500			
31F105	RA18-4 (RA323)	22-16	4	500	9.50	4.88	6.51
31F219	RA18-6 (RA853)	22-16	6	500			
31F220	RA18-8 (RA863)	22-16	8	500			
31F221	RA18-10 (RA873)	22-16	10	2000			
31F222	RA18-14 (RA713)	22-16	1/4	500	10.68	7.12	5.34
31F223	RB14-6* (RB853)	16-14	6	500	9.50	6.34	4.75
31F224	RB14-8* (RB863)	16-14	8	2000			
31F225	RB14-10* (RB873)	16-14	10	2000			
31F226	RB14-14* (RB713)	16-14	1/4	500	10.68	7.12	5.34
31F228	RC10-8* (RC863)	12-10	8	500	11.30	7.54	5.65
31F229	RC10-10* (RC363)	12-10	10	2000	11.30	7.54	5.65
31F230	RC10-14* (RC713)	12-10	1/4	500	12.38	8.26	6.19

FIG. C—VINYL INSULATED RING TONGUE TERMINALS

Stock No.	Type	Wire Size	Stud Size	Std. Pkg.	100-900	1000-9999	5000-Up
31F107	18RA-4* (RA77)	22-18	4	500	6.48	4.32	3.24
31F108	18RA-6* (RA857)	22-18	6	500			
31F109	18RA-8* (RA867)	22-18	8	500			
31F113	14RB-6* (RB857)	16-14	6	500			
31F114	14RB-8* (RB867)	16-14	8	500			
31F115	14RB-10* (RB877)	16-14	10	1000			
31F116	14RB-14* (RB717)	16-14	1/4	500	7.58	5.06	3.79
31F117	10RC-6* (RC337)	12-10	6	500	7.70	5.14	3.85
31F118	10RC-10* (RC367)	12-10	10	1000	7.70	5.14	3.85
31F120	10RC-14* (RC717)	12-10	1/4	500	8.95	5.97	4.48

FIG. D—NON-INSULATED RING TONGUE TERMINALS

Stock No.	Type	Wire Size	Stud Size	Std. Pkg.	100-900	1000-9999	5000-Up
31F121	A18-4 (A-7)	22-18	4	500	4.27	2.85	2.14
31F200	A18-6 (A-85)	22-18	6	1000			
31F201	A18-8 (A-86)	22-18	8	1000			
31F202	A18-10 (A-87)	22-18	10	5000			
31F122	B14-4 (B132)	20-14	4	500			
31F204	B14-6 (B133)	20-14	6	2000			
31F205	B14-8 (B86)	20-14	8	2000			
31F206	B14-10 (B87)	20-14	10	5000			
31F207	B14-14 (B71)	20-14	1/4	500	5.66	3.78	2.83
31F208	C10-6 (C33)	16-10	6	500	6.24	4.16	3.12
31F209	C10-8 (C77)	16-10	8	1000			
31F210	C10-10 (C26)	16-10	10	5000			
31F211	C10-14 (C71)	16-10	1/4	1000	6.82	4.54	3.41

FIG. E—NON-INSULATED RING TONGUE TERMINALS

Stock No.	Type	Wire Size	Stud Size	Std. Pkg.	Net per 100: 100-900	1000-9999	5000-Up
31F212	B14-6G (B85G)	20-14	6	500	6.53	4.35	3.26
31F123	B14-8G (B86G)	20-14	8	500			
31F213	B14-10G (B87G)	20-14	10	500			

FIG. 1—NON-INSULATED FORK TONGUE TERMINALS

Stock No.	Type	Wire Size	Stud Size	Std. Pkg.	100-900	1000-9999	5000-Up
31F145	B14-6FG (B64G)	20-14	6	500	6.53	4.35	3.26
31F146	B14-8FG (B65G)	20-14	8	500			
31F148	B14-14FG (B51FG)	20-14	1/4	500			

FIG. J—NYLON INSUL. FORK FLANGED TONGUE TERMINALS

Stock No.	Type	Wire Size	Stud Size	Std. Pkg.	100-900	1000-9999	5000-Up
31F153	RB14-8FS (RA1223)	16-14	8	500	9.50	6.34	4.75

FIG. W—NYLON INSUL. FORK FLANGED TONGUE TERMINALS

Stock No.	Type	Wire Size	Stud Size	Std. Pkg.	100-900	1000-9999	5000-Up
31F150	RA18-8FS (RB1223)	22-16	8	500	9.50	6.34	4.75

FIG. K—NON-INSULATED FLAG TONGUE TERMINALS

Stock No.	Type	Wire Size	Stud Size	Std. Pkg.	100-900	1000-9999	5000-Up
31F241	AB14-6A (AB51)	20-14	6	500	6.65	4.43	3.32
31F243	AB14-10A (AB53)	20-14	10	500			
31F245	C10-8A (C52)	16-10	8	500			
31F258	B14250A (B252G)	20-14		500	5.18	3.46	2.59

(*) Self insulated terminals, available with expanded insulation. Write for complete ordering information.

Installation Tools for Terminals and Splices on Facing Page

Write For Thomas & Betts Condensed Catalog No. 1000.4

31F268 .... FREE

tyton

CABLE BINDING SYSTEMS

CABLE BINDING SYSTEM

Designed for fast, economical fabrication of wire and harness. Each size has one tool, one tape and one closure to handle all wire bundling from 1/32" up. Loop tape around bundle; tighten to desired tension; squeeze trigger. Makes strong, vibration-proof ties every time. No waste, tape is fed off a storage roll as needed.

Type 4-2001. Cable-binding tool 8mm, w/shoulder strap and loading fork. Shpg. wt. 2¾ lbs.
58F986. NET 79.95

Type 4-2601. Cable binding tool 6mm, w/shoulder strap. Shpg. wt. 2¾ lbs.
58F1115. NET 79.95

Type 4-2301. Cable binding tool 3mm, w/shoulder strap and loading fork. Shpg. wt. 1¾ lbs.
58F1116. NET 49.95

CABLE BINDING TAPE

Tape is .351" wide x .016" thick and made of self-extinguishing nylon material. Withstands temperatures up to 100°C continuously (110° short term). Resistant to corrosive conditions, i.e., saltwater. All natural color. Sold in std. pkg. only.

Stk. No.	Type	Width	Ft./Roll	Std. Pkg.	1-9	10-24	25-Up
58F987	4-2199-Tape	8mm	25 feet	10rls/ctn	11.95	10.95	9.95
58F1117	4-2699-Tape	6mm	25 feet	10rls/ctn	11.00	10.00	9.00
58F1118	4-2399-Tape	3mm	50 feet	5rls/ctn	10.00	9.00	8.00

STANDARD CLOSURES

Closures are made of self-extinguishing nylon material. Withstands temperatures up to 100°C continuously (110°C short term). Resistant to corrosive conditions, including sea water. Each rack containes 100 closures.

Stk. No.	Type	Width		Std. Pkg.	1-9	10-24	25-Up
58F988	4-2109	8mm		10rack/ctn	11.95	10.95	9.95
58F1119	4-2609	6mm		10rack/ctn	10.95	9.95	8.95
58F1120	4-2309	3mm		10rack/ctn	9.95	8.95	7.95

NYLON CABLE BINDING ACCESSORIES
MOUNTING CLOSURES

#8 Size Screw Hole — Plain Rivet — Headed Rivet

Combines advantages of std. closures with mounting tab to facilitate fastening of wire and cable harnesses onto panels and walls etc. Also can be used in place of special clamps to mount small parts or components.

Stk. No.	Type	Description	Pkg. Qty.	1-9	10-24	25-up
58F989	4-2119	#8 Size Screw Hole	100	3.95	3.65	3.35
58F993	4-2129	Plain Rivet	100	4.35	4.05	3.70
58F994	4-2139	Headed Rivet	100	4.35	4.05	3.70

MOUNTING SADDLES

#8 Size Screw Hole — Plain Rivet — Headed Rivet

Designed as a fastening device which can be premounted when equipment is most accessible. Wire or cable bundles to be mounted are bound to it by passing tape around both saddle and bundle, and then securing with std. closure.

Stk. No.	Type	Description	Pkg. Qty.	1-9	10-24	25-up
58F995	4-2149	#8 Size Screw Hole	100	2.45	2.30	2.10
58F996	4-2159	Plain Rivet	100	2.85	2.65	2.45
58F997	4-2169	Headed Rivet	100	2.85	2.65	2.45

PLASTIC CABLE CLAMPS

POLYPROPYLENE

Low-cost clamp with good all around characteristics for general purpose applications.

W x Dia Inches	Stk. No.	Type	Pkg. of 100	Stk. No.	Type	Pkg. of 1000 1-3	4-9	10-49
3/8x1/8	58F1000	4-1101	1.40	58F1050	4-1301	9.80	7.90	7.40
3/8x5/32	58F1001	4-1102	1.40	58F1051	4-1302	10.05	8.05	7.55
3/8x3/16	58F1002	4-1103	1.41	58F1052	4-1303	10.20	8.20	7.70
3/8x1/4	58F1003	4-1104	1.50	58F1053	4-1304	10.80	8.70	8.15
3/8x5/16	58F1004	4-1105	1.61	58F1054	4-1305	11.80	9.45	8.90
3/8x3/8	58F1005	4-1106	1.71	58F1055	4-1306	12.25	9.85	9.25
3/8x7/16	58F1006	4-1107	1.90	58F1056	4-1307	13.30	10.70	10.00
3/8x1/2	58F1007	4-1108	1.91	58F1057	4-1308	13.90	11.20	10.50
1/2x1/8	58F1008	4-1109	1.70	58F1058	4-1309	10.55	8.45	7.95
1/2x3/16	58F1009	4-1110	1.71	58F1059	4-1310	10.95	8.75	8.20
1/2x1/4	58F1010	4-1111	1.61	58F1060	4-1311	11.70	9.40	8.75
1/2x5/16	58F1011	4-1112	1.81	58F1061	4-1312	12.95	10.40	9.70
1/2x3/8	58F1012	4-1113	1.90	58F1062	4-1313	13.60	10.05	10.20
1/2x7/16	58F1013	4-1114	2.10	58F1063	4-1314	14.75	11.85	11.15
1/2x1/2	58F1014	4-1115	2.21	58F1064	4-1315	15.80	12.65	11.85
1/2x9/16	58F1015	4-1116	2.71	58F1065	4-1316	19.45	15.60	14.65
1/2x5/8	58F1016	4-1117	2.81	58F1066	4-1317	20.20	16.70	15.15
1/2x11/16	58F1017	4-1118	3.11	58F1067	4-1318	22.35	17.95	16.75
1/2x3/4	58F1018	4-1119	3.30	58F1068	4-1319	23.40	18.80	17.65

W x Dia. Inches	Stk. No.	Type	Pkg. of 50	Stk. No.	Type	Pkg. of 500 1-7	8-19	20-99
1/2x13/16	58F1121	4-1120	1.75	581126	4-1320	12.43	9.98	9.35
1/2x7/8	58F1122	4-1121	1.85	581127	4-1321	13.18	10.55	9.40
1/2x1	58F1123	4-1122	2.00	581128	4-1322	14.28	11.45	10.73
1/2x1 1/8	58F1124	4-1123	2.15	581128	4-1323	15.18	12.15	11.38
1/2x1 1/4	58F1125	4-1124	2.25	581130	4-1324	16.00	12.83	12.05

NYLON

Excellent resistance to heat, weathering, and corrosive conditions. Extremly high tensile strengthh.

W x Dia. Inches	Stock No.	Type	Pkg. of 100	Stk. No.	Type	Pkg. of 1000 1-3	4-9	10-up
3/8x1/8	58F1025	4-1126	2.20	58F1075	4-1326	15.45	12.40	11.65
3/8x5/32	58F1026	4-1127	2.21	58F1076	4-1327	15.95	12.80	12.00
3/8x3/16	58F1027	4-1128	2.31	58F1077	4-1328	16.45	13.20	12.40
3/8x1/4	58F1028	4-1129	2.51	58F1078	4-1329	17.95	14.40	13.50
3/8x5/16	58F1029	4-1130	2.80	58F1079	4-1330	19.65	15.80	14.80
3/8x3/8	58F1030	4-1131	2.01	58F1080	4-1331	20.85	16.80	15.75
3/8x7/16	58F1031	4-1132	3.10	58F1081	4-1332	21.95	17.60	16.50
3/8x1/2	58F1032	4-1133	3.10	58F1082	4-1333	23.40	18.80	17.65
1/2x1/8	58F1033	4-1134	3.21	58F1083	4-1334	22.90	18.40	17.25
1/2x3/16	58F1034	4-1135	3.60	58F1084	4-1335	25.45	20.40	19.15
1/2x1/4	58F1035	4-1136	3.91	58F1085	4-1336	27.70	22.20	20.80
1/2x5/16	58F1036	4-1137	4.20	58F1086	4-1337	29.65	23.80	22.30
1/2x3/8	58F1037	4-1138	4.70	58F1087	4-1338	32.90	26.40	24.75
1/2x7/16	58F1038	4-1139	4.90	58F1088	4-1339	33.40	26.80	25.15
1/2x1/2	58F1039	4-1140	4.91	58F1089	4-1340	34.90	28.00	26.25
1/2x9/16	58F1040	4-1141	5.00	58F1090	4-1341	35.10	28.15	26.40
1/2x5/8	58F1041	4-1142	5.21	58F1091	4-1342	36.90	29.60	27.75
1/2x11/16	58F1042	4-1143	5.70	58F1092	4-1343	39.90	32.00	30.00
1/2x3/4	58F1043	4-1144	6.20	58F1093	4-1344	43.60	35.00	32.80

W x Dia. Inches	Stk. No.	Type	Pkg. of 50	Stk. No.	Type	Pkg. of 500 1-7	8-19	20-99
1/2x13/16	58F1131	4-1145	3.21	58F1136	4-1345	22.67	18.20	17.07
1/2x7/8	58F1132	4-1146	3.36	58F1137	4-1346	23.67	19.00	17.83
1/2x1	58F1133	4-1147	3.86	58F1138	4-1347	27.28	21.90	20.53
1/2x1 1/8	58F1134	4-1148	4.25	58F1139	4-1348	29.90	24.00	22.50
1/2x1 1/4	58F1135	4-1149	4.60	58F1140	4-1349	32.40	26.00	24.38

TYTON INSULOOP CABLE TIES

Provides a fast, easy means of binding wires or cables together in the fabrication of harnesses. Their self-locking, saw-tooth design permits high speed application without need for special tools. Molded of tough, flexible nylon for maximum holding power and resistance to heat, fungus and corrosive conditions.

Material: Du Pont, Zytel #103, self-lubricating grade #FE2457. Temp. Range: —50 to 100°C (110°C short term). Color: Natural. Black avail. in spcl. order.

Package of 100 Stock No.	Type	NET	Bulk Package of 1000 Stock No.	Type	1-24	25-49	50-Up	Bundle Diameter Min.	Max.	Tensile Strength	Length	Width	Thickness
58F1200	4-1409	2.40	58F1204	4-1509	15.00	14.00	13.00	1/8	3/4	20 lbs.	3 5/8	3/32	1/32
58F1201	4-1419	3.10	58F1205	4-1519	22.00	21.00	20.00	3/16	1 1/16	50 lbs.	4 11/16	3/16	3/64
58F1202	4-1429	3.85	58F1206	4-1529	27.00	25.50	24.00	3/16	2 3/4	50 lbs.	10 1/16	15/64	1/16
58F1203	4-1439	8.65	58F1207	4-1439	62.00	60.00	57.00	3/4	2 1/4	120 lbs.	8 7/8	3/8	1/16

Ungar® Standard Soldering Equipment

7800 HOT-VAC PRINTED CIRCUIT DESOLDERING AND CLEANING TOOL

Safe, 3-fingered desoldering. Special coating prevents soldering from sticking to tip. May be used on heat shrinkable tubing.

Stock No.	Type	1-5	6-11	12-up
32F974	7800	11.49	9.15	8.60

HOT-VAC REPLACEMENT TIPS

Stock No.	Type	HOLE DIA.	1-9	10-49	50-Up
33F036	7806	.057"	.75	.62	.56
33F034	7812	.033"			
33F035	7813	.069"			

Type 7805. "Solder off" desoldering bulb with teflon tip for printed circuit boards.

Stock No.	Type	1-9	10-49	50-Up
32F975	7805	1.19	1.09	1.04

TYPE 777 CLEAN ROOM SOLDERING HANDLE

Clean room Grip. Comfortable, lightweight, fatigue-free design of popular 776 handle. Heat-resistant plastic handle comes in blue. The complete line of soldering tips, heating units, thread-in and thread-on soldering tips widely used with UNGAR's 776 red handle, also fit this blue pastel handle.

Stock No.	Type	1-9	10-49	50-Up
33F030	777	1.76	1.47	1.36

776 UNGAR SOLDER PENCIL

Type 776 Handle. Spring socket holds tip firmly. Thermal and electrical insulation. Stainless steel heat deflector. Thermo-stabilized phenolic. Polyvinyl insulated cord. Can be used with the Thread-on heating units and the inexpensive Elk-alloy tiplets, or with standard tips alone. Length 7". U.L. approved. Shipping weight, 5 ounces.

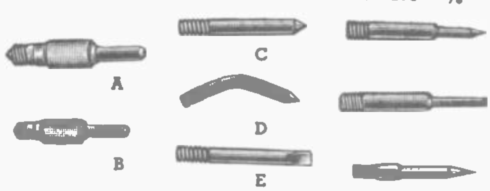
Stk. No.	Type	Watts	1-9	10-49	50-Up
36F071	776	47½	1.55	1.29	1.17

TYPE 7625 COIL-A-CORD

Eliminates tangled and twisted cords . . . keeps cord automatically coiled out of the way of the operator. For either standard or Imperial line of soldering irons. 600°F-650°F. Shpg. wt. 6 oz.

Stock No.	Type	1-9	10-49	50-Up
33F074	7625	1.14	.95	.89

THREAD-IN HEATING UNITS AND TRIPLETS—⅛" TAP



Type 535 thread-in is 23¼ W, 600°F-650°F. **Type** 1235 is 37½ W., 700°F-750°F. All tiplets are iron clad, cadmium copper, silver plated, except (*) unplated; and are interchangeable.

Stk. No.	Type	Fig.	Description	1-9 Each	10-49 Each	Each 50-Up
33F081	535	A	Thread-in	1.44	1.18	1.08
33F085	1235	B	Thread-in	1.80	1.50	1.35
33F082	331*	C	Pencil	.23	.18	.16
33F083	332*	D	Offset Pencil			
33F084	333*	E	Chisel			
33F093	PL331		Pencil	.57	.47	.43
33F094	PL332		Offset Pencil			
33F095	PL333	. .	Chisel			
33F685	PL340		Micro Needle			
33F686	PL338	......	Needle			
33F689	7154	F	Pencil			
33F690	7155	G	Chisel			
33F037	7012	H	Copper Point			
33F038	7062	H	Iron Clad Point	1.11	.90	.83

DE-SOLDERING KIT REPAIRS PRINTED CIRCUITS

Type 270. De-Soldering Kit. 3 circular desoldering tiplets of 1", ¾", ⅝" dia. and 9-, 7-, and 5-pin tube sockets. Slotted 1x⅜" tiplet: Slot opening, 0.040". Super Hi-Heat Unit, 47½ W, delivers 600 to 850 F. Handle has extra-flexible vinyl-insulated cord. Shipping weight, 1 lb.

Stk. No.	Type	1-5	6-11	12-Up
33F097	270	7.63	7.04	1.65

DESOLDERING TIPS

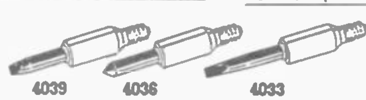
Use with 4045 heating unit only. Fast and neat.

Stk. No.	Type	Style	1-9	10-49	50-Up
33F632	862	Offset slotted	.81	.68	.61
33F098	857	Slotted			
33F633	863	Cube			
33F634	856	Cup ⅝"			
33F635	855	Cup ¾"			
33F636	854	Cup 1"			
33F637	861	Triangle			
33F638	858	Bar			

● NEW TYPE 859 I.C. DESOLDER TIP

Removes 14 and 16 pin dual inline IC's in seconds. Chrome plated for longer life. Pre-tinned tip reduces oxidation. Designed for use with Ungar 47½ watt heat unit type 4045 (not included).

Stk. No.	Type	1-9	10-49	50-Up
33F050	859	6.54	1.35	1.25



SUPER HI-HEAT TIPS & HEATING UNITS

Tips are tellurium copper, Iron clad, silver plated. 47½ w.

Stk. No.	Type	Heat	Desc.	1-9	10-49	50-Up
33F086	4033	900°F	Long chisel	2.97	2.45	2.26
33F087	4036	1000°F	Pyramid			
33F088	4039	1000°F	Chisel			
33F089	4035	800-850°F	Thread-in heating unit for use with 300 Ser. Tiplets ⅛" Tap, 6-32 Thr.			
33F029	4045	800-850°F	Heating Unit 3/16" tap-800 ser.			

4025 HOT KNIFE

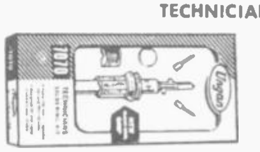
Cuts through epoxy and film coatings on P.C. boards; Cuts and seals synthetic fabrics, vinyl films styrofoams, nylon, dacron, and other plastic materials. Also trims flash from rubber and plastic molded products. Heat from the knife seals the fibers to prevent unraveling. Extreme pressure is not needed when using this tool; It is designed to cut with heat, not pressure. Includes 47½ w heating unit with collet closure. Has a replaceable blade. Can be used with X-Acto blade Nos. 10, 11, 12, 14, 16 and 17. Blade temperature is 500° F.

Stock No.	Type	1-9	10-49	50-Up
32F881	4025	3.39	3.11	2.80

STANDARD LINE IRON HOLDER

Type 8000. Cradles iron safely and securely in one place. Shpg. wt. 1 lb.
33F687. 1-9, Ea. 1.96
10-49, Ea. 1.58 **50-Up** 1.45

TECHNICIANS SOLDERING KIT



Model 7070. Incorporates Model 1237 heating unit with No. 777 handle. Unit supplies 37½ watts for medium to heavy-duty soldering. Handle features special cooling grip for ease and comfort while unit is in operation. Three interchangeable tips that feature screw-on threads for quick change. Also, one roll 60/40 rosin core solder for electronic assembly and service. 2½ lbs.

Stk. No.	Type	1-5	6-11	12-Up
32F972	7070	4.59	4.30	4.14

Soldering Equipment

Ungar®

STANDARD LINE SOLDERING EQUIPMENT

STANDARD LINE HI-SPEED HEATING UNITS

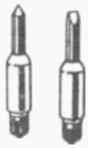
Threaded heating units achieve four times heat transfer efficiency because of greater heat path and better compatibility. Thread-end design prevents solder from running back into threads and reduces thread oxidation. Fast reliable connections are assured. Meets top requirements for faster repeat production line soldering

Stk. No.	Type	Description	1-9 Each	10-49 Each	50-Up Each
33F677	4037	47½W. Thread-on	2.97	2.45	2.26
33F678	1237	37½W. Thread-on	1.99	1.64	1.52
32F877	537	23½W. Thread-on	1.66	1.39	1.25

HI-HEAT REPLACEMENT TIPS

Heavy-duty 37½-watt element for high-speed production soldering. Consists of element and tip as in standard series. For 777 or 776 handles. 750°F-800°F.

Stk. No.	Type	Fig.	Description	1-9 Each	10-49 Each	50-Up Each
33F078	1236	A	Pyramid	1.80	1.50	1.35
33F079	1239	B	Chisel	1.80	1.50	1.35
33F646	1233	....	Long chisel	1.80	1.50	1.35

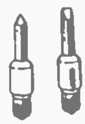


A B

REPLACEMENT TIPS

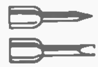
Standard Tips. Get up to full 600 degrees in 90 seconds. Rated at 23½ watts.. Complete heating element and tip for 776 and 777 handles. 650°F-700°F.

33F072	536	C	Pyramid	1.44	1.18	1.08
33F076	539	D	Chisel			
33F647	533	....	Long chisel			



C D

STANDARD LINE THREAD ON SOLDERING TIPS



For use with 4037 and 1237 heating units. Tests show 750-800 degree and 850-900 degree temperatures are maintained, with 100% increase in recovery rate. *Iron clad, silver plated.

Stk. No.	Type	Description	L. x O.D.	1-9	10-49	50-Up
33F679	PL111*	Pencil	¾x⅛"	.75	.62	.57
33F680	111	Pencil	¾x⅛"	.37	.30	.28
33F681	PL113*	Chisel	¾x⅛"	.75	.62	.57
33F682	113	Chisel	¾x⅛"	.37	.30	.28
33F691	116	Pyramid	¾x⅛"	.37	.30	.28
33F692	PL114*	Micro Spade	¾x⅛"	.75	.62	.57
33F693	PL116*	Pyramid	¾x⅛"	.75	.62	.57

EXTRA-LONG 3/16" TIPS

800 Series Thread-in tiplets 3/16" O.D. Iron-clad tiplets last 10 times longer because they resist destructive action of solder, require less maintenance and are easier to tin. All can be used with #4045 heating unit.. Iron clad, silver plated. Except (*) Tellurium copper.

PL834

Stk. No.	Type	Lght.	Desc.	1-9 Each	10-49 Each	50-Up Each
33F099	PL834	1¾"	Tip	.95	.76	.71
33F641	PL833	1¾"	Long Chisel	.95	.76	.71
33F642	PL823	1"	Pyramid	.65	.52	.49
33F643	823*	1"	Pyramid	.25	.21	.18
33F644	PL824	1"	Long Chisel	.65	.52	.49
33F645	824*	1"	Long Chisel	.25	.21	.18

"PRINCESS" LINE SOLDERING EQUIPMENT

PRINCESS ISOLATED LOW VOLTAGE SOLDERING SYSTEM

Soldering pen features tip temperature range approximately 450° F to 900° F. Reduces 120V input to 6-12 volts. Soldering pen isolated from line voltage, protects I.C.'s from damaging tip current leakage. Especially suited for precision microelctronic assembly. Complete system includes isolation transformer, handle with cord and 4 pin connector, 1 low voltage heat capsule, and 3 soldering nibs. NOTE: The only inter changeable components with regular 120V Princess line are the nibs and tiplets.

Stk. No.	Type	Description	1-9	10-49	50-Up
33F047	6970	Complete Station	24.95	22.95	21.00
33F049	6973	Replacement Handle	3.98	3.69	3.39
33F048	6971	Replacement Capsule	3.98	3.69	3.39

ASSEMBLED "PRINCESS" SOLDERING IRON

Consists of the following: Type 6902 handle; Type 6910, 10 watt heat capsule; Type 6950 pencil nib, Type 6951 screwdriver nib, and Type 6952 spade nib. Ship. wt. 14 oz.

Stk. No.	Type	Description	1-9	10-49	50-Up
32F885	6975	Assembled	6.95	6.25	5.59

"PRINCESS" SOLDERING IRON

Consists of the following: Type 6902 handle; Type 6910 10 watt heat capsule; Type 6951 screwdriver nib; Type 6990 "Princess" soldering iron holder equipped with Type 6991 re-fill sponge; Type 6950 pencil nib; Type 6952 spade nib. Shipping weight, 1 lb.

Stk. No.	Type	Description	1-9	10-49	50-Up
32F884	6900	Station	9.95	8.95	7.95

MODEL 6992 DE-SOLDERETTE

Specially designed for the desoldering of integrated circuits, chips and microminature modules. Consists of #6918 heat capsule, with 600°F tip, replaceable tip (#7812) with .033 aperture and #6902 handle. Vacuum tip rated 5.5 oz sq. in. Shipping weight 4 oz.

Stk. No.	Type	Description	1-9	10-49	50-Up
32F880	6992	De-solderette	13.95	12.89	11.19
33F034	7812*	Tip .033"	.75	.62	.56

● NEW MINIATURE SOLDERING CUP

Model 7000. Designed for tinning microminiature leads and components. Adjustable 400° to 750°F. Cup depth ⅜", capacity 1 oz. 120 Volts AC-DC. 3 wire cord, grounded NEMA plug. Wt. 1¼ lbs.

Stk. No.	Type	1-3	4-11	12-Up
35F3050	7000	19.95	17.95	15.95

"PRINCESS" SOLDERING IRON HOLDER

Plastic case with metal cage and slit sponge. Ship. wt. 3 oz.

Stk. No.	Type	Description	1-9	10-49	50-Up
32F883	6990	Holder	3.05	2.79	2.47

"PRINCESS" HOLDER SPONGE

Stk. No.	Type	Description	1-9	10-49	50-Up
32F882	6991	Sponge	.48	.43	.39

HANDLES

Model 6902. Cord has polyvinyl chloride insulation 120 volts. AC/DC. Size: 5" L. x ½" Dia. Shpg. wt. 3 oz.

Model 6903. Similar to above except cord is 22-gauge flexible stranded w/molded NEMA plug. Capsule is grounded. Wt. 3 oz.

Stk.No.	Type	Handles	1-9	10-49	50-Up
32F899	6902	2-Wire	2.84	2.53	2.29
32F898	6903	3-Wire	3.84	3.43	3.09

HEAT CAPSULES

For 120 Volts AC/DC operation. Heating section threaded to accept series of ⅛" "Princess" Soldering Nibs. Length: 2¾". Ship. wt. 2 oz. Will also accept complete line of ⅛" "Standard" Tiplets.

Stk. No.	Type	Watts	Temp.	1-9	10-49	50-Up
32F895	6906	6	400- 450°F	3.47	3.14	2.79
32F896	6910	10	550- 650°F			
32F897	6915	15	700- 800°F			
32F894	6918	18	900-1000°F			

SOLDERING NIBS

6950 6960 | 6951 6961 | 6952 6962 | 6953 6963

Stk. No.	Type	Shape	Size	Plated	1-9	10-49	50-up
32F893	6950	Pencil	.68x⅛"	Copper	.36	.33	.30
32F892	6951	Screw dr.	.68x⅛"	Copper	.36	.33	.30
32F891	6952	Spade	.61x⅛"	Copper	.36	.33	.30
32F890	6953	Point	.61x⅛"	Copper	.64	.56	.51
32F889	6960	Pencil	.62x⅛"	Gold	.63	.55	.50
32F888	6961	Screw dr.	.62x⅛"	Gold	.63	.55	.50
32F887	6962	Spade	.62x⅛"	Gold	.63	.55	.50
32F886	6963	Point	.61x⅛"	Gold	1.22	1.09	.97

Ungar "Imperial Line" Soldering Equipment

IMPERIAL SOLDERING IRONS

Meets every demand for a cool, light-weight easy-handling iron. Precise tip temperatures, complete versatility and superior handling ease. Built to take years of shop punishment. All components are interchangeable with Ungar imperial line. They are NOT interchangeable with the Standard line. 115 volts AC-DC. Please order all individual parts to make up the complete Imperial Soldering Iron as shown above.

CORD SETS 2-WIRE

Stk. No.	Type	Color	1-9	10-99	100-Up
32F903	6102-1	Turquoise	2.10	1.77	1.60
32F904	6102-2	Beige			
32F905	6102-3	Ivory			
33F051	6102-5	Black			

CORD SETS 3-WIRE NEMA PLUG

Stk. No.	Type	Color	1-9	10-99	100-Up
32F906	6103-1	Turquoise	3.12	2.63	2.37
32F907	6103-2	Beige			
32F908	6103-3	Ivory			
33F052	6103-5	Black			

IMPERIAL® HANDLES

PERMA-COOL IMPERIAL handle. Features double cushion of air, combined with five heat transition surfaces, evenly dissipates heat. Handle high strength polycarbonate resin with die cast aluminum heat sink. Dia. at grip—0.8". Length 4.7" (including heat sink). Wt. 1 oz. Rated at 115 volts AC-DC. Less cord set.

Stock No.	Type	Color	1-9	10-99	100-up
32F900	6100-1	Turquoise	1.47	1.23	1.10
32F901	6100-2	Beige			
32F902	6100-3	Ivory			
33F053	6100-5	Black			

IMPERIAL HEAT CARTRIDGES

Made of a temperature resistant stainless steel body and copper alloy heat collector. Threaded end of the collector is designed and engineered to provide maximum heat transfer. All cartridges fit the IMPERIAL PERMA-COOL handle and can be changed at the bench with easy slip-in, twist-lock action. Use on tight, high-density circuitry requiring precision tip temperatures and extreme care in soldering. Ideal for heavy-duty plant service maintenance but light enough for fatigue-free production line use.

Stock No.	Type	Watt	Heat Range	Dia.	Weight	1-9	10-99	100-up
32F914	6202	25	600-800F	0.363"	1.1 oz.	3.93	3.31	2.96
32F913	6201	30	650-850F	0.363"	1.1 oz.	3.93	3.31	2.96
32F912	6200	40	750-950F	0.363"	1.1 oz.	3.93	3.31	2.96
32F966	6203	60	850-1150F	0.363"	1.1 oz.	4.53	3.88	3.45

MINI-TIPS FOR 25, 30, 40, 60 WATT CARTRIDGE

6304

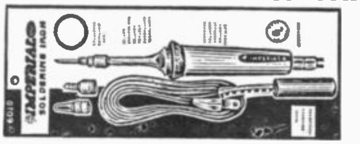
6316

6318

Desgined for multileads, joints and microminiature connections. Materail. —Iron Clad, Gold Plated (24 kt); except (*)—Tellurium Copper. Av. shpg. wt., 3 oz.

Stock No.	Type	Shape	Size	1-9	10-99	100-Up
32F915	6304	Mic-chisel	3/64x ½"	1.03	.86	.75
32F916	6305	Micro-spade	3/64x ½"	1.03	.86	.75
32F917	*6312	Pencil	⅛x ¾"	.46	.39	.33
32F918	6313	Pencil	⅛x ¾"	1.03	.86	.75
32F920	6316	Pencil Offset	⅛x ¾"	1.03	.86	.75
32F921	*6318	Long Taper Chisel	⅛x ¾"	.46	.39	.33
32F922	6319	Long Taper Chisel	⅛x ¾"	1.03	.86	.75
32F923	*6324	Long Taper Pyr.	⅛x ¾"	.46	.39	.33
32F924	6325	Long Taper Pyr.	⅛x ¾"	1.03	.86	.75
32F926	6331	Screwdriver	⅛x ¾"	1.03	.86	.75
32F927	6333	X-long Screwdriver	⅛x ¾"	1.03	.86	.75
32F929	6336	Spade	⅛x ¾"	1.03	.86	.75
32F931	6366	Long Taper Chisel	3/16x ¾"	1.18	.99	.88
32F935	6372	Screwdriver	3/16x ¾"	1.18	.99	.88
32F942	6390	Screwdriver	3/16x1½"	1.22	1.03	.92
32F948	6424	Long Taper Pyramid	⅛x ¾"	1.22	1.03	.92
32F952	6474	Long Taper Chisel	⅜x ¾"	1.50	1.22	1.06
32F959	6481	Tap. Screwdriver	¾x3/32"	1.03	.86	.75
32F960	6482	Micro-Spade Stepped	3/32x1 1/16"	1.03	.86	.75
33F042	*6368	Long Taper Pyr.	¾x.187	.54	.47	.41
33F043	6373	Slotted	¾x.187	1.03	.86	.75
33F044	*6473	Long Taper Chisel	¾x.375	.54	.47	.41

40-WATT ALL-PURPOSE SOLDERING IRON



Model 6010. Features the most popular IMPERIAL components used in production, development and service. Consist of one type 6100 handle, one type 6102 two-wire cord, one type 6200 40-watt heat cartridge. Delivers 750°F to 950°F tip temperature. Comes with three multi-purpose MINI-TIP thread-on soldering tips.

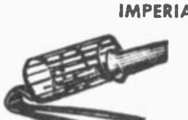
Stk. No.	Type	1-5	6-11	12-Up
32F971	6010	6.98	6.79	6.41

MODEL 6601 SOLDER IRON

Complete iron. Consists of 6100-5 black handle; 6102-5 black 2 wire cord; 6207-100 with heat cartridge; 6520 heavy duty soldering tip. Heat cartridge rated 115v. AC-DC. UL approved.

Stk. No.	Type	1-5	6-11	12-Up
32F978	6601	11.27	8.98	8.44

IMPERIAL® "SAFETY-GUARD" HOLDER



Type 6800. Specially designed for the IMPERIAL . . . avoids handle damage while protecting operators against hot tip burns. Attaches quickly to the top or underside of the work bench. Black with special gold cage guard.

Stk. No.	Type	1-9	10-99	50 & Up
32F957	6800	1.96	1.58	1.45

PRECISION POINT TIPS

For matrix soldering and micromodule assembly. Precision ground and honed to ultra-fine dim. Type 6391, Tellurium Copper; Type 6392, Tellurium Copper, Iron Clad, Gold Plated (24 kt.).

Stk. No.	Type	Dimensions	1-9	10-99	100-Up
33F045	6391	.770x.125	.74	.62	.57
33F046	6392	.770x.135	1.50	1.22	1.06

IMPERIAL DE-SOLDERING ATTACHMENT WITH TIP

Type 6825. This Attachment fits the 60, 40, 30 and 25-Watt Imperial Heat Cartridges.

Stk. No.	Type	Descrip.	1-9	10-49	50 & Up
33F041	6825	Attachment & tip	9.00	7.43	6.99
33F036	7806	Repl. Tip	.75	.62	.56
32F034	7812	Repl. Tip			
33F035	7813	Repl. Tip			

15-WATT CARTRIDGE AND TIPS

Cartridge: 614-743°F. .312" dia. 6⅞" length. Wt.: .89 oz. Tips: Tellurium copper, iron clad, 24 kt. gold plated.

Stk. No.	Type	Descrip.	Dimensions	1-9	10-99	100 & Up
32F961	6206	Cartridge	L. — 6⅞"	3.93	3.31	2.96
32F962	6550	Screwdriver	.040 x .40	1.18	.99	.88
32F963	6551	Spade	.050 x .40			
32F964	6553	Chisel	.050 x .40			
32F965	6554	Pencil	.050 x .40			

100 WATT CARTRIDGE AND TIPS

Type 6500. Iron Clad, Gold Plated; fits 100 W. Heat Cartridge. **Type 6520.** A Heavy-Duty thread-on soldering tip in a multi-use chisel. For type 6207 Heavy-Duty Cartridge only. Provides maximum area and heat transfer for large connections.

Stk. No.	Type	Descrip.	Dimensions	1-9	10-99	100-Up
33F040	6500	Chisel	L. — 8½"	2.38	1.98	1.79
32F968	6207	Cartridge	1½" x ½"	6.56	5.25	4.94
32F969	6520	Chisel	½" x 1½"	1.22	1.03	.92

KLEEN-TIP SPONGE, TRAY, AND REFILL

Specially processed Kleen-Tip sponge for removing oxidation and excess solder from tips. Assures proper heat flow and solder wetting may be prevented. Other materials used for this purpose cause contamination or destroy plating.

Stock No.	Type	Description	1-9 Ea.	10-49, Ea.	50-Up, Ea.
33F683	400	Sponge and tray	1.09	.88	.81
33F684	455	Refill sponge	.42	.34	.31

ANTI-SEIZE LUBRICANT

Type 8001. Designed for use on metals operating at high temperatures. Helps reduce seizure and resultant tip and heating unit breakage. Wt. 4 ounces.

Stk. No.	Type	1-9	10-49	50-Up
33F688	8001	.61	.51	.47

CRAFTRITE SOLDERING IRON

Model No. 426. Does work of irons 3 times as big. Fast heating copper alloy tip melts solder in 60 seconds (approx 750°) 23½W. 120V. AC-DC. With full length cord. UL approved.

Stk. No.	Type	Description	1-11	12 Up
32F973	426	blk./cork insul.	1.69	1.54

Soldering Irons and Accessories

HEXACON

HEXACON HORNET IRONS

Furnished in 115 V. Available in 230 V. Equipped with 2-conductor cord and plug. 3-conductor cord, plug available. Smallest industrial soldering irons for micro-electric soldering. Smallest tip 1/32" shortest working distance, 1 13/16" from work. Stainless steel reflector keeps handle cool. Durotherm non-freeze long-life tip. Overall length 5⅞", 115Ac/Dc operation. Kit H10K comes with tips: HT866D (1/32" round) and HT869D (1/16" chisel) for 12 watt operation. Kit H11K, same as above but for 17 watt operation. Kit H14K comes with tips: HT654X (⅛" semi-chisel) and HT655X (⅛" chisel) for 20 watt operation. 3-wire models come equipped with safety 3-wire cord and NEMA plug.

2-WIRE HORNET IRON KITS

*contain 2-tips and cleaning sponge.

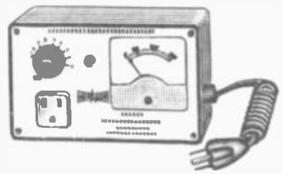
Stk. No.	Model	Wattage	Net
33F942	H10K*	12	7.49
33F955	H11K*	17	
33F956	H14K*	20	
2-WIRE HORNET IRONS (Less Tip)			
33F957	H10	12	5.81
33F958	H14	17	
33F959	H11	20	
3-WIRE HORNET IRON KITS			
33F943	H10K*	12	9.04
33F960	H11K*	17	
33F961	H14K*	20	

PIN POINT IRONS

For printed circuits, etc. Weighs but 3 oz. Same construction as Super Pencil, except for the handle and longer reach 4½". Wt., ½ lb. Less tip.

Stk. No.	Model	Wattage	Uses Tip Size	NET
33F897	P2525	25	⅛	5.22
33F845	P2535	35	⅛	5.22
33F898	P2630	30	3/16	5.25
33F848	P2650	50	3/16	5.25
33F849	P2450	50	¼	5.67
33F850	P2460	60	¼	5.67
32F814	P3060	60	¼	6.30
33F852	P3080	80	¼	6.37

SOLDERING IRON VOLTAGE CONTROL



Provides monitored and controlled AC input from 0 to 95% of line voltage. Voltmeter provides visual indication of voltage input. Capacity full 300 watts on 115 volts. Solid state. Idling temp. may be readily controlled. Thermal working zones varied by adjusting input control. Calibrate control settings. Safety assured by 3 wire grounded design and power light indicator. Compact (2"x6¼"). Shpg. wt. 18 oz.

33F826 Model 871. NET... . ...22.37

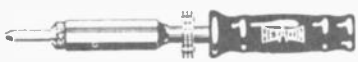
TIP CLEANING SPONGE

Insures reliability of soldered joints and extends tip life. Eliminates contamination and safety hazards caused by wiping rags.

32F821. Model 810. Sponge, tray. **NET 1.19**

32F822. Model 8101. Sponge only. **NET .46**

PRODUCTION LINE IRONS

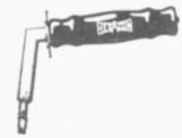


For fastest soldering on Radio-TV conveyors, etc. Short, well balanced, with cool, comfortable handles. Rugged, high heat alloy elements. Approx. shpg. wt., 1½ lbs. Less tip.

Plug Tip Irons

Stk. No.	Model	Wattage	Uses Tip Size	NET
33F892	P100	100	⅜	8.44
33F893	P150	150	⅜	9.28
32F815	P153	175	⅜	9.63
32F816	P151	175	½	9.66
33F894	P200	200	⅝	9.94
33F891	P250	250	⅝	11.48
33F965	P300	300	⅞	12.01
33F966	P550	550	1⅞	14.95

BANTAM HATCHET IRONS



For printed circuits, etc. Weighs but 3 oz. Smallest hatchet. Same construction as super pencil, except for handle. Shpg. Wt., ½ lb. Less tip.

Stk. No.	Model	Voltage	Uses Tip Size	NET
33F838	25H35	35	⅛	6.34
33F843	24H60	60	¼	6.37

SUPER PENCIL IRONS

For printed circuits, etc. Weight only 2 oz. Short reach 3". Cool handle. All the advantages of a soldering pencil. but a compact, rugged industrial soldering iron, with precision nickel-chromium, mica wound element. Shpg. wt., 8 oz. Less tips.

Stk. No.	Model	Wattage	Uses Tip Size	NET
33F829	25S25	25	⅛	5.22
33F831	25S35	35	⅛	5.22
33F832	25S50	50	⅛	5.95
33F828	26S30	30	3/16	5.25
33F833	26S35	35	3/16	5.25
33F835	26S50	50	3/16	5.95
33F836	24S40	40	¼	5.95
33F827	24S50	50	¼	5.95
33F837	24S60	60	¼	5.95

DUROTHERM NON-FREEZING TIPS

Iron coated and immunized. Anti-scaling and anti-corrosion design absolutely prevents tips from sticking. Note: also available, XTRADUR Iron-Coated Pre-Tinned Tips: Multi-coating immunizes shank of tip from solder, preventing creeping and spilling of solder. Use type numbers shown, but substitute X for D. Do not use Newark's stock numbers. Cost approx. 10% less than DUROTHERM. For HEXCLAD Iron Coated Pre-Tinned Tips, use type-numbers, but omit D. Cost approx. 30% less than DUROTHERM.

⅛" Diameter (Fits 25S, P25, and 25H)

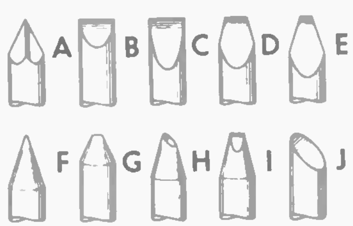
Stk. No.	Type	WxT	Lgth.	Style	NET
32F750	HT248D	1/32x1/32	2¼	A	1.61
32F751	HT249D	⅛x1/32	2¼	B	1.61
32F752	HT376D	⅛x1/32	2¼	C	1.61
32F753	HT560D	1/16x1/32	2¼	D	1.61
32F754	HT222D	1/16	2¼	G	1.61
32F755	HT361D	1/16x1/64	2⅛	B	2.00
32F756	HT331D	1/32	2¼	F	1.61

¼" Diameter (Fits 24S, P24, and 24H)

Stk. No.	Type	WxT	Lgth.	Style	NET
32F766	HT325D	1/32x1/32	2¼	A	1.93
32F767	HT553D	¼x1/16	2¼	B	1.93
32F768	HT417D	⅛x1/32	2¼	E	1.93
32F769	HT313D	1/16x1/32	2¼	D	1.93
32F772	HT451D	⅛x1/32	2¼	C	2.00
32F773	HT513D	1/32	2¼	P	2.00
32F774	HT324D	⅛x1/32	2¼	B	2.00
32F776	HT691D	1/64x1/64	2¼	C	2.17

¼" Diameter (Fits P30 and 30H)

Stk. No.	Type	WxT	Lgth.	Style	NET
32F777	HT252D	1/32x1/32	2¾	A	1.93
32F778	HT253D	¼x1/16	2¾	B	1.93
32F779	HT202D	3/16x1/32	2¾	D	1.93
32F780	HT299D	⅛x1/32	3	D	1.93
32F781	HT426D	⅛x1/32	2¾	E	1.93
32F782	HT328D	1/16x1/32	3	E	2.00
32F783	HT131D	1/32	2¾	F	1.93
32F785	HT452D	1/32	2¾	F	2.00
32F786	HT356D	1/16x1/32	3¾	E	2.00
32F788	HT519D	⅛x1/32	3	C	2.00



MINIATURE TIPS FOR HORNET H10, H11

Stk. No.	Type	WxH	Style	NET
32F799	HT866D	1/32	J	.84
32F800	HT867D	1/32	ball point	.84
32F801	HT868D	1/16	J	.84
32F802	HT869D	1/16x1/64	C	.84
32F803	HT870X	1/16x1/32	D	.63
32F804	HT864X	⅛	J	.63
32F805	HT873X	1/32	F	.63

MINIATURE TIPS FOR HORNET H14

Stk. No.	Type	WxH	Style	NET
33F970	HT654X	1/16x1/32	E	.84
33F971	HT655X	⅛x1/32	C	.84
33F973	HT657X	⅛x1/32	C	.63
33F974	HT658X	1/32	F	.84
33F975	HT659X	1/64"	F	.84

3/16" Diameter (Fits 26S, P26, and 26H)

Stk. No.	Type	Point	Lgth.	Style	NET
32F758	HT251D	1/32x1/32	2¼	A	1.68
32F759	HT294D	3/16x1/32	2¼	B	1.68
32F760	HT195D	3/16x1/32	2¼	C	1.68
32F761	HT207D	3/32x1/32	2¼	E	1.68
32F762	HT190D	⅛x1/16	2¼	D	1.68
32F764	HT290D	⅛x1/32	2¼	C	1.79
32F765	HT281D	1/32	2¼	F	1.68

⅜" Dia. (Fits P100, P150, P238, 100H, 150H)

Stk. No.	Type	Point	Lgth.	Style	NET
32F791	HT140D	3/16x1/16	4	D	2.07
32F793	HT177D	3/16x1/32	4 9/16	D	2.42
32F794	HT231D	5/16x1/16	4 9/16	D	2.07
32F795	HT255D	1/16x1/16	4 9/16	A	2.07
32F797	HT475D	3/32x1/32	4 9/16	E	2.42
32F798	HT918D	5/32x1/16	4	E	2.07

TELLURIUM COPPER TIPS—Style A

Stk. No.	Dia.	Fits Irons	NET
33F944	⅛	25S, 25H, P25	.22
33F945	3/16	26S, 26H, P26	.27
33F946	¼	24S, 24H, P24, P30, 30H	.35
33F941	¼tt*⅛	24S, 24H, P24, P30, 30H	.63
33F947	⅜	100H, 150H	.56
33F949	⅜tt*¼	P100, P150, P238, 100H, 150H	.98
33F948	⅝	P200, P250	1.33

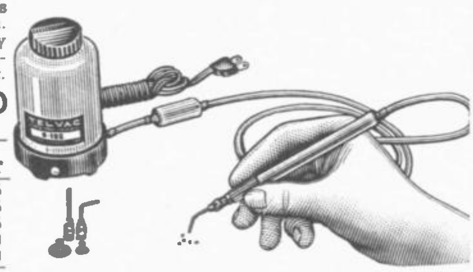
*Turned Tips.

TELVAC INSTRUMENT COMPANY Soldering Irons & Accessories

VACUUM TWEEZER SYSTEM

Type K150. This new parts handling system positively and precisely lifts parts varying in size from microscopic to those weighing several ounces. Parts are handled without damage or contamination. Defects caused by pinching, scratching, or marring are eliminated. Critical surfaces are protected. Vacuum is turned on and off with the forefinger. For 115 VAC 60 Hz. complete system ready to plug in.

35F1230. NET **34.50**



COMPONENT PARTS OF SYSTEM

Stock No.	Type No.	Description	NET	Stock No.	Type No.	Description	NET
35F1231	1505	Vacuum generator	22.50	35F1236	1565	Tip, .047" i.d.	.75
35F1232	1575	Probe	5.95	35F1237	1580	Cup, .5" dia.	.75
35F1233	1550	Tip, .006" i.d.	.75	35F1238	1585	Cup, .25" dia.	.75
35F1234	1555	Tip, .0095" i.d.	.75	35F1239	1510	Tubing 4'	1.00
35F1235	1560	Tip, .0155" i.d.	.75	35F1240	1590	Filter	.90

LOW VOLTAGE MINIATURE PRODUCTION EQUIPMENT

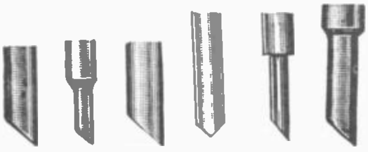
Small, lightweight instruments for close-quarter precision soldering of printed circuits, miniature component parts, semiconductors, and fine assemblies. Feather weights of 1/4 to 1 ounce virtually eliminate hand fatigue. All Oryx soldering irons utilize a unique element-in-the-tip design principle. Use of this principle enables

these irons to provide high efficiency, quick heat recovery. and cool handles. In addition all irons are polarzied, making it possible to directly ground the shaft, tip, and one side of the heating element for maximum safety.

Stk. No.	Type	V	W	Temp. °F	L in.	Wt. oz.	With Tip	Tip dia.	Transformer Type	Net ea.	12-up
33F329	5S	4.5	4.5	575	4 3/4	1/5	S	1/16"	54204-T	5.95	5.45
33F328	5A	6	5	600	5 1/2	1/4	P	1/16"	54203-6V or 54204-T	5.95	5.45
33F275	6	6	6	625	6	1/4	Fixed	1/16"		5.95	5.45
33F276	6A	6	6	690	6	1/4	B	3/32"		5.95	5.45
33F277	9-6	6	8.3	750	6	1/4	A	5/32"		5.95	5.45
33F280	11-6	6	10	835	6	1/4	D	5/32"		7.45	6.95
33F281	12-6	6	12	700	6 1/4	1/2	C	3/16"		5.95	5.45
33F293	18-6	6	18	800	7 1/4	3/4	F	3/16"		7.95	7.50
33F278	9-12	12	8.3	750	6	1/4	A	5/32"	5420-12V	5.95	5.45
33F282	12-12	12	12	700	6 1/4	1/2	C	3/16"		5.95	5.45
33F296	25-12	12	25	1000	7 1/4	1	G	3/16"		8.45	8.00

REPLACEMENT TIPS

From copper alloy. Outstanding heat conduction. Nickel plating reduces scaling. Iron-plated and solid nickel tips give much longer life with slightly reduced heat transfer. Gold tips for micro-circuits.



A B C D E F

G H M P S Fixed

Nickel plated except (*) solid nickel end.

Stock No.	Fig.	Dia.	Use With	Net Ea.
33F285	A	5/32"	9-6	.54
33F286	B	3/32"	9-6, 6A	.54
33F287	C	3/16"	12-6	.54
33F288*	D	5/32"	11-6	1.80
33F289*	E	3/32"	11-6	1.80
33F294	F	3/16"	18-6	1.25
33F295*	G	3/16"	25-12	1.85
33F298	H	1/4"	25-12	2.35
33F417*	M	3/32"	18-6	1.85
35F1242	P	1/16"	5A, 6A	.60
35F1243	S	1/16"	5-S	.60

MICROMINIATURE SOLDERING TWEEZERS

Have heating elements in each arm. Speeds soldering time by heating both sides of joint. Low voltage operation assures safety to circuitry. Complete with 4½' cord. 3 oz. **Model TW-6. Precision model for semiconductors,** etc. Solid nickel 3/32" tip. **Model TW-12. For heavy duty production line** etc. Furnished with 1/8" replacement tip.

Stk. No.	Type	Nom. Temp.	P. Comp.	Each
33F292	TW-6	550°	6v - 18w	14.95
33F300	TW-12	625°	12v - 25w	16.50
33F301	N	Spare tip for TW-12		1.25

TAPPED TRANSFORMER

Output 4½ to 6 volts in ½ volt steps. For exact temperature control on all Oryx 6-volt tools. Operates on 115 VAC—ready to plug in. **Model 54204T.**

33F304. NET **6.50**

MINIATURE THERMAL WIRE STRIPPERS

Type ST-6. Usable with wide variety of insulating materials and wire sizes. Separate steel stripping heads have an operating temperature of 400° 6 volts AC or DC, 12 watts. Tweezers allow for variable pressures and control without damage to conductors.

33F299. NET **15.95**

TRANSFORMERS

Type 54203-6V Transformer. Special transformer for all 6 volt Oryx soldering irons. Output is 6 volts at 3 amps (18 watts). With cord. Wt., 1½ lbs.

33F290. NET **5.50**

Model 5420-12V. 12 volt transformer. With clip-holder. 25 W., 2 amps. 110V AC. Shpg. wt., 1½ lbs.

33F297. NET **6.45**

115 VAC SOLDERING PENCILS

Designed for continuous production and precision soldering. Immediate plug in. No transformer required. Tips are nickel plated, chrome copper alloy. Complete with tip and 4½' UL approved ultra-flexible cord. Compact design for light production, laboratory, and service use. Small and easy to handle. Helps speed any precision soldering operation. Polarized to directly ground the shaft, tip and side of heating element. Wt. 1 oz.

Model 115-10J. Heats to 672° in 70 seconds. Type J tip supplied also takes type K.

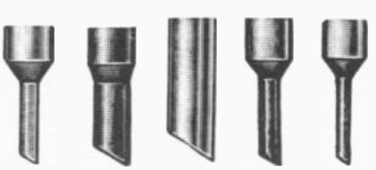
33F412. NET **7.50**

Lots of 12, each 6.95

Model 115-15K. Heats to 717°F in 50 seconds. Type K tip supplied, also takes types L and Q.

33F413. NET **7.75**

Lots of 12, each 6.95



J K L Q R

Nickel plated except (*) solid nickel end.

Stock No.	Fig.	Dia.	Use With	Net Ea.
33F414	J	3/32"	115-10	1.55
33F415	K	3/16"	115-10, 115-15	1.70
33F416	L	1/4"	115-15	2.25
33F418*	Q	3/32"	115-15	1.85
33F419*	R	1/16"	115-15	1.85

MINIATURE SOLDER POTS

Used for tinning wires and leads plus heating waxes, shellacs and potting compounds. Operates directly from 115 volts AC or DC. Oper. temp. 550-600°F. reached in 4 mins. Capacity 2½cc.

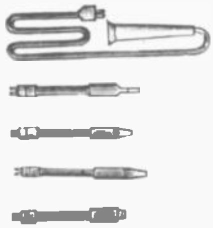
Stk. No.	Type	Description	Each
33F302	SP-115-3	3 wire grd.	12.95
33F303	SP-115	2 wire	12.95

Eleven Stocking Warehouses from Coast-to-Coast. Call, Wire or Write for Items Not Listed in This Catalog. Use the Services of the Facility Nearest You.

GENERAL ELECTRIC SOLDERING EQUIPMENT

PENLINE-120 INDUSTRIAL SOLDERING PENCILS

A.
B.
C.
D.
E.



Features Calrod heater in tip for fast heating and tip temp. recovery speed. Heat concentrated at tip to reduce chances of damaging insulation. Calorizing eliminates oxide build-up on tip body and threads and prevents tip freezing on holder. One iron can handle many jobs by changing tip or tip heater assembly.

HANDLE AND CORD SETS

Stk. No.	Type	Fig.	Description	1-4	5 Up
32F851	6D400	A	Two Conductor	2.68	2.37
32F852	6D400G2	A	2 Conductor with NEMA standard Plug	3.62	3.20

INTEGRAL TIP AND HEATER ASSEMBLIES—IRONCLAD

Stk. No.	Type	Fig.	Watts	Description	1-4	5 Up
32F853	6D410	B	30	3/16" Chisel Tip	4.25	3.75
32F854	6D411	C	30	9/32" Chisel Tip	4.33	3.83
32F855	6D412	D	45	3/8" Chisel Tip	4.42	3.90

HEATER ASSEMBLY FOR USE WITH SCREW-ON TIPS

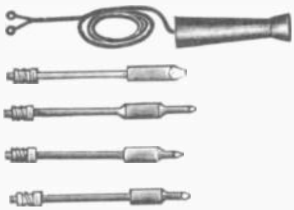
Stk. No.	Type	Fig.	Watts	Description	1-4	5 Up
32F856	6D413	E	40	Heater Assembly	3.12	3.20

SCREW-ON TIPS—IRONCLAD

Stk. No.	Type	Diam. & Shape	1-4	5 Up
32F858	6D4P2	3/32" Spade	1.28	1.13
32F860	6D4P6	3/32" Chisel	1.28	1.13
32F862	6D4P4	5/32" Spade	1.28	1.13
32F864	6D4P8	5/32" Chisel	1.28	1.13
32F866	6D4P16	3/64" Pyramid	1.28	1.13
32F868	6D4P20	3/64" Cone	1.28	1.13
32F870	6D4P10	7/32' Chisel	1.28	1.13
32F872	6D4P14	7/32' Long Chis.	1.37	1.21
32F874	6D4P12	3/16" Chisel	1.28	1.13
32F876	6D4P18	3/8" Pyramid	1.28	1.13

"MIDGET" 6-VOLT SOLDERING IRONS

6A203
6A211
6A213
6A215
6A217



Small, light wt. irons. The heater inserted farther into the tip improves initial heat-up and provides faster recuperation from joint to joint. Iron clad tips provide long life with minimum maintenance costs. Screw-in feature of tip and heater assembly assures positive contact and serves to hold the tip and heater firmly in the handle. Tip and heater replacement takes only a few seconds. Longer life and greater safety due to low voltage supplied by transformers. Transformers available in two types as listed on the right. All Irons 6 volt 25 watts. UL approved. Shpg. wt., 3 oz.

HANDLE AND CORD ASSEMBLY

Stk. No.	Type	Description	1-11	12-up
33F445	6A203	Handle & Cord	3.90	3.60

TIP AND HEATER ASSEMBLIES

Stk. No.	Type	Description	1-11	12-up
33F404	6A211	1/4" Chisel	3.65	3.28
33F405	6A213	1/8" Cone		
33F406	6A215	3/16" Pyramid		
33F407	6A217	3/16" Chisel		
33F439	6A221	Htr. Ass'y.*		

*25 watt heater assembly for use with 6D series screw-on tips listed above.

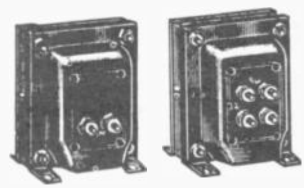
Note: For complete iron, order 6A203 Handle plus Tip and Heater Assembly of your choice.

6D200 SERIES REPLACEMENT TIP AND HEATER ASSEMBLIES

Replacement tip and heater assemblies for use only with Model 6D200 cord and handle, which is no longer available.

No.	Type	Tip Dia.	1-11	12-up
33F441	6D211	1/4" chisel	3.65	3.28
33F442	6D213	1/8" cone		
33F443	6D215	3/16" pyramid		
33F444	6D217	3/16" chisel		

115-V TRANSFORMERS FOR "MIDGET" SOLDERING IRONS



Specially designed, 115-volt transformers available in two types. Single-tap transformer is for use where only one soldering heat is required. Four-tap transformer gives wide range of heats (from 26 to 15 watts for close temperature control of tips.

Model 6A362G2. Single tap transformer.

33F408. 1-11 Each **8.22**
12-Up Each 7.30

Model 6A364G2. Four tap transformer.

33F409. 1-11 Each **8.22**
12-Up Each 7.30

"ANTEX-PRECISION" SOLDERING IRONS

MINIATURE SOLDERING IRON

Model C. 110-120 V. Element has long life and uniform appearance. 45 second heat-up. Tips slide on over element with no set screws, no wasted power, and lightning-fast recovery. 1000 megohms insulation, grounded. Use with most delicate components. Ultra-flexible 3-wire cords. Bright yellow no-char handles. 6½" long. Weight 1 oz. Shpg. wt., ½ lb.

Stk. No.	Type	1-5	6-Up
33F242	G/X less plug	4.85	4.35
34F197	G/2 with 2-wire plug	5.80	5.30
34F198	G/3U with 3-wire U-ground plug	6.10	5.60

33F243. Replacement heating elements for C irons 2.50

• NEW G IRONS

Same as C Iron but 18 volts. Shpg. wt. ½ lb.

Stk. No.	Type	1-5	6-Up
35F2350	C/X less plug	5.35	4.85
35F2351	C/2 with 2-wire plug	6.30	5.80
35F2352	C/3U with 3-wire U-ground plug	6.60	6.10

All irons sold less tips.

INTERCHANGEABLE TIPS FOR C & G IRONS

Stk. No.	Size	Plated	Shape	1-49	50-Up
33F272	3/64	Nickel	Spade	.55	.50
35F2353	1/16	Nickel	Chisel		
33F244	3/32	Nickel	Spade		
33F267	3/32	Nickel	Chisel		
34F190	3/32	Nickel	Pyramid		
34F191	3/32	Nickel	Pyramid (offset)		
35F2354		Nickel	Cone		
32F245	5/32	Nickel	Spade		
33F268	5/32	Nickel	Chisel		
33F249	3/16	Nickel	Spade		
33F269	3/16	Nickel	Chisel		
34F193	3/64	Gold	Spade	1.00	.90
34F194	3/32	Gold	Chisel	1.00	.90
34F195		Gold	Needle Point	1.45	1.30
33F263	3/64	Iron	Spade	1.20	1.10
35F2355	1/16	Iron	Spade		
35F2356	1/16	Iron	Chisel		
33F246	3/32	Iron	Spade		
33F264	3/32	Iron	Chisel		
33F247	5/32	Iron	Spade		
33F265	5/32	Iron	Chisel		
33F266	3/16	Iron	Chisel		
34F196		Iron	Needle Point	1.65	1.50

MODEL ST-1 IRON STAND

Holds both soldering iron, models B, C or D, and a one pound spool of solder. This 8¼" stand can be attached effortlessly to a bench by the use of a few screws. Blue enamel finish. Shipping weight 2 lbs.

34F199. NET **2.95**

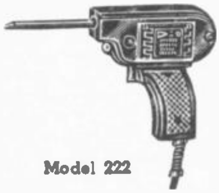
Soldering Guns

WEN

SINGLE POST SOLDERING GUNS

Model 75

U.L./C.S.A. Approved



Model 222

ONE HEAT RANGE — Model 75

Resists extremely high temperatures. No current waste; draws only enough to maintain maximum temperature in tip. Current surge provides instant heat-up. 50 w, .45 amp. 120V. UL and CSA approved. 20 oz.

33F925. NET **4.37**
3 or more. EACH **3.93**

TWO HEAT RANGES — TYPE 222 K-5

Model 222-K-5 Kit. Quick and easy tip change gives choice of two heat ranges; 25-100 watts for light duty work and 100-200 watt range for medium duty. Packaged in attractive carrying case, includes Model 222 soldering gun, two heat range tips and flat iron tip for dent removing, heat sealing, and photograph mounting. Also, one roll resin core solder included. Wt., 3 pounds.

33F978. Model 222 K-5 Kit. **NET** **8.79**
3 or more. EACH **7.99**

33F991. Model 222, gun only. **NET** **5.84**
3 or more. EACH **5.33**

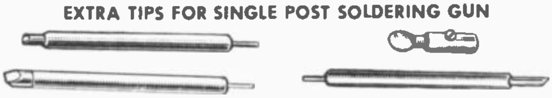
450K-4 GUN KIT

Model 450K-4. Includes Model 450 "All Gun," three tips for light, medium and heavy duty work, and one roll solder and carrying case. Delivers three separate heat ranges: 25-100 100-200 and 200-450 watts. Instant heat-up for quick work and fast cooling safety precaution. Trigger on-off switch with light in handle. Thermal Control makes operation completely automatic. Extra accessories available include plastic cutting and flat iron tips. Shipping weight 4 pounds. UL approved.

33F979. Model 450K-4 Gun Kit. **NET** **11.72**
3 or more. EACH **10.69**

33F920. Model 450, Gun only. **NET** **10.25**
3 or more. EACH **9.35**

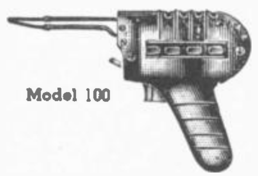
EXTRA TIPS FOR SINGLE POST SOLDERING GUN



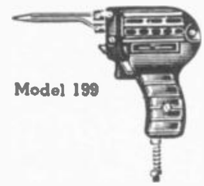
Stk. No.	Type	For Model	Description	Each
33F921	45F7	450-222	Light Duty Tip	.91
33F922	45M7	450-222	Regular Duty Tip	.91
33F923	45A7	450	Heavy Duty Soldering Tip	.91
33F924	45S7	450-222	Plastic Cutting Accessory*	.42
33F926	45P57	450-222	Flat Iron Accessory*	.42
33F928	75A7	75	Stnd. Soldering Tip Assembly	.70
33F929	75B7	75	Fine Pt. Tip Assembly	.70

*Used with regular duty tip only

DUAL POST SOLDERING GUNS



Model 100



Model 199

MODEL 100K. SOLDERING GUN KIT

100 Watt electronic soldering gun. Gets full working heat in just $2\frac{1}{2}$ sec. Extra long, replaceable long life tip, built-in spotlight Accessories: plastic tile cutting tip also designed for softening hardened putty, 5" of rosin core solder. Shpg. wt. 2 lbs., 3 oz.

33F935. Model 100K. Single Kit, **NET** **5.95**
3 or more. EACH **5.30**

Model 100. Gun only with replaceable tip. 1 lb., 3 oz.
33F930. NET **4.95**
3 or more. EACH **4.46**

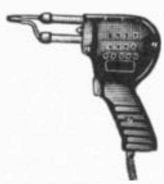
MODEL 199K. UTILITY SOLDER GUN

Lightweight soldering gun kit for home or professional use. Gun gives 130 watts of heat in just $2\frac{1}{2}$ secs. Has steel nosed tip and built-in spotlight, 6' cord. Kit comes in durable red carrying case and includes a tile-cutting tip, dent removing tip, and rosn core solder. Shpg. wt. $3\frac{3}{4}$ lbs.

39F901. Model 199K. Single Kit. **NET** **7.32**
3 or more. EACH **6.70**

MODEL 199. Same as above but gun only. Wt. $2\frac{1}{2}$ lbs.
33F900. NET **5.84**
3 or more. EACH **5.33**

MODEL 250-K



Model 250-K. Kit includes heavy duty 250 watt gun for big jobs. Gives longer life. Handles production jobs as well as intermitent soldering. On-off trigger and molded plastic handle for cooler operation. Includes plastic cutting tip, flat iron tip, five foot roll of resin core solder and work wrench in metal carrying case. $5\frac{1}{2}$ lbs.

33F992. Model 250-K **NET** **11.72**
3 or more. EACH **10.69**

33F903. Model 250. Gun only. **NET** **9.51**
3 or more. EACH **8.68**

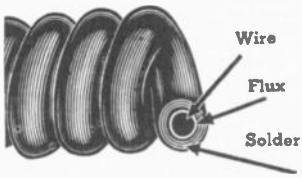
EXTRA TIPS FOR DUAL POST SOLDERING GUNS

- **Individually packed**
- **For 120 V. 50/60 hz**

19-B-4 25-X-20 19-C-1

Stk. No.	Type	For Model	Description	Each
33F904	19-B-4	100 &-199	Heavy Duty Tip	.35
33F905	19-C-1	100 &-199	Plastic Tile Cutting Tip	.42
33F954	U-4	100 &-199	Heavy Duty Tip	.49
33F910	25-A-4	250	Uni. Desoldering Tip	.17
33F911	25-X-20	250	"Feraloy" Long Life Soldering Tip	.35
33S912	25-C-1	250	Plastic Tile Cutting Tip	.35
33F954	U-4	250	Uni. Desoldering Tip	.49

SPRAGUE "KWIKETTE" SOLDERING AIDS



Different. Revolutionary Kwikette connectors practically let you do "in-circuit" component testing. Quick & easy; ideal for printed circuit work; simplifies "rat nest" replacement and R & D breasbiarding. Not just another spring wire connector — copper weld wire inner core, an intermediate layer of flux, and an outer jacket of solder. Just heat and your connection is made.

18F2831. KW-100. Pkg. of 100 Kwikette Aids **2.79**
18F2832. KW-1000 Pkg. of 1000 Kwikette Aids **22.00**
18F2833. KW-5000 Pkg. of 5000 Kwikette Aids **90.00**

SOLDER SIPPER

Removes molten solder from electrical connections or any place where solder is concentrated in a small mass. Teflon tube gives long, dependable life under normal use. Not recommended for use over 500° F. Small, compact, lightweight, easy to use. Shipping weight, 5 oz.

33F487. NET **1.29**

Soldering Equipment American Beauty

"LITTLE DANDY" 25-WATT IRON

Model 3110. Light weight, easy handling iron for production use. Tenite finger grip. Lexan handle wipes "white room" clean. 3/16" nickel plated screwdriver tip supplied.
32F987. NET **4.70**

"PARAGON" TIPS FOR ABOVE

Stk. No.	Type	Tips Clad.	Price
32F988	602	3/16 Chisel	1.40
32F989	603	Trnd. Blunt Chisel	
32F990	604	1/16 Trnd. Chisel	
32F991	605	1/8 Trnd. Long Chis.	
32F992	607	1/8 Trnd. Screwdvr.	
32F993	608	1/8 Trnd. Diamond	
32F994	610	3/16 Diamond	
32F995	613	3/32 Trnd. Screwdvr.	
32F996	615	1/16 Trnd. Screwdvr.	
32F997	617	3/32 Screwdriver	
32F999	619	1/8 Shrt. Screwdvr.	

LIGHTWEIGHT AMERICAN BEAUTY BANTAM — 30 WATT

Small, light, quick heating, with removable tip for TV, radio, etc. Stainless steel case insures against heat loss, keeps handle cool. Compression wound, mica-insulated nickel-chromed heating element. Non-kink, flexible cord. 110v, 30-watt. 9¼" length. With stand.
33F022. Type 3118 with 1/8" dia. tip.
NET **6.35**
33F023. Type 3120 with 3/16" dia. tip. **NET** 6.35
33F024. Type 3718. 1/8" diamond point replacement tip. **NET** .... .25
33F025. Type 3720. 3/16" diamond point replacement tip. **NET** .... .28
33F059. "Paragon" Type P109D 3/16" iron plated diamond point tip 1.40
33F026. Type 9281. Replacement Element for 3118 Iron. **NET** 3.25
33F027. Type 9280. Replacement Element for 3120 Iron. **NET** 3.25

LIGHT DUTY 60-WATT IRON

D

(Fig. D.) Model 3128. Compact iron for light work. Uses 1/4" tip for working in hard-to-get-at spots. With tip, cord and stand. For 110-120 v., AC-DC. 1 lb.
33F000. NET **7.20**
33F005. 1/4" diamond point tip. Wt., 2 oz. **NET** .... .36
Model 9272. Replacement element.
33F009. NET **3.60**
"Paragon" Type P67D. 1/4" iron plated diamond point tip for Model 3128.
33F060. NET **1.50**

60-WATT IRON

A

(Fig. A). Model 3125. A production type iron. Light weight. Safety-flare on handle protects operator. 1/4" tip. 12¼" long, 9/16" diameter. For 110-120v AC or DC. Wt., 1 lb.
32F980. NET **8.00**
Model 9271. Replacement element.
33F021. NET 3.40
"Paragon" Type P67D. 1/4" iron plated diamond point tip for Model 3125.
33F060. NET 1.50

100 AND 150 WATT

Model 3138. For work on radio chassis, switchboards, and other electrical uses. 12⅞" long. 3/8" diamond point tip. Nickel-plated metal parts. With stand, 6-ft. cord and tip. For 110-120 v., AC-DC. Wt., 2¼ lbs.

Stk. No.	Type	Watts	Each
33F001	3138	100	10.35
32F986	3138	150	10.35

33F006. 3/8" diamond point tip. Wt., 5 oz. **NET** .... .50
Model 9273. 100 watt Replacement element. **33F010. NET** 4.10
"Paragon" Type P43D. 3/8" iron plated diamond point tip for Model 3138.
33F061. NET **1.85**

200-WATT IRON

Model 3158. For medium-heavy factory and production work. 13⅝" long. With cord stand and 5/8" tip. 110-120 volts, AC-DC. Shpg. wt., 3 lbs.
33F002 NET **12.75**
33F007. 5/8" diamond point tip. Wt., 7 oz. **NET** 1.25
"Paragon" Type P44D. 5/8" iron plated diamond point tip for Model 3158.
33F062. NET 2.80
Model 9275. Replacement element.
33F011. NET **5.75**

HEAVY DUTY 300-WATT IRON

C

(Fig. C.) Model 3178. For use on still heavier work; for light commutators, service and production work. 14¾" long. 7/8" tip. 110-120 v., AC-DC. Wt., 4 lbs.
33F004. NET **16.75**
33F008. 7/8" chisel tip. Wt., 1 lb. **NET** 2.45
Model 9277. Replacement element.
33F013. NET **7.65**
"Paragon" Type P-45C. 7/8" iron plated chisel tip for Model 3178.
33F063. NET **5.00**

EXTRA-HEAVY 550-WATT IRON

(Fig. C.) Model 3198. With heavy-duty 1⅛" tip. Lgth., 15". Wt., 5¾ lbs.
33F015. NET **20.75**
"Paragon" Type P-46C. 1⅛" iron plated chisel tip for Model 3198.
33F064. NET **7.70**

> Models 3125, 3128, 3138, 3178 and 3198 are available for 220-240 volt service at no additional charge. Available also with 3-conductor cord, one wire grounded, at 65 extra. All types available with chisel type points.

GENERAL PURPOSE SOLDER POTS

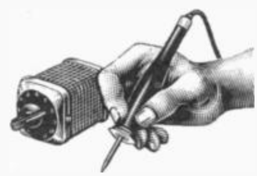
5½" high, 1½" deep Crucibles of cast iron. Center tapped for dross skimmer or extra fixturing. Heat solder to 400° in 15 minutes—750° in 25 minutes. Adjustable, direct reading thermostat. Cords are 2-wire SJO.

Stock No.	Type	Solder Capacity	Top OD	Shpg. Wt.	NET
35F1285	300	1 lb.	4¾"	6½ lbs.	30.40
35F1286	301	1 lb.	4¾"	6½ lbs.	33.40
35F1287	600	2½ lbs.	6"	9 lbs	31.90
35F1288	601	2½ lbs.	6"	9 lbs	34.90

TEMPERATURE REGULATING STANDS

Model 475. Thermostatically controlled to eliminate overheating. Size 6½ x 5⅝ x 3⅜". Adjustment on bottom for very low, warm, or full working temperature. Handles any iron from 100-660 watts at any AC voltage to 125. Less iron. Shipping weight 2½ lbs.
33F014. NET **10.35**
Model 476. Same as above except size 7¾x5⅝x3⅜" and input, 30-85 w.
33F154. NET **10.35**
Model 475-SG. Same as Model 475, but equipped with safety guard. Size: 9x5⅝x5". Shpg. wt. 3 lbs.
32F981. NET **12.00**

● NEW VARIABLE HEAT MICRO-IRON



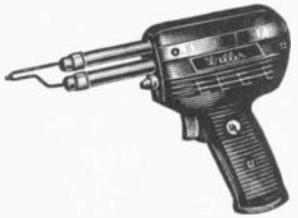
Model T-6. Low wattage tool for delicate jobs such as memory planes, miniature gyro and synchro leads, and fine touch up. Features: quick tip-heat changes in 50° steps from 310°F to 850°F. 2x2x4" line-voltage-isolating transformer with 11 tap switch and dial control, guards against voltage-leak damage to components, hexagonal anti-roll heat baffle. 3/4 oz. handle, 6¾" long. Shpg. wt. 2 lbs.
35F1293. NET **22.75**
Model T-61. 12 watt. Ferro-alloy tip element with heating element embodied, conical needle shape, chrome plated.
35F1294. NET 5.00

TEMPERATURE CONTROLLED 40-WATT SOLDERING IRON

Model V-3000. Simply dial the soldering tip temperature you need. Power control dial range from 350° to 750°. Iron completely isolated from line voltage. Constant-Sensor sleeve continuously regulates power . . . eliminates gap between load demand and power supply. Fast heat tip recovery. Includes power unit, soldering iron and 618 tip (Uses any of 600 Series Paragon tips). Power unit: 4 x 5 x 5". Iron size: 6⅝" long.

Stock No.	Type	Description	NET
35F1290	V-3000	Soldering System	42.00
35F1291	V-3001	Replacement Element	8.85
35F1292	871	Cord Set	3.30

Weller Soldering Tools



DUAL HEAT SOLDERING GUNS

Model 8200. Instant switching to 140 W or 100 W.
33F148. 1-2 Each **6.60**
3-11. Each 5.95
12-up. **Each** 5.30

MEDIUM DUTY SOLDERING KITS

Model 8200PK. Kit includes 3 Weller long life soldering tips, tip changing wrench, flux brush, soldering aid, and all purpose solder. Contains 100/140 watt soldering gun. Shpg. wt., 3 lbs.
33F158. NET **8.30**
In lots of three. **Each** 7.45
In lots of 12. **Each** 6.60

BATTERY OPERATED IRON

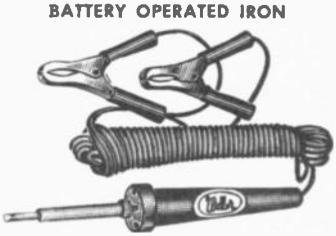


Fig. A. Model TCP-12. Most modern concepts of soldering technology with TIP TEMPERATURE CONTROL. Operates from any 12 volt battery or 12-14 volt AC/DC power supply source. Minimal battery source power drain, extended tip and long tool life: minimized "freezing". Complete with 700°F. 3/16" screwdriver tip, 12 ft. power cord and battery clips. Cool impact resistant handle. Replacement tips available in various configurations and temperatures. Any "PT" series of Weller tips (for TCP-1) will fit these tools. Wt. 1¼ oz.
33F369 NET **10.95**
6-23 9.75 **24-Up** 8.75

WELLER PENCIL IRON

Fig. B. Model W-PS. Light weight soldering iron with 1/8" tip and cord set. 3 screwdriver-shape tip sizes with premium plating; plastic handle. 25 watts at 115 V; 7⅞" long, 7/16" D. Max. temp. 860°F. Wt., 1¾ oz.
33F175. Model W-PS. NET 1-11 .... **4.35**
12-49 .... 3.90 **50-up** 3.45

ACCESSORIES FOR ABOVE

Stock No.	Part No.	Description	1-11	12-49	50-Up
33F176	ST-1	1/16" tip only	.75	.67	.60
33F177	ST-2	3/32: tip only	.75	.67	.60
33F178	ST-3	1/8" tip only	.75	.67	.60
33F180	CS-2	Cord set (2-wire)	.65	....	....
33F181	KN-3	Knurled tip nut	.15	....	....

SP-40

SP-80

SP-175

HEAVY DUTY SOLDERING GUNS

D550

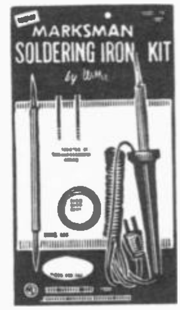
D550PK

Guns give instant heat with no waste. Dual switch from high to low. Exclusive tip-grip. Eliminates resistance. Dual spotlights on both models. Good for dark or tight places. High impact housing. Perfect balance. Replaceable tips.
Type D-550. Heavy Duty Model. Dual Heat. 240/325 watts. 3½ lbs.
33F129. NET **9.95**
In lots of 3 **Each** 8.95
in lots of 12 **Each** 7.95

Type D-440. Standard model. Dual Heat. 145/210 watts. 3¾ lbs.
33F131. NET **9.15**
In lots of 3 **Each** 8.25
In lots of 12 **Each** 7.30

HEAVY DUTY SOLDERING KIT

Fig. A. Model D-550PK. Equipped with heavy duty, dual heat 240/325 watt gun. Kit contains: soldering tip, smoothing tip, cutting tip, tip changing wrench. Ample supply of all purpose solder. Shpg. wt., 5 lbs.
33F132. NET **11.60**
In lots of three, Each 10.45
In lots of 12, Each 9.30



SP-23K

"MARKSMAN" SOLDERING IRON

Model SP-23K. Includes soldering iron, three different pre-tinned nickel-plated copper tips, soldering-aid tool, 5 ft. 60/40 rosin core solder, and instructions for soldering. Pencil type, feather weight, soldering iron with removable tip. Plastic handle remains cool. Develops up to 750° F. Long reach stainless seeel barrel.

Stock No.	Type	Description	1-11	12-49	50-Up
33F183	SP-23K	Kit	3.70	3.35	2.95
33F801	SP-23	Iron Only	2.50	2.25	2.00

TIPS FOR SP-23 SOLDERING IRON 2 PER CARD

33F993	MT-1	Cone Shaped	.53	.47	.42
33F994	MT-2	Screwdriver			
33F995	MT-3	Chisel			
33F996	MT-4	Spade			

SOLDERING IRONS

SP-40. 40 W. pencil type soldering iron. Wt. 4 oz. ¼" dia. plated copper tip. 2 per card.

Stock No.	Type	Description	1-11	12-49	50-Up
33F802	SP-40	40 Watt Iron	3.35	3.00	2.65
33F997	MT-10	¼" Chisel Tip	.90	.80	.72

SP-80. 80 W. heavy duty pencil type soldering iron. Wt. 4 oz. 3/8" dia. Plated copper tip.

Stock No.	Type	Description	1-11	12-49	50-Up
33F803	SP-80	80 Watt Iron	4.15	3.75	3.35
33F998	MT-20	3/8" Chisel Tip	.90	.80	.72

SP-120. 120W. medium duty solder iron. Wt. 10 oz. ½" dia. Copper tip.

Stock No.	Type	Description	1-11	12-49	50-Up
33F804	SP-120	120 Watt Iron	7.50	6.75	6.40
33F999	MT-30	½" Chisel Tip	1.50	1.34	1.20

GUN REPLACEMENT TIPS AND PARTS

Stk. No.	Type	Description	Net
33F149	8125	Plated Tip for 8200, 8100B	
33F139	8125N	One 8125 tip and two tip nuts	
33F124	7135	Copper tip for D-440, 8100, 8100B, 8200, WS-100, WD-135, and S-400 (Package of 2)	
33F140	7135N	One 7135 tip and 2 tip nuts	
33F125*	7250	Copper tip for D-550, 825A, WS-200, WR-250, S-500	
33F141	7250N	One 7250 tip and 2 tip nuts	
33F135	6110	Cutting tip for D-440, 8100, 8200, 8100B, WS-100, WD-135, S-400 (with tip nuts)	.35
33F136	6130	Smoothing tip for D-440, 8100, 8200, 8100B, WS-100, WD-135, S-400 (with tip nuts)	
33F137	6130	Cutting tip for D-550, 8250A, WS-200, WD-250, S-500 (with tip nuts)	
33F138	6140	Smoothing tips for D-550, 8250A, WS-200, WD-250, S-500 (with tip nuts)	
33F127	7300	Copper tip for S-107, D-207 (Package of 2)	
33F162	7323	Switch for single-heat models	
33F163	7324	Switch for all dual-heat models	
33F392	7409	Cord set (all models)	
33F394	725R8100B	Right housing for 8100B	
33F395	726L8100B	Left housing for 8100B	
33F396	725R8200	Right housing for 8200	
33F397	726L8200	Left housing for 8200	
33F398	725R8250A	Right housing for 8250A	.80
33F399	726L8250A	Left housing for 8250A	
33F166	725R440	Right housing for D-440	
33F167	726L440	Left housing for D-440	
33F168	725R550	Right housing for D-550	
33F169	726L550	Left housing for D-550	
33F172	725R8100	Right housing for 8100	
33F173	726L8100	Left housing for 8100	

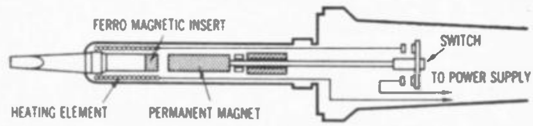
Production Soldering Tools *Weller*

ENERGY RESERVE THRU TEMPERATURE CONTROL

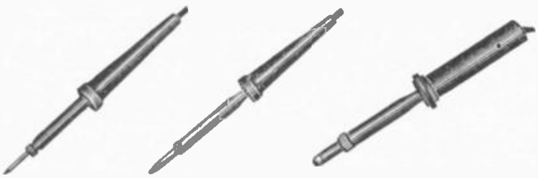
Have a self-contained automatic switching system which is activated when the tip temperature deviates from the pre-selected level that you set. When tools are idling the heating element is on only as required to maintain the idling temperature. When applied to a load the tool's switching system automatically delivers the level of reserve energy needed.

Permanent magnet is attracted to ferromagnetic insert when tip is cold, activating the power "on" switch. When tip approaches pre-selected temperature the insert loses its magnetic characteristics causing the magnet to retract and turn the switch off. As the tip begins cooling the ferromagnetic insert again attracts magnet to resume the heating process. "Temperature Sensing" tips make the system work!

Weller "TEMPERATURE SENSING" Tips



TEMPERATURE CONTROLLED LINE-VOLTAGE TOOLS



TYPE W-60. High energy reserve and light weight makes it an outstanding performer on any production line. Covers a 15 to 100 watt spectrum. For high idle rate situations, select lower temperature tips for optimum tip and tool life. Includes 800°F., 1/8 inch screwdriver tip, 60W, 120V. Length 7½ inches. Weighs only 2½ ounces.

Type W-100. For medium duty work; this tool covers a range of 50 to 150 watts, yet holds the weight burden to a minimum. For direct line voltage operations. Supplied with 800°F., screwdriver tip. 100W, 120V. Length 8¼". Weighs only 3½ ounces.

Type W-200. Ideal for heavy-duty work where the bulk of other tools makes operations clumsy. This 150-200 watt tool is lighter than many 135 watt tools. Comes with 800°F, 7/16 inch chisel tip. 9½ inches long. Weighs just 10 oz.

Stock No.	Type	1-11	12-47	48-Up
33F348	W-60	9.00	8.00	7.20
33F349	W-100	11.25	10.00	9.00
33F350	W-200	15.00	13.35	12.00

W-60 REPLACEMENT TIPS (SCREWDRIVER TYPE ONLY)

600° Stk. No.	700° Stk. No.	800° Stk. No.	Type	Size	1-14	15-49	50-Up
35F2500	35F2501	35F2502	5A1N	1/16"	.95	.85	.75
35F2503	33F368	35F2504	5B1N	3/32"			
35F2505	33F387	35F2506	5C1N	1/8"			
35F2507	33F386	35F2508	5D1N	3/16"			

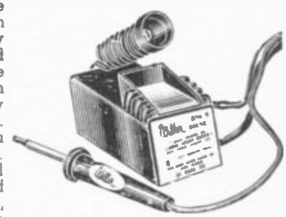
W-100 REPLACEMENT TIPS (SCREWDRIVER TYPE ONLY)

700° Stk. No.	800° Stk. No.	Type	Size	1-9	10-24	25-Up
35F2509	35F2510	6C1N	1/8"	1.50	1.35	1.20
33F367	35F2511	6D1N	3/16"			
33F388	35F2512	6E1N	1/4"			

W-200 REPLACEMENT TIPS

700° Stk. No.	800° Stk. No.	Description	Type	1-9	10-24	25-Up
35F2513	35F2514	1/4" scrwdvr	12E1L	2.25	2.00	1.80
352515	35F2516	3/8" chisel	12F4N			
33F391	35F2517	7/16" chisel	12G4N			

TEMPERATURE CONTROLLED "LOW VOLTAGE" SOLDERING STATION WITH ENERGY RESERVE



MODEL W-TCP Temperature Controlled Unit complete with pencil iron and power supply unit incorporates iron holder and tip cleaning sponge. Versatile tool with 15-100 watt spectrum eliminates need to stock many other tools of various wattages. Interchangeable tips give you choice of 500°, 600°, 700°, 800°F. tip idling temperature. Pencil weighs only 1¾ oz., for ease of operation. Extremely flexible, light weight, burn-proof silicone rubber cord leads to pencil. Bonus factor of wide variety of interchangeable tips. Unit includes soldering pencil and power unit. 3-wire cord. 60W, 120V, 50/60 cycles. Shp. wt. 4 lbs.

MODEL TCP1 soldering pencil only, as described above. For 24 volt operation. Includes 700°F., 3/16" screwdriver tip. Other tips available with heat spectrum of 500°, 600°, 700° and 800°F. Shipping weight 1 lb.

MODEL PU-1, power unit only. Includes soldering pencil stand, sponge and built-in sponge holder. 24 volt secondary, 60 watts, 120 volts, 50/60 cycles. Shipping weight 3 lbs.

Stk. No.	Type	Description	1-5	6-23	24-Up
35F2521	W-TCP	Power Unit and Pencil	19.50	17.30	15.60
35F2522	TCP-1	Soldering Pencil	10.95	9.75	8.75
35F2520	PU-1	Power Unit	8.55	7.55	6.85

TEMPERATURE SENSING TIPS

*Long screwdriver

Stock Numbers 500°F	600°F	700°F	800°F	Description	Style
35F2524	35F2525	35F2526	35F2527	1/16" Scrdrvr	PTA
35F2528	35F2529	35F2530	35F2531	3/32" Scrdrvr	PTB
35F2532	35F2533	35F2534	35F2535	1/8" Scrdrvr	PTC
35F2536	35F2537	35F2538	35F2539	3/16" Scrdrvr	PTD
35F2540	35F2541	35F2542	35F2543	1/32" Scrdrvr	PTH
35F2544	35F2545	35F2546	35F2547	3/64" *Scrdrvr	PTK
35F2548	35F2549	35F2550	35F2551	5/64" *Scrdrvr	PTL
35F2552	35F2553	35F2554	35F2555	3/32" Spade	PTBB
35F2556	35F2557	35F2558	35F2559	1/8" Spade	PTCC

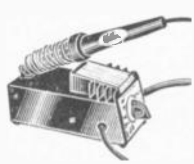
Prices	1-14	15-49	50-Up
	.95	.85	.75

SOLDERING TOOL STAND

MODEL PH-60. For W-60 soldering tool. Funnel inserts available to accommodate W-100 and TCP-1 irons. Heavy cast base and spring holder keep iron safely anchored on work bench. Has sponge for tip cleaning. Shipping weight 4 lbs.

Stk. No.	Type	1-11	12-47	48-Up
35F2519	PH-60	2.98	2.65	2.38

TEMPERATURE CONTROLLED SOLDERING PENCIL



MODEL W-TCP2. Soldering pencil for use with solders with melting points below 300° F. Continuously variable range of tip temperatures, 200-450 °F., may be set on the stepless control dial. Shipping weight 4 lbs.

Stk. No.	Type	1-3	4-11	12-Up
35F2523	W-TCP2	50.60	45.60	40.50

BATTERY OPERATED SOLDERING PENCIL KIT

PB-6. Self-contained battery power unit for field use makes all jobs within easy reach of your tool. Can be used where line voltage is unavailable. Includes battery pack and recharging circuit. Shipping weight 7½ oz.

Stk. No.	Type	1-5	6-23	24-Up
35F2518	PB-6	71.25	63.35	57.00

DEPEND ON NEWARK FOR EVERYTHING IN INDUSTRIAL ELECTRONICS

- Same-Day Shipment
- Lowest Prices
- Satisfaction Guaranteed

Soldering Equipment

KESTER SOLDERS

"44" RESIN CORE SOLDER

Noncorrosive and electrically non-conductive. Flux residue is immune to fungus growth, resistant to oxidation or organic decomposition. Core 66 (3.85% flux content). Applicable MIL and Federal specs, latest amendments available.

Alloys			NET PRICES							
		Stk. No.	3/32" Dia. .093		Stk. No.	1/16" Dia. .062		Stk. No.	1/32" Dia. .031	
Tin	Lead		1 lb.	5 lbs.		1 lb.	5 lbs.		1 lb.	5 lbs.
60%	40%	33F221	2.10	....	33F217	2.14	....	33F223	2.82	....
60%	40%	33F222	.....	10.30	33F218	.....	10.45	33F224	.....	11.35
50%	50%	33F207	1.84	....	33F215	1.90	....	33F337	2.55	....
50%	50%	33F220	.....	9.00	33F216	.....	9.25	33F338	.....	10.05
40%	60%	33F205	1.54	....	33F213	1.58	....	33F335	2.27	....
40%	60%	33F219	.....	7.50	33F214	.....	7.65	33F336	.....	8.85

33F200. T.V.-Radio Solder, 1 oz. coil, 1/16" dia. **NET** .... .32

PLASTIC ROSIN CORE SOLDER

Standard Size. 3/32" diameter. For all radio and electrical applications. Non-corrosive. Plastic rosin filled. Alloy 40% tin, and 60% lead.

33F201. 1 lb. spool. **NET** 1.54

33F202. 5 lb. spool. **NET** 7.50

Extra Thin. 1/16" diameter. Where small amount is required. Non-corrosive. Plastic rosin filled. 40% tin, 60% lead.

33F203. 1 lb. spool. **NET** 1.58

33F204. 5 lb. spool. **NET** 7.65

SOLDERING ACCESSORIES

Soldering Paste. Even distribution of fluxing ingredients. Handy for general repair work. 2 oz. can.

33F211. NET .... .13

Tinning Block. Cleans and tins soldering iron. Replaces sal ammoniac. 1 lb. unit.

33F212. NET .... .65

NOTE: Special alloys are available for industrial use.

BAR SOLDER

Made of finest quality tin and lead alloy.

Stk. No.	Alloy	Size	NET
33F598	50/50	1 lb.	1.59
33F599	60/40	1 lb.	1.83

ERSIN MULTICORE SOLDER

Made with non-corrosive extra-active flux. 5-core design guarantees continuity of flux stream, faster melting, and same % of flux-to-solder as with single core types. SWG wire gauge sizes: 16=.064", 18=.048", 20=.036". Shpg. wt., 1 lb. carton 1¾ lbs.; 7-lb. reel, 9¼ lbs.

ALLOY 60/40 ½ LB. CARTONS

Stk. No.	Gauge	Net
33F344	24(.022")	2.96
33F345	28(.014")	3.90
33F346	32(.0108")	5.09
33F347	34(.009")	6.18

ALLOY 63/37 ½ LB. CARTONS

Stk. No.	Gauge	Net
33F339	22(.028)	2.26
33F340	24(.022")	3.09
33F341	28(.014")	3.96
33F342	32(.0108")	5.14

EASY DISPENSER PAK

14 ft. of Ersin Multicore Solder in 60/40 alloy, 18 ga., in aluminum dispenser. Ideal for repairing printed circuitry as well as for all general purpose soldering requirements.

33F236. NET .... .69

Savbit copper-loaded Industrial Solder Alloy that lengthens the life of copper tips. Melting pt., tensile and shear strength same as tin-lead alloys. 1 lb. spools. 1¾ lbs.

Stk. No.	Gauge	1-27	28-up
33F239	14(.080")	3.20	2.68
33F240	16(.064")	3.22	2.71
33F241	18(.048")	3.34	2.81
33F238	20(.036")	3.63	3.05
35F1014	22(.026)	3.90	3.27

1 POUND CARTONS

Stk. No.	Alloy	Gauge	1-27	28-up
33F226	40/60	16	2.67	2.24
33F229	50/50	16	3.01	2.53
33F228	60/40	16	3.34	2.81
33F230	60/40	18	3.40	2.86
33F231	60/40	20	3.67	3.09

7 POUND REELS

Stk. No.	Alloy	Gauge	1-3	4-up
33F227	40/60	16	18.41	15.40
33F233	50/50	16	20.79	17.43
33F234	60/40	16	23.10	19.39
33F235	60/40	18	23.52	19.74

● *NEW* HIGH PURITY EXTRUDED SOLID BAR SOLDER

Stk. No.	Alloy	1-13 lbs.	14-up
35F1010	60/40	3.19	2.68
35F1011	63/37	3.25	2.73

Special Alloy Industrial Solders. Low-melting pt. type (L.M.P.) is 62% tin, 36% lead, 2% silver. High melting point (H.M.P.) type is 5% tin, 93.5% lead, 1.5% silver. Eutectic 63/37 alloy, melts at 361°F. Shpg. wt., 1-lb. spool, 1¾ lbs.; 28-lb. carton, 32 lbs. SWG size 22=.028".

Stk. No.	Type	Gauge	1-27	28-Up
33F310	L.M.P.	16	5.06	4.26
33F311	L.M.P.	18	5.86	4.92
33F312	L.M.P.	22	7.25	6.09
33F313	H.M.P.	16	4.27	3.58
33F314	H.M.P.	18	4.33	3.63
35F1012	H.M.P.	22	4.88	4.10
33F315	Eutectic	16	3.54	2.97
33F316	Eutectic	18	3.60	3.02
33F317	Eutectic	20	3.74	3.14
35F1013	Eutectic	22	3.89	3.27

LIQUID FLUX

Pure rosin liquid flux removes surface oxides and prevents their formation during soldering operations.

Flux	Pint	Quart	Gal.	Size	NET
5380	35F1690	35F1691	35F1692	Pt.	2.50
4370	35F1693	35F1694	35F1695	Qt.	3.40
0360	35F1696	35F1697	35F1698	Gal.	7.95

5380 — Conforms to MIL-F-14256-W—Non-Activated. 4370—None. 0360—Conforms to MIL-F-14256C-A Activated.

Epoxy Products Co., Div. of Allied Products Corporation

SILVER FILLED ELECTRICALLY CONDUCTIVE COATING

E-Kote 40. Silver conductive paint in spray-on aerosel can. Quickly, electrically shields circuit modules and compounds. Will adhere to plastic, glass, ceramic and most other materials. Tack-free in 3-5 minutes, completely dry in 16 hours. Fully conductive within minutes after application. Volume resistivity of dried film is .001 OHM-CM. Cure schedule: 30 min. at 175°C., 16 hrs. at 25°C. 8 oz.

32F556 .... 12.00

HIGH TEMPERATURE SILICON COATING

- **Extra High Bond Strength**
- **No Flux Contamination**

Silicone E-Kote 3027. For electric shielding and soldering applications which require continuous operating temperatures of 600°F. Tensile-shear strength is 600 psi over entire temperature range. Conductivity over entire temperature range: 0.001 OHM-CM. Cure schedule: 232°C—30 min.; 149°C—24 hours. 3 oz.

32F555 .... 12.00

EPOXY SILVER E-SOLDER

Conductive silver epoxy combines the adhesive characteristics of epoxy with the electrical conductivity of silver. Epoxy "solder" can be used at room temperature for components which are heat sensitive; it can be used to bond dissimilar materials and it has no flux or residue to contaminate sensitive electronic components. When used with dissimilar materials, epoxy "solder" provides a strong bond where soldering or brazing is often impossible.

Stk. No.	Type	Description	Ohm-Cm Resist.	Max. Oper. Temp. °C.	Typical Cure Schedules	Jar Size	NET Per Jar
32F550	3021	2 Part Paste Pure Silver	.001	125-150	27C—24 Hours 65C— 3 Hours	2 oz.	12.00
32F551	3022	2 Part Paste Pure Silver	.01	125-150	27C—24 Hours 65C— 3 Hours	2 oz.	
32F554	3026	2 Part Paste Pure Silver	.01	125-150	27C—24 Hours 60C— 4 Hours	2 oz.	
32F557	3028	Silicon Grease	.1	200	....	2 oz.	
32F552	3030	Pure Silver Paint	.001	125-175	Air Dry	3 oz.	

BERNZ-O-MATIC

• NEW JET TORCH

Model JT-10. Propane torch with brass pencil flame burner and propane fuel cylinder. Provides up to 15 hrs. burning time. Do all heat-needing jobs up to 96% easier and faster. Lifetime Guarantee. Shpg. wt. 3 lbs.
33F825 NET **5.67**

• NEW JET TORCH KIT

Model JT-25. Seven-piece metal box propane torch kit, with all the wanted accessories; fuel sylinder, spark lighter, blow torch head, with new snap on-off flame spreader, and soldring tip packed in blue steel enameled tool chest. Do all heat-needing jobs up to 96% faster and easier. Shpg. wt. 5 lbs.
33F824. NET **10.86**

● *NEW* FE32M DISPOSABLE FIRE EXTINGUISHER

For safe, sure protection. A must for every home, boat, automobile, and farm. Odorless non-toxic chemical will not harm fabrics, pets, or appliances. "Push Button" pressure indicator registers the operating range. Automatically reacts if pressure is lost. Visually and manually checkable. Each head is calibrated to be accurate within 2% of true pressure. Discharge time: 10 sec. Coast Guard and U.L. approved. Shpg. wt. 3 lbs.

32F1200. NET **6.67**

MODEL TX65 PUSH BUTTON TORCH

Lights instantly. Push button control of flame size. Now you can push a button and control the size of the flame—from economical pilot light to extra large flame, big enough to sweat up to 4" copper fittings. Bernz filtered propane fuel cylinder. Lasts up to 8 hrs. Shpg. wt. 45 lbs.
33F823. NET **8.53**

HANDI-HAND TORCH 610

Handy lightweight torch with 4 foot hose. Greater freedom of action—allows user to keep both hands free. Used extensively for soldering, sheet metal work, thawing ice-filled gutters, removing paint, laying asphalt tile, automobile use, and the like. Complete with pencil burner head and cylinder, which burns up to 15 hrs. Pistol grip allows for great maneuverability. Shpg. wt. 4½ lbs.
33F819. NET **10.86**
Replacement cylinder for all standard torches. 2 lbs.
33F821. NET 1.33

JT-10

JT-25

FE32M

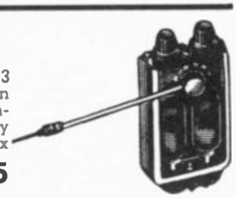
TX65

TX610

MICROFLAME

GAS WELDING TORCH

Flame temperature exceeds 5000°F. Pin point accuracy. Operating time: with large tip, (#20 gauge)-10-minutes, with medium tip-(#22 gauge)-20 minutes. For welding, brazing or cutting most metals, depending on heat conductivity, size and melting point. Solder sticks are a gold/silver alloy enabling soldering of any metal with a melting point of 1100°F. or higher. Contains the torch, 3 flame tips, torch tube, gaskets, LP gas and oxygen cylinders, instruction. Overall size including controls and clamping screws 5¼" long by 2" wide by 1¼" thick at swivel joint. Hand size: 3" long x 2" x ⅝" thick. Shpg. wt. 16 oz. for kit.
60F1525. NET **19.95**



2000 INDUSTRIAL TORCH

Complete Model #1000 Miniature Torch Set, plus industrial capacity oxygen and propane gas tanks, valves, hoses, adapters, handle/bracket, and instructions. Accessories are for longer term industrial uses. Shpg. wt. 10 lbs.
60F1532. NET. **64.75**

MINIATURE-TO-INDUSTRIAL ADAPTER KIT

Convert Model #1000 Miniature Torch Set to use as an Industrial Torch Set. Contains 2002 Hose Set, 2003 Handle/bracket, 2004 Oxygen Valve, 2005 Propane Valve. Order propane and oxygen tanks seperately. Shpg. wt. 2 lbs.
60F1533. NET. **26.75**

ACCESSORIES

60F1526.	Type 1001. Oxygen Cylinder. **NET**	.75
60F1527.	Type 1002. Butane Cylinder. **NET**	.50
60F1528.	Set of 3 Flame Tips. **NET**	.75
60F1529.	Set of 6 Cylinder Gaskets. **NET**	.50
60F1530.	Gold-Silver Alloy Sticks. Pkg. of 4. **NET**	2.50
60F1531.	Soldering Tool and Heat Sink Adapter. **NET**	3.95
60F1534.	Type 2006. Oxygen Cylinder. Shpg. wt. 5 lbs. **NET**	14.00
60F1535.	Type 2007. Propane Cylinder. Shpg. wt. 1½ lbs. **NET**	4.00

HUSKY SOCKET WRENCH SETS

Sets have a wider assortment of combinations giving flexibility and speed. Sockets are strong "thin wall" and "light weight" "Chamfered" and have a four way "ball groove" for quick, positive attachment to any drive tool. Chrome plated and fully polished these sets are packed in streamlined metal boxes.

