**MECHANICAL DATA**

- Envelope: Metal Capsule
- Base: 6 Prong Amp AN Type
- Cathode: Philips Impregnated
- Magnetic Field Strength: 700 Gauss
- Length of Magnetic Field: 14” Uniform
- Mounting Position: Any
- Weight, approx.: 1 Lb.
- Connectors: BNC with 50 Ohm Coax Cable
- Focusing Field: Electromagnet
- Cooling: Convection Air
- Maximum Collector Temperature: 200° C

**ELECTRICAL DATA**

**HEATER CHARACTERISTICS**
- Heater Voltage (±10%): 8.0 Volts ac
- Heater Current: 0.8 Amperes

**RATINGS (Absolute Values)**
- Heater-Cathode Voltage: 10 Volts Max.
- 1st Anode Voltage: 800 Volts Max.
- Helix Voltage: 1000 Volts Max.
- Helix Current: 10 Ma Max.
- Collector Voltage: 1000 Volts Max.
- Collector Dissipation: 40 Watts Max.
- Focusing Electrode Voltage: -25 Volts to +25 Volts Max.
- Helix Voltage to Ground: 1000 Volts Max.

**CHARACTERISTICS**
- Frequency: 2.0 Kmc Min. to 4.0 Kmc Max.
- Cold Transmission Loss: 40 db Min.

**TYPICAL OPERATION**
- Frequency: 3000 Mc
- 1st Anode Voltage: 510 Volts
- 1st Anode Current: 0 Ma
- Helix Voltage: 800 Volts
- Helix Current: 2 Ma
- Collector Voltage: 850 Volts
- Collector Current: 20 Ma
- Power Output: 1 Watt
- Operating Band to 3 db Power Points: 2.1 to 3.9 Kmc
- Gain: > 25 db
- Noise Figure at Operating Band Width: < 30 db

**NOTES:**

1. Magnet not included, information on request.
2. Provided that the solenoid 1D permits air circulation and that the temperature inside the solenoid is less than 30° C over the ambient.
3. Voltages given with respect to cathode. Any one element may be operated at capsule potential which should be ground.

The Sylvania Type 6559 is a traveling wave tube designed for cw or pulsed amplifier service over the frequency range 2000-4000 megacycles. Power output is approximately 1 watt.
OUTLINE DRAWING

BASE CONNECTIONS
A. HEATER
B. CATHODE-HEATER
C. FOCUS SHIELD
D. ANODE
E. HELIX
F. COLLECTOR