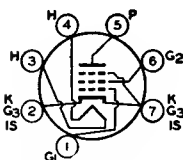


	Triode Unit No.1	Triode Unit No.2	Pentode Unit 4.8	
Grid-No.2 Current	—	—	—	mA
Grid-No.1 Voltage (Approx.) for plate current of 100 μ A	—	-6.5	-10	volts
MAXIMUM CIRCUIT VALUES				
Grid-No.1-Circuit Resistance:				
For fixed-bias operation	0.5	0.5	0.25	megohm
For cathode-bias operation	1	1	1	megohm

**7BD****SHARP-CUTOFF PENTODE****6AG5**

Miniature type used in compact radio equipment as an rf or if amplifier up to 400 MHz. Outlines section, 5C; requires miniature 7-contact socket. For typical operation as a resistance-coupled amplifier, refer to Resistance-Coupled Amplifier section.

Heater Voltage (ac/dc)	6.3	volts
Heater Current	0.3	ampere

Direct Interelectrode Capacitances:

Pentode Unit:			
Grid No.1 to Plate	0.030 max	pF	
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	6.5	pF	
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	1.8	pF	
Triode Unit:			
Grid No.1 to Plate and Grid No.2	2.5	pF	
Grid No.1 to Cathode, Heater, Grid No.3, and Internal Shield ..	3.6	pF	
Grid No.2 to Cathode, Heater, Grid No.3, and Internal Shield ..	3	pF	
Plate to Cathode, Heater, Grid No.3, and Internal Shield ...	3	pF	

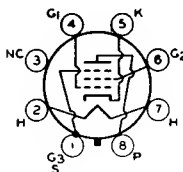
Class A₁ Amplifier**MAXIMUM RATINGS (Design-Center Values)**

	Triode Connection*	Pentode Connection	
Plate Voltage	300	300	volts
Grid-No.2 (Screen-Grid) Supply Voltage	—	800	volts
Grid-No.2 Voltage	—	See curve page 98	
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0	0	volts
Plate Dissipation	2.5	2	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	180	250	100	125	250	volts
Grid-No.2 Supply Voltage	—	—	100	125	150	volts
Cathode-Bias Resistor	330	820	180	100	180	ohms
Amplification Factor	45	42	—	—	—	
Plate Resistance (Approx.)	0.008	0.01	0.6	0.5	0.8	megohm
Transconductance	5700	3800	4500	5100	5000	μ mhos
Plate Current	7	5.5	4.5	7.2	6.5	mA
Grid-No.2 Current	—	—	1.4	2.1	2	mA
Grid-No.1 Voltage (Approx.) for plate current of 10 μ A	—	—	-5	-6	-8	volts

* Grid No.2 connected to plate.

**8Y****POWER PENTODE****6AG7**

Metal type used in output stage of video amplifier of color and black-and-white television receivers. Outlines section, 2B; requires octal socket.

Heater Voltage (ac/dc)	6.3	volts
Heater Current	0.65	ampere

Peak Heater-Cathode Voltage	± 90 max	volts
Direct Interelectrode Capacitances:*		
Grid No.1 to Plate	0.06 max	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, Shell, and Internal Shield	13	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, Shell, and Internal Shield	7.5	pF

* Pins 1 and 3 connected to Pin No.5.

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Center Values)

Plate Voltage	300	volts
Grid-No.2 Voltage	300	volts
Grid-No.1 Voltage, Positive-bias value	0	volts
Plate Dissipation	9	watts
Grid-No.2 Input	1.5	watts

CHARACTERISTICS

Plate Voltage	300	volts
Grid No.3 (Suppressor Grid)	Connected to cathode at socket	
Grid-No.2 (Screen-Grid) Voltage	150	volts
Grid-No.1 (Control-Grid) Voltage	-3	volts
Peak AF Grid-No.1 Voltage	3	volts
Zero-Signal Grid-No.2 Current	30	mA
Maximum-Signal Grid-No.2 Current	30.5	mA
Zero-Signal Grid-No.2 Current	7	mA
Maximum-Signal Grid-No.2 Current	9	mA
Plate Resistance	0.13	megohm
Transconductance	11000	μ mhos
Load Resistance	10000	ohms
Total Harmonic Distortion	7	per cent
Maximum-Signal Power Output	3	watts

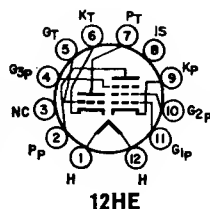
MAXIMUM CIRCUIT VALUES

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

6AG9

MEDIUM-MU TRIODE— SHARP-CUTOFF PENTODE

Duodecar type with frame grid pentode unit used in color and black-and-white television receiver applications. The pentode unit is used as a video amplifier; the triode unit is used as an agc amplifier. **Outlines section, 8C;** requires duodecar 12-contact socket. Heater: volts (ac/dc), 6.3; amperes, 0.82; maximum heater-cathode volts, ± 200 peak, 100 average.



12HE

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

	Triode Unit	Pentode Unit	
Plate Voltage	330	330	volts
Grid-No.2 (Screen-Grid) Voltage	—	200	volts
Grid-No.1 (Control-Grid) Voltage, Positive-bias value	0	0	volts
Plate Dissipation	1.1	10	watts
Grid-No.2 Input	—	1.5	watts

CHARACTERISTICS

Plate Voltage	150	55	250	volts
Grid-No.2 Voltage	—	125	150	volts
Grid-No.1 Voltage	—	0	—	volts
Cathode-Bias Resistor	350	—	56	ohms
Amplification Factor	39	—	—	—
Plate Resistance (Approx.)	8500	—	40000	ohms
Transconductance	4600	—	30000	μ mhos
Plate Current	6.2	—	28	mA
Grid-No.2 Current	—	—	5.6	mA
Grid-No.1 Voltage (Approx.) for plate current of 20 μ A	—7	—	—	volts
Grid-No.1 Voltage (Approx.) for plate current of 100 μ A	—	56	—	volts
		21	—5.4	volts

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:			
For fixed-bias operation	0.5	0.1	megohm
For cathode-bias operation	1	0.25	megohm