Model 9120. Famous Husky smooth action 60 tooth reversible ratchets are the heart of these tool sets. Each 20 piece ⅜" drive set is packaged in sturdy, heavy gauge, steel boxes.
34F247. NET **18.05**

6 Pt. Sockets: ⅜", 7/16", ½", 9/16" 12 Pt. Sockets: ⅝", 11/16", ¾" 6 Pt. Extra Deep Sockets: ⅜", 7/16", ½", 9/16", ⅝", 11/16", ¾", 13/16"	3" Socket Extension Reversible Ratchet 10" Flex Handle Universal Joint Metal Box (14¾x3¼x1½")

Model 9023. The ¼" Drive Set is designed for utility strength and durability. Mirror chrome finish in this 23 pc. set assures long rust-free life. Ideal for electronic jobs and ignition systems.

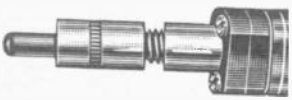
34F248 NET **15.30**

6 Pt. Sockets: 3/16", 7/32", ¼", 9/32", 5/16", 11/32", ⅜", 7/16", ½" 6 Pt. Extra Deep Sockets: ¼", 9/32", 5/16", 11/32", ⅜", 7/16 8 Pt. Sockets: ¼", 5/16", ⅜"	6" Socket Extension 2" Socket Extension Reversible Ratchet Amber Handle Spinner Metal Box (10x3x1½")

Soldering Irons and Accessories

THERMOCO FOR RESISTANCE SOLDERING

PENCIL HAND UNITS



Model 3003. May be used with either Model 2001 or 2002 power supplies. Uses 3/16" dia. carbon tip and is made for heavier work than units below. Well designed to radiate heat away from handle. Supplied with 5 ft. extra flexible cable and 5 ft. continuity cable. Shpg. wt. 8 lbs.
34F705. NET **8.40**

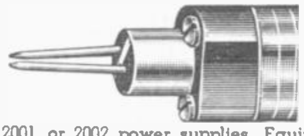
Model 3002. A lighter version of Model 3003 above. Uses 1/8" dia. carbon tip. Used with Model 2001 power supply or Model 2002 power supply using the lower taps for more critical heat adjustment such as P.C. board work.
34F706. NET 8.40

Model 3001. Similar to Model 3002 except 1/16" metal tip.
34F707. NET 8.40

REPLACEMENT ELECTRODES

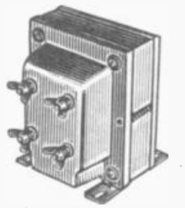
Stk. No.	Type	Used with	Description	Per Pack of 6 1-24	25-99
34F708	5001	3004	Metal 1/16"Dx2¼"L	.50	.45
34F709	5002	3001	Metal 1/16"Dx3½"L	.50	.45
34F710	5003	3002	Carbon 1/8"Dx3"L	1.50	1.35
34F711	5004	3003	Carbon 3/16"Dx3"L	1.50	1.35

ADJUSTABLE DUAL TIP HAND UNIT



Model 3004. As tips are extended, gap narrows for thinner or lighter work. When tips are recessed, gap is widened for heavier work. Tips 1/16" dia. May be used with Model 2001 or 2002 power supplies. Equipped with 5 ft. extra flexible cord with attached lugs.
34F712. NET **10.50**

POWER SUPPLIES



Model 2001. 100 watt power supply. Supplies 5 different heats. Operates on 115V 50-60 cycle, but can be supplied for 230V 50-60 cycle operation. Equipped with 4 wing nut binding posts and 4 ft. line cord and plug. Shpg. wt. 5 lbs.
34F713. NET **17.50**

Model 2002. 250 watt power supply. Same as Model 2001 except it supplies 11 different heats, including one for printed circuit board work. Designed with high temperature insulation to withstand heavy overloads. Equipped with 4 ft. cord. Shpg. wt. 9 lbs.
34F714. NET **24.50**

FOOT SWITCH WITH SERIES PLUG

Model 4001. Designed to be used in primary circuit of power supply. Shuts off power while soldering pencil is holding connection in place until solder sets. Shpg. wt. 1 lb.
34F715. NET **6.80**

ESICO SOLDERING POTS

MODEL 12—200 WATTS

Ideal for dipping small parts. Inside dimensions: 1 9/16" diameter, 1½" depth. Maximum temperature: 750 degrees. Solder capacity ¾ lb. Wt. 4 lbs.
33F321. NET **10.20**

Model 12T. With thermostat. 250 watts—650 degrees maximum. Shpg. wt., 6¼ lbs.
33F322. NET 22.70

MODEL 20—250 WATTS ADJUSTABLE

Pot incorporates thermal delay type control for manual adjustment of wattage with automatic correction for voltage variations. At 25% setting, pot idles at approx. 600° F; at 75% setting, pot idles at approx. 1050° F; control corrects for voltage variations. On hi, pot temperature is approx. 1200°.
35F1280. NET **38.30**

MODEL 36—250 WATTS

Dip soldering of bundles of lead wire, etc. Inside dimensions: 2½" diameter, 1¾" depth. Maximum temperature: 750 degrees. Solder capacity 2¼ lbs. Wt. 4⅛ lbs.
33F323. NET **11.40**

Model 36T. With thermostat. 650 degrees maximum. Shpg. wt., 6⅓ lbs.
33F324. NET 23.80

MODEL 37—600 WATTS

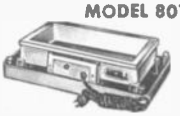
Large capacity pot. Inside dimensions: 3½" diameter, with a depth of 1¾" for greater capacity. Maximum temperature: 800 degrees. Solder capacity 5 lbs. Wt. 7¼ lbs.
33F325. NET .. **15.60**

Model 37T. With thermostat. 625 watts—650 degrees maximum. Shpg. wt., 9⅛ lbs.
33F326. NET 28.10

MODEL 75T 650 WATTS

Dipping small panels, etc., which cannot be accommodated in small round pots. Thermostat control. Inside dimensions: 4¾" square, 1¾" in depth. Max. Temp. 650°. Solder capacity 11¾ lbs. Wt. 9⅛ lbs.
33F320. NET **30.20**

MODEL 80T—1200 WATTS

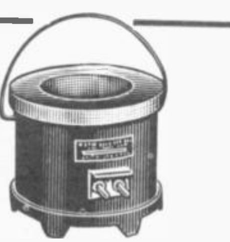


Printed circuit panels, etc. Thermostat controlled. Inside dimensions: 6"x12". 1⅞" in depth. Maximum soldering temperature 650 degrees. Solder capacity in pot 45 lbs. Wt. 28 lbs.
33F327. NET **90.00**

Replacement Elements for Esico Soldering Pots

Stk. No.	Watts	For Pot #	Price
35F1275	200W	12	2.50
35F1276	250W	12T-36-36T	2.40
35F1277	600W	37	4.60
35F1278	650W	37T-75T	4.60
35F1279	1200W	80T	16.50

WAAGE SOLDERING POTS



ROUND SOLDER MELTING POTS

Round solder melting pots for melting solder, tin, lead-type metal and babbitt with temperatures up to 1000°F. Melting crucible of heavy cast iron. Replaceable heating elements are clamped to bottom of crucibles for even heat distribution. Fiber glass and air insulation reduces heat loss to a minimum. Furnished with 6', 115 VAC 3-conductor, grounded cordset.

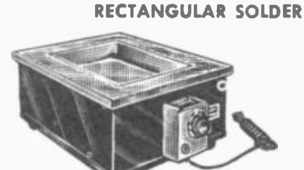
550 DEGREES FAHRENHEIT

Stock No.	Type	Cap. Lbs.	Watts	Inside Dia.	Inside Depth	Control	Shpg. Wt.	NET EACH
60F1500	MP1	1	150	1½	1½	1 heat	5	18.50
60F1501	MP1A	1	200	1½	1½	Auto.	5	24.00
60F1502	MP4A	4	300	3	1½	Auto.	6	28.00
60F1503	MP10A	10	500	3½	2½	Auto.	11	35.00

1000 DEGREES FAHRENHEIT

Stock No.	Type	Cap. Lbs.	Watts	Inside Dia.	Inside Depth	Control	Shpg. Wt.	NET EACH
60F1504	MP1X	1	400	1½	1½	1 heat	5	30.00
60F1505	MP4X	4	800	3	1½	1 heat	6	32.00
60F1506	MP1AX	1	500	1½	1½	Auto.	8	55.00
60F1507	MP4AX	4	900	3	1½	Auto.	9	60.00

RECTANGULAR SOLDER MELTING POTS



Specially designed for printed circuit fabrication. Wide open top area with shallow depth offers maximum dipping efficiency of either flat or edge dipped circuit boards. Circuit boards can be dipped manually or the standard Waage Tanks can be easily integrated into a completely automatic assembly system. Wide flat flanges provide easy mounting of assembly jigs for accurate production dipping. Specifications similar to round units.

550 DEGREES FAHRENHEIT

Stock No.	Type	Cap. Lbs.	Watts	Inside Dimens.	Control	Shpg. Wt.	NET EACH
60F1508	RSP1	10	600	4x4x2"	Auto.	15	42.50
60F1509	RSP2	20	1200	4x8x2"	Auto.	23	55.00

700 DEGREES FAHRENHEIT

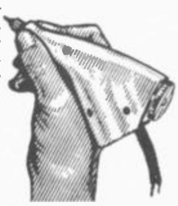
Stock No.	Type	Cap. Lbs.	Watts	Inside Dimens.	Control	Shpg. Wt.	NET EACH
60F1510	RSP3	30	1500	4x12x2"	Auto.	35	75.00
60F1511	RSP7	70	1600	9x12x2"	Auto.	52	120.00

BURGESS VIBROCRAFTERS INC.

• *NEW* VIBRO-TOOL KIT

Model V-88-02. Designed for sawing, filling, engraving, rust removing, chiseling, tooling leather, driving nails and many other jobs. Shipping Weight 3 lbs.
Model V-88-02 includes the following 12 accessories:
Carbide tipped engraving point for engravings and marking.
Knife blade for cutting wood, cardboard, leather etc.
Hammer for driving tacks and small nails.
Half-round—1/2" for gouging and woodworking.
Saw blade—cross-cut teeth for wood and light metal.
Wire end brush for cleaning metal and rust removing.
Abrasive point—cone shaped for frosting glass etc.
Slot punch and scraper punching leather and removing wastes.
Ball point—1/16" for outlining and engraving.
Modeling tool—oval shaped for general leather work.
Triangular file for finishing metal, de-burring etc.
Ball point—1/32" for peening and embossing.
99F1160. NET **18.75**

DELUXE ELECTRIC VIBRO GRAVER



Model V-73. Electric identification marker that writes on steel, aluminum, wood plastics, glass, copper, brass, lead and many other materials. Built for rugged performance, Vibro-Graver has a durable plastic case contour-shaped for comfortable balance and effortless work; on-off switch, convenient dial to adjust depth of engraving, 6' cord. Works by vibration . . delivers 7200 strokes a minute for fast, clean work. Complete with hard tantalum carbide point. 110v, AC, 60 cycles. Size, 6¼"x3¼"x1⅝". Shpg. wt. 2 lbs.
99F1161. NET **9.75**
Type 98003. Tantalum Carbide Point.
99F1167. NET 1.47
Type 98080. Diamond Tipped Point.
99F1168. NET 5.62

• *NEW* ELECTRIC PENCIL

Model V69. Equipped with a steel pt. that vibrates at 7200 strokes/min. With its built-in-Mercury Switch turns itself on when you pick it up; put down, turns off automatically. Adjustment knob changes length of stroke and width of line marked. Overall length: 5½" with 6' cord. Packed in mail order shipping carton. Dim: 7x3x2". Wt. 7 ounces.
99F1162. NET **6.37**

• *NEW* AIRLESS PAINT SPRAYER

Model VS-868. Just plug in and spray paint, enamel, varnish, lacquer, as well as insecticides and other chemicals. Unique airless principle means professional results without the bother and expense of pressure-type sprayers. Fan-spray nozzle for covering large surfaces, and viscosity cup for thinning paint included. 24 oz. capacity, marked for easy measuring. 115 V. 6 ft. cord with heavy-duty, chemical-resistant covering.
99F1163. NET **16.87**
Model VS-860. Same as above except without fan spray nozzle and viscosity cup.
99F1164. NET 13.27

• *NEW* BVI INSECT FOGGER

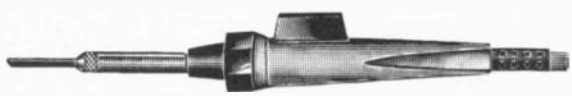
Model F-900. Rids patio, porch, lawn, garden of flies and mosquitos. Converts an ounce of liquid insecticide into 2000 cubic feet of insect killing fog. Sapphire nozzle, thermostat-controlled fogging chamber, built-in motor.
99F1165. NET **20.25**

• *NEW* INSECT FOG INSECTICIDE

For use with BVI insect Fogging equipment. Blend of pyrethrins and petroleum distillate kills flies, mosquitoes and other insect pests on contact. Available in one-gallon cans, ready-to-use. 8 lbs.
99F1166. Per gallon **4.75**

VANGUARD UNILINE MARK VII

The interchangeable heat cartridge (length 2.8", barrel dia. 0.375", wt. 8 oz.) have stainless steel bodies and tellurium copper heat collectors, engineered to give maximum heat to the tip. Mark VII polyamide handles are cool, light weight (less than 1 ounce), and well-balanced (4.5" in length, .09" at grip), yet resist marring.



HANDLES—INCLUDING TYPE 7830 NUT CAP AND 7840 BULB

Stk. No.	Type	Color	1-9	10-49	50-Up
35F3000	7010	Turquoise	6.50	5.85	5.15
35F3001	7020	Beige			
35F3002	7030	Charcoal			
35F3003	7040	White			

HEAT CARTRIDGE—INCLUDING TYPE 7820 TIP COLLAR.

Stk. No.	Type	Description	1-9	10-49	50-Up
35F3004	7120	20 watt Stain. Steel	6.35	5.45	4.75
35F3005	7130	30 watt Stain. Steel	7.95	6.80	5.95
35F3006	7140	40 watt Stain. Steel	8.95	7.65	6.70
35F3007	7150	50 watt Stain. Steel	9.95	8.50	7.45

TINI-TIPS (GENERAL PURPOSE)

All Tini-Tips are iron clad, with 24 Karat gold-plated stainless steel core. These tips are for conventional soldering applications.

Stk. No.	Type	Dia.	Desc.	1-9	10-49	50-Up	I.D.
35F3008	7221	1/16"	Spade	2.64	2.26	1.98	.023
35F3009	7231	1/16"	Chisel	2.70	2.30	2.03	.023
35F3010	7241	1/16"	Pyramid	2.80	2.39	2.10	.023
35F3011	7251	1/16"	Combination	2.84	2.43	2.14	.023
35F3012	7291	1/16"	Flat Face	2.75	2.34	2.06	.023
35F3013	7322	1/8"	Spade	1.95	1.22	.98	.035
35F3014	7332	1/8"	Chisel	2.02	1.26	1.02	.035
35F3015	7342	1/8"	Pyramid	2.10	1.31	1.06	.035
35F3016	7352	1/8"	Combination	2.20	1.37	1.11	.035
35F3017	7462	1/8"	Combin. Ex. Long	2.35	1.47	1.18	.043
35F3018	7423	3/16"	Spade	2.65	1.65	1.33	.043
35F3019	7433	3/16"	Chisel	2.72	1.70	1.37	.043
35F3020	7443	3/16"	Pyramid	2.82	1.77	1.42	.043
35F3021	7453	3/16"	Combination	2.90	1.81	1.46	.043
35F3022	7563	3/16"	Combin. Ex. Long	3.05	1.91	1.53	.055

TINI-TIPS (OFFSET)

Available is both 1/8" * and 3/16"‡ dia. Permits user to accomplish the requirement despite limited accessibility.

Stk. No.	Type	Desc.	I.D.	1-9	10-49	50-Up
35F3023	7572*	Chisel	.055	3.67	2.30	1.85
35F3024	7582*	Pyramid	.055	3.90	2.44	1.96
35F3025	7673‡	Chisel	.062	4.29	2.69	2.16

TINI-TIPS (CUSTOM)

A graduated range of bore and orifice sizes provides the user with a wide capability for economical tip styling. The tips may be custom shaped, bent or dressed to a desired configuration for soldering . . . or desoldering.

Stk. No.	Type	Dim.	1-9	10-49	50-Up
35F3026	7294	.900Lx.023	.35	.31	.26
35F3027	7394	.900Lx.035	.35	.31	.26
35F3028	7494	.900Lx.043	.35	.31	.26
35F3029	7594	.900Lx.055	.67	.57	.51
35F3030	7694	.900Lx.062	.67	.57	.51
35F3031	7794	.900Lx.075	.67	.57	.51

UNILINE ACCESSORIES

7840, Control Bulb. Made of a special ruggedized silicone rubber, the control bulb is the heart of the Vanguard line of soldering tools. It is a highly resiliant rubber especially resistant to high temperatures and dry rot.
35F3032. NET, 1-4 .... **1.95**
5-9, EACH **1.66** **10-Up, EACH** 1.46
7850, Antiseize. A special, high viscosity, non-petroleum lubricant that provides excellent heat conductivity for optimum efficiency. Regular use eliminates thread seizure, oxidation, and corrosion, thereby insuring clean threads for extra long life. Meets militray standards.
35F3033 .NET, 1-4 .... **.55**
5-9, EACH **.45** **10-Up, EACH** .... .42
7860, Ultra Clean Maintenance Set. A convenient, lightweight core cleaner set for use when ultra-cleanliness is demanded for tips and cartridges. Includes seven core cleaners cleaners: 1.500" x .020, .035, .043, .055, .062, .075" and .089 x 3.000".
35F3034 NET, 1-4 .... **5.97**
5-9, EACH .... 5.10 **10-Up** 4.50
35F3036 7820. Tip Collar **NET** .... .35

Soldering Equipment & Wire Strippers

THERMO-TIP® RESISTANCE SOLDERING TOOLS


12-124


12-123


12-163

POWER UNITS

125 Watts

12-124. For light production and intermittent work. Selector switch for choice of three heats (3V, 4.5V, or 6.3V). Complete with power cord and clip for holding pencil style attachments. 115V, 60 Hz. Shpg. wt., 4 lbs.
58F573. NET **21.00**

250 Watts

12-123. For heavier production work. Faster. Handles larger components than 12-124 above. Choice of two heats through "high" (6.1V) and "low" (4V) secondary connections. Complete with power cord. 115V, 60 Hz. Shpg. wt., 8 lbs.
58F574. NET **31.00**

500 Watts

12-163. For continuous production work. Widest selection of heats —nine choices (1.7V to 6.4V) through 3 position selection switch plus "high", "medium", and "low" secondary terminals. With cord and pilot light. 115V, 60 Hz. Shpg. wt., 13 lbs.
58F575. NET **51.00**


12-167


12-169

RESISTANCE SOLDERING ATTACHMENTS

For small parts. No heat damage or cold flow joints. Have pencil grip handles that feature perforated aluminum sleeve which dissipates heat and provides exceptionally cool operation. Versatile and light, gets into tight places. Lighter than soldering iron or gun, can be used by women all day without fatigue. Have feed through type electrodes that can be adjusted for length. Complete with 5 ft. cord with lug terminal.

12-167. Pencil grip handles with double metal electrode style attachment. Shpg. wt., 4 ozs.
58F576. NET **12.00**

12-169. Pencil grip handles with single metal electrode style attachment. Collet chuck hold feeds through electrode. For smallest work. Complete with ground clamp and lead assembly for jig soldering. Shpg. wt., 9 ozs.
58F577. NET **12.00**

REPLACEMENT ELECTRODES

L5241. For above. 1/16" dia., 3½" long. Shpg. wt., 2 ozs.
58F578. NET. pkg. of 6 .... **.65**

FOOT SWITCH

Model 12-146. Foot Switch. Eliminates arcing at electrodes on contact. Permits using electrodes to hold work in position after turning off heat. 3⅝" dia. x 1⅛" high. Rated 5 amps. 115 v. Wired normally open. Shpg. wt., 12 oz.
58F579. NET **9.50**

WIRE STRIPPERS

DUAL BLADE STRIPMASTER®

Designed for close tolerance stripping to meet rigid military requirements for reliability. Strips consistently, with no nicks, no scrapes, no damage to conductor or insulation. Precision matched stationary blades assure clean, 90° strip—no ragged, uneven ends. Insulation slug slips off conductor by moving gripper w/o scraping or burnishing wire strands. Able to handle MIL-W-5086 Type II fiberglass, MIL-W-16878 Types E and EE Teflon, and wire of comparable diameter. Shpg. wt. 1 lb.

Stk. No.	Type	Gauge	NET
58F899	45-500	No. 16 to 22 wire	43.50
58F898	45-501	No. 10 to 14 wire	43.50
58F886	45-502	No. 16 to 22 wire	43.50
58F887	45-503	No. 24 to 30 wire	43.50
58F888	45-504	No. 16 to 22 wire	43.50
58F889	45-505	No. 24 to 30 wire	43.50

STRIPMASTER®

Hand stripper with automatic single-squeeze feature. Strips wire up to a full ⅞". Automatically holds jaws open for removing wire without crushing end. Reduces nicking, cutting, or fraying. For stripping lighter gauge wires. No. of holes: 6 except 14 to 22, 4. Wt., 14 ozs.

No.	Mfg. No.	AWG Gauge	NET
58F553	45-093	No. 14 to 22 Wire	5.95
58F554	45-097	No. 16 to 26 Wire	5.95
58F555	45-098	No. 20 to 30 Wire	5.95

E-Z® AUTOMATIC CABLE STRIPPERS

With Adjustable Blade

A hand stripper for solid and stranded wire. Automatic stop locks jaws open after stripping until wire is removed. Eliminates crushed wire ends. Eccentric adjustment on blades limits cutting depth of stripping blades to compensate for variations in insulation or conductor diameter. Shpg. wt., 14 oz.

No.	Mfg. No.	AWG Gauge	NET
58F556	45-220	No. 16 to 26 Wire	6.95
58F557	45-222	No. 10to 22 Wire	6.95
58F558	45-224	300 Ohm TV Wire	6.95

CUSTOM STRIPMASTER®

A hand stripper for Type E (600V) Teflon®: Unique blade construction and extreme holding power. Strips without nicking or scraping wire. Just insert wire between blades to desired length squeeze handle and release. Includes stop latch and wire-stop. Shpg. wt. 14 ounces.

Stk. No.	Mfg. No.	AWG Gauge	NET
58F550	45-186	No. 16 to 14 Wire	20.50
58F551	45-187	No. 16..to..26 .Wire	20.50
58F552	45-188	No. 26 to 30 Wire	20.50

T-TYPE WIRE STRIPPERS

For quick, easy, clean stripping of wires used in electronic appliances. Sturdy, compact, constructed of hardened steel for rugged duty and long service. The nose is reduced to permit access to confined areas. Plastic grips for sure handling and safety.
58F586. 45-120 (for #10-18 wire)
58F587. 45-121 (for #16-26 wire)
NET EACH **1.95**

SWING-GRIP® THERMAL WIRE STRIPPER

Thermal type wire stripper for stripping applications of the most critical nature, where no damage to conductor or insulation is permissible. Suitable for thermoplastic insulations, including Teflon®. Unique one squeeze operation eliminates "ringing" of insulation. Stripping is accomplished by melting instead of cutting or tearing. Gripper removes slug without disturbing the lay of stranded wire. Designed for smaller gauge wires. Shpg. Wt. 6¼ lb.

Stk. No.	Type	Description	NET
58F897	45-135	Power Unit, 115V, 60 Hz	36.75
58F896	45-136	NPower Unit, 230V, 50-60 Hz	48.00
58F895	45-143	Swing-Grip Tool	21.75

THERMO-STRIP® WIRE STRIPPER

A hand model hot wire stripper for thermo plastic insulated wire. Thermo-strip melts insulation instead of cutting or tearing it. There is no chance of nicking or cutting conductor strands. Heavy duty power unit may be operated continuously. No foot switch required—no waiting for elements to warm up. Stepless, infinitely variable heat control permits setting to exactly the right temperature. Unit has pilot light. Automatic thermal overload protection and is case-grounded through three-conductor cord.

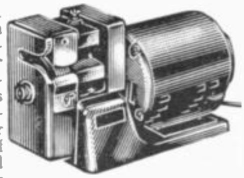
Stk. No.	Type	Description	Wt.	NET
58F560	45-130	45-133 Power Unit & 45-140 Pincer Attach.	9 lbs.	74.00
58F561	45-131	45-133 Power Unit & 45-141 Single Loop Attach.	8¾ lbs.	61.75
58F562	45-140	Pincer Attach. for 45-133 Power Unit	1 lb.	24.00
58F563	45-141	Single Loop Attch. for 45-133 Power Unit	12 ozs.	11.50

Stk. No	Type	Description	Wt.	6 Pr./Pkg.
58F566	L-5599	Medium Duty Element 45-141 Single Loop Attach.	2 ozs.	1.20
58F564	L-5589	Medium Duty Element 45-140 Pincer Attach.	2 ozs.	2.40
58F565	L-5597	Heavy Duty Element 45-140 Pincer Attach.	2 ozs.	2.40

Ideal Wire Stripping Tools and Accessories

IDEAL

● NEW TWIN WHEEL STRIPPER



Production Bench Stripper for film-insulated wires #8 thru #47. Quickly removes all types of film insulation, including Formex, Formvar, Nylon, Teflon and ML Polymer on the heavier gauge wire. Telescoping screw adjustment maintains constant brush pressure for precision stripping of solid, standard or Litz wire. Strips to within 3/4" of body winding. Furnished for general purpose stripping with twin fiber glass brushes L-6063 (1 1/4" O D) as standard. Motor is 1/4 H.P. Brush speed, 5000 R P M Size 13 1/2" long, 6 1/4" wide, 8 3/4" high Shipping Weight 22 1/4 lbs with 3-conductor cord.

Stk. No.	Mfg. No.	Power Supply	NET
58F865	45-108	115V — 60 hz	180.00

FIBER GLASS BRUSHES

1 1/4" O D. x 1" face 3/8" arbor hole

Stk. No.	Mfg. No.	AWG Wire Sizes	Description	1-24	25-99	100-Up
58F866	L-6063	30-40	General Purpose	4.10	3.90	3.75
58F867	L-6064	30-47	Small Wire (Pair)	4.10	3.90	3.75
58F868	L-6065	25-30	Large Wire (Pair)	4.10	3.90	3.75

WIRE BRUSHES

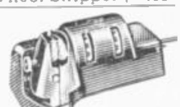
Complete brush (made up of five sections) has 1" face with 3/8" arbor hole Packaged 10 sections (2 complete brushes) to a box (Price per box)

Stk. No.	Type	O.D.	Description	NET
58F869	L-5404	1 1/4	0025 bristle for Fine Wire	7.50
58F870	L-5349	1 1/4	0040" bristle for General Purpose	7.00
58F871	L-3010	1 1/2	0025" bristle for Fine Wire	7.50
58F872	L-3011	1 1/2	0040" bristle for General Purpose	7.00
58F873	L-3012	1 1/2	0060" bristle for Fabric & Enamel	7.00
58F874	L-3013	1 1/2	0090 bristle for Heavy Insulation	7.00

DRESSING FOR FIBER GLASS BRUSHES

Stk. No.	Type	Description	NET
58F875	L-5245	Handle and 3 refills	2.95
58F876	L-5224	Extra refills pkg of 6	1.85
58F877	L-6099	Replacement Belt for Twin Wheel Stripper	.65

TWIN CONE STRIPPER



Type 45-103. Bench Model with conical brushes for very close stripping of #46 to #30 AWG wires Compact unit for production stripping of film insulation within 1/8" of coils, Armatures miniature parts, etc Stripper includes pair of L-5279 fiber glass cone brushes Motor is 115V, 60 Hz 1/20 H P Brush Speed, 3400 R P M Size 10 long 5 1/2 wide, 5 high Shipping Weight: 13 lbs with 3 conductor grounded cord

58F878. NET 195.00

FIBER CONE GLASS BRUSHES

5/8 O D at large end 5/8 face 3/16 arbor hole

Stk. No.	Mfg. No.	AWG Wire Sizes	Description	Per Pair 1-24	25-99	100-Up
58F879	L 5279	35 46	General purpose	4.45	4.20	4.00
58F880	L-5446	30 35	Medium Wire	4.45	4.20	4.00

DRESSER FOR FIBER GLASS BRUSHES

Stk. No.	Mfg. No.	Description	NET
58F881	L 5245	Handle and 3 refills	2.95
58F882	L 5224	Extra refills pkg of 6	1.85
58F883	L-5302	Replacement Belts for Twin Cone Bench Stripper	.60

ELECTRIC MARKER

Model 11-111. Marker construction reduces "bouncing." Coil provides stronger stroke (7200 spm). Adjusting wheel varies impact force & length of stroke Shpg wt 13 oz.

58F583. NET 9.95

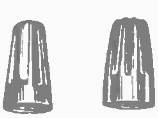
Model L-7843. Carbide tipped replacement point only.

58F584. NET 1.65

Model L-7844. Diamond replacement point only.

58F585. NET 5.65

WIRE-NUT® WIRE CONNECTORS



71B 73B

A solderless tapeless wire connector 74B and 76B are U L and C S A. approved as 600V pressure cable connectors for general use in all types of wiring Has strong phenolic shell Approved for up to 150°C. Av. Shpg wt 9 lbs /1000

Stk. No.	Type	Mfg. No.	Max. & Min. Wire Combin.	Each per 100	Each per 1M
35F2450	71B	30-071		1.00	
35F2451	71B	30-171	2# 18, 2# 16		6.80
35F2452	73B	30-073	3# 16 & 1# 18,	1.40	
35F2453	73B	30-173	2# 18		11.30
35F2454	74B	30-074	1# 14 & 1# 18,	1.75	
35F2455	74B	30 174	2# 14 & 3# 16		14.35
35F2456	76B	30 076	1# 12 & 2# 18,	3.00	
35F2457	76B	30-176	2# 10 & 1# 12		24.85

PRECISION ROTARY WIRE STRIPPER

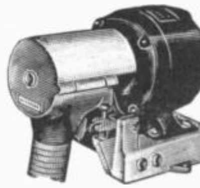
Provdies precision, nick-free production stripping of stranded or solid wire from #16 through #28AWG, and over all diameters of up to 1/4". Standard unit is equipped with 45° blade for general purpose stripping 15° blade for single insulations 115 Volt, 60 Hz, AC. 060 diameter Wire Guide, calibrated adjustment tool and 9 1/2 ft. power cord with grounded plug. Wt. 11 lbs. 4 oz. Size: 5" x 5" x 10".

58F894. NET 225.00

L-6634. Consists of the double edge carbide blade, spring, and blade guide, ready for installation. The long lasting carbide blade is reversible for double-edged economy.

58F893. NET 18.00

ROTARY TYPE STRIPPER



Model 45-009. Features 45° carbide stripping blade, one 1/8" bushing, and 2 1/16" guide bushings. For production stripping of single conductors, solid or stranded, up to 3/8" diameter. Reversible motor (1/4 hp drive) to fit natural twist of wire. Strips, twists, and polishes wire Wt. 45 lbs.

Stk. No.	Type	Description	NET EACH
58F891	45-009	115 Volts 50/60 hz	210.00
58F892	L-2440	*45° High Speed Steel	6.95
58F890	L-3844	Twisting Blades (pair)	6.95

*Extra Stripping Blade (Pair)

LIGHT DUTY ETCHER

Model 11-009. Std. model. Specially suited for lighter applications. 3 heats: 140, 205, & 375 watts. Includes: 4 oz. etching tool with heat resistant handle & special alloy point. 4x7" work plate, 3-heat power unit, and primary cord with heat changing switch. Size: 4x4x8". Shpg. wt. 13 lbs.

58F582 NET 46.00

WIRE CUTTER

Model 45-123. Handy wire cutter slices through copper or aluminum wire. Handles solid wire up to No. 10 AWG and fine stranded cable up to 1/2" O.D. Made of hardened steel. Has ground cutting surfaces. 6" long Shear-type blades for square, clean cut — No ragged strands. Plastic grips. Shpg. wt. 12 oz.

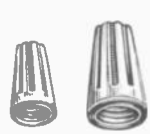
58F885. NET 1.95

SAFE-T-GRIP FUSE PULLER

Model 34-002. Laminated fuse puller features notched handles for a sure grip. Item eliminates the danger of pulling cartridge fuses by hand or bending fuse clips through improper removal. Also used for adjusting loose cut-out clips, handling live electrical parts, etc 7 1/2" long. Shpg wt 4 oz.

58F559. NET 1.15

ALL-PLASTIC WIRE CONNECTORS



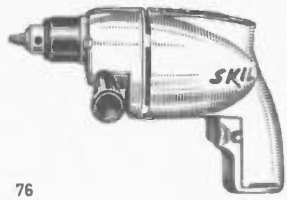
A-0 A-1

A low cost connector for OEM production. Economical production-line way to make safe, positive connections without abrasive damage to even thinnest wire strands. Long skirt of high dielectric plastic is knurled for easy application by hand or power driver. Designed for appliance and fixture manufacturers (On connections with wires smaller tnan No. 18, U L. and C.S.A require submission of finished product for approval.) Average Shipping weight 1 3/4 lbs./1000.

Stk. No.	Type	Mfg. No.	For AWG Wire	100-900	1000
35F2458	A-0	30-140	2# 24, 2# 18	.85	4.15
35F2459	A-1	30-141	2# 18, 1# 16 & 2# 18		

SKIL Power Tools

560



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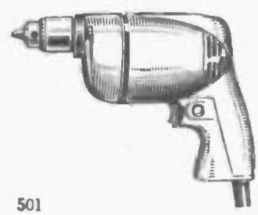

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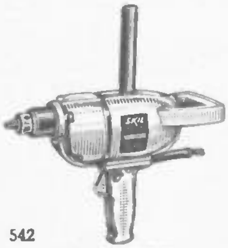

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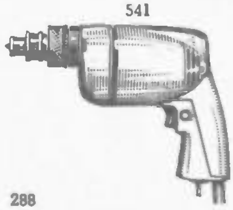

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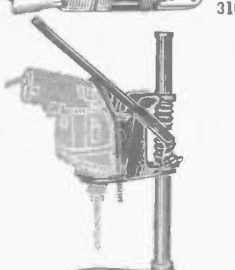
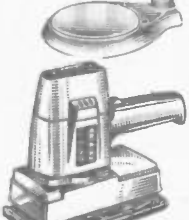




592

1/4" DRILL

Model 503. Drill accurate holes in concrete, metal, brickwork, plaster, wood, or wallboard. Extra power for sanding, grinding, and polishing jobs. Lightweight design for easy handling. 2.5 amp motor, no load speed, 2000 rpm. AC-DC. Drilling cap.: 1/4" steel and 1/2" wood. 9" long. Shpg. wt. 4 lbs.

64F400. NET **14.88**

1/4" TSC DRILL

Model 501. Operator squeezes trigger for any forward speed from 0 to 2000 rpm. Trigger speed control feature provides greater versatility over standard drills when using general accessories. Drill or drive screws in wood, metal, plastics, masonry, and even glass without center punching. Drill into curved or irregular surfaces without bit skidding. 2.5 amp motor and helical gears. Shpg. wt. 4 lbs.

64F401. NET **19.88**

1/4" HEAVY DUTY DRILL

Model 75. Optional speeds: 500; 750; 1000; 2500; 3500; and 5000 rpm. Lightweight, but provides greater power for constant use on production and installation jobs. Built with precision gears, 4 heavy duty ball bearings, and 2 needle-roller bearings. Has easily removed inspection cover, trigger switch, and pin for locking in "on" position. Available with standard speed (1800 rpm) or choice of 6 optional speeds. Keyless chuck available at extra cost. 2.5 amp motor at 115V. 9" long. Shpg. wt. 4 lbs.

64F402. NET **61.00**

3/8" STANDARD DUTY DRILL

• **Power, Performance, and Lightweight**
Model 76. 900 rpm, 2.8 amp, 115V. motor. Convenient side handle for extra control when using large bits, wood augers, and hole saws; quickly removeable for close quarter drilling. Trigger switch pin for locknig in "on" position. Ball bearing construction. 3/8" drill cap. 9 5/8" long. Shpg. wt. 8 1/2 lbs.

64F421. NET **49.00**

● NEW 3/8" DELUXE DRILL

Model 560. Rugged 3/8" drill with extra chuck capacity for use with larger bits up to 3/8" in steel, 3/4" in wood. Removable side handle for extra control using power auger bits or hole saws. Powerful 3 amp. motor with double reduction gears provides more drilling torque. Oversize fan gives cool operation even on long drilling jobs. No-load speed, 1000 r.p.m., AC-DC. Length overall, 9 3/4". Net wt. 3 1/4 lbs., ship. wt. 4 1/2 lbs.

64F432. NET **22.88**

1/2" DELUXE DRILL

Model 542. For drilling heavy lumber and metal. Bores 1" hardwoods, drives hole saws and all self-feeding bits. Rear spade handle and removable top handle. Heavy duty strain relief on cord. No load speed. 500 rpm. 3.5 amp motor, delivers 20% more power and torque. 12 1/2" long. Shpg. wt. 8 1/2 lbs.

64F403. NET **47.88**

● NEW 1/2" COMPACT DRILL

Model 541. Compact and low in price without sacrificing drilling performance, and ease of handling. Cool running motor and double reduction gears deliver full drilling torque. Multithrust bearing on chuck spindle for heavier duty drilling. Removable side handle, 3 amp. motor. No load speed, 750 rpm, AC-DC. Drilling capacity: 1/2" steel: 1" in wood. Length overall, 9 3/4". Shp. wt. 4 1/2 lbs.

64F431. NET **29.88**

HEAVY DUTY INDUSTRIAL REVERSING DRIVER

Model 288. Specifically designed for driving self-drilling fasteners. Die-cast aluminum construction coupled with Super Burnout Protected Motor. 8 1/2" length of tool allows operator to get super close to the work. Insert type bit retention prevents wobble and eliminates service problems. Driver is compact and super powerful. Heavy duty reversing switch is out of the way under the handle near the cord. Easy depth adjustment with locking collar. 1/4" cap. 4 amp motor comes equipped with three wire cord and plug. Shpg. wt. 4 3/4 lbs.

64F404. NET **89.50**

REVERSIBLE DRIVE-R-DRILLS

Control speed 2 ways: pre-set maximum speed by turning adjusting knob. Increase or decrease operating speed by pressure on trigger. Feature invaluable for driving and removing screws; drilling in ceramic tile; or any application where control and accuracy are of primary importance. Can also lock the drill in "on" position.

Model 596-5. 1/4" drill. 2.5 amp motor. 0-2000 rpm forward/reverse. Shpg. wt. 6 lbs.

64F405. NET **31.88**

Model 597-5. 3/8" drill. 3 amp. motor. 0-1000 rpm. forward/reverse. Shpg. wt. 6 lbs.

64F406. NET **38.88**

Model 598-5. 1/2" drill. 3 amp motor. 0-750 rpm forward/reverse. Shpg. wt. 6 lbs.

64F407. NET **41.88**

HEAVY DUTY ELECTRIC SCREW-DRIVER

Model 316. For precision assembly in metal and other materials of uniform density. Double-slip clutch. Compact, lightweight pistol grip design. Trigger switch, locking pin, ball and needle construction. Shpg. wt. 6 lbs.

64F408. NET **145.00**

● NEW VERTICAL DRILL STAND

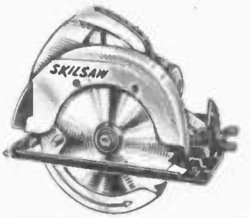
Model 45136. Converts most compact 1/4" x3/8" x 1/2" electric drills to handy lever operated drill press. Shipping weight: 5 1/2 lbs.

64F424. NET **12.50**

ORBITAL/LINE SANDER

Model 592. Handle orbital and straight line sanding at the flick of a switch. Orbital sanding for fast stock removal. Straight line sanding for super finish sanding without swirl marks. Has powerful heavy duty motor, 4 1/2 x 9" sanding pad, contour top grip handle, and trigger switch with locking pin. Shpg. wt. 9 lbs.

64F410. NET **34.88**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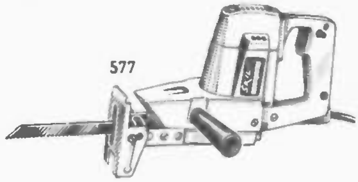



514

6½" HOMEOWNERS POWER SAW

Model 534. Cuts 2" dressed lumber; makes 45° bevel cuts. Sawdust ejection system. Vari-torque clutch. Safety stop brushes and lower blade guard. 9 amp motor, 5500 rpm. Helical gearing. Shpg. wt. 11¾ lbs.
64F411. NET **27.88**

6½" HEAVY DUTY

Model 552. 3 heavy duty ball bearings and 1 roller bearing. 10 amp motor develops at 90°. Cuts 2" dressed lumber at 45° over 1½ hp. Has cutting depth of 2 3/16" at 90°. Cuts 2" dressed lumber at 45° level. Shipping wt. 14½ lbs.
64F412. NET **69.95**

7¼" POWER SAW

Model 574. Cuts wood, plastic, composition, wall board, metal, and masonry. Anti-friction bearings. Depth and bevel controls. Sawdust ejection system. Lower blade guard. 1½ hp. 10 amp. Shpg. wt. 12½ lbs.
64F413. NET **29.88**

7¼" HEAVY DUTY SAW

Model 553. Has ball and roller bearings and helical gears. Telescoping lower blade guard designed for prevention of jamming on miter cuts. Push button blade lock. Sawdust ejection system and bevel and depth-setting controls. Blade cuts to ⅜" at 90°. 12 amp motor, 5200 rpm, and over 2 hp. ⅝" round arbor. Shpg. wt. 16¼ lbs.
64F414. NET **79.95**

RECIPRO SAW

Model 577. Has 2 speeds: Hi (2000 strokes per minute) for fastest cutting of wood, plastic, and composition; lo (1600 spm) for cutting steel, aluminum, and brass. Ideal for pocket cuts, roughing in, scroll work, and ripping. Adjustable 4 position blade; 3 position foot; double reduction gears; and canted blade. Anti-friction bearings. Trigger switch, AC only. 3 amp, 115V motor. Includes: 3 blades and 3 wire cord plug. Shpg. wt. 3 lbs.
64F415. NET **41.88**

• *NEW* 2 SPEED JIG SAW

Model 514-6. Rips, crosscuts, scrolls and notches. Makes own starting hole. Orbital blade action. Low speed for metal—high speed for cutting wood and plastic. Contour grip. Stationary foot. 2.3 amp motor. Low speed: 3000 strokes/min. High speed: 4000 strokes/min. Automatic blower. Assortment of blades included. Shpg. wt 4¾ lbs.
64F533. NET **24.88**

DELUXE 2-SPEED JIG SAW

Model 524. 2.3 amp motor delivers 4000 spm for wood, plastic, and composition; 3000 spm for metal. Orbital action cuts on up stroke, clears on down stroke. Automatic blower. Bevel gears, ball thrust, and mounted anti-friction bearings. Trigger switch. AC only. Includes: Splinter free cutting attachment, 3 blades, 3-wire cord and plug. Shpg. wt. 5½ lbs.
64F418. NET **34.88**

ROTO-HAMMER

Model 726. For drilling, chipping, chiseling or demolishing masonry. Makes 5/32" to 1¼" holes with 1½" bits. Adjustable clutch protects against bit and tool damage when binding occurs. Visible oiler system shows oil supply, capable of 30 hour operation before refilling. Depth gauge for uniform drilling depth, fast change accessory, oversized bearings, hardened alloy steel striker and heat-treated steel gears. 5.5 ampere motor. Shpg. wt. 37 lb.
64F416. NET **270.00**

HAMMER-DRILL KIT

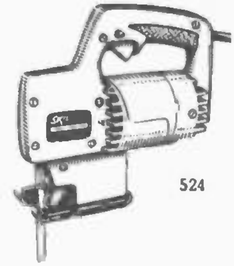
Model 627. Hammer-drill for drilling holes in masonry for a heavy duty drill. Delivers over 21,500 blows per min. Depth gauge for drilling to uniform depth. Super powerful 1200 rpm motor delivers necessary torque to drive large hole saws and self-feeding bits. All ball and needle roller bearings. Drill is compact enough to work between studs and joists. Removeable side handle mounts on top or either side. Kit includes: ¼", ⅜", and ½". Percussion Carbide Tipped bits and steel carrying case. Shpg. wt. 14¾ lbs.
64F420. NET **134.00**

ELECTRIC DIE GRINDER

Model 146. Specifically designed motor for continuous hi-speed use. Construction minimizes vibration. ⅛" chuck collet and 20,000 rpm. Provision for pin engagement of spindle. Shpg. wt. 2¼ lbs.
64F409. NET **70.00**

• *NEW* SKILL GRINDER—6"—¼ H.P.

Model 291. Features adjustable tool rests, precision ground shafts. Includes 1 fine and 1 medium grit 6"x⅝" wheel, ½" arbor, ¼ H.P., 50-60 Hz, 115V motor. 3600 R.P.M. Toggle type switch, AC only. Shpg. wt. 31 lbs.
64F425. NET **54.88**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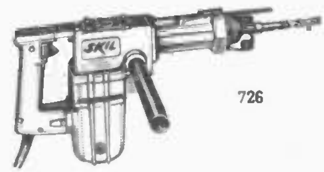
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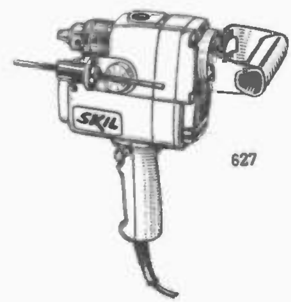
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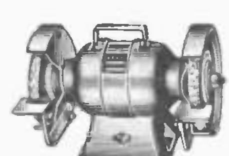


GRINDER ACCESSORIES

Stk. No.	Type	Description	Grit	NET
64F426	43232	6" x ⅝" wheel	36 (medium)	3.65
64F427	43223	6" x ⅝" wheel	60 (fine)	3.65
64F428	43234	6" wheel brush		2.45
64F429	43236	Eye shield		6.25
64F430	43681	⅝" x 6" cotton Buff		2.15

Dremel Tools

● *NEW* **DREMEL MOTO-TOOL INDUSTRIAL GRINDERS**

EACH Kit comes in a polyethelene case with 34 accessories, including: high speed steel cutters, grinding wheels, wire and bristle brushes, rubber polishing tip, sanding discs, drum sander and sanding mandrels, dressing stone, finger grip extension, collet wrench, 1/8", 3/32", 1/16" and 1/32" collets.

● *NEW* **NO. 281 MOTO-TOOL KIT INDUSTRIAL MODEL**

Model 281. Permanent magnet motor with built-in wave rectifier circuit delivers 30,000 rpm. Operates when load reaches 16 oz-inch. Ball bearing construction for longer, more dependable use. Size: 7½" x 1 11/16". 6-foot, 3-conductor cord, .9 amp. Shpg. Wt., 2¾ lbs.,

33F554. Model 281 kit **NET 44.95**
33F553. Model 280 tool only **NET 35.95**

● *NEW* **NO. 271 MOTO-TOOL KIT**

Model 271. Small, light weight, heavy duty tool delivers 30,000 rpm. Only 7¼" x 1 11/16" makes it ideal for die and mold grinding-polishing, deburring and general tool room or model shop use. Oil-impregnated bronze bearings. Sturdy, shockproof housing also provides virbration free work. Grinds, drills, sands and does much more. .8 amps, 6-doot, 3-conductor cord. Shpg. wt., 2¾ lbs.

33F664. Mod'l 271 kit **NET 32.95**
33F672. Model 270 tool only **NET 26.95**

● *NEW* **MODEL 261 MOTO-TOOL KIT**

- **Super compact size 6½" x 1½"**
- **Light weight, 9 ounces**

Model 261. Palm-sized, 9 Oz. power workshop has thousands of uses in industry and home. High performance motor delivers 30,000 rpm while holding torque drop-off to a minimum. Large air vents and high velocity fan assure cool vibration and free operation in grinding, sanding, carving, polishing, engraving, etc. 6-foot, 3-c 3-conductor cord. .5 amps. Oil impregnated bronze bearings. 2½ lbs.

33F662. Model 261 kit **NET** **27.95**
33F654. Model 260 tool only **NET** **21.95**

ELECTRIC ENGRAVER

Model 290. Heavy duty. Marks all types of materials. Calibrated stroke adjustment regulates depth of engraving. 7200 strokes a min. High impact nylon housing and powerful motor. Solid carbide engraving point and storage case. Shpg. wt., 1½ lbs.

33F674. NET **11.95**

Type 9924. Replacement solid carbide pt.
33F648. NET **2.25**

Type 9929. Diamond engraving pt.
33F649. NET **6.75**

DELUXE MOTO-SHOP

Model 572. 15" Jig Saw with ball bearing rotary motor and power take off. Includes disc sander attachment, cloth buffing wheel, wire wheel brush, grinding wheel, wheel guard, flexible shaft, polishing compound stick, 12 piece accessory set, 1 adapter, 3 sanding discs and 4 saw blades. Jig Saw has large capacity 15" throat, saw to center of 30" circle. Table raises, lowers and tilts 18 lbs. For 110-120 volts AC.

33F663. NET **39.95**
ten .... **.60**

ACCESSORIES

Set 240. Consists of 24 high speed steel cutters. 18 oz.
33F700. NET **27.00**

Set 220. Contains twelve high speed steel cutters. 15 oz.
33F701. NET **13.50**

Set 202. Includes 20 pieces: drum sander, saw, brushes, emery wheel points, silicon wheel points, screw mandrel, high speed steel cutters, polishing tip and more. 8 oz.
33F702. NET **12.60**

ACCESSORIES

223 224 225

UNIVERSAL STAND

Type 223. For No. 2 or No. 3 Moto-Tool. Adjustable ball and socket assembly. Holds Moto-Tool at any angle. Quick action clamp for receiving and releasing.

33F550. NET. **6.95**

SHAPING TABLE

Type 224. Mounted vertically on No. 2 or No. 3 Mototool when used with universal stand. When inverted provides control for routing and depth grinding.

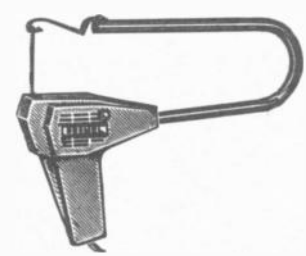
33F551. NET **3.95**

DRILL PRESS

Type 225. Used with No. 2 or No. 3 Moto-tool. For drilling and routing. 12" high with a 6¾" x 4". Table can be raised or lowered; lock in any position for depth adjustment. Shpg. wt. 4 lbs.

33F552. NET **12.95**

ELECTRIC SCROLL SAW

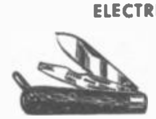


Model 501. Featuring a high speed reciprocating motor producing 7,200 strokes per minute. 4-way blade holder permits cutting in any direction. No limit to cutting length. Deep throat 9½" permits cutting to center of a 19" circle. Has sturdy shatterproof nylon housing and chrome plated tubular saw frame. Ideal for cutting and scroll work on wood and soft metals. Simple operation, even a child can do a professional job. Cutting asphalt, rubber and plastic tile are simplified with the use of this universal power tool. 115V AC operation. 10¾" long, 8½" high. Shipping weight, 3 lbs. Complete with 6' long 3-wire safety cord, 2-prong adapter, and 7 saw blades.

33F673. Type 501. **NET** **9.95**
Replacement blades for Model 501.
33F657. NET (Pack of 10) .... **.45**

ULSTER

ELECTRICIAN'S KNIFE

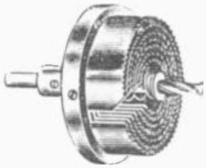


Type K29. Two blades and wire scrapers. Safety lock, steel bolsters and shackle. Spear blade with mirror polish. Mahognay color plastic handle. 3¾". 4 oz.

34F122. NET **1.65**
Dozen lot, EACH **1.85**

ARCO TOOLS

ARCO HOLE-SAWS



No. 650. Cuts 1", 1¼", 1½", 1¾", 2", 2¼", and 2½" holes through any ¾" stock. Rugged alloy tool head. 7 finest quality shatterproof blades. Automatic "slug-ejector" and ¼" drill bit. Shipping weight: 1 lb.
33F470. NET **6.37**

Model 600. Has automatic slug ejector. Cuts 1", 1½", 2", & 2½" holes. Extra grooves in tool head accommodate 1¼", 1¾", and 2¼", blades and ¼" drill bit. Fits any drill, lathe, or motor. Shpg. wt. 1 lb.
33F460. NET **4.77**

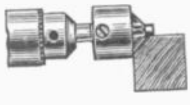
SET OF 4 ADJUSTABLE SCREW DRILLS

Type 1140. Drills and countersinks in one operation. Prevents wood from splitting, thread from stripping. ¼" shank. Adj. for any screw length. Set, for no. 6, 8, 10, 12 woodscrews. Shpg. wt. 2 oz.
33F459. NET **3.65**

5500 SHOP KING ROTARY RASP

¼" shank fit any electric drill. Cuts wood, plastic, plaster, brass, wallboard, rubber, plywood and copper. Ideal for beveling, planing, paint removal. Never clogs or needs sharpening. Constructed of hardened and tempered steel for years of use. Consists of: 3 rotary rasp drums, ¾, 1¼ and 1⅞" diameters. Length of drum 1½". Shpg. wt., 7 oz.
33F483. NET **3.55**

NO. 15 4-PIECE CUTTER SET

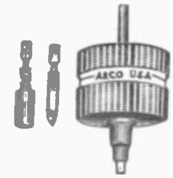


For corner beveling and rounding with any electric drill. Adjustable bevel cutter cuts 45° bevels from 1/32" to 5/16" wide and 3 different size radius-cutters for ⅛", 3/16", ¼". Dual guides for accurate cutting on anything. Shipping weight. 4 oz.
33F486. NET **4.61**

SCREWDRIVER ATTACHMENT

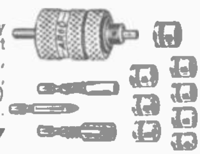
Model 710. Powerful Industrial-type Clutch and Special Bit Holder. Bit idles until mechanism is engaged by applying pressure. Action of the clutch will drive wood screws up to ¼" diameter, disengaging itself automatically. Includes 1—#2 Phillips Head Bit and 1¼" Bit for slotted screws with bit holder. Weight 1 lb.
33F458. NET **3.98**

780 REVERSIBLE SPEED REDUCER AND SCREW DRIVER



Fits any electric drill or drill press. Changes instantly from forward to reverse. Reduces drill speed 11 to 1 in forward, 4 to 1 in reverse. Special bit holder prevents bit from slipping off screwheads. Includes flat bit with bit holder for #6-14 slotted screws, #2 phillips bit and socket wrench holder with ball lock. Wt. 14 oz.
33F448. NET. **5.70**

ARCO SCREW AND NUT DRIVER

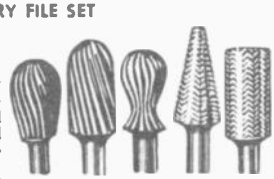


Type 750. 15-Pc. set of industrial-quality tools. Fits all electric drills. Incl. 2 flat bits with holders for #4-14 slotted screws, Phillips bit, 6 hex sockets (¼, 5/16, 11/32, ⅜, 7/16, ½ in.), 2 square sockets (¼, 5/16 in.) and socket wrench holder with ball lock. Wt. 1 lb.
33F449. NET **5.57**

2-SPEED ANGLE DRIVE

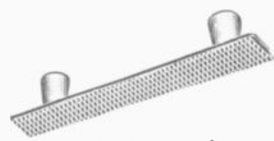
Model 350. Right angle drive for half or double drill speed. Fits ¼" electric drills. Slow speed for buffing. Fast speed for smooth sanding. Swivel angle-drive for hard to get at places. Includes three adapters to mount Angle-Drive in chuck or on drill spindle. Has steel gears, grease-sealed lubrication, lifetime bearings. Weight 1½ lbs.
33F471. NET **3.98**

5700 ROTARY FILE SET



Complete range of 5 shapes for cutting steel, brass, aluminum and other metals, and all non-metal hard surfaces. Ideal for shaping, finishing, pattern making and model making. Milled from solid tool steel, hardened and tempered. Consists of 5 various sizes. Wt., 7 oz.
33F484. NET **3.36**

1270 ARCO PLANE & FILE



Ideal for planing, filing, beveling, removing paint, trimming, rounding corners, sanding. Perfect for model makers and the general household jobs like sticky doors and draws. Never clogs or needs resharpening. Cuts wallboard, plastic, wood, rubber and soft metals without digging or chipping. Shpg. wt. 6 oz.
33F485. NET **1.54**

CONSOLIDATED

¼" SHANK DRILL BIT SETS

Type D15-A. 15 piece drill bit set sized to fit drills with ¼" reduced shank. Includes bits 1/16 to ¼" calibrated in 32nds, and one each 9/32 to ½" by 32nds. With steel index.
35F2650. NET **21.15**

Type D29-A. Contains one each, 1/16 to ¼", calibrated at intervals of 1/64 inch. Also one each 17/64 to ½" calibrated at 64th inch intervals. ¼" reduced shank in all steel index.
35F2651. NET **40.00**

Type DC-5. ¼" shank for bits of ¼", 5/16, ⅜, 7/16 and ½ inch. Packed in plastic carrying case.
35F2652. NET **9.30**

STRAIGHT SHANK DRILL BITS SETS

Type D13. Set includes one each, 1/16" to ¼" bits, calibrated at intervals of 1/64th inch. All in jobbers length with all steel index.
35F2653. NET **5.05**

Type D21. Set contains one each, 1/16 to ⅜" drill bits at 32nd inch intervals. Jobbers length, straight shank, in all steel index container.
35F2654. NET **15.89**

Type D29. With drill bits sized 1/16 to ½ inch, at 1/64th inch intervals. All straight shank, jobbers length. Packaged in all steel sizing guide.
35F2655. NET **33.53**

Type D60. Sixty high-speed drill bits, numbers 1-60. All are straight shank, jobbers length. In all steel index.
35F2656. NET **23.83**

MASONRY DRILL BIT SET

Set MD4. Four piece popular size masonary drills, complete in one easy to handle carrying pouch. Bit diameters of ¼", 5/16", ⅜" and ½".
35F2657. NET **4.04**

13 PC. HIGH SPEED DRILL SET

• **EASY TO STORE** • **EASY TO USE**

Set PL13. 13 piece high speed drill set with bits of 1/16 to ¼", calibrated by 64ths. Complete in see-thru plastic zip bag that is waterproof, air proof and reusable.
35F2658. NET **5.57**

INDIVIDUAL DRILLS

High speed twist drills made to meet high standards of quality, and to provide maximum life with minimum wear.

STANDARD SHANK

Stock No.	Drill Size	1-11	12-Up
35F2659	⅛"	.36	.29
35F2660	5/32"	.42	.34
35F2661	3/16"	.52	.42
35F2662	7/32"	.66	.53
35F2663	¼"	.80	.64

Featuring ¼" shank to fit all power or hand drills with ¼" capacity. State size wanted. Av. Shpg. wt., 4 oz.

¼" SHANK

Stock No.	Drill Size	1-11	12-Up
35F2664	5/16"	1.30	1.04
35F2665	11/32"	1.48	1.18
35F2666	⅜"	1.80	1.44
35F2667	7/16"	2.52	2.02
35F2668	½"	3.28	2.62

THOR POWER TOOLS

Bench Grinder 956

E-110. ¼" Electric Drill

BENCH GRINDER

Model 956. 4½" Wheel Bench Grinder. two wheels 4½" x ½" x ½" hole — one 40 and one 70 grit. Aluminum alloy housing Shaded pole motor. Feature cast in parts tray, rubber feet, and base drilled for mounting. Protected slide switch, removeable end guards, and adjustable tool rest. Silicone finish, oversize eye shields, and flat front design. Shpg. wt. 8 lbs.

33F343. NET **16.73**

BRONZE BEARING GRINDER

Model 928. ¼ hp 6" grinder. 2 wheels, 6" x ¾" x ½". Aluminum alloy housing. Shaded-pole motor, 3450 rpm. Cast in tool parts tray, eye shields, oilless and self-aligning bearings, removeable end guards, base drilled for mtg., heavy duty toggle switch, silicone finish, and flat front. Shpg. wt. 24 lbs.

33F307. NET **27.93**

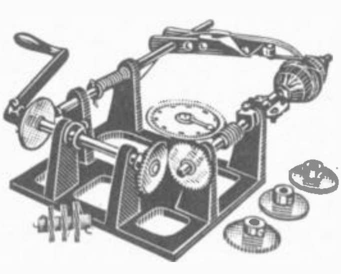
¼" ELECTRIC DRILL

Type E-110. Powerful, compact ¼" drill for industrial applications. Diminutive size (less than 6½") and light weight (27 oz.) bear no relation to this unit's efficiency or power. Full-wave diode circuit is employed to combine the inherent advantages of DC motors—high efficiency, trouble-free permanent-magnet stators—with the convenience of AC operation: just plug into an ordinary 110/120 VAC outlet! Other features include heat-proofed armature with welded commutator leads and high-temperature insulation, shock-proof gearing, and splined armature shaft. Spindle offset is 19/32". Shpg. wt., 3 lbs.

33F330. NET **38.50**

MaRe CO., INC.

COIL WINDING MACHINE



Hand operated coilmaster. Produces self supporting, universal and honeycomb coils, also solenoid single layer. Included with each machine are: 3 cams, ⅛", 3/16", and ¼" throw, and 4 gears. The arm that carries the wire guide is adjustable for PI spacing, and different diameter coil forms. Accurate suitable for both practical and experimental work. Capable of producing many types of coils. Shipping weight 4 lbs.

34F701. NET **8.10**

IDEAL INDUSTRIES

● NEW SWIVEL BLADE CABLE STRIPPER

Cable Stripper w/Utility Knife

Cable Stripper w/o Utility Knife

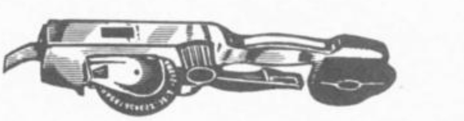
Cuts outer sheathing without damaging inner conductors or insulation. Can be used on coaxial and power cables of approximately 5/16" through ¾" O.D. Adjustable blade handles insulation thicknesses up to 5/32". Strips a wide variety of insulations-PVC, rubber, neoprene, Teflon, polyethylene, nylon, Kapton, fiberglass, fabric, and many others. Eliminates repositioning of tool to perform separate "ringing" and slitting operations. Ruggedly constructed, yet it is sufficiently small and lightweight for production workers, electricians, repair men, etc. Two models are available-with or without utility knife. Both are furnished with an extra slitting blade, which is stored in the handle.

Stk. No.	Type	Description	NET
35F2460	45-127	Cable Stripper w/Utility Knife	6.95
35F2461	45-128	Cable Stripper w/o Utility Knife	5.95
35F2462	L-7486	Repl. Slitting Blade (Pkg. of 2)	1.25 pkg.

DENNISON DURAMATIC

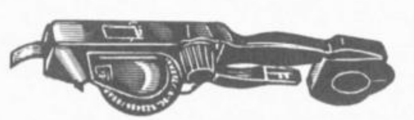
DURAMATIC TAPE EMBOSSING MACHINES

TM-10



FREE with PACKAGE DEAL

TM-9



FREE TM-10 All- Chrome, Heavy-Duty Embossing Machine with the purchase of only 20 rolls of ½" tape at the regular price per roll. Embosses extra-large, sharp 5/32" letters. "Zip-tab cut-off" permits easy removal of tape backing. All metal construction gives long, deepndable service. Full warranty for workmanship and materials. 42 character wheel-full range of letters and symbols.

58F1150. 1-2 .... 24.95
3-Up 18.50

FREE TM-9 Enamel and Chrome Heavy-Duty Embossing Machine with the purchase of only 15 rolls of ½" tape at the regular price per roll. Embosses extra-large, sharp 5/32" letters. "Zip-tab cut-off" permits easy removal of tape backing. All-metal construction gives long, dependable service. Full warranty for workmanship and materials. 42 character wheel — full range of letters and symbols.

58F1151. 1-2 .... 19.95
3-Up 13.95

EMBOSSING REFILL TAPES FOR DYMO AND ROTEX

TAPES FOR TM-10 AND TM-9 EMBOSSING MACHINES

Stk. No.	Type	Color	1-49	50-99	100-Up
58F1182	401M	Red	1.25	1.13	1.00
58F1183	402M	Green			
58F1184	403M	Blue			
58F1185	404M	Brown			
58F1186	405M	Black			
58F1187	406M	Orange			
58F1188	407M	Clear			
58F1189	408M	Yellow			
58F1190	409M	Purple			
58F1191	410M	Gold			
58F1192	411M	Grey			

⅜" x 144" TAPE IN MAGAZINES

Stk. No.	Type	Color	1-49	50-99	100-Up
58F1152	801	Red	.89	.79	.70
58F1153	802	Green			
58F1154	803	Blue			
58F1155	804	Brown			
58F1156	805	Black			
¼" x 144" TAPE IN MAGAZINE					
58F1157	701	Red	.75	.68	.60
58F1158	702	Green			
58F1159	703	Blue			
58F1160	704	Brown			
58F1170	705	Black			

½" x 144" TAPE IN ROLLS

Stk. No.	Type	Color	1-49	50-99	100-Up
58F1171	401	Red	1.25	1.13	1.00
58F1172	402	Green			
58F1173	403	Blue			
58F1174	404	Brown			
58F1175	405	Black			
58F1176	406	Orange			
58F1177	407	Clear			
58F1178	408	Yellow			
58F1179	409	Purple			
58F1180	410	Gold			
58F1181	411	Grey			

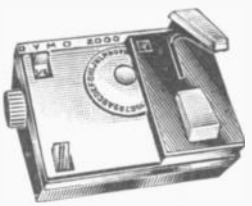
MARK VI LABELMAKER

Model 1002. Embosses both 3/8" & 1/4" vinyl tapes. Dual track for quick change of tape widths. Letter spacing changes from reg. to wide by moving spacing button. Interchangeable embossing wheels; allow you to vary character size. Prints vertically, or uses special characters, symbols, or numbers. Handy tape cut off lever. Letter size, .150". Characters: A-Z, 0-9, $ c % & ' - /. Cycolalc plastic body. Shpg. wt. 5 1/2 oz.
58F720. NET. **6.88**

● NEW TOOL 'N' TAPE KIT

Model 7051. Complete identification kit. Contains: 1 Mark VI Labelmaker wit Reg. size letter and 1 giant letter embossing wheel; 3 rolls of 3/8" and 2 rolls 1/4" tapes.
58F721. NET. **9.95**

● NEW DESK TAPEWRITER



Model 2000-00. Dual-track embossing machine. Selector knob speeds letter dialing by 25%. Dual track embosses 3/8" or 1/4" tape. Non-marking rubber feet. Takes six interchangeable embossing wheels. Automatic "Pull-Tab" cutoff. View window allows user to see embossed letters before they emerge. Includes 1 magazine 3/8" tape. Fiber-filled plastic base and satin finished chrome top. "Optimum" letter embossing wheel. Shpg. wt. 2 lb.
58F752. NET. **19.50**
Model 2000-01. Kit contains: 1 Desk Tapewriter; 2 rolls 3/8" and 2 rolls 1/4" tape. Standard letter and vertical letter embossing wheels plus Optimum wheel incl. with machine.
58F753. NET. **29.00**

DYMO TAPEWRITERS

Models 1200 M30 & 1250 M15. Use both 1/2 or 3/8" x 200" rolls of tape. Both feature "Executive" letter spacing. Model 1200: comes with "Universal" embrossing wheel for upper & lower case letters, regular & subscript numbers. Embrossing wheels #3000-02 with .310" vert. wheel and 300-03. .350" horizontal are interchangeable Alum. bodies, baked enamel finish. Shpg. wt. (1200) 26 ozs., (1250) 21 ozs.
58F722. NET **69.95**
58F723. NET **54.95**

● NEW TOOL 'N' TAPE KIT

Model 1200-01 M15. Tool and Tape kit in carrying case. Contains: 1 1200 tapewriter; 10 Guide-Pak tape rolls; "Giant," Universal," and "Vertical" letter embossing wheels.
58F724. NET. **89.95**
Model 1250-01 M30. Tool and Tape kit in carrying case. Contains: 1 1250 tapewriter; 10 Guide-Pak tape rolls; "Standard" and "Optimum" letter embossing wheels.
58F725. NET **74.95**

TAPEWRITERS

Models 1203, 1207, 1101. Emboss 1/2" vinyl tape. Accommodate 1/2" x 200" Guide-Pak tape rolls. 1203 has straight cut-off, 1207 has round cut-off. 1101 (M-11) is mainly for use with 1/2" metal embossing tapes. Equipped with hardened steel embossing wheel. Has a built in hole punching device; allows user to punch a 3/32" hole in the end of lables. Shpg. wt. (1203 & 1207) 21 oz. shpg. wt. (1011) 22 oz.
58F772. Model 1203. **NET** **34.95**
58F773. Model 1207. **NET** **34.95**
58F642. Model 1011 M11. **NET** **31.46**

MODEL 1203/1207 TOOL 'N' TAPE KIT

Perfect system for rugged factory and industrial work. Kit contains: choice of either model tapewriter; 2 extra embossing wheels (vertical and special character); 10 1/2" x 200" Guide-Pak tape rolls of assorted colors; and carrying case.
58F774. Model 1203-01 **NET** **49.95**
58F775 Model 1207-01 **NET** **49.95**

TOOL 'N' TAPE KIT

Model 7593, M-11. Kit makes permanent raised letter labels to meet most specialized requirements. Kit includes: 1 M-11 tapewriter; 1steel vertical embossing; 1 plastic horizontal embossing wheel; 5 rolls contrast aluminum tape with adhesive backing; 5 rolls of vinyl tape in assorted colors; and black texon carrying case.
58F776. NET **51.46**

● NEW MODEL 1700 TAPEWRITER

Embrosses letters on 3/8" vinyl tape. Features pull-tab tape cut-off, easy to operate. Includes extra vertical embrossing wheel & tape. Made of Cycolac plastic. Shpg. Wt. 7 1/2 ozs.
58F696. NET **4.95**

2300 TAPEWRITER

Model 2300. Embosses letters a full 1/2" high on 3/4" vinyl tape. Prints 52 characters vertically and 52 characters horizontally, all with the same wheel. Features a "Pull-Tab" backing remover. Tapewriter is portable, durable, and easy to operate. Cast aluminum body and baked enamel finish. Shpg. wt. 15 lbs.
58F726. NET. **112.46**

23000-01 TOOL 'N' TAPE KIT

Model 7701. Portable lid kit. Contains: 1 2300 Tapewriter; 8 magazines of 3/4" x 36' vinyl tape; and case.
58F727. NET. **157.46**

Tapes for 2300 only

Stk. No.	Type	Color	Each	Stk. No.	Type	Color	Each
58F777	5134-2	Red	6.95	58F779	5134-6	Blue	6.95
58F778	5134-5	Green	6.95	58F780	5134-9	Black	6.95

Series 5206 1/4" x 144" Plastic Tape
Series 5201 3/8" x 144" Vinyl Tape
Series 158 1/2" x 144" Vinyl Tape

Stk. No.	Type	Each	Stk. No.	Type	Each	Stk. No.	Type	Each	Color
58F683	5206-2	.75	58F665	5201-2	.89	58F613	158-2	1.25	Red
58F685	5206-5		58F668	5201-5		58F616	158-5		Green
58F686	5206-6		58F667	5201-6		58F615	158-6		Blue
58F688	5206-8		58F672	5201-8		58F620	158-8		Brown
58F689	5206-9		58F666	5201-9		58F614	158-9		Black

36' ECONOMY TAPE MAGAZINE

For use in desk model 2000 only. Exclusive pressure-sensitive adhesive backing.

3/8" x 36'				1/4"x36'			
Stk. No.	Type	Color	Each	Stock No.	Type	Color	Each
58F754	5219-02	Red	1.75	58F763	5220-02	Red	1.45
58F755	5219-04	Oran.		58F764	5220-04	Oran.	
58F756	5219-05	Green		58F765	5220-05	Green	
58F757	5219-06	Blue		58F766	5220-06	Blue	
58F758	5219-07	Yellow		58F767	5220-07	Yellow	
58F759	5219-08	Brown		58F768	5220-08	Brown	
58F760	5219-09	Black		58F769	5220-09	Black	
58F761	5219-12	Grey		58F770	5220-12	Grey	
58F762	5219-60	Wood		58F771	5220-60	Wood	

DYMO VINYL TAPES

Manufactured from thermo-plastic bonded to a pressure-sensitive adhesive backing. Hi-gloss finish. All guidepak tape may be substituted for series 158 or 5201 if cartridge is removed first. Used with models 1200, 1250, 1203 and 1207.

Guide-Pak Economy Length 1/2" x 200"

Stk. No.	Type	Color	Each	Stk. No.	Type	Color	Each
58F728	5163-1	Clear	1.75	58F734	5163-8	Brown	1.75
58F729	5163-2	Red		58F735	5163-9	Black	
58F730	5163-4	Oran.		58F736	5163-12	Grey	
58F731	5163-5	Green		58F737	5163-13	Gold	
58F732	5163-6	Blue		58F738	5163-15	Purp.	
58F733	5163-7	Yell.		58F739	5163-60	Wood	

Guide-Pak Economy Length 3/8" x 200"

Stk. No.	Type	Color	Each	Stk. No.	Type	Color	Each
58F740	5209-1	Clear	1.35	58F746	5209-8	Brown	1.35
58F741	5209-2	Red		58F747	5209-9	Black	
58F742	5209-4	Oran.		58F748	5209-12	Grey	
58F743	5209-5	Green		58F749	5209-13	Gold	
58F744	5209-6	Blue		58F750	5209-15	Purp.	
58F745	520917	Yell.		58F751	5209-60	Wood	

METAL TAPES

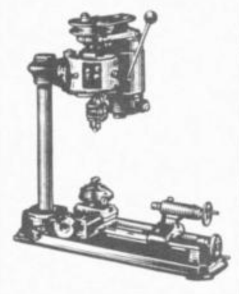
Use when labelling job calls for exposure to extreme heat, chemical and atmospheric corrosion, or rough use. **For M-11 only.**

Stk. No.	Type	Size	Metal	Adhesive	Net
58F636	358	1/2"x12'	Alum.	Yes	1.65
58F632	313	1/2"x12'	Copper	Yes	1.75
58F631	310	1/2"x16'	Alum.	No	.65
58F634	348	1/2"x21'	Copper	No	1.25
58F633	325	1/2"x21'	St. St'L	No	1.25
58F637	361	1/2"x15'	Zinc	No	.85
58F635	355	1/2"x21'	Monel	No	2.25

American Edelstaal Tools

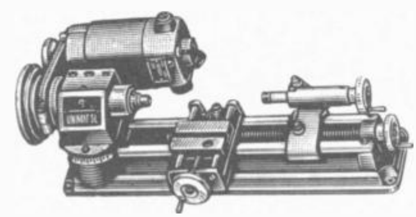
UNIMAT — 5-IN-1 PRECISION MACHINE SHOP

Converts to Drill Press



Converts to Vertical Miller

- **A PRECISION TOOL SHOP OF 100 USES**
- **DO DOZENS OF DIFFERENT MACHINING JOBS**



Converts to Surface Grinder

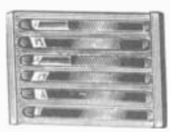
Unimat Accessories

One tool that does the work of a machine shop. The Unimat may be set up as a drill press, miller, surface grinder, polisher and grinder, circular saw, jig saw and lathe with quick-change accessories. Features a head-stock motor unit designed for quick removal from lathe bed and attachment to the vertical column. Headstock features precision ball-bearing spindle with lever actuated quill feed of 5/8 in. and spindle return spring. On lathe bed or vertical column headstock may be rotated a full 360° and locked in any angle. Excellent for use with steel, aluminum, brass, plastic, and wood 1/10 hp motor. Jacobs' type drill and chuck, grinding wheel arbor, face plate, lathe dog, 2 centers, drive belts, wrenches, tool bit, wood storage chest and 40 page illustrated instruction book are included. Swing over bed 3" 360° headstock rotation. Distance between centers 7". Handwheel microcalibrations .002". Takes up to 1/4" square bits; spindle bore takes 1/4". Drill to center of circle 6 1/8"; spindle nose to table 6 1/4". Operates on 110 VAC. Ideal for all instrument makers, professional craftsmen, technicians and hobbyists. Accurate to 1/2 thousandths. Size: 17" x 4" x 5". Wt. 30 lbs.

35F1200 NET **139.50**


1001


1010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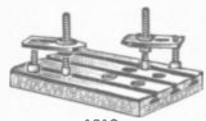
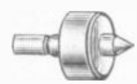

1210


1221


1290

Type 1001 Lathe chuck. 3 jaw, universal chuck. 2 1/4" capacity.
35F1207. .... **24.95**

Type 1002. 4 jaw independent chuck. All jaws adjustable individually.
35F1205. .... **23.90**

Type 1010 Machine Vise. Opens to 1 1/8 inch. V milled both horizontally and vertically.
35F1203. .... **9.50**

Type 2810 Six Tool Bits. Lathe tools for roughing, left and right finishing, threading, cut-off, boring bar.
35F1206. .... **10.90**

Type 1210 Milling table. Permits the clamping of odd shaped materials, round stock, and large castings during milling, grinding and drilling.
35F1202. .... **12.50**

Type 1221 Live Center. Anti-friction double-row ball-bearing for high speed turning or finishing.
35F1204. .... **5.90**

Type 1290 Power Feed. Drives carriage/cross slide assembly at .0008" per spindle revolution. Normal manual operation can be selected at any time.
35F1201. .... **19.95**

MAXIMAT 7 — PRECISION LATHE, VERTICAL MILLER AND DRILL PRESS

COMPLETELY ADJUSTABLE — slides and feed screws adjust to eliminate play

INSTANT SPEED SELECTION — 8 lathe and 4 milling head speeds

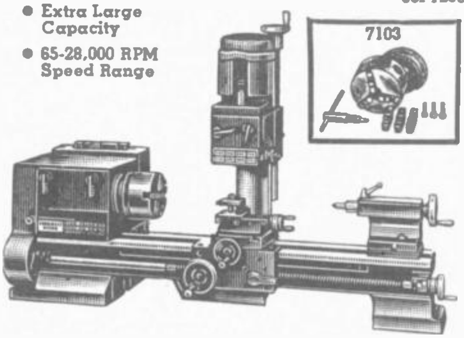
PRECISION GEARED HEADSTOCK — totally enclosed, milled gears run in oil

COMPLETELY SAFE — all gears, pulleys and electricals totally enclosed

Maximat 7 does the work of a lathe, milling machine and drill press, yet occupies a minimum of space—only three square feet. Offers choice of eight lathe spindle speeds, from 65 to 2800 rpm, **without changing drive belts.** Gearing in headstock delivers a maximum of power to lathe spindle and eliminates annoying loss of power found with V-belts. Vertical column turns thru a full 360° arc and head swings 360° with height adjustment via precision leadscrew with micrometer collar. Push button switches select 2 motor speeds, forward, reverse, verticle spindle and stop. A push-pull feed knob gives two carriage feeds for rough or fine cutting, .005" to .002". Cuts all popular threads in either inch or metric pitch. Vertical spindle is spring loaded for drilling operations and the spindle travel is 1 3/16 inch. Lathe spindle is driven by a 115V, 1-P, 60C 1/2 hp motor which is built into the rear of the headstock casing. Basic equipment supplied is: 3 ft. bed, Lathe Headstock motor unit, vertical column, Milling Head, M to R unit, tailstock, carriage, cross slide, compound, single tool holder, set of nine change gears, face plate, 2 dead centers, lathe dog, set of wrenches, grease gun, operating instructions. Wt. 245 lbs.

35F1208. Maximat 7020/18. **NET** **595.00**

- **Extra Large Capacity**
- **65-28,000 RPM Speed Range**



7103

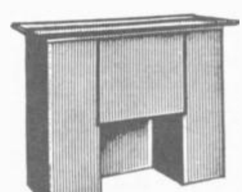
- **ACCURACY SURPASSES ASA REQUIREMENTS**
- **EASY OPERATION-FEED HANDWHEELS WITH LARGE EASY-TO-READ FRICTION SETTING COLLARS**

ACCESSORIES

Type 7100. Chuck Mounting Plate, 4", for use with chuck number 7103. Shpg. wt. 8 1/2 pounds.
35F1209 NET **7.00**

Type 7103. 3-Jaw Universal Lathe Chuck, 4", with 2 sets of 3 jaws (No. 7100 required). Shpg. wt. 2 lbs.
35F1210 NET **55.00**

Type 7500. Floor Stand with tool drawer. Shpg. wt. 125 lbs.
35F1211 NET **115.00**



7500

L & R

ULTRASONIC CLEANING EQUIPMENT

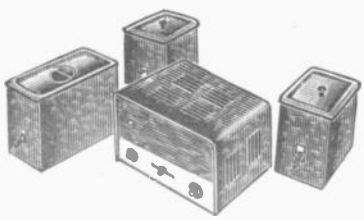
● NEW ULTRA-CLEEN 100

Ideal for cleaning of precision parts at production line, test station or white room installations. No tuning required. Fits any available counter space. Easy to move, drain and clean. Stainless steel tank capacity 1/2 quart with (I.D.) 3½" x 3½" x 2⅝". Generator (O.D.) 7⅜"x7⅜"x4½".

99F1325. NET **89.50**

● NEW ULTRA-CLEEN MULTIPLE TANK SYSTEM

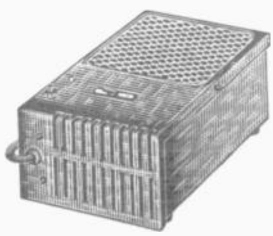
Model 430. Consists of separate generator and your choice of transducerized tanks. Each tank holds 6 quarts. The generator features a stable frequency circuit complete with automatic timer, peaking control and pilot light. Dual switch allows use of one or two tanks.



Stk. No.	TYPE	Description	Size	Wt.	Each
99F1326	430	Generator	14¼x14x9	38	273.00
99F1327	431T	Tank-6 qt.	8x7⅛x6	13	125.00
99F1328	433T	Tank-6 qt.	11¾x6x6	11	125.00

● NEW DRYER

Perfect for drying all types of small parts. A specially designed heat deflector within the unit guides air flow directly upward to render a concentrated even distribution of hot air, at stable temperature, thru the perforated 28 sq. in. stainless steel drying plate. 10" x 6" x 4". Oper. Temp. 110°F. 320 Watts. 115 VAC. 2.8 amps, 3 wire 5½' cord, 2 wire adapter supplied. Shpg. wt. 7 lbs.



99F1339. NET **27.50**

ULTRASONIC RINSING SOLUTION

Use with either #112 or #222 Cleaning Solutions for rapid drying without spotting or streaking.

99F1338. NET .... **PER GAL. 4.25**

● NEW MAXOMATIC

Self-contained generator and and transducerized tank with unique electronic circuit that makes tuning unnecessary. ½ gallon capacity. Efficient cleaning is maintained regardless of the work load or solution level. Starts and operates with single control. With automatic timer. Compact size (7" x 8½" x 9¼") and low price make it ideal unit for multiple installations as a bench tool.

99F1329. NET **149.50**

Stainless Steel Wire Baskets

Stk. No.	Use for Types	Size	EACH
99F1330	MAXOMATIC	5¼"x4¾"x3⅝"	16.50
99F1331	431-T & 433-T	7½"x6½"x5½"	25.00

CLEANING SOLUTIONS

Model 112. Waterless, ammoniated soap in petroleum hydrocarbon base. The M.A.C. of this solution is 500 parts per million. High flash point of 102° F T.O.C. and auto ignition temp. of 475° F. Specific gravity is .85@ 60° F with a vapor pressure at 120° F of 220. Solution removes gummed oil and greases, oil soluble cutting oils, asphalt and tars, carbonized residues, sulfides, waxes, fluxes, ordinary oil and fingerprints without damage to the most delicate parts. Use L & R Ultrasonic Rinsing Solution to remove all cleaning solution to leave the parts clean and dry.

99F1332. NET .... **PER GAL. 3.25**

Model 222. Waterless, ammonia-free solution the same specifications cleaning properties as #112 above without irritation from solution odors Especially effective on hardened oils and greases, waxes and tars. Use rinsing solution to leave parts clean and dry.

99F1333. NET .... **PER GAL. 4.25**

HYDRO-SONIC CLEANING SOLUTION CONCENTRATE

Water base ammoniated detergent with auxillary solvents. Effective in the removal of water-soluble soils, fingerprints cutting oils, waxes, etc. Recommended dilution ratio of one to seven parts of water. Can be used full strength or as much as one part to 20 as determined by the partciular cleaning problem. Freely rinsable in water and for rapid drying after rinsing in water rinse in menthanal.

99F1334. NET .... **PER PINT 2.75**

99F1335. NET .... **PER GAL. 13.50**

AQUA-SONIC CLEANING CONCENTRATE

Water soluble concentrate detergent, exhibits effective detersive and wetting properties when diluted up to 10 parts of water. Powerful wetting and sequestering ability to remove waxes, greases, oils, etc. Rinses completely with water, leaves no hard water stains.

99F1336. NET .... **PER PINT 3.25**

99F1337. NET .... **PER GAL. 16.00**

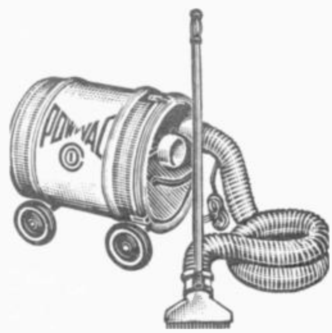
CENTRAL QUALITY INDUSTRIES

● NEW POW-r-VAC HEAVY DUTY VACUUM CLEANER

Model 2020. This sturdy machine has a big 2½" wide hose which will give you many times the suction of ordinary vacuums- to pick up workshop and industrial debris. When hose is attached to exhaust, it acts as a powerful blower. 8' cord and a 6' rubber hose enables you to clean a large area. Drum is made of heavy gauge steel, handsomely finished in avocado with a wood grain trim. Inside is coated with rust inhibitor to assure a long life. Has powerful 110-120v AC-DC 1½ HP motor. Machine comes complete with four side-positioned wheels for greater balance and mobility, full-length handle for stand up jobs, and an adapter to fit standard 1¼" attachments.

99F1300. NET **35.95**

- **Powerful 1½ HP Motor.**
- **2½" Wide hose— For greater Suction**
- **Can be used as a powerful blower.**



POW-r-VAC ACCESSORIES — 2½" SIZE

99F1301 7682. 14" Floor Nozzle with brush. **NET** **5.95**
99F1302 7684. Large Crevice Tool. **NET** **3.75**
99F1303 7685. Paper Filter Bags. (Pkg. of 6) **NET** **1.00**
99F1304 7687. Cloth Filter Bag. (1) **NET** **1.50**

SK234

K-48

K13

1963

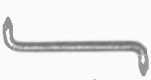
No. 4900/63

ML7

WS150

Type 22

1550



P-120

V01

P6

P01

SELF ADJUSTING NUT DRIVER

Type SA-711. Versatile, cost saving tool does the work of four nut drivers. Place the driver over the nut or screw and automatically select the right hex size ¼"-5/16"-⅜" or 7/16". Eliminates time consuming selection of different tools for each different size. Feature tempered steel sockets, trouble-free adjusting mechanism, chrome plated barrel, and exclusive break proof, shock proof, Comfordome handle. Extremely useful in blind applications where it is impossible to see the screw. Simply turn the driver until it engages screw without benefit of adjustment. Perfect for factory assemblyline work, servicemen and hobbyist alike. The self adjusting tool can ideally be used anywhere. No fumbling or switching. Just press and turn.
35F1274. NET **3.00**

3-PIECE SCREW LAUNCHER KIT

Type SK-234. Includes ⅛x3", 3/16x4" and ¼x6" with self-closing pouch. For tvery serviceman, repairman, mechanic and homeowner in almost any kind of job from repairing a radio to just putting a picture on the wall. Drivers come with easy-to-carry red and white self-closing plastic pouch. Weight: 8 oz.
35F1262. Net **4.36**

PHILLIPS SCREW LAUNCHER

Ideal for holding, starting or retrieving any cross slot screw. One tip fits all sizes of screws. Choice of lengths.

Stock No.	Type	Length	1-5	6-Up
35F1258	K13	3"	1.85	1.48
35F1259	K15	5"	2.15	1.72
35F1260	K16	7"	2.25	1.80
35F1261	K19	9"	2.35	1.88

CRIMPING TOOL WITH BOLT SLICE

Type 1963. Cuts, strips, crimps! Removes insulation from wire 22-10 gauge. Slices 6 sizes of bolts: (4-40, 5-40, 6-32, 8-32, 10-32, and 10-24). Comfort grip—plastic handles.
35F1267. .... **4.95**

MAGNETIC LEVEL, PROTRACTOR, RULE AND SQUARE COMBINATION TOOL

Type ML-7. Protractor level accurate to 1°. Plastic level vial . . . vial head swivels in either direction for reading any angle to 90°. Scale measures rise or fall in in./ft. 1/16" graduate rule on 3 sides.
35F1268. NET **2.80**

SNAP RING PLIERS

Black spring steel with induction hardened straight tips. Secure grip . . . easy release after application or removal. Sturdy construction.

Type 21. Internal type.
35F1263. .... **1.92**

Type 22. External type.
35F1264. .... **1.92**

OFFSET SCREWDRIVERS

Double-ended—one bit parallel to shank, other at right angles. Made of chrome vanadium steel. Av. shpg. wt., 4 oz.

PHILLIPS OFFSET SCREWDRIVERS

Stk. No.	Type	Screws	Length	EACH
34F400	P-120	1 & 2	4¾"	.62
34F401	P-230	2 & 3	5½"	1.01
34F402	P-340	3 & 4	6"	1.18

MILLED BIT OFFSET SCREWDRIVERS

Stk. No.	Type	Screws	Length	EACH
34F403	VO-1	2 to 6	3"	.44
34F404	VO-2	6 to 10	4"	.70
34F405	VO-3	8 to 12	5"	.80

REVERSIBLE SCREW DRIVERS

The reversable screwdriver will please any serviceman, technician, hobbyist, or repairman. Square blade on one end and phillips bit on the other. Special clutch secures blade in break-proof handle. Saves space, time and money.

Type DU-2. 3/16" Regular x #1 Phillips. Overall length 6".
35F1271. NET **1.31**

Type DUH-4. ¼" Regular x #2 Phillips. Overall length 6¾".
35F1272. NET **1.58**

Type DU-1. ⅛" Regular x #1 Phillips. Overall length 5".
35F1273. NET **1.00**

SURE GRIP SCREW LAUNCHER

Superb gripping power and non-slip driving action makes for ideal use in assembly work, production work, repair and maintenance, and home workshop. 3 blade diameters to fill every need.

Stk. No.	Type	Size	1-5	6-Up
35F1250	K23	⅛ x 3"	1.35	1.08
35F1251	K28	⅛ x 8"	1.60	1.28
35F1252	K34	3/16 x 4"	1.95	1.56
35F1253	K36	3/16 x 6"	2.00	1.60
35F1254	K38	3/16 x 8"	2.05	1.64
35F1255	K44	¼ x 4"	2.05	1.64
35F1256	K46	¼ x 6"	2.15	1.72
35F1257	K48	½ x 8"	2.20	1.76

INSULATED TERMINAL ASST. NO. 4900/63 "CASH REGISTER"

Handy deluxe assortment provides the right terminal for every use. Heavy duty, compartmented metal box has identification chart in cover, contains crimping tool with bolt slicer. Plastic insulation is color coded for size.
35F1266. .... **32.50**

DELUXE WIRE STRIPPER

Type WS-150. Spring loaded stripping and cutting tool has adjusting dial for precision stripping of wire 12-24 gauge. Ideal for any use; factory, home or service.
35F1269. NET **1.28**

SNAP RING KIT

Type 1550. Contains compartmented metal box with hinged cover, identification label and an assortment of internal and external snap rings. Has two pliers, 1 for each type ring. For lab, maintenance dept., shop or serviceman. Wt. 8 lbs.
35F1265. .... **12.40**

PHILLIPS SCREW DRIVERS

STANDARD TYPES

Phillips cross slot screws are now in such wide use that you need these precision steel screwdrivers for all Phillips screws. Shpg. Wt., 4 oz.

Stk. No.	Type	Point	Length	Screw	NET
34F355	P01	0	5¼"	0-1	.67
34F356	P1	1	6½"	2-4	.90
34F357	P2	2	7⅝"	5-10	1.14
34F358	P3	3	10"	12-16	1.55
34F359	P4	4	12½"	18 up	1.84

STUBBY TYPE

Stk. No.	Type	Point	Length	Screw	NET
34F361	P6	1	2-4	3"	.90
34F360	P5	2	5-10	3⅞"	.99

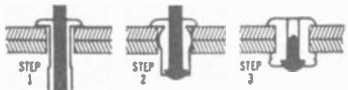
POCKET CLIP TYPE

Stk. No.	Type	Point	Length	Screw	NET
34F362	P12	0	5"	0-1	.67

VACO

POW'RIVETS

4 sizes do the job of 14 regular rivets. 3-sizes do the job of 14 regular rivets. 3-step illustration shows unique "bubble action" which assures positive fastening every time.



Superior clamp up action eliminates loose parts under adverse conditions. Low profile guaranteed for finished appearance on both sides. Sealed stem for waterproof, dustproof appliation.

"HD" is Head Diameter; "HH" is Head Height

Type No.	Dia. "D"	"L" Length	Grip Range	"HD"	"HH"	Hole Size	Stk. No.	100-Per Pkg.	Stk. No.	1000-Per Pkg. 1-9	10-Up
425	1/8	.400	To .250	.215	.044	.136	35F1454	1.17	35F1458	13.70	12.33
528	5/32	.470	To .280	.255	.057	.166	35F1455	1.77	35F1459	21.70	19.53
631	3/16	.530	To .312	.349	.070	.199	35F1456	2.00	35F1460	25.00	22.50
650	3/16	.720	To .500	.349	.070	.199	35F1457	2.90	35F1461	35.00	31.50

PROFESSIONAL POW'RIVETER

Model No. 175002. Streamlined head reaches into confined quarters or deep openings. Provides choice of stroke adjustments for single long stroke or short power strokes. Comes in heavy duty storage pouch with supply of Pow'Rivets.

35F1452. NET **22.95**

DELUXE PROFESSIONAL KIT

575101 Includes: Pow'Riveter No. 175002 and assortment of 4 sizes (55 pieces) of power rivets. Instruction label in hinged cover. Kit measures 10x7½x1¾ in. Wt. 2¼ lbs.

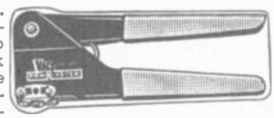
35F1453. NET **26.50**

RATCHET HANDLE NUT DRIVER KIT

Model No. 516103. Selection of hollow shaft hex nut driver blades for radio, TV or any other work requiring speedy nut setting. Hex sizes from ¼ to 7/16 in.

35F1487. NET **8.40**

POW'RIVETER



Model 495. Fastens anything up to ½ in. thick from one side. Features a special head that adjusts by the removal of a simple thumb screw. oFur way head has nozzle for any size blind rivet, 1/8, 5/32, and 3/16 in.

35F1450. NET **4.95**

POW'RIVETER KIT

Model No. 575100. Contains No. 495 Pow'Riveter Tool plus assortment of 55 Pow'Rivets. Wt. 2 lbs.

35F1451. NET **7.95**

SCREW DRIVER KIT

Model No. 516101. Kit contains No. 111001 Ratchet Handle, 1/8x4" blade, ¼x5" blade, No. 1 Phillips blade, No. 2 Phillips blade, and 5" extension piece.

35F1485. NET **7.15**

3-WAY RATCHET SCREWDRIVER

Chrome Vanadium steel blade, nickel chrome finish. For forward, reverse, or combination driving. 2 sizes of fixed blades to choose from.

Stk. No.	Type	Blade dia.	Overall length	Net
35F1488	111001	¼"	10"	2.40
35F1489	111002	5/16"	10½"	2.60
35F1462	111004	*Handel		2.80

(*) Fits all interchangeable snap blades.

INTERCHANGEABLE SNAP BLADE

		Description	Size	Net
3571463	ZA-1	Allen Hex Bit	1/16"	.63
35F1464	ZA-2	Allen Hex Bit	5/64"	.65
35F1465	ZA-3	Allen Hex Bit	3/32"	.67
35F1466	ZA-35	Allen Hex Bit	7/64"	.70
35F1467	ZA-4	Allen Hex Bit	1/8"	.70
35F1468	ZA-45	Allen Hex Bit	9/64"	.72
35F1469	ZA-5	Allen Hex Bit	5/32"	.72
35F1470	ZA-6	Allen Hex Bit	3/16"	.76
35F1471	ZB-24	Regular Bit	1/8"	.49
35F1472	ZB-34	Regular Bit	3/16"	.62
35F1473	ZB-45	Regular Bit	¼"	.62
35F1474	ZP-01	Phillips Bit	No. 0	.58
35F1475	ZP-14	Phillips Bit	No. 1	.62
35F1476	ZP-24	Phillips Bit	No. 2	.65
35F1477	ZS-6	Nut Driver Bit	3/16"	.70
35F1478	ZS-8	Nut Driver Bit	¼"	.70
35F1479	ZS-10	Nut Driver Bit	5/16"	.70
35F1480	ZS-11	Nut Driver Bit	11/32"	.70
35F1481	ZS-12	Nut Driver Bit	3/8"	.70
35F1482	ZS-14	Nut Driver Bit	7/16"	.90
35F1483	ZS-16	Nut Driver Bit	½"	.90
35F1484	ZX-56	Extension Piece	5"	.98

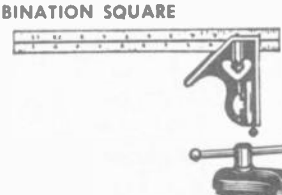
DELUXE SCREW DRIVER KIT

Model No. 516014. Handy 14 piece snap driver kit serves radio, TV Appliance servicemen. Contains nut driver, Phillips and regular drivers, 5" blade extension, and ratchet handle. Pouch measures 10½x8". Wt. 1 lb. 12 oz.

35F1486. NET **12.40**

MILLERS FALLS TOOLS

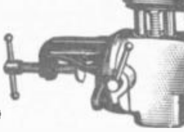
CARPENTER'S COMBINATION SQUARE



Type 1270. Comes complete with level and scriber. Blade has stamped graduations. One side graded in 8ths and 16th. Other in 16ths and 32nds. Blade: 12" long, 1" wide. Shpg. weight, ¾ lb.

33F577. NET **1.44**

SWIVEL VISE



Model 18. Swivel base allows jaws to swing to any desired angle. 2½" wide jaws are milled parallel after assembly. Max. opening 2¼"; clamps to bench up to 2" thick. Small anvil on body. Shpg. wt., 5½ lbs.

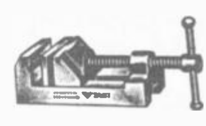
33F574. NET **6.70**

STEEL PIPE REAMER

Model 173. Time saving tool quickly removes burrs from the ends of pipes and conduits, countersinks or enlarges holes in sheet metal. Straight-fluted with bit brace shanks. Made of hardened and tempered steel for long life. Fits ¼-2" pipe. Shpg. wt. 1⅜ lbs.

33F578. NET **4.15**

BENCH DRILL VISE



Model 217. Vise for bench drill, or drill press. Removable swivel jaw provided. Capacity with swivel jaw inserted, 2¾"; with swivel jaw removed, 3⅛"; width of jaws, 2⅜". Wt. 5 lbs.

33F573. NET **10.75**

"NEST OF SAWS"

Model 725. Keyhole type handle one each No. 109, No. 249 and No. 279 interchangeable blades. Pistol grip handle permits locking in any one of 8 positions. Shpg. wt., 1⅝ lbs.

33F572. NET **3.10**

ALNICO POWER MAGNETS

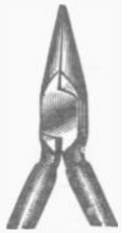
Extremely high magnetic pull for uses in labs, schools, workshops, etc. Lifts, sorts, or retreives steel and iron parts. Hole in top permits screw or rod. Red lacquer finish, and nickel plated keeper.

34F440. Type 370-2. 2 oz. **Net** **1.08**
34F441. Type 370-4. 4 oz. **Net** **1.98**
34F442. Type 370-6. 6 oz. **Net** **2.64**

M. KLEIN Tools & Accessories


A


B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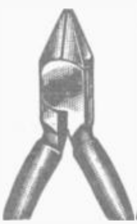
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H


I


J


500


502

TOOLS FOR THE ELECTRONIC INDUSTRY

All have dipped plastic handles. All pliers are forged from a high- grade alloy steel. Plier heads are highly polished and handles are tempered blue. Tools are available in types and sizes to fit all applications. Average shpg. wt., 9 oz.

PLIERS AND CUTTERS WITH COIL SPRINGS

Come with plated coil spring to hold the jaws in open position. The sturdy spring is guaranteed for the life of the plier or cutter. Inside and outside are left free of any obstruction due to the spring. Plier heads are polished and handles are tempered blue.

NON-COIL SPRING PLIERS

Stk. No.	Type	Fig.	Handle Color	Description	1-5	6-Up
34F249	D213-8Ne	....	Blue	8½" high leverage pliers	5.40	4.50
34F016	D302-6	D	Yellow	6¼" curved nose plier	3.52	2.93
34F114	D314-8	B	Yellow	8" long nose plier	3.72	3.11
34F225	D326-5	....	Yellow	5$\frac{3}{16}$" spring adj. plier. Inside jaws polished	4.16	3.47

COIL SPRING PLIERS

Stk. No.	Type	Fig.	Handle Color	Description	1-5	6-Up
34F008	D301-5C	A	Yellow	5$\frac{9}{16}$" long nose plier	3.00	2.50
34F009	D301-6C	A	Yellow	6⅝" long nose plier	3.08	2.57
34F010	D301-7C	A	Yellow	7⅛" long nose plier	3.20	2.67
34F025	D307-5½C	....	Yellow	5$\frac{13}{16}$" slim long nose plier	3.04	2.54
34F032	D301-6PC	....	Yellow	6⅝" long nose plier. Knife at point	4.24	3.54
34F095	D321-4½C	C	Yellow	4¾" long nose plier	2.72	2.27
34F113	D322-4½C	C	Blue	4¾" long nose plier	2.98	2.40
34F226	D323-4½C	....	Yellow	4¾" flat nose plier. Jaws Polished	2.72	2.27
34F123	D318-5½C	....	Yellow	5$\frac{13}{32}$" long needle nose plier	3.24	2.70
34F128	D310-6C	....	Yellow	6⅝" slim long nose plier	3.20	2.67
34F227	D211-6C	....	Green	6½" flush end cutting trimmer plier	4.40	3.67
34F228	D317-5C	....	Yellow	5¼" chain nose plier	3.28	2.74
34F229	D327-5½C	....	Blue	5$\frac{13}{32}$" slim nose plier	4.32	3.60
34F230	D338-5½C	....	Blue	5½" curved needle nose plier. No knurl	3.44	2.87
34F236	D306-5½C	....	Yellow	5$\frac{13}{16}$" duck bill plier	5.28	4.40
34F237	D230-4C	....	Red	4$\frac{3}{16}$" hi-hardness plier	3.60	3.00
34F239	D221-5½C	....	Yellow	5$\frac{13}{16}$" long needle nose side cutting plier	3.60	3.00

COIL SPRING CUTTERS

Stk. No.	Type	Fig.	Handle Color	Description	1-5	6-Up
34F011	D203-5C	....	Yellow	5$\frac{9}{16}$" long nose side cutters	3.48	2.90
34F012	D203-6C	....	Yellow	6⅝" long nose side cutters	3.48	2.90
34F013	D203-7C	....	Yellow	7⅛" long nose side cutters	3.88	3.24
34F018	D202-5C	G	Red	5½" narrow nose oblique cutter	3.48	2.90
34F019	D202-6C	G	Red	6$\frac{1}{16}$" narrow nose oblique cutter	3.52	2.93
34F020	D210-6C	H	Red	6$\frac{1}{16}$" flush oblique cutter	4.08	3.40
34F021	D210-5C	H	Red	5½ flush oblique cutter	3.60	3.00
34F027	D052-C	....	Red	5⅛" oblique cutter for printed circuits	3.76	3.14
34F044	D208-6C	....	Red	6⅝" slim long nose cutting shear	4.24	3.54
34F028	D209-5C	G	Red	5" pointed nose, flush cutting, oblique cutter	3.76	3.14
34F231	D209-4C	G	Red	4$\frac{3}{16}$" ptd. nose, flush cutting, oblique cutter	3.76	3.14
34F087	D207-5C	....	Red	5½" oblique cutting shear	4.32	3.60
34F091	D224-4½C	H	Green	4⅝" semi-flush transverse end cutter	3.44	2.87
34F093	D257-4C	I	Red	4$\frac{3}{16}$" semi-flush cutting oblique cutter	3.08	2.57
34F232	D258-4C	...	Red	4" semi-flush cutting short nose cutter	3.16	2.64
34F233	D204-6C	....	Green	6¼" semi-flush cutting end cutter	3.92	3.27
34F234	D219-5C	....	Red	4$\frac{9}{16}$" flush oblique cutter	4.08	3.40
34F126	D229-5C	..	Red	5" flush cutng., wire gripping oblique cutter	6.40	5.34

NON-COIL SPRING CUTTERS

Stk. No.	Type	Fig.	Handle Color	Description	1-5	6-Up
34F001	D201-8NE	E	Blue	8½" streamlined cutter	4.88	4.07
34F117	D228-8	F	Red	8" hi-lever oblique cutter	3.60	3.00

TYPE 502 — PUMP PLIERS

Jaws are positioned and locked into place for desired size opening by engaging a tongue in proper groove. With yellow plastic handles. Av. shpg. wt. 2 lbs.

