Sylvania RADIO TUBES

Characteristics

Printed in U. S. A.

10,000 12-31-43 Form 211

Type	Class	Base	Filament Rating Volts	Filament Rating Amps.	Use	Plate Volts	Negative Grid Volts	Screen Volts	Plate Current Ma.	Screen Current Ma.	Plate Resistance Ohms	Micromhos Mutual Conductance	Amplification Factor	Ohms Load for Stated Power Output	Undistorted Power Output Milliwatts
0A4G	Triode	4-V		....	Relay Tube	Peak Cathode Ma. = 100. D-C Cathode Ma. = 25 Max. Starter Anode Drop = 60 V. Approx. Anode Drop = 70 V. Approx.									
0B3/VR90-30	Diode	4-W	Voltage Regulator with starting Voltage at 125, Operating Volts 90, Operating Current 10 Ma Min 30 Ma Max.												
0C3/VR105-30	Diode	4-W	Voltage Regulator with starting Voltage at 135, Operating Volts 105, Operating Current 5 Ma Min 30 Ma Max.												
0D3/VR150-30	Diode	4-W	Voltage Regulator with starting Voltage at 180, Operating Volts 150, Operating Current 5 Ma Min 30 Ma Max.												
0Z4, 0Z4G	Duodiode	4-R	....	....	F-W Rect.	300 A-C Volts Per Plate, RMS, 75 Ma. Max. 30 Ma. Min. Output Current.									
01A	Triode	4-D	5.0	0.25	Amplifier	90 135	4.5 9.0	.....	2.5 3.0	.....	11,000 10,000	725 800	8.0 8.0	.....	.....
1A4P	Pentode	4-M	2.0	0.06	R-F Amp.	135 180	3.0 3.0	67.5 67.5	2.2 2.3	0.9 0.8	1 Meg. 1 Meg.	625 725	.....	.....	.....
1A4T	Tetrode	4-K	2.0	0.06	R-F Amp.	135 180	3.0 3.0	67.5 67.5	2.2 2.2	0.7 0.7	350,000 600,000	625 650	.....	.....	.....
1A5G/GT	Pentode	6-X	1.4	0.05	Power Amp.	85 90	4.5 4.5	85 90	3.5 4.0	0.7 0.8	300,000 300,000	800 850	.....	25,000 25,000	100 115
1A6	Heptode	6-L	2.0	0.06	Converter	135 180	3.0 3.0	67.5 67.5	1.8 1.5	2.1 2.0	400,000 500,000	275▲ 300▲	(G2 = 135 V. □ Max. 2.0 Ma.) (G2 = 180 V. □ Max. 2.5 Ma.)		
1A7G/GT	Heptode	7-Z	1.4	0.05	Converter	90	0.0	45	0.55	0.60	600,000	250▲	(G2 = 90 V. Max. 1.2 Ma.)		
1B4P	Pentode	4-M	2.0	0.06	R-F Amp.	135 180	3.0 3.0	67.5 67.5	1.6 1.7	0.7 0.6	1.5 Meg.♦ 1.5 Meg.♦	560 650	.....	.....	....
1B5/25S	Duodiode Tri.	6-M	2.0	0.06	Detector	135	3.0	.....	0.8	.....	35,000	575	20	.....	.....
1B7G/GT	Heptode	7-Z	1.4	0.10	Converter	90	0.0	45	1.5	1.3	350,000	350▲	(G2 = 90 V., 1.6 Ma.)		
1C5GT/G	Pentode	6-X	1.4	0.10	Power Amp.	83 90	7.0 7.5	83 90	7.0 7.5	1.6 1.6	110,000 115,000	1,500 1,550	165 180	9,000 8,000	200 240
1C6	Heptode	6-L	2.0	0.12	Converter	135 180	3.0 3.0	67.5 67.5	1.3 1.5	2.5 2.0	600,000 700,000	300▲ 325▲	(G2 = 135 V. □ Max. 3.1 Ma.) (G2 = 180 V. □ Max. 4.0 Ma.)		
1C7G	Heptode	7-Z	2.0	0.12	Converter	135 180	3.0 3.0	67.5 67.5	1.3 1.5	2.5 2.0	600,000 700,000	300▲ 325▲	(G2 = 135 V. □ Max. 3.1 Ma.) (G2 = 180 V. □ Max. 4.0 Ma.)		
1D5GP	Pentode	5-Y	2.0	0.06	R-F Amp.	135 180	3.0 3.0	67.5 67.5	2.2 2.3	0.9 0.8	1 Meg. 1 Meg.	625 725	.....	.....	.....
1D5GT	Tetrode	5-R	2.0	0.06	R-F Amp.	135 180	3.0 3.0	67.5 67.5	2.2 2.2	0.7 0.7	350,000 600,000	625 650	.....	.....	.....
1D7G	Heptode	7-Z	2.0	0.06	Converter	135 180	3.0 3.0	67.5 67.5	1.8 1.5	2.1 2.0	400,000 500,000	275▲ 300▲	(G2 = 135 V. □ Max., 2.0 Ma.) (G2 = 180 V. □ Max., 2.5 Ma.)		
1D8GT	Duodiode Tri. Pentode	8-AJ	1.4	.100	Det. Amp. Power Amp.	45 67.5 90 45 67.5 90	0 0 0 4.5 6.0 9.0	.... 45 67.5 90	0.3 0.6 1.1 1.6 3.8 5.0	.... 0.3 0.8 1.0	77,000 55,500 43,500 300,000♦ 200,000♦ 200,000♦	325 450 575 650 875 925	25 25 25	.... 20,000 16,000 12,000	.... 35 100 200
1E4G	Triode	5-S	1.4	0.05	Amplifier	90 90	0.0 3.0	....	4.5 1.5	....	11,000 17,000	1,325 825	14.5 14	.....	.....
1E5GP	Pentode	5-Y	2.0	0.06	R-F Amp.	135 180	3.0 3.0	67.5 67.5	1.6 1.7	0.7 0.6	1.5 Meg.♦ 1.5 Meg.♦	560 650	.....	.....	.....
1E7G	Duo. Pentode	8-C	2.0	0.24	Power Amp.	135	7.5	135	7.0♦	2.0♦	220,000	1,600	350	24,000¶	575
1F4	Pentode	5-K	2.0	0.12	Power Amp.	135	4.5	135	8.0	2.4	200,000	1,700	.....	16,000	310
1F5G	Pentode	6-X	2.0	0.12	Power Amp.	135	4.5	135	8.0	2.4	200,000	1,700	.....	16,000	310
1F6	Duodi. Pent.	6-W	2.0	0.06	R-F or I-F A-F Amp.	180 135*	1.5 2.0	67.5 (Screen Supply = 135 V. Thru 0.8 Meg Rest., Grid Rest. = 1.0 Meg., Voltage Gain 46.)	2.2	0.7	1 Meg.	650	.....	.....	.....
1F7G	Duodi. Pent.	7-AD	2.0	0.06	R-F or I-F A-F Amp.	180 135*	1.5 2.0	67.5 (Screen Supply = 135 V. Thru 0.8 Meg. Rest., Grid Rest. = 1.0 Meg., Voltage Gain 46.)	2.2	0.7	1 Meg.	650	.....	.....	.....
1G4GT/G	Triode	5-S	1.4	0.05	Amplifier	90	6.0	.....	2.3	.....	10,700	825	8.8	.....	.....
1G5G	Pentode	6-X	2.0	0.12	Power Amp.	90	6.0	90	8.5	2.5	133,000♦	1,500	.....	8,500	250
1G6GT/G	Duotriode	7-AB	1.4	0.10	Power Amp. Class B	90 90	0.0 0.0	....	1.0♯ 1.0♯	....	45,000	675	30	(Each Triode Class A) 12,000¶	675
1H4G	Triode	5-S	2.0	0.06	Det. Amp.	90 135 180	4.5 9.0 13.5	....	2.5 3.0 3.1	....	11,000 10,300 10,300	850 900 900	9.3 9.3 9.3	.....	.....
1H5G, GT	Diode-Triode	5-Z	1.4	0.05	Det., Amp.	90	0.0	.....	0.15	.....	240,000	275	65	.....	.....
1H6G	Duodiode Tri.	7-AA	2.0	0.06	Det., Amp.	135	3.0	.....	0.8	.....	35,000	575	20	.....	.....
1J5G	Pentode	6-X	2.0	0.12	Power Amp.	135	16.5	135	7.0	2.0	125,000	1,000	125	13,500	575
1J6G	Duotriode	7-AB	2.0	0.24	Power Amp.	Characteristics Same as Type 19.				.....			.....		
1LA4	Pentode	5-AD	1.4	0.05	Power Amp.	85 90	4.5 4.5	85 90	3.5 4.0	0.7 0.8	300,000 300,000	800 850	.....	25,000 25,000	100 115
1LA6	Heptode	7-AK	1.4	0.05	Converter	90	0.0	45	0.55	0.6	750,000	250▲	(G2 = 90V. Max., 1.2 Ma.)		
1LB4	Pentode	5-AD	1.4	0.05	Power Amp.	45 67.5 90	4.5 6.0 9.0	45 67.5 90	1.6 3.8 5.0	0.3 0.8 1.0	300,000 200,000 200,000	650 875 925	.....	20,000 16,000 12,000	35 100 200
1LC5	Pentode	7-AO	1.4	0.05	Amplifier	45 90	0.0 0.0	45 45	1.1 1.5	0.25 0.20	700,000 1.5 Meg.	750 775	.....	.....	.....
1LC6	Heptode	7-AK	1.4	0.05	Converter	45 90	0.0 0.0	35 35	0.7 0.75	0.75 0.7	300,000 650,000	250▲ 275▲	(G2 = 45 V. Max., 1.4 Ma.) (G2 = 45 V. Max., 1.4 Ma.)		
1LD5	Diode Pent.	6-AX	1.4	0.05	Amplifier	45 90	0.0 0.0	45 45	0.55 0.6	0.12 0.1	900,000 750,000	550 575	.....	.....	.....
1LE3	Triode	4-AA	1.4	0.05	Amplifier	90 90	0.0 3.0	....	4.5 1.4	....	11,200 19,000	1,300 760	14.5 14.5	.....	.....
1LH4	Diode-Tri.	5-AG	1.4	0.05	Amplifier	90	0.0	.....	0.15	.....	240,000	275	65	.....	.....
1LN5	Pentode	7-AO	1.4	0.05	Amplifier	90	0.0	90	1.6	0.35	1.1 Meg.	800	.....	.....	.....
1N5G, GT	Pentode	5-Y	1.4	0.05	R-F Amp.	90	0.0	90	1.2	0.3	1.5 Meg.♦	750	.....	.....	.....
1N6G	Diode Pent.	7-AM	1.4	0.05	Power Amp.	90	4.5	90	3.4	0.7	300,000♦	800	.....	25,000	100
1P5G, GT	Pentode	5-Y	1.4	0.05	Amplifier	90	0.0	90	2.3	0.7	800,000	750	.....	.....	.....
1Q5GT/G	Tetrode	6-AF	1.4	0.10	Power Amp.	90	4.5	90	9.5	1.3	.....	2,200	.....	8,000	270
1R4-1294	H. F. Diode	4AH	1.4	.150	Detector	Half wave cathode type rectifier for High Frequency use									
1R5	Heptode	7-AT	1.4	0.05	Converter	45 90	0.0 0.0	45 67.5	0.7 1.7	1.9 3.0	600,000♦ 500,000♦	235▲ 300▲	.....	.....	.....
1S4	Pentode	7-AV	1.4	0.1	Power Amp.	45 90	4.5 7.0	45 67.5	3.8♯ 7.4♯	0.8♯ 1.4♯	100,000♦ 100,000♦	1,250 1,575	.....	8,000 8,000	65 270
1S5	Diode Pent.	6-AU	1.4	0.05	Amplifier	67.5	0.0	67.5	1.6	0.4	600,000	625	....	.....	.....

*Applied through 250,000 ohms. Per Tube or Section—No Signal. ‡Plate and Target Supply Voltage.

**Triode Operation. ‡‡Applied through 200,000 ohms. §§With Average Power Input of 320 Mw. Grid to Grid.

‡Pentode Operation. ††For two tubes with 40 volts RMS applied to each grid.

¶Plate to Plate. □Applied through 20,000 ohms.

♦Approximate.

▲Conversion Conductance †50 Volts RMS applied to two grids.

