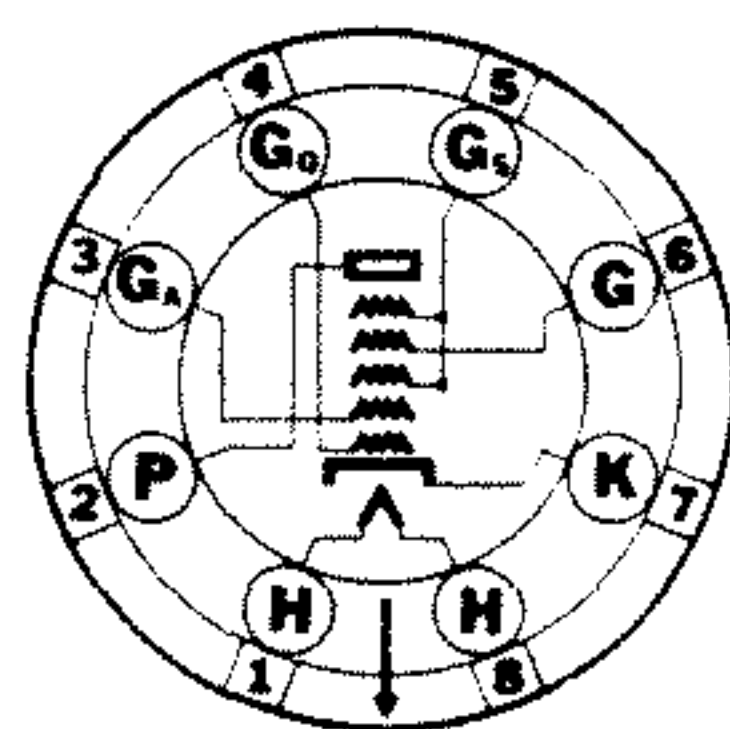
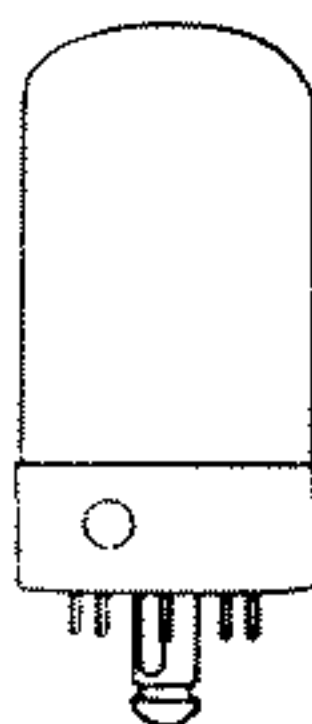


7B8 Sylvania Type

HEPTODE CONVERTER

GT EQUIVALENT 6A8GT



8X-L-0

PHYSICAL SPECIFICATIONS

Base.....	Lock-In 8 Pin
Bulb.....	T9
Maximum Overall Length.....	2 ²⁵ / ₃₂ "
Maximum Seated Height.....	2 ¹ / ₄ "
Mounting Position.....	Any

RATINGS

Heater Voltage AC or DC (Nominal).....	7.0 Volts
Heater Current (Nominal).....	0.32 Ampere
Maximum Plate Voltage.....	300 Volts
Maximum Screen Voltage.....	100 Volts
Maximum Screen Supply.....	300 Volts
Maximum Anode Grid Voltage.....	200 Volts
Maximum Anode Grid Supply.....	300 Volts
Maximum Plate Dissipation.....	1.0 Watt
Maximum Screen Dissipation.....	0.3 Watt
Maximum Anode Grid Dissipation.....	0.75 Watt
Maximum Cathode Current.....	14 Ma.
Minimum Signal Grid Bias.....	0 Volt
Maximum Heater-Cathode Voltage.....	90 Volts

Direct Interelectrode Capacitances:*

Grid G to Plate.....	0.2 μ f. Max.
Grid G to Grid Ga.....	0.2 μ f. Max.
Grid G to Grid Go.....	0.2 μ f. Max.
Grid Go to Grid Ga.....	0.9 μ f.
Grid G to all Electrodes (R-F Input).....	10.0 μ f.
Grid Ga to all Electrodes except Go (Osc. Output).....	3.4 μ f.
Grid Go to all Electrodes except Ga (Osc. Input).....	5.0 μ f.
Plate to all Electrodes (Mixer Output).....	9.0 μ f.

*With 1⁵/₁₆" diameter shield (RMA Std. M8-308) connected to cathode.

TYPICAL OPERATION

Heater Voltage.....	6.3	6.3 Volts
Heater Current.....	0.3	0.3 Ampere
Plate Voltage.....	100	250 Volts
Screen Voltage.....	50	100 Volts
Anode Grid Voltage.....	100	250** Volts
Control Grid (G) Voltage.....	-1.5	-3.0 Volts
Oscillator Grid (Go) Resistor.....	50000	50000 Ohms
Plate Current.....	1.1	3.5 Ma.
Screen Grid Current.....	1.3	2.7 Ma.
Anode Grid Current.....	2.0	4.0 Ma.
Oscillator Grid Current.....	0.25	0.4 Ma.
Self-Bias Resistor.....	360	300 Ohms
Plate Resistance.....	0.6	0.36 Megohm
Conversion Conductance.....	360	550 μ mhos
Control Grid Voltage (Approximate)		
For 6 μ mhos Conversion Conductance.....		-35 Volts
For 3 μ mhos Conversion Conductance.....	-20	 Volts

**Applied through 20,000 ohm dropping resistor.

The oscillator section, not oscillating, has a Gm of 1150 μ mhos, a mu of 75 at an anode grid current of 4.0 ma. when Ep = 250 Volts; Ega = 100 Volts; Egs = 55 Volts; Eg = 2.0 Volts and Ego = -1.0 Volt.

APPLICATION

Sylvania Type 7B8 is a lock-in converter tube designed for use in AC or auto receivers. For AC-DC service, Type 14B8 with lower heater current rating will usually prove more satisfactory.

Electrically, Type 7B8 is similar to the older oscillator mixer tubes. Conventional circuits and design are readily adaptable for use with this compact rugged tube. As is usual with converter tubes, it is well to ascertain that the maximum cathode current does not exceed the rated limit under any encountered operating condition.

