

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 Interelectrode Capacitances (Approx.) | |
| Cathode to All Other Electrodes | 6 μmf |
| Grid No. 1 to All Other Electrodes | 8 μmf |
| Between Deflecting Plates 1-2 | 2 μmf |
| Between Deflecting Plates 3-4 | 2 μmf |
| Deflecting Plate 1 to All Other Electrodes | 11 μmf |
| Deflecting Plate 2 to All Other Electrodes | 8 μmf |
| Deflecting Plate 3 to All Other Electrodes | 7 μmf |
| Deflecting Plate 4 to All Other Electrodes | 8 μmf |

MECHANICAL DATA

| | |
|---|-------------------------|
| Minimum Useful Screen Diameter | 2 3/4 Inches |
| Overall Length | 9 1/8 ± 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.) | 1/2 Pound |

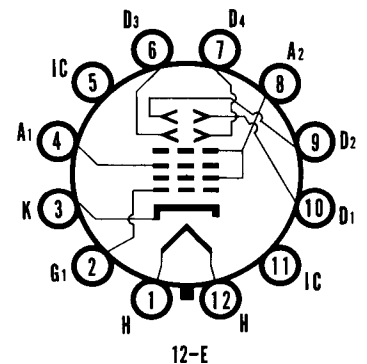
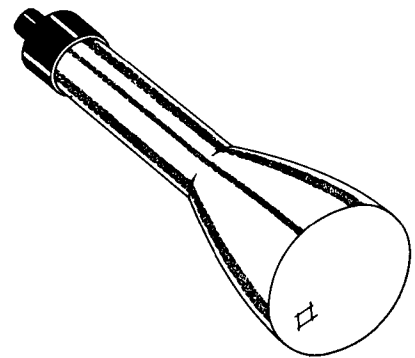
RATINGS

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 | |

QUICK REFERENCE DATA

Oscilloscope Tube
3" Direct Viewed
Round Glass Type
Electrostatic Deflection
Electrostatic Focus
Flat Faceplate (3RP1A)
Spherical Faceplate (3RP1)



SYLVANIA ELECTRONIC TUBES

A Division of
Sylvania Electric Products Inc.

PICTURE TUBE OPERATIONS

SENECA FALLS, NEW YORK

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File Under
SPECIAL AND GENERAL
PURPOSE CATHODE RAY TUBES

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 (Undelected) ⁴ | — | 7.5 MM | Max. |

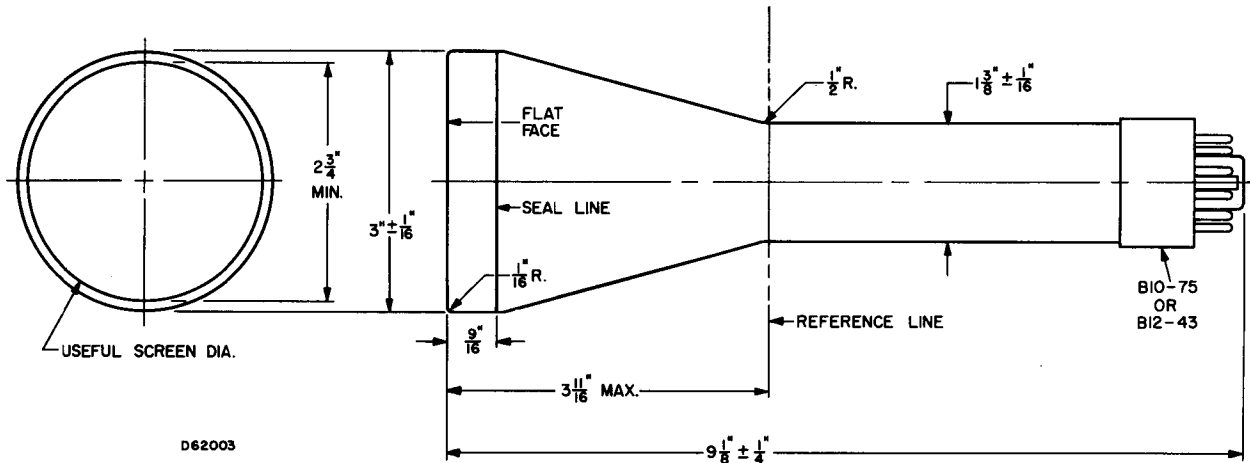
CIRCUIT VALUES

| | |
|--|------------------|
| Grid Circuit Resistance | 1.5 Megohms Max. |
| Deflection Circuit Resistance ⁵ | 5.0 Megohms Max. |

NOTES:

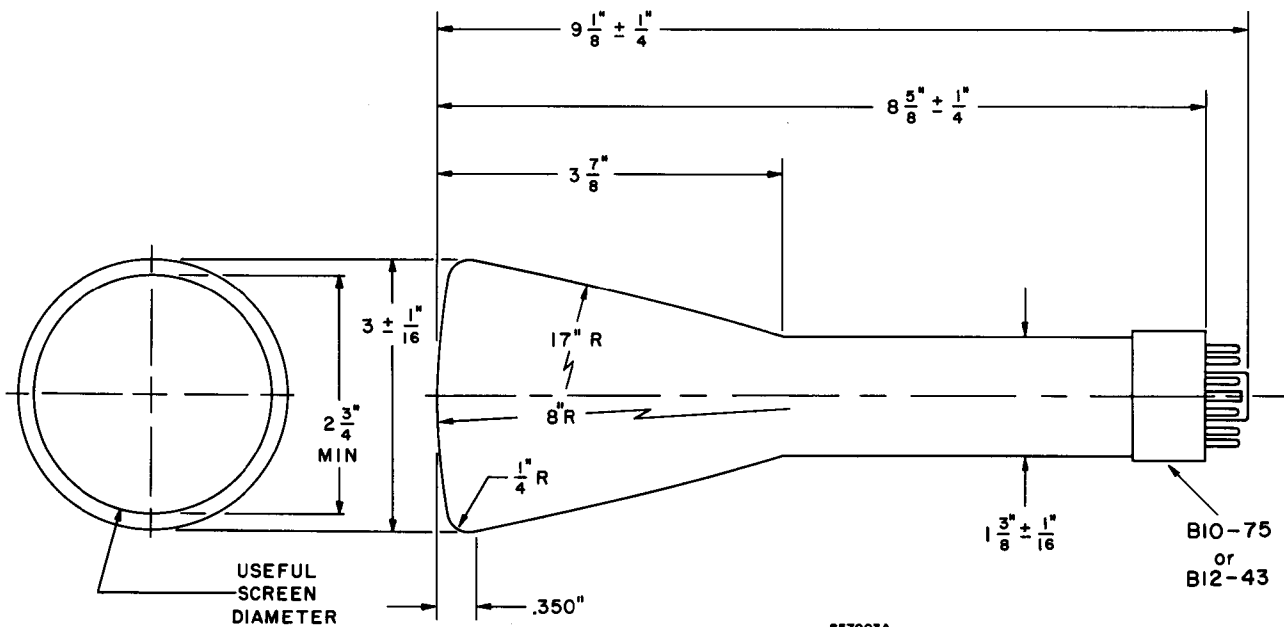
1. *Visual extinction of undeflected focused spot.*
2. *Deflecting Plates 1-2 are nearer the screen.*
3. *Deflecting Plates 3-4 are nearer the base.*
4. *The undeflected focused spot will fall within a circle having 7.5 mm radius and concentric with the center of the tube face.*
5. *It is recommended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

3RP1A



D62003

3RP1



857003A