



EIMAC

A Division of Varian Associates
SAN CARLOS, CALIFORNIA

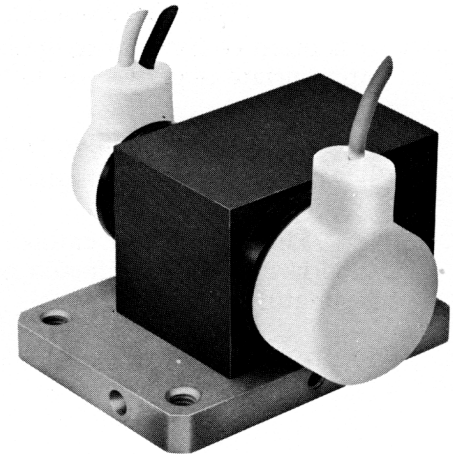
X-1095

**REFLEX
KLYSTRON**

TYPICAL PERFORMANCE

ELECTRICAL PERFORMANCE

Frequency Setting - - -	-factory preset at frequency between 5.9 & 6.7 Gc
Power Output - - -	400 mW
Electronic Tuning Range (3 db bandwidth) - - -	100 Mc
Resonator Voltage - - -	600 Vdc
Cathode Current - - -	45 mA
Repeller Voltage - - -	—100 to —200 Vdc
Modulation Sensitivity - - -	2.0 to 3.0 Mc/V
Heater Voltage - - -	6.3 V (ac or dc)
Heater Current - - -	0.7 A
Mode - - -	4¾
VSWR of Load - - -	1.2:1 max
Temperature Coefficient - - -	±50 kc/°C
Warm-up Time - - -	30 seconds



MAXIMUM RATINGS

Resonator Voltage - - -	700 Vdc
Cathode Current - - -	60 mA
Repeller Voltage (negative with respect to the cathode) - - -	—50 to —500 Vdc

Note: Damage to the tube may occur if the maximum ratings are exceeded.

MECHANICAL

Operating Position - - -	Any
Electrical Connection - - -	Flexible Leads
RF Output Coupling - - -	See Outline Drawing
Cooling Required - - -	Conduction
Net Weight - - -	6 ounces
Shipping Weight (approximate) - - -	4 Pounds

ENVIRONMENTAL PERFORMANCE

Temperature - - -	—55°C to +125°C
Altitude - - -	70,000 feet max
Vibration - - -	10 G, 5 to 2000 cps
Shock - - -	100 G, 11 ms

OUTLINE DIMENSIONS

Height - - -	1.42 inches
Width - - -	2.00 inches
Length - - -	2.45 inches



X-1095

APPLICATION NOTES

NOTE: All voltages referred to the cathode.

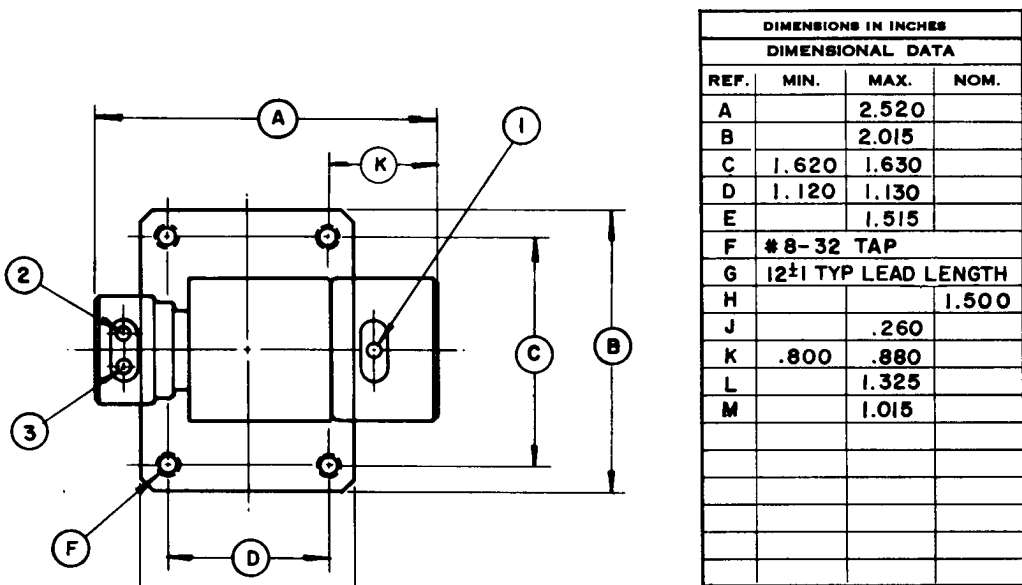
COOLING: At sea level this tube will not require forced air cooling when operated at its maximum rated dissipation with an ambient temperature less than 125° Centigrade. The waveguide flange connection will normally provide the required heat-sink for conduction cooling. If an insulator is used between the tube and waveguide for DC isolation, forced air cooling may be required to maintain the ceramic-to-metal seal temperatures below the maximum rating of 150° Centigrade.

RESONATOR: The resonator of the X1095 is integral with the body of the klystron. For this reason it is often convenient to operate the resonator at chassis potential, with the repeller and cathode at appropriate negative potentials.

CATHODE: The heater voltage should be maintained within $\pm 5\%$ of the rated value of 6.3 volts if variations in performance are to be minimized and the best tube life obtained.

The heater and cathode of the X1095 are internally connected. When the resonator of this tube is operated at chassis potential, the heater transformer must be insulated for the cathode-to-resonator voltage.

VSWR OF LOAD: To obtain the typical performance listed, the load VSWR should be less than 1.2:1.



CONNECTIONS
 1. REPELLER - RED
 2. HEATER - WHITE
 3. HEATER CATHODE - BLACK

