

DESCRIPTION

Sylvania Type SC-2809 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-2809
Phosphor	Aluminized, Fine Grain P11
Fluorescence	Blue
Persistence	Short

Faceplate Clear, Non-Browning Optical Glass

*In addition to the type shown the SC-2809 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	10 μf	
Cathode to All Other Electrodes	5.5 μf	
External Conductive Coating to Anode	500 μf	Max.
	100 μf	Min.

MECHANICAL DATA

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

MAXIMUM RATINGS (Absolute Maximum Values)

Anode Voltage	25,000 Volts	dc
Anode Current (Egl = 0 Volts)	3.0 μa	dc
Grid No. 2 Voltage	2500 Volts	dc
Grid No. 2 Current (Egl = 0 Volts)	2000 μa	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

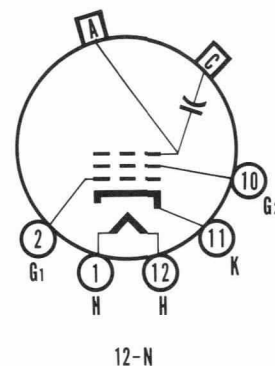
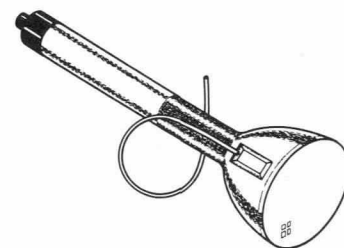
Anode Voltage	20,000 Volts	dc
Grid No. 2 Voltage	2000 Volts	dc
Grid No. 1 Voltage Required for Cutoff ¹	-33 to -77 Volts	dc
Focusing Coil Current (Approx.) ²	100 Ma	
Line Width ³	0.0008 Inch	

CIRCUIT VALUES

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

QUICK REFERENCE DATA

High Resolution Tube
0.0008" 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



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

JULY, 1960

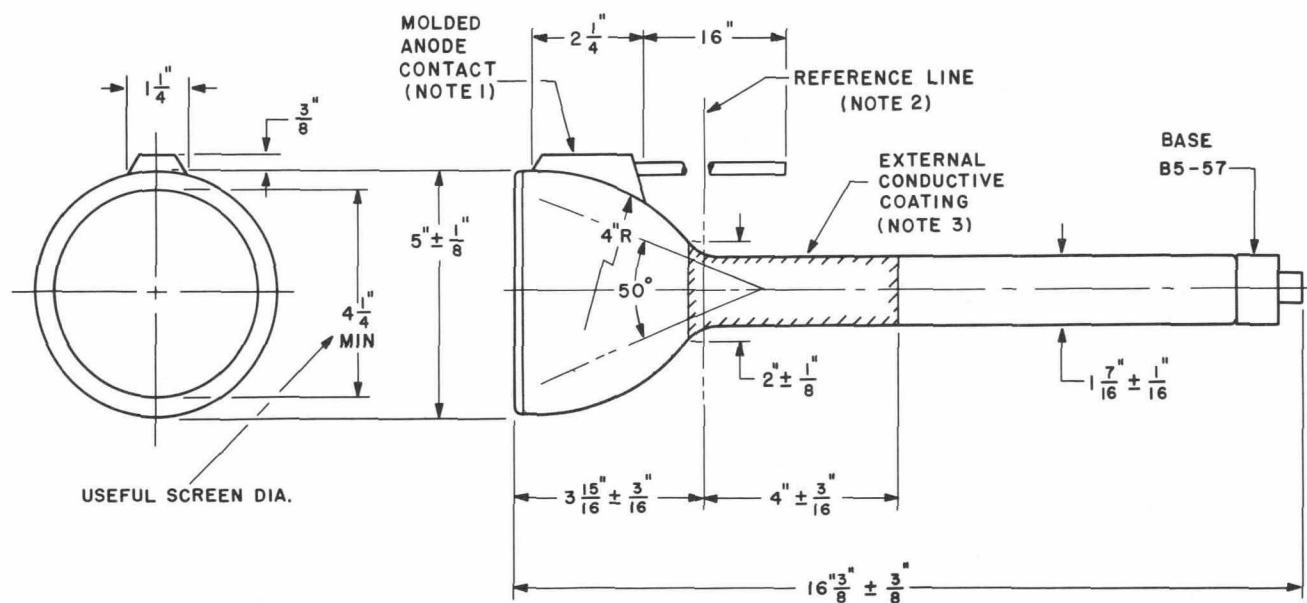
PAGE 1 OF 2

File Under

SPECIAL AND GENERAL PURPOSE
CATHODE RAY TUBES

NOTES:

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



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.