

DESCRIPTION

The Sylvania Type SC-2751P1B is a compact, rectangular direct view oscilloscope tube designed for portable oscilloscope and radar applications. It features a high efficiency 1.5 v, 140 ma heater for battery economy and lightweight design. The tube is pre-aligned, then potted in its integral magnetic shield with flexible, color coded leads for all tube connections.

CHARACTERISTICS

GENERAL DATA

Focusing Method	Electrostatic
Deflection Method	Electrostatic
Phosphor*	P-1
Fluorescence	Green
Phosphorescence	Green
Persistence	Medium
Faceplate	Flat, Clear

*In addition to the type shown, the SC-2751B can be supplied with several other screen phosphors.

MECHANICAL DATA

Minimum Useful Screen Dimensions	
Horizontal	2 $\frac{3}{4}$ Inches
Vertical	1 $\frac{1}{8}$ Inches
Bulb	LEA 448 or Equiv.
Base	B8-181
Basing	Color Coded Leads
Anode No. 2 Contact	J1-22
Angle Between D1-D2 and D3-D4 Trace	90 $\pm$ 1 Degree
Angle Between D1-D2 Trace and Major Axis of Tube Face	0 $\pm$ 1 $\frac{1}{2}$ Degrees
Deflection Plates	
D1 and D2 are nearer to the tube face	
D3 and D4 are nearer the base	
Positive Voltage on D1 (Blue Lead) with Respect to D2 will Deflect the Beam Approx. Toward the White Lead	
Positive Voltage on D3 (Gray Lead) with Respect to D4 will Deflect the Beam Approx. Toward the Red Lead	

ELECTRICAL DATA

Heater Voltage	1.5 Volts
Heater Current	0.140 $\pm$ 10 % Ampere
Direct Interelectrode Capacitances (Approx.) ¹	
Grid No. 1 to All Other Electrodes	4.5 pf
Between Deflection Plates 1-2	2.0 pf
Between Deflection Plates 3-4	2.5 pf
Deflection Plate 1 to All Other Electrodes	6.5 pf
Deflection Plate 2 to All Other Electrodes	6.0 pf
Deflection Plate 3 to All Other Electrodes	5.5 pf
Deflection Plate 4 to All Other Electrodes	5.5 pf

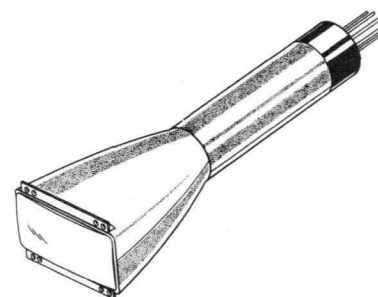
RATINGS

MAXIMUM RATINGS (Absolute Maximum Values)

Anode No. 2 Voltage	2750 Volts dc
Anode No. 2 Input	6.0 Watts
Anode No. 1 Voltage (Focusing Electrode)	1100 Volts dc
Grid No. 1 Voltage	
Negative Bias Value	200 Volts dc
Positive Bias Value	0 Volt
Positive Peak Value	2 Volts
Peak Voltage Between Anode No. 2 and Any Deflection Plate	550 Volts
Altitude	35,000 Feet

QUICK REFERENCE DATA

1 $\frac{1}{2}$ " x 3" Direct Viewed
Rectangular Glass Type
Clear, Pressed Faceplate
Electrostatic Deflection
Electrostatic Focus
High Deflection Sensitivity
Very Low Heater Power
Integral, Potted, Magnetic
Shield
Flexible Color Coded Leads



BASE LEADS COLOR CODE

H	— Brown
HK	— White
G1	— Green
A1	— Red
A2	— Orange
D1	— Blue
D2	— Violet
D3	— Gray
D4	— Black

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Electronic Components Group
ELECTRONIC TUBE DIVISION
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File Under

SPECIAL AND GENERAL
PURPOSE CATHODE RAY TUBES

TYPICAL OPERATING CONDITIONS

Anode No. 2 Voltage	2000 Volts dc
Anode No. 1 Voltage for Focus	400 to 700 Volts dc
Grid No. 1 Voltage Required for Cutoff ²	-38 to -68 Volts dc
Deflection Factors	
Deflection Plates 1-2	68 to 92 Volts dc/Inch
Deflection Plates 3-4	28 to 38 Volts dc/Inch
Spot Position (Undelected, Focused) ³	Within a 15 mm Square
P1 Light Output ⁵	20 Ft. L. Min.
Modulation ⁶	38 Volts dc Max.
Line Width "A" ⁷	0.65 mm Max.

CIRCUIT VALUES

Grid No. 1 Circuit Resistance	1.5 Megohms Max.
Deflection Circuit Resistance ⁴	1.0 Megohms Max.

NOTES:

1. Exclusive of the potted color coded leads.
2. Visual extinction of undeflected focused spot.
3. With the deflection plates connected to Anode No. 2. The square shall be centered on the tube face with its sides parallel to the deflection axes.
4. It is recommended that the deflecting electrode circuit resistances be approximately equal.
5. Raster size $1\frac{1}{8}" \times 1\frac{9}{16}"$.
6. Measured at 20 Ft. L. on a raster $1\frac{1}{8}" \times 1\frac{9}{16}"$.
7. Measured by compressed raster method starting with conditions of Note 6.

OUTLINE

