ADVANCE DATA

DESCRIPTION

Sylvania Type SC-3168 is a 5-inch diameter cathode-ray tube designed for high resolution photographic recording. Its electron-optical system, very low deflection angle, 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.)	16 Degrees
Phosphor*	Fine Grain P11, Aluminized
Fluorescence	Blue
Persistence	Short
Faceplate	Clear, Non-Browning Optical Glass

*In addition to the type shown, the SC-3168 can be supplied with several other screen phosphors.

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 pf	
Cathode to All Other Electrodes	4.3 pf	
External Conductive Coating to Anode	500 pf	Max.
	100 pf	Min.

MECHANICAL DATA

Minimum Useful Screen Diameter	4 ¼ Inches
Overall Length	26 ± ⅜ Inches
Bulb	See Outline Drawing
Anode Terminal	16", HV Cable, Corona Protected
Base (Small Shell Duodecal 5-Pin)	B5-57
Basing	12N

MAXIMUM RATINGS (Absolute Maximum Values)

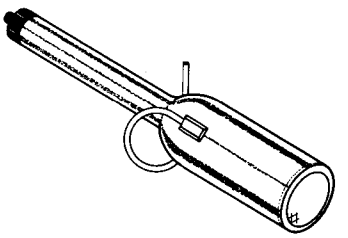
Anode Voltage	25,000 Volts	dc
Grid No. 2 Voltage	2500 Volts	dc
Grid No. 1 Voltage		
Negative Bias Value	150 Volts	dc
Positive Bias Value	0 Volts	dc
Positive Peak Value	0 Volts	
Peak Heater Cathode Voltage		
Heater Negative with Respect to Cathode		
During Warm-up Period Not to Exceed 15 Seconds	450 Volts	
After Equipment Warm-upPeriod	165 Volts	
Heater Positive with Respect to Cathode	165 Volts	

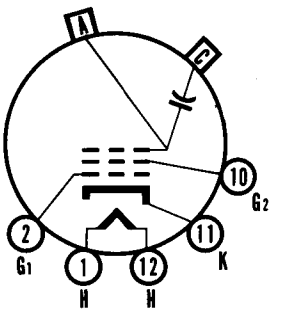
TYPICAL OPERATING CONDITIONS

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]	80 Ma	
Line Width[3]	0.002 Inch	

QUICK REFERENCE DATA

High Resolution Tube
.002" 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





12-N

SYLVANIA
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SPECIAL AND GENERAL
PURPOSE CATHODE RAY TUBES

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 ½" from reference line.*
3. *Line width measured at 5 μa by the shrinking raster method. Variable strength (0-10 gauss) beam centering magnet must be used for optimum line width.*

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 Rated Anode Voltage of 16,000 volts, whichever is less.

OUTLINE