

CHARACTERISTICS

GENERAL DATA

Focusing Method				Electrostatic
Deflecting Method				Electrostatic
Types*	Fluorescence	Phosphorescence		Persistence
3SP1	Green	_____		Medium
3SP2	Blue-Green	Green		Long
3SP4	White	_____		Short to Medium
3SP5	Blue	_____		Very Short
3SP7	Blue-White	Yellow		Long
3SP11	Blue	_____		Short
Faceplate				Clear, Cylindrical
*In addition to the types shown, the 3SP- 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.)	
Cathode to All Other Electrodes	5 pf
Grid No. 1 to All Other Electrodes	6.5 pf
Between Deflecting Plates 1-2	2 pf
Between Deflecting Plates 3-4	2 pf
Deflecting Plate 1 to All Other Electrodes	7.5 pf
Deflecting Plate 2 to All Other Electrodes	6.0 pf
Deflecting Plate 3 to All Other Electrodes	5.5 pf
Deflecting Plate 4 to All Other Electrodes	6.5 pf

MECHANICAL DATA

Minimum Useful Screen Dimensions	
Horizontal	2 3/4 Inches
Vertical	1 1/8 Inches
Diagonal	3 Inches
Base (Small Shell Duodecal 12-Pin)	B12-43
Basing	12E
Base Alignment	
The Plane through the Base Key and the Tube Axis aligns with Long Axis of Tube Face	± 10 Degrees
Trace Alignment ¹	
Angle Between D1-D2 trace and D3-D4 trace	90 ± 1 Degrees
D1-D2 trace Aligns with Long Axis of Tube Face ²	± 1.5 Degrees
Positive Voltage on D1 deflects Beam approx. Toward Key	
Positive Voltage on D3 deflects Beam approx. Toward Pin. No. 4	
Bulb	C26 Exp 6 or equivalent
Weight (approx.)	3/4 Pound

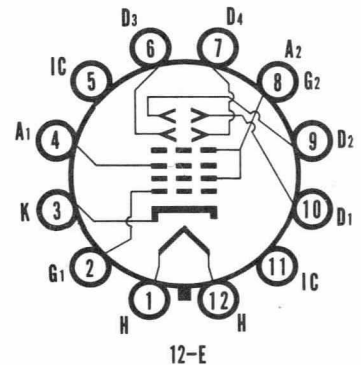
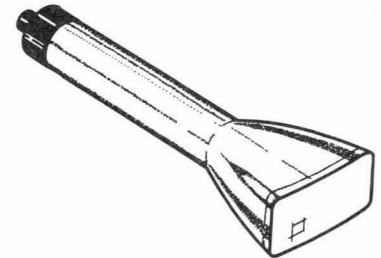
RATINGS

MAXIMUM RATINGS (Absolute Maximum Values)

Anode No. 2 Voltage	3000 Volts	dc
Anode No. 1 Voltage (Focusing Electrode)	1200 Volts	dc
Anode No. 2 Input	6 Watts	Max.

QUICK REFERENCE DATA

Oscilloscope Tube
1 1/2" x 3" Direct Viewed
Rectangular Glass Type
Electrostatic Deflection
Electrostatic Focus
Clear, Cylindrical
Faceplate



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File Under

SPECIAL AND GENERAL
PURPOSE CATHODE RAY TUBES

MAXIMUM RATINGS (Absolute Maximum Values) (con'td)

Grid No. 1 Voltage		
Negative Bias Value	200 Volts	dc
Positive Bias Value	0 Volts	dc
Positive Peak Value	2 Volts	
Peak Heater-Cathode Voltage		
Heater Negative with Respect to Cathode	140 Volts	
Heater Positive with Respect to Cathode	140 Volts	
Peak Voltage between A2 and any Deflecting Plate	550 Volts	

TYPICAL OPERATING CONDITIONS

Anode No. 2 Voltage	2000 Volts	dc
Anode No. 1 Voltage for Focus	330 to 620 Volts	dc
Grid No. 1 Voltage Required for Cutoff ³	-58 to -135 Volts	dc
Deflection Factors		
Deflecting Plates 1-2	146 to 198 Volts	dc/Inch
Deflecting Plates 3-4	104 to 140 Volts	dc/Inch
Spot Position (Focused, Undelected) ⁴	Within a 12 mm Square	

CIRCUIT VALUES

Grid No. 1 Circuit Resistance	1.5 Megohms Max.
Resistance in Any Deflecting Plate Circuit ⁵	1.0 Megohms Max.

NOTES:

1. Deflecting plates 1 & 2 are nearer the screen, and scan the major dimension of the screen. Plates 3 & 4 are nearer the base, and scan the minor dimension of the screen.
2. The D1-D2 trace scanning through the geometric center of the tube face will be parallel to the long axis of the tube face, within the limits specified.
3. Visual extinction of undeflected focused spot.
4. With deflecting plates connected to Anode No. 2 and with tube shielded. The sides of the limit square will be parallel to the deflection axes.
5. It is recommended that the deflecting plate circuit resistances be approximately equal.

OUTLINE