Stk. No.	Type	Length	Max. Cap.	1-5	6-Up
34F235	D502-6	6 in.	1 in.	2.32	1.94
34F097	D502-10	10 in.	1½ in.	3.24	2.70
34F098	D502-12	12 in.	2⅛ in.	3.76	3.14
34F099	D502-16	16 in.	4¼ in.	5.16	4.30

ADJUSTABLE WRENCHES

Typt 500. Adjustable wrenches. Drop forged, chrome plated with yellow plastic handles.

Stk. No.	Type	Description	1-5	6-Up
34F129	D500-4	½" capacity x 4"	2.96	2.47
34F037	D500-6	¾" capacity x 6"	3.00	2.50
34F038	D500-8	$\frac{15}{16}$" capacity x 8"	3.44	2.87
34F039	D500-10	1⅛" capacity x 10"	4.32	3.60
34F040	D500-12	1$\frac{5}{16}$" capacity x 12"	6.32	5.27

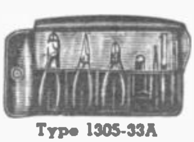
COMBINATION TOOL POUCH


Type 5127

Type 5127. Has gusseted utility pocket, three plier pockets, two screw driver pockets and knife snap. May be used with 5207 waist belt. 7"x10". Wt. 12 oz.

34F086. NET.......... **4.85**

POCKET TOOL ROLL


Type 1305-33A

Type 1305-33A. 1 pr. side cutting pliers, nose and oblique cutting pliers, electrician's tweezers. Also file, screwdriver, electrician's knife. Size rolled: 8x2½". Wt., 2 lbs.

34F047. NET.. **16.51**

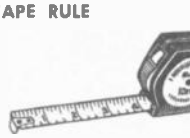
4 PIECE PLIER KIT

Model No. 1305-4. All-purpose kit containing 4 top quality drop forged, high grade alloy tool steel pliers. Each individually fitted, tempered, adjusted and tested for maximum performance. Kit includes: 1 No. D-257-4 Oblique Cutting Pliers, 1 No. D224-4½ End Cutting Pliers, 1 No. D321-4½ Long Nose Pliers, 1 No. D-323-4½ Duck Bill Pliers. Top grade leatherette case. Shpg. wt., ¾ lb.

34F127. NET 10.25

KLEIN TOOLS

POWER RETURN TAPE RULE



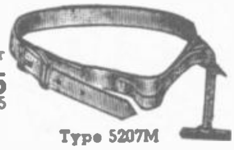
Tape rule is positive locking and smooth running. Control knob for easy operation. Rule has belt or pocket clip on back of case. Mylar clad, replaceable blade; resists abrasion, most oils, and acids. Black numerals on yellow blade for maximum visibility.

Stk. No.	Type	Length	Width	1-5	6-up
34F187	922-10	10 ft.	¾ in.	3.04	2.53
34F188	922-12	12 ft.	¾ in.	3.52	2.93

ALL PURPOSE 6 in 1 ELECTRICIAN'S TOOL

Type 1000. Strips six wire sizes 10-22 gauge; stripping holes provide wire gauge. Has wire cutter and stud gauge #4—⅜" stamped on face of tool. Crimps insulated terminals. "Comfort-grip" handles. Lgth. 7½". Shpg. wt., 8 oz.
30F998. NET 1-5 .... **4.95**
6-Up 3.97
Type 1002. Super All-Purpose Tool. Same as above with added features including terminal locator that positions barrel to insure proper location of crimp. Length 8½". Wt. 8 oz.
34F244. NET 1-5 .... **6.30**
6-Up 5.28

ELECTRICIANS WAIST BELT



Type 5207M

Lightweight. Made of harness leather with tool loops and tape thong.
34F041. Type 5207M. 32-40" **3.65**
34F042. Type 5207L. 38-46" 3.75

ELECTRICIAN'S SCISSORS

Type 2100-5. 5" scissor. Will stand rugged service. High-grade steel, tempered. Nickel plate finish. Wt. 6 oz.
34F023. NET **2.34**

HIP POCKET TOOL CASE

Type 5111

Type 5111. Safe way for carrying sharp or pointed tools; keeps tools handy. Harness leather. Size: 5x7". Wt., 6 oz.
34F048. NET **2.75**

ELECTRICIAN'S KNIFE

Type 1550-2

Type 1550-2. Knife and screwdriver blades of carefully tempered, high-grade cutlery steel. Locking feature on screwdriver. Handle of durable plastic. Shipping wt., 5 oz.
34F022. NET 1-5 .... **2.24**
6-Up 1.87

● *NEW* DRIVE-A-MATIC NUT DRIVER

Model 632. The one tool designed to drive and loosen 15 different sizes of hex nuts, hex head screws and socket head cap screws. Comfort grip makes turning easier and protects hands. 7½" long. Shpg. wt. 8 oz.
34F246 NET 1-5 .... **4.40**
6-Up 3.67

HACK SAW

Hack saw cuts flush with vertical or horizontal surfaces. Adjustment tension easily applied and held until released. Fingers protected by closed handle. Storage chamber provided for six extra blades inside of tube. Frame is die cast aluminum and has strong comfort grip handle. Saw provides front end grip for two hand operation. Length of blade 12 in.
34F180. Type 701-12. **NET. 1-5** **4.00**
6-Up 3.34

HACK SAW BLADES

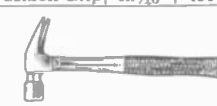
Stk. No.	Type	Length	Teeth	1-99	Box of 100
Carbon Steel					
34F181	1218C	12 in.	18T	.18	12.00
34F182	1224C	12 in.	24T		
34F183	1232C	12 in.	32T		
High-Speed Steel					
34F184	1218HS	12 in.	18T	.78	52.00
34F185	1224HS	12 in.	24T		
34F186	1232HS	12 in.	32T		

"CUSTOM" CUSHION GRIP SCREWDRIVERS

Made of alloy tool steel, heat treated. Chrome-plated finish prevents rust. Amber plastic shock-proof bolstered handle is nonflammable and secured to steel shaft. *Has heavy duty blade. 50% greater torque.

Stk. No.	Type	Description	Blade Size	1-5	6-up
34F100	600-4	Square Shank*	4x¼"	1.24	1.04
34F101	600-6	Square Shank*	6x5/16"	1.60	1.34
34F102	600-8	Square Shank*	8x⅜"	2.00	1.67
34F103	602-3	Round Shank*	3x3/16"	1.12	.94
34F104	602-4	Round Shank*	4x¼"	1.12	.94
34F105	602-6	Round Shank*	6x5/16"	1.36	1.14
34F106	602-8	Round Shank*	8x⅜"	1.76	1.47
34F107	601-3	Round Shank	3x3/16"	.92	.77
34F108	601-6	Round Shank	6x3/16"	.96	.80
34F109	601-8	Round Shank	8x3/16"	1.40	.87
34F110	601-10	Round Shank	10x3/16"	1.16	.97
34F111	603-3 #1 pt.	Super Hard Phillips	3x3/16"	.92	.77
34F112	603-4 #2 pt.	Super Hard Phillips	4x¼"	1.12	.94
34F085	604-3	Plastic Handle Without Cushion Grip	3x3/16"	.64	.54

TUBULAR STEEL HAMMER



Type 806-18. Long neck, narrow striking face of 1" diameter. Head is straight claw pattern of drop forged steel. Tubular steel handle with cushion grip. Weight of head—18 oz. 14" long. Shpg. wt., 2 lbs.
34F045. NET **4.64**
Type 802-16. Standard hammer with straight claw design and cushioned steel handle. Head wt. 16 oz., length 13¼".
34F245 NET **4.67**

HANSON-ACE QUALITY TOOLS

ADJUSTABLE DIES

Type 614V. 39 tools, each in its own easy-to-reach compartment. Sturdy, unbreakable plastic case. Contains one each of the following: No. 25 die stock, No. 88 tap and reamer wrench, No. 1E T tap wrench, No. 514 screw pitch gauge, screw driver and one each tap and adjustable die in the following sizes: 4x36, 6x32, 8x32, 10x24, 10x32, 12x24 machine screw standard. ¼x20, 5/16x18, ⅜x16, 7/16x14, and ½x13NC (U.S. Standard), ¼x28, 5/16x24, ⅜x24, 7/16x20, and ½x20NF (SAE Standard)‡, plus ⅛" pipe. Type of die, 1" O.D.
33F651. NET **28.94**

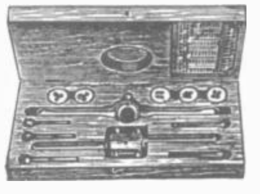
TAPERED REAMER — Type R120

This high quality tapered reamer was primarily designed for enlarging holes in wood, bakelite, or metal up to ½" in diam. Shank has "T" handle. Length, 5¾". Tapered point has diameter of ⅛". Shpg. wt., 3 oz.
34F550. NET **1.62**

SCREW EXTRACTOR SET

Type 35P. Designed to remove broken screws, bolts, studs and pipes that cannot be taken out any other way. Drill hole in broken piece, wedge extractor in hole by turning counter-clockwise — screw is removed on its own threads. Comes with 5 extractors — No. 1 for screws 3/32 to 5/32". No. 2 for 5/32 to 7/32". No. 3 for 7/32 to 9/32". No. 4 for 9/32 to ⅜". No. 5 for ⅜ to ⅝" dia. screws, and ⅛ and ¼" pipe. Made of extra tough heat treated alloy steel in handy plastic snap fastener pouch. Shpg. weight, 1 lb.
33F650. NET **2.37**

TAP AND DIE SETS

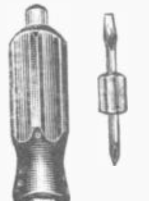


Ideal for mechanics, technicians, or homeowners. Made of highest quality precision-ground steel, these sets are packed in a sturdy wooden carrying case. Each set contains a die stock, tap wrench, and 1 each plug tap and 1" OD solid die in the size listed. Shpg. weight, 3 lbs.
Set S21. Sizes 6x32, 8x32, 12x24, 10x24, ¼x20.
33F653. NET **9.75**

XCELITE® Top-Quality Drivers and Tools

COMBINATION REVERSIBLE SCREWDRIVER SETS

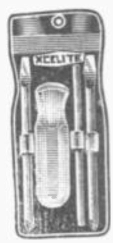
Blades snap in and out of shockproof plastic handles. Snap lock holds blades securely in place during use. Blades are chrome vanadium steel.



Kit 600. Combination Screwdriver-Nutdriver Set. Even the handle of this tool does it's share of the work; two hex nut openings in handle, 1/4 and 7/16", serve as nutdrivers. Includes RB1 blade. Shpg. wt. 3 oz.
35F1421. NET **1.65**

Kit CK-3. Three blades, RB1, RB2, and RB3, with No. 25 plastic handle in a convenient roll-up pouch for storage. Cloth flap and plastic body make pouch mar-proof. Wt. 9 1/4 oz.
34F394. NET **3.75**

Kit CK-5. Five reversible blades—RB1, RB2, RB3, GB1 and GB2—with No. 25 handle in roll-up pouch for easy storage. Shpg. wt. 13 oz.
35F1422 NET... **5.85**



SK-20. The greater torque kit with the No. 26 "Stubby" handle. Increases power to shaft. With SB1 and SB2 in roll-up pouch. 4 5/8 oz.
34F372. NET.... **2.55**

CK-20. Number 25 handle with two sets of blades, RB1 and RB2. Packaged in clear plastic pouch with zip-top closure. Fits hip pocket, tool box, glove compartment, anywhere that emergency service may be needed. Wt. 6 1/2 oz.
35F1423. NET **3.00**

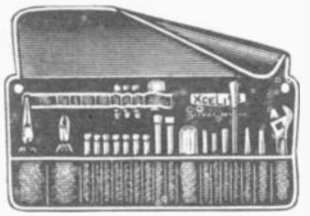
Kit CK23. Comes with plastic handle and three blades, giving user choice of six tips: #1, 2 and 3 Phillips tips and 3/16", 1/4" and 5/16" slotted blades. In plastic zipper case.
35F1424. NET ... **3.87**

REVERSIBLE HANDLE-BLADE TYPES

Each blade has two different size tips, and is designed for use with either the #25 or #26 plastic handle.

TYPE	DESCRIPTION	OVERALL LENGTH
25	Handle (1 1/16"x4 1/4")	
26	Stubby Handle (1 1/16"x2")	
RB1	#1 Phillips, 3/16" slotted	6 1/4"
RB2	#2 Phillips, 1/4" slotted	6 1/4"
RB3	#3 Phillips, 5/16" slotted	6 1/4"
GB1	3/16" and 5/32" G Clutch	6 1/4"
GB2	5/16" and 1/4" G Clutch	6 1/4"
SB1	#1 Phillips, 3/16" slotted, "Stubby"	3 1/8"
SB2	#2 Phillips, 1/4" slotted "Stubby"	3 1/8"

THE SERVICEMAN'S COMPLETE KIT



Kit 99SM. Includes 6" long nose and 5" diagonal pliers, 6" adjustable wrench, handles 99-1 and 99-3, nutdrivers 99-6 thru 99-16 including stubby models 99-S8, S10 and S12, Phillips blade 99-821, extension 99-X10, slotted blades 99-811 and 99-250, and reamers 99-38 and 39 in canvas pouch. Shipping weight 3 lbs.
34F388. NET **25.88**

99PR. Contains 99-1, nutdrives 99-6 to 99-16, 99-81 and 82 in pouch. 24 oz.
34F395. NET **9.42**

99JR. Junior handle 99-2, nutdriver blades 99-6 through 99-12, slotted tips 99-811 and 250, Phillips screwdrivers 99, 99-821 and 822 in pouch. Wt. 1 lb.
34F389. NET **8.28**

34F398. Handle 99-1 only. **NET** ..... **.69**

99PS-60. Bristol Multiple-Spline socket screwdrivers. Handle 99-1, blade 99-X5 and 9 bristol blades, three 4-flute and six 6-flute type, .048" to .183". All 4" long. Shpg. wt. 1 1/2 lbs.
34340 NET **6.75**

SERIES 99 PART NUMBERS

Type	Description	Length
99-1	Handle (1 1/16"x4 1/8")	
99-2	Handle (1"x3 1/8")	
99-3	*Handle (1"x3 3/8")	
99-6	3/16" Nutdriver	3 5/8"
99-7	7/32" Nutdriver	3 5/8"
99-8	1/4" Nutdriver	3 5/8"
99-S8	*1/4" Nutdriver	1 3/8"
99-9	9/32" Nutdriver	3 5/8"
99-10	5/16" Nutdriver	3 5/8"
99-S10	*5/16" Nutdriver	1 3/8"
99-11	11/32" Nutdriver	3 5/8"
99-12	3/8" Nutdrvier	3 5/8"
99-S12	3/8" Nutdrvier	1 3/8"
99-14	7/16" Nutdriver	3 5/8"
99-16	1/2" Nutdriver	3 5/8"
99-20	.050" Allen hex	4"
99-21	1/16" Allen hex	4"
99-22	5/64" Allen hex	4"
99-23	3/32" Allen hex	4"
99-764	7/64" Allen hex	4"
99-24	1/8" Allen hex	4"
99-964	9/64" Allen hex	4"
99-25	5/32" Allen hex	4"
99-26	3/16" Allen hex	4"
99-38	1/8"-3/8" reamer	4 1/8"
99-39	1/4"-1/2" reamer	4 1/8"
99-81	3/16, 9/32" rvrsbl sltd	3 1/4"
99-82	#1, 2 rvrsbl Phillips	3 1/4"
99-250	1/4" slotted	3 7/8"
99-811	3/16" slotted	3 7/8"
99-821	#1 Phillips	3 7/8"
99-822	#2 Phillips	3 7/8"
99-XS	4" extension blade	4"
99-X10	7" extension blade	7"

* stubby

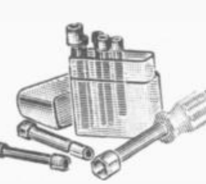
NUTDRIVER SETS

Kit 99PS-50. Contains nutdrivers 99-6 to 99-12; Phillips screwdrivers 99-821 and 822; extension 99-X5; slotted blades 99-811 and 99-250; and handle 99-1. In plastic workbench case. Shipping wt. 1 lbs.
34F341. NET **8.55**

ALLEN HEX SETS

Kit 99-PS-40. Kit includes 99-1 handle; allen hex screwdriver blades 99-20 through 99-26 and 99-764 and 99-964; four inch extension blade 99-X5. Shpg. wt. 12 1/2 oz.
34F339. NET **6.75**

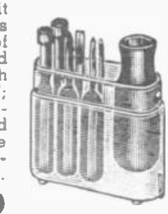
NUTDRIVER SETS



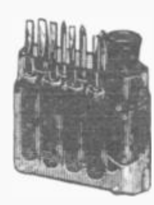
Kits HSC-1. Interchangeable nutdriver set with plastic carrying case doubles as bench stand. Includes plastic handle and 8 interchangeable shafts with hex sizes 3/16, 1/4, 5/16, 11/32, 3/8, 7/16, 1/2 and 9/16 inch. Shpg. wt. 14 3/4 oz.
35F1425. NET **8.85**

Kit HS6-18. Kit contains ten hollow shafted nutdrivers with hex openings 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 7/16", 1/2" and 9/16". Packaged in a sturdy, plastic case. Shpg. wt. 2 lbs.
34F376. NET **11.63**

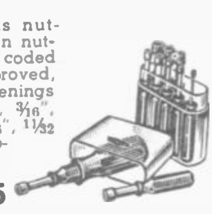
COMPACT CONVERTIBLE TOOL SETS



Kit PS-7. Screwdriver and nutdriver set. Kit contains two nutdrivers with hex openings of 1/4" and 5/16"; two slotted screwdrivers with blades of 3/16" and 3/32"; and two Phillips screwdrivers, types #0 and #1. Included is a torque amplifier and workbench carrying case. Wt. 6 oz.
34F335. NET ... **3.90**



Kits PS-88. This set contains a variety of screwdrivers, with both Phillips and slotted blades, Slotted blade sizes are: 3/32", 1/8", 5/32", 3/16", and 1/4". The three Phillips screwdrivers have the Nos. 0, 1 and 2 points. The overall length of all drivers is 3 1/2". Shpg. weight 6 3/4 oz.
34F375. NET **4.20**



Kit PS-120. This nutdriver set has ten nutdrivers with color coded plastic, UL approved, handles Hex openings of 3/32", 1/8, 5/32", 3/16", 7/32", 1/4", 9/32", 5/16", 11/32 tool is 3 1/2". Shipping wt. 9 3/4 oz.
34F336. **5.85**

"TRAY BIEN" NUTDRIVER SETS

Nutdrivers have carbon steel shafts. Case-hardened sockets. Plastic (UL) handles color coded. Features lightweight plastic case. Wall mounting holes. Compact. Easily stacked.

Model 127TB. Solid shaft nutdriver set. Blade length: 3", overall length 6". Handle dimensions: 1x3". Hex openings range from 3/16 to 3/8" in 1/32" steps. Features a wide variety of colors.
34F366. NET **6.60**

Model 137TB. Solid and hollow shaft nutdriver set. Features hex openings from 3/16 to 9/16". Similar to 127TB except 2 nutdrivers have overall lengths of 7 1/4", handle dim. of 1 1/16 x 4 1/8", and 3 1/8" blade lengths.
34F367. Net **7.35**

Model 147TB. Hollow shaft nutdriver set. Features hex openings of 1/4 to 1/2". First 5 nutdrivers have 7" lengths, 1" x 3 7/8" handle dim. 43/8" D. of clearance holes. Last 2 have 6" depths, 7 1/4" lengths, 1 1/16 x 4 1/8" dim.
34F368. NET **8.70**

XCELITE

SHOCK-PROOF SCREWDRIVERS

Tips ground to rectangle shape. Handles are amber plastic. *Have 1/2" dia. handles. †Have 1 3/8" dia. handles. ‡Stubby types. 8 oz.

SQUARE BLADES

Stk. No.	Type	Blade Size	NET
34F276	S-141‡	1/4x1 1/4"	.54
34F275	S-3161‡	3/16x1 1/4"	.51
34F203	S-3163	3/16x3"	.69
34F204	S-3164	3/16x4"	.75
34F205	S-3166	3/16x6"	.87
34F206	S-3168	3/16x8"	1.02
34F207	S-31610	3/16x10"	1.20
34F208	S-142	1/4x2"	.78
34F209	S-144	1/4x4"	.93
34F210	S-146	1/4x6"	1.02
34F211	S-148	1/4x8"	1.14
34F212	S-5162	5/16x2"	.90
35F1426	S-5164	5/16x4"	1.05
34F213	S-5166	5/16x6"	1.20
34F214	S-5168	5/16x8"	1.32
34F217	S-388	3/8x8"	1.65
34F218	S-3812†	3/8x12"	2.40
34F219	S-3818†	3/8x18"	2.70

ROUND BLADES

Stk. No.	Type	Blade Size	NET
34F250	R-3322*	3/32x2"	.33
34F251	R-3323*	3/32x3"	.36
34F252	R-3324*	3/32x4"	.39
34F254	R-182†	1/8x2"	.39
34F253	R-183*	1/8x3"	.36
34F255	R-184†	1/8x4"	.45
34F256	R-186†	1/8x6"	.51
34F257	R-188†	1/8x8"	.60
34F258	R-1810†	1/8x10"	.69
34F259	R-5323†	5/32x3"	.48
34F260	R-5324†	5/32x4"	.48
34F261	R-5325†	5/32x5"	.51
34F262	R-5328†	5/32x8"	.66
34F263	R-3163	3/16x3"	.66
34F264	R-3164	3/16x4"	.72
34F265	R-3166	3/16x6"	.75
34F266	R-3168	3/16x8"	.87
34F267	R-31610	3/16x10"	.99
34F269	R-144	1/4x4"	.93
34F270	R-146	1/4x6"	1.02
34F271	R-148	1/4x8"	1.08
34F272	R-1410	1/4x10"	1.14
34F273	R-5166	5/16x6"	1.14
34F274	R-5168	5/16x8"	1.23
34F277	R-181	1/8x2"	.33

PHILLIPS SCREWDRIVERS

Screwdrivers for Phillips-head screws, of special alloy steel. Av. wt., 5 oz. ‡Stubby types. *Pocket clip.

Stk. No.	Type	Size	Blade	NET
34F290	X-101	1	3"	.78
34F291	X-102	2	4"	.96
34F292	X-103	3	6"	1.35
34F293	X-104	4	8"	1.65
34F294	X-108	1	6"	.90
34F295	X-1010	1	10"	1.14
34F296	X-1020	2	10"	1.29
34F287	SX-101‡	1	1 7/16	.72
34F288	SX-102‡	2	1 5/16	.81
34F289	P-12S*	0	2"	.45

PHILLIPS BERYLLIUM SCREWDRIVERS

Made of non-magnetic, non-sparking, non-corrosive material. For use where safety is a keyword.

Stk. No.	Type BRX-	Blade Size	Blade Length	Total Length	NET
35F1427	101	1	3"	6 5/8"	1.68
35F1428	102	2	4"	8 1/4"	1.80
35F1429	103	3	6"	10 1/8"	3.68
35F1430	104	4	8"	12 1/2"	4.95

DUAL PURPOSE SCREWDRIVERS

Handy screwdrivers with reversible blades. Type CR1 is for 3/16" and No. 1 Phillips screws, type CR2, 1/4" and No. 2 Phillips screws. CR3 for 5/16 and No. 3 Phillips screws. Overall length 7 1/4".

34F298. Type CR1.
34F299. Type CR2. **NET**
34F297. Type CR3. **EACH** **1.50**

BERYLLIUM-COPPER SCREWDRIVERS

Non-sparking, non-magnetic screwdrivers for TV focalizer adjustments, etc.

Stk. No.	Type	Blade	Length	NET
34F379	BR-186	1/8x6"	8 5/8"	.93
34F380	BR-1810	1/8x10'	12 5/8"	1.08
34F381	BR-3168	3/16x8"	11 5/8"	1.80

HOLLOW SHAFT NUT-DRIVERS

Ideal for use where nuts must be installed or removed over protruding bolts. Finely-tempered and finished steel. *Volume control wrench. Shpg. wt. 6 oz.

Stk. No.	Type	Nut Size	Handle	NET
34F319	HS-8	1/4"	red	.99
34F320	HS-10	5/16"	amber	
34F321	HS-11	11/32"	green	
34F322	HS-12	3/8"	blue	
34F323	HS-14	7/16"	brown	1.14
34F324	HS-16	1/2"	red	1.14
34F325	HS-18*	9/16"	orange	1.20
34F326	HS-20*	5/8"	amber	1.35

SOLID SHAFT NUT-DRIVERS

Most popular sizes. 6" long over all. Made of hardened and polished tool steel. Color coded plastic handles. 4-oz.

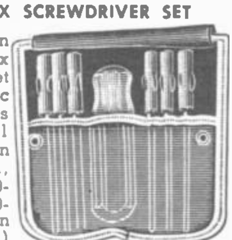
Stk. No.	Type	Nut Size	Handle	NET
34F300	6	3/16"	black	.84
34F301	7	7/32"	brown	
34F302	8	1/4"	red	
34F303	9	9/32"	orange	
34F304	10	5/16"	amber	
34F305	11	11/32"	green	
34F306	12	3/8"	blue	
34F307	14	7/16"	brown	1.02
34F308	16	1/2"	red	

POCKET STYLE NUTDRIVERS

All handles are color coded. Pocket Clip.

Stk. No.	Type	Size	Handle	NET
34F330	P4	1/8"	Red	.54
34F331	P5	5/32"	Amber	
34F332	P8	1/4"	Red	
34F333	P10	5/16"	Amber	
34F334	P12	3/8"	Blue	

ALLEN HEX SCREWDRIVER SET



Type 99LN. Seven piece Allen hex screwdriver set in roll-up plastic pouch. Includes one type 99-1 handle and Allen hex shafts 99-21, 99-22, 99-23, 99-24, 99-25 and 99-26. (see chart on facing page) Handle is UL approved unbreakable plastic. Shpg. wt. 2 lbs.

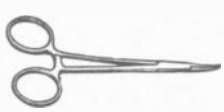
35F1431. NET **4.47**

STAINLESS STEEL "SEIZERS"

Holds wires for soldering, acts as a heat sink, retrieves small parts from hard to reach places. Two position snap-lock. Six in. models have serrated jaws. 5" Jr. models, have smooth jaws to prevent marring of delicate materials. Box point construction. Precision machined from perfectly tempered stainless steel. Shpg. wt. 6 oz.

34F370. 42H 6" Straight Nose. **NET** ... **4.43**
34F371. 43H 6" Curved Nose. **NET** **4.58**
34F373. 32H 5" Straight Nose. **NET** ... **4.43**
34F374. 33H 5" Curved Nose. **NET** **4.58**

Straight Nose



Curved Nose

MG TOOL COMPANY

MICROMETERS

SET No. 4

TYPE 102

Type 102. Precision American made micrometers ideal for general usage. 0-1" with full finish frame cut with decimal equivalents. Satin finish with easy to read black graduation. Friction thimble for more sensitive pressure. Fully adjustable for wear. Packed with instructions.

35F1410. NET **5.40**

Type 101. 0-1 "range. As above but has black enameled frame with black graduations against satin finish thimble and barrel.

35F1411. NET **4.40**

Set No. 4. Consists of No. 052, 0-1/2"; No. 102; No. 202, 1-2"; and No. 302 with 2-3" range. Complete with standards and instructions in compartmented carrying case.

35F1412. NET **26.40**

PRECISION DIAL TEST INDICATORS

Quality American-made universal dial test indicators. Rugged, reliable, and low in cost. Indicates to .001 inch. Special offset construction permits tight measurements. Supplied with complete set of accessories and three interchangeable points, making tool completely versatile. One inch adjustable dial has knurled ring for zero setting, black graduations on white background, and flat glass faceplate to minimize reflections. Readings in clockwise direction only. Comes packed in a fitted case. Accuracy guaranteed.

Type 0100-3. Dial reads continuously from 0 to 0.100" by .001" graduations.

35F1413. NET **14.50**

Type 050-03. Balanced dial reads 0 to 0.050" to 0 by .001" graduations.

35F1414. NET **14.50**

Special Purpose Tools

A B C D E

SEMI-CONDUCTOR TWEEZERS

Type C-35. Fig. A. Carbon steel, nickle plated. Narrow, thin jaws. 6 oz. 4¾".
34F415. NET 2.85
Type CC-13C. Fig. D. Stainless steel with needle point. 4¼" long. 4 oz.
34F735. NET 2.14
Type CC-MMM. Fig. E. Fine point tweezers of carbon steel. 4¼" long. 6 oz.
34F367. NET 7.35

STAINLESS STEEL TWEEZERS

Heat and acid-resistant, non-magnetic.

Stock No.	Type	Points	Fig.	NET
34F416	B-3CS	Fine	E	4.25
34F417	B-2SA	Medium	D	4.69
34F418	B-3SA	Fine	E	4.69
34F419	B-3CSA	Fine	E	4.69
34F420	B-5S	Ex-Fine	C	4.79
34F421	B-7S	Fine	B	5.55
34F422	B-7BS	Serrated	B	5.55

ANTI-WICKING TWEEZERS

Type C-88. Protects plastic insulation on wire while soldering. Holes are drilled to .001 inch. Size: 2⅝" overall.

Stk. No.	Type	AWG	Hole Dia.	NET
34F423	C-88/AWG16	16	.055-.056	5.25
34F424	C-88/AWG18	18	.046-.047	5.25
34F425	C-88/AWG20	20	.035-.036	5.25
34F426	C-88/AWG22	22	.028-.029	5.25
34F427	C-88/AWG24	24	.022-.023	5.25
34F428	C-88/AWG26	26	.017-.018	5.25
34F429	C-88/AWG28	28	.012-.014	5.25
34F457	C-88/AWG30	30	.010-.011	5.25

SOLDERING AIDS

Stainless steel blades won't hold solder. Length, 7"; except •, 6". Shpg. wt., 10 oz.

Stk. No.	Type	Blades	NET
34F724	51	Fork & Hook	.94
34F725	51A	Fork & Brush	.94
34F726	51B	Knife & Brush	.94
34F727	51C	Fork & Reamer	.94
34F728	51C1•	Fork & Hook	.94
34F729	51C2•	Fork & Reamer	.94

HEX DRIVERS

Screwdriver type wrenches for speedy drive socket screws. Tenite handles.

Stock No.	Type	Size	Overall	NET
34F431	5	.05"	4⅝"	.60
34F432	5A	1/16"	5⅛"	.63
34F433	5B	5/64"	6"	.66
34F434	5C	3/32"	6⅜"	.69
34F733	5C1	7/64"	6¾"	.72
34F435	5D	⅛"	6¾"	.72
34F734	5D1	9/64"	7"	.72
34F436	5E	5/32"	7⅝"	.72
34F437	5F	3/16"	8"	.79
34F438	5G	7/32"	8⅜"	.88
34F439	5H	¼"	9"	1.06
34F445	5I	5/16"	10"	1.25

SCREW HOLDING SCREWDRIVERS

Holds screws tight when inserting or removing. Shock-proof plastic handle. Chrome-finished blade. Shpg. wt., 3 oz.

Stk. No.	Type	Screw #	Length	NET
34F760	10E-3	00 to 2	2½"	2.00
34F458	10E-4	00 to 2	4"	2.36
45F459	10E-7	00 to 2	7"	2.43
34F761	10M-5	3 to 6	5¼"	2.31
34F460	10M-8	3 to 6	8¼"	2.55
34F461	10M-12	3 to 6	11¼"	2.79
34F430	10C	7 to 10	7½"	2.48

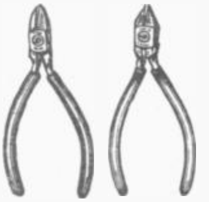
SMOOTH JAW WIRING PLIERS

Type A11. Long, narrow chain nose pliers, 4¾" long. Radius edges don't mar finest wire. Tips are 1⅛".
34F754. NET 3.55
Type A14-4½. Extra long needle nose pliers, 4½" long. Radius edges don't mar wire. Tips are 1 9/16". For light work.
34F755. NET 4.37
Type A14-6. As above but 6" long. Tips are 2½".
34F756. NET 4.47

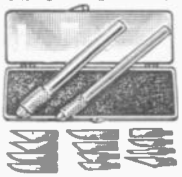
FULL FLUSH CUTTERS

Type A90E. Special full flush cutting instrument that will cut flat, nickel ribbon wire. Fitted with alignment pins. Cuts at tip with perfect angle. Size: 4⅜".
34F462. NET 10.79
Type A90EL. Same as above, but with leaf spring.
34F463. NET 11.10

ERMADIUM CUTTING EDGES



For cutting newer hardened wires containing nickel, iron, etc. Heat treated, hardened, will cut flat nickel wire. High polish heads, vinyl coated grips. Type A86EL. 4¾". Cuts at tip. Tapered tip shape. Full flush cut with leaf spring.
34F464. NET 6.23
Type A95EL. 4". Same as above.
34F465. NET 5.63
Type A99EL. 4". Standard diagonal shape. Full flush cut with leaf spring.
34F466. NET 5.31
Type A97EL. 4". Same as above, but semi-flush.
34F467. NET 4.76



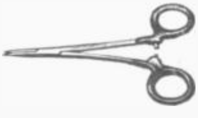
KNIFE SET

Type E65B. Two knives and 10 assorted blades for light to heavy work. Comes in plastic box. Shpg. wt., 3 lbs.
34F723. NET 2.32

NICKEL PLATED SCISSORS

For electronic use in cutting very light work. Sharpmatched points.

Stk. No.	Type	Length	NET
34F744	F297	3½"	3.26
34F745	F299	5"	2.79

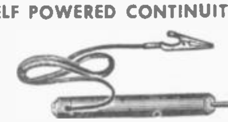


STAINLESS STEEL SCISSOR-CLAMPS

Design for solder clamping. Tempered blades, precision box joint, 5" long. Wt. 8 oz.

Stk. No.	Type	Blade	NET
34F746	F35	Straight end	4.69
34F747	F36	Curved end	4.69

SELF POWERED CONTINUITY TESTER



Type 54C. For testing continuity on circuits with power off. With penlight batteries. Shpg. wt., 1 lb.
34F721. NET 1.79

CIRCUIT TRACER SET

Model 54. Will visually test dead circuits or circuits with up to 500 volts AC or DC Shpg. wt., .2 lb.
34F748. NET 5.20

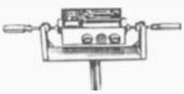
HEAT SINKS

Dissipate heat when soldering small wires. **Heavy Duty Model 51E.** Built for heavy or open work. Has copper jaws and will dissipate a terrific amount of heat. 2" long.
34F491. NET .... .75
Model 51G. For small, delicate work. Extremely small—light weight with tweezer like nose. 1¼" long.
34F492. NET .... .58
Model 51F. Has a precision tweezer-like nose that enables it to reach into confined areas. 2" long.
34F493. NET .... .73

WORK POSITIONERS

Type 62 Pana-Vise. Mounted on Type 62A Pana-Positioner

Type 62P



Type 62U

Type 62H

Type 62A. Pana-Positioner. Pivots 360° on any tangent to a **hemisphere. Achieves** any compound angle. For use with fixtures listed below. Wt. 3 lbs.
34F449. NET 10.95
Type 62. Pana Vise. Bench type vise on Type 62A. 2½" capacity, jaws 2½" wide. Shpg. wt., 3.5 lbs.
34F766. NET 17.95
Type 62P. 4" flat vise jig for use with 62A Shpg. wt., 1.8 lbs.
34F764. NET 10.31
Type 62U. U shaped rotator jig for use with 62A. Jig only 16"—Arm to arm 8"—Cap. of turns 5". Shpg. wt. 1.8 lbs.
34F765. NET 15.16
Type 62H. 10" wide. Printed circuit holder for use with Type 62A. Turns work 360° in any position. Circuit board easily inserted and removed. Shpg. wt., 1.8 lbs.
34F448. NET 14.95

POCKET HEX SETS

Easy to use, hard to lose hex sets. Blades cold drawn from 8650 alloy steel. Shpg. wt., 10 oz.

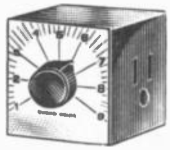
Stk. No.	Type	Hex sizes (in.)	NET
34F541	IP5	3/32, ⅛, 5/32, 3/16, 7/32	1.25
34F540	IP6	.050, 1/16, 5/64, 3/32, ⅛, 5/32	1.22
34F763	IP8	3/32, 7/64, ⅛, 9/64, 5/32	1.80

HUNTER TOOLS

NUT DRIVERS WITH HEX HEADS

handles-shockproof, non-burning. wt. 48 oz.
handles-shockproof, non-burning. wt 10 oz.

Stock No.	Type	Hex. Size	Fits	Net
34F900	19W	5/32"	0 & 1	.91
34F901	20	3/16"	2 & 3	.91
34F902	20A	7/32"	2 & 3	.91
34F903	20B	1/4"	4	.91
34F904	20C	9/32"	4	.91
34F905	20D	5/16"	5 & 6	.91
34F906	20E	11/32"	8	.91
34F907	20F	3/8"	10	.91
34F908	20G	7/16"	12 & 1/4"	1.04
34F909	20H	1/2"	5/16"	1.04
34F910	20HI	9/16"	3/8"	1.18
34F911	20I	1/4"	4	.91
34F912	20J	5/16"	5 & 6	.91
34F913	20K	3/8"	10	.91



4060

55C

80G

VOLTAGE CONTROL REGULATOR

Type 4060. Controls any soldering iron being used. Most compact unit (1¾" cube). Converts standard pencil iron into high soldering unit. Capacity 500 Watts. 4 oz.
34F914. NET **23.01**

WIRE STRIPPER AND TERMINAL TOOL

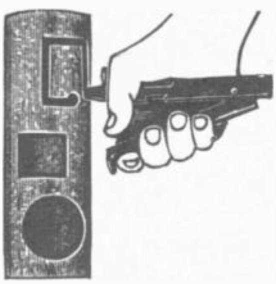
Type 55C. Solderless terminal tool that cuts, strips and crimps all standard solderless terminals. Makes firm crimp that holds terminal securely. Wt. 4 oz.
34F918. NET **2.18**

THERMAL WIRE STRIPPERS

Type 80G. Silver Electrodes eliminate oxidation. Nichrome wire, silver leads give ideal current connection and conduction. Rheostat wound 80+ for any degree of heat at tips. Alignment is adjustable. Most exposed parts are silver plated or stainless. Plier is 8" long, ½" wide at tips, 2½" wide at handle. ⅞" thick with 36" cord. Plier stripper weighs only 8 oz. Total unit only 3 lbs.
34F915. NET **78.00**

ADEL

HAND NIBBLING TOOL



Now you can make any size or shape hole over 7/16" dia. in any type of sheet metal! Bites right through 18-gauge steel or 1/16" aluminum, copper or plastic. Takes sharp angles and tight curves with ease. Metal edges stay flat and smooth after cut. Shipping weight 8 oz.
33F670. Net. 1-11 .... **Each** **4.15**

12-71 .... **Each 3.80** **72 up** .... **Each 3.60**

Replacement Punch for above
33F671. NET **2.12**

KEDMAN

SCREW-HOLDING SCREWDRIVER

Type 1253

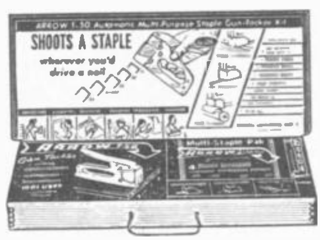
Type 1834

The Quick-Wedge driver with powerful wedgetype action of a double blade grips the screw with a weldlike grasp until the screw is driven into place and released. Blade will not slip from or mar the screw slot.

Stk. No.	Type	Bld. Size	Bit	Oz.	NET
33F500	1253	1/8 x 3"	.020"	1	1.25
33F501	1734	5/32 x 4"	.031"	1½	1.35
33F505	1736	3/16 x 6"	.031"	2	1.40
33F506	1738	3/16 x 8"	.031"	2½	1.45
33F502	1834	3/16 x 4"	.037"	2	1.85
33F507	1836	3/16 x 6"	.037"	3½	1.90
33F508	1838	3/16 x 8"	.037"	4	1.95
33F503	2354	1/4 x 4"	.042"	4	1.95
33F509	2356	1/4 x 6"	.042"	4	2.00
33F504	2358	1/4 x 8"	.042"	5	2.05

ARROW STAPLE GUNS

T-50 MP AUTOMATIC MULTI-PURPOSE STAPLE GUN-TACKER SET



Model T-50MP. Speed up hundreds of operations. Permits up to 5 times faster operation than conventional hammer-and-nail production. Use for carpentry, installing insulation, ceiling tile, wire-fence maintenance or installation, upholstering, woodworking, etc. Kit includes one T-50 Automatic Stapling Gun, 2000 ¼" staples, 1000 ⅜" staples, 1000 ½" staples, 1000 9/16" "Ceiltile" staples, and SL-50 staple lifter. Features new wire, shade and screen attachments. Shp. wt. 5 lbs.
34F626. List 17.50 NET **14.96**

WIRE STAPLE GUN

Type T-25. Fast-action wire staple gun for low-voltage wiring. Shoots round crown staples in 1/1,000 second . . . reaches tight places inaccessible to a hammer. Wt. 3 lbs.
34F635. NET **14.99**

STAPLES

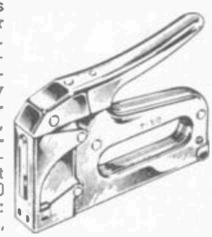
Stock No.	Size	Box of 1000	Box of 5000
34F636	7/16"	.80	3.33
34F623	3/8"	.80	3.33
34F624	9/16"	.90	3.74

COMPACT STAPLE GUN TACKER

Type T-32. Fast, stapling tool for tacking down twin-lead, signs, etc. Hold tacker against surface and squeeze—staple is immediately driven in. Shoots a staple wherever a tack can be driven. Operates at trigger rate speed. Chrome-plated steel. Pocket size. Shpg. wt., 2 lbs.
34F630. NET **8.74**

Staples. For gun tacker described above. Easy to insert. Length, 5/16". Contains 5,000 staples. Wt., 1 lb.
34F631. NET **2.08**

HEAVY DUTY STAPLE GUN TACKER



Model T-50. Shoots a staple wherever you'd drive a nail. Powerful, compresion spring action drives heavy gauge staples into hardest woods, plywood, composition board, plastics and even soft metals. Loads T-50 staples in 6 sizes: ¼, 5/16, ⅜", ½, 9/16" and ceiltile for ceiling tile. All steel construction. Chrome finish. Size: 7¼x3⅝. Shpg. wt.: 3 Lbs.
34F633. NET **10.79**

STAPLES

Stock No.	Size	Box of 1000	Box of 5000
34F627	1/4"	.50	2.08
34F628	3/8"	.55	2.29
34F629	1/2"	.65	2.71
34F634	9/16"	.70	2.92

INTERMEDIATE TACKER

Type T55. Smart, modern streamlined design with attractive, durable baked enamel finish. Shock-absorber bumper. Removable frame and channel for easy field cleaning. Patented jam-proof mechanism. High carbon, hardened steel working parts. Non-pinch, easy-grip handle. All steel construction. This lightweight model serves as a junior substitute for the heavy duty T-50. A capable and economical tool for the "do-it-yourself" homeowner. Uses same staple size as T-50.
34F622. NET **8.29**

JUNIOR TACKER

Type JT-21. Ideal gift item for any home owner or apartment dweller. Takes two staple sizes for numerous household uses like lining shelves, screening, upholstery, etc. Easy to operate, fits hand comfortably. Tacker locks to fit in pocket, and prevent accidental firing. Built-in staple extractor in rear of base. Attractive coolrs. Loads 1000JT-¼" or 5/16" staples. Shpg. wt.: 1¼ lbs.
34F638. NET **4.96**

STAPLES

Stock No.	Size	Box of 1000	Box of 5000
34F639	1/4"	.60	2.25
34F640	5/16"	.60	2.25

KRAEUTER

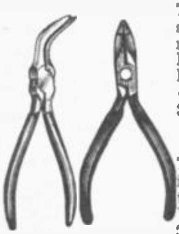
A B C D E F H J K L

All Kraeuter pliers are hammerforged from fine grain tool steel, individually fited, tempered, adjusted and tested. Ideal for speed and assembly on the production line. Professional Pliers; fine needle point pliers for electronic work, jewelers, hobby crafters. Professional Needle Point Pliers: extra fine needle points for exacting professional and production line use.

Vinyl Cushion Grip handles will not crack or peel. Resists water, oil, and chemicals. *Not cushion grip. (†) indicates pliers furnished with cross coil spring and cushion grips. Av. shpg. wt., 1 lb.

Stk. No.	Type	Fig.	Description	1-5	6-Up
34F076	37014	A	4½" Needle-pt. diag. cutters	3.00	2.67
34F077	37015	A	5" Needle-pt. diag. cutters	3.23	2.86
34F078	37016	A	6" Needle-pt. diag. cutters	3.55	3.16
34F082	20160†	C	7" Long nose Ndle-pt. w/o cttr.	3.07	2.73
34F130	27306*	E	6" Comb. Plier. Satin Finish	.83	.75
34F166	35014	D	4½" Diag. "Oblique" Cutters	2.63	2.33
34F059	35015	D	5" Diag. "Oblique" Cutters	2.70	2.40
34F060	35016	D	6" Diag. "Oblique" Cutters	3.00	2.67
34F064	36616	B	6" Long Chain Ndle-nose w/cttr.	3.07	2.73
34F065	36716	B	Same as 36616 but less cutters	2.43	2.16
34F069	26912	F	⅜ x 4½" Steel Center Punch*	.72	.65

Stk. No.	Type	Fig.	Description	1-5	6-Up
34F149	27507	H	6½" Tongue-n-groove Pliers	2.25	2.00
34F118	27510	H	10" Tongue-n-groove Pliers	2.63	2.33
34F145	20121†	K	5" Slim Nose Milled Jaws	3.30	2.93
34F156	20101†	J	4½" Needle pt. Diag. Cutters	3.75	3.33
34F146	20140†	K	6" Tapered Long Nose 1/32" tip with spring	3.37	3.00
34F167	27206*	E	6" Chrome combination Pliers	1.20	1.08
34F168	36415	B	5" Short Chain Nose Cutters	2.70	2.40
34F169	37817	C	7" Long Chain Nose Cutters	3.60	3.20
34F240	20100	K	Extra Fine Needle Nose Plier 4½"	3.00	2.67
34F241	20102	B	Needle Nose Plier 4½" Smooth Jaw Radiused Edges	2.55	2.27
34F242	20103	L	Traverse Cutting Pliers 4½"	3.00	2.67



ANGLE CUTTING PLIERS — M

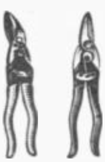
Type 20106. Angle-tip cutting invaluable in such fields as watch-making, hobby-crafts, model building and all phases of electronics. Precision crafted in every detail, with polished heads and Cushion Grip handles. Length: 4½". Wt. 8 oz.

34F174 1-5. ....3.15 6-up 2.80

CURVED NEEDLE NOSE PLIERS—N

Type 36315. Forged from fine grain tool steel, individually fitted, tempered, adjusted and tested. Jaws taper to ⅛" at points. 5½" long. Wt. 5 oz.

34F173 1-5. ....3.15 6-up 2.80



AVIATION SNIPS

Steel drop forged blades for fast, easy cutting of circles, squares and irregular patterns. Color coded, cushion-grip handles for instant identification.

Stk. No.	Type	Description	1-5	6-up
34F170	27801	Cuts left	3.98	3.54
34F171	27802	Cuts right		
34F172	27803	Cuts Straight		

23090

23090 PLIER SET

Five jeweler's pliers in Black Zipper Case. Size 5¾x9¼" when closed. One each Nos. 20181, 20182, 20183, 20184 and 20185. Shpg. wt., 1 lb.

34F132. NET 15.00
6 up. NET 13.50

23089 PLIER SET

Three jeweler's pliers in Black Zipper Case. 5¾x6¼" when closed. One each Nos. 20181, 20183 and 20184. Shpg. wt., 12 oz.

Stk. No.	Type	1-5	6-up
34F131	23089	9.75	8.67

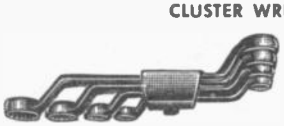
JEWELER'S PLIERS

20181 20182 20183 20184 20185

These pliers are drop forged from selected fine grain tool steel, accurately machined and heat treated to exacting specifications. Expressly designed for accurate and exacting work in such fields as watchmaking, hobbycrafts, model building, and all phases of electronics. Precision crafted in every detail, with polished heads, Cushion Grip handles. Wt., 5 oz.

No.	Type	Description	1-5	6-up
34F070	20181	4½" Diagonal Cutters	2.70	2.40
34F071	20182	4½" End Cutting Nippers	3.00	2.66
34F072	20183	4½" Chain Nose Pliers	2.47	2.20
34F073	20184	4½" Flat Nose Pliers	2.47	2.20
34F074	20185	4½" Rd. Nose/Jaw Pliers	2.55	2.27

CLUSTER WRENCH SETS



Type 20815. A 5-piece combination box-open end wrench set. Forged from quality steel, nickel-chrome plated. Sizes in the set range from ⅜" to ⅝". Wt. ½ lb.

34F175. 1-5 ....2.50 6-up. 2.25

Type 25415. Same as above but 4 piece set box end wrenches and range from ⅜" to ¾". Wt. ½ lb.

34F176 1-5. ....2.50 6-up. 2.25

Type 25015. A 5-piece open end wrench set. Forged from quality steel, nickel-chrome plated. Sizes range from 5/16" to ¾". Wt. ½ lb.

34F177 1-5. ....1.84 6-up. 1.67

GREAT NECK

E10S

E10WC

LEVER JAW WRENCH

Model E10WC. Heads are hot drop forged from rugged alloy tool steel. Jaws are heat treated and hardened. Teeth are milled fine and coarse for better gripping power. No-slip, adjustable, positive yoke and reinforced bushing for extra strength. Curved jaws with wire cutter. Easy action release simplifies work. Over 2000 lbs. of gripping power. Shp. wt. 1½ lbs.

35F2600 1-5 ....2.96 6-up 2.69

Model E10S. Same as above, but with straight jaws and without wire cutter.

35F2601 1-5 ....2.46 6-up 2.23

NEEDLE FILE SET

NF-12

Model NF-12. Complete set of Swiss Pattern files. Contains 12 different shapes. One for every metal cutting need. Swedish Steel stock will last longer than other softer steels. Set is packed in double fold clear-faced plastic pouch.

35F2602 1-5 ....3.50
6-up 3.27

NEWARK — For Fast Service

VACU-VISE

Completely portable! No screws . . . no clamps needed! Yet, holds firmly to any smooth surface — in any position! Simply apply light pressure to Vacu Vise top and push down Vacu lever. Attaches quickly with "super vacuum-super strong" power! When finished — lift release lever and Vacu Vise detaches itself instantly. Just right for the do-it-yourselfer, mechanic, electrician, serviceman — functions on-the-job wherever needed. Of rugged constructed casting. 2½" V-groove steel jaws open to a full 2". Base size: 5" wide, 4" deep, and 4" high. Wt. 2 lbs.

Model 1800. Vacu Vise, Hammertone Finish.
35F1295. NET **5.95**

Model 1810. Vacu Vise, Chrome Plated Finish.
35F1296. NET **10.00**

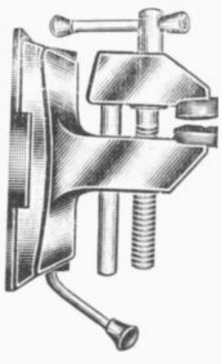
Model RJ1816. Rubber Slip-On Jaws. Ideal for working with fragile or delicate materials.
35F1297. NET .... **1.00 Pair**

MULTI-PURPOSE VACU BASE

Just flick the Vacu lever and base fastens securely to any smooth working surface by super strong vacuum power! Lift lever — and base is released! No clamps or screws necessary. Small, conveniently portable, always handy. Constructed of die cast Zamak 3 alloy with heavy, long lasting rubber holding pads. Gives complete portability to any fixture, instrument or appliance attached to it! Extra material provided for hole and threaded mounting on top and sides. Wt. 1 lb.

Model 1803 Vacu aBse Top. Size: 2¾ x 2¼ x 1⅜" H.
35F1299. NET **3.00**

Model 1805 Large Vacu Base. Same as #1803 listed above but larger top. Size: 3⅝ x 2¾ x 1⁵⁄₁₆" H.
35F1298. NET **5.00**



Vacu-Vise

Model 1803

Model 1805

GENERAL HARDWARE TOOLS

A B C D E F G H J K L

QUALITY CIRCLE CUTTERS

Fig. A. Cut round holes in metal, wood, bakelite, etc. Used with drill press, hand drill or brace. Fully adjustable Wt., 8 oz.

No.	Type	Shank	Size	NET
34F570	JR-00	Comb. ¼"	⅝" to 2½"	1.32
34F571	4	Comb. ¼"	⅞" to 4"	2.05
34F572	5-A	Square	1" to 5½"	2.73
34F573	5-B	Round ⁵⁄₁₆"	1" to 5½"	2.73

34F574. Extra blade. Types 4, 5-A or 5-B circle cutters above. 4 oz. **NET** .... **.59**

Fig. B. Type 55. Cuts holes from 1¾" to 8" dia. Made of tool steel with Jessup cutting bits. Has ½" shank to fit ½" chuck. Set screw wrench included. Shpg. fit ½" chuck. Set screw wrench included. wt., 8 oz.
34F575. NET **4.95**

34F576. Extra blade for above. **NET** .... **.99**

CHASSIS LAYOUT TOOLS

Model 83. Fig. C. Pocket Scribe. Hex head, steel case, locking chuck. 2¼" tapered point may be reversed. Size, 4¾".
34F560. NET .... **.75**

Model 15. Fig. D. Drill and Wire Gauge. Decimal equivalents for sizes 1 to 60. Lists taps and body drill sizes ¼-28 to 2-56.
34F561. NET **1.65**

Model 16. Fig. E. Multi-Use Rule & Gauge. A 4" rule in 32nds and 64ths, drill point gauge, sq., bevel protractor, center finder, circle divider, tap drill table. Wt. 4 oz.
34F562. NET **1.65**

Model 310. Fig. F. 6" Steel Rule and Wire Gauge. Gives 32nd and 64th graduations, B and S wire gauge and decimal equiv.
34F563. NET .... **.58**

Model 301. Fig. G. 6" Pocket Rule and Depth Gauge. Only ¼" wide. Gives readings in 64ths. With handy pocket clip.
34F564. NET .... **.15**

ADJUSTABLE FILE AND TOOL HOLDER

Fig. H. Model 890. Holds files, blades, reamers, scriber points, etc., in a vise-like grip. Knurled knob assures easy and positive locking. Wt., 8 oz.
34F578. NET .... **.81**

RATCHET TAP WRENCH

Fig. J. Model 160R. Made of hardened and tempered tool steel. Self-equalizing jaws, positive ratchet, sliding-T-handle. Opening capacity: ³⁄₃₂ to ⁷⁄₃₂". Wt., 8 oz.
34F579. NET **4.55**

HAND DRILL AND PIN VISE

Fig. K. Model 92. A precision tool with two reversible collets for holding drills, taps, wire, etc. from the smallest size .0 to .125". Has large free-wheeling swivel head. Size: 4" long, ⁵⁄₁₆" body dia., ¾" head. Wt., 5 oz.
34F580. NET **1.49**

INSPECTION MAGNIFIER

Fig. L. 4" powerful ground and polished lens. 12" chrome plated adjustable Gooseneck Arm. Ball joint swivel permits easy adjusting. Sturdy cast-iron base for bench or table use. Wt., 4 lbs.
34F620. NET **7.85**

AUTOMATIC CENTER PUNCH—TYPE 79

Constructed of **shock-resistant alloy steel.** Pressure adjustable. Ideal for **rapid center** on stock. Tips **replaceable.** 5x½" dia. 5 oz.
34F565. NET **3.80**

34F566. Type 79P. Extra point. **NET** .... **.42**

MACHINISTS HAND VISE

Model 815. Ideal for jobs where portability and flexibility are desired. Hard steel knurled jaw faces grip any object securely and safely. Has spring tension wing nut adjustment. Wt., 1 lb.
34F444. NET **2.89**

INSPECTION MIRROR

Type 558. 2"x1" oval inspection mirror. Adjustable 6" knurled chrome plated handle.
34F443. NET **1.49**

JEWELERS' SCREWDRIVER SET

Type S-600. Set of six. Sizes: 0, 1, 2, 3, 4, 5. Swivel head with removable blade. 3" long. ½ lb.
34F577. NET **3.47**

MORGAN VISES

High quality vises for home workshop or service shop. Sturdily made of close grained gray cast iron, with extra large steel sliding bar. Features removable hardened steel jaw faces, and swivel base.

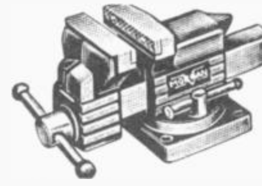
Type 4. Jaws are 4" wide and open to 4". Shpg wt., 23 lbs.
33F581. NET **17.20**

Type 5. Jaws are 5" wide and open to 5". Shpg. wt., 30 lbs.
33F582. NET **20.80**

HOMECRAFT VISE

Built to same standards as Utility Line except that it has a ¾"x¾" steel slide bar and built-in pipe jaws.

Type 25. Jaws are 3½" wide and open to 3½". Shpg. wt., 11 lbs.
33F579. NET **7.40**



Jonard Industrial Tools

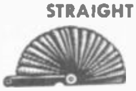
PENFILE POCKET CLEANER-BURNISHER

Non-residual, Hardened steel, blades do not leave any grit or dust on contact. Length and rigidity adjustment of flexible blade possible by varying depth in chuck. Plastic dielectric cap permits working on live and dangerous contacts. 5½" length x ⅜" diameter.
Type P-4 Penfile. ¼"Wx 1¼"Lx.007"T. 12 blades.
35F1108. NET 3.90
Type P-6 Penfile. 3/16"Wx 1¾"Wx.007"T. 12 blades.
35F1108. NET 3.90
Type RB-4. Replacement blades for P-4
35F1109. NET .... **Pkg. of 25** 3.75
Type RB-6. Replacement blades for P-6.
35F1110. NET .... **Pkg. of 25** 3.75

DIAMOND CLEANER BURNISHER

Consists of abrasive diamond particles for cleaning of relay contacts with minimum pressure. Nominal material removal will not alter normal contact gap.
35F1100. Type K-234. Kit of 3. **NET** 14.85
35F1101. Type D-200. Coarse, Green, 2 diamond faces. **NET** 4.95
35F1102. Type D-300. Medium, Red. 2 diamond faces. **NET** 4.95
35F1103. Type D-400. Fine, Blue, 1 diamond face. **NET** 4.95

STRAIGHT THICKNESS GAUGE



Type T-720N. Contains 26 interchangeable blades.
35F1125. NET 3.90

ADJUSTMENT OFFSET WRENCHES

For adjusting relay locknut positioned horiz. or vert.

Stk. No.	Type	Length	Opening	NET
35F1104	DW-16	8"	3/16"	2.48
35F1105	DW-32	8"	7/32"	2.48
35F1106	DW-4	8"	¼"	2.48

STOP BENDER

Type SB-22. For adjusting armature back stops. Carbon steel, nickel chrome plated. Slot .033"W, 5" length.
35F1122. NET 1.48

RELAY TOOLS

PL-8. Spring action, duck billed plier. 5½" long.
35F1145. NET 4.40
FW-24. Double end hex wrench/screwdriver. 4¾" long. 7/32 and ¼ hex openings.
35F1146. NET 2.70
J-23. Pin drive screwdriver.
35F1147. NET 3.60
S-339. Switchboard lamp extractors for ⅜" lamps. 4" long. Handle ½".
35F1148. NET 1.95
S-42. Lamp cap extractor plier for heat coils, switchboard lamps and jack assemblies. Nickel-chrome plated. 5".
35F1149. NET 4.32

NICKLE SILVER WIRE BRUSH

Type WB-65. Cleans delicate components. Hand-wired. Single row crimped wire, thick brush face 3", trim ¾".
35F1123. NET 1.95

MASTER 15-PIECE SET

Type K-55. Precision chrome plated carbon steel tools for maintaining relays-. Contains: two spring adjusters; tension and thickness gauges; duck bill plier; screwdriver tweezers; mirror, four-way tool; brush; armature; stop benders; contact spray and burnisher. Leather zippered case. 3½ lbs.
35F1127. NET 34.00

COMPACT ADJUSTING KIT

Type KR-6. Made for electromechanical equipment. Includes carbon steel spring adjuster, armature bender, arm bender, relay spring, duck bill plier, burnisher and 0-50 gram tension gauge. Zippered leather case. 2 lbs.
35F1128. NET 19.99

MASTER 20-PIECE SET

Type K-600. Includes pliers, drivers, tweezers, burnisher, soldering iron and aids, files, magnifier, etc; all tools for service of electronic equipment. Zippered leather case.
35F1137. NET 29.90

ELECTRONIC TOOL KIT

Type KE-7. For repair of electronic type equipment. Kit contains chain nose plier, wire stripper, precision oiler, tweezer, burnisher, pin vise, and screw and nut driver for ¼" nuts. In vinyl pouch.
35F1138. NET 9.90

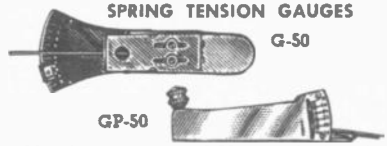
TENSION DYNAMOMETER DIAL GAUGES

Determines force to actuate sensitive mechanisms.
GD-5. Dial face 1½" Scale, 0-50 grams.
35F1139. NET 13.55
GD-15. Same as above but scale 15-150 grams.
35F1140. NET 13.55
GD-100. 2½" dial face. Scale 100 to 1000 grams.
35F1141. NET 31.25

PUSH-PULL GAUGES

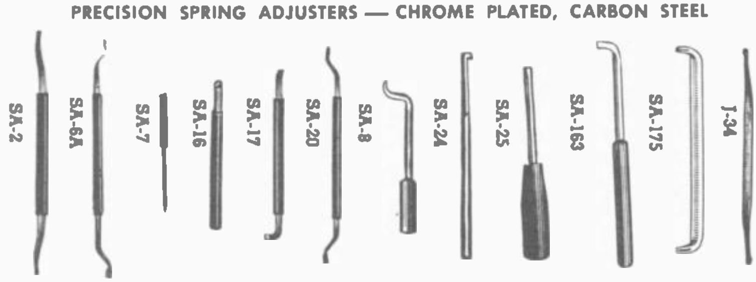
For measuring tension and compression of spring loaded equipment.
GPP-1. (See illustration) Scale readings in 50 gram steps, from 0 to 1000 grams. Diameter, ⅝". Length, 9¼".
35F1142. NET 29.80
GPP-2. Reads 0 to 110 grams, giving scale readings in 5 gram steps. Diameter, ⅜". Length, 11".
35F1143. NET 14.50

SPRING TENSION GAUGES



Model GP-50. Cal. 0-50 gm., both sides at 5 gm. intervals. 5¼" length.
35F1112. NET 7.48
Model G-50. Engraved scale front and back, for horiz. and vert. reading. Scale is 0-50 gm., at 5 gm. intervals. 5" length.
35F1111. NET 6.48
35F1134. G-10. 0 to 10 gm. **NET** 6.48
35F1135. G-30. 0 to 30 gm. **NET** 6.48
35F1136. G-150. 0 to 150 gm. **NET** 6.48

PRECISION SPRING ADJUSTERS — CHROME PLATED, CARBON STEEL



SA-2. Chisel edge. Curved both ends. Adj. horiz. rlays. .023" slots. 7" length.
35F1114. NET 2.48
SA-6A. For vertical and horizontal relays. .029" slots. 5½" length.
35F1115. NET 2.45
SA-7. Straight. For rotary switches & flat relays. .015" slot. 4½" length.
35F1116. NET 1.35
SA-16. Dbl. ended lengthwise slots. .031" slots. 8" length.
35F1117. NET 2.40
SA-17. Offset flat type. For relay contact springs. .023" slot. 8" length.
35F1118. NET 2.95
SA-20. Upward & downward slots. For closely set springs. .024" slots. 7" length.
35F1119. NET 3.50
SA-8. Rnd. head. Adj. rotary interrupters & heavy springs. .058" slot. 4" length.
35F1120. NET 2.48
SA-24. Rnd. For horiz. relay springs. .040" & .028" cross. slots. 5½" length.
35F1129. NET 2.88
SA-25. Angled saw slots. Adj. rotary relays. .032" slots. 6½" long.
35F1130. NET 2.48
SA-163. Straight, driver-shaped crosswise slot. .038" slot. 5½" Length.
35F1131. NET 2.19
SA-175. Saw slot. Adj. close-set relay springs. Insul. handle. .031" slot. 5¼" Length.
35F1132. NET 2.92
Type J-34. For Adjusting Polarized Relays. ¼" x 1⅛" length, 3" diameter.
35F1133. NET 1.68
Type SA-143. Relay spring adjusting tool, angled with a single saw slot. 8"Lx.025".
35F1144. NET 2.28

MOODY SUBMINIATURE TOOLS

MASTER KIT

BW-5

OE-5

TS-5

PA-5

SC-5

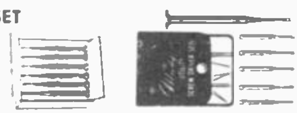
SH-2

MASTER KIT

Model MMk-6. The tiny tools contained in these six tool kits are ideal for miniature sub-assembly work. The six kits are these: SC-5 (with 5 screwdrivers), the PA-5 (which includes cross recessed drivers and Allen type wrenches,) the SW-5 (a socket Wrench Set), the OE-5 (an offset open end wrench set), the #70 (A companion to the TS-5 Tiny Tap Set), and the TS-5 Tiny Tap Set. Compact — 8½ x 3½ x 1½".

33F494. 1-11 .... **17.21**
12-Up 15.38

JEWELER'S SCREWDRIVER SET



Model JS-6, meets Mil. Spec. GGG-S-121d. One set of six complete screwdrivers with properly heat-treated blades. Blades sizes .025", .040", .055", .070", .080" and .100".

33F479. NET **3.15**
Lots of 12, Each 2.80

Model 52. Six interchangeable blades for precision work. .025", .040", .055", .070", .080", .100". Meets GGG-S-121-D.

33F696. NET **1.90**
12-Up 1.65

POCKET AND MACHINE SCRIBERS

MS-2 #42

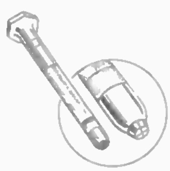
Model MS-2. Meets MIL-Spec. GGG-131. Approximately 8½" overall with a hook point and a straight point. Has knurled aluminum finger grip handle.

34F559. NET .... **.57**
12-Up .... .51

Model 42. On one end, powerful magnet for prodding, other end stores a scribing point. Pocket clip.

33F697. NET .... **.95**
12-Up .... .85

SWIVELTOP PIN VISES



Have knurled steel handles and solid locking chucks. The PV-1 will take drills sizes #80 to #68, (.0135" to .031"). The PV-2 will take drill sizes #67 to #52. (.032" to .0635").

33F480. PV-1. NET
33F481. PV-2. NET 1.15
12-Up 1.00

ELECTRICIAN'S INSULATED POCKET SCREWDRIVER NO. 50

Especially made for safe carrying in the pocket; blade is stored in the handle to eliminate danger of stabbing. The hollow nylon tube insulates against electric shock. Solid-locking chuck-nose holds blade securely.

33F695. 1-11 .... **1.50**
12-Up 1.35

SUBMINIATURE TOOL SETS

Socket Wrench Set. 5 interchangeable tiny hex socket wrenches. All fit the same handle. Enables inserting or removing tiny nuts from hard-to-get-at places Wrench sizes: 5/64", 3/32", 7/64", 1/8" and 5/32".

Type BW-5. With Magnetic handle.
33F473. NET **2.95**
Lots of 12, Each 2.65

Type SW-5. Non-Magnetic handle.
33F472. NET **2.65**
Lots of 12, Each 2.35

Type OE-5. Offset Open End Wrench Set. A tiny offset open end wrenches. Made of tough heat treated steel. Wrenches are completely interchangeable in the chuck-type handle. Ideal for all types of tiny nuts found in electrical and other small devices. Wrench Sizes: 5/64", 3/32", 7/64", 1/8 and 5/32". Shpg. wt. 8 oz.

33F474. NET **1.90**
Lots of 12, Each 1.65

Type SH-2. Screw-Holding Screwdrivers. Swivel-top handle takes 2½" or 1¾" blade, plus screw-holding clip. Holds tiny screws better than fingers. Shipping weight, 8 oz.

33F477. NET **1.30**
Lots of 12, Each 1.15

Type TS-5 Utility Tiny Tap Set. The newest addition to the Moody Kit sets. Tough, heat treated steel tap tool set is ideal for cutting tiny inside threads on any number of small items. Top sizes are 0-80, 1-72, 2-56, 3-48, 4-04. The knurled chuck type handle has a torque hole for steady firm leverage. Shpg. wt., 8 oz.

33F478. NET **5.20**
Lots of 12, Each 4.65

Type PA-5. Miniature Phillips and Allen 6 Piece Set. Contains two smallest-size Phillips screwdrivers, plus three tiny Allen-type wrenches . . . all interchangeable in swivel-top universal handle. You get: Phillips #0 and #1, plus Allen Nos. 4, 6 and 3. Shpg. wt., 7 oz.

33F476. NET **1.90**
Lots of 12, Each 1.65

Type SC-5. Jewelers' Screwdriver 6 Piece Set. Perfect for dismantling small assembles. Five interchangeable rust-resistant blades fit universal swivel-top handle. Sizes include .055", .070", .080" and .100". Complete with awl with colorful plastic stand and cover 7 oz.

33F475. NET **1.30**
Lots of 12, Each 1.15

NO. 70 TINY TAP DRILL SET

Five frequently-used drill sizes are provided. They fit into a compact plastic stand-up holder which protects the cutting surfaces by keeping the drills separated. The handle features a solid-locking chuck-nose and a swivel top. Drill sizes are #43, #47, #50, #53, and 3/64".

33F694. 1-11 .... **2.65**
12-Up 2.35

BEAUCHAINE TOOLS

TUBE SERVICE ACCESSORIES

Test Adapters. Plug in socket, plug tube in adapter; contacts are available top-of-chassis for in-service measurements.

Stock No.	Type	Description	Ea.
34F567	SH27	For 7 pin min.	1.65
34F568	SH28	For 8 pin oct.	1.82
34F569	SH29	For 9 pin min.	1.90

Tube Puller. Neoprene suction type. Fits 9-pin miniature tubes.
34F584. Type SH23B. NET EACH .... **.95**

Tube Lifter. Loosens octal and loctal types for easy removal.
34F586. Type SH21. NET EACH .... **.77**

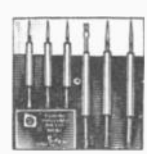
SH-28

SH-27
SH-29

SOLDERING AIDS

Use for probing, scraping. Chrome-plated tips.

Stk. No.	Type	Tip Description	1-199	200-Up
34F596	SH20A	Standard straight	.98	.88
34F597	SH20B	Standard angle	.98	.88
34F613	SH20K	Std. brush & scraper	.98	.88
34F598	SH20C	Printed-circuit straight	.85	.77
34F599	SH20D	Printed-circuit angle	.85	.77
34F612	SH20G	P-C brush & scraper	.92	.83



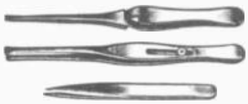
Type SH-120. Kit of all six aids described above, in a plastic case.
34F614. NET EACH **5.35**

Probing Tweezers. Polystyrene—no shock hazard.
34F549. Type SH24A. NET. 1-99 .... .50
200-Up .... .45

GC ELECTRONICS

Tuning and Aligning Tools

SERVICE TWEEZERS



7945
7947
7948

Type 7946. Self-closing, with crossover action, 6½" long, serrated, blunt points. Shpg. wt., 2 oz.
34F521. NET .99

Type 7947. Heavy-duty, with slide-lock feature. 6½" long, serrated, blunt points.
34F522. NET 1.10

Type 7948. Precision tweezer with narrow pointed ends. Over-all length, 4½".
34F523. NET .75

Tweezer Kit. In leatherette case. One each of above tweezers. 8 oz.
34F524. Type 7950. **NET** 2.84

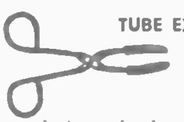
INSPECTION MIRROR

Type 5090. Indispensable for inspecting coils, resistors, connections, etc., in tightly wired radio chassis. Length 7⅞". Shpg. wt., 5 oz.
34F557. NET .42

INSPECTION MIRROR

Type 5090-P. Plastic insulated inspection mirror that you can use to inspect coils, resistors, sockets, etc., while the chassis is hot. No danger of shorting. Wt., 5 oz.
35F655. NET .38

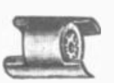
TUBE EXTRACTOR



Type 5092. Zinc plated iridated spring steel. Molded neoprene cushion over claws. Removes all makes and sizes of tubes and will not damage tube socket or shield. Permits quick manipulation from any angle. 6 oz.
34F752. NET .98

MINIATURE TUBE PULLER

"Amo" tube puller for miniature tubes. Easy to use. Tube is released by pressing button. 4 oz.
34F558. 7-pin. **5093. NET** 1.30
34F556. 9-pin. **8106. EACH** 2.50



Dual Type 9092. For 7 and 9-pin miniature tubes. Shipping wt., 6 oz.
35F656. NET 3.20

Type 9130. It's a 7-pin tube straightener, a 9-pin tube straightener, a tube puller, and a tube tapper. Four tools in one. Pure rubber, wil not break. 3 oz.
35F657. NET 1.65

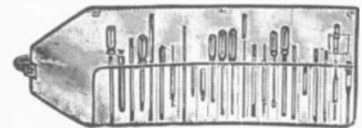
MINIATURE PIN STRAIGHTENER

Type 8105. Steel die for straightening pins on miniature tubes. Carry in tool box or fasten to bench. 6 oz.
35F554. 9-pin. EACH .75

HEX AND SPLINE WRENCH SET

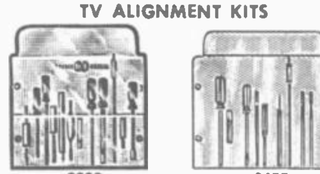
Type 5028. A complete set of twelve box hex and spline wrenches in a convenient leatherette case. Constructed to fit #2 to ⅜" screw. Shipping wt., 6 oz.
34F520. NET 1.35

DELUXE TOOL KIT



Type 8283. Deluxe TV tool kit contains 25 tools in a superior leatherette roll type case. Includes alignment screwdriver, TV alignment tool, K-Tran tool, TV channel tuning tool, FM tuning tool, TV core aligner, long reach aligner, TV Duplex aligner, "Shorty" TV alignment screwdiver, and many other needed TV tools. 1 lb.
35F650. NET 15.83

TV ALIGNMENT KITS

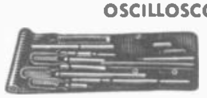


8280 8455

Type 8455. A low-priced-alignment kit in a roll-up case. Includes K-Tran tool, TV channel tool, TV Short tool for RF and IF, oscillator tool, long reach aligner, flexible tuning wand, and others.
35F651. NET 6.26

Type 8280. Contains 16 tools needed to align most TV sets. Knurled plastic handles. Leatherette case. Wt., 8 oz.
35F801. NET 10.30

OSCILLOSCOPE KIT



Type 12-035. Fourteen alignment tools in a plastic pouch. Included are a variety of ceramic, piston, slug and piston, and hex wrench alignment tools.
34F682. NET 11.50

INDIVIDUAL ALIGNMENT TOOLS

Type 8282. Molded delrin plastic IF alignment tool. 5⁷⁄₁₆" long. Wt., 2 oz.
35F812. NET .37

Type 8607. Alignment tool with replaceable molded nylon tip. 12" long. Shpg. wt., 4 oz.
35F810. NET 1.60

Type 8277. Specially made for trimmer and I.F. transformers where space is limited. Made of plastic. Size: 2⅝" long x ⁷⁄₃₂" Shaft Dia. Wt., 3 oz.
35F818. NET .52

Type 8728. A fibreglass 12" double-bodied aligning tool with a ⅛" narrow shaft. Shipping wt., 3 oz.
35F622. NET .53

Type 8196. For shielded coils and trimmers. Steel nib is insulated. 2½x⁷⁄₃₂" diam. Wt., 3 oz.
35F605. NET .42

Type 8728A. Of low loss delrin. Has narrow shaft, 7" long, ⅛" diameter. Shipping wt., 4 oz.
35F618. NET .43

16" EASY REACH ALIGN. TOOL

Type 9294. Has ⅛" fibreglass blade for alignment where magnetic fields are important. Offers protection from high voltage. 3 oz.
35F817. NET .72

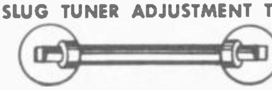
TV ZENITH UNIVERSAL ALIGNER

Type 8275. Designed for Zenith and other sets. Made of white delrin and plastic handle has thin delrin screwdriver and recessed thin spring steel tip. 3 oz.
35F821. NET .52

TELEVISION DUPLEX ALIGNER

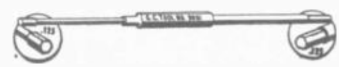
Type 8276. An all purpose high quality TV aligner for trimmers and I.F. transformers. Made of plastic material with extra thin spring steel tips, specially made for Television. One end has a projected tip, the other end has a recesed tip. A necessity in adjusting TV sets. 6x⁷⁄₃₂". 3 oz.
35F616. NET .52

SLUG TUNER ADJUSTMENT TOOL



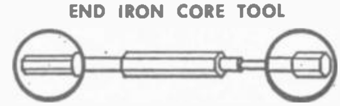
Type 9087. A special slug tuning tool especially made for adjusting standard tuners, etc. as used in TV receivers. Other end has a longer blade for other applications. Completely insulated. 7½" long, ¼" shaft dia. Shaft ends .170 dia. Wt., 3 oz.
35F813. NET .75

DELRIN HEX WRENCH



Alignment tool for Zenith, Admiral and other sets. One end under cut so it will reach bottom slugs in iron coils.
35F623. Type 8606. 5". **NET** .48
35F624. Type 8606L. 11". **NET** .63

END IRON CORE TOOL



All Delrin hex tool for cores with .125 hex opening. One end under cut to reach bottom slug in coils w/o turning top slug.
35F625. Type 9091. 5". **NET** .48
35F626. Type 9091L. 11". **NET** .70

SOLDERING AID TOOL

Type 9088. One end has a stiff wire brush for cleaning wire and terminal strip before soldering, and the other end is machined to hold wire while soldering. Solder will not stick to the soldering probe end of the tool. Made of special stainless steel with hardened probe. 8". Wt., 4 oz.
35F814. NET 1.00

SOLDER AID PROBE

Type 9093. For printed circuits. Handy, fine point probe designed to aid in probing and soldering printed circuits. Size: 8". Wt., 4 oz.
35F653. NET 1.00

BRUSH AND SCRAPER

Type 9094. For printed circuits. Fine stainless steel brush and hardened steel scraper. Size: 8". Shpg. wt., 4 oz.
35F654. NET .98

"NE-O-LITE"

Designed for easy use. Neon glow-type tester for voltages ranging from 60 volts AC-DC to 550 volts AC/DC. Neon bulb in insulated holder. 5" insulated leads with phone tips. Wt. 3 oz.
34F680. Type 5100. **NET** .50
34F496. Type 5105. **NET** .99
34F497. Type 5110. **NET** 1.19

 Newark-Herrlinger Electronics Corp., 112 E. Liberty St., Cincinnati, Ohio 45210

Chassis Punches & Wire Strippers

GREENLEE TOOL CO.

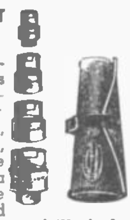
TYPE 731R SOCKET PUNCH FOR P&B KU, KUP, AND KHP RELAYS

Makes clean, accurate, finished holes. Completely eliminates old-fashioned "sawing and filing" methods. Simply insert the drive screw in a 9/16" drilled hole, give the drive nut a few turns with a hand wrench, and the job is done. Makes holes in up to 16-gauge. Wt. of complete punches, 10 oz.

Type KU Punch. C.&L.C. Hole dimensions 1¼"x1⅜".
34F981. NET **19.00**

Type KHP Punch. C&L.C. Hole dimensions 1.018x.861".
33F797. NET **14.30**

TYPE 737 & 735 CONDUIT KNOCKOUT SETS



Permits enlarging of knockouts and cutting of holes for conduit in metal. Consists of four punches for cutting ⅞", 1 3/32", 1 11/32", and 1 11/16" holes for ½", ¾", 1", 1¼" conduit. The ⅞" punch will also cut a hole for ½" conduit where no knockout is provided when a 13/32" or 7/16" hole is drilled. In leather case. Wt., 2¾ lbs.
33F750. NET **11.75**

Type 737 Conduit Knockout Set. Similar to No. 735 set, but consists of only two punches to cut holes for 1½" and 2" conduit. Hole sizes are 1 15/16" and 2⅜". Weight, 3½ lbs.
33F753. NET **12.90**

TYPE 731 SQUARE CHASSIS PUNCHES

For cutting square and oblong holes in radio chassis. Turns with ordinary wrench. Punch has 4 cutting edges. Drive screw fits into ½" pilot hole. Av. wt., 10 oz.

33F779. For ½" holes. **NET** 6.45
33F780. For ⅝" holes. **NET** 6.35
33F781. For ¾" holes. **NET** 7.10
33F788. For ⅞" holes. **NET** 8.30
33F782. For 1" holes. **NET** 8.60

REPLACEMENT SCREWS AND NUTS

1-3038. Drive screw for ⅝" sq. punch.
33F783. NET 1.65
1-3031. Drive screw for ¾" sq. punch.
33F784. NET 1.90
1-3043. Drive screw for 1" sq. punch.
33F785. NET 2.55
AV-2929. Universal drive nut.
33F786. NET .40

Newark can supply all replacement parts for Greenlee punches on special order.

BALL-BEARING DRIVES

Faster conduit installation. For all sizes of Greenlee Knockout Punches and No. 730 Round Radio Chassis Punches 1 1/16" and larger. Use an ordinary wrench. For Knockout Punches: No. 737 1½ and 2-inch conduit, and No. 730 for 1⅞", 2", 2¼", and 2½" openings and for No. 730M for 2 25/32" openings.

No.	Type	Descrip.	Wt.	NET
33F725	AV304-BB	Complete ¾"x4" oa.	11 oz.	2.90

For the following Punches: No. 735 for ¾", 1" and 1¼" conduit, and No. 730 Radio Chassis Punches for 1⅝" and 1¾" openings and No. 730S for 1 7/32" opening.

No.	Type	Descrip.	Wt.	NET
33F728	AV249-BB	Complete ¾"x3¼" oa.	9 oz.	2.75

For Knockout Punch No. 735 for ½" conduit and No. 730 Radio Chassis Punches for 1 1/16", ¾", 13/16", and ⅞" openings.

No.	Type	Descrip.	Wt.	NET
33E731	AV322-BB	Complete ⅜"x2½" oa.	2 oz.	1.10

Same type drive as No. AV322-BB above for 1" to 1½" sizes Greenlee No. 730 Radio Chassis Punch.

No.	Type	Descrip.	Wt.	NET
33F734	AV112-BB	Complete ⅜"x2 13/16" oa.	2½ oz.	1.20

TYPE 732 CHASSIS "KEY" PUNCHES

Keyed round punches for cutting holes for tube sockets and plugs with keys, such as the Amphenol "S", Millen, and other types. Operates by wrench power. Keyed prong prevents rotation after mounting. Eliminates need for mounting plate. Available in five sizes: 1 5/32", 1 5/16", 1 11/64", 1 17/64", and 1 21/64". Average shpg. wt., 10 oz.

33F789. For 1 5/32" holes. **NET** 6.00
33F790. For 1 5/16" holes. **NET** 6.10
33F791. For 1 11/64" holes. **NET** 6.80
33F792. For 1 17/64" holes. **NET** 7.60
33F793. For 1 21/64" holes. **NET** 8.50

TYPE 738 & 739 KNOCKOUT PUNCHES

Operate with ordinary wrench for drive power. Just insert in knockout or drilled hole and turn drive nut. Type 738 cuts 2⅞" dia. holes for 2½" conduit; type 739 cuts 3½" dia. holes for 3" conduit.

Type 738 Punch. Wt., 5¾ lbs.
33F751. NET **16.75**

Type 739 Punch. Wt., 7¼ lbs.
33F752. NET **22.70**

TYPE 730 ROUND PUNCHES

Makes round openings with maximum ease in minimum time . . . Clean, accurate holes for sockets, meters, etc. Use an ordinary wrench for drive power. Will cut metal, bakelite, or hard rubber. Shipping weight, ¾ lbs.

No.	Size	Net	No.	Size	NET
33F760	½"	2.70	33F769	1¼"	3.15
33F754	9/16"	2.70	33F755	1 5/16"	3.75
33F761	⅝"	2.70	33F770	1⅜"	3.75
33F775	1 1/16"	2.70	33F771	1½"	4.25
33F762	¾"	2.70	33F758	1⅝"	5.10
33F776	13/16"	2.70	33F757	1¾"	5.85
33F763	⅞"	2.70	33F758	1⅞"	7.30
33F736	15/16"	3.00	33F759	2"	7.80
33F764	1"	3.00	34F977	2⅛"	8.45
33F765	1 1/16"	3.15	33F772	2¼"	8.45
33F766	1⅛"	3.15	34F978	2½"	13.75
33F767	1 5/32"	3.15	34F979	2¾"	19.00
33F768	1 3/16"	3.15	34F980	3"	26.50

730M. Meter punch. Hole size: 2 25/32.
33F777. NET 13.10
730-S. 1 7/32 punch for oil tight control units.
33F778. NET 5.75
730-T. 3⅛ punch for instrument panels.
33F794. NET 28.75
AV-1675. ¼ screw for ½-⅝ punches.
33F773. NET .30
AV-322. ⅜ x 1½ screw for 1 1/16-⅞ punches.
33F787. NET .30
AV-112. ⅜ screw for 1 to 1½ punches.
33F774. NET .35

FAST RADIO CHASSIS PUNCH DRIVER

Type 1804. Ratchet Punch Driver. Knockout Driver Assembly, and ratchet and leverage handles. 3 adapter screws. Can be used with all standard Greenlee Knockout Punches from ½" to 3" and all No. 730 Round Chassis Punches 1 1/16" and larger. Without punches. Shpg wt., 13 lb.
33F799. NET 57.00

TYPE 730—X

Radio Chassis Punch with heavy duty drive screw for cutting up to 10 gauge metal and stainles steel sheets.

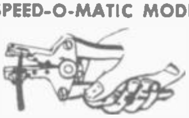
Stk. No.	Size	NET	Stk. No.	Size	NET
34F972	1⅛	6.40	34F975	1⅜	7.35
34F973	1 3/16	6.40	34F976	1½	8.30
34F974	1¼	6.40			

TYPE 733 CHASSIS "D" PUNCH

For cutting "D" type holes such as those required for miniature sockets. Eliminates need for mounting plate. Wt., 6 oz.
33F795. For ½" holes.
NET **4.90**
33F796. For ⅝" holes. **NET** 5.25

G-C SPEEDEX WIRE STRIPPERS

SPEED-O-MATIC MODELS



Type 766. Latest Speedex model featuring the "Fully Automatic Delayed Return Action" to prevent crushing fine wires. Combines the features of all Speedex Wire Strippers. Has narrow, easy grip handles and interchangeable blades. Models avail. for various wire sizes.
34F608. Type 766. For 12 to 20 wire.
34F609. Type 766A. 14 to 30 wire.
NET EACH **5.93**

AUTOMATIC MODELS

Type 744. Especially suited for stripping fine and stranded wires. "Trig-O-Matic" Stay-Open feature keeps wires from being crushed. Can be used either automatic or standard model.
34F600. Type 744H. For 300-ohm twin line.
34F601. Type 744. For 12 to 20 wire.
34F602. Type 744A. 14 to 30 wire.
NET EACH **5.93**

STANDARD MODELS

Type 733. Popular inexpensive model will work on 90% of all stripping jobs.
34F603. Type 733H. For 300-ohm line.
34F604. Type 733. For 12 to 22 wire.
34F605. Type 733A. For 14 to 30.
NET EACH **4.77**

DELUXE WIRE STRIPPER KIT

Type 744K. Includes "Trig-O-matic" stay-open wire stripper, plus interchangeable blade sets for any size wire from No. 30 to No. 8. Also handles 300- ohm ribbon lead-in wire. 2¼ lbs.
34F606. Type 212. **NET** **13.16**

STRIP-ER-CLIPS

A precision tool with an exclusive safeguard that prevents accidental nicking or cutting while wires are being stripped. Features a seven stop gauge which adjusts instantly to the correct wire size. Setting of gauge to protect against damaging wire conductors or strands is easily done with the thumb. Strips and clips all wires ranging from 14 to 26 gauge. With heavily insulated grips and streamlined jaws. Shipping weight, 2 lbs.

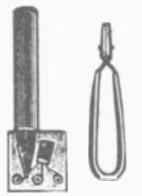
33F583. No. 760. **NET** **1.49**

K. MILLER TOOLS

INDUSTRIAL TYPE WIRE STRIPPER & CUTTER

Model 102. Has needle nose with eccentric cam. Precise adjustment immovable—even wit hloosened screw. Precision-fitted jaws. Long, plastic covered handles. Shp. wt. 3 oz.
34F661. NET **1.29**
Lots of 12-up Each **1.04**
Model 103S. Same as above plus spring action handles.
34F662. NET . **1.59** **12-up. Each**..... **1.29**

HEAT SINK TOOL—HEAVY DUTY



Model 80. Heat Sink Tool. A necessity for transistor circuitry and other electronic work. Copper jaws for greatest heat absorption. Soft plastic handles. Compact, adheres to the work firmly with no damage to fine wiring. Shpg. wt., 1 oz.
34F664. NET ..... **.93**
Lots of 12, Each .. **.80**

WIRE STRIPPERS

Model 101-S. Wire stripper and cutter, featuring spring return. 5" long tool has blades hardened and ground to cut with smooth shearing action. Adjusting stop on the gripping handle permits adjustment for size. Shpg. wt., 3 oz.
34F656. NET **1.29**
Lots of 12-up. Each . **.1.04**
Model 100. Same, less spring return.
34F655. NET **.99** **12-up Each** ..... **.78**

HEAVY DUTY MODEL

Type 601-S. A wire stripper and cutter suitable for use on all commonly used stranded wires. 6" long. Blades are hardened and ground to cut wire cleanly and neatly. Self opening spring for ease of operation. Shpg. wt., 4 oz
34F657. NET **1.89**
12-up Each **1.64**

"DIAL A STRIP" CUTTER

Model 106. For speedy, positive adjustment of 8 stop settings, from 22 ga. wire up. Jaws are hand fitted, hand ground. Dials easily. 5" overall. Shpg. wt., 3 oz.
34F663. NET **1.09**
Lots 12-up. Each ....**.84**
Model 107S. Same, with spring action handles.
34F667. 1-11 Each 1.39 12-up. Each **1.13**

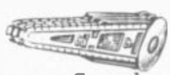
LIGHTWEIGHT LONG NOSE PLIER

Model No. 85. Plier is an adequate household tool. Can be used by mechanics, assemblers, and hobbyists. Easily reaches those hard - to - get - at places. Features spring closing heat sink tips. Also includes soft plastic handles. 5¾ inches long. Lightweight: 2½ lbs. per dozen.
34F668. NET **1.05**
Lots of 12. Each .... **.85**

TAKON — VERSATILE, PRECISION HAND STAMP

Compact hand stamp having continuous rubber band containing characters: A-Z, 1-0. ° " % = + (pi) μ γ (phi) Δ Ω - / . ( ) . Ideal for identification, and marking of electronic designations; also for stamping in areas where space is limited. Easy to clean and align. Can be used individually for single character marking, or any number of units may be quickly ganged for multiple character stamping. 5½" high, ⅛" thick, 1" wide, tapering to ⅜" at stamping edge. Intermix alphabet, numerals, and electronic symbols. Metal construction. Use with stamping ink or paste. Shpg. wt. 1½ oz.

Use Individually



or Ganged

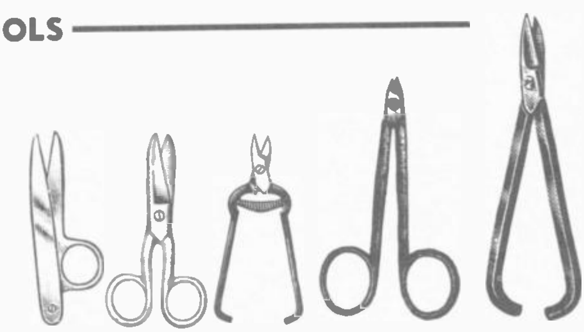
60F1675. Model 118. ⅛" Gothic. NET **4.90**
60F1676. D-1118 Replacement Band. ⅛" Gothic **1.80**
60F1677. Model 332. 3/32" Gothic. NET **4.90**
60F1678. D-1332 Replacement Band. 3/32" Gothic **1.80**

CLAUSS TOOLS

SCISSORS AND SNIPS

Scissors have small hardened points for fine cutting. Snips have comfortable handles, high leverage.

Stk. No.	Type	Description	Size	Wt.	Net
34F780	925	Electricians' scissors	5"	3 oz.	2.40
34F781	76½	Filiament snip	6½"	5 oz.	3.00
34F782	TC4½	Thread snip for light cutting	4½"	3 oz.	2.67
34F767	564½	Special jaw for flush cutting	4½"	⅔ oz.	4.00
34F768	565½	Same as above	5½"	1⅓ oz.	4.18
34F769	57	Curved jeweler's snip	7"	4 oz.	2.33
34F770	67	Straight jeweler's snip	7"	4 oz.	2.17
34F771	384	General cutting tool, slender blades.	4"	⅔ oz.	2.67
34F772	564D	For limited clearance wire cutting	4"	⅔ oz.	3.83



TC4½ 925 76½ 564½-565½ 57-67

DOMESTIC TWEEZERS

Non-magnetic, satin-finish stainless steel. Delicate feel and balance. With smooth inside points except (*) serrated.

Stk. No.	Type	Description	Size	Wt.	Net
34F773	7SS	Curved tweezers	4½"	⅓ oz.	2.17
34F774	5S	Long, V-shaped	4¼"	⅓ oz.	1.17
34F775	5	Long, slender	4¼"	⅓ oz.	1.33
34F776	231*	Serrated inside points	4¾"	⅔ oz.	1.67
34F777	AA	Tapered points (not non-magnetic)	4⅞"	⅔ oz.	1.33

HEAT SINK TOOLS

Copper beryllium alloy provides max. thermal conductivity. Satin chrome finish resists solder. Box joint prevents side-slip. For holding parts during soldering. Wt. 1 oz.
34F778. Type HS5. **NET** **2.50**
34F779. Type B50. **NET**.... ....**2.50** **34F788.** Type B47.......... **2.50**

ANTI-WICKING TOOLS

Stock No.	Type	Gauge	NET
34F783	AW20	20	6.00
34F796	AW22	22	
34F797	AW24	24	
34F784	AWG20	20	5.33
34F798	AWG22	22	
34F799	AWG24	24	

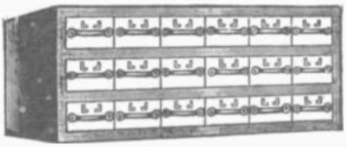
384 7SS 5S 5 AA HS5 B47 AW AWG

● NEW "FLIPPER" THREAD/WIRE CLIP

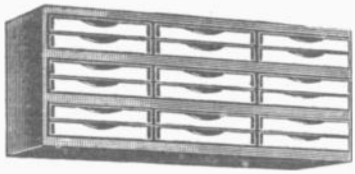
For snipping threads, fabric, light wire, harness ties. Teflon-coated — rust-proof, self-lubricating. New blades inserted easily using a screwdriver. Built-in metal block assures a positive stop every time. Available with sharp or rounded points. 4½" long.

Stk. No.	Type	Net
34F716	FL 4½ with sharp pointed blades	4.00
34F717	FL 4½ with round safety blades	4.00
34F718	BLS Replacement blades sharp pt.	.75
34F719	BLR Replacement blades round pt.	.75

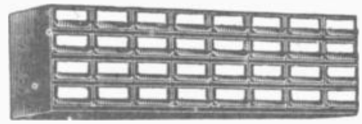
EQUIPTO CABINETS



Model 11



Model 15



Model 32

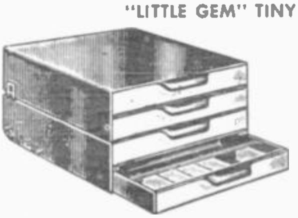
PARTS CABINETS

Model 11. Designed for storing resistors, condensers, nuts, bolts, screws, electrical supplies and other small parts. Comes with 18 drawers and each drawer is equipped with two adjustable and removable cross dividers making three compartments per drawer. Makes a total of 54 compartments. 13¾" high ,12" deep. The 18 drawers are 11" deep x 5⅝" wide x 3⅛" high. Comes with two dividers per drawer. Olive green finish. Shipped completely set up. Shpg. wt. 61 lbs.
82F000. NET **35.00**
Model 22. Same as No. 11 except 18" deep.
82F001. NET **41.50**
82F002. Type 8720. Extra straight dividers. **Each** .... **.15**

LITTLE GEM MULTI-DRAWER CABINETS

Model 15. 13¾" high, 12" deep. Contains 18 type A Little Gem drawers 11" wide x 11" deep x 1¼" high. There are 8 dividers per drawer which makes 216 adjustable compartments per unit. Shpg. wt. 90 lbs.
82F209. NET **85.95**
82F007. Type 8730. Extra straight dividers. **NET** .... **.10**

"LITTLE GEM" TINY PARTS CABINET



1½" deep drawers in a one-piece frame. Each drawer furnished with 8 dividers, providing for 24 adjustable compartments. Extra dividers listed below may be used to increase total to 28 compartments per drawer. Cabinets can be used individually, stacked or as shelving inserts. Drawer stops prevent spilling. Units lock together when stacked. Compartments have sloping fronts for easy picking of small parts. 1⅜" label holder on front of drawer; ⅝" label on top of each compartment within the drawer. Finished in olive green baked enamel.

Stk. No.	Type	Drawers	Size	Wt.	NET
82F004	No. 1	Two	3¼x11x11"	8 lbs.	**7.50**
82F005	No. 2	Four	6½x11x11"	15 lbs.	**15.00**
82F006	No. 3	Six	9¾x11x11"	22 lbs.	**22.50**
82F007	8730	Extra dividers		4 ozs.	**.10**

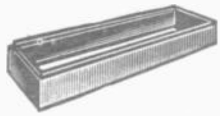
"CABINETS WITH 2" HIGH DRAWERS

Model 32. Drawers slide in and out smoothly even with maximum load. 10¾" high and 12" deep. Consists of welded steel frame complete with 32 drawers each 4½" wide x 2" high x 11" deep. Comes with scoop dividers. 2 dividers making 96 compartments. Shpg. Wt. 58 lbs.
82F200. NET **49.50**

Model 34. Same as model 32 except, 24 drawers, 5⅝" wide x 2" high x 11" deep. 72 total compartments. Shpg. Wt. 56 lbs.
82F201. NET **42.50**

Stk. No.	Type	Description	Size	NET
82F202	8732	Straight divider	4¼"	**.10**
82F203	8733	Scoop divider	4¼"	**.10**
82F204	8734	Straight divider	5⅝"	**.15**
82F205	8735	Scoop divider	5⅝"	**.15**
82F207	8737	Scoop front insert	5⅝"	**.10**

BASES FOR DRAWER UNITS



Model 6812. The bases are designed to keep the bottom row at a more convenient height, as well as to keep the drawers clear from brooms and mops. Size: 34" x 4" x 12". Shpg. wt. 1½ lbs.
82F208. NET **6.90**

TWO TRAY STOCK CARTS

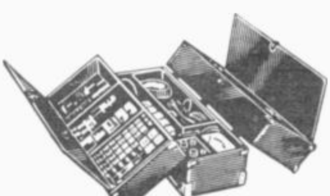
Sturdy steel construction. Trays are strong with round bedded edges. The carts come with 2 trays, each 4" deep. Top tray may be inverted for flat surface use. 5" tired wheels in front, swivel wheel in rear provide easy portability. Can handle up to 600 lbs. with ample factor of safety. Green baked enamel finish. Designed for use between narrow aisles.
Model 145. 30"x16"x30". Sh. wt. 44 lbs.
82F017. NET **31.95**
Model 150. 36"x24"x36". Sh. wt. 62 lbs.
82F018. NET **40.95**

UNION STEEL

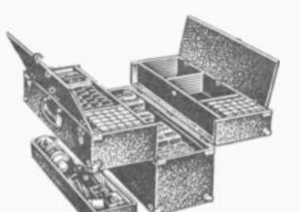
MODEL 410 UNION UTILITY CABINET

Heavy gauge steel chest for storing small parts. Consists of a cabinet with four sliding drawers all 2x9x11½". Each drawer has removable dividers which make from 2 to 12 compartments. Drawers have label holders for identifying the contents. Safety drawer stop feature prevents contents of drawer from spilling. Handsome durable charcoal gray Dentone finish. Over all dimensions: 10 x 10 x 11½". Shipping weight, 10 lbs.
82F020. NET **6.71**

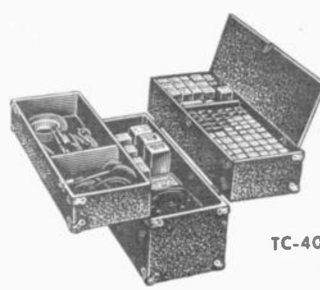
ARGOS TUBE CADDIES



TC-600



TC-500



TC-400

TC-600

Most rugged, strongest tube caddy in the line. Steel runners protect the caddy. Offers more than 3300 cubic inches for more than 300 tubes with space for tools, meters and accessories. Grey vinyl covering. 24" W x 16½" H x 8½" D. Shipping weight, 20 lbs 8 oz.
86F748. NET **29.35**

TC-500

Super Tube Caddy has 3300 cubic inches for tubes, meters, tools and accessories. Removable tray. Grey vinyl covering. Shipping weight, 17 pounds.
86F746. NET **23.47**

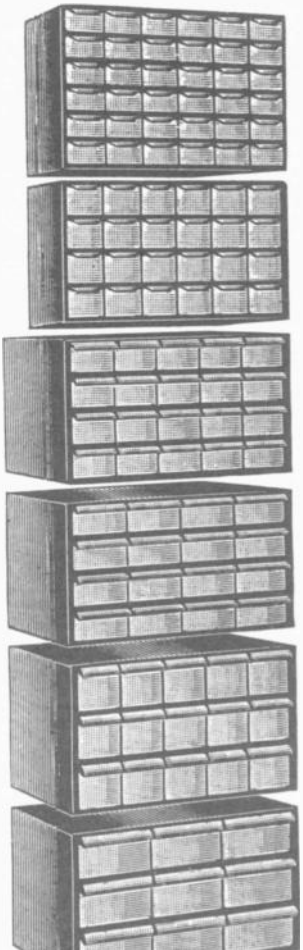
TC-400

Carry-all Tube Caddy. A must item for all electronic service men, this case is a complete tube and tool kit. Holds up to 260 tubes with space for accessories. Grey vinyl covering. 21" x 15" x 8". Shpg Wt., 11 lbs.
86F747. NET **16.61**

TC-200

Junior Tube Caddy. Small, easy-to-carry size. Holds up to 143 tubes, less with space or tools, meters, etc. Grey vinyl covering. 16 x 12½ x 8" Shipping weight, 7¼ lbs.
86F774. NET **10.73**

A-M Akro-Mils Drawer Cabinets



18-136
82F153

18-024
82F154

18-320
82F155

18-416
82F136

18-715
82F133

18-909
82F130

MODULAR HEAVY DUTY CABINETS

Heavy duty welded steel frames eliminate swaying or chance of becoming lopsided. Akro-Mils' cabinets are constructed so that one unit stacks on another. No limit to the height of any stack. Storage room may be created at any time by adding cabinets. Cabinets may be used singly. Akro-Mils cabinets are adaptable to any space; they stand, stack, hang on the wall, or fit into existing shelves. Gray hammer-tone finish resists chipping or rubbing off. Plastic drawers are made out of tough styrene. They won't bend, warp or twist out of shape. Drawers are transparent or granite-gray color. They are flexible and divide into various size compartments. Molded, one piece construction; ribbed for strength, drawers are smooth sliding and silent operating. With dividers and index labels. Cabinet width: $17\frac{7}{8}$"

Opaque Stk. No.	Type	Trans. Stk. No.	Type	Drws.	Drwr. Size H"	W"	D"	Cabinet Size H"	D"	Each
82F153	18-136	82F139	17-136	36	$1\frac{7}{16}$	$2\frac{3}{4}$	$5\frac{7}{8}$	$11\frac{1}{8}$	6	13.49
82F154	18-024	82F140	17-024	24	2	$2\frac{3}{4}$	$5\frac{3}{4}$	$9\frac{7}{8}$	6	13.49
82F155	18-320	82F156	17-320	20	$2\frac{1}{8}$	$3\frac{1}{8}$	11	11	11	19.99
82F136	18-416	82F108	17-416	16	$2\frac{1}{8}$	4	11	11	11	19.99
82F133	18-715	82F157	17-715	15	$3\frac{1}{32}$	$3\frac{1}{8}$	11	11	11	19.99
82F130	18-909	82F158	17-909	9	$3\frac{1}{32}$	$5\frac{1}{4}$	11	11	11	19.99

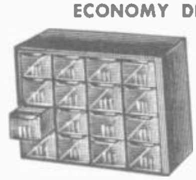
DIVIDERS FOR AKRO-MILS CABINETS

Two sizes available for each drawer; make any size compartment, cross-wise or length-wise. Dividers fit so snugly that drawers will not spread; items cannot slip under them. Easy to put in drawers. Dividers are dove-tailed and lock tight to prevent drawers from spreading. They move easily to new positions if desired. Rust-proof, chemical resistant, non-corrosive, and smooth sliding. Stop tab prevents spilling. Label and label slots provide ecsv indexing.

