

# Beam Power Tube

## CERMOLOX

RF Power Amplifier and Oscillator to 1215 MHz

|                     |                           |
|---------------------|---------------------------|
| Matrix-Type Cathode | 340 Watts CW Power Output |
| 105 Watts CW Power  | at 400 MHz                |
| Output at 1215 MHz  | Conduction Cooled         |

## ELECTRICAL

Heater for Matrix-Type Oxide-Coated

Unipotential Cathode:

|                                             |     |   |
|---------------------------------------------|-----|---|
| Voltage (ac or dc) . . . . .                | 6.3 | V |
| Current at 6.3 volts . . . . .              | 3.2 | A |
| Minimum heating time . . . . .              | 60  | s |
| Mu-Factor, Grid No.2 to Grid No.1 . . . . . | 18  |   |

## MAXIMUM CCS RATINGS, Absolute-Maximum Values:

Up to 1215 MHz

|                                |      |    |
|--------------------------------|------|----|
| DC Plate Voltage . . . . .     | 2500 | V  |
| DC Grid-No.2 Voltage . . . . . | 400  | V  |
| DC Grid-No.1 Voltage . . . . . | -200 | V  |
| DC Plate Current . . . . .     | 250  | mA |
| Plate Dissipation . . . . .    | 300  | W  |

## MECHANICAL

|                              |               |
|------------------------------|---------------|
| Operating Position . . . . . | Any           |
| Weight (Approx.) . . . . .   | 4 oz (0.1 kg) |

## THERMAL

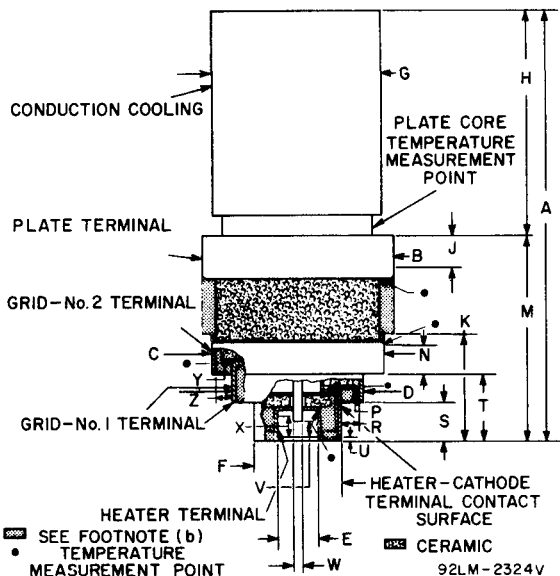
|                                                                                        |             |
|----------------------------------------------------------------------------------------|-------------|
| Terminal Temperature (Plate,<br>grid No.2, grid No.1, cathode<br>and heater) . . . . . | 250 max. °C |
| Plate-Core Temperature . . . . .                                                       | 250 max. °C |

<sup>a</sup> See *Dimensional Outline* for Temperature Measurement Points.

<sup>b</sup> Keep all stippled regions clear. Do not allow contacts or circuit components to protrude into these annular regions.

Detailed performance and application information is available through your RCA Sales Office, Distributor, or write to RCA Commercial Engineering, Harrison, NJ 07029.

## DIMENSIONAL OUTLINE



| DI-MEN-SION | INCHES           | MILLIMETERS      | DI-MEN-SION | INCHES           | MILLIMETERS    |
|-------------|------------------|------------------|-------------|------------------|----------------|
| A           | 2.650 $\pm$ .090 | 67.31 $\pm$ 2.29 | N           | 0.140 Min.       | 3.56 Min.      |
| B Dia.      | 1.085 Min.       | 27.56 Min.       | P           | 0.120 Min.       | 3.05 Min.      |
| C Dia.      | 0.985 Min.       | 25.02 Min.       | R           | 0.095 Min.       | 2.41 Min.      |
| D Dia.      | 0.735 Min.       | 18.67 Min.       | S           | 0.175 $\pm$ .015 | 4.45 $\pm$ .38 |
| E Dia.      | 0.260 Max.       | 6.60 Max.        | T           | 0.370 $\pm$ .020 | 9.40 $\pm$ .51 |
| F Dia.      | 0.480 Min.       | 12.19 Min.       | U           | 0.025 $\pm$ .025 | 0.64 $\pm$ .64 |
| G Dia.      | 0.990 $\pm$ .005 | 25.15 $\pm$ .13  | V           | 0.054 Min.       | 1.37 Min.      |
| H           | 1.355 Min.       | 34.42 Min.       | W           | 0.070 Max.       | 1.78 Max.      |
| J           | 0.165 Min.       | 4.19 Min.        | X           | 0.100 Min.       | 2.54 Min.      |
| K           | 0.600 Min.       | 15.24 Min.       | Y           | 0.060 Min.       | 13.24 Min.     |
| M           | 1.230 $\pm$ .030 | 31.24 $\pm$ .76  | Z           | 0.090 Min.       | 22.86 Min.     |