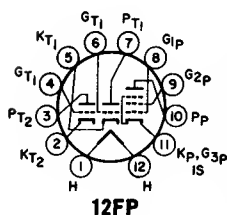


Refer to chart at end of section.

6BH8



12FP

MEDIUM-MU TWIN TRIODE— SHARP-CUTOFF PENTODE

6BH11

Duodecar type used in color and black-and-white television receiver applications. The triode units are used for general-purpose applications, and the pentode unit is used for horizontal-deflection service. Outlines section, 8B; requires duodecar 12-contact socket. Heater: volts (ac/dc), 6.3; amperes, 0.8; maximum heater-cathode volts, ± 200 peak, 100 average.

Pentode Unit as Horizontal-Deflection Oscillator

MAXIMUM RATINGS (Design-Maximum Values)

Plate Voltage	350	volts
Grid-No.2 (Screen-Grid) Voltage	330	volts
Grid-No.1 (Control-Grid) Voltage:		
Positive-bias value	0	volts
Peak negative value	175	volts
Peak Cathode Current	300	mA
Average Cathode Current	20	mA
Plate Dissipation	2.5	watts
Grid-No.2 Input	0.55	watt

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

	Each Triode Unit	
Plate Voltage	330	volts
Grid Voltage, Positive-bias Value	0	volts
Plate Dissipation	2.5	watts

CHARACTERISTICS

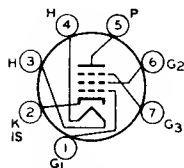
	Pentode Unit	Each Triode Unit	
Plate Voltage	125	125	volts
Grid-No.2 Voltage	125	—	volts
Grid-No.1 Voltage	—1	—1	volt
Amplification Factor	—	46	
Plate Resistance (Approx.)	200000	5400	ohms
Transconductance	7500	8500	μ mhos
Plate Current	12	13.5	mA
Grid-No.2 Current	4	—	mA
Grid-No.1 Voltage (Approx.) for plate current of 10 μ A	—8	—8	volts

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:			
For fixed-bias operation	2.2	2.2	megohms
For cathode-bias operation	2.2	2.2	megohms

Refer to chart at end of section.

6BJ3



7CM

REMOTE-CUTOFF PENTODE

6BJ6

Miniature type used as rf amplifier in high-frequency and wide-band applications. Features high transconductance and low grid-to-plate capacitance. Outlines section, 5C; requires miniature 7-contact socket.

Heater Voltage (ac/dc)	6.3	volts
Heater Current	0.15	ampere
Peak Heater-Cathode Voltage	± 90 max	volts
Direct Interelectrode Capacitances:*		
Grid No.1 to Plate	0.0035 max	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	4.5	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield	5.5	pF

* Without external shield, or with external shield connected to cathode.

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Center Values)

Plate Voltage	300	volts
Grid-No.2 (Screen-Grid) Voltage	See curve page 300	
Grid-No.2 Supply Voltage	300	volts
Plate Dissipation	3	watts
Grid-No.2 Input:		
For grid-No.2 voltages up to 150 volts	0.6	watt
For grid-No.2 voltages between 150 and 300 volts	See curve page 300	
Grid-No.1 (Control-Grid) Voltage:		
Negative-bias value	50	volts
Positive-bias value	0	volts

CHARACTERISTICS

Plate Voltage	100	250	volts
Grid No.3	Connected to cathode	at socket	
Grid-No.2 Voltage	100	100	volts
Grid-No.1 Voltage	-1	-1	volt
Plate Resistance (Approx.)	0.25	1.3	megohms
Transconductance	3650	3600	μmhos
Plate Current	9	9.2	mA
Grid-No.2 Current	3.5	3.3	mA
Grid-No.1 Voltage (Approx.) for transconductance of 10 μmhos	-20	-20	volts

6BJ6A

Refer to chart at end of section.

For replacement use type 6BJ6.

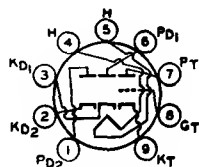
6BJ7

Refer to chart at end of section.

6BJ8

TWIN DIODE—
MEDIUM-MU TRIODE

Miniature type used in black-and-white and color television receiver applications. The diode units are used in phase-detector, phase-comparator, ratio-detector or discriminator, and horizontal afc discriminator circuits. The triode unit is used in phase-splitter, audio-frequency amplifier, vertical-deflection amplifier, and low-frequency oscillator applications. Outlines section, 6E; requires miniature 9-contact socket.



9ER

requires miniature

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:		
Triode Unit:		
Grid to Plate	2.6	pF
Grid to Cathode and Heater	2.8	pF
Plate to Cathode and Heater	0.31	pF
Diode Units:		
Plate to Cathode and Heater (Each Unit)	1.9	pF
Cathode to Plate and Heater (Each Unit)	4.6	pF
Plate of Unit No.1 to Plate of Unit No.2	0.06 max	pF
Plate of Diode Unit No.1 to Triode Grid	0.07 max	pF
Plate of Diode Unit No.2 to Triode Grid	0.11 max	pF
Plate of Either Diode Unit to All Other Electrodes	3	pF
Cathode of Either Diode Unit to All Other Electrodes	4.8	pF

Triode Unit as Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

Plate Voltage	330	volts
Grid Voltage, Positive-bias value	0	volts
Average Cathode Current	22	mA
Plate Dissipation	4	watts

CHARACTERISTICS

Plate Voltage	90	250	volts
Grid Voltage	0	-9	volts
Amplification Factor	22	20	
Plate Resistance (Approx.)	4700	7150	ohms
Transconductance	4700	2800	μmhos