SYLVANIA

engineering data service

SYLVANIA
3ASP1
3ASP*

CHARACTERISTICS

GENERAL DATA

Focusing Method	Electrostatic
Deflection Method	Electrostatic

Types*	Fluorescence	Phosphorescence	Persistence
3ASP1	Green	.....	Medium
3ASP2	Blue-Green	Green	Long
3ASP11	Blue	.....	Short

Faceplate . . . . . Flat, Clear

**In addition to the types shown, the 3ASP- 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	4.5 μμf
Between Deflection Plates 1-2	2.0 μμf
Between Deflection Plates 3-4	2.5 μμf
Deflection Plate 1 to All Other Electrodes	6.5 μμf
Deflection Plate 2 to All Other Electrodes	6.0 μμf
Deflection Plate 3 to All Other Electrodes	5.5 μμf
Deflection Plate 4 to All Other Electrodes	5.5 μμf

MECHANICAL DATA

Minimum Useful Screen Dimensions	
Horizontal	2¾ Inches
Vertical	1⅛ Inches
Bulb	LEA 448 or Equiv.
Base	B8-218
Basing	8KF
Anode No. 2 Contact	J1-22

Base Alignment

Pin #3 aligns with major axis of tube face within 10°, and is on same side as anode contact (J1-22)

Trace Alignment

Positive Voltage on D1 (Pin #2) with respect to D2, (Pin #1) deflects spot approximately toward Pin #3.

Positive Voltage on D3 (Pin #6) with respect to D4, (Pin #7) deflects spot approximately toward Pin #5.

Angle between D1-D2 and D3-D4 traces	90 ± 1 Degree
Angle between D1-D2 and major axis of tube face	0 ± 1½ Degrees

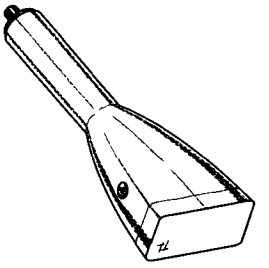
Deflection Plates

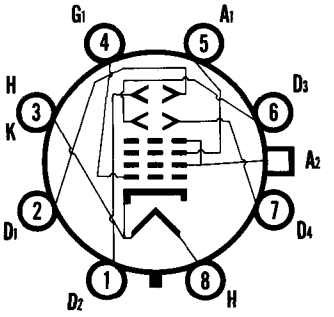
D1 and D2 are nearer to the tube face

D3 and D4 are nearer the base

QUICK REFERENCE DATA

1½" x 3" Direct Viewed
Rectangular Glass Type
Clear, Pressed Faceplate
Electrostatic Deflection
Electrostatic Focus
High Deflection Sensitivity





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SYLVANIA
ELECTRONIC TUBES

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CATHODE RAY TUBES

RATINGS

MAXIMUM RATINGS (Absolute Maximum Values)

Anode No. 2 Voltage	3000	Volts	dc
Anode No. 2 Input	6.0	Watts	
Anode No. 1 Voltage (Focusing Electrode)	1200	Volts	dc
Grid No. 1 Voltage			
Negative Bias Value	140	Volts	dc
Positive Bias Value	0	Volts	dc
Positive Peak Value	2	Volts	
Peak Voltage between Anode No. 2 and Any Deflection Plate	600	Volts	
Altitude	35,000	Feet	

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[1]	−40 to −70	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 (Undeflected, Focused)[2]	Within a 15	mm Square	
P1 Light Output[4]	20	Ft. L.	Min.
Modulation[5]	38	Volts	dc Max.
Line Width A[6]	0.65	mm Max.	

