HITACHI RECEIVING TUBES

Hitachi, Ltd.
Tokyo Japan

CT-578B

HITACHI RECEIVING TUBES

HIGH QUALITY

1. Long Life

Built of the finest materials and subjected to stringent testing at every stage of manufacture, Hitachi Radio Receiving Tubes have almost no initial defects such as cracks, wire breakdown, etc., thus ensuring long service life and high reliability.

2. Uniform Quality and Characteristics

Manufactured in a perfectly air conditioned factory by the most modern facilities, and inspected in accordance with the Standardizing Notice received from and licenced under the Japanese patents of Radio Corporation of America, uniformity in both the electrical and constructional characteristics and quality is fully guaranteed.

3. Remarkable Increase in Export

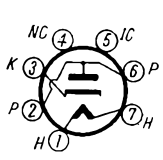
Following the recent worldwide acknowledgement of the excellent quality Hitachi Receiving Tubes are rapidly making their way into many overseas markets, covering America, Europe and other continents.

Type	Name	Dimension Diagram	Cathode ▲ Type	Cathode Voltage E_f (V)	Cathode Current I_f (A)	Use
1A3	High-Frequency Diode	18-2	H	1.4	0.15	Detector, Rectifier
1AE4	Sharp Cutoff Pentode	18-2	F	1.25	0.1	Class A Amplifier
1B3-GT	Half-Wave Rectifier	29-7	F	1.25	0.2	Rectifier
1G3-GT /1B3-GT	Half-Wave Rectifier	29-5	F	1.25	0.2	Rectifier
1L4	Sharp Cutoff Pentode	18-2	F	1.4	0.05	Class A Amplifier (RF)
1R5	Pentagrid Converter	18-2	F	1.4	0.05	Converter
1S5	Diode Sharp Cutoff Pentode	18-2	F	1.4	0.05	Class A Amplifier
1T4	Remote Cutoff Pentode	18-2	F	1.4	0.05	Class A Amplifier
1U4	Sharp Cutoff Pentode	18-2	F	1.4	0.05	Class A Amplifier
1U5	Diode Sharp Cutoff Pentode	18-2	F	1.4	0.05	Class A Amplifier (Pentode unit)
1X2B	Half-Wave Recifier	21-4	F	1.25	0.2	Rectifier
3A3	Hulf-Wave Rectifier	29-7	H	3.15	0.22	Rectifier
3A4	Power Amplifier Pentode	18-2	F	1.4 2.8	0.2 0.1	Power Amplifier
3A5	Medium-Mu Twin Triode	18-2	F	1.4 2.8	0.22 0.11	Class A Amplifier
3AL5	Twin Diode	18-1	H*	3.15	0.6	Detector, Rectifier
3AU6	Sharp Cutoff Pentode	18-2	H*	3.15	0.6	Class A Amplifier
3AV6	Duplex Diode Hige-Mu Triode	18-2	H*	3.15	0.6	Class A Amplifier
3B4	Beam Power Tube	18-2	F	1.25 2.5	0.33 0.165	Class C Amplifier
3BN6	Beam Tube	18-3	H*	3.15	0.6	Limiter, Discriminator

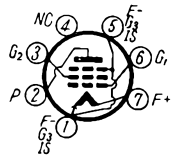
◆ Premium tubes

▲ H=Heater
F=Filament

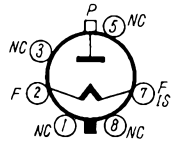
■ G_c=Conversion transconductance
R_{g1}=Grid No. 1 resistor



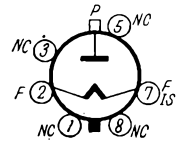
1A3



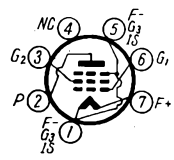
1AE4



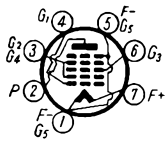
1B3-GT



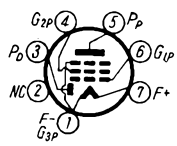
1G3-GT/1B3-GT



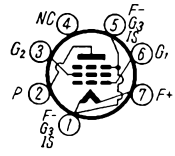
1L4



1R5



1S5



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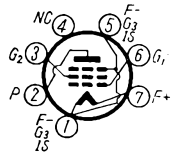

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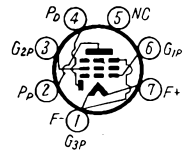

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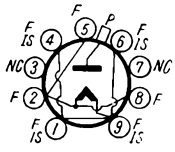
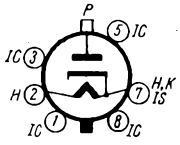


1X2B



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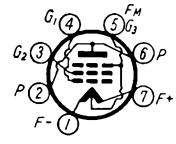

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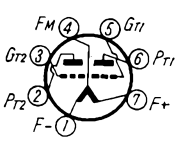

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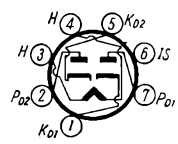

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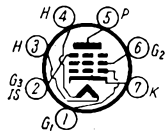

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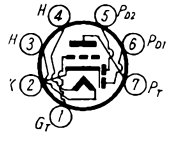

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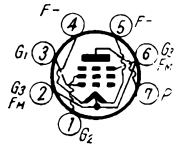

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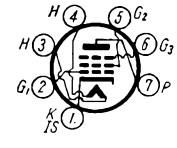
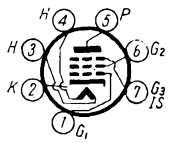


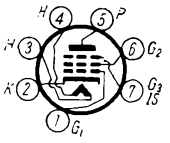
3BN6

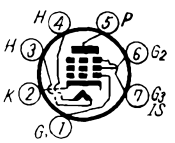
Typical Operation ■

Plate Voltage E_b (V)	No. 2 Grid Voltage E_{c2} (V)	No. 1 Grid Voltage E_{c1} (V)	Plate Current I_b (mA)	No. 2 Grid Current I_{c2} (mA)	Trans-conductance G_m (μmhos)	A.C. Plate Resistance R_p (Ohms)	Amplification Factor μ	Load Resistance R_L (Ohms)	Power Output P_0 (W)	Remarks
Max. Peak Inverse Plate Voltage: 300 V Max. D.C. Output Current: 0.5 mA Max. Peak Plate Current: 5 mA										
90	90	0	3.5	1.0	1,550	500,000	—	—	—	
Max. Peak Inverse Plate Voltage: 26 kV (Abs) Max. D.C. Output Current: 0.5 mA Max. Peak Plate Current: 50 mA										Pulsed-Rectifier in TV Receivers
Max. Peak Inverse Plate Voltage: 26 kV (Abs) Max. D.C. Output Current: 0.5 mA Max. Peak Plate Current: 50 mA										Pulsed-Rectifier in TV Receivers
90	67.5	0	2.9	1.2	925	600,000	—		—	
90	E_{c2}, E_{c4} 67.5	$E_{c3}=0$	1.4	3.2	$G_c=300$	600,000	$R_{g1}=100$ kΩ $I_{c1}=0.25$ mA			
67.5	67.5	0	1.6	0.4	625	600,000	—	—	—	←Pentode unit
90	67.5	0	3.5	1.4	900	500,000	—	—	—	
90	90	0	1.6	0.5	900	1,000,000	—	—	—	
67.5	67.5	0	1.6	0.4	625	600,000	—	—	—	←Pentode unit
Max. Peak Inverse Plate Voltage: 22 kV (Abs) Max. D.C. Output Current: 0.5 mA										
Max. Peak Inverse Plate Voltage: 30 kV Max. D.C. Output Current: 1.5 mA Max. Peak Plate Current: 80 mA										
150	90	−8.4	13.3	2.2	1,900	100,000	—	8,000	0.71	←Class A Amp.
150	135	—	18.3	6.5	$I_{c1}=0.13$ mA		$R_{g1}=200$ kΩ		1.2	←Class C Amp.
90	—	−2.5	3.7	—	1,800	8,300	15	—	—	←Class A Amp.
130	—	−2.0	30	—	—	—	—	—	2	←Class C Push-pull
Max. Peak Inverse Plate Voltage: 330 V Max. D.C. Output Current: 9 mA Max. Peak Plate Current: 54 mA										
250	150	[68 Ohms]	10.6	4.3	5,200	1,000,000	—	—	—	
250	—	−2	1.2	—	1,600	62,500	100	—	—	←Triode unit
200	150	−25	19.5	1.0	1,800	$I_{c1}=$	—	—	—	←Class A Amp.
150	135	−38	25	6.2	$R_{g1}=70$ kΩ	0.55 mA	—		1.25	←Class C Push-pull
80	60	−1.3	0.23	5	—	—	—	6,800	—	

* Heater has controlled warm-up time for series-string operation ● [ ] Shows cathode-bias resistor


3B Z6


3C B6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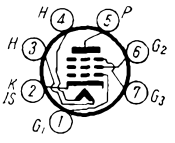
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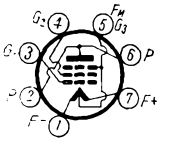
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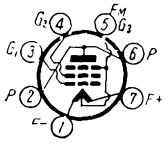
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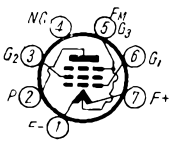
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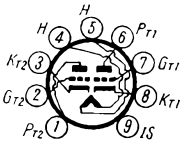
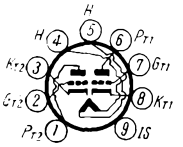

4B C8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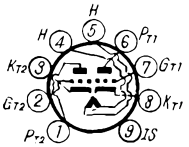
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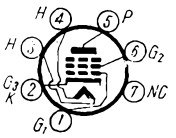
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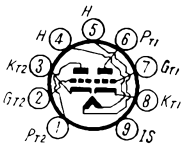
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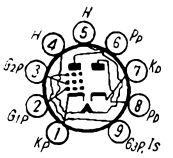
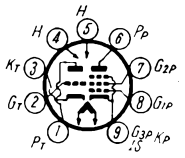

5AM8

Type	Name	Dimension Diagram	Cathode			Use
			Type ▲	Voltage E_f (V)	Current I_f (A)	
3B Z6	Remote Cutoff Pentode	18-2	H *	3.15	0.6	Class A Amplifier
3C B6	Sharp Cutoff Pentode	18-2	H *	3.15	0.6	Class A Amplifier
3D K6	Sharp Cutoff Pentode	18-2	H *	3.15	0.6	Class A Amplifier
3D T6	Pentode	18-2	H *	3.15	0.6	FM Limiter, Discriminator
3Q4	Power Amplifier Pentode	18-2	F	1.4 2.8	0.1 0.05	Class A Amplifier
3S4	Power Amplifier Pentode	18-2	F	1.4 2.8	0.1 0.05	Class A Amplifier
3V4	Power Amplifier Pentode	18-2	F	1.4 2.8	0.1 0.05	Class A Amplifier
4B C8	Medium-Mu Twin Triode	21-2	H *	4.2	0.6	Class A Amplifier
4B Q7A	Medium-Mu Twin Triode	21-2	H *	4.2	0.6	Class A Amplifier
4B Z7	Medium-Mu Twin Triode	21-2	H *	4.2	0.6	Class A Amplifier
4M-P12	Power Amplifier Pentode	18-3	H *	4.7	0.6	Power Amplifier
4R-HH2	Medium-Mu Twin Triode	21-2	H *	4.2	0.6	Class A Amplifier
5AM8	Diode Sharp-Cutoff Pentode	21-2	H *	4.7	0.6	Class A Amplifier
5AN8	Medium-Mu Triode Sharp Cutoff Pentode	21-2	H *	4.7	0.6	Class A Amplifier
5AQ5	Beam Power Tube	18-3	H *	4.7	0.6	Power Amplifier
5C G8	Medium-Mu Triode Sharp Cutoff Pentode	21-2	H *	4.7	0.6	Oscillator, Class A Amplifier
5C Z5	Beam Power Tube	21-5	H *	4.7	0.6	Power Amplifier
5J 6	Medium-Mu Twin Triode	18-2	H *	4.7	0.6	Class A Amplifier
5M-HH3	Medium-Mu Twin Triode	18-2	H *	4.7	0.6	Class A Amplifier
5M-K9	Half-Wave Rectifier	18-3	H	5.0	0.6	Half-Wave Rectifier
5R4-G Y	Full-Wave Rectifier	50-2	F	5.0	2.0	Full-Wave Rectifier
5R-K16	Full-Wave Rectifier	21-5	H	5.0	1.2	Full-Wave Rectifier
5T8	Triple Diode High-Mu Triode	21-2	H *	4.7	0.6	Detector Class A Amplifier
5U4-G	Full-Wave Rectifier	50-2	F	5.0	3.0	Full-Wave Rectifier
5U4-G B	Full-Wave Rectifier	38-3	F	5.0	3.0	Full-Wave Rectifier
5U8	Medium-Mu Triode Sharp Cutoff Pentode	21-2	H *	4.7	0.6	Class A Amplifier

