35A3 - HALF WAVE RECTIFIER

The 35A3 is a diode of the 7 pin miniature type, intended especially for use in half wave rectifier service in broadcasting receivers using power-line autotransformer supply and series string heating arrangement.

GENERAL DATA

Mechanical Characteristics:

- Bulb: T-5-1/2
- Base: Small Button Miniature 7 Pin (Jetec no. E7-1)
- Basing: 7 ET
- Maximum Length (overall): 2.5/8"
- Maximum Diameter: 3/4"
- Mounting Position: any

Electrical Characteristics:

- Heater, for Unipotential Cathode:
  - Voltage: 35 a. c. or d. c. volts
  - Current: 0.15 amperes

Maximum Ratings (design center values):

- Peak Inverse Plate Voltage: 700 max volts
- Peak Plate Current: 600 max ma
- DC Output Current: 100 max ma
- Peak Heater-Cathode Voltage: 450 max volts

TYPICAL OPERATION

Half-Wave Rectifier, with Capacitor-Input filter:

<table>
<thead>
<tr>
<th>AC Plate-Supply Voltage</th>
<th>125</th>
<th>220</th>
<th>250</th>
<th>volts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filter-Input Capacitor</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>µF</td>
</tr>
<tr>
<td>Min. Total. Effective Plate Supply Impedance (1)</td>
<td>15</td>
<td>100</td>
<td>160</td>
<td>ohms</td>
</tr>
<tr>
<td>DC Output Voltage (at 100 mA)</td>
<td>150</td>
<td>220</td>
<td>265</td>
<td>volts</td>
</tr>
</tbody>
</table>

(1) When a filter-input capacitor larger than 40 µF is used, it may be necessary to use more plate-supply impedance than the minimum value shown, to limit the peak plate current to the rated value.

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Fig. 1 — Operation Characteristics

Fig. 2 — Average Plate Characteristic