3IC14
CATHODE RAY TUBE
Indirectly heated—for Radio D.F. Compass

GENERAL
The 3IC14 is a magnetically focused and deflected cathode ray tube. The tube is aluminised, has a 6" diameter flat face, and is available with a screen type T1 which gives a green trace of medium persistence. It has an internal compass scale uniformly graduated and its face is treated to reduce specular reflection.

RATING
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heater Voltage</td>
<td>$V_h$</td>
</tr>
<tr>
<td>Heater Current</td>
<td>$I_h$</td>
</tr>
<tr>
<td>Maximum Anode Voltage</td>
<td>$V_a\text{(max)}$</td>
</tr>
<tr>
<td>Minimum Anode Voltage</td>
<td>$V_a\text{(min)}$</td>
</tr>
<tr>
<td>Maximum Heater/Cathode Voltage</td>
<td>$V_{h-k}\text{(max)}$</td>
</tr>
</tbody>
</table>

* 10 kV is a design centre rating. The absolute rating of 12-5 kV maximum must not be exceeded.

INTER-ELECTRODE CAPACITANCES
- Grid/All other electrodes: $C_{g-all}$ = 4-7 pF
- Cathode/All other electrodes: $C_{k-all}$ = 5-3 pF

These capacitances include an AEI wafer-type duodecal holder.

TYPICAL OPERATION
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anode Voltage</td>
<td>$V_a$</td>
</tr>
<tr>
<td>Grid Bias Voltage for cut-off of 140mm focused line</td>
<td>$V_g$</td>
</tr>
<tr>
<td>Average Peak to Peak Modulating Voltage for Modulation up to 150µA</td>
<td>$V_g$</td>
</tr>
<tr>
<td>Maximum Peak to Peak Modulating Voltage for Modulation of limit Cathode Ray Tube up to 150µA</td>
<td>$V_g$</td>
</tr>
</tbody>
</table>

A resistance should be inserted in the anode circuit in order to limit the discharge current to 100mA (max), in the event of a flash-over inside the tube.
31C14
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DIMENSIONS
Maximum Overall Length  458 mm
Maximum Face Diameter  160 mm
Maximum Neck Diameter  35 mm
Approximate Net Weight  2½ lb.
Approximate Packed Weight  16½ lb.

CAP—Cavity (CT8)

BASE—B12A (5 Pin)

Viewed from free end of pins

CONNECTIONS
Pin 1    Heater    h
Pin 2    Grid     g
Pin 3    No Pin   NP
Pin 4    No Pin   NP
Pin 5    No Pin   NP
Pin 6    No Pin   NP
Pin 7    No Pin   NP
Pin 8    No Pin   NP
Pin 9    No Pin   NP
Pin 10   No Connection   NC
Pin 11   Cathode   k
Pin 12   Heater   h
Cap     Anode   a

February, 1962
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