◆ Premium tubes

▲ H = Heater
F = Filament

■ G_c = Conversion transconductance
R_{g1} = Grid No. 1 resistor



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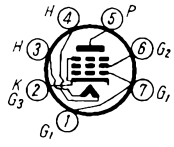

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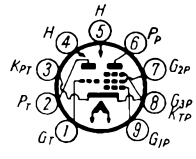

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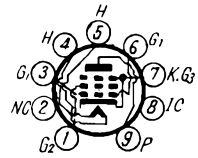

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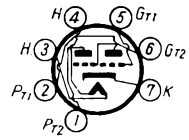
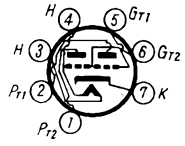
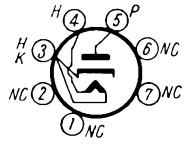


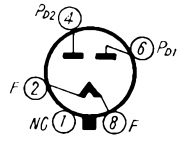
5J6



5M-HH3



5M-K9



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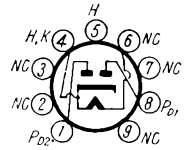

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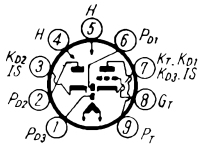

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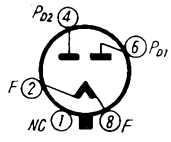

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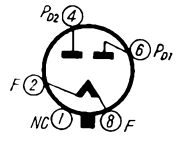

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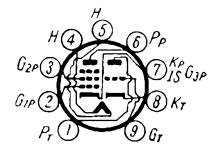
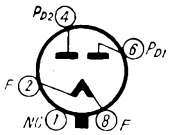


5U8

Typical Operation ■										Remarks
Plate Voltage E_b (V)	No. 2 Grid Voltage E_{c2} (V)	No. 1 Grid Voltage E_{c1} (V)	Plate Current I_b (mA)	No. 2 Grid Current I_{c2} (mA)	Transconductance G_m (μmhos)	A.C. Plate Resistance R_p (Ohms)	Amplification Factor μ	Load Resistance R_L (Ohms)	Power Output P_0 (W)	
125	125	〔56 Ohms〕	14	3.6	8,000	260,000	—	—	—	
200	150	〔180 Ohms〕	9.5	2.8	6,200	600,000	—	—	—	
125	125	〔56 Ohms〕	12	3.8	9,800	350,000	—	—	—	
150	100	〔560 Ohms〕	1.1	2.1	800	$G_m = 515\ \mu\mho$ (G_3—P)		—	—	
90	90	−4.5	9.5	2.1	2,150	100,000	—	10,000	0.27	
90	67.5	−7	7.4	1.4	1,575	100,000	—	8,000	0.27	
90	90	−4.5	9.5	2.1	2,150	100,000	—	10,000	0.27	
150	—	〔220 Ohms〕	10	—	6,200	5,700	35	—	—	
150	—	〔220 Ohms〕	9	—	6,400	5,900	38	—	—	
150	—	〔220 Ohms〕	10	—	6,800	5,300	36	—	—	
180	180	−6	25	5.0	5,500	—	—	6,000	2.0	
90	—	−1	8.5	—	8,000	—	36	—	—	
125	125	〔56 Ohms〕	12.5	3.2	7,800	300,000	—	—	—	←Pentode unit
200	—	−6	13	—	3,300	5,750	19	—	—	←Triode unit
200	150	〔180 Ohms〕	9.5	2.8	6,200	300,000	—	—	—	←Pentode unit
250	250	−12.5	45	4.5	4,100	52,000	—	5,000	4.5	
100	—	〔100 Ohms〕	8.5	—	5,800	6,900	40	—	—	←Triode unit
250	150	〔200 Ohms〕	7.7	1.6	4,600	750,000	—	—	—	←Pentode unit
250	250	−14	46	4.6	4,800	73,000	—	5,000	5.4	
100	—	〔50 Ohms〕	8.5	—	5,300	7,100	38	—	—	
100	—	−1	11	—	7,500	5,100	38	—	—	
Max. A.C. Plate Supply Voltage: 350 V Max. D.C. Output Current: 60 mA										
Max. A.C. Plate Supply Voltage per Plate: 1,000 V Max. D.C. Output Current: 150 mA (Capacitor input)										
Max. A.C. Plate Supply Voltage per Plate: 350 V Max. D.C. Output Current: 150 mA										
5	—	—	20	—	—	—	—	—	—	←Diode unit
250	—	−3	1.0	—	1,200	58,000	70	—	—	←Triode unit
Max. A.C. Plate Supply Voltage per Plate: 450 V Max. D.C. Output Current: 225 mA (Capacitor input)										
Max. A.C. Plate Supply Voltage per Plate: 450 V Max. D.C. Output Current: 275 mA (Capacitor input)										
150	—	〔56 Ohms〕	18	—	8,500	5,000	40	—	—	←Triode unit
250	110	〔68 Ohms〕	10	3.5	5,200	400,000	—		—	←Pentode unit

* Heater has controlled warm-up time for series-string operation ● 〔 〕 Shows cathode-bias resistor



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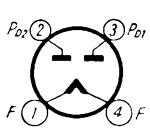

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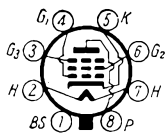

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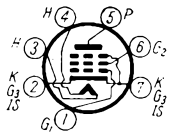

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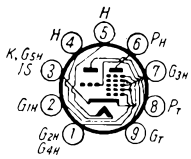

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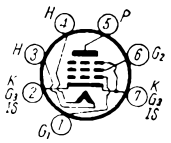

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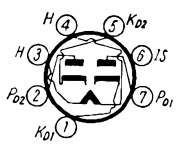

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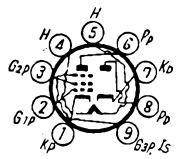

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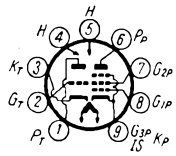

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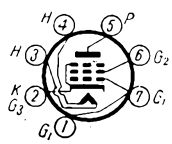

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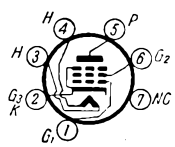

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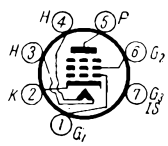

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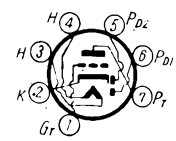


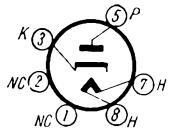
6AT6

Type	Name	Dimension Diagram	Cathode			Use
			Type ▲	Voltage E_f (V)	Current I_f (A)	
5Y3-GT	Full-Wave Rectifier	29-1	F	5.0	2.0	Full-Wave Rectifier
5Z3	Full-Wave Rectifier	50-1	F	5.0	3.0	Full-Wave Rectifier
6AC7-GT	Sharp Cutoff Pentode	29-2	H	6.3	0.45	Class A Amplifier
6AJ5	Sharp Cutoff Pentode	18-1	H	6.3	0.175	Class A Amplifier
6AJ8 (ECH81)	Triode-Heptode	21-3	H	6.3	0.3	Triod unit Class A Amplifier Heptode unit Class A Amplifier Converter
6AK5	Sharp Cutoff Pentode	18-1	H	6.3	0.175	Class A Amplifier
6AL5	Twin Diode	18-1	H	6.3	0.3	Detector, Rectifier
6AM8A	Diode Sharp-Cutoff Pentode	21-2	H*	6.3	0.45	Class A Amplifier
6AN8	Medium-Mu Triode Sharp-Cutoff Pentode	21-2	H	6.3	0.45	Class A Amplifier
6AQ5	Beam Power Tube	18-3	H	6.3	0.45	Power Amplifier
6AR5	Power Amplifier Pentode	18-3	H	6.3	0.4	Class A Amplifier
6AS6	Sharp Cutoff Pentode	18-1	H	6.3	0.175	Class A Amplifier
6AT6	Duplex Diode High-Mu Triode	18-2	H	6.3	0.3	Class A Amplifier
6AU4-GTA	Half-Wave Rectifier	29-4	H	6.3	1.8	TV Damper Service
6AU6	Sharp Cutoff Pentode	18-2	H	6.3	0.3	Class A Amplifier
6AV6	Duplex Diode High-Mu Triode	18-2	H	6.3	0.3	Class A Amplifier
6AW8A	High-Mu Triode Sharp Cutoff Pentode	21-3	H*	6.3	0.6	Class A Amplifier
6AX4-GT	Half-Wave Rectifier	29-1	H	6.3	1.2	TV Damper Service
6BA6	Remote Cutoff Pentode	18-2	H	6.3	0.3	Class A Amplifier
6BC8	Medium-Mu Twin Triode	21-2	H	6.3	0.4	Calss A Amplifier
6BD6	Remote Cutoff Pentode	18-2	H	6.3	0.3	Class A Amplifier
6BE6	Pentagrid Converter	18-2	H	6.3	0.3	Converter
6BG6-G	Beam Power Tube	50-3	H	6.3	0.9	Horizontal Deflection Amplifier in TV Receivers
6BH6	Sharp Cutoff Pentode	18-2	H	6.3	0.15	Class A Amplifier
6BJ6	Remote Cutoff Pentode	18-2	H	6.3	0.15	Class A Amplifier

◆ Premium tubes

▲ H = Heater
F = Filament

■ G_c = Conversion transconductance
R_{g1} = Grid No. 1 resistor



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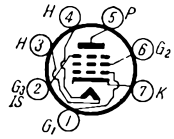

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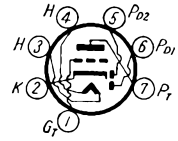

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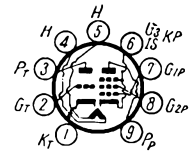

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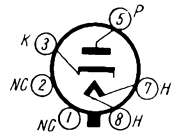

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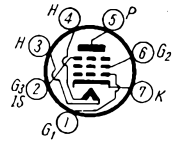

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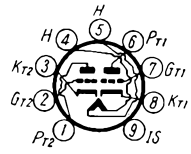

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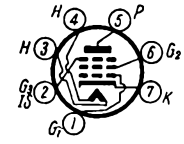

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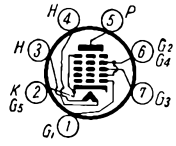

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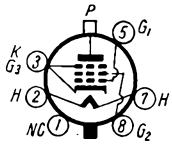

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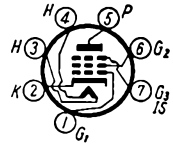

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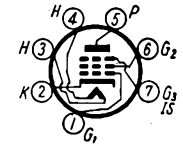
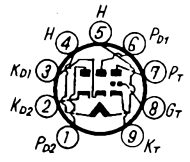