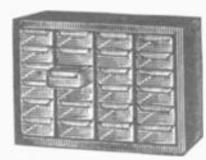
Stk. No.	Type	Description	For Drwrs. in cabinet	Dividers Per Pkg.	Price
82F083	42-121	Long	17-136 18-136	24	1.50
82F084	42-101	Cross	17-136 18-136	50	1.50
82F119	40-501	Cross	11-124	25	.75
82F121	40-226	Long	11-781	30	.42
82F122	40-401	Cross	17-024 18-024 11-266	25	1.35
82F131	42-301	Cross	17-909 18-909	25	1.80
82F132	43-331	Long	17-715 18-715 17-909 18-909	10	1.80
82F134	43-101	Cross	17-715 18-715	25	1.62
82F137	42-401	Cross	17-416 18-416	25	1.35
82F138	42-422	Long	17-416 18-416	10	1.20

ECONOMY DRAWER CABINETS

11-781



11-266



11-124

11-463

Model 11-781—6 Drawers. Perfect for resistors and capacitors and other miniature parts. Welded steel frame with chip-proof enamel finish. Contains 6 drawers, 2 labels, and 9 removable dividers per drawer. Size: 6 x 10 x 9". Shpg. wt. 5 lbs.

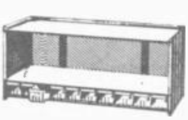
Model 11-266—16 Drawers. Has deep, compact drawers for storage of articles up to 2" in height. Compartment sizes are completely adjustable with moveable dividers that lock into place. Supplied with divider and index per drawer. Size: $5\frac{3}{4}$ x $2\frac{3}{4}$ x 2". Shpg. wt. $6\frac{1}{2}$ lbs.

Model 11-124—24 Drawers. For storing small parts. Welded plastic steel front and dividers. Safety tab prevents accidental spilling. With index labels and 1 divider. Sizt: $2\frac{3}{4}$ x $1\frac{1}{4}$ x $5\frac{3}{4}$". Shpg. wt. $6\frac{1}{2}$ lbs.

Model 11-463—12 Compact Drawers—1 Jumbo Drawer. Hinged door with lock clasp. Keyhole slots provided for hanging. Locking, hinged door provides protection from dust, moisture and theft. Stands, stacks or hangs on wall. Shpg. wt., $6\frac{1}{2}$ lbs.

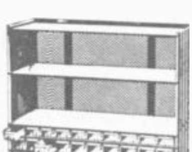
Stk. No.	Type	No. of Drawers	Cabinet Size	Each
82F127	11-781	6	6x10x9"H	5.61
82F117	11-266	16	6x13x9"H	5.63
82F115	11-124	24	6x13x9"H	5.63
82F116	11-463	13	$6\frac{1}{2}$x9x10"H	5.63

● *NEW BENCH MATE*



Model
12-310

For:
WORKSHOP
PANTRY
BASEMENT
GARAGE



Model
12-420

Perfect organizer and stroage unit for every work area. Hangs on wall or sits on work bench. Stores tools, paints, nails, nuts and bolts—everything within easy reach.

Model 12-310. 10 spillproof, transparent, compact drawers. Size: $12\frac{1}{2}$"H x 30"W x $7\frac{1}{16}$"D Weight: 7 lbs.
82F159 NET **5.25**

Model 12-420. 20 spillproof, transparent, deep compact drawers. Size: $22\frac{1}{2}$"H x 30"W x $7\frac{1}{16}$"D. Weight: $11\frac{1}{4}$ lbs.
82F160. NET **9.00**

PLASTIC STORAGE BOXES

Rugged Hinge-Top storage boxes molded of clear polystyrene. Contains from 1 to 18 compartments suitable for storing hardware, small parts, fuses, capacitors, resistors, and other odds and ends. Boxes are scratch resistant, easy to clean, light, rigid, and durbale. Individually wrapped in sealed cellophane bags for added protection. Exclusive cover and hinge design, assures easy movement, snug fit, and long hinge life.

Stk. No.	Type	Number of Compartments	Compartment Dimensions	Overall Dimensions	Shpg. Wt.	NET
82F141	05-201	1	$4\frac{3}{8}$"x$2\frac{5}{8}$"x1"	$4\frac{3}{4}$"x$2\frac{5}{8}$"x1"	2 oz.	.22
82F142	05-204	4 equal	$2\frac{5}{32}$"x$1\frac{9}{32}$"x1"	$4\frac{3}{4}$"x$2\frac{5}{8}$"x1"	2 oz.	.22
82F146	05-401	1	$8\frac{3}{32}$"x$4\frac{1}{8}$"x$1\frac{1}{4}$"	$8\frac{3}{32}$"x$4\frac{1}{8}$"x$1\frac{1}{4}$"	9 oz.	.50
82F147	05-406	6 equal	$1\frac{5}{16}$"x$4\frac{1}{8}$"x$1\frac{1}{4}$"	$8\frac{3}{32}$"x$4\frac{1}{8}$"x$1\frac{1}{4}$"	9 oz.	.50
82F148	05-412	12	$1\frac{9}{32}$"x$1\frac{5}{16}$"x$1\frac{1}{4}$" $1\frac{5}{16}$"x$4\frac{1}{8}$"x$1\frac{1}{4}$" $1\frac{5}{16}$"x2"x$1\frac{1}{4}$"	$8\frac{3}{32}$"x$4\frac{1}{8}$"x$1\frac{1}{4}$"	9 oz.	.50
82F150	05-506	6 equal	$1\frac{11}{16}$"x$5\frac{13}{16}$"x2"	$10\frac{7}{16}$"x$5\frac{13}{16}$"x2"	22 oz.	1.27
82F151	05-512	12	$1\frac{13}{16}$"x$1\frac{11}{16}$"x2" $3\frac{13}{16}$"x$1\frac{11}{16}$"x2"	$10\frac{7}{16}$"x$5\frac{13}{16}$"x2"	22 oz.	1.27
82F152	05-518	18 equal	$1\frac{13}{16}$"x$1\frac{11}{16}$"x2"	$10\frac{7}{16}$"x$5\frac{13}{16}$"x2"	22 oz.	1.27

 Newark-New Orleans Electronic Corp., 100 Jefferson Highway, New Orleans, La. 70121

SIMMONDS TOOL BOXES

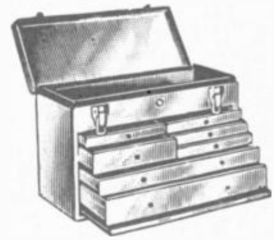
HEAVY DUTY MACHINISTS CHEST

Model 1000S. Durable heavy-gauge steel chest with electrically welded seams and continuous piano hinge, in a black wrinkle finish. Ten non-sagging drawer slides with safety stops for a complete view of contents. Form fitted steel handles. Chests are spill-proof and completely locked by a sturdy assembly controlled with a single key. 20" x 8½" x 17½". Shipping weight 40 lbs.

82F250. Model 1000's. **NET** **35.25**

Model 700S. Same as 10 drawer above except 7 drawer. Size: 20" x 8½" x 13¼". Shpg. Wt. 31 lbs.

82F260. NET **28.50**



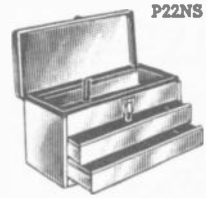
700S

3 DRAWER MACHINISTS CHEST

Model P23NS. Heavy gauge 3 drawer steel cabinet with a one piece electrically welded piano hinge. Drawers lock when lid is closed. Form-fitting steel handle with center draw bolt—padlock arrangement. Nickel plated hardware and finished in charcoal gray Kortex hammer enamel. Red Drawers 20" x 8½" x 10½". Wt. 18 lbs.

82F251. NET **12.60**

P23NS



P22NS

• *NEW* 2 DRAWER MACHINISTS CHEST

Mechanic's tool chest. Heavy gauge steel, continuous piano hinge. Drawers lock automatically when lid is closed. Form-fitting steel handle with center draw bolt — padlock arrangement. All hardware nickle plated. Black wrinkle finish with red enamel drawers. Shipping weight 17 lbs.

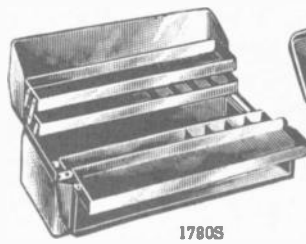
82F259. NET **11.10**

FOUR TRAY CANTILEVER

All purpose heavy gauge steel chest in hip roof type with four cantilever trays. One-piece electrically welded continuous piano hinge with form-fitting steel handle. Nickel plated hardware with padlock arrangement. Finished in gray Kortex hammer enamel. Red Trays.

Type 1780S. 17" x 8½" x 10" with 4 small trays. Shpg. wt., 13 lbs.
82F252. NET **9.10**

Type 2180S. 21" x 8½" x 10" with 4 large trays. Shpg. wt., 15 lbs.
82F253. NET **9.75**



1780S

130

SINGLE TRAY HIP ROOF

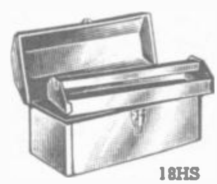
Model 18HS. Heavy duty tool box—hip roof design. Includes lift out tray. All hdwe. nickel plated with 2 draw bolts—padlock arrangement. Charcoal gray Kortex hammer enamel finish. 20" x 8" x 9". Shpg. wt. 11 lbs.

82F254. NET **5.95**

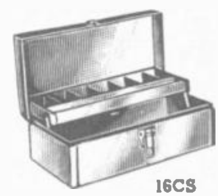
SINGLE TRAY ALL-PURPOSE

Model 16CS. Cantilever tray tool box for all servicemen. Heavy gauge steel; piano hinge and form fitted handle. Center draw bolt padlock set. Charcoal gray Kortex hammer finish. Red Tray 16" x 8" x 6". Shpg. wt. 10 lbs.

82F255. NET **4.58**



18HS



16CS

MODEL 130, 131 & 132

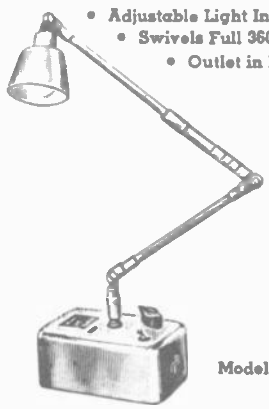
All purpose utility boxes. Finished in gray Kortex hammer enamel finish.

82F256. Model 130. No tray. 13½"x4½"x6½". 3 lbs. **NET** 1.64
82F257. Model 131. With tray. 13½"x4½"x6½". 3 lbs. **NET** 1.99
82F258. Model 132. With two trays. 13½"x5¾"x6½". 3 lbs. **NET** 2.64

ROXTER CORPORATION

Licensed By Tensor Corp.

- **Adjustable Light Intensities**
- **Swivels Full 360°**
- **Outlet in Base**



Model 5900

Model 5900. Precision Work Lamp. Reflector swivels 360°, O.D. 2½" control. Arms are 5⁄16" brass tubing with three friction joints. Teflon plastic feet prevent scratching won't tip. Electrical outlet is located on the base (115 volts at 1 amp) for other electrical apparatus. A five position switch provides intensities from 12.2 to 202 foot candles. Uses standard G.E. 1133, bayonet bulbs. With three bulbs and 7½' extension cord. Medium Beige. 5 lbs.

Stk. No.	1-11	12-23	24-up
65F035	39.95	37.46	31.00

7176

- **4½" DIAM. LENS.**
- **EQUIVALENT TO 200 WATTS**

Model 7176. All purpose high intensity lamp with 2X precision ground 4½" optical magnifier. Versatile enough to operate in an infinite number of positions with arm extending to 12". Lens tilts back when use as a lamp only is desired. Hi-Lo intensity switch. Use wherever close work is required. The perfect lamp for engineers, assemblers, hobbyists, etc. Compact, lightweight, functional. Plugs into any outlet. All-metal construction, 3 bulbs incl.

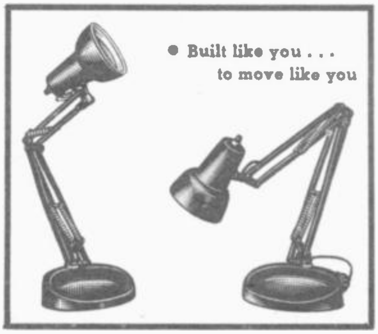
Stk. No.	1-11	12-23	24-up
65F037	23.95	20.21	19.96

7500

Model 7500. Engineer's Lamp. Specifically designed to overcome limitations of conventional lamps. Features a 24" long arm, with a 4¼" diameter reflector, to illuminate a much wider area. Can be used on desk or mounted on wall. Hi-Lo intensity switch. 5 friction joints provide for unlimited reflector positioning. All metal construction.

Stk. No.	1-11	12-23	24-up
65F038	22.46	18.71	16.63

LUXO Adjustable Lamps and Brackets



• NEW LUXO LIL

Mni-LUXO LIL Lamp is now built with all the ideal precision-engineered features for office, home or school. The New LUXO LIL sets perfectly on a desk and glides into position and holds it thanks to flexible spring-tension balancing. Scientifically balanced to give you perfectly even distribution of light exactly where it is needed. Lift LUXO LIL off her base and slip into clamp, peg board or wall mount brackets and is then ready for use where space is not available. Colors; red, black, and white. Size: Fully extended, 24"; Base 7". Individually Boxed. Comes with 40S11 bulb. Shpg. wt. 7½ lbs.

Stk. No.	Type	Color	1-5	6 Up
99F1125	LIL	Black without Base	15.07	13.58
99F1116 99F1117 99F1118	LIL LIL LIL	Black with Base White with Base Red with Base	16.95	15.25
99F1119 99F1120 99F1121 99F1122 99F1123 99F1124 99F1126	AL AL AL BL BL BL CL	Clamp Black Clamp White Clamp Red Wall Bracket Black Wall Bracket White Wall Bracket Red Screws to Level Surface Black Only	1.88	1.67

Stk. No.	Type	Description	1-9	10 Up
25F088	40S11	Replacement Bulb	.60	.48

LFM-1

HFM-ST

LUX-O-LAMPS AND BRACKETS COMPLETE WITH BULBS AND TUBES

LFM-1 ILLUMINATED MAGNIFIERS

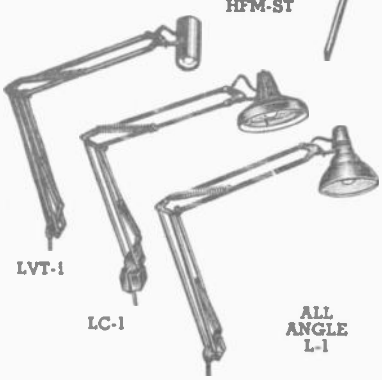
Large magnification, cool fluorescent light, and maneuverable. Lamps can be raised or lowered, tilted or turned to any direction. Sweep and movement same as All Angle Lamp L-1 listed below. 3 Diopter 5" ground grass lens. Dove gray finish. Brackets listed below. Shpg. wt. 9 **lbs.**

Stock No.	Type	Description	Each	3-Up
99F1100	LFM-1	Illuminated Magnifier	33.85	31.25

ACCESSORIES FOR LFM MAGNIFIERS

Stock No.	Description	Each	Lots of Three
99F1102	Lens attachment #1 increase to 7 diopters	6.56	6.13
99F1103	Lens attachment #2 increase to 11 diopters	7.46	6.97

FC 8T 9CW. Replacement circline tube. 25F169. Each 3.34. **10 Up** 2.97



LVT-1

LC-1

ALL ANGLE L-1

HMF-ST HAND MAGNIFIER WITH AUXILIARY STAND

General specifications for shade and lenses identical to LFM-1. Adjustable stand.
99F1104. Each .... 28.39 **Lots of 3; each** 25.56

LUXO LOW VOLTAGE LAMP

Type LVT-1-12V. Plugs into 110-120V supply. Has built in 12V Vfmr. Type 1383 inner reflector bulb included. Less brackets. Shpg. wt. 6 lbs.
99F1105.. Each .... 27.95 **Lots of 3; each** 24.95
Replacement #1383 bulb. **25F184. Each** 2.70

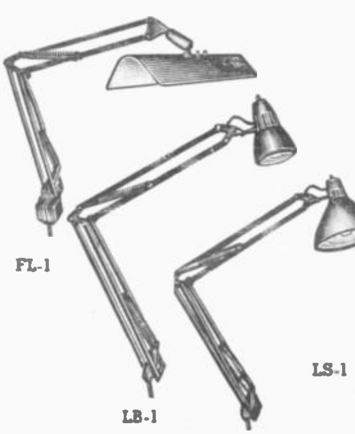
LC-1 COMBO LAMP

Combines 60 W incandescent with 22 W fluorescent for balance of light, close to daylight quality. 500 ft. candles at 12 in.; 2 arms make 45" extension. Famous Luxo spring balance. Styled in dove gray. Less brackets. Shpg. wt. 7 lbs.
99F1106. Each .... 25.95 **Lots of 3; each** 23.92

L-1 ALL ANGLE LAMP

Tubular steel fixture raises, lowers, tilts, traverses, and turns in 45" radius, 360° sweep. 60 watt incandescent bulb, shade for greater light output and cool operation. With bulb, less brackets. Shipping weight 5 lbs.

Stock No.	Type		Each	Lots of Three
99F1109	L-1	All Angle Lamp	18.38	16.41



FL-1

LS-1

LB-1

FL-1 FLUORESCENT LAMP

All angle/all purpose lamp with "feather touch" positioning. Unique spring loaded extension arm and 360° sweep. 19" x 4½' shade for excellent reflection control. U.L. approved. With fluourescent tubes, less brackets. Shpg. st. 9 lbs.
99F1107. Each .... 25.95 **Lots of 3; each** 23.52
F15T8/W replacement bulb. **25F168. Each** .... 1.25 **10 Up** 1.00

LB-1 MACHINE TOOL LAMP

Designed for use in shops where work area must be well lit to provide safe and efficient operation. The lamp arm will not change position due to machinery vibration because of spring-balanced construction. Disposable inner reflector, 4½" dia.; 2 extension arms for 45" reach. With bulb, less bracket. Shpg. wt. 4½ lbs.
99F1111. Each .... 16.50 **Lots of 3; each** 15.85

LS-1 FLAIR STYLED LAMP

60 watt incandescent lamp for 200 ft-candles of light and "feather touch" control 2 18" extension arms and 360° sweep for adjustments. Less brackets. On/off switch.
99F1108. Each .... 18.38 **Lots of 3; each** 16.41

AL BL CL F

INTERCHANGEABLE BRACKETS

Type A. Clamps to level surface. 2¼" maximum. Shipping weight, ½ lb.
99F1112. 1-5 .... 2.25 **6 Up** 1.69

Type B. Screws to verticle surface. 1⅞" maximum. Shipping weight, ½ lb.
99F1113. 1-5 .... 2.25 **6 Up** 1.69

Type C. Screws to level surface. 2¼" maximum. Shipping weight, ½ lb.
99F1114. 1-5 .... 2.25 **6 Up** 1.69

Type F. Clamps to slanted surface. 2¼" maximum. Shipping weight, 1 lb.
99F115. 1-5 .... 3.50 **6 Up** 2.62

Solderless Terminals and Connectors waldom

Terminals are made from the finest materials. Annealed Electrolytic copper and Electro-Tin plated. One-piece design, internally serrated, strength gussets, and chamfered edge.
KRIMPTITE®—Non-Insulated terminals make positive connections and save labor—the most uniformly reliable connection.
INSULKRIMP®—Has all the advantages of the KRIMPTITE® terminals, plus rigid vinyl plastic insulating sleeve.

Basic Dimensions					Krimptite					Insulkrimp					
Wire Range	Stud Size	Width	Stud Clearance	Length	Stock No.	Mfrs. Type	100-999 Per C	1000-4999 Per M	50000-Up Per M	Length	Stock No.	Mfrs. Type	100-999 Per C	1000-4999 Per M	5000-Up Per M
SPADE TONGUE TERMINALS—FIG. A															
22-18	3-4	1/4	7/32	5/8	31F518	S-1116	2.27	16.35	12.75	13/16	31F532	T-2116	4.47	33.05	25.85
22-18	5-6	19/64	7/32	5/8	31F519	S-1014	2.27	16.35	12.75	13/16	31F533	T-2014	4.47	33.05	25.85
22-18	8	19/64	7/32	5/8	31F520	S-1030	2.27	16.35	12.75	13/16	31F534	T-2030	4.47	33.05	25.85
22-18	10	5/16	5/16	3/4	31F521	S-1032	2.27	16.35	12.75	13/16	31F535	T-2032	4.47	33.05	25.85
16-14	5-6	19/64	7/32	5/8	31F522	S-1015*	2.37	17.05	13.35	13/16	31F536	T-2015+	4.47	33.05	25.85
16-14	8	19/64	7/32	5/8	31F523	S-1033	2.37	17.05	13.35	13/16	31F537	T-2033	4.47	33.05	25.85
16-14	10	23/64	9/32	3/4	31F524	S-1016*	2.37	17.05	13.35	15/16	31F538	T-2016+	4.47	33.05	25.85
12-10	10	3/8	5/16	25/32	31F525	S-1017	3.30	23.70	18.55	1 3/32	31F539	T-2017	5.79	42.80	33.45
HOOK TONGUE TERMINALS—FIG. B															
22-18	5-6	5/16	5/16	23/32	30F626	S-1018*	2.16	15.55	12.15	29/32	30F627	T-2018	4.47	33.05	25.85
FLANGED SPADE TERMINALS—FIG. C															
22-18	5-6	19/64	7/32	5/8	31F526	S-1080*	2.27	16.35	12.75	13/16	31F540	T-2080+	4.47	33.05	25.85
22-18	8	19/64	7/32	5/8	31F527	S-1081	2.27	16.35	12.75	13/16	31F541	T-2081	4.47	33.05	25.85
22-18	10	3/8	1/4	23/32	31F528	S-1582	2.27	16.35	12.75	29/32	31F542	T-2582	4.47	33.05	25.85
16-14	5-6	19/64	7/32	5/8	31F529	S-1083	2.37	17.05	13.35	13/16	31F543	T-2083	4.47	33.05	25.85
16-14	8	19/64	7/32	5/8	31F530	S-1084	2.37	17.05	13.35	13/16	31F544	T-2084	4.47	33.05	25.85
16-14	10	3/8	1/4	23/32	31F531	S-1585	2.37	17.05	13.35	29/32	31F545	T-2585	4.47	33.05	25.85
RING TONGUE TERMINALS—FIG. D															
22-18	1-2	7/32	5/32	33/64	31F546	S-1099	2.27	16.35	12.75	45/64	31F569	T-2099	4.47	33.05	25.85
22-18	3-4	7/32	5/32	33/64	31F547	S-1047	2.27	16.35	12.75	45/64	31F570	T-2047	4.47	33.05	25.85
22-18	5-6	9/32	1/4	41/64	31F548	S-1002*	2.27	16.35	12.75	53/64	31F571	T-2002+	4.47	33.05	25.85
22-18	8	5/16	5/16	23/32	31F549	S-1021	2.27	16.35	12.75	29/32	31F572	T-2021	4.47	33.05	25.85
22-18	10	5/16	5/16	23/32	31F550	S-1003*	2.27	16.35	12.75	29/32	31F573	T-2003+	4.47	33.05	25.85
22-18	1/4	15/32	.400	57/64	31F551	S-1004	3.11	22.35	17.50	1 5/64	31F574	T-2004	5.79	42.80	33.45
16-14	5-6	1/4	7/32	19/32	31F555	S-1006*	2.37	17.05	13.35	23/32	31F578	T-2006+	4.47	33.05	25.85
16-14	8	5/16	9/32	43/64	31F556	S-1024	2.37	17.05	13.35	57/64	31F579	T-2024	4.47	33.05	25.85
16-14	10	5/16	9/32	45/64	31F557	S-1008*	2.37	17.05	13.35	57/64	31F580	T-2008+	4.47	33.05	25.85
16-14	1/4	15/32	.400	57/64	31F558	S-1009	3.11	22.35	17.50	1 5/64	31F581	T-2009	5.79	42.80	33.45
12-10	10	3/8	5/16	3/4	31F562	S-1011*	3.30	23.70	18.55	1 1/16	31F585	T-2011+	5.79	42.80	33.45
12-10	1/4	17/32	13/32	59/64	31F563	S-1100	4.35	31.30	24.40	1 15/64	31F586	T-2100	6.13	45.35	35.40
12-10	5/16	17/32	13/32	59/64	31F564	S-1101	4.35	31.30	24.40	1 15/64	31F587	T-2101	6.13	45.35	35.40
12-10	3/8	19/32	31/64	1 1/32	31F565	S-1013	4.78	34.45	26.90	1 11/32	31F588	T-2013	6.81	50.40	39.35
BUTT CONNECTORS—FIG. E															
22-18	...	...	...	9/16	31F566	S-1019*	2.50	17.95	14.00	15/16	31F589	T-2019+	5.28	39.05	30.55
16-14	...	...	...	9/16	31F567	S-1020	2.50	17.95	14.00	15/16	31F590	T-2020	5.28	39.05	30.55
12-10	...	...	...	9/16	31F568	S-1046	4.43	31.90	24.95	1 1/16	31F591	T-2046	7.21	53.35	41.65
QUICK DISCONNECT PUSH-ON TYPE—FIG. F															
18-14	...	...	1/4 Male	21/32	31F592	S-1089*	2.60	18.75	14.65	27/32	31F594	T-2089+	4.80	35.50	27.75
18-14	...	...	1/4 Female	41/64	31F593	SS-1090*	2.60	18.75	14.65	27/32	31F595	ST-2090+	4.80	35.50	27.75
18-14	...	...	3/16 Female	17/32	30F070	SS-1187	2.60	18.75	14.65	47/64	30F072	ST-2187	4.80	35.50	27.75
18-14	...	...	1/8 Female	29/64	30F071	SS-1186	2.60	18.75	14.65	21/32	30F073	ST-2186	4.80	35.50	27.75

* Non-insulated terminals

+ Insulated terminals

NYLON INSULATED CLOSED-END CONNECTORS—FIG. G

Wire Range	O.D.	Lgth	Stk. No.	Mfrs. Type	-/C 100-999	-/M 1000-4999	5000-Up Per M	Circular Mil Area
22-14	5/16	39/64	30F610	CE-2214+	3.89	27.95	21.85	500-5,180
16-10	7/16	23/32	30F611	CE-1610	5.68	40.90	32.00	2,400-13,000

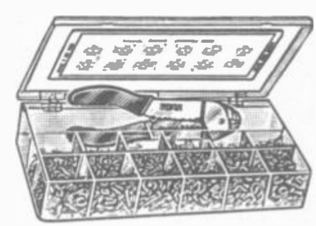
+ Insulated terminals

UNIVERSAL CRIMPING TOOL

Type CT-4050—Crimps both insulated and non-insulated types 22 thru 10, strips wire. Constructed of tool steel. Wt. 1 lb.
30F631. Net Each **4.35**

SOLDERLESS TERMINALS & CONNECTOR ASSORTMENTS

Type K-170. Contains 215 KRIMPTITE® (non-insulated) terminals. Contains types indicated above by (*) and Universal Crimping Tool.
30F755. NET **9.85**



Type K-180. Contains 138 INSULKRIMP® (insulated) terminals. Contains types indicated above by (+) and Universal Crimping Tool.
30F756. NET **12.05**

Electronic Hardware

WALDOM & GC HARDWARE

SKRU BOX ASSORTMENT

Complete selection of popular hardware in one always-handy kit. Popular Skru Box is a must for every professional and home technician. Each sturdy clear plastic box has a positive clasp and 8 compartments filled with the types of plated screws and nuts most widely used on electronic equipment. All lugs and screws are cadmium plated. Hardware selections available below.

BOX OF HEX WASHER HEADS SHEET METAL SCREWS

Model HD-4011. Steel, slotted hex head Type A sheet metal screws with washer attached.

Quant.	Description	Quant.	Description
15	#6x¼"	15	#8x¼"
15	#6x⅜"	15	#8x⅜"
15	#6x½"	15	#8x½"
15	#6x¾"	15	#8x⅝"

32F050. NET 1.59

BOX OF ROUND HEAD SCREWS & NUTS

Model HD-4013. Contains steel machine screws, *hex nuts, and †sheet metal screws. Black label for clear identification. Shpg. wt., 9 oz.

Quant.	Description	Quant.	Description
40	4-40x½"	25†	#6x½"
40	6-32x¼"	40*	4-40x¼"
20	6-32x¾"	40*	6-32x¼"
20	8-32x½"	40*	8-32x¼"

32F051. NET 1.59

BOX OF BINDER HEAD SCREWS & NUTS

Model HD-4018. Contains steel machine screws, *hex nuts, and †sheet metal screws. Orange label. Shpg. wt., 9 oz.

Quant.	Description	Quant.	Description
40	4-40x½"	25†	#6x½"
40	6-32x¼"	40*	4-40x¼"
20	6-32x¾"	40*	6-32x¼"
20	8-32x½"	40*	8-32x¼"

32F052: NET 1.59

BOX OF ASSORTED SHEET METAL SCREWS

Model HD-4014. Steel, slotted hex head sheet metal screws, Type A. Maroon label. Shpg. wt., 7 oz. *Item std. for auto radio.

Quant.	Description	Quant.	Description
25	#4x⅜"	35*	#8x¼"
25	#6x¼"	25	#8x⅜"
25	#6x½"	10	#8x½"
10	#6x¾"	10	#8x⅝"

32F053. NET 1.59

BOX OF WOOD SCREWS

Model HD-4019. Contains both round head and *flat head steel wood screws. Turquoise label. Shpg. wt., 10 oz.

Quant.	Description	Quant.	Description
40	#4x½"	12	#8x1"
25	#6x¾"	10	#8x1¼"
15	#6x1"	10*	#8x1¼"
15	#8x¾"	12*	#8x1"

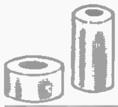
32F054. NET 1.59

ANGLE BRACKETS

Angle brackets made of heavy steel Cad. Plated. Sizes indicate length of each side. All ⅜" wide. Wt. per 12, 3 oz.; per 100, 9 lbs.

Stock No.	Type	Size	Size	100-999 Per 100	1000-4999 Per 1000	5000-9999 Per 1000
31F2152	6261-C	¼"	$\frac{3}{16}$"	1.35	10.80	9.72
31F2153	6262-C	⅜"	¼"	1.69	13.46	12.11
31F2154	6263-C	½"	$\frac{7}{16}$"	1.90	15.19	13.67

METAL SPACERS



For screws up to number 8. Average weight, per 10, 4 oz.; per 100, 2 lbs. Steel nickel plated.

Stock No.	Ht.	10 for	100 for
31F930	¼"	.39	2.94
31F931	½"	.48	3.57
31F932	¾"	.53	3.99
31F933	1"	.59	4.41

ASSORTED HARDWARE

A B C D

Hot-tin dipped brass, non-locking type lugs. Shpg. wt., 4 oz. 1 gross, 1 lb./1000.

No.	Fig.	Hole	Per 100	Per 1000
31F900	A	No. 6	1.25	10.00
31F902	B	No. 8	1.25	10.00
31F903	C	No. 10	1.25	10.00
31F904	D	No. 8	1.25	10.00

TINNED STEEL SOLDERING LUGS

Stock No.	C-Type	Hole Size No.	Fig.	100-999 Per 100	1000-4999 Per 1000	5000-9999 Per 1000
31F2074	5704	8	B	2.04	16.26	14.63
31F2075	5705	10	B	2.04	16.26	14.63
31F2076	5706	4	E	2.03	16.26	14.63
31F2269	7441	6	A	1.43	11.46	10.31
31F2270	7442	8	A	1.35	10.80	9.72
31F2271	7445	8	C	1.46	11.60	10.44
31F2276	7458*	4	D	2.23	17.85	16.07
31F2277	7460*	8	D	2.27	18.13	16.32
31F2278	7461*	10	D	2.27	18.13	16.32
31F2293	8466	6	F	1.90	15.19	13.67
31F2294	8467	6	F	3.42	27.32	24.58
31F2295	8468	8	F	3.22	25.72	23.15
31F2296	8473	10	C	1.42	11.33	10.20

*Locking type.

THREADED BRASS BUSHING

No.	Lgt.	Thd.	O.D.	10 For	100 For
31F971	¼"	6-32	¼	.70	5.25
31F972	½"	6-32	¼	.91	6.83
31F973	¾"	6-32	¼	1.19	8.93
31F974	1"	6-32	¼	1.33	9.98
31F978	1"	8-32	$\frac{5}{16}$	1.33	9.98

STRAIN RELIEFS FOR POSJ CORD

Stock No.	Type	100/999 NET/100	1000-4999 NET/1000	5000-9999 NET/1000
31F2186	6675-C	6.38	51.05	45.95

FELT PADS

31F2005	1071-C	.37	2.93	2.64

HAIR PIN COTTERS

Stock No.	Type	Length	100-999 NET/100	1000-4999 NET/1000	5000-9999 NET/1000
31F2263	7378-C	½"	.58	4.66	4.19
31F2264	7379-C	$\frac{21}{32}$"	.60	4.80	4.32

NYLON AND BUTYRATE CABLE CLAMPS

Combine lightweight and chemical resistance with excellent shock resisting properties in a temperature range of from 185°F. to —40°F. in the Butyrate and 275°F. to —60°F. in the Nylon. Butyrate made to MSL-P-349A, Type III—Class MH, Nylon to MIL-P-17091A.

Nylon cable clamps all are ⅜" wide x .040" thick except * ½" wide x .060" thick.

Stock No.	Type	Cable Diameter	Length Inches	100-999/C	1000-4999/M	5000-up per M
31F979	CCN-31	.115"	.310	3.14	26.75	21.15
31F980	CCN-32	.172"	.373	3.30	28.30	22.40
31F981	CCN-33	.234"	.407	3.63	30.95	24.50
31F982	CCN-34	.297"	.448	4.03	34.15	27.05
31F983	CCN-35	.359"	.479	4.46	35.90	28.45
31F984	CCN-36	.422"	.510	4.64	38.00	30.05
31F985	CCN-37	.484"	.542	4.90	40.45	32.00
31F986	CCN-38*	.547"	.623	7.48	49.90	39.50
31F987	CCN-39*	.609"	.654	7.92	58.50	46.30
30F768	CCN-40*	.672"	.752	8.90	63.45	50.25
30F769	CCN-41*	.734"	.783	9.50	69.40	54.95
30F770	CCN-42*	.859"	.845	10.10	75.20	59.50
30F771	CCN-43*	.984"	.908	12.11	84.70	67.05
Butyrate Plastic Clamp material thickness .060". All ½" wide.						
31F951	CCB-1	.115"	.360	2.06	17.65	13.95
31F952	CCB-2	.172"	.423	2.08	17.75	14.05
31F953	CCB-3	.234"	.457	2.29	19.55	15.50
31F954	CCB-4	.297"	.498	2.66	21.60	17.10
31F955	CCB-5	.359"	.529	2.78	23.85	18.00
31F956	CCB-6	.422"	.560	3.00	24.80	19.65
31F957	CCB-7	.484"	.592	3.40	26.40	20.90
31F958	CCB-8	.547"	.623	4.50	30.90	24.45
31F959	CCB-9	.609"	.654	5.16	35.00	28.10
31F960	CCB-10	.672"	.752	6.25	38.05	30.10
31F961	CCB-11	.734"	.783	6.45	39.90	31.55
31F962	CCB-12	.859"	.845	6.80	43.30	34.25
31F963	CCB-13	.984"	.908	8.20	45.95	36.40
31F964	CCB-14	1.102"	.970	8.20	46.10	38.85
31F965	CCB-15	1.227"	1.062	14.00	51.85	41.05

TINNED SOLDER LUGS

E F G

No.	Fig.	Hole size	100 for	1000 for
31F910	E	$\frac{7}{64}$"	1.25	10.00
31F911	E	¼"	1.25	10.00
31F914	F	$\frac{5}{32}$"	1.25	10.00
31F913	G	$\frac{11}{64}$"	1.25	10.00
31F915	G	¼"	2.00	13.35

WALSCO HARDWARE ASSORTMENT

An exceptionally useful assortment of screws, nuts, washers, springs, clamps, terminals, etc. Up to 1000 pieces of standard hardware, all in popular sizes. Wt., 2½ lbs.

31F970. NET **1.17**

VINYL GROMMETS
Exceptional Aging Qualities

Stk. No.	I.D.	Chassis Hole	100-999 NET/1000	1000-4999 Net/1000	5000-Up Net/1000
30F743	1/8	1/4	1.04	8.55	6.50
30F744	3/16	5/16	1.15	9.55	7.25
30F745	1/4	3/8	1.52	11.00	8.40
30F746	5/16	7/16	1.66	11.75	9.00
30F747	3/8	1/2	1.66	11.75	9.00
30F748	1/2	5/8	2.69	20.50	15.60
30F749	5/8	7/8	5.42	35.10	27.15

RUBBER GROMMETS

Stock No.	Mtg. Hole D.	I.D.	100-999 NET/100	1000-4999 NET/1000	5000/9999 NET/1000
31F2000	1/4"	1/8"	1.35	10.80	9.72
31F2001	5/16"	3/16"	1.54	12.26	11.03
31F2002	3/8"	1/4"	2.02	16.13	14.52
31F2003	5/8"	1/2"	3.48	27.86	25.07
31F2004	1/2"	3/8"	2.30	18.39	16.55
31F2080	3/4"	9/16"	4.27	34.12	30.71
31F2081	9/16"	7/16"	6.23	49.85	44.87
31F2082	15/32"	5/16"	8.23	65.84	59.26
31F2083	7/8"	5/8"	6.93	55.45	49.91
31F2084	1"	11/16"	13.96	11.69	10.52
31F2282	3/8"	1/4"	2.97	23.72	21.35
31F2283	7/8"	3/8"	6.96	55.71	50.14

RUBBER BUTTON BUMPERS

Stk. No.	O.D.	Hole Size	100-999 Net/100	1000-4999 Net/1000	5000-Up Net/1000
31F2284	3/8	3/16	1.72	13.73	12.36
31F2285	1/2	1/4	2.57	20.53	18.48
31F2286	5/8	3/8	4.13	33.05	29.75

HEXAGON NUTS—Brass-Nickel Plated

Stk. No.	Size	100-999 Net/100	1000-4999 Net/1000	5000-Up Net/1000
31F2214	2-56x3/16x1/16	1.13	9.10	6.95
31F2215	3-48x3/16x1/16	1.03	8.30	6.35
31F2216	4-36x1/4x3/32	1.37	10.90	8.35
31F2217	4-40x1/4x3/32	1.35	10.80	8.25
31F2218	6-32x1/4x3/32"	1.34	10.75	8.25
31F2071	6-32x5/16x7/64	1.62	13.00	9.90
31F2072	8-32x1/4x3/32	1.34	10.75	8.25
31F2219	8-32x5/16x7/64	1.62	13.00	9.90
31F2220	10-32x3/8x1/8	1.76	14.25	10.80

HEXAGON NUTS—Steel-Nickel Plated

Stk. No.	Size	100-999 Net/100	1000-4999 Net/1000	5000-Up Net/1000
31F2207	2-56x3/16x1/16	.83	6.66	5.99
31F2208	3-48x3/16x1/16	.83	6.66	5.99
31F2105	4-36x1/4x3/32	.83	6.66	5.99
31F2106	4-40x1/4x3/32	.83	6.66	5.99
31F2107	6-32x1/4x3/32	.83	6.66	5.99
31F2209	6-32x5/16x7/64	.90	7.20	6.48
31F2108	8-32x1/4x3/32	.83	6.66	5.99
31F2210	8-32x5/16x7/64	.80	6.40	4.90
31F2111	10-32x3/8x1/8	1.07	8.53	7.68

CONTROL AND SWITCH MTG NUTS

Stk. No.	Size	100-999 Net/100	1000-4999 Net/1000	5000-Up Net/1000
31F2112	3/8-32x1/2x3/32	1.62	13.25	10.10
31F2113	15/32x9/16x5/64	2.18	17.46	15.71
31F2114	*.475x19/32x1/16	4.20	33.59	30.23
31F2211	1/4-20x7/16x3/16	1.34	10.75	8.20

*Knurled Ring Nut.

WING NUTS—Nickel Plated

Stk. No.	Size	100-999 Net/100	1000-4999 Net/1000	5000-Up Net/1000
31F2183	6-32	3.22	25.72	23.15
31F2184	8-32	3.22	25.72	23.15
31F2185	10-32	3.22	25.72	23.15

TINNERMAN SPEED NUTS

Stock No.	No.	100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F2116	No. 6	.95	7.60	6.84

BRASS ACORN NUTS—NICKEL PLATED

Stock No.	Thread	100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F2102	6-32	3.35	26.79	24.11
31F2103	8-32	3.55	28.39	25.55
31F087	10-32	4.32	34.52	31.07

KNURLED THUMB NUTS
Brass Nickel Plated

Stk. No.	Thread	100-999 Net/100	1000-4999 Net/1000	5000-Up Net/1000
31F2180	6-32	2.75	21.99	19.79
31F2181	8-32	2.75	21.99	19.79

STEEL SPADE BOLTS
Nickel Plated

Stk. No.	Screw Length	Thread	100-999 NET/100	1000-4999 NET/1000	5000-up Net/1000
31F2122	7/8"	6-32x1/4 (1/16 Hole)	3.45	27.59	24.83
31F2121	5/8"	6-32x11/16	3.45	27.59	24.83
31F2123	3/8"	8-32x15/32	7.99	63.84	57.46

C-WASHERS AND RETAINING RINGS

Stock No.	Description	100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F2145	For 3/16" dia. shaft	10.15	9.20	8.28

INTERNAL LOCK WASHERS—CADMIUM PLATED

Stock No.	For Screw Size	O.D.	100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F2243	No. 2	....	.87	6.93	6.24
31F2244	No. 3	....	.75	6.00	5.40
31F2245	No. 4	....	.55	4.40	3.96
31F2246	No. 6	9/32"	.53	4.26	3.83
31F2247	No. 8	21/64"	.58	4.66	4.19
31F2248	No. 10	3/8"	.58	4.66	4.19
31F2249	No. 1/4"	15/32"	.77	6.13	5.52
31F2250	No. 5/16"	19/32"	.98	7.86	7.07
31F2251	No. 3/8"	11/16"	1.15	9.20	8.28
31F2252	No. 3/8"	9/16"	1.52	12.13	10.92
31F2253	No. 15/32"	19/32"	1.90	15.19	13.67

BRASS EYELETS

Stock No.	Shank Diam.	Length	100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F2221	.087"	1/8"	.35	2.80	2.52
31F2222	.087"	5/32"	.47	3.73	3.36
31F2223	.087"	7/32"	.58	4.66	4.19
31F2224	.087"	11/32"	1.35	10.80	9.72
31F2225	.123"	5/32"	.65	5.20	4.68
31F2226	.123"	7/32"	.52	4.13	3.72
31F2227	.123"	1/4"	.68	5.46	4.91
31F2228	.123"	9/32"	.68	5.46	4.91
31F2231	.182"	.145"	.40	3.20	2.88

RUBBER FEET

Stock No.	O.D.	High	100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F2006	3/8"	3/16"	1.60	12.79	11.51
31F2007	1/2"	1/4"	2.12	16.93	15.24
31F2008	5/8"	5/16"	2.98	23.86	21.47

SNAP BUTTON HOLE PLUGS
Nickel Plated

Stock No.	O.D.	100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F085	1/4"	2.54	20.85	15.90
31F2015	3/8"	3.22	25.75	23.15
31F2016	1/2"	3.91	31.20	28.10
31F2018	3/4"	4.23	33.85	30.50
31F086	1"	5.46	41.70	31.75

SOLDER LUGS
Hot Tin Dipped

A  B 

Stk. No.	Material	Fig.	Hole Size	Length	100-999 Net/100	1000-4999 Net/1000	5000-up Net/1000
30F368	Brass	A	#6	21/32	.97	7.95	6.05
30F369	Brass	A	#8	21/32	.97	7.95	6.05
30F370	Brass	A	#10	47/64	1.24	10.05	7.65
30F371	Copper	B	#4	9/16	1.03	8.50	6.45
30F372	Copper	B	#6	1/2	1.03	8.50	6.45
30F373	Brass	B	#8	21/32	1.03	8.50	6.45
30F374	Brass	B	#10	21/32	1.03	8.50	6.45

METAL CABLE HOLDER CLAMPS
Cadmium Plated

Stk. No.	To Fit Cable	Mtg. Hole	100-999 Net/100	1000-4999 Net/1000	5000-Up Net/1000
30F358	1/8-3/16	.144"	1.18	9.65	7.35
30F359	3/16-1/4	.144"	1.35	11.10	8.45
30F360	1/4-5/16	.144"	1.50	12.30	9.40

SPRING CLIPS—BRASS, NICKEL PLATED

Stk. No.	Ht.	Width	Mtg. Hole	100-999 Net/100	1000-4999 Net/1000	5000-Up Net/1000
30F361	45/64	7/32	.130	1.59	12.55	9.55
30F362	25/64	5/16	.144	2.10	16.60	12.65
30F363	1	3/8	.144	3.09	25.65	19.60

Waldom & G. C. Hardware

ROUND HEAD MACHINE SCREWS
Steel-Nickel Plated

Stk. No.	Description	100-999 NET/C	1000-4999 NET/M	5000-Up NET/M
31F2188	2-56 x ¼	.57	4.53	4.08
31F2189	2-56 x ½	.60	4.80	4.32
31F2190	2-56 x ¾	.72	5.73	5.16
31F2187	3-48 x ¾	.72	5.73	5.16
31F2085	4-36 x ¼	.60	4.80	4.32
31F2191	4-36 x ⅜	.65	5.20	4.68
31F2089	4-36 x ½	.67	5.33	4.80
31F2033	4-36 x ⅝	.70	5.60	5.01
31F2090	4-36 x ¾	.85	6.80	6.12
31F2086	4-40 x ¼	.60	4.80	4.32
30F082	4-40 x ⅜	.57	4.45	3.40
31F2087	4-40 x ½	.67	5.33	4.80
31F2034	4-40 x ⅝	.70	5.60	5.04
31F2088	4-40 x ¾	.79	6.26	5.63
31F2091	6-32 x ¼	.65	5.20	4.68
30F083	6-32 x ⅜	.63	4.95	3.75
31F2092	6-32 x ½	.75	6.00	5.40
31F2035	6-32 x ⅝	.83	6.66	5.99
31F2093	6-32 x ¾	.88	7.06	6.35
31F2094	6-32 x 1	1.02	8.13	7.32
31F2192	6-32 x 1¼	1.24	9.86	8.87
31F2195	6-32 x 2	1.84	14.66	13.19
31F2096	8-32 x ⅜	.95	7.60	6.84
31F2097	8-32 x ½	1.02	8.13	7.32
31F2098	8-32 x ¾	1.13	9.06	8.65
31F2099	8-32 x 1	1.30	10.40	9.36
31F2193	8-32 x 1¼	1.50	12.00	10.80
31F2100	10-32 x ½	1.15	9.20	8.28
31F2037	10-32 x ⅝	1.27	10.13	9.12
30F084	10-32 x ¾	1.23	9.90	7.55
31F2101	10-32 x 1	1.52	12.13	10.92
31F2194	10-32 x 1½	2.02	16.13	14.52
30F085	¼-20 x 1	2.59	21.20	16.15

Brass-Nickel Plated

Stk. No.	Description	100-999 NET/C	1000-4999 NET/M	5000-Up NET/M
31F2038	2-56 x ¼	.81	6.35	4.85
31F2039	2-56 x ½	.92	7.45	5.70
31F2041	2-56 x ¾	1.07	8.80	6.70
31F2042	3-48 x ¾	1.22	9.90	7.60
31F2043	4-36 x ¼	.92	7.45	5.70
31F2047	4-40 x ¼	.92	7.45	5.70
31F2048	4-40 x ½	1.18	9.35	7.15
31F2050	4-40 x ¾	1.47	11.35	8.65
31F2297	6-32 x ¼	1.25	10.00	7.60
31F2051	6-32 x ⅜	1.33	10.65	8.15
31F2298	6-32 x ½	1.50	12.00	9.15
31F2052	6-32 x ⅝	1.74	13.25	10.15
31F2299	6-32 x ¾	1.83	14.75	11.20
30F086	6-32 x 1	2.17	17.35	13.25
31F2053	6-32 x 1¼	2.52	20.60	15.25
31F2054	6-32 x 2	4.25	35.00	25.90
30F087	8-32 x ⅜	1.94	15.50	11.90
31F2302	8-32 x ½	2.22	17.75	13.55
31F2303	8-32 x ¾	2.72	21.70	16.55
31F2304	8-32 x 1	3.23	25.85	19.70
31F2057	8-32 x 1¼	3.79	30.35	23.15
31F2058	10-32 x ½	2.80	22.50	17.15
31F2059	10-32 x ⅝	3.12	25.05	19.10
30F088	10-32 x ¾	3.41	27.20	20.75
31F2061	10-32 x 1	4.06	32.45	24.75

HEX HEAD SHEET METAL SCREWS

Type A—Slotted Self-Tapping
Nickel Plated

30F092	4 x ⅜	.89	7.25	5.50
31F2124	4 x ½	1.07	8.55	7.70
31F2125	6 x ¼	1.12	8.95	7.95
31F2126	6 x ⅜	1.15	9.10	8.20
31F2127	6 x ½	1.21	9.65	8.70
31F2069	6 x ⅝	1.10	9.05	6.90
31F2128	6 x ¾	1.30	10.35	9.30
31F2291	8 x ¼	1.30	10.35	9.30
31F2129	8 x ⅜	1.34	10.80	9.70
31F2130	8 x ½	1.39	11.05	9.95
31F2070	8 x ⅝	1.40	11.20	10.05
31F2132	10 x ½	1.65	13.15	11.85
31F2133	10 x ¾	1.79	14.25	12.85

PAN HEAD SHEET METAL SCREWS
Type A—Steel-Nickel Plated

30F685	4 x ½	.89	7.25	5.50
30F686	6 x ¼	.95	7.75	5.95
30F687	6 x ⅜	.97	8.00	6.10
30F688	6 x ½	1.03	8:45	6.45
30F689	6 x ¾	1.12	9.10	6.95
30F690	8 x ¼	1.12	9.10	6.95
30F691	8 x ⅜	1.18	9.55	7.25
30F692	8 x ½	1.22	9.65	7.35
30F693	8 x 1	1.54	12.70	9.65

ROUND HEAD WOOD SCREWS
Steel-Nickel Plated

Stk. No.	Description	100-999 NET/C	1000-4999 NET/M	5000-Up NET/M
31F2134	4 x ½	1.00	8.00	7.20
31F2136	6 x 1	1.54	12.30	11.05
31F2137	8 x ¾	1.49	11.90	10.70
31F2287	8 x 1¼	2.54	20.30	18.30

OVAL HEAD RACK AND CABINET SCREWS
Steel-Nickel Plated

31F2066	8-32 x ⅝	1.15	9.20	8.28
31F2067	10-32 x ⅝	1.25	10.00	9.00
31F2176	6-32 x ½	.79	6.30	5.65
31F2177	6-32 x ¾	.92	7.40	6.65
31F2178	8-32 x ¾	1.19	9.70	8.75
31F2313	10-32 x ½	1.21	9.65	8.70
31F2179	10-32 x ¾	1.42	11.35	10.20

BINDING HEAD MACHINE SCREWS
Steel-Nickel Plated

30F694	2-56 x ⅛	.74	5.40	4.15
30F695	2-56 x ¼	.55	4.10	3.10
30F696	2-56 x ½	.58	4.45	3.40
30F698	4-40 x ¼	.58	4.45	3.40
30F699	4-40 x ½	.62	4.85	3.70
30F700	4-40 x ¾	.74	5.80	4.40
31F2196	6-32 x 5/16	.71	5.75	5.15
31F2197	6-32 x ¼	.68	5.45	4.90
31F2198	6-32 x ⅜	.74	5.90	5.30
30F701	6-32 x ½	.71	5.65	4.35
30F702	6-32 x ⅝	.79	6.25	4.80
30F703	6-32 x ¾	.83	6.75	5.20
30F704	8-32 x ¼	.81	6.40	4.90
31F2201	8-32 x 5/16	1.00	8.00	7.20
30F705	8-32 x ⅜	.90	7.10	5.40
30F706	8-32 x ½	.95	7.55	5.80
30F707	8-32 x ¾	1.07	8.50	6.50
30F708	10-32 x ½	1.10	8.70	6.65
30F709	10-32 x ¾	1.29	10.40	7.95

Brass-Nickel Plated

30F089	4-40 x ¼	.92	7.45	5.70
30F090	4-40 x ½	1.18	9.35	7.15
30F091	4-40 x ¾	1.47	11.35	8.65
30F710	6-32 x ¼	1.25	10.00	7.60
30F711	6-32 x ⅜	1.33	10.65	8.15
30F712	6-32 x ½	1.50	12.00	9.15
30F713	6-32 x ¾	1.83	14.65	11.20
30F715	8-32 x ⅜	1.94	15.50	11.85
30F716	8-32 x ½	2.22	17.75	13.55
30F717	8-32 x ¾	2.72	21.70	16.55

FLAT BRASS WASHERS
Nickel Plated

Stk. No.	For Screw Size	100-999 NET/C	1000-4999 NET/M	5000-Up NET/M
30F350	#2	.53	4.25	3.25
30F351	#4	.55	4.45	3.40
30F352	#6	.71	5.65	4.35
30F353	#8	.71	5.65	4.35
30F354	#10	.78	6.15	4.75

SPLIT TYPE LOCK WASHERS
Zinc Plated

31F2160	#4	.66	5.20	4.00
31F2161	#6	.55	4.45	3.40
31F2162	#8	.54	4.35	3.31
31F2163	#10	.61	4.95	3.75

FLAT FIBRE WASHERS

30F355	#4	.50	4.15	3.20
31F2165	#6	.63	5.05	4.55
31F2166	#8	.63	5.05	4.55
31F2167	#10	.63	5.05	4.55
30F356	¼	.60	4.65	3.55
31F2169	⅜	.99	7.85	7.05

EXTRUDED FIBRE WASHERS

30F357	#4	1.01	8.00	6.10
31F2171	#6	1.12	8.95	8.05
31F2172	#8	1.12	8.95	8.05
31F2173	#10	1.21	9.65	8.70
31F2174	¼	1.21	9.65	8.70
31F2175	⅜	1.26	10.10	9.05

CUP FINISHING WASHERS
Nickel Plated

Stk. No.	For Screw Size	100-999 NET/C	1000-4999 NET/M	5000-Up NET/M
31F2142	#6	.57	4.53	4.08
31F2143	#8	.60	4.80	4.32
31F2144	#10	.68	5.46	4.91

FLAT STEEL WASHERS
Nickel Plated

30F093	#2	.49	4.10	3.15
31F2138	#4	.58	4.60	4.15
31F2139	#6	.58	4.60	4.15
31F2140	#8	.63	5.05	4.55
31F2241	#10	.60	4.75	4.30
30F094	¼	.78	6.15	4.75

SHAKE-PROOF PRODUCTS
INTERNAL LOCK WASHERS

Stk. No.	Type	For Screw Size	100-999 NET/C	1000-4999 NET/M	5000-Up NET/M
30F632	1202	#2	.84	5.20	3.60
30F634	1204	#4	.50	3.30	2.30
30F636	1206	#6	.50	3.30	2.30
30F637	1208	#8	.56	3.45	2.40
30F638	1210	#10	.56	3.45	2.40
30F640	1214	¼	.72	4.65	3.25
30F642	1220	⅜	1.08	8.20	5.70

SHAKERPROOF® EXTERNAL LOCK WASHERS

30F644	1104	#4	.50	3.30	2.30
30F646	1106	#6	.50	3.30	2.30
30F648	1108	#8	.56	3.45	2.40
30F448	1110	#10	.56	3.45	2.40
30F650	1114	¼	.72	4.65	3.25
30F652	1120	⅜	1.08	8.20	5.70

SHAKE-PROOF EXT. LOCKWASHER KEPS®
Steel-Cadmium Plated

Stk. No.	Size	100-999 NET/C	1000-4999 NET/M	5000-Up NET/M
30F680	4-40x¼x3/32	2.87	21.15	17.15
30F681	6-32x5/16x7/64	2.27	16.75	13.55
30F682	8-32x11/32x⅛	2.33	17.15	14.00
30F683	10-32x⅜x⅛	2.45	18.00	14.70
30F684	¼-20x7/16x3/16	3.09	22.70	18.50

SHAKERPROOF® PLAIN-TYPE TERMINALS

Stk. No.	Lgt.	100-199 NET/C	1M-4999 NET/M	5M-Up NET/M
30F672	21/32	.80	5.90	4.80
30F674	21/32	.80	5.90	4.80
30F675	⅞	.85	6.25	5.10
30F676	⅞	.85	6.25	5.10
30F677	57/64	.85	6.25	5.10
30F678	⅝	.85	6.25	5.10
30F679	⅝	.85	6.25	5.10
30F367	⅝	.85	6.25	5.10

SHAKE-PROOF® LOCKING TERMINALS—
.018 Bronze Hot Tin Dipped (*) bent 30°

Stk. No.	Hole Size	Fig.	Lt.	100-999	1000-4999	5000-Up
30F653	4	A	⅞	1.34	9.30	7.50
30F654	6	A	⅞	1.34	9.30	7.50
30F655	8	A	⅞	1.34	9.30	7.50
30F364	10	A	57/64	1.34	9.30	7.50
30F656	4	B*	13/16	1.34	9.30	7.50
30F657	6	B*	13/16	1.34	9.30	7.50
30F658	8	B*	13/16	1.34	9.30	7.50
30F365	10	B*	53/64	1.50	9.90	8.00
30F659	4	C	⅝	1.26	9.15	7.40
30F660	6	C	⅝	1.26	9.15	7.40
30F661	8	C	⅝	1.26	9.15	7.40
30F662	4	D	23/32	1.26	9.15	7.40
30F663	6	D	23/32	1.26	9.15	7.40
30F664	8	D	23/32	1.26	9.15	7.40
30F665	4	E*	⅝	1.26	9.15	7.40
30F666	6	E*	⅝	1.26	9.15	7.40
30F667	8	E*	⅝	1.26	9.15	7.40
30F366	10	E*	41/64	1.34	9.30	7.50
30F669	6	F	25/32	1.48	9.80	8.00
30F671	10	F	51/64	1.54	10.00	8.15

Nylon Fasteners and Electronic Chemicals

BIRNBACH

Screws | Bushings Spacers | Hex Nuts | Washers

SCREWS

Made of Zytel 101 nylon. Eliminates need for bushings and washers. Withstand temperatures to 300°F.

Round Head Stk. No.	Round Head Type	Binding Head Stk. No.	Binding Head Type	Size	Pkgs. of 100 1-9	10-49	50-Up
30F1000	6640	30F1001	6640B	2-56x1/4"	4.38	3.93	3.54
30F1002	6550	30F1003	6550B	2-56x3/8"	4.59	4.11	3.70
30F1004	6643	30F1005	6643B	4-40x1/4"	3.31	2.98	2.68
30F1006	6552	30F1007	6552B	4-40x1/2"	3.44	3.11	2.80
30F1008	6646	30F1009	6646B	6-32x1/4"	3.37	3.03	2.73
30F1010	6553	30F1011	6554	6-32x3/8"	3.37	3.03	2.73
30F1012	6557	30F1013	6558	6-32x1/2"	3.44	3.11	2.80
30F1014	6648	......	....	6-32x3/4"	3.51	3.16	2.84
......		30F1015	6648B	6-32x3/4"	3.86	3.51	3.16
30F1016	6650	30F1017	6650B	8-32x1/4"	3.37	3.03	2.73
30F1018	6562	30F1019	6563	8-32x3/8"	3.44	3.11	2.80
30F1020	6566	30F1021	6567	8-32x1/2"	3.44	3.11	2.80
30F1022	6572	30F1023	6572B	8-32x3/4"	4.91	4.08	3.67
30F1024	6574	......	.	10-32x3/8"	16.37	14.29	12.86
30F1025	6575	....	.	10-32x1/2"	19.64	17.82	16.04
30F1026	6577	.....	.. .	10-32x5/8"	19.82	17.39	15.65
30F1027	6578			10-32x1"	25.47	23.64	21.28

ZYTEL NYLON BUSHINGS AND SPACERS

Wide flanges completely isolate screw from mounting surface. Useful under high torque and tensile conditions.

Stk. No.	Type	Screw Size	Dimensions W"	T"	H"	D"	Pkgs. of 100 1-9	10-49	50-Up
30F1028	6549A	#6 .140"	.290	3/64	1/4	.170	2.32	2.09	1.88
30F1029	6549B	#8 .173"	.344	1/16	3/8	.205	2.45	2.20	1.98
30F1030	6549C	#10 .200"	.399	1/16	3/8	.260	2.65	2.39	2.15
30F1031	6549D	1/4" .260"	.513	1/16	3/8	.312	2.98	2.69	2.43
30F1032	6549	#4 .115"	.235	3/64	1/4	.146	2.32	2.09	1.88

ACC-NYLON HEX NUTS

Stk. No.	Type	Size	Packages of 100 1-9	10-49	50-Up
30F1033	6585	2-56	9.08	7.28	6.55
30F1034	6586	4-40	7.26	6.61	5.95
30F1035	6587	6-32	7.65	6.94	6.25
30F1036	6588	8-32	9.08	7.28	6.55
30F1037	6589	10-32	9.27	7.64	6.98
30F1038	6590	1/4-20	9.27	7.64	6.98

ALL-NYLON WASHERS

Stk. No.	Type	Fits Screw	O.D.	I.D.	Thckns.	Pkgs. of 100 1-9	10-49	50-Up
30F1039	6592	#2	1/4"	3/32"	.016"	2.19	1.82	1.64
30F1040	6593	#4	1/4"	1/8"	.016"	1.97	1.65	1.48
30F1041	6594	#6	5/16"	5/32"	.031"	2.04	1.72	1.55
30F1042	6595	#8	3/8"	.170"	.031"	2.30	1.85	1.66
30F1043	6596	#10	3/8"	.195"	.031"	2.44	1.98	1.78
30F1044	6597	1/4"	5/8"	11/32"	.063"	2.64	2.38	2.14

DYNALOY, INC.

● NEW CURED RESIN SOLVENTS

Removes the most commonly used thermosetting plastics, such as epoxy, urethane, silicone, polysulfide, etc. Solvents do the job easily, cleanly and quickly.

DECAP

Removes any cured epoxy; especially transfer molded epoxies. Most effective when used hot (90-150°C). Will not attack metals, but does tarnish silver and tin compounds on prolonged heating.

99F1400. Quart 10.00
99F1401. Gallon 20.00

DYNASOLVE 160

Distintergrates most cured liquid epoxy systems. Dynasolve 160 is acidic and extremely effective when used at room temperatures. Does not attack most commonly used metals.

99F1402. Quart 5.00
99F1403. Gallon 16.00

URESOLVE PLUS

Will disolve most urethane coatings and elastomers, transfer mold silicones, silicone varnishes, RTV silicone elastomers, anhydride cured epoxy resins and many urethane foams. A basic solution that will not attack most construction metals, including aluminum. Use to 135°C.

99F1404. Quart 10.00
99F1405. Gallon 20.00

URESOLVE PLUS SEMI CONDUCTOR GRADE

Similar to Uresolve Plus. Recommended for dissolving silicone transfer molded packages and silicone varnishes at 60-100°C.

99F1406. Quart 10.00
99F1407. Gallon 20.00

URESOLVE HF

Will not attack vinyl wiring or metals of construction. A base that dissolves polyester cured urethane coatings, elastomers, foams and anhydride cured epoxies. 60-100°C.

99F1408. Quart 10.00
99F1409. Gallon 20.00

URESOLVE HF GEL

Thixotropic version of Uresolve HF recommended for applications requiring partial removal of coating or foam.

99F1410. Quart 10.00
99F1411. Gallon 20.00

DYNASOLVE 155

For dissolving Thiokol or polysulfide rubber. Used to 75°C. Does not attack metals or plastics, but swells neoprene.

99F1412. Quart 5.00
99F1413. Gallon 16.00

DYNASOLVE 159

Contains chlorinated solvents. Similar to Dynasolve 166 but does not require heating.

99F1414. Quart 5.00
99F1415. Gallon 16.00

ELECTRICALLY CONDUCTIVE COATINGS

Use for RF shielding, electroplating base, component grounding, lead termination, capacitor coating, etc.

TYPICAL PROPERTIES

Type	Vol. Resis. (ohm-cm baked)	Temp. Range	Cure Cycle	Solvent Thinner
300	.001	—65 +120°C	air dry	Water
305	100.	—65 +120°C	air dry	Water
340	.001	—65 +175°C	air dry	Toluene
350	.0005	—65 +175°C	+125°C, 10 min.	Xylene
375-1	.0005	—65 +200°C	+125°C, 4 hrs.	Cello-Solve Acet.
2510	.003	—50 +750°C	+250°C, 15 min.	......

CONCENTRATED (Can be diluted for Spray on)

Type	Description	Stk. No.	3 oz.	Stk. No.	8 oz.
300	Water base silver	99F1416	15.00	99F1417	32.00
340	Air dry silver	99F1420	15.00	99F1421	32.00
350	Solderabel silver	99F1422	15.00	99F1423	32.00
2510	High temp. silver	99F1424	25.00	99F1425	48.00
375-1	Poly alloy silver	99F1426*	15.00	99F1427	48.00

*2 ounce size

Type	Description	Stk. No.	Qt.	Stk. No.	Gal.
305	Conductive carbon	99F1418	10.00	99F1419	15.00

CONDUCTIVE AEROSOL KIT

Contains 300, 305, 340, 350 and 375-1, diluted and suitable for spraying. Includes Jet-pack Sprayon unit.

99F1428. NET 49.95

4 OUNCE REPLACEMENT JARS (Diluted)

Stk. No.	Type	Net	Stk. No.	Type	Net
99F1429	300	15.00	99F1430	350	15.00
99F1431	305	10.00	99F1432	375-1	15.00
99F1433	340	15.00	99F1446	Jet pack	2.60

EPOXY SILVER SOLDERS

Type 310. One-component, ready-to-use silver solder. Heavy substance for component lead termination, solder replacement, assembly of tantalum capacitors, etc. Short time heat curing with heat lamp or hot plate recommended.
Type 320. Two-component, pure silver epoxy suited for connecting heat sensitive components to printed circuit boards, etc. Pot life: 30 minutes.
Type 325. Same as 320 but with pot life of 1-2 hrs.

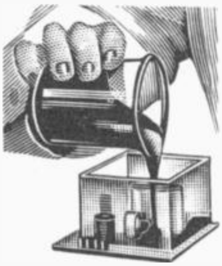
Type	Stk. No.	2 oz.	Stk. No.	8 oz.	Stk. No.	16 oz.
310	99F1434	15.00	99F1435	48.00	99F1436	79.20
320	99F1437	15.00	99F1438	48.00	99F1439	79.20
325	99F1440	15.00	99F1441	48.00	99F1442	79.20

DISPOSABLE POLYETHYLENE GLOVES

Stk. No.	Size	Per Box of 100 1-9	10-Up
99F1443	Small	4.00	3.50
99F1444	Medium	4.00	3.50
99F1445	Large	4.00	3.50

Emerson & Cuming Plastics

STYCAST CASTING RESINS



MILITARY GRADE EPOXY RESIN 2651

• **High Mechanical Strength**

• **Meets Mil. Spe. MIL-I-16923 B, C & D**

Medium viscosity rigid epoxy. Choice of two catalysts allows cure at room or oven temperatures. Excellent general purpose encapsulant and adhesive. High mechanical strength and thermal shock capability combined with exceptional electrical insulation capacity. Service temperatures: —70°F to +350°F. Wt. 2 lbs.

32F372. NET **7.98**

HIGH THERMAL CONDUCTIVITY RESIN 2850FT

• **Cryogenic**

• **High Thermal Conductivity—Low Shrinkage**

Has a coefficient of thermal expansion matched to copper. Low shrinkage makes it possible to encase glass diodes without fear of breakage. High thermal conductivity and excellent electrical insulation make it ideal for transformer potting. Used to as low as 1.2°K. Shows no appreciable outgassing in high vacuum up to 10-12 mm. Hg service temperature to 390°F. Wt. 2 lbs.

32F455. NET **7.98**

LOW VISCOSITY RESIN STYCAST 2651MM

Module encapsulant, free machining rigid opaque epoxy. For easy handling in potting tightly packed components. Choice of two catalysts allows room or oven temperature cure. Service temperature: —70°F to +350°F. Wt. 2 lbs

32F373. NET **7.98**

CLEAR STYCAST 1266

• **Transparent**

• **Low Viscosity—High Impact**

High impact low viscosity epoxy. For electrical encapsulation where component visability is desired. It can also be used for display embedments or bonding sheets of glass for good visibility. Cures in a few hours at room temperature or minutes at 150°F. Service temperature: —70°F to +200°F. Wt. 2 lbs.

32F456. NET **7.98**

CLEAR URETHANE RESIN CPC-16

• **Flexible Casting Resin**

• **Transparent and Repairable**

Low viscosity, room temperature cured flexible casting resin. Use to pot fragile components without fear of fracturing at cold temperatures. Transparent and repairable; components can be seen, dugout, and resealed with a drop of resin. Flexible temp. —60 F to +300°F. Wt. 2 lbs.

32F457. NET **9.98**

ECCOBOND EPOXY ADHESIVES

ECCOBOND 45

A two part epoxy adhesive with controlled flexibility. Available in either black or clear. Designed to be used where shock and peel resistance are desired. Has excellent adhesion to metal, glass, ceramics and most hard to bond plastics. Cures in a few hours at room temperature, or in minutes at 150°F. Temperature range for use —70°F to +300°F. Weight: 2 lbs.

32F458. Black. **NET** **7.98**

32F459. Clear. **NET** 7.98

• **Available in clear or black.**

• **Has controllable flexibility.**

TWO TUBE EPOXY PATCH KIT

ECCOBOND 26. Handy two tube kit for all adhesive and patch jobs requiring small amounts of material. Half and half mix requires no weighing. Designed to be used where shock and peel resistance are desired. It has excellent adhesion to metal, glass, ceramics, and most hard to bond plastics. Cures in four hours at room temp., in minutes at 150°F. Becomes a permanent part of the repaired item. Wt. 5 oz.

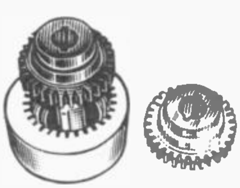
32F371. NET **1.98**

NON-FLOWING EPOXY ADHESIVE

ECCOBOND 285. A truly thixotropic two part epoxy adhesive which can be easily applied to vertical or overhead surfaces without flow or sag. Will stand like whipped cream on any surface at any temperature and cures to a hard opaque resin. Three different catalysts are supplied to offer a choice of pot life and temperature. Service temp. range: —70° to +350°F. Wt. 2 lbs.

32F460. NET **7.98**

RTV SILICONE RUBBER ECCOSIL 4851



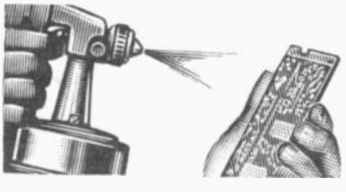
• **Ideal for Making Flexible Molds**

• **Used for Potting and Encapsulation**

Ecosil 4851 is a pourable resin which cures to a 60 durometer flexible silicone rubber. Used for potting and encapsulation, as a caulk and sealer, and widely used in the making of flexible molds. Its flexibility, self releasing property, and good dimensional stability, make it an ideal prototype mold material. It can be subjected to temperatures up to 500°F for prolonged periods. Wt. per can: 2 lbs.

32F461. NET **9.98**

ECCOCOAT SURFACE COATINGS



CLEAR EPOXY SURFACE COAT—ECCOCOAT EC200

A two part brush or spray coating that cures to a transparent, tough, moisture impervious film. Chemical and corrosion resistance and high electrical insulation make this an ideal circuit board and general purpose protective coating. Service Temp.: —70°F to +275°F. 2 lbs.

32F463. NET **7.98**

ECCOFOAM FPH

Rigid foam-in-place polyurethane foam. Eccofoam FPH is used in many aerospace applications. Fast room temperature cure. Density is approximately 6 lbs. per cubic foot. Service temperature is 275 degrees Fahrenheit. To be used in well ventilated area. Weight: 2 lbs.

32F470 NET **8.98**

MOLD RELEASE 122S—PASTE OR SPRAY

A silicone type release agent used to prevent adhesion of epoxies to molds. Apply paste with a rag or brush, or use handy aerosol spray can. Wt. ¼ lb.

32F395. Paste. **NET** **3.98**

32F464. Spray Can. **NET** 4.88

ECCOSTRIP 57—EPOXY SOLVENT

Will dissolve cured epoxy resins. Items must be submerged in solvent for several hours during which the epoxy slowly softens. Excellent for use in clean-up of uncured epoxy. Wt. 1 lb.

32F396. NET **1.48**

NEWARK—Your One Reliable Source for Everything in Industrial Electronics

GENERAL ELECTRIC SILICONES

SILICONE RUBBER ADHESIVE/SEALANTS

One-package silicone rubber adhesive/sealants for an unlimited number of industrial applications. Packaged in collapsible aluminum squeeze tubes. Cures to resilient rubber at room temperature. Will withstand temperatures up to 300°F. for extended periods and up to 500°F. for shorter time periods. Resists moisture weathering, and aging effects. Remains flexible at —75°F. Ideal for industrial applications ranging from assembly line production work to fast, effective electrical maintenance and repair. Physical properties, using standard ASTM test procedures: hardness, Shore A:30. Tear resistance 45 lb./in.

PRODUCT SELECTION

Product	Color	Typical Application
RTV-102	White	Shock mounting
RTV-103	Black	Rubber repair
RTV-108	Trans.	See thru Insulation
RTV-109	Alum.	Metal bonding
RTV-106	Red	Critical "high temp"
RTV-112	White	Brushing or spraying
RTV-116	Red	High temp—Pourable
RTV-118	Trons.	Brushing or spraying pourable

Type	Color	3 Oz. Tube Stk. No.	1-5	6-11	12-up	12 oz. Tube Stk. No.	Each	2-11	12-47	48-up
RTV-102	White	**57F039**	1.75	1.50	1.27	**57F031**	5.55	5.40	5.10	4.90
RTV-103	Black	**57F040**	1.75	1.50	1.27	**57F032**	5.55	5.40	5.10	4.90
RTV-108	Trans.	**57F041**	1.75	1.50	1.27	**57F033**	5.55	5.40	5.10	4.90
RTV-109	Alum.	**57F042**	1.75	1.50	1.27	**57F034**	5.55	5.40	5.10	4.90
RTV-106	Red	**57F043**	2.10	1.85	1.52	**57F035**	7.10	6.90	6.55	6.20
RTV-112	White	**57F044**	2.10	1.85	1.52	**57F036**	7.10	6.90	6.55	6.20
RTV-116	Red	**57F029**	2.10	1.85	1.52	**57F037**	7.10	6.90	6.55	6.20
RTV-118	Trans.	**57F030**	2.10	1.85	1.52	**57F038**	7.10	6.90	6.55	6.20

12 oz. Caulking Cartridge
As above, packed in high-pressure caulking cartridge rather than squeeze tube. Can be used with any standard or auto caulking gun.

Stock No.	Type	Color	1-5	6-11	12-up
57F045	RTV-102	White	3.49	3.09	2.69
57F046	RTV-108	Trans.	3.49	3.09	2.69

RTV-615 CLEAR POTTING COMPOUND

The RTV-615 is a low viscosity silicone liquid that cures at room temperature. RTV-615 offers improved physical properties as well as a faster cure system. The curing agent is always added to base polymer in a straight 1 to 10 ratio. RTV-615 maintains its physical properties from —65°C to 200°C. Has a viscosity of 3500 centipoises. Well suited for production line use, this material can be cured within .15-30 minutes at 150°C or at a longer time at room temperature. The RTV-615 will cure in deep sections and in completely enclosed assemblies without exotherm and without damaging stresses on potted assemblies. Includes curing catalyst.

Stk. No.	Description	1-11	12-up
57F049	RTV-615 Clear Silicone (1 lb.)	9.50	8.00

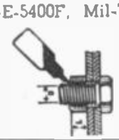
RTV SILICONE RUBBER PROPERTIES

RTV types / Thixotropic—Pourable—Potting	-102 -103 -106 -108 -109	-112 -116 -118	-615
Shelf Life, Months	12	12	6
Specific Gravity	1.07	1.05	1.02
Tensile Strength, psi	350	300	925
Elongation, %	400	350	150
Brittle Point, °F	-90	-90	-90
Dielectric Strength, Volts/mil	500	500	500
Dielectric Constant, 60 hz	2.8	2.8	3.0
Volume Resistivity, Ohm-cm (x10[15])	3	2	1

LOCTITE® SEALANT

Meets Military Specifications Mil-S-22473C, Mil-P-11268D, Mil-E-5400F, Mil-T-21200D, Mil-E-16400D and Mil-E-8189B.

GUIDE FOR SELECTION OF PROPER GRADE



Measure engaged length of screw (L in diagram), and diameter of screw (D in diagram). Divide L by D to get engagement ratio. Select proper grade letter from table below. Use A on snug fits; V grades on loose fits. Suffix V indicates higher viscosity of grade.

APPLICATION	ENGAGEMENT RATIO 0.5	1.0	1.5	2.5	5.0
Nuts on steel screws	A	A	C	....	....
Steel screws in tapped holes	A	A	C	C	E
Steel studs		A	A	C	C
Steel adjustment screws	A	C	E	H	H
Adjustment nuts on steel screws	A	C	E	....	....
Nuts on aluminum or brass screws	A	C	C	....	....
Aluminum or brass screws	A	C	C	E	H
Aluminum or brass adjustment screws	C	E	E	H	....
Adjustment nuts on aluminum or brass screws	C	E	E	....	....

2 CC

Stock No.	Grade	Color Code	Rel. Torq.	Visc. (cent.)	Strength psi	1-9	10-Up
57F000	C	Blue	4	10-15	300-400	.79	.75

10 CC

Stock No.	Grade	Color Code	Rel. Torq.	Visc. (cent.)	Strength psi	1-9	10-Up
57F001	C	Blue	4	10-15	300-400	2.25	1.60
57F002	AA	Green	15	10-15	1150-1500	2.45	1.93
57F003	A	Red	10	10-15	750-1000	2.25	1.80
57F005	AV	Red	10	100-150	750-1000	2.25	1.80
57F006	B	Yellow	7	20-30	525-700	2.45	1.93
57F007	CV	Blue	4	100-150	300-400	1.90	1.52
57F008	E	Purple	2	10-15	150-200	1.90	1.52
57F010	H	Brown	1	10-15	75-100	1.90	1.52
57F011	HV	Brown	1	100-150	75-100	1.75	1.40

50 CC

Stock No.	Grade	Color Code	Rel. Torq.	Visc. (cent.)	Strength psi	1-9	10-Up
57F012	C	Blue	4	10-15	300-400	7.20	5.40
57F014	A	Red	10	10-15	750-1000	7.20	5.40
57F019	E	Purple	2	10-15	150-200	6.00	4.50
57F021	H	Brown	1	10-15	75-100	6.00	4.50

SEALANT

Thin liquid plastic screw retaining compound, designed for thread-locking with standard nut and bolts. Hardens between closely fitting metal parts. Forms tough heat and oil resistant bond. Provides complete resistance to loosening under shock or vibration. Can be removed with a screw driver. Has several times the holding power of locknuts or lockscrews. Comes in different strengths. Easy to apply, it fits all sizes. 10cc bottle has applicator nozzle and is best suited for treating assembled fasteners individually. Shpg. wt. 50 c.c.= 3.2 oz., 10 cc=1.6 oz. 50cc bottle may be used for either method; applicator nozzle included.

MAINTENANCE KIT

Type 1-50. Contains one 50cc plastic bottle of Loctite Sealant general purpose grade B, applicator nozzle and new aerosol spray can of Locquic primer for use on oily or plated parts. Parts will not loosen from vibration.
57F026. 1-9 .... **9.95; 10-up** **8.10**

LOCQUIC PRIMER

Type 47-56. Priming rinse which speeds hardening of the sealant and effectively cleans oily parts. 6 ounce "ready to use" aerosol can. Grade T.
57F025. 1-9 .... **1.95; 10-up** **1.75**

GC ELECTRONICS Tools - Chemicals

CLEAN, BRUSHLESS SPRA-KOAT PRODUCTS

K-27 PRINT-KOTE
TV silicone resin used by many manufacturers on all printed circuit sets. A wonder-performing chemical that insulates, protects and prevents shorts . . . insures a truly satisfactory job. Air-dries . . . requires no baking. 6 oz. can.
32F357. 14-6. NET **2.42**

RUF KOTE SPRA-KOAT
The only finish that will air dry and give a professional wrinkle job without baking. Employed by many manufacturers on PA equipment, chassis, panels, and racks. Easy, simple to use. 16 oz. can.
32F325. 60-12. Black. NET **2.25**
32F326. 60-13. Gray. NET 2.25

HAMMER-KOAT
Achieves a professional air-drying hammer finish that's perfectly adapted for use on panels, racks, instruments, chassis, etc. Extremely easy to use . . . dries in a matter of minutes. 16 oz. can.
32F328. 84-12. Blue. NET 2.30
32F329. 85-12. Silver. NET 2.30

TELEPHONE SPRA-KOAT
A high grade satin finish lacquer that covers evenly, dries quickly. Available in a rich ebony black for telephone devices panels, or gray that is excellent for panel work, instrument finishes, etc. Easy to use . . . just spray on. 16 oz. can.
32F330. 62-12. Black. NET **2.30**
32F331. 62-13. Gray. NET 2.30

13-2 12-2 9131

PRINT-KOTE SOLVENT
No. 13-2. Solvent for No. 14-2. Print-Kote Silicone Resin. Dissolves and removes silicone resin from printed circuit. Shipping wt., 2 oz.
32F360. NET .... **.42**

PRINT-KOTE SOLDERING FLUX
No. 12-2. Especially made for printed circuits. Non-corrosive liquid flux for easy soldering and repair jobs. Paves the way for quality work in less time. 2 oz.
32F362. NET .... **.60**

PRINT-KOTE SOLDER
No. 9131. For printed circuits. Special Non-corrosive flux and low-melting solder combined with pure silver. Weight, 2 oz. 11 ft. coil.
32F361. NET .... **.64**

LIQUID TAPE
Excellent for high voltage insulation. Applies as a paste but dries as a hard strong chip and crack proof insulation. Prevents corona and electrolysis leaks and prevents moisture, dirt or grime from eroding on contacts.
32F380. 176-2 2 oz. bottle 1.05
32F345. 176-16 16 oz. bottle 6.40

NO. 20-2 COPPER PRINT
For repairing printed circuit. High conductive, fast drying compound. Complete with brush-top cap.
32F346 2 oz. bottle. **1.95**

RELAY CLEAN

Type 8682. Dry contact cleaner. Excellent for cleaning relays and contacts in switchboards, automatic pinball or bowling games, rocket and satellite circuitry. Cleans without leaving any oily residual deposit. Also an excellent degreaser and general solvent for gummy deposits. Non-flammable. Shpg. Wt. 6 oz.
32F349. NET **1.89**
Type 8682-16. As above, 16 Oz. can.
32F184. NET **3.49**

ZERO-MIST SPRA-KOAT NO. 8667

Revolutionary idea from GC! Now, locate intermittents without frustrating hours of checking! Zero-Mist spots instantly any component defective due to temperature change. Just spray on the questionable condenser, resistor, transistor, etc. Zero-Mist cools it immediately, isolating the trouble. 16 oz.
34F610. NET **2.42**

SPRA-KLEEN
Type 8666. Electrical cleaner and lubricant. Eliminates noise due to dust, dirt and corrosion on electrical contacts. Lubricates in 1 operation.
32F343. 6 oz. can. 8666. NET .... **.99**

JIF CONTROL AND CONTACT CLEANER
Excellent cleaner and lubricant while not containing any harsh solvents. Because of this, cleaner will in no way harm any plastic material on which it will be used. Used for electronic/electrical contacts, switches, and controls. Cleaner is siliconized in order to give the greatest possible protection for the longest period of time.
32F367. 8670-3. 3-oz. Spray can. NET. **.99**
32F368. 8670-6. 6-oz. spray can. NET 1.79

MASTER DELUXE CABINET REPAIR KIT

Type 900. All essentials to fix wood and plastic cabinets, knobs, refrigerators, appliances, etc.: Spirit stains, varnishes, enamels. Make quick repair without spoiling adjoining finish.
Shpg. wt., 5 lbs.
32F353. NET **9.65**

SILICON HEAT SINK COMPOUND
Type 8109. Highly heat-conductive metallic oxide suspended in silicone dissipates "hot spots" and seals between semiconductors and chassis or heat sink. Will not dry out or harden. 1 oz. tube.
32F185. NET **2.39**

TRANSISTOR Z5 SILICONE COMPOUND
Type 8101-S maintains efficient transfer of heat from transistor to chassis.
32F365. 1 oz. tube NET **2.39**

SILVER PRINT
No. 21-1. "Pure silver" compound used by manufacturers in printed circuit design. Tops for repair work or touching up a circuit. Wt., ½ Troy ounce.
32F355. NET **4.75**

PRINT-KOTE SILICONE RESIN
No. 14-2. Silicone resin used by manufacturers to protect their printed circuits. Fast drying. With brush. 2 oz.
32F359. NET **1.40**

DIAL CORD

Dial cord in popular sizes. The following service spools cover 90% of all replacement needs. Nylon cord with a fiberglass core. Treated to prevent stretching and slipping. Wt., 4 oz.
Type 75-A. Extra thin cord. .025" dia., 30 lbs. brk. stgh.

25F800.	10-ft. length. NET	.39
25F801.	25-ft. spool. NET	.83
25F802.	100-ft. spool. NET	2.60

Type 75. Standard cord, .028" diameter. 30 lbs. breaking strength.

25F803.	10-ft. length. NET	.39
25F804.	25-ft. spool. NET	.83
25F805.	100-ft. spool. NET	2.60

Type 74. Medium cord, .040" dameter. 35 lbs. breaking strength.

25F806.	10-ft. length. NET	.39
25F807.	25-ft. spool. NET	.83
25F808.	100-ft. spool. NET	2.60

REACH-ALL PEN OILER

Type 984. Highest quality non-gumming instrument oil; meets MIL-L-6085A specs. Tube extends and retracts; dispenses a drop or a fraction of a drop. When not in use, tube is capped and oiler may be carried in pocket for convenience. Excellent for lubricating instruments gears, timers, clocks, guns, fishing reels, etc.
32F186. NET .... **.99**

ELECTRONIC OIL ASSORTMENT KIT

Type 9400. Oil Assortment Kit contains all oils commonly used in electronic work. Included is recorder, penetrating, phono, radio-TV, and dripless oil. The other tube is liquid graphite. Shpg. wt., 1 lb.
32F364. NET **2.10**

SPRAY ADHESIVE

Type 8687. Spray is clear and odorless. Offers immediate tack. Useful in bonding nearly all types of materials. 16 oz can.
32F375. NET **1.95**

LIQUID NON-SLIP
Penetrating dressing. Shrinks fibres; prolongs life, prevents slipping of dial cord, etc.
32F229. ½-oz. bottle. 1211. NET .... **.38**
32F230. 2-oz. bottle. 1215. NET .... .55

 Newark Electronics Co., Inc. 4747 W. Century Blvd., Inglewood, Calif. 90301

GC ELECTRONICS

Carbon - tetrachloride. For mechanical and electrical parts. Removes oils, grease, etc. Will not burn.
32F261. 16-oz. bottle. 211-16. NET **1.79**

Type 5555. Nuvi-Tran tuner cleaner formulated for TV tuners with critical transistor and nuvistor circuitry. 8 oz. spray can with pin-point extention.
32F335. NET **2.29**

"G-C 60". Glass Treatment Compound. Makes all glass and plastics cleaner and brighter, degreases, removes static, waterproofs, and keeps surfaces cleaner longer. Easy to use, just spray on and wipe off. Comes with handy spray applicator for easier application.
32F201. 6 oz. bottle. 175-6 **1.15**

Injector Needle. Made on the hypodermic principle to inject cleaners and oils into shafts, controls and tight places. Applicator supplied. 2-oz. bottle.
32F202. 8383. NET **.48**

Chloro-Kleen Cleaner. A solvent for all purpose cleaning of any electronic component, switch, chassis, etc. Dissolves grease, dirt, oils, tar and waxes. Safe indoors . . . no sickening fumes. Completely non toxic. Similar to carbon tetrachloride.
32F378. 16-oz. bottle. 213-16. NET 1.55

MAG-NETIK RECORDING HEAD CLEANER

Cleans gently, thoroughly . . . dissolves oxide scum accumulation on tape and wire recorders. Easy and safe to use. Does the job fully in minutes.
32F259. 53-2. 2-oz. bottle. NET 1.03

Red Electricronic Contact Cleaner. For switch or relay contacts, volume controls, etc. with brush.
32F250. 2-oz. bottle. 210-2. NET **.60**
32F252. 8-oz. bottle. 210-8. NET 1.65

Phono-Motor and Gear Lubricant. Specially made lubricant that clings to the surface of the parts. Insures long life. 2-oz. tube. 1223S.
32F244. NET **.55**

NO NOISE

VOLUME CONTROL AND CONTACT RESTORER

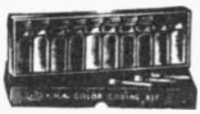
Cleans, lubricates, restores all tuners including water type. Non-toxic, non-inflammable. Ideal for volume control and Contact restorer. Complete with a 5" plastic extender for getting into close areas in both Television and radio sets. Prevents gumming and eliminates binding in automatic turn tables. May also be used for noisy tube sockets and other components and will not change capacity.
32F269. 6 oz. spray can. NET **2.25**

Radio Service Cement Solvent. For loosening cement on speaker cones, frames, etc.
32F233. 8-oz. bottle. 31-8. NET **1.10**

Cement Thinner. Will thin radio and plastic cement without changing characteristics.
32F336. 2-oz. bottle. 28-2. NET **.59**

Q-Dope Thinner. Solvent for polystyrene Q-Dope and other polystyrene coil dopes, cements, rods, sheets, etc.
32F241. 4-oz. bottle. 41-4. NET **.89**

"Strip-Ex". Strips enamel from magnet wire, enabling it to be soldered immediately.
32F255. 2-oz. bottle. 26-2. NET **.78**



Color - Code Kit. E. I. A. colors: Black, brown, red, orange, yellow, green, blue, purple, gray and white. Includes brushes and E.I.A. coloring chart. Shpg. wt., 1 lb.
32F350. 677. NET **1.47**

Dial Lite Color Kit. Instant drying lacquer for 5 colors and solvent, multi-colored dials, signals, lighting. Shpg. wt. 1 lb.
32F351. 66-6. NET **1.43**

High Voltage and Corona Dope. Prevents corona shorts on high voltage circuits. High insulating qualities.
32F206. 2-oz. bottle. 47-2. NET **.78**
32F207. 8-oz. bottle. 47-8. NET 2.15

Q-Dope. Pure polystyrene dissolved in Q-Dope Thinner. Will not change RF circuit values. Fully moisture-repellent. 2-oz. bottle.
32F208. 37-2. NET **.55**
32F209. 4-oz. bottle. 37-4. NET .83

Insulating and Dipping Varnish. Produces a smooth, tough insulating film that is non-corrosive. Recommended for field coils, noisy transformers etc. 2 oz. bottle.
32F211. 56-2. NET **.60**
32F213. 8-oz. bottle. 56-8. NET 1.35

RED INSULATING VARNISH

Most common of all protective insulating coatings, used on all solder connections, high voltage points, etc. 2-oz. bottle.
32F332. Type 90-2. NET **.63**

CEMENT

Type 345. Cement Sampler Lab Kit. 14 bottles contain cement and adhesive for every application. Cements of all types are included with instructions. Tops for lab's and engineer's use and handy for the shop or factory. 2-oz. bottles.
32F257. NET **9.05**

Pliobond Cement. Cold setting thermoplastic liquid. Dries quickly, waterproof. For steel, glass, iron.
32F256. 2-oz. bottle. 43-2. NET **.60**

Radio Service Cement. Mends speaker cones, tube bases, grid caps, etc. Can also be used for bakelite cement. Vibration-proof, water-proof and fast drying.
32F214. 2-oz. bottle. 30-2. NET **.59**
32F216. 8-oz. bottle. 30-8. NET 1.59

Radio and TV Cement. For television work; seals nuts, bolts, etc., on antennas, rotators, etc. Also used for repair of parts and cabinets. Waterproof.
32F215. 2-oz. tube. 34-2. NET **.55**

Plastic Cement. Excellent for cementing broken plastic cabinets, dial and glass crystal assemblies, knots in dial cord, etc. Very fast drying, water-proof.
32F217. 2-oz. bottle. 32-2A. NET **.59**

Bakelite Cement. Made for cementing bakelite to bakelite, and bakelite to other materials. Also for repairing broken molded pieces, knobs, panels, etc.
32F220. 2-oz. bottle. 32-2. NET **.99**

Vinylite Cement. For metals, plastics, paper, leather, etc. Can also be used as a thermoplastic cement for non-porous materials.
32F221. 2-oz. bottle. 58-2. NET **.59**

Household and Model Cement. Fast-drying cement, suitable for many uses. Will cement wood, paper, plastics, metal, ceramics, etc. Fast-drying, water-proof.
32F222. 2-oz. bottle. 45-2. NET **.59**

Rubber to Metal Cement. For cementing rubber dial drives to metal shafts, rubber mounting to chassis, or for any rubber material to metal, wood, etc. Waterproof.
32F225. 2-oz. bottle. 35-2. NET **.60**

Acrylic Cement. Specially prepared for cementing Lucite, plexiglass and other acrylic materials. Fast-drying; welds the materials together.
32F228. 2-oz. bottle. 40-2. NET **.60**

● NEW PLASTIC REPAIR KIT

46-975—Useful, easy-to-use plastic repair kit with unlimited possibilities. Everything included to do repair work. Plastic material can be molded to almost any shape, like putty, to form new parts. May be used as a powerful glue to cement cracks in plastic or may find use as a waterproof bonding agent. When dry, the plastic may be sanded, polished or drilled, just as any other plastic surface. Does a professional, stronger-than-new repair job.
32F333. NET **1.65**

• **Works in minutes**

DURICON

Type 3100. Leaves permanent thin, clear insulation coating to repel moisture, salt air, oil, acids, alkali, prevents corrosion and fungus. Will resist temperatures ranging from —100°F to +500°F. Single spray application on non-ferrous metal instantly seals surface. Normal expansion, contraction or bending will not lift, peel, crack, or chip film. Acts as superior primer and bonder. Meets Mil. spec. MIL-V-173-A.

Stk. No.	Type	10 oz. can	Carton-12 cans
32F549	3100	4.00	45.00

PROPERTIES

Viscosity: 1.34 centistokes
Dielectric Strength: 900 volts/mil at 3/16 mil
Dielectric Constant: 2.75 at 100 Kc
Thermal Stability: Infinite to 300°F
Salt Spray: Exceeds 1,000 hours 20% salt solution
Coverage: Approximately 125 sq. ft. per spray can.
Dry Time: 3 to 5 minutes

KRYLON Spray Paints & Chemicals

KRYLON SPRAY PAINT

- Reaches Hard-to-reach Areas—Quick, easy to use, does the job in minutes,
- Time and Labor Savers
- Excellent Adhesion . . . Uniform Coverage
- Professional finishes at low cost!

For coating all metal, wood, etc. Sprays will seal any surface against oil, grease, moisture and chemicals. Colors meet Fed. Spec. TT-L-0048(GSA-FSS). Many colors carry individual numbers to Fed. Std. No. 595. 1 pt. dispenser. Shpg. wt. 1½ lbs.

Stock No.	Mfg. No.	Color	Fed. Std. No. 595	NET EACH
32F290	1401	Bright Silver	17178	1.19
32F513	1403	Dull Aluminum	....	1.19
32F292	1501	Gloss White	....	1.19
32F150	1502	Flat White	37875	1.19
32F151	1503	Antique Ivory	17778	1.19
32F500	1504	Oyster White	17875	1.19
32F293	1601	Glossy Black	17038	1.19
32F282	1602	Flat Black	37038	1.19
32F283	1603	Machine Grey	....	1.19
32F284	1604	Light Grey	16099	1.19
32F276	1605	Dove Grey	....	1.19
32F501	1607	Puritan Grey	16307	1.19
32F285	1701	Bright Gold	....	1.19
32F286	1801	Chrome Yellow	....	1.19
32F152	1802	Pastel Yellow	....	1.19
32F502	1805	Sunflower Yel.	13538	1.19

Stock No.	Mfr. No.	Color	Fed. Std. No. 595	NET EA.
32F506	1809	Schl Bus Yel	13432	1.19
32F287	1901	Regal Blue		1.19
32F176	1903	Champ. Blue		1.19
32F1100	1910	True Blue		1.19
32F288	2001	Hunter Green	14062	1.19
32F1101	2005	Erin Green	14110	1.19
32F1102	2008	Aqua Turq.		1.19
32F289	2101	Cherry Red	11136	1.19
32F505	2105	Fire Red	11105	1.19
32F296	2201	Bright Copper		1.19
32F177	2202	Brass		1.19
32F277	2301	O. D. Khaki	14064	1.19
32F278	2401	Int'l Orange		1.19
32F514	2404	Indus Orange	12215	1.19
32F178	2501	Leath Brown		1.19
32F507	2504	Desert Beige		1.19

Carton of 12 .... 12.89

KRYLON METAL PRIMER

The quick, easy to prepare surfaces for painting. The green and yellow are rust inhibitive zinc chromate primers specially for metal and are manufactured in accordance with Spec. MIL-P-8585-A Type 1. Grey is an all purpose primer for wood, metal, plastic, etc. In 1 pt. spray cans Shpg wt., 1½ lbs.

Stk. No.	Type	Color	Each	12 For
32F160	1318	Grey	1.19	12.89
32F161	1319	Yellow	1.30	14.04
32F297	1320	Green	1.30	14.04

KRYLON RUST MAGIC

Type 1317. A quick drying anti-rust metal primer. Space age Phenolic Resin G1-358 gives Krylon Rust Magic Metal Primer piercing power through heavy rust. Seals out moisture, air, and neutralizes porous rust. Dry to the touch in 20 minutes, apply finish coat in 2 hours. Compatible with Krylon Spray Paints. 1 pt. spray can Shpg. wt., 1½ lbs.

32F172. NET **1.19**
Carton of 12 cans 12.89

ANTI-RUST WAX SPRAY

Type 1321. Leaves a dry, waxy film coating that protects any stored metal parts, bearings, gauges, tools, etc. Shpg. wt. 1½ lbs.

32F511. 1 pt. can. **NET** **1.30**
Carton of 12 cans 14.04

HEAVY DUTY SILICONE SPRAY

Type 1329. Silicon spray for electrical and mechanical uses. Dielectric strength 350V. mil. Excellent lubricant for many electronic devices. Shpg. wt.. 1½ lbs.

32F181. 1 pt can. **EACH** **1.30**
Carton of 12 cans 14.04

SILICONE MOLD RELEASE

Type 1328. Silicone mold release spray releases parts faster, cuts rejects in blow and injection molding of plastic, rubber, ceramic, and glass. Contents: 20 oz. by weight.

32F512. 1 pt. can. **NET** **1.30**
Carton of 12 cans 14.04

KRYON LET-GO PENETRATING OIL SPRAY

Type 1332. Super penetrant oil spray lubricates as it penetrates into rusty threads, etc. Spray reaches all areas. Shpg. wt. 1½ lbs.

32F509. 1 pt. can. **EACH** **1.13**
Carton of 12 cans 12.17

GLOWING FLUORESCENT SPRAY PAINT

For sure, quick attention and dazzling color effects. Attracts attention at great distances. Makes any surface with white base up to 4 times brighter. Colors stand out sharply from their surroundings. For use in daylight or artificial light. Gives neon effect in black light. For maximum brightness, white base is necessary. For use in industry, aviation, military, business, and the home where strong visual impact is necessary.

For outdoor use, spray Krylon Crystal Clear protective coating on dry glowing fuorescent film. *Made to meet MIL-P-21600. 1 pt. cans. Shpg. wt. 1½ lbs.

No.	Type	Description	NET
32F165	3101	Red Orange-633*	1.86
32F166	3102	Yellow Orange-634*	1.86
32F167	3103	Sunset-Gold	1.86
32F168	3104	Lemon-Yellow	1.86
32F169	3105	Cerise	1.86
32F170	3106	Green	1.86
32F171	3107	Blue	1.86

Carton of 12 cans 20.09

KRYLON DULLING SPRAY

Type 1310. Dulling spray eliminates glare from reflecting surfaces. Spray dries in seconds. It is harmless to high polish—removes easily.

32F273. 1 pt. can. **EACH** **1.30**
Carton of 12 cans 14.04

ELECTRIC MOTOR CLEANER

Type 1327. Cleans grease, oil, and tar from inside electric motors without harming insulation, paint, or lacquer. Evaporates completely. Contains no carbon tet. Shpg wt 1½ lbs.

32F508. 1 pt. can **EACH** **1.13**
Carton of 12 cans 12.17

RED INSULATING VARNISH

Type 7004. Will penetrate through multiple layers of taped coils, increasing dielectric strength, leaving a tough flexible oil-proof film with high adhesion characteristics, exceptional arc-resistance, and non-tracking properties. Maximum oil-proofness and chemical resistance. Excellent sealer on pitted windings. Shpg. wt. 1½ lbs.

32F510. 1 pt. can. **NET** **1.30**
Carton of 12 cans 14.04

CRYSTAL-CLEAR ACRYLIC SPRAY COATING

Type 1302. Protects and preserves metal, wood, paper, and leather surfaces. Dries in minutes, goes on clear, and stays clear. Prevents tarnish, rust corrosion. Resists fungus, chemicals, dilute acids, dirt and grease. Gives lasting protection against electrical failures, less down time. Acrylic film with its high dielectric strength is made for electronics specialty applications. Will not affect resistance values or conduct current. Prevents moisture breakdown. Also, electrolysis between various metals. Meets TT-L-0048 (GSA-FFS). 1 pt. can. Shpg. wt., 1½ lbs.

32F291. NET **1.30**
Carton of 12 cans 14.04

KRYLON CONTACT CLEANER

Type 1333. 1 pt. Non-flammable, greaseless contact cleaner in spray can. Does not attack plastic. Cleans volume controls, switches, and tuners. Removes dirt and gummy deposits from electrical contacts and provides a non-drying film which lubricates the contact surfaces. Long lasting protection from corrosion and oxidation. Comes with 5" plastic hose.

