DIODE—SHARP-CUTOFF PENTODE
9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:
Heater, for Unipotential Cathodes:
Voltage 6.3 ac or dc volts
Current 0.45 amp

Direct Inter electrode Capacitances (Approx.):*

Diode Unit:
Plate to heater and cathode and internal shield 3.0 μf

Pentode Unit:
Grid No.1 to plate 0.04 max. μf
Input 7 μf
Output 2.2 μf
Pentode grid to diode plate 0.005 max. μf
Pentode plate to diode cathode 0.15 max. μf
Pentode plate to diode plate 0.10 max. μf

Characteristics, Class A1:
Plate-Supply Voltage 200 volts
Grid No.3 Connected to cathode at socket
Grid-No.2 Supply Voltage 150 volts
Cathode-Bias Resistor 180 ohms
Plate Resistance (Approx.) 300000 ohms
Transconductance 6200 μmhos
Grid-No.1 Bias (Approx.) for Plate Current of 10 μamp 8 volts
Plate Current 9.5 ma
Grid-No.2 Current 3 ma

Mechanical:
Mounting Position Any
Maximum Overall Length 2-3/16"
Maximum Seated Length 1-15/16"
Length, Base Seat to Bulb Top (Excluding Tip) 1-9/16" ± 3/32"
Maximum Diameter 7/8" T-6-1/2
Bulb Small-Button Noval 9-Pin (JETEC No.E9-1)
Basing Designation for BOTTOM VIEW 9DS

Pin 1 - Pentode Grid No.2
Pin 2 - Pentode Grid No.1
Pin 3 - Pentode Cathode
Pin 4 - Heater
Pin 5 - Heater
Pin 6 - Diode Plate
Pin 7 - Pentode Grid No.3, Int. Shield
Pin 8 - Diode Cathode
Pin 9 - Pentode Plate

* With no external shield.

MAY 3, 1954
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY
TENTATIVE DATA

TUBE DIVISION
DIODE—SHARP-CUTOFF PENTODE

PENTODE UNIT—Class A\textsubscript{1} Amplifier

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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLATE VOLTAGE</td>
<td>300 max. volts</td>
</tr>
<tr>
<td>GRID-No.3 (SUPPRESSOR) VOLTAGE</td>
<td>0 max. volts</td>
</tr>
<tr>
<td>GRID-No.2 SUPPLY VOLTAGE</td>
<td>300 max. volts</td>
</tr>
<tr>
<td>GRID-No.2 (SCREEN) VOLTAGE</td>
<td>See Rating Curve at front of this Section</td>
</tr>
<tr>
<td>GRID-No.1 (CONTROL-GRID) VOLTAGE:</td>
<td></td>
</tr>
<tr>
<td>Positive bias value</td>
<td>0 max. volts</td>
</tr>
<tr>
<td>PLATE DISSIPATION</td>
<td>2.5 max. watts</td>
</tr>
<tr>
<td>GRID-No.2 INPUT</td>
<td>0.5 max. watt</td>
</tr>
<tr>
<td>PEAK HEATER—CATHODE VOLTAGE:</td>
<td></td>
</tr>
<tr>
<td>Heater negative with respect to cathode</td>
<td>200 max. volts</td>
</tr>
<tr>
<td>Heater positive with respect to cathode</td>
<td>200* max. volts</td>
</tr>
</tbody>
</table>

**Maximum Circuit Values (For maximum rated conditions):**

- Grid-No.1 Circuito Resistance:
  - For cathode-bias operation: 1.0 max. megohm
  - For fixed-bias operation: 0.25 max. megohm

**DIODE UNIT**

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

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEAK INVERSE PLATE VOLTAGE</td>
<td>330 max. volts</td>
</tr>
<tr>
<td>PEAK PLATE CURRENT</td>
<td>50 max. ma</td>
</tr>
<tr>
<td>DC PLATE CURRENT</td>
<td>5 ma</td>
</tr>
<tr>
<td>PEAK HEATER—CATHODE VOLTAGE:</td>
<td></td>
</tr>
<tr>
<td>Heater negative with respect to cathode</td>
<td>200 max. volts</td>
</tr>
<tr>
<td>Heater positive with respect to cathode</td>
<td>200* max. volts</td>
</tr>
</tbody>
</table>

*The dc component must not exceed 100 volts.*

**AVERAGE PLATE CHARACTERISTIC**

![Graph](image)

E\textsubscript{F}=6.3 VOLTS

MAY 3, 1954

TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

TENTATIVE DATA
AVERAGE PLATE CHARACTERISTICS
PENTODE UNIT

$E_f = 6.3$ VOLTS
GRID-Nm2 VOLTS = 150

PLATE MILLIAMPERES

DEC. 23, 1953
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E_c = 6.3 VOLTS
PLATE VOLTS = 200
GRID-N#2 VOLTS = 150