**GENERAL DATA**

**Electrical:**

Heater, for Unipotential Cathodes:
- Voltage: 6.3 \( \text{ac or dc volts} \)
- Current: 0.3 \( \text{amp} \)

Direct Interelectrode Capacitances (Approx.):
- Plate No. 1 to Cathode No. 1, Heater, and Internal Shield*: 2.5 \( \mu\text{f} \)
- Plate No. 2 to Cathode No. 2, Heater, and Internal Shield*: 2.5 \( \mu\text{f} \)
- Cathode No. 1 to Plate No. 1, Heater, and Internal Shield*: 3.4 \( \mu\text{f} \)
- Cathode No. 2 to Plate No. 2, Heater, and Internal Shield*: 3.4 \( \mu\text{f} \)
- Plate No. 1 to Plate No. 2: 0.068 max. \( \mu\text{f} \)

Cold Resonant Frequency (Each Unit, Approx.): 700 \( \text{Mc} \)

*With no external shield.

* With plate and cathode of unit No.2 grounded.

* With plate and cathode of unit No.1 grounded.

* With all other electrodes and internal shield grounded.

**Mechanical:**

Mounting Position: Any

Maximum Overall Length: 1-3/4" 

Maximum Seated Length: 1-1/2" 

Length, Base Seat to Bulb Top (Excluding tip): 1-1/8" ± 3/32" 

Maximum Diameter: 3/4" 

Bulb: T-5-1/2

Base: Small-Button Miniature 7-Pin (JETEC No.E7-1) 

Basing Designation for BOTTOM VIEW: 6BT

Pin 1—Cathode of Diode No.1
Pin 2—Plate of Diode No.2
Pin 3—Heater
Pin 4—Heater

Pin 5—Cathode of Diode No.2
Pin 6—Internal Shield
Pin 7—Plate of Diode No.1

**Rectifier**

**Maximum Ratings, Design-Center Values:**

- PEAK INVERSE PLATE VOLTAGE: 330 max. volts
- PEAK PLATE CURRENT PER PLATE: 54 max. ma
- DC OUTPUT CURRENT PER PLATE: 9 max. ma

**PEAK HEATER-CATHODE VOLTAGE:**
- Heater negative with respect to cathode: 330 max. volts
- Heater positive with respect to cathode: 330 max. volts

<r Indicates a change.

MAY 3, 1954

TUBE DIVISION

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY
TWIN DIODE

Typical Operation as Half-Wave Rectifier:
The Two Units May Be Used Separately or in Parallel

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC Plate Voltage per Plate (RMS)</td>
<td>117 volts</td>
</tr>
<tr>
<td>Min. Total Effect. Plate-Supply</td>
<td></td>
</tr>
<tr>
<td>Impedance per Plate</td>
<td>300 ohms</td>
</tr>
<tr>
<td>DC Output Current per Plate</td>
<td>9 ma</td>
</tr>
</tbody>
</table>

AVERAGE PLATE CHARACTERISTIC

\[ E_f = 6.3 \text{ VOLTS} \]

\[
\begin{array}{|c|c|}
\hline
\text{DC PLATE VOLTS} & \text{PLATE MILLIAMPERES} \\
\hline
0 & 0 \\
2 & 20 \\
4 & 40 \\
6 & 60 \\
8 & 80 \\
\hline
\end{array}
\]

ONE PLATE ONLY

92CM-656OT

MAY 3, 1954
AVERAGE CHARACTERISTICS
HALF-WAVE RECTIFICATION - SINGLE DIODE

$E_f = 6.3$ VOLTS

DC VOLTS DEVELOPED BY DIODE

RECTIFIED MILLIAMPERES