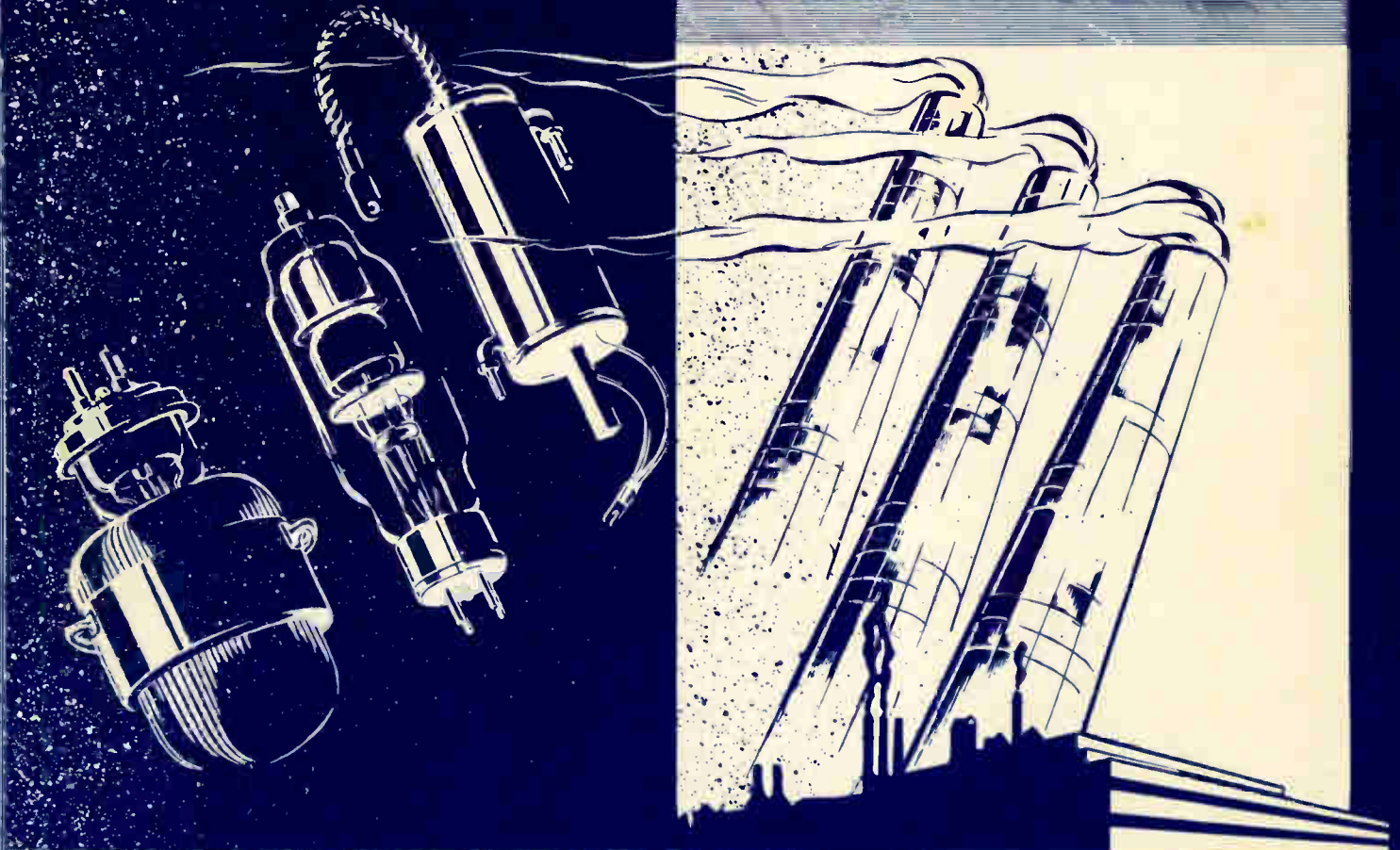


RCA

PRICE 10 CENTS

POWER & GAS TUBES



FOR RADIO and

FOR INDUSTRY

H.V. POWER TUBES
AIR-COOLED
FORCED AIR-COOLED
WATER-COOLED

VOLTAGE REGULATOR TUBES
THYRATRONS
IGNITRONS
GAS RECTIFIERS



TUBE DEPARTMENT

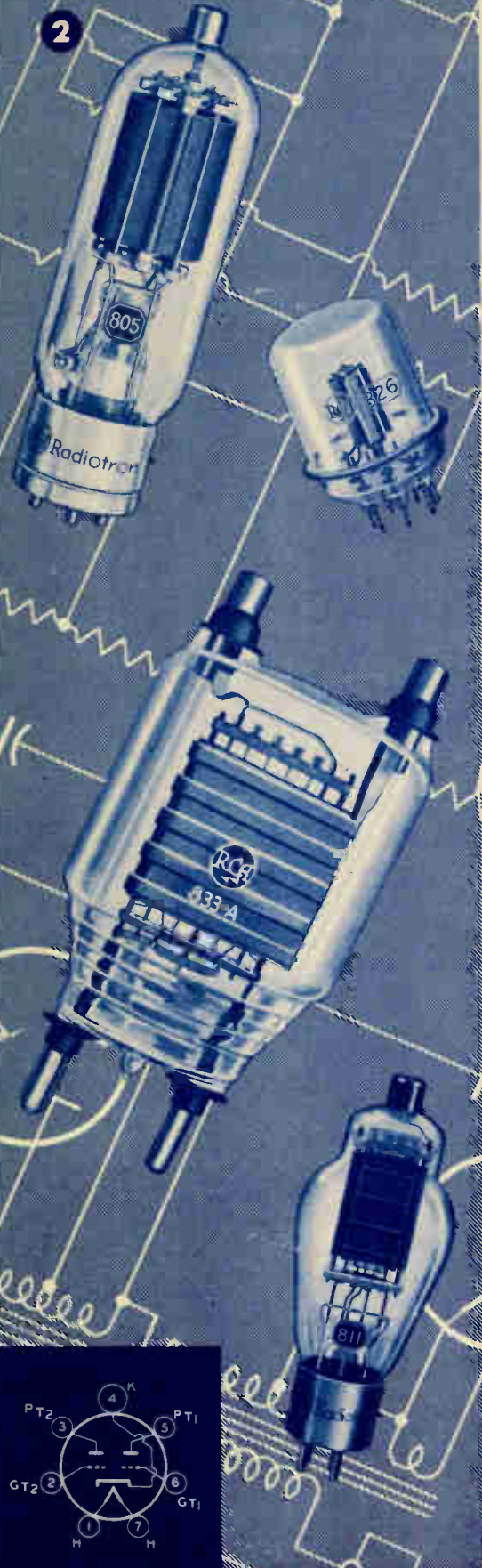
RADIO CORPORATION of AMERICA

HARRISON, N. J.

VACUUM POWER TUBES

RCA Type	Description
TRIODES (Air-Cooled)	
3C33	Heater-cathode type containing two high-perveance units. For use in industrial control and voltage-regulator service. Medium molded-flare 7-pin base.
203-A	All-purpose thoriated-tungsten filament type used by amateurs and industry for the last twenty years. Jumbo 4-pin base.
204-A	All-purpose thoriated-tungsten filament type used by amateurs and industry for the last twenty years. Special end-mounting for base.
211	Similar in construction to type 203-A, but has a lower mu.
304TH	Medium-mu class B modulator and rf amplifier. Will handle high current at relatively low voltages. Special type base. Beaded small cap.
800	High frequency rf amplifier and oscillator with thoriated-tungsten filament. Medium 4-pin, bayonet base. Two small caps.
801-A	Medium-mu type with thoriated-tungsten filament. Of special use in small aircraft transmitters. Medium 4-pin, bayonet base.
805	High-mu zero-bias class B modulator with thoriated-tungsten filament. Features high power output with low plate voltage and low distortion. Jumbo 4-pin base. Medium cap.
806	Highly efficient 1000-watt type requiring only 34 watts of driving power at the tube. Features a 50-watt thoriated-tungsten filament and a large enclosed anode. Jumbo 4-pin base. Skirted medium end cap, saddle medium side cap.
808	High-mu type for high-frequency applications. Medium 4-pin, bayonet base. Medium end cap, small side cap.
809	High-perveance high-mu type with thoriated-tungsten filament. Features high efficiency and low driving power. Medium 4-pin, micanol, bayonet base. Medium cap.
810	High-perveance type with a graphite anode and a thoriated-tungsten filament. Features high plate efficiency with low driving power and relatively low plate voltage. Jumbo 4-pin base. Skirted medium end cap, medium side cap.
811	Husky, zero-bias class B modulator with a 25-watt, thoriated-tungsten filament and a zirconium-coated anode. Medium 4-pin, micanol, bayonet base. Medium cap.
812	High-perveance type with a zirconium-coated anode, low-loss micanol base, and a thoriated-tungsten filament. Features low-driving power. Medium 4-pin, micanol, bayonet base. Medium cap.
826	Highly efficient UHF oscillator with center-tapped filament and zirconium-coated anode. Medium molded-flare 7-pin base.
830-B	General purpose thoriated-tungsten filament type. Medium 4-pin, bayonet base. Small cap.
833-A	Rugged, high-perveance type with a 100-watt thoriated-tungsten filament and a zirconium-coated anode. Will take a maximum input of 1250 watts in class C telegraph service (CCS) up to 30 mc. Special post terminals.
834	UHF power amplifier type with a 25-watt, thoriated-tungsten filament. Medium 4-pin, bayonet base. Wire top terminals.
835	Identical with type 211 except for lower interelectrode capacitances.
838	High-mu, zero-bias class B modulator type with thoriated-tungsten filament. Features high power output with low distortion. Jumbo 4-pin base.
841	High-mu type with thoriated-tungsten filament. Medium 4-pin, bayonet base.
842	Class A modulator. Medium 4-pin, bayonet base.
843	General purpose heater-cathode type. Medium 5-pin base.
845	Class A modulator. Jumbo 4-pin base.
849	Heavy-duty modulator type. Will deliver 100 watts of undistorted audio power in class A service. Special end-mounting for base. Skirted large cap.
851	Heavy-duty modulator type. Will deliver 160 watts of undistorted audio power in class A service. Special end-mounting for base. Skirted large cap.

For key to base connection diagrams, see page 9.



