TR TUBES

Manufacturer's Designation: BL-35  March 4, 1957
JETEC Designation: 6560
Manufacturer: Bomac Laboratories, Inc.
Beverly, Massachusetts

GENERAL CHARACTERISTICS.

The 6560 (BL-35) is a dual broad-band gas switching tube designed to operate with suitable short-slot hybrid junctions to provide a balanced duplexer using RG91/U size waveguide. It is an integral cavity type. Its operational band is from 15,000 to 17,000 megacycles.

ELECTRICAL DATA-TYPICAL VALUES.

Operational Band
- VSWR 1.4 maximum 15,000 to 17,000 Mc/s
- VSWR 1.2 maximum 15,060 to 16,40 Mc/s

Ignitor Ignition Time (max.) each electrode 5 sec.
Ignitor Voltage Drop at Ii=100μAdc
  (each electrode) 200-475 volts

Spike Leakage Energy (max.)
  F = 16,000 Mc; po=20kw;
  tp1=0.5μsec; tp2=0.25μsec;
  prr=3000pps; Ii=100μAdc each electrode 0.10 ergs

Flat Leakage Power (max.)
  (See Spike Leakage Energy for test conditions) 20 mw

Duplexer Loss (max.)
- 15,000 to 17,000 Mc and Ii=100μAdc each electrode 1.4 db
- 15,060 to 16,940 Mc and Ii=100μAdc each electrode 1.2 db

Isolation (max.)
- 15,000 to 17,000 Mc and Ii=100μAdc each electrode 10 db
- 15,060 to 16,940 Mc and Ii=100μAdc each electrode 12 db

Recovery Time (max.) at 90kw peak 3 db down 10μsec.

High Level VSWR (max.)
  F= 16,000 Mc; po=20 kw peak;
  tp1=0.5μsec; prr=3000 pps;
  Ii=100μAdc. each electrode 1.2

MECHANICAL DATA- GENERAL.

Mounting Position  Any
Pressurization (max.) 30 lbs. gauge
Weight, approximately 3 ounces

from JETEC release #1906, April 22, 1957
ABSOLUTE MAXIMUM RATINGS.

Transmitter Peak Power 100 kw
Transmitter Average Power 67 W
Ignitor Current 200 μA dc

OUTLINE DRAWINGS.

Tube outline as per attached drawing dated 6-29-56
Mating flange as per attached drawing dated 6-29-56
Note 1: Etch INPUT and OUTPUT of tube on top cap spacer.
Note 2: Rhodium flash over silver plating is optional.
Note 3: Exhaust tube not to extend beyond flanges.
Gasket

Mating Flange

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Dimension</th>
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<tbody>
<tr>
<td>A</td>
<td>1/16 Rad.</td>
</tr>
<tr>
<td>B</td>
<td>#26 (.147) Dr. 6 Holes</td>
</tr>
<tr>
<td>C</td>
<td>0.394±.002-.000</td>
</tr>
<tr>
<td>D</td>
<td>0.656</td>
</tr>
<tr>
<td>E</td>
<td>0.956±.004</td>
</tr>
<tr>
<td>F</td>
<td>1 5/16</td>
</tr>
<tr>
<td>G</td>
<td>0.023±.001</td>
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<tr>
<td>H</td>
<td>3/32</td>
</tr>
<tr>
<td>J</td>
<td>7/8 Rad.</td>
</tr>
<tr>
<td>K</td>
<td>1.364±.002-.000</td>
</tr>
<tr>
<td>L</td>
<td>1.500±.004</td>
</tr>
<tr>
<td>M</td>
<td>1.625</td>
</tr>
<tr>
<td>N</td>
<td>1 3/4</td>
</tr>
<tr>
<td>Q</td>
<td>1 37/64</td>
</tr>
<tr>
<td>R</td>
<td>1.384±.005</td>
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<tr>
<td>S</td>
<td>0.431±.005</td>
</tr>
<tr>
<td>T</td>
<td>39/64</td>
</tr>
<tr>
<td>U</td>
<td>0.037±.005</td>
</tr>
<tr>
<td>V</td>
<td>1/32 x 45°</td>
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SPECIFICATION SHEET

Mating Flange and Gasket

6560/BL-35

GS-2E-1.10.20.02

6-29-56 clr