CHARACTERISTICS

Type	Class	Base	Filament Rating Volts	Filament Rating Amps.	Use	Plate Volts	Negative Grid Volts	Screen Volts	Plate Current Ma.	Screen Current Ma.	Plate Resistance Ohms	Micromhos Mutual Conductance	Amplification Factor	Ohms Load for Stated Power Output	Undistorted Power Output Milliwatts
1T4	Pentode	6-AR	1.4	0.05	R-F Amp.	45 90	0.0 0.0	45 67.5	1.9 3.7	0.7 1.25	350,000 500,000	700 900	....	....	....
1T5GT	Tetrode	6-AF	1.4	0.05	Power Amp.	90	6.0	90	6.5	1.4	.....	1,150	.....	14,000	170
1V	Diode	4-G	6.3	0.30	H-W Rect.	325 A-C Volts Per Plate, RMS, 45 Ma. Output Current. Condenser Input to Filter.									
2A3	Triode	4-D	2.5	2.50	Power Amp. Class AB1	250 300	45.0 62.0	....	60.0 40.0 per Tube, Push Pull, Fixed Bias	.....	800	5,250	4.2	2,500 3,000¶	3,500 15,000
2A4G	Triode	5-S	2.5	2.50	Relay Tube	Instantaneous Forward or Inverse Anode Volts = 200. Peak Anode Amps. = 1.25. Average Anode Current = 0.1 Amp. Max. Averaging Time = 45 Seconds. Cold Starting Time = 2 Seconds.									
2A5	Pentode	6-B	2.5	1.75	Power Amp.	Characteristics Same as Type 6F6G.									
2A6	Duodiode Tri.	6-G	2.5	0.80	Det. Amp.	250	2.0	.....	0.9	.....	91,000	1,100	100	.....	.....
2A7, 2A7S	Heptode	7-C	2.5	0.80	Converter	Characteristics Same as Type 6A7.									
2B7, 2B7S	Duodl. Pent.	7-D	2.5	0.80	R-F or I-F	Characteristics Same as Type 6B7.									
2E5	Triode	6-R	2.5	0.80	Indicator	Characteristics Same as Type 6E5.									
2S/4S	Duodiode	5-D	2.5	1.35	Detector	The Two Diode Plates each Draw Approximately 40.0 Ma. with 50 Volts D.C. on the Plates.									
2W3	Diode	4-X	2.5	1.50	H-W Rect.	350 A-C Volts Per Plate, RMS, 55 Ma. Output Current. Condenser Input to Filter.									
2X2/879	Diode	4-AB	2.5	1.75	H-W Rect.	4,500 A-C Volts Per Plate, RMS, 7.5 Ma. Output Current. Condenser Input to Filter.									
2Z2/G84	Diode	4-B	2.5	1.50	H-W Rect.	350 A-C Volts Per Plate, RMS, 50 Ma. Output Current.									
3A8GT	Diode Tri.-Pent.	8-AS	1.4 2.8	0.10 0.05	Tri.-Amp. Pent.-Amp.	90 90	0.0 0.0	 90	0.15 1.20	..... 0.3	240,000 600,000	275 750	....	....	....
3B7-1291	Duotriode	7BE	2.8 1.4	.110 .220	Osc. Amp.	135 180	0 0	....	2.2 25	(Class B) (Class C)	1,900 R. F. Pow. Amp. 2800 mw at 25 mc	20	16,000	1,500 1400 mw at 125 mc	.....
3D6-1299	Tetrode	6BB	2.8 1.4	.110 .220	Power Amp.	150 150	4.5 20.0	90 135	10.2 23.0	1.8 6.0	(Class A) (Class C)	2,400 R. F. Power Amp. at 50 mc.	.....	14,000	600 1,400
3Q5GT/G	Tetrode (Series Fil. Oper.)	7-AP	1.4 2.8	0.10 0.05	Power Amp. Power Amp.	90 90	4.5 4.5	90 90	9.5 8.0	1.3 1.0	75,000 80,000	2,200 2,000	....	8,000 8,000	270 230
3S4	Tetrode (Series Fil. Oper.)	7-BA	1.4 2.8	0.10 0.05	Power Amp. Power Amp.	90 90	7.0 7.0	67.5 67.5	7.4 6.1	1.4 1.1	100,000 100,000	1,575 1,425	....	8,000 8,000	270 235
5U4G	Duodiode	5-T	5.0	3.00	F-W Rect.	450 A-C Volts Per Plate, RMS, 225 Ma. Output Current. Condenser Input to Filter.									
5V4G	Duodiode	5-L	5.0	2.00	F-W Rect.	375 A-C Volts Per Plate, RMS, 175 Ma. Output Current. Condenser Input to Filter.									
5W4GT/G	Duodiode	5-T	5.0	1.50	F-W Rect.	350 A-C Volts Per Plate, RMS, 110 Ma. Output Current. Condenser Input to Filter.									
5X4G	Duodiode	5-Q	5.0	3.00	F-W Rect.	450 A-C Volts Per Plate, RMS, 225 Ma. Output Current. Condenser Input to Filter.									
5Y3G	Duodiode	5-T	5.0	2.00	F-W Rect.	350 A-C Volts Per Plate, RMS, 125 Ma. Output Current. Condenser Input to Filter. 500 A-C Volts Per Plate, RMS, 125 Ma. Output Current. Choke Input to Filter.									
5Y4G	Duodiode	5-Q	5.0	2.00	F-W Rect.	Characteristics Same as Type 5Y3G.									
5Z3	Duodiode	4-C	5.0	3.00	F-W Rect.	450 A-C Volts Per Plate, RMS, 225 Ma. Output Current. Condenser Input to Filter.									
5Z4	Duodiode	5-L	5.0	2.00	F-W Rect.	350 A-C Volts Per Plate, RMS, 125 Ma. Output Current. Condenser Input to Filter.									
6A3	Triode	4-D	6.3	1.00	Power Amp.	250 325 325	45.0 68.0	....	60.0 40.0# 40.0#	..... (Push Pull, Fixed Bias) (Push Pull, Self Bias Resistor 850 Ohms)	800	5,250	4.2	2,500 3,000¶ 5,000¶	3,200 15,000 10,000
6A4/LA	Pentode	5-B	6.3	0.30	Power Amp.	135 180	9.0 12.0	135 180	13.0 22.0	2.8 3.9	52,600 60,000	2,100 2,500	150 150	9,500 8,000	700 1,500
6A5G	Triode	6-T	6.3	1.25	Power Amp. P.P. AB1 Amp	250 325	45.0 68.0	....	60.0 40.0 Per Tube, Push Pull, Fixed Bias	.....	800	5,250	4.2	2,500 3,000¶	3,750 15,000
6A6	Duotriode	7-B	6.3	0.80	Power Amp. Driver Driver	300 250 294	0.0 5.0 6.0	....	17.5 6.0 7.0	Per Plate, Class B Operation, Zero Signal	11,300 11,000	3,100 3,200	35 35	10,000¶ (Class A Driver) (Class A Driver)	10,000
6A7, 6A7S	Heptode	7-C	6.3	0.30	Converter	Characteristics Same as Type 6A8G, Except Capacitances.									
6A8	Heptode	8-A	6.3	0.30	Converter	Characteristics Same as Type 6A8G, Except Capacitances.									
6A8G, GT	Heptode	8-A	6.3	0.30	Converter	100 250	1.5 3.0	50 100	1.1 3.5	1.3 2.7	600,000 360,000	360▲ 550▲	(G2 = 100 V., 2.0 Ma.) (G2 = 250 V□., Max., 4.0 Ma.)		
6AB5/6N5	Triode	6-R	6.3	0.15	Indicator	135§	(Series Plate Resistor 0.25 Meg., Target Current 2.0 Ma., Grid Bias = 10 for 0° Shadow.)								
6AB7/1853	Pentode	8-N	6.3	0.45	Amplifier	300	3.0	200	12.5	3.2	700,000♦	5,000	3,500♦	.....	.....
6AC5GT/G	Triode	6-Q	6.3	0.40	Power Amp.	250 250 250	+13 (Bias From 76 Driver) 0.0	....	32.0 32.0 2.5#	..... (Class A1, One Tube, Dynamic Coupled) (Class B, Two Tubes)	36,700	3,400	125	..... 7,000 10,000¶	..... 3,700 8,000
6AC7/1852	Pentode	8-N	6.3	0.45	Amplifier	300	....	150	10.0	2.5	750,000♦	9,000	6,750♦	Bias Res. = 160 ohms.	
6AD6G	Duodiode	7-AG	6.3	0.15	Indicator	100§ (Ray Control Volts = 45 Approx. For 0° Shadow; Approx. −23 Volts for 135° Shadow.) 150§ (Ray Control Volts = 75 Approx. For 0° Shadow; Approx. −50 Volts for 135° Shadow.)									
6AD7G	Tri. Pentode	8-AY	6.3	0.85	Triode Amp. Pent. Amp.	250 250	25.0 16.5	 250	4.0 34.0	..... 6.5	19,000♦ 80,000♦	325 2,500	6	 7,000	 3,200
6AE5GT/G	Triode	6-Q	6.3	0.30	Amplifier	95	15	.....	7.0	.....	3,500	1,200	4.2	.....	.....
6AE6G	Duo Plate Triode	7-AH	6.3	0.15	Remote Cut-Off Sharp Cut-Off	250 250 250 250	1.5 35.0 1.5 9.5	....	6.5 0.01 4.5 0.01	....	2,500 ..... 3,500	1,000 ..... 950	25 ..... 33	....	....
6AE7GT	Duotriode	7-AX	6.3	0.50	Amplifier	250 (Driver for P P. 6AC5GT = 250 V. 10 Ma., 6AC5GT Plate Ma. = 64. Output 9.5 Watts with 10,000 Ohms Load; Bias Developed in Circuit.)	13.5	.....	10.0	.....	4,650	3,000	14	.....	.....
6AF5G	Triode	6-Q	6.3	0.30	Amplifier	180	18.0	.....	7.0	.....	4,900	1,500	7.4	.....	.....
6AF6G	Duodiode	7-AG	6.3	0.15	Indicator	100§ (Ray Control Volts = Approx. 60 for 0° Shadow; Approx. Zero Volt for 100° Shadow.) 135§ (Ray Control Volts = Approx. 81 for 0° Shadow; Approx. Zero Volt for 100° Shadow.)									
6AG7	Pentode	8-Y	6.3	0.65	Amplifier	300	10.5	300	25.0	6.5	100,000	7,700	.....	.....	.....
6B4G	Triode	5-S	6.3	1.00	Power Amp.	Characteristics Same as Type 6A3.									
6B5	Duotriode	6-AS	6.3	0.80	Power Amp.	Characteristics Same as Type 6N6G.									
6B7, 6B7S	Duodl. Pent.	7-D	6.3	0.30	R-F or I-F Amplifier A-F Amp.	100 180 250 250	3.0 3.0 3.0 4.5	100 75.0 100 50.0	5.8 3.4 6.0 0.65	1.7 0.9 1.5	300,000 1 Meg. 800,000	950 840 1,000	....	....	....
6B8	Duodl. Pent.	8-E	6.3	0.30	R-F or I-F	250	3.0	125	10.0	2.3	600,000	1,325	.....	.....	.....
6B8G	Duodl. Pent.	8-E	6.3	0.30	R-F or I-F	Characteristics Same as Type 6B7.									
6C5GT/G	Triode	6-Q	6.3	0.30	Amplifier	250	8.0	.....	8.0	.....	10,000	2,000	20	.....	.....
6C6	Pentode	6-F	6.3	0.30	Amplifier	100 250	3.0 3.0	100 100	2.0 2.0	0.5 0.5	1 Meg. 1 Meg.+	1,185 1,225	....	....	....
6C7	Duodiode Tri.	7-G	6.3	0.30	Det. Amp.	250	9.0	.....	4.5	.....	16,000	1,250	20	.....	.....
6C8G	Duotriode	8-G	6.3	0.30	Amplifier Inverter	250 250	4.5 3.0	..... Plate Load 100,000 Ohms, Self-Bias Resistor 1500 Ohms, Voltage Amplification 48. Output Volts 80. RMS. for Inverter Service.	3.2	.....	22,500	1,600	36	(One Section)	

*Applied through 250,000 ohms. **Triode Operation. ‡Pentode Operation. ¶Plate to Plate. ♦Approximate. ▲Conversion Conductance
#Per Tube or Section—No Signal. ‡‡Applied through 200,000 ohms. ††For two tubes with 40 volts RMS applied to each grid. †50 Volts RMS applied to two grids.
§Plate and Target Supply Voltage. §§With Average Power Input of 320 Mw. Grid to Grid. □Applied through 20,000 ohms.