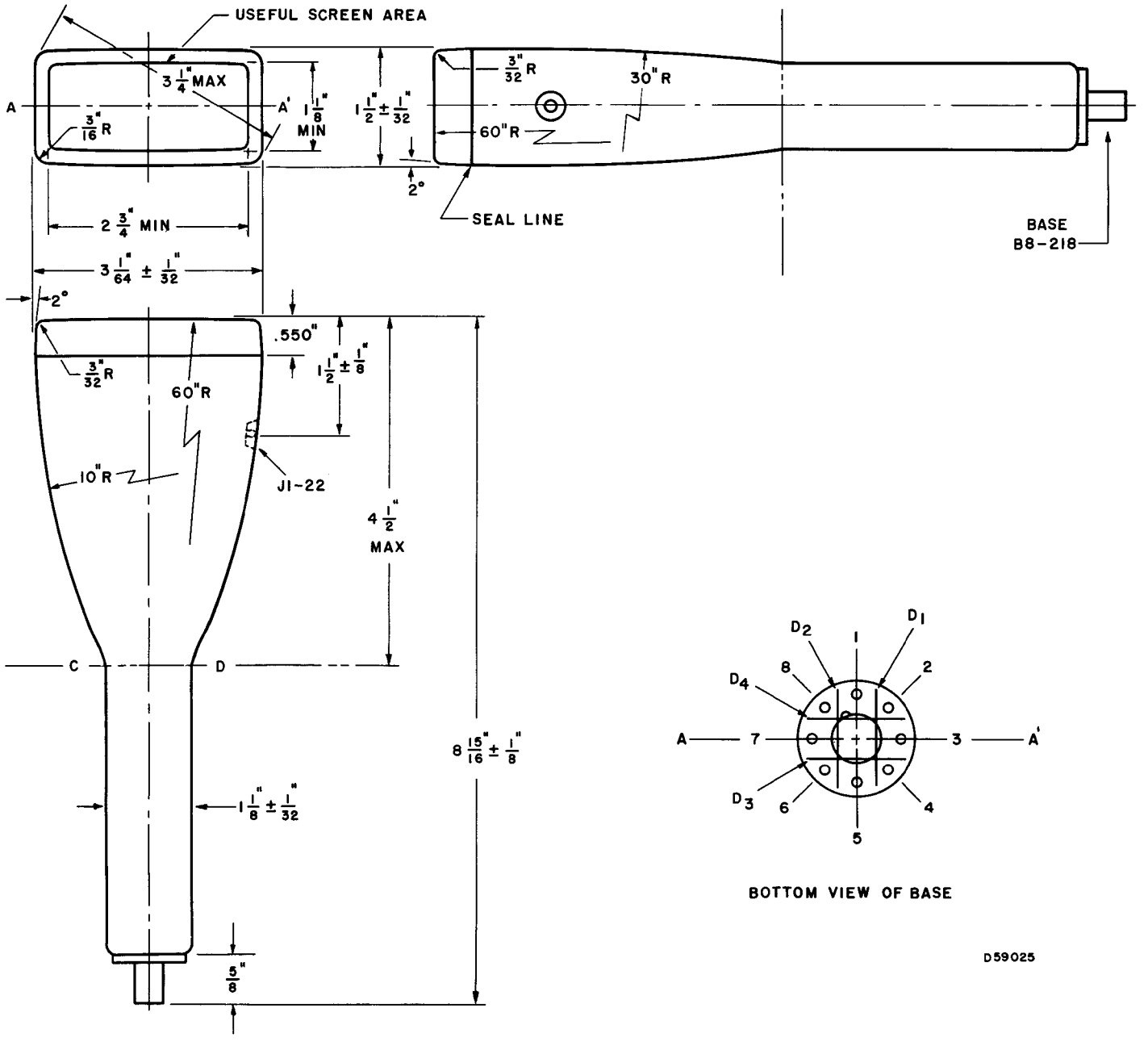
CIRCUIT VALUES

Grid No. 1 Circuit Resistance	1.5	Megohms	Max.
Deflection Circuit Resistance[3]	1.0	Megohms	Max.

NOTES:

1. *Visual extinction of undeflected focused spot.*
2. *With the tube shielded and 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 axis.*
3. *It is recommended that the deflecting electrode circuit resistances be approximately equal.*
4. *Raster size 1⅛" x 1 9/16".*
5. *Measured at 20 Ft. L. on a raster 1⅛" x 1 9/16".*
6. *Measured by compressed raster method starting with conditions of Note 5.*

OUTLINE



BOTTOM VIEW OF BASE

D59025