

## CHARACTERISTICS

### GENERAL DATA

|                             |               |       |            |       |
|-----------------------------|---------------|-------|------------|-------|
| Focusing Method . . . . .   | Electrostatic |       |            |       |
| Deflection Method . . . . . | Electrostatic |       |            |       |
| Phosphor*                   | P1            | P2    | P7         | P11   |
| Fluorescence . . . . .      | Green         | Green | Blue-White | Blue  |
| Phosphorescence . . . . .   | —             | Green | Yellow     | —     |
| Persistence . . . . .       | Medium        | Long  | Long       | Short |
| Faceplate . . . . .         | Clear         |       |            |       |

\*In addition, the 5DEP — can be supplied with several other screen phosphors.

### ELECTRICAL DATA

|                                                                   |                       |
|-------------------------------------------------------------------|-----------------------|
| Heater Voltage . . . . .                                          | 6.3 Volts             |
| Heater Current . . . . .                                          | $0.6 \pm 10\%$ Ampere |
| Direct Interelectrode Capacitances (Approx.)                      |                       |
| Grid to All Other Electrodes . . . . .                            | $6.0 \mu\text{f}$     |
| Between Deflecting Plates 1-2 . . . . .                           | $3.5 \mu\text{f}$     |
| Between Deflecting Plates 3-4 . . . . .                           | $3.0 \mu\text{f}$     |
| Deflecting Plate 1 <sup>1</sup> to All Other Electrodes . . . . . | $10.0 \mu\text{f}$    |
| Deflecting Plate 2 <sup>1</sup> to All Other Electrodes . . . . . | $6.5 \mu\text{f}$     |
| Deflecting Plate 3 <sup>1</sup> to All Other Electrodes . . . . . | $7.5 \mu\text{f}$     |
| Deflecting Plate 4 <sup>1</sup> to All Other Electrodes . . . . . | $5.0 \mu\text{f}$     |

### MECHANICAL DATA

|                                              |                       |
|----------------------------------------------|-----------------------|
| Minimum Useful Screen Diameter . . . . .     | $4\frac{1}{2}$ Inches |
| Bulb . . . . .                               | J42J                  |
| Base (Small Shell Duodecal 12-Pin) . . . . . | B12-43                |
| Basing . . . . .                             | 12E                   |
| Weight (Approx.) . . . . .                   | $1\frac{1}{2}$ Pounds |

### MAXIMUM RATINGS (Absolute Maximum Values)

|                                                                     |            |    |
|---------------------------------------------------------------------|------------|----|
| Anode No. 2 Voltage . . . . .                                       | 2750 Volts | dc |
| Anode No. 1 Voltage . . . . .                                       | 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

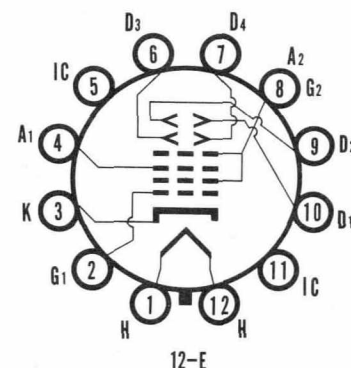
|                                                                 |                  |         |
|-----------------------------------------------------------------|------------------|---------|
| Anode No. 2 Voltage <sup>2</sup> . . . . .                      | 2000 Volts       | dc      |
| Anode No. 1 Voltage for Focus . . . . .                         | 340 to 640 Volts | dc      |
| Maximum Grid Voltage Required for Cutoff <sup>3</sup> . . . . . | -90 Volts        | dc      |
| Deflection Factor <sup>4,5</sup> . . . . .                      |                  |         |
| Deflecting Plates 1-2 <sup>6</sup> . . . . .                    | 48 to 64 Volts   | dc/Inch |
| Deflecting Plates 3-4 <sup>7</sup> . . . . .                    | 27 to 37 Volts   | dc/Inch |
| Spot Position (Undelected) <sup>8</sup> . . . . .               | 10 mm            | Max.    |

### CIRCUIT VALUES

|                                         |                  |
|-----------------------------------------|------------------|
| Grid Circuit Resistance . . . . .       | 1.5 Megohms Max. |
| Deflection Circuit Resistance . . . . . | 5.0 Megohms Max. |

## QUICK REFERENCE DATA

Oscilloscope Tube  
5" Direct Viewed  
Round Glass Type  
Electrostatic Deflection  
Electrostatic Focus  
High Deflection Sensitivity



## SYLVANIA ELECTRONIC TUBES

A Division of  
Sylvania Electric Products Inc.