6BJ6

Typical Operation ■										Remarks
Plate Voltage E_b (V)	No. 2 Grid Voltage E_{c2} (V)	No. 1 Grid Voltage E_{c1} (V)	Plate Current I_b (mA)	No. 2 Grid Current I_{c2} (mA)	Trans-conductance G_m (μmhos)	A.C. Plate Resistance R_p (Ohms)	Amplification Factor μ	Load Resistance R_L (Ohms)	Power Output P_o (W)	
Max. A.C. Plate Supply Voltage per Plate: 350 V Max. D.C. Output Current: 125 mA										
Max. A.C. Plate Supply Voltage per Plate: 450 V Max. D.C. Output Current: 225 mA				(Capacitor input)						
300	150	[160 Ohms]	10	2.5	9,000	1,000,000	—	—	—	
28	28	[200 Ohms]	2.7	1.0	2,500	100,000	—	—	—	
100	—	0	13.5	—	3,700	—	22	—	—	←Triode unit
250	E_{c2}, E_{c4} 102	−2	6.5	$I_{c2}+I_{c4}$ 3.8	2,400	700,000	—	—	(E_{c3} = 0V)	←Heptode unit (RF. Amp.)
250	E_{c2}, E_{c4} 102	−2	3.25	$I_{c2}+I_{c2}$ 6.7	G_c = 775	1,000,000	(R_{J3} = 47 kΩ)			←Heptode unit (Converter)
180	120	[180 Ohms]	7.7	2.4	5,100	500,000	—	—	—	
Max. Peak Inverse Plate Voltage: 330 V Max. D.C. Output Current: 9 mA Max. Peak Plate Current: 54 mA										
125	125	[56 Ohms]	12.5	3.2	7,800	300,000	—	—	—	←Pentode unit
200	—	−6	13	—	3,300	5,750	19	—	—	←Triode unit
200	150	[180 Ohms]	9.5	2.8	6,200	300,000	—	—	—	←Dentode unit
250	250	−12.5	45	4.5	4,100	52,000	—	5,000	4.5	
250	250	−18	32	5.5	2,300	68,000	—	7,600	3.4	
120	120	−2	5.2	3.5	3,200	110,000	—	—	—	E_{c3}=0
250	—	−3	1.0	—	1,200	58,000	70	—	—	Triode unit
Max. Peak Inverse Plate Voltage : 4,500 V (Abs) Max. Peak Plate Current: 1,150 mA Max. D.C. Output Current: 190 mA										
250	150	[68 Ohms]	10.6	4.3	5,200	1,000,000	—	—	—	
250	—	−2	1.2	—	1,600	62,500	100	—	—	←Triode unit
200	—	−2.0	4	—	4,000	17,500	70	—	—	←Triode unit
200	150	[180Ohms]	13	3.5	9,000	400,000	—	—	—	←Pentode unit
Max. Peak Inverse Plate Voltage: 4,400 V (Abs) Max. Peak Plate Current: 750 mA Max. D.C. Output Current: 125 mA										
250	100	[68 Ohms]	11	4.2	4,400	1,000,000	—	—	—	
150	—	[220 Ohms]	10	—	6,200	5,700	35	—	—	
250	100	−3	9	3	2,000	800,000	—	—	—	
250	E_{c2}, E_{c4} 100	E_{c1}=0 E_{c3}=−1.5V	2.9	$I_{c2}+I_{c4}$ 6.8	G_c = 475	1,000,000	R_{g1}=20kΩ	I_{c1}=0.5 mA		
Max. D.C. Plate Voltage: 700V Max. Peak Positive-Pulse Plate Voltage: 6,600 V (Abs.) Max. D.C. Cathode Current: 110 mA										
250	150	−1	7.4	2.9	4,600	1,400,000	—	—	—	
250	100	−1	9.2	3.3	3,600	1,300,000	—	—	—	

* Heater has controlled warm-up time for series-string operation ● [ ] Shows cathode-bias resistor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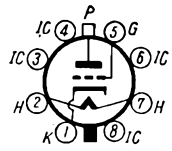
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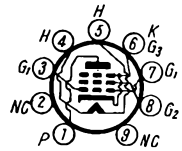
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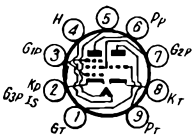
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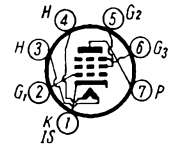
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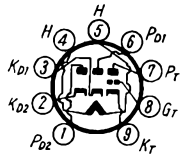
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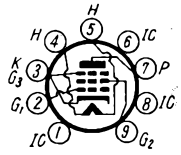
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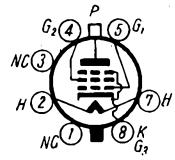
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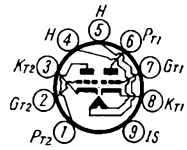
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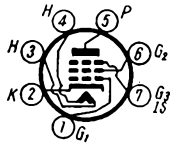
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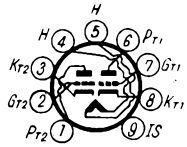
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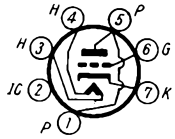

6C4

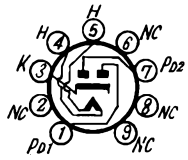

6C6

Type	Name	Dimension Diagram	Cathode			Use
			Type ▲	Voltage E_f (V)	Current I_f (A)	
6B J 8	Twin-Diode Medium-Mu Triode	21-3	H*	6.3	0.6	Detector (Diode unit) Class A Amplifier (Triode unit)
6B K4	Sharp-Cutoff Beam Triode	38-6	H	6.3	0.2	Voltage Control
6B K5	Beam Power Amplifier	21-3	H	6.3	1.2	Class A Amplifier
6B M8 (ECL82)	High-Mu Triode Power Amplifier Pentode	21-5	H	6.3	0.78	Class A Amplifier Power Amplifier
6B N6	Beam Tube	18-3	H	6.3	0.3	Limiter, Discriminator
6B N8	Duplex-Diode High-Mu Triode	21-3	H*	6.3	0.6	Detector (Diode unit) Class A Amp. (Triode unit)
6B Q5 (E L84)	Power Amplifier Pentode	21-5	H	6.3	0.76	Power Amplifier
6BQ6-GTB /6CU6	Beam Power Tube	29-6	H	6.3	1.2	Horizontal Deflection Amp. in TV Recievers
6B Q7A	Medium-Mu Twin Triode	21-2	H	6.3	0.4	Class A Amplifier
6B Z6	Remote Cutoff Pentode	18-2	H	6.3	0.3	Class A Amplifier
6B Z7	Medium-Mu Twin Triode	21-2	H	6.3	0.4	Class A Amplifier
6C4	Medium-Mu Triode	18-2	H	6.3	0.15	Class A Amplifier
6C6	Sharp Cutoff Pentode	38-2	H	6.3	0.3	Detector, Amplifier
6C A4 (E Z81)	Full-Wave Rectifier	21-5	H	6.3	1.0	Full-Wave Rectifier
6C B6	Sharp Cutoff Pentode	18-2	H	6.3	0.3	Class A Amplifier
6C F6	Sharp Cutoff Pentode	18-2	H	6.3	0.3	Class A Amplifier
6C G7	Medium-Mu Twin Triode	21-3	H*	6.3	0.6	Oscillator Class A Amplifier
6C G8	Medium-Mu Triode Sharp Cutoff Pentode	21-2	H	6.3	0.45	Oscillator, Class A Amp.
6C L6	Power Amplifier Pentode	21-3	H	6.3	0.65	Class A Amplifier
6C S7	Double Triode	21-3	H*	6.3	0.6	Vertical Deflection Oscillator and Amplifier
6C Z5	Beam Power Tube	21-5	H*	6.3	0.45	Power Amplifier
6D6	Remote Cutoff Pentode	38-2	H	6.3	0.3	Class A Amplifier
6D E7	Double Triode	21-3	H	6.3	0.9	Vertical Deflection Oscillator and Amplifier
6D K6	Sharp Cutoff Pentode	18-2	H	6.3	0.3	Class A Amplifier
6D Q5	Beam Power Tube	38-5	H	6.3	2.5	Horizontal Deflection Amplifier in TV Receivers
6D Q6A	Beam Power Tube	38-4	H	6.3	1.2	Horizontal Deflection Amplifier in TV Receivers

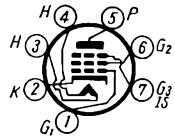
◆ Premium tubes

▲ H = Heater
F = Filament

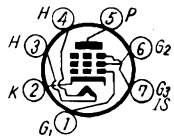
■ G_c = Conversion transconductance
R_{g1} = Grid No. 1 resistor



6C A4



6C B6



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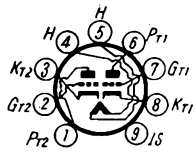

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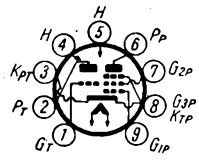

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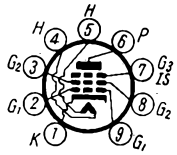

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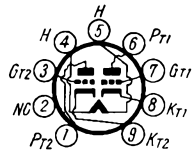

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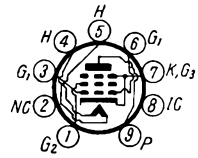

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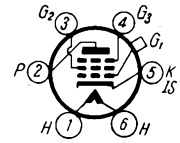

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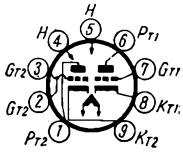

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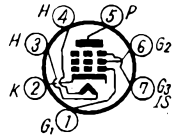

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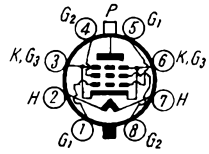

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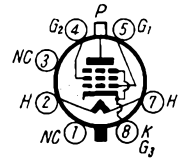
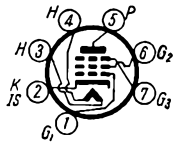


6D Q6A

Typical Operation ■

Plate Voltage E_b (V)	No. 2 Grid Voltage E_{c2} (V)	No. 1 Grid Voltage E_{c1} (V)	Plate Current I_b (mA)	No. 2 Grid Current I_{c2} (mA)	Trans-conductance G_m (μmhos)	A.C. Plate Resistance R_p (Ohms)	Amplification Factor μ	Load Resistance R_L (Ohms)	Power Output P_0 (W)	Remarks
10	—	—	50	—	—	—	—	—	—	←Diode unit
250	—	−9	8	—	2,800	7,150	20	—	—	←Triode unit
Max. D.C. Plate Voltage: 25,000 V Max. D.C. Current: 1.5 mA Max. Unregulated D.C. Supply Voltage: 55,000 V Max. Plate Dissipation: 25 W										
250	250	−5	35	3.5	8,500	100,000	—	6,500	3.5	
100	—	0	3.5	—	2,500	—	70	—	—	←Triode unit
200	170	−12.5	35	6.5	6,800	20,500	—	5,600	3.4	←Pentode unit
80	60	−1.3	0.23	5	—	—	—	6,800	—	
10	—	—	50	—	—	—	—		—	←Diode unit
250	—	−3	1.6	—	2,500	28,000	70		—	←Triode unit
250	250	−7.3	48	5.5	11,300	38,000	—	5,200	6	
Max. D.C. Plate Supply Voltage: 600 V Max. Peak Positive-Pulse Plate Voltage: 6,000 V (Abs) Max. Peak Negative-Pulse No. 1 Grid Voltage: 300 V Max. D.C. Cathode Current: 112.5 mA										
150	—	〔220 Ohms〕	9	—	6,400	5,900	38	—	—	
125	125	〔 50 Ohms〕	14	3.6	8,000	260,000	—	—	—	
150	—	〔220 Ohms〕	10	—	6,800	5,300	36	—	—	
250	—	−8.5	10.5	—	2,200	7,700	17	—	—	←Class A Amp.
300		−27.0	25.0		—	(Driving Power 0.35 m)			5.5	←Class C Amp.
250	100	−3	2.0	0.5	1,225	1,000,000	—	—	—	
Max. A.C. Plate Supply Voltage per plate 350 V Max. D.C. Output Current: 150 mA Max. Peak inverse Plate Voltage: 1,000 V										
200	150	〔180 Ohms〕	9.5	2.8	6,200	600,000	—	—	—	
200	150	〔180 Ohms〕	9.5	2.8	6,200	600,000	—	—	—	
250	—	−8	9	—	2,600	7,700	20	—	—	
100	—	〔100Ohms〕	8.5	—	5,800	6,900	40	—	—	←Triode unit
250	150	〔200Ohms〕	7.7	1.6	4,600	750,000	—	—	—	←Pentode unit
250	150	−3	30	7	11,000	150,000	—	7,500	2.8	
250	—	−8.5	10.5	—	2,200	7,700	17	—	—	←No. 1 unit (Osc
250	—	−10.5	19.0	—	4,500	3,450	15.5	—	—	←No. 2 unit (A...
250	250	−14	46	4.6	4,800	73,000	—	5,000	5.4	
250	100	−3	8.2	2.0	1,600	800,000	—	—	—	
250	—	−11	5.5	—	2,000	8,750	17.5	—	—	←No. 1 unit (Osc.)
150	—	−17.5	35	—	6,500	925	6	—	—	←No. 2 unit (Am.)
125	125	〔56 Ohms〕	12.0	3.8	9,800	350,000	—	—	—	
Max. D.C. Plate Supply Voltage: 900 V Max. Peak Positive-Pulse Plate Voltage 7,000 V (Abs) Max. D.C. Cathode Current: 285 mA										
Max. D.C. Plate Supply Voltage: 700 V Max. Peak Positive Pulse Voltage: 6,000 V (Abs) Max. D.C. No. 2 Grid Voltage: 200 V Max. D.C. Cathode Current: 140 mA										

