RECTIFIER-PENTODE

Heater: Coated Unipotential Cathodes
Voltage: 25 a-c or d-c volts
Current: 0.3 amp.
Maximum Overall Length: 3-5/16".
Maximum Seated Height: 2-3/16".
Maximum Diameter: 1-5/16".
Bulb: T-9
Base: Intermediate Shell Octal 8-Pin
Pin 1 - Rectifier Cathode
Pin 2 - Heater
Pin 3 - Pentode Plate
Pin 4 - Pentode Screen
Pin 5 - Pentode Grid
Mounting Position: Any.

BOTTOM VIEW (8F)

Maximum Ratings Are Design-Center Values

PENTODE UNIT

Plate Voltage: 117 max. volts
Screen Voltage: 117 max. volts
Plate Dissipation: 2.25 max. watts
Screen Dissipation: 0.8 max. watt

Typical Operation and Characteristics - Class A Amplifier:
Plate Voltage: 100 volts
Screen Voltage: 100 volts
Grid Voltage: -15 volts
Zero-Sig. Plate Current: 20.5 ma.
Zero-Sig. Screen Current: 4 ma.
Plate Resistance: 50000 ohms
Transconductance: 1800 μmhos
Load Resistance: 4500 ohms
Total Harmonic Distortion: 9 %
Power Output: 0.77 watt

RECTIFIER UNIT (Half-Wave)

Peak Inverse Plate Voltage: 350 max. volts
Peak Plate Current: 450 max. ma.
D-C Output Current: 75 max. ma.
D-C Heater-Cathode Potential: 175 max. volts

Typical Operation With Condenser-Input Filter:
A-C Plate Supply Voltage (RMS): 117 volts
Filter Input Condenser: 16 μf
Min. Total Effect. Plate-Supply Impedance: 15 ohms
D-C Output Current: 75 ma.
D-C Voltage (At Input to filter): 0
At half-load current (37.5 ma.): 130 volts
At full-load current (75 ma.): 110 volts
Difference Voltage (Regulation): 20 volts
Percentage Regulation: 15 %

* In circuits where the cathode is not directly connected to the heater, the potential difference between heater and cathode should be kept as low as possible.
* The type of input coupling should not introduce too much resistance in the grid circuit. Transformer- or impedance-input coupling devices are recommended. When the grid circuit has a resistance not higher than 0.1 megohm, fixed bias may be used; for higher values, cathode bias is required. With cathode bias, the grid circuit may have a resistance not to exceed 0.5 megohm.

Mar. 20, 1943

RCA VICTOR DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY
AVERAGE PLATE CHARACTERISTICS

$E_T = 25$ VOLTS SCREEN VOLTS = 100

PLATE MILLIAMPERES

<table>
<thead>
<tr>
<th>60</th>
<th>50</th>
<th>40</th>
<th>30</th>
<th>20</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>50</td>
<td>100</td>
<td>150</td>
<td>200</td>
<td></td>
</tr>
</tbody>
</table>

PLATE VolTS

OPERATION CHARACTERISTICS

$E_T = 25$ VOLTS TOT.EFFECT. PLATE-SUPPLY IMPEDANCE FOR BOTH SETS OF CURVES IS 15 OHMS

D-C OUTPUT VOLTS AT INPUT TO FILTER

<table>
<thead>
<tr>
<th>150</th>
<th>125</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>20</td>
<td>10</td>
</tr>
</tbody>
</table>

D-C LOAD MILLIAMPERES

JUNE 28, 1938

RCA VICTOR DIVISION

RADIO CORPORATION OF AMERICA HARRISON, NEW JERSEY

92C-4935RI