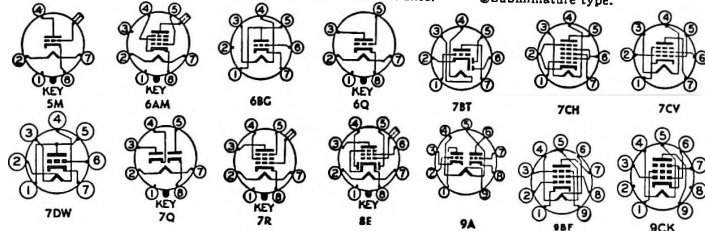


Tube Type	Classification by Construction	Base Connections	Out-line Dwg	Type Cathode	Filament Volts	Filament Amp	Max Plate Volts	Max Screen Volts	Capacitance in Micromicrofarads		
									Input	Output	Grid-plate
12BT6	Duplex-Diode High-Mu Triode	7BT	5-3	Htr	12.6	0.15	300	—	—	—	—
12BU6	Duplex-Diode Medium-Mu Triode	7BT	5-3	Htr	12.6	0.15	300	—	—	—	—
12BY7	Sharp-Cutoff Pentode	9BF	6-3	Htr	12.6 6.3	0.3 0.6	300	180	10.7▲	4.0▲	0.083▲
12BY7-A					12.6 6.3	0.3 0.6					
12BZ7	High-Mu Twin Triode	9A	6-3	Htr	12.6 6.3	0.3 0.6	300	—	6.5▲	0.7▲ 0.55▲	2.5▲
12C8	Duplex-Diode Semi-Remote-Cutoff Pentode	8E	8-4	Htr	12.6	0.15	300	125	6.0	9.0	0.005
12CA5	Beam Power Amplifier	7CV	5-3	Htr	12.6	0.6	130	130	15▲	9▲	0.5▲
12CM6	Beam Power Amplifier	9CK	6-3	Htr	12.6	0.225	315	285	Pentode Connection Triode (G_2 & P tied) or Pentode Connection		
12CS8	Dual-Control Heptode	7CH	5-2	Htr	12.6	0.15	300	100	—	—	—
12CU6	Beam Power Amplifier	6AM	T-X	Htr	12.6	0.6	550	175	15▲	7.0▲	0.55▲
12E5-GT	Medium-Mu Triode	6Q	9-11	Htr	12.6	0.15	250	—	3.4	5.5	2.6
12F5-GT	High-Mu Triode	5M	9-17	Htr	12.6	0.15	300	—	1.9	3.4	2.4
12G4	Medium-Mu Triode	6BG	5-3	Htr	12.6	0.15	300	—	2.6	3.2	3.4
12H4	Medium-Mu Triode	7DW	5-3	Htr	12.6 6.3	0.15 0.3	300	—	2.6	3.2	3.4
12H6	Twin Diode	7Q	8-5	Htr	12.6	0.15	Tube Voltage Drop: ▲ 11 v at 16 ma d-c				
12J5 12J5-GT 12J5-WGT	Medium-Mu Triode	6Q	8-1 9-11 or 9-41	Htr	12.6	0.15	300	—	3.4 4.2	3.6 5.0	3.4 3.8
12J7-GT	Sharp-Cutoff Pentode	7R	9-18	Htr	12.6	0.15	300	125	Pentode Connected Triode Connected (G_2 , G_3 & P Tied)		
12K7-GT	Remote-Cutoff RF Pentode	7R	9-18	Htr	12.6	0.15	300	150	4.6	12.0	0.005

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

③ Subminiature type.



Service	Plate Volts	Screen Volts	Neg Grid Volts	Plate Milli-amperes	Screen Milli-amperes	R_p Ohms	G_m μ mhos	# Factor	Load for Rated Output, Ohms	Power Output, Watts	Tube Type
Class A Amplifier	250 100	—	3.0 1.0	1.0 0.8	—	58,000 54,000	1,200 1,300	70 70	—	—	12BT6
Class A Amplifier	250	—	9.0	9.5	—	8,500	1,900	16	10,000	0.30	12BU6
Class A Amplifier	250	180	$R_k = 100$	24	5.0	110,000	12,000	—	—	—	12BY7 12BY7-A
Class A Amplifier	250	—	2	2.5	—	31,800	3,200	100	—	—	12BZ7
Class A Amplifier	250	125	3.0	10	2.3	600,000	1,325	—	—	—	12C8
Class A Amplifier	125 110	125 110	4.5 4.0	37 32	4.0 3.5	15,000 16,000	9,200 8,100	—	4,500 3,500	1.5 1.1	12CA5
Class A Amplifier Vertical Deflection Amplifier	250	250	12.5	45	4.5	50,000	4,100	—	5,000	4.5	12CM6
Max positive pulse plate voltage = 2000 volts; max plate dissipation = 8.0 watts; max screen dissipation (pentode connection only) = 1.75 watts; max d-c cathode current = 40 ma											
Gated Amplifier	100 100 10	30 30 30	1.0 0 0	1.0 0.8 2.0	1.3 5.5 4.5	1,000,000 700,000	1,100 —	$E_{c1} = 0$ volts $E_{c2} = -10$ volts $E_{c3} = 0$ volts	—	—	12CS8
Horizontal Deflection Amplifier	250	150	22.5	55	2.1	20,000	5,500	—	—	—	12CU6
Max positive pulse plate voltage = 6000 volts; max plate dissipation = 11 watts; max screen dissipation = 2.5 watts; max d-c cathode current = 110 ma											
Class A Amplifier	250	—	13	5.0	—	9,500	1,450	13.8	—	—	12E5-GT
Class A Amplifier	250	—	2.0	0.9	—	66,000	1,500	100	—	—	12F5-GT
Class A Amplifier	90 250	—	0 8.0	10 9.0	—	6,700 7,700	3,000 2,600	20 20	—	—	12G4
Class A Amplifier	90 250	—	0 8.0	10 9.0	—	6,700 7,700	3,000 2,600	20 20	—	—	12H4
Half-Wave Rectifier	Max d-c output current per plate = 8 ma; max peak inverse voltage = 420 volts; max rms supply voltage per plate = 150 volts; max peak current per plate = 48 ma										12H6
Class A Amplifier	90 250	—	0 8.0	10 9.0	—	6,700 7,700	3,000 2,600	20 20	—	—	12J5 12J5-GT 12J5-WGT
Class A Amplifier	250	100	3.0	2.0	0.5	1,000,000	1,225	—	—	—	12J7-GT
Class A Amplifier	250	—	8.0	6.5	—	10,500	1,900	20	—	—	
Class A Amplifier	250	125	3.0	10.5	2.6	600,000	1,650	—	—	—	12K7-GT

§ Approximate.

▲ Without external shield.

† Zero signal.

④ 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.

⑥ Screen supply voltage.

* Absolute maximum rating.

‡ Plate-to-plate.

♠ Per section.

③ 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.