* Heater has controlled warm-up time for series-string operation ● 〔 〕 Shows cathode-bias resistor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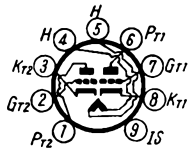
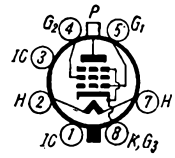

6D T8


6F6-G T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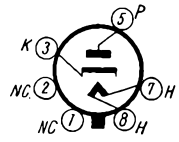
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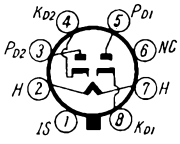
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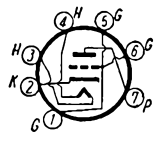
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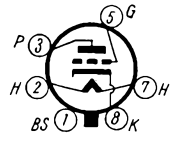
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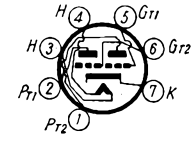
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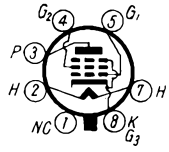
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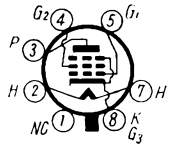
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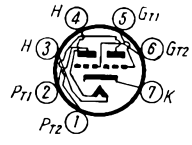
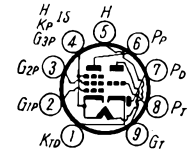

6M-H H3

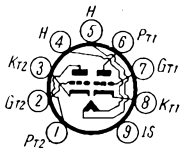

6R-DHV1

Type	Name	Dimension Diagram	Cathode			Use
			▲ Type	Voltage E_f (V)	Current I_f (A)	
6D T6	Sharp Cutoff Pentode	18-2	H	6.3	0.3	FM Limiter, Discriminator
6D T8	High-Mu Twin Triode	21-2	H	6.3	0.3	Class A Amplifier
6F6-G T	Power Amplifier Pentode	29-3	H	6.3	0.7	Power Amplifier
6G-B3A	Beam Power Tube	29-8	H	6.3	1.2	Horizontal Deflection Amplifier in TV Receivers
6G-K17	Half-Wave Rectifier	29-4	H	6.3	1.3	TV Damper Service
6H6-G T	Twin Diode	29-1	H	6.3	0.3	Detector, Rectifier
6J4WA	High-Mu Triode	18-2	H	6.3	0.4	Class A Amplifier
6J5-G T	Medium-Mu Triode	29-2	H	6.3	0.3	Class A Amplifier
6J6 ◆	Medium-Mu Twin Triode	18-2	H	6.3	0.45	Class A Amplifier
6K6-G T	Power Amplifier Pentode	29-1	H	6.3	0.4	Power Amplifier
6L6-G	Beam Power Tube	50-2	H	6.3	0.9	Power Amplifier
6M-H H3	Medium-Mu Twin Triode	18-2	H	6.3	0.45	Class A Amplifier
6R-D H V1	Diode, High-Mu Triode Remote Cutoff Pentode	21-2	H	6.3	0.48	Detector (Diode unit) Class A Amplifier (Triode unt) RF Amplifier (Pentode unit)
6R-H H2	Medium-Mu Twin Triode	21-2	H	6.3	0.45	Class A Amplifier
6R-P10	Power Amplifier Pentode	21-3	H	6.3	0.5	Power Amplifier
6R-R8C	Sharp Cutoff Pentode	21-1	H	6.3	0.3	Class A Amplifier
6S A7-G T	Pantagrid Converter	29-1	H	6.3	0.3	Converter
6S D7-G T	Remote Cutoff Pentode	29-2	H	6.3	0.3	Class A Amplifier
6S H7-G T	Sharp Cutoff Pentode	29-2	H	6.3	0.3	Class A Amplifier
6S J7-G T	Sharp Cutoff Pentode	29-2	H	6.3	0.3	Class A Amplifier
6S K7-G T	Remote Cutoff Pentode	29-2	H	6.3	0.3	Class A Amplifier
6S L7-G T	High-Mu Twin Triode	29-1	H	6.3	0.3	Class A Amplifier
6S N7-G T B	Medium-Mu Twin Triode	29-1	H *	6.3	0.6	Class A Amplifier
6S Q7-G T	Duplex Diode High-Mu Triod	29-2	H	6.3	0.3	Class A Amplifier
6T8	Triple-Diode, High-Mu Triode	21-2	H	6.3	0.45	Class A Amplifier
6U8	Medium-Mu Triode Sharp Cutoff Pentode	21-2	H	6.3	0.45	Class A Amplifier

◆ Premium tubes

▲ H = Heater
F = Filament

■ G_c = Conversion transconductance
R_{g1} = Grid No. 1 resistor



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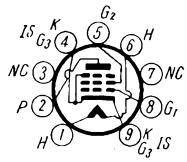

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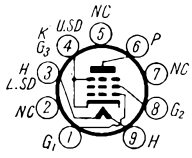

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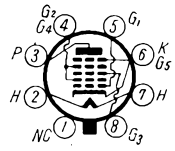

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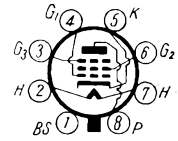

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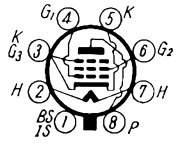

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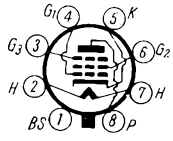

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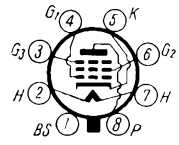

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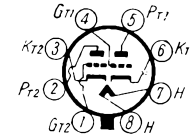

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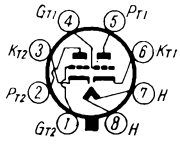

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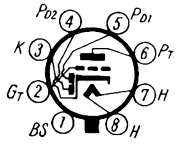

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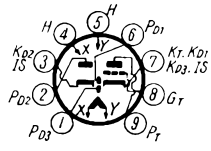
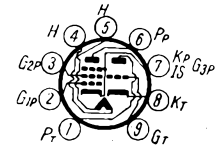


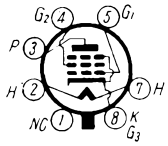
6T8

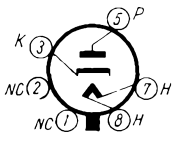


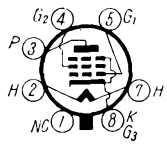
6U8

Typical Operation ■										Remarks
Plate Voltage E_b (V)	No. 2 Grid Voltage E_{c2} (V)	No. 1 Grid Voltage E_{c1} (V)	Plate Current I_b (mA)	No. 2 Grid Current I_{c2} (mA)	Trans-conductance G_m (μmhos)	A.C. Plate Resistance R_p (Ohms)	Amplification Factor μ	Load Resistance R_L (Ohms)	Power Output P_0 (W)	
150	100	〔560 Ohms〕	1.1	2.1	800	$G_m=515\,\mu\upsilon\,(G_3-P)$		—	—	
250	—	〔200 Ohms〕	10	—	5,500	10,900	60	—	—	
250	250	−16.5	34	6.5	2,500	80,000	—	7,000	3.2	
Max. D.C. Plate Supply Voltage: 550 V Max. Peak Positive-Pulse Plate Voltage: 6,600 V (Abs) Max. D.C. Cathode Current: 150 mA										
Max. Peak Inverse Plate Voltage: 4,500 V (Abs) Max. Peak Plate Current: 1,050 mA Max. D.C. Output Current: 175 mA										
Max. Peak Inverse Plate Voltage: 420 V Max. D.C. Output Current: 8 mA Max. D.C. Peak Plate Current: 48 mA										
150	—	〔100 Ohms〕	13.5	—	11,000	—	50	—	—	
250	—	−8	9	—	2,600	7,700	20	—	—	
100	—	〔50 Omhs〕	8.5	—	5,300	7,100	38	—	—	
250	250	−18	32	5.5	2,300	90,000	—	7,600	3.4	
250	250	−14	72	5.0	6,000	22,500	—	2,500	6.5	
100	—	−1	11	—	7,500	5,100	38	—	—	
250	—	−2	1.2	—	1,600	62,500	100	—	—	←Triode unit
250	100	−1	9.0	3.0	3,500	250,000	—	—	—	←Pentode unit
90	—	−1	8.5	—	8,000	4,500	36	—	—	
150	150	〔60 Ohms〕	36	8.0	13,500	—	—	1,800	1	
150	150	〔110 Ohms〕	13	4.5	12,500	150,000	—	—	—	
250	E_{c2}, E_{c4} 100	$E_{c3}=-2$	3.5	$I_{c2}+I_{c4}$ 8.5	$G_c=450$	1,000,000	$R_{g1}=20\,k\Omega$	$I_{c1}=0.5$ mA		
250	125	−2	9.5	3.3	4,250	700,000	—	—	—	
250	150	−1	10.8	4.1	4,900	900,000	—	—	—	
250	100	−3	3.0	0.8	1,650	1,000,000	—	—	—	
250	100	−3	9.2	2.6	2,000	800,000	—	—	—	
250	—	−2	2.3	—	1,600	44,000	70	—	—	
250	—	−8	9	—	2,600	7,700	20	—	—	
250	—	−2	1.1	—	1,175	85,000	100	—	—	←Triode unit
5	—	—	20	—	—	—	—	—	—	←Diode unit
250	—	−3	1	—	1,200	58,000	70	—	—	←Triode unit
150	—	〔56 Ohms〕	18	—	8,500	5,000	40	—	—	←Triode unit
250	110	〔68 Ohms〕	10	3.5	5,200	400,000	—	—	—	←Pentode unit

* Heater has controlled warm-up time for series-string operation ● 〔 〕 Shows cathode-bias resistor


6V6-GT


6W4-GT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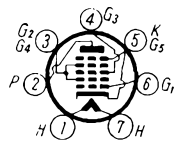
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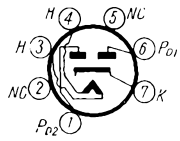
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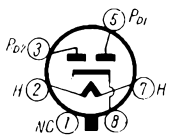
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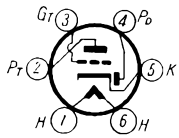
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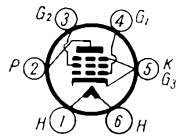
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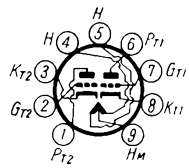
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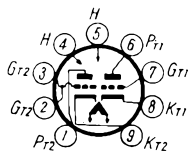
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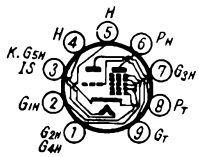
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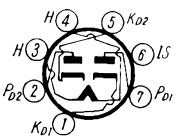
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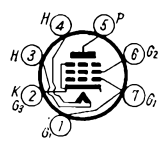
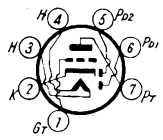

