HIGH-MU TRIODE—SHARP-CUTOFF PENTODE
9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage .......... 6.3 ± 10% .... ac or dc volts
Current .......... 0.75 .... amp

Direct Interelectrode Capacitances: 6

\textbf{Triode Unit:}

- Grid to plate .......... 4.4 \(\mu\)f
- Grid to cathode and heater .......... 2.4 \(\mu\)f
- Plate to cathode and heater .......... 0.36 \(\mu\)f

\textbf{Pentode Unit:}

- Grid No.1 to plate .......... 0.1 max. \(\mu\)f
- Grid No.1 to cathode & internal shield & grid No.3, grid No.2, and heater .......... 11 \(\mu\)f
- Plate to cathode & internal shield & grid No.3, grid No.2, and heater .......... 4.2 \(\mu\)f
- Triode grid to pentode plate .......... 0.018 max. \(\mu\)f
- Pentode grid No.1 to triode plate .......... 0.005 max. \(\mu\)f
- Pentode plate to triode plate .......... 0.17 max. \(\mu\)f

Characteristics, Class A, Amplifier:

\begin{tabular}{|l|l|l|}
\hline
 & \textbf{Triode} & \textbf{Pentode} \\
\hline
\textbf{Plate-Supply Voltage} & 250 & 45 & 200 \textit{volts} \\
\textbf{Grid-No.2 Supply Voltage} & - & 125 & 125 \textit{volts} \\
\textbf{Grid-No.1 Voltage} & -2 & 0 & - \textit{volts} \\
\textbf{Cathode Resistor} & - & - & 68 \textit{ohms} \\
\textbf{Amplification Factor} & 100 & - & - \\
\textbf{Plate Resistance (Approx.)} & 37000 & - & 75000 \textit{ohms} \\
\textbf{Transconductance} & 2700 & - & 12500 \textit{\(\mu\)hos} \\
\textbf{Plate Current} & 2 & 40* & 25 \textit{ma} \\
\textbf{Grid-No.2 Current} & - & 15* & 7 \textit{ma} \\
\textbf{Grid-No.1 Voltage (Approx.) for plate \(\mu a = 100\)} & - & - & -9 \textit{volts} \\
\textbf{Grid Voltage (Approx.) for plate \(\mu a = 20\)} & - & - & -5 \textit{volts} \\
\hline
\end{tabular}

Mechanical:

- Operating Position .......... \textit{Any}
- Maximum Overall Length .......... 2-5/8" \\
- Maximum Seated Length .......... 2-3/8" \\
- Length, Base Seat to Bulb Top (Excluding tip) .......... 2" ± 3/32" \\
- Diameter .......... 0.750" to 0.875" \\
- Dimensional Outline .......... \textit{See General Section} \\
- Bulb .......... T6-1/2
HIGH-MU TRIODE—SHARP-CUTOFF PENTODE

Base. . . . . . . Small-Button Noval 9-Pin (JEDEC No.E9-1)
Basing Designation for BOTTOM VIEW. . . . . . . . . . . . . 9DX

Pin 1—Triode
  Cathode
Pin 2—Triode
  Grid
Pin 3—Triode
  Plate
Pin 4—Heater
Pin 5—Heater
Pin 6—Pentode
  Cathode,
Pin 7—Pentode
  Grid No.1
Pin 8—Pentode
  Grid No.2
Pin 9—Pentode
  Plate

AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

<table>
<thead>
<tr>
<th></th>
<th>Triode Unit</th>
<th>Pentode Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLATE VOLTAGE</td>
<td>330 max.</td>
<td>330 max.</td>
</tr>
<tr>
<td>GRID-No.2 (SCREEN-GRID)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUPPLY VOLTAGE</td>
<td>-</td>
<td>330 max.</td>
</tr>
<tr>
<td>GRID-No.2 VOLTAGE</td>
<td>-</td>
<td>See Grid-No.2 Input</td>
</tr>
</tbody>
</table>

Rating Chart at front of Receiving Tube Section

GRID-No.1 (CONTROL-GRID)
VOLTAGE:
Positive-bias value . . . 0 max. 0 max. volts

PLATE DISSIPATION . . . . 1 max. 5 max. watts
GRID-No.2 INPUT:
For grid-No.2 voltages up to 165 volts . . . . - 1.1 max. watts
For grid-No.2 voltages between 165 and 330 volts . . . . . . - See Grid-No.2 Input

Rating Chart at front of Receiving Tube Section

PEAK HEATER-CATHODE
VOLTAGE:
Heater negative with respect to cathode . . . 200 max. 200 max. volts
Heater positive with respect to cathode . . . 200^ max. 200^ max. volts

Maximum Circuit Values:

<table>
<thead>
<tr>
<th></th>
<th>Triode Unit</th>
<th>Pentode Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid-No.1-Circuit Resistance:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For fixed-bias operation</td>
<td>0.5 max.</td>
<td>0.25 max.</td>
</tr>
<tr>
<td>For cathode-bias operation</td>
<td>1 max.</td>
<td>1 max.</td>
</tr>
</tbody>
</table>
Without external shield.

* This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.

△ The dc component must not exceed 100 volts.
AVERAGE PLATE CHARACTERISTICS
TRIODE UNIT

$E_F = 6.3$ VOLTS
6EB8
AVERAGE CHARACTERISTICS
PENTODE UNIT

$E_f = 6.3$ VOLTS
GRID-N°2 VOLTS = 125

PLATE (I_b) OR GRID-N°2 (I_{C2}) MILLIAMPERES

PLATE VOLTS

ELECTRON TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-9906