

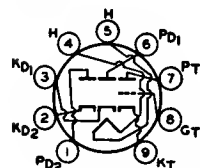
7DF

	3BN6	4BN6	6BN6	12BN6	
Heater Voltage (ac/dc)	3.15	4.2	6.3	12.6	volts
Heater Current	0.6	0.45	0.3	0.15	ampere
Heater Warm-up Time (Average)	11	11	—	—	seconds
Heater-Cathode Voltage:					
Peak value	±200 max	±200 max	±200 max	±200 max	volts
Average value	100 max	100 max	100 max	100 max	volts
Direct Interelectrode Capacitances:					
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield				4.2	pF
Grid No.3 to Cathode, Heater, Grid No.1, Grid No.2, and Internal Shield				3.3	pF
Grid No.1 to Grid No.3				0.004 max	pF

Limiter and Discriminator Service

MAXIMUM RATINGS (Design-Maximum Values)

Plate-Supply Voltage	330	volts
Grid-No.2 Voltage	110	volts
Grid-No.1 Voltage, Positive peak value	60	volts
Cathode Current	13	mA



9ER

TWIN DIODE— HIGH-MU TWIN TRIODE

Miniature type used in color and black-and-white television receiver applications. The triode unit is used in burst-amplifier, af amplifier, and low-frequency oscillator applications. The diode units are used in phase-detector, ratio-detector or discriminator, and horizontal afc discriminator circuits. Outlines section, 6E; requires miniature 9-contact socket. Type 8BN8 is identical with type 6BN8 except for heater ratings.

6BN8

8BN8

	6BN8	8BN8	
Heater Voltage (ac/dc)	6.3	8.4	volts
Heater Current	0.6	0.45	ampere
Heater Warm-up Time (Average)	11	11	seconds
Heater-Cathode Voltage:			
Peak value	±200 max	±200 max	volts
Average value	100 max	100 max	volts
Direct Interelectrode Capacitances:			
Triode Grid to Triode Plate		2.5	pF
Triode Grid to Cathode and Heater		3.6	pF
Triode Plate to Cathode and Heater		0.25	pF
Plate of Diode Unit No.1 to Triode Grid		0.06 max	pF
Plate of Diode Unit No.2 to Triode Grid		0.1 max	pF
Plate of Diode Unit No.1 to Plate of Diode Unit No.2		0.07 max	pF
Diode Cathode to All Other Electrodes (Each Diode Unit)		5	pF
Diode Plate to Diode Cathode and Heater (Each Diode Unit) ..		1.9	pF
Diode Cathode to Diode Plate and Heater (Each Diode Unit) ..		4.8	pF
Diode Plate to All Other Electrodes (Each Diode Unit)		3	pF

Triode Unit as Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

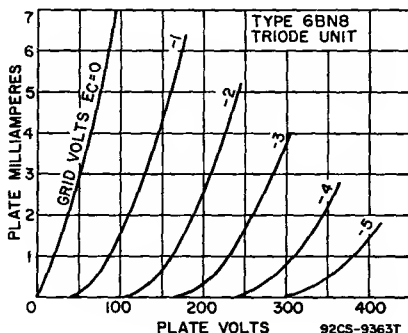
Plate Voltage	330	volts
Grid Voltage, Positive-bias value	0	volts
Plate Dissipation	1.7	watts
CHARACTERISTICS		
Plate Voltage	100	volts
Grid Voltage	—1	volts

Amplification Factor	75	70	
Plate Resistance (Approx.)	21000	28000	ohms
Transconductance	3500	2500	μ mhos
Plate Current	1.5	1.6	mA
Grid Voltage (Approx.) for plate current of 10 μ A	-2.5	-5.5	volts
MAXIMUM CIRCUIT VALUE			
Grid-Circuit Resistance		1	megohm

Diode Units**MAXIMUM RATINGS (Design-Maximum Values)**

Plate Current (Each Unit):

Peak	54	mA
Average	9	mA

**6BN11****SHARP-CUTOFF
TWIN PENTODE**

Duodecar type used as if-amplifier tube in television receivers. 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.

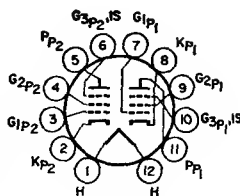
**12GF****Class A₁ Amplifier (Each Unit)****MAXIMUM RATINGS (Design-Maximum Values)**

Plate Voltage	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	volts
Plate Dissipation	3.1	watts
Grid-No.2 Input	0.65	watt

CHARACTERISTICS

Plate Voltage	125	volts
Grid No.3 (Suppressor Grid)	Connected to cathode at socket	
Grid-No.2 Voltage	125	volts
Cathode-Bias Resistor	56	ohms
Plate Resistance (Approx.)	0.2	megohm
Transconductance	13000	μ mhos
Plate Current	11	mA
Grid-No.2 Current	3.8	mA
Grid-No.1 Voltage (Approx.) for plate current of 20 μ A	-3	volts

MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance, for cathode-bias operation	0.25	megohm
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