

**DESCRIPTION**

Sylvania Type SC-2782 is a 5-inch diameter Cathode-Ray Tube designed for high resolution photographic recording. Its electron-optical system and fine grain screen achieve very fine trace width with conventional focusing and deflection units and a simple beam-centering magnet. The tube has a flat, clear, non-browning optical glass faceplate for optimum photographic quality. An integral encapsulated high voltage connector is utilized to minimize corona at high altitude.

**CHARACTERISTICS**

**GENERAL DATA**

Focusing Method . . . . .	Magnetic
Deflection Method . . . . .	Magnetic
Deflection Angle (approx.) . . . . .	50 Degrees
Type*	<b>SC-2782</b>
Phosphor . . . . .	Fine Grain P11, Aluminized
Fluorescence . . . . .	Blue
Persistence . . . . .	Short
Faceplate . . . . .	Clear, Non-Browning Optical Glass

*\*In addition to the type shown, the SC-2782 can be supplied with several other screen phosphors.*

**QUICK REFERENCE DATA**

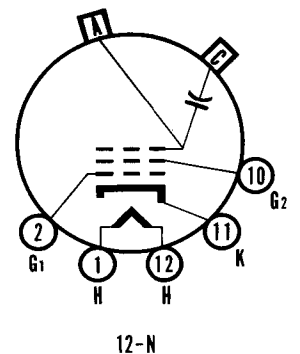
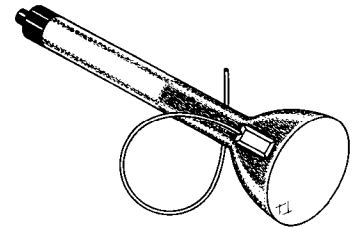
- High Resolution Tube
- .001" Line Width
- 5-Inch, Flat, Optical Glass Faceplate
- Clear Non-Browning Faceplate
- Extremely Fine Grain Screen
- Aluminized Screen
- Magnetic Deflection
- Magnetic Focus
- No Ion Trap
- External Conductive Coating on Neck
- External Insulating Coating on Bulb

**ELECTRICAL DATA**

Heater Voltage . . . . .	6.3 Volts
Heater Current . . . . .	0.6 ± 10% Ampere
Direct Interelectrode Capacitances (approx.)	
Grid No. 1 to all Other Electrodes . . . . .	9 μμf
Cathode to all Other Electrodes . . . . .	4.3 μμf
External Conductive Coating to Anode . . . . .	500 μμf Max.
	100 μμf Min.

**MECHANICAL DATA**

Minimum Useful Screen Diameter . . . . .	4 1/4 Inches
Overall Length . . . . .	16 ± 3/8 Inches
Bulb . . . . .	C40 Exp. 14 or Equivalent
Anode Terminal . . . . .	16", HV Cable, Corona Protected
Base (Small Shell Duodecal 5-Pin) . . . . .	B5-57
Basing . . . . .	12N



**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*

**MAXIMUM RATINGS (Absolute Maximum Values)**

Anode Voltage . . . . .	25,000	Volts	dc
Grid No. 2 Voltage . . . . .	2,500	Volts	dc
Grid No. 1 Voltage			
Negative Bias Value . . . . .	150	Volts	dc
Positive Bias Value . . . . .	0	Volts	dc
Positive Peak Value . . . . .	0	Volts	
Peak Heater Cathode Voltage			
Heater Negative with Respect to Cathode			
During Warm-up Period Not to Exceed 15 Seconds . . . . .	450	Volts	
After Equipment Warm-up . . . . .	165	Volts	
Heater Positive with Respect to Cathode . . . . .	165	Volts	

**TYPICAL OPERATING CONDITIONS**

Anode Voltage . . . . .	20,000	Volts	dc
Grid No. 2 Voltage . . . . .	2,000	Volts	dc
Grid No. 1 Voltage Required for Cutoff <sup>1</sup> . . . . .	-33 to -77	Volts	dc
Focusing Coil Current (approx.) <sup>2</sup> . . . . .	100	Ma	
Line Width <sup>3</sup> . . . . .	0.001	Inch	

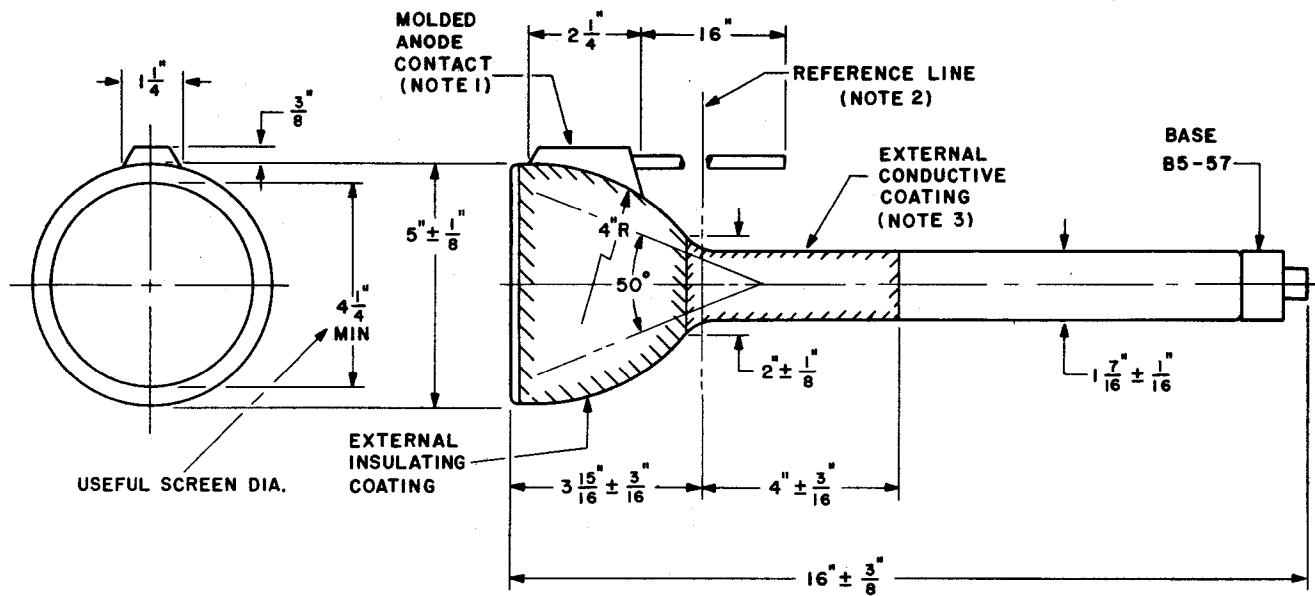
**CIRCUIT VALUES**

Grid No. 1 Circuit Resistance . . . . .	1.5	Megohms	Max.
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**NOTES:**

1. Visual extinction of undeflected focused spot.
2. For JEDEC focusing coil 106 or equivalent 2 1/2" from reference line.
3. Line width measured at 5  $\mu$ a by the shrinking raster method. Variable strength (0-10 gauss) beam centering magnet must be used for optimum line width.

OUTLINE



D59023

DIAGRAM NOTES:

1. The plane through the tube axis and vacant pin position No. 3 may vary from the plane through the axis and centerline of molded anode contact by an angular tolerance (measured about the tube axis) of  $\pm 30^\circ$ . Molded anode contact is on same side as vacant pin No. 3.
2. Reference line is determined by the plane C-C' of reference line gauge (JEDEC No. G112), when gauge is seated on the glass cone.
3. External conductive coating must be grounded.

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