12AQ5

Type	Name	Dimension Diagram	Cathode			Use
			Type▲	Voltage E_f (V)	Current I_f (A)	
6V6-GT	Beam Power Tube	29-1	H	6.3	0.45	Power Amplifier
6W4-GT	Half-Wave Rectifier	29-1	H	6.3	1.2	TV Damper Service
6W6-GT	Beam Power Tube	29-1	H	6.3	1.2	Power Amplifier
6W-C5	Pentagrid Converter	38-1	H	6.3	0.35	Converter
6X4	Full-Wave Rectifier	18-3	H	6.3	0.6	Full-Wave Rectifier
6X5-GT	Full-Wave Rectifier	29-1	H	6.3	0.6	Full-Wave Rectifier
6Z-DH3A	Diode, High-Mu Triode	38-1	H	6.3	0.3	Detector, Class A Amplifier
6Z-P1	Power Amplifier Pentode	38-1	H	6.3	0.35	Power Amplifier
7AU7	Medium-Mu Twin Triode	21-2	H *	3.5 7.0	0.6 0.3	Class A Amplifier
10DE7	Double-Triode	21-3	H *	9.7	0.6	Vertical Deflection Oscillation and Amplifier
12AJ7 (HCH81)	Triode-Heptode	21-3	H	12.6	0.15	Triode unit Class A Amplifier Heptode unit Class A Amplifier Converter
12AL5	Duplex Diode	18-1	H	12.6	0.15	Detector, Rectifier
12AQ5	Beam Power Tube	18-3	H	12.6	0.225	Power Amplifier
12AT6	Duplex Diode High-Mu Triode	18-2	H	12.6	0.15	Class A Amplifier
12AT7	High-Mu Twin Triode	21-2	H	6.3 12.6	0.3 0.15	Class A Amplifier
12AU6	Sharp Cutoff Pentode	18-2	H	12.6	0.15	Class A Amplifier
12AU7	Medium-Mu Twin Triode	21-2	H	6.3 12.6	0.3 0.15	Class A Amplifier
12AV6	Duplex Diode High-Mu Triode	18-2	H	12.6	0.15	Class A Amplifier
12AX4-GTA	Half-Wave Rectifier	29-1	H*	12.6	0.6	TV Damper Service
12AX7	High-Mu Twin Triode	21-2	H	6.3 12.6	0.3 0.15	Class A Amplifier
12AY7	Medium-Mu Twin Triode	21-2	H	6.3 12.6	0.3 0.15	Class A Amplifier
12BA6	Remote Cutoff Pentode	18-2	H	12.6	0.15	Class A Amplifier
12BD6	Remote Cutoff Pentode	18-2	H	12.6	0.15	Class A Amplifier
12BE6	Pentagrid Converter	18-2	H	12.6	0.15	Converter
12BH7A	Medium-Mu Twin Triode	21-3	H*	6.3 12.6	0.6 0.3	Vertical Deflection Oscillation and Amplifier

◆ Premium tubes

▲ H = Heater
F = Filament

■ G_c = Conversion transconductance
R_{g1} = Grid No. 1 resistor



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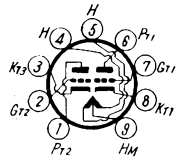

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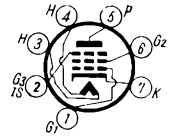

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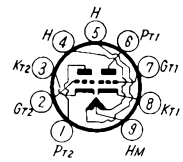
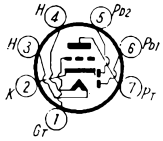


12A U7



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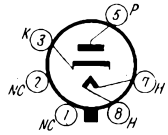

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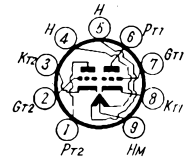

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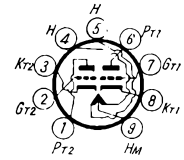

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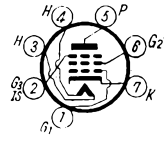

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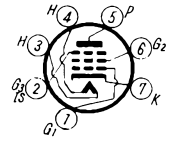
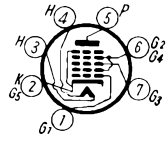


12B D6



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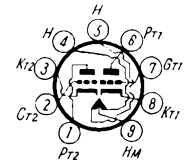
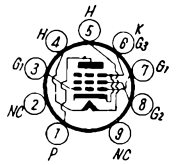


12B H7A

Typical Operation

Plate Voltage E_b (V)	No. 2 Grid Voltage E_{c2} (V)	No. 1 Grid Voltage E_{c1} (V)	Plate Current I_b (mA)	No. 2 Grid Current I_{c2} (mA)	Trans-conductance G_m (μmhos)	A.C. Plate Resistance R_p (Ohms)	Amplification Factor μ	Load Resistance R_L (Ohms)	Power Output P_0 (W)	Remarks
250	250	−12.5	45	4.5	4,100	50,000	—	5,000	4.5	
Max. Peak Inverse Plate Voltage: 3,500 V Max. Peak Plate Current: 600 mA Max. D.C. Cathode Current: 125 mA										
200	125	[180 Ohms]	46	2.2	8,000	28,000	—	4,000	3.8	
250	E_{c2}, E_{c4} 100	$E_{c3}=-2$ V	3.5	8.5	$G_C=450$	1,000,000	$R_{g1}=20$ kΩ	$I_{c1}=0.5$ mA		
Max. Peak Inverse Plate Voltage per Plate: 1,250 V Max. D.C. Output Current: 70 mA Max. Heater Cathode Voltage: 450 V										
Max. Peak Inverse Plate Voltage per Plate: 1,250 V Max. D.C. Output Current: 70 mA Max. Heater Cathode Voltage: 450 V										
250	—	−2	1.1	—	1,175	85,000	100	—	—	Triode unit
180	180	−10	15	2.5	1,750	130,000	—	12,000	1.0	
250	—	−8.5	10.5	—	2,200	7,700	17	—	—	
250	—	−11	5.5	—	2,000	8,750	17.5	—	—	←No. 1 unit (OSC.)
150	—	−17.5	35	—	6,500	925	6	—	—	←No. 2 unit (Amp.)
—	—	—	—	—	—	—	—	—	—	←Triod unit
100	E_{c2}, E_c 102	0	13.5	$I_{c2}+I_{c4}$ 3.8	3,700	—	22	—	—	←Heptode unit (RF. Amp.)
250		−2	6.5		2,400	700,000	—	—	(E_{g3}=OV)	
250	E_{c2}, E_c 102	−2	3.25	$I_{c2}+I_{c4}$ 6.7	$G_c=775$	1,000,000	($R_{g3}=47$ kΩ)		—	←Heptode unit (Converter)
Max. Peak Inverse Plate Voltage: 330 V Max. D.C. Output Current: 9 mA Max. Peak Plate Current: 54 mA										
250	250	−12.5	45	4.5	4,100	52,000	—	5,000	4.5	
250	—	−3	1.0	—	1,200	58,000	70	—	—	←Triode unit
250	—	[200 Ohms]	10.0	—	5,500	10,900	60	—	—	
250	150	[68 Ohms]	10.6	4.3	5,200	1,000,000	—	—	—	
250	—	−8.5	10.5	—	2,200	7,700	17	—	—	
250	—	−2	1.2	—	1,600	62,500	100	—	—	←Triode unit
Max. Peak Inverse Plate Voltage: 4,400 V (Abs) Max. Peak Plate Current: 750 mA Max. D.C. Cathode Current: 125 mA										
250	—	−2	1.2	—	1,600	62,500	100	—	—	
250	—	−4	3	—	1,750	22,800	40	—	—	
250	100	[68 Ohms]	11	4.2	4,400	1,000,000	—	—	—	
250	100	−3	9	3	2,000	800,000	—	—	—	
250	E_{c2}, E_{c4} 100	$E_{c3}=-1.5$	2.9	$I_{c2}+I_{c4}$ 68	$G_c=475$	1,000,000	$R_{g1}=20$ kΩ	$I_{c1}=0.5$ mA		
250	—	−10.5	11.5	—	3,100	5,300	16.5	—	—	

* Heater has controlled warm-up time for series-string operation ● [ ] Shows cathode-bias resistor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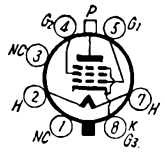
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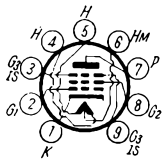
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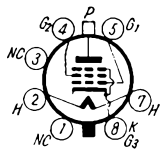
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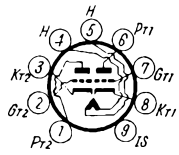
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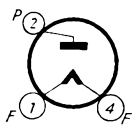
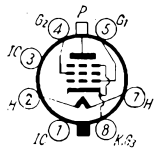

12F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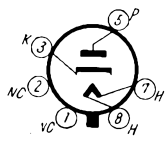
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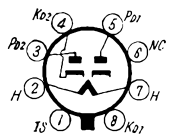
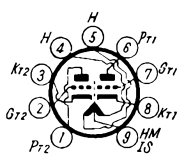
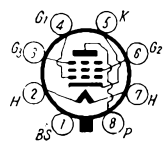

12H6-GT


12R-LL3


12SA7-GT


12SH7-GT


12SJ7-GT

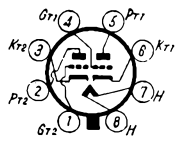
Type	Name	Dimension Diagram	Cathode ▲ Type	Cathode Voltage E_f (V)	Cathode Current I_f (A)	Use
12BK5	Beam Power Tube	18-3	H*	12.6	0.6	Power Amplifier
12BQ6-GTB /12CU6	Beam Power Tube	29-6	H*	12.6	0.6	Horizontal Deflection Amplifier in TV Receivers
12BY7A	Sharp Cutoff Pentode	21-3	H*	6.3 12.6	0.6 0.3	Class A Amplifier
12DQ6A	Beam Power Tube	38-4	H*	12.6	0.6	Horizontal Deflection Amplifier in TV Receivers
12DT8	High-Mu Twin Triode	21-2	H	12.6	0.15	Class A Amplifier
12F	Half-Wave Rectifier	38-1	H	5.0	0.5	Half-Wave Rectifier
12G-B3	Beam Power Tube	29-8	H*	12.6	0.6	Horizontal Deflection Amplifier in TV Receivers
12G-K17	Half-Wave Rectifier	29-4	H*	12.6	0.6	TV Damper Service
12H6-GT	Duplex Diode	29-1	H	12.6	0.15	Detector, Rectifier
12R-LL3	Medium-Mu Twin Triode	21-2	H	12.6	0.225	Class A Amplifier
12SA7-GT	Pentagrid Converter	29-1	H	12.6	0.15	Converter
12SH7-GT	Sharp Cutoff Pentode	29-2	H	12.6	0.15	Class A Amplifier
12SJ7-GT	Sharp Cutoff Pentode	29-2	H	12.6	0.15	Class A Amplifier
12SK7-GT	Remote Cutoff Pentode	29-2	H	12.6	0.15	Class A Amplifier
12SL7-GT	High-Mu Twin Triode	29-1	H	12.6	0.15	Class A Amplifier
12SN7-GT	Medium-Mu Twin Triode	29-1	H	12.6	0.3	Class A Amplifier
12SQ7-GT	Duplex Diode High-Mu Triode	29-2	H	12.6	0.15	Detector, Class A Amplifier
18FW6	Remote Cutoff Pentode	18-2	H	18.0	0.1	Class A Amplifier
18FX6	Pantagrid Converter	18-2	H	18.0	0.1	Converter
18FY6	Duplex Diode High-Mu Triode	18-2	H	18.0	0.1	Class A Amplifier
19A3	Half-Wave Rectifier	18-3	H	19.0	0.15	Half-Wave Rectifier
19M-R9	Sharp Cutoff Pentode	18-2	H	19.0	0.1	Class A Amplifier
19M-R10	Sharp Cutoff Pentode	18-2	H	19.0	0.1	Class A Amplifier
19R-LL1	Medium-Mu Twin Triode	21-2	H	19.0	0.15	Class A Amplifier
19R-P11	Power Amplifier Pentode	21-3	H	19.0	0.2	Power Amplifier
19T8	Triple Diode High-Mu Triode	21-2	H	18.9	0.15	Detector, Class A Amplifier

