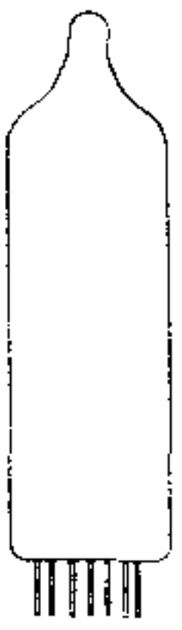
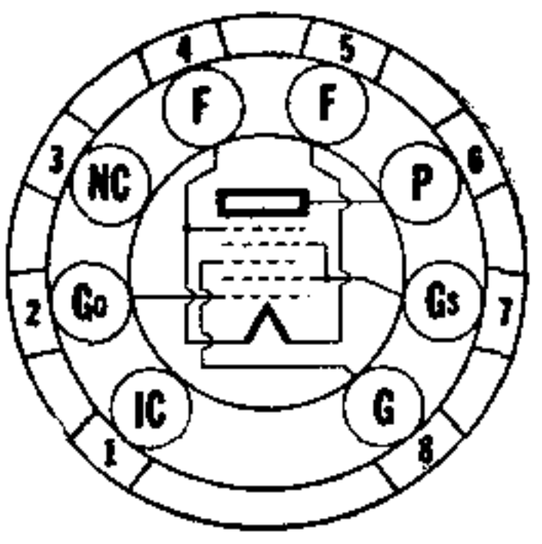
1C8 Sylvania Type

PENTAGRID CONVERTER





8CN-0-0

TENTATIVE DATA

PHYSICAL SPECIFICATIONS

Base	Flexible Leads
Bulb	T-3
Minimum Lead Length	1¼"
Maximum Bulb Length	1½"
Mounting Position	Any

RATINGS

Filament Voltage DC	1.25 Volts
Maximum Plate Voltage	30 Volts
Maximum Screen Voltage	30 Volts

Direct Interelectrode Capacitances

	Unshielded	Shielded*
Control Grid to all other Electrodes	6.5	6.5 μμf
Control Grid to Plate	0.3	0.25 μμf. Max.
Plate to all other Electrodes	4.6	4.0 μμf.
Oscillator Grid to Control Grid	0.2	0.2 μμf. Max.
Oscillator Grid to all other Electrodes	2.6	2.4 μμf.
Oscillator Grid to Screen Grid	1.6	1.6 μμf.
Screen Grid to Control Grid	5.5	5.5 μμf

**With 0.405" diameter shield connected to negative filament.*

TYPICAL OPERATION

Filament Voltage DC	1.25 Volts
Filament Current	.040 Ampere
Plate Voltage	30 Volts
Screen Supply Voltage**	30 Volts
Grid Voltage	0 Volts
Plate Current	0.32 Ma.
Screen Current	0.75 Ma.
Plate Resistance	0.3 Megohm
Conversion Conductance	100 μmhos
Oscillator Grid Resistance	0.1 Meg.
Oscillator Grid Current	30 μa.
Control Grid Voltage for Gc = 5 μmhos approx.	−6.5 Volts

***Screen voltage applied through 10,000 ohms resistor properly bypassed.*

Oscillator Characteristics***

Anode Grid Current	3.0 Ma.
Mutual Conductance	700 μmhos
Amplification Factor	3.5

****In a non-oscillating condition with plate and screen voltage of 30 volts, and 0.0 volts on the oscillator and control grids.*

APPLICATION

Sylvania Type 1C8 is a converter tube for use in very small radio sets. The other types required for a normal set complement and designed for use with it are Types 1Q6 (Diode Pentode), 1V5 (Output Pentode) and 1W5 (RF Pentode).

This type corresponds in service and circuit requirements to Type 1R5 except for optimization of the performance at low voltages. The tinned leads permit direct soldering into the circuit to permit great reduction in size of completed equipment, or may be cut off for use in a socket designed for this purpose.

When used on battery supply the filament voltage must never exceed 1.5 volts. For AC-DC power line operation, the design center is 1.2 volts.