



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	10H
Cathode	Coated Unipotential
Mounting Position	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

Heater Voltage	18.9 Volts
Heater Current	150 Ma
Heater Warm-up Time ¹	17 Seconds
Heater-Cathode Voltage (Design Maximum Values)	
Heater Negative with Respect to Cathode	
Total DC and Peak	200 Volts Max.
Heater Positive with Respect to Cathode	
DC	100 Volts Max.
Total DC and Peak	200 Volts Max.

DIRECT INTERELECTRODE CAPACITANCES

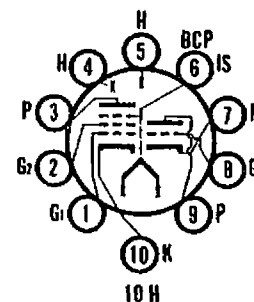
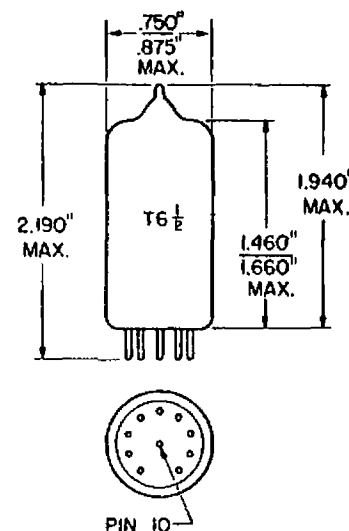
Triode Section	Shielded ²	Unshielded	
Grid to Plate	1.7	1.7	μf
Input: g to (h+k+Pk+I.S.)	3.2	3.2	μf
Output: p to (h+k+Pk+I.S.)	1.9	1.1	μf
Heater to Cathode	3.0 ³	3.0	μf
Pentode Section			
Grid No. 1 to Plate	.035	.050	μf Max.
Input: g1 to (h+k+g2+Pk+I.S.)	5.0	5.0	μf
Output: p to (h+k+g2+Pk+I.S.)	3.3	2.4	μf
Heater to Cathode	3.0 ³	3.0	μf
Coupling			
Pentode g1 to Triode Plate	.030	.035	μf Max.
Pent. Plate to Triode Plate	.030	0.13	μf Max.
Triode Grid to Pent. Plate	.002	.009	μf Max.

RATINGS (Design Maximum Values)

	Triode Section	Pentode Section	
Plate Voltage	330	330	Volts Max.
Grid No. 2 Supply Voltage		330	Volts Max.
Grid No. 2 Voltage	See Rating Chart		
Plate Dissipation	2.5	3.0	Watts Max.
Grid No. 2 Dissipation		0.55	Watts Max.
Positive Grid No. 1 Voltage	0	0	Volts Max.
Grid No. 1 Circuit Resistance			
Fixed Bias	0.5	0.25	Megohm
Self Bias	1.0	1.0	Megohm

QUICK REFERENCE DATA

The Sylvania Type 19Q9 has a medium mu triode and a semi-remote cutoff pentode contained in a T-6 $\frac{1}{2}$ 10-pin bulb. It is intended primarily for use as an FM RF amp. and autodyne mixer.



SYLVANIA ELECTRONIC TUBES

A Division of
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RECEIVING TUBE OPERATIONS EMPORIUM, PA.

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RATINGS (Cont'd)

Control grid to cathode spacing in the triode section of this tube type is of such order of magnitude as to preclude the use of voltage between these elements of more than 100 volts dc or peak ac in commercial tube checkers and shorts indicating devices, particularly where mechanical excitation of the tube is employed.

CHARACTERISTICS AND TYPICAL OPERATION

Class A1 Amplifier	Triode Section	Pentode Section	
Plate Voltage	125	125	Volts
Grid No. 2 Voltage		125	Volts
Grid No. 1 Voltage	-1.0	-1.0	Volts
Plate Current	14	12	Ma
Grid No. 2 Current		4.0	Ma
Transconductance	8000	6500	μ mhos
Amplification Factor	40		
Plate Resistance	5000	200K	Ohms
Grid No. 1 Voltage for Ib = 20 μ a (Approx.)	-9	-9	Volts
Gm with Ec1 = 0V, Eb = 100V and Ec2 = 70V		7000	μ mhos

NOTES:

1. Heater warm-up time is defined as the time required for the voltage across the heater to reach 80% of its rated value 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 rated heater voltage divided by rated heater current.
2. Shield No. 315 connected to pin Number 4.
3. Shield No. 315 connected to pin Number 3.