

## 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

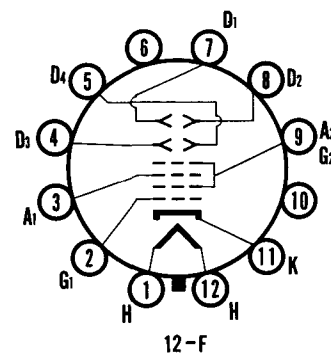
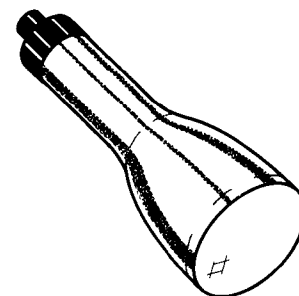
|                                                                   |                       |
|-------------------------------------------------------------------|-----------------------|
| Heater Voltage . . . . .                                          | 6.3 Volts             |
| Heater Current . . . . .                                          | $0.6 \pm 10\%$ Ampere |
| Direct Interelectrode Capacitances (approx.)                      |                       |
| Cathode to All Other Electrodes . . . . .                         | $2.2 \mu\mu\text{f}$  |
| Grid to All Other Electrodes . . . . .                            | $10.3 \mu\mu\text{f}$ |
| Between Deflecting Plates 1-2 . . . . .                           | $1.3 \mu\mu\text{f}$  |
| Between Deflecting Plates 3-4 . . . . .                           | $1.2 \mu\mu\text{f}$  |
| Deflecting Plate 1 to All Other Electrodes<br>Except D2 . . . . . | $4.4 \mu\mu\text{f}$  |
| Deflecting Plate 2 to All Other Electrodes<br>Except D1 . . . . . | $5.6 \mu\mu\text{f}$  |
| Deflecting Plate 3 to All Other Electrodes<br>Except D4 . . . . . | $5.0 \mu\mu\text{f}$  |
| Deflecting Plate 4 to All Other Electrodes<br>Except D3 . . . . . | $4.5 \mu\mu\text{f}$  |

### MECHANICAL DATA

|                                                                  |                       |
|------------------------------------------------------------------|-----------------------|
| Minimum Useful Screen Diameter . . . . .                         | $2\frac{3}{4}$ Inches |
| Bulb . . . . .                                                   | J24P                  |
| Base (Small Shell Duodecal 12-Pin) . . . . .                     | B12-43                |
| Basing . . . . .                                                 | 12F                   |
| Base Alignment                                                   |                       |
| D1-D2 Trace Aligns with Pin No. 4 and<br>Tube Axis . . . . .     | $\pm 10$ Degrees      |
| Positive Voltage on D1 Deflects Beam<br>Approx. Toward Pin No. 4 |                       |
| Positive Voltage on D3 Deflects Beam<br>Approx. Toward Pin No. 1 |                       |
| Angle Between D1-D2 and D3-D4 Traces . . . . .                   | $90 \pm 3$ Degrees    |
| Weight (Approx.) . . . . .                                       | $\frac{1}{2}$ Pound   |

## QUICK REFERENCE DATA

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



## SYLVANIA ELECTRONIC TUBES

A Division of  
Sylvania Electric Products Inc.

PICTURE TUBE OPERATIONS  
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File Under  
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 <sup>1</sup> . . . . .              | 2000 Volts dc            |
| Anode No. 1 Voltage for Focus . . . . .                 | 400 to 700 Volts dc      |
| Grid Voltage Required for Cutoff <sup>2</sup> . . . . . | 0 to -126 Volts dc       |
| Deflection Factor                                       |                          |
| Deflection Plates 1-2 <sup>3</sup> . . . . .            | 230 to 290 Volts dc/Inch |
| Deflecting Plates 3-4 <sup>4</sup> . . . . .            | 220 to 280 Volts dc/Inch |

## CIRCUIT VALUES

|                                                      |                  |
|------------------------------------------------------|------------------|
| Grid No. 1 Circuit Resistance . . . . .              | 1.5 Megohms Max. |
| Deflection Circuit Resistance <sup>5</sup> . . . . . | 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.