Type	Class	Base	Filament Rating Volts	Filament Rating Amps.	Use	Plate Volts	Negative Grid Volts	Screen Volts	Plate Current Ma.	Screen Current Ma.	Plate Resistance Ohms	Micromhos Mutual Conductance	Amplification Factor	Ohms Load for Stated Power Output	Undistorted Power Output Milliwatts
6D6	Pentode	6-F	6.3	0.30	Amplifier	100	3.0	100	8.0	2.2	250,000	1,500	.....	.....	.....
						250	3.0	100	8.2	2.0	800,000	1,600	.....	.....	.....
6D7	Pentode	7-H	6.3	0.30	Amplifier	Characteristics Same as Type 6C6.									
6D8G	Heptode	8-A	6.3	0.15	Converter	135	3.0	67.5	1.5	1.7	600,000	325▲	(G2=135 V., 1.8 Ma.)		
						250	3.0	100	3.5	2.6	400,000	550▲	(G2=250 V.□, 4.5 Ma.)		
6E5	Triode	6-R	6.3	0.30	Indicator	100§	(Series Plate Resistor 0.5 Meg. Target Current 1.0 Ma. Grid Bias −3.3 for 0° Shadow.)								
						250§	(Series Plate Resistor 1.0 Meg. Target Current 4.0 Ma. Grid Bias −8.0 for 0° Shadow.)								
6E6	Duotriode	7-B	6.3	0.60	Power Amp. (1 Section)	180	20.0	.....	11.5	.....	4,300	1,400	6.0	15,000¶	750
						250	27.5	.....	18.0	.....	3,500	1,700	6.0	14,000¶	1,600
6E7	Pentode	7-H	6.3	0.30	Amplifier	Characteristics Same as Type 6D6.									
6F5, G, GT	Triode	5-M	6.3	0.30	Amplifier	250	2.0	.....	0.9	.....	66,000	1,500	100	.....	.....
6F6, 6F6G	Pentode	7-S	6.3	0.70	Power Amp.	250	16.5	250	34.0	6.5	80,000	2,500	.....	7,000	3,200
						285	20.0	285	38.0	7.0	78,000	2,550	.....	7,000	4,800
					P.P. A_1 Amp.	315	24.0	285	62.0	12.0	(Current & Output for Two Tubes)			10,000¶	11,000
					P.P. AB_1 Amp.	375	26.0	250	34.0	5.0	(Current & Output for Two Tubes)			10,000¶	18,000
6F7, 6F7S	Pent.-Triode	7-E	6.3	0.30	Pent. Amp.	100	3.0	100	6.3	1.6	290,000	1,050	.....	Pentode Section	
					Pent. Amp.	250	3.0	100	6.5	1.5	850,000	1,100	.....	Pentode Section	
					Triode Amp.	100	3.0	.....	3.5	.....	16,200	525	8.5	Triode Section	
6F8G	Duotriode	8-G	6.3	0.60	Amplifier	250	8.0	.....	9.0	.....	7,700	2,600	20	(One Section)	
					Inverter	250	5.5	(Plate Load 50,000 Ohms Per Plate, Self Bias Resistor 1,150 Ohms, Voltage Amplification 29, Output Volts 65, RMS, for Inverter Service.							
6G6G	Pentode	7-S	6.3	0.15	Power Amp.	135	6.0	135	11.5	2.0	170,000	2,100	.....	12,000	600
						180	9.0	180	15.0	2.5	175,000	2,300	.....	10,000	1,100
6H4GT	Diode	5-AF	6.3	0.15	Rectifier	100	.....	.....	4.0	.....	.....	.....	.....	.....	.....
6H6GT/G	Duodiode	7-Q	6.3	0.30	Rectifier	117 A-C Volts Per Plate, RMS, 4.0 Ma. Output Current.									
6J5GT/G	Triode	6-Q	6.3	0.30	Amplifier	250	8.0	.....	9.0	.....	7,700	2,600	20	.....	.....
6J7	Pentode	7-R	6.3	0.30	Amplifier	250	3.0	100	2.0	0.5	1.0 Meg.†	1,225	.....	.....	.....
6J7G, GT	Pentode	7-R	6.3	0.30	Amplifier	Characteristics Same as Type 6J7, Except Capacitances.									
6J8G	Tri.-Heptode	8-H	6.3	0.30	Mixer	250	3.0	100	1.3	2.9	4.0 Meg.	290▲	(Heptode Section)		
					Oscillator	250 Plate Supply Thru 20,000 Res., Grid Resistor 50,000, Grid Current 0.4 Ma. Plate Current 5.0 Ma. (Triode Section)									
6K5G,GT	Triode	5-U	6.3	0.30	Amplifier	100	1.5	.....	0.35	.....	78,000	900	70	.....	.....
						250	3.0	.....	1.10	.....	50,000	1,400	70	.....	.....
6K6GT/G	Pentode	7-S	6.3	0.40	Power Amp.	100	7.0	100	9.0	1.6	104,000	1,500	.....	12,000	350
						250	18.0	250	32.0	5.5	68,000	2,300	.....	7,600	3,400
						315	21.0	250	25.5	4.0	75,000	2,100	.....	9,000	4,500
6K7	Pentode	7-R	6.3	0.30	Amplifier	90	3.0	90.0	5.4	1.3	300,000	1,275	.....	.....	.....
						180	3.0	75.0	4.0	1.0	1 Meg.	1,100	.....	.....	...
						250	3.0	100	7.0	1.7	800,000	1,450	.....	.....	...
6K7G, GT	Pentode	7-R	6.3	0.30	Amplifier	Characteristics Same as Type 6K7, Except Capacitances.									
6K8	Tri.-Hexode	8-K	6.3	0.30	Mixer Osc.	Characteristics Same as Type 6K8G, Except Capacitances.									
6K8G, GT	Tri.-Hexode	8-K	6.3	0.30	Mixer	250	3.0	100	2.5	6.0	600,000	350▲	(Hexode Section)		
					Oscillator	100	Grid Resistor 50,000 Plate Current 3.8 Ma., Conversion Conductance 3000 (Triode Section not Oscillating)								
6L5G	Triode	6-Q	6.3	0.15	Amplifier	100	3.0	.....	4.0	.....	10,000	1,500	15	.....	.....
						250	9.0	.....	8.0	.....	9,000	1,900	17	.....	.....
6L6, 6L6G	Tetrode	7-AC	6.3	0.90	Power Amp.	250	14.0	250	72.0	5.0	22,500	6,000	.....	2,500	6,500
						350	18.0	250	54.0	2.5	33,000	5,200	.....	4,200	10,800
					P.P A_1 Amp.	270	17.5	250	134.0	11.0	23,500	5,700	.....	5,000¶	17,500
					P.P. AB_1 Amp	360	22.5	270	88.0	5.0	Current & Output for two tubes			6,600¶	26,500
					P.P. AB_2 Amp	360	22.5	270	88.0	5.0	Current & Output for two tubes			3,800¶	47,000
6L7	Heptode	7-T	6.3	0.30	Mixer	250	6.0	150	3.3	9.2	1 Meg.+	350▲	(G3=Neg. 15 Volts)		
					Amplifier	250	3.0	100	5.3	6.5	600,000	1,100	(G3=Neg. 3.0 Volts)		
6L7G	Heptode	7-T	6.3	0.30	Mixer-Amp.	Characteristics Same as Type 6L7, Except Capacitances.									
6N6G	Duotriode	7-AU	6.3	0.80	Power Amp.	300	0.0	(Input Section)		8.0	.....	.....	.....	.....	.....
						300	0.0	(Output Section)		45.0	24,000♦	2,400	58	7,000	4,000
6N7,6N7G	Duotriode	8-B	6.3	0.80	Power Amp.	300	0.0	.....	17.5 Per Plate, Class B Operation, Zero Signal					8,000¶	10,000
					Driver	250	5.0	.....	6.0	.....	11,300	3,100	35	(Class A	Driver)
					Driver	294	6.0	.....	7.0	.....	11,000	3,200	35	(Class A	Driver)
6P5GT/G	Triode	6-Q	6.3	0.30	Amplifier	250	13.5	.....	5.0	.....	9,500	1,450	13.8	.....	.....
					Detector	250	20.0♦	.....	(Plate Current to be adjusted to 0.2 Ma. with no Input Signal)						
6P7G	Pent.-Triode	7-U	6.3	0.30	Amplifier	Characteristics Same as Type 6F7, Except Capacitances.									
6Q7	Duodiode Tri.	7-V	6.3	0.30	Det.-Amp.	100	1.5	.....	0.35	.....	88,000	800	70	.....	.....
						250	3.0	.....	1.1	.....	58,000	1,200	70	.....	.....
6Q7G, GT	Duodiode Tri.	7-V	6.3	0.30	Det.-Amp.	Characteristics Same as Type 6Q7, Except Capacitances.									
6R7	Duodiode Tri.	7-V	6.3	0.30	Det.-Amp.	250	9.0	.....	9.5	.....	8,500	1,900	16	.....	.....
6R7G, GT	Duodiode Tri.	7-V	6.3	0.30	Detector	Characteristics Same as Type 6R7, Except Capacitances.									
6S7	Pentode	7-R	6.3	0.15	Amplifier	Characteristics Same as Type 6S7G, Except Capacitances.									
6S7G	Pentode	7-R	6.3	0.15	Amplifier	135	3.0	67.5	3.7	0.9	1 Meg.♦	1,250	375	.....	.....
						250	3.0	100	8.5	2.0	1 Meg.♦	1,750	1,100	.....	.....
6SA7	Heptode	8-R	6.3	0.30	Converter	100	2.0	100	3.3	8.5	500,000♦	425▲	.....	.....	.....
						250	2.0	100	3.5	8.5	1.0 Meg.♦	450▲	.....	.....	.....
6SA7GT/G	Heptode	8-AD	6.3	0.30	Converter	Characteristics Same as Type 6SA7, Except Capacitances.									
6SC7	Duotriode	8-S	6.3	0.30	Amplifier	250	2.0	.....	2.0	.....	53,000	1,325	70	(Each Triode)	
6SD7GT	Pentode	8-N	6.3	0.30	Amplifier	100	2.0	100	5.7	2.0	250,000♦	3,350	.....	.....	.....
						250	2.0	100	6.0	1.9	1.0 Meg.♦	3,600	.....	.....	.....
6SF5	Triode	6-AB	6.3	0.30	Amplifier	250	2.0	.....	0.9	.....	66,000	1,500	100	.....	.....
6SF5GT	Triode	6-AB	6.3	0.30	Amplifier	Characteristics Same as Type 6SF5, Except Capacitances.									
6SJ7	Pentode	8-N	6.3	0.30	Amplifier	100	3.0	100	2.9	0.9	700,000♦	1,575	.....	.....	.....
						250	3.0	100	3.0	0.8	1.5 Meg.♦	1,650	.....	.....	.....
6SJ7GT	Pentode	8-N	6.3	0.30	Amplifier	Characteristics Same as Type 6SJ7, Except Capacitances.									
6SK7	Pentode	8-N	6.3	0.30	Amplifier	100	1.0	100	13.0	4.0	120,000♦	2,350	.....	.....	.....
						250	3.0	100	9.2	2.6	800,000♦	2,000	.....	.....	.....
6SK7GT/G	Pentode	8-N	6.3	0.30	Amplifier	Characteristics Same as Type 6SK7, Except Capacitances.									
6SL7GT	Duotriode	8BD	6.3	.300	Amplifier	250	2.0	.....	2.3	.....	44,000	1,600	70	.....	.....
6SN7GT	Duotriode	8BD	6.3	.600	Amplifier	90	0	.....	10	.....	6,700	3,000	20	.....	.....
						250	8	.....	9	.....	7,700	2,600	20	.....	.....
6SQ7	Duodiode Tri.	8-Q	6.3	0.30	Det.-Amp.	250	2.0	.....	0.9	.....	91,000	1,100	100	.....	...
6SQ7GT G	Duodiode Tri.	8-Q	6.3	0.30	Det.-Amp.	Characteristics Same as Type 6SQ7, Except Capacitances.									
6SR7	Duodiode Tri.	8-Q	6.3	0.30	Det.-Amp.	250	9.0	.....	9.5	.....	8,500	1,900	16	.....	.....
6T7G	Duodiode Tri.	7-V	6.3	0.15	Det.-Amp.	100	1.5	.....	0.3	.....	95,000	680	65	.....	.....
						250	3.0	.....	1.2	.....	62,000	1,050	65	.....	...

