

**MAXIMUM CIRCUIT VALUES**

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

\* Grid No.2 to Grid No.1.

**9AU7**

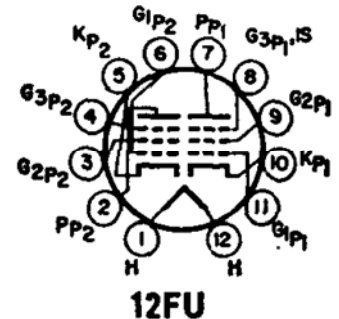
Refer to type 12AU7A.

**9BJ11**

**BEAM POWER TUBE—  
SHARP-CUTOFF PENTODE**

Duodecar type used in two-stage video-if-amplifier in television receivers. Pentode unit is used as the input stage and beam power unit as the output stage. Outlines section, 8B; requires duodecar 12-contact socket.

Heater Voltage (ac/dc) .....	9.6	volts
Heater Current .....	0.45	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 .....	0.008	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, Grid No.3 of Beam Power Unit, and Internal Shield .....	9.5	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, Grid No.3 of Beam Power Unit, and Internal Shield .....	3.4	pF
Beam Power Unit:		
Grid No.1 to Plate .....	0.016	pF
Grid No.1 to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield .....	8.5	pF
Plate to Cathode, Heater, Grid No.2, Grid No.3, and Internal Shield .....	3	pF



**Class A<sub>1</sub> Amplifier**

<b>MAXIMUM RATINGS (Design-Maximum Values)</b>	<b>Pentode Unit</b>	<b>Beam Power Unit</b>	
Plate Voltage .....	160	160	volts
Grid-No.3 (Suppressor-Grid) Voltage:			
Positive-bias value .....	10	0	volts
Negative-bias value .....	50	—	volts
Grid-No.2 (Screen-Grid) Voltage .....	160	160	volts
Grid-No.1 (Control-Grid) Voltage, Positive-bias value .....	0	0	volts
Plate Dissipation .....	2.8	2.2	watts
Grid-No.2 Input .....	1.25	0.55	watts

**CHARACTERISTICS**

Plate Supply Voltage .....	110	125	volts
Grid No.3 .....	Connected to cathode at socket		
Grid-No.2 Voltage .....	110	125	volts
Grid-No.1 Resistor .....	0.1	—	megohm
Cathode-Bias Resistor .....	—	120	ohms
Plate Resistance (Approx.) .....	40000	40000	ohms
Transconductance .....	7500	9600	μmhos
Plate Current .....	5.8	8.5	mA
Grid-No.2 Input .....	6.8	2.5	mA
Grid-No.1 Voltage (Approx.) for plate current of 20 μA .....	—3	—4.5	volts

**MAXIMUM CIRCUIT VALUES**

Grid-No.1-Circuit Resistance .....	0.1	—	megohm
Grid-No.3-Circuit Resistance .....	1.5	—	megohm

**9BR7**

Refer to chart at end of section.

**9CL8**

Refer to chart at end of section.

**9EA8**

Refer to type 6EA8.

**9GV8**

Refer to chart at end of section.

**9GV8/XCL85**

Refer to type 6GV8/EL500.