32F154. Each 1.99 **Carton of 12 21.46**
Type 1333A. 8 ozs.
32F155. Each 1.32 **Carton of 12 14.26**

CLEANER LUBRICANT

Type 1326. 1 pt. Non-flammable, balanced blend of grease and oil solvent and lubricant. Protects against corrosion and keeps surfaces self-cleaning. Minimizes surface friction, dissipates generated heat. For use on arcing as well as non-arcing contacts. Low electrical resistance. (For plastics use Type 1333). 5" hose included.

32F521. Each 1.30 **Carton of 12 14.04**
Type 1326A. 7 ozs.
32F522. Each .65 **Carton of 12 7.06**

HEAT RESISTANT SPRAY PAINT

Special formulation Krylon spray paint for high heat conditions on pipes, radiators, boilers, motors, engines, up to 200°F. 1 pint can. Shipping weight 1½ lbs.

Stk. No.	Type	Color	NET
32F515	1611	Gray	1.19
32F516	1612	Black	1.19
32F517	1909	Blue	1.19
32F518	2007	Green	1.19
32F519	2106	Red	1.19
32F520	2405	Orange	1.19

Carton of 12 cans 12.89

HIGH HEAT RESISTANT SPRAY PAINT

High heat spray paint is best applied when surface is not in excess of 120°F and will withstand 600°F constant temperature and up to 1200°F intermittently. Special formulation to give exceptional film thickness. Dries quickly. Can be recoated at any time using suggestions above, increasing heat gradually to normal operating conditions. In 1 pint spray cans. Shpg. weight 1½ lbs.

Stk. No.	Type	Color	NET
32F180	1402	Aluminum	1.66
35F1103	1505	White	1.66
35F1104	1614	Black	1.66
35F1105	2107	Red	1.66

Carton of 12 cans 17.93

Spray Paints & Chemicals Plasti-Kote

NEWARK EXCLUSIVE! MOISTURE-FUNGUS RESISTANT VARNISH

MEETS MIL SPEC. MIL-V-173-A

No. 277. Distributed only by Newark in U.S. Conforms to MIL-V-173-A. Always ready for instant use, simply press the trigger and get professional finishes at low cost. Does the job in minutes. It is inherently fluorescent and a treated chassis may be checked with an ultra-violet light keyed for 3500 A. U.'s Viscosity 0.85 poises. 16 oz. cans.

Stk. No.	Type	1-11	12-23	24-47	48-96
32F427	277	1.30	1.20	1.10	1.00

SPRA-CON CONTACT CLEANERS/LUBRICANTS

Combines Genesolv D* aerospace degreaser, with special lubricant. Non-dying film cleans and lubricates contact surfaces in one operation. For electrical contacts, switches, controls, tuners, all precision mechanisms. Deep penetration. Harmless to materials of construction. Non-conductive, non-flammable. No. 286 SPRA-CON Contact Cleaner with lubricant. 15-ounce can.

32F1015 Net 1.87 **12-up.** 1.66

PLASTI-KOTE HOT PAINT VERY HIGH TEMPERATURE

For auto engine heads and blocks, manifolds and exhaust systems. On barbecue broilers, grates and grills. Use it safely on boilers, heaters, furnaces for protection. When applied properly will air-dry in minutes. Sustains temperatures up to 1200°F. Comes in four colors. Has a color-coded cap to identify contents, a plastic inner seal to resist tampering.

Stock No.	Type	Color	1-5	6-11	12 up
32F451	HP11	Black	2.98	2.65	2.39
32F452	HP12	White	2.98	2.65	2.39
32F453	HP13	Red	2.98	2.65	2.39
32F454	HP14	Aluminum	2.98	2.65	2.39

PLASTI-KOTE LUBRICATING OIL

Lubricant is especially formulated for chain drive equipment. Reduce friction between moving parts. May be used both as a lubricant and a rust preventive on maintenance equipment. 16 oz. can. Wt.: 1 lb.

Stock No.	Type	NET	12-cans
32F1001	W-11	1.07	11.45

SPRAY CAN HANDLE

Handle snaps onto all makes and sizes of aerosol spray cans. Keeps hands clean. Unlimited uses — employ on insecticide, window cleaners, paint and spray starch cans. Quickly detached for use on next can. Shpg. wt.: 1/4 lb.

Stock No.	Type	NET
32F1000	SC-500	.59

RUST KILLER SPRAY PAINTS

Specially formulated paint guaranteed to check rust as effectively as any spray paint made. Ideal for lawn furniture, barbecue grills, garden tools. Protective caps match color of contents for instant identification. For all surfaces. 16 oz. cans. Shpg. wt. 1 lb.

SELF SPRAY LACQUER

No.	Type	Color	NET
32F439	270	Clear	1.17
32F430	247	Flat Black	
32F440	271	Black	
32F441	272	White	

PRIMERS

32F442	249	Green Zinc Chromate	1.17
32F417	268	Gray Metal Primer	1.17

SPRAY HAMMER FINISHES

Stk. No.	Type	Description	NET
32F431	212	Silver Hammer	1.17
32F432	213	Gray Hammer	
32F433	214	Green Hammer	
32F434	215	Blue Hammer	
32F435	216	Copper Hammer	

PLASTIC SPRAY

No. 274. Plasti-Kote Clear Acrylic Plastic Spray. Durable, flexible coat against dirt, water, weather. High dielectric strength. Seals connections, protects aerials. 16 oz. cans. Shpg. wt. 1 lb.

32F400. NET **1.20**

ENGINE DEGREASER & MOTOR CLEANER

"Instant engine cleaner—Spray on-Flush off. No need to steam clean. Just rinse off. Ideal for machines, grills, floors, any surface covered with grime, grease, oil, dirt." 16 oz. can.

Stock No.	Type	NET	12-cans
32F1002	26	.99	10.73

PLASTI-KOTE DRY GRAPHITE LUBRICANT

Lubricant forms a protective film which adheres with a minimum of pretreatment. Dries rapidly at room temperature. Recommended for the assembly & run-in of internal combustion engines, this lubricant coats gaskets, non-conductors, assembled rubber components, printed circuits, and cathode tube grids. 16 oz. cans.

Stock No.	Type	NET	12-cans
32F1003	W-8	1.39	14.76

SPRA-CON WITH SILICONE

Combined cleaner and lubricator dissolves built-up dirt and grease chemically. Gives additional protection and lubrication to contact surfaces. Reduces noise, improves performance. Excellent for contacts, switches, controls, tuners. No harmful solvents. Comes with Snorkel Tube. 15 ozs.

Stock No.	Type	NET	12-cans
32F1004	292	1.66	17.93

PAINTS AND ENAMELS (Cont'd)

No.	Type	Color	NET
32F344	248	Yellow Zinc Chromate	1.89
32F443	244	Flat White	1.17
32F401	250	Black Enamel	
32F402	251	White Enamel	
32F403	252	Ivory Enamel	
32F404	253	Glade Green Enamel	
32F405	254	Chevron Blue Enamel	
32F406	255	Royal Blue Enamel	
32F407	256	Swift Red Enamel	
32F408	257	Yellow Enamel	
32F409	258	Shamrock Green Enamel	
32F410	259	Chrome Aluminum	
32F423	260	Bright Gold Enamel	
32F424	264	Clear Varnish	
32F414	265	Baby Blue Enamel	
32F415	266	Machinery Gray Enamel	
32F416	267	Copper Enamel	
32F418	269	Antique Flat Black	

HEAT RESISTANT SPRAY PAINT TO 500°F

Stk. No.	Type	Description	NET
32F445	202	Universal Gray	1.17
32F446	203	Universal Black	1.17
32F447	206	Red	1.17
32F448	207	Aluminum	1.17

RUST SOLVENT

No. 276. Quick-drying non-inflammable, non-oily, non-conductive spray rust-solvent and penetrant. Loosens "rust-frozen" parts easily. Shpg. wt. 1½ lbs.

32F428. NET **1.01**

12 can lots 12.17 case

PLASTI-KOTE ARMOR PLATE EPOXY SPRAY PAINT

Spray paint provides a tile-hard, porcelain-like finish to both inside and outside equipment. Will not chip, peel, or crack. Ideal for refrigerators, washers, dryers, bowls, sinks, tubs and tile, as well as window sills and iron railings. Also applicable to lawn and garden fixtures. Comes in 13 oz. cans.

Stk. No.	Type	Color	1-5	6-11	12-up
32F1005	191	Appliance White	1.87	1.66	1.49
32F1006	192	Antique White			
32F1007	193	Black			
32F1008	194	Copper			
32F1009	195	Mint Gr.			
32F1010	196	Brown			
32F1011	197	Pale Bl.			

STRIPPABLE VINYL COATING

Protective vinyl coating prevents corrosion, scratches and rust during shipment or storage. Additional coats increase film thickness. Simply peels off, leaving surface smooth and clean. 16 oz. can.

Stock No.	Type	NET	12-cans
32F1012	W-9	1.30	14.25

PLASTI-KOTE SPRA-KOOL

The freezing mist of this circuit cooler pinpoints bad capacitors, transistors, etc., by cooling components. Instant action. Non-toxic, non-flammable. Comes in 15 oz. cans.

Stock No.	Type	NET	12-cans
32F1013	284	1.46	15.77

ILLINOIS BRONZE WRINKLE FINISH SPRAY PAINT

Stk. No.	Type	Color	NET
60F980	331	Smoke Silver	1.49
60F981	336	French Grey	
60F982	337	Jet Black	

Ideal for both indoor and outdoor use. Gives any surface a factory rich, distinctive, textured metallic finish without expensive equipment or processing.

HOWARD W. SAM'S PUBLICATIONS

AMATEUR RADIO

CITIZENS BAND RADIO HANDBOOK. 3rd EDITION 20569. By D. E. Hicks. Enlarged and completely updated. The latest on the installation and maintenance of CB gear. 192 pp. 5½x8½". Shpg. wt. 8 oz.
52F788. .... **4.25**

ABC's OF HAM RADIO. 3rd EDITION. 20638. By Howard S. Pyle W7OE. Enlarged and updated edition includes all study material necessary to obtain novice-class amateur radio license. Covers all latest FCC regulations. 144 pages. 5½x8½". Shpg. wt. 7 oz.
53F595. .... **2.95**

GENERAL CLASS AMATEUR LICENSE HANDBOOK. 20639. By H. Pyle. Prepares the novice for the Technician, Conditional, or General Class amateur radio exam. 144 pp. 5½x8½". Shpg. wt. 7 oz.
53F154. .... **3.25**

INTERNATIONAL CODE TRAINING SYSTEM. 20138. By International Teaching Systems, Inc. Special programmed charts and 33⅓ rpm recordings teach you International Morse Code. Begin transcribing code messages immediately. 96 pp. 7x7". 3 LP records. Shpg. wt. 11 oz.
53F564. .... **7.50**

ADVANCED AND EXTRA CLASS AMATEUR LICENSE HANDBOOK. 20649. By Howard S. Pyle, W7OE. Complete one-volume study source for Extra-class amateur license examinations. 192 pages. 5½x8½". Shpg. wt. 9 oz.
53F602. .... **3.95**

TRANSISTOR TRANSMITTERS FOR THE AMATEUR. 20450. By Donald L. Stoner (W6TNS). Complete construction details and operating instructions for variety of practical transistorized transmitters and devices. 128 pages. 5½x8½". Shpg. wt. 5 oz.
53F574. .... **3.25**

AUDIO AND HI-FI

ABC's OF TAPE RECORDING. 20395. By N. H. Crowhurst. How recorders work. Practical and entertaining uses of recorders. Also advises which type to buy. 96 pp. 8½x5½". Shpg. wt. 4 oz.
53F142. .... **2.50**

TAPE RECORDERS — HOW THEY WORK. 20445. By Westcott and Dubbe. Discusses every phase of operation. Covers tape overload, bias settings, freq. response. Illustrated. 224 pp. 5½x8½". Shpg. wt. 12 oz.
52F214. .... **4.50**

TAPE RECORDING FOR THE HOBBYIST. 20583. By Art Zuckerman. Covers a multitude of uses for tape recorders, including special sound effects, correspondence by recording, tape editing, producing your own program, and home video tape recording. 160 pages. 5½x8½". Shpg. wt. 7 oz.
52F750. .... **3.95**

FM MULTIPLEXING FOR STEREO. 20199. By L. Feldman. Latest data and developments in FM stereo. Discusses only the most modern of design and techniques. 176 pp. 5½x8½". Shpg. wt. 8 oz.
53F183. .... **3.95**

ELECTRIC GUITAR AMPLIFIER HANDBOOK. 20202. By Jack Darr. Explains musical amplification system functions and information on more than 20 commercial instruments. Written in clear, easy-to-understand language—ideal for anyone interested in electronic instrumentation. 144 pages. 5½x8½". Shpg. wt. 7 oz.
53F608. .... **3.50**

ELECTRONIC ORGANS. 20188. By H. E. Anderson. Authoritative and complete information on organs. For both servicemen as well as organ owners themselves. 272 pp. 5½x8½". Shpg. wt. 11 oz.
52F794. .... **5.75**

HOW TO BUILD SPEAKER ENCLOSURES. 20520. By Alexis Badmaieff and Don Davis. A comprehensive book with a wealth of practical and theoretical information on the construction of high-quality speaker enclosures. 144 pages. 5½x8½". Shpg. wt. 7 oz.
53F641. .... **3.50**

BASIC AND HOBBIST

ABC's OF ELECTRICAL SOLDERING. 20627. By Louis Dezettel. Covers the basic aspect of electrical soldering—what it is and how it is done. Also discusses the various types of soldering equipment. 128 pages. 5½x8½". Shpg. wt. 6 oz.
52F571. .... **2.95**

BASIC ELECTRICITY AND AN INTRODUCTION TO ELECTRONICS. 2nd EDITION. 20540. The Howard W. Sams Editorial Staff. Complete explanation of electricity and electronics includes a number of practical projects. Ideal for home study or classroom use. 192 pages. 8½ x 11". Shpg. wt. 1 lb.
53F478. .... **4.25**

ELECTRONICS EXPERIMENTS AND PROJECTS. 20194. By L. Buckwalter. Educational and original experiments. Projects include a weather station, an electronic computer. 128 pp. 5½x8½". Shpg. wt. 6 oz.
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52F731. .... 9.00

TRANSISTOR PHYSICS AND CIRCUITS. By R. L. Riddle and M. P. Ristenbatt. Operation and design of transistor circuits from familiar physical and electrical laws. 428 pages, 6x9". Illus.
52F719. .... 15.00

MATHEMATICS FOR ELECTRONICS. A SELF-INSTRUCTIONAL PROGRAMMED MANUAL. By Federal Electric Corp. Designed for people who plan to begin or broaden their career in electronics field. Enables you to teach yourself trigonometry, analytical geometry, and complex algebra. 598 pp. 6 x 9.
52F739. .... 11.95

SUCCESSFUL PREPARATION FOR F.C.C. RADIO OPERATOR LICENSE EXAMINATION. By D. L. Geiger. Discussions and answers to all questions commonly asked in F.C.C. commercial license examinations. 640 pp. 6x9".
52F723. NET 9.95

AMECO BOOKS

COMMERCIAL RADIO OPERATOR'S QUESTION AND ANSWER LICENSE GUIDE. NO. 8-01. Contains questions and answers for elements 1, 2 & 9 of the FCC exams. 48 pages.
53F202. .... .75

TV ANTENNAS. NO. 7-01. This describes the various types of television antennas and their uses, Written in the layman's language, includes information on how to install an antenna, 32 pages.
53F204. NET .... .50

COMMERCIAL RADIO OPERATOR'S QUESTION & ANSWER LICENSE GUIDE. NO. 9-01. Element 3. Q & A and test for element 3. 128 pages. 9½x6½".
53F206. NET 1.95

ADVANCED CLASS RADIO AMATEUR LICENSE GUIDE. NO. 16-01. Covers Element 4(A) of amateur radio operator's examination. The F.C.C. examination for Advanced Class is similar to the one in this book. 50 multiple choice questions.
53F065. .... .50

TRANSISTOR THEORY & CIRCUITS MADE SIMPLE. NO. 11-01. By Harvey Pollack. Explains theory of transistor action; how they operate in electronic circuits; types of transistors. Has many practical circuits. 128 pp. 9½x6½".
53F208. NET 1.75

RADIO AMATEUR QUESTION AND ANSWER LICENSE GUIDE. NO. 5-01. Contains FCC type multiple choice questions; and practice exams; questions grouped by subjects; for novice, technician and general classes. 32 pp. 6x9".
53F064. .... .50

COMMERCIAL RADIO OPERATOR'S QUESTION & ANSWER LICENSE GUIDE. NO. 10-01. Element 4. 80 pages. 9½x6½".
53F207. NET 1.25

EXTRA CLASS RADIO AMATEUR LICENSE GUIDE. NO. 17-01. Covers Element 4(B) of the amateur radio operator's examination. The F.C.C. examination for the Extra Class is similar to the one presented in this book. 30 multiple choice questions.
53F066. .... .75

RADIO ELECTRONICS MADE SIMPLE. NO. 3-01. Explains the subject of radio theory in a simple, non-technical manner. Starting with basic electricity and covering all phases up through transmitters and receivers, it is an ideal book for the beginner or the experimenter. 200 pp. 9½x6½".
53F200. .... 1.95

MASTERING THE MORSE CODE NO. 6-01. By Martin Schwartz. A complete and simplified book containing rules and requirements, the code, alphabet, how to send and receiving code, and more valuable information needed for mastery. 32pp. 9½x 6½".
53F201. .... .50

RADIO AMATEUR THEORY COURSE. NO. 102-01. A complete home study theory course in radio for the novice, technician, conditional and general classes of ham licenses. Includes over 400 FCC-type questions. Approx. 300 pp. 9x6".
27F537. NET 3.95

MONARCH Telephone Accessories


FIG. F


FIG. E


FIG. D

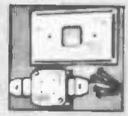


FIG. B


FIG. A

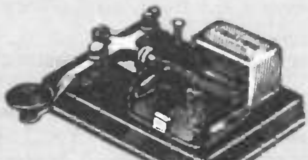


FIG. G


FIG. H


FIG. I

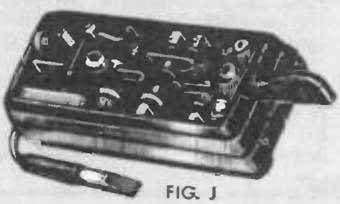


FIG. J

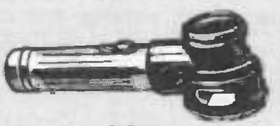


FIG. K


FIG. M

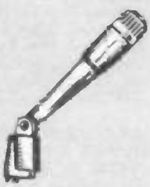


FIG. L


FIG. P


FIG. O

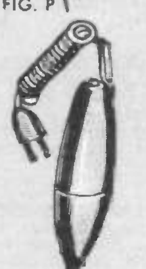


FIG. R


FIG. S

MODEL TEL-1

Fig. A. Ivory plastic phone plug with convenient gripping flanges and instructions.
46F048. NET .64

MODEL TEL-2

Fig. D. Surface mtg. phone jack of Ivory plastic. With mounting screws and instructions.
46F049. NET .72

MODEL TEL-3

Fig. B. Wall plate and jack of Ivory plastic for surface of built in installation. With mounting brackets, screws, and instructions.
46F050. NET 1.15

Model Tel-4

Fig. E. Heavy plastic covered, color coded cord with attached plug and matching jack.
46F051. NET 2.63

BALL BEARING SPEED KEY

Fig. F. Standard precision built telegraph key. Perfect for code practice and transmitting, has smooth action. Base is drilled for mounting screws. Semi-automatic keys may be plugged in. Wt., 12 oz.
46F021. NET. 2.48

"STUDENT" SPEED KEY

Perfect for code practice for beginner. Imported. Wt., 6 oz.
46F022. NET. .89

CODE PRACTICE KEY

Fig. G. Budget priced key for amateur and code practice groups. Adjustable to touch. Buzzer is locking type and adjustable for freq. Requires one 1½V standard battery. Takes headsets. Less battery. 6¾"x2¾"x1⅜". Shpg. wt., 1 lb.
46F019. NET. 2.10

HIGH FREQUENCY PRACTICE BUZZER

Fig. H. Can be used with any key as an accesory buzzer. Requires 1½V battery.
46F002. NET. .83

PROFESSIONAL SPEED MASTER KEY

Fig. I. Professional key, Semi-automatic, adjusts from 10WPM up. B tension and speed adjustments. Precision tooled with steel springs, cord, and tension wedge. 3½ lbs.
46F020. NET. **13.28**

GENERATOR NOISE FILTER

Fig. J. Model **GNF-1.** Reduces generator noise for better S/N ratio. Increases range of receiver. Frequency range: 3-30 MHz. High "Q" parallel circuit Must be shunted for 5-7 MHz or 3-5 MHz. Moisture sealed. Mounts on generator. Max. gen. current: 25 amp. Made in Japan. Shpg. wt., 12 oz.
46F082. NET. **1.58**

7X ILLUMINATED MAGNIFIER

Fig. K. Ideal for the technician serviceman, student, engineer and hobbyist. Fitted with two magnifying lens which look down into a calibrated measuring field. Heavy black plastic head with plated body which holds two standard "C" flashlight batteries. Supplied less batteries. Shpg. wt., 2 lb.
46F084. NET. 1.44

DYNAMIC MIKE

Fig. L. Type TM-18. Fine for voice or music. High impedance, 50,000 ohms. Low impedance, 600 ohms. Response from 40 to 15,000 Hz. Has its own on-off switch. Highly directional, minimizes the pick-up of unwanted sound from the side or rear, due to the fine pear-shaped pickup pattern. 20' cable.
46F089. NET **9.75**

Fig. M. Type MC1X. For CB owners and ham operators. Output is: —54 db. Designed for voice transmission. A push-to-talk switch in convenient position. Heavy die cast. Brushed chrome metal to resist corrosion. Supplied with mounting bracket and curly cord. High impedance ceramic mike.
46F085. NET **5.85**

PRECISION VERNIER DIALS

8:1 ratio vernier dials with bakelite base and nickel-silver dial plates with etched scales. Molded knob calibrated 0 to 100 in 180° rotation. For panel mtg.
46F070. 1½" Dia. **1.01**
46F071. 2" Dia. **NET.** 1.38

IMPORTED EARSETS, HEADPHONES

Fig. O. Magnetic type, plastic covered earhook. Long cord, standard RCA-type min. plug.
8 ohm impedance, ear hook type. 2 oz.
46F007. NET .60
15 ohm impedance, ear hook type. 2 oz.
46F008. NET .60
Crystal pillow receiver. Large xtal element for high input. Case 2¼x½".
46F005. NET. 1.33
Magnetic Pillow Speaker with cord, plug, and jack. Flat plastic with contact plate to conduct sound to inner ear by by-passing ear channel. Only user hears.
46F037. NET **2.33**

2000 OHM HEADSET

Fig. P. A lightweight headset, perfect for code practice sets, short wave listening, etc. Black plastic with white earcaps on spring band. Complete with long cord with standard phone tips. Shpg. wt., 10 oz.
46F004. NET. **1.88**

SUNBURST CRYSTAL LAPEL MIKE

Fig. Q. Complete with spring lapel clip on back and plastic covered coaxial cord. Gold and black case. Shpg. wt., 1 lb.
46F080. NET **.68**

DEMAGNETIZER

Fig. R. Remove accumulated tape head magnetization quickly and easily. For true hi-fidelity, tape heads must be demagnetized often. Will decrease second harmonic distortion and reduce noise level several db after each use. May be used on all tape heads, monaural, stereo or four track. Cord, plug, included. 1½" x 4½" x 1½". Wt., 1 lb.
46F001. NET. 2.63

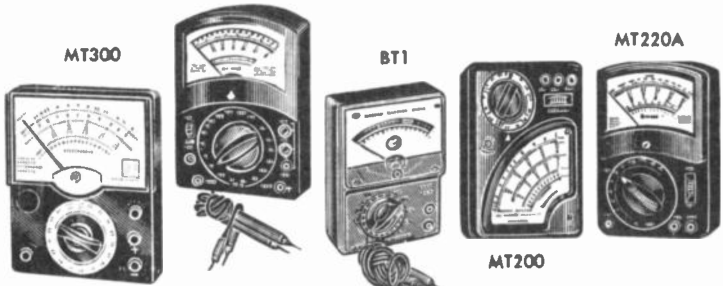
VARIABLE CONDENSERS

Fig. S. 365 mfd. 1 gang polyvarican condenser with 1¼" clear plastic dial. For RF transistor use. 1" x 1" x ½".
46F003. NET. .54
Miniature 2 gang variable condenser. Completely enclosed in polyethylene plastic. Max. Cap.: ANT 148.1 uuF, OSC 65.2 uuF. Trim Cap.: Effective variable cap. more than 6 uuF. ¾"x¾"x7/16". Shpg. wt., 3 oz.
46F069. NET. **1.20**

SET OF 2 TAPE REEL HOLDERS

Black rubber reel holder to fit standard hub. Fluted knob and grooved gripper. Large rubber flange.
46F040. NET **.50**

MT300 MT500 BT1 MT200 MT220A



MODEL MT-500 MULTITESTER

Contains a sensing device to prevent overloading! Ranges: 20,000 ohm/v DC, 10,000 ohm/v AC. DCV: 0-2.5-10-50-250-500-5000. ACV: 0-10-50-250-500-1000. DC current: 0-0.05-5-50-500 mA. Resistance: 0-12K-120K-1.2 Meg-12 Meg. 5"x6¼"x1". With battery, leads.

46F091. NET 19.80

MODEL MT-300 MULTITESTER

Compact, rugged. 30,000 ohm/v DC, 15,000 ohm/v AC. Ranges: DCV, 0-0.6-3-15-60-300-600-1200-3000. ACV, 0-6-30-120-600-1200. DC current: 0-0.03-6-60-600 mA. Resist: 0-10K-1M-10M-100M. Decibels: —20 to +46 db. Size: 5⅞x3⅞x1¾".

46F093. NET 16.80

POCKET BATTERY TESTER

Model BT-1. Tests these voltages: 1.5, 3, 4.5, 6, 7.5, 9, 15, 22.5, 45, 67.5, 90, 240. Int. loaded. 3⅝x5¼x1⅝".

46F094. NET 8.48

COMPACT PRECISION VOM'S

20,000 ohms DC, 10,000 ohms AC. 1% prec. resistors Dec.: —20 to +62 db.

Type MT-200. Ranges DC Volts, 0-5-25-50-250-500-2500 volts at 20K ohms/volts. AC Volts: 0-50-100-500-1000 volts at 10K ohms/volt. DC: 0-50 ua 0-2.5 ma. 0-250 ma. 3¼x4½x1".

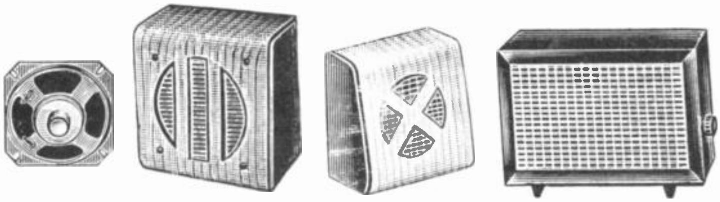
46F066. NET 8.93

46F067. Case for MT-200 above...... **1.73**

Type MT-220A. Single range selector dial. Ranges: DC Volts: 0-2.5-10-50-250-500-5000 volts at 20K ohms/volt. AC Volts: 0-10-50-250-500-1000 volts at 10K ohms/volt. DC 0-.05-5-50-500 ma. Resis.: 0-12K-120K-1.2 Meg. —12 Meg. 5½ x 3½ x 1½".

46F086. NET 13.13

46F087. Case for MT-200 above ... **1.92**



A B C D

POWERFUL 4" SPEAKER IN ATTRACTIVE 2-TONE WOOD BAFFLE

Fig. C. Ideal for intercom use. 2-tone wood cabinet with enclosed back, sloping front and flat base makes it practical for wall or desk mounting. The baffle contains a fine 4" speaker with a heavy ticonal magnet. Voice coil imp., 8 ohms. Wt., 3 lbs.

46F036. NET 2.99

4 INCH REPLACEMENT SPEAKER

Fig. A. Wide range circular speaker for replacement or extension applications. Flat response from 200-8,000 cycles. Voice coil impedance: 4 ohms. 1.35 oz. magnet.

46F095. Type SP-4. **NET .... .93**

4x6" PM SPEAKER IN FINISHED CABINET

Fig. D. Imported remote speaker unit consisting of a quality 4"x6" PM speaker in a piano finished cabinet; in rich walnut with an attractive contrasting grille cloth covering. Volume control. Size: 9½"x6½"x3½". Shpg. wt., 3 lbs.

46F038. NET 6.68

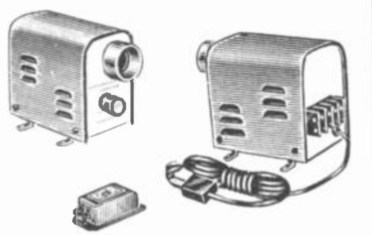
8" SPEAKER IN WOOD BAFFLE

Fig. B. Sturdy, powerful, wide range speaker in attractive walnut baffle. Ideal for all extension uses. 8" speaker has heavy magnet structure and will deliver smooth sound from 75 to 9000 cps. 8 ohms. Wt., 6 lbs.

46F043. NET 5.55

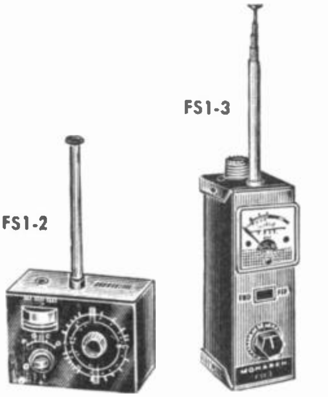
PHOTOELECTRIC-EYE UNITS WITH BUZZER

A compact electric eye for home, office, shop, factory or warehouse. It has a multitude of applications: announces entry or departure of unseen persons, protects remote areas from intrusion, guards against theft and pilferage. Can be used in counting and sorting operations, etc. Almost universal in possible uses around the home or office. Complete unit consists of transmitter, receiver, buzzer, 20 feet of 4-conductor cable, and a comprehensive instruction manual, as well as all mounting brackets. Shpg. wt., 4½ lbs.



46F045. DC-400. NET 29.95

FS1-3 FS1-2



FIELD-STRENGTH METER

- **No Antenna Connection Necessary**
- **Compact . . . Easy to Use**

Model FS1-2. For measuring signal strength of transmitter in the vicinity of antenna. Needs no antenna connection. Broad tuning covers 1.6 to 150 mc in four bands. Accuracy: 10% Size 2$\frac{5}{16}$x3$\frac{3}{16}$x1$\frac{9}{16}$". Complete with instructions.

46F072. NET 7.95

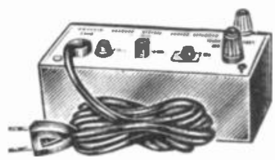
S.W.R. BRIDGE AND FIELD STRENGTH METER

- **Ideal for Fixed Station or Mobile Use**

Model FS1-3. An excellent combination unit for either home station or mobile use. 52 ohm impedance. Will take a full kilowatt. Remains in line. Grey metal case, 5¼"Hx1¼"Wx2¼"D with standard fittings, 1⅝" Bright-Vue meter. Complete with instructions and schematic.

46F088. NET 10.73

DC POWER SUPPLY



Switched Outputs

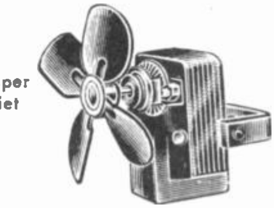
4.5V	6V
9V	12

Type MPS-6. Has isolated transformer with bridge rectifier, pilot light, filter and 5-way output binding post. Comes with a 6 ft. AC cord. Shpg. wt. ¾ lbs.

46F046. NET 7.95

VENTILATION FAN

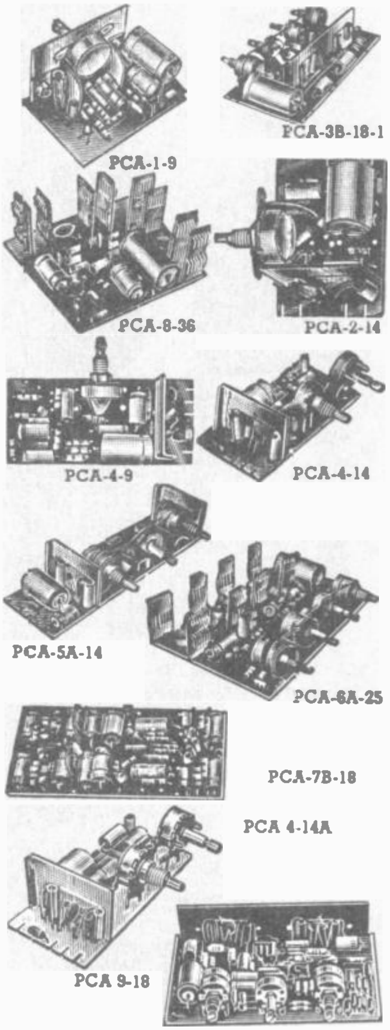
Whisper Quiet



Keeps your audio components-amplifiers, tuners, and Ham gear etc.—cooled off; thus extending their life and improving their performance. Has 3" blade, oilite bearings, universal mounting bracket, and cord. Uses very little current and runs very quietly. You'll find a multitude of uses for it around the home Weight, 1 pound.

46F047. VF-1. NET 3.23

Amperex Amplifiers



STEREO PREAMP

Model PCA-7B-18. Designed for use with 8 track stereo tape playback unit. Input sensitivity of 700 uv and adjustable output up to 1.5 v. An ideal link between tape head and low cost phono amplifiers listed on this page. Properly equalized for $3\frac{3}{4}$" speed. Supply voltage: 14-18 VDC. Input impedance: >20K ohms. Output impedance: <10K ohms. Size: $4\frac{7}{8}$" long x $2\frac{9}{16}$" wide.
Model PCA-7C-18. Same as above, but without the adjustable output stage. Has an output of 40 mv.

Stock No.	Type	1-9	10-99	100-499
59F1463	PCA-7B-18	12.00	9.40	7.90
59F1464	PCA-7C-18	9.50	7.25	6.20

LOW COST 1 WATT AMPLIFIER

Model PCA-2-14. Incorporates direct coupled circuit to provide exceptional frequency response: 80 Hz — 25 KHz @ —3 db. Temperature stabilized with thermistor. Low idle current and low temperature rise operation. Connections may be made to printed circuit board with solderless connectors. Supply voltage: 14 VDC. Load impedance: 12-16 ohms. Input impedance: 220K ohms min. Size: $1\frac{9}{16}$ x 2 x $2\frac{7}{8}$".

Stock No.	Type	1-9	10-99	100-499
59F1453	PCA-2-14	5.90	4.50	3.85

1 WATT HIGH GAIN AMPLIFIER

Model PCA-4-9. Three stage, 4 transistor unit—a high sensitivity version of PCA-1-9 at left. Can be used with simple AM tuner or ceramic cartridge. Supply voltage: 10 VDC. Load impedance: 8 ohms. Input impedance: 25K ohms avg. 20K ohms min. Frequency response: 50 Hz — 20 KHz @ —3db. $1\frac{1}{2}$ x $4\frac{1}{2}$ x 2".
Model PCA-4-9A. Same as above, but with tone control.

Stock No.	Type	1-9	10-99	100-499
59F1455	PCA-4-9	8.30	6.35	5.45
59F1456	PCA-4-9A	9.20	7.05	6.10

2 WATT HIGH GAIN AMPLIFIER

Model PCA-4-14. Three stage, 4 transistor amplifier—a high sensitivity version of the PCA-1-14 at left. Can be used with a simple AM tuner or ceramic cartridge. Supply voltage: 14 VDC. Load imp. 8-16 ohms. Input imp. 25K ohms avg. 20K ohms min. Ferq response: 40 Hz —18 KHz @ —3db. Size $1\frac{1}{2}$ x $4\frac{1}{2}$ x 2".
Model PCA-4-14A. Same as above, but with tone control.

Stock No.	Type	1-9	10-99	100-499
59F1457	PCA-4-14	8.30	6.35	5.45
59F1458	PCA-4-14A	9.20	7.05	6.10

2 WATT STEREO AMPLIFIER

Model PCA-5A-14. A stereo version of the PCA-1-14 at left. 2 watt output per channel when connected to a crystal cartridge. Volume, balance, tone controls. Supply voltage: 14 VDC. Load impedance: 8 ohms. Input impedance: 600K ohms avg. 300K ohms min. Freq. res.: 100 Hz —40 KHz @ —3 db. Size: $1\frac{5}{8}$ x $7\frac{1}{4}$ x 2".

Stock No.	Type	1-9	10-99	100-499
59F1459	PCA-5A-14	15.80	12.15	10.50

10 WATT STEREO AMPLIFIER

Model PCA-6A-25. 8 watts output per channel when driven by ceramic cartridge. Also used with a tuner input since sensitivity is 0.5 volt. Volume, balance, bass and treble controls. Separate preamp stage for each channel. Supply voltage: 25 VDC. Load impedance: 8 ohms. Input impedance: 500K ohms avg. Freq. res.: 30 Hz — 40 KHz @ —3db. $1\frac{5}{8}$ x $7\frac{5}{8}$ x $4\frac{3}{4}$".
Model PCA-6A-25SCS. Same as above, but with separate preamp strip to allow mounting in compact phonographs.

Stock No.	Type	1-9	10-99	100-499
59F1460	PCA-6A-25	30.10	23.05	19.07
59F1461	PCA-6A-25SCS	31.80	24.20	20.75

½ WATT COMPLEMENTARY AMPLIFIER

Model PCA-2-9. Similar to PCA-2-14 at right except for the minor changes necessary for 9 volt voltage supply.

Stock No.	Type	1-9	10-99	100-499
59F1452	PCA-2-9	5.90	4.50	3.85

1-WATT COMPLEMENTARY AMPLIFIER

Model PCA-1-9. Provides 1 watt output when connected to a crystal cartridge. Use 3 stage direct coupled circuit with a complementary output. Highly stable for interchangeability and uses negative feedback. Very low idle current allows long battery life. Supply voltage. 9 VDC Load impedance: 8-16 ohms. Input impedance: 600K ohms avg.; 220K ohms min. Frequency response: 100 Hz — 50 KHz @ —3db. Size: $1\frac{9}{16}$ x $3\frac{3}{16}$ x 2".

Stock No.	Type	1-9	10-99	100-499
59F1450	PCA-1-9	7.20	5.50	4.65

2-WATT COMPLEMENTARY AMPLIFIER

Model PCA-1-14. Provides 2 watts output when driven by crystal cartridge. Uses 3 stage direct coupled circuit with a complementary output. Low idle current allows low temperature operation and low heat output. Supply voltage: 14 VDC. Load impedance: 8-16 ohms. Input impedance 600K ohms avg.; 220K ohms min. Frequency response: 100 Hz — 40 KHz @ —3db. Size: $1\frac{9}{16}$ x $3\frac{3}{16}$ x 2".

Stock No.	Type	1-9	10-99	100-499
59F1451	PCA-1-14	7.00	5.35	4.55

4 WATT COMPLEMENTARY AMPLIFIER

Model PCA-3B-18-1. Provides 4 watts output per channel when driven by a crystal cartridge. Unit has dual volume, bass and treble controls, plus balance control Circuit is highly stablizied DC coupled 3 stage, complementary amplifier with neg. feedback. Temperature stabilized by thermistor and uses special low noise silicon input transistor. Circuit built on $7\frac{1}{2}$ x $3\frac{1}{2}$" printed circuit board; contains all power supply components except power supply transformer. Supply voltage: 18 VDC. Load impedance: 8 ohms. Input impedance: 1 megohm avg.; 300K ohms min. Frequency response: 45 Hz — 20 KHz @ —3 db. $1\frac{1}{2}$ x $7\frac{1}{2}$ x $3\frac{1}{2}$".

Stock No.	Type	1-9	10-99	100-499
59F1454	PCA-3B-18-1	19.20	14.70	12.90

20 WATT COMPLEMENTARY AMPLIFIER

Model PCA-8-36. Provides full output with ½ volt input at high input impedance to make it compatible with a transistor type preamp. DC coupled circuit. Complete 20 watt amplifier except for power transformer. 5" x $4\frac{1}{2}$" printed circuit board. Supply voltage: 36 V. Input impedance: 1 megohm avg. Frequency response: 20 Hz to 40 KHz @ —3db. $2\frac{3}{8}$ x $5\frac{3}{8}$ x $4\frac{1}{2}$".

Stock No.	Type	1-9	10-99	100-499
59F1465	PCA-8-36	18.85	14.40	12.50

4-TRANSISTOR UTILITY AMP

Model PCA-4-18A. Three stage four transistor amplifier provides a 3-watt output. High sensitivity permits use with a simple AM tuner, magnetic guitar pick-up or high impedance dynamic mike. Circuit is temperature compensated and contains power supply components for AC operation. 1% distortion at normal level (less power supply transformer.)

Stock No.	Type	1-9	10-99	100-499
59F1466	PCA-4-18A	9.52	7.30	6.25

TAPE PLAY BACK AMPLIFIER

Model PCA-9-18. 10 transistor amplifier provides 3.0 watts output per channel when driven by a tape playback head. Pre-amp is properly equalized for $3\frac{3}{4}$ ips tape speed. 3 controls are volume, balance, and tone. Low noise transistors assure wide band frequency response.

Stock No.	Type	1-9	10-99	100-499
59F1467	PCA-9-18	25.30	19.30	16.60

TRANSFORMERS FOR AMPLIFIERS LISTED ABOVE

Stk. No.	Model	Type	1-9	10-24	25-49	50-99
5F2140	PCA-1-9, PCA-2-9 PCA-4-9, PCA-4-9A	21F21	2.40	2.16	2.04	1.92
5F2049	PCA-1-14, PCA-2-14 PCA-4-14, PCA-4-14A	23V116	4.80	4.32	4.08	3.84
5F2158	PCA-4-18A	26F67	3.90	3.51	3.31	3.12
5F2050	PCA-5A-14	23V117	6.00	5.40	5.10	4.80
5F2167	PCA-3B-18-1 PCA-9-18	21F82	5.40	4.86	4.59	4.32
5F2051	PCA-6A-25 PCA-6A-25SCS	23V118	9.90	8.91	8.42	7.92
5F2168	PCA-8-36	21F83	5.40	4.86	4.59	4.32

Perma-Power

LIGHT COMMERCIAL AND RESIDENTIAL GARAGE DOOR OPENERS

Garage door openers with solid-state electronic circuitry for extreme reliability. 1/3 hp., 117V capacitor-start type motor. Radio signal opens door, turns lights on, closes and locks door and turns lights off. Easily handles any track guided, single or double door up to 20 x 8 feet weighing up to 200 lbs. Only 2" of head room needed for unit. Pulse tone modulation coding system gives complete signal privacy and freedom from any interference. Special safety features include automatic door stop and a sensitive safety clutch which permits just enough force to make travel smooth yet halts door's travel when something jams its operation. Permanently lubricated. Works on any standard electrical outlet. Portable car transmitter opens door from 100 feet, requires no installation. Wall-mounted push button operates door from inside garage. Key operated switch is also available for outside locations. Case 2¾" x 3¾" x 1". Complete with 9 volt transistor battery for transmitter.

Model G-6101. Has Velvet-Glide electronic clutch system. Automatic garage light control, turns light on as door opens. Stop control and pulse tone modulation. U.L. approved.
92F085. NET **149.50**

Model G-5104. Heavy-duty gears for use with commercial track guided garage doors. Does not include radio control. Operates from wall push button. Specify door height, up to 12 feet, when ordering.
92F071. NET **169.95**

Model G-6121. Liftmaster "600" an economy model designed to take loads up to 175 pounds. Shpg. wt. 50 lbs. Includes radio controls.
92F070. NET **119.50**

Model G1011. Key switch. Operates system manually. Shpg. wt., ¼ lb.
92F087. NET **4.20**

Model G470. Remote radio control system for use with existing electrically opened garage doors which are not radio controlled, and other radio control applications. Consists of G270 receiver and G370 transmitter. Wt., 7 lbs.
92F091. NET **56.00**

Model 374. Additional portable transistorized transmitter for second car. Wt. 1 lb. Specify desired code if ordering separately.

92F086. NET **19.50**

RADIO REMOTE PORTABLE CONTROL SYSTEM

Model RT400. Designed for maximum flexibility for short range remote control applications. Consists of portable pocket sized transmitter with self-contained battery, antenna and receiver with load switching relays. Operates over distances of up to 500 feet outdoors in unobstructed areas. Indoors operating distance is 50 to several hundred feet depending upon presence of metal in building structure. Receiver has range adjustment control to limit range when desirable. Receiver designed to operate from 115 VAC, either permanently connected or plugged in. It is mounted in a metal enclosure with flanges for wall mounting. Shpg. wt., 10 lbs.
92F092. NET **125.00**

FULLY TRANSISTORIZED RADIO CONTROLLED SWITCH SYSTEMS

Designed to fulfill the requirements of a highly reliable, low cost radio remote control. Eliminates the use of wires, phone lines or cables. A complete system includes transmitter, receiver, antenna and mtg. hdw. It may be used to control entrance gates, lighting, signalling, warnings, burglar alarms, machinery, signs, etc.

STANDARD SERIES

Lowest cost, highly reliable control systems for non-commercial and residential door control, gate operators, lighting controls, etc. Up to 200 ft. operation.

TYPE S RECEIVERS

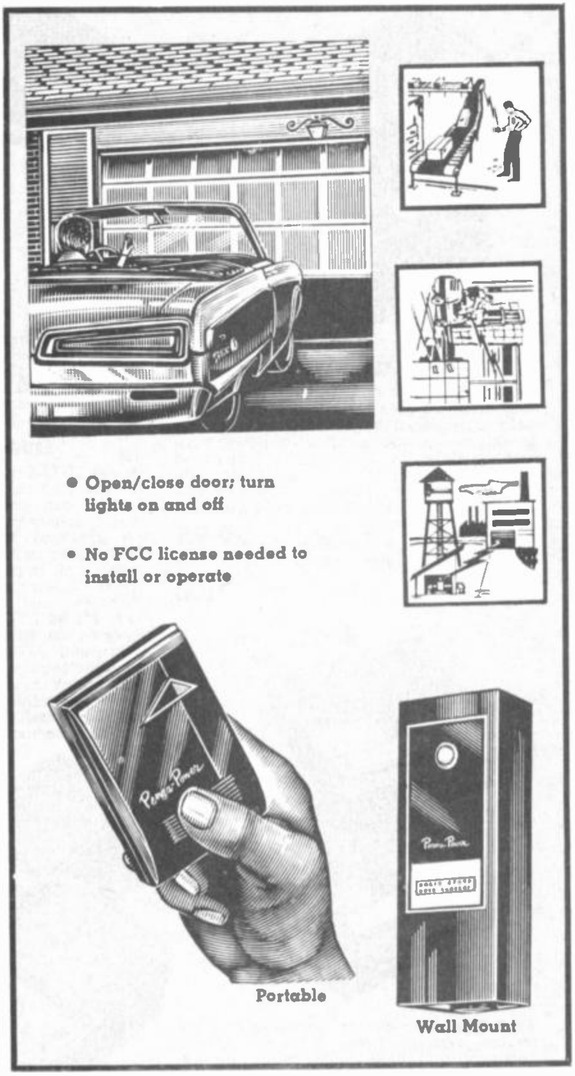
Single conversion, superheterodyne circuit. Crystal controlled. Complete with 8 ft. wire antenna and leads for input and output connections. Metal dust cover case. Sensitivity: 50 uv. Selectivity: 17 kc at 3 db; 50 kc at 60 db. Image 10 transistors + 1 diode. Relay Contacts: Rated at .6 amp., 24 VAC, normally open. Size: 9x8x3½". For 117 VAC (3.5 watts). Shpg. wt., 6 lbs.
92F683. Model G270. NET **40.00**

PORTABLE TRANSMITTER

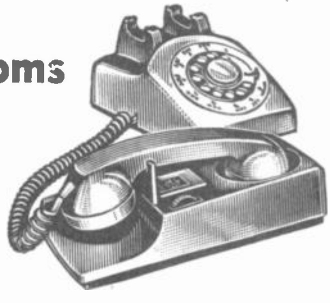
Model R3620. Two channel transmitter completely self-contained in black leather case. High reliability dust-proof snap switches. 6" x 2¾" x 1⅜". Operates on one 9-volt battery. Five transistors, four diodes. Shipping weight 1 pound.
92F072. NET **90.00**

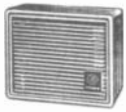
MOBILE TRANSMITTER

Model R3630. Three channel transmitter. Same as R3620 except has six transistors and six diodes. 1 pound.
92F073. NET **120.00**



FANON Intercoms





WIRELESS INTERCOM

Model 1642. Two-station, 2-channel wireless intercom uses 117VAC line as hookup; only a standard household power socket is required to operate. Built-in power supply; no batteries. Each master has on-off volume control, talk-listen switch (may be locked in "talk" position). Smartly finished in beige with chrome trim. 4⅜x5⅛x1½". Wt., 3½ lbs.
95F615. NET **29.95**

Model 1643. Single add-on station for above.
95F616. NET 15.95

TRANSISTORIZED TELEPHONE AMPLIFIER

Model FTA-4. Permits use of telephone with hands free to type, check orders, take notes, etc. Ideal for home, office, shop, or any place where it is often necessary to walk away from phone. Powerful four-transistor amplifier operates from standard 9V battery for 500 hours or more. Easy to use: when phone rings, place its handset in cradle of FTA-4; unit switches on automatically. No installation or hookup necessary. 2" speaker in 3½x3¾x2" baffle; main unit is 10½x4½x3¼". Shpg. wt., 4 lbs.
95F621. NET **14.95**

SEVEN- AND THIRTEEN-STATION TRANSISTORIZED INTERCOMS

Model FI-7. Seven-station intercom master for use in 7-unit all-master system (each station can call any other station) or master-to-6-remotes system. One of the six positions may be used to page a noisy area using PR-15 paging relay (at right) and a paging amplifier. For quiet areas, intercom power output will be sufficient and an ordinary remote unit (see Model FIR) may be used. All-master systems can carry three simultaneous conversations. All-master or master to remote systems requires one conductor plus one additional conductor per unit; units supplied less cable. Controls: on-off/volume, talk/listen switch with talk-lock position, station selector buttons. 9½x4x2½". Wt., 4 lbs.
95F624. Single Master Unit. **NET 30.95**

Model FI-13. Master unit identical to FI-7 above, except for use in system of 13 masters or master-to-12-remotes (using FIR remotes, below). Up to six simultaneous conversations on an all-master system. 2 paging posions using PR-15. Operates from 115 VAC.
95F625. Single Master Unit. **NET 42.95**

Type FIR. Remote unit for use with FI-7, FI-13 above. Same styling. Has privacy switch to cut out other stations, talk/listen switch. Wt., 3 lbs.
95F626. Remote Unit. **NET** **9.95**

Type PR-15. Paging relay. Wt., 4 lbs.
95F627. NET 19.95

Type 1600. Two station ultra-sensitive intercom system. Three transistor circuit and push-pull amplifier for quality sound. Comes in high impact styrene cabinets. Built-in 117 VAC power supply. Talk-Listen switch with talk-lock position for hands-free operation. Beeptone signalling circuit works even if the system is off. Color: Beige. Size: 4⅜"x5⅛"x1½". With 50 ft. of cable. Wt., 2½ lbs.
95F617. NET **19.95**

Type 1605. Single five-station master of same design and circuitry as type 1600 above. Use with up to four type 161 and 162 remote units. Each remote may be spoken to individually. Uses 2-cond. cable, not supplied. See bottom of Column 3.
95F618. NET **15.95**

Type 161. Outdoor remote for above.
95F619. NET 5.25

Type 162. Indoor remote for above.
95F620. NET 5.25

TWO-CHANNEL WIRELESS TWO-STATION INTERCOM

Model FIW-2. Wireless intercom system may be expanded with up to two additional single-station units (Model FIW-1, below). Two communication channels are provided so system can carry two simultaneous conversations. No installation or hookup is required: simply plug stations into 115 VAC outlets on the same power line. Channel A is on 225 kc and channel B is on 160 kc (will not interfere with AM radio reception); exclusive lock-out filters prevent inter-channel crosstalk. Each unit has on-off/volume control, talk/listen switch (may be locked in "talk" position), and channel selector buttons. Handsome long-line styling for desk or wall use mounting; two-tone beige finish. 9½x4x2½". 7 lbs.
95F622. NET **59.95**

Model FIW-1. Additional single station to add to above system. Wt., 4 lbs.
95F623. NET **30.75**

TWO-STATION DELUXE INTERCOM SYSTEM

Model FIC-3. Two-station system consists of one master and one indoor remote. One additional remote can be used if desired (Model FIC-below). Master has on-off/volume control, standby and talk/listen switches, and station selector buttons. Remote has privacy switch (cuts out other stations) and call button. Operates from 117VAC. UL approved. Durable plastic construction, gray with charcoal buttons and base. Requires 3-cond. cable. Employs 13-ohm, 3½" speaker. Size 9½x4x2½". Wt., 6 lbs.
95F628. NET **35.50**

Model FIC. Additional remote unit for above system. Wt., 3 lbs.
95F629. NET **10.75**

2WP. 50' 2-cond. cable—plug terminations, for models 1600 and 1605.
95F630. NET **2.00**

2WP-100. 100' 2 cond. cable—plug terminations, for models 1600 and 1605.
95F631. NET **3.40**

FANON

"ECHO" SOLID STATE 2-STATION INTERCOM SYSTEMS

- **Simple, Quick Installation**
- **Unique Beep-Tone Call Signal**
- **No Warm-up Time Needed**

"Echo" is operated by ultra sensitive, three transistor units with a high gain, push-pull amplifier circuit. Fine voice clarity through 2½" speakers. Can signal one another even when off. Has press-to-talk button and on-off volume control. Beep circuitry conserves power and prolongs life of components. 50 ft. cable with plug-in connectors included. Shpg. Wt. 1¼ lbs.
Model EC-3A has built-in AC power supply
Model EC-2A is battery operated. Operates on standard 9 volt battery (not included).

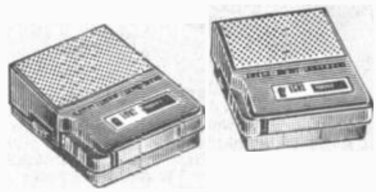
95F605. Model EC-3A. **NET** **11.95**
95F606. Model EC-2A. **NET** 9.95
49F188. 9 volt battery for EC-2A. .... .48

EC-2A


● NEW MODEL EW-3A WIRELESS INERCOM

- **Portable—move room-to-room or between houses**
- **No installation needed—just plug in and talk**

Model EW-3A. 2-Station Wireless System "Echo Wireless," sensitive three transistors, push-pull amplifier. Hum and noise are minimized with special built-in squelch circuits. Units are 3"x4"x2" and housed in attractive brown high impact styrene cabinets. Each has a press-to-talk button with slide lock for continuous talking, "on-off" volume control and pilot light. Completely portable, plug in to standard AC outlets (on same power line). Shpg. wt. 1¼ lbs.
95F607. NET **19.95**

EW-3A


● NEW MODEL MV-3

Hi output—250 yard range—Electric Megaphone powerful enough for all indoor and outdoor applications. Features pistol grip, high/low volume control switch, and unique damping element which eliminates howl. A 5" reflex aid column and a full 8¾" bell for wide area coverage. Constructed of lightweight aluminum with a baked enamel finish. Comes with neck strap. Runs on four standard "D" cell flashlight batteries. Batteries not included. Shpg. Wt. 6 lbs. Size 13¼" long.
97F608. NET **29.95**

Powered by four "D" standard size flashlight cells.
49F380. Eveready 950 Carbon Type ..... .18 **49F378.** Eveready E95 Alkaline ..... .49


MV-1

● NEW MV-8S TRANSISTORIZED MEGAPHONE

- **Built-in Siren Signal**
- **10 watts—600 yard range**

Model MV-8S. Fully portable and light weight megaphone. Made of light weight aluminum with a baked enamel finish. This dynamic microphone is completely waterproof, and has a carrying strap, pistol-grip trigger switch and volume control. Dimensions: 7"x14". Shpg. Wt. 5 lbs.
95F609. NET **59.95**

Powered by six standard "C" cells. Power output (rated): 8 watts. Peak power output 10 watts.
49F381. Eveready 935 Carbon ..... .16 **49F374.** Eveready E93 Alkaline ..... .39


MV-8S

FEDERAL SIGN & SIGNAL CORP.

MODEL A-12S HOLMIN TRANSISTORIZED VOICE GUN

A self-contained public address system consisting of microphone, transistor amplifier, speaker and power supply in one unit. It's sharp, clear voice cuts through din and confusion without wait for "warm-up" acting the moment you push the button in the pistol grip. The Voice Gun uses transistors for longer life and efficiency. It has a waterproofed magnetic microphone and thermistor for temperature compensation. Amplifier circuit is printed on miniature chassis. Uses ordinary pen-light batteries. Dimensions: Diameter of bell—7¼"; length—9½"; overall height—10½". 2 stage push-pull class B printed circuit amplifier. 3 transistors, 1 driver. 2 output. Industrial "paging type" speaker with an 8 ohm impedance. Molded Cycolac battery clip with silver plated contacts. Dual spring, "push-to-talk" type switch for ease of use and positive action. Complete with batteries and carrying strap. Net wt. 3¼ lbs. Shpg. wt. 5¼ lbs.

88F205. NET **89.96**


A-12S

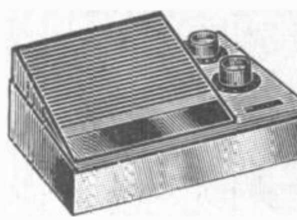
BOGEN INTERCOMS

Series "T" Intercoms offer unlimited flexibility in compact, powerful and virtually maintenance-free equipment. 6 or 12 station systems are available with fully transistorized circuitry. Can select (1) all master systems using all TIA-6 or TIA-12; (2) single master to remote (TIA-6 or TIA-12) and RIA-1 remotes; (3) or a "single master-multiple remote" system. Bogen's Series "T" Intercoms designed for installation so remote can have either private operation (for inter-office situations) or non-private operation (for stockroom or other areas where a remote must reply without operating any controls). Unique low-profile styling, economical, and time tested circuitry.

TIA-6 Master Station. For system up to 6 stations. Volume control, talk-listen bar and 7-positions. Operates from 117 volts AC; 7 watt power consumption, 8 ohm speaker impedence. Fully transistorized. Multiple simultaneous conversations possible; Private or non private remotes to call one or six masters. High-impact grey styrene cabinet with brushed aluminum control panel; Master can page through existing P.A. system. Size 7¾" w. x 4" h. x 7" d. Shpg. wt. 4 lbs.
96F788. NET **39.15**

TIA-12 MASTER STATIONS. For intermix systems combining up to 12 masters and remotes in any combination. Volume control, talk-listen bar. 12-position selection switch including "mute" position. Operates 117 volts AC; 7 watt power consumption. 8 ohm speaker impedence. Size 7¾ w. x 4" h. x 7" d. Shpg. wt. 4 lbs.
96F789. NET **43.70**

Model RIA-1. REMOTE STATION: Can initiate calls to one master and relply when called. Dimensions: Same as TIA masters. Shipping wt. 3 lbs.
96F785. NET **11.95**


TIA-6

TALK-A-PHONE Intercommunications Systems

K-C-42
K-C-42M

K-C-41
K-C-41M

Master Station

"CHIEF" REDI-POWER MASTER STATIONS

"Chief" Redi-Power Master Stations have built-in extra power. This added power (up to 30 watts), gives you the additional volume required when calling a number of stations at one time or calling noisy locations. Satisfies need for power boost without eliminating return speech. Volume is self-compensating whether 2, 6 or 12 stations are called simultaneously. Each station receives its pre-determined volume with no division of output when more stations are called at one time. One or more Redi-Power Masters can be combined with regular Chief Masters and staff stations in same system. Other features include: (1) Incoming call chime. (2) Monitoring signal. (3) Dynasonic selector that permits intermixing of Master and Staff Stations and variation of performance. (4) Volume Control. (5) Noise-free voice range power. (6) Multi-magic station selector which enables selection of up to 30 stations with only 12 push buttons. (7) Uni-trans dictation control. (8) Operation on 120V. AC. (9) External relay control for use in extremely high noise level areas. (10) In modern, custom-designed cabinets. Charcoal gray and brushed chrome. Size: 13x8¾x3⅛".

Model K-CRP-5912. Master for 12 stations. Wt., 18 lbs.
95F432. NET PER STATION **166.00**

ALL TRANSISTOR INTERCOMS

"CHIEF" MASTER STATIONS

Can be used in any combination—with all Masters—one Master and Staff Stations—or a number of Masters combined with Staff Stations. 6, 12, and 20 Station Masters, together with Staff Stations can be intermixed in same system. Masters can talk with any other Master, as well as with Staffs. Staff Stations can answer all Masters and can orginate calls to one or two "private" Masters, depending upon Staff's capacity. Staff Stations are not connected to electrical outlet.

Exclusive Features: (1) Dynasonic Design enables stations to perform "privately" (so no one can listen in) or "non privately" (for reply without use of controls). The same station can be "private" to one or more Masters and "non private" to others. (2) Monitoring signal visually indicates to a "non private" station that it is being monitored. (3) Busy signal visibly indicates when station you call is "busy". All units have facility to override "busy signal" for important calls. (4) Multi-magic station selector enables selection of up to 30 stations with only 12 push buttons. (5) Uni-trans dictation control. (6) External relay control enables Master to activate external relays for operating siren, gong, light, etc. (7) Reciprocal Power supply—Each Master operating on 100-120 volts AC only and should be plugged in Where no electrical outlet is available up to 30% of the "Chief" Masters in the system can operate without being plugged in. (8) Noise free voice range power. The exclusive patented circuit enables performance without noise, hum or distortion, when used with talk-a-phone cable. (9) Hi power staff stations and horns. K-HP-3 provides more than twice the volume of universal Staff. K-C-20 provides about 4 times greater volume . . . more with Redi Power Master. (10) Wall switch combines with Talk-a-phone Horn or Hi Power staff to add origination of call feature. (11) Incoming call chime. All "Chief" and "Chief Redi-Power" Master Stations come complete with junction box and built in power supply attached by 6' flexible cable. Master size: 14" width, 3⅛" height, 8¾" depth. For 120 volts AC only. U.L. listed.

Model K-C-4906. Master for 6 Stations. Shpg. wt., 13 lbs.
95F425. NET PER STATION **98.00**

Model K-C-4912. Master for 12 Stations. Shpg. wt., 14 lbs.
95F426. NET PER STATION **110.50**

Model K-C-4920. Master for 20 Stations. Shpg. wt., 17 lbs.
95F427. NET PER STATION **131.00**

CHIEF STAFF STATIONS ACCESSORIES

For use with any "Chief" Master. Staff Stations may be connected "privately" or "non-privately". Connected "non-privately", Master can be answered at a distance from the Staff without operation of any controls. "Non-private" Staff may reply to all Masters in the system (whether connected directly to them or not) and can originate calls to one or two, depending upon its capacity. Connected "privately" no one can "listen-in", but any Master can call. Private Staff can originate calls and reply to 1 or 2 Masters depending on its capacity. Staff Stations do not need electrical outlets.

Model K-C-41. Staff Originates calls to 1 Master. Gray leatherette and brushed chrome. Size: 7½x8¾x3⅛". 8 lbs.
95F428. NET PER STATION **26.00**

Model K-C-41-M. Same as K-C-41 but with painted finish. 8 lbs.
95F429. NET PER STATION **21.10**

K-C-41R. Same as K-C-41, but for flush wall mounting. Stainless steel front panel 4 lbs.
95F433. NET PER STATION **21.10**

CABLE FOR CHIEF SERIES

36F447. Type 6206. 3-pair cable for connecting K-C-20, K-C-41, K-C-42, and K-HP-3 with call origination. **NET per foot** .... **.11**

36F437. Type 6214. 7-pair cable for interconnecting K-C-4906 Masters. **NET per foot** .... **.23**

36F439. Type 6226. 13-pair cable for interconnecting K-C-4912, K-C-4920, and K-CRP-5912 Masters. **NET per foot** .... **.44**

36F446. Type 6902. Cable 2 cond. for connecting K-C-20, and K-HP-3 without origination of call. **NET per foot** .... **.028**

Model K-C-42. Staff originates calls to 2 Masters. Gray leatherette and brushed chrome. 7½x8¾x3⅛". 8 lbs.
95F430. NET PER STATION **32.20**

Model K-C-42-M. Same as K-C-42 but with painted finish. 8 lbs.
95F431. NET PER STATION **27.50**

Model K-C-42R. Same as K-C-42 but for flush wall mtg.
95F445. NET PER STATION **27.50**

Model K-HP-3. Hi-Power Staff Station for wall mounting. Charcoal gray metal case. Size: 12x8x12". 5 watt capacity. Shpg. wt 8 lbs
95F415. NET PER STATION **19.95**

Model K-HP-3V. As above, but with built-in volume control, adjustable to full output.
95F444. NET PER STATION **24.95**

Model K-C-20. Nine-inch Weatherproof Re-Entrant Horn. 15 watt capacity. With mounting bracket. Charcoal gray. Size: 12x8x12" Shpg. wt. 5 lbs
95F416. NET PER STATION **29.95**

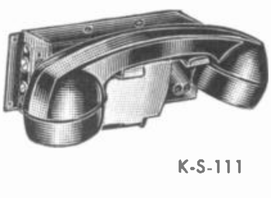
Model K-C-20V. As above, but with built-in weather resistant volume control, adjustable to full output.
95F446. NET PER STATION **39.95**

Model K-S-101. Wall Switch for originating calls to one Master through K-C-20, or K-HP-3 in Chief Systems. Gray. Wt., 1 lb.
95F434. NET **8.80**

K-S-102. Same as K-S-101, but for call origination to 2 Masters.
95F435. NET **14.40**

K-S-111. Wall Mounted Cradle Phone. For use with K-HP-3(V) or K-C-20(V).
95F447. NET **44.00**

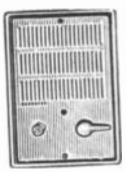
Model K-W-1. Wall mounting brackets for K-C-41, K-C-41M, K-C-42, and K-C-42M.
95F436. NET per pair .... **.60**



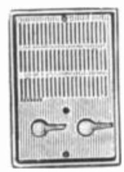
K-S-111

HOW TO DETERMINE CABLE REQUIREMENTS

To inter-connect Master Stations, measure from first Master to second Master only, from 2nd to 3rd Master only, etc., until last unit in system is reached and total. For K-C-4920 use two lengths to 6226 Cable. To connect K-C-41, K-C-20, or K-HP-3 Staff Stations, measure from Staff Station to one Master to which Staff Station originates calls. To connect K-C-42 Staff Stations measure separate length of cable from Staff Station to each Master Station to which staff originates calls.



K-C-41R



K-C-42R

TALK-A-PHONE

Deluxe Intercom Systems

SUPER-SELECTIVE ALL MASTER SYSTEMS

Versatile intercom system consisting entirely of Masters. Permits several separate conversations to be carried on without interfering with each other. Provides absolute privacy. Stations may be located even 1000 feet apart. Operates on 110-120 volts, AC-DC. Complete with instructions. Transistorized. Charcoal gray and brushed chrome. Cabinet size, 10½"x8¾"x3⅛". Shpg. wt., 8 lbs.

95F406. Model K-LS-5. For 5 stations. NET **43.30**
95F407. Model K-LS-10. For 10 stations. NET **53.50**

HI-VOLUME MASTERS

Operate the same as the above masters with the added feature of 10 times volume output. For 120 volts, AC only. Masters K-AC-510 and K-AC-505 may not be intermixed with any other Master.

95F437. Model K-AC-505. Hi-Volume, 5 station. **NET** **53.50**
95F438. Model K-AC-510. Hi-Volume, 10 stations. **NET** **64.50**
36F441. 5506 (6-conductor) cable. For interconnecting K-LS-5 or K-AC-505. **NET** per foot .... **.11**
36F442. 9911 (11-conductor) cable. For interconnecting K-LS-10 or K-AC-510. **NET** per foot .... **.21**

COMBINATION SYSTEMS

For the more flexible type of system requiring the operation of more than one Master, along with Sub-Stations which need not originate calls. Masters may talk to each other and to each Sub in the system selectively; or, one or more Subs can be exclusive to only one Master. Masters can switch themselves "private", so that other Masters cannot listen in to them, or "non-private" at will. Model K-CL-5 has 5 station cap. Model K-CL-10 has 10 station cap. Masters in charcoal gray and brushed chrome cabinets. 10½"x8¾"x3⅛", Sub-Stations; 7½"x8¾"x2⅞". With instructions. Transistorized. Masters operate on 110-120 volts AC-DC. Electric curr. not needed for Sub-Stations. Shpg. wt. 8 lbs.

95F408. K-CL-5. Master for 5 stations. **NET** **52.00**
95F409. K-CL-10. Master for 10 stations. **NET** **62.50**
95F410. K-LR-2. Sub-Station (in same deluxe finish as Masters) for use with either of above Masters. Shpg. wt. 6 lbs. **NET** **19.40**
95F411. K-LR-2M. Sub-Station (as above, but in grained, baked enamel finish) for use with either Master. Wt. 6 lbs. **NET** **14.95**
95F442. K-LR-2R. Sub-station for flush, wall mounting **14.95**
95F443. K-SM. Surface mtg. accessory for K-LR-2R **4.45**

HI-VOLUME MASTERS

Operate the same as the above masters with the added feature of 10 times volume output. For 110-120 volts, AC only. Masters K-AC-610 and K-AC-605 may not be intermixed with any other Master.

95F439. Model K-AC-605. Hi-Volume, 5 stations. **NET** **62.50**
95F440. Model K-AC-610. Hi-Volume, 10 stations. **NET.** **72.00**
36F438. 6210. 5 pair cable for interconnecting K-CL-5 or K-AC-605 **NET per foot** .... **.20**
36F439. 6226. 13 pair cable for interconnecting K-CL-10 or K-AC-610. **NET per foot** .... **.44**
36F446. 6902. 2 conductor cable for connecting Sub-Station to nearest master. **NET per foot** .... **.028**

WIRELESS 6 AND 12-STATION SELECTIVE SYSTEM

Incorporates the exclusive "Sonic Gate" together with the "Squelch" circuit to effectively suppress line noises and hum. Simple to install. Requires no wiring, no cable. Use where any 110V AC or DC electrical outlets are available. Each Master Station equipped with a Six or 12-channel Selector. Any Master can transmit on any of its channels, and receive calls on the channel it elects to use. Each Master with tubes and instructions. Size 14x8¾x3⅛". Wt. 12½ lbs.

95F418. T-LCM-8906. 6 Channel Master **98.00**
95F441. T-LCM-8912. 12 Channel Master **110.50**

Where some Wireless locations need not originate calls but must reply when called. Staff Stations are available. Size: 10½x8¾x3⅛". Shipping weight, 6 lbs.

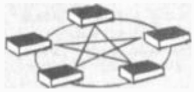
95F419. T-LCS-901. For Channel 1 only. **NET** **56.40**

Note: Staff stations for channels 2 to 6 available on special order.

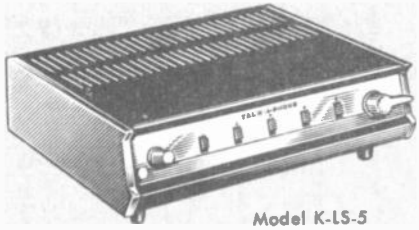
2-STATION WIRELESS SYSTEM

A quality intercom system for Office, Factory, and Farm. No installation. Plug into 110V AC or DC electrical outlet. Uni-Trans gives you dictation and supervisory control. Provides continuous transmission when set for Uni-Trans. Cabinets are charcoal gray and brushed chrome. 10½x8¾x3⅛". Two Master stations. With tubes and instructions. 16 lbs.

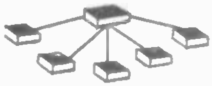
95F413. Model T-LC-33. Two station system. **NET** **98.00**
95F414. Model T-LC-17. Additional single station. 8 lbs. **NET 49.00**



Model K-LS-5

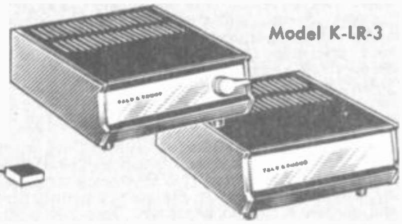


Model K-LS-5

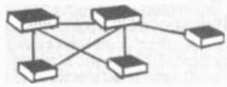


Model K-ML-5

Model K-LC-2



Model K-LR-3



Model K-CL-5

Model K-LR-2

MASTER SELECTIVE INTERCOMMUNICATION SYSTEMS

A system consisting of one Master Station and one to ten Sub-Stations. Only the Master Station plugs into an electrical outlet. System has optional feature whereby Sub-Stations can be connected "privately," or "non-privately" and still originate calls to the Master under either application. Cabinets are charcoal gray and brushed chrome, 10½"x8¾"x3⅛". Subs measure 7½"x8¾"x2⅞'. With instructions Transistorized For 110-120 volts, AC-DC HIGH VOLUME OUTPUT MASTERS K AC-5406 and K-AC-5411 operate as above with the added feature of 10 times volume output, for large areas or noisy locations. Operate on 120 volts, AC only. Note: Only one master station can be used in each Master Selective System. Weight: Masters— 8 lbs., Sub-Stations—6 lbs.

95F400. K-ML-5 Master. For up to 5 Subs **NET** **43.30**
95F401. K-ML-10 Master. For up to 10 Subs. **NET** **53.50**
95F404. K-AC-5406. High Vol Master. 5 Sub capacity. **NET 53.50**
95F405. K-AC-5411. High Vol. Master. 10 Sub. capacity **NET 64.50**
95F402. K-LR-3. Sub-Station (in same deluxe finish as Masters) for use with any of above Masters. **NET** **19.40**
95F403. K-LR-3M. Sub-Station (as above, but in grained, baked enamel finish) for use with any of above Masters. **NET** **14.95**
95F448. K-LR-3R. Sub-Station for flush wall mounting. **NET** **14.95**
95F685. K-SM-L. Surface mtg. accessory for K-LR-3R. **NET** **5.10**
36F440. 5303. Three-conductor indoor cable for connecting Sub-stations to Master. **NET per ft.** .... **.04**
36F449. 6303. Three conductor shielded cable for connecting Sub-stations to Master. **NET per ft.** .... **.065**

2-STATION INTERCOMMUNICATION SYSTEM

Provides voice communication between any two points. "Elsie" is a packaged item, complete with a Master Station, a Sub-Station and 50 ft. cable. For 110-120 volts, AC-DC. Master size: 10½x8¾x3⅛". Sub size: 7½x8¾x2⅞'. Shpg. wt., 13 lbs. **Model K-LC-2.** 2-Station system completely transistorized.

95F412. NET **44.95**
36F440. Type 5303. Extra 3-cond. cable. **NET per ft.** .... **.04**
36F449. 6303. 3-cond. shielded cable. **NET per ft.** .... **.065**

ADDITIONAL ACCESSORIES FOR COMBINATION & MASTER SELECTIVE SYSTEMS

KC-20V

95F415. K-HP-3. Hi-Power Staff Station for wall mounting. Charcoal gray metal case. Wt., 8 lbs. **NET** **19.95**
95F444. K-HP-3V. Same as above, but with built-in volume control, adjustable to full output. Wt., 9 lbs. **NET** **24.95**
95F416. K-C-20. Nine inch weatherboard Re-entrant Horn. Charcoal gray color Wt., 5 lbs. **NET** **29.95**
95F446. K-C-20V. Same as above, but with built-in weather resistant volume control, adjustable to full output. Wt , 5 lbs. **NET** **39.95**
95F417. K-S-100. Wall switch for origination of call through K-C-20 or K-HP-3 with Master Selective Systems. **NET** **4.35**

K-HP-3V

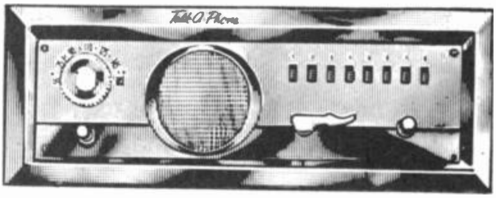
TALK-A PHONE All Transistorized Home Intercom-Radio Systems

This compact home intercom-radio system brings to the home owner the safety and convenience of complete intercommunication in all rooms, as well as the enjoyment of built in radio (optional) all through your house. Master stations, staff stations, and outdoor substations can be combined in any desired arrangement, up to a total of 8 stations. Both masters and staffs can "call" and "converse" with any other station or stations in the system. Outdoor "subs" can be called by, and answer any master or staff station. Outdoor "subs" are non-private. All master and staffs have their own volume control. Optional built-in radio incorporates the most advanced superheterodyne circuit. Has a tuned RF stage and two IF stages for sensitivity and selectivity, full A.V.C., three audio stages with push-pull output. Any 9-volt dry battery will operate this system.

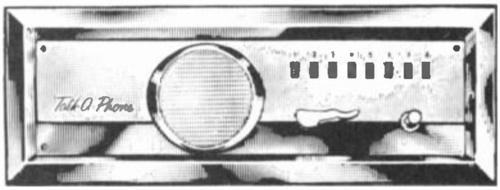
	CHART "A"—Rooms Originating Calls							CHART "B"—Rooms Receiving Calls							
Location	To Kitchen	To Bedroom	To Den	To Baby	To Laundry	To F. Door	To R. Door	From Kitchen	From Bedroom	From Den	From Baby	From Laundry	From F. Door	From R. Door	Then Use
Kitchen		X	X	X	X	X	X		X	X		X			HI-9 or HI-9R
Bedroom	X			X	X	X	X	X		X		X			HI-8
Den	X			X		X	X	X	X			X			HI-8
Baby								X	X	X		X			HI-4
Laundry	X			X		X									HI-4
F. Door								X	X	X		X			HI-1
R. Door								X	X	X		X			HI-1

CENTRAL MASTER STATION AND POWER SUPPLY UNIT

Only one Central Master Station (with or without radio) is used per system. Can call and talk to any other station. Listens to any sub-station or staff without adding noise to latter even during other calls. Has all transistor amplifier and operates from any 9-volt dry battery or HI-PS Power Supply Unit. Front panel: 15¼"x5¼". Plaster Ring Approx.: 14 1/16"W x 4⅜"H x 3½"D.



HI-9R



HI-9 or HI-8

8 STATION MASTER

No. HI-9R. 8 Station Master With Built-in all-transistor Radio. Incorporates the most advanced Super Heterodyne circuit. Has a tuned RF stage and two IF stages for sensitivity and selectivity, full A.V.C., three audio stages with push pull output. Master station has 8 station capacity. Does not plug into electrical outlet. With plaster ring and full instructions. Less battery. Shpg. wt., 6½ lbs. For flush wall mtg.
95F687. NET **93.30**

No. HI-9. 8 Station Master. All-transistor (3 audio stages with push-pull output). For flush wall mounting. 8-station capacity. Does not plug into electrical outlet. With plaster ring and complete instructions. Less battery. Without built in radio. For flush wall mounting.
95F686. NET **59.95**

SUB-STATION

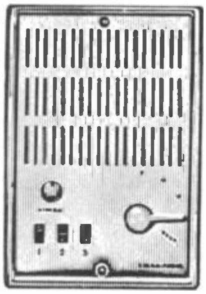
No. HI-1. Outdoor Sub-Station. For front and rear doors. Complete with pushbutton bell to connect to regular house chime or buzzer, and illuminated nameplate. When caller rings, you may answer from any Master or Staff Station. For flush wall mounting; needs 2-inch square opening, 2 inches deep. With weather-resistant speaker, mounting gasket, and full instructions. Front panel: 3⅝"W x 5⅝"H. Shipping weight: 1 lb.
95F690. NET **17.25**

K-LR-2R. Alternate Outdoor Sub-station without push-button or name plate.
95F442. NET **14.95**

K-SM. Surface mounting accessory for K-LR-2R.
95F443. NET **4.45**

O-SM. Surface mounting accessory for HI-1.
95F696. NET **3.50**

Model HI-1



Model HI-4

STAFF STATION

No. HI-8. Staff Station. Any staff can call and converse with any other station, or stations in the system. Can be mounted on wall, cabinets, etc., or can stand on tables, shelves, etc. Does not plug into electrical outlet. Has private or non-private position as desired. For flush wall mounting. With plaster ring and full instructions. Front panel: 15¼" x 5¼". Plaster ring approx.: 14 1/16"W x 3⅜"H x 3½"D. Shpg. wt., 5 lbs.
95F689. NET **33.30**

No. HI-4. Four Station Staff Station. Same as above except can call only 3 stations. Front panel: 4 13/16x7 3/16". With plaster ring. Plaster ring approx.: 4⅛x6½x2". Shipping Weight, 3¾ pounds. For flush wall mounting.
95F688. NET **19.95**

K-SM-L. Surface mounting assembly for HI-4 staff station. Gray finish. With instructions, knobs, brackets. Shpg. Wt., 2 lbs.
95F685. NET **5.10**

No. HI-PS. Power Supply Unit. Only one necessary per system. Plugs into ordinary home electrical outlet of 110-120 volts, A.C., and can be placed out-of-the-way in basement, attic, closet, etc. When power supply unit is used, entire system actually consumes less electricity than even one electric clock. (Optional—not required when battery is used). Shipping weight: 2 lbs.
95F695. NET **17.25**

ACCESSORIES

No. HI-SM. Housing Assembly. Encloses any 8-station master or staff station to enable mounting on wall cabinets, etc. Has adjustable brackets. Gray finish. Chrome mounting knobs and brackets. With instructions. Shpg. wt.: 2½ lbs.
95F692. NET **12.30**

No. HI-JB8. Optional Junction Box for connecting Masters and Staffs up to a total of 8 stations.
95F693. NET **5.25**

Type 4F6H. Burgess 9 volt battery. To be used when HI-PS Power supply is not employed.
49F254. NET **5.53**

No. 6226. Cable (13-pair) for connecting all Master and 8-station Staff.
36F439. NET, per ft. .... **.44**

No. 6202 Cable (1-pair) for connecting outdoor Sub-Stations, Battery or Power Supply Unit.
36F448. NET, per ft. .... **.048**

No. 6214. Cable (7 pair) for connecting HI-4 to master station or nearest 8-station Staff.
36F437. NET, per ft. .... **.23**

BOGEN SOUND EQUIPMENT

VP25A TRANSCRIPTION PLAYER

Portable transistorized transcription player and PA system. Lighter and more powerful than conventional tube models. Ideal for school and professional use. Record player is a model B51 precision-built transcription player with speed variable 29-86 rpm. Instant speed selection of 16, 33⅓, 45, 78 rpm. Amplifier provides 30 watts peak power with high fidelity performance. Speaker, record player, and amplifier are housed in a single, attractive portable case. 25 ft. intcon. cable provided. 34 lbs.

73F624. NET **191.05**

VP18 TRANSCRIPTION PLAYER

New light weight solid state transcription player. Its high reliability, low heat, minimum weight make this unit ideal for schoolroom, discotheque, square dances, and many other applications. Turntable is the superb Bogen B51 with variable speed control from 29 to 86 RPM. It also has preset click-stops at 16, 33⅓, 45, and 78 RPM. The amplifier is a fully transistorized 10 watt unit. Has 15 watt peak. 12" speaker is housed in the removable cover of the VP18. Has a 10 oz. ceramic magnet and comes with 25 ft. of cable capped with an input jack. Controls: Mic. Vol., Phono Vol., Bass, Treble, Music-Speech Switch, Power Switch, plus B51 controls. Phono cartridge is wide-range ceramic. Freq. Resp.: 45-18,000 Hz ±1½ db. 15¾"x16½"x10¾". Wt. 30 lbs.

73F622. NET **140.90**

VARIABLE-SPEED TRANSCRIPTION TURNTABLE

Model B62. Turntable with continuously variable speed—29 to 86 rmp. and "click-in" positions for 16, 33⅓, 45, and 78 rpm. Heavy duty 4 pole motor. Lever lowers tone arm to record. Tone arm has lateral and vertical suspensions independently ball-bearing mounted for maximum compliance in both planes. Provision for adjusting stylus pressure. Lock-type 4 pin stereo/mono plug-in head for interchanging cartridges. Wow and Flutter less than 0.2% at 33 rpm; rumble 51 db below average recording level. 12", 7¾ lb. machined, zinc alloy cast, turntable with heavy rubber mat. Tone arm: modified Bogen-Presto PA1 (aluminum). 15¼x13¼", 2½" above deck, 2¼" below. 115 VAC, 60 cps, 15 watts. Shpg. wt., 28 lbs.

73F632. NET **67.95**
73F630 PB7 base **5.90**
73F631 H4 head **4.00**

TQ PHONES

Simple, push-button inter-communication—ideal for office, plant, store or home. To make a call, simply lift receiver and press the button(s) of the station(s) you wish to reach. A buzzer sounds at the station called. When the receiver is lifted you are in communication—by-passing the switchboard. Feature selective ringing with a common talk line. The total number of unshielded conductors common to all TQ Phones is 3 more than the total number of phones in the system. Phones may be operated as much as 500 ft. from the power supply. Handsomely styled in grey plastic, and may be used on desk, counter, or wall-mounted. Handset with base is 9½x3¼x3¼".

TQ6-A. Phones for up to 7 sta.
96F775. NET Each **27.80**

TQ12-A. Phones for up to 13 sta.
96F776. NET Each **31.35**

Type TRA. Phone Page Adapter. Allows paging from series TQ phones. Simply add the TRA Adapter (see diagram) between any phone and your PA system. It is then wired to the system as if it were another TQ phone. Does not need a separate power supply. 4"x4"x2". Shpg. wt., 2 lbs.
96F787. NET **31.65**

Type PRS-1A. Power supply for TQ phones. One required for each system. Use 3 conductor cable—6"x2"x3½"/ For operation from 110-120 v. 50-60 cycles A.C. Shpg. wt. 4 lbs.
96F777. NET **25.00**

SERIES TSL PHONES

An extremely flexible system for inter-office or intra-plant service. Provides multiple, simultaneous conversations without a central exchange. 100% trunkage allows all phones to be simultaneously in use in either separate or conference calls; single calls do not tie up system Designed for wall or desk mounting and each supplied with a junction box. Use wire with at least 3 more conductors than the total number of phones in system.

Type TSL-16. 16 station system. Has 1 ring button and 15 station selector buttons. 9½"x3¼"x3½". Shpg. wt., 4 lbs.
96F779. NET **47.00**

Type TSL-8. Same as above except 8 phone system. One ring button and 7 station buttons.
96F780. NET **39.50**

Type PRS-16. One required for each telephone system. Plug into any standard electrical outlet. Uses 3 conductor cable to connect into any convenient junction box. 6"x2"x3½". Shpg. wt., 5 lbs.
96F781. NET **41.55**

Type TRC. Phone page adapter allows paging for Series TSL phones. 4"x4"x2". Shpg. wt., 2 lbs.
96F782. NET **31.65**

CABLES FOR TSL AND TQ SYSTEMS

No. of Cond.	100' Spool		500' Spool	
	Stk. No.	Each	Stk. No.	Each
3	36F040A	3.10	36F040F	12.15
6	36F043A	7.15	36F043F	31.05
10	36F200A	9.40	36F200F	42.90
15	36F198A	17.40	36F198F	78.00
25	36F199A	26.40	36F199F	122.25


VP25A

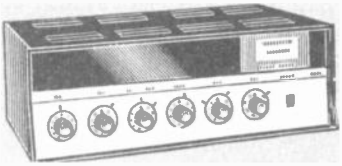

B-62
on PB7 base


VP18

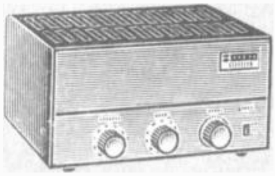

TQ Phone


TSL Phone

BOGEN AMPLIFIERS



CHS SERIES

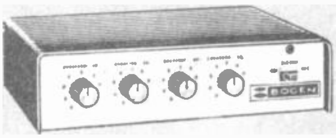


CHB 10A

CHB 14A

CHB 20A

CHB 35-90-100



MX6AT

BT35A

BT20A
WATT

CHS 20—20 WATT

Challenger 20 W solid state public address amplifier. Freq Res: 50-15000 Hz ±2 db. Peak power 40 W. Controls: 1 mic, 1 1 vol (fader) for Aux. 1 & 2, master volume, bass, treble, power switch, and remote control or mic precedence (all inputs). Hum and noise: mic, —66db; aux, —70db. 8 silicon and 2 germ. semiconductors. 5½ x 10½ x 15¼". Shipping weight, 15 lbs.

96F500. NET. 92.25

CHS 35—35 WATT

Challenger 35 watt solid state PA amplifier with 70 watts peak power. Response, 60-15,000 Hz ±2db Output impedance; 4, 8 and 16 ohms, 25 and 70V. Controls: 2 indiv. mic., 1 vol. (tader) for Aux. 1 & 2, master volume, bass treble, power switch, and provision for remote control. Hum & Noise: Mic.: —64db, Aux.: —67db. Size: 5½" x 10½" x 15¼". Shpg. wt., 17 lbs.

96F501. NET. 104.95

CHS 50—50 WATT

Challenger 50 watt solid-state (all silicon) PA amplifier. 100 watts peak. Response, 40-20,000 Hz ±2db. Output impedance: 4, 8, and 16 ohms, 25 and 70V. Controls & size are the same as the CHS 35. Hum and noise is well below rated output with Mic.: —67 db, Aux. —70db. Wt. 21 lbs.

96F502. NET. 127.45

CHS 100—100 WATT

Challenger 100 watt solid state public address amplifiers. Designed for continuous operation at full output from —20°C (—4°F) to +65°C (+149°F.) Features high or low impedance microphone inputs (no transformers required). Separate master volume, bass treble controls; high input sensitivity; low noise and hum. Peak power: 200 W. Frequency response: 40-20,000 Hz ±2db. Output impedance. 2, 8, and 16 ohms. Hum and noise—Mic: 65db; Aux: 70 db. Power consumption: 105-125 V, 50/60 Hz. Semiconductors: Total 14 all silicon. 2 mic inputs with 2 aux inputs on fader. 5½ x 10½ x 15¼". Shipping wt., 24 lbs.

96F503. NET. 157.15

MX6A-T

Solid-state mixer preamplifier. Features inputs for 4 high or low impedance microphones with individual volume controls. Excellent for electric guitars. The output (6v. @ 2%, 4v @ 1%, and 2v @ .05% dist.) is adequate to drive any packaged amplifier through its aux. input. Frequency response, 50-20 Khz ±2db. Hum/noise 68db below 5v. Size 9¼" x 6" x 2⅝". 5 lbs.

96F700. NET 48.75

MIKE CONNECTORS

Broadcast Type. (Cannon XL Series). For the Bogen M, MX, MU Amplifier.

39F480. NET. 1.42

Screw Type Connector. For Challenger Line Amplifiers.

39F000. NET. .... .64

MODEL BT35A—40 WATT

40-watt transistorized amplifier with less than 10% distortion. Ideal for mobile use on 12 volts direct current. Frequency response 150-15,000 Hz. at ±3db. Hum/noise —90db. Gain: mike. 110db, Aux. 90db. Sensitivity: Mike 1mv, Aux. 0.4v. Output 4, 8, 16 ohms Input for siren-foghorn. Controls: Mike, aux. volume, 4-position selector. 8"W x 6"D x 3"H. Shpg. wt., 8 llbs.

96F561. NET. 85.50

MODEL CHB10A—10 WATT

Economy 10-watt amplifier. Frequency response 40-12,000 hz. ± 2db. Sensitivity: mike: 6mv.; phonograph: 0.2 volts. Tubes: 1-12AX7/ECC83, 1-7868, and silicon rectifier. Power consumption: 50 watts, 105-125 VAC, 50-60 Hz. Gain: mike: 110 db; phonograph: 90db. Tone control action: treble (10kc) —24db. Output impedance: 4, 8 and 16 ohms. 25 volt line (62 ohm) 70v (500 Ω) 1 speaker socket and screw terminals. Controls: mike vol., phono vol., treble, power switch. Size: 5¾"Hx11¼"Wx8¼"L. Complete with enclosure. Shpg. wt. 12 lbs.

96F550. NET. 42.00

CHB 14A—14 WATT

Power out of 14 watts at 5% distortion. Frequency response 20-20,000 hz ±2 db. 1 mike input and 2 aux. inputs. Mike gain 120db aux. 95db. Sensitivity 4Mv. Hum/noise 55db below rated output. Controls: Mic. vol., Aux. fader Bass, treble and power. Tubes: 6AU6, 2-ECL86. 2-silicon rectifiers. Output 4, 8, 16 ohms with 25 and 70 volt lines. Power consumption 70 watts at 115 VAC, 50-60 hz. Size 6¾x15¾x10". Shpg. wt., 17 lbs.

96F551. NET. 52.50

MODEL CHB20A—20 WATT

20-watt power amplifier with less than 5% distortion. Frequency response 20 to 20,000 hz. ±2db. Featuring high impedance microphone input and 2 aux. inputs. Hum/noise level —80db Gain: Mike. 125db, Aux. 100db Sensitivity Mike. 3 mv, Aux. .5 v. Output 4, 8, 16 ohms and 25 & 70 volt line. Tone control: treble +10db-16db; Bass +14db-10db. Controls: Mike, aux., Master volume bass, treble, power on. 105-125V AC, 50-60 hz. Power consumption 90 watts. 15¾" wide, 10" deep. 6¾" high. 6¾ lbs. Wt. 17 lbs.

96F557. NET. 66.75

MODEL CHB35A—35 WATT

35-watt power output @ 5% distortion amplifier. Freq. Resp.: 20-20,000 hz ±2db. Inputs: 2 microphones (high impedance), 1 magnetic phono cartridge, 2 auxiliary (high impedance, high level). Sensitivity: mike—4mv.; aux.—0.2 volts; mag. phone cartridge—12mv. Power consumption: 125 watts 105-125 VAC. 50-60 Hz. Tubes: (s) 1-6EU7, 2-7868, 1-12AX7, plus 3 silicon rectifier; 1-6C4. Controls: mike #1 vol., mike #2 vol., fader for 2 aux. units, master volume, bass, treble, power switch, magnetic phono switch, provisions for remote control of 2 microphones or magnetic phono. Size: 6¾"H x 15¾"W x 10"D. Complete with enclosure. Shipping wt. 21 lbs.

96F554. NET. 81.00

MODEL CHB50—50 WATT

Similar to CHB35A, but 50 W. output. Sensitivity: mike—5 mv.; aux.—0.3 volts; mag. phono cartridge—15 mv. Gain—mike: 120db; auxiliary: 95db; magnetic phono cartridge: 110db. Power consumption: 150 watts, 105-125 VAC, 50-60 Hz. Tubes: (5) tubes and silicon rectifiers 1-6EU7, 1-12AX7, 2-6L6GC,1-6C4. Tone control action: treble: (10kc) +10db to —15db; bass: (50 cps) +11db to —10db. Size: 6¾"H x 15¾"W x 10"D. Complete with enclosure. Shipping weight 21 lbs.

96F555. NET. 97.50

MODEL CHB100—100 WATT

Frequency res: ±2 db, 20 to 20,000 Hz. Hum and Noise: Mic, —70db; Aux, —80 db. Sensitivity: mic, 5 mV; Aux, .3V. Gain: mic, 125 db; aux, 100 db; magnetic phono; 115 db. Tone control action: Treble (10kc) +12 db to —15 db. Bass (50 Hz.) 14 db to —9 db. 7 tubes and silicon rectifier: 1-6EU7, 1-12AX7, 4-7868, 1-6C4. 6¾ x 15¾ x 10". Shpg. wt: 25 lbs.

96F556. NET 129.00

BT20 25 WATT TRANSISTOR MOBILE PA AMPLIFIER

This fully transistorized amplifier is for use in 12 and 6 volt systems. It has a power output of 25 watts @ 6-15 volts DC, (6 watts 6 volts DC) 2.8 amps. Its frequency response is 250-12,000 Hz., ±3 db. Its inputs are: 1 mic. (low impedance); 1 aux. (tuner, tape, phono). Gain; mic., 110 db; aux., 90 db. Hum and noise: mic. —90 db. aux. —95 db. Sensitivity: mic. 11 mV; aux. 0.4V. Output impedance: 4, 8 and 16 ohms. Controls: 1 mic.; 1 aux./power. Size 4½" x 4" x 6½". Shpg. wt. 5 lbs.

96F560. NET 63.60

ALL-SILICON TRANSISTOR BOOSTER

Model MT100. 100w. at only 1% distortion. Can be connected in series or parallel with other boosters to achieve any reasonable voltage or power. Sensitivity: Hi-Z .75v, Lo-Z .2v with TL600 transformer. Hum: 80 db. Max. ambient temp. for cont. op.: 70°C (158°F), 12-16v. D.C. or 117v. A.C. 8" x 13" x 6". Shpg. wt. 31 lbs.

96F824. NET **240.00**

MBT-60

MBT-60. Features a power output of 60 W RMS less than 3% with full power of 40-10,000 cps ±2 db at less than 5% distortion. Peak power: 110 Watts. Frequency response: 12-20,000 ±1 db. Output Imped: 2.6, 8, 16 ohms (balanced; 25 V CT. (10.4 ohms) and 70 V balanced. Gain 110 db.

96F822. NET **120.00**

TRANSISTORIZED P.A. AMPLIFIER

Model MTA-30. Power out: 30 watts. Frequency Response: 30-20,000 cps ±1 db. Delivers full power: 40-12,000 cps ±2 db. Impedance output: 4, 8, 16, Ω, 25V, 70V, and 163 ohms (70 V) Inputs: 3 (unbalanced 200 ohms) and 200 ohms balanced with T 525U transformer.

96F825. NET **123.00**

Model MTA-60. Same as MTA-30 except: Full power: 40-10,000 cps. Frequency response: 7-20,000 cps ±1 db. Output Imped: 2.6, 8, 16, 10.4 (25 volt center tapped), and 82 ohms (70 volt balanced) Gain (same as MTA-30): Mic—125 db, & auxiliary—110 db.

96F826. NET **154.50**

DE LUXE 30 & 60 WATT AMPLIFIERS

Feature master gain control, built-in remote gain-control circuit, five microphone channels (one converts to Mag Phono/Tape), plus auxiliary, exclusive variable level markers. Black and grey styling with leather carrying handle. Controls: Gain, Mike-phono Switch, Speech Filters, On-Off/Treble, Bass Master gain. Response: 10-38,000 cps. ±1½ db. Distortion less than 2%. Hum: -70db.

MX60A. 60 watt amplifier. Output Impedance: 4, 8, 16, and 83 ohms, balanced 25V line, 70V line, 8 tubes plus 5 silicon rectifiers. 16½" x 12" x 4¾". 33 lbs.

96F595. NET **217.50**

MX30A. Same as MX60A above except 30 watt amplifier. 29 lbs.

96F570. NET **172.50**

MODEL M60A AMPLIFIER

60 watt amplifier at less than 3% distortion. Ideal for PA systems. Peak power: 100 watts. Response: 20-20,000 cycles; ±2 db. 7 inputs: 3 microphone, 2 auxiliary, 2 iliary 95 db.; magnetic, 105 db. Output Immagnetic phone. Gain: mike, 120 db.; auxpedances. 4, 8, 16 ohms. 25-70 volts. Controls: Bass, Treble, Power, Master gain, Auxiliary (fader control), Input controls. 5 tubes, 2 silicon diodes and one bias silicon diode. Power consumption: 160 watts- 117 volts. 5¾"x9⅞"x14⅞". Wt. 28 lbs.

96F805. NET **154.50**

M330A PA AMPLIFIER

30 watts at 2% distortion. 3 microphone channels (2 convert to magnetic cartridge); 2 auxiliary inputs; separate master gain, bass, treble controls; built-in remote gain control circuit; sockets for low impedance transformers; 70 v. and 25 v. output taps. Peak power: 50 watts. Power consumption: 120 watts (105-125 VAC, 50-60 cps.). Response: 20-20,000 cps. ±2 db. Output Imp.: 4, 8, 16 ohms; 25 v. balanced (16 ohms), 70 v. (163 ohms). 14⅞" x 9⅞" x 5¾". Wt. 20 lbs.

96F806. NET **123.00**

BOOSTER AMPLIFIERS

Ideal for sound systems in industrial plants, airports, stadia, etc.; wherever undistorted power is needed. Any number may be paralleled to multiply power output. All have exceptionally wide frequency response. Inputs: Hi-Z, 0.5 megohms. Sensitivity: Hi-Z better than 2v. 8" x 13" x 6¾".

TUBE BOOSTERS

Model MO100A. 100 watt amplifier outputs are balanced 16Ω, and balanced 25v, 70v, and 115v. Freq. Resp.: 8-50,000 cps ±1 db. Power consumption: 250 watts. Shpg. wt. 29 lbs.

96F823. NET **150.00**

Model MO30A. 30 watt amplifier. Power Consumption: 105 watts. Shpg. wt. 23 lbs.

96F821. NET **96.00**

M120 AMPLIFIER

General purpose PA amp provides 120 watts at 3% distortion, 200 watt peak. Has 7 inputs; 3 for microphones, 2 for phono or tape, and 2 auxiliary inputs for ceramic phono or other high level sources. Freq. Resp.; 20-20,000 cps ±1 db. Gain: mike, 125 db.; aux. 99 db.; magnetic, 118 db. Controls: Power, Master gain, Aux., Bass, Treble, Input controls. 16½" x 12" x 4¾". 42 lbs.

96F800. NET **205.50**

MXM-A MIXER-PREAMPLIFIER

Model MXM-A. A broadcast quality, self-powered mixer-preamp for theatres, radio stations, and PA applications. Each unit accepts 7 signals simultaneously; 5 of which may be from high or low impedance mikes. However three MXM-A units may be paralleled to provide 21 inputs. Output level may be monitored in two ways: visually with the built-in VU meter or aurally by use of a plug-in headphone. Controls include separate speech filters, bass and treble controls to adjust freq. resp. of the mixer from 18 to 38,000 cps ±1 db. 16½"x12"x4¾". Shpg. wt. 20 lbs.

96F820. NET **178.50**

TRANSISTOR PREAMPLIFIER

RTP-I. All silicon transistor preamp for applications requiring a remote or local unit of true broadcast quality. Will drive any number of booster amplifiers over a 500/600 ohm line which may be several miles in length. Transistor design guarantees minimum maintenance. Inputs: 2 Mic. (high or low impedance), 2 Aux. on fader Control, 1 bridging. Operates on 117 VAC, or 12 VDC with internal batteries (8 Eveready size AA) or external DC supply. Freq. Resp. 20-20,000 cps ±1 db. Power: 5w at 117 VAC; 00.3 amps at 12VDC. 9" x 9¼" x 3½". Shpg. wt. 6½ lbs.

96F801. NET **127.50**

PLUG-IN TRANSFORMERS

Microphone and line transformers designed for plug-in use with Bogen amplifiers.

96F544* **Model T50** 50 ohms (mic.) 12.90
96F545* **Model T200** 200 ohms (mic.) ... 12.90
96F546* **Model T500** 500 ohms (mic.) 13.50

Model TL600 500/600 ohm (line)
96F543† 13.20

*Use with M60A, M330A, M120, MX30A, MX60A, MXM-A, RTP-1.
†Use with MXM-A, MT100. M0100A.

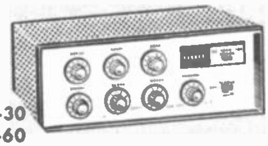
Model T525U. Use with the MTA30, the MTA60, and the MTM if a balanced, low-impedance mike line is required.

