CHARACTERISTICS

GENERAL DATA

Focusing Method ............... Electrostatic
Deflection Method .......... Electrostatic
Phosphor ................. 3RP1, 3RP1A 3RP4, 3RP4A
Fluorescence ............... Green  White
Persistence ............... Medium  Short to Medium
Faceplate .................. Clear

*In addition to the types shown, the 3RP- and 3RP-A can be supplied with several other screen phosphors.

ELECTRICAL DATA

Heater Voltage .................. 6.3 Volts
Heater Current ............... 0.6 ± 10 % Ampere
Direct Inter-electrode Capacitances (Approx.)
  Cathode to All Other Electrodes ...... 6 µF
  Grid No. 1 to All Other Electrodes ...... 8 µF
  Between Deflecting Plates 1-2 ....... 2 µF
  Between Deflecting Plates 3-4 ....... 2 µF
  Deflecting Plate 1 to All Other Electrodes .... 11 µF
  Deflecting Plate 2 to All Other Electrodes .... 8 µF
  Deflecting Plate 3 to All Other Electrodes .... 7 µF
  Deflecting Plate 4 to All Other Electrodes .... 8 µF

MECHANICAL DATA

Minimum Useful Screen Diameter .......... 2 5/8 Inches
Overall Length ............... 9 5/8 ± 1/4 Inches
Base (Small-Shell Duodecal 10-Pin) ........ B10-75
or (Small-Shell Duodecal 12-Pin) .......... B12-43
Basing .................. 12E
Base Alignment
  D3-D4 Trace Aligns with Pin No. 1 and Tube Axis ...... ±10 Degrees
  Positive Voltage on D1 Deflects Beam
    Approx. Toward Pin No. 4
  Positive Voltage on D3 Deflects Beam
    Approx. Toward Pin No. 1
  Angle Between D3-D4 and D1-D2 Traces .... 90 ± 3 Degrees
Bulb .................. 3RP: J24P; 3RP-A: J24S
Weight (Approx.) ............ ½ Pound

RATINGS

MAXIMUM RATINGS (Absolute Maximum Values)

Anode No. 2 Input .............. 6 Watts
Anode No. 2 Voltage ........... 2750 Volts dc
Anode No. 1 Voltage ........... 1100 Volts dc
Grid Voltage
  Negative Bias Value .......... 220 Volts dc
  Positive Bias Value .......... 0 Volts dc
  Positive Peak Value .......... 2 Volts
Peak Heater-Cathode Voltage
  Heater Negative with Respect to Cathode .......... 140 Volts
  Heater Positive with Respect to Cathode .......... 140 Volts
Peak Voltage Between Anode No. 2 and Any Deflection Plate ...... 550 Volts
TYPICAL OPERATING CONDITIONS

Anode No. 2 Voltage ........................................ 1000 2000 Volts dc
Anode No. 1 Voltage for Focus .............................. 165 to 310 330 to 620 Volts dc
Grid Voltage Required for Cutoff\(^1\) .................. −22.5 to −67.5 −45 to −135 Volts dc
Deflection Factor
  Deflecting Plates 1-2\(^2\) ................................. 73 to 99 146 to 198 Volts dc/Inch
  Deflecting Plates 3-4\(^3\) ................................. 52 to 70 104 to 140 Volts dc/Inch
Spot Position (Undeflected)\(^4\) .............................. — 7.5 MM Max.

CIRCUIT VALUES

Grid Circuit Resistance ........................................ 1.5 Megohms Max.
Deflection Circuit Resistance\(^5\) ............................. 5.0 Megohms Max.

NOTES:

1. Visual extinction of undeflected focused spot.
2. Deflecting Plates 1-2 are nearer the screen.
3. Deflecting Plates 3-4 are nearer the base.
4. The undeflected focused spot will fall within a circle having 7.5 mm radius and concentric with the center of the tube face.
5. It is recommended that the deflecting electrode circuit resistances be approximately equal.