

**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. <sup>3</sup> . . . . .	2 Lbs.
Connectors . . . . .	BNC with UG89U
Focusing Field . . . . .	Electromagnet <sup>3</sup>
Cooling . . . . .	Convection Air <sup>1</sup>
Maximum Collector Temperature . . . . .	200° C

**ELECTRICAL DATA**

**HEATER CHARACTERISTICS**

Heater Voltage ( $\pm 10\%$ ) . . . . .	6.3 Volts a c
Heater Current . . . . .	1.0 Ampere

**RATINGS (Absolute Values)**

Gating Electrode . . . . .	-100 Volts to +15	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<sup>2</sup>**

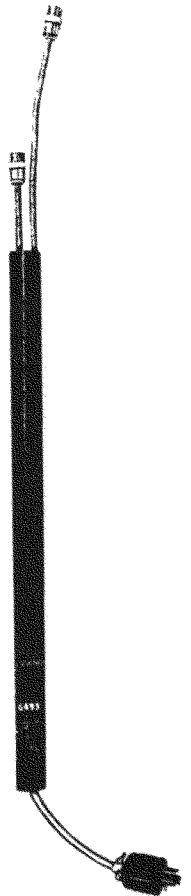
Frequency . . . . .	3 Kmc
Gating Electrode . . . . .	0 Volts
	(-70 V for Cutoff)
1st Anode Voltage . . . . .	350 Volts
1st Anode Current . . . . .	< 500 $\mu$ a
Helix Voltage . . . . .	400 Volts
Helix Current . . . . .	500 $\mu$ a
Collector Voltage . . . . .	550 Volts
Collector Current . . . . .	2.5 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.



**SYLVANIA ELECTRIC PRODUCTS INC.**

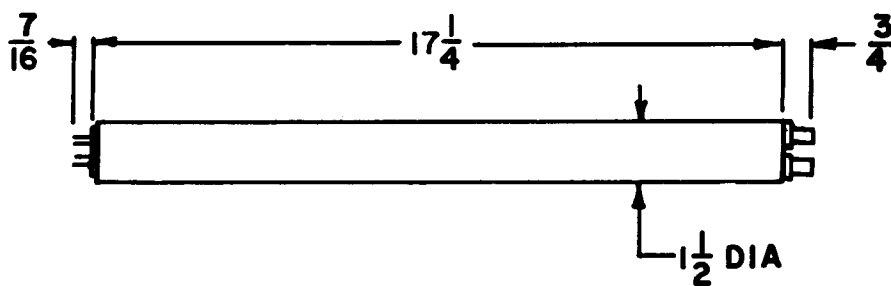
**ELECTRONICS DIVISION WOBURN, MASS.**

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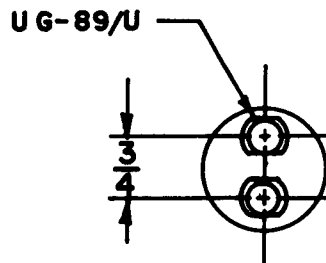
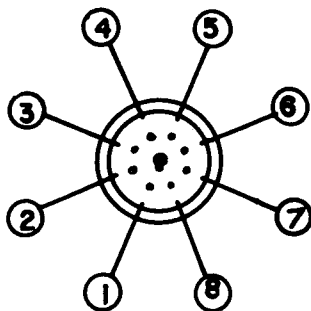
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OUTLINE DRAWING



8 PIN BASE



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

- 5 GRID
- 6 HEATER
- 7 GETTER
- 8 CAPSULE