# **Beam Power Tube**

CERMOLOX ®

CONDUCTION COOLED FOR USE UNDER SEVERE SHOCK AND VIBRATION

MATRIX-TYPE CATHODE 4500 WATTS PEAK POWER OUTPUT AT 1215 Mc

The 4622 is the same as the 7649 except for the following items:

#### Mechanical:

## Socket .

For use at frequencies higher

than 400 Mc. . . . . . . . . See Mounting Arrangement

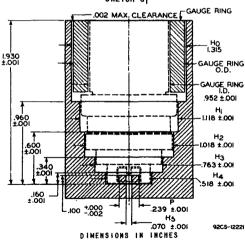
#### Thermal:

Conduction-Cylinder Temperature. . . 250 max. OC Seal Temperature (Plate, grid No.2, grid No.1, cathode, and heater). . . 250 max. OC

Cooling, Conduction:

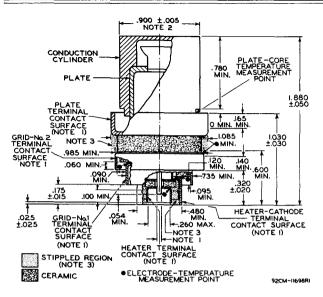
The conduction cylinder must be thermally coupled to a constant-temperature device (heat sink-solid or liquid) to limit the conduction cylinder to the specified maximum value of 250° C. The plate, grid-No.2, grid-No.1, cathode, and heater terminals may also require coupling to the heat sink to limit their respective seal temperature to the specified maximum value of 250° C.

## SKETCH GI



The axes of the cylindrical holes  $H_1$  through  $H_5$  and the axis of post P and coincident within 0.001".

The axes of the gauge ring 1.D. and gauge ring 0.D. are coincident within 0.001".



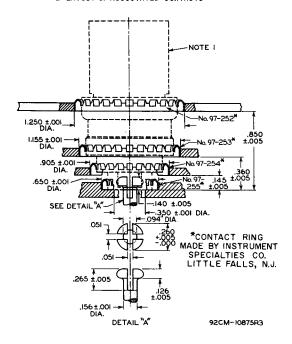
#### DIMENSIONS IN INCHES

Note 1: With the cylindrical surfaces of the plate terminal, grid-No.2 terminal, grid-No.1 terminal, heater-cathode terminal, and heater terminal clean, smooth, and free of burrs, the tube will enter a gauge as shown in sketch  $\mathsf{G}_1.$  The tube is properly seated in the gauge when a  $0.010^{\circ\prime\prime}$  thickness gauge 1/8" wide will not enter between a heater-cathode terminal and the bottom surface of  $\mathsf{H}_4.$  The gauge is provided with a slot to permit making measurement of seating of heater-cathode terminal on bottom of hole  $\mathsf{H}_4.$ 

Note 2: With the tube seated in gauge and with the conduction cylinder clean, smooth, and free of burrs, the gauge ring will slip over conduction cylinder as shown in sketch  $\mathsf{G}_1$ .

Note 3: Keep all stippled regions clear. Do not allow contacts or circuit components to protrude into these annular volumes.

# SUGGESTED MOUNTING ARRANGEMENT & LAYOUT OF ASSOCIATED CONTACTS

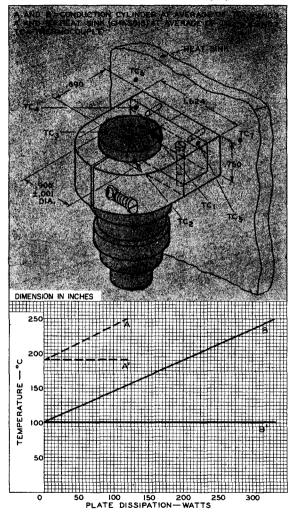


## DIMENSIONS IN INCHES

Note I: If a clamp is used, it must be adjustable in a plane normal to the major tube axis to compensate for variations in concentricity between the conduction cylinder and the contact terminals.

# COOLING CHARACTERISTICS

Typical Clamp Conduction-Cooling System



92CM-10872