JOINT ELECTRON TUBE ENGINEERING COUNCIL
DATA SHEET

Electron Tube Type 5835

The 5835 is a single-ended, mercury-vapor, half-wave rectifier for use in low-voltage rectifier circuits.

Maximum Ratings, Absolute Values

**Maximum Peak Inverse Anode Voltage**

- 900 Volts

**Maximum Cathode Current**

- **Peak**
  - In-phase Operation: 12 Amperes
  - Quadrature Operation: 12 Amperes
- **Average**
  - In-phase Operation: 3 Amperes
  - Quadrature Operation: 3 Amperes

**Surge (Maximum duration 0.1 seconds)**

- 200 Amperes

**Maximum Averaging Time**

- 5 Seconds

**Maximum Frequency**

- 150 Cycles/sec

**Condensed Mercury Temperature Limits**

(mercury or mercury-gas filled tubes only)

- $35^\circ$ to $45^\circ$ Centigrade

**Electrical Data**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Min.</th>
<th>Bogey</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filament (heater) Voltage</td>
<td>2.36</td>
<td>2.5</td>
<td>2.62</td>
</tr>
<tr>
<td>Filament (heater) Current at 2.5 volts</td>
<td>XX</td>
<td>9½</td>
<td>11 Amperes</td>
</tr>
<tr>
<td>Cathode heating time, required</td>
<td>40</td>
<td>XX</td>
<td>XX</td>
</tr>
<tr>
<td>Anode Voltage Drop</td>
<td>XX</td>
<td>11</td>
<td>XX</td>
</tr>
<tr>
<td>Critical Anode Voltage</td>
<td>XX</td>
<td>XX</td>
<td>30 Volts</td>
</tr>
</tbody>
</table>

**Mechanical Data**

- Type of cooling: Convection
- Equilibrium Condensed-mercury Temperature Rise
  - a. At Full Load, approximate: $30^\circ$ C
  - b. At No Load, Approximate: $25^\circ$ C
- Mounting position: Vertical, base down
- Net Weight, maximum: 8/10/50 pounds
  (N.E. type NL-653)

**NOTE:** Condensed mercury temperature is to be measured within 1/4" band immediately above base. 4/7/49