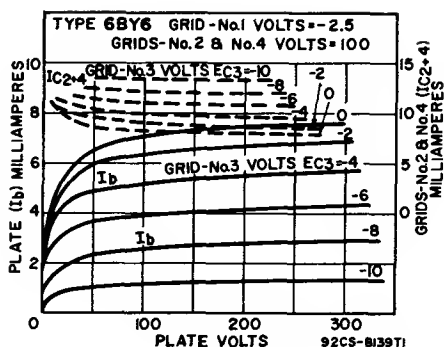
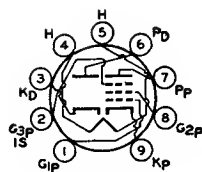




DIODE— SHARP-CUTOFF PENTODE

6BY8

Miniature type used in television receiver applications. The pentode unit is used as an rf amplifier and the high-perveance diode as a limiter or detector. Outlines section, 6E; requires miniature 9-contact socket.



9FN

Heater Voltage (ac/dc)	6.3	volts
Heater Current	0.6	ampere
Heater Warm-up Time (Average)	11	seconds
Heater-Cathode Voltage:		
Peak value	±200 max	volts
Average value	100 max	volts

Direct Interelectrode Capacitances:*

Pentode Unit:

Grid No.1 to Plate	0.0035 max	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	5.5	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	5	pF
Diode Plate to All Other Electrodes	4.8*	pF

* With external shield connected to cathode of pentode unit (pin 9), except as noted.

• With external shield connected to ground.

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 (Screen Grid) Supply Voltage	300	volts
Grid-No.2 Voltage	See curve page 98	
Grid-No.1 (Control-Grid) Voltage:		
Negative-bias value	50	volts
Positive-bias value	0	volts
Plate Dissipation	3	watts
Grid-No.2 Input:		
For grid-No.2 voltages up to 150 volts	0.65	watt
For grid-No.2 voltages between 150 and 300 volts	See curve page 98	

CHARACTERISTICS

Plate Supply Voltage	100	250	volts
Grid No.3	Connected to cathode at socket		
Grid-No.2 Supply Voltage	100	150	volts
Cathode-Bias Resistor	150	68	ohms
Plate Resistance (Approx.)	0.5	1	megohm
Transconductance	3900	5200	μmhos
Plate Current	5	10.6	mA
Grid-No.2 Current	2.1	4.3	mA
Grid-No.1 Voltage (Approx.) for plate current of 10 μA	-4.2	-6.5	volts

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:

For fixed-bias operation	0.25	megohm
For cathode-bias operation	1	megohm