PICTURE TUBE OPERATIONS  
SENECA FALLS, NEW YORK

Prepared and Released By The  
TECHNICAL PUBLICATIONS SECTION  
EMPORIUM, PENNSYLVANIA

OCTOBER, 1961

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File Under  
SPECIAL AND GENERAL PURPOSE  
CATHODE RAY TUBES

NOTES:

1. Positive voltage on D1 (Pin No. 10) will move spot approximately in direction of Pin No. 4.  
Positive voltage on D3 (Pin No. 6) will move spot approximately in direction of Pin No. 1.
2. Brilliance and definition decrease with decreasing Anode No. 2 Voltages. In general, Anode No. 2 Voltage should not be less than 1000 volts for the Type 5DEP1 and not less than 1500 volts for the Types 5DEP2, 5DEP7, and 5DEP11.
3. Visual extinction of undeflected focused spot.
4. Angle between trace produced by Plates D1-D2 and the plane through the tube axis and Pin No. 4 does not exceed  $10^\circ$ .
5. Angle between D1-D2 trace and D3-D4 trace is  $90^\circ \pm 1^\circ$ .
6. Deflecting Plates 1-2 are nearer the screen.
7. Deflecting Plates 3-4 are nearer the base.
8. With the tube shielded and with all deflection plates connected to A2, the spot shall fall within a square, 10 mm on a side, centered with respect to the face and with the sides parallel to the deflection axes.

OUTLINE

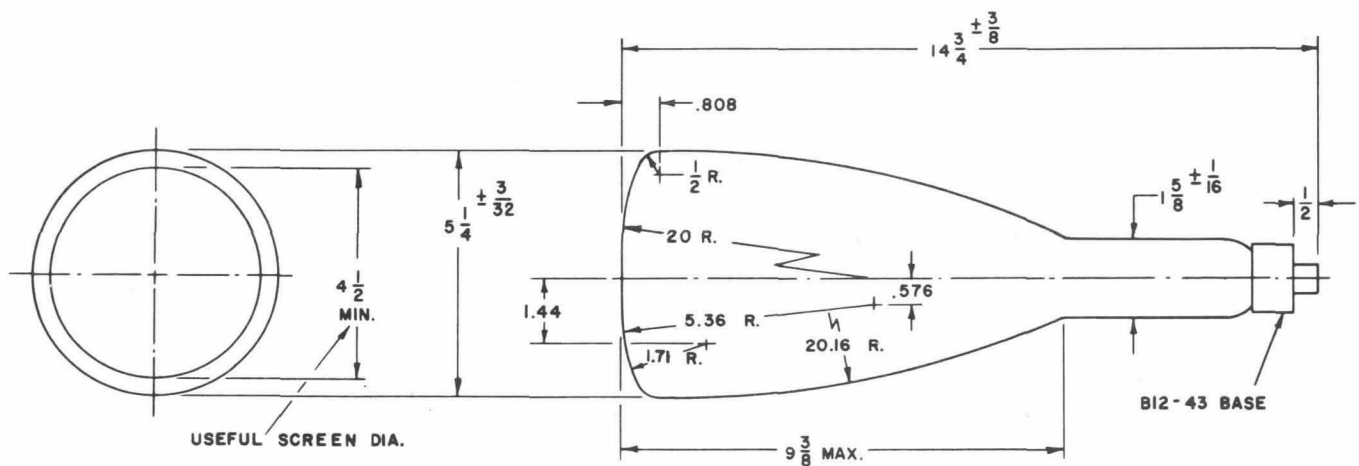


DIAGRAM NOTE:

1. Dimensions are in inches.