3C33

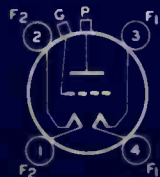


203-A



805

204-A 849 851



304TH



800



801-A



841



842

805

806

VACUUM POWER TUBES

3

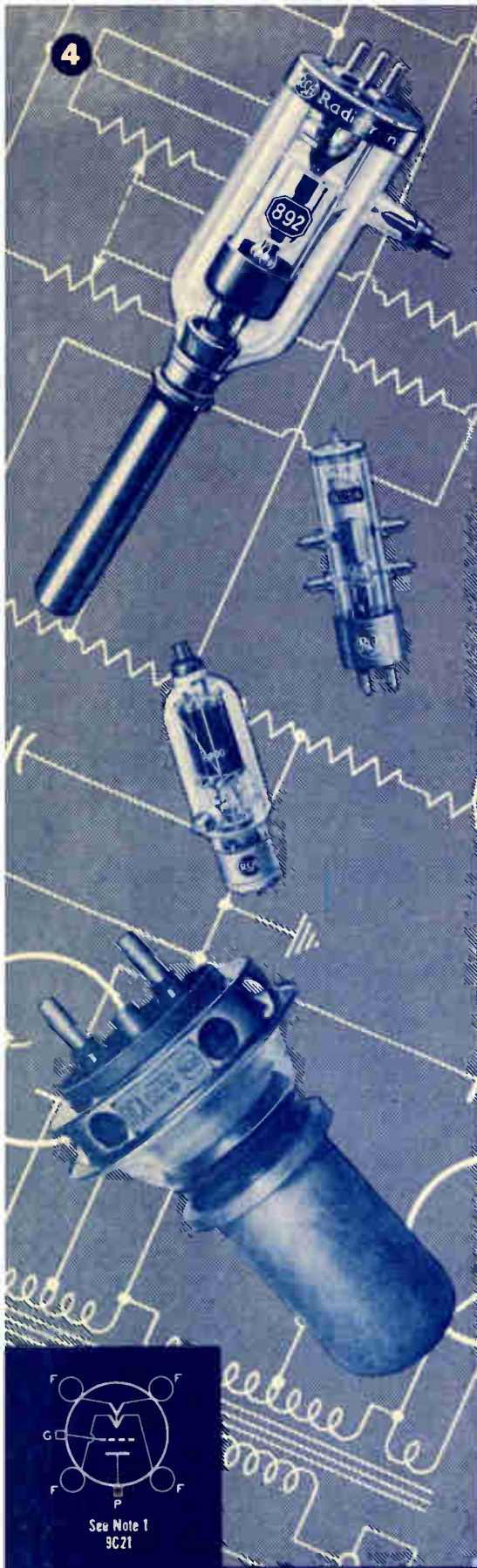
Cathode		Max. Dimensions Inches		Amplification Factor	Class of Service	Max. Frequency for Full Input Mc	Max. Plate Ratings			Typical Operating Conditions						RCA Type	
Volts	Amp.	Length	Diam.				Volts	DC Input Watts	Dissipation Watts	Plate Volts	Grid Volts	Peak AF Grid-to-Grid Volts	Plate Amperes	Plate-to-Plate Load Ohms	Approx. Driving Power Watts		Power Output Watts
TRIODES (Air-Cooled)																	
12.6	1.125	3 1/16	2 3/8	11 per unit	Max. Peak Plate Volts, ±2000 Max. DC Grid Volts, -200	15	1000	175	67	1000	-135	—	0.15	—	14	100	3C33
10.0	3.25	7 7/8	2 5/16	25	C-P C-T	15 15	1250 1250	220 220	100 100	1250 1250	-125 -125	— —	0.15 0.15	— —	7 7	130 130	203-A
11.0	3.85	14 3/8	4 1/16	23	C-P C-T	3 3	2000 2500	550 690	167 250	2000 2500	-250 -200	— —	0.25 0.25	— —	20 15	350 450	204-A
10.0	3.25	7 7/8	2 3/16	12	C-P C-T	15 15	1000 1250	175 220	67 100	1000 1250	-260 -225	— —	0.15 0.15	— —	14 7	100 130	211
5.0 10.0	25.0 12.5	7 5/8	1 13/16*	20	B C-T	— 40	3000 3000	— —	300 300	3000 3000	-150 -300	420	0.134 0.5	10200	6 53	1400 1200	304TH
7.5	3.1	6 3/8	2 11/16	15	C-P C-T	60 60	1000 1250	80 100	23 35	1000 1250	-200 -175	— —	0.07 0.07	— —	4 4	50 65	800
7.5	1.25	5 3/8	2 1/16	8	B C-P C-T	— 60 60	600 500 600	42 30 42	20 13.5 20	600 500 600	-75 -190 -150	320	0.008 0.055 0.065	10000	3 4.5 4	45 18 25	801-A
10.0	3.25	8 1/2	2 3/16	Variable	B C-P C-T	— 30 30	1500 1250 1500	315 220 315	125 85 125	1500 1250 1500	-16 -160 -105	280	0.084 0.16 0.2	8200	7 16 8.5	370 140 215	805
5.0	9.5	10	3 13/16	12.6	B C-P C-T	— 30 30	3300 3000 3300	825 600 1000	225 150 225	3300 3000 3300	-240 -670 -600	930	0.08 0.195 0.3	16000	35 24 34	1120 460 780	806
7.5	4.0	6 1/16	2 13/16	47	B C-P C-T	— 30 30	2000 1600 2000	225 200 300	75 50 75	2000 1600 2000	-36 -170 -150	270	0.04 0.125 0.15	21400	8.8 10. 9.	300 150 225	808
6.3	2.5	6 9/16	2 7/16	50	B C-P C-T	— 60 60	1000 750 1000	100 75 100	30 25 30	1000 750 1000	-9 -60 -75	155	0.04 0.1 0.1	11600	2.7 4.3 3.8	145 55 75	809
10.0	4.5	8 3/4	2 1/4*	36	B C-P C-T	— 30 30	2750 1800 2250	510 450 620	150 125 150	2250 1800 2250	-60 -200 -160	380	0.07 0.25 0.275	11600	13 17 12	725 335 475	810
6.3	4.0	6 9/16	2 7/16	160	B C-P C-T	— 60 60	1500 1250 1500	150 155 225	50 40 55	1500 1250 1500	-9 -125 -113	150	0.02 0.125 0.15	17600	3 11 8	220 120 170	811
6.3	4.0	6 9/16	2 7/16	29	B C-P C-T	— 60 60	1500 1250 1500	150 156 225	50 40 55	1500 1250 1500	-45 -125 -175	232	0.05 0.125 0.15	18000	4.7 6 6.5	225 120 170	812
7.5	4.0	3 11/16	2 3/8	31	C-P C-T	250 250	800 1000	75 125	40 60	800 1000	-98 -70	—	0.094 0.125	—	6.3 5.8	53 86	826
10.0	2.0	6 11/16	2 1/16	25	C-P C-T	15 15	800 1000	80 150	40 60	800 1000	-150 -110	—	0.095 0.14	—	5 7	50 90	830-B
10.0	10.0	8 13/16	4 19/32	35	B C-P C-T	— 20 20	4000 4000 4000	1800 1800 2000	450 350 450	4000 4000 4000	-100 -325 -225	510	0.1 0.45 0.5	11000	38 42 35	2700 1500 1600	833-A
7.5	3.1	6 7/8	2 11/16	10.5	C-P C-T	100 100	1000 1250	100 125	35 50	1000 1250	-310 -225	—	0.09 0.09	—	6.5 4.5	58 75	834
For dimensions, maximum ratings, and typical operating conditions, refer to Type 211																	
10.0	3.25	7 7/8	2 3/16	Variable	B C-P C-T	— 30 30	1250 1000 1250	220 175 220	100 67 100	1250 1000 1250	0 -135 -90	200	0.148 0.15 0.15	9000	7.5 16 6	260 100 130	835
7.5	1.25	5 3/8	2 1/16	30	C-P C-T	6 6	350 450	21 27	10 15	350 450	-47 -34	—	0.05 0.05	—	2 1.8	11 15	841
7.5	1.25	5 3/8	2 1/16	3	A	—	425	—	12	425	-100	—	0.028	8000	—	3.0	842
2.5	2.5	5 3/8	2 1/16	7.7	C-P C-T	6 6	350 450	14 18	10 15	350 450	-150 -140	—	0.03 0.03	—	1.6 1.0	5.0 7.5	843
10.0	3.25	7 7/8	2 3/16	5.3	AB ₁	—	1250	150	100	1250	-225	440	0.04	6600	—	115	845
11.0	5.0	14 3/8	4 1/16	19	C-P C-T	3 3	2000 2500	700 875	270 400	2000 2500	-300 -250	—	0.3 0.3	—	14 8	425 560	849
11.0	15.5	17 7/8	6 1/8	20.5	C-P C-T	3 3	2000 2500	1800 2500	500 750	2000 2500	-300 -250	—	0.85 0.9	—	65 45	1250 1700	851

For explanatory notes on class of service, see page 8. To facilitate comparison between types, all values are given on an absolute-maximum basis. Unless otherwise specified, all values shown are for Continuous Commercial Service. * Intermittent Commercial and Amateur Service. * Maximum Radius.



VACUUM POWER TUBES

4



Type	Description
TRIODES (Air-Cooled)—Cont'd	
852	The original high-frequency tube with a 32.5-watt thoriated-tungsten filament. Medium 4-pin, bayonet base. Flexible plate and grid leads.
1608	General-purpose type with an oxide-coated filament. Medium 4-pin, ceramic, bayonet base.
1623	Highly efficient oscillator triode. Useful as a self-excited oscillator because of stability of operation. Will deliver 75 watts output with 3.1 watts of grid drive at the tube. Medium 4-pin, ceramic, bayonet base. Medium cap.
1626	RF oscillator. Heater-cathode type. Octal 8-pin, micanol, base.
5556	Coated-filament type featuring low-grid power and uniformity of characteristics. Medium 4-pin, bayonet base.
8000	High-power amplifier with a 45-watt thoriated-tungsten filament and a special-processed graphite anode. Especially useful in diathermy applications. Jumbo 4-pin base. Skirted medium end-cap, medium side-cap.
8003	Rugged rf power amplifier and oscillator with a 32.5-watt, thoriated-tungsten filament and graphite anode. For self-rectifying oscillator circuits in therapeutic applications. Jumbo 4-pin base. Medium cap.
8005	High-perveance type. Features high-power output with low grid driving power. For self-rectifying oscillator circuits in therapeutic applications. Medium metal 4-pin, bayonet base. Ceramic insulated cap.
8012-A	UHF oscillator, rf power amplifier and frequency multiplier featuring double grid and plate connections and flexible filament leads.
8025-A	Same as 8012-A except for small 4-pin, micanol, base for filament leads, and miniature caps for double grid and plate leads.
TRIODES (Water-Cooled)	
9C21	Multi-strand single-phase tungsten filament type utilizing grid-flange and filament-header construction. For high-power broadcast and industrial rf heating applications. Special terminal connections.
9C27	Grounded-grid type with a multi-strand single-phase thoriated-tungsten filament and utilizing grid-flange and filament-header construction. For use in industrial rf heating applications. Special terminal connections.
207	High-voltage type with thoriated-tungsten filament. For industrial and communication service. Special terminal connections.
846	Tungsten-filament type for industrial and communication service. Special terminal connections.
858	Tungsten-filament type for general communication and industrial rf heating applications. Special terminal connections.
862-A	Tungsten-filament type especially designed for high-power broadcast applications. Special terminal connections.
880	High-frequency tungsten-filament type. For use in high-power broadcast and industrial rf heating applications. Uses special terminal connections.
889-A	High-frequency tungsten-filament type with specially designed mount and terminal connections. Particularly suitable for industrial rf heating applications. May also be used for high-power broadcast services.
891	Two-section tungsten-filament type. Suitable as an oscillator in induction and dielectric heating devices.
892	Two-section tungsten-filament type similar to type 891 except for a higher mu.