96F828. NET **12.75**

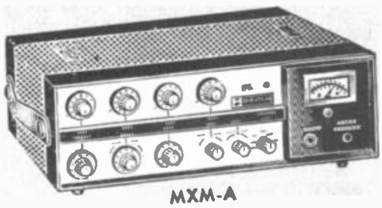
BOGEN AMPLIFIERS

MT-100
MBT-60

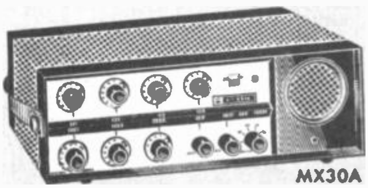
MO100A



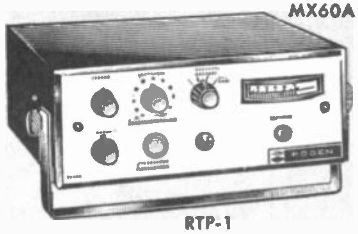
MTA-30
MTA-60



MXM-A



MX30A
MX60A



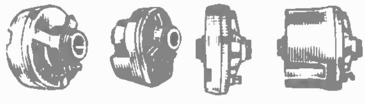
RTP-1

M60A

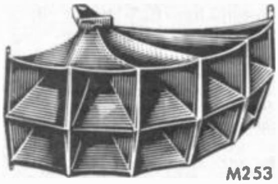
M120
M330A

SOUND PROJECTORS

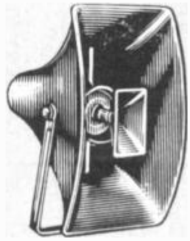
Electro-Voice



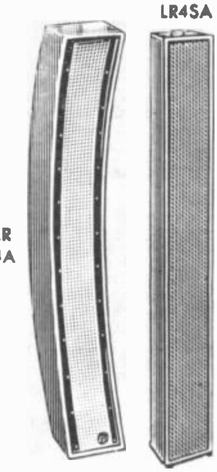
1828C 1828T 1829 1829T



M253



FC100



LR 4A

LR4SA

MULTICELLULAR HORN—M253

Completely weatherproofed horn (less driver), for indoor or outdoor use. Dispersion characteristics are independent of frequency making this horn ideal for sound reinforcement where precise dispersion and wide, smooth frequency response are required. Utilizes 2 rows of 5 identical cells, jig assembled and covered with damping compound. Use with any E-V driver with 1⅜-18 threads. Low frequency cutoff 300 Hz. Supplied with mounting hardware. Driver-throat built in. No special assembly required. 17½" high x 30½" wide x 36½" deep. Weight: 26 lbs.
88F193. NET **180.00**

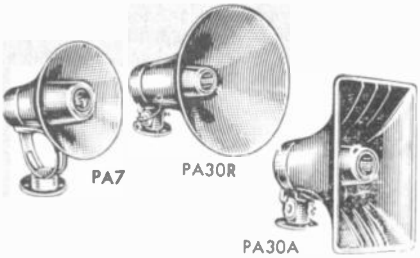
COMPOUND DIFFRACTION HORN

Model FC100. Projector Horn. Provides two diffraction horns for uniform wide-angle coverage. Uses any E-V convertible driver. Mouth size 10½" x 20½", depth 20". Shpg. wt. 13 lbs.
88F180. NET **32.10**

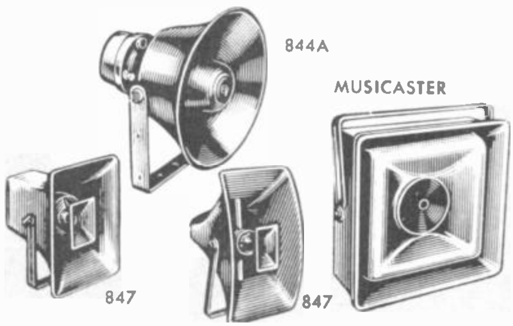
CONVERTIBLE DRIVERS

Models 1828R, 1828C, 1828T, 1829, 1829T. Peak free response with max. efficiency. Easily adapted for use with all Re-entrant-type horns.

Stk. No.	Type	Dim.	Imp ohms	Freq. resp. Hz.	NET
88F195	1828R	4 x2¾"	8	150-10,000	20.40
88F184	1828C	4 x3¼	8	150-10 000	20.10
88F185	1828T	5 x4 x5¼	8	150-10 000	29.40
88F191	1829	5 15/16"x4 1/16	16	140-11,000	36.00
88F192	1829T	5 15/16"x6⅜	16	140-11,000	42.00



PA7 PA30R PA30A



844A MUSICASTER 847 847

Model PA7 Reentrant Projector. Handles 7½ watts over a range of 400 to 13000 Hz. Wide 120° dispersion angle provides excellent coverage. Mounting brackets allows non-resonant horn to be positioned at any angle. 6¾" diameter by 6" deep. Shpg wt. 4 lbs.
88F176. NET **18.75**

Model TR7-2. 7½-Watt 25-Volt Line Transformer. For use with Model PA7. 2 lbs.
98F177. NET **6.60**

Model TR7-7. 70 7 Volt Transformer. For use with PA7.
88F178. NET **6.60**

LINE RADIATOR COLUMNAR SPEAKERS

Line radiator columnar speakers feature wide angle speaker design which permits wide horizontal dispersion while virtually eliminating sound output both above and below the speaker.

Model LR4A. Line Radiator Columnar Speaker. Curved design overcomes unwanted high-frequency dispersion at ends, eliminating echo and feedback. Controls Feedback. Excellent in stacked multiple speaker applications. Contains nine 3"x5" and three 3½" cone speakers. 160° horizontal dispersion end 60° vertical dispersion. Frequency response: 200-15000 Hz. Power handling capacity: 25 watts program, 50 watts peak. Nominal impedance; 8 ohms. Size: 49" high; 7" wide; and 13" diameter. Universal mounting brackets. Mesa tan wooden finished enclosure. Shipping weight 30 lbs.
86F330. NET **94.80**

Model LR4SA. Line Radiator Columnar Speaker. Electrical filter removes end speakers from circuit as frequencies increase, eliminating high-frequency lobes at ends. Dispersion: 160° horizontal; 30° vertical. Frequency response: 200-15000 Hz. Power handling capacity: 25 watts program, 50 watts ptak. Normal impedance: 8 ohms. Weatherproof extruded aluminum enclosure with faun metallic finish. Size: 52" high; 7 9/16" wide; 4⅝" dia. Wt., 32 lbs.
86F329. NET **99.90**

Model LR2SA. Similar in appearance to LR4SA, except only 26" high. Performance similar to LR4SA except for greater vertical dispersion
86F327. NET. **55.50**

Model PA30AT-7. This 30 watt paging projector features easily selected line power taps at 30, 15, 8, 4, and 2 watts. Rectangular horn designed for wide dispersion. Frequency response: 250-14,000 Hz. Dispersion: 120° by 90°. EIA sensitivity: 60 db. Sound pressure level: 127 db. 11" x 6½" x 8½". 6¾ lbs.
88F190. NET **28.50**

Model PA30A. Same as above, without line matching transformer.
88F173. NET **21.90**

Model PA30R. The PA30R is very similar to the PA30A, except that this model features a round span aluminum bell, instead of the rectangular horn of the PA30A. Shipping wt: ½ lbs.
88F194. NET **23.70**

Model TR30-2. 30-Watt 25-Volt Line Transformer. For use with PA30 Series. Shpg. wt., 2 lbs.
88F174. NET **9.00**

Model TR30-7. 70 7 Volt Transformer. For use with PA30 Series. Shpg. wt. 2 lbs.
88F175. NET **9.00**

Model 848A. Combines FC100 compound diffraction horn plus 1828C compound driver for fine wide angle sound, low distortion, and highest quality of any projector. Freq. response 150-10,000 Hz; Imp., 8 ohms; Dispersion, 90°x120°. Power Cap. 30 watts. Size, 10½"x20½"x20". Shpg. Wt. 14¼ lbs.
88F152. NET **53.40**

Model 847. Wide Angle Speaker. Provides higher articulation without annoying "peaked" response over a uniform 120° x 90° area Low distortion results from the use of two diffraction horns. 25-watt power handling capacity. Frequency response, 250-10 000 Hz Sound pressure level, 114 db. Impedance, 16 ohms. 11¾"x7¾"x10 7/32". Shpg. wt. 10 lbs.
88F150. NET **25.40**

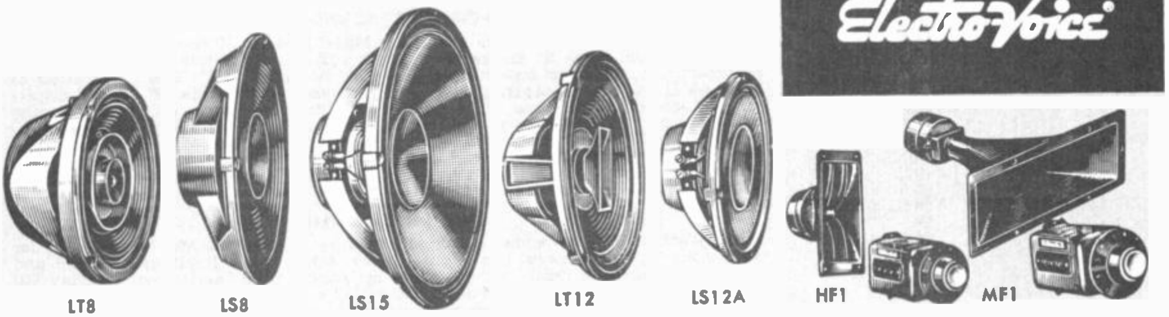
Model 844A. 30 Watt paging system. Rugged die-cast horn. Frequency response: 250-13,000 Hz Impedance, 8 ohms. Dispersion, 90°. Sound pressure level, 123 db. Dimensions, 9⅞". Shpg. wt 8½ lbs.
88F156. NET **22.95**

MUSICASTER OUTDOOR HI-FI SPEAKER SYSTEM

One-piece aluminum die casting protects weatherproofed 8" Radax speaker and provides dual horn loading. Can be mounted anywhere or used as portable speaker. Response, 60-13000 Hz. Impedance, 8 ohms. Power handling capacity 30 watts. Dispersion, 120°. Size: 21½"x21½"x8½". Shpg. wt. 34 lbs.
88F153. NET **72.00**

HIGH FIDELITY SPEAKERS

Electro-Voice



WOLVERINE SERIES

MODEL LT8. 8-Inch 3-Way Loudspeaker. Features three separate radiating elements. 8-inch woofer cone, 4-inch midrange cone and new VHF driver. Response: 45-18,000 Hz. Nominal resonance, 65 Hz. Crossovers: 2000 Hz mechanical, 5000 Hz electrical. 40 watts peak, 8 ohms impedance. EIA sens. rtg. 45 db. Shipping wt. 7 lbs.
86F337. NET . . . **29.70**

Model LS8. 8-Inch Loudspeaker. Response, 45-14000 Hz. Nom. resonance 75 Hz. Crossover, 4500 Hz. 40 watts peak power. 8 ohms impedance. EIA sensitivity rating, 43 decibels. 8⅜" diameter, 7⅛" baffle opening. 3½" depth behind panel. Features heavy die cast frame with low silhouette for shallow mounting in tight spots. Shpg. wt. 4 lbs.
86F333. NET. . . . **18.00**

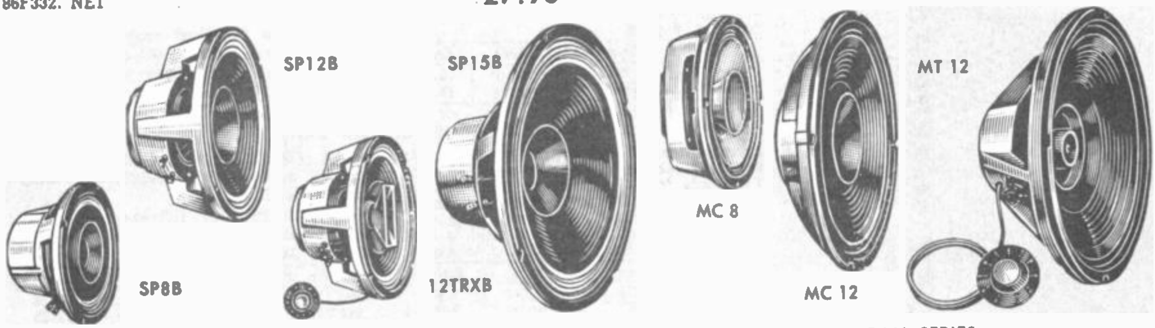
Model LS15. 15-Inch Loudspeaker. Response, 35-14000 Hz. Nom. resonance, 50 Hz. Crossover 4500 Hz 40 watts peak. 8 ohms impedance. EIA sensitivity rating, 47 decibels. 15⅛" diameter, 14" baffle opening. 6½" depth behind panel. Features high efficiency long throw voice coils on rigid fiberglass forms for true concentricity. Shpg. wt. 10 lbs.
86F332. NET . . . **27.90**

Model LT12. 12-Inch 3-Way Loudspeaker. Features "deep-dish" cone and HFI tweeter. Response: 40-18,000 Hz. Nom. resonance, 60 Hz. Crossovers: 2000 Hz. mechanical, 4000 Hz. electrical. 40 watts peak. 8 ohms impedance. EIA sens. rtg., 45 decibels. 12⅛" diameter, 11" baffle opening, 5¼" depth behind panel. Shpg. wt. 9 lbs.
86F331. NET . . . **36.00**

Model LS12A. 12-Inch Loudspeaker. Response, 40-14,000 Hz. Nom. resonance 60 Hz. Crossover, 4500 Hz. 40 wattss peak. 8 ohms impedance. EIA sensitivity rating, 46 decibels. 12¼" diameter, 11" baffle opening. 3½" depth behind panel. Coaxial design. Heavy die-cast frame. Shpg. wt., 8 lbs.
86F334. NET . . . **20.70**

Model HF1. High-Frequency Step-Up Kit. Consists of TW35 VHF driver, CR35 crossover-level control. TW35 size: horn 5¼" x 2", pot diam. 2¼", depth 2¾". Fits 1$^{11}/_{16}$" x 4$^{7}/_{32}$". Shipping weight 3 lbs.
86F335. NET . . . **26.10**

Model MF1. Mid-Range Step-Up Kit. Consists of MR10 treble driver, CR10 crossover-level control. MR10 Size: horn 4" x 10½", pot dia. 2⅜", depth 9⅜". Fits 9½" x 2⅞". Wt. 4 lbs.
86F336. NET . . . **27.90**



STANDARD E-V RADAX DESIGN SPEAKERS

Model SP8B. Radax Super-Eight. 8" speaker. Response, 35-15000 Hz. Nom. resonance, 60 Hz. Crossover, 4500 Hz. 40 watts peak. 16 ohms impedance. EIA sens. rtg., 47 db. 8⅜" diam., 7⅛" baffle opening. 4¾" depth behind panel. Shpg. wt. 8 lbs.
86F025. NET . . . **29.70**

Model SP12B. Radax Twelve. 12" speaker. Response, 35-15000 Hz. Nom. resonance, 50 Hz. Crossover, 4500 Hz. 60 watts peak. 16 ohms impedance. EIA sens. rtg., 49 db. Shpg. wt. 12 lbs.
86F024. NET **36.00**

Model 12TRXB. Integrated 3-Way Speaker. Combines an SP12B, T35-type VHF driver, and integral 6 db/octave high-pass filter with level control. Response 35-20000 Hz Nom. resonance, 50 Hz. 60 watts peak. 16 ohms impedance. Shpg. wt. 15 lbs.
86F027. NET **63.00**

Model SP15B. Radax Fifteen. 15" speaker. Response, 30-15000 Hz Nom. resonance, 30 Hz. Crossover, 3500 Hz. 60 watts peak. 16 ohms impedance. EIA sens. rtg., 51 db. 15⅛" diam., 13½" baffle opening. 9" depth behind panel. Shpg. wt. 13 lbs.
86F071. NET **45.00**

MICHIGAN SERIES

Model MC8. 8 Inch Loudspeaker. Radax design provides extended highs and wider dispersion. Response 50-13,000 Hz. Nom. resonance 75 Hz. Crossover 6000 Hz. 24 watts peak, 8 ohms impedance. EIA sensitivity rating, 46 decibels. 8¼" diameter. 7" baffle opening. 3$^{3}/_{16}$" behind panel. Features high-efficiency long-throw voice coils on rigid fiberglass forms.
86F338. NET . . . **12.60**

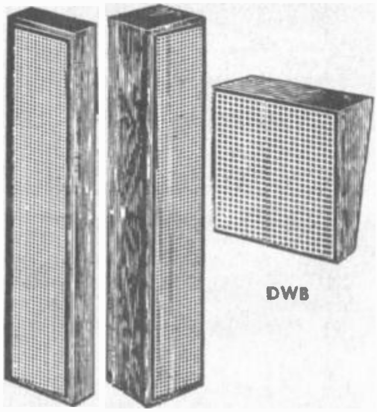
Model MC12. 12-Inch Loudspeaker. Disperses crisp clear highs and powerful bass, yet is shallow enough for wall mounting. Response 40-14,000 Hz. Nom. resonance 60 Hz. 40 watts peak. 8 ohms impedance. EIA sens. rating 46 decibels. 12¼" diameter. 11" baffle opening. 3½" behind panel. Features heavy die cast frame. Net weight 5 lbs.
86F339. NET . . . **15.75**

Model MT12. 12-Inch Three-way Loudspeaker. Combines superb dual-cone speaker with unique ring radiator tweeter. Brilliance control to adjust highs Response: 40-18,000 Hz. Nom. resonance 60 Hz. Crossover 4,000 Hz 40 watts peak. 8 ohms impedance. EIA sensitivity rating 46 decibels. 12⅛" diameter. 11" baffle opening. 5½" behind panel. Shpg. wt. 8 lbs.
86F340. NET . . . **26.55**

OUTDOOR HIGH FIDELITY SPEAKER SYSTEM

Sonocaster I. New auxiliary high fidelity loudspeaker system. For extension or portable use anywhere. Wide range response. Ideal for use as extension to existing stereo system May be used to improve performance of any portable radio, record player or tape recorder. Steel-gray molded housing cannot chip, fade, or peel. Includes convenient carrying handle molded in and accessory hang-up bracket for permanent mounting indoors or outdoors Frequency response: 70-13000 Hz. Impedance: 8 ohms. Power handling capacity: 30 watts peak. Special Radax 8" reproducer specifically designed for this system. Lightweight, rugged and weatherproof. 16¾" h. x 17" w. x 5⅞" d Shipping wt. 8 lbs.
86F170. NET . . . **22.50**


Sonocaster 1



DWB

SD1060 SD1100

ARGOS PRODUCTS COMPANY

"SOUND DIRECTOR" SOUND COLUMNS

Model SD-1060. Highly directional speaker system. Vertical angle of dispersion approximately 30°, horizontal projection angle in excess of 120°. Six speakers, handles 30 watts of audio. Plastic cane grille cloth, walnut grain vinyl baffle covering. Freq. resp.: 200-10,000 cps; imped.: 16 ohms. Size: 30¼"Hx7"Wx3⅛"D. Shpg. wt., 10 lbs.

86F593. NET **44.50**

Model SD-1100. 10 speakers, for rooms up to 200' in length. Vertical dispersion angle, 15°; horizontal, 120°. Easily converted to 8 speaker system with 22° vertical dispersion for short rooms with highly sloping seating. Power capability: 10 speaker 50 watts; 8 speaker, 40 watts. Size: 49½" High x 7" Wide x 6" Deep. Shpg. wt., 26½ lbs.

86F594. NET **69.95**

DWB SERIES BAFFLES

Model DWB. Complete speaker mounting hardware is included. Also "speed" clip for easy mounting and removal from walls. Heavy, select, white birch hand rubbed and waxed to a furniture finish—either walnut or blonde. DWB-8A—Internal capacity 400 cu. in. 2¾ lbs. DWB-12A—Internal capacity 1180 cu. in. 4½ lbs.

Stk. No.	Model	Finish	Dia.	Size	NET
86F735	DWB-8A	Walnut	8"	9¾x10½x6½"	6.00
86F736	DWB-8A	Blonde	8"	9¾x10½x6½"	6.00
86F737	DWB-12A	Walnut	12"	13⅝x14x9⅛"	8.40
86F738	DWB-12A	Blonde	12"	13⅝x14x9⅛"	8.40

"THINLINE" BAFFLES WITH HEAVY DUTY PA SPEAKERS WITH VINYL COVERING

Thinner and wider with the new modern look. ⅓ thinner with no sacrifice in quality! All have heavy-duty ceramic magnet speaker and are hvy. duty P.A. types except WB-108CS which has Alnico V magnet speaker and is ideal for background music. *Have built-in L pad. All are 8 ohm types. Sizes: 8"; 12x9½x4⅜". Wt. 5¾ lbs. 12"; 16¼x14x6¼". Wt. 9¾ lbs.

Stk. No.	Type	Spk. Sz.	Watts	Finish	Each
86F600	WB-108CS	8"	6	Walnut	7.95
86F601	WB-108CS	8"	6	Blonde	7.95
86F723	WB-408CS	8"	10	Walnut	9.95
86F724	WB-408CS	8"	10	Blonde	9.95
86F725	WB-408CSL*	8"	10	Walnut	12.20
86F726	WB-408CSL*	8"	10	Blonde	12.20
86F606	WB-212CS	12"	18	Walnut	15.75
86F607	WB-212CS	12"	18	Blonde	15.75
86F608	WB-212CSL*	12"	18	Walnut	17.95
86F609	WB-212CSL*	12"	18	Blonde	17.95

SC-2D

SPACE SAVER SPEAKERS AND BAFFLE

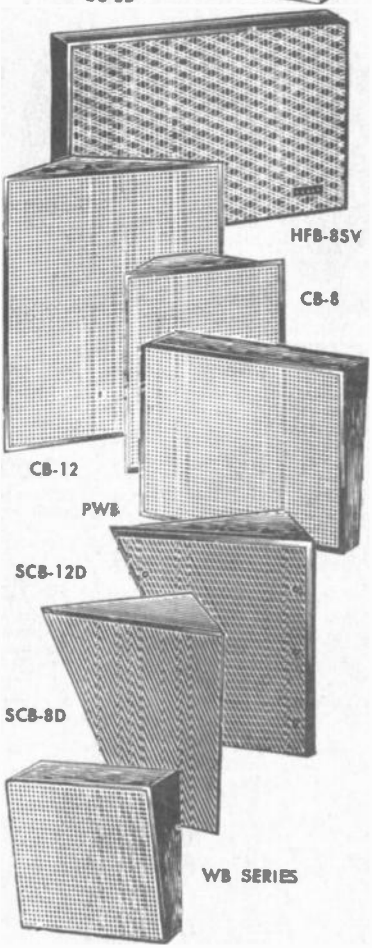
Type HFB-8SV. Only 3¾" thin. Hi-Fi sounding response. Superior to regular PA wall baffles. 8" woofer and 3½" tweeter speakers with volume control. Size: 18"x12"x3¾". Shp. wt. 6½ lbs

Stk. No.	Type	Finish	Each
86F778	HFB-8SV	Walnut	18.57
86F779	HFB-8SV	Blonde	18.57

SOUND CADDY

Type SC-2D. Simple function design using Argos Vinyl covering. Highly portable. Has room for two 12" PA 18 watt speakers. Space below for most amplifiers. Heavy plywood construction, steel corner angles. SC-2D less speakers. Shpg. wt. 20 lbs.

86F599. NET **29.95**



HFB-8SV

CB-8

CB-12

PWB

SCB-12D

SCB-8D

WB SERIES

CB SERIES CORNER BAFFLES

Bass reflex design with effective air mass increased by a corner location. Terminals are located on top of the baffle. no mounting hardware visible to mar appearance. Textured vinyl surface closely resembles wood and is less prone to scratching and easier to clean.

Stk. No.	Type	Finish	Each
86F712	CB-8D	Walnut	7.90
86F715	CB-8D	Blonde	7.90

Model CB-8D. For 8" speakers (max. speaker depth—4½"). 12¼x14x6½". Shipping wt: 4½ lbs.

Model CB-12D. For 12" speakers (max. speaker depth 6¼"). 17x20x9". Shipping wt: 8½ lbs.

Stk. No.	Type	Finish	Each
86F713	CB-12D	Walnut	12.25
86F716	CB-12D	Blonde	12.25

PROFESSIONAL CUSTOM INSTALLATION BAFFLES

Model PWB-8C. For those installations where a large baffle is desired for an 8" speaker Similar to Model WB-8D described above, but with 2½ times the air volume to give greatly improved tone quality at nominal additional cost. Durable, handsome woodgrain vinyl surface; virtually non-resonant rigid construction. Max. speaker depth, 4½". Size 16¼x14x6¼. Shipping wt., 6 lbs.

86F739. Walnut finish. **NET** **6.75**

86F740. Blonde finish. **NET** **6.75**

TAPERED CORNER BAFFLES

Avoids off-angle distortion. 22% more air volume Bass reflex.

Type SCB-8D. For 8" speakers (max. D. 5½") 17¾"x15"x9". Shpg. wt: 6 lbs.

Stk. No.	Type	Finish	Each
86F731	SCB-8D	Walnut	9.45
86F732	SCB-8D	Blonde	9.45

Type SCB-12D. For 12" speakers (max. D. 6"). 20¾"x20"x10½". Wt: 8 lbs.

Stk. No.	Type	Finish	Each
86F733	SCB-12D	Walnut	12.95
86F734	SCB-12D	Blonde	12.95

WALL SPEAKER BAFFLES

Sturdily constructed of plywood. Handsome contrasting cane grille cloth. Specially designed vinyl fabric in walnut or blonde finish. 8", 10", and 12" models have knock out plug under covering for volume control.

Stk. No.	Type	Dia.	Finish	W x H x D	NET
86F754	WB-4/5D	4-5"	Walnut	6½x6⅜x4"	3.23
86F759	WB-4/5D	4-5"	Blonde	6½x6⅜x4"	3.23
86F753	WB-6D	6"	Walnut	8⅛x8¾x5"	3.90
86F760	WB-6D	6"	Blonde	8⅛x8¾x5"	3.90
86F750	WB-8D	8"	Walnut	10x10¾x6½"	4.65
86F761	WB-8D	8"	Blonde	10x10¾x6½"	4.65
86F751	WB-10D	10"	Walnut	12⅛x12⅝x7⅞"	6.00
86F762	WB-10D	10"	Blonde	12⅛x12⅝x7⅞"	6.00
86F752	WB-12D	12"	Walnut	13⅞x14¼x9⅛"	6.38
86F763	WB-12D	12"	Blonde	13⅞x14¼x9⅛"	6.38

PERMA-POWER P. A. EQUIPMENT

ROVING ROSTRUM PORTABLE PUBLIC ADDRESS SYSTEM

Model S120. Self-contained portable transistorized public address system which operates from flashlight batteries. Weighs only 22 lbs., yet provides 25 watts of power, ample for audiences of up to 1000. Part of unit becomes rostrum with built in amplifier and speaker. Other part becomes remote speaker which may or may not be used. Inputs for phonograph, radio, microphone or tape recorder. Comes with cardioid dynamic microphone with 10 foot cable, lavalier cord, gooseneck mike stand, 40 foot cable for remote speaker Each speaker is 6" x 9" with a 10 oz ceramic magnet Luggage style case of scuff-proof Royalite. Size: 8⅞"H x 16¾"W x 17½"D. Wt. 26 lbs.
92F083. NET **198.95**

Model S110. As S110, but with omnidirectional mike.
92F095. .... **169.95**

Eveready type E95. Alkaline "D" cells for use with above, 10 required. Shpg. wt., 5 oz.
49F378. NET .... **.59**

S-120

DIPLOMAT PORTABLE PUBLIC ADDRESS SYSTEM

Model S200. Transistorized 25 watt public address unit completely contained in attache case. Easily carried from place to place, weighs only 16½ lbs. No need to plug in, operates from self-contained flashlight batteries. Supplied with low impedance omnidirectional dynamic microphone, 10 foot microphone cable and lavalier cord. Microphone may be used with several hundred feet of cable if desired. Speaker is a 6" x 9" unit with 40 feet of cable for operation away from amplifier if desired. Anti-feedback housing permits microphone to be used near speaker. Inputs for phonograph, radio and microphone; outputs for auxiliary speaker and tape recorder. Size: 12"H x 19"W x 4¼" D. Shpg wt., 25 lbs
92F093. NET **129.95**

Model S1030. Microphone kit for audience participation. Use two mikes simultaneously Kit includes: additional omnidirectional microphone with 10 foot cord, mixer and 25 foot extension cord.
92F094. NET **39.95**

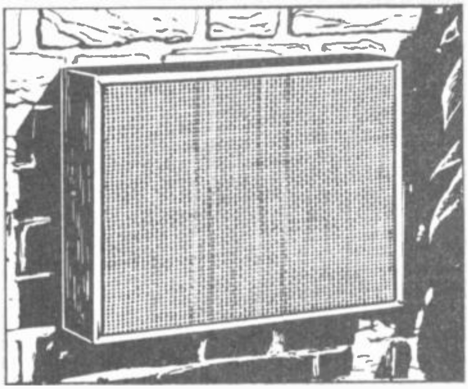
Eveready type E95. Alkaline 'D' cells for use with above, 10 required. Shpg wt. 5 oz
49F378. NET EACH .... **.59**

S-200

ARGOS SPEAKER SYSTEMS

PATIO OUTDOOR SPEAKER

Type PAT-10. Redwood and cane, moisture-resistant, durable speaker for the outdoors. Sealant applied to ¾" redwood provides all sorts of decorative options. Let it weather, stain it, or paint it. Speaker is full range 8" size with 10 watt power capacity. Dual-cone input: 8 ohms. Marine grade plywood is used for the baffleboard. Handy volume control is located at the bottom of the enclosure and saves running indoors for audio level adjustments. This speaker will provide years of enjoyment. Size: 14x10½x3½". Shpg. wt. 5½ lbs.
86F588. PAT-10. **NET** **14.95**



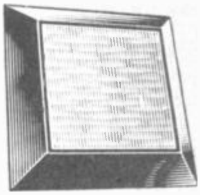
PAT-10

"THE TROUBADOR" TSW-6S SPEAKER SYSTEM

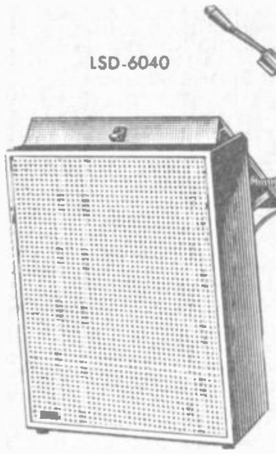
Strikingly different "art frame" design compliments any interior decor Remarkable big-system sound made possible by new Argos heavy-duty, dual-cone, full-range 8-in. speaker, 15 Watts. Exquisite Dusk Walnut or Antique Birch finish, decorator-type Belgian linen grill cloth. May be mounted horizontally or in "diamond" position. Perfect as a pair for stereo reproduction. 8 ohms. Size: 13¼"x13¼"x4". Shipping Wt.: 5¼ lbs.
86F727. Walnut finish. **NET.** **13.95**
86F728. Birch finish **NET.** **13.67**

"THE HALLMARK" TCB-8S CORRIDOR SPEAKER SYSTEM

Versatile and economical new PA speaker and enclosure that mounts on ceiling or wall and speaks in both directions simultaneously. High-quality, 8-in. dual-cone speaker with 4.8 oz magnet, 10 watts for effortless sound reproduction Choice of finishes—Dusk Walnut or Antique Birch. Simplified installation without removal of heavy-duty mounting bracket. 8 ohms. Size: 10¾"x10¾"x3½". Shipping Wt.: 6 lbs.
86F729. Walnut finish. **NET.** **14.95**
86F730. Birch finish. **NET.** **14.65**



TSW-85



LSD-6040

TCB-8C

SPEECH DIRECTOR

Model LSD-6040. New portable, self-powered lectern P.A. system. Compact single-case system provides perfect sound coverage for small groups or audiences of 500 or more. Includes Argos Sound Column speaker system, 20 watt transistor amplifier, unidirectional cardioid microphone with built-in volume control. Amplifier operates from two 12 v. dry cells or regular household current. Battery operating life is in excess of 400 hours. Size: 21" x 16" x 7⅝
86F578. NET. **239.95**

UNIVERSITY SPEAKERS


M-12T


MM-2PPS


FIG. A

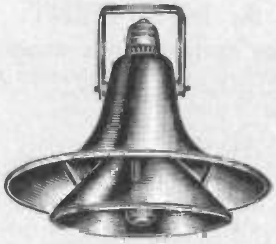


FIG. B


FIG. C

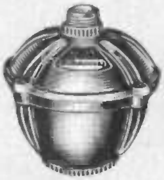


FIG. D


Model CLC

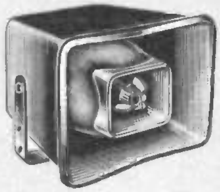

Model MLC


FIG. F

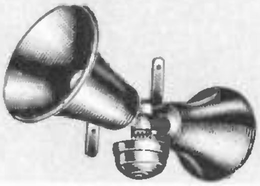


FIG. G

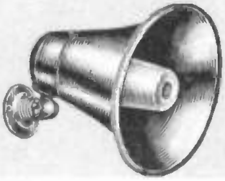
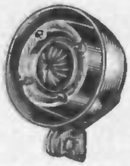


FIG. J


FIG. H


MM 2

MULTI-DUTY SPEAKERS

Model M-12T. High-performance Mustang series. Intended for multi-speaker installations in walls, ceilings, and limited space enclosures. Response: 35-40,000 Hz. Imp. 8 ohms. 30 watts IPM. Dim. 12 15/16" x 3 7/8". Has heavy-duty die cast aluminum basket. Metal parts are electroplated and finished in acrylic paint. Shpg. wt. 9 lbs.
84F127. NET **39.50**

Model MM-2. Supremely rugged speaker for commercial, industrial, military applications requiring a virtually indestructible unit. Immune to salt spray, gases, live steam, fungus and harmful dusts. 350-10,000 Hz, 25 watts, 16 ohm impedance, 150° dispersion. 6" o.d., 5" deep. Shpg. wt., 5¼ lbs.
88F108. Model MM-2. **NET** **37.29**

Fig. A. Reflex Trumpets. Weatherproof. Use with driver units below. Models PH, SMH are directional types (Fig. A). Models SH is high power, compact unit.

Stk. No.	Type	Low Cutoff	Bell Dia.	Horn Length	Wt. Lbs.	Net Each
88F102	PH	150 Hz	20⅜"	15¾"	11¾	26.14
88F103	SMH	200 Hz	16¼"	12"	8	21.60
88F075	SH	350 Hz	8¾"	7"	3¼	21.60

Fig. B. Radial Reflex Projectors. Uniform 360° horizontal dispersion. Excellent for industrial applications and reproduction of chime and liturgical music in church towers.

88F112	RLH	120 Hz	28⅛"	18½"	25	48.60

units have 16 ohm imp. except ID-30T, ID-60T & ID-40T which have multi-impedance line matching transformers built-in. ID-40T matches 45/122/250/500/1000/2000 ohms. ID-60T with 16/80/165/250/500/1000/2000 ohms. Each with 70 V power taps: ID-40T: 40/20/10/5/2.5 watts. ID-60T: 50/30/20/10/5/2.5 watts. ID-30T: 30/15/10/5/2.5/1.25.

Stock No.	Type	Fig.	Range Hz	Power Rating	In. Dia.	Wt. Lbs.	Net Each
88F141	ID-20	....	120-6500	20 watts	3½	2½	16.50
88F142	ID-30	C	85-7500	30 watts	4⅛	3	19.50
88F136	ID-30T	.....	85-7500	30 watts	4⅛	4	28.87
88F143	ID-40	....	80-12000	40 watts	4½	4¼	24.90
88F144	ID-40T	....	80-12000	40 watts	5	5¼	33.60
88F145	ID-60	....	70-12000	60 watts	4 11/16	5¾	34.50
88F146	ID-60T	D	70-12000	60 watts	6¾	6½	42.54
88F138	ID-75	D	150-7000	75 watts	4¼	5	44.70

Model 5433 Transformer. 30 watt line matching transformer. Wide selection of impedances and constant voltage power taps.
88F128. NET **5.46**

Model 5434 Transformer. 15 watt line matching. ¾ lb.
88F129. NET **4.35**

Model CTR. Weatherproof transformer/junction housing for use with 5433 or 5434.
88F126. NET **6.27**

Model 2YC Connector. Permits use of 2 drivers on a single trumpet or radial projector for double power output.
88F107. NET **8.97**

MODEL CLC SPEAKER

Weatherproof, full range 55 to 14,000 Hz. Power rated at 30 watts at 8 ohms impedence. Dispersion area of 120° with a db. level of 108.3 DB. Ideal for natural music reproduction in outdoor areas where weather is a factor. Diameter of bell 22¾", depth 12 1/16". Featuring 14 oz. Alnico magnet. 180° variation—adjustable, serrated "U" bracket. Shp. wt., 20 lbs.
88F149. NET **65.67**

Model MLC Outdoor Speaker. Dual range, 2000 Hz with electrical crossover. 15w without distortion, 150-15,000 Hz, 8 ohms VC, 120° dispersion. 12¾x9⅛x10⅝". Wt., 10¾ lbs.
88F135. NET **39.95**

Fig. F. Cobreflex. For fixed or mobile applications requiring coverage of areas having greater width than height. "Dual Exponential Flare" design. Sound distribution—120° horizontal and 60° vertical. Air column length—2½'. Bell mouth size—18½x9¼". Depth (less driver)—10¼". Takes any University driver unit. Shipping wt., 10¼ lbs. Complete with "U" mtg. bracket.
84F112. NET **27.60**

Fig. G. Model 2WP. Bi-Directional Paging Projector. Low-cost coverage of two opposite areas with one driver, e.g., ID-20 ID-30, ID-40, ID-40T, ID-60. Adjustable mtg. bracket. Each horn: 8½" diam., 20½" long, 120° dispersion, 350 Hz cut-off. 4½ lbs.
88F139. NET **21.60**

Fig. G. Model 2WP-20. Same as projector above except with a 20 watt driver. Shpg. wt.: 7½ lbs.
84F104. NET **36.60**

INDUSTRIAL PAGING SPEAKERS

Fig. H. Model IB-A8. 90° dispersion angle with adjustable wall bracket. Wt., 4½ lbs.

Fig. H. Model Mil-A8. Reflex type for low-power use. High efficiency at speech frequencies. Dispersion angle, 120°. 3¼ lb.
Fig. J. Model CIB-A8. Wide angle mid-range unit for 3-way systems, paging, & intercom use. Dispersion 120" horiz., 60" vert.

All Type Nos. Ending in "T" with Transformer

Stk. No.	Type	Range Hz	Ohms	Power	Size	Net
88F110	IB-A8	250-12,000	8	30W.	10½x9"	22.95
88F079	IB-T	250-13,000	8	30W.	10¼x13"	29.85
88F111	MIL-A8	350-13,000	8	10W.	7 13/16x6⅞"	18.75
88F080	MIL-T	350-13,000	8	10W.	7 13/16x9⅞"	27.95
84F135	CIB-A8	250-13,000	8	30W.	7⅜x14x12"	27.60
84F136	CIB-T	250-13,000	8	30W.	7⅜x14x16"	33.60

PB-1. Transformer Housing. Weatherproof. For MIL-A. CMIL-A, IB-A, and CIB-A paging speakers. Takes any transfomers with up to 2" mtg. ctrs. Shpg. wt. ½ lb.
88F127. NET **2.88**

Model MM-2F. Flush mounting version of MM-2. 7¼" o.d., 3¾" deep.
88F109. NET **38.48**

Model MM-2PPS. All-plastic underwater speaker for all pool installations, using new plastic materials impervious to chemicals ordinarily used in purifying systems. 5¼" dia., ½" flange.
88F137. Model MM-2PPS. Shpg. wt. 5¼ lbs. NET **46.50**

Loudspeakers and Accessories

Jensen

● *NEW* VH-100 RECTANGULAR HORN SPEAKER

Rotatable compression-driver loudspeaker designed for high efficiency sound reproduction. Weatherproof horn unit locks in any position. Power rating: 32 watts, with 8 ohm voice coil. Frequency range: 250-14,000 Hz. Coverage angle: 120°x90°. 6.4 oz. magnet. Size: mouth, 11⅝x8"; overall length, 11⅝"; air column, 8¾". Wt. 5 lbs.

99F1600. NET **26.70**

PROJECTOR HORNS

Model H-150. Ideal for indoor or outdoor applications. Low frequency cut off: 200 Hz. Coverage angle: 95°. Size: 15¾" Dia. x 12". Shpg. wt. 7¾ lbs.

99F1601. NET **22.65**

Model H-200. Similar to above except low frequency cut off. 150Hz. Coverage angle: 85°, Size: 20¾" Dia. x 15½". Shpg. wt. 12¾ lbs.

99F1602. NET **26.10**

Model H-240. Large horn with most concentrated axial coverage. Longer path length and larger mouth give increased low frequency response at 120 Hz. Coverage angle: 95°. Size: 25¼" dia. x 20⅞"l. Shpg. wt. 19¾ lbs.

99F1603. NET **33.00**

Model RT-20. Glass fiber reinforced polyester, with a new versatile shape. Ideal for rough handling as well as for permanent installations. Low frequency cutoff: 140 Hz. Coverage angle: 80°. Size: 26"w x 13½"h x 16⅞"l. Shpg. wt. 15 lbs.

99F1604. NET **32.40**

LIFETIME DRIVER UNITS

Protected against damage from external explosive and shock wave forces by means of the BV-1 Blast Valve. Features: Alnico 5 magnetic structures, self damping non-metallic plastic diaphragms, low contact screwdriver terminals. Shpg. wts.: 3½, 4¼, 8 lbs. respectively.

Stock No.	Type	Watts	Freq. Range Hz.	Each
99F1605	D-30	30	75-7,000	21.00
99F1606	D-40	40	75-10,000	26.00
99F1607	DD-100A	100	75-10,000	69.00

8" SPEAKERS FOR DISTRIBUTED SOUND

P-830. Power rating —10 watts. Frequency range: 30-15,000Hz. Magnet: 2.5 oz. Depth: 3¼". Weight: 1¼ lbs.

99F1614. NET **4.83**

C-835. Power rating—10 watts. Frequency range: 30-18,000Hz. 10 oz. magnet. Nom. V.C. Dia: 1". Overall depth: 2$^{13}/_{16}$". Wt. 1⅝ lbs.

99F1608. NET **6.21**

C-840. Power rating—11 watts. Frequency range: 30-15,000Hz. Magnet wt. 6 oz. Nom. V.C. Dia: 1". Overall depth: 2$^{15}/_{16}$". Wt. 2 lbs.

99F1609. NET **6.69**

C-850. Power rating—12 watts. Frequency range: 30-15,000Hz. Magnet: 10 oz. Nom. V.C. Dia: 1". Overall depth: 3". Wt. 2⅜ lbs.

99F1610. NET **7.32**

C-855. Power rating—12 watts. Frequency range: 30-18,000Hz. Mag. 10 oz. Nom. V.C. Dia: 1". Overall depth: 3$^{1}/_{16}$. Wt. 2½ lbs.

99F1611. NET **7.74**

F-858. Power rating—12 watts. Frequency range: 25-18,000Hz. 10 oz. Mag. Overall depth: 3". Weight: 2⅜ lbs.

99F1613. NET **12.90**

K-950. Power rating—16 watts. Frequency range; 30-18,000 Hz. Magnet: 10 oz. Nom. V C. Dia.: 1". Overall depth: 3¼". Wt. 3½ lbs. **99F1612. NET** **18.15**

MODEL E-516 THEATER LOUDSPEAKER SYSTEM

Stippled charcoal grey cabinet with black textured grille cloth. Heavy 15" l-f unit is coordinated vented enclosure for range below 500Hz. Impedance: 16 ohms. Power: 40 watts. H. C. Angle: 110°. V. C. Angle: 40°. 46"Hx27"Wx18"D. Wt. 90 lbs.

99F1615. NET **299.40**

HIGH POWER COLUMN SPEAKERS

HFC-84 HIGH FIDELITY

Ideal for theater and other high quality sound reinforcement applications. Contains 4 heavy duty 8" speakers. Special suspensions for low resonance combine with multi-element radiators for wide frequency range. Vinyl walnut finish. Power: 100 watts. Freq. range 50-15,000 Hz. Impedance: 8 ohms. Coverage angle: 100°H, 30°V. 13⅛"Wx7¼"Dx52⅝"H. Wt. 52 lbs.

99F1616. NET **165.00**

TXC-56 TOTAL EXPOSURE COLUMN SPEAKER

Weatherproof column has performance characteristics that exceed military specifications, for total exposure applications where clear voice or music projection is required. Rated 100 watts, with 6 Jensen 5¼" Total Exposure speaker units. Power: 100 watts. Freq. range 100-10,000 Hz. Impedance: 8 ohms. Coverage angle: 120°H 50°V. 9⅝"Wx5⅜"Dx40⅝"H. Weight: 33 lbs.

99F1617. NET **150.00**

TXC-84 TOTAL EXPOSURE COLUMN SPEAKER

Rugged total exposure column offers exceptional low frequency performance, plus excellent speech and music clarity. Fully weatherproof, rated 100 watts, with 4-8" Total Exposure speakers for high power and efficiency in the most difficult installations. Power: 100 watts. Frequency range: 50-10,000 Hz. Impedance: 8 ohms. Coverage angle: 95° horizontal, 30° vertical. Size: 13⅛"Wx7¼"Dx52⅝H. Weight: 54 lbs.

99F1618. NET **177.00**

LEVEL CONTROLS FOR COM. SOUND

LC-85. Continuously variable potentiometer for low power, limited budget use in 8 ohm voice coil circuits. 5 watts. Attenuation: step, continuous; range, 30db & off. Depth: 1⅝". Single wall plates separately available.

99F1619. NET **4.08**

LT-810. Tapped potentiometer for high-reliability use in 8 ohm voice coil circuits. 10 watts. 11 switch positions. Attenuation: step, 3dB; range, 27dB & off. Depth: 1⅝". Single wall plates separately available.

99F1620. NOT **7.20**

LV-10. Variable transformer with an exterior protective shell that minimizes the chance of damage during installation. 10 watt load capability. 11 switch positions. Attenuation: step, 3dB, range, 27dB & off. Depth: 2$^{3}/_{16}$". Double wall plates separate-Depth: 2$^{3}/_{16}$".

99F1621. NET **10.50**

LV-35. Similar to above except load capability is up to 35 watts.

99F1622. NET **10.80**

LV-75. Similar to above except load capability is up to 75 watts.

99F1623. NET **13.50**

WALL PLATES FOR LEVEL CONTROLS

Stock No.	Type	Size Plate	Finish	Each
99F1624	PP-1	Sing.	Ivory (steel)	.69
99F1625	SP-1	Sing.	Stainless Steel	1.20
99F1626	PP-2	Dbl.	Ivory (steel)	.93
99F1627	SP-2	Dbl.	Stainless Steel	1.83

MODEL HF-100A 2-WAY PROJECTOR

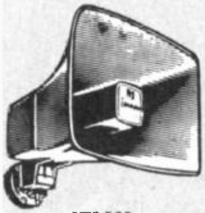
Indoor or outdoor use under all weather conditions. Special heavy duty 8" loudspeaker reproduces frequency range below 2000 Hz. Coaxial assembly. Freq. range: 60 to 15,000 Hz. Power: 25 watts. Impedance: 16 ohms. Coverage angle: 120°. Diameter: 24⅜". Depth: 11⅜". Wt.: 23 lbs. Shipping weight: 30 lbs.

99F1628. NET **92.85**

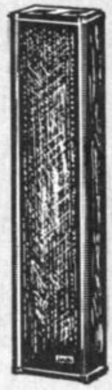
MODEL VH-91A PROJECTOR

Equipped with universal mounting brack-Equipped with universal mounting bracket for wall or shelf. Freq. range: 300-7000 Hz. Power: 15 watts. Impedance: 8 ohms. Mouth dia.: 8⅞". Length: 7⅝". Coverage angle: 360°. Shpg. Wt.: 4¼ lbs.

99F1629. NET **24.00**



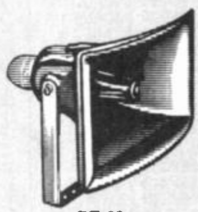
VH-100



TXC-56

H-150

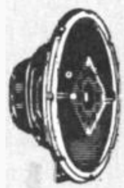
D-40



RT-20

C-835

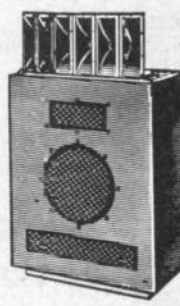
C-850



K-950

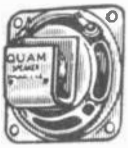
VH-91A

HF-100A

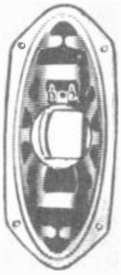


E-516

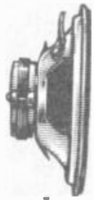
QUAM SPEAKERS


A


C

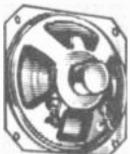

B


D


J


K


E


F


G


H

QUAM REPLACEMENT SPEAKERS

Ideal replacements for speakers in radios, phonos, TV, etc. All have Alnico V magnets, with weight specified in oz. All voice coils below are 3.2 ohms. Std. EIA mtgs. *Multi-ohm 10-20 & 40. **Outdoor speaker

Stk. No.	Type	Fig.	Size	Magnet	Watts	Wt.	Net
56F136	25A07	G	2½"	.65	1.5	¼	2.15
56F171	26A07	J	2x6"	.65	2.0	½	2.50
56F169	30A05	G	3"	.55	2.0	½	1.85
56F144	3A05	G	3½"	.55	2.0	½	1.85
56F115	3A07	G	3½"	.65	2.5	½	2.26
56F182	3A070T**	G	3½"	.65	2.5	½	2.50
56F167	35A05	J	3x5"	.55	2.0	¼	2.23
56F145	4A05	G	4"	.55	2.5	¼	1.57
56F183	4A050T**	G	4"	.55	2.5	¼	2.35
56F117	4A07	G	4"	.65	3.0	½	2.29
56F119	4A15	A	4"	1.47	3.0	¾	2.76
56F142	46A07	...	4x6"	.65	3.5	¾	2.79
56F146	48A2	H	4x8"	1.4	4.5	1	4.26
56F112	410A2	B	4x10"	1.4	6.0	1¼	4.79
56F172	410A2MT*	B	4x10"	1.4	6.0	1¼	5.85
56F137	5A1	D	5"	1 00	3.5	1	2.68
56F123	5A15	D	5"	1.47	3.5	1	2.97
56F125	52A1	D	5¼"	1.00	4.0	1	2.82
56F138	57A1	C	5x7"	1.00	5.0	1	2.97
56F173	57A2MT*	C	5x7"	1.4	5.0	1	3.82
56F126	6A1	D	6½"	1.00	5.0	1	3.12
56F128	6A31	D	6½"	3.16	6.0	1¾	4.47
56F129	69A2	C	6x9"	1.4	8.0	1½	4.00
56F174	69A2MT*	C	6x9"	1.4	8.0	1¼	4.94
56F131	69A3	C	6x9"	3.2	10.0	2	5.20
56F143	8A21	D	8"	2.15	7.0	1½	4.32
56F130	8A31	D	8"	3.16	9 0	2	5.12

NEWARK SPECIALS

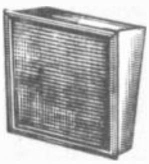


Fig. A


Fig. B

Fig. A—COAXIAL SPEAKERS

Blue cone woofers and tweeters with Alnico V magnets. Cross-over networks housed in dust covers of speakers. 6-8 ohm Z. 8". Response 50-15,000 hz. 8" woofer and 3" tweeter. (.53 oz.) Shpg. wt., 3½ lbs.

83F950. NET **6.65**

12". Response 40-15,000 hz. 12" woofer and 3" tweeter.

83F951. NET **9.95**

15". Response as low as 35 hz. 15 watts. 15" woofer and 5" tweeter (1 oz.) Shpg. wt., 11 lbs.

83F952. NET **13.95**

Fig. B—COAXIAL COMBINATIONS (Order as Shown)

8" coax speaker listed above with walnut Argos baffle, WB8D. Wt., 6 lbs.

83F950.
86F750. NET } **10.95**

8" coax speaker as above wth blonde baffle. Wt. 6 lbs.

83F950.
86F761. NET } **10.95**

12" coax speaker listed above with walnut Argos baffle, WB12D.

83F951.
86F752. NET } **15.95**

12" coax speaker as above with blonde baffle.

83F951.
86F763. NET } **15.95**

MINIATURE PM SPEAKERS

Designed for replacement use in transistor radios and other equipment where there is limited space. Magnet wt., .45 oz.

Stock No.	Model No.	Size	Power Hndlg. Watts	Shpg. Wt. Lbs.	NET
56F164	22A06Z8	2¼"	.25	¼	2.79
56F165	22A06Z100	2¼"	.25	¼	3.09
56F166	27A06Z12	2¾"	.25	¼	2.76

Impedance of speakers, in ohms, indicated by digits following "Z" in model number.

QUAM INTERCOM SPEAKERS — 45 OHMS

*Mylar plastic cone speaker for outdoor use.

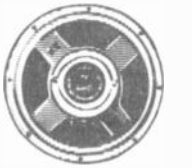
Stk. No.	Type	Fig.	Size	Magnet	Watts	Wt.	NET
56F116	3A07Z45	G	3½"	.65	2.5	½	2.50
56F184	3A07Z450T*	G	3½"	.65	2.5	½	2.74
56F140	4A1Z45	G	4"	1.00	3.0	¾	2.85
56F141	5A1Z45	D	5"	1.00	3.5	1	3.00

QUAM PUBLIC ADDRESS SPEAKERS

Fig. F. Sturdy PM units for voice reinforcement and music. Built to take plenty of abuse! Will handle rated power continuously. All have 8 ohm voice coils. *Has ceramic magnet. Fig. K. **Has ceramic magnet. Extended Range, 50-20,000 hz. Fig. L.

Stk. No.	Type	Size	Magnet	Watts	Wt.	NET
56F175	8A31PA	8"	3 16	10	2¼	5.85
56F176	8A4PA	8"	4.64	12	2¾	7.09
56F181	8A6PA	8"	6.8	12	3¼	7.64
56F114	8C10PA*	8"	10.	12	3	7.03
56F170	8C10PAX**	8"	10.	15	3	7.61
56F180	12A4PA	12"	4.64	15	4	9.23

QUAM EXTENDED RANGE SPEAKERS



Quam speakers meet the requirements of the most critical listener. Freq. response: flat to 12,000 hz. All 12 oz., Ceramic magnets. Voice coil impedance, 8 ohms. V.C. dia. 1¼" 4 lbs.

Model 8C12X. 8". 15 watt. Depth 3⅛".

84F200. Net **10.00**

Model 12C12X. 12". 18 watt. Depth 4½".

84F201. Net **13.47**

NEWARK PM REPLACEMENT SPEAKERS

Ideal for auto, radio, phono, TV, or PA use. Standard mounting dimension allow quick, easy installation in your new or existing equipment. Engineered to achieve clean, sharp, tonal reproduction. All 3.2 ohm voice coil except (*) 8 ohms. (†) 12 ohm voice coil for transistor radios. Built to EIA standards. Rugged construction, trouble-free operation, and excellent frequency response.

Stock No.	Size In.	Shape	Magnet Oz.	Rating Watts	Shpg. Wt.	1-5	6-up
56F250†	2¾	Round	.65	.75	½	1.95	1.75
56F251	3	Square	.68	2.0	½	1.45	1.30
56F252	4	Square	.68	3.0	½	1.60	1.44
56F254	4x6	Oval	1.47	4.0	¾	2.25	2.02
56F255	5	Round	.68	4.0	¾	1.70	1.53
56F257	5x7	Oval	1.47	5.0	1	2.55	2.29
56F258	6	Pin Cushion	68	5.0	1	1.95	1.75
56F259	6	Pin Cushion	3.16	8.0	1	3.00	2.70
56F261	6x9	Oval	2 15	8.0	1½	3.30	2.97
56F262	8	Round	1 47	5.0	1½	2.90	2.61
56F263	8	Round	2.15	6.0	1½	3.25	2.92
56F264*	8	Round	6 8	9.0	2.0	5.35	4.81
56F267*	10	Round	6.8	10 0	2½	6.30	5.67
56F269*	12	Round	4 64	10 0	3	5.95	5.35
56F270*	12	Round	6 8	12 0	3	6.85	6.16

DAVID CLARK CO.

10SB 15SP 800SB 800SM

SOUND POWER HEADSETS

David Clark Company sound power systems provide a light weight, dependable, interference-free method to communicate. Batteries, power supplies or amplifiers are not required. Your voice supplies all the power necessary to operate these maintenance-free units. All headsets shown can be used in same system.

Temporary or permanent installations can be made by using the J-6 junction box, J-2 jack plate or C4009 jumper cord. By using 19AWG or heavier cable, clear transmission can be obtained for two headsets up to a distance of 30 miles. For shorter distances, up to 2 miles, as many as 10 headsets may be used.

MODEL 10SB

Uses a lightweight, durable acoustical boom, entirely eliminating the need for heavy microphone element. This unit is recommended for noise areas up to 115 dB. Cord: two conductor, 30" long. Plug: PJ-054.
35F2400. NET **97.85**

MODEL 15SP.

With noise shielded microphone is designed to provide reliable, distinct, clear communications in noise areas up to 130 dB. A push-to-talk switch is located on the noise shield. Cord: two conductor, 30" long. Plug: PJ054.
35F2402. NET **97.85**

MODEL 800SB

For those who must wear safety hats. Uses a lightweight, durable acoustical boom, entirely eliminating the need for a heavy microphone element. The boom adjusts in all planes, and symmetrical design permits boom rotation so that it can be worn on left or right side. This unit is recommended for areas of medium high noise up to 115 dB Cord: two conductor, 30" long. Plug. PJ-054.
35F2401. NET **97.85**

MODEL 800SM.

With noise shielded microphone is designed to provide reliable, distinct, clear communications in noise areas up to 130 dB. A push to talk switch is located on the noise shield. The behind-the-head headband configuration feature provides that it can be worn with all styles and types of safety headgear. An adjustable over-the-head soft strap gives an added degree of headset positioning and comfort. Cords: Two conductor, 30" long. Plug: PJ-054.
35F2403. NET **97.85**

EXTENSION CORD

Type ASP-334. Extension cord uses neoprene jacketed two-conductor cord with a JJ-026 jack on one end and a PJ-055 plug on the other (JJ-026 jack mates with PJ-054 plug on headsets).

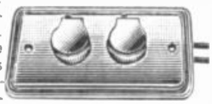
Stk. No.	Type No.	Description	NET
35F2406	ASP-334-12	12' ext. cord	13.11
35F2407	ASP-334-25	25' ext. cord	15.63
35F2408	ASP-334-50	50' ext cord	20.49
35F2409	ASP-334-100	100' ext. cord	30.27

JUMPER CORD

Model C4009. Recommended when only two people are to be in contact with each other. Neoprene jacketed cable is supplied with JJ-026 jack at each end.

Stk. No.	Type No.	Description	NET
35F2410	C4009G-02	12' Jumper Cord	13.80
35F2411	C4009G-03	25' Jumper Cord	16.30
35F2412	C4009G-04	50' Jumper Cord	21.20
35F2413	C4009G-05	100' Jumper Cord	30.95

JACK PLATE



Model J-2. Facilitates easy, multiple station hook-up of sound power headsets. Two headsets are mounted on a standard handy electrical outlet box-plate. Spring activated jack covers provide weather resistance. Up to 15 stations can be joined together without the requirement of an amplifier or other external power source.
35F2405. NET **6.30**

JUNCTION BOX

Model J6. A heavy duty wall box constructed of 14 gauge welded steel 4x2x 2 finished in baked gray enamel over phosphatized surfaces. As many as six headsets may be joined together mechanically at this box. Can be attached to a wall or placed loosely on the floor in a convenient location.
35F2404. NET **35.84**

SOUNDOLIER BAFFLES AND ENCLOSURES

RECESSED TRIM RING BAFFLES

Type 51-8. Steel with a hard baked white finish. For 8" speakers Mtg. hdw. supplied. Size: 12¾" Dia. Wt. 1 lb.
86F628. 1-4 **2.38 ea.** 5-up **2.09 ea.**

Type 61-8. Similar to above except brushed steel finish.
86F629. 1-4 **2.95 ea.** 5-up **2.59 ea.**

60 Series. Aluminum trim ring with a satin brushed finish. Simple lines blend well with the modern architecture.

Type 60-8. For 8" speaker. 12¾" dia.
86F620. 1-4 **3.16 ea.** 5-up **2.78 ea.**

Type 60-12. For 12" speaker. 17" dia.
86F621. 1-4 **4.33 ea.** 5-up **3.80 ea.**

PROTECTIVE ENCLOSURES

95 Series. Cylindrical protective enclosures designed for new or existing construction installations. Heavy gauge steel, undercoated with packed jute lining to eliminate resonance.

Type 95-8. Used with 8" baffles. 9⅞" dia., 4¼" high. Wt. 2 lbs.
86F622. 1-4 **4.86 ea.** 5-up **4.27 ea.**

Type 95-12. Used with 12" baffles. 14⅝" dia., 7" high. Wt. 2 lbs.
86F613. 1-4 **7.01 ea.** 5-up **6.15 ea.**

WIDE ANGLE SURFACE CEILING BAFFLES

Series 210. Includes acoustical horn to radiate sound energy from the rear of the loudspeaker. Horn throat provides phase inverter for extended bass resp. Outer enclosure is finished in flat polar white; inner in brushed satin aluminum. Can be mtd. to std. 4" juncton box or directly to ceiling. 2 lbs.
86F625. Type 210-8. For 8" speaker. **1-4, 12.54 ea. 5-up, 11.00 ea.**
86F626. Type 210-12. For 12" speaker. **1-4, 15.39 ea. 5-up, 13.50 ea.**

LOUVERED RECESSED CEILING BAFFLES

Type 67-8. Similar in style to air diffuser. Designed from heavy gauge steel and completely welded. Aluminum painted finish. Accommodates an 8" speaker. 12" dia. Wt. 1 lb.
86F627. 1-4 **4.53 ea.** 5-up **3.98 ea.**

LOW CEILING RECESSED BAFFLES

Type 68-8. For use with 8" speakers. Satin brushed aluminum finish. Difractor eliminates beaming when used in low ceiling applications. 12¾" dia. x 1$^{5}/_{16}$" Less speaker. Shpg. wt., 1 lb.
86F624. 1-4 **6.92 ea.** 5-up **6.08 ea.**

Fig. A

Fig. B

Fig. C

Fig. D

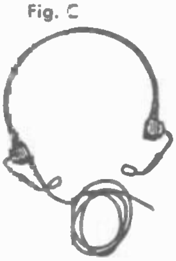


Fig. E

Fig. H

Fig. F

Fig. G

Fig. J

Fig. I

Fig. K

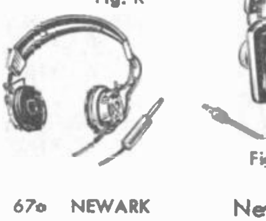


Fig. EN-5

TELEX HEADSETS

SERIES 600 MAGNETIC HEADSETS

Fig. A. With removable ear cushions. Rugged magnetic elements—high impact plastic construction with standard ¼" molded phone plugs. Shpg. wt.: 12 oz.
Type 600-4. Dual phones, 2000 ohms with high impedance ceramic mike.
27F440. NET **21.95**
Type 610-1. Dual phones, 600 ohm, nc mike.
27F426. NET **6.95**
Type 610-2. Dual phones, 2,000 ohm, no mike.
27F427. NET **6.95**

TELEX TWINSET

Fig. E. Suitable for light planes and airlines. Either ear tip may be removed for monitoring. Tough grey tenite with nickel plated metal parts. Cord supplied with standard phone plug. Shpg. wt. 12 oz.
Type HTW-2. 500 ohms.
27F404. NET **14.50**
Type HTX-2. 1000 ohms.
27F406. NET **14.50**

MUFF STYLE MAGNA-TWIN

Fig. F. Rugged construction for use in professional and general communications. Adjustable plastic covered stainless steel headbands. Washable vinyl earmuffs. 5 foot cord with standard phone plugs. Freq. range 50-10000 hz. Specially designed magnetic drivers. Shpg. wt., 3 lbs.
Type MR-6. 500/600 ohm receivers. No Mike.
27F396. NET **18.95**
Type MR-4. 10,000 ohm receivers. No Mike.
27F368. NET 18.95
Type MRB-75. With 50 ohm carbon mike and single 500/600 ohm receiver. 2 plugs.
27F371. NET 24.95
Type MRB-30. With high Z ceramic mike and 10,000 ohm receivers. 2 plugs.
27F417. NET 32.95

TELEX TELE-FI

Fig. G. Unique 3-D design to give 30% better undersanding. Replaceable foam plastic ear cushions. Freq. response 60-6000 Hz. Listening level, 1 mw; max level, 25 mw. With 5 foot cord and phone plug. Shpg. wt., 5 oz.

Stk. No.	Type	Ohms	NET
27F390	HFR-91	15	5.95
27F437	HFV-91	125	
27F375	HFW-91	500	
27F376	HFX-91	1000	
27F391	HFY-91	2000	

DYNAMIC PILLOW SPEAKERS

Fig. H. Flat construction makes these speakers less bulky under a pillow. With cord and standard ¼" plug.

Stk. No.	Type	Ohms	Each
27F420	SDN-2A	3.2	6.95
27F411	SDM-7A	10,000 w/vol. cont.	11.95

MODEL 799 MONOSET

Featherweight under - the - chin headset Complete with 5' cord with ¼" phone plug. Features adjustable tonearms and removable eartips. 5 oz.

Stk. No.	Type	Ohms	NET
27F430	799-1	15	7.95
27F431	799-2	125	
27F432	799-3	500	
27F433	799-4	1000	
27F434	799-5	2000	

CUSHIONS AND CORDS

Type ACV-1. Cushions for MRB series.
27F384. NET, per pair **1.50**
Type ACT-2. Cushions for HM series.
27F385. NET, per pair 1.00
Type CCT-2. Coiled cord for 799 HF, EM series.
27F386. NET 2.95
Type CCM-2. Coiled cord for twinsets.
27F387. NET 2.95
Type CMT-2. Standard cord for 799, HF, EM series.
27F400. NET 2.25
Type CMM-2. Standard cord for twinsets.
27F410. NET 2.25

PERSONA-PHONE

Model 62185-00. A private listening device for institutional applications such as churches and temples, lodges, theaters libraries, museums, exhibits, auditoriums, mortuaries, etc. It provides a sound level compatable with the acuity of the user's hearing without disturbing others. The unit is equipped with two receiver earsets, each with its own volume control to accommodate two individual listeners. Each receiver unit consists of a 5' extended cord, a Tele-Thin receiver and a plastic earshell of universal shape to fit all listeners. Entire receiver weighs less than 1.5 oz.
27F441. NET **34.00**

● NEW ENCORE STEREOPHONE

Model EN-5. Low cost lightweight with new superflex 8' cord. Frequency Response 50 to 18,000 Hz. Cushions in phone are removable. Brown with Avocado Green trim. Has molded 3 circuit plug.
27F439. NET **9.95**

● NEW COMBO STEREO HEADPHONE

Fig. B. CBO-1. Sensitivity 100 db. SPL/mw. Frequency Response 10 to 12,000 Hz. Designed for 3 to 16 ohm impedance. Distortion at normal listening is less than 1%. 8 ft. cord. Shpg. Wt. 12 oz.
27F438. NET **19.95**

STEREO TWIN HEADSETS

Fig. D. Sensitivity 95db SPL at 1 mw. Frequency response 16 to 15,000 hz. Dynamic element with 3 to 16 ohms impedance. Tan color complete with 8' cord and plug. wt. 12 oz.
27F372. Type ST-10. NET **24.95**
Type ST-20. As above, with individual controls on each ear-muff.
27F407. NET **34.95**

TELEX "TV LISTENER"

Fig. C. Type LCP-90. Light, comfortable individual listening to radio or TV. Earset plugs into jacks on control. Volume control for ear sets. With 15 ft. of cord. 12 oz.
27F424. NET **9.95**
Extra Earset. Exactly like the one supplied with "TV Listener" above. 6 oz.
27F435. Type ELV-98. **Net** 2.95

LANGUAGE LAB HEADSETS

Fig. J. Dynamic microphone cancels noise. Boom rotates 310°. Response: 20-20,000 hz. Sens: 107db SPL. 14 oz.
Type 1210-02. No mike, 600 ohm headset.
27F412. NET **21.95**
Type 1200-22. 300 ohm mike, 600 ohm head set.
27F413. NET **30.95**

REPLACEMENT CORDS AND CUSHIONS
Type DSC-1. Cord with 1 plug for 1210-02.
27F414. NET **3.35**
Type DSC-2. Cord with 2 plugs for 1200-22.
27F415. NET **4.75**
Type ACV-3. Cushions for 1200 series.
27F416. NET per pair 1.50

TELESET

Fig. K. General purpose headset. High effective sensitivity due to close ear coupling. Response 50-10,000 hz with 115 db SPL for 1 mw input. 180° cup rotation. Stainless steel and high impact plastic. Wt.: 8 oz.
Type HM-100. 2,000 ohm impedance.
27F402. NET **14.50**
Type HM-500. 500 ohm imped.
27F403. NET **14.50**

EARSETS

Complete with metal earloop, 5 ft. cord and std. phone plug. 4 oz.

Stk. No.	Type	Ohms	NET
27F379	EMR-2	15	4.55
27F380	EMV-2	125	
27F381	EMW-2	500	
27F382	EMX-2	1000	
27F383	EMY-2	2000	

TRIMM HEADSETS

FIG. A

FIG. B

FIG. C

FIG. D

FIG. E

FIG. F

FIG. G

TYPE "L" HEADSETS

Fig. A. Lightweight high quality headsets. Employs new floating diaphragm which provides response unaffected after prolonged exposure to elevated temperature and humidity. FREQUENCY RESPONSE up to 9000 cps. Extremely ruggedized construction with capsuled sound penetrating unit within an outer shell. More durable than crystal type phones. Nylon braided 6' cord.

27F351. Type 50-08. 8 ohm. **NET** .. **13.80**

27F352. Type 50-2M. 2K ohm. **NET** 13.80

27F353. Type 50-12M. 12K ohm. **NET** 14.40

STANDARD MONAURAL HEADSETS

Fig. B—Series 56. Monaural headsets with vinyl covered adjustable headband and new yoke adjustment device. Electro-magnetic design with "floating" diaphragm. Frequency range to 9,000 cps. Neoprene 5 foot single cord is integral part of headband. Shpg. wt., 1 lb.

Type 56-08. 8 ohm impedance
27F344. NET **16.59**

Type 56-2M. 2000 ohm impedance
27F345. NET **16.59**

Type 56-12M. 12,000 ohm impedance.
27F347. NET 17.19

ACME HEADSETS

Fig. C. Model 24-2K. Double headset. Ideal for Crystal sets and scores of applications requiring a low cost set. Res. 2000Ω. Bakelite molded shell and cap, shell ribbed to increase strength. 4½ ft. braided tinsel cord. Phone tip terminals.

27F584. NET **2.46**
27F586. Type 24-03. 3.2 ohm. **NET** 2.37

Fig. D. Model 27-1K. Single Headset. Lightweight single headphone with headband, Imped. 1000 ohms. 4½' long flexible vinyl cord. Shpg. Wt. 4 oz.
27F585. NET **1.35**

TRIMM TV HEADSET KIT

Fig. E. Type 632. TV accessory for private hearing of TV sound. Consists of outlet box with two phone jacks, off-on and volume controls, 15 feet of three-conductor cable, one low impedance headset with 4½-foot cord and plug. 3¾x2⅛x1¼" 2 lbs.
27F579. NET **7.59**

"FEATHERWEIGHT"

Fig. F. Type 106. Compact headphones weighing only 4 oz. Have forged bakelite shells and caps, and adjustable headband. 24,000 ohms for picking up weak **signals.** 6 ft. moistureproof cord. Wt. 9 oz.
27F580. 24000 ohms. **NET** **7.20**
27F560. Type 104-2K. 2000 ohms. **NET** 7.20

"EAR CUSHIONS"

For comfort and elimination of disturbing outside noises. No. 654 fits Acme, Featherweight and "L" Type phones. No. 660 fits Dependable and Brush phones; Molded of soft sponge rubber. No. 655 fits "L", Mil ANB-H-1 and Permoflux units; Molded of solid rubber. No. 656 fits the same types as No. 655 but recommended as better choice; Sponge rubber face, rubber back.

27F557. No. 654. NET per pair.................. **.96**
27F355. No. 655. NET per pair..................**1.80**
27F356. No. 656. NET per pair..................**2.52**
27F357. No. 660. NET per pair..................**1.50**

"DEPENDABLE"

Fig. G. Type 70-2K. Bakelite shells and caps, plastic covered headband. 5' braided cord. Wt. 1 lb.
27F581. 2000 ohms. **NET**....................... **3.33**
27F583. Type 70-4K. 4000 ohms. **NET** **3.69**
27F587. Type 70-03. 3.2 ohm. **NET** **3.15**

STEREO HEADSET

Type 56-14-08. 8 ohm stereo headset designed for broadcast and Hi-Fi use. Frequency response to 9000 cps. Vinyl covered double headband with new yoke adjustment device. Conductor cord with three-circuit plug. Shpg. wt., 1 lb.
27F349. NET **18.99**

CLEVITE-BRUSH

COMBINATION HEADPHONE-MICROPHONE

Model ED-400. High performance microphone with the ED-300 headphone listed below. Convenient locking swivel adjustment places microphone at correct recording position for any user; 180° boom allows full audio and visual response. Roller pin earphone adjustment with a stainless steel headband with washable polyvinyl chloride cover. Supplied with Custom Ear Cushions. Microphone lightweight with high sensitivity and a frequency response that meets all educational standards. Headphones are suntan color. Microphone is white.
27F364. NET **44.50**

CRYSTAL HEADPHONES

Model BA-200-1. High impedance crystal headphones. Extremely lightweight (6 oz.) and very sensitive. For schools, laboratories, etc. Response: 100-5,000 cps. Cone-type diaphragm. Molded plastic case. Require small DC blocking condenser for DC circuits. With 4-ft cord and headband. 2 lbs. With attached plug.
27F365. NET **22.00**

27F570. Type BA-200-2. As above, but with eyelet terminals. **NET**.............**22.00**

BINAURAL MODELS

With binaural cords. The impedance of the binaural model is double that of regular model. Double headphones.

27F363. BA-200B (90K ohms) **24.40**

EDUCATIONAL HEADPHONES

ED-300. Frequency response 50-10,000 CPS ±3db from 50-18,000 CPS Impedance 50K ohms at 1Kc. Constructed of rugged telephone material with attractive design. The headband is stainless steel covered with washable pholyvinylchloride. Custom Ear Cushions (260649) supplied. Phones can be easily removed by pressing out roll pin. The acoustic bronze filter facilitates perfect dependability. Stands rigorous long lab. usage. Suntan color. Wt. 9 oz. 8" x 8½" x 3¼".
27F358. NET **28.00**

Type 260649. Custom Ear Cushions, supplied as standard equipment with ED-300 and ED-400.
27F367. NET, per pair **1.50**

CUSTOM CUSHION

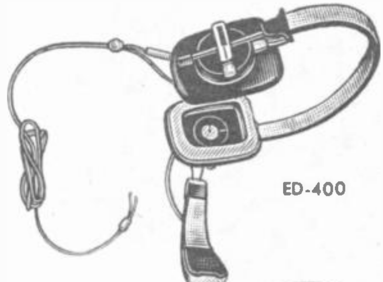
Type 262720. Grey Custom Cushions for BA-200.
27F574. NET per pair **1.50**

SINGLE PHONE SET

Model BA-201. As above, but consists of a single phone complete with 4-ft. cord and spring steel headband with end-cushion. Shpg. wt., 1 lb.
27F571. NET........................ **18.70**

• NEW CS-2500 STEREO HEADPHONE

Model CS-2500. Lets listener hear stereo in perfectly balanced acoustic isolation. Freq. resp: 20-1600 hz. imp. 4 to 16 ohms Sensitivity 104 db for 1mv input at 1K With removable, washable ear cushions. Driftwood grey. Shpg. wt. 1½ lbs.
27F575. NET **24.95**



ED-400

BA-200

CS-2500

AM-15

C. F. CANNON

ALNICO MAGNETIC HEADSETS

Powerful Alnico permanent magnets assure high fidelity response and excellent volume over wide frequency range. Bakelite case and caps with 4½ ft. flexible tinsel cord with phone tips. Adjustable headband. Shpg. Wt., 14 oz.

27F448. Type AM15-2. 2000 ohms .. **2.58**
27F449. Type AM15-3. 3000 ohms 2.73

CORDS

Copper tinsel conductor.

Single Cords. 4½ ft. Shpg. wt., 2 oz.

27F552. Tips 1 end, ring term on other.
27F553. Tips on both ends.
NET EACH .... **.38**

Double Cords. 4½ ft. Shpg. wt., 2 oz.

27F554. Spade-lugs 1 end; tips on other.
27F555. Tips on both ends.
27F556. Ring terminals on one end; tips on other.
NET EACH .... **.53**

5000

5020

8000

UNIVERSITY MICROPHONES

Model 8000. High performance dynamic Cardioid. Response. 70-13,000 Hz. Sensitivity: 154 db (EIA). Output level: 55 db/1MW/10 microbar 250 to 20,000 ohms. Complete with 18 ft. cable, Cannon plug, and receptacle and desk stand adaptor. Shock mounted — Guaranteed for five yrs. Shpg. wt. 1¾ lbs.
61F200. NET **34.95**

Model 8100. Same as above except with a switch. Shpg. wt. 1¾ lbs.
61F201. NET **37.85**

DS-1 DESK STAND

Made of extruded aluminum, designed to be "non-tippable", cannot be knocked over. Has ⅝"-27 thread on 5" upright. Base measures 4½ x 6". Shpg wt. 1 lb.
61F206. NET **2.85**

Model 5000. Cardioid dynamic microphones. Response: 25-20,000 Hz. Imp: Var. 250 & 20,000 ohms. Output level-54 db. Sensitivity rating-147 db. Comes with wired in cable and standard adapter. 7⁷⁄₁₆" long. 2³⁄₁₆" dia. Shpg. wt. 2 lbs.
61F207. NET **51.60**

Model 5020. Same as above model 5000, but with Amphenol connector and SA-10 stand adapter. 8⁵⁄₁₆" long. 2³⁄₁₆" dia. Shpg. wt. 2½ lbs.
61F208. NET **56.95**

Model 5050. Same as model 5020, but includes on/off switch. 9⅝" long 2³⁄₁₆" dia. Shpg. wt. 3 lbs.
61F209. NET **59.95**

5050

DS-1

ELECTRO-VOICE MICROPHONES

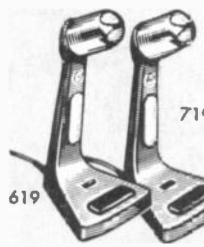
641

634-A

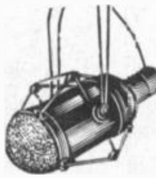
729

714
717

305



719
619



665

LOW COST CARDIOIDES

Model 641. Modern two-tone design dynamic microphone. High output level, response: 70-10,000 cps. Output —57 db. 16' cable. Case is chrome plated die-cast zinc and gray high impact plastic. HI-Z. Wt. 1 lb.
61F584. NET **24.90**

Model 641. As above with LO-Z.
61F585. NET **24.90**

Model 634A. Similar to Model 641 except without on-off switch. For gooseneck mounting.
61F586. HI-Z NET **18.90**
61F587. LO-Z. NET 18.90

Model 729 Hi-Z. Ceramic Cordioid. Random noise, reverberation, and feedback reduced by 67%. Front pick-up range nearly double that of pressure microphones. Tailored for single side band. Output is —60 db. Response is 60 to 8,000 hz. High impedance only; 8½' cable, desk stand, and floor stand adapter supplied. Size: 1½"W x 8¼"H x 1⅜"D. Shpg. wt., 9 oz.
61F565. .... **15.30**

Model 729SR. As above, but with Relay Control switch.
61F566. .... **16.80**

Model 210E. Carbon. Single button carbon mike. Substantially flat response. Matches 150 ohm input. Output —50 db. Press-to-talk switch. Res. 100-7000 Hz 6' coiled cord. Wt., 1 bl.
61F527. NET **21.90**

Model 666. High discrimination against sounds from back. Permits close talking without bass accentuation. Working Distance increased by 1.7:1 over pressure microphones. Has rugged Acoustalloy diaphragm. Response: 40 to 15,000 Hz. Output: —58 db. Wired for 150 ohms; taps at 50 and 250 ohms. Length: 7¾". Dia. 1¾". (Shank 1" dia.) Wt. 11 ounces.
61F540. NET **162.00**

Model 665. Similar in function to the 666, but for less exacting applications. Uniform response 70 to 13,000 Hz. Recessed switch in stud provides 50 or 250 ohms. Pressure case zinc case. Non-reflecting gray finish. Diameter, 1⅞"; length, 7⁹⁄₁₆"; 18' cable. Fits ⅝"—27 threaded stand. Wt. 1 lb. 10 ounces.
61F597. NET **96.00**

Model 619. "Press to Talk" Dynamic. Press-to-talk switch at base may be moved to upper part of stand for grip-to-talk operation. Response: 70-10,000 cps. Output —57 db. Hi-Z or balanced Lo-Z must be specified. 16' cable. Size: 4⅜"x 9"x4¾". Wt. 2 lb. 2 oz.
61F512. Hi-Z. NET **30.00**
61F513. Lo-Z. NET **30.00**

Model 714. High impedance output —55 db over range of 100-7000 cps. DPDT switch shorts microphone in "off" position. 3 conductor coiled cord 10' retracted. 10 oz.
61F572. NET **10.50**

Model 717. Similar to Model 714 except close talking cardioid pickup pattern. Shpg. wt., 10 oz.
61F573. NET **12.30**

Model 805. Contact Mike. For playing guitars etc. Employs Hi-Z sealed crystal element. 15' cable. Shpg. wt., 8 oz.
61F521. NET **12.60**

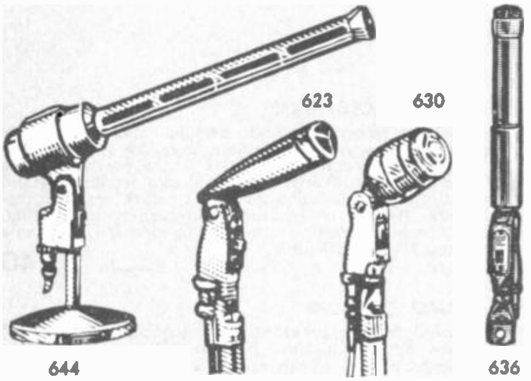
Model 719. "Press to talk" Ceramic. Die-cast stand and head. Switch may be used in base or moved to upper part of stand. Hi-Z. Output: —56 db. Response: 70-7,000 cps. 16' cable. 4⅜"w x 9"h. Net weight: 2 lbs. 2 oz.
61F514. NET **17.40**

Model 668. Cardiod is designed specifically for boom use. Integral wind screen. Built in equalizer provides choice of 4 response curves in both high and low frequency ranges. Response: 40 to 10,000 hz. Output —51 db. Internal impedence selector permits 50, 150, or 250 ohm connection. 2' mechanical isolation cable and 20' 3-conductor shielded broadcast cable included. Supplied with shock insulating boom mount. Acoustalloy® diaphram. Length: 9⅝", dia.: 3¼". Shpg. wt., 2 lbs.
61F575. NET **297.00**

Model 667A. Same as above, but has selection of 3 low frequency and 2 hi-freq. response curves.
61F592. NET **207.00**

NEWARK HAS ELEVEN STOCKING WAREHOUSES TO SERVE YOU

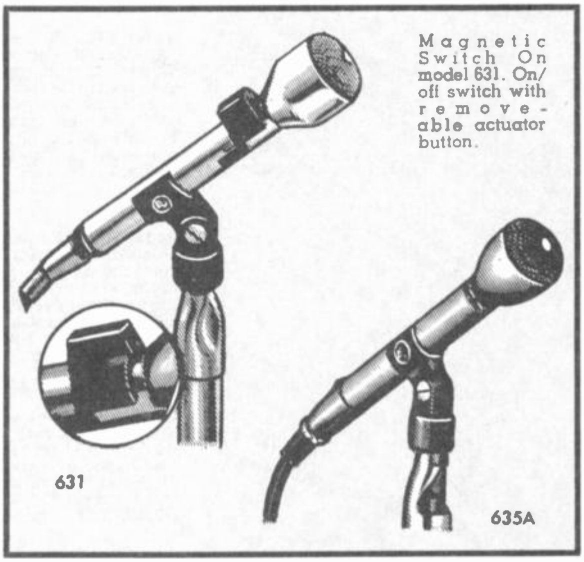
Electro-Voice



UNDIRECTIONAL LINE MICROPHONE

Model 644. Sound Spot.® A combination cardioid and distributed front opening instrument. Working distance increased 2½ times over pressure microphones with no change in response. Distributed front opening extends the frontal pick-up on the microphone axis. Above 700 hz., cancellation of sound at rear and sides providing rejection of random noise, reverbration, and feedback. Narrow angle of acceptance (45° on each side of axis) permits isolation of individual performers. Low response to wind noise and shock. Response: 40 to 10,000 Hz. Output — 53 db. high Z. Lo Z attained by moving one wire in cable wired connector. Has pressure cast zinc case, satin chrome finish. Has on/off switch. Amphenol MC4M connector. ⅝" stand coupler. 16"L, 2³⁄₁₆"D. With 15' cable. Net wt. 4 lbs.

61F567. NET **69.30**



Magnetic Switch On model 631. On/off switch with removeable actuator button.

OMNIDIRECTIONAL MICROPHONES

Model 623. Slim Dynamic. For PA recording. Response: 80 to 12,000 hz. Output—58 db. Wired Hi-Z. Lo-Z by changing 1 wire in connector. Tiltable Head. On/off switch. Accoustalloy diaphragm. Built in MC-4 connector. 7½x1⁵⁄₁₆". With 16' cable. Net wt. 1½ lbs.

61F544. NET **36.00**

Model 630. General purpose mike. Response, 60-11,000 Hz. Output level —55 db. High Z. Built-in cable connector. On-off slide switch. 16' cable. Satin chrome finish. Shpg. Wt., 3 lbs.

61F507. NET **33.00**

Model 630. As above—but with Low Z.

61F583. NET 33.00

Model 636. Slimair. Response: 60 to 13,000 Hz. wired Hi-Z. Lo-Z by changing 1 wire in connector. Output—58 db. Pop-proof, tiltable head. On-off switch. 10¼x1⅛". With 15' cable. Net wt. 2 lbs.

61F501. NET **45.60**

Model 635A. Broadcast mike. Finish provides magnetic shielding. Accoustalloy diaphragm. Pop filter eliminates need for wind screen. Response: 80-13,000 hz. Lo-Z. Output: —55 db. With 2-cond. 18' cable, Cannon XL-3 plug, & 310 clamp. 6x1⅜". Net wt. 6 oz.

61F504. NET **49.20**

"HAND & STAND" DYNAMIC

Model 631. Omnidirectional entertainer's microphone. Lightweight, rugged, and shockproof. 4-stage filter allows close-up use without blasting, pops, or distortion. Silent, magnetic on/off switch with removeable actuator button. Response: 80-13,000 hz. Output- 55 db. With cable and 310 stand clamp. Size: 6" l. x 1⅜" head dia., ¾" shank dia. Net wt. 6 oz.

61F593. High Z. **37.80**

61F594. Low Z. 37.80

CERAMIC/CRYSTAL MICROPHONES

Model 911. Crystal. Output, —50 db.; response: 50-10,000 Hz. Metal Seal Crystal. MC-1 connector. Hi-Z.

61F508. NET **22.50**

Model 727 SR. Hi-Z. Slim ceramic general purpose mike with desk & floor stand adapter. 60-8000 Hz. Output: —55 db. 8½' cable. With relay control switch.

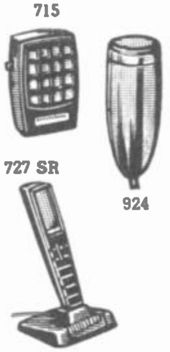
61F564. NET **14.70**

Type 715. Use in any position. Ceramic element. Response: 60-7000 Hz. Output: —55 db. Hi-Z. Omnidirectional.

61F530. NET **9.30**

Model 924. Lavalier Crystal. Supplied with neck cord, support clip and 18' cable. Output: —60 db. Response: 60-8000 Hz.

61F542. NET **14.70**



DYNAMIC LAVALIERS

Model 649B. Miniature lavalier microphone which weighs only 31 grams without cable. Ideal for programming where concealed placement is desirable. Response: 70-10,000 Hz. Output: —61 db. 2¼" long, ¾" dia. Complete with neck cord, belt clip and stand mounting clamp. Matches all low impedance inputs. Shpg. wt. 1 lb.

61F553. Model 649B. **NET** **66.00**

Model 647A. Smallest high quality mike in PA field. Rugged construction assures long life. Frequency response: 70-10,000 Hz. Accoustalloy diaphragm. Output level —60 db. Satin chrome finish. Tiltable head. 18' cable. Wt., 1 lb.

61F535. HI-Z. **NET** **51.90**

61F536. LO-Z. 150 ohms. **NET** 51.90

E-V MICROPHONE STAND & ACCESSORIES

Model 300. Detachable microphone clamp. Fits 1" to 1⅛" microphones providing positive mounting to ⅝"-27 stand. ½ lb.

83F012. NET **4.80**

83F019. Model 310. As above, for ¾" diameter 3.90

Model 418. Desk Stand. For use with Models 611, 623, 630, 641, 636, 674, 911 and 951. Gray finish. Shpg. wt., 3 lbs.

83F016. NET **8.10**

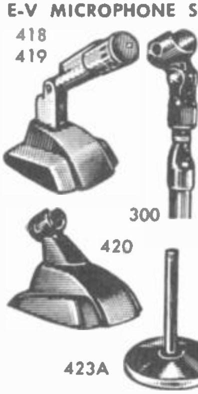
83F014. Model 419. For 644, 664, 665 .... **8.10**

Model 420. Cast iron desk stand in TV gray For 1" dia. microphones. Models 666, 655C, 654A, 652, 652A and 676.

83F010. NET **12.60**

Model 423A. Desk Stand. Satin chrome stand on 5⅛" dia. base. With rubber base buttons and 5" matching stem riser. Wt. 1 lb.

83F003. NET **3.60**



Model 428. Touch-to-talk stand has DPDT switch with locking latch and fast-operating release. Takes ⅝"-27 thread. 7" high with base. Shpg. wt. 2 lbs.

83F004. NET **18.90**

Model 335A. Windscreen. Acoustifoam windscreen for Models 630, 634, 641. Net wt. ½ oz.

83F009. NET **7.80**

Model 355. Windscreen. Also protects against mechanical shock damage and pickup of dust and magnetic particles. For use with models 655C, 654A, 636, 623. Gray. Net wt. ½ oz.

83F008. NET **6.90**

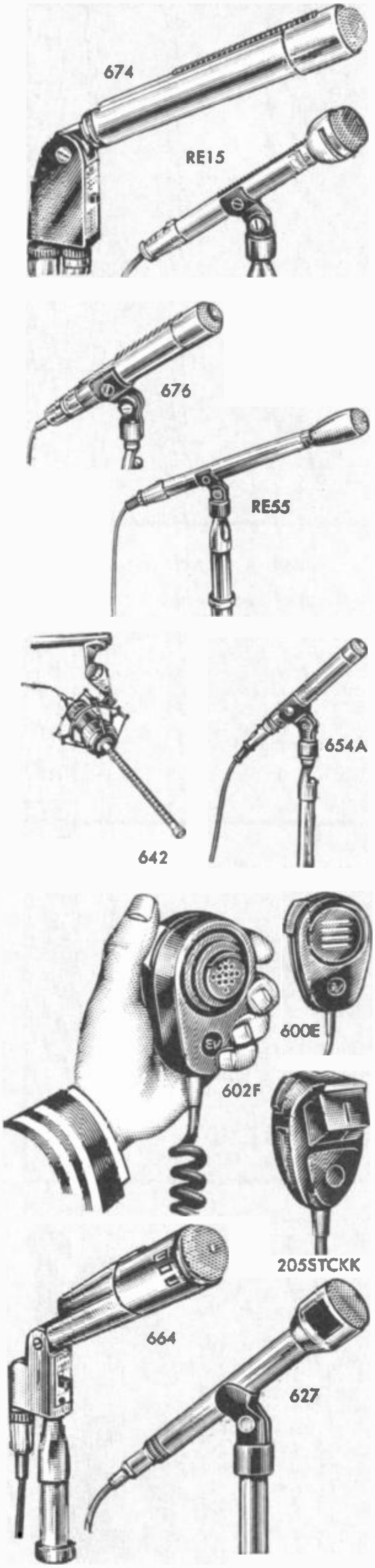
Model 524A. Windscreen. Designed for use with Model 666. Made of Acousifoam, minimizes wind effect on boom operation. Net wt. ½ oz.

83F017. NET **7.50**

Model 337. Windscreen designed for use with Model 627.

83F020. NET **4.80**

Electro-Voice®



CARDIOID MICROPHONE

Model 674. Continuously Variable-D microphone which assures uniform symetrical cardioid pattern at all frequencies. Frequency response from 50 to 15,000 hz. Highest discrimination against feedback and unwanted sound. Three positoin switch offers controlled low frequency attenuation to overcome rumble and feedback when microphone is used at a distance. Stud-mount for use on floor or desk stand. Incorporates on/off switch. High pressure die-cast construction. Acoustalloy diaphragm. Wired for Hi-Z. Low impedance available by moving one wire in new Q-C-4M cable connector. Output-57 db. 15' cable. Size: 7⅜" l. x 1¼" dia.
61F515. .... **53.40**

SUPER CARDIOID

Model RE15. Super-cardioid directional pattern provides maximum rejection at 150° off axis, maintains essential cardioid pattern at other positions. Response virtually identical at any position around microphone, eliminating off-axis coloration. With "bass tilt" switch. Non-reflecting matte satin nickle finish. Rugged case and inner construction. Response: 60 to 15,000 hz. Impedence: Lo-Z. Output —55 db. 18' 2-conductor shielded broadcast cable with Cannon XLR3-11 connector. Size: 6 7/16" L, 1⅜" dia. ("¾ shank dia.) With metal case and 310 clamp. Net wt. 8 oz.
61F596. NET **153.00**

MODEL 676

Similar to Model 674, except less mounting stud and on/off switch. 60 to 15,000 hz with low frequency attenuation switch. Slim design permits full view of person speaking. May be held in hand or mounted with model 300 clamp supplied. Wired for high Z. Low impedance available by moving one wire in cable connector. Output level —57 db. Satin chrome finish; 15' cable. Size: 7⅜" by 1¼" dia. Shpg. wt., 12 oz. without cable.
61F582. NET **53.40**

● *NEW* OMNIDIRECTIONAL MICROPHONE

Model RE55. Dynamic omnidirectional microphone designed for the most demanding professional applications. Ideal for boom or stand mounting in recording and broadcast use. Exceilent for close-up hand held use in stage and interview situations. This microphone features the non-metallic Electro Voice Acoustalloy diaphragm that assures smooth frequency response and is impervious to damage from temperature and humidity. Freq. Res. 40 to 20,000 Hz. Imp: Lo-Z (150 ohms).Output Level: —55db. 10½" long, (shank ¾" diameter.) Has matte satin nickel finish. Cable: 18', 2-conductor, shielded, rubber jacketed, broadcast type cable with Cannon XLR-3-11-C. Wt. 8½
61F595. NET **126.00**

MODEL 642

Highly directional microphone combining the characteristics of cardiod and distributed front-opening designs. Unidirectional up to 500 cps.; Working distance 2 to 3 times that of conventional types. Excellent for boom use. Minimum mechanical shock transfer and wind noise interference. Response. Flat from 40-10,000 cps. or choice of 5 or 10 db. low frequency reduction steps by screwdriver adjustment. Acoustalloy diaphragm. Impedance: 50, 150, and 250 ohms externally adjustable Output level: —48 db. Length: 17⅞", max. dia., 3 5/16". Shpg. wt. 3½ lbs.
61F568. Model 642. **NET** **234.00**
Model 324. Shock and suspension mount for model 642 Will accept 326 windscreen.
61F576. Model 324. **NET** **40.80**

MODEL 654A

Versatile Dynamic. Slim, versatile broadcast microphone can be used on stand, in hand or as lavalier. Provides maximum usefulness with high quality. Omnidirectional. Frequency response, 50-15,000 Hz, substantially flat. Acoustalloy® diaphragm. Output —57 db. Matches all low impedances. Supplied with accessory neck cord and stand mount clamp, 18' cable and Cannon XLR-3 connector. Aluminum case finished in TV gray. Size: 7"x1⅛" dia. Shpg. wt., 1½ lbs.
61F522. NET **63.00**

NOISE CANCELLING DYNAMIC

Model 602F. Hand-held microphone. Rejects sounds originating more than ¼" away. Elimination of ambient background noise. Hi-Z or balanced Lo-Z. High-impact rugged Cycolac case. Response: 200 to 5,000 hz. Output —55 db. Coiled cord extends to 5 ft. Size: 2½" W x 4" H x 1¾" D. Net wt. 10 oz.
61F537. High Z **36.30**
61F538. Low Z **36.30**

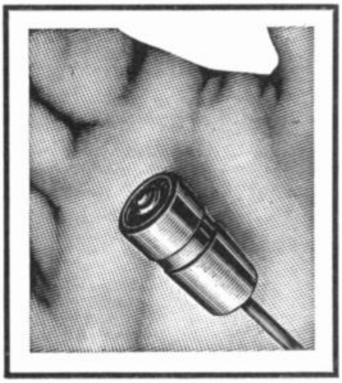
Model 600E. Dynamic Mobile Mike. Portable. High output level —55 db. Handy press to talk switch. 2½"x1½"x4". Shielded coiled cord, 1' retracted, 6' extended. Res. 100-7000 Hz. Hi-Z. 1 lb.
61F562. NET **24.60**

Model 205STCKK. Noise Cancelling carbon. For aircraft and emergency uses. FAA approved. Blastproof, waterproof and shock resistant. Output at ¼": —50 db. Black phenolic case. Press-to-talk switch closes microphone and relay circuit. Lo-Z. Coiled cord extends to 5'.
61F529. NET **31.50**

Model 627. Single-D entertainer's microphone emphasizes low freq. when used close up. Built-in pop and dust filter. Peak free response shaped for presence. Has on/off switch. Response: 80-11,000 hz. Output —58 db. Hi-Z or Lo-Z. Includes cable and 310 stand clamp. Size: 6 7/16" l. x 1⅝" head dia., ¾" shank dia. Net wt., 6 oz.
61F516. High Z **37.80**
61F517. Low Z **37.80**

Model 664. Designed for quality tape recording, communications, and public address applications. Permits close talking without "booming" or base accentuation. Blast filter eliminates wind effect. Acoustalloy diaphragm shielded from dust and magnetic particles. Response: 60 to 15,000 Hz. Output: —58 db. Chrome finish. 15' cable. Size: 7¼" l., less connector; Wt. 1 lb. 10 ounces.
61F546. NET **53.40**

SUBMINIATURE DYNAMIC



Model BK-12A. Neutral color makes it inconspicuous when worn around neck or attached to clothing. The BK-12A weighs just 20 grams and has a wide-range frequency response of 60 to 18,000 Hz with proper speech balance. Impedance voice coil permits use with 30 to 250 ohm unloaded inputs without changing the microphone's impedance. Pick-up characteristics are non-directional. Elimination of output transformer makes magnetic hum sensitivity lower than comparable microphones. Micron-mesh acoustical filter provides dirt and moisture protection. Careful design, improved materials and manufacturing techniques. Repairs can be made in the field by the replacement of the cartridge and/or cable if necessary. Accessories include: Lavalier holder, tie clip holder, and cable clip. All accessories are gold plated to give pleasing jewelry-like appearance. ¾" dia. x 1½" L.
61F318. NET **95.00**

Type BK-6B. Miniature Dynamic Microphone. Lightweight microphone with excellent speech balance. General FM, AM and TV broadcast use or high quality P. A. use when a lightweight or concealed mike is useful, for interviews, etc. Output level is —65 dmb. EIA ratings —159 db. Frequency response of 60-15,000 Hz. 250 ohm output impedance may be changed to 30 or 150 ohms by changing cable connections. Size: 2 9/16x1 5/16". Supplied with 30 ft. of two conductor cable less connectors. Shpg. wt. 2.3 oz.
61F304. NET **86.00**

STANDS AND ADAPTERS

Type MA-01. Desk Stand 7-11" High ⅝" —27 thread. 2½ lbs.
61F309. NET **5.20**
Type MA-02. Banquet Stand 13-25" high ⅝" —27 thread 6 lbs.
61F310. NET **5.85**
Type MA-03. Floor Stand 35-65" High. ⅝" —27 thread. 10 lbs.
61F311. NET **9.00**
Type MA-04. Floor Stand 37-66" High. ⅝" —27 thread. 22 lbs.
61F312. NET **16.50**
Type MA-05. Desk Stand for use with 77DX and BK-5B microphones, ⅝" —27 thread. 2 lbs.
61F313. NET **16.75**
Type MA-06. Desk stand. For use with BK-1A and BK-11A microphone. 6 oz.
61F314. NET **7.75**
Type MA-07. Holder for BK-6B. 6 oz.
61F315. NET **3.35**
Type MA-08. Adapter ⅝" —27 female; ½" male. 3 oz.
61F316. NET EACH .... **.60**
Type MA-09. Adaptor ½" female; ⅝" —27 male. 3 oz.
61F317. NET EACH **3.75**
Type MA-24. Boom mount. Special shock mounting isolates BK-5B from vibration.
61F322. NET **36.50**
Type MA-25. Windscreen. For BK-5B.
61F323. NET **16.50**
Type MA-32. Swivel adapter. ⅝"-27 female thread used with SK-30, SK-31.
61F324. NET **3.40**

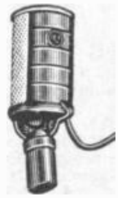

BK-1A


SK-30
SK-31


BK-6B


BK-11A


BK-5B


SK-45B


77DX

Type BK-1A. Commentator, Microphone. The pressure actuated microphone provides uniform response from 50-15,000 Hz. The swivel mounting can be used to control directional characteristics. Used for AM, FM, TV broadcast studios, remote pickup. Outdoor and indoor use. Stand or hand held P. A. work and audience participation. Vertical position is nondirectional; horizontal position is semidirectional. Output impedance 250 ohms (30 & 150 ohm connectors included). Output level —52 dbm. EIA ratings —146 db. Hum pickup is below —102 dbm. Shipping weight, 18 oz.
61F302. NET **86.00**

Type BK-11A. Velocity Microphone with bidirectional characteristics and frequency resopnse of 20 to 20,000 Hz. Three position Voice-Music switch to select best operating characteristics, high quality reproduction over entire audio range, operates well in high hum fields. Stainless steel screens, swivel mounted for 45 degree tilt. ½" pipe thread mounting. Used in High Fidelity-AM, FM, TV broadcast and recording studios. Especially suited for high fidelity music pick-up. Output level of —56 dbm @ 1000 Hz. EIA rating, —150 db. Output can be connected for 30, 150, and 250 ohms. Size: 8x2⅞ x 2⅜". Shpg. wt., 2 lbs.
61F305. NET **107.00**

Type BK-5B. Uniaxial mike. A ribbon instrument with an unidirectional characteristic. Incorporated in the unit is a blast filter which reduces damage to the microphone from violent noises. Three position Voice-Music switch to select best operating characteristics, operates in high hum fields, shock mounted, wide frequency range and smooth response, very insensitive to vibration. Used in AM, FM, TV broadcast and recording studios. Frequency response 30 to 20,000 Hz. Output impedance 250 ohms, may be changed to 30 or 150 ohms. Output level at 1000 Hz. —56 dbm. EIA rating —150 dbm. Mounted ½" thread female. Size: 7 x 1¾" dia. Shpg. wt., 2 lbs.
61F303. NET **158.00**

Type SK-30. Low impedance microphone designed for use with 30 to 250 ohm unloaded inputs. Frequency response is 50 to 14,000 Hz. Output level is 1000 Hz at —55 dbm (EIA rating, —149 db). Mount by removing end-cap. Complete with 20 feet of two conductor shielded cable, less connector. 1½" diameter, 4½" long. Wt. 8 oz.
61F319. NET **30.00**

Type SK-31. Same as above except, high impedance, 30,000 ohms. Output —57 db below 1v. 20 ft single conductor shield.
61F320. NET **31.00**

Type SK-45B. —56 dbm output level when connected for a 150 to 200 ohm balanced output and —58 db below 1 V when connected for a 15,000 ohm output. EIA rating, —150 db. Response from 70 to 12,000 Hz. Used for paging, PA indoors or outdoors, voice or music. Mounting with any ⅝ inch —27 fixture thread permits the use of low cost stands. Finish is low gloss gray. Supplied with 25 ft of cable less connector. Size 5½"x1⅝"x2" 1 lb.
61F307. NET **37.00**


SK-46B


SK-39B/40B

Type 77DX. Polydirectional mike available in two models: one with low-gloss finish for TV, the other satin chrome and gray enamel finish for AM & FM. Offers a choice of unidirectional, bidirectional, or non-directional pickup pattern controlled by a selector switch. Three frequency response variations on basic pickup patterns giving a total of nine directional characteristics. A 30 to 20,000 Hz frequency response. Three position Voice-Music switch to select best operating characteristics, exceptionally well-shielded against hum, three position shutter switch to select best directional pattern, shock mounted, high quality reproduction over entire audio range, very insensitive to vibration. ½" pipe thread mounting. Output impedance 250 ohms. Effective output levels are —50 dbm in bidirectional pattern; —53 & —56 dbm in the uni- and non-directional patterns. 11½x3¾x2½". 3 lbs.
61F300. Satin Chrome Finish **290.00**

61F301. 77DX-G. Gray Enamel Finish. NET **275.00**

Type SK39B/40B. (Low Z/High Z). These are utility mikes. Relatively insensitive to both mechanical shock and wind and resistant to both rain and moisture. Close-talking announce remote pickup and mobile use, Public Address work, etc. Solder to your connector for high or low impedance inputs. Output level: —52dBV (High Z), —72dBV (Low Z). The mike's frequency response: 60-10,000 Hz. Mount on any ⅝" —27 fixture thread. Supplied with seven feet of unterminated, three conductor shielded cable, less connectors. Shipping weight: 20 ounces.
61F306. NET **33.00**

Type SK-46. Economy Velocity mike. Used in AM. FM. and TV studio and control room announcing or any indoor application requiring excellent response and small size. Reduces feedback. Insensitive to vibration. Has bidirectional pickup characteristics. Output impedance 200 ohms, but may be reconnected for 15000 ohm output. Output level is —58 dbm at 250 ohms or —60 dbm at 15000 ohms. EIA rating —152 db. Supplied with a ⅝ inch —27 mounting thread and 25 ft. of two conductor cable, less connector. Size: 5⅛x1 15/16x1⅜". Shipping weight. 13 oz.
61F308. NET **54.95**

ASTATIC

MODEL 331

High impedance ceramic microphone. Voice range unit specifically designed for communication applications, paging and citizen band use. Small, compact, modern styling design. Frequency range: 300-7000 Hz. Output level: —58 dB. (1 volt/microbar). Has built-in momentary-on spring-return switch. 5 ft. 3-cond. coiled cable provides for audio and relay connections. Complete with hang up bracket. Die-cast black housing and grill with chrome cap. Size: 4¼"L.x1$^{3}/_{16}$" Sq. Wt., 1 lb.

