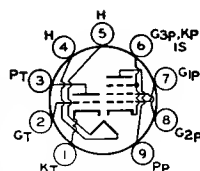


6HF8**10HF8****HIGH-MU TRIODE—
SHARP-CUTOFF PENTODE**

Miniature type used in color and black-and-white television receiver applications. The triode unit is used in high-gain, sound-if stages and in sync-separator, sync-clipper, and phase-inverter circuits; the pentode unit is used as a video-output amplifier. Outlines section, 6E; requires miniature 9-contact socket. For curves of average characteristics, refer to type 6AW8A for the triode unit and to type 6EB8 for the pentode unit. Type 10HF8 is identical with type 6HF8 except for heater ratings.

**9DX**

	6HF8	10HF8	
Heater Voltage (ac/dc)	6.3	10.5	volts
Heater Current	0.75	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:			
Triode Unit:			
Grid to Plate		3.5	pF
Grid to Cathode, Heater, Pentode Cathode, Grid No.3, and Internal Shield		2.8	pF
Plate to Cathode, Heater, Pentode Cathode, Grid No.3, and Internal Shield		2.6	pF
Pentode Unit:			
Grid No.1 to Plate		0.1 max	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield		10	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield		4.2	pF
Triode Grid to Pentode Plate		0.015 max	pF

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

	Triode Unit	Pentode Unit	
Plate Voltage	330	330	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	0	volts
Plate Dissipation	1	5	watts
Grid-No.2 Input:			
For grid-No.2 voltages up to 165 volts	—	1.1	watts
For grid-No.2 voltages between 165 and 330 volts	—	See curve page 98	

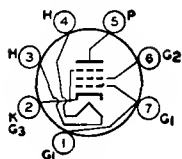
CHARACTERISTICS

	Triode Unit	Pentode Unit	
Plate Supply Voltage	200	45 200	volts
Grid-No.2 Supply Voltage	—	125 125	volts
Grid-No.1 Voltage	—2	0	volts
Cathode-Bias Resistor	—	68	ohms
Amplification Factor	70	—	
Plate Resistance (Approx.)	17500	75000	ohms
Transconductance	4000	12500	μmhos
Plate Current	4	40* 25	mA
Grid-No.2 Current	—	15* 7	mA
Grid-No.1 Voltage (Approx.) for plate current of 100 μA	—	— -9	volts
Grid-No.1 Voltage (Approx.) for plate current of 20 μA	-6	— —	volts

MAXIMUM CIRCUIT VALUES

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

* This value can be measured by a method involving a recurrent waveform such that the maximum ratings of the tube will not be exceeded.



7BZ

BEAM POWER TUBE

6HG5

Miniature type used in the audio output stages of television receivers. This type has a controlled cathode warm-up time to minimize extraneous sound during receiver warm-up. **Outlines section, 5D**; requires miniature 7-contact socket.

Heater Voltage (ac/dc)	6.3	volts
Heater Current	0.45	ampere
Cathode Warm-up Time#	14 min	seconds
Heater-Cathode Voltage:		
Peak value	±200 max	volts
Average value	100 max	volts
Direct Interelectrode Capacitances:		
Grid No.1 to Plate	0.4	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3	8	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3	8.5	pF

Time interval between application of voltages and rise of plate current to 1 mA; heater volts, 6.3; plate and grid-No.2 volts, 250; cathode-bias resistor, 680 ohms.

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

Plate Voltage	275	volts
Grid-No.2 (Screen-Grid) Voltage	275	volts
Plate Dissipation	12	watts
Grid-No.2 Input	2	watts
Bulb Temperature (At hottest point)	250	°C

TYPICAL OPERATION AND CHARACTERISTICS

Plate Voltage	180	250	volts
Grid-No.2 Voltage	180	250	volts
Grid-No.1 (Control-Grid) Voltage	-8.5	-12.5	volts
Peak AF Grid-No.1 Voltage	8.5	12.5	volts
Zero-Signal Plate Current	29	45	mA
Maximum-Signal Plate Current	30	47	mA
Zero-Signal Grid-No.2 Current	3	4.5	mA
Maximum-Signal Grid-No.2 Current	4	7	mA
Plate Resistance (Approx.)	58000	52000	ohms
Transconductance	3700	4100	μmhos
Load Resistance	5500	5000	ohms
Total Harmonic Distortion	8	8	per cent
Maximum-Signal Power Output	2	4.5	watts

MAXIMUM CIRCUIT VALUES

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

