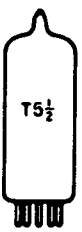
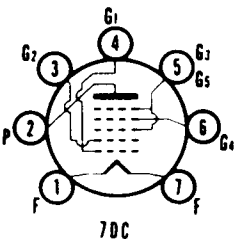


SYLVANIA TYPE 1L6

PENTAGRID CONVERTER



7DC

MECHANICAL DATA

Bulb	T-5 ½, 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 μμf Max
Grid No. 2 to Grid No. 4	0.24	0.24 μμf
Grid No. 1 to Grid No. 4	0.19	0.19 μμf
R F Input: g4 to All	7.5	7.5 μμf
Oscillator Input: g1 to All except g2	2.2	2.2 μμf
Oscillator Output: g2 to All except g1	2.6	2.6 μμf
Mixer Output: Plate to All	12.0	7.0 μμf
Grid No. 1 to Plate	0.10	0.15 μμf 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

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.