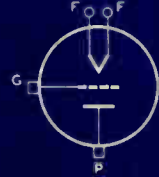
For key to base connection diagrams, see page 9. Note 1: Diametrically opposite terminals must be connected together. Note 2: Grid terminals are spaced diametrically wider than filament terminals. Note 3: Terminal No. 5 is above grid arm. Note 4: G terminals nearer filament leads; P terminals nearer bulb tip. Note 5: G caps nearer base; P caps nearer bulb tip.



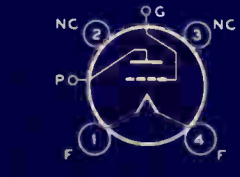
See Note 1
9C21



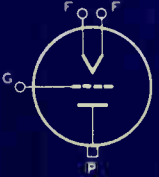
9C27



207



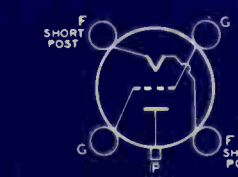
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852



880



889-A



891

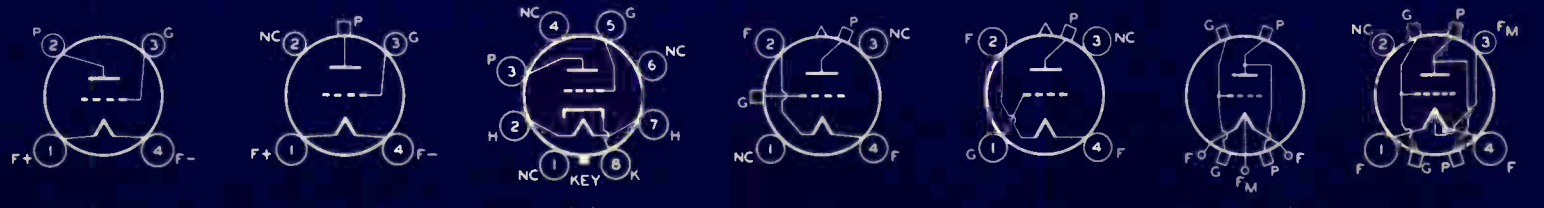
892

Cathode		Max. Dimensions Inches		Amplification Factor	Class of Service	Max. Frequency for Full Input Mc	Max. Plate Ratings			Typical Operating Conditions						Type	
							Volts	DC Input Watts	Dissipation Watts	Plate Volts	Grid Volts	Peak AF Grid-to-Grid Volts	Plate Amperes	Plate-to-Plate Load Ohms	Approx. Driving Power Watts		Power Output Watts
TRIODES (Air-Cooled)—Cont'd																	
10.0	3.25	8 $\frac{3}{4}$ ♦	4 $\frac{1}{4}$ *♦	12	C-P C-T	30 30	2000 3000	170 300	67 100	2000 3000	-500 -600	— —	0.067 0.085	— —	23 12	75 165	852
2.5	2.5	5 $\frac{3}{8}$	2 $\frac{1}{16}$	20	B C-P C-T	— 45 45	425 350 425	40 30 40	20 13.5 20	425 350 425	-15 -80 -90	130 — —	0.036 0.085 0.095	4800 — —	2.2 3 3	50 18 27	1608
6.3	2.5	6 $\frac{9}{16}$	2 $\frac{7}{16}$	20	•B •C-P •C-T	— 60 60	1000 750 1000	100 75 100	30 25 30	1000 750 1000	-40 -125 -90	230 — —	0.03 0.1 0.1	12000 — —	4.2 4 3.1	145 55 75	1623
12.6	0.25	4 $\frac{1}{8}$	1 $\frac{9}{16}$	5	C-T	30	250	6.25	5	250	-70	—	0.025	—	0.5	4	1626
4.5	1.1	5 $\frac{5}{8}$	2 $\frac{3}{16}$	8.5	A C-P C-T	— 6 6	350 350 350	— 14 14	7.5 7 10	350 300 350	-30 -100 -80	30 — —	0.009 0.03 0.035	18000 — —	— 0.3 0.25	0.6 4 6	5556
10.0	4.5	8 $\frac{3}{4}$	2 $\frac{1}{4}$ *	16.5	•B •C-P •C-T	— 30 30	2750 2000 2500	510 500 750	175 125 175	2250 2000 2500	-130 -370 -240	560 — —	0.065 0.25 0.3	12000 — —	7.9 20 18	725 380 575	8000
10.0	3.5	8 $\frac{1}{2}$	2 $\frac{9}{16}$	12	B C-P C-T	— 30 30	1350 1100 1350	330 220 330	100 67 100	1350 1100 1350	-100 -260 -175	480 — —	0.04 0.2 0.245	6000 — —	18 15 11	460 167 250	8003
10.0	3.25	6 $\frac{11}{16}$	2 $\frac{7}{16}$	20	•B •C-P •C-T	— 60 60	1500 1250 1500	250 240 300	85 75 85	1500 1250 1500	-67.5 -195 -130	330 — —	0.04 0.19 0.2	9800 — —	5.5 9 7.5	330 170 220	8005
6.3	1.92	3 $\frac{15}{16}$ ♦	1 $\frac{3}{16}$ *	18	C-P C-T	500 500	800 1000	33 50	27 40	800 1000	-105 -90	— —	0.04 0.05	— —	1.4 1.6	22 35	8012-A
6.3	1.92	4 $\frac{15}{16}$	1 $\frac{3}{64}$ *	18	C-P C-T	500 500	800 1000	50 75	27 40	800 1000	-105 -90	— —	0.04 0.05	— —	1.4 1.6	22 35	8025-A

TRIODES (Water-Cooled)

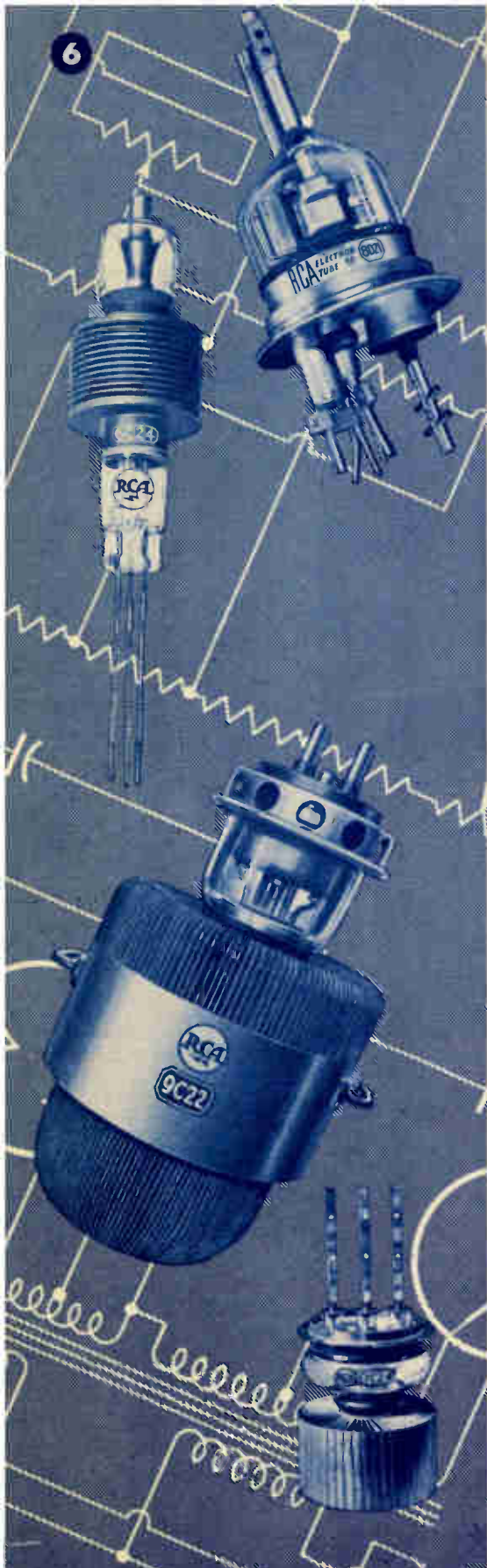
19.5	415	24 $\frac{1}{2}$	9 $\frac{1}{2}$	38	B C-P C-T	— 15 15	15000 12500 17000	90000 50000 150000	40000 28000 40000	14000 12500 17000	-300 -1670 -1600	1050 — —	0.6 3.5 7.9	4000 — —	150 1570 1800	61000 38000 100000	9C21
6.0	285	16 $\frac{3}{8}$	9 $\frac{1}{2}$	32	B C-P C-T	— 30 30	11500 9000 11500	40000 26000 40000	25000 15000 25000	10500 8000 11000	-250 -650 -540	1310 — —	1.7 2.5 3.6	3300 — —	1500 510 575	50000 15800 29500	9C27
22.0	52.0	20 $\frac{1}{4}$ ♦	6 $\frac{1}{2}$ *	20	B C-P C-T	— 1.6 1.6	15000 10000 15000	20000 10000 30000	7500 6600 10000	12500 10000 12000	-575 -2000 -1600	2300 — —	0.4 0.75 1.67	10000 — —	400 185 235	22500 6000 15000	207
11.0	51.0	9 $\frac{1}{2}$ ♦	3 $\frac{3}{8}$ *	40	C-P C-T	50 50	6000 7500	3000 7500	1660 2500	6000 7000	-950 -900	— —	0.5 0.9	— —	200 300	2250 4250	846
22.0	52.0	24 $\frac{1}{2}$ ♦	7 $\frac{1}{2}$ *	42	B C-P C-T	— 1.5 1.5	20000 12000 20000	40000 12000 40000	20000 10000 20000	12000 12000 18000	-140 -1000 -1200	2600 — —	0.5 0.95 1.8	7200 — —	115 150 250	26500 8000 22400	858
33.0	207	60 $\frac{3}{8}$ ♦	10*♦	45	B C-P C-T	— 1.6 1.6	15000 12000 20000	100000 60000 200000	50000 50000 100000	12000 12000 18000	0 -800 -1000	2000 — —	3.0 5.0 8.33	1800 — —	450 2000 2400	90000 45000 100000	862-A
12.6	320	11 $\frac{1}{2}$	7	20	B C-P C-T	— 25 25	10500 10500 10500	40000 36000 60000	15000 12000 20000	10000 10000 10000	-430 -1200 -800	1690 — —	1.0 3.6 6.0	3200 — —	225 880 750	45000 28000 45000	880
11.0	125	10 $\frac{11}{16}$	3 $\frac{5}{8}$	21	B C-P C-T	— 50 50	8500 6000 8500	12000 6000 16000	5000 3000 5000	7500 6000 7500	-300 -900 -800	1700 — —	4.0 1.0 2.0	5000 — —	150 140 400	15000 4000 10000	889-A
11.0†	60.0	20 $\frac{7}{8}$	6 $\frac{3}{8}$ *	8	B C-P C-T	— 1.6 1.6	15000 8000 12000	20000 8000 18000	5000 4000 6000	12500 8000 10000	-1450 -2400 -2000	3960 — —	0.4 0.78 1.45	10000 — —	350 260 310	22000 5000 10000	891
11.0†	60.0	20 $\frac{7}{8}$	6 $\frac{3}{8}$ *	50	B C-P C-T	— 1.6 1.6	15000 10000 15000	20000 10000 30000	7500 6600 10000	12500 10000 12000	-170 -1600 -1600	1530 — —	0.4 0.72 1.64	10000 — —	420 260 500	22000 6000 14000	892

For explanatory notes on class of service, see page 8. To facilitate comparison between types, all values are given on an absolute-maximum basis. Unless otherwise specified, all values shown are for Continuous Commercial Service. † Intermittent Commercial and Amateur Service. ♦ Excluding Flexible Leads. * Maximum Radius. ‡ Per Section.



