

# TECHNICAL DATA

5646

## Sylvania

TYPE 5646  
HIGH MU TRIODE

### TEMPERATURE RATINGS

Heater Voltage AC or DC $\pm 10\%$	6.3	Volts
Max. Plate Voltage	150	Volts
Max. Plate Dissipation	0.3	Watt
Max. Heater-Cathode Voltage	90	Volts
Max. Cathode Current	2.0	Ma.

### Direct Interelectrode Capacitances:

	Shielded*	Unshielded
Grid to Plate	1.20	1.30
Input	2.40	2.20
Output	3.40	1.00

\*With an 0.315" diameter shield connected to cathode.

### TYPICAL OPERATING CONDITIONS Class A Amplifier

Heater Voltage	6.3	Volts
Heater Current	150	Ma.
Plate Voltage	100	Volts
Cathode Bias Resistor**	820	Ohms
Plate Current	1.4	Ma.
Transconductance	2400	uamho
Plate Resistance	29,000	Ohms
Amplification Factor	70	
Grid Voltage for 10 ua. Plate Current (approx)	-3.1	Volts

\*\*Provides an operating bias of approximately 1.1 volts.

Maximum grid circuit resistance should not exceed 1.0 megohm.

### As a Resistance Coupled Amplifier

Plate Supply Voltage	100	150	Volts
Cathode Bias Resistor	10,000	8200	Ohms
Plate Load Resistor	470,000	470,000	Ohms
Grid Resistor of Following Tube	1.0	1.0	Megohms
Gain (approx.)	40	40	

### CIRCUIT APPLICATION

Sylvania Type 5646 is a high mu subminiature triode for use in compact, light-weight equipment. The flexible leads permit the tube to be wired directly to the circuit components thereby minimizing high frequency long lead and base losses. When circuit requirements make fixed bias necessary the grid resistance should not exceed 1/4 megohm.

### Notes:

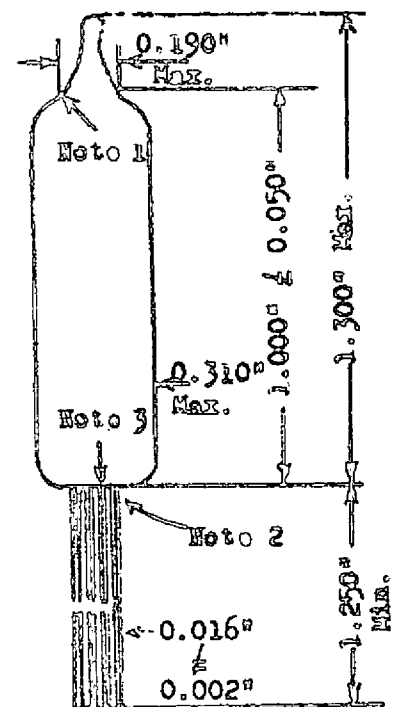
1. Reference diameter from which tip and bulb lengths are determined. Measured with Ring Gage 0.190"  $\pm$  0.000" - 0.001" I.D.
2. Avoid soldering leads closer than 1/4" from glass.
3. Arrow indicates position of plate lead.
4. Avoid bonding leads closer than 0.060" from glass.

### PHYSICAL SPECIFICATIONS

Style	Subminiature
Bulb	T2
Base	Flexible Leads
Dimensions	See Outline
Mounting Position	Any

### LEAD CONNECTIONS

As per outline



Base:	1 - Plate
	2 - Cathode
	3 - Heater
	4 - Grid
	5 - Heater

Better View  
of Base

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SYLVANIA ELECTRIC PRODUCTS INC.  
Emporium, Pennsylvania

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