◆ Premium tubes

▲ H = Heater
F = Filament

■ G_c = Conversion transconductance
R_{g1} = Grid No. 1 resistor

12S K7-G T



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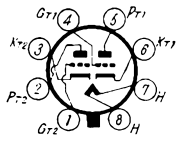

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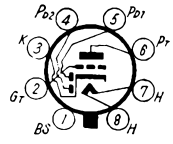
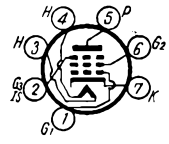
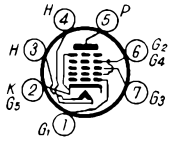


12S Q7-G T



18F W6



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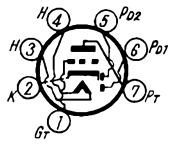
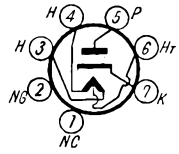


18F Y6



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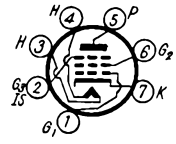

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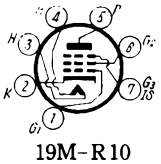

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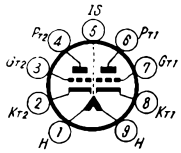
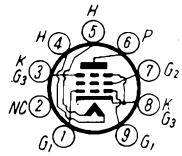
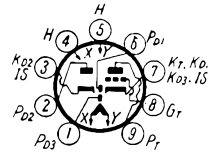


19R-L L1



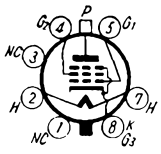
19R-P11



19T8

Typical Operation ■										Remarks
Plate Voltage E_b (V)	No. 2 Grid Voltage E_{c2} (V)	No. 1 Grid Voltage E_{c2} (V)	Plate Current I_b (mA)	No. 2 Grid Current I_{c2} (mA)	Trans-conductance G_m (μmhos)	A.C. Plate Resistance R_p (Ohms)	Amplification Factor μ	Load Resistance R_L (Ohms)	Power Output P_0 (W)	
250	250	−5	35	3.5	8,500	100,000	—	6,500	3.5	
Max. D.C. Plate Supply Voltage: 600 V Max. Peak Positive-Pulse Plate Voltage: 6,000 V (Abs) Max. Peak Negative-Pulse No.1 Grid Voltage: 300 V Max. D.C. Cathode Current: 112.5 mA										
250	150	[68 Ohms]	25	6.0	12,000	90,000	—	—	—	
Max. D.C. Plate Supply Voltage: 700 V Max. Peak Positive-Pulse Plate Voltage: 6,000 V (Abs) Max. D.C. No. 2 Grid Voltage: 200 V Max. D.C. Cathode Current: 140 mA										
250	—	[200 Ohms]	10	—	5,500	10,900	60	—	—	
Max. A.C. Plate Supply Voltage: 300 V Max. D.C. Output Current: 40 mA										
Max. D.C. Plate Supply Voltage: 550 V Max. Peak Positive-Pulse Plate Voltage: 6,600 V (Abs) Max. D.C. No. 2 Grid Voltage: 200 V Max. D.C. Cathode Current: 150 mA										
Max. Peak Inverse Plate Voltage: 4,500 V (Abs) Max. Peak Plate Current: 1,050 mA Max. D.C. Output Current: 175 mA										
Max. Peak Inverse Plate Voltage: 420 V Max. D.C. Output Current: 8 mA Max. Peak Plate Current: 48 mA										
150	—	[230 Ohms]	10	—	5,500	5,500	30	—	—	
250	E_{c2}, E_{c4} 100	$E_{c3}=-2$	3.5	$I_{c2}+I_{c4}$ 8.5	$G_c=450$	1,000,000	$R_{g1}=20$ kΩ $I_{c1}=0.5$ mA			
250	150	−1	10.8	4.1	4,900	900,000	—	—	—	
250	100	−3	3.0	0.8	1,650	1,000,000	—	—	—	
250	100	−3	9.2	2.6	2,000	800,000	—	—	—	
250	—	−2	2.3	—	1,600	44,000	70	—	—	
250	—	−8	9	—	2,600	7,700	20	—	—	
250	—	−2	1.1	—	1,175	85,000	100	—	—	←Triode unit
100	100	[68 Ohms]	11	4.4	4,400	250,000	—	—	—	
100	E_{c2}, E_{c4} 100	$E_{c3}=-1.5$	2.3	$I_{c2}+I_{c4}$ 6.2	$G_c=480$	400,000	$R_{g1}=20$ kΩ $I_{c1}=0.5$ mA			
100	—	−1	0.6	—	1,300	77,000	100	—	—	←Triode unit
Max. Peak Inverse Plate Voltage: 350 V Max. D.C. Output Current: 70 mA										
120	120	−2.5	7	1.5	3,500	350,000	—	—	—	
120	120	[180 Ohms]	9.5	2.8	6,200	260,000	—	—	—	
120	—	[180 Ohms]	8.5	—	5,500	5,500	30	—	—	
120	120	−7	35	7.5	5,500	25,000	—	4,000	1	
5	—	—	20	—	—	—	—	—	—	←Diode unit
250	—	−3	1.0	—	1,200	58,000	70	—	—	←Triode unit

* Heater has controlled warm-up time for series-string operation ● [ ] Shows cathode-bias resistor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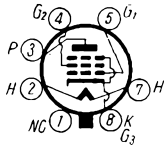
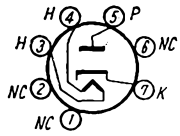

25L6-GT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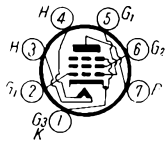
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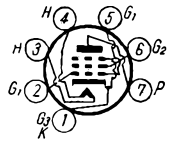
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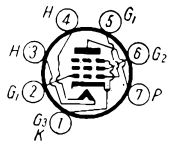
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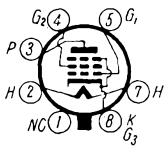
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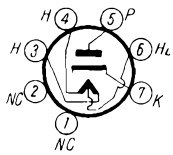
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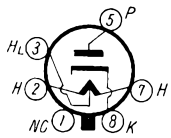
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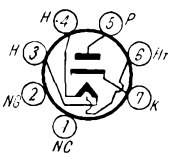
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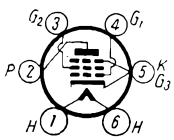
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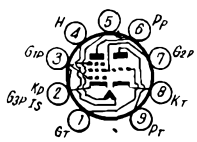
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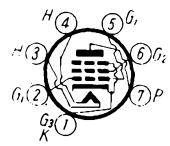
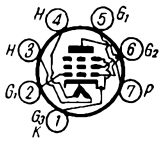

50C5

Type	Name	Dimension Diagram	Cathode			Use
			▲ Type	Voltage E_f (V)	Current I_f (A)	
25BQ6-GTB	Beam Power Tube	29-6	H	25.0	0.3	Horizontal Deflection Amplifier in TV Receivers
25L6-GT	Beam Power Tube	29-1	H	25	0.3	Power Amplifier
25M-K15	Half-Wave Rectifier	18-3	H	25.0	0.15	Half-Wave Rectifier
30A5	Power Amplifier Pentode	18-3	H	30.0	0.15	Power Amplifier
32ET5	Beam Power Tube	18-3	H	32.0	0.1	Power Amplifier
35C5	Beam Power Tube	18-3	H	35.0	0.15	Power Amplifier
35L6-GT	Beam Power Tube	29-1	H	35	0.15	Power Amplifier
35W4	Half-Wave Rectifier	18-3	H	35.0	0.15	Half-Wave Rectifier
35Z5-GT	Half-Wave Rectifier	29-1	H	35.0	0.15	Half-Wave Rectifier
36AM3	Half-Wave Rectifier	18-3	H	36.0	0.1	Rectifier
42	Power Amplifier Pentode	45-1	H	6.3	0.7	Power Amplifier
50BM8	High-Mu Triode Power Amplifier Pentode	21-5	H	50	0.1	Class A Amplifier Power Amplifier
50C5	Beam Power Tube	18-3	H	50.0	0.15	Power Amplifier
50EH5	Power Amplifier Pentode	18-3	H	50.0	0.15	Power Amplifier
50L6-GT	Beam Power Tube	29-1	H	50.0	0.15	Power Amplifier
80	Full-Wave Rectifier	45-1	F	5.0	2.0	Full-Wave Rectifier
80BK	Half-Wave Rectifier	38-1	H	5.0	0.7	Half-Wave Rectifier
CZ-501D	Sharp Cutoff Pentode	38-2	H	3.5	1.0	Class A Amplifier
CZ-504D	Power Amplifier Pentode	45-1	H	5.5	1.0	Power Amplifier
5654 ◆	Sharp Cutoff Pentode	18-1	H	6.3	0.175	Class A Amplifier
5670 ◆	Medium-Mu Twin Triode	21-1	H	6.3	0.35	Class A Amplifier
5725 ◆	Sharp Cutoff Pentode	18-1	H	6.3	0.175	Class A Amplifier
5726 ◆	Duplex Diode	18-1	H	6.3	0.3	Detector, Rectifier
5749 ◆	Remote Cutoff Pentode	18-2	H	6.3	0.3	Class A Amplifier
5750 ◆	Pentagrid Converter	18-2	H	6.3	0.3	Converter
5751 ◆	High-Mu Twin Triode	21-2	H	6.3 12.6	0.35 0.175	Class A Amplifier

◆ Premium tubes

▲ H = Heater
F = Filament

■ G_c = Conversion transconductance
R_{g1} = Grid No. 1 resistor



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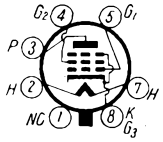

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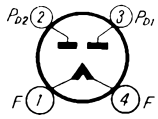

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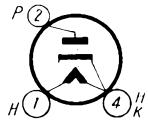

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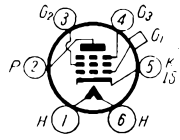

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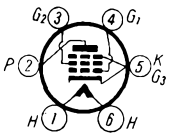

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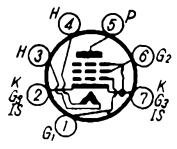

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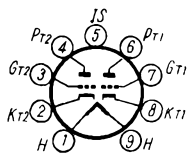

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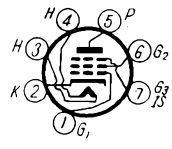

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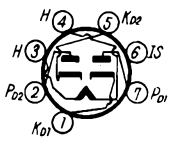

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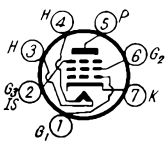

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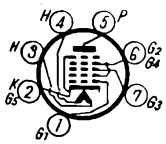

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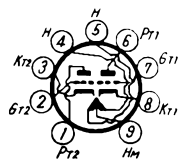
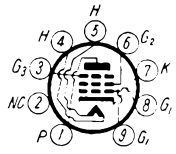


