DESCRIPTION

23" Direct View
Rectangular Glass Envelope
Gray Filter Glass
Aluminized Screen
6.3 Volts, 600 Ma. Heater
Cathode Drive Design
Filled Rim Implosion Protection
92° Magnetic Deflection
Electrostatic Focus
External Conductive Coating
No Ion Trap
Low O2 Voltage (35 V)

SPECIAL CHARACTERISTICS—Anode Penetration Current (Note 4) 150 ua Max.

ELECTRICAL DATA

Focusing Method
Deflection Angles (Approx.)
Horizontal 81 Degrees
Vertical 66 Degrees
Diagonal 92 Degrees

Direct Interelectrode Capacitances
Cathode to all other electrodes (approx.) 5 uuf
Grid #1 to all other electrodes (approx.) 6 uuf
External Conductive Coating to Anode
(Including implosion protection hardware) 2,500 max. uuf
2,000 min. uuf

Heater Current at 6.3 Volts
600 + 10% Ma.
Heater Warm-up time
11 Seconds

OPTICAL DATA

Phosphor Number
P4 Aluminized
Light Transmittance at Center (approx.)
42 1/2%

MECHANICAL DATA

Overall Length
18 1/8 ± 3/8 in.

Greatest Dimensions of Tube (Metal Rim)
Width
21 5/8 ± 1/16 in.
Height
18 9/16 ± 1/16 in.

Minimum Useful Screen Dimensions (Projected)
Diagonal
22 5/16 in.
Horizontal Axis
19 1/4 in.
Vertical Axis
15 1/8 in.
Area
282 sq. in.

Neck Length
5 5/8 ± 3/16 in.
Bulb
J187-J1
Bulb Contact
JL-21
Base
B6-203
Basing
12L

Bulb Contact Alignment
JL-21 contact aligns with pin position #6 ± 30 degrees

from JEDEC release #4848, Nov. 9, 1964
RATINGS (Design Maximum System)
Unless otherwise specified, voltage values are positive and measured with respect to Grid #1

<table>
<thead>
<tr>
<th>Voltage Description</th>
<th>Voltage Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Anode Voltage</td>
<td>25,000 Volts</td>
</tr>
<tr>
<td>Minimum Anode Voltage</td>
<td>16,000 Volts</td>
</tr>
<tr>
<td>Maximum Grid #4 (Focusing Electrode) voltage</td>
<td>+1100-550</td>
</tr>
<tr>
<td>Maximum Grid #2 Voltage</td>
<td>60 Volts</td>
</tr>
<tr>
<td>Minimum Grid #2 Voltage</td>
<td>25 Volts</td>
</tr>
<tr>
<td>Cathode Voltage</td>
<td>100 Volts</td>
</tr>
<tr>
<td>Maximum Heater Voltage</td>
<td>7 Volts</td>
</tr>
<tr>
<td>Minimum Heater Voltage</td>
<td>5.8 Volts</td>
</tr>
<tr>
<td>Maximum Heater-Cathode Voltage</td>
<td></td>
</tr>
<tr>
<td>Heater negative with respect to cathode</td>
<td></td>
</tr>
<tr>
<td>During warm-up time not to exceed 15 sec.</td>
<td>410 Volts</td>
</tr>
<tr>
<td>After equipment warm-up period</td>
<td>180 Volts</td>
</tr>
<tr>
<td>Heater positive with respect to cathode</td>
<td>180 Volts</td>
</tr>
</tbody>
</table>

TYPICAL OPERATING CONDITIONS

CATHODE DRIVE SERVICE
Unless otherwise specified, all voltage values are positive with respect to Grid #1

<table>
<thead>
<tr>
<th>Voltage Description</th>
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</thead>
<tbody>
<tr>
<td>Anode Voltage</td>
<td>20,000 Volts DC</td>
</tr>
<tr>
<td>Grid #4 (Focusing Electrode) voltage</td>
<td>250 Volts DC</td>
</tr>
<tr>
<td>Grid #2 Voltage</td>
<td>35 Volts DC</td>
</tr>
<tr>
<td>Cathode Voltage (Note 1)</td>
<td>25 to 50 Volts DC</td>
</tr>
</tbody>
</table>

MAXIMUM CIRCUIT VALUES
Maximum Grid #1 circuit resistance 1.5 Megohms

NOTES

1. Visual extinction of focused raster.

2. With the combined Grid #1 bias voltage and video-signal voltage adjusted to give an anode current of 200 microamperes on a 19 1/4" x 15 1/8" pattern from RCA 2F21 Monoscope or equivalent.

3. Individual tubes will have satisfactory focus at some value between 0 and 500 volts

4. This is the maximum beam current with 25,000 volts (design max.) applied to Anode, zero voltage applied to Cathode, Grid #1, and Grid #2, all other elements to have nominal voltages.
NOTE: -


2. Base pin No. 6 aligned with anode contact within 30°.