Grid-No.1 (Control-Grid) Voltage:		
Negative-bias value	50	volts
Positive-bias value	0	volts
Plate Dissipation	3	volts
Grid-No.2 Input:		
For grid-No.2 voltages up to 150 volts	1	watt
For grid-No.2 voltages between 150 and 300 volts	See curve page 98	

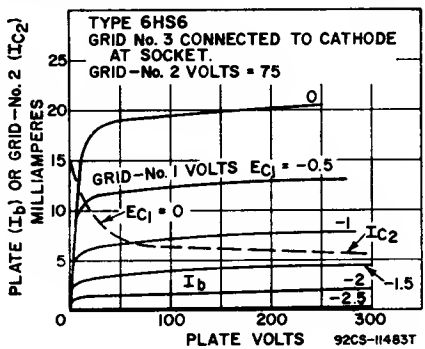
CHARACTERISTICS

Plate Supply Voltage	75	150	volts
Grid No.3	Connected to cathode at socket		
Grid-No.2 Supply Voltage	75	75	volts
Grid-No.1 Supply Voltage	0	0	volts
Cathode-Bias Resistor	68	68	ohms
Amplification Factor*	50	—	
Plate Resistance (Approx.)	—	0.5	megohm
Transconductance	—	9500	μmhos
Plate Current	—	8.8	mA
Grid-No.2 Current	—	2.8	mA
Grid-No.1 Voltage (Approx.) for plate current of 20 μA	—	—4	volts

MAXIMUM CIRCUIT VALUES

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

* Grid No.2 connected to plate.

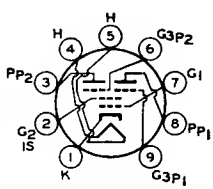


6HS8

4HS8

SHARP-CUTOFF TWIN PENTODE

Miniature type used in agc amplifier, sync, and noise-limiting circuits of color and black-and-white television receivers. One pentode unit is used as combined sync separator and sync clipper; second pentode unit is used as agc amplifier. Outlines section, 6E; requires miniature 9-contact socket. Type 4HS8 is identical with type 6HS8 except for heater ratings.



9FG

	4HS8	6HS8	
Heater Voltage (ac/dc)	4.2	6.3	volts
Heater Current	0.45	0.3	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:			
Grid No.3 to Plate (Each Unit)		2	pF
Grid No.1 to All Other Electrodes		6	pF
Grid No.3 (Each Unit) to All Other Electrodes		3.6	pF
Plate (Each Unit) to All Other Electrodes		3	pF
Grid No.3 (Unit No.1) to Grid No.3 (Unit No.2)		0.015 max	pF

Class A_1 Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

Plate Voltage (Each Unit)	300	volts
Grid-No.3 (Suppressor-Grid) Voltage (Each Unit):		
Peak positive value	50	volts
DC negative value	50	volts
DC positive value	3	volts
Grid-No.2 (Screen-Grid) Voltage	150	volts
Grid-No.1 (Control-Grid) Voltage, Negative-bias value	50	volts
Cathode Current	12	mA
Plate Dissipation (Each Unit)	1.1	watts
Grid-No.2 Input	0.75	watt

CHARACTERISTICS

	With One Unit Operating*		
Plate Voltage	100	100	volts
Grid-No.3 Voltage	0	0	volts
Grid-No.2 Voltage	67.5	67.5	volts
Grid-No.1 Voltage	0	▪	volts
Transconductance, Grid No.3 to Plate	—	450	μmhos
Transconductance, Grid No.1 to Plate	1100	—	μmhos
Plate Current	—	2	mA
Grid-No.3 Voltage (Approx.) for plate current of 100 μA	—	—3.5	volts
Grid-No.1 Voltage (Approx.) for plate current of 100 μA	—	—2.3	volts

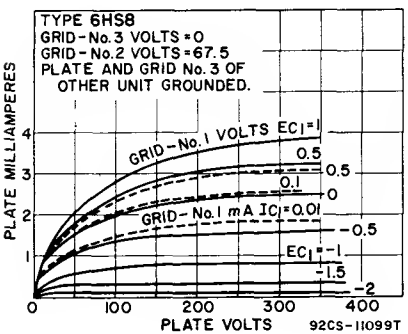
	With Both Units Operating		
Plate Voltage (Each Unit)	100	100	volts
Grid-No.3 Voltage (Each Unit)	—10	0	volts
Grid-No.2 Voltage	67.5	67.5	volts
Grid-No.1 Voltage	▪	▪	volts
Plate Current (Each Unit)	—	2	mA
Grid-No.2 Current	7	4.4	mA
Cathode Current	7.1	8.5	mA

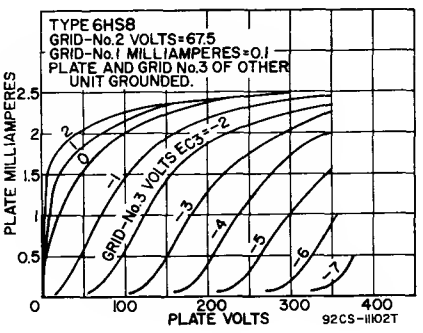
MAXIMUM CIRCUIT VALUES

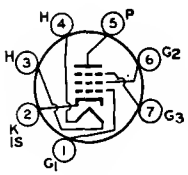
Grid-No.3-Circuit Resistance (Each Unit)	0.5	megohm
Grid-No.1-Circuit Resistance	0.5	megohm

* With plate and grid No.3 of other unit connected to ground.

▪ Adjusted to give grid-No.1 current of 0.1 milliampere.







7EN

SHARP-CUTOFF PENTODE

6HZ6

5HZ6

Miniature type used as sound-detector tube in FM and color and black-and-white television receivers. Tube has two independent control grids. **Outlines section,** 5C; requires miniature 7-contact socket. Type 5HZ6 is identical with type 6HZ6 except for heater ratings.