CHARACTERISTICS

GENERAL DATA

Focusing Method				Electrostatic
Deflection Method				Electrostatic
Types*	**3ADP1**	**3ADP2**	**3ADP7**	**3ADP11**
Fluorescence	Green	Blue-Green	Blue-White	Blue
Phosphorescence	.....	Green	Yellow	.....
Persistence	Medium	Long	Long	Short
Faceplate				Flat, Clear

**In addition to the types shown, the 3ADP- can be supplied with several other screen phosphors.*

ELECTRICAL DATA

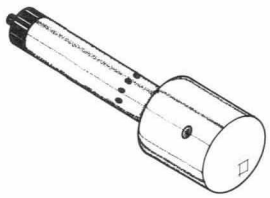
Heater Voltage			6.3 Volts
Heater Current			0.6 ± 10% Ampere
Direct Interelectrode Capacitances	**Min.**	**Max.**	
Cathode to All Other Electrodes	3.0	4.5	μμf
Grid No. 1 to All Other Electrodes	5.5	7.2	μμf
Between Deflecting Plates 1-2	1.4	2.0	μμf
Between Deflecting Plates 3-4	0.9	1.5	μμf
Deflecting Plate 1 to All Other Electrodes	3.6	4.6	μμf
Deflecting Plate 2 to All Other Electrodes	3.6	4.6	μμf
Deflecting Plate 3 to All Other Electrodes	2.7	3.6	μμf
Deflecting Plate 4 to All Other Electrodes	2.7	3.6	μμf

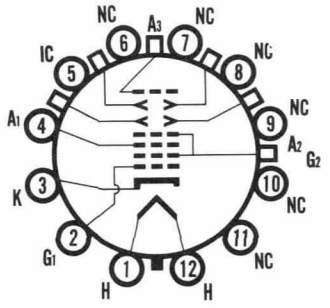
MECHANICAL DATA

Minimum Useful Screen Diameter	2.63 Inches
Bulb Contact (Recessed Small Ball Cap)	J1-22
Neck Contacts	J1-25
Base (Small Shell Duodecal 12-Pin)	B12-43
Basing	12Z
Base Alignment	
D1-D2 trace aligns with Pin No. 5 and Tube Axis	±10 Degrees
Positive Voltage on D1 deflects beam approx. toward Pin No. 5	
Positive Voltage on D3 deflects beam approx. toward Pin No. 2	
Angle Between traces D1-D2 and D3-D4	90 ± 1 Degree
Bulb Contact Alignment	
J1-22 Contact aligns with D1-D2 Trace	±10 Degrees
J1-22 Contact on same side as Pin No. 5	

QUICK REFERENCE DATA

3" Direct Viewed
Round Glass Type
Flat, Clear Faceplate
Electrostatic Focus
Electrostatic Deflection
Post Deflection Acceleration
Close Tolerances





SYLVANIA
ELECTRONIC TUBES
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RATINGS

MAXIMUM RATINGS (Absolute Maximum Values)

Anode No. 3 Voltage	6600 Volts dc
Anode No. 2 Voltage[1]	3300 Volts dc
Ratio of Anode No. 3 Voltage to Anode No. 2 Voltage	2 : 1
Anode No. 1 Voltage (Focusing Electrode)	1100 Volts dc
Grid No. 1 Voltage	
Negative Bias Value	220 Volts dc
Positive Bias Value	0 Volts dc
Positive Peak Value	0 Volts
Peak Heater-Cathode Voltage	
Heater Negative with Respect to Cathode	200 Volts
Heater Positive with Respect to Cathode	200 Volts
Peak Voltage Between Anode No. 2 and Any Deflecting Plate	600 Volts

TYPICAL OPERATING CONDITIONS

Anode No. 3 Voltage	4000 Volts
Anode No. 2 Voltage	2000 Volts
Anode No. 1 Voltage for Focus	320 to 470 Volts
Grid No. 1 Voltage Required for Cutoff[2]	−52 to −87 Volts
Deflection Factor	
Deflecting Plates 1-2	140 to 160 Volts dc/Inch
Deflecting Plates 3-4	61 to 70 Volts dc/Inch
Modulation @ Ib3 = 25 μa[3]	38 Volts dc Max.
Line Width "A" @ Ib3 = 25 μa[3]	.014 Inches Max.
Light Output @ Ib3 = 25 μa[4]	
3ADP1[5]	20 Ft. L. Min.
3ADP11[6]	14 Ft. L. Min.
Deflection Factor Uniformity[3]	2 Percent Max.
Pattern Distortion[7]	2 Percent Max.
Undeflected Spot Position[8]	Within a 10 mm Square
Useful Scan	
D1-D2	±1.315 Inches From Tube Face Center or a Total 2.63 Inches Min.
D3-D4	±0.75 Inches From Tube Face Center or a Total 1.5 Inches Min.

