ADVANCE DATA

CHARACTERISTICS

GENERAL DATA

Focusing Method
Electrostatic

Deflection Method
Magnetic

Deflection Angles (approx.)

Horizontal
85 Degrees

Diagonal
90 Degrees

Phosphor
Aluminized P4

Fluorescence
White

Persistance
Short to Medium

Faceplate
Gray Filter Glass

Light Transmittance (approx.)
74 Percent

ELECTRICAL DATA

Heater Voltage
6.3 Volts

Heater Current
0.6 ± 5% Ampere

Heater Warm-up Time
11 Seconds

Direct Intercrode Capacitance (approx.)

Cathode to All Other Electrodes
5 μF

Grid No. 1 to All Other Electrodes
6 μF

External Conductive Coating to Anode
1500 μF Max.

1000 μF Min.

MECHANICAL DATA

Minimum Useful Screen Dimensions
14 5/16 x 11 1/8 Inches

Minimum Useful Screen Area
149 Sq. Inches

Bulb
J133F or J133G

Bulb Contact (Recessed Small Cavity Cap)
J1-21

Base (Small Shell Duodecal 6-Pin)
B6-63

Basing
12L

RATINGS

MAXIMUM RATINGS (Absolute Maximum Values)

Anode Voltage
17,600 Volts dc

Grid No. 4 Voltage
(Focusing Electrode)
-550 to +1100 Volts dc

Grid No. 2 Voltage
70 Volts dc

Cathode Voltage
Positive Bias Value
150 Volts dc

Negative Peak Value
0 Volts

Peak Heater-Cathode Voltage
Heater Negative with Respect to Cathode
During Warm-up Period Not to Exceed
15 Seconds
450 Volts

After Equipment Warm-up Period
200 Volts

Heater Positive with Respect to Cathode
200 Volts

from JETEC release #2042, Nov. 11, 1957
TYPICAL OPERATING CONDITIONS

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
<th>Type</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anode Voltage</td>
<td>14,000</td>
<td>Volts</td>
<td>dc</td>
</tr>
<tr>
<td>Grid No. 4 Voltage</td>
<td>0 to +400</td>
<td>Volts</td>
<td>dc</td>
</tr>
<tr>
<td>Grid No. 2 Voltage</td>
<td>50</td>
<td>Volts</td>
<td>dc</td>
</tr>
<tr>
<td>Cathode Voltage Required for Cutoff</td>
<td>35 to 50</td>
<td>Volts</td>
<td>dc</td>
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</tbody>
</table>

CIRCUIT VALUES

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
<th>Type</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid No. 1 Circuit Resistance</td>
<td>1.5</td>
<td>Megohms</td>
<td>Max.</td>
</tr>
</tbody>
</table>

NOTES:

1. Heater warm-up time is the time required for the voltage across the heater terminals to increase to 5.0 volts in the JETEC test circuit, with $E = 25$ volts and series $R = 31.5$ ohms.

2. External conductive coating must be grounded.

3. This type is designed and rated for cathode-drive service. All voltages shown are positive with respect to Grid No. 1 voltage unless otherwise indicated.

4. For visual extinction of focused raster. Extinction of stationary focused spot will require that these values be increased approximately 5 volts.

WARNING:

X-ray radiation shielding may be necessary to protect against possible danger of personal injury from prolonged exposure at close range if this tube is operated at higher than the manufacturer's Maximum Rated Anode Voltage or 16,000 volts, whichever is less.
DIAGRAM NOTES:

1. Reference line is determined by the plane C-C' of the reference line gauge (JETEC No. 116) when the gauge is resting on the glass cone.

2. Anode contact aligns with pin position No. 6 ± 30 degrees.