1608 5556 1623 8005 1626 8000 8003 See Note 4 8012-A See Note 5 8025-A

VACUUM POWER TUBES



 Type	Description
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TRIODES (Water-Cooled)—Cont'd

893-A	Three-phase tungsten-filament type. Designed to permit operation from one-, three-, or six-phase ac or dc supply. For general broadcast and industrial rf heating applications. Special terminal connections.
898-A	Three-phase tungsten-filament type featuring a 100000-watt rf power output in class C telegraph service. For high-power broadcast and industrial rf heating applications. Special terminal connections.

TRIODES (Forced-Air-Cooled)

6C24	Radiator type with center-tapped thoriated-tungsten filament. For improved high-frequency performance. Of special use in FM and industrial applications. Special terminal connections.
7C24	High-perveance grounded-grid type with mid-tapped thoriated-tungsten filament. Especially designed to provide stable performance at high frequencies in FM and industrial applications. Special terminal connections.
9C22	Radiator type with multi-strand, single-phase tungsten filament and utilizing grid-flange and filament-header construction. For 50-kw broadcast transmitters and industrial heating applications. Special terminal connections.
9C25	Grounded-grid type with a multi-strand single-phase thoriated-tungsten filament and utilizing grid-flange and filament-header construction. For induction and dielectric heating purposes. Special terminal connections.
889R-A	Radiator type with a pure-tungsten filament. For use in high-power broadcast and industrial rf heating applications. Special terminal connections.
891-R	Radiator type with a two-phase tungsten filament. Especially designed for induction-heating devices. Special terminal connections.
892-R	Radiator type incorporating the same design features as type 891-R but has a higher mu and slightly higher ratings. For use in general broadcast and industrial rf heating devices.
893A-R	Radiator type with a three-phase tungsten filament. Designed to permit operation from one-, three-, or six-phase ac or dc supply. For general broadcast and industrial rf heating applications. Special terminal connections.

 Type	Description
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TETRODES (Air-Cooled)

4-125A/4D21	High-frequency rf amplifier with thoriated-tungsten filament. For FM transmitters. Special metal-shell, giant 5-pin base. Skirted small cap.
860	Thoriated-tungsten filament type featuring high power without neutralization. Medium 4-pin, metal, bayonet base.
861	Thoriated-tungsten filament type with plate, grid, and screen leads supported on separate stems to insure high insulation. Special terminal connections.
865	Thoriated-tungsten filament type of rf power amplifier and frequency multiplier. Medium 4-pin, bayonet base. Small cap.

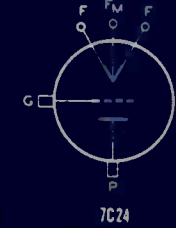
TETRODES (Water-Cooled)

8D21	Push-pull twin type with a thoria-coated multi-strand filament. For use as a class C grid-modulated rf power amplifier in television service. Features high-power sensitivity, low interelectrode capacitances, and excellent internal shielding. Special terminal connections.
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TETRODES (Forced-Air-Cooled)

827-R	Radiator type with a helical thoriated-tungsten filament. For FM, television and general broadcast services. Special terminal connections.
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For key to base connection diagrams, see page 9. Note 1: Diametrically opposite terminals must be connected together. Note 3: Terminal No. 5 is above grid arm.



Cathode		Max. Dimensions Inches		Amplification Factor	Class of Service	Max. Frequency for Full Input Mc	Max. Plate Ratings			Typical Operating Conditions							Type
							Volts	DC Input Watts	Dissipation Watts	Plate Volts	Grid Volts	Peak AF Grid-to-Grid Volts	Plate Amperes	Plate-to-Plate Load Ohms	Approx. Driving Power Watts	Power Output Watts	

TRIODES (Water-Cooled)—Cont'd

10.0†	61.0†	26 ³ / ₄	6 ³ / ₈ *	36	B C-P C-T	— 5 5	20000	60000	20000	18000	-450	1720	0.8	8000	140	70000	893-A
							12000	24000	12000	12000	-1000	—	2.0	—	210	18000	
							20000	70000	20000	18000	-1000	—	3.6	—	340	50000	
33.0‡	70.0‡	60 ³ / ₈	10*♦	45	B C-P C-T	— 1.6 1.6	15000	100000	50000	12000	-100	2200	2.0	2000	6000	90000	898-A
							12000	60000	50000	12000	-800	—	5.0	—	2000	45000	
							20000	200000	100000	18000	-1000	—	8.33	—	2400	100000	

TRIODES (Forced-Air-Cooled)

11.0	12.1	6 ¹³ / ₃₂ ♦	1 ²⁹ / ₃₂	30	B C-P C-T	— 160 160	3000	1200	600	3000	-95	470	0.075	8600	30	1640	6C24
							2500	1000	400	2500	-350	—	0.4	—	75	810	
							3000	1500	600	3000	-250	—	0.5	—	75	1100	
12.6	29.0	7 ¹ / ₈ ♦	4 ¹¹ / ₁₆	29	B C-P C-T	— 110 110	5000	5000	2000	5000	-200	760	0.4	6000	110	7000	7C24
							4000	3300	1300	4000	-350	—	0.8	—	525	3000	
							5000	5000	2000	5000	-400	—	1.0	—	710	4550	
19.5	415	25	8 ¹⁵ / ₃₂ *	38	B C-P C-T	— 5 5	15000	60000	20000	14000	-300	1050	0.6	4000	150	61000	9C22
							12500	50000	14000	12500	-1670	—	3.5	—	1570	38000	
							17000	100000	20000	17000	-1600	—	5.0	—	1450	65000	
6.0	285	17 ³ / ₈	14 ¹ / ₄	32	B C-P C-T	— 30 30	11500	40000	17500	10500	-250	1310	1.7	3300	1500	50000	9C25
							9000	26000	11500	8000	-650	—	2.5	—	510	15800	
							11500	40000	17500	11000	-540	—	3.6	—	575	29500	
11.0	125	11 ⁷ / ₈	5 ⁷ / ₁₆ *	21	B C-P C-T	— 40 40	8500	12000	5000	7500	-300	1700	0.4	5000	150	15000	889R-A
							6000	6000	3000	6000	-900	—	1.0	—	140	4000	
							8500	16000	5000	7500	-800	—	2.0	—	400	10000	
11.0‡	60.0	22	6 ¹ / ₂ *	8	B C-P C-T	— 1.6 1.6	10000	10500	3500	8000	-800	2400	0.5	7400	100	10000	891-R
							8500	8000	2500	6000	-2000	—	0.75	—	260	3500	
							10000	15000	4000	10000	-2000	—	1.4	—	310	10000	
11.0‡	60.0	22	6 ¹ / ₂ *	50	B C-P C-T	— 1.6 1.6	12500	12000	4000	8000	-60	1000	0.5	6800	400	10500	892-R
							10000	10000	2500	8000	-1300	—	0.75	—	350	5000	
							12500	18000	4000	10000	-1300	—	1.4	—	400	10000	
10.0‡	61.0‡	28	8 ¹³ / ₁₆ *	36	B C-P C-T	— 5 5	20000	60000	20000	18000	-450	1720	0.8	8000	140	70000	893A-R
							12000	24000	12000	12000	-1000	—	2.0	—	210	18000	
							20000	70000	20000	18000	-1000	—	3.6	—	340	50000	

Cathode		Max. Dimensions Inches		Transconductance Micro-mhos	Class of Service	Max. Frequency for Full Input Mc	Max. Plate Ratings			Typical Operating Conditions							Type
							Volts	DC Input Watts	Dissipation Watts	Plate Volts	Grid No. 3 Volts	Grid No. 2 Volts	Grid No. 1 Volts	Plate Amperes	Approx. Driving Power Watts	Power Output Watts	

TETRODES (Air-Cooled)

5.0	6.5	5 ¹¹ / ₁₆	2 ⁷ / ₈	2450	C-P C-T	120 120	2500	—	85	2500	—	350	-210	0.152	3.3	300	4-125A/ 4D21
							3000	—	125	3000	—	350	-150	0.167	2.5	375	
10.0	3.25	8 ³ / ₄ ♦	4 ¹ / ₄ ♦	1100	C-P C-T	30 30	2000	170	67	2000	—	220	-200	0.085	17	105	860
							3000	300	100	3000	—	300	-150	0.085	7	165	
11.0	10.0	17 ⁷ / ₃₂	6 ⁵ / ₈ ♦	2400	C-P C-T	20 20	3000	650	270	3000	—	375	-200	0.2	35	400	861
							3500	1200	400	3500	—	500	-250	0.3	30	700	
7.5	2.0	5 ³ / ₄	2 ¹ / ₁₆	750	C-P C-T	15 15	500	30	10	500	—	125	-120	0.04	2.5	10	865
							750	45	15	750	—	125	-80	0.05	1.0	16	

TETRODES (Water-Cooled)

4.2	135	12 ²⁹ / ₃₂	5 ³ / ₄	5§	C*	300	6000	10000	6000	5000	—	800	—	—	—	—	8D21
							Synchronizing Level→			5000	—	800	-220	1.8	5	5400	
							Black Level→			5000	—	800	-385	1.35	5	3200	
							White Level→			5000	—	800	-875	—	—	—	