*Applied through 250,000 ohms. **Triode Operation. ‡Pentode Operation. ¶Plate to Plate. ♦Approximate. ▲Conversion Conductance
†Per Tube or Section—No Signal. ‡‡Applied through 200,000 ohms. ††For two tubes with 40 volts RMS applied to each grid. †50 Volts RMS applied to two grids.
§Plate and Target Supply Voltage. §§With Average Power Input of 320 Mw. Grid to Grid. □Applied through 20,000 ohms.

CHARACTERISTICS

Type	Class	Base	Filament Rating Volts	Filament Rating Amps.	Use	Plate Volts	Negative Grid Volts	Screen Volts	Plate Current Ma.	Screen Current Ma.	Plate Resistance Ohms	Micromhos Mutual Conductance	Amplification Factor	Ohms Load for Stated Power Output	Undistorted Power Output Milliwatts
6U5/6G5	Triode	6-R	6.3	0.30	Indicator	100§	(Series Plate Resistor 0.5 Meg., Target Current 1.0 Ma., Grid Bias −8.0 for 0° Shadow.)								
						250§	(Series Plate Resistor 1.0 Meg., Target Current 4.0 Ma., Grid Bias −22.0 for 0° Shadow.)								
6U6GT	Tetrode	7-AC	6.3	0.75	Power Amp.	110	10.5	110	44.0	4.0	10,000♦	5,600	.....	2,000	2,000
						200	14.0	135	55.0	3.0	20,000♦	6,200	.....	3,000	5,500
6U7G	Pentode	7-R	6.3	0.30	Amplifier	100	3.0	100	8.0	2.2	250,000	1,500	.....	.....	.....
						250	3.0	100	8.2	2.0	800,000	1,600	.....	.....	.....
6V6GT/G	Tetrode	7-AC	6.3	0.45	Power Amp.	Characteristics Same as Type 7C5.									
6V7G	Duodiode Tri.	7-V	6.3	0.30	Det.-Amp.	135	10.5	.....	3.7	.....	11,000	750	8.3	25,000	75
						180	13.5	.....	6.0	.....	8,500	975	8.3	20,000	160
						250	20.0	.....	8.0	.....	7,500	1,100	8.3	20,000	350
6W7G	Pentode	7-R	6.3	0.15	Amplifier	250	3.0	100	2.0	0.5	1.5 Meg.♦	1,225	.....	.....	.....
6X5GT/G	Duodiode	6-S	6.3	0.60	F-W Rect.	325 A-C Volts per Plate, RMS, 70 Ma. Output Current. Condenser Input to Filter.									
						450 A-C Volts per Plate, RMS, 70 Ma. Output Current. Choke Input to Filter.									
6Y5	Duodiode	6-J	6.3	0.80	F-W Rect.	350 A-C Volts per Plate, RMS, 50 Ma. Output Current.									
6Y6G	Tetrode	7-AC	6.3	1.25	Power Amp.	135	13.5	135	58.0	3.5	9,300	7,000	.....	2,000	3,600
						200	14.0	135	61.0	2.2	18,300	7,100	.....	2,600	6,000
6Y7G	Duotriode	8-B	6.3	0.60	Power Amp.	180	0.0	.....	7.5#	.....	(Class B Operation)		.....	7,000¶	5,500
						250	0.0	.....	10.5#	.....	(Class B Operation)		.....	14,000¶	8,000
6Z5	Duodiode	6-K	6.3	0.80	F-W Rect.	230 A-C Volts per Plate, RMS, 60 Ma. Output Current									
			12.6	0.40											
6ZY5G	Duodiode	6-S	6.3	0.30	F-W Rect.	325 A-C Volts per Plate, RMS, 40 Ma. Output Current. Condenser Input to Filter.									
6Z7G	Duotriode	8-B	6.3	0.30	Power Amp.	135	0.0	.....	3.0#	.....	(Class B Operation)		.....	9,000¶	2,500§§
						180	0.0	.....	4.2#	.....	(Class B Operation)		.....	12,000¶	4,200§§
7A4	Triode	5-AC	6.3	0.30	Amplifier	90	0.0	.....	10.0	.....	6,700	3,000	20	.....	.....
						250	8.0	.....	9.0	.....	7,700	2,600	20	.....	.....
7A5	Tetrode	6-AA	6.3	0.75	Power Amp.	110	7.5	110	40.0	3.0	14,000	5,800	.....	2,500	1,500
						125	9.0	125	44.0	3.3	17,000	6,000	.....	2,700	2,200
7A6	Duodiode	7-AJ	6.3	0.15	Det.-Rect.	150 A-C Volts per Plate, RMS, 8 Ma. Output Current per Plate.									
7A7	Pentode	8-V	6.3	0.30	Amplifier	100	1.0	100	13.0	4.0	120,000♦	2,350	.....	.....	.....
						250	3.0	100	9.2	2.6	800,000♦	2,000	.....	.....	.....
7A8	Octode	8-U	6.3	0.15	Converter	100	3.0	75	1.8	2.7	650,000♦	375▲	(G2=100 V., 2.8 Ma.)		
						250	3.0	100	3.0	3.2	700,000♦	550▲	(G2=250 V.□, 4.2 Ma.)		
7B4	Triode	5-AC	6.3	0.30	Amplifier	100	1.0	.....	0.4	.....	85,000	1,150	100	.....	.....
						250	2.0	.....	0.9	.....	66,000	1,500	100	.....	.....
7B5	Pentode	6-AE	6.3	0.40	Power Amp.	100	7.0	100	9.0	1.6	104,000	1,500	.....	12,000	350
						250	18.0	250	32.0	5.5	68,000	2,300	.....	7,600	3,400
						315	21.0	250	25.5	4.0	75,000	2,100	.....	9,000	4,500
7B6	Duodiode Tri.	8-W	6.3	0.30	Amplifier	100	1.0	.....	0.4	.....	110,000	900	100	.....	.....
						250	2.0	.....	0.9	.....	91,000	1,100	100	.....	.....
7B7	Pentode	8-V	6.3	0.15	Amplifier	100	3.0	100	8.2	1.8	300,000	1,675	.....	.....	.....
						250	3.0	100	8.5	1.7	750,000	1,750	.....	.....	.....
7B8	Heptode	8-X	6.3	0.30	Converter	100	1.5	50	1.1	1.3	600,000	360▲	(G2=100 V., 2.0 Ma.)		
						250	3.0	100	3.5	2.7	360,000	550▲	(G2=250 V.□, 4.0 Ma.)		
7C4-1203A	H. F. Diode	4AH‖	6.3	.150	Detector	Half wave cathode type rectifier for High Frequency use.									
7C5	Tetrode	6-AA	6.3	0.45	Power Amp.	180	8.5	180	29.0	3.0	58,000	3,700	.....	5,500	2,000
						250	12.5	250	45.0	4.5	52,000	4,100	.....	5,000	4,500
						315	13.0	225	34.0	2.2	77,000	3,750	.....	8,500	5,500
					Class AB_1	250	15.0	250	70.0	5.0	(Class AB_1, Two Tubes)		.....	10,000¶	10,000
						285	18.0	285	70.0	4.0	(Class AB_1, Two Tubes)		.....	8,000¶	14,000
7C6	Duodiode Tri.	8-W	6.3	0.15	Amplifier	100	0.0	.....	1.0	.....	100,000	850	85	.....	.....
						250	1.0	.....	1.3	.....	100,000	1,000	100	.....	.....
7C7	Pentode	8-V	6.3	0.15	Amplifier	100	3.0	100	1.8	0.4	1.2 Meg.♦	1,225	.....	.....	.....
						250	3.0	100	2.0	0.5	2.0 Meg.♦	1,300	.....	.....	.....
7E5-1201	Triode	8BN	6.3	.150	Osc. Amp.	250	3.5	.....	13.0	.....	Oscillator for 750 mc service				
						150	10.2	.....	16.0	.....	Oscillator-Amplifier for 300 mc Service				200
7E6	Duodiode Tri.	8-W	6.3	0.30	Amplifier	250	9.0	.....	9.5	.....	8,500	1,900	16	.....	.....
7E7	Duodi. Pent.	8-AE	6.3	0.30	Amplifier	100	1.0	100	10.0	2.7	150,000♦	1,600	36	.....	.....
						250	3.0	100	7.5	1.6	700,000♦	1,300	42.5	.....	.....
7F7	Duotriode	8-AC	6.3	0.30	Amplifier	100	1.0	.....	0.65	.....	62,000♦	1,125	70	.....	.....
						250	2.0	.....	2.3	.....	44,000♦	1,600	70	.....	.....
7G7/1232	Pentode	8-V	6.3	0.45	Amplifier	250	2.0	100	6.0	2.0	800,000♦	4,500	.....	.....	.....
7H7	Pentode	8-V	6.3	0.30	Amplifier	100	1.0	100	8.2	3.3	250,000	3,800	.....	.....	.....
						250	2.5	150	9.5	3.5	800,000	3,800	.....	.....	.....
7J7	Tri.-Hexode	8-BL	6.3	0.30	Hex. Mixer	100	3.0	100	1.5	2.6	500,000	280▲	.....	.....	.....
						250	3.0	100	1.4	2.8	1.5 Meg.	290▲	.....	.....	.....
					Tri. Osc.	100	0.05 Meg.		3.2	(Triode Grid Current 0.3 Ma.)			.....	.....	.....
						250♦	0.05 Meg.		5.0	(Triode Grid Current 0.4 Ma.)			.....	.....	.....
7L7	Pentode	8-V	6.3	0.30	Amplifier	100	1.0	100	5.5	2.4	100,000♦	3,000	.....	.....	.....
						250	1.5	100	4.5	1.5	1.0 Meg.	3,100	.....	.....	.....
7N7	Duotriode	8-AC	6.3	0.60	Amplifier (One Unit)	90	0.0	.....	10.0	.....	6,700	3,000	20	.....	.....
						250	8.0	.....	9.0	.....	7,700	2,600	20	.....	.....
7Q7	Heptode	8-AL	6.3	0.30	Converter	100	2.0	100	3.3	8.5	500,000	525▲	Osc. Grid Resistor 20,000.	.....	
						250	2.0	100	3.5	8.5	1.0 Meg.	550▲	Osc. Grid Current 0.5 Ma.	.....	
7R7	Diode-Pent.	8-AE	6.3	0.30	Amplifier	100	1.0	100	5.5	2.2	350,000♦	3,000	.....	.....	.....
						250	1.0	100	5.7	2.1	1.0 Meg.♦	3,200	.....	.....	.....
7S7	Tri.-Heptode	8-BL	6.3	0.30	Hep. Mixer	100	2.0	100	1.9	3.0	500,000♦	500▲	.....	.....	.....
						250	2.0	100	1.8	3.0	1.25 Meg.♦	525▲	.....	.....	.....
					Tri. Osc.	100	0.05 Meg.		3.0	(Triode Grid Current 0.3 Ma.)			.....	.....	.....
						250♦	0.05 Meg.		5.0	(Triode Grid Current 0.4 Ma.)			.....	.....	.....
7V7	Pentode	8-V	6.3	0.45	Amplifier	300	....	150	10.0	3.9	300,000	5,800	(Cath. Bias Resistor=160 Ohms)		
7W7	Pentode	8-BJ	6.3	0.45	Amplifier	Characteristics Same as Type 7V7, Except Capacitances.									
7Y4	Duodiode	5-AB	6.3	0.50	F. W. Rect.	325 A-C Volts per Plate, RMS, 60 Ma. Output Current. Condenser Input to Filter.									
						450 A-C Volts per Plate, RMS, 60 Ma. Output Current. Choke Input to Filter.									
7Z4	Duodiode	5-AB	6.3	0.90	F. W. Rect.	325 A-C Volts per Plate, RMS, 100 Ma. Output Current. Condenser Input to Filter.									
						450 A-C Volts per Plate, RMS, 100 Ma. Output Current. Choke Input to Filter.									
10	Triode	4-D	7.5	1.25	Power Amp.	250	23.5	.....	10.0	.....	6,000	1,330	8.0	13,000	400
						350	32.0	.....	16.0	.....	5,150	1,550	8.0	11,000	900
						425	40.0	.....	18.0	.....	5,000	1,600	8.0	10,200	1,600
12A	Triode	4-D	5.0	0.25	Det.-Amp.	90	4.5	.....	5.0	.....	5,400	1,575	8.5	5,000	35
						135	9.0	.....	6.2	.....	5,100	1,650	8.5	9,000	130
						180	13.5	.....	7.7	.....	4,700	1,800	8.5	10,650	285

*Applied through 250,000 ohms. **Triode Operation. ‡Pentode Operation. ¶Plate to Plate. ♦Approximate. ▲Conversion Conductance
#Per Tube or Section—No Signal. ‡‡Applied through 200,000 ohms. ††For two tubes with 40 volts RMS applied to each grid. †50 Volts RMS applied to two grids.
§Plate and Target Supply Voltage. §§With Average Power Input of 320 Mw. Grid to Grid. □Applied through 20,000 ohms.

