

Sylvania

TYPE IC8

PENTAGRID CONVERTER

TENTATIVE RATINGS AND CHARACTERISTICS

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 $\mu\text{f.}$
Control grid to plate	0.3	0.25 $\mu\text{f.}$ Max.
Plate to all other electrodes	4.6	4.0 $\mu\text{f.}$
Oscillator grid to control grid	0.2	0.2 $\mu\text{f.}$ Max.
Oscillator grid to all other electrodes	2.6	2.4 $\mu\text{f.}$
Oscillator grid to screen grid	1.6	1.6 $\mu\text{f.}$
Screen grid to control grid	5.5	5.5 $\mu\text{f.}$

*With 0.405" diameter shield connected to negative filament.

OPERATING CONDITIONS AND CHARACTERISTICS

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	$\mu\text{a.}$
Control Grid Voltage for $G_c = 5 \mu\text{mhos approx.}$	-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.

CIRCUIT APPLICATION

Sylvania Type IC8 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.

COMMERCIAL ENGINEERING DEPARTMENT

Sylvania Electric Products Inc., Emporium, Pennsylvania

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PHYSICAL SPECIFICATIONS

Style	T-3
Base	Flexible Leads
Bulb	T-3
Diameter	0.400" Max.
Lead Length	1.25" Min.
Overall Length	1.5" Max.
Mounting Position	Any

BASE PIN CONNECTIONS

Pin 1 -	Internal Connection
Pin 2 -	Oscillator Grid
Pin 3 -	No Connection
Pin 4 -	Negative Filament Suppressor
Pin 5 -	Positive Filament
Pin 6 -	Plate
Pin 7 -	Screen Grid
Pin 8 -	Control Grid
RMA Basing	8CN-0-0

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