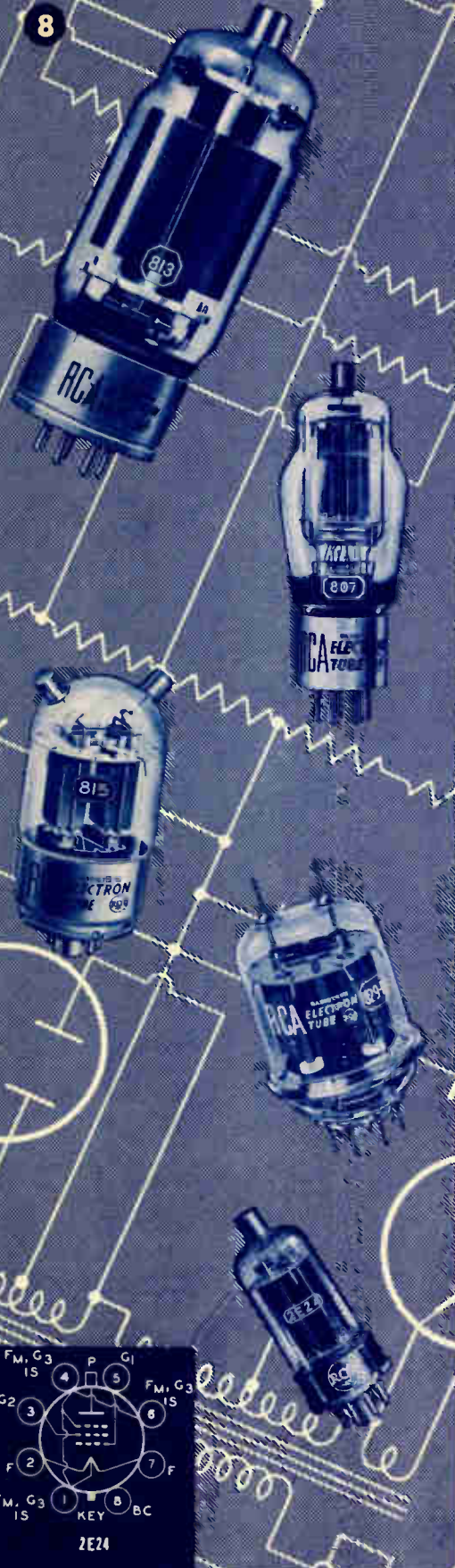
TETRODES (Forced-Air-Cooled)


7.5	25	5 ⁵ / ₁₆ ♦	4 ²¹ / ₃₂	16§	C-P C-T	110 110	3000	1200	550	3000	—	750	-325	0.4	68	825	827-R
							3500	1500	800	3500	—	700	-300	0.428	50	1050	

For explanatory notes on class of service, see page 8. To facilitate comparison between types, all values are given on an absolute-maximum basis, unless otherwise specified, all values shown are for Continuous Commercial Service. * Class C Push-Pull Grid-Modulated Service. ♦ Excluding Flexible Leads. § Grid-Screen Mu-Factor. * Maximum Radius. ‡ Per Section. △ For grounded-grid service.



VACUUM POWER TUBES

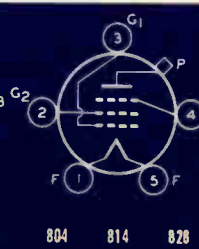
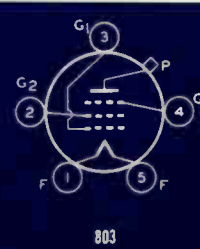
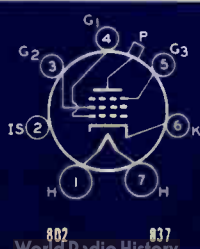


 Type	Description
BEAM POWER TUBES AND PENTODES (Air-Cooled)	
2E24	Beam power amplifier of the coated-filament type. For intermittent operation in mobile communications equipment. Octal 8-pin base. Small cap.
2E26	Beam power amplifier of the heater-cathode type. Designed for use in the low-power driver stages or in the output stages of FM transmitters. Octal 8-pin base. Small cap.
3E22	Push-pull beam power tube of the heater-cathode type. For intermittent mobile service applications. Octal 8-pin base. Two small caps.
4E27/8001	Beam power amplifier with an enclosed tantalum anode. Medium metal shell, giant 7-pin, bayonet base. Wire top terminal.
802	Oscillator pentode of the heater-cathode type. Features 23 watts output with only 0.3-watt grid drive at the tube. Medium 7-pin, bayonet base. Small cap.
803	RCA's biggest pentode with heavy-duty thoriated-tungsten filament and graphite anode. Medium shell giant 5-pin, micanol, bayonet base. Medium cap.
804	RF pentode with zirconium-coated anode. Requires less than 2 watts of driving power in any rf service. Medium 5-pin, micanol base. Small cap.
807	Beam power amplifier of the heater-cathode type. For amateur transmitter design. Features high-power sensitivity and extremely low grid-driving power. Medium 5-pin, micanol, base. Small cap.
813	Beam power amplifier with thoriated-tungsten filament. Useful as a high-power final amplifier for quick band-change. Giant 7-pin base. Medium cap.
814	Beam power amplifier with thoriated-tungsten filament and zirconium-coated anode. Medium 5-pin, micanol base. Small cap.
815	Push-pull beam power amplifier with heater-cathode. For experimental low-power, FM, and television transmission. Octal 8-pin base. Two small caps.
828	Beam power amplifier with a 32.5-watt thoriated-tungsten filament. Features 300 watts audio power (CCS) output per pair with zero driving power. Medium, micanol, 5-pin base. Small cap.
829-B	Push-pull twin-unit beam power amplifier of the heater-cathode type. Medium molded-flare 7-pin base.
832-A	Push-pull beam power amplifier of the heater-cathode type with features similar to the 829-B. Features exceptional efficiency at very high frequencies.
837	12.6-volt heater-cathode type of beam power amplifier for aircraft, police, and commercial use. Medium 7-pin, micanol, bayonet base. Small cap.
1610	Crystal-oscillator pentode of the coated-filament type. Medium 5-pin base.
1613	Metal type amplifier pentode of the heater-cathode type. For police and emergency broadcast use. Useful as a crystal oscillator. Octal 7-pin base.
1614	Metal type beam power amplifier of the heater-cathode type. For police and emergency broadcast use. Octal 7-pin base.
1619	Metal type beam power amplifier with a fast-heating filament. Useful in equipment requiring quick-on-off action. Octal 7-pin base.
1624	Quick-heating beam power amplifier of the coated-filament type. Similar to type 807 except for 2.5-volt filament. Medium 5-pin, micanol base. Small cap.
1625	Same as 807 except for 12.6-volt filament. Medium 7-pin, micanol base.

To facilitate comparison between types, all values are given on an absolute-maximum basis. Unless otherwise specified, all values shown are for Continuous Commercial Service.
 • Intermittent Commercial and Amateur Service. ■ Intermittent Mobile Service.

EXPLANATION OF CLASS OF SERVICE ABBREVIATIONS

- C·P = Class C Plate-Modulated Telephone Service.
- C·T = Class C Telegraph Service.
- A₁ = Class A AF Modulator Service (one tube).
- AB₁ = Class AB₁ Push-Pull AF Modulator Service.
- AB₂ = Class AB₂ Push-Pull AF Modulator Service.
- B = Class B Push-Pull AF Modulator Service.



Cathode		Max. Dimensions Inches		Transconductance Micro-mhos	Class of Service	Max. Frequency for Full Input Mc	Max. Plate Ratings			Typical Operating Conditions							RCA Type
							Volts	DC Input Watts	Dissipation Watts	Plate Volts	Grid No. 3 Volts	Grid No. 2 Volts	Grid No. 1 Volts	Plate Amperes	Approx. Driving Power Watts	Power Output Watts	
BEAM POWER TUBES AND PENTODES (Air-Cooled)																	
6.3	0.65	3 $\frac{1}{32}$	1 $\frac{1}{16}$	3200	• C-P • C-T	125 125	500 600	27 40	9 13.5	500 600	— —	180 195	-45 -50	0.054 0.066	0.16 0.21	18 27	2E24
6.3	0.8	3 $\frac{1}{32}$	1 $\frac{1}{16}$	3500	• AB ₂ • C-P • C-T	— 125 125	500 500 600	75 27 40	25 9 13.5	500 500 600	— — —	125 180 185	-15 -50 -45	0.022 0.054 0.066	0.36 0.15 0.17	54 18 27	2E26
6.3 12.6	1.6 0.8	4 $\frac{9}{16}$	2 $\frac{3}{8}$	4000	■ C-P ■ C-T	15 15	560 600	90 100	30 35	560 600	— —	200 200	-50 -55	0.16 0.16	0.4 0.45	67 72	3E22
5.0	7.5	6 $\frac{3}{16}$	2 $\frac{11}{16}$	2800	C-P C-T	75 75	3000 4000	250 300	65 75	2500 3000	60 60	600 750	-200 -200	0.1 0.1	0.1 0	200 235	4E27/ 8001
6.3	0.9	5 $\frac{3}{4}$	2 $\frac{1}{16}$	2250	• C-P • C-T	30 30	500 600	20 33	8 13	500 600	40 40	245 250	-40 -120	0.04 0.055	0.1 0.3	12 23	802
10.0	5.0	9 $\frac{1}{4}$	2 $\frac{9}{16}$	4000	C-P C-T	20 20	1600 2000	250 350	85 125	1600 2000	100 40	400 500	-80 -90	0.15 0.16	5 2	155 210	803
7.5	3.0	7 $\frac{11}{16}$	2 $\frac{1}{16}$	3250	C-P C-T	15 15	1250 1500	100 150	35 50	1250 1500	50 45	250 300	-90 -100	0.075 0.1	0.75 1.95	65 110	804
6.3	0.9	5 $\frac{3}{4}$	2 $\frac{1}{16}$	6000	• AB ₂ • C-P • C-T	— 60 60	750 600 750	90 60 75	30 25 30	750 600 750	— — —	300 275 250	-32 -90 -45	0.06 0.1 0.1	0.2 0.4 0.2	120 42.5 50	807
10.0	5.0	7 $\frac{1}{2}$	2 $\frac{9}{16}$	3750	• C-P • C-T	30 30	2000 2250	400 500	100 125	2000 2250	— —	350 400	-175 -155	0.2 0.22	4.3 4.0	300 375	813
10.0	3.25	7 $\frac{11}{16}$	2 $\frac{1}{16}$	3300	• C-P • C-T	30 30	1250 1500	180 225	50 65	1250 1500	— —	300 300	-150 -90	0.144 0.15	3.2 1.5	130 160	814
6.3 12.6	1.6 0.8	4 $\frac{9}{16}$	2 $\frac{3}{8}$	4000	• C-P • C-T	125 125	400 500	60 75	20 25	400 500	— —	175 200	-45 -45	0.15 0.15	0.16 0.18	45 56	815
10.0	3.25	7 $\frac{11}{16}$	2 $\frac{1}{16}$	2700	• AB ₁ • C-P • C-T	— 30 30	2000 1250 1500	270 200 270	80 70 80	2000 1250 1500	60 75 75	750 400 400	-120 -140 -100	0.05 0.16 0.18	0 2.7 2.2	38.5 150 200	828
6.3 12.6	2.25 1.125	4 $\frac{5}{16}$	2 $\frac{3}{8}$	8500	• C-P • C-T	200 200	600 750	120 150	35 45	600 750	— —	200 200	-70 -55	0.15 0.16	0.9 0.8	70 87	829-B
6.3 12.6	1.6 0.8	3 $\frac{5}{16}$	2 $\frac{3}{8}$	3500	C-P C-T	200 200	600 750	22 36	10 15	600 750	— —	200 200	-65 -65	0.036 0.048	0.16 0.19	17 26	832-A
12.6	0.7	5 $\frac{7}{8}$	2 $\frac{1}{16}$	3400	C-P C-T	20 20	400 500	20 32	8 12	400 500	40 40	140 200	-40 -75	0.045 0.06	0.3 0.4	11 22	837
2.5	1.75	5 $\frac{3}{8}$	2 $\frac{1}{16}$	2500	C-T	20	400	9	6	400	—	150	-50	0.0225	0.1	5	1610
6.3	0.7	3 $\frac{1}{4}$	1 $\frac{5}{16}$	2500	C-P C-T	45 45	275 350	11.5 17.5	7 10	275 350	— —	200 200	-35 -35	0.042 0.050	0.16 0.22	6 9	1613
6.3	0.9	4 $\frac{5}{16}$	1 $\frac{5}{8}$	6050	• C-P • C-T	80 80	375 450	35 45	21 25	375 450	— —	250 250	-50 -45	0.093 0.1	0.15 0.15	24.5 31.	1614
2.5	2.0	4 $\frac{5}{16}$	1 $\frac{5}{8}$	4500	AB ₂ C-P C-T	— 45 45	400 325 400	30 20 30	15 10 15	400 325 400	— — —	300 285 300	-16.5 -50 -55	0.075 0.062 0.075	0.4 0.18 0.36	36 13 19.5	1619
2.5	2.0	5 $\frac{3}{4}$	2 $\frac{1}{16}$	4000	AB ₂ C-P C-T	— 60 60	600 500 600	54 37.5 54	25 16.5 25	600 500 600	— — —	300 275 300	-25 -50 -60	0.042 0.075 0.09	1.2 0.25 0.43	72 24 35	1624
12.6	0.45	5 $\frac{3}{4}$	2 $\frac{1}{16}$	For maximum ratings and typical operating conditions, refer to Type 807.													1625

