CATHODE RAY

THE 17BP4, 17BP4A, 17BP4B, AND 17BP4C ARE DIRECT VIEW PICTURE TUBES DESIGNED FOR USE IN TELEVISION APPLICATIONS. THEY ARE IDENTICAL WITH THE FOLLOWING EXCEPTIONS:

17BP4 — NO EXTERNAL CONDUCTIVE COATING
17BP4B — ALUMINIZED SCREEN
17BP4C — PROTOED FACEPLATE

THEIR COMMON FEATURES INCLUDE:

UNIPOTENTIAL CATHODE
GREY FILTER FACEPLATE
MAGNETIC FOCUS AND DEFORMATION
RECTANGULAR GLASS CONSTRUCTION
EXTERNAL SINGLE FIELD ION TRAP
EXTERNAL CONDUCTIVE COATING

ELECTRICAL DATA

FOCUSING METHOD
DETECTING METHOD
DEFLECTION ANGLE (APPROX.)
  HORIZONTAL
  VERTICAL
  DIAGONAL
DIRECT INTERELECTRODE CAPACITANCES (APPROX.)
  CATHODE TO ALL OTHER ELECTRODES
  GRID #1 TO ALL OTHER ELECTRODES
17BP4A, 17BP4B AND 17BP4C
MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE
MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE

OPTICAL DATA

PHOSPHOR NUMBER
SULFIDE TYPE
FLUORESCENT COLOR
PHOSPHORESCENT COLOR
PERSISTENCE
FACEPLATE LIGHT TRANSMISSION AT CENTER (APPROX.)

MECHANICAL DATA

OVERALL LENGTH
GREATEST DIMENSIONS OF BULB
  DIAGONAL
  WIDTH
  HEIGHT
MINIMUM USEFUL SCREEN DIMENSIONS
  DIAGONAL
  WIDTH
  HEIGHT
BULB CONTACT
BASE
BASING
BASING CONTACT ALIGNMENT

PIN CONNECTIONS

PIN 1 — HEATER
PIN 2 — GRID NO. 1
PIN 10 — GRID NO. 2
PIN 14 — CATHODE
PIN 12 — HEATER
ANODE CAP:
  GRID NO. 3

CONTINUED ON FOLLOWING PAGE
RATINGS
DESIGN CENTER VALUES

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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<tbody>
<tr>
<td>Heater Voltage</td>
<td>6.3</td>
</tr>
<tr>
<td>Heater Current</td>
<td>0.6</td>
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<tr>
<td>Maximum DC Anode, Grid #3 Voltage</td>
<td>16000</td>
</tr>
<tr>
<td>Maximum DC Grid #2 Voltage</td>
<td>410</td>
</tr>
<tr>
<td>Maximum Grid #1 Voltage</td>
<td></td>
</tr>
<tr>
<td>DC Negative-Bias Value</td>
<td>125</td>
</tr>
<tr>
<td>DC Positive-Bias Value</td>
<td>0</td>
</tr>
<tr>
<td>Positive-Peak Value</td>
<td>2</td>
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<tr>
<td>Maximum DC Peak Heater-Cathode Voltage</td>
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<tr>
<td>Heater Negative with Respect to Cathode</td>
<td>410</td>
</tr>
<tr>
<td>During Warm-Up Period Not to Exceed 15 Seconds</td>
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</tr>
<tr>
<td>After Equipment Warm-Up Period</td>
<td>150</td>
</tr>
<tr>
<td>Heater Positive with Respect to Cathode</td>
<td>150</td>
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TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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<tbody>
<tr>
<td>DC Anode, Grid #3 Voltage</td>
<td>12000 Volts</td>
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<tr>
<td>DC Grid #2 Voltage</td>
<td>300 Volts</td>
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<tr>
<td>DC Grid #1 Voltage</td>
<td>-33 to -77</td>
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<tr>
<td>DC Focusing Coil Current (Approx.)</td>
<td>92 ± 10% MA</td>
</tr>
<tr>
<td>DC Ion Trap Current Standard Coil #41 (Approx.)</td>
<td>70 MA</td>
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A: BRILLIANCE AND DEFINITION DECREASE WITH DECREASING ANODE VOLTAGE. IN GENERAL, THE ANODE VOLTAGE SHOULD NOT BE LESS THAN 12,000 VOLS.

B: VISUAL EXTINCTION OF UNDEFLECTED FOCUSED SPOT.

C: FOR STANDARD FOCUS COIL #109, OR EQUIVALENT, WITH THE COMBINED GRID #1 BIAS VOLTAGE AND VIDEO SIGNAL VOLTAGE ADJUSTED TO PRODUCE A HIGHLIGHT BRIGHTNESS OF 30 FOOT LAMBERTS ON A 24 1/4" X 30 3/4" PICTURE SIZE, DISTANCE FROM REFERENCE LINE TO CENTER OF AIR GAP ON FOCUS COIL SHALL BE 5.0 INCHES.

CIRCUIT VALUES

<table>
<thead>
<tr>
<th>Parameter</th>
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<tbody>
<tr>
<td>Maximum Grid #1 Circuit Resistance</td>
<td>1.5</td>
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<tr>
<td>MEGOHMS</td>
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