HALF-WAVE MERCURY-VAPOR RECTIFIER

GENERAL DATA

Electrical:
Heater, for Unipotential Cathode: Min.  Av.  Max.
Voltage ........................................ 4.75  5.0  5.25 volts
Current at 5 volts .............................. –  4.5  4.9 amp
Cathode:
Heating Time, before tube conduction ..... 5  –  – minutes
Tube Voltage Drop .............................. –  15  –  volts
Critical Anode Voltage ......................... –  –  50 volts

Mechanical:
Mounting Position ................................ Vertical, Base Down
Maximum Overall Length ........................ 7"
Seated Length ................................... 6-1/4" ± 1/4"
Maximum Diameter ................................ 3"
Bulb ............................................. ST-23
Cap ................................................ Medium (JETEC No. C1-57)
Base ............................................... Medium-Shell Small 4-Pin, Bayonet
(JETEC No. A4-10)

BOTTOM VIEW

Pin 1 – Heater
Pin 2 – Cathode
(Anode Return)
Pin 3 – No Conn.
Pin 4 – Heater, Cathode
Cap – Anode

Temperature Control:

Heating—When the ambient temperature is so low that the normal rise of condensed-mercury temperature above the ambient temperature will not bring the condensed-mercury temperature up to the minimum value of the operating ranges specified under Maximum Ratings, some form of heat-conserving enclosure or auxiliary heater will be required.

Cooling—When the operating conditions are such that the maximum value of the operating condensed-mercury temperature range is exceeded, provision should be made for forced-air cooling sufficient to prevent exceeding the maximum value.

Temperature Rise of Condensed Mercury to Equilibrium Above Ambient

No Load ............................................ 22 °C
Full Load .......................................... 28 °C

*With heater volts - 4.75 and no heat-conserving enclosure.

APRIL 1, 1953

DATA
HALF-WAVE MERCURY-VAPOR RECTIFIER

Maximum Ratings, Absolute Values: Up to 150 cps

<table>
<thead>
<tr>
<th>Operating Condensed-Mercury Temperature Range</th>
<th>30° to 80°C</th>
<th>30° to 80°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEAK INVERSE ANODE VOLTAGE</td>
<td>2000 max.</td>
<td>5000 max.</td>
</tr>
<tr>
<td>PEAK CATHODE CURRENT:</td>
<td>15 max.</td>
<td>15 max.</td>
</tr>
<tr>
<td>Average CATHODE CURRENT:</td>
<td>2.5 max.</td>
<td>2.5 max.</td>
</tr>
<tr>
<td>Fault, for duration of 0.1 second max.</td>
<td>200 max.</td>
<td>200 max.</td>
</tr>
</tbody>
</table>

* Averaged over any interval of 15 seconds maximum.

[Diagram of tube, labeled with dimensions and parts: MEDIUM CAP JETEC N®CI-5, ST-23 BULB, ZONE WHERE CONDENSED-MERCURY TEMPERATURE SHOULD BE MEASURED, MEDIUM-SHELL SMALL 4-PIN BAYONET BASE JETEC N®A4-10.]

92CS-670IR3

APRIL 1, 1953

TUBE DEPARTMENT

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY
RATE OF RISE OF COND.-MERCURY TEMPERATURE

E_f = 4.75 VOLTS RMS
NO LOAD

TEMP. RISE OF CONDENSED MERCURY
ABOVE AMBIENT TEMP. °C

HEATING TIME-MINUTES

OCT. 28, 1952
TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-7856