SYLVANIA

engineering data service

SYLVANIA
3MP1
3MP*

CHARACTERISTICS

GENERAL DATA

Focusing Method	Electrostatic
Deflecting Method	Electrostatic
Type*	3MP1
Fluorescence	Green
Phosphorescence	——
Persistence	Medium
Faceplate	Clear, Spherical

*In addition to the type shown, the 3MP- can be supplied with several other screen phosphors

ELECTRICAL DATA

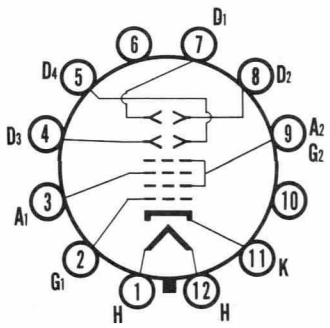
Heater Voltage	6.3 Volts
Heater Current	0.6 ± 10% Ampere
Direct Interelectrode Capacitances (approx.)	
Cathode to All Other Electrodes	2.2 μμf
Grid to All Other Electrodes	10.3 μμf
Between Deflecting Plates 1-2	1.3 μμf
Between Deflecting Plates 3-4	1.2 μμf
Deflecting Plate 1 to All Other Electrodes Except D2	4.4 μμf
Deflecting Plate 2 to All Other Electrodes Except D1	5.6 μμf
Deflecting Plate 3 to All Other Electrodes Except D4	5.0 μμf
Deflecting Plate 4 to All Other Electrodes Except D3	4.5 μμf

MECHANICAL DATA

Minimum Useful Screen Diameter	2¾ Inches
Bulb	J24P
Base (Small Shell Duodecal 12-Pin)	B12-43
Basing	12F
Base Alignment	
D1-D2 Trace Aligns with Pin No. 4 and Tube Axis	±10 Degrees
Positive Voltage on D1 Deflects Beam Approx. Toward Pin No. 4	
Positive Voltage on D3 Deflects Beam Approx. Toward Pin No. 1	
Angle Between D1-D2 and D3-D4 Traces	90±3 Degrees
Weight (Approx.)	½ Pound

QUICK REFERENCE DATA

Oscilloscope Tube
3" Direct Viewed
Round Glass Type
Clear, Spherical Faceplate
Electrostatic Focus
Electrostatic Deflection



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SYLVANIA
ELECTRONIC TUBES

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SPECIAL AND GENERAL PURPOSE
CATHODE RAY TUBES

RATINGS

MAXIMUM RATINGS (Absolute Maximum Values)

Anode No. 2 Voltage	2750 Volts dc
Anode No. 1 Voltage (Focusing Electrode)	1100 Volts dc
Grid Voltage	
Negative Bias Value	220 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 Anode No. 2 and Any Deflection Plate	550 Volts

TYPICAL OPERATING CONDITIONS

Anode No. 2 Voltage[1]	2000 Volts dc
Anode No. 1 Voltage for Focus	400 to 700 Volts dc
Grid Voltage Required for Cutoff[2]	0 to −126 Volts dc
Deflection Factor	
Deflection Plates 1-2[3]	230 to 290 Volts dc/Inch
Deflecting Plates 3-4[4]	220 to 280 Volts dc/Inch

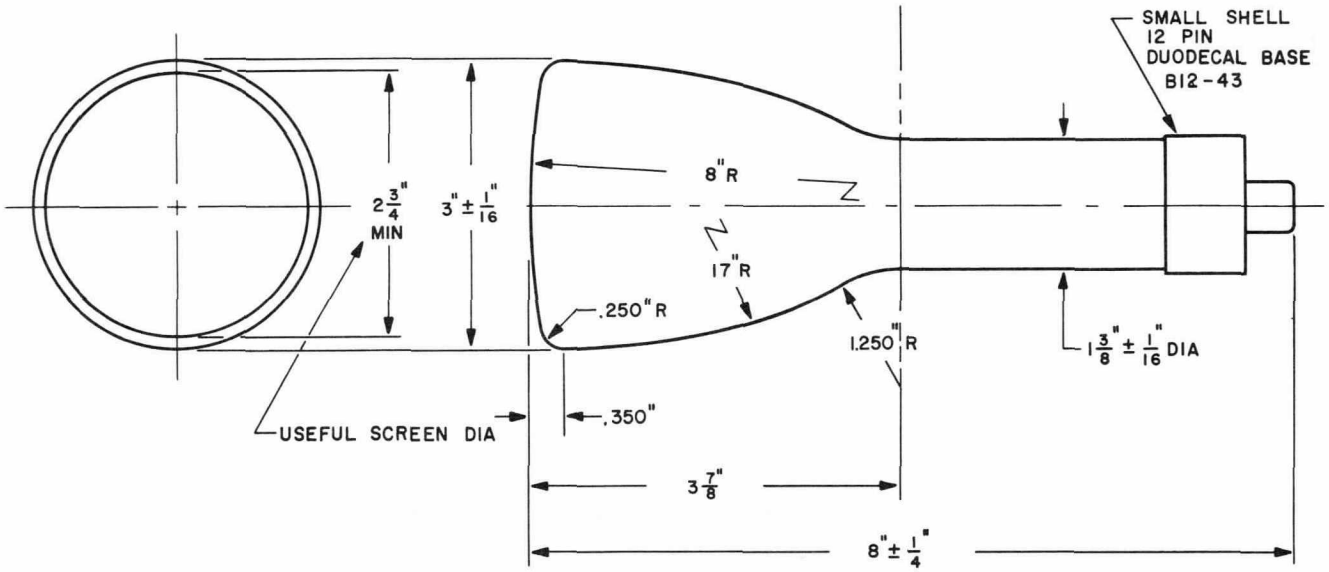
CIRCUIT VALUES

Grid No. 1 Circuit Resistance	1.5 Megohms Max.
Deflection Circuit Resistance[5]	5.0 Megohms Max.

NOTES:

1. *Brilliance and definition decreases with decreasing Anode No. 2 Voltage. In general, Anode No. 2 Voltage should not be less than 1000 Volts.*
2. *Visual extinction of undeflected focused spot.*
3. *Deflecting Plates D1 and D2 are nearer the screen.*
4. *Deflecting Plates D3 and D4 are nearer the base.*
5. *It is recommended that the deflecting electrode circuit resistances be approximately equal.*

OUTLINE



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