5751

Typical Operation ■										Remarks
Plate Voltage E_b (V)	No. 2 Grid Voltage E_{c2} (V)	No. 1 Grid Voltage E_{c1} (V)	Plate Current I_b (mA)	No. 2 Grid Current I_2 (mA)	Trans-conductance G_m (μmhos)	A.C. Plate Resistance R_p (Ohms)	Amplification Factor μ	Load Resistance R_L (Ohms)	Power Output P_0 (W)	
Max. D.C. Plate Supply Voltage: 600 V Max. D.C. Cathode Current: 112.5 mA				Max. Peak Positive-Pulse Plate Voltage: 6,000 V (Abs) Max. Plate Dissipaion: 11 W						
110	110	−7.5	49	4	8,000	13,000	—	2,000	2.1	
200	125	[180 Ohms]	46	2.2	8,000	28,000	—	4,000	3.8	
Max. Peak Inverse Plate Voltage: 330 V Max. Peak Plate Current: 460 mA				Max. D.C. Output Current: 70 mA						
100	100	−6.7	43	3	9,200	22,000	—	2,400	2.1	
110	110	−7.5	30	2.8	5,500	21,500	—	2,800	1.2	
110	110	−7.5	40	3	5,800	13,000	—	2,500	1.5	
110	110	−7.5	40	3	5,800	13,000	—	2,500	1.5	
Max. Peak Inverse Plate Voltage: 330 V Max. Peak Plate Current: 600 mA				Max. Output Current: 100 mA						
Max. Peak Inverse Plate Voltage: 700 V Max. Peak Plate Current: 600 mA				Max. Output Current: 100 mA						
Max. Peak Inverse Plate Voltage: 350 V Max. Peak Plate Current: 350 mA				Max. D.C. Output Current: 82 mA						
250	250	−16.5	34	6.5	2,500	80,000	—	7,000	3.2	
100	—	0	3.5	—	2,500	—	70	—	—	←Triode unit
200	170	−12.5	35	6.5	6,800	20,500	—	5,600	3.4	←Pentode unit
110	110	−7.5	49	4	7,500	10,000	—	2,500	1.9	
110	115	[62 Ohms]	42	11.5	14,600	11,000	—	3,000	1.4	
110	110	−7.5	49	4	8,000	13,000	—	2,000	2.1	
Max. A.C. Plate Supply Voltage per Plate: 350 V				Max. D.C. Output Current: 125 mA						
Max. A.C. Plate Supply Voltage: 350 V				Max. D.C. Output Current: 75 mA						
250	130	−2.5	7	1.5	3,500	1,000,000	—	—	—	
250	200	−13.5	42	6	3,500	90,000	—	10,000	4	
120	120	−2	7.5	2.5	5,000	300,000	—	—	—	
150	—	[240 Ohms]	8.2	—	5,500	6,400	35	—	—	
120	120	−2	5.2	3.5	3,200	—	—	—	—	$E_{c3}=0$
Max. Peak Inverse Plate Voltage: 360 V Max. Peak Plate Current: 60 mA				Max. D.C. Output Current: 9 mA						
250	100	[68 Ohms]	11	4.2	4,400	1,000,000	—	—	—	
250	E_{c2}, E_{c4} 100	$E_{c3}=-1.5$	2.6	$I_{c2}+I_{c4}$ 7.5	$G_c=475$	1,000,000	$R_{g1}=20$ kΩ	$I_{c1}=0.5$ mA		
250	—	−3	1	—	1,200	58,000	70	—	—	

* Heater has controlled warm-up time for series-string operation ● [ ] Shows cathode-bias resistor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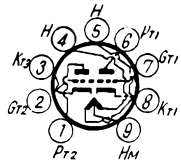
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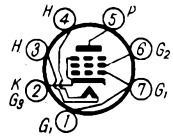
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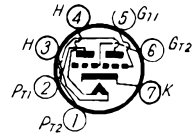
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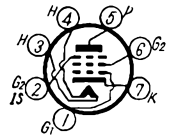
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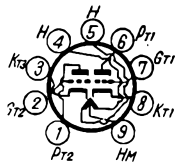
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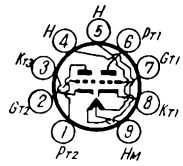
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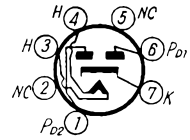
6X4W

Type	Name	Dimension Diagram	Cathode			Use
			Type ▲	Voltage E_f (V)	Current I_f (V)	
5763	Beam Power Amplifier	21-3	H	6.0	0.75	Power Amplifier
5814A ◆	Medium-Mu Twin Triode	21-2	H	6.3 12.6	0.35 0.175	Class A Amplifier
6005 ◆	Beam Power Tube	18-3	H	6.3	0.45	Power Amplifier
6101 ◆	Medium-Mu Twin Triode	18-2	H	6.3	0.45	Class A Amplifier
6136 ◆	Sharp Cutoff Pentode	18-2	H	6.3	0.3	Class A Amplifier
6189 ◆	Medium-Mu Twin Tride	21-2	H	6.3 12.0	0.3 0.15	Class A Amplifier
6201 ◆	High-Mu Twin Triode	21-2	H	6.3 12.6	0.3 0.15	Class A Amplifier
6X4W ◆	Full-Wave Rectifier	18-3	H	6.3	0.6	Full-Wave Rectifier

◆ Premium tubes

▲ H = Heater
F = Filament

■ G_c = Conversion transconductance
R_{g1} = Grid No. 1 resistor

Typical Operation ■

Plate Voltage E_b (V)	No. 2 Grid Voltage E_{c2} (V)	No. 1 Grid Voltage E_{c2} (V)	Plate Current I_b (mA)	No. 2 Grid Current I_{c2} (mA)	Trans-conductance G_m (μmhos)	A.C. Plate Resistance R_p (Ohms)	Amplification Factor μ	Load Resistance R_L (Ohms)	Power Output P_0 (W)	Remarks
250	250	−7.5	45	6.5	7,000	—	—	—	—	
250	—	−8.5	10.5	—	2,200	7,700	17	—	—	
250	250	−12.5	45	4.5	4,100	52,000	—	5,000	4.5	
100	—	〔50 Ohms〕	8.5	—	6,000	6,300	38	—	—	
250	150	〔68 Ohms〕	10.6	4.3	5,200	1,000,000	—	—	—	
250	—	−8.5	10.5	—	2,200	7,700	17	—	—	
250	—	〔200 Ohms〕	10	—	55,00	10,900	60	—	—	

Max. A.C. Plate Supply Voltage: 325 V Max. D.C. Output Current: 70 mA
Max. Peak Inverse Plate Voltage: 1,250 V

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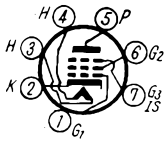
* Heater has controlled warm-up time for series-string operation ● 〔 〕 Shows cathode-bias resistor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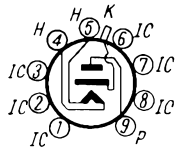
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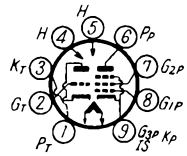
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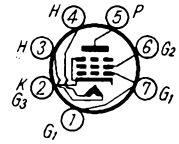
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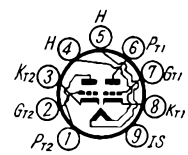
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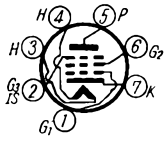
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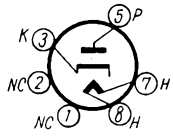
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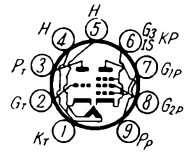
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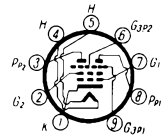
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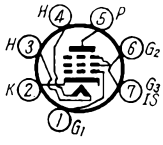
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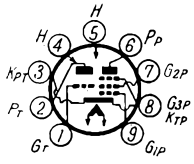
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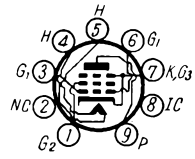
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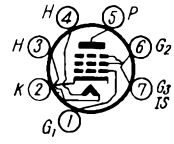
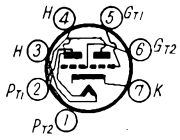

6EW6

Type	Name	Dimension Diagram	Cathod			Use
			Type ▲	Voltage E_f (V)	Current I_f (A)	
4EW6	Sharp Cutoff Pentode	18-2	H *	4.2	0.6	Class A Amplifier
6AF3	Half-Wave Rectifier	21-6	H	6.3	1.2	TV Damper Service
6AN8A	Medium-Mu Triode Sharp Cutoff Pentode	21-2	H *	6.3	0.45	Class A Amplifier
6AQ5A	Beam Power Tube	18-3	H *	6.3	0.45	Power Amplifier
6AQ8	High-Mu Twin Triode	21-2	H	6.3	0.435	Class A Amplifier
6AU6A	Sharp Cutoff Pentode	18-2	H *	6.3	0.3	Class A Amplifier
6AX4-GTB	Half-Wave Rectifier	29-1	H	6.3	1.2	TV Damper Service
6BA8A	Medium-Mu Triode Shap Cutoff Pentode	21-3	H *	6.3	0.6	Class A Amplifier
6BU8	Sharp Cutoff Twin Pentode	21-3	H	6.3	0.3	Class A Amplifier
6CB6A	Sharp Cutoff Pentode	18-2	H *	6.3	0.3	Class A Amplifier
6CG8A	Medium-Mu Triode Sharp Cutoff Pentode	21-2	H *	6.3	0.45	Oscillator Class A Amplifier
6EM5	Beam Powe Tube	21-5	H	6.3	0.8	Power Amplifier
6EW6	Sharp Cutoff Pentode	18-2	H	6.3	0.4	Class A Amplifier
6J6A	Medium-Mu Twin Triode	18-2	H *	6.3	0.45	Class A Amplifier
6T8A	Triple-Diode High-Mu Triode	21-2	H *	6.3	0.45	Class A Amplifier
6U8A	Medium-Mu Triode Sharp Cutoff Pentode	21-2	H *	6.3	0.45	Class A Amplifier
8B8	High-Mu Triode Power Amplifier Pentode	21-5	H *	6.3	0.6	Class A Amplifier Power Amplifier
8BQ5	Power Amplifier Pentode	21-5	H *	8.0	0.6	Power Amplifier
8EM5	Beam Power Tube	21-5	H *	8.4	0.6	Power Amplifier
12AF3	Half-Wave Rectifier	21-6	H *	12.6	0.6	TV Damper Service
12AU7A	Medium-Mu Twin Triode	21-2	H	6.3 12.6	0.3 0.15	Class A Amplifier
12AX4-GTB	Half-Wave Rectifier	29-1	H *	12.6	0.6	TV Damper Service
12SN7-GTB	Medium-Mu Twin Triode	29-1	H *	12.6	0.3	Class A Amplifier
25EH5	Power Amplifier Pentode	18-3	H	25.0	0.3	Power Amplifier
32A8	High-Mu Triode Power Amplifier Pentode	21-5	H	32.0	0.15	Class A Amplifier Power Amplifier

◆ Premium tubes

▲ H = Heater
F = Filament

■ G_c = Conversion transconductance
R_{g1} = Grid No. 1 resistor



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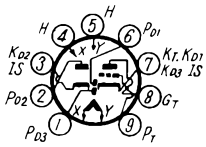

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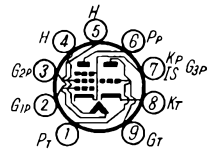

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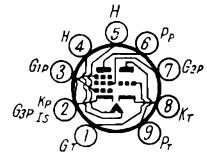

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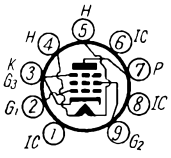

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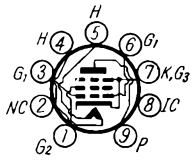

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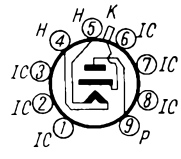

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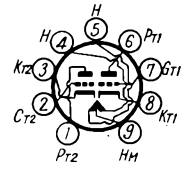

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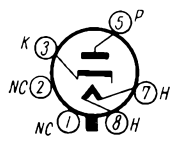

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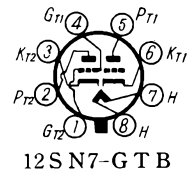

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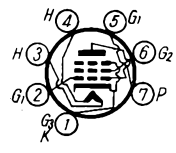

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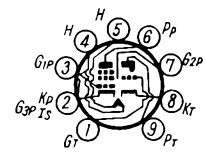


