Full-Wave Vacuum Rectifier

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:
Heater, for Unipotential Cathode:
Voltage (AC or DC) .................. 6.3 volts
Current .......................... 1 amp

Mechanical:
Operating Position .................. Any
Maximum Overall Length ............. 3-1/16"
Maximum Seated Length ............. 2-13/16"
Length, Base Seat to Bulb Top (Excluding tip) 2-7/16" ± 3/32"
Diameter ................................ 0.750" to 0.875"
Dimensional Outline ................ See General Section
Bulb .................................. T6-1/2
Base ................................ Small-Button Noval 9-Pin (JEDEC No.E9-1)
Basing Designation for BOTTOM VIEW ........ 9M

Pin 1 - Plate No.1
Pin 2 - No Connection
Pin 3 - Cathode
Pin 4 - Heater
Pin 5 - Heater
Pin 6 - No Connection
Pin 7 - Plate No.2
Pin 8 - No Connection
Pin 9 - No Connection

FULL-WAVE RECTIFIER

Maximum Ratings, Design-Center Values:

PEAK INVERSE PLATE VOLTAGE ................ 1000 max. volts
AC PLATE SUPPLY VOLTAGE PER PLATE (RMS):
With capacitor-input to filter ........ 350 max. volts
PEAK PLATE CURRENT PER PLATE ........ 450 max. ma
DC OUTPUT CURRENT ................ 150 max. ma
HOT-SWITCHING TRANSIENT PLATE CURRENT
PER PLATE:

Even occasional hot-switching with capacitor-input circuits permits the flow of plate current having magnitudes which can adversely affect the life and reliability of tubes. If capacitor-input circuits are to be used, protect the circuits against possible adverse effects of hot-switching by the use of a circuit arrangement which will limit the maximum peak current value per plate to a value of lampere during the initial cycles of the hot-switching transient.

PEAK HEATER-CATHODE VOLTAGE:
Heater negative with respect to cathode 500 max. volts
Typical Operation:

*With capacitor input to filter*

<table>
<thead>
<tr>
<th>AC Plate-To-Plate Supply</th>
<th>Voltage (RMS)</th>
<th>500</th>
<th>600</th>
<th>700</th>
<th>volts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filter-Input Capacitor</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td></td>
<td>μf</td>
</tr>
<tr>
<td>Total Effective Plate-Supply</td>
<td>Impedance Per Plate</td>
<td>150</td>
<td>200</td>
<td>240</td>
<td>ohms</td>
</tr>
<tr>
<td>DC Output Voltage at Input to Filter (Approx.) for dc output</td>
<td>ma. = 150.</td>
<td>245</td>
<td>293</td>
<td>347</td>
<td>volts</td>
</tr>
</tbody>
</table>
AVERAGE PLATE CHARACTERISTIC
Each Unit

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

\[ \text{PLATE MILLIAMPERES} \]

\[ \text{DC PLATE VOLTS} \]

\[ 0 \quad 10 \quad 20 \quad 30 \quad 40 \]

\[ 0 \quad 100 \quad 200 \quad 300 \quad 400 \quad 500 \]

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OPERATION CHARACTERISTICS
Capacitor Input to Filter

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

SUPPLY FREQUENCY (CPS) = 60
CAPACITOR INPUT TO FILTER = 50 \( \mu \)F
TOTAL EFFECTIVE PLATE-SUPPLY IMPEDANCE
PER PLATE (OHMS) 1 2 3

\[ \text{CURVE} \quad 1 \quad 2 \quad 3 \]

\[ 250 \quad 300 \quad \text{VOLTS RMS PER PLATE} \]

\[ \text{DC OUTPUT VOLTS AT INPUT TO FILTER} \]

\[ \text{DC LOAD MILLIAMPERES} \]

\[ 0 \quad 50 \quad 100 \quad 150 \quad 200 \]

\[ 0 \quad 100 \quad 200 \quad 300 \quad 400 \quad 500 \]

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