SYLVANIA AVERAGE

Type	Class	Base	Filament Rating Volts	Filament Rating Amps.	Use	Plate Volts	Negative Grid Volts	Screen Volts	Plate Current Ma.	Screen Current Ma.	Plate Resistance Ohms	Micromhos Mutual Conductance	Amplification Factor	Ohms Load for Stated Power Output	Undistorted Power Output Milliwatts
12A5	Pentode	7-F	12.6	0.30	Power Amp.	100	15.0	100	17.0	3.0	50,000♦	1,700	.....	4,500	800
			6.3	0.60	Power Amp.	180	25.0	180	45.0	8.0	35,000♦	2,400	.....	3,300	3,400
12A7	Diode-Pent.	7-K	12.6	0.30	Rectifier	125 RMS		.....	30.0 Max.		.....	.....	.....	.....	.....
					Amplifier	135	13.5	135	9.0	2.5	102,000	975	100	13,500	550
12A8G, GT	Heptode	8-A	12.6	0.15	Converter	Characteristics Same as Type 6A8G.									
12B8GT	Pentode Tri.	8-T	12.6	0.30	Pent. Amp.	100	3.0	100	8.0	2.0	170,000	2,100	360	Pentode Section	
					Tri.-Amp.	100	1.0	.....	0.6	.....	73,000	.....	110	Triode Section	
12C8	Pentode	8-E	12.6	0.15	R-F or I-F	Characteristics Same as Type 6B8.									
12F5GT	Triode	5-M	12.6	0.15	Amplifier	Characteristics Same as Type 6F5G.									
12J5GT	Triode	6-Q	12.6	0.15	Amplifier	Characteristics Same as Type 6J5GT/G.									
12J7GT	Pentode	7-R	12.6	0.15	Amplifier	Characteristics Same as Type 6J7G.									
12K7G, GT	Pentode	7-R	12.6	0.15	Amplifier	Characteristics Same as Type 6K7G.									
12K8	Tri.-Hexode	8-K	12.6	0.15	Converter	Characteristics Same as Type 6K8.									
12Q7G, GT	Duodiode-Tri.	7-V	12.6	0.15	Det.-Amp.	Characteristics Same as Type 6Q7G.									
12SA7	Heptode	8-R	12.6	0.15	Converter	Characteristics Same as Type 6SA7.									
12SA7GT/G	Heptode	8-AD	12.6	0.15	Converter	Characteristics Same as Type 6SA7GT/G.									
12SC7	Duotriode	8-S	12.6	0.15	Amplifier	Characteristics Same as Type 6SC7.									
12SF5, GT	Triode	6-AB	12.6	0.15	Amplifier	Characteristics Same as Type 6SF5.									
12SJ7	Pentode	8-N	12.6	0.15	Amplifier	Characteristics Same as Type 6SJ7.									
12SJ7GT	Pentode	8-N	12.6	0.15	Amplifier	Characteristics Same as Type 6SJ7, Except Capacitances.									
12SK7	Pentode	8-N	12.6	0.15	Amplifier	Characteristics Same as Type 6SK7.									
12SK7GT/G	Pentode	8-N	12.6	0.15	Amplifier	Characteristics Same as Type 6SK7GT/G.									
12SL7GT	Duotriode	8BD	12.6	.150	Amplifier	250	2.0	.....	2.3	.....	44,000	1,600	70	.....	.....
12SN7GT	Duotriode	8BD	12.6	.300	Amplifier	90	0	.....	10	.....	6,700	3,000	20	.....	.....
						250	8	.....	9	.....	7,700	2,600	20	.....	.....
12SQ7	Duodiode Tri.	8-Q	12.6	0.15	Det.-Amp.	Characteristics Same as Type 6SQ7.									
12SQ7GT/G	Duodiode Tri.	8-Q	12.6	0.15	Det.-Amp.	Characteristics Same as Type 6SQ7GT/G.									
12SR7	Duodiode Tri.	8-Q	12.6	0.15	Det.-Amp.	Characteristics Same as Type 6SR7.									
12Z3	Diode	4-G	12.6	0.30	H-W Rect.	235 A-C Volts per Plate, RMS, 55 Ma. Output Current. Condenser Input to Filter.									
14A4	Triode	5-AC	12.6	0.15	Amplifier	90	0.0	.....	10.0	.....	6,700	3,000	20	.....	.....
						250	8.0	.....	9.0	.....	7,700	2,600	20	.....	.....
14A5	Tetrode	6-AA	12.6	0.15	Power Amp.	250	12.5	250	30.0	3.5	70,000♦	3,000	.....	7,500	2,800
14A7/12B7	Pentode	8-V	12.6	0.15	Amplifier	100	1.0	100	13.0	4.0	120,000♦	2,350	.....	.....	.....
						250	3.0	100	9.2	2.6	800,000♦	2,000	.....	.....	.....
14B6	Duodiode Tri.	8-W	12.6	0.15	Det.-Amp.	100	1.0	.....	0.4	.....	110,000	900	100	.....	.....
						250	2.0	.....	0.9	.....	91,000	1,100	100	.....	.....
14B8	Heptode	8-X	12.6	0.15	Converter	100	1.5	50.0	1.1	1.3	600,000	360▲	(G2=100V., 2.0 Ma.)		
						250	3.0	100	3.5	2.7	360,000	550▲	(G2=250 V.□, 4.0 Ma.)		
14C5	Tetrode	6-AA	12.6	0.225	Power Amp.	Characteristics Same as Type 7C5.									
14C7	Pentode	8-V	12.6	0.15	Amplifier	100	1.0	100	5.7	1.8	325,000♦	2,275	.....	.....	.....
						250	3.0	100	2.2	0.7	1.0 Meg.♦	1,575	.....	.....	.....
14E6	Duodiode Tri.	8-W	12.6	0.15	Amplifier	250	9.0	.....	9.5	.....	8,500	1,900	16	.....	.....
14F7	Duotriode	8-AC	12.6	0.15	Amplifier	100	1.0	.....	0.65	.....	62,000♦	1,125	70	.....	.....
						250	2.0	.....	2.3	.....	44,000♦	1,600	70	.....	.....
14H7	Pentode	8-V	12.6	0.15	Amplifier	100	1.0	100	8.2	3.3	250,000♦	3,800	.....	.....	.....
						250	2.5	150	9.5	3.5	800,000♦	3,800	.....	.....	.....
14J7	Tri. Hexode	8-AR	12.6	0.15	Mixer Osc.	Characteristics Same as Type 7J7.									
14N7	Duotriode	8-AC	12.6	0.30	Amplifier (One Unit)	90	0.0	.....	10.0	.....	6,700	3,000	20	.....	.....
						250	8.0	.....	9.0	.....	7,700	2,600	20	.....	.....
14Q7	Heptode	8-AL	12.6	0.15	Converter	100	2.0	100	3.3	8.5	500,000	525▲ { Osc. Grid Resistor 20,000			
						250	2.0	100	3.5	8.5	1.0 Meg.	550▲ { Osc. Grid Current 0.5 Ma.			
14R7	Diode-Pent.	8-AE	12.6	0.15	Amplifier	100	1.0	100	5.5	2.2	350,000♦	3,000	.....	.....	.....
						250	1.0	100	5.7	2.1	1.0 Meg.♦	3,200	.....	.....	.....
14S7	Tri. Heptode	8-BL	12.6	0.15	Mixer Osc.	Characteristics Same as Type 7S7.									
14W7	Pentode	8-BJ	12.6	0.225	Amplifier	Characteristics Same as Type 7V7, Except Capacitances.									
14Y4	Duodiode	5-AB	12.6	0.30	F. W. Rect.	325 A-C Volts per Plate, RMS, 70 Ma. Output Current. Condenser Input to Filter.									
						450 A-C Volts per Plate, RMS, 70 Ma. Output Current. Choke Input to Filter.									
15	Pentode	5-F	2.0	0.22	R-F Amp.	67.5	1.5	67.5	1.85	0.3	630,000	710	450	.....	.....
						135	1.5	67.5	1.85	0.3	800,000	750	600	.....	.....
18	Pentode	6-B	14.0	0.30	Power Amp.	Characteristics Same as Type 6F6G.									
19	Duotriode	6-C	2.0	0.26	Power Amp.	135	0.0	.....	5.0	.....	(Class B Operation)		.....	10,000¶	2,100
						135	3.0	.....	1.7	.....	(Class B Operation)		.....	10,000¶	1,900
						135	6.0	.....	0.1	.....	(Class B Operation)		.....	10,000¶	1,600
20	Triode	4-D	3.3	0.132	Power Amp.	90	16.5	.....	2.8	.....	7,800	450	3.5	9,600	50
						135	22.5	.....	6.0	.....	5,850	600	3.5	6,500	130
22	Tetrode	4-K	3.3	0.132	R-F Amp.	135	1.5	67.5	3.7	1.3	250,000	500	125	.....	.....
24A, 24S	Tetrode	5-E	2.5	1.75	R-F Amp.	180	3.0	90.0	4.0	1.7	400,000	1,000	400	.....	.....
						250	3.0	90.0	4.0	1.7	600,000	1,050	630	.....	.....
					Detector	250*	5.0♦	20 to 45	(Plate Current to be adjusted to 0.1 Ma. with no Input Signal)						
25A6GT/G	Pentode	7-S	25.0	0.30	Power Amp.	95	15.0	95.0	20.0	4.0	45,000	2,000	.....	4,500	900
						135	20.0	135	37.0	8.0	35,000	2,450	.....	4,000	2,000
						160	18.0	120	33.0	6.5	42,000	2,375	.....	5,000	2,200
25A7GT/G	Diode-Pent.	8-F	25.0	0.30	H-W Rect.	117 A-C Volts per Plate, RMS, 75 Ma. Output Current.									
					Power Amp.	100	15.0	100	20.5	4.0	50,000	1,800	.....	4,500	770
25AC5GT/G	Triode	6-Q	25.0	0.30	Power Amp.	110	+15	.....	45.0	.....	15,200	3,800	58	.....	.....
					Coupled Amp	165	Bias from 6AE5GT/G 46.0		Dynamic Coupled with 6AE5GT/G Driver					2,000	2,000
25B6G	Pentode	7-S	25.0	0.30	Power Amp.	105	16.0	105	48.0	2.0	15,500	4,800	.....	1,700	2,400
						200	23.0	135	62.0	1.8	18,000	5,000	.....	2,500	7,100
25B8GT	Pentode Tri.	8-T	25.0	0.15	Pent. Amp.	100	3.0	100	7.6	2.0	185,000	2,000	370	Pentode Section	
					Tri.-Amp.	100	1.0	.....	0.6	.....	75,000	1,500	112.5	Triode Section	
25C6G	Tetrode	7-AC	25.0	0.30	Power Amp.	Characteristics Same as Type 6Y6G.									
25L6GT/G	Tetrode	7-AC	25.0	0.30	Power Amp.	110	7.5	110	49.0	4.0	13,000	9,000	.....	2,000	2,100
						200	8.0	110	50.0	2.0	30,000	9,500	.....	3,000	4,300
25Y5	Duodiode	6-E	25.0	0.30	H-W Rect.	235 A-C Volts per Plate, RMS, 75 Ma. Output Current per Plate.									
25Z5	Duodiode	6-E	25.0	0.30	Doubler	Characteristics Same as Type 25Z6GT/G.									
25Z6GT/G	Duodiode	7-Q	25.0	0.30	Doubler	117 A-C Volts per Plate, RMS, 75 Ma. Output Current per Plate.									
					H-W Rect.	235 A-C Volts, RMS, 75 Ma. Output Current per Plate.									

