MECHANICAL DATA

Envelope .................................. Metal Capsule
Base .................................... Octal Plug
Cathode .................................... Unipotential Oxide
Magnetic Field Strength .......... 400 Gauss
Length of Magnetic Field .......... 14° Uniform
Mounting Position ................... Any
Weight, approx. ...................... 2 Lbs.
Connectors ..................... BNC with UG89U
Focusing Field .................... Electromagnet \(^3\)
Cooling ................................ Convection Air \(^1\)
Maximum Collector Temperature .... 200° C

ELECTRICAL DATA

HEATER CHARACTERISTICS

Heater Voltage (±10%) ............... 6.3 Volts ac
Heater Current .................. 1.0 Ampere

RATINGS (Absolute Values)

Gating Electrode ........... -100 Volts to +15 Volts Max.
1st Anode Voltage ............... 500 Volts Max.
Helix Voltage ................... 600 Volts Max.
Helix Current .................. 2 Ma Max.
Collector Voltage ............... 750 Volts Max.
Collector Dissipation ......... 1.5 Watts Max.
Helix Voltage to Ground ....... 750 Volts Max.
Cathode Current ............... 3.5 Ma Max.

CHARACTERISTICS

Frequency Band .................. 1.9 Kmc to 4.1 Kmc Max.
Cold Transmission Loss ......... 50 db Max.

TYPICAL OPERATION \(^2\)

Frequency ......................... 3 Kmc
Gating Electrode ............... 0 Volts

(-70 V for Cutoff)

1st Anode Voltage .......... 350 Volts
1st Anode Current .............. < 500 µA
Helix Voltage ................ 400 Volts
Helix Current .................. 500 µA
Collector Voltage ............... 550 Volts
Collector Current .............. 2.5 Ma
Power Output ...................... 15 Mw
Gain ................................ > 35 db
Operating Band to 3 db Power Points .... 2.1 to 3.9 Kmc
Noise Figure at Operating Band Width .... < 25 db

NOTES:

1. Provided that the solenoid ID permits air circulation and that the temperature inside the solenoid is less than 50° C over the ambient.
2. Voltages given with respect to cathode. Any one element may be operated at capsule potential which should be ground.
3. Magnet not included, information on request.

QUICK REFERENCE DATA

The Sylvania Type 6493 is a low power broad-band TWT Amplifier with 15 Mw power over the 2000 to 4000 megacycle frequency range.
OUTLINE DRAWING

8 PIN BASE

1 2ND ANODE-HELIX
2 COLLECTOR
3 HEATER- CATHODE
4 1ST ANODE

5 GRID
6 HEATER
7 GETTER
8 CAPSULE

S54033