

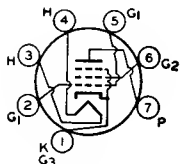
Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values, Each Unit)

Plate Voltage	330	volts
Grid-No.3 (Suppressor-Grid) Voltage, Positive value	0	volts
Grid-No.2 (Screen-Grid) Supply Voltage	330	volts
Grid-No.2 Voltage	See curve page 98	
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0	volts
Plate Dissipation	3.1	watts
Grid-No.2 Input:		
For grid-No.2 voltages up to 165 volts	0.65	watt
For grid-No.2 voltages between 165 and 330 volts	See curve page 98	

CHARACTERISTICS (Each Unit)

Plate Supply Voltage	125	volts
Grid No.3	Connected to cathode at socket	
Grid-No.2 Supply Voltage	125	volts
Cathode-Bias Resistor	56	ohms
Plate Resistance (Approx.)	0.2	megohm
Transconductance	10500	μ mhos
Plate Current	11	mA
Grid-No.2 Current	3.5	mA
Grid-No.1 Voltage (Approx.) for transconductance of 50 μ mhos	-15	volts



7CV

BEAM POWER TUBE

6AS5

Miniature type used as output amplifier primarily in automobile and in ac-operated receivers. Outlines section, 5D; requires miniature 7-contact socket. For curves of average plate characteristics, refer to type 35C5.

Heater Voltage (ac/dc)	6.3	volts
Heater Current	0.8	ampere
Peak Heater-Cathode Voltage	± 100 max	volts
Direct Interelectrode Capacitances (Approx.):		
Grid No.1 to Plate	0.6	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3	12	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3	9	pF

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Center Values)

Plate Voltage	150	volts
Grid-No.2 (Screen-Grid) Voltage	117	volts
Plate Dissipation	5.5	watts
Grid-No.2 Input	1.0	watt
Bulb Temperature (At hottest point)	250	$^{\circ}$ C

TYPICAL OPERATION

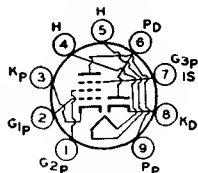
Plate Voltage	150	volts
Grid-No.2 Voltage	110	volts
Grid-No.1 (Control-Grid) Voltage	-8.5	volts
Peak AF Grid-No.1 Voltage	8.5	volts
Zero-Signal Plate Current	35	mA
Maximum-Signal Plate Current	36	mA
Zero-Signal Grid-No.2 Current (Approx.)	2	mA
Maximum-Signal Grid-No.2 Current (Approx.)	6.5	mA
Transconductance	5600	μ mhos
Load Resistance	4500	ohms
Total Harmonic Distortion	10	per cent
Maximum-Signal Power Output	2.2	watts

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:		
For fixed-bias operation	0.1	megohm
For cathode-bias operation	0.5	megohm

6AS8**5AS8****DIODE—
SHARP-CUTOFF PENTODE**

Miniature type used in television and radio receiver applications. The pentode unit is used as an if amplifier, video amplifier, or age amplifier. The high-perveance diode is used as an audio detector, video detector, or dc restorer. Outlines section, 6B; requires miniature 9-contact socket. For curve of average plate characteristics of pentode unit, see type 6AN8A. Type 5AS8 is identical with type 6AS8 except for heater ratings.

**9DS**

	5AS8	6AS8	
Heater Voltage (ac/dc)	4.7	6.3	volts
Heater Current	0.6	0.45	ampere
Heater Warm-up Time (Average)	11	—	seconds
Heater-Cathode Voltage:			
Peak value	±200 max	±200 max	volts
Average value	100 max	100 max	volts
Direct Interelectrode Capacitances:			
Diode Unit:			
Plate to Cathode, Heater, Pentode Grid No.3, and Internal Shield		3	pF
Pentode Unit:			
Grid No.1 to Plate		0.03	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield		7	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield		2.4	pF
Pentode Grid No.1 to Diode Plate		0.005 max	pF
Pentode Plate to Diode Cathode		0.15 max	pF
Pentode Plate to Diode Plate		0.10 max	pF

Pentode Unit as Class A₁ Amplifier**MAXIMUM RATINGS (Design-Center Values)**

Plate Voltage	300	volts
Grid-No.3 (Suppressor-Grid) Voltage, Positive value	0	volts
Grid-No.2 Supply Voltage	300	volts
Grid-No.2 (Screen-Grid) Voltage	See curve page 98	
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0	volts
Plate Dissipation	2.5	watts
Grid-No.2 Input:		
For grid-No.2 voltages up to 150 volts	0.5	watt
For grid-No.2 voltages between 150 and 300 volts	See curve page 98	

CHARACTERISTICS

Plate Supply Voltage	200	volts
Grid No.3	Connected to cathode at socket	
Grid-No.2 Supply Voltage	150	volts
Cathode-Bias Resistor	180	ohms
Plate Resistance (Approx.)	300000	ohms
Transconductance	6200	μmhos
Plate Current	9.5	mA
Grid-No.2 Current	3	mA
Grid-No.1 Voltage (Approx.) for plate current of 10 μA	—8	volts

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:		
For fixed-bias operation	0.25	megohm
For cathode-bias operation	1	megohm

Diode Unit**MAXIMUM RATINGS (Design-Center Values)**

Peak Inverse Plate Voltage	330	volts
Peak Plate Current	50	mA
Average Plate Current	5	mA