61F034. NET **10.53**

MODEL 332

Slim crystal mike. It features a slide switch with a "lock-on" position. Uniform frequency response from 30 to 15,000 Hz. High input impedance. Omni-directional Output: —54 dB (1 volt/microbar). 4¼" L.x 1$^{3}/_{16}$ Sq. Die cast housing. With eight feet of extra-flexible single conductor shielded cable, lavalier cord assembly and stand adapter for ⅝"-27 mtg. 1 lb.

61F033. NET **10.53**

MODELS 10C AND 10DA

Tailored response and higher talk power makes these microphones idea for SSB and AM transmitter use. Output: —52 dB for 10C. Voice power range: 300-3000 Hz. High impedance. Model 10C contains ceramic element immune to temperature and humidity. F-11 adaptor ⅝"-27 thread mt. with 5' single conductor shielded cable. Size: 2$^{15}/_{32}$D. x 6"L. Wt 1 lb.

61F026. NET **17.46**

Model 10DA contains dynamic unit. High impedance. Output —52 dB. 1 lb.

61F027. NET **23.34**

MODEL JT-30

Specially designed for PA recording and communications. Semi-directional unit. Wide-range response 30-10,000 Hz. High impedance. High output level of —49 dB. Handsome opalescent gray finish, with bright chrome grille. Unit comes com plete with an 8 ft. SCS cable and a desk stand. The base of the stand detaches quickly for hand-held use. 8" high. 2 lbs.

61F000. NET **10.81**

MODEL 335H

A high impedance mike that fits in the palm of your hand. Small, slender and unobtrusive. Features "pop-proof" and "blast-proof" diaphragm of "Mylar," which gives strength and long life. Has built in slide switch with "Lock-on" position. Response from 100 to 12,000 Hz; output —56 dB re: 1V/mb. Comes with lavalier and ⅝"-27 threaded stand adaptor and eight feet of single conductor cable. Wt. 1 lb.

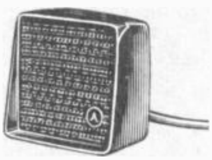
61F044. NET **15.58**

MODEL D-104

High output crystal. Balanced performance for maximum intelligibility voice power range. 30-7,500 Hz has a rising characteristic for crisp articulate speech. High output of —46 dB (1 volt/microbar). Metal seal element defies humidity. Machine brass parts, bright chrome finish. F-11 Adaptor with 5 ft. of single conductor cable. Size: 3½"x1$^{11}/_{16}$". Shpg. wt. 1¾ lbs.

61F005. NET **18.23**
61F042. Model D-104C. Ceramic **18.23**

150 151



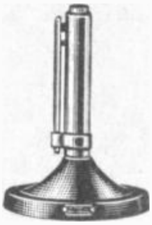
335H

T-3

531

D-104

331 10C



UG8

332

JT-30 200

77

TYPE G STAND

For D-104, 10C, 10D DN-HZ, T-3 mikes. Chrome stem and gray base, 8¼" high S P D T Switch With 5½ ft 2-cond. cable. Wt 2¼ lbs

61F016. NET **14.66**

MODEL UG8 STAND

Same as above except for DPDT switch and terminal strip in stand base. For T-3 D-104, 10C, 10D, 10DA, DN-HZ, DN-50 mikes 6 ft , 4 cond. cable

61F038. NET **17.61**

MODEL MC-151
REPLACEMENT CARTRIDGE

For models 200, T-3, JT-30, Wt. 8 oz.
61F017. Crystal cart. **NET** . . . **4.12**

MODEL 77

Uniform from 03 to 15,000 Hz, 18 dB F to B —48 dB output re. 1V/mb @ 4.2 Multi-switch selection "L" 30 to 50 ohms "M" 150 to 250 ohms and "H" high imped 40,000 ohms Complete with 90° swivel Built-in "Lock-on" slide switch. 20 ft. SCS cable Size: 8x2$^{3}/_{16}$x2¾' deep Wt 3 lbs.

61F029. NET **48.51**

MODEL 531 MOBILE MICROPHONE

Response carefully calculated to give maximum clarity and intelligibility. Light gray plastic case. DPDT spring return switch 5 ft 3-cond. vinyl jacketed coil cord. Response: 150-3500 Hz Output: —50 db below 1 volt/microbar. High impedance ceramic element. Mounting bracket supplied. Size: 3⅜" h. x 2⅜" w. x 1$^{5}/_{16}$" d. Wt. 8 oz.

61F039. NET **7.50**

MODEL 150 AND 151

High output, low cost "stand up microphones, are designed for use with tape recorders. Model 150—Crystal: Model 151 —Ceramic. Output: —44 dB re: 1 volt/microbar for 150; —48 db re: 1 volt/microbar for 151. Response; 30-10,000 Hz for 150; 30-8000 for 151. 5' flexible cable. 2$^{3}/_{16}$" sq. by 1¼" dp. Wt. 4 oz.

61F031. (Model 150) NET **3.82**
61F032. (Model 151) NET **3.82**

MODEL 200 VELVET-VOICE

High impedance, semi-directional crystal microphone that features wide-range, high output. Response 30-7000 Hz with output level of —50 dB Built-in handle has separate "quick-lock" detachable base. Comes with desk stand and 8 ft. SCS cable. Case and handle are finished in gold, with chrome grille. 8" high. Wt. 2 lbs.

61F001. NET **11.47**

MODEL 200-5

Exactly like Model 200 microphone above, except has built-in on-off switch. Complete with stand. Shpg. wt., 2 lbs.

61F002. NET **12.64**

MODEL T-3

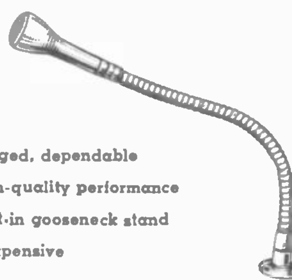
Tilting head mike with swivel hinge. Response 30-10,000 Hz. Output —54 dB. High impedance. With 10 ft. SCS cable. Type G stand recomd. for relay circuits. Size: 2$^{3}/_{32}$" dia. x 6" long. Wt. 2 lbs.

61F008. NET **17.23**

SONOTONE CERAMIC FLEX-MIKE

Model CM-17A. Omnidirectional high-impedance microphone with rugged ceramic element and flexible gooseneck stand for permanent installation. Ideal for podium mounting. Frequency response of 30 to over 12,000 cps and high (—56 db) output are more than ample for speech needs Ceramic transducer and metal damping grid are immune to extreme variations in temperature and humidity. Transducer is encased in neoprene and cushion-mounted for protection from physical shocks and drops. Supplied with 6' of shielded cable. One-piece microphone is diecast metal with brush-chrome finish. 17" long. Shpg. wt. 2 lbs.

61F035. NET **15.44**



- **Rugged, dependable**
- **High-quality performance**
- **Built-in gooseneck stand**
- **Inexpensive**

Newark-Minneapolis Electronic Corp., 336 Hoover St. N. E. Minneapolis, Minn. 55413

MICROPHONES

SHURE

UNISPHERE 1 MICROPHONES

Models 565 & 565S. Unidirectional dynamic microphones. Wire-mesh spherical front, contains filter to provide protection from wind and pop. Solves feed-back problems. Swivel mount. Dual imp. Response: 50-15,000 hz. Output: Lo—57 db, Hi—54.5 db. 15 ft. cable. Wt., 2½ lbs.
61F162. Model 565 (less switch) **55.86**
61F163. Model 565S (on-off switch) **58.80**
Model 566 Unisphere I. Same as above but with vibration-isolation shock mounting and dual low imp. Output: —55 db. Wt., 2¾ lbs.
61F164. NET **82.32**

UNISPHERE "A"

Models 585SA & 585SB. Unidirectional dynamic microphones. Wire-mesh screen with filter eliminates loudspeaker squeak and echoing. Response: 50-13000 hz. Impedance and output: 585SA; High, —56.5 db. 585SB; Low, —57 db. 15 ft. cable. Wt., 2¼ lbs.
61F165. Model 585SA. Hi-Z............ **38.22**
61F166. Model 585SB. Lo-Z.................**34.10**
New Model 585SAV Unisphere A. Same as 585SA but with built-in volume control.
61F167. Model 585SAV.................. **42.63**

UNIDYNE II MICROPHONES

Models 55S & 55SW. Unidirectional, eliminate feed-back problems. Select low, med., or high imp. Mounted on life-time swivel. Response: 50-15,000 hz. Output: L—55.5 db; M—56.5 db; H—55.5 db. Wt., 3⅛ lbs.
61F141. Model 55S (less switch).... **48.80**
61F169. Model 55SW (on-off switch) **.49.98**

UNIDINE III MICROPHONES

Models 545 & 545S. Unidirectional, dynamic type, with resp. of 50-15,000 Hz. Output level low imp., —57 db; hi-imp., —55 db. Swivel adapter with 15 ft. 3-cond. shielded cable. 5$^{13}/_{16}$"L. x 1¼"D. Wt., 2 lbs.
61F139. Model 545 (less switch)....**49.98**
61F168. Model 545S (on-off switch) .. **52.89**

● NEW UNIDYNE B

Model 515SA. Dynamic unidirectional microphone. Includes "On-Off" switch and swivel adapter for stand or hand-held use. Ideal for low-budget sound systems. Frequency response: 80-13,000 Hz. Impedance: High —58 db. Housed in a chrome and black case, 1½" diameter— 6$^{7}/_{16}$" long, complete with 15-foot one conductor non-detachable cable.
61F112. NET. **23.52**
Model 515SB. Same as above except low impedance, —59.5 db and 15-foot two-conductor non-detachable cable.
61F113. NET. **20.58**

SPHER-O-DYNE MICROPHONES

Model 533SA. Spherical front, built-in wind and pop filter for "pop proof" performance. 40-11,000 hz. High imp. —55 db. Swivel adaptor. 15 ft. single conductor cable. 6$^{19}/_{32}$" x 2$^{1}/_{16}$" diameter. Wt., 1 lb. 11 oz.
61F160. NET **29.40**
Model 533SB. Same as above except low impedance. —55.4 db, 15 ft. two conductor cable.
61F161. NET **27.93**

VERSADYNE DYNAMIC MICROPHONES

Model 575S. For PA amplifiers. 40-15,000 Hz. Impedance: High (100,000 ohms recommended). Polar pattern: omni-directional. Output level —56 db. Shpg. wt., 1 lb. 1 oz.
61F148. NET **14.11**
Model 575SB. Same as above but low imp. For long cable lengths.
61F149. NET **12.35**

COMMANDO MICROPHONES

Model 420. Ideal multi-purpose controlled magnetic lavalier microphone. Polar pattern; omni-directional. Dual impedance. Output level: —52 db. Frequency response: 60-10,000 Hz. Includes 20 ft. cable and lavalier assembly. Wt., ¾ lb.
61F128. NET **17.64**

MODEL M68 TRANSISTORIZED MICROPHONE MIXER

A practical and efficient way of increasing the efficiency and flexibility of public address and paging systems, or tape recorders using more than one microphone. No loss of output level. Independent volume controls, plus a master control. Lightweight, portable, and easy to operate. **Response:** ±2 db., 30-20,000 Hz. **Inputs:** four microphone; and auxiliary high level input. Imp., high or low. Size: 11$^{5}/_{16}$x5$^{3}/_{16}$x 2⅝" high. Shpg. wt., 4 lbs.
61F171. NET **73.50**

CONTROLLED MAGNETIC HAM MICROPHONE

Model 444. Telescoping height adjustment. Controlled magnetic element. Push-to-talk switch bar. Response: 300-300 Hz. Polar pattern: semi directional. High impedance. Output: —53 db. Wt., 2¼ lbs.
61F145. NET **24.99**
Model 444T. Same as above but with built-in 2-transistor preamp with volume control for max. modulation. Response: 200-6000 Hz. Imp.: less than 1000 ohms. Output level: adjustable from 2-45 mv for 1 microbar input.
61F170. NET **29.11**

CONTROLLED MAGNETIC DISPATCHER MICROPHONE

Model 450. Same as Model 444 but response of 100-10,000 Hz. Dual impedance. Hi-Z —54 db. Lo-Z —53 db.
61F172. NET **29.11**
Model 404C. Hand-held. Ideal for outdoor use. Designed for high speech intelligibility. Has push-to-talk leaf switch. Response: 400-4000 Hz. Imp. and output: (404C) high, —54 db. (404B) 150-250 ohms, —52 db. Wt , 1 lb.
61F104. Model 404C (High imp.)... **19.40**
61F103. Model 404B (Low imp.)..........**19.40**
Model 401B. Controlled magnetic type. Impedance: Low (recommended load impedance 150-250 ohms). Output Level: —48 db. Four conductor (two shielded) cable. Shpg. wt., 12 oz.
61F153. NET **12.94**
Tiny Controlled Magnetic Mikes. For small electronic devices — wherever size and weight are important. Metal cased. Width 1", wt., 1 oz. Shpg. wt., 2½ oz.

Stk. No.	Type	Shape	Imp.	NET
61F132	MC11-J	Circular	1000	7.35
61F133	MC20A-J	Rectangular	2000	8.23
61F134	MC30-J	Square	1850	11.76

MICROPHONE ACCESSORIES

Model S33B. Modern desk stand. Black finish. Wt. 3 lbs.
83F065. NET **8.82**
Type S36A. Stand. Fits Shure connector type mikes. Adapts to others. Removable button for switch. 2½ x 5 x 7". 1½ lbs.
83F060. NET **4.70**
Model S38B. Stand. Heavy die-cast base, includes metal screw machine stud for connecting microphone adapter to stand base. Black finish. Shpg. wt., 2 lbs.
83F066. NET **2.65**
Type A95A. Transformer. Matches 35-50 and 150-250 ohm mike to hi-Z input. 2-cond. cable to low-Z mike. 1⅞ lbs.
39F950. NET **10.29**

REPLACEMENT CARTRIDGES

Not shown. For general replacement in Shure and other make mikes. All are supplied with rubber mounting ring. Overall depth approximately ⅞". Wt., 4 oz.
Type R5 Controlled Magnetic Replacement Cartridge. High impedance, high output. Unaffected by heat, hum. Shipping weight, 4 oz.
61F116. NET **6.47**
Model R5B. Same as above but low impedance.
83F067. NET...**6.47**
Type R7 Crystal. High output, with smooth frequency response. Replacement for 707A, 708A series. Wt., 4 oz.
61F117. NET **4.85**
Type R10 Carbon. Replacement for CB, 100, and 120 mikes/ Output: 5 db below 1 v. per 100 microbar speech signal. Recom. for voice only. Wt., 6 oz.
61F118. NET **5.00**


565S
566


585SB

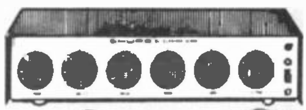

545


515SA
515SB


55S

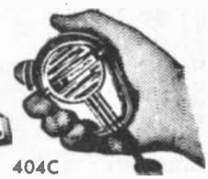

533SB
533SA
on S38B Stand


575S 575SB


M68

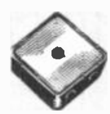

420


444


404C


401B


MC11-J


MC30-J


S38B


S36A


A95A

ATLAS SOUND EQUIPMENT

MICROPHONE BOOM STANDS

Model BS-36W. Professional Boom Stand. Features Safety Air-Lock Cushion, built into vertical section to prevent sudden slippage of upright section. Has gyromatic swivel joint to hold mike in proper position. Has adjustable counterweight, removable boom and ball bearing casters. Boom extension 62"—upright is adjustable from 48" to 72". Base diameter, 17". In chrome and gun metal. Snap-on hangers hold cable to boom. Shpg. wt., 38 lbs.
83F043. NET **56.65**

DESK AND BANQUET STANDS

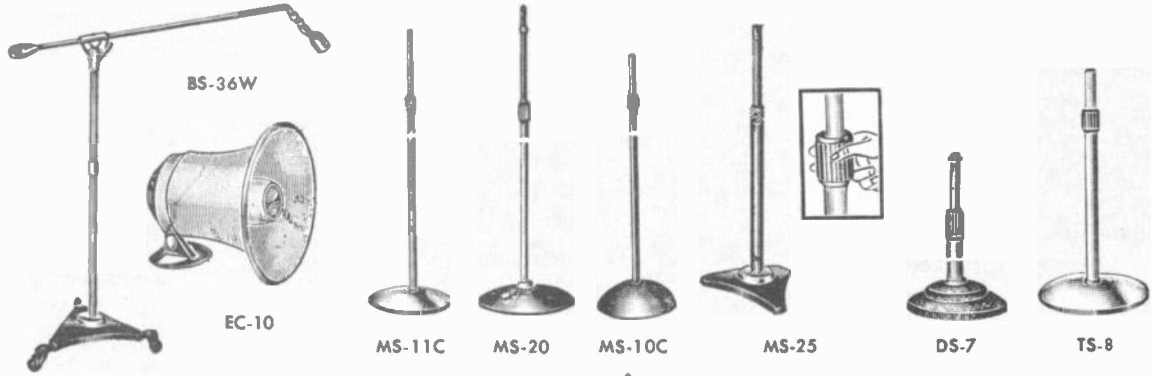
Model DS-5. Non-adjustable. 4" tall. Base diameter is 6". Chrome tube, and gray base. Wt 3 lbs.
83F039. NET **2.50**
Model DS-7. As above but adjustable from 8" to 13".
83F040. NET **4.15**
Model TS-8. Adjustable banquet stand using full grip control. Adjustable from 14½ to 26 inches. All chrome.
83F051. NET **7.70**

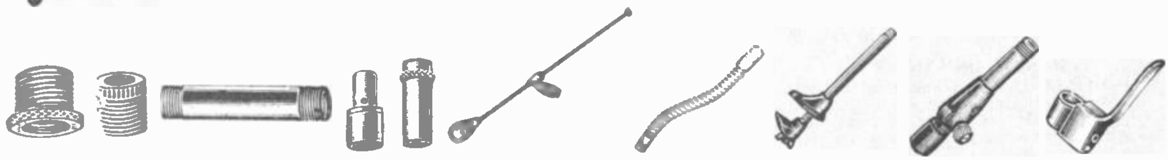
"VELVET ACTION" STANDS

Featuring "Ful-Grip" clutch which offers an extended length body. Bases designed for stability with maximum base mass located where the concentrated weight is most useful. Include self-leveling, shock-absorbing base pads, plus three additional "anti-tip" points located between base pads.
Model MS-11C. Adjustable from 34" to 62". Base dia., 10". Base and tube assembly chrome finished. Wt., 13 lbs.
83F032. NET **10.15**
Model MS-20. Height adjustable from 37" to 66". Base dia., 12". Gray base. Chrome finished tube. Wt., 15 lbs.
83F033. NET **12.65**
Model MS-10C. Height adjustable from 35" to 63". Base dia., 10". Gray base. Chrome finished tube. Wt., 10 lbs.
83F030. NET **7.70**
Deluxe Model MS-25. "Safety Air Lock Cushion" permits smooth and quiet collapse of stand without sudden slippage. Base dia., 17". Adjustable ht., 38-67". Chrome finish. Sh. wt., 22 lbs.
83F034. NET **20.65**

MODEL EC-10 PAGING SPEAKER

Equipped with a ceramic type magnet and handling capabilities of 6 watts. Impedance 8 ohms; frequency response of 400 to 10,000 cycles per second. Sound level 11.3Db. Featuring an adjustable bracket to provide swivel mounting and adjustment for correct sound pattern. Overall length 6⅜" with a bell diameter of 6¼" and a sound dispersion of 125°. Weight 2 lbs.
83F052. NET **15.15**





AD-1 AD-3 AD-7 SO-1 BB-1 GN-13 BC-1 SW-1 CH-1

MICROPHONE ATTACHMENTS & ACCESSORIES

Model BB-1. "Baby Boom" Attachment. Can be easily and quickly attached to any microphone floor stand. Boom arm is equipped with universal swivel that can be adjusted and locked in any position. Sliding counterweight. Has ⅝"—27 thread. 32-inch tube section is chrome plated. Gray castings. Shipping weight, 3½ lbs.
83F036. NET **6.20**

Model GN-13 Flexible Goose Neck. Attaches to mike stand, providing convenient adjustment for individual use. Bright chrome finish. 13" long, ⅝"-27 thread. Wt., 1 lb.
83F037. NET **2.00**

Atlas Model GN-19 Goose Neck. Can be attached to any microphone stand or fixture. 19" long. With male and female threads ⅝"-27. Shpg. wt., 1 lb.
83F048. NET **2.80**

Model BC-1 Bracket Clamp. For attaching mike boom arm, or goose neck to desk or other solid object. Can be clamped or permanently screwed or bolted in position. 6" chrome stem, gray finish clamp. ⅝-27 thread. Shpg. wt., 1 lb.
83F042. NET **2.80**

Model SW-1 Gyromatic Swivel. Adjusts to any angle. Locks in any position. Fits any floor or desk stand. Chrome finish. 4½" long, ⅝-27 male, female threads.
39F912. NET **3.85**

Model CH-1 Cable Hanger. Fits tubes from ⅞" to 1¼" dia. Mike can be quickly coiled, looped over it when moving. Easy 1-screw attachment. Chrome finish.
39F913. NET **2.00**

Atlas Model FS-1 Footswitch. For use with any mike having single ended inputs. Completely shielded and noise free. Can be hand operated on table top. Uses long life micro switch. Cork base prevents skidding. 2½x3".
83F046. NET **9.85**

Model AD-1. Handy adapter for fitting RCA mike to std. mike stand. Has ½" male pipe thread and std. ⅝"—female thread.
39F900. NET .... **.70**
Model AD-2. ⅛" pipe female to ⅝"—27 male.
39F901. NET .... **.50**
Model AD-3. ⅛" pipe female to ⅝"—27 female.
39F902. NET .... **.53**
Model AD-4. ¾" long ⅝"—27 male running thread.
39F903. NET .... **.40**
Model AD-5. ⅝"—27 female to ⅝"—27 female.
39F904. NET .... **.53**
Model AD-6. ⅞"—27 female to ⅞" female coupling.
39F905. NET **1.00**
Model AD-7. 3" long tube ⅝"—27 male each end.
39F906. NET .... **.67**
Model AD-8. 6" long tube ⅝"—27 male each end.
39F907. NET .... **.67**
Model AD-9. ⅞"—27 female to ⅝"—27 female
39F908. NET .... **.73**
Model AD-10. ⅝"—24 female to ⅝"—27 female.
39F909. NET **1.10**
Model AD-11. Flange, ⅝" ⅝-27 female. Base dia., 1¼".
39F910. NET .... **.73**
Model AD-12. Flange, ⅝"—27 male. ⅞" mtg. ctrs.
39F911. NET .... **.73**

Model SB-1 Switchboard Microphone Support. Designed for use in supporting a microphone over conventional types of telephone switchboards. 12" flexible chrome plated goose neck arm mounted on spring loaded swivel. Wt. 13 lbs.
83F047. NET **12.65**

MODEL SO-1 MIKE ATTACHMENT

Provides a fast, safe means of attaching any microphone to any floor stand. Eliminates the need of threading the microphone on and off stand. Consists of a two-section "Snap-On" ball bearing spring sleeve. Shipping weight, 2 lbs.
39F920. NET **2.15**

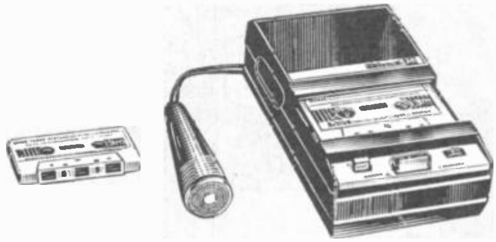
Revere-Wollensak Division

TAPE RECORDERS

MODEL 4200 CORDLESS RECORDER

Battery operated cartridge tape recorder offers complete portability. Easy to use—one 4-position function switch controls all operating modes. Constant speed capstan drive provides a full continuous hour of operation. Solid state operation permits instant warmup and reliability. VU meter for correct recording level and battery condition along with separate record level and volume controls are outstanding features of the "Cordless." Frequency response: 80-10000 hz ±3 db. Wow and flutter rms: 0.3%. Power output: 400 mW. Tape speed: 1⅞ ips. Signal to noise ratio: better than —45 db. Recorder comes with dynamic microphone, Scotch Brand magnetic tape cartridge, and rugged carrying case designed to accommodate recorder, microphone, and two extra tape cartridges. Size: 4½x7¾x2¼". Uses five "C" cells (not supplied). Wt.: 4 lbs.

96FX974. NET **69.95**



Model 4200

ACCESSORIES FOR MODEL 4200

Stk. No.	Type	Description	NET
49F261	1	"C" cell	.18
49F721	AL-1	Alkaline "C" cell	.43
96F950	A-0492	110 VAC adapter	13.05
96F951	A-0491	Foot Control	17.10
96F952	A-0490	Earphone	11.48
96F953	A-0473	Patch Cord	3.68
96F954	A-0494	Replacement Microphone	19.35

76F649. Type 271. 60 minute tape cassette. **NET** **2.19**

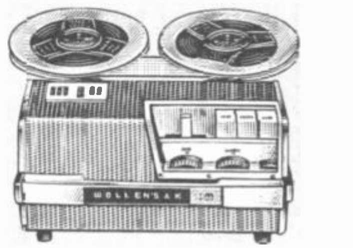
76F743. Type 272. 90 minute tape cassette. **NET** **3.17**

76F744. Type 273. 120 minute tape cassette. **NET** **3.56**

• *NEW* BATTERY OPERATED CASSETTE

Model 4000. A solid state recorder that features the easy-to-use snap-in cassettes. Powered by five 1½ volt "C" cells (not supplied). Constant speed capstan drive. AC bias and erase for improved signal-to-noise and erase performance. V.U. meter and battery life indicator. Pushbutton operation. Includes dynamic microphone with remote start-stop switch, microphone pouch, carrying strap, earphone and one blank cassette. Weighs 3 lbs. 8¾" x ¾" x 2⅜".

96FX973. NET **54.95**

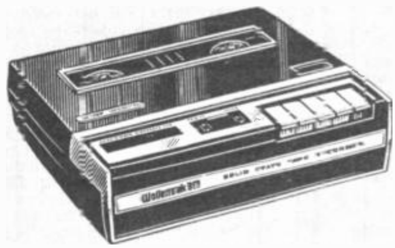


Model 4000

MODEL 1500 SS MONO RECORDER

The 1500 SS is a compact, top-quality 2-track monophonic recorder. Powerful, solid-state amplifier, and high efficiency speaker provide big, rich tone. Lightweight, and with push button operational ease, the 1500 SS is built for a wide range of uses. The 1500 SS features a solid-state push-pull output amplifier, simple keyboard operation, dual speed, provision for monitoring and P.A. use, and all-metal construction. All inputs and outputs for recording or playing back through any source are conveniently grouped on one rear panel. Complete with dynamic microphone, power cord, 7" reel of tape and self-threading take-up reel. Frequency response: 40-15000 cps ±3 db @ 7½ ips, 40-8000 cps ±3 db @ 3¾ ips. Size: 6½x10¼x11¾". Shp. wt., 18½ lbs.

96F976. NET **184.95**



Model 1500 SS

MODEL 3500 AC-DC MONO RECORDER

ARL (Automatic Record Level) automatically compensates recording levels for perfect recordings every time, eliminates need for manual setting, and adjusts for variations in recording levels. Operates on batteries or household current (no adapter needed). Compact 5-inch reels. Features: Solid-state for instant warm-up and reliability; ARL with manual override; VU meter; Counter; capstan drive. Freq. Resp: 100-8000 hz ±4 db @ 3¾ IPS. Wow and Flutter RMS: less than 0.4% @ 3¾ IPS. Tape speeds: 3¾ and 1⅞ IPS. Power Requirements: 6 1.5V D cells or 117V AC. Size: 11½" x 10¼" x 4". Includes: Dynamic microphone, earphone, patch cord, accessory pouch, blank tape, and take-up reel. Shpg. wt. 8.75 lbs.

96F960. NET **89.95**

Model 3500

MODEL 5740 STEREO RECORDER

Three speed stereo and monaural solid state recorder. The 5740 has detachable wing speakers, and a vinyl covered case. Features include power activated push buttons, two VU meters, external circuit breaker, FM multiplex ready FM multiplex four digit tape counter and separate tone and volume controls. Frequency response: 40-17,000 cps ±3 db @ 7½ ips, 40-10,000 cps ±3 db @ 3¾ ips. Wow and flutter: less than 0.25% @ 7½ ips, less than 0.3% @ 3¾ ips. Signal to noise ratio: greater than 48 db @ 7½ ips, greater than 45 db @ 3¾ ips. Also operates at 1⅞ ips. Wings contain 2-6" round speakers. Complete with dynamic microphone, 2 speaker cables, 7" reel of tape and one self-threading take-up reel. Size: 21⅛x10$\frac{9}{32}$x10½". Ship. wt., 28 lbs.

96F957. NET **179.95**

Model 5740

ACCESSORIES FOR WOLLENSAK RECORDERS

Carrying Case. For 5710, 5730 and older models 5150 and 5250.

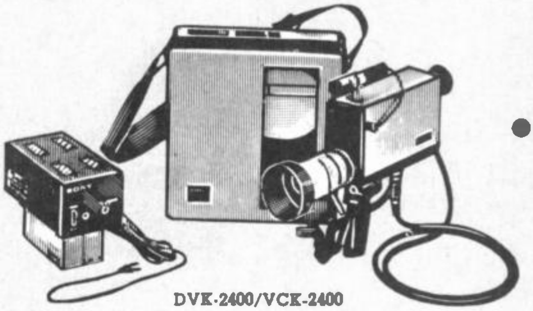
96F971. Type A-0456. **NET** **9.90**

Carrying Case. For 1500SS and older models 1500, 1600 and 1616.

96F981. Type A-0459. **NET** **9.00**

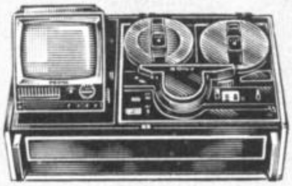
Foot Control. For 1500SS.
96F983. Type TF-404. **NET** **17.10**

SONY® Videocorders



● NEW VIDEOCORDER AND HAND HELD CAMERA

DVK-2400/VCK-2400



TCV-2110

VCK-2100

CV-2100

CVM-180U

For Additional Information and Specifications Order . . .

SONY VIDEOCORDER LITERATURE PACKAGE

99F808 .... **FREE**

● NEW VCK-2400/DVK-2400 BATTERY POWERED VIDEO TAPING ENSEMBLE

Hand-held TV camera and lightweight Videocorder unit that straps across shoulder and allows you to videotape anywhere. Record up to 20 minutes on one 5-inch tape reel that is replayable on any of Sony's Videocorders. Camera's built-in 1-inch TV screen viewfinder shows how tape will play and helps frame picture. The 16-64mm, F-2, C-mount zoom lens gives professional treatment to tapes and a top mounted microphone on the camera picks up audio. Unit offers simple one-touch start/stop control and fully automatic video and audio level controls. One recycling of batter allows a full hour's taping time. Complete ensemble consists of: VCK-2400 Video Camera, DVK-2400 Videocorder, hand grip with trigger for camera, lens, F-45-A microphone, batteries and charger, Shoulder strap, connecting cables, polishing cloth, and earphone. Shipping weight 15 pounds.

99F837. NET **1250.00**

● NEW VCK-2100 VIDEO CAMERA ENSEMBLE

Versatile TV camera to complete the Videocorder system. The solid state Vidicon camera includes a 25mm, F 1.9 lens. Automatic sensitivity control adjust to light changes while shooting. Horiz. Resolution: 450 lines at center screen. The mechanical shutter filters out any unwanted light that could damage the camera. Included in ensemble are: VCC-2100 carrying case, elevator tripod 16 ft. camera cable, AC power cord, 10 ft. extension cord, microphone extension cord, desk stand, microphone and polishing cloth. Shipping weight 28 lbs.

99F833. NET **395.00**

● NEW CV-2100 & CV-2200 VIDEOCORDERS

Model CV-2100 Portable. Simplicity of operation is the keynote in the design of this Videocorder featuring automatic video and audio level controls. Tapes can be played back on any other Videocorder. Video recording system: Rotary, two-head helical scanning at standard tape speed of 7½ ips. Special built-in "sound dubbing" unit allows insertion of audio at any point on playback cycle 115V. 60Hz. Shpg. wt. 49 lbs.

99F838. NET **795.00**

Model CV-2200 Duplicator. Same as the CV-2100 but allows the reproduction of video tapes when two CV-2200 and a VDC-1 Duplicating Adaptor are connected. Has: 100% tape interchangeability with all other Sony videocorders; automatic shut-off at end of reel; provisions for monitoring while recording. Included are 10 minute sample tape reel, empty reel, cleaner and oil, connector and polishing cloth. Shpg. wt. 55 lbs.

99F839. NET **850.00**

● NEW TCV-2110 VIDEOCORDER WITH RECEIVER/MONITOR

Combination videocorder/receiver/monitor may be used with VCK2100 camera or television programs may be recorded directly off the air while viewing. Receiver/monitor receives all 82 channels. True portability. Features Sony-Matic controls. Allows full hour of taping at 7½ ips. Allows for audio dubbing. Shpg. wt. 70 lbs.

99F847. NET **1050.00**

CVM-51UWP MONITOR/RECEIVER

High definition monitor with exceptional picture clarity across the 8-inch screen. For use as TV receiver or monitor with any of the Videocorders. Solid state, easy to install with connections made simple by 8-pin connector mounted on side. Built-in monopole antennae. Includes earphone, snap-on cover, hood, external antennae connector and standard monitor connection cable.

99F804. NET **195.00**

● NEW MODEL CVM-180U MONITOR LARGE SCREEN PORTABLE

High-resolution receiver doubles as monitor for use with Videocorders. Features instant-on convenience. Receives all 82 channels. 18" screen, measured diagonally 115V. 60Hz. 55 lbs.

99F835. NET **250.00**

● NEW MODEL CVM-220U MONITOR

Large screen monitor/receiver is designed for group viewing. High resolution offers a high quality picture. May be used as an 82 channel receiver or connected to any Videocorder. Separate speaker jack. 22" screen measured diagonally. Isolated power transformer 115V. 60Hz. Shpg. wt. 71 lbs.

99F836. NET **295.00**

½" VIDEO TAPE — 7" REEL

3M Brand		Sony Brand			
Stk. No.	**Type**	**Stk. No.**	**Type**	**Description**	**NET**
76F300	351-½-1250-R86B	99F829	V-31	½ hour	21.95
76F301	351-½-2400-R86B	99F830	V-32	1 hour	39.95
76F320	R86B-½-7	99F831	RH7V	Empty reel	2.95

VIDEOCORDER ACCESSORIES

Stk. No.	Type	Description	NET
99F810	CCF-10	32 ft. Camera Extension Cord	9.95
99F811	CCF-25	82 ft. Camera Extension Cord	22.95
99F812	CCF-50	164 ft. Camera Extension Cord	44.95
99F815	EC-10M	32 ft. Microphone Exten. Cord	4.95
99F816	EC-25M	82 ft. Microphone Exten. Cord	9.95
99F817	GC-1	Roll Cart for TVC-2010/2020	35.00
99F818	Lens-214	Telephoto Lens, 75 mm. F 1.9	45.00
99F819	Lens-507	Wide Angle Lens, 12½ mm. F 1.9	65.00
99F820	Lens-VCL-20	Zoom Lens 4 to 1—20 to 80 mm.	199.95
99F824	VCM-1B	Branch Cord for Sony Monitors	21.95
99F825	VCM-1C	Branch Cord for Video Monitors	15.95
99F828	VCM-1D	Branch Cord—16' Cable	27.95
99F826	VMC-10A	32 ft. Video Extension Cable	22.95
99F827	VMC-25A	82 ft. Video Extension Cable	34.50
99F840	VDC-1	Duplicate Adaptor for CV-2200	24.95
99F841	AC-2400	AC Adaptor for DVK2400/VCK2400	65.00
99F844	RP-626	Battery (2 pieces) for VCK2400/DVK2400	25.00
99F842	CMA-1	Rcrdng. Adptr. to use CV2000 recorders with DVK-2400	95.00
99F832	V-30D	Video tape, 5" reel, 845 ft.	14.95
99F845	RH-5V	5" empty tape reel for V-30D	2.75
99F834	CVF-4	Viewfinder for VCK-2100	175.00
99F843	LC2400	Carrying case for DVK2400/VCK2400	45.00
99F846	VCS-21	Camera selector for using two cameras with one Videocorder	15.95

NORELCO

NORELCO CASSETTE TAPE RECORDERS

Model 150 Carry Corder. Cassette loading and cordless. Capstan drive and constant speed, transistor regulated motor. 80-10,000 Hz ±3db. Complete with tape cassette, dynamic mike, fitted carrying case, patch cord. 3 lbs. Signal to noise ratio: better than —45 db. 2 tracks. Wow & flutter: 0 1% rms. 7⅞x4½x2¼". 20 hr. battery life. Use 5 type C batteries.

96F840. NET **64.50**

Model 175 Continental Compact Cassette. Like above, but with oversize speaker for 'big sound' playback quality. Fast forward/rewind; volume, tone, recording level controls. 40 hrs. battery life. 5 lbs. 11¼x9½x2¾". Use 6 type D flashlight batteries.

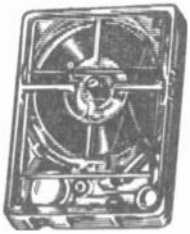
96F841. NET **89.50**

ACCESSORIES

Stk. No.	Type	Description	Net
96F842	BE-50	AC Adapter for 150	**9.95**
96F839	BE-86	AC Adapter for 175	**9.95**
96F843	HP-150	Listening Headset	**10.95**
96F844	FP-86A	Foot Pedal	**11.95**
96F846	CTM-86	Close Talking Mike	**24.50**
96F847	C60	60 Min. Tape Cassette	**2.65**
96F848	C90	90 min. Tape Cassette	**3.65**
96F838	C120	120 min Tape Cassette	**4.65**
96F849	CMU-160	Car Mount unit	**29.95**

FIDELIPAC NAB TAPE CARTRIDGES BY TELEPRO

Professional type cartridges manufactured for broadcast use. Made to NAB Specifications: Continuous self-contained single-reel tape magazine which operates on an endless loop principle. The tape is pulled from the center and after passing the playing or recording head is automatically rewound on the outside of the reel contained in the tape magazine. Extremely versatile; variable speeds. Lightweight styrene case. Transparent clear top. 3 tape head openings in models 1200 and 600, and two in model 300. Shpg. wt., 1.5 lbs.

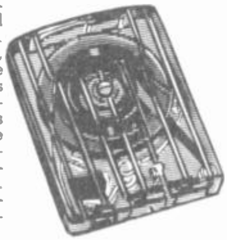


Stk. No.	Type	Time @ 7½ ips	Length	1-99	100-499	500-999	1000-up
76F200	NAB25	40 sec.	25'	2.16	1.91	1.68	1.52
76F201	NAB44	70 sec.	44'	2.28	2.02	1.78	1.59
76F202	NAB63	100 sec.	63'	2.40	2.12	1.86	1.66
76F203	NAB132	3½ min.	132'	2.74	2.42	2.14	1.92
76F204	NAB207	5½ min.	207'	3.14	2.78	2.44	2.18
76F205	NAB394	10½ min.	394'	4.12	3.64	3.20	2.86
76F206	6NAB600	16 min.	600'	6.76	5.96	5.26	4.70
76F207	12CX1163	31 min.	1163'	11.90	10.70	8.95	8.35
76F208	3NAB-A	empty		1.70	1.50	1.34	1.18
76F209	6NAB-A	empty		2.82	2.50	2.20	1.98
76F210	12CX-A	empty		4.24	3.74	3.30	2.96

76F728	153-16	¼"x1600'	Lubricated tape for cont. loop cartridges	1-11	12-up
				3.57	3.24

AMERLINE TAPE CARTRIDGES

Professional type cartridges manufactured for broadcast use by tape reel specialist. Made to NAB specifications. Designed for continual operation, Amerline tape cartridges utilize the endless loop principle—the tape is pulled from the center and after passing the playing or recording head, is automatically rewound on the outside of the reel contained in the tape magazine. Clear plastic ribbed case for non-slip grip and convenience in handling. Snug tape lock and quality construction assures no lose turns and no warping. Rigid Delrin base.



Stk. No.	Type	Time @ 7½ IPS	1-11	12-23	24-47	48-up
76F225	7257	Empty	**1.80**	**1.70**	**1.64**	**1.59**
76F226	8540	20 sec.	**2.06**	**1.96**	**1.96**	**1.91**
76F227	8726	30 sec.	**2.11**	**2.01**	**2.01**	**1.96**
76F228	8541	40 sec.	**2.11**	**2.01**	**2.01**	**1.96**
76F229	8542	60 sec.	**2.17**	**2.07**	**2.01**	**1.96**
76F230	8543	70 sec.	**2.17**	**2.07**	**2.01**	**1.96**
76F231	8544	90 sec.	**2.22**	**2.12**	**2.07**	**2.01**
76F232	8545	100 sec.	**2.22**	**2.12**	**2.07**	**2.01**
76F233	8546	2½ min.	**2.38**	**2.28**	**2.23**	**2.17**
76F234	8547	3 min.	**2.43**	**2.33**	**2.28**	**2.23**
76F235	8548	3½ min.	**2.51**	**2.41**	**2.35**	**2.30**
76F236	8549	5 min.	**2.80**	**2.70**	**2.65**	**2.60**
76F237	8550	5½ min.	**2.86**	**2.76**	**2.70**	**2.65**

JIFFY

JIFFY RECORDING ACCESSORIES

Type P-30 "Jiffy-Rase" Tape Eraser. Easily erases magnetic tape without rewinding noise. Place the Jiffy-Rase over the reel of tape, to be demagnetized and move it around while pressing the on-off switch. Also demagnetizes screwdrivers, pliers etc. For 100-130 VAC 60 cycle. 4¾"D x 4½"H. Shpg. wt., 4½ lbs.

76F101. NET **21.17**

Jiffy Tape Splicer.
76F100. NET **1.50**

RCA

Type 10R030. 30 Minute Cassette Cartridge.
76F765. NET 1.02

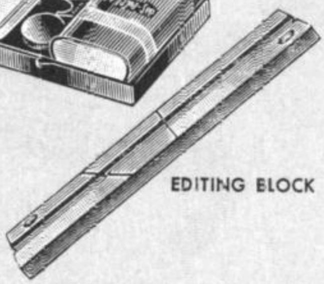
Type 10R060. 60 Minute Cassette Cartridge.
76F766. NET 1.35

Type 10R090. 90 Minute Cassette Cartridge.
76F767. NET 1.93

Type 10R120. 120 Minute Cassette Cartridge.
76F768. NET 2.30

Type 10R121. Cassette Head Cleaner Cartridge.
76F769. NET 1.35

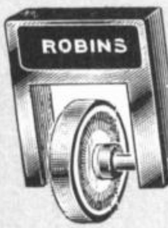
PRK



EDITING BLOCK

TK 6

PB-3



TW-1

TK-8DLX

PJ-18

REEVES SOUNDCRAFT

MAGNA-SEE MAGNETIC TAPE VISUALIZER KIT

Lets you see the magnetic track recorded on your tape. This method affords a fast, simple and accurate way to check for head alignment, track uniformity, balance and head wear. Kit contains: ½ pint Magna-See solution—Plastic Bath-Eye piece magnifier—roll of pressure sensitive tape —5 glass slides.

PRK. Magna-See kit for sound recording, video, instrumentation and data processing applications.
76F133. NET **7.20**

PRR. ½ pt. replacement can of Magna-See.
76F134. NET **2.55**

EDITALL TAPE EDITING BLOCKS

Type S-3. Block only for splicing ¼" tape. Has two mounting holes for operation on tape recorder "deck" or top panel as instant use aid. Has two deep-cut slits, one for straight splices and one for diagonal cuts. Made of machine duraluminum. Size: 5¾x1x⅜". Shpg. wt., 3 oz.

76F103. NET **8.00**

Type S-2. For compact machines. Adhesive back. Without mtg. holes. Size: 4"x ¾" x ¼". Shpg. wt., 6 oz.

76F104. NET **6.50**

Type S-3.5. Block only for ½" tape. Has countersunk holes. Block Size: 5¾"x1¼"x ⅜".
76F108. NET **24.00**

Type S-4. Block only for 1" tape. Block Size: 5¾"x1¾"x⅜". Has additional 68° cutting slot.
76F109 NET **34.00**

PLASTIC BLOCK-EDITING KIT

Type KP-2. Editing kit for ¼" tape. A comprehensive Instruction booklet comes with each kit to guide you in this simple operation of splicing tape Editabs join spliced tape easily, quickly. The EDITab block is simply mounted by means of its adhesive backing or screws on or near your tape recorder. Kit includes the patented EDITall block, 30 EDITab splicing tapes, a demagnetized razor blade, instruction booklet, tape guide and grease pencil. 6 oz.
76F106. NET **3.50**
76F107. Package of 50 EDITabs. 5 oz. 1.50

WALSCO

KLEEN-TAPE HEAD CLEANER

Type 30-126. No need to remove head cover. New formula cleaner, impregnated in long-wearing, multiple cleaning tape does a thorough job. Use just like standard recording tapes. Cleans head quickly. Fits all tape recorders. Shipping weight, 4 oz.
76F165. NET **1.33**

ROBINS INDUSTRIES

PROFESSIONAL TAPE ACCESSORY KITS

Type TK-12. Complete tape accessory kit for everyday maintenance and operating needs. Contains: TS-8D "Stereo 4" Deluxe Tape Splicer; 6 rolls of ½" Splicing Tape; TM-99, U.L. listed Magnetic Bulk Tape Eraser; TD-6 U.L. listed Head Demagnetizer; Tape Threader; Tape Jockey Cloth; 24 Tape Clips; 150 Title Labels; Tape Strobe and Light kit to check recorder speed; Tape Head Cleaner and Lubricant.
76F087. NET **49.95**

TAPE HEAD CLEANER AND LUBE KIT

Type TK-6. Includes: 2 oz. bottle of head cleaner and 2 oz. bottle of tape head and guide lubricant with applicator caps. Tape moves freely across heads and guides.
76F123. NET **1.19**

TAT-100 RECORDING ALIGNMENT TAPE

Recording head azimuth alignment tape facilitates accurate alignment of tape heads to exact angle for max. output. 100 ft. on 3" reel. Instructions. Shpg. wt.: 9 oz.
76F063. TAT-100. **NET** **1.05**

THC-1 HEAD-KLEEN AND POLISHING TAPE

Supplied on 3" reel, the 225 feet of polishing tape removes oxides and other particles from heads when the tape is run through the recorder. Weight: 12 oz.
76F062. THC-1. **NET** **1.05**

"KLEENEEDLE" BRUSH

Type PB-3. Automatically removes dust and lint from the phonograph stylus as it passes over it during the cycle. Mounts on changer deck; has an adhesive pad for easy mounting
76F114. NET .... **.79**

TK-11 A/V KIT

Kit contains: TM-77 Bulk tape eraser; TD-3 head demagnetizer; TS-7S tape splicer; roll of ⅜" x 275" splicing tape; TK-6 head cleaner and lubricant kit; Tape Strobe and Light Kit; Tape Threader; Tape Jockey Cloth; 150 Title Labels; 75 Tape Clips; and 150 "Swabbies" for safe cleaning and oiling. Shpg. Wt.: 9 lbs.
76F061. TK-11. **NET** **29.95**

THC-5 TAPE-CLEAN

5" reel of chemically treated cloth tape cleans and lubricates heads and guides of recorder, while the recorder is played. Deposits a layer of silicone, insuring friction-free performance. Wt.: 12 oz.
76F084. THC-5. **NET** **1.89**

● *NEW* CASSETTE HEAD-KLEEN TAPE

Model THC-4. Removes accumulated oxides from heads of players and recorders. Non-abrasive for safe cleaning.
76F098. NET **1.79**

TW-1 PRECISION TAPE STROBE

Precise, all metal, chrome-plated strobe. For 7½ and 3¾ ips recorders. Checks for speed accuracy, wow and flutter. Features needle bearings. Instructions included. Shpg. Wt.: 1 lb.
76F097. TW-1. **NET** **5.99**

DELUXE TAPE ACCESSORY KIT

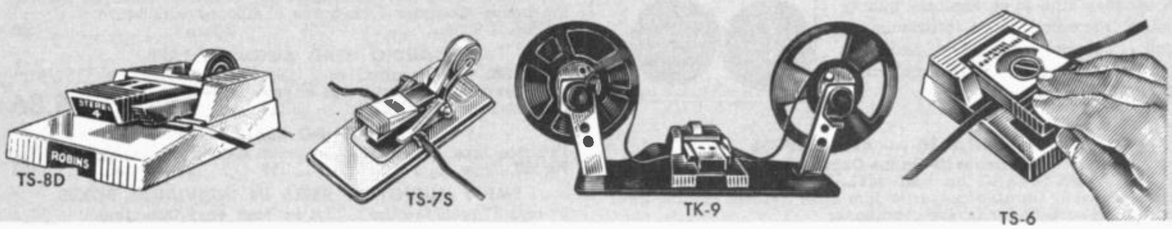
Type TK-8DLX. Complete tape accessory kit containing: TS-8D Tape Splicer; ½" Splicing Tape; Tape Threader; Head Cleaner; Head and Guide Lubricant; Tape Jockey Cloth; Tape Clips; Reel Title Labels; Reel Holders; and Tape Editing and Splicing Guide Book. Wt. 1½ lbs.
76F088. NET **11.99**

PROTECTIVE DIS-CLOSURES

Type PJ-18. Round bottom polyethylene plastic protective sleeves for 12" records. Prevents scratching, seals out dust and moisture. Pkg. of 18.
76F089. NET .... **.75**

TAPE AND PHONO ACCESSORIES ROBINS INDUSTRIES

GIBSON GIRL® TAPE SPLICERS



TS-8D. Gibson Girl "Stereo 4" Deluxe Tape Splicers. "See-thru" windows indicate "Cut" and "Trim" positions. Tape guide and fingers secure tape. Easy threading integral tape dispenser has roll of ½x100" splicing tape. Made of super-strong "Implex". Trims "Gibson Girl" waists at edges of splices to prevent adhesive from contacting critical parts of recorder. With instructions. 1 lb.
76F113. NET **7.69**

Type TZ-8. Replacement cutter and pads for TS-8D splicer.
76F079. NET .... **.99**

TS-7S Standard Stereo Splicer. Precision tape splicer cuts tape diagonally and trims minute Gibson Girl waists at sides of each splice. Plated steel parts and tan plastic base & knob. With ⅜" x 100" Tape. Shipping weight: 12 ozs.
76F112. NET **5.99**

TS-7J. Junior Stereo Splicer. Same as TS-7S, less dispenser and tape. Shpg. Wt.: 8 oz.
76F078. NET **4.89**

Type TZ-3. 2 cutters and pads for models TS-7S, 7J, 4S, 4J.
76F080. NET .... **.99**

TS-6 "Cut-N-Splice" Deluxe Splicer. Cuts tape at either 30°, 45°, 90°. Built-in tray for Patches. 25 self-stick splicing patches included. Shpg. wt.: 5 oz.
76F071. NET **2.99**

TS-5 "Cut-N-Splice". Metal block has tape guide and cutting groove to guide hand-held blade. Built-in sliding tray has 25 self-stick patches and blade. Shipping weight: 5 oz.
76F072. NET **1.99**

MYLAR SPLICING TAPE

Tackiness, thickness, strength and cold flow controlled.

Stk. No.	Type	Width	Length	NET
76F081	TST-235	¼"	300"	.69
76F082	TST-376	⅜"	275"	.69
76F083	TST-501	½"	250"	.69
76F122	TT-500	½"	100"	.33

PROFESSIONAL AUDIO-VIDEO SPLICERS

Operating lever has control knob for precise "Cut" and "Trim" positions. Produces "Gibson Girl" waists at sides of splices during trim—prevents adhesive from splicing tape from contacting critical parts of recorder. Blades and cutter pad are replaceable. Precision blade centering adjustment.

Stk. No.	Type	Description	NET
76F090	TS-500	½"—For Sony, Concord etc.	51.00
76F091	TS-1000	1"—For Ampex	51.00
76F092	TZ-1	Replacement Blades — Pkg. of 12	2.00

76F093. TZ-500. Repl. cutter pad for TS-500 .... 1.20
76F094. TZ-1000. Repl. cutter pad for TS-1000 .... 1.20

DELUXE VTR VIDEO TAPE SPLICERS

Precision diagonal cut. Tape guide and arms secure tape. Use self-stick, pre-cut patches listed below.

76F067. TSV-50. ½" for Sony, Concord, etc. NET 11.95

76F068. TSV-100. 1" for Ampex systems. NET 11.85

76F069. TT-247. ½" pre-cut self-stick patches for TSV-50. Wt. 3 Oz. NET Pkg. of 60. .... .99

76F070. TT-248. 1" pre-cut, self-stick patches for TSV-100. Wt. 3 Oz. NET. Pkg. of 48 .... .99

Type TK-9 Tape Editing Workshop. For editing, splicing, repairing tapes on reels. Includes: 2 Tape Winders and "Stereo" 4" Deluxe Tape Splicer. Handles reels up to 7". Splicer with integral threading tape dispenser and ½"x100" tape. 7x14x5½". Shpg. wt.: 2 lbs.
76F086. NET **14.39**

MAGNETIC BULK VIDEO AND AUDIO TAPE ERASERS

Reduces noise levels of tape 50-90 db below saturation minimum. Operation: 115 volt 50-60 hertz A.C. Safety features: Overheat indicator, individually fused circuits, heavy duty switches and power cord.

Model TM-120. Has blower system for reels of tape up to 17" dia. Duty cycle: 10 min. On/10 min. Off. Size: 3¾" x 12" x 14".
76F095. NET **120.00**

Model TM-100. (Not illust.) For reels up to 10½" diam. Duty cycle 5 min. On/15 min. Off. Size: 3¾" x 6" x 8".
76F096. NET **60.00**

TM-99. Bulk Tape Eraser. Reduces background noise from 3 to 6 db below normal erase head level. For reels up to 10½" D. x ½" W. Size: 5¼" x 3¾" x 6¾". Operation: 100-120V; 6 amps; 50-60 Hz. A.C. U.L. listed. Wt. 8½ lbs.
76F075. NET **28.50**

TM-77. Lower priced version of the TM-99. Reduces background noise levels of tape from 2 to 4 db. below normal erase head level. Tapes are demagnetized by rotation of reel on spindle. For ¼" tape. Takes reels up to 7". Size: 2⅜" x 3¾" x 8¼". 110-120V. A.C.
76F076. NET **15.90**

Type TD-6 Head Demagnetizer. Removes residual magnetism from tape heads. Magnetized heads raise the recorder's noise level; demagnetizes heads for optimum signal to noise ratio. 4⅝" x 1½". 110V/60 hz. A.C. U.L. approved. Wt.: 1 lb.
76F065. NET **6.95**

TM-2. Magnetic Tape Editing Pen. Simple, precise erasure of single sounds, noise, etc. from recordings. Fade in and fade out sounds. Used like a writing pen, but applied instead to tape areas for desired effects. Shpg. wt.: 4 oz.
76F064. NET **1.25**

Type TM-88 Hand-Held Eraser. Erases tapes by moving unit over each side of reel. Momentary contact switch located in the handle. For ¼" tape, any dia. reel. Size: 4" x 2½" x 4¼". Operation: 4 amps @ 110-120V. 50-60 Hz. A.C. Wt. 2 lbs., 4 oz.
76F077. NET **10.49**

audiotape

A complete line of professional quality sound recording tapes. Maximum fidelity; uniform frequency response; and freedom from noise and distortion. Five formulations.

FORMULA 10 — ALL PURPOSE

Formula 10—in the Orange Box

LONGER RECORDING on 1-mil MYLAR.* 50% more recording time per reel. Durable polyester film base assures trouble-free operation even under severe conditions.

Stk. No.	Type	Length	Reel	1-9	10-Up
76F537	261	225'	3" Plastic Self-Mailer	0.66	0.59
76F573	961	900'	5" Plastic C-Slot	2.35	2.12
76F574	1861	1800'	7" Plastic C-Slot	4.05	3.65

Stk. No.	Type	Length	Reel	1-4	5-Up
76F576	3661R	3600'	10½" Aluminum	9.38	8.44

Formula 10—in the Red Box

STANDARD RECORDING on 1½-mil plastic base, meets the most exacting requirements of the professional, educational, and home recordist at minimum cost.

Stk. No.	Type	Length	Reel	1-9	10-Up
76F615	151	150'	3" Plastic	0.46	0.41
76F613	351	300'	4" Plastic	0.88	0.79
76F606	651	600'	5" Plastic C-Slot	1.47	1.32
76F597	1251	1200'	7" Plastic C-Slot	2.29	2.06

Formula 10—in the tan box

DOUBLE RECORDING on ½ mil MYLAR.* Twice as much recording time per reel as standard plastic base tape. Suitable for extended-play applications where tape tension not extensive.

Stk. No.	Type	Length	Reel	1-9	10-Up
76F569	1231	1200'	5" Plastic C-Slot	2.29	2.06
76F570	2431	2400'	7" Plastic C-Slot	4.24	3.82

Formula 10—in the maroon box

DOUBLE RECORDING on "Tempered" MYLAR.* Twice as much recording time per reel as standard plastic-base tape. Twice as strong as other double-length tapes. Will not stretch or break on any tape recorder. Will not dry out with age.

Stk. No.	Type	Length	Reel	1-9	10-Up
76F538	331T	300'	3" Plastic Self-Mailer	1.05	0.94
76F539	1231T	1200'	5" Plastic C-Slot	3.56	3.20
76F540	2431T	2400'	7" Plastic C-Slot	6.20	5.59

FORMULA 11 — TRIPLE RECORDING

Formula 11—in the olive box

Uses especially thin oxide coating on ½-mil "Tempered" Mylar* to provide three times the recording time per reel as standard plastic-base tape; plus extra strength.

Stk. No.	Type	Length	Reel	1-9	10-Up
76F545	633T	600'	3¼" Self-Mailer	1.93	1.73
76F546	1833T	1800'	5" Plastic C-Slot	4.55	4.09
76F547	3633T	3600'	7" Plastic C-Slot	7.81	7.03

FORMULA 14 — LOW PRINT MASTER RECORDING

Formula 14—in the green and gold box

On 1½-mil Mylar.* Finest professional-quality recording tape. Maximum fidelity, uniformity, and frequency response. Withstands extreme temperatures; plus low print-through.

Stk. No.	Type	Length	Reel	1-9	10-Up
76F557	671-M	600'	5" Plastic C-Slot	2.09	1.88
76F558	1271-M	1200'	7" Plastic C-Slot	3.33	3.00

Stk. No.	Type	Length	Reel	1-4	5-Up
76F560	2517R-M	2500'	10½" Aluminum	8.82	7.94

Formula 14—in the red and gold box

FORMULA 14—LOW PRINT on 1½-mil acetate.

Stk. No.	Type	Length	Reel	1-9	10-Up
76F552	651-M	600'	5" Plastic C-Slot	1.79	1.62
76F553	1251-M	1200'	7" Plastic C-Slot	2.80	2.53

FORMULA 15 — LOW NOISE

Formula 15—in the red box

On 1½-mil acetate. Provides high signal to noise ratio, drastically lowered hiss level without sacrificing other properties needed for critical professional recording.

Stk. No.	Type	Length	Reel	1-9	10-Up
76F531	1257	1200'	7" Plastic C-Slot	2.80	2.53

FORMULA 17 — LUBRICATED

Formula 17—in the orange box

On 1-mil Mylar.* for continuous loop cartridges where superior high frequency response is so important. Will not chip; edges resist nicking; unaffected by humidity & temp. change.

Stk. No.	Type	Length	Reel	1-9	10-Up
76F550	1761-Lube	1700'	7" Plastic C-Slot	3.79	3.45

*Mylar—DuPont Polyester film

AUDIO HEAD DEMAGNETIZER

Removes all permanent magnetism from recording and reproducing heads in seconds.
76F592. NET 5.88

AUDIO HEAD CLEANER

Type 2HC. Specially formulated for cleaning magnetic recording heads. Contains 2 oz. bottle of silicone with brush.
76F534. 1-9 .... .66 10-up .... .59

AUDIO HEAD ALIGNING TAPE

Type 200. Pre-recorded at 2,000; 10,000; 15,000; Hz (15"/sec) with precisely correct head alignment. 300' on 4" reel.
76F591. Type 200. NET 5.86

SELF TIMING LEADER TAPE

Durable tape of white Mylar with spaced markings. ¼"x100'.
76F593. Type 3L. 1-9 .... .59 10-up .... .53

EMPTY AUDIOTAPE REELS IN INDIVIDUAL BOXES

5" and 7" reels feature C-Slot for fast, easy threading.

Stk. No.	Type	Size	1-9	10-Up
76F536	3.2PMB	3¼" in Mailing Box	0.26	0.24
76F551	5PB	5" Clear Plastic	0.42	0.38
76F577	7PB	7" Clear Plastic	0.49	0.44
76F586	7PBR	7" Red Plastic	0.49	0.44
76F587	7PBB	7" Blue Plastic	0.49	0.44
76F588	7PBG	7" Green Plastic	0.49	0.44
76F589	7PBY	7" Yellow Plastic	0.49	0.44

Stk. No.	Type	Size	1-4	5-Up
76F590	10FS	10½" Fiberglass	2.94	2.65

EMPTY AUDIOTAPE BOXES

Standard, durably-constructed boxes for filing and storing tapes.

Stk. No.	Type	Description	1-9	10-Up
76F571	5B	For 5" Reel	.13	.12
76F572	7B	For 7 "Reel	.13	.12

MAILING BOXES

Strong, re-usable corrugated containers for reels & boxes.
76F595 Type 5M for 5" reels. 1-9........ .10 10-up .... .09
76F596 Type 7M for 7" reels. 1-9........ .13 10-up........ .12

ADHESIVE REEL LABELS

Positive identification of tapes. Pkg. of 30. ½" x 2".
76F594. Type 30AL. 1-9 .... .12 10-up........ .12

"HOW TO MAKE GOOD TAPE RECORDINGS"

Definitive handbook of tape recording. More than 150 pages, clearly written and liberally illustrated. Stereo Edition.
53F071. NET .... .89

AUDIO DISCS

A complete line of recording blanks for professional recordists.
Sold In Standard Packages Only

Red Label

For Professional use. Optimum quality and dependability. Aluminum base. Double faced.

Stk. No.	Type	Size	Thickness	Pkg. of 25
77F048	7R2***	7"	.050"	36.50
77F001	10R2	10"	.040"	34.74
77F002	12R2	12"	.050"	74.25

Yellow Label

For General use which requires high uniform quality. Aluminum base. Double sided.

Stk. No.	Type	Size	Thickness	Pkg. of 25
77F009	7Y***	7"	.050"	33.25
77F010	8Y	8"	.040"	25.00
77F011	10Y	10"	.040"	30.00
77F012	12Y	12"	.050"	63.25

Blue Label

For Amateur use. High quality, but on a thinner Aluminum base. Double sided.

Stk. No.	Type	Size	Thickness	Pkg.of 50
77F031	6A	6½"	.030"	25.50

***STANDARD 45 rpm disc with 1½" dia. center hole.

AUDIOPOINTS

Professional Sapphire and Dural

Optimum quality and uniformity. Scientifically inspected and disc-tested. Type 14, std. 87°; Type 20, microgroove.

Stk. No.	Type	Point Material	Shank Material	Each
51F450	14-short	Sapphire	Dural	5.34
51F464	14-long	Sapphire	Dural	5.34
51F463	20-short	Sapphire	Dural	5.34
51F462	20-long	Sapphire	Dural	5.34

Stellite

Cuts a quiet, accurate, uniform groove. Combines good quality and economy.

Stk. No.	Type	Point Material	Shank Material	Each
51F454	34-short	Stellite	Brass	1.74

Recording Tape, Accessories

Exclusive! All tapes feature built-in lifetime Silicone lubrication to protect recorder heads against wear and extend tape life. Free in each box: "End-of-reel" TAPE CLIP to prevent spilling.

TYPE 175 HEAVY DUTY TENZAR—1.5 MIL

For applications requiring frequent repeat, fast starts and stop. New heavy duty coating. Lasts 15 times longer than ordinary tapes. Improved conductivity drains off static. Non-drying.

Stk. No.	Type	Len.	Reel	1-11	12-up
76F708	175-6	600'	5" Plastic	1.57	1.41
76F709	175-12	1,200'	7" Plastic	2.45	2.20
76F741	175-25RPS	2,500'	10½" Plastic—EIA	7.33	6.60

SUPER RUGGED TYPE 282 "SANDWICH"—1.5 MIL

Ideal for use in the language labs and audio-visual centers. Features protective, micro-thin plastic shield over oxide coating which eliminates rub-off, wears up to 30 times longer. Polyester backing insures strength and resistance to temperature and humidity changes. On clear plastic reels.

76F711	282-6	600'	5" Plastic	2.03	1.82
76F712	282-12	1,200'	7" Plastic	3.23	2.91

TYPE 111 1.5 MIL PLASTIC

The acknowledged standard in the recording field. Famous for flawless sound reproduction at lowest possible cost.

Stock No.	Type No.	Size	Reel	1-11 Ea.	12-up Ea.
76F628	111-1.5	150 ft.	3" Plastic	.46	.41
76F625	111-3	300 ft.	4" Plastic	1.05	.94
76F627	111-6	600 ft.	5" Plastic	1.47	1.32
76F626	111-12	1200 ft.	7" Plastic	2.29	2.06

Stock No.	Type	Size	Reel	1-11 Ea.	12-up Ea.
76F629	111-25H	2500'	NAB Hub	5.13	4.62
76F633	111-25RO	2500'	10½" Alum.-NAB	7.06	6.35
76F639	111-25RPS	2500'	10½" Plastic-EIA	7.08	6.35

TYPE 153-16 1 MIL POLYESTER TAPE

Single coated, with external lubrication on backing side only. High potency oxide coating on 1 mil polyester backing. Available in size ¼" x 1600' on 7" plastic reels. Designed for continuous loop cartridges. Shpg. wt., 1½ lbs.
76F728. 1-11 ....3.57 12-up 3.24

TYPE 190 EXTRA LENGTH 1 MIL PLASTIC TAPE

Tape that gives you 50% more recording time from a conventional size reel with complete purity of sound, thanks to super-sensitive high potency oxide. Acetate base for economy.

Stk. No.	Type	Len.	Reel	1-11	12-up
76F682	190-9	900'	5" Plastic	2.29	2.06
76F683	190-18	1800'	7" Plastic	3.59	3.23
76F684	190-36H	3600'	NAB Hub	6.44	5.79
76F685	190-36RO	3600'	10½" Alum.-NAB	8.36	7.53

TYPE 150 EXTRA LENGTH 1 MIL POLYESTER TAPE

Made with tough durable polyester backing, this tape is "weather balanced." It offers 50% more recording time.

76F686	150-9	900'	5" Plastic	2.35	2.12
76F687	150-18	1800'	7" Plastic	4.05	3.65
76F688	150-36H	3600'	NAB Hub	7.45	6.70
76F689	150-36RO	3600'	10½" Alum.-NAB	9.38	8.44

TYPE 200 DOUBLE LENGTH .5 MIL TENSILIZED POLYESTER

Plays twice as long as standard tape. Invisible polyester "muscles," conditioned by exclusive tensilized process.

Stock No.	Type	Size	Reel	1-11 Ea.	12-up Ea.
76F707	200-12	1200'	5"	3.56	3.20
76F701	200-24	2400'	7"	6.20	5.59

TYPE 120 HIGH OUTPUT 1.5 MIL PLASTIC

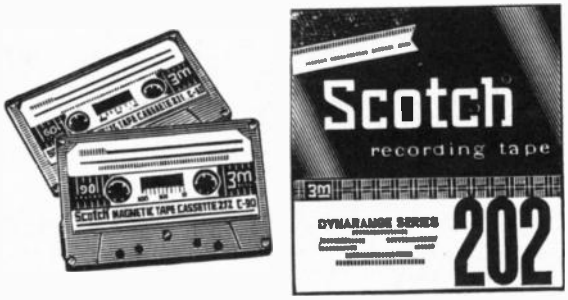
Magnetic tape with .65 mil coating of high output oxide on 1.5 cellulose acetate backing. Capable of recording a lower than normal input with equal volume and no distortion.

76F640	120-6	600'	5" Plastic	1.47	1.32
76F641	120-12	1200'	7" Plastic	2.29	2.06

DYNARANGE® SERIES TAPE

These tapes offer wider frequency response and improved signal.
Type 201—1½ mil plastic base.
Type 202—Extra strength 1½ Mil polyester base.
Type 203—Extra length, extra strength 1 Mil polyester base.

Stock No.	Type	Size	Reel	1-11	12-up
76F674	201-¼-600	¼" x 600'	5"	1.83	1.65
76F735	201-¼-1200	¼" x 1200'	7"	2.87	2.59
76F736	201-¼-2500RO	¼" x 2500'	10½"	7.98	7.17
76F678	202-¼-600	¼" x 600'	5"	1.86	1.68
76F679	202-¼-1200	¼" x 1200'	7"	3.33	3.00
76F680	202-¼-2500RO	¼" x 2500'	10½"	7.98	7.17
76F675	203-¼-900	¼" x 900'	5"	2.77	2.50
76F737	203-¼-1800	¼" x 1800'	7"	4.80	4.32
76F738	203-¼-3600RO	¼" x 3600'	10½"	11.20	10.08



SCOTCH MAGNETIC TAPE CASSETTES

Model 272. 90 minute cartridge which uses Scotch Brand Low Noise tape, so important for slow speed recording. Will not bind or cause other transport problems. Compatible with all other Cassette systems.
76F743. 1-11....................3.17 12-Up....................2.86

Model 271. 60 minute tape cartridge for Wollensak model 4100, 4200, and similar recorders.
76F649. 1-11....................2.09 12-Up....................1.88

Model 273. 120 mniute cartridge which is similar to models 271 and 272.
76F744. 1-11....................3.56 12-Up....................3.20

TYPE 131 LOW PRINT THROUGH 1.5 MIL PLASTIC

First tape to reduce print-through to a point below noise level on even the most critical professional machines.

76F703	131-12	1200'	7" Plastic	2.87	2.59
76F705	131-25RO	2500'	10½" Alm.—NAB	7.98	7.17

TYPE 290 TRIPLE LENGTH—.5 MIL TENSILIZED POLYESTER TAPE

For maximum recording time on given size reel. Ideal for use with portable transistorized recorders and for recording meetings, conventions, etc.

Stk. No.	Type	Len.	Reel	1-11	12-up
76F731	290-18	1800'	5" Plastic	4.54	4.09
76F729	290-36	3600'	7" Plastic	7.81	7.03

LIVING LETTERS IN PLASTIC MAILING BOXES

Just write in address, apply postage and mail.

Stock No.	Type	Description	Size	1-11	12-up
76F732	111-¼-150LL	1.5 Mil Plastic	¼"x150'	.59	.53
76F733	200-¼-300LL	.5 Mil Polyester	¼"x300'	1.21	1.09
76F734	290-¼-600LL	.5 Mil Polyester	¼"x600'	1.93	1.73

ADDRESS LABELS FOR "LIVING LETTERS"

Extra address labels for use with above mailing—boxed tape.
76F742. Per pkg. of 10 32
Lots of 12 pkgs. (per pkg.) 28

QUICK LOAD CARTRIDGE

No. 8000. For cartridge tape recorders. Contains 500 ft. of tape.
76F706. NET EACH (Lots of 1-11)....................................2.94
Lots of 12 or more 2.65

TYPE 24 LEADER AND TIMING TAPE

¼" wide by 100 feet long in dispenser package.

Stk. No.	Type	Color	1-11	12-up
76F713	24-1W	White	.59	.53
76F717	24-1Y	Yellow		

TYPE 41 SPLICING TAPE

Coated one side with non-run pressure sensitive adhesive. ½x 150" *in metal dispenser.

Stk. No.	Type	Size	1-11	12-up
76F650	41-½-S*	½x50"	.38	.34
76F652	41-½-66	½x66'	.74	.67
76F653	41-¾-66	¾x66'	.99	.89
76F656	41-7/32-66	7⁄32"x 66'	.56	.50

TYPE 51 ALUMINIZED SENSING TAPE

For recorders with automatic "stop" and "reverse" controls. Has pressure sensitive, non-run adhesive on one side—foil on other.

76F718	51-7⁄32S	7⁄32"x150"	1.85	1.67

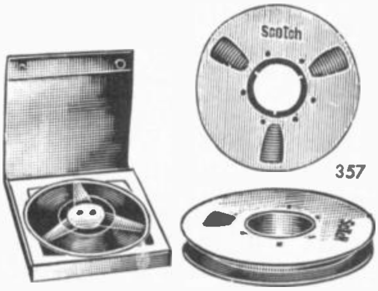
EMPTY SELF-THREADING REEL WITH COLLAR AND LABELS

Permits instant threading. Holds tape firmly. Threads all tape thicknesses. Snap-tight plastic collar. Solid slides.
76F730. Type PRST-7. Net. 1-11....................98 12-up....................88

3M COMPANY SCOTCH® BRAND VIDEO TAPE

Types 351 & 357. Offers an improved signal-to-noise ratio over previous longitudinally orientated tapes. Considerably improved in wear characteristics. "A" wind (oxide surface in). Type 351 ½ inch tapes are for Sony, Panasonic, Concord, Shibaden. *VB-1-10 box is to be used when purchasing boxes (empty) for 1"x9" reel. Type 357 for use on the Ampex VR-7000 and VR-6000 video tape recorders.

Stock No.	Type	Tape Wind	Reel Size	Reel Type	Reels Per Ctn.	Ctn. Wt.	1-9	10-24	25-49	50-up
76F300	351-½-1250-R86B	A	½"x7"	Plastic Self threading		5	21.95	20.85	20.19	19.76
76F301	351-½-2400-R86B	A			5	8	39.95	37.95	36.75	35.96
76F305	357-1-1500-R97B	A	1"x9¾"	Phenolic hub with flanges	5	5	44.95	42.70	41.35	40.46
76F306	357-1-3000-R97B	A			5	8	59.95	56.95	55.15	53.96



357

351-½-1250 R86B   351B-1-1500-R73

VIDEO TAPE ACCESSORIES

Stock No.	Type	Description	Size	Per Carton	1-5	6-up	1-9	10-up
76F320	RR86B-½-/	Empty Reels	½"x7"	5	....	....	3.00	2.75
76F327	R97B-1-9¾	In Boxes	1"x9¾"	2	8.95	8.05	......	......
76F323	VB-½-7	Empty	½"x7"	5	....	....	1.65	1.50
76F325	*VB-1-10½	Boxes	1"x10½"	2	1.53	1.38	......	......
76F326	VIC-1-10½	Empty Plastic Case	1"x10½"	5	....	....	4.73	4.50

*Empty box for use with 1"x9" reels. (R73, R97 and 10½" reel.)

Stock No.	Type	Description	Size	Per Carton			1-11	12-up
76F330	390-¼-66	Aluminized Splicing	¼"x66'	12	....	....	3.25	2.93
76F331	390-½-66	Tape—.5 Mil	½"x66'	12	....	....	4.87	4.38
76F332	391-¼-66	Aluminized Splicing	¼"x66'	12	....	....	3.25	2.93
76F333	391-½-66	Tape—.25 Mil	½"x66'	12	....	....	4.87	4.38
76F334	620-7/32-66	Splicing	7/32"x66'	12	....	....	3.25	2.93
76F335	620-½-66	Tape	½"x66'	12	....	....	4.87	4.38

NEWARK TAPE

Tape is splice-free. One continuous reel ¼" wide and thickness of .5 Mil., 1.0 Mil., 1.5 Mil. With Acetate or Mylar base for uniform output and lower noise level. 1.0 Mil. thick tape offers 50% more recording time, .5 Mil. offers 100% more, than 1.5 Mil. types.

*Mylar †Acetate

Stk. No.	Mil.	Size	Reel	1-9	10-24	25-Up
76F751	1.5 Mil†	1200'	7"	1.22	1.14	1.06
76F753	1.0 Mil†	1800'	7"	1.68	1.58	1.47
76F755	1.0*	1800'	7"	1.92	1.80	1.68
76F759	0.5*	2400'	7"	2.40	2.25	2.10
76F750	1.5 Mil†	600'	5"	.96	.90	.84
76F752	1.0 Mil†	900'	5"	1.20	1.12	1.05
76F754	1.0*	900'	5"	1.50	1.41	1.32
76F756	1.0*	225'	3"	.74	.69	.64
76F757	.5*	300'	3"	.85	.79	.74
76F758	.5*	600'	3¼"	1.50	1.41	1.32

AMERLINE PLASTIC REELS

Stk. No.	Description	10 for	100 for
76F215	3" Reel	.64	5.57
76F216	3¼" Reel	.90	7.89
76F217	4" Reel	1.28	11.13
76F218	5" Reel	1.70	14.84
76F219	7" Reel	2.02	17.62
76F220	7" Reel 4" plastic hub.	2.96	25.97
76F221	5" Reel 3" plastic hub.	2.54	22.26
76F222	10½" Reel NAB hub fibreglass	15.48	135.45

EMPTY REELS IN BOXES

Supplied with index box. *In plastic mailing box.

Stock No.	Type	Reel Dia.	Reel	1-11 Ea.	12-up
76F700	RB-14M	14"	Aluminum-NAB	5.68	5.12
76F667	RB-10½M	10½"	Aluminum-NAB	2.94	2.65
76F669	RB-10½RPS	10½"	Plastic-opaque	2.94	2.65
76F660	RB-7	7"	Plastic	.49	.44
76F661	RB-5	5"	Plastic	.43	.38
76F663	RB-4	4"	Plastic	.49	.44
76F739	RLL-¼-3*	3"	Plastic	.39	.35
76F662	RB-3	3"	Plastic	.17	.15

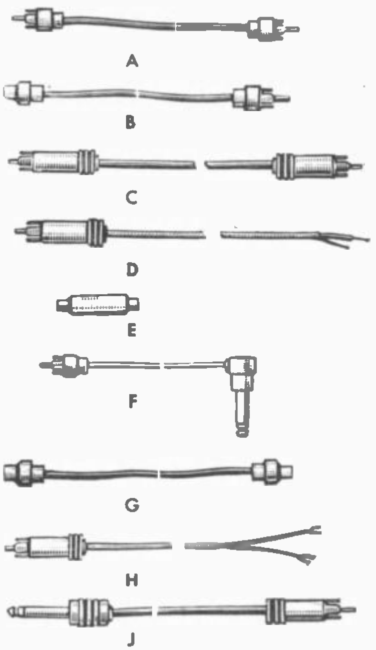
EMPTY BOXES FOR TAPE REELS

Stock No.	Type	Description	1-11 Ea.	12-up
76F740	LL-¼-3	3" Plastic Mailing Box	29c	26c
76F695	B-5	5" Hinged Box	13c	12c
76F696	B-7	7" Hinged Box	13c	12c
76F698	B-10½	10½" Hinged Box	49c	44c

END-OF-REEL TAPE CLIPS FOR ¼" WIDE TAPE

Clip securely to tape, prevents spilling or tangling in handling, storage and mailing.
76F710. Per pkg. of 10........ **.23** Lots of 12 pkgs. (per pkg.)........ **.21**

CONNECTING CABLES

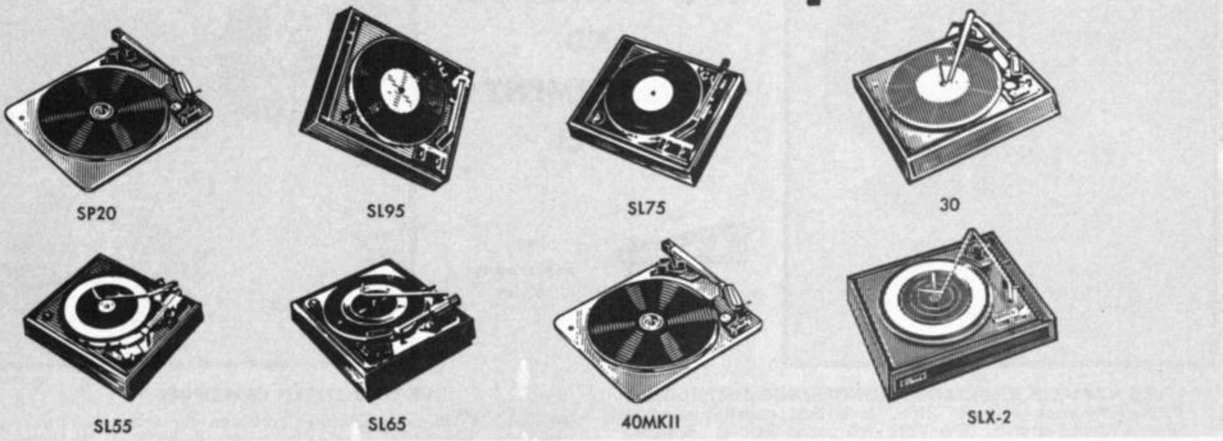


Trouble-free installation for Hi-Fi and Stereo. All are flexible shielded except * unshielded. 2-cond. cable. Av. Shpg. wt., 5 oz.

Stk. No.	Fig.	Lgth.	One End	Other End	NET
39F800	A	18"	Phono pin plug	Phono pin plug	.53
39F801	A	36"	Phono pin plug	Phono pin plug	.62
39F802	A	72"	Pnono pin plug	Phono pin plug	.79
39F1752	A	10'	Phono pin plug	Phono pin plug	.90
39F1750	A	20'	Phono pin plug	Phono pin plug	1.71
39F1751	A	30'	Phono pin plug	Phono pin plug	2.34
39F803	B	18"	Phono pin plug	Phono jack	.62
39F804	B	36"	Phono pin plug	Phono jack	.70
39F805	B	72"	Phono pin plug	Phono jack	.88
39F1753	B	10'	Phono pin plug	Phono jack	1.02
39F1754	B	20'	Phono pin plug	Phono jack	1.89
39F1755	B	30'	Phono pin plug	Phono jack	2.52
39F807	G	18"	Phono jack	Phono jack	.82
39F808	G	36"	Phono jack	Phono jack	.91
39F809	G	72"	Phono jack	Phono jack	1.09
39F810	F	72"	Phono pin plug	Rt. ang. phone plug	1.32
39F811*	....	10'	Rt. ang. phono pin plug	Alligator clips	1.50
39F812*	....	10'	Rt. ang. phone plug	Alligator clips	1.59
39F1600	C	10'	Long Phono pin plug	Long Phono pin plug	1.15
39F1601	C	15'	Long Phono pin plug	Long Phono pin plug	1.44
39F1756	....	6'	Phono pin plug	Stripped, tinned	.65
39F1602	D	10'	Long Phono pin plug	Stripped, tinned	.97
39F1603	D	15'	Long Phono pin plug	Stripped, tinned	1.26
39F1757	D	20'	Phono pin plug	Stripped, tinned	1.77
39F1758	D	30'	Pnono pin plug	Stripped, tinned	2.40
39F1604	J	6'	Long Phono pin plug	Phone plug	1.21
39F1605	J	10'	Long Phono pin plug	Phone plug	1.50
39F1606	J	15'	Long Phono pin plug	Phone plug	1.79
39F1607	J	20'	Long Phono pin plug	Phone plug	2.09
39F1759	....	30'	Phono pin plug	Phone plug	2.49
39F1608	H	10'	Long Phono pin plug	Lugs	1.03
39F1609	H	15'	Long Phono pin plug	Lugs	1.32
39F806	E		Double phono pin jack thru conn.; pin plugs (Adapter)		.59
39F825	...		Phono pin jack to phone plug (Adapter)		.73

 Newark-Denver Electronic Supply Corp., 2170 So. Grape St., Denver, Colo. 80222

Garrard®



"SYNCHRO-LAB" SERIES TURNTABLES

• Combines Advantages of Synchronous & Induction Types
The high cost of eliminating synchronous motor performance problems, such as low starting torque and excessive rumble, explains why even the finest turntables have been using induction motors. Now, GARRARD has combined the synchronous and induction types into one motor with the advantages of both. An induction section of the rotor provides high torque

• Speed Connot Fluctuate—High Torque—Low Rumble
and fast acceleration to the correct speed, at which point the synchronous section "locks in" to the 60 hz line current: voltage may vary from 25 to 250V with NO EFFECT WHATEVER on speed! The Synchro-Lab design also offers a high degree of torsional damping, running smoothness, and freedom from rumble.

SL55 4-SPEED AUTOMATIC TURNTABLE

Provides performance of far more expensive units. Synchro-Lab motor guarantees uniform record speed. Manual cueing and pause control. Two interchangeable spindles. In automatic mode, records of any size may be intermixed. Lightweight tubular tone arm has built-in stylus pressure adjustment. Lightweight plug-in shell accomodates your choice of cartridges, and has cueing pointer. Four speeds: 16⅔, 33⅓, 45 & 78 rpm. Operates from 100-130 VAC, 60Hz only. Requires 4¾ above and 2⅞ below motor board. (less cartridge) Shpg. Wt. 10½ lbs.
73F739. NET **59.50**

MODULE AUTOMATIC TURNTABLE

SLX-2. A completely assembled 3-speed Synchro-Lab automatic turntable with magnetic cartridge, diamond needle and mounted on base with removable dust cover. Also included are: synchronous motor, manual cueing, lightweight counterbalanced tubular tonearm, adjustable stylus force control; line cord, 2 audio cables, and both standard and manual spindles.
73F746. NET **69.50**

SL65 4-SPEED AUOMATIC TURNTABLE

Superseded the 60 Mk II. Synchro-Lab motor guarantees "locked-in" turntable speed. Comes with two interchangeable spindles, for manual single-record or automatic operation. Has automatic anti-skating control and built-in stylus pressure gauge; supersensitive trip with DuPont Delrin. Lightweight plug-in shell accepts a variety of cartridges. Manual cueing and pause control permits placing the tone arm on the record in any position. Requires 4¾" above and 2⅞" below mounting board. For 100-130 VAC operation. Shpg. wt. 12 lbs.
73F741. NET. **79.50**

SL95 3-SPEED AUTOMATIC TURNTABLE

Revolutionary Synchro-Lab motor provides flawless, silent, synchronous speed. Two interchangeable spindles permit single-play manual operation, or six-record automatic operation in automatic mode, Unique anti-skating control, and stylus pressure gauge. Ultra-low-mass tone arm has adjustable counterweight and gyroscopically gimballed pivots. Cartridge clip permits rigid one-end tone arm design. Single manual-cueing-pause lever starts turntable, lifts arm, and lowers it gently to the record. 12" aluminum turntable has anti-static mat with safety grooves at 12", 10" and 7" to protect stylus against accidental damage. 3 speeds: 33⅓, 45 and 78 rpm; operates from 100-130 VAC 60 hz. Requires 4⅜" above mounting board, and 3" below. (Less Cartridge). Shpg. wt., 13 lbs.
73F740. NET. **129.50**

SL75 3-SPEED AUTOMATIC TURNTABLE

Auto-Rise safety record platform springs into position for automatic play, retracts when not in use. Automatic spindle holds six records; interchangeable single play manual spindle rotates with record for center-hole protection. 12" turnable with anti-static mat, driven by Synchro-Lab motor for constant record speed and low rumble. Anti-skating control, adjustable tone-arm counterweight, interchangeable cartridge clip, combined manual-cueing-pause control. Stylus force adjustable to ½ gm; built-in pressure gauge. 33⅓, 45, and 78 rpm. operates from 100-130 V 60 cycle. Requires 4⅜" above mtg. broad, 3" below. Sphg. wt., 13 lbs.
73F742. NET. **109.50**

40 Mk II AUTOMATIC TURNTABLE

Features oversized turntable & counter-weighted tone arm (with safety catch & finger lift). Automatic intermix operation. Dupont Delrin "frictionless" trip mechanism. Garrard 4-pole shaded "Induction Surge" motor. Handsomely styled unitized control panel with separate positions for manual and automatic play. Portable and lightweight. Less cartridge. Sphg. wt.: 10½ lbs.
73F725. NET **44.50**

MODEL 30 4-SPEED AUTOMATIC TURNTABLE

Comes with ceramic diamond-stylus cartridge. Interchangeable spindles for automatic or manual play. Induction motor designed and built by Garrard. Versatile automatic operation: records may be intermixed in size. Super-sensitive trip with DuPont Delrin to offset friction. Easy stylus pressure adjustment. Dimensions: 14⅞" W x 12½" D, 4⅝" above and 2⅞" below motor board.
Shipping wt.: 10 lbs.
73F745. NET **39.50**

SP20 MANUAL PLAYER

4-speed manual turntable for single record. Semi-counterbalanced arm with adjustable stylus pressure. Full size weighted turntable. Trip of Dupont Delrin. Track as light as 2 grams. Automatic return of arm to rest, and shutoff after play. Interchangeable plug-in head, for any cartridge. With line cord, 2 audio cables, plug-in shell (less cartridge). Shpg. wt.: 10 lbs.
73F730. NET **37.50**

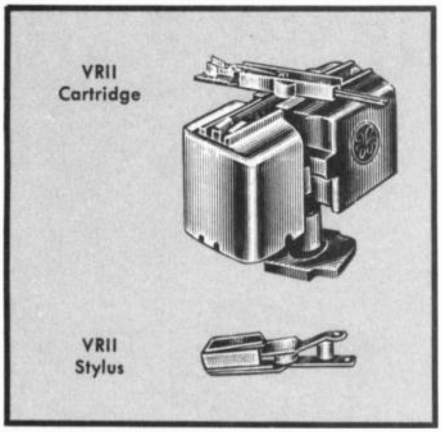
ACCESSORIES

(*) Also for older 60 and 50 series.

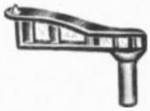
Stk. No.	Type	Description	NET
73F750	B1*	Coordinated base for SL65, SL55, 40, 30, 20 series	4.95
73F751	B1P*	Power-Matic Base for same series as B1 base	14.95
73F752	B2	Coordinated base for SL75 and SL95	5.95
73F753	B2P	Power-Matic base for same series as B2 base	15.95
73F754	D1*	Dust Cover for use with B1 bases	4.95
73F755	D2	Dust cover for use with B2 bases	5.95
73F768	MB10*	Mounting board for SL65, SL55, 40, 30, 20 series	2.25
73F744	MB11	Mounting board for SL75 and SL95	2.25
73F736	LRS20*	45 RPM Spindle for SL65, SL55, 40, 30, SLX-2	3.80
73F782	LRS25	45 RPM Spindle for SL75 and SL95	3.80
73F738	M7*	Extra Plug-In Shell for SL55, SL65, 40, 20 series	1.75
73F790	C1	Extra Cartridge Clip Holder for SL75	1.75
73F791	C2	Extra Cartridge Clip Holder for SL95	1.75

Except Where Noted, All GARRARD Turntables Come Less Cortridge.
See SHURE Cartridge Page in Index for Cartridge Assemblies

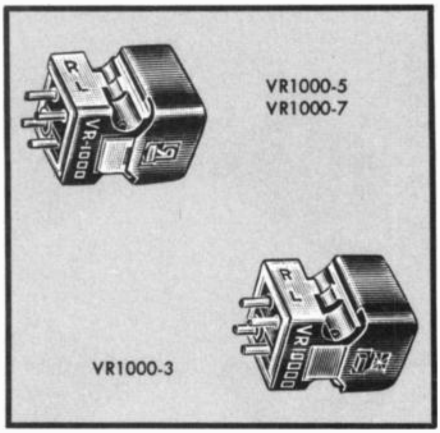
SPECIAL OFFER*—GET A CARTRIDGE FOR A PENNY!
For Models 40 and SL55; choose between a Shure M7/N21D (50F524), Electrovoice 149DF (50F724) or G.E. VR-1000-7 (50F-200). For Models SL65, SL75, and SL95; choose any of above or Shure M44E elliptical (50F539) and pay only one cent more than the price of the Garrard unit selected. How to order: show stock numbers of the Garrard unit and cartridge selected on seperate lines, bracket the two items and show a combined price of one cent more than the price of the Garrard unit selected. **Model 30 & SP20 not included in this offer.



G. E. CARTRIDGES AND REPLACEMENT STYLI



RPJ
Replacement
Stylus



VRII VARIABLE RELUCTANCE MONOPHONIC CARTRIDGES

Features: 4 gram pressure. "Slim" look. Independently replaceable. Clip-in-Tip styli. (See VRII styli listing below). Reduced record wear. Improved tracking ability Electrostatic Shielding. Plug-in terminals. Unaffected by temperature or moisture. Mu metal shielding and special anti-hum coils. No unwanted signals generated by vertical motion. Available in single and triple play models. SPECIFICATIONS: Frequency Response:-20 to 20,000 hz. Tracking Pressure: Professional type tone arm 4 grams. Record Changers—6-8 grams. Equalization: 6.2K for RIAA. Out-put: 22 MV Nominal at 10 cm/sec. Compliance: 1.7x10.6 CM/dyne. Mounting: Either ½" standard or 7⁄16". Terminals: Plug-in design.

VR II Cartridges — Less Styli
(For Clip-in-Tip Styli — See Listing Below)

SINGLE NEEDLE

Model VR II S. Accomodates Stylus of your choice. Replaces formerly listed 4G040, 041, 061, 063 when appropriate stylus is purchased with cartridge.
50FA235. NET **4.88**

DOUBLE NEEDLE

Model VRII D. Accomodates dual styli of your choice. Replaces formerly listed 4G050, 052, 053, when appropriate styli are purchased with cartridge.
50FA236. NET **5.98**

SINGLE NEEDLE

Model 4GS. Broadcast type. (Low impedance). Replaces formerly listed 4GS-01S, 02S, 01D, 02D, when appropriate stylus is purchased with cartridge.
50FA237. NET **4.88**

DOUBLE NEEDLE

Model 4GD. Broadcast type (Low impedance). Replaces formerly listed 4GD-01S-02S, 01D-02D, 01D-02S when appropriate styli are purchased with cartridge.
50FA238. NET **5.98**

VR II CLIP- IN-TIP STYLI

Stock No.	Type	Description	Net
50FA337	4G-07S	.7 Mil	1.28
50FA338	4G-02S	2.5 Mil Sapphire*	
50FA339	4G-03S	2 Mil	
50FA340	4G-07D	.7 Mil	2.98
50FA341	4G-02D	2.5 Mil Diamond	
50FA342	4G-03D	3 Mil	

***All sapphires are synthetic**

G. E. REPLACEMENT STYLI

For any type "A" cartridge or stylus assembly.

Stk. No.	Type	Stylus	NET
50FA180	RPJ07D	.7 Mil Diamond	2.98
50FA181	RPJ02D	2.5 Mil Diamond	2.98
50FA182	RPJ03D	3.0 Mil Daimond	2.98
50FA183	RPJ07S	.7 Mil Sapphire	1.28
50FA184	RPJ02S	2.5 Mil Sapphire	1.28
50FA185	RPJ03S	3.0 Mil Sapphire	1.28

RPX STYLI For former RPX cartridges

Stk. No.	Type	Stylus	NET
50FA221	RPJ004	.001 Diamond	2.98
50FA218	RPJ005	.001 Sapphire	1.28

VR-1000 STEREO CARTRIDGES

VR-1000-7. .7 Mil diamond stereo cartridge. Recommended tracking force: 3-7 grams. Frequency response—20-20,000 hz. Load resistance—47 K ohms. Output: 1 millivolt per cm/sec. Resistance: 1100 ohms. ½" mounting ctrs.
50FA200. .... **11.33**

VR-1000-S. Same as 1000-7, except .5 Mil Recommended tracking force is 1-3 grams.
50FA201. NET **13.59**

VR1000-3 ELLIPTICAL CARTRIDGE

Stereo cartridge prevents loss of higher harmonics. Features revolutionary suspension and damping systems. 15° tracking angle eliminates distortion. Tracking force: 3-7 grams. Frequency response: 20-20,000+hz per sec. ±2 db. 1100 ohms per channel resistance. Output: 1 millivolt per cm/sec. minimum. ½" mtg. centers. With DR-3D stylus.
50FA343. NET **18.75**

VR-1000 REPLACEMENT STYLI

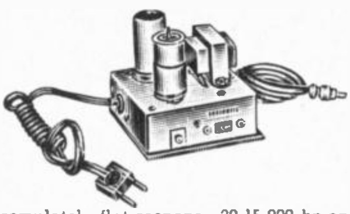
50FA202. DR-7D. .7mil. diamond. **NET** **6.30**
50FA203. DR-5D. .5 mil. diamond. **NET** **7.50**

Model DR-3D Stylus. Bi-radial and elliptical combined with VR1000-3 cartridge provides purest reproduction. Eliminates "bottoming."
50FA344. NET **12.00**

VR-22 REPLACEMENT STYLI

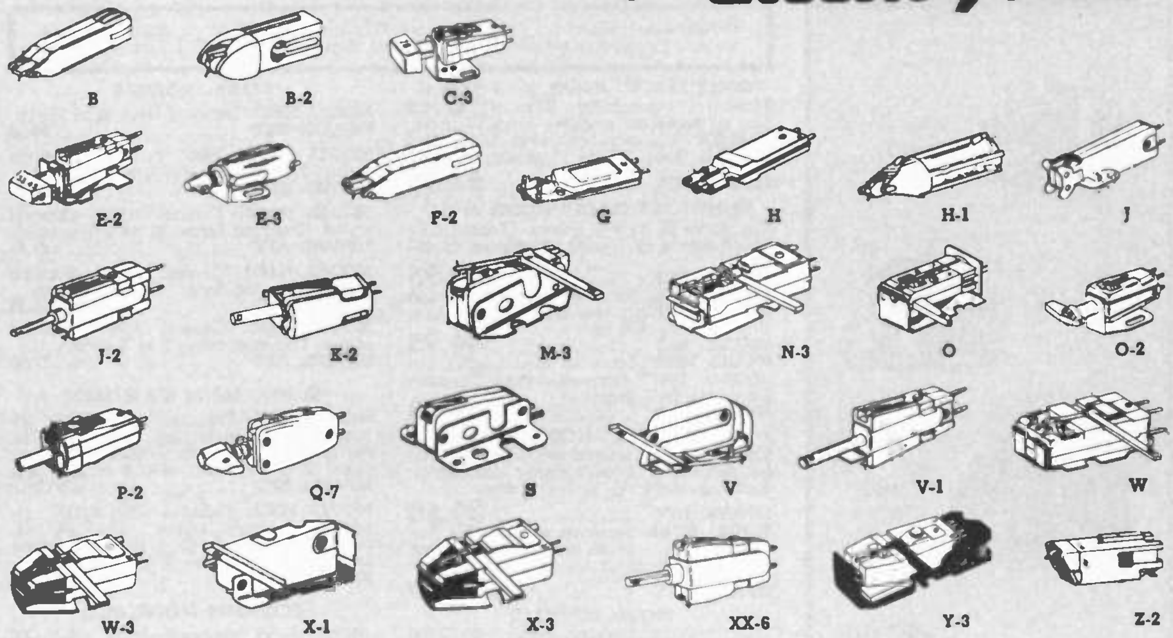
Replacement styli for former G.E. models VR-225 and VR-227. VR-221 for VR-225 cartridge and VR-222 for VR-227 cartridge. Minimizes tracking distortion and improves frequency response and channel separation.
50FA335. VR-221. .0005 diamond. **NET** **4.50**
50FA336. VR-222. .0007 diamond. **NET** **3.75**

DUAL-FUNCTION PRE AMPLIFIER



Model UPX-003C. For phonograph or microphone. Complete two position switch, two triode amplification with a double triode amplification with a double triode special low noise/low mocrophonics 7025 tube. Provides RIAA compensation on "Phono", completely flat response 30-15,000 hz on "mike". PA ok recording positions. 105-125 volts AC 50-60 hz 4 watts at 115 volts. Gain: 33 decibels at 1000 hz. Output impedance at 30 hz-120,00 ohms, at 15,000 hz-1,700 ohms. Dimensions 3⅝" wide x 3⅝" long x 3⅜" high. Shpg. wt. ½ lb.
50FA206. NET **10.77**

Cartridges Electro-Voice®



ELECTRO-VOICE "PRECISIONEERED" CARTRIDGES

Guaranteed for ninety days after purchase. Most popular replacement cartridges made. To choose replacement, determine appropriate heading, i.e., single or dual needle, monophonic or stereo. If not certain of model no., choose most similar illustration. Number in "Needles Used" column indicates tip diam.: 3 mil tips are for 78; 2 mil for 33, 45, 78; 1 mil for 33, 45, and .7 for stereo 16, 33, and 45 rpm. "D"—natural diamond; "S"—synthetic diamond.

PLUG-IN CARTRIDGES—MONOPHONIC TYPES

Stock No.	E-V No.	Replacement for Original Mfr. No.	Fig.	Needle Used	NET
50FA677	89	Astatic 89T	F-2	1S-3S	2.97
50FA678	89D	Astatic 89TX	F-2	1D-3S	4.77
50FA731	51	E-V 51, 51-1	H-1	1S-3S	2.37
50FA734	56	E-V 56	H-1	1S-3S	2.37
50FA735	56D	E-V 56D, 56DS	H-1	1D-3S	4.17
50FA673	81	RCA 105836	F-2	1S-3S	2.37
50FA674	81D	RCA 106045	F-2	1D-3S	4.17
50FA677	89	RCA 108555	F-2	1S-3S	2.97
50FA741	76	Webcor A1919	B-2	1S-3S	2.37
50FA740	76D	Webcor A1920	B-2	1D-3S	4.17
50FA681	110	Zenith 142-72, 142-73	Z-2	2S	3.60

PLUG-IN CARTRIDGES—STEREO TYPES

Stock No.	E-V No.	Replacement for Original Mfr. No.	Fig.	Needle Used	NET
50FA778	13	Astatic 13T	B	.7S-3S	3.57
50FA779	13D	Astatic 13TX	B	.7D-3S	5.37
50FA765	66	E-V 66	P-1	.7S-3S	4.17

SINGLE NEEDLE MONOPHONIC CARTRIDGES

Stock No.	E-V No.	Replacement for Original Mfr. No.	Fig.	Needle Used	Element Type	NET
50FA692	23	Admiral 409A13	J	2S	Ceramic	3.90
50FA698	74	Astatic 408	Z-1	1S	Crystal	2.67
50FA692	23	Amer. Micro. CR-5	J	2S	Ceramic	3.90
50FA694	30	Astatic 51-1	S	1S	Ceramic	2.91
50FA695	35	Astatic 51-2, 51-3	S	2S	Ceramic	2.91
50FA698	74	RCA 75575	Z-1	1S	Crystal	2.67
50FA699	41	RCA 103238, 103238A	Z-1	1S	Crystal	2.97
50FA694	30	Sonotone 1P-1S	S	1S	Ceramic	2.91
50FA703	18	Webster Electric F17P	H	2S	Crystal	1.95
50FA704	17	Webster Electric F30	G	2S	Crystal	2.37

DOUBLE NEEDLE MONOPHONIC CARTRIDGES

50FA710	120	BSR TC8H**	E-3	1S & 3S	Crystal	2.88
50FA714	87	Ronette DC-500, TO-222*	J-2	1S & 3S	Crystal	3.87
50FA715	80	Ronette TO-284	E-2	1S & 3S	Crystal	3.27
50FA721	38	Sonotone 2T-S, 2TA-S	W	1S & 3S	Ceramic	3.39
50FA722	38D	Sonotone 2T-SD, 2TA-SD	W	1D & 3S	Ceramic	5.82
50FA790	37	Sonotone 2T-LB-S	V	1S & 3S	Ceramic	3.39
50FA792	88	Vaco TO-45*	K-2	1S & 3S	Crystal	3.87
50FA797	68	VM 18444	V-1	1S & 3S	Crystal	3.27

DOUBLE NEEDLE STEREO CARTRIDGES

Stk. No.	E-V No.	Replacement for Original Mfr. No.	Fig.	Needle Used	Element Type	NET
50FA650	149	Astatic 17	W-3	.7S-3S	Ceramic	5.40
50FA651	149D	Astatic 17D	W-3	.7D-3S	Ceramic	7.20
50FA800	143D	Astatic 70D	P-2	.7D-3S	Crystal	7.35
50FA801	145D	Astatic 80D, 80TS	P-2	.7D-3S	Crystal	7.50
50FA802	146D	Astatic 86D, 86TSB	O-3	.7D-3S	Crystal	7.17
50FA657	121	BSR TCBS**	E-3	.7S-3S	Crystal	4.68
50FA751	26	E-V 26, 26ST	O	.7S-3S	Ceramic	6.90
50FA752	26D	E-V 26D, 26DST	O	.7D-3S	Ceramic	9.90
50FA658	131	E-V 131	M-3	.7S-3S	Crystal	5.37
50FA650	149	E-V 132	W-3	.7S-3S	Ceramic	5.40
50FA651	149D	E-V 132D	W-3	.7D-3S	Ceramic	7.20
50FA658	131	Motorola 59P60024A24	M-3	.7S-3S	Crystal	5.37
50FA650	149	Motorola 59C61496A01	W-3	.7S-3S	Ceramic	5.40
50FA651	149D	Motorola 59C61496A02	W-3	.7D-3S	Ceramic	7.20
50FA651	149D	Philco 325-8068	W-3	.7D-3S	Ceramic	7.20
50FA654	96	Ronette 208, 208-2*	O-2	.7S-3S	Crystal	4.77
50FA652	98	Ronette 106-1*	P-2	.7S-3S	Crystal	4.35
50FA655	97	Ronette 105-1*	P-2	.7S-3S	Crystal	4.50
50FA656	95	Ronette 105*	O-2	.7S-3S	Crystal	5.10
50FA650	149	Sonotone 8TA4-S	W-3	.7S-3S	Ceramic	5.40
50FA651	149D	Sonotone 8TA4-SD	W-3	.7D-3S	Ceramic	7.20
50FA655	97	Vaco ST2, ST-20*	P-2	.7S-3S	Crystal	4.50
50FA652	98	Vaco ST-4, ST-40*	P-2	.7S-3S	Crystal	4.35
50FA654	96	Vaco S-45*	O-2	.7S-3S	Crystal	4.77
50FA807	142	Astatic 76TSB	C-3	.7S-3S	Crystal	4.77
50FA808	143	Astatic 70TS	N-3	.7S-3S	Crystal	4.35
50FA810	145	Astatic 80TS	N-3	.7S-3S	Crystal	4.50
50FA811	146	Astatic 86TSB	C-3	.7S-3S	Crystal	5.10
50FA812	295	Astatic 420TS	XX-6	.1S-3S	Crystal	3.57
50FA813	296	Astatic 422TS	XX-6	.1S-3S	Crystal	3.87
50FA814	5179	G.E.119B543-2	Q-7	.1S-3S	Crystal	3.30
50FA815	5180	G.E.119B5431-1	Q-7	.1S-3S	Crystal	3.30

*Imported from Holland. **Imported from England.