CIRCUIT VALUES

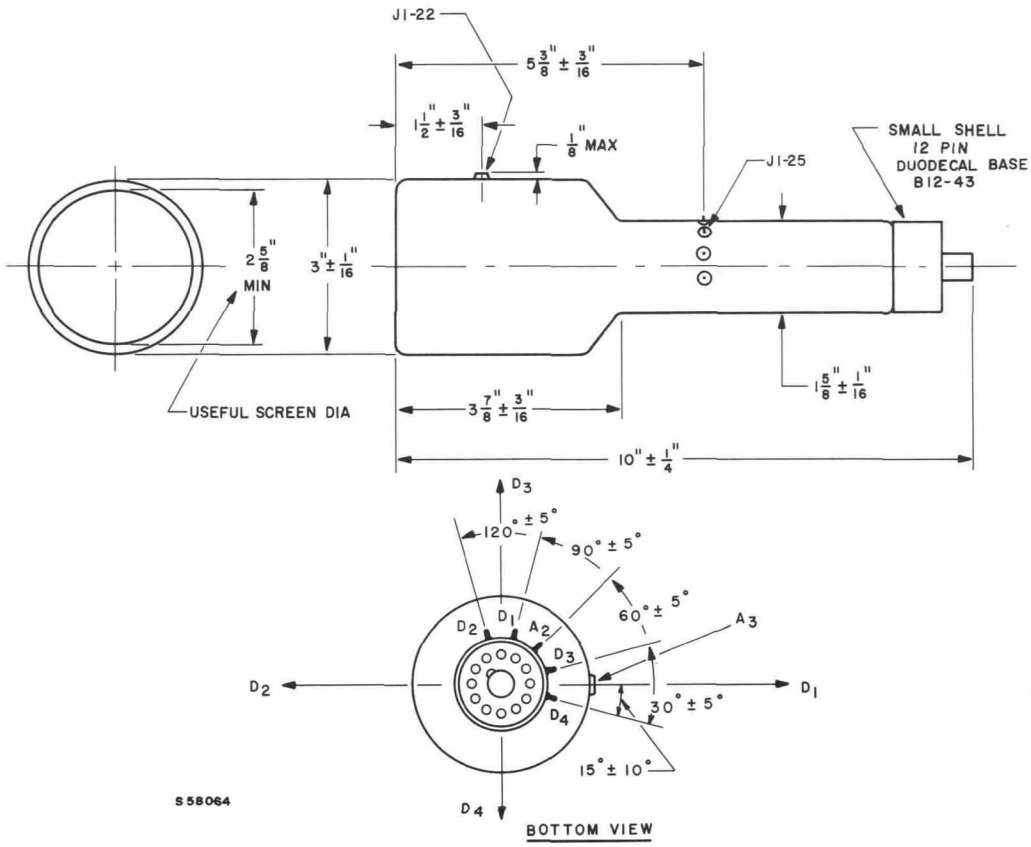
Grid No. 1 Circuit Resistance	1.5 Megohms Max.
Deflection Circuit Resistance[9]	1.0 Megohms Max.

NOTES:

1. The product of the Anode No. 2 Voltage and the Average Anode No. 2 Current should be limited to 6.0 watts.
2. Visual extinction of undeflected focused spot.

NOTES: (Cont'd)

3. *Measured in accordance with MIL-E-1.*
4. *Using a raster size of 2¼ x 1½ inches.*
5. *Using a No. 594 Photronic cell with Viscor filter (for eye correction).*
6. *Using a No. 594 Photronic cell without Viscor filter (without eye correction).*
7. *All edges of a raster, pattern adjusted so its widest points just touch the sides of 2.295 x 1.530 inch rectangle, will fall within the area bounded by the 2.295 x 1.530 inch rectangle and an inscribed 2.205 x 1.470 inch rectangle.*
8. *With the tube shielded and with all deflection plates connected to Anode No. 2. Limit square centered on tube face, sides parallel to deflection axes.*
9. *It is recommended that the deflecting electrode circuit resistances be approximately equal.*

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 or 16,000 volts, whichever is less.