### GENERAL DATA

**Electrical:**
- Heater, for Unipotential Cathode:
  - Voltage: 26.5 ac or dc volts
  - Current: 0.07 amp
- Direct Interelectrode Capacitances:
  - Grid #3 to All Other Electrodes (RF Input): 7.5 μf
  - Plate to All Other Electrodes (Mixer Output): 14 μf
  - Grid #1 to All Other Electrodes (Osc. Input): 5.8 μf
  - Grid #3 to Plate: 0.30 max. μf
  - Grid #1 to Grid #3: 0.15 max. μf
  - Grid #1 to Plate: 0.03 max. μf
  - Grid #1 to External Shield and All Other Electrodes Except Cathode & Grid No.5: 2.9 μf
  - Grid #1 to Cathode & Grid #5: 2.8 μf
  - Cathode to External Shield and All Other Electrodes Except Grid #1: 15.5 μf

**Mechanical:**
- Mounting Position: Any
- Maximum Overall Length: 2-1/8" 1-7/8"
- Maximum Seated Length: 1-1/2" ± 3/32" 3/4"
- Length from Base Seat to:
  - Bulb Top (excluding tip): 3/4" 7/8"
- Maximum Diameter: T-5-1/2
- Base: Miniature Button 7-Pin
- Basing Designation for BOTTOM VIEW: 5CH
- Pin 1 – Grid No.1
- Pin 2 – Cathode, Grid No.5
- Pin 3 – Heater
- Pin 5 – Plate
- Pin 6 – Grid No.2, Grid No.4
- Pin 7 – Grid No.3

**Converter**

**Maximum Ratings, Design-Center Values:**
- **PLATE VOLTAGE:** 300 max. volts
- **GRIDS-No.2 & No.4 (SCREEN) VOLTAGE:** 100 max. volts
- **GRIDS-No.2 & No.4 SUPPLY VOLTAGE:** 300 max. volts
- **PLATE DISSIPATION:** 1.0 max. watt
- **GRIDS-No.2 & No.4 DISSIPATION:** 1.0 max. watt
- **TOTAL CATHODE CURRENT:** 14 max. ma.
- **GRID-No.3 (CONTROL GRID) VOLTAGE:**
  - Negative bias value: 50 max. volts
  - Positive bias value: 0 max. volts
- **PEAK HEATER-CATHODE VOLTAGE:**
  - Heater negative with respect to cathode: 90 max. volts
  - Heater positive with respect to cathode: 90 max. volts

*With external shield connected to cathode.

**TENTATIVE DATA**

JUNE 20, 1946

**TUBE DIVISION**

Radio Corporation of America, Harrison, New Jersey
### PENTAGRID CONVERTER

**Characteristics - Separate Excitation:**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value 1</th>
<th>Value 2</th>
<th>Value 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Voltage</td>
<td>26.5</td>
<td>100</td>
<td>250</td>
</tr>
<tr>
<td>Grids-No.2 &amp; No.4 Voltage</td>
<td>26.5</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Grid-No.3 Voltage</td>
<td>-0.5</td>
<td>-1.5</td>
<td>-1.5</td>
</tr>
<tr>
<td>Grid-No.1 (Oscillator) - Grid Resistor</td>
<td>20000</td>
<td>20000</td>
<td>20000</td>
</tr>
<tr>
<td>Plate Resistance (Approx.)</td>
<td>-</td>
<td>0.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Conversion Transconductance</td>
<td>270</td>
<td>455</td>
<td>475</td>
</tr>
<tr>
<td>Conversion Transconductance (Approx.)*</td>
<td>-</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Conversion Transconductance (Approx.)**</td>
<td>8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Plate Current</td>
<td>0.45</td>
<td>2.8</td>
<td>3.0</td>
</tr>
<tr>
<td>Grids-No.2 &amp; No.4 Current</td>
<td>1.6</td>
<td>8.0</td>
<td>7.8</td>
</tr>
<tr>
<td>Grid-No.1 Current</td>
<td>0.1</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Total Cathode Current</td>
<td>2.15</td>
<td>11.3</td>
<td>11.3</td>
</tr>
</tbody>
</table>

**Characteristics of Oscillator Section:**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value 1</th>
<th>Value 2</th>
<th>Value 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Voltage</td>
<td>26.5</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Grids-No.2 &amp; No.4 Voltage</td>
<td>26.5</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Grid-No.3 Voltage</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Grid-No.1 Voltage</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Amplification Factor</td>
<td>-</td>
<td>22</td>
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</tr>
<tr>
<td>Transconductance</td>
<td>4500</td>
<td>7200</td>
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</tr>
<tr>
<td>Plate Current</td>
<td>5.5</td>
<td>27</td>
<td></td>
</tr>
</tbody>
</table>

* The characteristics shown with separate excitation correspond very closely with those obtained in a self-excited oscillator circuit operating with zero bias.
* With grid-No.3 bias of -30 volts.
** With grid-No.3 bias of -6 volts.
▲ Measured between grid No.1 and grids-No.2 and No.4 connected to plate (not oscillating).

The curves under Type 6B66 also apply to the 26D6.
E_p = 26.5 VOLTS
PLATE VOLTS = 26.5
GRIDS - № 2 & № 4 VOLTS = 26.5
GRID - № 1 MILLIAMPERES = 0.1
GRID - № 1 RESISTOR - OHMS = 20000

CONVERSION TRANSCONDUCTANCE - MICROMOS
26D6
OPERATION CHARACTERISTICS
WITH SEPARATE OSCILLATOR EXCITATION

\[ E_p = 26.5 \text{ VOLTS} \]
\[ \text{PLATE VOLTS} = 26.5 \]
\[ \text{GRIDS-N\# 2 & N\# 4 VOLTS} = 26.5 \]
\[ \text{GRID-N\# 1 RESISTOR-OHM} = 20000 \]
\[ \text{GRID-N\# 3 VOLTS} = -0.5 \]

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AUGUST 1, 1946
TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY