

# engineering data service SC-2558

### **CHARACTERISTICS**

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Focusing Method								Electrostatic
Deflecting Method								Electrostatic
Phosphor*				٠.				P7
Fluorescence								
Phosphorescence								
Persistence .								
Faceplate						G	ray	Filter Glass

\*In addition to the P7 screen shown, the SC-2558 can be supplied with several other screen phosphors.

### ELECTRICAL DATA

Heater Voltage	6.3 Volts
Heater Current	$0.6 \pm 10\%$ Amperes
Direct Interelectrode Capacitances (Approx.)	•
Cathode to All Other Electrodes	10 μμf
Grid No. 1 to All Other Electrodes	8 μμ <b>f</b>
Between Deflecting Plates 1-2	4 μμf
Between Deflecting Plates 3-4	2 μμ <b>f</b>
Deflecting Plate 1 to All Other	, ,
Electrodes Except D2	8 μμ <b>f</b>
Deflecting Plate 2 to All Other	
Electrodes Except D1	8 μμ <b>f</b>
Deflecting Plate 3 to All Other	, ,
Electrodes Except D4	6 μμ <b>f</b>
Deflecting Plate 4 to All Other	
Electrodes Except D3	6 μμ <b>f</b>

### MECHANICAL DATA

Minimum Useful Screen Diameter	11 Inches
Bulb Contact (Recessed Small Cavity Cap)	J1-21
Base (Medium Shell Diheptal 12-Pin)	B12-37
Basing	141
Weight (Approx.)	12 Pounds
J1-21 Contact Aligns with Trace D1-D2	± 10 Degrees
J1-21 Contact Aligns with Pin No. 5	± 10 Degrees
Positive Voltage on D1 Deflects Beam	Ü
Approx. Toward Pin No. 5	
Positive Voltage on D3 Deflects Beam	

Approx. Toward Pin No. 1

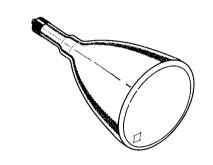
### **RATINGS**

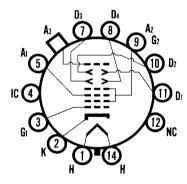
### MAXIMUM RATINGS (Absolute Maximum Values)

Anode Input <sup>1</sup>		6 Watts
Anode No. 3 Voltage		12,000 Volts dc
Anode No. 2 Voltage		6,000 Volts dc
Anode No. 1 Voltage		2,500 Volts dc
Grid No. 1 Voltage		
Negative Bias Value		200 Volts dc
Positive Bias Value		0 Volts dc
Positive Peak Value		2 Volts
Peak Heater-Cathode Voltage		
Heater Negative with Respect to Cathode		200 Volts
Heater Positive with Respect to Cathode		200 Volts
Peak Voltage Between Anode No. 2		
And Any Deflecting Plate		750 Volts
Ratio Post Accelerator Voltage to		
Anode Voltage		2.3:1

## **QUICK REFERENCE DATA**

Oscilloscope Tube 12" Direct Viewed Round Glass Type Electrostatic Deflection Electrostatic Focus Post Deflection Acceleration





14-1

### **SYLVANIA ELECTRONIC TUBES**

A Division of Sylvania Electric Products Inc.

### PICTURE TUBE OPERATIONS SENECA FALLS, NEW YORK

Prepared and Released By The TECHNICAL PUBLICATIONS SECTION

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File Under

SPECIAL AND GENERAL PURPOSE CATHODE RAY TUBES

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### TYPICAL OPERATING CONDITIONS

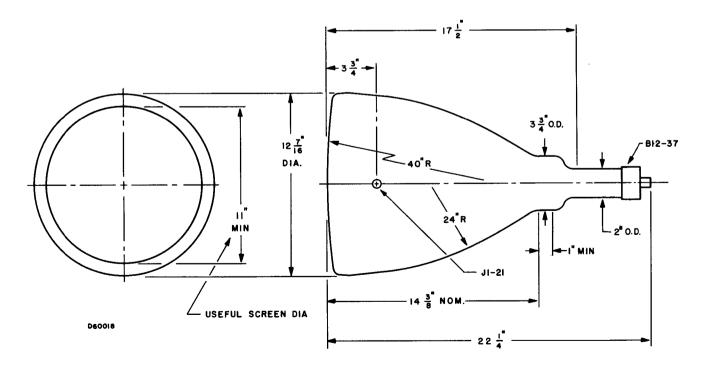
Anode No. 3 Voltage			•										10,000 Volts dc 5,000 Volts dc
Anode No. 2 Voltage		•	•	•	٠	٠	٠	٠	•	٠	٠	•	
Anode No. 1 Voltage for Focus			•	•	٠	٠	•	•	٠		•	•	1300 to 2200 Volts dc
Grid No. 1 Voltage Required for Cutoff <sup>2</sup>													−60 to −100 Volts dc
Deflection Factor <sup>3</sup>													
Deflecting Plates 1-2													105 to 145 Volts dc/Inch
Deflecting Plates 3-4													80 to 115 Volts dc/Inch
Modulation <sup>4</sup>													30 Volts Max.
Line Width "A" <sup>4</sup>													.5 mm
Focus Electrode Current <sup>4</sup>													$-15$ to $+10$ $\mu$ a dc
Spot Position, Undeflected													Within 30 mm Square
Angle Between D1-D2 Trace and D3-D4	Trace	e.											$90 \pm 2$ Degrees

### CIRCUIT VALUES

Grid No. 1 Circuit Resistance							1.5 Megohms Max.
Resistance in Any Deflection Plate Circuit							5.0 Megohms Max.

### NOTES:

- 1. Anode input equals the product of anode No. 2 voltage and average anode No. 2 current.
- 2. For visual extinction of undeflected focused spot.
- 3. Deflection plates 1 and 2 are nearer the screen. Plates 3 and 4 are more sensitive and with post acceleration may produce less than full screen coverage.
- 4. Measured in accordance with MIL-E-1C specification at a post accelerator current (1A3) equal to 25 μa.



### X-RAY WARNING:

X-ray radiation shielding may be necessary to protect against possible danger of personal injury from prolonged exposure at close range if this tube is operated at higher than the manufacturer's maximum anode voltage or 16,000 volts, whichever is less.