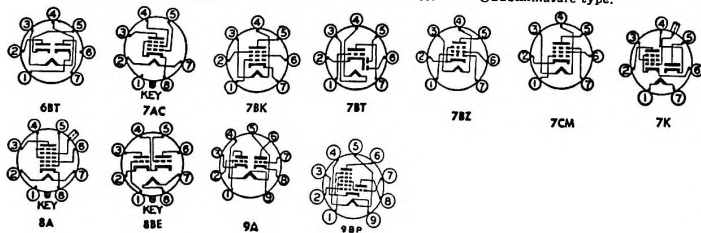


Tube Type	Classification by Construction	Base Connections	Outline Dwg	Type Cathode	Filament Volts	Filament Amp	Max Plate Volts	Max Screen Volts	Capacitance in Micromicrofarads		
									Input	Output	Grid-plate
12A6 12A6-GT	Beam Power Amplifier	7AC	8-6 9-9	Htr	12.6	0.15	250	250	—	—	—
12A7	Half-Wave Rectifier Power Amplifier Pentode	7K	12-6	Htr	12.6	0.3	135	135	—	—	—
12A8-G 12A8-GT	Pentagrid Converter	8A†	12-8 9-18	Htr	12.6	0.15	300	100	Osc $I_{g1} = 0.4$ ma $R_{g1} = 50,000$ ohms		
12AH7-GT	Medium-Mu Twin Triode	8BE	9-7	Htr	12.6	0.15	180	—	—	—	—
12AH8	Triode-Heptode Converter	9BP	6-3	Htr	12.6 6.3	0.15 0.3	300	125	Osc $I_{g1} = 0.2$ ma $R_{g1} = 47,000$ ohms		
12AL6	Twin Diode	6BT	5-1	Htr	12.6	0.15	Tube Voltage Drop: ♦ 10 v at 60 ma d-c				
12AQ6	Beam Power Amplifier	7BZ	5-3	Htr	12.6	0.225	250	250	8.3▲	8.2▲	0.35▲
12AT6	Duplex-Diode High-Mu Triode	7BT	5-2	Htr	12.6	0.15	300	—	2.2	1.2	2.0
12AT7	High-Frequency Twin Triode	9A	6-2	Htr	12.6 6.3	0.15 0.3	300	—	2.2	1.2 1.5	1.5
12AU6	Sharp-Cutoff RF Pentode	7BK	5-2	Htr	12.6	0.15	300	150	Pentode Connection		
							250	—	Triode Connection (G_2 , G_3 , & P tied)		
12AU7	Medium-Mu Twin Triode	9A	6-2	Htr	12.6 6.3	0.15 0.3	300	—	1.8	2.0	1.5
12AU7-A	Medium-Mu Twin Triode	9A	6-2	Htr	12.6 6.3	0.15 0.3	300	—	1.6▲	0.5 0.35▲	1.5▲
12AV6	Duplex-Diode High-Mu Triode	7BT	5-2	Htr	12.6	0.15	300	—	2.2	1.2	2.0
12AV7	Twin Triode	9A	6-2	Htr	6.3 12.6	0.45 0.225	300	—	3.2	1.3 1.6	1.9
12AW6	Sharp-Cutoff RF Pentode	7CM	5-2	Htr	12.6	0.15	300	150	Pentode Connection		
							300	—	Triode Connection (G_1 & P tied)		

Metal tubes are shown in bold-face type, miniature tubes in italics.

♦ Subminiature type.



Service	Plate Volts	Screen Volts	Neg Grid Volts	Plate Milli-am-peres	Screen Milli-am-peres	R_p Ohms	G_m μ mhos	# Factor	Load for Rated Out-put, Ohms	Power Out-put, Watts	Tube Type	
Class A Amplifier	250	250	12.5	30†	3.5†	70,000‡	3,000	—	7,500	3.4	12A6 12A6-GT	
Class A Amplifier Half-Wave Rectifier	135	135	13.5	9.0†	2.5†	102,000	975	—	13,500	0.55	12A7	
Max d-c output current = 30 ma; max rms supply voltage = 125 v												
Converter	250	100	3.0	3.5	2.7	360,000§	550 #	E_{c1} (Osc Plate) = 250 I_{g1} 20,000 ohms I_{g2} = 4.0 ma		—	12A8-G 12A8-GT	
Class A Amplifier ♦	180	—	6.5	7.6	—	8,400	1,900	16	—	—	12AH7-GT	
Converter	250	100	3.0	2.6	4.4	1,500,000	550 #	E_{c1} (Triode Osc) = 100 I_{b1} (Triode) = 5.3 ma		—	12AH8	
Half-Wave Rectifier	Max d-c output current per plate = 9 ma; max peak inverse voltage = 330 volts; max rms supply voltage per plate = 117 volts; max peak current per plate = 54 ma										—	12AL6
Class A Amplifier	180 250	180 250	12.5 12.5	29† 45†	3.0† 4.5†	58,000‡ 52,000‡	3,700 4,100	—	5,500 5,000	2.0 4.5	12AO6	
Class A Amplifier	250 100	—	3.0 1.0	1.0 0.8	—	58,000 54,000	1,200 1,300	70 70	—	—	12AT6	
Class A Amplifier ♦	250 100	—	$R_k = 200$ $R_k = 270$	10 3.7	—	10,900 15,000	5,500 4,000	60 60	—	—	12AT7	
Class A Amplifier	250 100	150 100	$R_k = 68$ $R_k = 150$ $R_k = 330$	10.6 5.0 12.2	4.3 2.1 —	1,000,000§ 500,000§ —	5,200 3,900 4,800	— — 36	— — —	—	12AU6	
Class A Amplifier ♦	250 100	—	8.5 0	10.5 11.8	—	7,700§ 6,500§	2,200 3,100	17 20	—	—	12AU7	
Vertical Deflection Amplifier ♦	Max positive pulse plate voltage; $E = 1,200$ volts; max plate dissipation = 2.75 watts; max d-c cathode current = 20 ma										—	
Class A Amplifier ♦	250 100	—	8.5 0	10.5 11.8	—	7,700§ 6,250§	2,200 3,100	17 19.5	—	—	12AU7-A	
Class A Amplifier	250 100	—	2.0 1.0	1.2 0.5	—	62,500 80,000	1,600 1,250	100 100	—	—	12AV6	
Class A Amplifier ♦	150 100	—	$R_k = 56$ $R_k = 120$	18 9.0	—	4,800 6,100	8,500 6,100	41 37	—	—	12AV7	
Class A Amplifier	250	150	$R_k = 200$	7.0	2.0	800,000§	5,000	—	—	—	12AW6	
Class A Amplifier	250	—	$R_k = 825$	5.5	—	11,000	3,800	4?	—	—		

‡ Approximate.

▲ Without external shield.

† Zero signal.

♦ Grids 3 and 5 are screen. Grid 4 is signal-input grid.

Conversion transconductance.

▲ Maximum.

♦ Grids 2 and 4 are screen. Grid 3 is signal-input grid.

§ Screen supply voltage.

¶ Absolute maximum rating.

† Plate-to-plate.

♦ Per section.

§ For both sections.

♦ Minimum.

¶ Heater warm-up time controlled for series-string service.

‡ Plate supply voltage.

|| Input plate.

— The duration of the pulse voltage must not exceed 15 percent of one scanning cycle.

1—Section 1.

2—Section 2.

— A resistor of 3 ohms must be put in series with heater.