32A8

Typical Operation ■

Plate Voltage E_b (V)	No. 2 Grid Voltage E_{c2} (V)	No. 1 Grid Voltage E_{c1} (V)	Plate Current I_b (mA)	No. 2 Grid Current I_{c2} (mA)	Trans conductance G_m (μmhos)	A.C. Plate Resistance R_P (Ohms)	Amplification Factor μ	Load Resistance R_L (Ohms)	Power Output P_o (W)	Remarks
125	125	[56 Ohms]	11	3.2	14,000	200,000	—	—	—	
Max. Peak Inverse Plate Voltage: 4,500 Max. Peak Plate Current: 750 mA Max. D.C. Output Current: 185 mA										
200	—	−6	13	—	3,300	5,750	18	—	—	←Triode Unit
200	150	[180 Ohms]	9.5	2.8	6,200	300,000	—	—	—	←Pentode Unit
250	250	−12.5	45.0	4.5	4,100	52,000	—	5,000	4.5	
250	—	−2.3	10	—	5,900	—	57	—	—	
250	150	[68 Ohms]	10.6	4.3	5,200	1,000,000	—	—	—	
Max. Peak Inverse Plate Voltage: 5,000 V Max. Peak Plate Current: 1,000 mA Max. D.C. Output Current: 165 nA										
200	—	−8	8	—	2,700	6,700	18	—	—	←Triode Unit
200	150	[180 Ohms]	13	3.5	9,000	400,000	—	—	—	←Pentode Unit
100	67.5	§	—	6.5	§ Grid Current Adjusted for 100 Microamperes D.C.					←$E_{c3}=-10$ V
100	67.5		2.2	3.3						←$E_{c3}=0$ V
125	125	[56 Ohms]	13	3.7	8,000	280,00	—	—	—	
100	—	[100 Ohms]	8.5	—	5,800	6,900	40	—	—	←Triode Unit
250	150	[200 Ohms]	7.7	1.6	4,600	750,000	—	—	—	←Pentode Unlt
250	250	−18	35	3	5,100	—	8.7	—	—	$\mu=G_1-G_2$
125	125	[56 Ohms]	11	3.2	14,000	200,000	—	—	—	
100	—	[50 Ohms]	8.5	—	5,300	7,100	38	—	—	
250	—	−3	1	—	1,200	58,000	70	—	—	←Triode Unit
150	—	[56 Ohms]	18	—	8,500	5,000	40	—	—	←Triode Unit
250	110	[68 Ohms]	10	3.5	5,200	400,000	—	—	—	←Pentode Unit
100	—	0	3.5	—	2,500	—	70	—	—	←Triode Unit
200	170	−12.5	35	6.5	6,800	20,500	—	5,600	3.4	←Pentode Unit
250	250	−7.3	48	5.5	11,300	3,800	—	5,200	6	
250	250	−18	35	3	5,100	—	8.7	—	—	$\mu=G_1-G_2$
Max. Peak Inverse Plate Voltage: 4,500 V Max. Peak Plate Current: 750 mA Max. D.C. Output Current: 185 mA										
250	—	8.5	10.5	—	2,200	7,700	17	—	—	
Max. Peak Inverse Plate Voltage: 4,400 V Max. Peak Plate Current: 1,000 mA Max. D.C. Output Current: 165 mA										
250	—	−8	9	—	2,600	7,700	20	—	—	
110	115	[62 Ohms]	42	11.5	14,600	11,000	—	3,000	1.4	
100	—	0	3.5	—	2,500	—	70	—	—	←Triode Unit
200	170	−12.5	32	6.5	6,800	20,500	—	5,600	3.4	←Pentode Unit

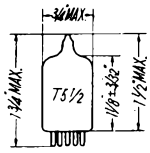
* Heater has controlled warm-up time for series-string operation ● [ ] Shows cathode-bias resistor

HITACHI RECEIVING TUBES CLASSIFICATION CHARTS

Filament or Heater Voltage			1.25~3.5V	5.0~6.0V	6.3V	12.6V	18.0~50V	600mA Series
Rectifier	Single Diode		1B3-GT 1G3-GT /1B3-GT 1X2B 3A3	5M-K9 12F 80BK			19A3 25M-K15 35W4 35Z5-GT 36AM3	
	Twin Diode			5R4-GY 5R-K16 5U4-G 5U4-GB 5Y3-GT 5Z3 80	6CA4 6X4 6X4W 6X5-GT			
TV Damper	Single Diode				6AF3 6AU4-GTA 6AX4-GT 6AX4-GTB 6G-K17 6W4-GT	12AF3 12AX4-GTA 12AX4-GTB 12G-K17		12AF3 12AX4-GTA 12AX4-GTB 12G-K17
Diode Detector	Single Diode		1A3					
	Twin Diode				6AL5 6H6-GT 5726	12AL5 12H6-GT		3AL5
Power Amplifier	Twin Triode		3A5					
	Double Triode				6CS7 6DE7			6CS7 10DE7
	Beam Tube		3B4	5763	6AQ5 6AQ5A 6BG6-G 6BK5 6BQ6-GTB /6CU6 6CZ5 6DQ5 6DQ6A 6EM5 6G-B3A 6L6-G 6V6-GT 6W6-GT 6005	12AQ5 12BK5 12BQ6-GTB /12CU6 12DQ6A 12G-B3	25BQ6-GTB 25L6-GT 32ET5 35C5 35L6-GT 50C5 50L6-GT	5AQ5 5CZ5 8EM5 12BK5 12BQ6-GTB /12CU6 12DQ6A 12G-B3
	Pentode	Single Pentode	3A4 3Q4 3S4 3V4	CZ-504D	6AR5 6BQ5 6CL6 6F6-GT 6K6-GT 6R-P10 6Z-P1 42		19R-P11 25EH5 30A5 50EH5	4M-P12 8BQ5
		With Triode			6BM8		32A8 50BM8	8B8
Converter & Mixer	Pentagrid		1R5		6BE6 6SA7-GT 6W-C5 5750	12BE6 12SA7-GT	18FX6	
	Triode-Heptode				6AJ8	12AJ7		
FM Detector	Gated Beam				6BN6			3BN6
	Pentode				6DT6			3DT6
Voltage Regulator	Beam Triode				6BK4			

Filament or Heater Voltage				1.25～3.5V	5.0V	6.3V	12.6V	18.0～50V	600mA Series
Voltage Amplifier	Triode	Medium-Mu	Single Triode			6C4 6J5-GT			
			With two Diode			6BJ8			6BJ8
			Twin Triode			6BC8 6BQ7A 6BZ7 6CG7 6J6 6J6A 6M-HH3 6R-HH2 6SN7-GTB 12AU7 12AU7A 12AY7 12BH7A 5670 5814A 6101 6189	12AU7 12AU7A 12AY7 12BH7A 12R-LL3 12SN7-GT 12SN7-GTB 5814A 6189	19R-LL1	4BC8 4BQ7A 4BZ7 4R-HH2 5J6 5M-HH3 7AU7 12BH7A
		High-Mu	Single Triode			6J4WA			
			With Diode			6Z-DH3A			
			With two Diode			6AT6 6AV6 6BN8 6SQ7-GT	12AT6 12AV6 12SQ7-GT	18FY6	3AV6 6BN8
			With three Diode			6T8 6T8A		19T8	5T8
			Twin Triode			6AQ8 6DT8 6SL7-GT 12AT7 12AX7 5751 6201	12AT7 12AX7 12DT8 12SL7-GT 5751 6201		
	Pentode	Remote cut-off	Single Pentode	IT4		6BA6 6BD6 6BJ6 6BZ6 6D6 6SD7-GT 6SK7-GT 5749	12BA6 12BD6 12SK7-GT	18FW6	3BZ6
			With Diode Triode			6R-DHVI			
		Sharp cut-off	Single Pentode	IAE4 IL4 IU4 CZ-501D		6AC7-GT 6AJ5 6AK5 6AS6 6AU6 6AU6A 6BH6 6C6 6CB6 6CB6A 6CF6 6DK6 6EW6 6R-R8 6SH7-GT 6SJ7-GT 12BY7A 5654 5725 6136	12AU6 12BY7A 12SH7-GT 12SJ7-GT	19M-R9 19M-R10	3AU6 3CB6 3DK6 4EW6
			Twin Pentode			6BU8			
			With Diode	IS5 IU5		6AM8A			5AM8
			With Medium-Mu Triode			6AN8 6AN8A 6BA8A 6CG8 6CG8A 6U8 6U8A			5AN8 5CG8 5U8 6BA8A
			With High-Mu Triode			6AW8A			6AW8A

Dimensions Diagrams



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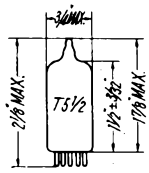

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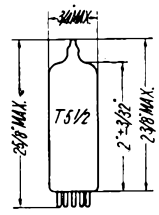

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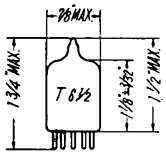

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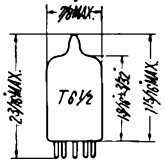

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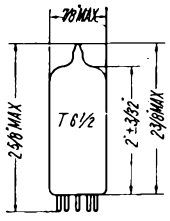

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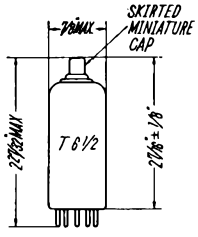

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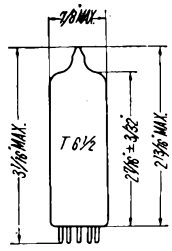

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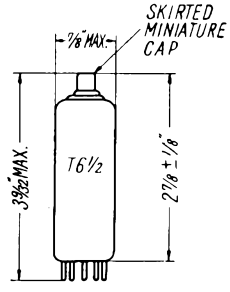

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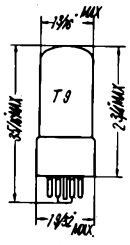

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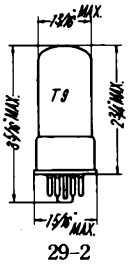

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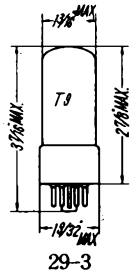

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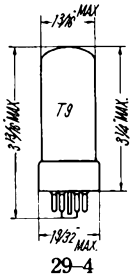

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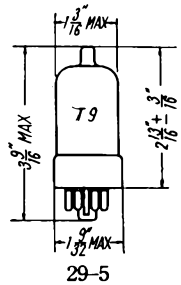

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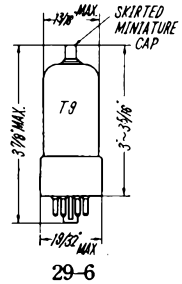

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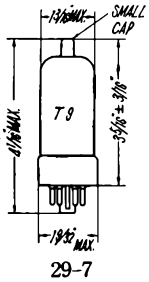

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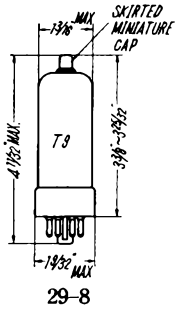

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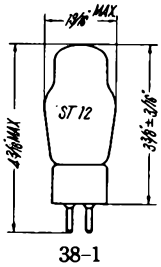

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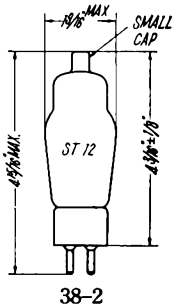

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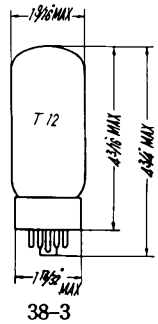

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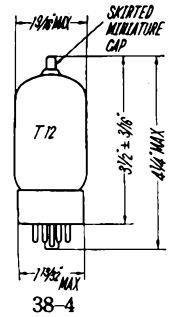

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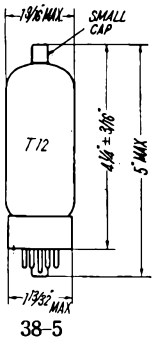

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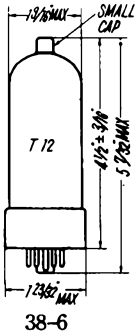

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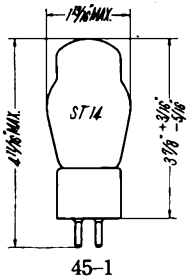

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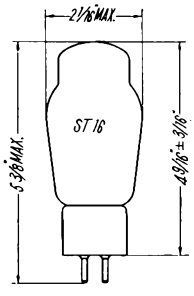

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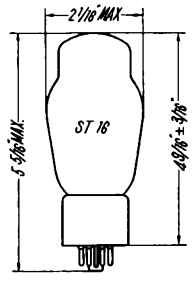

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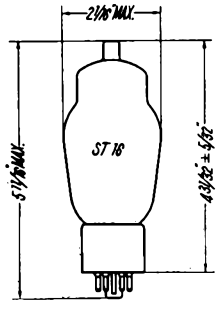

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