

## CHARACTERISTICS

### GENERAL DATA

Focusing Method . . . . .	Electrostatic
Deflection Method . . . . .	Electrostatic
Phosphor . . . . .	P1
Fluorescence . . . . .	Green
Persistence . . . . .	Medium
Faceplate . . . . .	Clear

### ELECTRICAL DATA

Heater Voltage . . . . .	6.3 Volts
Heater Current . . . . .	0.6 ± 10% Ampere
Direct Interelectrode Capacitances (approx.)	
Grid to All Other Electrodes . . . . .	8.5 μμf
Between Deflecting Plates 1-2 . . . . .	2.0 μμf
Between Deflecting Plates 3-4 . . . . .	2.0 μμf
Deflecting Plate 1 <sup>1</sup> to All Other Electrodes . . . . .	11.0 μμf
Deflecting Plate 2 <sup>1</sup> to All Other Electrodes . . . . .	8.0 μμf
Deflecting Plate 3 <sup>1</sup> to All Other Electrodes . . . . .	7.0 μμf
Deflecting Plate 4 <sup>1</sup> to All Other Electrodes . . . . .	8.0 μμf

### MECHANICAL DATA

Minimum Useful Screen Diameter . . . . .	2 <sup>3</sup> / <sub>4</sub> Inches
Base (Small-Shell Duodecal 10-Pin) . . . . .	B10-75
or (Small-Shell Duodecal 12-Pin) . . . . .	B12-43
Basing . . . . .	12E

## RATINGS

### MAXIMUM RATINGS (Absolute Maximum Values)

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

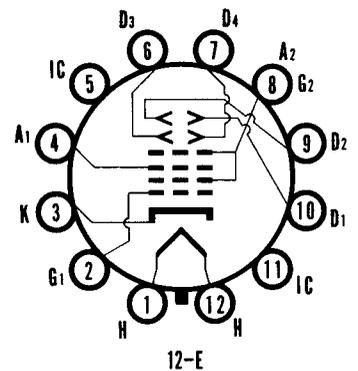
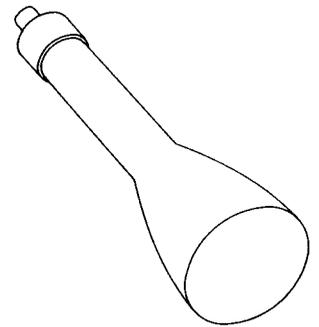
Anode No. 2 Voltage <sup>2</sup> . . . . .	2000 Volts dc
Anode No. 1 Voltage for Focus . . . . .	330 to 620 Volts dc
Maximum Grid Voltage Required for Cutoff <sup>3</sup> . . . . .	-135 Volts dc
Deflection Factor <sup>4, 5</sup>	
Deflecting Plates 1-2 <sup>6</sup> . . . . .	146 to 198 Volts dc/Inch
Deflecting Plates 3-4 <sup>7</sup> . . . . .	104 to 140 Volts dc/Inch

### CIRCUIT VALUES

Grid Circuit Resistance . . . . .	1.5 Megohms Max.
Deflection Circuit Resistance . . . . .	5.0 Megohms Max.

## QUICK REFERENCE DATA

Special Purpose Tube  
3" Direct Viewed  
Round Glass Type  
Electrostatic Deflection  
Electrostatic Focus

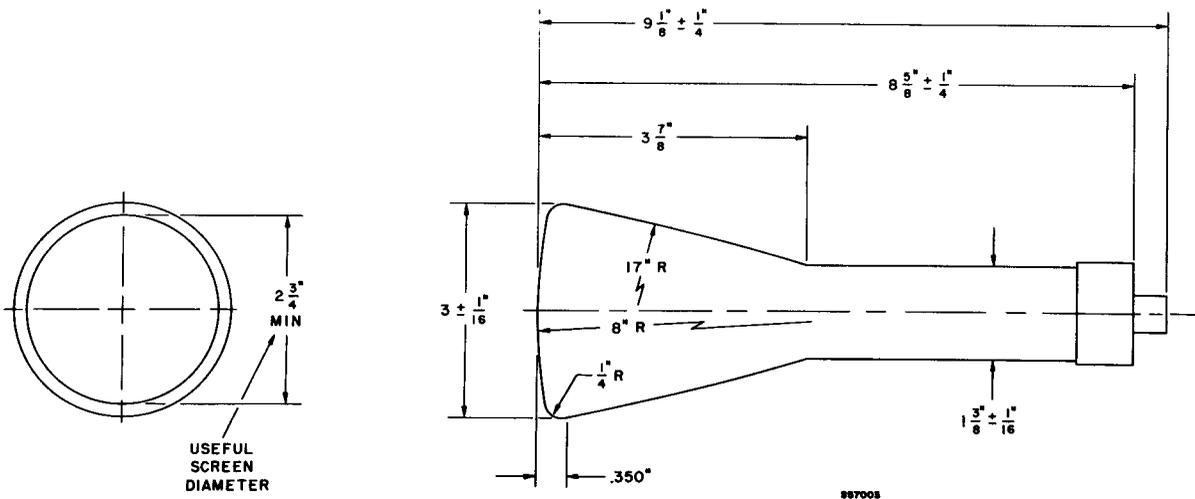


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**NOTES:**

1. Positive voltage on Pin No. 10 will move spot approximately in direction of Pin No. 4.  
Positive voltage on Pin No. 6 will move spot approximately in direction of Pin No. 1.
2. Brilliance and definition decrease with decreasing Anode No. 2 Voltage. In general, Anode No. 2 Voltage should not be less than 1500 volts.
3. Visual extinction of undeflected focused spot.
4. Angle between trace produced by plates D1-D2 and the plane through the tube axis and Pin No. 4 does not exceed 10°.
5. Angle between D1-D2 trace and D3-D4 trace is 90° ± 30.
6. Deflecting Plates 1-2 are nearer the screen.
7. Deflecting Plates 3-4 are nearer the base.



**3RP4**

The Sylvania Type 3RP4 is identical to the Type 3RP1 except it has a white phosphor of short to medium persistence.