*Applied through 250,000 ohms.
‡Per Tube or Section—No Signal.
§Plate and Target Supply Voltage.
**Triode Operation. ‡Pentode Operation. ¶Plate to Plate. ♦Approximate. ▲Conversion Conductance
‡‡Applied through 200,000 ohms. ††For two tubes with 40 volts RMS applied to each grid. †50 Volts RMS applied to two grids.
§§With Average Power Input of 320 Mw. Grid to Grid. □Applied through 20,000 ohms.

CHARACTERISTICS

Type	Class	Base	Filament Rating Volts	Filament Rating Amps.	Use	Plate Volts	Negative Grid Volts	Screen Volts	Plate Current Ma.	Screen Current Ma.	Plate Resistance Ohms	Micromhos Mutual Conductance	Amplification Factor	Ohms Load for Stated Power Output	Undistorted Power Output Milliwatts
26	Triode	4-D	1.5	1.05	Amplifier	90	7.0	.....	2.9	.....	8,900	935	8.3	.....	.....
						135	10.0	.....	5.5	.....	7,600	1,100	8.3	.....	.....
						180	14.5	.....	6.2	.....	7,300	1,150	8.3	.....	.....
27, 27S	Triode	5-A	2.5	1.75	Amplifier	90	6.0	.....	3.0	.....	10,000	900	9.0	.....	.....
						135	9.0	.....	4.7	.....	9,000	1,000	9.0	.....	.....
						180	13.5	.....	5.0	.....	9,000	1,000	9.0	.....	.....
						250	21.0	.....	5.2	.....	9,250	975	9.0	.....	.....
					Detector	250	30.0♦	.....	(Plate Current to be adjusted to 0.2 Ma. with no Input Signal)						
28D7	Duo-Tetrode	8BS	28.0	.400	Amplifier	28	3.5	28	25	3.0	4,200	3,400	.....	6,000	225
						28	0	28	64	17.0	.....	.....	.....	1,500	600
28Z5	Double Diode	6BJ	28.0	.240	F. W. Rect.	325 A.C. Volts per plate R. M. S. 100 Ma Output Current Condenser input to Filter. 450 A. C. Volts per plate R. M. S. 100 Ma Output Current Choke input to Filter.									
30	Triode	4-D	2.0	0.06	Det.-Amp.	90	4.5	.....	2.5	.....	11,000	850	9.3	.....	.....
						135	9.0	.....	3.0	.....	10,300	900	9.3	.....	.....
						180	13.5	.....	3.1	.....	10,300	900	9.3	.....	.....
31	Triode	4-D	2.0	0.13	Power Amp.	135	22.5	.....	8.0	.....	4,100	925	3.8	7,000	185
						180	30.0	.....	12.3	.....	3,600	1,050	3.8	5,700	375
32	Tetrode	4-K	2.0	0.06	R-F Amp.	135	3.0	67.5	1.7	0.4	950,000	640	610	.....	.. ...
						180	3.0	67.5	1.7	0.4	1.2 Meg.	650	780	.....	.. ...
					Detector	180	6.0♦	67.5	(Plate Current to be adjusted to 0.2 Ma. with no Input Signal)						
32L7GT	Diode, Tet.	8-Z	32.5	0.30	Rectifier	125 RMS		.....	60	.....	.....	.....	.....	.....	.....
					Power Amp.	110	7.5	110	40	3.0	15,000	6,000	81	2,600	1,000
33	Pentode	5-K	2.0	0.26	Power Amp.	135	13.5	135	14.5	3.0	50,000	1,450	70	7,000	700
						180	18.0	180	22.0	5.0	55,000	1,700	90	6,000	1,400
34	Pentode	4-M	2.0	0.06	R-F Amp.	67.5	3.0	67.5	2.7	1.1	400,000	560	224	.....	.....
						135	3.0	67.5	2.8	1.0	600,000	600	360	.....	.....
						180	3.0	67.5	2.8	1.0	1 Meg.	620	620	.....	.....
35/51, 35S/51S	Tetrode	5-E	2.5	1.75	R-F Amp.	180	3.0	90.0	6.3	2.5	300,000	1,020	305	.....	.....
						250	3.0	90.0	6.5	2.5	400,000	1,050	420	.....	.....
					A-F Amp.	250*	1.0	45 to 67.5	0.5	.....	2 Meg.	.....	.....	.....	.....
35A5	Tetrode	6-AA	35.0	0.15	Power Amp.	110	7.5	110	40.0	3.0	14,000♦	5,800	.....	2,500	1,500
						200	8.0	110	41.0	2.0	40,000♦	5,900	.....	4,500	3,300
35L6GT/G	Tetrode	7-AC	35.0	0.15	Power Amp.	110	7.5	110	40.0	3.0	14,000♦	5,800	.....	2,500	1,500
						200	8.0	110	41.0	2.0	40,000♦	5,900	.....	4,500	3,300
35Y4	Diode	5-AL	35.0	0.15	H-W Rect.	235 Max. A-C Volts, RMS, 60 Ma. Output Current with Panel Lamp. 235 Max. A-C Volts, RMS, 100 Ma. Output Current without Panel Lamp.									
35Z3	Diode	4-Z	35.0	0.15	H-W Rect.	235 Max. A-C Volts per Plate, RMS, 100 Ma. Output Current, Condenser Input to Filter.									
35Z4GT	Diode	5-AA	35.0	0.15	H-W Rect.	117 A-C Volts, RMS, 100 Ma. Output Current. Condenser Input to Filter.									
35Z5GT/G	Diode	6-AD	35.0	0.15	H-W Rect.	Characteristics Same as Type 40Z5/45Z5GT.									
36	Tetrode	5-E	6.3	0.30	R-F Amp.	135	1.5	67.5	2.8	Not Over	575,000	1,000	475	.....	.....
						180	3.0	90.0	3.1	⅓ of	500,000	1,050	525	.....	.....
						250	3.0	90.0	3.2	Plate Ma.	550,000	1,080	595	.....	.....
					Detector	250	6.0♦	20 to 25 (Plate Current to be adjusted to 0.1 Ma. with no Input Signal)							
37	Triode	5-A	6.3	0.30	Amplifier	135	9.0	.....	4.1	.....	10,000	925	9.2	.....	.....
						180	13.5	.....	4.3	.....	10,200	900	9.2	.....	.....
						250	18.0	.....	7.5	.....	8,400	1,100	9.2	.....	.....
38	Pentode	5-F	6.3	0.30	Power Amp.	135	13.5	135	9.0	1.5	130,000	925	120	13,500	550
						180	18.0	180	14.0	2.4	110,000	1,050	120	11,600	1,000
						250	25.0	250	22.0	3.8	100,000	1,200	120	10,000	2,500
39/44	Pentode	5-F	6.3	0.30	R-F Amp.	90	3.0	90.0	5.6	1.6	375,000	960	360	.....	.....
						180	3.0	90.0	5.8	1.4	750,000	1,000	750	.....	.....
						250	3.0	90.0	5.8	1.4	1 Meg.	1,050	1,050	.....	.....
					A-F Amp.	250*	1.0	67.5	0.5	.....	2 Meg.	.....	.....	.....	.....
40Z5/ 45Z5GT	Diode	6-AD	45.0	0.15	H-W Rect.	117 A-C Volts, RMS, 100 Ma. Output Current without Panel Lamp Connected, or 60 Ma. with Panel Lamp.									
41	Pentode	6-B	6.3	0.40	Power Amp.	Characteristics Same as Type 6K6G.									
42	Pentode	6-B	6.3	0.65	Power Amp.	Characteristics Same as Type 6F6G.									
43	Pentode	6-B	25.0	0.30	Power Amp.	Characteristics Same as Type 25A6GT/G.									
45	Triode	4-D	2.5	1.50	Power Amp.	180	31.5	.....	31.0	.....	1,650	2,125	3.5	2,700	830
						250	50.0	.....	34.0	.....	1,610	2,175	3.5	3,900	1,600
						275	56.0	.....	36.0	.....	1,700	2,050	3.5	4,600	2,000
46	Tetrode	5-C	2.5	1.75	Power Amp.	250	33.0	Tie Gs to P	22.0	.....	2,380	2,350	5.6	6,400	1,250
						300	0.0	Tie Gs to G	4.0♯	.....	(Class B Operation)		.....	5,200¶	16,000
						400	0.0	Tie Gs to G	6.0♯	.....	(Class B Operation)		.....	5,800¶	20,000
47	Pentode	5-B	2.5	1.75	Power Amp.	250	16.5	250	31.0	6.0	60,000	2,500	150	7,000	2,700
48	Tetrode	6-A	30.0	0.40	Power Amp.	95	20.0	95.0	52.0	12.0	4,000	3,900	15.6	1,500	2,000
						125	22.5	100	52.0	12.0	11,000	3,900	43	1,500	3,000
49	Tetrode	5-C	2.0	0.12	Power Amp.	135	20.0	Tie Gs to P	6.0	.....	4,175	1,125	4.7	11,000	170
						180	0.0	Tie Gs to G	2.0♯	.....	(Two Tubes Class B Operation)			12,000¶	3,500
50	Triode	4-D	7.5	1.25	Power Amp.	300	54.0	.....	35.0	.....	2,000	1,900	3.8	4,600	1,600
						350	63.0	.....	45.0	.....	1,900	2,000	3.8	4,100	2,400
						400	70.0	.....	55.0	.....	1,800	2,100	3.8	3,670	3,400
						450	84.0	.....	55.0	.....	1,800	2,100	3.8	4,350	4,600
50A5	Tetrode	6-AA	50.0	0.15	Power Amp.	110	7.5	110	49.0	4.0	10,000♦	8,200	.....	2,000	2,100
						200	8.0	110	50.0	1.5	35,000♦	8,250	.....	3,000	4,300
50C6G	Tetrode	7-AC	50.0	0.15	Power Amp.	Characteristics Same as Type 25C6G.									
50L6GT	Tetrode	7-AC	50.0	0.15	Power Amp.	Characteristics Same as Type 25L6GT.									
50Y6GT/G	Duodiode	7-Q	50.0	0.15	F-W Rect.	Characteristics Same as Type 25Z6GT/G.									
50Z7G	Duodiode	8-AN	50.0	0.15	Doubler H-W Rect.	117 A-C Volts per Plate, RMS, 65 Ma. Output Current per Plate. With Current passing thru Panel Lamp Section. 235 A-C Volts, RMS, 65 Ma. Output Current.									
53	Duotriode	7-B	2.5	2.00	Power Amp.	Characteristics Same as Type 6A6.									
55, 55S	Duodiode Tri.	6-G	2.5	1.00	Det.-Amp.	Characteristics Same as Type 6V7G.									
56, 56S	Triode	5-A	2.5	1.00	Amplifier	250	13.5	.....	5.0	.....	9,500	1,450	13.8	.....	.....
					Detector	250	20.0♦	.....	(Plate Current to be adjusted to 0.2 Ma. with no Input Signal)						
56AS	Triode	5-A	6.3	0.40	Amplifier	Characteristics Same as Type 56.									
57, 57S	Pentode	6-F	2.5	1.00	Amplifier	100	3.0	100	2.0	0.5	1 Meg.	1,185	.....	.....	.....
						250	3.0	100	2.0	0.5	1 Meg.+	1,225	.....	.....	.....
					Detector	250*	4.3♦	100	(Plate Current to be adjusted to 0.1 Ma. with no Input Signal)					.....	.....
57AS	Pentode	6-F	6.3	0.40	Amplifier	Characteristics Same as Type 57.									
58, 58S	Pentode	6-F	2.5	1.00	Amplifier	100	3.0	100	8.0	2.2	250,000	1,500	.....	.....	.....
						250	3.0	100	8.2	2.0	800,000	1,600	.....	.....	.....
58AS	Pentode	6-F	6.3	0.40	Amplifier	Characteristics Same as Type 58.									

