TR TUBE

Manufacturer's Designation: BL-643  April 24, 1957
JETEC Designation: 6906
Manufacturer: Bomac Laboratories, Inc.
Beverly, Massachusetts

GENERAL CHARACTERISTICS

The 6906 is a broad-band TR tube designed to effectively decouple the receiver from a common transmitting and receiving antenna during a period of transmission. It is an integral cavity type. Its operational band is from 5395 to 5905 megacycles.

ELECTRICAL DATA - TYPICAL VALUES

Operational Band
  VSWR 2.0 maximum
  VSWR 1.5 maximum
Ignitor Ignition Time (max.)  5 sec.
Ignitor Voltage Drop at Ii=100 µAdc  200-400 Vdc.
Spike Leakage Energy (max.)  0.40 ergs
  F=5650 Mc; po=5 kw; tpl=1.0 µs
  tP2=0.5 µs; prr=1000 pps; Ii=100 µAdc
Flat Leakage Power (max.)  85 mw
  (see Spike Leakage for test conditions)
Insertion Loss (max.) at 5650 Mc and Ii=0  0.4 db
Ignitor interaction (max.) at 5650 Mc and
  H=100 µAdc  0.2 deg
Recovery Time (max.) at 5 kw peak 3 db down  7.0 µs
Phase Shift
  F=5450 Mc  t: -56  -66 deg.
  F=5650 Mc  t: -2  -12 deg.
  F=5825 Mc  t: +34  +44 deg.

MECHANICAL DATA - GENERAL

Mounting Position  Any
Weight, approximately  1.5 lbs

ABSOLUTE MAXIMUM RATINGS

Transmitter Peak Power  5 kw
Transmitter Average Power  5 W
Ignitor Current  200 µAdc

OUTLINE DRAWING

As per attached drawing dated 11-2-54

from JETEC release #1931, May 20, 1957
Exhaust tube not to extend beyond edge of flange.

Miniature top cap not to extend beyond edge of flange.

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Dimension</th>
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<tbody>
<tr>
<td>A***</td>
<td>0.219 Max.</td>
</tr>
<tr>
<td>B***</td>
<td>3.625 ±0.015 Dia.</td>
</tr>
<tr>
<td>C*</td>
<td>45°</td>
</tr>
<tr>
<td>D*</td>
<td>3.250 Dia. B,C</td>
</tr>
<tr>
<td>E</td>
<td>0.221 Dia.</td>
</tr>
<tr>
<td>F***</td>
<td>8 Holes Ea. Flg.</td>
</tr>
<tr>
<td>G</td>
<td>0.250 ±0.015</td>
</tr>
<tr>
<td>H***</td>
<td>0.250 Dia.</td>
</tr>
</tbody>
</table>

SPECIFICATION SHEET

Outline 6906/BL-643
BL-89, 5865/TR-361

BOMAC LABORATORIES INC.
SALEM ROAD
BEVERLY, MASSACHUSETTS

11-2-54 clr