

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*	

SC-2782

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.

ELECTRICAL DATA

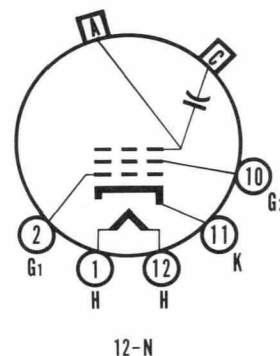
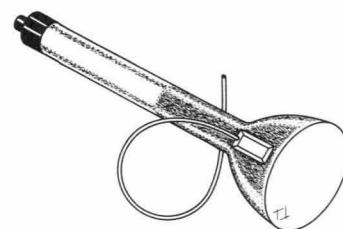
Heater Voltage	6.3	Volts
Heater Current	$0.6 \pm 10\%$	Ampere
Direct Interelectrode Capacitances (approx.)		
Grid No. 1 to all Other Electrodes	9	$\mu\mu\text{f}$
Cathode to all Other Electrodes	4.3	$\mu\mu\text{f}$
External Conductive Coating to Anode	500	$\mu\mu\text{f}$ Max.
	100	$\mu\mu\text{f}$ Min.

MECHANICAL DATA

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

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



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

SEPTEMBER, 1959
PAGE 1 OF 3

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 ¹	-33 to -77	Volts	dc
Focusing Coil Current (approx.) ²	100	Ma	
Line Width ³	0.001	Inch	

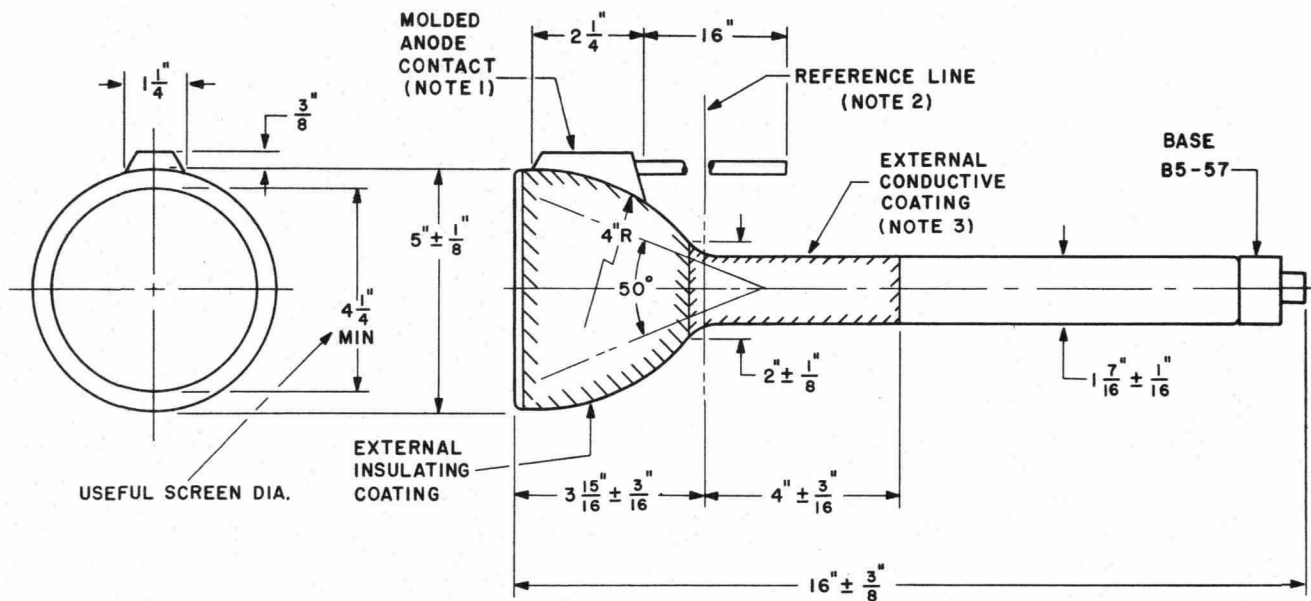
CIRCUIT VALUES

Grid No. 1 Circuit Resistance	1.5	Megohms	Max.
---	-----	---------	------

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 μ 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.