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) ............................................. 9.1 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 Inter-electrode 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 A1 Amplifier

MAXIMUM RATINGS (Design-Maximum Values)
Plate Voltage .......................................................... 160 volts
Grid-No.3 (Suppressor-Grid) Voltage:
Positive-bias value ............................................... 10 volts
Negative-bias value ............................................... 50 volts
Grid-No.2 (Screen-Grid) Voltage .................................. 160 volts
Grid-No.1 (Control-Grid) Voltage, Positive-bias value ..... 9 volts
Plate Dissipation ................................................... 2.8 watts
Grid-No.2 Input ..................................................... 1.25 watts
CHANGING CHARACTERISTICS
Plate Supply Voltage ................................................ 110 volts
Grid No.3 .............................................................. Connected to cathode at socket
Grid-No.2 Voltage ................................................... 110 volts
Grid-No.1 Resistor ................................................... 0.1 megohm
Cathode-Bias Resistor ............................................. 120 ohms
Plate Resistance (Approx.) ................................. 40000 ohms
Transconductance .................................................. 75000 μmhos
Plate Current ......................................................... 5.8 mA
Grid-No.2 Input ..................................................... 6.8 mA
Grid-No.1 Voltage (Approx.) for plate current
of 20 μA ............................................................. 3 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.

9G8
Refer to chart at end of section.

9GV8/XCL85
Refer to type 6GV8/EL500.