

# TYPE DESIGNATION REGISTRATION FORM

## ATR Tube

Manufacturer: Bomac Laboratories, Inc.  
Beverly, Massachusetts

Mfgs. Type No. BL-68

Tentative JETEC Type No. 6393

The 6393 (BL-68) is a broad-band ATR tube designed to effectively decouple the transmitter from a common transmitting and receiving antenna during a non-transmitting period. The operational band is from 9000 to 9600 megacycles per second.

### ELECTRICAL DATA - GENERAL

|                                                                                       |                          |
|---------------------------------------------------------------------------------------|--------------------------|
| Center Frequency                                                                      | 9300Mc.                  |
| Operational Band at Voltage Standing Wave Ratio 12 minimum                            | 9260Mc to 9340Mc.        |
| Loaded Q                                                                              | 6.5 (max.)               |
| Transmitter Peak Power                                                                | 5 kw (min.)              |
| Center Frequency Normalized Conductance                                               | 0.1 (max.)               |
| Center Frequency Normalized Susceptance                                               | $\pm 0.06$ (max.)        |
| Arc Power Loss                                                                        | 0.8db (max.)             |
| $p_o = 4\text{kw}$ ; $p_{rr} = 1000$ pps;<br>$t_p = 0.5\mu\text{s}$ ; $F = 9300$ Mc.  |                          |
| Recovery Time                                                                         | 8.0 $\mu\text{s}$ (max.) |
| $p_o = 50\text{kw}$ ; $p_{rr} = 1000$ pps;<br>$t_p = 1.0\mu\text{s}$ ; $F = 9300$ Mc. |                          |

### MECHANICAL DATA - GENERAL

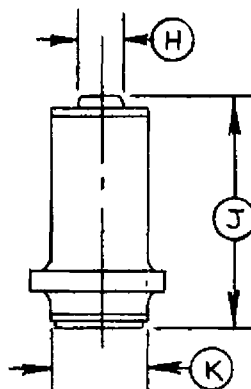
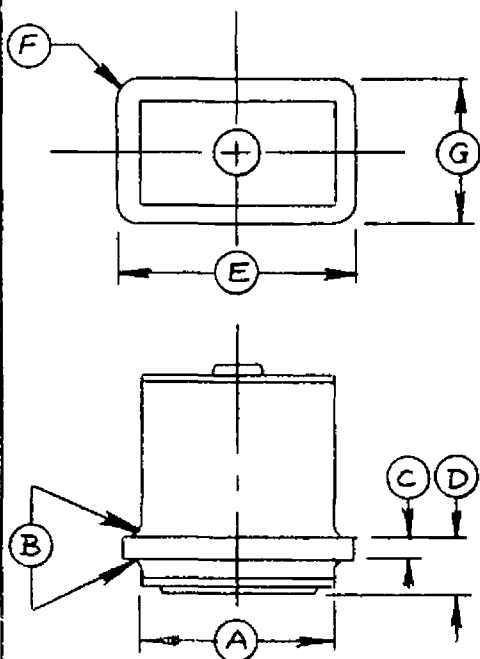
|                                           |                 |
|-------------------------------------------|-----------------|
| Mounting Position                         | Any             |
| Ambient Temperature Range (Non-operating) | -40°C to +100°C |
| Net Weight, approximately                 | 1 oz.           |

### MAXIMUM RATINGS

|                        |       |
|------------------------|-------|
| Transmitter Peak Power | 250kw |
|------------------------|-------|

### OUTLINE DRAWING

See Outline Drawing 6393/BL-68 dated 11/23/54.



| REF  | DIMENSIONS       |
|------|------------------|
| A    | 1.000            |
| B ** | .030 R MAX       |
| C *  | .0965 $\pm .003$ |
| D    | .279 $\pm .003$  |
| E    | 1.200 $\pm .003$ |
| F ** | .070-.080 R      |
| G    | .700 $\pm .003$  |
| H ** | .250 DIA. MAX    |
| J *  | 1.260 MAX        |
| K    | .500             |

## SPECIFICATION SHEET

OUTLINE

6393/BL-68

BOMAC LABORATORIES INC.  
SALEM ROAD  
BEVERLY, MASSACHUSETTS

11-23-54

E.D.