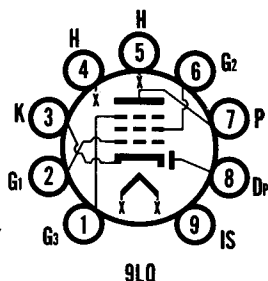


SYLVANIA TYPES

6EQ7
12EQ7
20EQ7



MECHANICAL DATA

Bulb.....	T-6 1/2
Base.....	E9-1, Small Button 9-Pin
Outline.....	6-3
Basing.....	9LQ
Cathode.....	Coated Unipotential
Mounting Position.....	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

	20EQ7	12EQ7	6EQ7
Heater Voltage ($\pm 10\%$).....	20	12.6	6.3 Volts
Heater Current.....	100	150	300 Ma
Maximum Heater-Cathode Voltage			
Heater Negative with Respect to Cathode			
Total D C and Peak.....			200 Volts Max.
Heater Positive with Respect to Cathode			
D C.....			100 Volts Max.
Total D C and Peak.....			200 Volts Max.

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Pentode Section	
Grid No. 1 to Plate.....	.002 μf Max.
Input: g1 to (h+Pk,g3,I.S.+g2).....	5.5 μf
Output: p to (h+Pk,g3,I.S.+g2).....	5.0 μf
Coupling	
Pentode Grid No. 1 to Diode Plate.....	.0015 μf Max.
Pentode Plate to Diode Plate.....	.095 μf Max.

RATINGS (Design Maximum Values)

Plate Voltage.....	300 Volts Max.
Grid No. 3 Voltage (Positive or Negative).....	300 Volts Max.
Grid No. 2 Supply Voltage.....	300 Volts Max.
Grid No. 2 Voltage.....	See 6AM8 Rating Chart
Positive Grid No. 1 Voltage.....	0 Volts Max.
Negative Grid No. 1 Voltage.....	50 Volts Max.
Plate Dissipation.....	3.0 Watts Max.
Grid No. 3 Input.....	0.2 Watts Max.
Grid No. 2 Input.....	0.6 Watts Max.
Diode Plate Current.....	3.0 Ma Max.

CHARACTERISTICS AND TYPICAL OPERATION

Pentode—Class A1 Amplifier

Plate Voltage.....	100 Volts
Grid No. 3 and Internal Shield.....	Tied to Cathode
Grid No. 2 Voltage.....	100 Volts
Grid No. 1 Voltage ¹	
Grid No. 1 Resistor.....	2.2 Megohms
Plate Current.....	9.0 Ma
Grid No. 2 Current.....	3.5 Ma
Transconductance.....	3800 μmhos
Plate Resistance (approx.).....	250,000 Ohms
Ec1 for gm = 40 μmhos (approx.).....	-20 Volts
Average Diode Current with 10 Volts	
D C applied (Test Condition ONLY).....	2.0 Ma

NOTE:

1. Average contact potential bias developed across specified grid resistor.

APPLICATION

The Types 6EQ7, 12EQ7, and 20EQ7 are diode sharp-cutoff pentodes. The diode and pentode units are provided with separate cathodes. The pentode unit is intended for use as an AM/FM IF amplifier. The diode is intended for use in detector and AVC applications.