

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	$0.6 \pm 10\%$ Ampere
Direct Interelectrode Capacitances (Approx.)	
Cathode to All Other Electrodes	$6 \mu\text{f}$
Grid No. 1 to All Other Electrodes	$8 \mu\text{f}$
Between Deflecting Plates 1-2	$2 \mu\text{f}$
Between Deflecting Plates 3-4	$2 \mu\text{f}$
Deflecting Plate 1 to All Other Electrodes	$11 \mu\text{f}$
Deflecting Plate 2 to All Other Electrodes	$8 \mu\text{f}$
Deflecting Plate 3 to All Other Electrodes	$7 \mu\text{f}$
Deflecting Plate 4 to All Other Electrodes	$8 \mu\text{f}$

MECHANICAL DATA

Minimum Useful Screen Diameter	$2 \frac{3}{4}$ Inches
Overall Length	$9 \frac{1}{8} \pm \frac{1}{4}$ 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.)	$\frac{1}{2}$ Pound

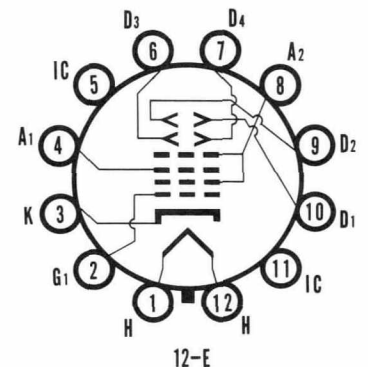
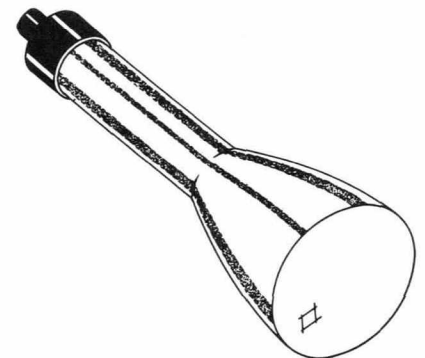
RATINGS

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
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PICTURE TUBE OPERATIONS

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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.

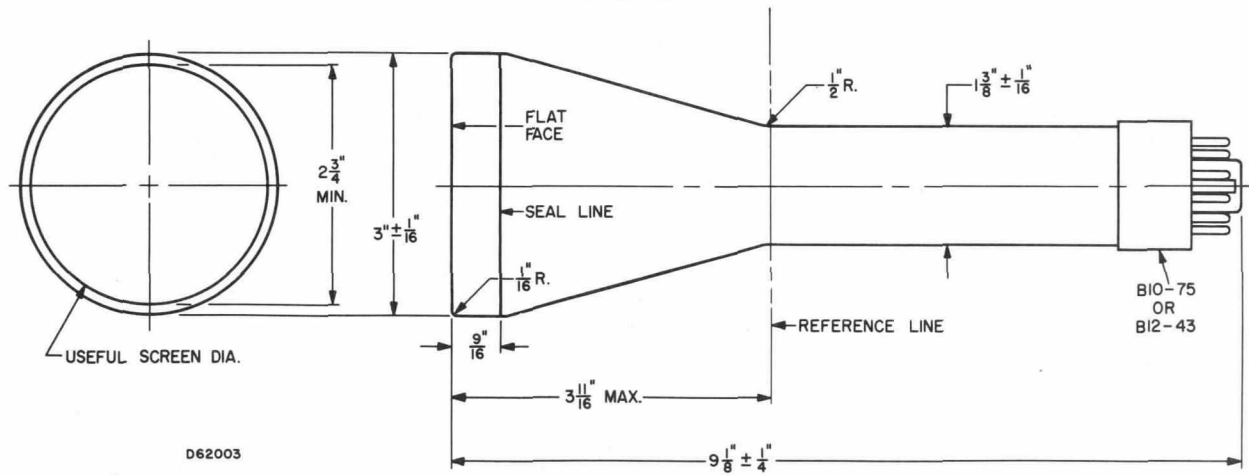
CIRCUIT VALUES

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



3RP1

