

ADVANCE DATA

MECHANICAL DATA

Bulb	T-6 $\frac{1}{2}$
Base	E10-73, 10-Pin, Center Pin Added to E9-1 Base
Outline	6-13
Basing	10G
Cathode	Coated Unipotential
Mounting Position	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS AND RATINGS

Average Characteristics

Heater Operation	Series		Parallel	
	Volts	Ma	Volts	Ma
Heater Voltage	6.3	450 ¹	6.3 ¹	450
Heater Current	11	-	-	-
Heater Warm-up Time ²	-	-	-	-

Ratings (Design Maximum Values)

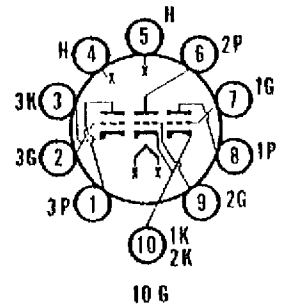
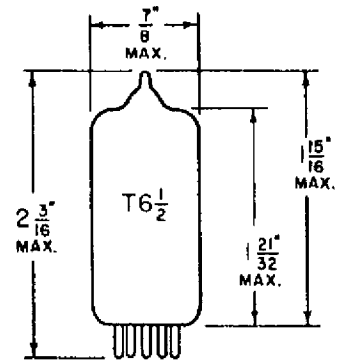
	Min.-Max.	Min.-Max.	
Heater Voltage ³	- -	5.7-6.9	Volts
Heater Current ³	420-480	- -	Ma
Maximum Heater-Cathode Voltage			
Heater Negative with Respect to Cathode	100	100	Volts
Heater Positive with Respect to Cathode	100	100	Volts

DIRECT INTERELECTRODE CAPACITANCES⁴

	Shielded ⁵	Unshielded	
Grid to Plate (Sections 1 and 3)	1.6	1.6	$\mu\mu\text{f}$
Grid to Plate (Section 2)	1.5	1.5	$\mu\mu\text{f}$
Input (Each Section)	2.6	2.4	$\mu\mu\text{f}$
Output (Section No. 1)	1.1	0.28	$\mu\mu\text{f}$
Output (Section No. 2)	1.5	0.14	$\mu\mu\text{f}$
Output (Section No. 3)	1.1	0.26	$\mu\mu\text{f}$
Heater to Cathode (Section No. 3)	3.2	3.2	$\mu\mu\text{f}$
Heater to Cathode (Sections 1 and 2)	6.2	6.2	$\mu\mu\text{f}$

QUICK REFERENCE DATA

Type 6J9 is a triple triode contained in a T-6 $\frac{1}{2}$ 10-Pin bulb. It is designed to provide the combined functions of RF amplifier, oscillator and mixer into the VHF frequency range.



SYLVANIA ELECTRONIC TUBES

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RECEIVING TUBE
OPERATIONS
EMPORIUM, PA.

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6J9

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RATINGS (Design Maximum Values -- Each Section)

Plate Voltage	330	Volts	Max.
Plate Dissipation (Each Plate)	2.0	Watts	Max.
Plate Dissipation (Plates 1, 2 and 3)	5.0	Watts	Max.
Positive Grid Voltage	0	Volts	Max.
Negative Grid Voltage	50	Volts	Max.

TYPICAL OPERATION

Class A1 Amplifier -- Each Section

Plate Voltage	125	Volts
Grid Voltage	-1.0	Volts
Plate Current	6.0	Ma
Plate Resistance	11,000	Ohms
Transconductance	5,200	μ hos
Amplification Factor	57	
E_c for $I_b = 20 \mu a$ (approx.)	-5.4	Volts

NOTES:

1. For series/parallel operation of heaters, equipment should be designed that at normal supply voltage bogey tubes will operate at this value of heater current/voltage.
2. Heater warm-up time is defined as the time required for the voltage across the heater to reach 80% of the rated heater voltage after applying four (4) times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three (3) times the rated heater voltage divided by the rated heater current.
3. Heater voltage supply variations shall be restricted to maintain heater voltage/current within the specified values.
4. Section No. 1 connects to Pins 7, 8, and 10; Section No. 2 connects to Pins 6, 9, and 10; Section No. 3 connects to Pins 1, 2, and 3.
5. Shield No. 315 tied to cathode of triode under test.