

**MECHANICAL DATA**

Envelope . . . . .	Metal Capsule
Base . . . . .	Special (Socket Supplied)
Cathode . . . . .	Unipotential Oxide
Magnetic Field Strength . . . . .	500 Gauss
Length of Magnetic Field . . . . .	10" Uniform
Mounting Position . . . . .	Any
Weight <sup>1</sup> . . . . .	2 Lbs. Approx.
Connectors . . . . .	BNC (52 Ohm)
Focusing Field <sup>1</sup> . . . . .	Electromagnet
Cooling . . . . .	Forced Air
Maximum Collector Temperature . . . . .	150° C
Maximum Bulb Temperature . . . . .	150° C

**ELECTRICAL DATA**

**HEATER CHARACTERISTICS**

Heater Voltage ( $\pm 10\%$ ) . . . . .	6.3 Volts a c
Heater Current . . . . .	3.5 Amperes

**RATINGS (Absolute Values)**

1st Anode Voltage . . . . .	150 Volts	Max.
1st Anode Current . . . . .	5 Ma	Max.
2nd Anode Voltage . . . . .	Ext. Connect to Helix	Max.
2nd Anode Current . . . . .	5 Ma	Max.
Helix Voltage . . . . .	2000 Volts	Max.
Helix Dissipation . . . . .	15 Watts	Max.
Collector Voltage . . . . .	2100 Volts	Max.
Collector Dissipation . . . . .	60 Watts	Max.
Focusing Electrode Voltage . . . . .	-15 Volts to +5 Volts	
Helix Voltage to Ground . . . . .	0	Max.

**CHARACTERISTICS**

Frequency . . . . .	2-4 Kmc
Power Output . . . . .	35 Mw Min.

**TYPICAL OPERATION**

	2.0 Kmc	4 Kmc
1st Anode Voltage . . . . .	80	60 Volts
1st Anode Current . . . . .	0.75	0.15 Ma
2nd Anode Voltage . . . . .	180	1250 Volts
2nd Anode Current . . . . .	0.4	1.5 Ma
Helix Voltage . . . . .	180	1250 Volts
Helix Current . . . . .	0.5	3 Ma
Collector Voltage . . . . .	260	1330 Volts
Collector Current . . . . .	18	15 Ma
Power Output . . . . .	50	300 Mw

**NOTE:**

1. Magnet not included, information on request.

**QUICK REFERENCE DATA**

The Sylvania Type 6496 is a Backward Wave Oscillator designed for voltage tunable oscillator service over the frequency range 2000-4000 megacycles with a power output of 35-300 Mw.

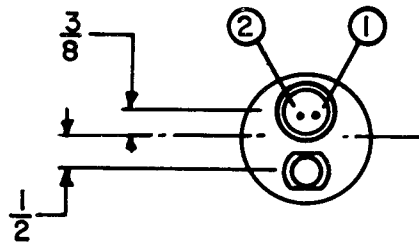
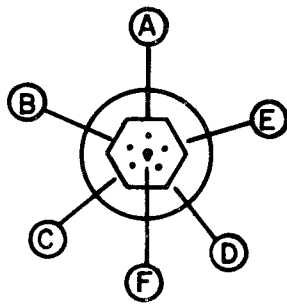
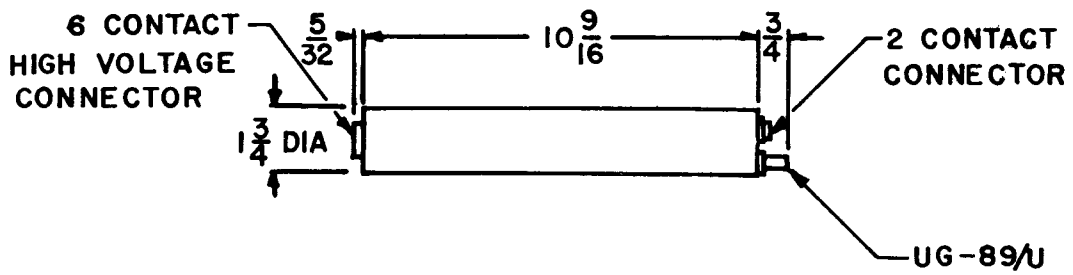


**SYLVANIA ELECTRIC  
PRODUCTS INC.**

**ELECTRONICS DIVISION  
WOBURN, MASS.**

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OUTLINE DRAWING



- A FOCUS
- B CAPSULE
- C HEATER
- D HEATER-CATHODE
- E ANODE
- F 2ND ANODE

- 1 HELIX
- 2 COLLECTOR