For footnotes, see page 8.

LEGEND FOR BASE AND ENVELOPE CONNECTION DIAGRAMS

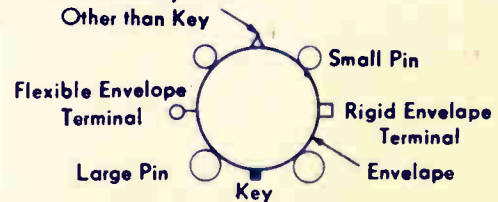
Diagrams show terminals viewed from base or filament end of tube.

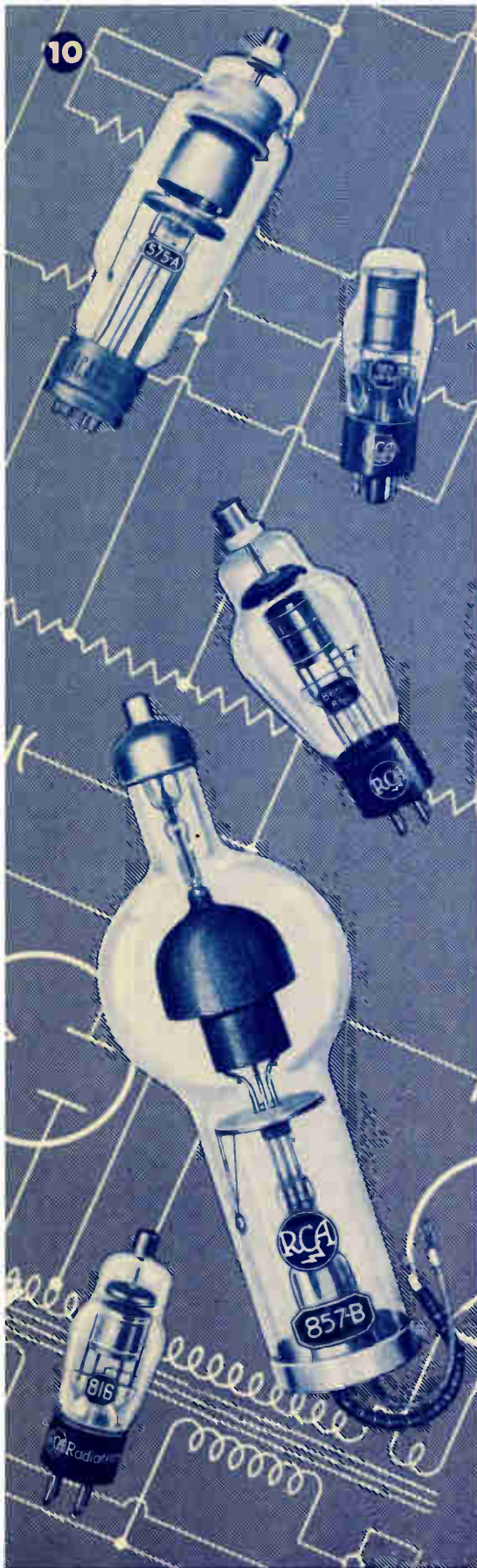
KEY TO TERMINAL DESIGNATIONS

Alphabetical subscripts B, D, P, T, and TR indicate, respectively, beam unit, diode unit, pentode unit, triode unit, and tetrode unit in multi-unit types.


- | | | |
|-----------------------|---|--------------------|
| BC = Base Sleeve | HM = Heater Mid-Tap | K = Cathode |
| BS = Base Shell | I = Ignitor | NC = No Connection |
| F = Filament | IC = Internal Connection—
Do Not Use | P = Plate (Anode) |
| FM = Filament Mid-Tap | IS = Internal Shield | PH = Holding Anode |
| G = Grid | ● = Gas-Type Tube | S = Shell |
| H = Heater | | U = Unit |

Orientation Symbol






VOLTAGE REGULATORS

 Type	Description
GLOW DISCHARGE (Cold-Cathode) TYPES	
0A2	Miniature button 7-pin base.
0A3/ VR 75	Octal 6-pin base.
0C3/ VR 105	Octal 6-pin base.
0D3/ VR 150	Octal 6-pin base.
874	Medium, 4-pin bayonet base.
991	Candelabra, double-contact base.

RECTIFIERS

 Type	Description**
MERCURY-VAPOR TYPES	
575-A	Half-wave rectifier. Jumbo 4-pin base. Ceramic insulated medium cap.
673	Same as 575-A except for super-jumbo 4-pin, bayonet base.
816	Half-wave rectifier. Small 4-pin base. Small cap.
857-B	Half-wave rectifier. Special terminal connections. Skirted large cap.
866-A/ 866	Half-wave rectifier. Medium 4-pin, bayonet base. Ceramic insulated medium cap.
869-B	Half-wave rectifier. Special end-mounting for base. Skirted large cap.
870-A	Half-wave rectifier. Special terminal connections.
872-A/ 872	Half-wave rectifier. Jumbo 4-pin base. Ceramic insulated medium cap.
5558	Half-wave rectifier. Medium 4-pin, bayonet base. Medium cap.
5561	Half-wave rectifier. Super-jumbo 4-pin, bayonet base.
8008	Same as type 872-A/872 except for super-jumbo 4-pin base.
GAS TYPES	
3B 25	Half-wave Xenon rectifier. Medium 4-pin, bayonet base. Medium cap.
4B 26/ 2000	Half-wave Argon rectifier. Mogul screw base. Wire top terminal.

For key to base connection diagrams, see page 9. Note 6: F₁ lead has insulating beads. Note 7: F₁ is on left side of tube type marking on base. ** All of these types have thoriated-tungsten filaments.

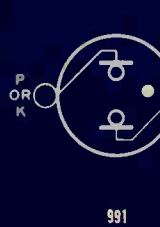
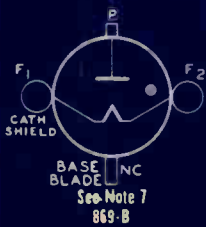


Applications	Max. Dimensions Inches		Max. Starting Current Ma.	DC Operating Current Ma.		Ambient Temperature Range °C	Operating Conditions					RCA Type
	Length	Diam.		Max.	Min.		Approx. DC Starting Volts	Min. DC Anode-Supply Volts	Approx. DC Operating Volts	Regulation		
			Current Range Ma.			Volts						
GLOW DISCHARGE (Cold-Cathode) TYPES												
Regulation of dc voltage supplies for amplifiers, oscillators, etc.; can also be used as relaxation oscillators.	2 5/8	3/4	75	30	5	-55 to +90	155	185	150	5 to 30	2	OA2
	4 1/8	1 1/16	100	40	5	-55 to +90	100	105	75	5 to 30 5 to 40	3 5	OA3/ VR75
	4 1/8	1 9/16	100	40	5	-55 to +90	115	133	105	5 to 30 5 to 40	1 2	OC3/ VR105
	4 1/8	1 9/16	100	40	5	-55 to +90	160	185	150	5 to 30 5 to 40	2 4	OD3/ VR150
	5 3/8	2 1/16	100	50	10	-55 to +90	115	130	90	10 to 50	7	874
	1 9/16	5/8	—	2	0.4	—	67	87	59	0.4 to 2.0	8	991


RECTIFIERS

Cathode		Max. Dimensions Inches		Tube Voltage Drop	Max. Plate or Anode Rating					Operating Conditions (Single-Phase Full-Wave 2 Tubes) ^{oo}					RCA Type
Volts	Amp.	Length	Diam.		Temp. Range Condensed Mercury 8° C	Peak Inverse Volts	Peak Amperes	Average Amperes	Surge Amperes	Peak Inverse Volts	Max. AC Plate-to-Plate Supply Volts	Approx. DC Output Volts To Filter	Max. DC Output Amperes		
MERCURY-VAPOR TYPES															
5.0	10.0	11 1/16	3 13/16	10	25 to 50	15000	6.0	1.5	60	15000	10600	4780	3.0	575-A	
5.0	10.0	11 3/8	3 13/16		For maximum ratings and operating conditions refer to Type 575-A									673	
2.5	2.0	4 11/16	1 9/16	15	20 to 60	5000	0.5	0.125	—	5000	3500	1570	0.25	816	
5.0	30.0	19 7/8	7 1/8	14	30 to 40	22000	40.0	10.0	—	22000	15500	7000	20.0	857-B	
2.5	5.0	6 9/16	2 7/16	15	25 to 60 25 to 90	10000 2000	1.0 2.0	0.25 0.5	—	10000 2000	7070 1410	3180 635	0.5 1.0	866-A/ 866	
5.0	18.0	14 7/16	5 1/16	10	30 to 40	20000	10.0	2.5	—	20000	14000	6300	5.0	869-B	
5.0	65.0	26 1/8	5 9/16	10	35 to 40	16000	450.0	75.0	4500	16000	11300	5100	150.0	870-A	
5.0	7.5	8 1/2	2 5/16	10	20 to 60	10000	5.0	1.25	—	10000	7070	3180	2.5	872-A/ 872	
5.0	4.5	7	3	12	30 to 80	1000	5.0	2.5	200	1000	710	320	5.0	5558	
5.0	10.0	11 1/4	3 13/16	15	40 to 80	3000	12.8	6.4	200	3000	2125	955	12.8	5561	
5.0	7.5	8 3/4	2 5/16		For maximum ratings and operating conditions, refer to Type 872-A/872									8008	
GAS TYPES															
2.5	5.0	6 5/16	2 1/16	10	—	4500	2.0	0.5	20.0	4000	2800	1270	1.0	3B25	
Ambient Temperature Range, -75 to +90 °C															
2.2	18.0	7	3 1/4	8	—	—	36.0	6.0	Max. Peak Inverse Anode Volts for half-wave circuit, 375					4B26/ 2000	

To facilitate comparison between types, all values are given on an absolute-maximum basis. ♦ Excluding Flexible Leads. ^{oo} Condition assumed: (1) Sine-wave supply, (2) Zero tube drop, (3) Pure resistance load, (4) No filter.




