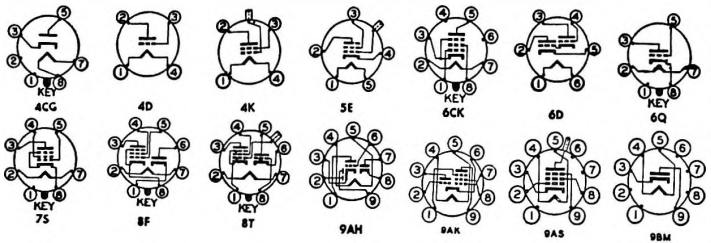
Tube Type	Classification by Construction	Base Connections	Outline Dwg	Type Cathode	Filament Volts	Filament Amp	Max Plate Volts	Max Screen Volts	Capacitance in Micromicrofarads: Input	Output	Grid-plate
19V8	Triple-Diode, High-Mu Triode	9AH	6–2	Htr	18.9	0.15	300	—	—	—	—
19X3	Half-Wave High-Vacuum Rectifier	9BM	6–4	Htr	19	0.3	Tube Voltage Drop: 16 volts at 180 ma d-c				
19X8	Triode-Pentode Converter	9AK	6–2	Htr	18.9	0.15	250	250 ✱	Pentode Section		
							250	—	Triode Section		
19Y3	Half-Wave High-Vacuum Rectifier	9BM	6–4	Htr	19	0.3	Tube Voltage Drop: 15 volts at 180 ma d-c				
20	Power Amplifier Triode	4D	9–25	Fil	3.3 DC	0.132	135	—	2.0	2.3	4.1
21A6	Beam Power Amplifier	9AS	T-X	Htr	21.5	0.3	250	250	—	—	—
22	Sharp-Cutoff RF Tetrode	4K	14–2	Fil	3.3 DC	0.132	135	67.5	3.5	10.0	0.02 ♣
24A	Sharp-Cutoff RF Tetrode	5E	14–2	Htr	2.5	1.75	250	90	5.3▲	10.5▲	0.007 ♣
25A6 25A6-GT	Power Amplifier Pentode	7S	8–6 9–11	Htr	25.0	0.3	160	135	8.5	12.5	0.2
25A7-GT	Half-Wave Rectifier Power Amplifier Pentode	8F	9–11	Htr	25.0	0.3	117	—	—	—	—
							Tube Voltage Drop: 23 v at 150 ma d-c				
25AC5-GT	Triode Power Amplifier	6Q	9–11	Htr	25.0	0.3	180		2 tubes, Push-pull		
25AV5-GT	Beam Power Amplifier	6CK	9–11 or 9–41	Htr	25.0	0.3	550‖	175	14▲	7.0▲	0.7▲
25AX4-GT	Half-Wave High-Vacuum Rectifier	4CG	9–11 or 9–41	Htr	25.0	0.3	Tube Voltage Drop: 32 v at 250 ma d-c				
25B5	Direct-Coupled Power Amplifier	6D	12–1	Htr	25.0	0.3	180	—	—	—	—
25B6-G	Power Amplifier Pentode	7S	14–3	Htr	25.0	0.3	200	135	—	—	—
25B8-GT	Triode Remote-Cutoff Pentode	8T	9–24	Htr	25.0	0.15	100	100	Pentode Section		
									Triode Section		
25BK5	Beam Power Amplifier	9BQ	6–3	Htr	25.0	0.3	250	250	13▲	5.0▲	0.6▲

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



Service	Plate Volts	Screen Volts	Neg Grid Volts	Plate Milliamperes	Screen Milliamperes	R_p, Ohms	G_m, μmhos	μ Factor	Load for Rated Output, Ohms	Power Output, Watts	Tube Type
Class A Amplifier	250	—	3.0	1.0	—	58,000§	1,200	70	—	—	*19V8*
	100	—	1.0	0.8	—	54,000§	1,300	70	—	—	
TV Damper Service‡	Max d-c output current = 180 ma; max peak inverse voltage = 4,000 volts; max peak current = 400 ma										*19X3*
Class A Amplifier	250	150	R_k = 200	7.7	1.6	750,000§	4,600	—	—	—	*19X8*
Class A Amplifier	100	—	R_k = 100	8.5	—	6,900§	5,800	40	—	—	
Half-Wave Rectifier	Max d-c output current = 180 ma; max peak inverse voltage = 700 volts; max rms supply voltage = 250 volts										*19Y3*
Class A Amplifier	135	—	22.5	6.5†	—	6,300	525	3.3	6,500	0.110	20
Horizontal Deflection Amplifier	180	180	23	45	3.0	—	6,500	—	—	—	*21A6*
	180	180	0	430	29	—	—	—	—	—	
	Max positive pulse plate voltage = 7,000 volts; max plate dissipation = 8 watts; max screen dissipation = 4.5 watts; max d-c cathode current = 150 ma										
Class A Amplifier	135	67.5	1.5	3.7	1.3	325,000	500	—	—	—	22
Class A Amplifier	250	90	3.0	4.0	1.7♣	600,000	1,050	—	—	—	24A
Class A Amplifier	160	120	18	33†	6.5†	42,000	2,375	—	5,000	2.2	25A6 25A6-GT
Class A Amplifier	100	100	15	20.5†	4.0†	50,000	1,800	—	4,500	0.77	25A7-GT
Half-Wave Rectifier	Max d-c output current = 75 ma; max peak inverse voltage = 350 v; max rms supply voltage = 117 v; max peak current = 450 ma										
Class B Amplifier	180	—	0	4.0†	—	Peak Input Signal = 0.810 watt			4,800 ‡	6.0	25AC5-GT
Horizontal Deflection Amplifier	250	150	22.5	55	2.1	20,000§	5,500	—	—	—	25AV5-GT
	60	150	0	225	25	—	—	—	—	—	
	Max positive pulse plate voltage ▣ = 5,500 volts; max plate dissipation = 11 watts; max screen dissipation = 2.5 watts; max d-c cathode current = 110 ma										
TV Damper Service‡	Max d-c output current = 125 ma; max peak inverse voltage ▣ = 4,400 volts max peak current = 750 ma										25AX4-GT
Class A Amplifier	180	100‖	0	46	5.8‖	15,000	2,300	—	4,000	3.8	25B5
Class A Amplifier	200	135	23	62†	1.8†	18,000	5,000	—	2,500	7.1	25B6-G
Class A Amplifier	100	100	3.0	7.6	2.0	185,000	2,000	—	—	—	25B8-GT
Class A Amplifier	100	—	1.0	0.6	—	75,000	1,500	112	—	—	
Class A Amplifier	250	250	5.0	35†	3.5†	100,000§	8,500	—	6,500	3.5	*25BK5*



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