*Applied through 250,000 ohms.
/Per Tube or Section—No Signal.
‡Plate and Target Supply Voltage.
**Triode Operation.
‡‡Applied through 200,000 ohms.
§§With Average Power Input of 20 Mw. Grid to Grid.
‡Pentode Operation.
††For two tubes with 40 volts RMS applied to each grid.
¶Plate to Plate.
♦Approximate.
□Applied through 20,000 ohms.
▲Conversion Conductance
†50 Volts RMS applied to two grids

SYLVANIA AVERAGE CHARACTERISTICS

Type	Class	Base	Filament Rating Volts	Filament Rating Amps.	Use	Plate Volts	Negative Grid Volts	Screen Volts	Plate Current Ma.	Screen Current Ma.	Plate Resistance Ohms	Micromhos Mutual Conductance	Amplification Factor	Ohms Load for Stated Power Output	Undistorted Power Output Milliwatts
59	Pentode	7-A	2.5	2.00	Power Amp.	250**	28.0	Tie Gs to P	26.0	.....	2,300	2,600	6.0	5,000	1,250
						250‡	18.0	250	35.0	.....	40,000	2,500	100	6,000	3,000
						300	0.0	Tie Gs to G	20.0	.....	(Class B Operation Two Tubes)			4,600¶	15,000††
						400	0.0	and Su to P	26.0	.....	(Class B Operation Two Tubes)			6,000¶	20,000††
70L7GT	Diode-Tetrode	8-AA	70.0	0.15	Rectifier Amplifier	117 A-C Volts, RMS, 70 Ma. Output Current. Condenser Input to Filter.									
						110	7.5	110	40	3.0	15,000	7,500	.....	2,000	1,800
71A	Triode	4-D	5.0	0.25	Power Amp.	90	16.5	.....	10.0	.....	2,170	1,400	3.0	3,000	125
						135	27.0	.....	17.3	.....	1,820	1,650	3.0	3,000	400
						180	40.5	.....	20.0	.....	1,750	1,700	3.0	4,800	790
75, 75S	Duodiode Tri.	6-G	6.3	0.30	Det.-Amp.	250	2.0	.....	0.9	.....	91,000	1,100	100	.....	.....
76	Triode	5-A	6.3	0.30	Amplifier	250	13.5	.....	5.0	.....	9,500	1,450	13.8	.....	.....
					Detector	250	20.0♦	.....	(Plate Current to be adjusted to 0.2 Ma. with no Input Signal)						
77	Pentode	6-F	6.3	0.30	Amplifier	100	1.5	60.0	1.7	0.4	600,000♦	1,100	.....	.....	.....
						250	3.0	100	2.3	0.5	1.0 Meg.+	1,250	.....	.....	.....
78	Pentode	6-F	6.3	0.30	Amplifier	90	3.0	90.0	5.4	1.3	300,000♦	1,275	.....	.....	.....
						180	3.0	75.0	4.0	1.0	1 Meg.♦	1,100	.....	.....	.....
						250	3.0	100	7.0	1.7	800,000♦	1,450	.....	.....	.....
79	Duotriode	6-H	6.3	0.60	Power Amp.	180	0.0	.....	7.5♯	.....	(Class B Operation)		.....	7,000¶	5,500
						250	0.0	.....	10.5♯	.....	(Class B Operation)		.....	14,000¶	8,000
80	Duodiode	4-C	5.0	2.00	F-W Rect.	350 A-C Volts per Plate, RMS, 125 Ma. Output Current. Condenser Input to Filter.									
						500 A-C Volts per Plate, RMS, 125 Ma. Output Current. Choke Input to Filter.									
81	Diode	4-B	7.5	1.25	H-W Rect.	700 A-C Volts per Plate, RMS, 85 Ma. Output Current. Condenser Input to Filter.									
82	Duodiode	4-C	2.5	3.00	F-W Rect.	450 A-C Volts per Plate, RMS, 115 Ma. Output Current. Condenser Input to Filter.									
83	Duodiode	4-C	5.0	3.00	F-W Rect.	450 A-C Volts per Plate, RMS, 225 Ma. Output Current. Condenser Input to Filter.									
83V	Duodiode	4-AD	5.0	2.00	F-W Rect.	375 A-C Volts per Plate, RMS, 175 Ma. Output Current. Condenser Input to Filter.									
84/6Z4	Duodiode	5-D	6.3	0.50	F-W Rect.	325 A-C Volts per Plate, RMS, 60 Ma. Output Current. Condenser Input to Filter.									
85	Duodiode Tri.	6-G	6.3	0.30	Det.-Amp.	Characteristics Same as Type 6V7G.									
85AS	Duodiode Tri.	6-G	6.3	0.30	Det.-Amp.	250	9.0	.....	4.5	.....	16,000	1,250	20	.....	.....
89	Pentode	6-F	6.3	0.40	Power Amp.	160**	20.0	Gs & Su to P	17.0	.....	3,300	1,425	4.7	7,000	300
						180‡	18.0	180	20.0	3.0	80,000	1,550	125	8,000	1,500
						180	0.0	.....	3.0♯	Class B Opern. Tie Su to P & Gs to G (Two Tubes)				9,400¶	3,500
VR-90-105-150	Now changed to 0B3, 0C3 & 0D3.														
V99	Triode	4-E	3.3	0.063	Det.-Amp.	90	4.5	.....	2.5	.....	15,500	425	6.6	.....	.....
X99	Triode	4-D	3.3	0.063	Det.-Amp.	90	4.5	.....	2.5	.....	15,500	425	6.6	.....	.....
117L7/M7GT	Diode-Tet.	8-AO	117	0.09	H-W Rect.	117 A-C Volts, RMS, 75 Ma. Output Current. Condenser Input to Filter.									
					Power Amp.	105	5.2	105	43	4.0	17,000♦	5,300	.....	4,000	850
117N7GT	Diode-Tet.	8-AV	117	0.09	H-W Rect.	117 A-C Volts, RMS, 75 Ma. Output Current. Condenser Input to Filter.									
					Power Amp.	100	6.0	100	51	5.0	16,000♦	7,000	.....	3,000	1,200
117Z6GT/G	Duodiode	7-Q	117	0.075	Doubler	117 A-C Volts per Plate, RMS, 60 Ma. Output Current per Plate.									
182B/482B	Triode	4-D	5.0	1.25	Power Amp.	250	35.0	.....	20.0	.....	2,500	2,000	5.0	4,500	1,350
183/483	Triode	4-D	5.0	1.25	Power Amp.	250	65.0	.....	20.0	.....	2,000	1,500	3.0	4,500	1,800
210-T	Triode	4-D	7.5	1.25	Power Amp.	(Standard Type 10 with Ceramic Base, See Type 10 Characteristics)									
485	Triode	5-A	3.0	1.25	Det.-Amp.	180	9.0	.....	5.8	.....	8,900	1,400	12.5	.....	.....
864	Triode	4-D	1.1	0.25	Det.-Amp.	90	4.5	.....	2.9	.....	13,500	610	8.2	.....	.....
						135	9.0	.....	3.5	.....	12,700	645	8.2	.....	.....
950	Pentode	5-K	2.0	0.12	Power Amp.	135	16.5	135	7.0	2.0	125,000	1,000	125	13,500	575
1221	Pentode	6-F	6.3	0.30	Amplifier	Special Non-Microphonic Tube, Characteristics Same as Type 6C6.									
1223	Pentode	7-R	6.3	0.30	Amplifier	"G" Equivalent of Type 1221 Above.									
1231	Pentode	8-V	6.3	0.45	Pen.-Amp.	300	....	150	10.0	2.5	700,000	5,500	3,850 Bias Rest. = 200 Ohms.		
					Tet-Amp.	300	....	150	12.0	0.5	540,000	6,500	3,500 Bias Rest. = 200 Ohms.		
1612	Heptode	7-T	6.3	0.30	Mixer	250	6.0	150	3.3	9.2	1 Meg.+	350▲	(G3 = Neg. 15 V.)		
					Amplifier	250	3.0	100	5.3	6.5	600,000	1,100	(G3 = Neg. 3.0 V.)		
XXD	Duotriode	8-AC	12.6	0.15	Amplifier	250	10.0	.....	9.0	.....	7,600	2,100	16	(One Section)	
XXL	Triode	5-AC	6.3	0.30	Amplifier	100	0.0	.....	10.0	.....	7,000	3,600	25	.....	.....
						250	8.0	.....	8.0	.....	8,700	2,300	20	.....	.....

*Applied through 250,000 ohms. **Triode Operation. ‡Pentode Operation. ¶Plate to Plate. ♦Approximate. ▲Conversion Conductance
♯Per Tube or Section—No Signal. ††Applied through 200,000 ohms. ††For two tubes with 40 volts RMS applied to each grid. †50 Volts RMS applied to two grids.
§Plate and Target Supply Voltage. §§With Average Power Input of 320 Mw. Grid to Grid. □Applied through 20,000 ohms.

SYLVANIA PANEL LAMP CHARACTERISTICS

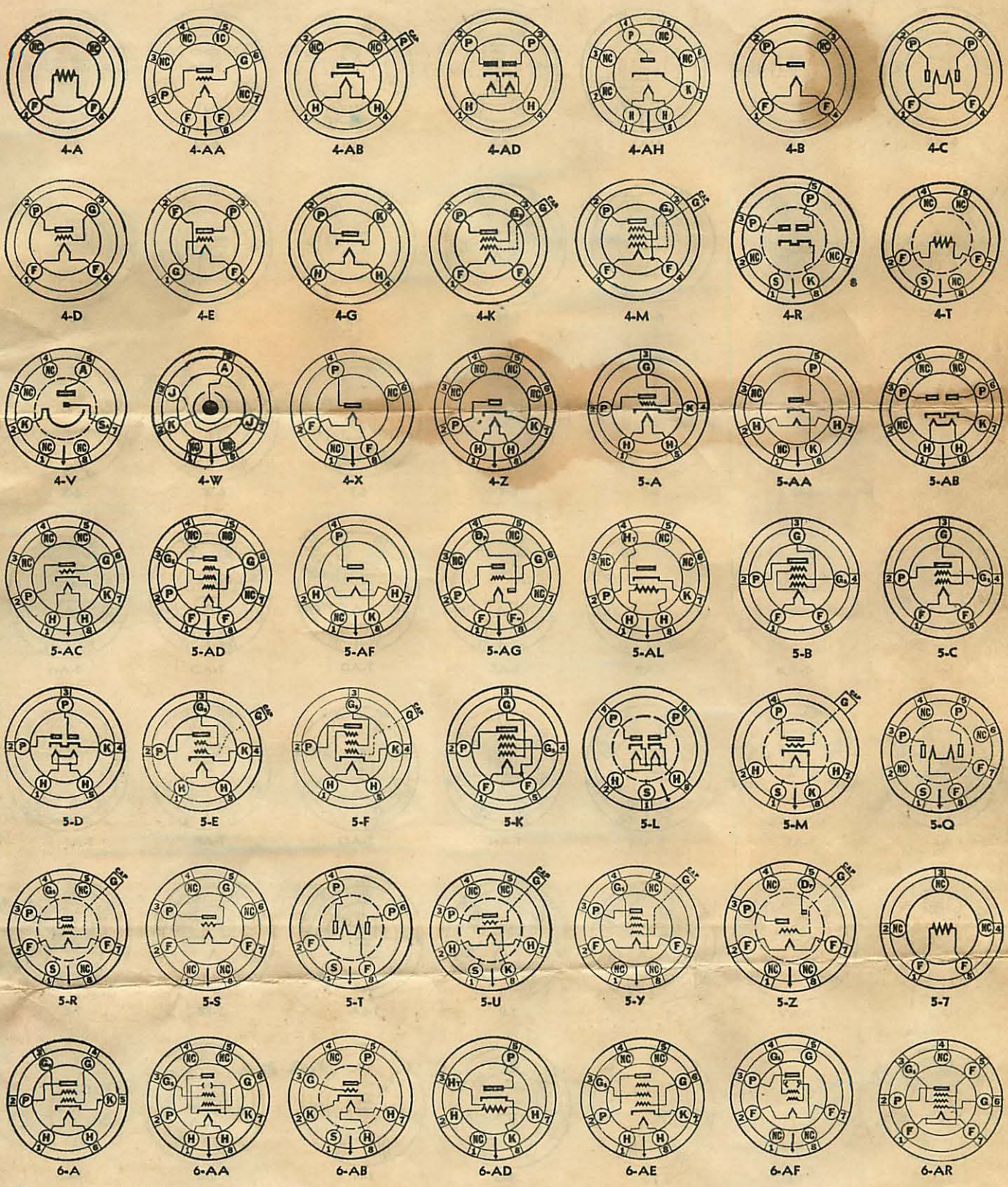
Type No.	Circuit Volts	Design Volts	Design Amp.	Bead Color	Bulb Style	Miniature Base	Usual Service	Type No.
S40	6-8	6.3	0.15	Brown	T-3¼	Screw	Radio Dials	S40
S41	2.5	2.5	0.50	White	T-3¼	Screw	Radio Dials	S41
S42	3.2	3.2	0.35	Green	T-3¼	Screw	Radio Dials	S42
S43	2.5	2.5	0.50	White	T-3¼	Bayonet	Radio Dials and Tuning Meters	S43
S44	6-8	6.3	0.25	Blue	T-3¼	Bayonet	Radio Dials and Tuning Meters	S44
S45	3.2	3.2	0.35	White	T-3¼	Bayonet	Radio Dials	S45
S46	6-8	6.3	0.25	Blue	T-3¼	Screw	Radio Dials and Tuning Meters	S46
*S47	6-9	6.3	0.15	Brown	T-3¼	Bayonet	Radio Dials	*S47
S48	2.0	2.0	0.06	Pink	T-3¼	Screw	Battery Set Dials	S48

