

**DESCRIPTION**

The SC-3042 is a 5" flat face, high resolution cathode ray tube with electrostatic deflection and focus. It is designed as a mono-accelerator to provide minimum pattern distortion and maximum sensitivity; and is intended for applications where line widths less than 0.010 inches are required. The SC-3042 can be supplied with any of the following phosphors for varied applications: P1, P2, P4, P7, P11, P12, P15, P16, P19, P20, P25.

**QUICK REFERENCE DATA**

High Resolution Tube  
5" Direct Viewed  
Electrostatic Deflection  
Electrostatic Focus  
Flat Face  
Clear Faceplate

**CHARACTERISTICS**

**GENERAL DATA**

Focusing Method . . . . . Electrostatic  
Deflection Method . . . . . Electrostatic  
Faceplate . . . . . Clear

**ELECTRICAL DATA**

Heater Voltage . . . . . 6.3 Volts  
Heater Current . . . . .  $0.6 \pm 10\%$  Ampere

**MECHANICAL DATA**

Overall Tube Length . . . . .  $16\frac{3}{4} \pm 3/16$  Inches  
Minimum Useful Screen Diameter . . . . .  $4\frac{1}{2}$  Inches  
Base (Medium Shell Diheptal 12 Pin) . . . . . B12-37  
Basing . . . . . 14G  
Bulb . . . . . J42P  
D1-D2 Trace Aligns with Pin No 5 and Tube Axis . . . . .  $\pm 10$  Degrees  
Positive Voltage on D1 (Pin #11) deflects beam  
approximately toward Pin #5  
Positive Voltage on D3 (Pin #7) deflects beam  
approximately toward Pin #2  
Angle Between D1-D2 and D3-D4 Traces . . . . .  $90 \pm 1$  Degrees

**MAXIMUM RATINGS (Absolute Maximum Values)**

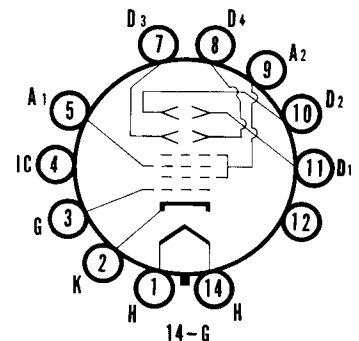
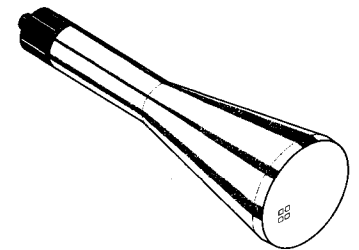
Anode No. 2 Voltage . . . . .	5000 Volts	dc
Anode No. 1 (Focus Electrode) Voltage . . . . .	3000 Volts	dc
Grid No. 1 Voltage		
Negative Bias Value . . . . .	220 Volts	dc
Positive Bias Value . . . . .	0 Volts	dc
Positive Peak Value . . . . .	2 Volts	
Peak Voltage Anode No. 2 to any Deflecting Plate . . . . .	$\pm 550$ Volts	
Peak Heater-Cathode Voltage		
Heater Negative with Respect to Cathode . . . . .	200 Volts	
Heater Positive with Respect to Cathode . . . . .	200 Volts	

**TYPICAL OPERATING CONDITIONS**

Anode No. 2 Voltage . . . . .	3000 Volts	dc
Grid No. 1 Voltage (for Spot Cutoff) . . . . .	-64 to -96 Volts	dc
Anode No. 1 Voltage (for Focus) . . . . .	1000-1600 Volts	dc
Deflection Factors		
D1-D2 . . . . .	80-100 Volts/in.	
D3-D4 . . . . .	40-50 Volts/in.	
Line Width at 30 Volts Above Spot Cutoff <sup>1</sup> . . . . .	.010 Inches	Max.
Useful Scan		
D1-D2 . . . . .	$4\frac{1}{2}$ Inches	Min.
D3-D4 . . . . .	4 Inches	Min.

**NOTE:**

1. For maximum resolution over entire screen, it is recommended that dynamic focusing be used.



**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  
EMPORIUM, PENNSYLVANIA

OCTOBER, 1961

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File Under  
**SPECIAL AND GENERAL PURPOSE  
CATHODE RAY TUBES**

OUTLINE

