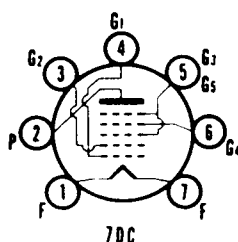




SYLVANIA TYPE 1L6

PENTAGRID CONVERTER



MECHANICAL DATA

Bulb.....	T-5 1/2, Outline 5-2
Base.....	Miniature Button 7-Pin
Basing.....	7DC
Mounting Position.....	Any

ELECTRICAL DATA

FILAMENT CHARACTERISTICS

Filament Voltage D C.....	1.4 Volts
Filament Current.....	50 Ma

DIRECT INTERELECTRODE CAPACITANCES

	Shielded ¹	Unshielded
Grid No. 4 to Plate.....	0.36	0.46 μmf Max
Grid No. 2 to Grid No. 4.....	0.24	0.24 μmf
Grid No. 1 to Grid No. 4.....	0.19	0.19 μmf
R F Input: g_4 to All.....	7.5	7.5 μmf
Oscillator Input: g_1 to All except g_2	2.2	2.2 μmf
Oscillator Output: g_2 to All except g_1	2.6	2.6 μmf
Mixer Output: Plate to All.....	12.0	7.0 μmf
Grid No. 1 to Plate.....	0.10	0.15 μmf Max

MAXIMUM RATINGS (Design Center Values)

Plate Voltage.....	110 Volts
Grid No. 3 and 5 Voltage.....	65 Volts
Grid No. 3 and 5 Supply Voltage.....	110 Volts
Grid No. 2 Voltage (Oscillator Plate).....	110 Volts
Total Cathode Current.....	4.0 Ma

TYPICAL OPERATION

Plate Voltage.....	90 Volts
Grid No. 2 Voltage (Anode Grid).....	90 Volts
Grid No. 3 and 5 Voltage ²	45 Volts
Grid No. 4 Voltage (Control Grid).....	0 Volts
Plate Current.....	0.5 Ma
Grid No. 3 and 5 Current.....	0.6 Ma
Grid No. 2 Current (Anode Grid).....	1.2 Ma
Grid No. 1 Current (Osc. Grid).....	0.035 Ma
Total Cathode Current.....	2.35 Ma
Grid No. 4 Circuit Resistance.....	1.0 Megohm
Grid No. 1 Circuit Resistance.....	0.2 Megohm
Conversion Transconductance	
Grid No. 4 at 0 Volts.....	300 μmhos
Grid No. 4 at -3.5 Volts (approx.).....	10 μmhos
Oscillator Transconductance ³	550 μmhos

1L6 (Cont'd)

NOTES:

1. External shield No. 316 connected to Pin 1.
2. Obtained preferably by using a properly by-passed dropping resistor of from 45,000 to 75,000 ohms in series with the B supply.
3. Not oscillating with $E_{c1} = 0$ V, $E_b = 90$ V, E_{c3} and 5 = 45 V, $E_{c2} = 90$ V, $E_{c4} = 0$ V.

APPLICATION

Sylvania Type 1L6 is a miniature type pentagrid converter designed for use in low drain battery operated receivers. It is similar in construction and application to Types 1A7GT and 1LA6. The small size and low current requirements recommend it for use in small portable receivers.