RECTIFIERS

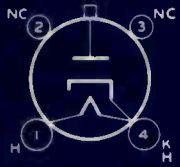
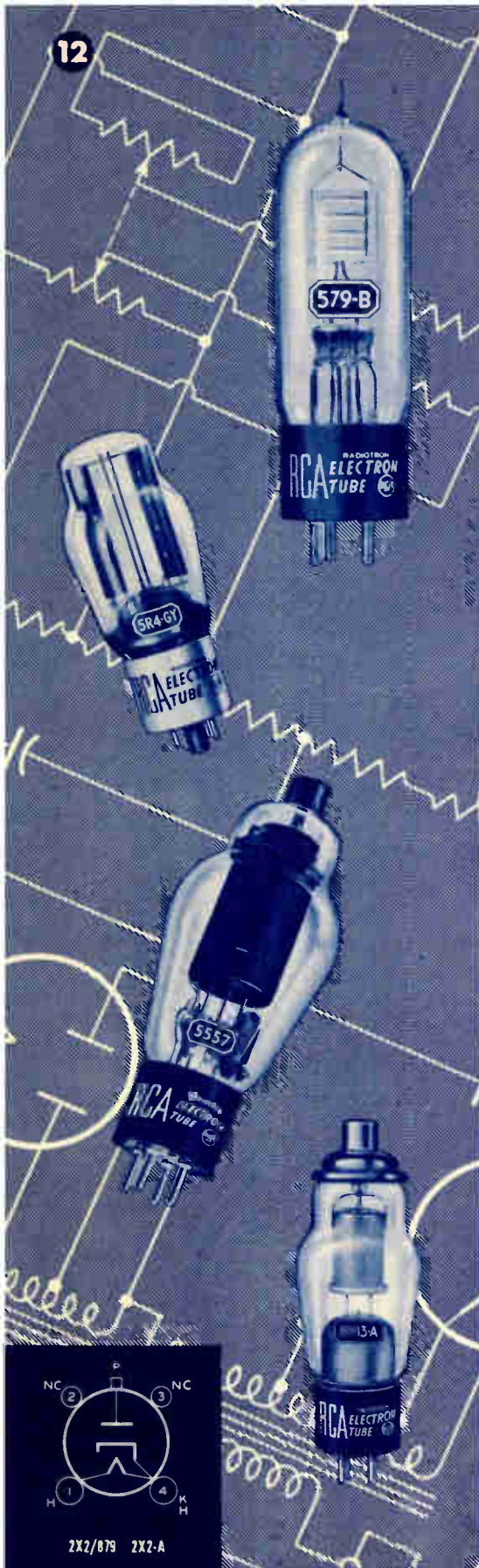
 Type	Description ^{△△}
VACUUM TYPES	
2X2/879	Heater-cathode type. Small 4-pin base. Small cap.
2X2-A	Same as type 2X2/879 but has greater ruggedness.
2V3-G	Tungsten-filament type. Octal 6-pin base. Skirted miniature cap.
5R4-GY	Full-wave coated-filament type. Medium shell, octal 5-pin, micanol base.
217-C	Thoriated-tungsten filament type. Jumbo 4-pin base. Medium cap.
579-B	Thoriated-tungsten fil. Super-jumbo 4-pin base. Wire top terminal.
836	Heater-cathode type. Medium 4-pin, bayonet base. Medium cap.
878	Thoriated-tungsten filament type. 4-pin base. Skirted medium cap.
1616	Coated-filament type. Medium 4-pin, bayonet base. Medium cap.
8013-A	Thoriated-tungsten filament type. 4-pin base. Skirted medium cap.
8020	Thoriated-tungsten filament type. Medium 4-pin, bayonet base.

^{△△} Unless otherwise stated, these types are half-wave rectifiers.

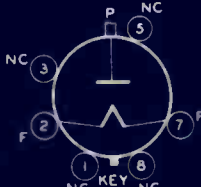
THYRATRONS

 Type	Description
TRIODES (Mercury-Vapor Types)	
3C23	Negative-control, filament type. Medium 4-pin, bayonet base. Medium cap.
627	Negative-control, filament type. Super-jumbo 4-pin base. Medium cap.
676	Negative-control, heater-cathode type. Large shell, super-jumbo 4-pin base. No. 3985 cap.
677	Negative-control, heater-cathode type. Large shell, super-jumbo 4-pin base.
5557	Negative-control, filament type. Medium 4-pin, bayonet base. Medium cap.
5559	Negative-control, heater-cathode type. Same base and cap as Type 5557.
TRIODES (Gas Types)	
629	Negative-control, heater-cathode type. Small shell, super-jumbo 4-pin base.
884	Negative-control, heater-cathode type. Small shell, octal 6-pin base.
885	Same as 884 except for 2.5-volt heater, small 5-pin base. For renewal use.

For key to base connection diagrams, see page 9. Note 8: Use jumpers across socket terminals 1 and 2, 3 and 4.



2X2/879 2X2-A



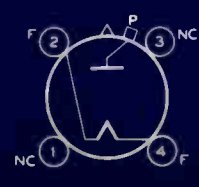
2V3-G



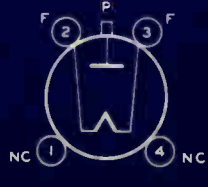
3C23



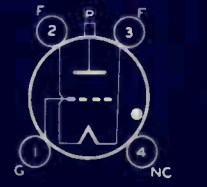
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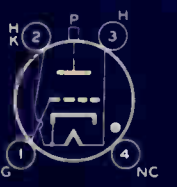
5R4-GY



217-C



579-B



836

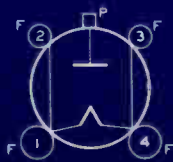
677

Applications	Cathode		Max. Dimensions Inches		Max. Plate or Anode Ratings			Type
	Volts	Amp.	Length	Diam.	Peak Inverse Volts	Peak Amperes	Average Amperes	
VACUUM TYPES								
For high-voltage low-current uses.	2.5	1.75	4 $\frac{17}{32}$	1 $\frac{9}{16}$	12500†	0.06†	0.0075†	2X2/879
For equipment subject to excessive shock and vibration.	For outline dimensions and ratings, refer to Type 2X2/879							2X2-A
For high-voltage low-current uses.	2.5	5.0	4 $\frac{15}{32}$	1 $\frac{9}{16}$	16500†	0.012†	0.002†	2V3-G
For low-power stages of transmitters.	5.0	2.0	5 $\frac{5}{16}$	2 $\frac{1}{16}$	2800†	0.65†°	0.175†	5R4-GY
For renewal use.	10.0	3.25	8 $\frac{1}{2}$	2 $\frac{3}{16}$	7500	0.6	0.15	217-C
For high-voltage low-current uses.	2.5	6.0	7 $\frac{7}{16}$	2 $\frac{1}{16}$	20000	0.27	0.025	579-B
For transmitters subject to large ambient temperature range.	2.5	5.0	6 $\frac{9}{16}$	2 $\frac{7}{16}$	5000	1.0	0.25	836
For high-voltage low-current uses.	2.5	5.0	7 $\frac{5}{8}$	1 $\frac{13}{16}$	20000	0.02	0.005	878
For transmitters requiring quick operation.	2.5	5.0	6 $\frac{13}{16}$	2 $\frac{1}{16}$	6000	0.8	0.13	1616
For high-voltage low-current uses.	2.5	5.0	6 $\frac{1}{16}$	2 $\frac{1}{16}$	40000	0.15	0.02	8013-A
For high-voltage low-current uses.	5.0	6.0	8	2 $\frac{5}{16}$	40000	0.75	0.1	8020

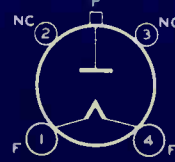
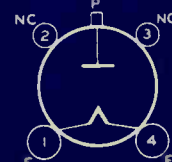
THYRATRONS

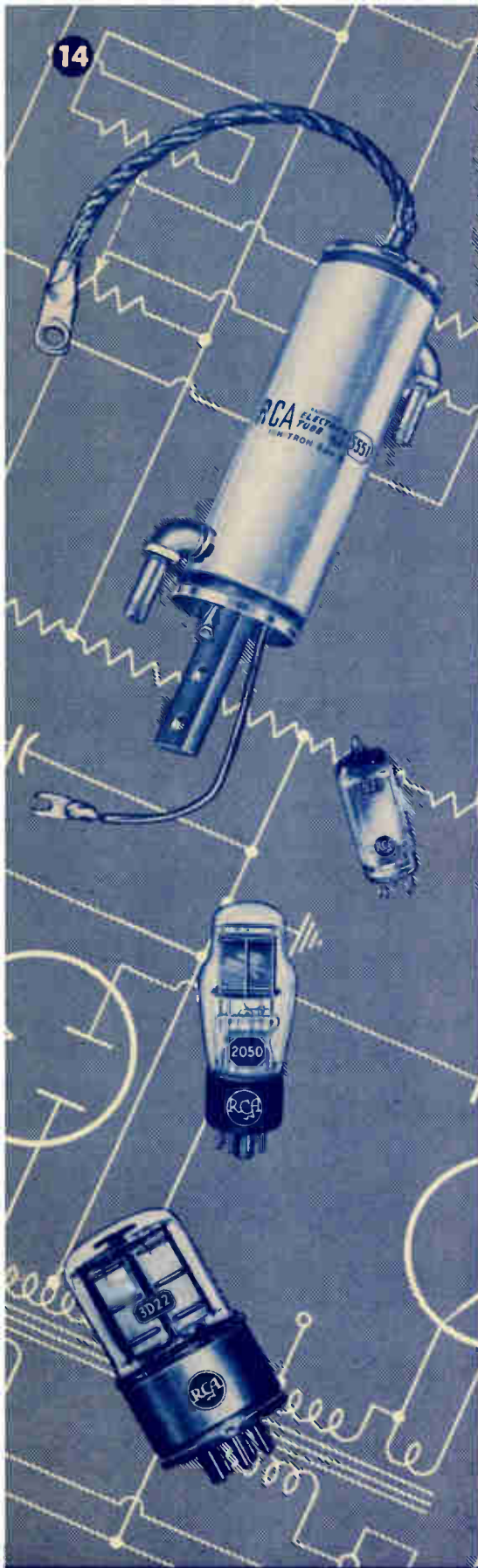
Applications	Cathode		Max. Dimensions Inches		Approx. Tube Drop Volts	Maximum Ratings							Type
	Volts	Amp.	Length	Diam.		Temperature Range		Peak Forward Anode Volts	Peak Inverse Anode Volts	Peak Cathode Amperes	Average Cathode Amperes	Surge Amperes	
						Condensed Mercury °C	Ambient °C						
TRIODES (Mercury-Vapor Types)													
Relay controls and grid-controlled rectifiers.	2.5	7.0	6 $\frac{1}{8}$	2 $\frac{1}{16}$	16	—	-40 to +80†	1250	1250	3.0	1.5	120	3C23
	2.5	6.0	6 $\frac{5}{8}$	2 $\frac{1}{16}$	12	25 to 70	—	1250	2500	2.5	0.64	25	627
	5.0	10.0	11 $\frac{3}{4}$	3 $\frac{13}{16}$	12	40 to 80	—	2500	2500	40.0	6.4	200	676
			Welder-Control Ratings →		40 to 90	—	750	750	77.0	2.5	200		
	5.0	10.0	11 $\frac{3}{4}$	3 $\frac{13}{16}$	12	30 to 50	—	10000	10000	15.0	4.0	16	677
	2.5	5.0	6 $\frac{5}{8}$	2 $\frac{7}{16}$	16	40 to 80	—	2500	5000	1.0	0.5	40	5557
	5.0	4.5	7 $\frac{1}{4}$	3	16	40 to 80	—	1000	1000	5.0	2.5	200	5559
TRIODES (Gas Types)													
Relaxation oscillators.	2.5	2.6	4 $\frac{1}{4}$	1 $\frac{9}{16}$	15	—	-40 to +70	350	350	0.2	0.04	2	629
	6.3	0.6	4 $\frac{1}{8}$	1 $\frac{9}{16}$	14	—	-75 to +90	350	—	0.3	0.075	—	884
			Max. Ratings for Relaxation Oscillator (Sweep-Circuit Service) { Peak Anode Volts, 300 Peak Cathode Amp., 0.3										
	2.5	1.5	4 $\frac{3}{16}$	1 $\frac{9}{16}$	For additional data, refer to Type 884							885	