Type No.	Circuit Volts	Design Volts	Design Amp.	Bead Color	Bulb Style	Miniature Base	Usual Service	Type No.
*S49	2.0	2.0	0.06	Pink	T-3¼	Bayonet	Battery Set Dials	*S49
S50	6-8	7.5	0.20	White	G-3½	Screw	Auto Sets, Flash Lights	S50
S51	6-8	7.5	0.20	White	G-3½	Bayonet	Auto Sets Auto Panels	S51
S55	6-8	6.5	0.40	White	G-4½	Bayonet	Auto Sets, Parking Lights	S55
S292	2.9	2.9	0.17	White	T-3¼	Screw	Radio Dials	S292
S292A	2.9	2.9	0.17	White	T-3¼	Bayonet	Radio Dials Coin Machines	S292A
S1455	18.0	18.0	0.25	Brown	G-5	Screw	Coin Machines	S1455
S1455A	18.0	18.0	0.25	Brown	G-5	Bayonet	Coin Machines	S1455A

*Sylvania Types S47 and S49 are interchangeable with Types 40A and 49A, respectively, in other brands.

TUBE AND BASE DIAGRAMS

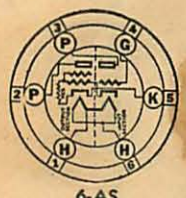
(Viewed From Bottom of Base—RMA Numbering System)



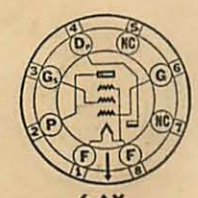
SYMBOLS: A—Anode; A1—Anode 1; A2—Anode 2; D1—Deflector 1; D2—Deflector 2; D3—Deflector 3; D4—Deflector 4; Dp—Diode Plate; F—Filament; Fc—Filament Center; G—Control Grid; GA—Anode Grid; GM—Modulator Grid; Go—Oscillator Grid; Gs—Screen Grid; H—Heater; Hc—Heater Center; HT—Heater Tap; IC—Internal Connection; IS—Internal Shield; J—Jumper; K—Cathode; NC—No Connection; P—Plate; Rc—Ray Control; S—Metal Shell; SA—Starter Anode; Su—Suppressor Grid; T—Target; XS—External Shield; □—Top Cap; ⟶ Locating Pin.

TUBE AND BASE DIAGRAMS

(Viewed From Bottom of Base—RMA Numbering System)—*Continued*


6-AS


6-AU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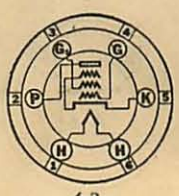
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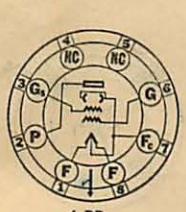
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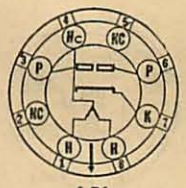
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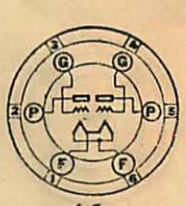
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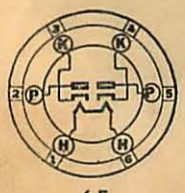
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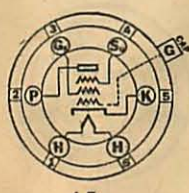
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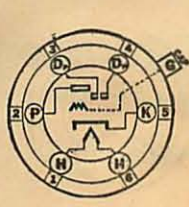
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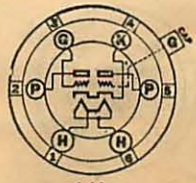
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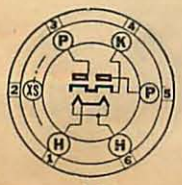
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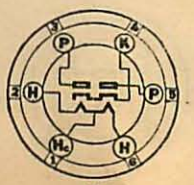
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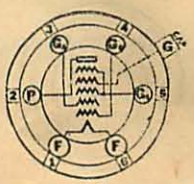
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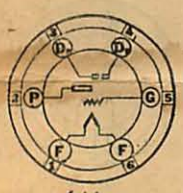
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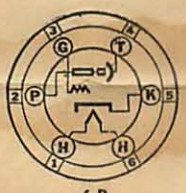
6-Q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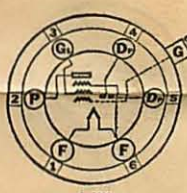
6-S


6-T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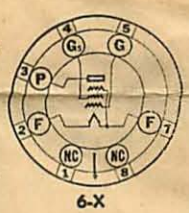
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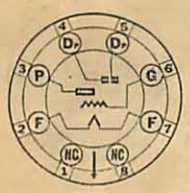
7-A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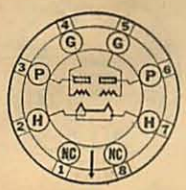
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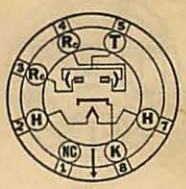
7-AC


7-AD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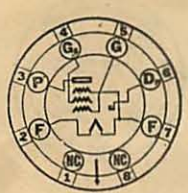
7-AH


7-AJ


7-AK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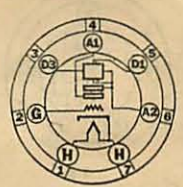
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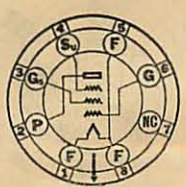
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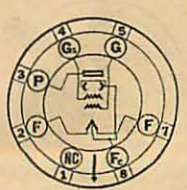
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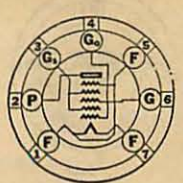
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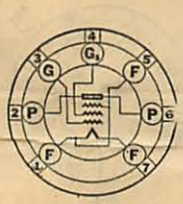
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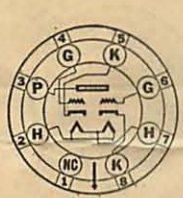
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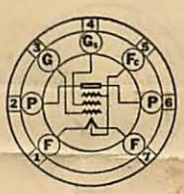
7-B


7-BA

7-BE

7-C

7-D

7-E

7-F

7-G

7-H

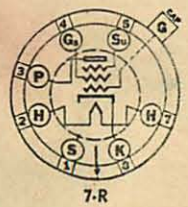
7-K

7-Q

SYMBOLS: A—Anode; A1—Anode 1; A2—Anode 2; D1—Deflector 1; D2—Deflector 2; D3—Deflector 3; D4—Deflector 4; Dp—Diode Plate; F—Filament; Fc—Filament Center; G—Control Grid; GA—Anode Grid; GM—Modulator Grid; Go—Oscillator Grid; Gs—Screen Grid; H—Heater; Hc—Heater Center; HT—Heater Tap; IC—Internal Connection; IS—Internal Shield; J—Jumper; K—Cathode; NC—No Connection; P—Plate; Rc—Ray Control; S—Metal Shell; SA—Starter Anode; Su—Suppressor Grid; T—Target; XS—External Shield; □—Top Cap; ⟶Locating Pin.

TUBE AND BASE DIAGRAMS

(Viewed From Bottom of Base—RMA Numbering System)—*Continued*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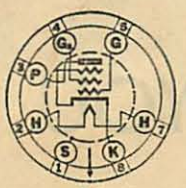
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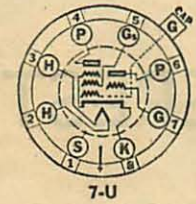
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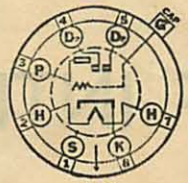
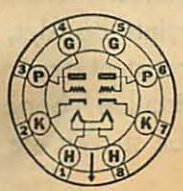

7-V


7-Z


8-A


8-AA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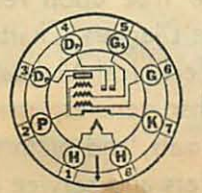
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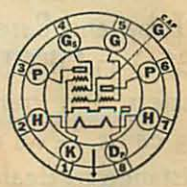
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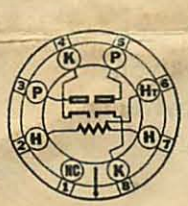
8-AL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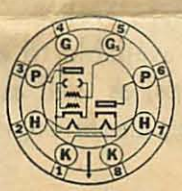
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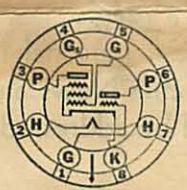
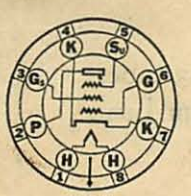

8-AY


8-B


8-BD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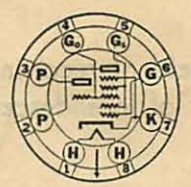
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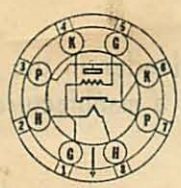
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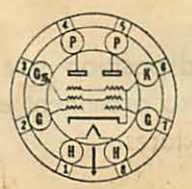
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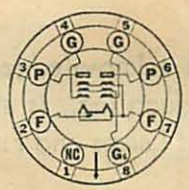
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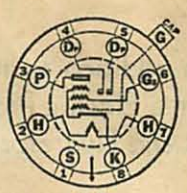
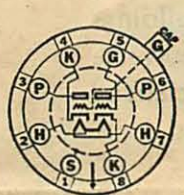
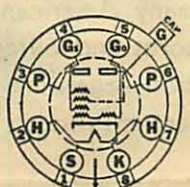

8-E


8-F


8-G


8-H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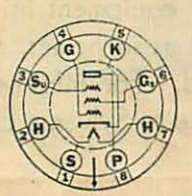
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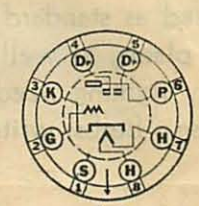
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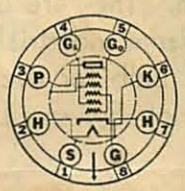
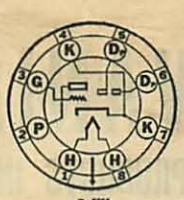

8-R


8-S


8-T


8-U


8-V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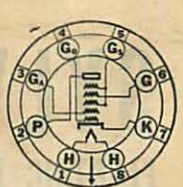
8-X

8-Y

8-Z

10-A

SYMBOLS: A—Anode, A1—Anode 1, A2—Anode 2, D1—Deflector 1, D2—Deflector 2, D3—Deflector 3, D4—Deflector 4, Dp—Diode Plate, F—Filament, Fc—Filament Center, G—Control Grid, GA—Anode Grid, GM—Modulator Grid, Go—Oscillator Grid, Gs—Screen Grid, H—Heater, Hc—Heater Center, HT—Heater Tap, IC—Internal Connection, IS—Internal Shield, J—Jumper, K—Cathode, NC—No Connection, P—Plate, Rc—Ray Control, S—Metal Shell, SA—Starter Anode, Su—Suppressor Grid, T—Target, XS—External Shield, □—Top Cap, ⟶Locating Pin.

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