MOUNTS

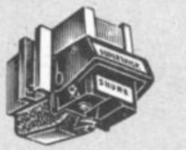
Stk. No.	Type	Application	NET
50FA736	PFT1	For models 51, 52, 53	.60
50FA738	PT2	For models 56, 56D	.60
50FA758	PT3	For models 66, 66D	.60
50FA760	PT8	For models 76, 76D	.60
50FA761	PT9	For models 13, 13D, 81, 81D, 89, 89D	.60

FEATHERIDE STEREO CERAMIC CARTRIDGES

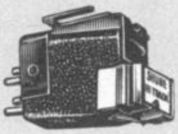
Floating-action spring-suspension type cartridges. .7 mil. diamond and .3 mil. synthetic sapphire styli. Std. mtg. ctrs.

50FA724. Model 149DF. 2-4 Gram Tracking Force......................10.50
50FA725. Model 150DF. 4-6 Gram Tracking Force......................10.50

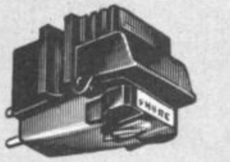
SHURE



V-15 Type 11

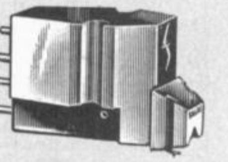


M91E, M92E M93E

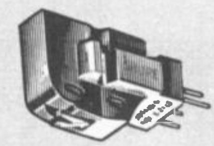


M75E M75-6

M55E M44 Series



M31E M32E



M7-N21D

M3D

YOU CAN DEPEND ON NEWARK FOR EVERYTHING IN INDUSTRIAL ELECTRONICS ELEVEN STOCKING WAREHOUSES FROM COAST-TO-COAST

TOP QUALITY PHONOGRAPH CARTRIDGES

Unless otherwise noted, cartridges are Elliptical with .0002" x .0007" Diamond stylus. Frequency response: 20-20,000 Hz. Separation 25db @ 1 KHz. Wt. 6 oz.

"SUPER TRACK" MODEL V-15 TYPE II

Maximum trackability, 22cm/sec @ 400 Hz., at minimum tracking force, 1 gram. 20-25,000 Hz Separation: over 25 db @ 1 KHz Trk. Range: ¾ to 1* grams.
50FA533. NET **67.50**

● NEW "HI-TRACK" MODEL M91E

Trk. force ¾ to 1½ grams. Trackability Specification @ 1 gram: 20cm/sec @ 400 Hz.
50FA500. NET **49.95**
MODEL M92E. Same as model M91E but has a trackability specification @ 1 gram: 18 cm/sec @ 400 Hz.
50FA501. NET **44.95**
MODEL M93E. Same as model M91E but .0004" x .0007" diamond stylus. Tracking force: 1½ to 3 grams.
50FA502. NET **39.95**

"HI-TRACK" MODEL M75E

Cartridge with snap-down stylus guard, for manual or light tracking automatics. Tracking force: ¾ to 1½ grams.
50FA534. NET **39.50**
MODEL M75-6. Same as model M75E but with a .0006" conical diamond stylus and a tracking force of 1½ to 3 grams.
50FA535. NET **24.50**

MODEL M7/N21D

.0007" conical diamond stylus. 20-20,000 Hz. Sep. @ 1KHz. 20 db. Trk. force 1½ to 2½ grams. Wt.: 3 oz.
50FA524. NET **17.95**

SERIES M55/M44

MODEL M55E. Tracking force ¾ to 1½ gr.
50FA521. NET 35.50
MODEL M44E. .0004" x .0007" diamond stylus. Tracking force: 1¾ to 4 grams.
50FA539. NET 34.50
MODEL M44-5. Conical .0005" diamond stylus. Tracking force: ¾ to 1½ grams.
50FA522. NET 21.95
MODEL M44-7. Conical .0007" diamond stylus. Tracking force: 1½ to 3 grams.
50FA523. NET 19.95
MODEL M44C. Conical .0007" diamond stylus. Tracking force: 3 to 5 grams.
50FA503. NET 17.95

● NEW SERIES M31E/M32E

MODEL M31E. Features .0002"x.0007" elliptical diamond stylus. 20-18,500 Hz. Separation: 20 db @ 1 KHz. Tracking force: 1 to 2 grams. Wt., 3 oz.
50FA504. NET **29.95**
MODEL M32E. Features .0004"x.0007" elliptical diamond stylus. 20-17,500 Hz. Separation: 20 db @ 1 KHz. Tracking force: 2½ to 5 grams. 3 oz.
50FA505. NET **29.50**

ECONOMY MODEL M3D

.0007" conical diamond stylus. 20-15,000 Hz. Separation @ 1 KHz. 20 db. Trk. force 3 to 6 grams. 3 oz.
50FA510. NET **15.75**

SHURE REPLACEMENT STYLI

Stock No.	Stylus No.	For Dynetic Cartridge No.	Tracking Force (grams)	Diamond Tip Size	Net Prices
50FA536	VN15E	V15 Type 11	¾-1½	Elliptical	27.00
50FA541	N91E	M91E	¾-1½	Elliptical	24.50
50FA542	N92E	M92E	¾-1½	Elliptical	22.50
50FA543	N93E	M93E	1½-3	Elliptical	19.50
50FA538	N75E	M75E	¾-1½	Elliptical	20.00
50FA537	N75-6	M75-6	1½-3	.0006	11.35
50FA544	N75-3	V15 Type 11, M91E, M92E, M93E, M75 Series, (78 RPM)	1½-3	.0025	9.00
50FA530	N55E	M44, M55, M80 Series	¾-1½	Elliptical	17.75
50FA540	N44E	M44E	1¾-4	Elliptical	17.25
50FA528	N44-5	M44-5	¾-1½	.0005	11.00
50FA529	N44-7	M44-7, M98/A	1½-3	.0007	9.75
50FA545	N44C	M44C	3-5	.0007	9.00
50FA527	N44-3	M44, M55, M80, V-15 (78 RPM)	1½-3	.0025	9.00
50FA546	N31E	M31E	1-2	Elliptical	14.95
50FA547	N32E	M32E	2½-5	Elliptical	14.50
50FA548	N32-3	M31E, M32E, (78 RPM)	1½-3	.0025	9.00
50FA525	N21D	M21, M7-N21D, M3-N21D; Upgrades M3D, M7D	2½ Max.	.0007	11.00
50FA511	N3D	M3D; Upgrades M7D, M8D	3-6	.0007	7.95
50FA518	N99	M99 Series	1½-3	.0007	12.95

TONE ARMS

MODEL M232. For 12" records. Accepts Stereo and Monophonic cartridges. Tracking force 2 to 8 grams. Furnished with arm rest, hardware, template, 4 ft. cable assembly. Arm length, 12 11/16". Wt., 1 lb.
50FA514. NET 29.95
MODEL M236. For 16" records. Arm length, 14½". Wt. 1⅛ lbs. 31.95
50FA515. NET 31.95

—MISCELLANEOUS PHONO ACCESSORIES—

ASTATIC PHONOGRAPH PICKUP

Model KR-314T. Pickup. High output turnover cartridge. For self-replacement and direct replacement where ruggedness at low cost is required. Usable on phonos with low clearance in lid. Includes mtg. hardware and arm rest. Wt., 8 oz.
50FA314. NET **4.09**

PROTECTIVE DIS-CLOSURES

Type PJ-18. Round bottom polyethylene plastic protective sleeves for 12" records. Prevents scratching, seals out dust and moisture. Pkg. of 18.
76F089. NET .... **.69**

GRANT PHONO DRAWER SLIDES

Type 328-12. Side-mounted, three-section, thin, full-extension slides offer smooth and safe operation with a 50 lb. load capacity. Minimum side space required. Positive stop halts slide at full extension. Model 328-12. Extends 12". Shpg. wt. 2 lbs.
73F617. NET per pair 2.48

Model 328-18. Extends 18". Shpg. wt. 3 lbs.
73F618. NET per pair 3.08

E. F. JOHNSON AMATEUR EQUIPMENT

VIKING "MATCHBOX" ANTENNA MATCHING UNITS

Bandswitching antenna matching units match a wide range of impedances and tune out large amounts of reactance on all amateur bands 80 thru 10 meters. Also provide separate matching of receiver. Heavy-duty relay switches antenna and grounds receiver antenna terminals during transmitting. Directional coupler for SWR measurements may be used separately. Tuning is broad enough to cover large portion of band with one setting. 20 db harmonic suppression. Maroon and grey finish. Approved for FCDA matching funds.


250-23-3

KILOWATT MATCHBOX

Model 250-30-3. Kilowatt Matchbox designed to handle unbalanced line impedances from 50 to 2000 ohms, balanced line impedances from 50 to 1500 ohms. The antenna change-over system includes a time delay circuit for the relay, providing "fast make—slow break" action to prevent arcing or sticking of relay contacts. Also protects the transmitter and the receiver components from possible damage by high voltage transients during antenna change-over switching. Feed-through insulators are provided for connecting balanced or unbalanced lines. A standard SO-239 connector is provided for 52 ohm coaxial lines. Unit is also capable of tuning out large amounts of capacitative or inductive reactance. In SSB mode, the unit is rated up to 3 kilowatts P.E.P. input. (With directional coupler). Dimensions: 17¼x12⅛ x10⅞". Shipping weight, 27 lbs.

97F464. NET **154.50**


250-30-3

NOISE SUPPRESSOR KIT

Model 250-801. Designed to eliminate automobile ignition and electrical interference. Ideal for mobile radio operation. Includes: 4 coax. capacitors, 8 sparkplug suppressors, 1 V-regulator suppressor, shielded cable and braid, all necessary hdw. and instructions. Shpg. wt., 2 lbs.

97F519. NET **15.50**

275 WATT MATCHBOX

Model 250-23-3. Designed to match a 52 ohm coaxial link line to reactive and non-reactive loads ranging from 25 to 1500 ohms for balanced lines, and 25 to 3000 ohms for unbalanced lines. The link line operates without standing waves, providing a convenient point for the installation of a Johnson 250-20 Low Pass RF Filter Completely integrated antenna matching and switching systems for CW and AM transmitters up to 275 watts. In SSB mode, the 275 watt unit will handle 750 watts P.E.P. input. (With directional coupler). 9⅞x10½x7". Shpg. wt., 11 lbs.

97F463. NET **94.95**

SWR BRIDGE

Model 250-37. Coupler. 7-150 mhz to 1 kw on 52 ohm line. 2⁵⁄₁₆ x 6¼". Shpg. wt., 2 lbs.

97F477. NET **11.75**

Model 250-38. Indicator. 0-100 scale. 4x4x 4¼". Shpg. wt., 4 lbs.

97F476. NET **25.00**

LOW PASS FILTER

Model 250-20. Handles more than 1000 watts. Shpg. wt., 3 lbs.

47F920. NET **14.95**


250 46


250-20


B

KEYS AND PRACTICE SETS

Fig. A. Practice Set. Provides high frequency tone which simulates code signal. Two can be connected to provide a two-way signal system. Uses two dry cells or "C" battery (Not Supplied).

27F517. Type 114-450. NET EACH **5.60**

Fig. B. Constant Frequency Buzzer only, as used on practice set.

27F530. Type 114-400. NET **2.00**

Type 114-321 Same heavy duty key type assembly as type 114-320 **above**. Polished chrome-plated base.

27F532. NET **5.85**

Fig. C. Heavy Duty Keys. Heavy die cast base, chrome plated key arm. Well insulated for heavy duty service. Large ¼" coin silver contacts. Navy type knob. Adjustable steel bearings and spring designed to give a light keying touch. Type 114-320. Black wrinkle enamel base.

27F531. NET **5.25**

Type No. 114-301. Phenolic Base Keys. High quality key with adjustable bearings. Improved spring-pigtail connection. Nickel plated parts. ⅛" coin silver contacts. Molded phenolic base.

27F518. NET **2.95**

VIKING PHONE PATCH

Model 250-46. Fully automatic Hybrid transformer type unit provides for P.T.T., VOX or manual operation on SSB or AM. Line null control offers excellent isolation. Separate gain controls for transmitter and receiver inputs. RF filtering and by-passing prevents RF feedback from telephone line. Heavy gauge steel enclosure with modern styling. Maroon finish. Removable etched aluminum panel. Size: 2x6x 2½". Wt. 3 lbs.

97F518. NET **25.00**

Fig. D. High Speed Standard Key. Fully adjustable spring tension, contact spacing and bearings. .072" platinor contacts. Includes shorting switch. Satin brass. Shpg. wt., 2 lbs.

27F526. Type 114-100-3. NET **8.95**

Standard Keys. Heavy die cast base. Smooth adjustable bearings. Provision for plugging in semi-automatic keys. Silver contacts. With switch. Choice of: Type 114-310-3. Black wrinkle.

27F528. NET **4.95**

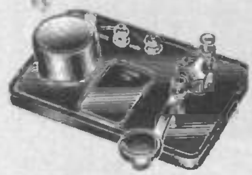


Fig. A

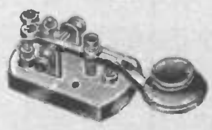


Fig. C

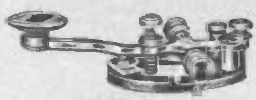


Fig. D

SWAN

• NEW MODEL 500-C SSB TRANSCEIVER

Model 500-C. Five band, 520 watts for home station, mobile and portable operation. Uses a pair of 6LQ6 in the final. PEP input rating of the 500-C is 520 watts. The filter is made with a shape factor of 1.7 and ultimate rejection of more than 100 db. For the CW operator, the 500-C includes a built-in sidetone monitor, and by installing the Swan VOX Accessory (VX-2) you will have break in CW operation.

97F400. NET **520.00**

12 VOLT DC POWER SUPPLY

Model 14-117. For mobile operation. Consists of a basic supply, 117-X and a D.C. module 14-X. The 117-X is mounted in the car and the D.C. module attaches to the 117-X. By removing the D.C. module, the power supply may be operated from an A.C. line by simply plugging in an A.C. line cord. Comes complete with all cables, fuses, and hardware. Less AC line cord. Size: 5 in. x 5 in. x 12¼ in. Wt. 16½ lbs.

97F403. .... **130.00**

• NEW MODEL 350-C SSB TRANSCEIVER

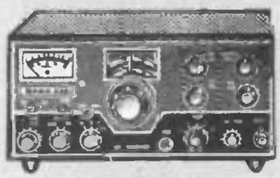
Model 350-C. Five band, 520 watts for home station, mobile and portable operations. 360 watts CW input. 125 watts AM input. Has 2 6LQ6 P.A. tubes. Frequency Range: 3.5-4.0 mc, 7-7.45 mc, 14-14.45 mc, 21-21.45 mc, 28.0-29.7 mc. Overall audio bandpass. Flat from 300 to 3000 cycles. Sideband suppression: 50 db. Carrier suppression: 60 db. Precision dual-ratio tuning. Receiver sensitivity better than .5uv. Amplified AGC system. Wt. 15 lbs.

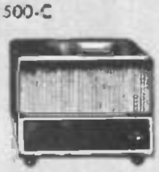
97F401. NET **420.00**

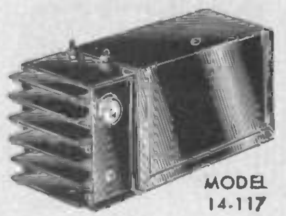
AC POWER SUPPLY AND SPEAKER

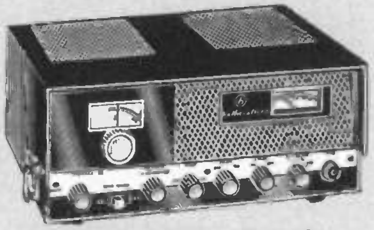
Model 117XC. Consists of a 117-X basic supply mounted inside a cabinet with speaker, phone jack, and indicator light. Complete with A.C. cord and pre-wired plug readily connect to transceiver, and operate. 117 50/60 Hz. Size: 8 in. wide x 5¼ in. high x 11 in. deep. Weight 21 lbs.

97F402 .... **105.00**


350-C 500-C

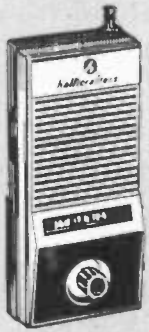

MODEL 117-XC


MODEL 14-117

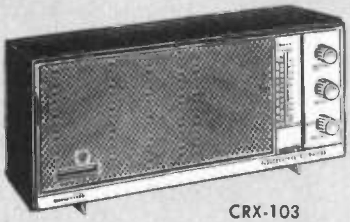


SR-42A/46A

HA-26



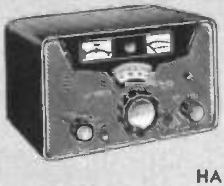
CRX-100



CRX-103

SR-2000

SR-400



HA-20

HA-1

HALLICRAFTERS AMATEUR EQUIPMENT

SR-42A & SR-46A TRANSCEIVER

Full two meter coverage with the SR-42 or full six meter coverage with the SR-46. Power input 12 watts AM. Double conversion superheterodyne receiver with quartz crystal controlled second oscillator. Nuvistor RF amplifier: Zener diode voltage regulation. Adjustable to MARS frequencies. Provision for four transmitter crystals, plus input for external VFO, switch selected from front panel. Built in two-way power supply 117/VAC and 12 VDC. MR40 required for 12VDC operation. Lowest internal and external spurious responses. Exclusive HLC tip up, tip down cabinet for convenient fixed and mobile chassis access. S meter and BFO automatically switched. Full time noise eliminator. Frequency spotting switch. Perfect for fixed, portable or mobile communications. Unit permits instantaneous selection of desired voltage, by merely changing line cords. Size: 5x12x8". Shpg. wt. 13 lbs.

98F025. Model SR-42A............ **219.95**
98F026. Model SR-46A **199.95**
MR-40. Mobile mounting kit and vibrator for above units. Shpg. wt., 3 lbs.

98F107. NET.............................. **13.95**

HA-26 VARIABLE FREQUENCY OSCILLATOR

This stable VFO is a companion for either the SR-42 or the SR-46 and obtains its power from the transceiver. Front panel: frequency control, band switch 2M-6M; Dial calibration, 50-54 MHz and 144-148 MHz. Rear chassis, cable and plug to transceiver; Slide switch, 117 AC, 12VDC; Tube, 6U8A, oscillator-isolator. Size 4x5x 4". Shpg. wt. 3½ lbs.

98F027. NET **59.95**

● *NEW* CRX-100 SERIES PORTABLE SPECIAL FREQUENCY MONITORS

9 transistors and 2 diodes are incorporated into a rugged, compact design to furnish highly sensitive and selective reception. AGC and noise-limiter circuits eliminate static and a signal-strength variations. Whip antenna is provided for local reception ,with provision for external antenna to extend useful range. Sockets are also provided for an external earphone and ideal for paging or directing police, fire ,or public-utilities workers in the field. Only 2 controls, for easy operatoin by untrained personnel: tuning and on-off-volume. All units measure 6x2¾x1⅝"; weigh approximately 1 lb.

CRX-100. For 27-50 Mhz band.
98F121. NET. **39.95**
CRX-101. For 108-135 Mhz band.
98F122. NET. **39.95**
CRX-102. For 144-174 Mhz band.
98F123. NET. **39.95**

CRX-103 "CIVIC PATROL"

A new design in solid state construction that offers a maximum in performance and reliability. Picks up police, fire and civil defense calls as well as those of other emergency services, i.e., industrial highway power utilities, forestry and conservation, radio paging, doctors, etc. A cool, solid state chassis insures a high degree of frequency stability. An automatic noise limiter reduces interference from electrical equipment and ignitions. A squelch control permits silent receiver monitoring when desired station is off the air. The slide rule tuning dial makes station selection a simple matter. Sudden blasts of volume are prevented by an automatic gain control. A 4 inch x 6 inch, front mounted speaker gives loud, clear listening. Incorporates three IF's which assures a high standard of selectivity and overall performance. Has external antenna outlets on rear of the unit. Housed in a handsome, decorator designed cabinet. 30-50 MHz. Operates on 105-125 Volts, AC, at 60 Hz. Shipping weight 4 lbs., 8 Oz.

98F097. NET **49.95**
CRX-104. Same as above but tunes in 108 to 135 MHz. Shpg. wt. 4½ lbs.

98F098. NET **49.95**
CRX-105. Same as above but receives 152 to 174 MHz. Shpg. wt. 4½ lbs.
98F099. NET **49.95**

SR-2000 "HURRICANE" 5-BAND SSB TRANSCEIVER

Maximum-power coverage of 80, 40, 20, 15, and 10 meter bands. Transmitter section employs two 8122 output tubes with 2000 watts PEP input on SSB, 1 kw CW.; has variable pi-network; carrier suppression 50 db. Built-in VOX and break-in CW & PTT. 2.1 khz crystal lattice filter; 2-speed blower; S-RFO-AALC and final screen metering; 100 khz xtal calibrator; VFO tunes 500 khz; 1 khz dial calibration. Receiver has better than 1 μv sensitivity for 20 db S/N ratio; features receiver offset control (RIT), permitting ± 2 khz adjustment of receiver frequency independent of transmitter; adjustable IF noise blanking; 2W audio output. Front-panel controls include tuning, band selector, final tuning, final loading, rf level, mic. gain, pre-selector, RIT, rf gain, af gain, function switch, operation switch, cal. adjust. Requires external power supply and speaker (P-2000AC, below). Size, 7¾ x 16½ x 15". Shpg. wt., 30 lbs.

98F112. NET........................ **1095.00**
P-2000-AC Power Supply. AC power supply, with speaker, for SR-2000 transceiver. Meters for final plate voltage and current are included in this unit. Size, 7¾ x 9 x 15". Shpg. wt., 65 lbs.
98F113. NET.............................. **450.00**

SR-400 "CYCLONE" 5-BAND SSB TRANSCEIVER

Provides full coverage of 80, 40, 20, and 15 meter bands; 10m crystal provided for 28.5-29.0 mhz, other crystals may be added for full 10m coverage. Power input to two 6HF5 output tubes: 400W PEP SSB, 300W CW. Built-in VOX, plus break-in CW and PTT; CW sidetone monitor; 100 khz xtal calibrator; 1 khz dial calibration; VFO tunes 500 khz. Special features: receiver offset control (RIT) permits ± 2 khz adjustment of receiver frequency, independent of transmitter, for roundtable or net operation; amplified automatic level control; T-notch filter plus built in CW filter. Transmitter section has variable pi-network, 50 db carrier and SB suppression on SSB. Receiver sensitivity less than 1 μv for 20 db S/N ratio; adjustable IF noise blanker; 2W audio output. Requires external power supply and speaker (see PS-500, below). Size 15 x 6½ x 13". Shpg. wt., 28 lbs.
98F114. NET........................ **799.95**
PS-500-AC. Power supply for SR-400 transceiver, with built-in loudspeaker. Operates from 105-125 VAC. Wt., 28½ lbs.

98F115. NET........................ **119.95**
P-500-DC. Power supply for portable/mobile operation of SR-400. Operates from 12VDC. Without loudspeaker. Size 6x4x 8¼". Shpg. wt., 10 lbs.
98F116. NET........................ **159.95**
Model HA-20. Remote VFO and SWR console for SR-2000 and SR-400 transceivers. Has a VSWR meter with remote bridge connection to continuously monitor antenna performance, and employs the same deluxe VFO found in the SR-400 and SR-2000. When used in conjunction with one of these transceivers, the following operating modes are possible: (1) transceive with main unit; (2) transceive with HA-20; (3) receive on main unit, transmit with HA-20; (4) receive two frequencies simultaneously. Shpg. wt., 12 lbs.
98F117. NET........................ **199.95**

MODEL HA-1 T.O. KEYER

Employs computer-type digital circuitry to produce constant dot-to-space-to-dash ratio. Speed variable from 10 to 65 WPM. Sidetone signal may be monitored through built-in speaker; neon indicator provides visual monitor. Operates from 105-125 VAC. Size. 7x5x7", shpg. wt. 10 lbs.

98F068. NET........................ **84.95**

When in Chicago, try your fist on the Hallicrafters gear in our fully-equipped Ham Shack. Just bring your *original* FCC license. (photostats unacceptable).

HALLICRAFTERS COMMUNICATIONS RECEIVERS

MODEL HT-46 5-BAND TRANSMITTER

Designed to complement the SX-146 receiver—works independently or may be interconnected for transceiver operation. 180 watts PEP on SSB, 150W CW; upper or lower sideband via 9 mHz quartz crystal, press-to-talk or optional plug-in VOX; grid-block keying for CW; built-in power supply. Covers 3.5-4.0, 7.0-7.5, 14.0-14.5 21.0-21.5 MHz; also 28-30 MHz in four 500 khz steps: crystal supplied for 28.5-29.0 mhz, other 10 meter crystals optional. Tube complement: 6BA6 VFO, 6EA8 oscillator-mixer, 12AT7 carrier oscillator-3rd audio, 12AT7 mic. amplifier, 6EA8 9 mhz IF amplifier and AALC, 6AH6 mixer, 12BY7 driver, 6HF5 power amplifier, OA2 regulator. Front-panel controls include: frequency- tuning, tuning, operation switch, microphone gain, driver tuning, carrier level, band selector, final tuning, VFO selector, calibrate on/off, and meter switch. Size 5⅞x13⅛x11". Shpg. wt., 26½ lbs.

98F110. NET **395.00**

MODEL HA-16 VOX ADAPTER

For use with HT-56 transmitters. Permits voice-actuated transmitter switching, for hands-free operation. Wt., 1 lb.

98F111. NET **44.95**

SX-146 AMATEUR BAND RECEIVER

Features single-conversion signal path and pre-mixed oscillator chain to assure high frequency stability and freedom from adjacent channel cross-modulation products. Employs a 6-pole crystal filter for improved selectivity. Designed to match the HT-46 transmitter. Covers 3.5-4.0, 7.0-7.5, 14.0-14.5, 21.0-21.5, and 28.5-29.0 mhz; Sensitivity better than 1 μv for 20 db S/N ratio. Controls: frequency function switch, aF gain, band-switch, selectivity, preselector, rf gain, AVC xtal cal., ANL phone jack. Operates from 105-125V, 50/60 Hz AC: size, 5⅞x13⅛x11". Shpg. wt, 20 lbs.

98F039. NET. **295.00**

HA-19. Crystal calibrator for SX-146.
98F130. NET. 19.95

49-321. 500 hz CW filter for SX-146.
98F131. NET. 24.95

49-319. 5 Khz. AM filter for SX-146.
98F132. NET. 24.95

When in Chicago, try your fist on the Hallicrafters gear in our fully-equipped Ham Shack. Just bring your *original* FCC license. (photostats unacceptable).

MODEL SX-130 RECEIVER

All precision-built receiver features crystal filter, "S" meter, and antenna trimmer. Slide rule bandspread dial. Coverage, broadcast band 533-1600 kc plus 3 short wave bands covers 1700 kc to 34 Mhz. Features: Product detector for CW & SSB; Covers the 10, 15, 20, 40, and 80 meter amateur bands, also 11 meter citizens band, Separate bandspread tuning condenser, crystal filter ,one rf, two i.f. stages and new styling. Improved image rejection. Controls: Antenna tuning, senstiivity, band selector, main tuning, bandspread tuning, volume, tone, standby, selectivity, crystal phasing, noise limiter. Intermediate freq., 1650 kc. Antenna input impedance, 52-600 ohm. Audio output, 3.2 ohms, low impedance headset output. Tube complement, 7 tubes plus 1 rectifier. Audio power output, 2 watts. Ganged, 3 section tuning capacitor with electrical bandspread. Power Supply, 105/125V, 50/60 Hz AC, 56 watts. Gray steel cabinet with silver trim. 18⅞x8x9¾". UL approved. Shipping wt., approximately 25 lbs.

98F040. NET **199.95**

R-51 LOUDSPEAKER

Oval 4x6" speaker, matching in styling both the S-129 and SX-130, with built-in clock. 3.2 ohm, 5 watt voice coil. Suitable for any communications application. Voice frequencies only.

98F043. NET. **39.95**

Model R-50. Same as R-51, less clock.
98F042. NET. 19.95

S-214 SOLID STATE 6-BAND FM/AM SHORT-WAVE RECEIVER

Instant warmup 10-transistor design covers FM and AM broadcast bands, plus 5.9-6.25 mhz, 9.4-9.8 mhz, 11.5-12.0 mhz, and 15.05-15.55 mhz SW bands. Has fine tuning and tone controls, AGC and AFC, built-in triple antenna system, and 4" speaker. Die cast chrome front panel, with vinyl covered metal cabinet and silver trim; wt. 10 lbs.

98F133. NET. **89.95**

S-240 5-BAND FM/AM GENERAL COVERAGE RECEIVER

FM and AM broadcast bands are provided, as well as 2-30 mhz in three bands. BFO permits reception of CW signals. AGC and AFC circuits plus triple antenna system insure high-quality reception on all bands. Circuit incorporates 11 transistors and 6 diodes, with pushpull output stage feeding a full watt to the built-in 4" speaker. jack for phones or external speaker provided). Special features: tuning meter and fine tuning control let you home in on distant stations; tone control adjusts treblel and bass response. Operates from 117 VAC line current. 5⅞Hx13⅞Wx8"D; wt. 10 lbs. approximately.

98F129. NET **109.95**

S-210 SHORT-WAVE BROADCAST RECEIVER

FM and AM broadcast bands, plus 4 foreign broadcast short wave bands bring a wide range of programs to the radio listener. The following wave bands allow the listener to tune in on overseas programs as easily as local stations: 5.9-6.25 mc (49 Meters), 9.45-9.8 mc (31 Meters), 11.65-12.05 mc (25 Meters), 15.05-15.55 mc (19 Meters). Controls include Band Selector/AFC with easy-view dial main tuning, on/off volume, tone control. Tuning assembly and dial drive mechanism: ganged, 4-section tuning capacitor assembly. 3 antennas: Ferrite loop for standard broadcast, wire antenna for short wave, line cord for FM. Provisions for external antennas supplied. Audio output impedance: 8 ohms for low impedance headset or external speaker. Power supply: 105/125V 50/60 Hz AC/DC. 3 dual purpose type tubes & 3 single purpose tubes. Speaker uses 1.47 oz. magnet. Walnut colored vinyl covered metal cabinet. 13⅝x6x8¼". Wt. 11.25 lbs.

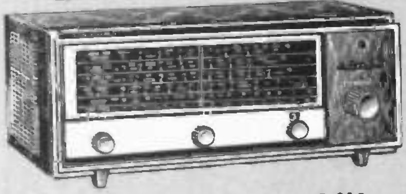
98F106. NET **79.95**


HT-46

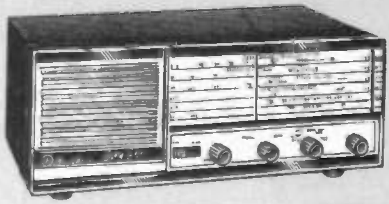

SX-146


R-50

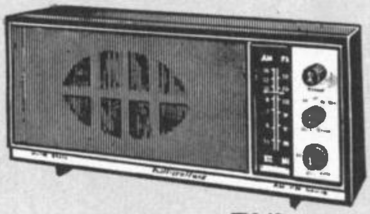

SX-130


S-210


S-240


S-214


CR-3000

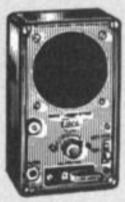

FM-46


CR-44 CR-50


FM-1000

HA-18A

710K


760K


261


711N


260
28S

HALLICRAFTERS

PORTABLE AND ENTERTAINMENT RECEIVERS

● *NEW* CR-3000 MULTIBAND AM/SW/FM-STEREO RECEIVER

Provides four modes of radio reception as well as inputs for stereo phonos, tape decks, etc. Coverage includes longwave (185-400khz), AM broadcast (550-1600khz), 3 shortwave bands (2-4, 5.9-10.2, and 11.4-18.2 mhz), FM (88-108 mhz) and FM stereo multiplex. Separate bass and treble controls are provided. AFC assures drift-free FM reception. A triple antenna system with provision for external antennas. Stereo headphone jack provided. Short wave bands have fine tuning control, and BFO for CW (radiotelegraph) reception. 34 transistors, 22 diodes, and 4 thermistors are used. Audio characteristics: 10 watts/channel output at less than 1% distortion; stereo separation 30 db; response 70-15000 hz, +2db —3db; harmonic distortion less than 3%. Accessory inputs: ceramic phono, mag. phono (RIAA), tape aux. Output: 8-ohm speaker, headphone, tape. Operates from 117 VAC. Vinyl covered steel cabinet with black, chrome and silver color trim. HWD: $5x15\frac{1}{8}x12\frac{1}{4}$". Wt. 21 lbs.
98F124. NET........................ **229.95**

● *NEW* FM-1000 AM/FM PORTABLE

Brings you FM or AM broadcasts indoors and out. 10 transistors and 4 diodes, including an rf stage to increase FM selectivity and sensitivity. Two-way antenna system plus provision for external FM antenna. Tone control. Earphone jack. Requires 4 "AA" penlight cells. $5\frac{3}{32}x8\frac{5}{8}x2\frac{5}{8}$". Wt. 4 lbs.
98F128. NET........................ **39.95**

MODEL HA-18A CODE PRACTICE SET

Compact, solid-state code oscillator with variable pitch control is supplied fully wired, in smartly designed polystyrene case. Telegraph key, connecting wire, and penlight batteries are included. Shpg. Wt. 1 lb.
98F109. NET........................ **9.95**

● *NEW* CR-44 "RANGER" 5-BAND PORTABLE AM/FM RECEIVER

Deluxe portable provides sensitive and selective coverage of 5 bands: 184-400khz (LW), 540-1600khz (AM broadcast), 2.0-5.2 mhz (Marine), 88-108 mhz (FM broadcast) and 152-173 mhz (VHF). In addition, the direction-finder feature permits use as primary navigational aid on small craft. The DF works on 3 bands: LW, AM broadcast, and Marine; special ferrite rod antenna and large, top-mounted compass Azimuth Indicator provided. Solid-state circuit uses 12 transistors and 5 diodes, operates from 4 "D" flashlight batteries. Special features: combination "S" and DF meter gives signal strength; separate battery meter; AGC prevents blasting on AM; AFC locks in FM stations; 4" speaker. Controls include tuning, band selector, on/off/volume, AFC, DF, tone, dial light on-off. Black and chrome case. Wt., 6 lbs.
98F126. NET........................ **119.95**

● *NEW* CR-50 "SEA-AIR" 5-BAND AM PORTABLE RECEIVER

Similar to CR-44 above, but AM only. Also has slightly different frequency coverage. 185-400khz (LW), 550-1600khz (AM broadcast), 2.0-5.2 mhz (marine), 5.2-15.5 mhz (SW), and 108-135 mhz (Aircraft VHF).
98F127. NET. **99.95**

MODEL HA-18 CODE LEARNING SET

Everything you need to learn code the easy way! Two-transistor audio oscillator comes complete with speaker, adjustable telegraph key, 36-inch leads, and penlight batteries. Set also includes 3 ARRL booklets ("Learning the Radiotelegraph Code," "How to Become a Radio Amateur," and "License Manual") plus a $33\frac{1}{3}$ rpm code record. Shpg. wt. 3 lbs.
98F108. NET........................ **14.95**

FM-46 SOLID-STATE FM/AM TABLE RADIO

10 transistors and 6 diodes operate instantly, without warmup delay. Walnut-colored cabinet will enhance any decor. Push-pull output sage delivers a full watt of audio power to 4x6" oval speaker for full tone quality. Covers 540-1600 khz and 88-108 mhz, with AFC and AGC for drift-free, stable operation. Supplied with internal antennas. $5\frac{1}{2}x13\frac{1}{8}x3\frac{1}{2}$. Weight 4 lbs.
98F125. NET........................ **39.95**

EICO HAM GEAR

CODE PRACTICE OSCILLATOR

Model 706K. Battery operated transistor audio oscillator. Headset may be plugged in which automatically cuts out loudspeaker. External key terminals are provided on front panel. Tone freq. range: approx. 500 to 2000 hz continuously variable. Bakelite, satin finish, deep etched aluminum. Size: $6\frac{1}{2}x3\frac{3}{4}x2\frac{3}{4}$". Supplied with 2 "C" cells. Shpg. wt., 2 lbs.
62F862. 706K Kit. NET........................ **8.95**
62F863. 706. Factory wired. NET.......... 13.95
Battery for above. Requires 2.
49F261. .... .18

GRID DIP METERS

Model 710-K. Covers 400 khz to 250 mhz in 7 overslapping ranges. Uses a 500 ua meter. Determine operating freq., neutralize, etc. Easy to build with complete instructions. Other outstanding features included a reliable sensitivity control, a phone jack, plug-in coils, an illuminated scale. Dimensions: $2\frac{1}{4}$"x$2\frac{9}{16}$"x$6\frac{7}{8}$". Less solder. With power supply. For 117 volts 50/60 hz AC. Shpg. wt., 3 lbs.
97F575. NET Kit Form. **29.95**
Model 710. Factory wired and tested.
97F576. NET........................ 49.95

BENDIX

SWR BRIDGES & INDICATORS

Model 261. Coupler. Operating range: 500 kc—225mc. For 52 ohm coax line. May be left in transmission line as a monitor at up to 1 KW RF power. Complete instructions included. Used with 262 Indicator below or a home made type. UHF type connectors. Size $3x4\frac{3}{4}$". Shpg. wt., 1 lb.
97F295. NET 22.50

Model 262. Indicator. Used with 261 coupler above. $4\frac{1}{4}x4\frac{1}{4}x4$". Shpg. wt., 2 lbs.
97F296. NET 14.50

Model 263.2. Both coupler and indicator similar to 261 and 262 except calibrated to read RF power in actual watts on 10, 100, and 1000 scales. UHF type conectors.
97F297. NET 85.00

Model 263.3. As above with "N" conectors.
97F292. NET 85.00

Model 711N. Single unit with both coupler and indicator. 25-1000 mc on 50 ohm coax line. Ranges: 0-30, 30-75, 75-300 watts. Type N connectors, includes UHF adapters. Size: $3\frac{1}{16}x5\frac{5}{32}x3$". Shpg. wt., 3 lbs.
97F293. NET 135.00

AMATEUR ACCESSORIES

CDR ANTENNA ROTORS

Model AR-22R. Fully automatic control system. Knob is turned to desired direction and unit takes over, rotates antenna and stops at desired point. No delicate electronic circuits that can be damaged by voltage surges. Color is finished in black vinyl over steel. with brushed aluminum sides. Dial is softly edge-lighted when in operation. Uses four wire cable. Shpg. wt. 15 lbs.
92F732. NET **33.95**

Model TR-44. Designed for intermediate amateur requirements. Surpasses TV rotors in wind resistance, torque and dead weight capability. Calibrated to provide rotation and indication through a complete 360 range. 110 VAC is standard; 220VAC models also available on special order. Uses seven wire cable. Shpg. wt. 19 lbs.
92F736. NET **69.95**

Model Ham-M. Heavy duty. Rotates 360 degrees. Input voltage: 115 VAC 60 Hz Motor: 24 V., $2\frac{1}{4}$ amp., split phase 10% duty 360 inch-pounds torque. Control box size: $5\frac{13}{16}$" wide v 6" deep x $5\frac{1}{4}$" high. Rotator size: 8" max. dia. x 20" high. Uses eight wire cable #19. Shpg. wt., 26 lbs.
92F734. NET **129.95**

Model AR-33 ROTOR. You set the rotor at your five favorite stations and then it's a simple push-button operation to tune them in. Rotates a full 360° and console tuner shows antenna position. Antenna can not be blown off station while unit is on. Gives ±1° accuracy. Perfect for FM radio and color television. Solid state circuitry with thermally protected transformers and heavy duty relay contacts. Standard five wire cable.
92F733 NET **49.95**

AMECO HAM GEAR AND ACCESSORIES

MODEL TX-62 6 & 2 METER TRANSMITTER

Complete 6 and 2 meter, 75 watt phone and CW transmitter. Features: Frequency coverage, 50-54 mhz and 144-148 mhz; Power input to final, 75 watts. CW, 75 watts peak on phone; 6 Tube lineup; Controls—power switch, phone-CW switch, meter, selector switch, crystal or VFO switch, autio gain ontrol, drive control, bandswitch, final plate tuning, loading; TVI suppressed; Crystal-controlled or can take VFO—crystals used are inexpensive 8 mhz type; Meter reads final cathode current, final grid current and RF output; Mike/key jack and crystal socket on front panel. Plush-to-talk mike jack; Potentiometer type drive control; Audio gain control; Additional connections in rear for key and relay. Solid state power supply included, built-in. lation. $11\frac{1}{2}$x9x6". Shpg. wt., 22 lbs.
97F771. NET **159.95**

MODEL VFO-621

Designed to operate with 2, 6, and $1\frac{1}{4}$ meter transmitters. Can be used with the AMECO TX-62 or with any other transmitter or transceiver. Uses transistorized oscillator, zener regulated. Each unit is individually temperature compensated to permit stability and keying quality almost non-existent on 2 and 6 meters. No chirp with keying. Warmup time is very short, as both oscillators use transistors. Dial scale calibrated for 144 to 148 mhz and 50 to 52 mhz over the full range. Controls: Power switch, Band switch, Tuning. Terminal strip is wired to work with either cathode or bias keyed transmitters. Connections: Output cable with dummy crystal—cable plugs directly into the TX-62 or any other crystal socket. Internal AC power supply is Zener diode regulated. 6x5x$7\frac{1}{2}$". Shpg. wt., 9 lbs.
97F772. NET **64.50**

AMECO ALL BAND NUVISTOR PREAMPLIFIER

- 6 thru 160 meters
- Wired and tested
- Built-in power supply
- Overall gain more than 20 db.

Model PCL-P. Two Nuvistors in cascade give noise figures of 1.5 to 3.4 db. depending upon the band. The weak signal performance of all receivers as well as image and spurious rejection are greatly improved. The PCL-P's overall gain is in excess of 20 db. Panel contains bandswitch, tuning capacitor and a three position switch which puts the unit into "OFF", "Standby", or "ON", and transfers the antenna directly to the receiver or through the Preamp. Model PCL-P contains its own built-in power supply. An all-band Nuvistor preamplifier covering 1.8 mhz to 54 mhz. Size $5\frac{1}{2}$x$3\frac{3}{4}$x3". Completely wired and tested. With complete instructions. Shpg. wt. $2\frac{1}{4}$ lbs.
97F770. NET **33.95**

MODEL BIU BRIDGE INDICATOR UNIT

Will accurately read SWR, percentage power and percentage voltage (3 scales), when used with the Ameco SWB or other make of bridge. Switching circuit provides for reading either one of 2 bridges. Contains 100 μA D'Arsonval meter. Wired and tested. $2\frac{3}{4}$x5x3". Shpg. wt., 3 lbs.
97F773. NET **15.95**

MODEL SWB STANDING WAVE BRIDGE

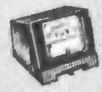
High quality bridge that will accurately read SSWR's from 1.8 mhz to 225 mhz, (including Ham, CB and Commercial bands). Contains 2 SO-239 VHF connectors and is packaged in a satin copper case. Handles up to 1000 watts. Uses superior type of inductive coupling. Wired and tested. $1\frac{5}{8}$x$2\frac{1}{4}$x$4\frac{1}{2}$". Shpg. wt., 1 lb.
97F774. NET **9.95**

VISIT NEWARK'S
HAM SHACK WHEN
IN CHICAGO.
500 N. PULASKI RD.

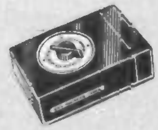
NUVISTOR VHF PREAMPLIFIER

Nuvistor preamplifiers for use ahead of 6, 2, or $1\frac{1}{4}$ meter (220 mhz) converters. Uses two tuned circuits and neutralized 6CW4 Nuvistor. Over 20 db gain. Noise figure: 50 mhz 2.5 db; 144 mhz-3.0 db; 220 mhz-4.0 db. Size $2\frac{1}{2}$x$3\frac{1}{2}$x2". For 100 to 150 VDC, 8 ma; 6.3 volts, .13 amp. Wired and tested. Shpg. wt. 10 ounces.

97F765. PU-144. 2 meters. **NET** **13.95**



TR44, Ham-M Indicator



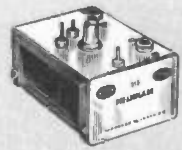
AR-22-R Indicator

TR44 Rotor Ham-M

AR-22-R

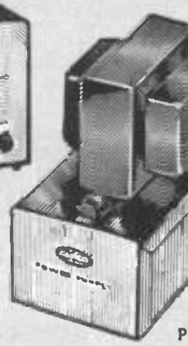
AR-33 Tuner

AR-33 Rotor



Nuvistor Preamp

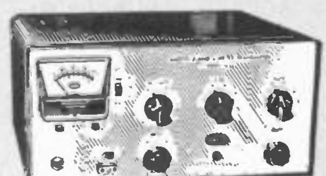
VFO-621



PS-1W

BLU

PCL-P



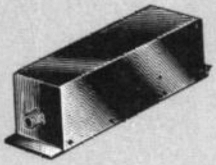
TX-62

DRAKE AMATEUR EQUIPMENT

TR-4

T-4X-B

R4-B

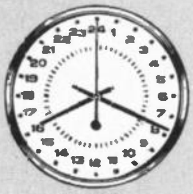


TV 300 HP

100LP
1000LP

CPO-128B

191



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MODEL TR-4 SIDEBAND TRANSCEIVER

Features: Full frequency coverage—all amateur bands 10 through 80 meters, additional crystals not required; Upper and Lower Sideband on all bands; VOX or PTT on AM and SSB; Automatic transmit receives switching on CW; CW Sidetone Oscillator built in; Diode detector for AM reception; Solid state VFO with linear permeability tuning for max. stability; Output impedance adjustable with Pi-network; 300 watts PEP input SSB; Controlled carrier screen modulator for AM built-in; Shifted carrier CW, 260 watts input; 2 special 9 mc crystal filters for sideband selection. Separate RF and AF gain controls Full AGC with Drake dual time constant system; 2.1 kc passband; 100 kc crystal calibrator built-in; Separate receiver S-meter and transmitter plate ammeter; 20 tubes, including VR, 2 transistors, 8 diodes; Receiver IF selectivity, 2.1 kc at 6 kb, 7.5 kc at 60 db; Receiver sensitivity, less than ½ uV for 10 db S/N; Power Supply, Model AC-4 or Model DC-3 listed below may be used. Size, 5½x10¾x14⅜". Weight, approximately 16 lbs.

97F050. NET **599.95**

Model AC-4. Power Supply for TR-4 above or the T-4X below. 120VAC 50/60 cycle. 5' interconnecting cable with 12 prong connector and speaker connector. 5x5x10¼". 14 lbs.
97F051. NET **99.95**

Model DC-4. DC Power Supply. Transistorized. Operates from 12 VDC. 5' interconnecting cable and speaker connector. 3⅝x4⅞x8". Weight, 7½ lbs.
97F031. NET **125.00**

MODEL T4X-B TRANSMITTER

T4X-B features: Solid state VFO with 1 Kc divisions. Covers ham bands 80, 40, 20, & 15 meters completely and 28.5-29 Mc of 10 meters with crystals furnished; 160 meters covered with accessory crystal. Also certain other 500 Kc ranges between 1.8 and 30 Mc are avaliable. VOX or PTT; adjustable pi-network output; Built-in CS Sidetones; Two special crystal lattice filters for side band selection; Transmitting AGC prevents flat topping, Meter reads relative output and plate current; Controlled carrier modulation for AM; Automatic transmit receives switching on CW; High impedance input; Power requirements—Model AC-4 Power Supply listed above. Size 5½"x10¾"x11⅝". Wt. 14 lbs.
97F046. (less supply) **NET** **449.00**

MODEL RA-B RECEIVER

R4-B features: VFO with 1 Kc dial divisions; Covers ham bands 80, 40, 20, & 15 meters completely and 28.5 to 29.0 with crystals furnished; 4 bandwidths of selectivity (equivalent to 4 filters) are furnished; .4, 1.2, 2.4, and 4.8 Kc; Passband tuning; Noise blanker; Notch filter and 100 Kc crystals calibration are built in; Crystal lattice filter first IF prevents cross modulation; Receives SSB, AM, CW, and RTTY with full RF gain, Complete AVC action and accurate S-meter indication Premixed injection-crystal oscillator and low frequency VFO outputs premixed; Product detector for SSB/CW-diode detector for AM; Excellent overload and cross modulation characteristics —insensitive to operation of nearby transmitters. Power: consumption, 60 watts, 120/240 VAC, 50/60 Hz. Size 5½"x10¾"x11⅝". Shpg. Wt. 16 lbs.
97F045 NET **430.00**

Model MS-4. Matching Speaker for use with R-4 Receiver (has space to house AC-4 Power Supply), or with TR-4 Transceiver. 5⅜x10¾x11⅛". 6 lbs.
97F047. NET **19.95**

CRYSTALS. For T4X-B xmtr or R4-B rcvr. **SPECIAL ORDER ONLY. EACH** **5.00**

R. L. DRAKE FILTERS

Model TV-100-LP. With up to 100 watts max. input, 20 watts max. on 6 meters.
47F915. NET **5.95**

Model TV-1000-LP. With up to 1000 watts max. input. 200 watts max. on 6 meters.
47F916. NET **16.95**

Model TV-300HP. HI-PASS FILTER. Eliminates IF interference from ham bands 6-100 meters. Over 40 db attenuation. 52 Mc and lower. Imped. 300 ohms. Shpg. wt., 2 oz.
47F913. NET **4.50**

BUD

CODE OSCILLATOR AND MONITOR

Model CPO-128B. A practice oscillator for learning the code which can be converted to a fine CW monitor with the flip of a switch. Will operate up to 20 pairs of headphones, or can be heard through its own built-in 4" speaker. Volume and pitch controls can be adjusted to suit your taste and requirements. All controls on the front . . . and all the jacks are on the rear of the 5½" x 3"½ x 6½" cabinet. 110 VAC, 60 hz. Shpg. wt. 3½ lbs.
27F510. NET **23.90**

MASTERCRAFTERS

8" 24-HOUR CLOCK

Model 191. 8" dia. 24 hour chrome plated metal wall clock. Inner dial has south polar projection map of the world indicating world time zones. Dial can be adjusted for various time zones. Self starting. UL approved. 110 VAC, 60 Hz. Shpg. wt.: 1½ lbs.
97F911. NET **8.95**

INTERNATIONAL 24-HOUR CLOCK

Model 2405C. An efficient, accurate, 24-hour clock. Many telephone exchanges, factories, airports, police departments or anyone working around the clock have a need for this clock. 12" white dial; black hands and numerals; red sweep second hand UL approved. Chrome case 13½" Wt. 5 lbs.
97F906 NET **19.95**

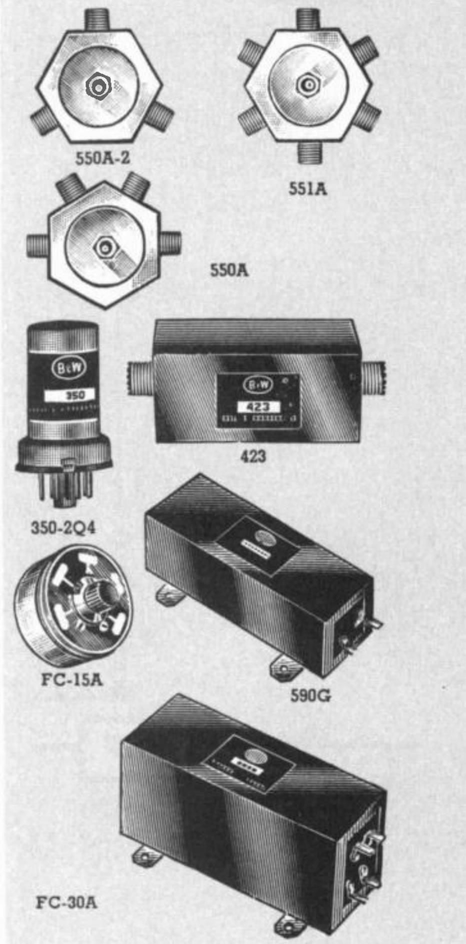
TYMETER

Model 124. 24-hour, direct reading clock with 10 minute repeating timer. Timer can be turned on when beginning QSO. Clock operates continuously. Domed shape vision window. ¼" high numerals. 110V, 60 Hz. Self starting electric with separate controls for timer. Help you meet FCC Regulation 12.82. . . . The operator of an amateur station shall transmit his own call letters plus those of the station being called every ten or as for timer. Help you meet FCC Regulation 12.82. . . . Plastic walnut case. Shpg. Wt. 4 lbs.

97F909 NET **22.50**

Model 100-24H-¼. As above less timer.
97F908. NET **14.85**

BARKER & WILLIAMSON



LOW PASS FILTERS

Model 423. For 6 meter low power amateur transmitting equipment. For use with operating frequencies up to 54 MHz. Designed to reduce TVI. Radiated spurious and hermonics higher than 62 MHz are attentuated by at least 50 DB. Frequency range: 30-45 MHz. Power rating: 100 watts max. 30-52 MHz—Reduced power above 52 MHz. Attenuation more than 50 DB from 62 MHz throughout the TV and FM channels. Impedance: 52 ohms (reversible). Connectors: two UHF type SO239 5"L x 2"W x 1¾" H. Shpg. wt., 1½ lbs.
40F900. NET **15.95**

Model 424. For citizen's band and low power amateur transmitting equipment. For use with transmitted frequencies up to 30 MHz. Undesirable signals higher than 53 MHz and related harmonics appearing in the TV and FM bands are attenuated by at least 50 DB. Power rating: 100 watts max. Freq. rnge, 1.5 to 30 MHz. Imp. 52/75 ohms (reversible). 5"Lx2" Wx1½"H. Shpg. wt., 1½ lbs.
40F901. NET **13.95**

Model 425. Passes 160-10 meter bands. Use with transmitters operating at 1 kw input when SWR is not excessive. Reduces radiation. Imped. 52 ohms. Shpg. wt., 1½ lbs.
47F903. NET **19.20**

GROUNDED GRID FILAMENT CHOKES

Model FC-30A. Twin dual winding filament choke with 30 amp current carrying capacity. Four winding permits separate filament transformer and cathode circuit metering for each of two tubes.
40F994. NET **26.80**

Model FC-15A. Dual winding choke with current carrying capacity of 15 amps. Shpg. wt. 8 oz.
40F993. NET **18.80**

COAX SWITCHES

Model 550A-2. Single pole, two position switch for use by Radio Amateurs, Citizen's banders, and Commercial users. Switches transmitter from one antenna to the other. Designed for panel mounting through a ⅜" hole. Common terminal identified by a large letter "C" stamped on the case of the switch. Equipped with three standard type UHF fittings SO-239. Freq. Range: Audio to 100 MHz. Cross Talk: minus 60 db. between terminals at 30 MHz. Dimensions: 4" overall dia., 2¼" depth behind panel, shaft 1" long, ¼" dia. with flat. Shpg. wt., 1½ lbs.
40F995. NET **10.20**

Model 550A. Permits easy selection of antennas, transmitters, exciters, receivers and other RF devices using 52 or 75 ohm coax. Housed in 2¾" dia. aluminum case, equipped with six SO239 type connectors for selecting any one of five lines. Single hole mounting. Will handle 1 kw of modulated power with maximum crosstalk of —45 db at 30 MHz. Wt., 4 lbs.
40F996. NET **11.15**

Model 551A. Multi-position coaxial switch. DPDT unit for switching various devices using 52 or 75 ohm coaxial lines in or out of series connection. It may also be utilized to switch low impedance coupled power amplifiers in or out of the circuit at will, permitting the driver stage to be connected to a low impedance antenna circuit or similar load as desired. Shipping weight, 5 lbs.
40F998. NET **10.50**

AUDIO PHASE SHIFT NETWORK

Model 350-2Q4. Highly compact, shielded, octal based audio phase shift network for SSB rcvg. and xmtg. Unit splits any audio signal within the range of 300-3000 Hz into two equal-amplitude components 90° (±1.5°) out of phase with respect to one another. Shpg. wt., 1 lb.
40F997. NET **6.85**

MODEL 590-G SWITCH

Model 590-G. Single pole 5-position switch. Designed for panel mounting — equipped with 6 standard UHF fittings type SO239. It automatically grounds all unused positions. Freq. range: audio to 500 MHZ. R.F. power rating 1 k.w. Impedance 50-75 ohms, VSWR 1.05:1 at 150 MHZ. Isolation 75 db @ 30 MHZ. Dimensions 3½" overall dia. x 1¾" depth behind panel, ½" shaft, ¼" diameter with flat.
40F992. NET. **11.55**

PETERSEN PR CRYSTALS

Less than 2 cycles per MC per degree Centigrade. High activity, stability and output. .486" pin spacing. Sealed against contamination and moisture.

TYPE Z-1 MARS & CAP CRYSTALS. Official assigned transmitter frequencies in the Frequency range 1600 to 10000 Kc., Tolerance .005%. Shpg. wt., 4 oz.
27F474. NET **3.45**

Type Z-1. TV Marker Crystal.
27F324. 10.7 Mc. FM, IF, .01% **3.45**

TYPE Z-9R VHF AIRCRAFT. For aircraft equipment operating in the 121 Mc region, requiring crystals in the 30 Mc. range. Specify manufacturer and model number of equipment. Shpg. wt., 4 oz.
27F477. NET **4.95**

TYPE Z-6A. 100 Kc. Frequency Standard. Shpg. wt., 4 oz.
27F491. NET **6.95**

RADIO CONTROL CRYSTALS

Special crystals used in remote control applications such as model planes, boats, for garage door openers, etc. Calibrated to .005% tolerance.

Stk. No.	Type	Frequency	NET
27F332	Z-9R	26.995	2.95
27F333	Z-9R	27.045	2.95
27F334	Z-9R	27.095	2.95
27F335	Z-9R	27.145	2.95
27F336	Z-9R	27.195	2.95
27F337	Z-9R	27.255	2.95

AMATEUR BAND CRYSTALS

All are fundamental type Z-9C, except the † (3rd overtone) and ‡ (5th overtone) type Z-9A. *For novice use. All Z-9C crystals correlated in oscilator having load capacity of 32 mmfd. Many of xtals in ranges listed are carried in stock. Fits standard crystal socket. .486" pin spacing .093" pin diameter. Specify exact frequency desired within the ranges listed.

Stock No.	XTAL Freq. kc	Operating Freq.	NET
27F462	1750-2000	1750-2000 kc	2.95
27F463	3500-4000	3500-4000 kc	2.95
27F325	3700-3750*	3700-3750 kc	2.95
27F326	7000-7300	7000-7300 kc	2.95
27F327	7150-7200*	7150-7200 kc	2.95
27F328	7000-7175	14000-14350 kc	2.95
27F329	7000-7150	21.000-21.450 kc	2.95
27F330	7034-7083*	21.100-21.250 kc	2.95
27F467	7000-7425	28000-29.700kc	2.95
27F469	8334-9000	50.00-54.00 mc	2.95
27F472	25000-27000†	50.00-54.00 mc	3.95
27F473	50000-54000‡	50.00-54.00 mc	4.95
27F468	8000-8222	144.0-148.0 mc	2.95
27F331	8060-8160*	145.0-147.0 mc	2.95
27F471	24000-24666†	144.0-148.0 mc	3.95

TYPE 2XP. Special crystals outside Amateur bands. Suitable for converters, experimental, etc.

Stk. No.	Frequency Range	Tolerance	Net
27F478	1600 to 12000 Kc. (Fund.)	± 5 Kc.	4.95
27F479	12001 to 25000 Kc. (3d Mode)	± 10 Kc.	5.95

CTS KNIGHTS, INC.

CITIZENS BAND CRYSTALS

Crystals are available for channels 1-23 at ±.003%. These crystals are standard replacements for most C.B. equipment. Some crystals are carried in stock. 2-3 weeks required for delivery on others. Shipping weight, 4 oz.
How to order: Specify manufacturer's name and model number of equipment, channel number desired and whether for transmit or receive. This information must accompany all orders.
27F300. 1-4, Ea. **2.50**
5-Up, Ea. **1.95**

MILLEN

CRYSTAL SOCKETS

Low loss steatite with silver-plated phosphor-bronze contacts, and tinned solder lugs. For chassis mtg. 2 ozs.

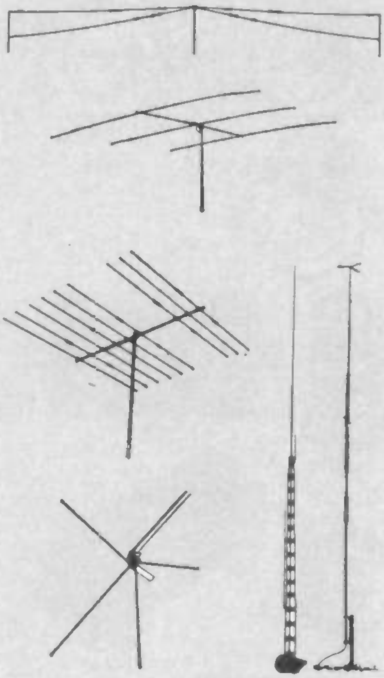
Stock No.	Type	Pin Space	Pin Dia	Xtal Type	NET
38F656	33102	.487"	.095	FT243	.43
38F658	33302	.487"	.050	HC6U	.43

BUD

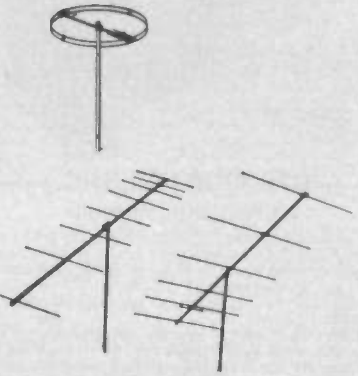
LOW PASS FILTER

Type LF-601. Input and output imped. adjustable from 52 to 72 ohms. Min attenuation of 85 db above 54 mc. and a min. of 93 db. above 70 mc. Shpg. wt., 2 lbs.
45F950. 1-9 Each **23.60**
10-14 Each **21.24**
15-19 Each **18.88**
20-24 Each **17.70**

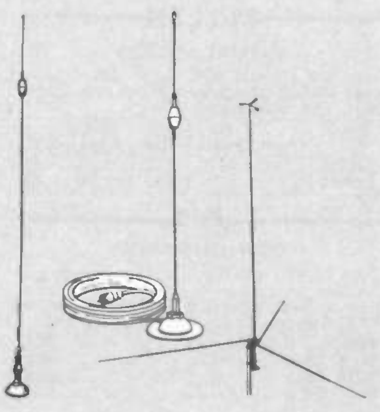
HF



VHF



CB



HY-GAIN COMMUNICATION ANTENNAS

AMATEUR ANTENNAS

MULTI-BAND TRAP DOUBLETS

Features new Hy-Q. Traps encased in a solid aluminum housing. New higher Q. lower absorption loss trap design provides maximum frequency stability. SWR less than 2:1 at resonance on every band. Istall horizontally or as inverted V. Take max. legal power.

Stk. No.	Type	Frequency	Length	Shpg. Wt.	NET
92F546	2BDQ	40, 80 Meters	110.5'	2 lbs.	29.50
92F549	5BDQ	10, 15, 20, 40, 80 Meters	111.5'	5 lbs.	44.50

THUNDERBIRD TRIBANDER BEAMS FOR 10, 15 AND 20 METERS

Model BN86. Ferrite Balun for 10 thru 80 meters which works with all beams and doublets for perfect antenna balance, and lower SWR.
92F531. NET 14.95

FIXED STATION VERTICAL

Model 14AVQ. Improved version of the popular Model 14AVS self-supporting vertical for 10 thru 40 meters. New Hy-Q frequency-stabilized traps. Double-grip mast bracket. Taper swaged seamless aluminum radiator. Shpg. wt. 10 lbs.
92F485. Model 14AVQ. **NET** 34.95
Model LC-80Q. Leading coil for 14AVQ. Adds 80 meter operation. Shpg. wt. ½ lb.
92F539. NET 9.95
Model 14RMQ. Roof Mounting kit and radial system for 14AVQ. Shpg. wt. 5 lbs.
92F486. Model 14RMQ. **NET** 14.95

VHF MONOBAND AMATEUR BEAMS

Beta Match permits maximum gain and F/B ratio with 50 ohm feedback impedance. F/B ratio, 20-30 db. Coaxial Balun. VSWR 1.5:1 at resonance. All aluminum construction. All steel hardware iridite treated to MIL specs. 100 mph maximum wind survival.

2 METERS

Stock No.	Type	Gain	No. of Elements	Boom Length	Longest Element	Shipping Weight	NET EACH
92F897	23	9 db	3	3 ft.	3.5 ft.	5 lbs.	8.95
92F898	28	14.5 db	8	14 ft.	3.5 ft.	9 lbs.	18.95
92F479	215B	17.8 db	15	28 ft.	3.5 ft.	20 lbs.	39.50

DUO BAND BEAM FOR 6 AND 2 METERS

Model DB62. Delivers 8db gain on 6 meters; 15db gain on 2 meters. F/B radio, 15-20 db. SWR below 1.5:1 both bands. Automatic band switching. Feeds with 52 ohm coax. Survives winds of 100 MPH. Shpg. wt., 8 lbs.
92F478. Model DB62. **NET** **39.95**

CENTER MOUNT 2- OR 6-METER MOBILE HALO

Model HH2BA. Beta Match insures optimum transfer of energy. Hard drawn seamless aluminum construction. Heavy gauge machine formed mounting hardware. Shpg. wt., 2 lbs.
92F488. Model HH2BA. **NET** **6.95**
Model HH6BA. As above but 6 Meter.
92F489.NET **12.95**

BUSINESS BAND ANTENNAS

¼ WAVELENGTH UNITY GAIN GROUND PLANES

Omni-directional antennas. Radiator at DC ground. Prevents static build-up, protects against lightning. Radiator and radials constructed of heavy wall ⅝" and 7/16" OD Aluminum tubing. Base mount molded high impact cycolac insulator. Iridite treated hardware for max. weather-ability. Installs up to 1⅝" OD. Max. RF power 500 watts. Radiator and Radial lengths: ¼ wave 1. Wind Survival 80 MPH.
Model GP-50. For 25-50 mc. Shpg. wt., 3 lbs.
92F534. NET **12.95**
Model SPG-2. For 108-450 mc. Shpg. wt., 1 lb.
92F533. NET **6.95**

CITIZEN BAND ANTENNA

Model CLR-2. 9.4 db circuit gain. 6-20 db gain Signal-to-Noise Ratio. 52 ohm connector in moisture-sale housing. SWR less than 1.2:1. Installs in 15 minutes. Radiator, 19'10"; radials, 9'. Shipping weight, 10 lbs.
92F641. NET **32.95**

CB MOBILE TOPPERS

Hellcat 1 #557. The leader of the Hellcat family. Its features stainless steel tip rod, chrome plated brass fittings, and black plastic low profile base cover. Complete with 22' of coax and connector. 47" long. Shpg. wt., 3 lbs.
92F493. NET **17.50**
Hellcat 3 #558. Versatile CB antenna. The Hellcat 3 is magnetically mounted in an instant and requires no holes or tools. In addition, the Hellcat 3 sets a new performance standard. You'll talk loud and clear with a low VSWR on all 23 channels. Complete with 16' of coax and connector. Overall height is 34⅝". Shipping weight, 3.2 lbs.
92F494. NET **16.95**

ACCESSORIES

COAXIAL LIGHTNING ARRESTOR.

Cuss Craft. Model LAC-1. For Standard coaxial cable. Eliminates heavy static charge build up—protecting valuable radio equipment. No insertion loss and will not affect performance or S/W/R to 500 MHz. ¾" O.D. Shpg. wt. 1 lb.
92F096. NET **3.95**

HY-Gain Model C1. Heavy duty center insulator. Molded from high impact cycolac plastic. Use for horizontal or inverted V installations. Shpg. wt., 4 oz.
92F540. NET 4.95

Hy-Gain Model E1. High impact cycolac plastic End Insulator. Shpg. wt., 3 oz.
92F541. NET Per Pair 2.95

AMATEUR AND C. B. ANTENNAS
ANTENNA SPECIALISTS ANTENNAS

All antennas are for mobile use except *, for base station.

Stk. No.	Type	Lgth.	Description	Wt.	NET
92F629	M-1D	102"	Complete body mtg. antenna assembly includes chromed swivel base, spring and whip.	5 lbs.	13.80
92F630	MB-24	102"	Complete antenna assembly. Includes double, chain bumper mount, cad. plated spring, stainless steel whip, 20' RG58/U cable with PL-259 conn. and whip hold down clip.	6 lbs.	22.15
92F525	M-74	39"	Auto cowl fender or deck mounting. 12' RG-58/U cable with PL-259's both ends. ¾" hole.	2 lbs.	14.60
92F524	M-73	39"	Trunk groove mount 12' RG-58/U cable with PL-259 included. 7/32" holes.	1½ lbs.	15.95
92F618	M-117*	18'	Super Magnum ½ wave length, end feed 27 Mc. freq. range.	12 lbs.	32.55
92F466	M-3B	102"	Stainless steel whip with plated brass adapter. Can be cut if necessary.	2 lbs.	5.00
92F640	M-81*	18' 4"	Magnum 27 antenna, provides 6db gain. Mounts on pipe mast.	12 lbs.	27.95
92F500	M-124	36"	Similar to M-67 whip but with stainless steel spring. ¾" mtg. hole. With 20' RG-58/U cable. Whip adaptor or fine tuning.	1½ lbs.	16.70
92F501	M-130	18"	"Mighty Mite". 27 mc. High performance roof-mounter. Stainless shock spring, adjustable tuning, more effective loading coil. Snap-in ⅜" mount, no soldering.	1½ lbs.	12.95
92F502	M-131	18"	"Maggie Mite". Same size and high performance of the M-130, but for gutter clip mounting.	2½ lbs.	16.30
92F503	M-176	46"	Quick grip. No holes to drill—installs easily on trunk by means of 2 set screws with 16' of RG 58/Ut Pl 259.	3 lbs.	21.95
92F504	M-125	46"	⅜" snap in mount 12' RG 58/U PL 259.	3 lbs.	16.70

VHF-GAIN ANT.

Stk. No.	Type	Lgth.	Description	Wt.	NET
92F505	ASPS-177		130-174 mc, mounts like M176 above tuneable 12' RG58/UPL259.		27.95

AMATEUR COMMUNICATIONS

Stk. No	Type	Description	Wt.	NET
92F457	ASP-157	130-470Mc. Gutter clamp 18x¾" long. For temp. mt. on rain gutter. With 12' RG-58 & PL-259.	2½ lbs.	9.60
92F469	M-7A*	Light weight to be cut to desired frequency.	3 lbs.	6.70

AMATEUR BAND MOBILE WHIP ANTENNAS

Stk. No.	Type	Description	Wt.	NET
92F468	ASP-201	144mc. Roof top 18x¾" long; mts. in ⅜" hole.	2 lbs.	3.35

WHIP ACCESSORIES

92F459	M4	Whip Clip. Fastens to car rain gutter w/o holes.	½ lb.	.85
92F529	M-54	Kwick Kupler. Allows whips to be removed from base with one quick twist. Chromed brass.	½ lb.	3.35

BODY MOUNTS

92F470	M-3D	Amateur swivel base, chrome.	1⅛ lbs.	5.85
92F450	M-3	Amateur Swivel base, alum. ball. Solder lug cable conn.	1½ lb.	3.75
92F451	M-13	Deluxe amateur swivel base, chrome ball. Coax conn.	2 lbs.	7.10

BUMPER MOUNTS

Stk. No.	Type	Description	Wt.	NET
92F458	ASP-143	Double chain mount, reduces sway. Cad. plated steel.	2 lbs.	9.20

SPRINGS

Stk. No.	Type	Description	Wt.	NET
92F461	M-3A	Standard amateur cad. plated steel.	1 lb.	2.50
92F462	M-9A	For extra heavy and center loaded amateur antennas	1½ lb.	5.45

NEW-TRONICS HUSTLER HAM ANTENNAS

For interchange of resonators. Can fold over for entering garage of car port and rotates 360°. Two sections, permanently hinged swivel mast. Shake proof, sleeve clutch. MO-2 for bumper mount. MO-1 15" above base, MO-2 27" above base.

92F610. MO-1. NET **8.95**
92F611. MO-2. NET 8.95

4-BTV FOUR BAND TRAP VERTICAL

4-BTV is precisely tuned optimum tuned traps. Band width SWR 1.6 to 1 at band edges 40 thru 10 meters. Easy installation. Adjustable Stainless Steel Clamps, Strong-Cadmium plated steel base with cycolac insulators. 75 meters with the addition of the RM-75 or RM-75-S on top. 75 meters, top loading, for higher radiation efficiency.

92F612. NET* **35.95**

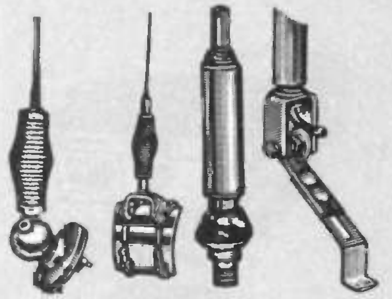
RESONATORS

STANDARD HUSTLER MOBILE ANTENNAS

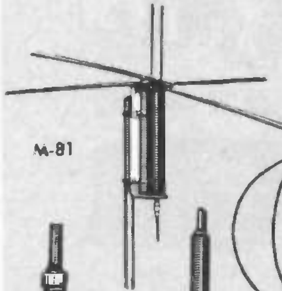
Stock No.	Type	Band	Height Max.	Height Min.	Net
92F600	Rm-10	10 meter	80"	75"	7.50
92F601	Rm-15	15 meter	81"	76"	8.50
92F602	Rm-20	20 meter	83"	78"	9.50
92F603	Rm-40	40 meter	92"	87"	11.50
92F604	Rm-75	75 meter	97"	91"	13.50

SUPER HUSTLER RESONATORS

Stock No.	Type	Band	Height Max.	Height Min.	Net
92F605	Rm-10-S	10 meter	80"	75"	11.50
92F606	Rm-15-S	15 meter	81"	76"	13.50
92F607	Rm-20-S	20 meter	83"	78"	15.50
92F608	Rm-40-S	40 meter	92"	87"	19.50
92F609	Rm-75-S	75 meter	97"	91"	24.50



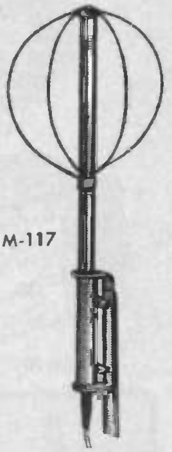
M-1D MB-24 M-74 M-73



M-81

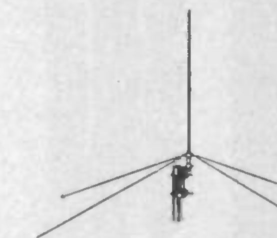
M-124

M-130

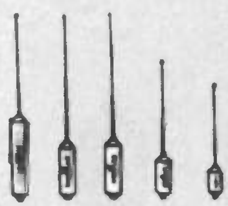


M-117

ASP-201

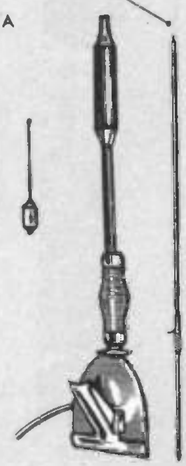


M-7A



RM-75-S

RM-75

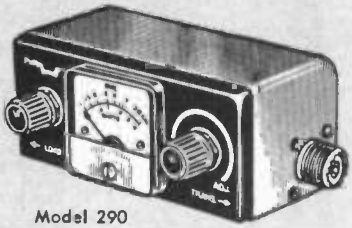


M-131 MO-1

Model 777

Model 750

Model 790



Model 290

AMPHENOL

● *NEW* MODEL 777 23-CHANNEL TRANSCEIVER

All solid state 23-channel compact unit designed primarily for mobile use. Transmitter output power is 3 watts on all channels. Receiver sensitivity is .5 uV for 10 db SN ratio. Includes External PA speaker Jack with integrated switch, illuminated power/S meter, ceramic filter which eliminates interference and washover, High talk-power dynamic microphone. Circuit performance is not affected by cold winter temperatures. Circuit meets all present and proposed FCC specifications. Includes a key-slotted mounting bracket so that the unit can be removed from mounting by unscrewing 2 large knobs. Power required is 12-14 volts DC. Size is 6½" x 2" x 10". Shipping weight: 6 pounds.

97F500. NET **169.95**

● *NEW* MODEL 750 6-CHANNEL TRANSCEIVER

Mobile unit of all solid state construction. Transmitter power output is minimum of 2.5 watts. Receiver sensitivity is .5 uV for 10 db SN ratio. Has 6 built-in transmit-receive channels, including the HELP channel 9. Includes an illuminated and magnified channel indicator, combination speaker/microphone, transmit indicator light, one control squelch-volume-on-off for simplified operation, and a mobile mounting bracket for easy installation. Range is 5-20 miles, depending upon conditions. Power required is 12-14 volts DC. Size: 4¾" x 2" x 5½", Shipping Weight: 3 pounds.

97F501. NET **79.95**

● *NEW* MODEL 790 POWER SUPPLY PEDESTAL

Model 790. Power Supply Pedestal used to convert your 777 into a base station. Transforms standard AC house current to 12 VDC. Compatible with all Amphenol 5 Watt mobile 2-way radios. Shipping weight: 6 pounds.

97F502. NET **29.95**

BENDIX

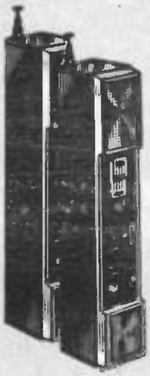
CITIZENS BAND SWR METER

Model 290. Micro Match Citizens Band Power & SWR Meter. Measures actual RF power output in watts on an accurately calibrated 0 to 4 watt scale. Indicates when transmitter and antenna are tuned for maximum output. No external power required. Compact size (4½" x 2" x 2¼") makes this unit ideal for dashboard mounting. Continuous reading.

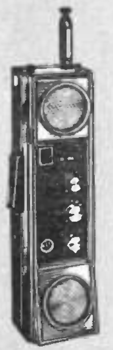
97F298. NET **26.50**

MAKE NEWARK YOUR DEPENDABLE SOURCE FOR EVERYTHING IN INDUSTRIAL ELECTRONICS

IC-1000



IC-10



IC-5000

IC-500

FANON

● *NEW* 3 WATT MODEL IC-3000

A top performance professional unit. Incorporates all the features of the IC-5000 but rated at 3 watts. Takes the same accessories as the IC-5000.

97FX361. NET **79.95**

● *NEW* 1 WATT 3-CHANNEL IC-1000

A full 1 watt professional unit loaded with advanced features. Designed and engineered for maximum range, performance and dependability. Featuring an Integrated Circuit, variable squelch control, strong signal limiter, separate mike and speaker, battery-strength meter, external antenna jack, external power jack and earphone jack. Complete with hand-strap and carrying shoulder strap. Size: 10½" x 2¾" x 1⅝".

97FX362. NET **49.95**

● *NEW* HALF WATT 3-CHANNEL IC-500

Offering 100% modulation and extended range, this model is rated at a full half-watt. With a host of unique features, including an integrated circuit, variable squelch, strong-signal limiter and separate mike and speaker for maximum audio efficiency. "Built-ins" include battery meter, external antenna jack, external power jack and earphone jack. Complete with hand strap and carrying shoulder strap. Size: 10½" x 2¾" x 1⅝".

97FX363. NET **39.95**

• *NEW* 5 WATT 6-CHANNEL IC-5000

Here is the ultimate in hand-held CB transceivers, incorporating engineering advances not available in any other unit on the market. This is the finest professional unit available. Weatherproof construction permits its use anywhere. Features 5 full watts. 6-channel operation, 3 IC circuits, special antenna with power boost loading coil, separate mike and speaker and die-cast metal cabinet. Other features include variable squelch, battery-indicator and RF-power meter, automatic noise limiter, strong-signal limiter, range booster, PA facility, external power jack, mike jack, antenna jack, and battery charging jack. The IC-5000 rapidly converts for base station performance with an optional AC power supply. Complete with hand and shoulder straps. Size: 10½" x 2¾" x 1⅝". Shipping weight: 4 lbs.

97FX360. NET **99.95**

● *NEW* 100 MW 3-CHANNEL IC-10

A rugged, die cast, 100 milliwatt unit that features an integrated circuit. Maximum dependability and pulling power. Up to 5 mile range. "Built-ins" include beep-tone call-in, separate mike and speaker, squelch control, battery life meter, earphone jack and external power jack. Complete with hand-strap and carrying shoulder strap.

97FX364. NET **29.95**

ACCESSORIES FOR CB TRANSCEIVERS

Stock Number	Description	NET
97FX365	VC-1. Vinyl Carrying Case for IC-10,500, 1000.	2.95
97FX366	VC-2. Vinyl Carrying Case for IC-3000, 5000.	5.25
97FX367	CHA-1. Plug-In charger/AC adaptor for IC-3000, 5000.	11.25
97FX368	NCA-1. AC adaptor and recharger with ni-cad batteries for IC-10,500, 1000.	22.25

E. F. JOHNSON

MESSENGER I
110V AC — 12V DC
TRANSCEIVER

Model 242-128. Ideally suited for daily business use as well as pleasure. A complete 10 tube (including rectifier), crystal-controlled transmitter and receiver enclosed in a steel cabinet. Its compact size and light weight make it easy to install anywhere, even under the dashboard of your car. By moving selector switch on front panel to desired position you may select up to 5 of the 23 available channels. Built-in automatic noise limiter. Automatic volume control effectively prevents distortion at close ranges. Microphone equipped with a push to talk switch. Controls include manual squelch control. Has an effective range up to 20 miles in a car and longer over water. Complete with microphone and cord, crystals for channel 9, and necessary power cords. Size: 5⅝"H.7"W.x11¾"D. 17 lbs.
97F515. 242-128-9. NET **114.95**

MESSENGER II
110V AC — 12V DC
TRANSCEIVER

Model 242-163. Chan. 9. Has tunable receiver and 10 channel crystal controlled transmitter. Featuring highly selective and sensitive superheterodyne receiver, automatic volume control, high efficiency noise limiter and direct plug-in provision for Tone Alert selective calling system. 10 tube circuitry meets all FCC regulations and is designed for legal power on all channels without retuning. Improved adjacent channel rejection through the use of the high efficiency automatic noise limiter and suppression of external electrical noises. The rugged microphone is equipped with a conveniently located push-to-talk switch. Compact and lightweight easy to install anywhere: 5⅝"Hx7"Wx11⅜"D. Furnished with microphone and crystals for channel 9. 17 lbs.
97F525. 242-163-9. NET **159.95**

CB "MATCHBOX"

Model 250-49. Installs permanently between transmitter and antenna. Two simple controls let you knock an SWR as high as 5:1 down to 1.1:1 or better. Insertion loss less than 0.1 db. Frequency range: 26.5 to 30 Mhz. Maximum power, 15 watts. With two SO 239 connectors. Size, 4 x 3¼ x 2⅜".
97F528. NET. **15.95**

MESSENGER 300 TRANSCEIVER

Model 242-149. Rugged all-transistorized construction assures top flight performance and reliability in a very compact package. This unit features a double conversion, superheterodyne receiver for excellent sensitivity and selectivity. For in areas of high CB radio activity, Messenger 300 has an added crystal filter to virtually eliminate adjacent channel interference. Multi-stage noise limiting circuit; "Set-and-Forget" squelch and volumn controls (reduce need for constant re-adjusting); Instant selection from any of 12 channels; transistor circuitry draws less current on standby than a stop light; Illuminated channel indicator turns red when transmitter is on. Accessory AC power supply available for base station use; Accessory socket on rear panel accommodates Tone Alert Plug; Built-in P.A. system. Unit measures 2³⁄₁₆"H x6⁵⁄₁₆" W x 8¾" D. Comes complete with microphone; crystals for channel 9, and mobil mounting bracket. Shpg. wt. 8 lbs.
97F506. (242-149-9). **189.95**

MESSENGER III

Same specifications as Model 300 above but without crystal filter.
97F530. (242-143-9). **159.95**

POWER SUPPLY

Model 239-125. 117 V AC Power Supply for the Messenger 300, 100, and III.
97F531. NET. 32.95

● NEW MESSENGER 223

Model 223. 23-channel base station for unmatched communications. Combines tubes with a solid-state frequency synthesizer. Frequency Range: 26.965- 27.255 MHz Antenna Impedance: 50 ohms. Sensitivity: 11 db (S+N)/N ratio with 0.5 microvolts (30% modulated 1000 Hz.) Selectivity: 7kHz bandwidth at- 6 db, 21 kHz bandwidth at- -60 db. Output Power is 3 watts at 10% distortion. Squelch Range: 0.3 to 500 microvolts. Squelch Sensitivity: 6 db or less signal change for 40 db of quieting at 1 microvolt. Wt. 12 lbs.
97F507. 242-223-1. (Less Mike).
NET **199.50**
97F508. 242-223-2. (with Desk Mike)
NET **214.95**

● NEW MESSENGER 320

Model 242-320. Deluxe solid state 23-channel transceiver. Combines performance and reliability with 23-channel versatility. Built-in speech compression provdes more audio for greater range without distortion or splatter. Combination "S" meter/power meter and built-in PA system. 23 transistors, 15 diodes and 3 thermistors. Makes an attractive base station when used with the accessory AC power supply listed below. Power supply requires no wiring . . . just plug it in. Double conversion super-heterodyne receiver with selectivity of 6 kHz bandwidth at -6 db. Transmitter R.F. power input: 5 watts at 13.8 v DC. R.F. power output: 3.5 watts at 13.8 v DC. Furnished with low impedance ceramic element microphone with push-to-talk switch and hang-up stud. Unit dimensions: 2½"h, 8"w, 9½"d. Shpg. wt. 8 lbs.
97F509. NET **199.95**
Model 239-122-1. AC power supply for Model 320. 6 lbs. **97F510. NET** **32.95**

● NEW PERSONAL MESSENGER 109

Model 242-109. Gives you three watts of TALK POWER and enables you to select one of two channels. (Chan. 11 crystals supplied.) Utilizes 14 transistors, 9 diodes, and a thermistor for excellent performance. Rechargeable nickel-cadmium battery pack gives 8 hrs. of service on a single charge. Sensitivity: 10 db S N/N ratio with 0.5 microvolts (30% modulation at 1000 Hz). Selectivity: 6 kHz bandwidth at -6 db. Antenna Impedance: 50 ohms. Output Power is .5 watts at 10% distortion for 0.5 microvolts input. Squelch Range: 0.3 to 15 microvolts: Squelch Sensitivity: 6 db signal change for 40 db of quieting at 1 microvolt. Shipping wt. 3 lbs.
97FX546. 242-109-11. NET **149.95**
Model 239-128. Replacement rechargeable battery. **97FX547. NET** **35.00**
Model 251-834. Leather carrying case for 109. **97FX548. NET** **8.50**

1½ WATT PERSONAL MESSENGER

RECHARGEABLE TRANSCEIVER

Model 242-102. Superhet receiver, RF amp. gives twice the sensitivity, 40% greater range. Fully effective noise elimination with the use of 11 transistors and 4 diodes. AVC combined with push-pull audio circuit. Squelch control, razor sharp reception. Complete with rechargeable battery in plug-in compartment and crystals for channel 11. Meets all FCC requirements, 23 channel coverage. High-impact plastic case, telescoping antenna, push to talk sw. 12x4¾x2¾". 3 lbs.
97FX536. 242-102-111. NET. **99.95**

PERSONAL MESSENGER ACCESSORIES

Model 250-804. Replacement rechargeable nickel cadmium battery mounted in sealed plug-in compartment for recharging at 115V AC, 50-60 Hz.
97FX538. NET 19.95

Model 250-803. Earphone w/cord-plug.
97FX539. NET 4.50

Model 251-806. Transceiver carrying case.
97FX540. NET 8.50

Model 250-807. Adapter for powering from cigarette lighter on 12 volt cars.
97FX541. NET 4.50

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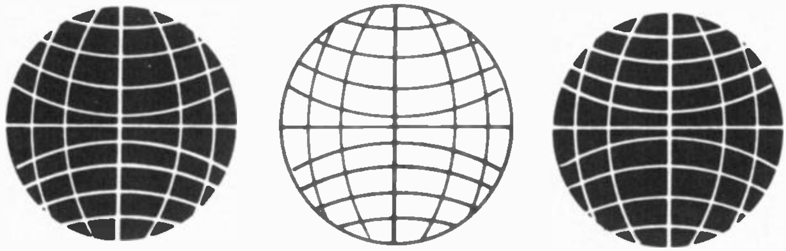
ORDER BY MAIL FROM NEWARK



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Customers everywhere do because they're sure of . . .

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All orders are filled immediately from our extensive multi-million dollar on-the-shelf inventory. At Newark, a modern completely automated facility, custom-designed for fast order processing makes same day shipment a routine procedure. See pages 2 and 3 of this catalog for information about the new Newark Warehouse. Our entire stock is at your disposal, ready to meet your individual requirements at any time.

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Prices Subject to Change Without Notice
Minimum Order: $2.50

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Newark's Export Department can ship directly to your customer or associated firm overseas to save you time and costs. Newark has representatives located in many countries to assure that your order is received without delay.

If you are currently shipping orders overseas, or having export problems, let Newark's experienced export department handle them for you.

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HOW TO ORDER

Use the Newark Order Blank or your own Purchase Order Form. Type or Print Name and Address, please fill in all information requested. Write legibly giving stock number, quantity, type and description. On cash orders, please remit full amount plus Postage and Insurance. **Mail Orders — $2.50 minimum accepted.** We always ship the most economical way. Please indicate if you require special shipment.

PRICES

Catalog Prices are Net, f.o.b. Chicago, except where otherwise indicated. All discounts have been deducted. Your Order is shipped at current prices which are subject to change without notice. You get the benefit of any Price Reductions. We reserve the right to add any Federal, State, or Local taxes.

HOW TO SEND MONEY

Send remittance by Post Office or Express money order, bank draft or check. Please do not send stamps. If you must send cash, please be sure to register your letter. Include sufficient postage for shipment of your order.

SHIPMENT

TRUCK AND RAIL FREIGHT. For heavy shipments, freight is most economical. Shipping charges are collected on delivery.

EXPRESS. Fastest way to ship unmailable merchandise. Send full amount for merchandise—do not send money to cover Express Charges. Shipping charges are collected on delivery.

AIR SHIPMENT: For Rush Orders we will ship by Air Freight or Air Express, upon your request. Shipping charges will be collected on delivery.

IF YOU WRITE TO US ABOUT YOUR ORDER

Include all papers and correspondence that we returned to you. For a damaged shipment, send a full report from your Postmaster or Express Agent.

C.O.D. SHIPMENTS

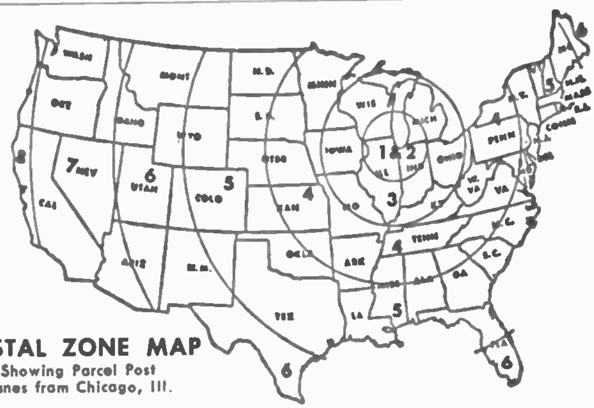
On parcel post C.O.D. shipments, the Post Office charges an additional collection fee and a money order fee for forwarding the amount collected to us. You can save money by sending full remittance with order. The following are the charges on C.O.D. orders.

Amt. C.O.D.	C.O.D. Fee
$ 0.01 to $ 10.00	.60 Cents
10.01 to 25.00	.70 Cents
25.01 to 50.00	.80 Cents
50.01 to 100.00	.90 Cents
100.01 to 200.00	$1.00

PARCEL POST RATES

See the table and zone map below for parcel post rates. Save C.O.D. charges by sending enough money to cover postage. On parcels under 16 ounces, allow 4c for first 2 ounces or fraction, and 2c for each additional ounce.

Weight in Pounds	Local	ZONES 1-2 Up to 150 Miles	3 150 to 300 Miles	4 300 to 600 Miles	5 600 to 1000 Miles	6 1000 to 1400 Miles	7 1400 to 1800 Miles	8 Over 1800 Miles
2	$0.50	$0.60	$0.60	$0.65	$0.70	$ .80	$ .85	$ .90
3	.50	.65	.70	.75	.85	.95	1.05	1.15
4	.55	.70	.75	.85	.95	1.10	1.20	1.35
5	.55	.75	.80	.90	1.05	1.25	1.40	1.60
6	.55	.80	.90	1.00	1.15	1.40	1.55	1.75
7	.60	.90	.95	1.10	1.30	1.50	1.75	1.95
8	.60	.95	1.00	1.15	1.40	1.65	1.90	2.15
9	.65	1.00	1.05	1.25	1.50	1.80	2.05	2.35
10	.65	1.05	1.15	1.35	1.65	1.90	2.25	2.55
11	.65	1.10	1.20	1.40	1.75	2.00	2.40	2.75
12	.70	1.15	1.25	1.50	1.85	2.15	2.55	2.90
13	.70	1.20	1.35	1.55	1.95	2.25	2.70	3.10
14	.75	1.25	1.40	1.65	2.05	2.40	2.85	3.25
15	.75	1.30	1.45	1.75	2.15	2.50	3.00	3.45
16	.75	1.35	1.55	1.80	2.25	2.60	3.15	3.60
17	.80	1.40	1.60	1.90	2.35	2.75	3.30	3.80
18	.80	1.45	1.65	1.95	2.45	2.85	3.45	4.00
19	.85	1.50	1.75	2.05	2.55	2.95	3.60	4.15
20	.85	1.55	1.80	2.10	2.65	3.10	3.75	4.35
21	.85	1.60	1.85	2.15	2.75	3.20	3.90	4.50
22	.90	1.65	1.90	2.25	2.80	3.30	4.05	4.70
23	.90	1.70	1.95	2.30	2.90	3.40	4.20	4.85
24	.95	1.75	2.00	2.35	3.00	3.55	4.35	5.00
25	.95	1.75	2.05	2.45	3.05	3.65	4.50	5.20



POSTAL ZONE MAP
Showing Parcel Post Zones from Chicago, Ill.

AIR PARCEL POST RATES

ZONES	1 & 2	3	4	5	6	7	8	U. S. Territories & Possessions 8th Zone Rate
1 Lb.	$0.80	$0.80	$0.80	$0.80	$0.80	$0.80	$0.80	
For Each Extra Lb.	Add 48c	Add 48c	Add 50c	Add 56c	Add 64c	Add 72c	Add 80c	

PARCEL POST INSURANCE

For your protection, all parcel post shipments are insured by the Hartford Insurance Company against loss or damage. Allow for insurance at the following rates:

Amt. Insurance	Ins. Fee
$ 0.01 to $15.00	20 Cents
15.01 to 50.00	30 Cents
$ 50.01 to $100.00	40 Cents
100.01 to 150.00	50 Cents
150.01 to 200.00	60 Cents

EXPRESS CHARGES

Do Not Send Money for Express Charges if your Station has an agent.

Weight in Pounds	Mileage 50	150	300	500	750	1000	1500	2250
5	$4.70	$4.70	$4.70	$4.70	$4.70	$4.70	$4.85	$5.05
10	5.20	5.20	5.20	5.20	5.20	5.20	5.50	5.90
15	5.20	5.20	5.20	5.20	5.60	5.70	6.15	6.80
20	5.20	5.20	5.20	5.55	6.10	6.20	6.80	7.70
25	5.20	5.40	5.40	5.90	6.35	6.70	7.45	8.55
35	5.45	5.75	5.90	6.65	7.50	7.70	8.80	10.30
45	5.70	6.10	6.40	7.35	8.45	8.70	10.10	12.05
55	5.95	6.50	6.90	8.05	9.40	9.75	11.45	13.80
70	6.35	7.05	7.65	9.10	10.85	11.25	13.40	16.45
80	6.65	7.40	8.15	9.80	11.75	12.25	14.75	18.20
For each 100 lbs.	6.35	7.30	8.35	10.40	12.95	13.60	16.55	21.15

EXPRESS INSURANCE RATES

Amt. Insurance	Ins. Fee
$ 0.01 to $ 50.00	No Fee
$50.01 to $150.00	.25c

Each additional $100.00 of value or fraction 25c.

SOLVE YOUR MEASUREMENT PROBLEMS WITH PRECISION TEST EQUIPMENT FROM

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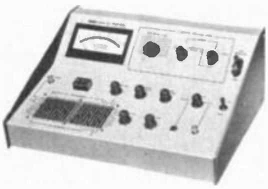
ELECTRONIC INSTRUMENTS DIVISION



MODEL 999

INTEGRATED CIRCUIT TESTERS

- LABORATORY
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MODEL 4025/26

DIGITAL PANEL MOUNTED INSTRUMENTS

- VOLTAGE AND CURRENT METERS
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- FREQUENCY METER
- ANALOG TO BINARY CONVERTER
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- LIMIT COMPARATOR

MODEL 4050

PROCESS CONTROLLERS

- PRESET CONTROLLERS
- ELECTRONIC COUNTERS
- FREQUENCY METER
- ACCUMULATOR

MODEL 6220

INDUSTRIAL RECORDERS

- DIRECT WRITING ANALOG RECORDER

MODEL 9010

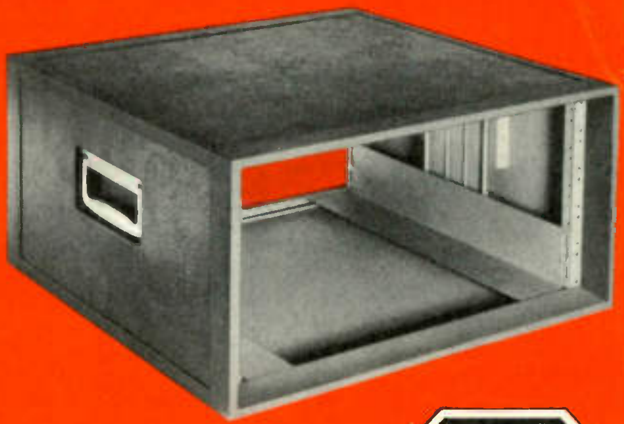
SIGNAL SOURCES

- FUNCTION GENERATORS
- OSCILLATORS
- PULSE GENERATOR

SEE INDEX FOR A COMPLETE LISTING OF BECKMAN PRODUCTS

your product *NEEDS* this 99^{80}*

CLASSIC CABINET



cause the price of the enclosure represents only a ction of the total cost of a complete instrumentation stem, it's smart to buy the finest housing available. d Classic Cabinets are the ultimate in fine cabinetry. eir styling and construction features add immensely the value of the contents.

ame built of welded aluminum extrusions. Patterned uminum panels comprised the four sides. Completely sembled with two vertically adjustable chassis sup- orts and two heavy duty anodized aluminum handles. ear inside depth is 17". Uses standard 19" panels.

pecial vinyl texture finish in choice of charcoal gray sand. Doors available to fit each size.

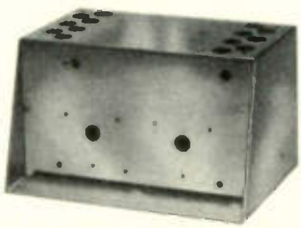
Sand Stk. No.	CG Stk. No.	Type AGC	Height	Panel Space	Lbs. Wt.	1-4	5-9	10-14
91F1376	91F1391	266	4 57/64"	3 1/2"	17	90.10	81.10	72.10
91F1377	91F1392	267	6 41/64"	5 1/4"	19	92.40	83.20	73.90
91F1378	91F1393	268	8 25/64"	7"	20	97.40	87.70	78.00
* 91F1379	91F1394	269	10 9/64"	8 3/4"	22	99.80	89.80	79.80
91F1380	91F1395	270	11 57/64"	10 1/2"	23	103.10	92.80	82.50
91F1381	91F1396	271	13 41/64"	12 1/4"	25	107.30	96.60	85.80
91F1382	91F1397	272	15 25/64"	14"	26	110.60	99.50	88.40
91F1383	91F1398	273	17 9/64"	15 3/4"	28	114.70	103.30	91.80
91F1384	91F1399	274	18 57/64"	17 1/2"	29	118.10	106.30	94.50
91F1385	91F1400	275	20 41/64"	19 1/4"	31	120.70	108.70	96.60
91F1386	91F1401	276	22 25/64"	21"	32	124.70	112.20	99.70
91F1387	91F1402	277	24 9/64"	22 3/4"	34	128.00	115.20	102.40
91F1388	91F1403	278	25 57/64"	24 1/2"	35	131.60	118.40	105.30
91F1389	91F1404	279	27 41/64"	26 1/4"	37	134.90	121.40	107.90
91F1390	91F1405	280	29 25/64"	28"	38	137.80	124.00	110.20

• See pages 570 to 580 for complete information on these and all other BUD products.

IF YOU NEED A SPECIALLY DESIGNED ENCLOSURE NEWARK WILL ANSWER YOUR PROBLEMS ECONOMICALLY

f, among the various types of Bud Sheet Metal Products listed in this catalog, you can't find exactly what you need, Bud will fabricate it for you. Consult your Newark ales engineer about your special enclosure problems. In reality he is an extension of Bud's factory engineering department and can recommend the proper style for your equipment. His advice will save you time and money.

Often a modification of a standard Bud product will create a suitable housing with resulting savings in time and cost. We also produce specially punched panels, chassis and boxes. Our fabrication includes the use of steel or aluminum.



Some of our special construction involves the Standard or Slimline Imlok System of aluminum extrusions, castings and panels. We can originate designs based upon your space and circuitry requirements.

Newark can supply you with a pilot model or a production run. Our many years of experience in the electronic industry assures you that we can readily understand your requirements and solve them economically. We will work from a simple sketch or a detailed print.

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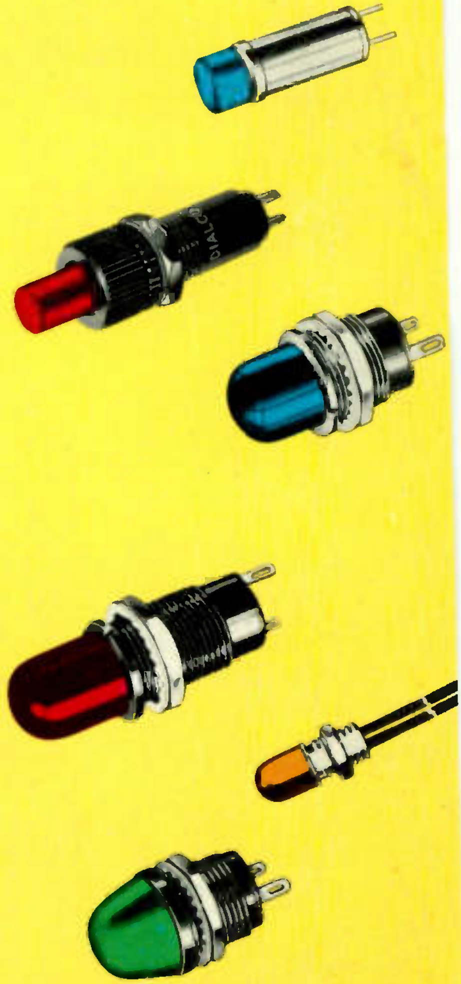
See index for complete listing of DIALCO products.



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