All Thyatron ratings are for Continuous Service, unless otherwise specified. † Tube contains Mercury and Argon. Recommended condensed—mercury temperature, 40°C. ‡ Design-Center Values. ° Per Plate.


836

 See Note B
878

1616

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8013-A

8020



THYRATONS

RCA Type	Description
TETRODES (Mercury-Vapor Types)	
105	Negative-control, heater-cathode type. Super-jumbo 4-pin, bayonet base. No. 3917 top and side cap.
172	Metal, negative-control, heater-cathode type. Special terminal connections.
672	Negative-control, heater-cathode type. Super-jumbo 4-pin base. No. 3995 cap.
5560	Heater-cathode type. Medium 4-pin, bayonet base. Medium cap.
TETRODES (Gas Types)	
2D21	Miniature heater-cathode type. Can be operated in a high-sensitivity circuit directly from a high-vacuum phototube. Miniature button 7-pin base.
3D22	Xenon-filled heater-cathode type. Suitable for motor-control. Medium metal shell, giant 7-pin, bayonet base.
502-A	Metal, negative-control, heater-cathode type. Octal 8-pin base.
2050	Negative-control, heater-cathode type. Can be operated directly from a high-vacuum phototube. Octal 8-pin base.
2051	Negative-control, heater-cathode type. Octal base. For renewal use only.

IGNITRONS

RCA Type	Description
WELDER-CONTROL TYPES	
5550	Compact steel-jacketed type designed particularly for welder-control service. Will handle a 300-kva demand, and is equivalent to a 150-ampere magnetic contactor.
5551	Steel-jacketed type designed primarily for welder-control service because of its ability to carry very high peak currents for short periods. Will handle a 600-kva demand, and is equivalent to a 300-ampere magnetic contactor.
5552	Steel-jacketed type recommended for welder-control service, but also useful for conversion in low-power circuits and for intermittent rectifier service. Will handle a 1200-kva demand. Equivalent to 600-ampere magnetic contactor.
5553	Steel-jacketed type recommended for welder-control service, but also useful for conversion in low-power circuits. Will handle a 2400-kva demand.
POWER RECTIFIER TYPES	
5554	Steel-jacketed type designed primarily for rectifier service in the 125-, 250-, 600-, and 900 volts dc power field. Will handle a 1200-kva demand in 2400-volt resistance-welder-control service.
5555	Steel-jacketed type designed primarily for rectifier service in the 125-, 250-, 600-, and 900 volts dc power field. Will handle a 2400-kva demand in 2400-volt resistance-welder-control service.

For key to base connection diagrams, see page 9.



2D21



3D22



105



172



502-A



672

885

Applications	Cathode		Max. Dimensions Inches		Approx. Tube Drop Volts	Maximum Ratings						RCA Type	
						Temperature Range		Peak Forward Anode Volts	Peak Inverse Anode Volts	Peak Cathode Amperes	Average Cathode Amperes		Surge Amperes
	Volts	Amp.	Length	Diam.		Condensed Mercury 0° C	Ambient 0° C						
TETRODES (Mercury-Vapor Types)													
Relay controls and grid-controlled rectifiers.	5.0	10.0	11 1/4	2 13/16*	16	40 to 80	—	2500	2500	12.8	6.4	400	105
	Max. Ratings for Intermittent Service:					25 to 50	—	10000	10000	8.0	4.0	160	
	5.0	10.0	10 3/4	2 5/8*	16	40 to 80	—	2000	2000	13.0	6.4	400	172
	Welder-Control Ratings:					30 to 95	—	750	750	13.0	2.5	400	
Relay controls and ignition firing.	5.0	6.0	8 3/8	2 5/16	12	40 to 80	—	1500	1500	30.0	2.5	150	672
	5.0	4.5	7 13/16	2 1/4*	16	40 to 80	—	1000	1000	5.0	2.5	200	5560
TETRODES (Gas Types)													
High-sensitivity relay control circuits.	6.3	0.6	2 1/8	3/4	8	—	-75 to +90	650	1300	0.5	0.1	10	2D21
	Typical Operating Conditions for Relay Service							Anode Volts, 400 Grid-No. 1 Circuit Resistance, 1 megohm					
	6.3	2.6	4 5/8	2 3/8	10	—	-75 to +90	650	1300	6.0	0.75	30	3D22
								Grid-No. 1 Circuit Resistance, 2 megohms max.					
	6.3	0.6	2 19/32	1 5/16	11	—	-55 to +90	650	1300	0.5	0.1	10	502-A
	6.3	0.6	4 1/8	1 9/16	8	—	-75 to +90	650	1300	1.0	0.1	10	2050
							Grid-No. 1 Circuit Resistance, 10 megohms max.						
6.3	0.6	4 1/8	1 9/16	8	—	-55 to +90	350	700	0.375	0.075	—	2051	

IGNITRONS

Size	Max. Dimensions Inches		Approx. Peak Voltage Drop	Maximum Anode Ratings					Max. Ignition Requirements	Max. Auxiliary Anode Requirements	RCA Type
	Approx. Length	Radius		Kva Demanded	Corres. Av. Anode Amperes	Surge Amperes	Peak Inverse or Forward Volts	Peak Amperes			
WELDER-CONTROL TYPES											
A	10	—	12	300 100	12.1 22.4	33.9 62.7	— —	— —	— —	Peak Positive Volts, 900 max.—200 min.	5550
Air-Cooled Ratings →				105 35	3.0 5.6	8.4 15.7	— —	— —	— —		
B	13 1/2	2 7/8	12	600 200	30.2 56.0	84.6 156.8	— —	— —	— —	Peak Amperes, 100 max.—30 min.	5551
Intermittent Rectifier Service →				8000			500	700	40		
C	14 1/2	3 5/8	12	1200 400	75.6 140.0	211.7 392.0	— —	— —	— —	Average Amperes, 1.0	5552
Intermittent Rectifier Service →				6000			500	1600	100		
D	20	4 11/16	12	2400 800	192.0 355.0	537.6 994.0	— —	— —	— —	Ignition Time, 100 microseconds	5553
POWER RECTIFIER TYPES											
—	17 1/2	3 13/16	17.3	for 600 peak anode amp.		6000 4500	900 2100	900 600	100 75	Average Amperes, 2.0 For other requirements see values above.	5554
Welder-Control Service →				1200	75	3000	—	—	—		
—	18 1/2	4 9/16	19.1	for 1200 peak anode amp.		12000 9000	900 2100	1800 1200	200 150		5555
Welder-Control Service →				2400	135	6000	—	—	—		

All Thyatron ratings are for Continuous Service, unless otherwise specified. ♦ Excluding Flexible Leads.



672



884



2050

2051



5550

5551

5552

5553



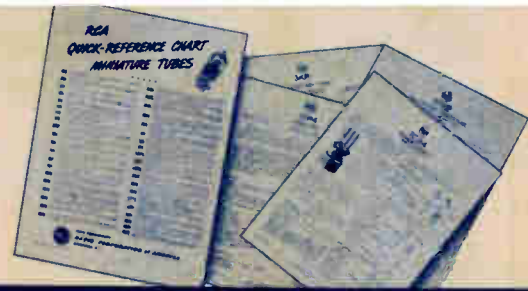
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TECHNICAL PUBLICATIONS ON RCA ELECTRON TUBES

1. TUBE HANDBOOK—ALL TYPES HB-3 (7 $\frac{3}{8}$ " x 5"). The bible of the industry—loose-leaf data and curves on all RCA receiving tubes, power tubes, cathode-ray tubes, phototubes, and special tubes. Three deluxe, 4-prong binders imprinted in gold. Available on subscription basis. Write to Commercial Engineering for descriptive folder and order form.

2. RECEIVING TUBE MANUAL RC-14 (8 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ ")—256 pages. Tube theory written for the layman, application data, circuits, and charts. Contains data on 340 different RCA receiving types. Price 35 cents.

3. PHOTOTUBES BULLETIN (11" x 8 $\frac{1}{2}$ ")—16 pages. Phototube theory, data on 15 types, curves, and circuits for light-operated relays, light measurements, and sound reproduction. Single copy free on request.

4. RADIOTRON DESIGNER'S HANDBOOK (9" x 6")—356 pages. Edited by F. Langford Smith of Amalgamated Wireless Valve Company Pty. Ltd. in Australia. Of value to anyone interested in fundamental principles of practical circuit design. Copiously illustrated. Price \$1.25.

6A. POWER AND GAS TUBES FOR RADIO AND INDUSTRY—Bulletin PG-101 (11" x 8 $\frac{1}{2}$ ")—16 pages. Technical information on air- and water-cooled transmitting tubes, rectifiers, thyratrons, ignitrons, and voltage regulators. Price 10 cents.

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