MECHANICAL DATA

Envelope: Metal Capsule
Power Connector: Winchester PMSP1
RF Connectors: Type N Jack
Focusing: Electromagnetic Solenoid Required
Cooling: Forced Air
Mounting Position: Any
Tube Weight (Approx.): 1 lb
Solenoid Weight (Approx.):
  - Military (Aluminum foil-wound): 13 lbs
  - Non-Military (Copper wire-wound): 39 lbs

ELECTRICAL DATA

HEATER CHARACTERISTICS

Voltage: 6.3 ± 10% V
Current (at 6.3 V): 1.1 - 1.5 A
Minimum Preheat Time: 1 Minute

RATINGS (Absolute Maximum)

- Collector Voltage with Respect to Helix: 250 Vdc
- Helix Voltage: 1000 Vdc
- Grid Voltage: 800 Vdc
- Cathode Current: 65 mA dc
- Helix Current: 11 mA dc
- Grid Current: 5 mA dc
- CW RF Input: 1 W
- Collector Seal Temperature: 150 °C

TYPICAL OPERATION

Conditions

- Frequency: 2.0 to 4.0 Gc
- Magnetic Focusing Field Density: 885 Gausses
  Minimum Uniform Length: 10.6 Inches
- Collector Voltage with Respect to Helix: 150 Vdc
- Helix Voltage (Approx.): 825 Vdc
- Grid Voltage (Approx.): 475 Vdc

Characteristics

- Cathode Current: Min. - Max.: 0 - 60 mA dc
- Helix Current: Min. - Max.: 0 - 8 mA dc
- Grid Current: Min. - Max.: 0 - 0.8 mA dc
- Saturation Power Output: 2 W
- Small Signal Gain (-30 dbm Input): 37 - 60 db

CIRCUIT DESIGN INFORMATION

- Helix Voltage Range: 700 to 900 Vdc
- Grid Voltage Range: 350 to 650 Vdc

QUICK REFERENCE DATA

Traveling-wave Amplifier
Full Octave Coverage
Over 2 W CW Power Output from 2.0 to 4.0 Gc
Over 1 W CW Power Output from 1.7 to 4.3 Gc
Suitable for Airborne Applications

POWER CONNECTIONS

A. NC
B. Grid
C. Helix
D. Heater, Cathode
E. Heater
F. Capsule, Collector

SYLVANIA ELECTRIC PRODUCTS INC.
MICROWAVE DEVICE OPERATIONS
Mountain View, California

February 15, 1961

from JEDEC release #1377A, April 10, 1961
NOTES:

1. Alternative connectors supplied on request. Length of power and RF leads can be made to fit customer requirements.

2. In addition to the cooling air requirements for the solenoid used with this tube it is recommended that at least 0.2 lbs/min of less than 26°C cooling air be directed at the collector end of this tube.

3. All voltages given are with respect to the cathode except where specified otherwise. For safety, pin F and the solenoid case should be grounded.

4. When RF is applied to the input of this tube the RF output should be connected to a load.

5. The quoted tube performance is for operation in a Sylvania-approved solenoid. Additional information will be supplied on request.

6. Specific recommended operating voltage values supplied with each tube.

7. Ranges include values required as a result of initial spread in tube characteristics as well as those to accommodate changes throughout life.

8. For initial setup only, this voltage should be adjustable from zero upward.

TYPICAL PERFORMANCE CHARACTERISTICS