

ADVANCE DATA

MECHANICAL DATA

Bulb	T-6 $\frac{1}{2}$
Base	E9-1, Small Button 9-Pin
Outline	6-2
Basing	9GF
Cathode	Coated Unipotential
Mounting Position	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS AND RATINGS

Average Characteristics

Parallel Operation

Heater Voltage ¹	6.3 Volts
Heater Current	380 Ma

Ratings (Design Maximum Values)

Min.-Max.

Heater Voltage ²	5.7-6.9 Volts
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Maximum Heater-Cathode Voltage

Heater Negative with Respect to Cathode	
Total DC and Peak	100 Volts

Heater Positive with Respect to Cathode	
Total DC and Peak	100 Volts

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Triode Section

Grid to Plate	2.3 μ f
Input: g to (h+k, Pk, g ₃ , I.S.)	3.0 μ f
Output: p to (h+k, Pk, g ₃ , I.S.)	1.2 μ f

Pentode Section

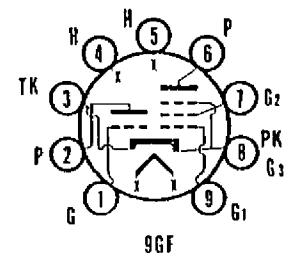
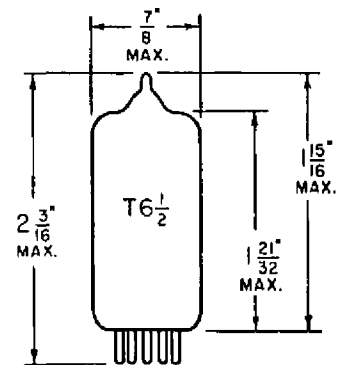
Grid No. 1 to Grid No. 2	1.7 μ f
Grid No. 1 to Plate	.025 μ f Max.
Input: g ₁ to (h+Tk, K, g ₃ , g ₂ +I.S.)	6.0 μ f
Output: p to (h+Tk, K, g ₃ , g ₂ +I.S.)	3.5 μ f

Coupling

Pentode Grid No. 1 to Triode Plate	.05 μ f Max.
Pentode Plate to Triode Plate	.03 μ f Max.

QUICK REFERENCE DATA

The Sylvania Type 6GD7 has a medium μ triode and a sharp cutoff pentode contained in a miniature envelope. It is designed primarily for service as a VHF oscillator and mixer. The oscillator section features a Gm of 10,000 μ hos and the pentode section features a Gm of 12,000 μ hos.



SYLVANIA ELECTRONIC TUBES

A Division of
Sylvania Electric Products Inc.

RECEIVING TUBE OPERATIONS EMPORIUM, PA.

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RATINGS (Design Maximum Values)

	Triode Section	Pentode Section		
Plate Voltage	125	250	Volts	Max.
Grid No. 2 Supply Voltage		250	Volts	Max.
Grid No. 2 Voltage		See J5/C4-2		
Plate Dissipation	2.2	2.2	Watts	Max.
Grid No. 2 Dissipation				
For Grid No. 2 Voltages up to 150 Volts		0.55	Watt	Max.
For Grid No. 2 Voltages between 150 and 250 Volts		See J5/C4-2		
Cathode Current	16.5	20	Ma	Max.
Grid No. 1 Circuit Resistance	0.5		Megohm	Max.
Fixed Bias		0.25	Megohm	Max.
Self Bias		0.5	Megohm	Max.

Control grid to cathode spacings on this type are of such low order of magnitude as to preclude the use of voltage between these elements of more than 30 volts dc or peak ac in commercial tube checkers and shorts indicating devices, particularly where mechanical excitation of the tube is employed.

AVERAGE CHARACTERISTICS

	Triode Section	Pentode Section	
Plate Voltage	125	170	Volts
Grid No. 2 Voltage		150	Volts
Grid No. 1 Voltage	-1.0	0	Volts
Cathode Bias Resistor		82	Ohms
Plate Current	15	10	Ma
Grid No. 2 Current		3.3	Ma
Transconductance	10,000	12,000	μ mhos
Amplification Factor	47	70	(G1 to G2)
Plate Resistance (Approx.)	4,700	350,000	Ohms
Ecl for Ib = 20 μ a (Approx.)	-	-5	Volts

NOTES:

1. For parallel operation of heaters, equipment should be designed that at normal supply voltage bogey tubes will operate at this value of heater voltage.
2. Heater voltage supply variations shall be restricted to maintain heater voltage within the specified values.