

## CHARACTERISTICS

### GENERAL DATA

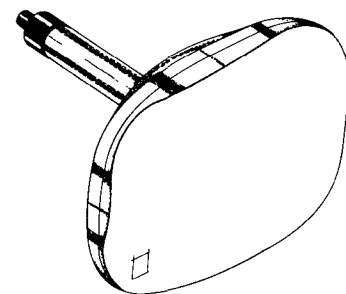
|                               |                   |
|-------------------------------|-------------------|
| Focusing Method               | Electrostatic     |
| Deflecting Method             | Magnetic          |
| Deflection Angles (Approx.)   |                   |
| Vertical                      | 87 Degrees        |
| Horizontal                    | 105 Degrees       |
| Diagonal                      | 110 Degrees       |
| Phosphor                      | Aluminized P4     |
| Fluorescence                  | White             |
| Persistence                   | Short to Medium   |
| Faceplate                     | Gray Filter Glass |
| Light Transmittance (Approx.) | 80 Percent        |

## QUICK REFERENCE DATA

Television Picture Tube  
8" Rectangular, All Glass  
Electrostatic Focus  
No Ion Trap  
110° Magnetic Deflection  
Gray Filter Glass  
Aluminized Screen  
External Conductive Coating  
6.3 Volt, 0.30 Amp. Heater

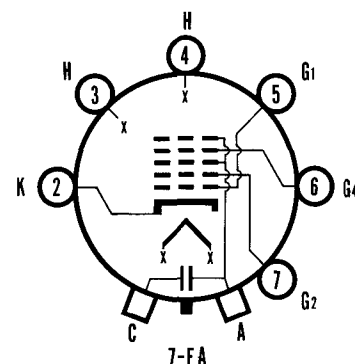
### ELECTRICAL DATA

|                                                   |                                                        |  |
|---------------------------------------------------|--------------------------------------------------------|--|
| Heater Voltage                                    | 6.3 Volts                                              |  |
| Heater Current                                    | $0.30 \pm 5\%$ Ampere                                  |  |
| Heater Warm-up Time <sup>1</sup>                  | 11 Seconds                                             |  |
| Direct Interelectrode Capacitances (Approx.)      |                                                        |  |
| Cathode to All Other Electrodes                   | 4 $\mu\mu\text{f}$                                     |  |
| Grid No. 1 to All Other Electrodes                | 6 $\mu\mu\text{f}$                                     |  |
| External Conductive Coating to Anode <sup>2</sup> | 400 $\mu\mu\text{f}$ Max.<br>200 $\mu\mu\text{f}$ Min. |  |



### MECHANICAL DATA

|                                                    |                                        |
|----------------------------------------------------|----------------------------------------|
| Minimum Useful Screen Dimensions (Maximum Assured) |                                        |
| Height                                             | 5 $\frac{7}{8}$ Inches                 |
| Width                                              | 7 $\frac{1}{2}$ Inches                 |
| Diagonal                                           | 7 $\frac{7}{8}$ Inches                 |
| Area                                               | 39 Sq. Inches                          |
| Bulb                                               | C67 $\frac{1}{2}$ Exp. 2 or Equivalent |
| Bulb Contact (Recessed Small Cavity Cap)           | J1-21                                  |
| Base                                               | B6-185                                 |
| Basing                                             | 7FA                                    |
| Weight (Approx.)                                   | 2 Pounds                               |



## RATINGS

### MAXIMUM RATINGS (Design Maximum Values)

|                                 |                     |    |
|---------------------------------|---------------------|----|
| Anode Voltage                   | 20,000 Volts        | dc |
| Grid No. 4 (Focusing Electrode) |                     |    |
| Voltage                         | -550 to +1100 Volts | dc |
| Grid No. 2 Voltage              | 550 Volts           | dc |

## 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

MARCH, 1960

PAGE 1 OF 3

File Under  
TELEVISION PICTURE TUBES

MAXIMUM RATINGS (Design Maximum Values) (Cont'd.)

|                                                   |           |    |
|---------------------------------------------------|-----------|----|
| Grid No. 1 Voltage                                |           |    |
| Negative Bias Value . . . . .                     | 155 Volts | dc |
| Negative Peak Value . . . . .                     | 220 Volts |    |
| Positive Bias Value . . . . .                     | 0 Volts   | dc |
| Positive Peak Value . . . . .                     | 2 Volts   |    |
| Peak Heater-Cathode Voltage                       |           |    |
| Heater Negative with Respect to Cathode           |           |    |
| During Warm-up Period not to Exceed               |           |    |
| 15 Seconds . . . . .                              | 450 Volts |    |
| After Equipment Warm-up Period . . . . .          | 200 Volts |    |
| Heater Positive with Respect to Cathode . . . . . | 200 Volts |    |

TYPICAL OPERATING CONDITIONS

|                                                               |                  |    |
|---------------------------------------------------------------|------------------|----|
| Anode Voltage . . . . .                                       | 16,000 Volts     | dc |
| Grid No. 4 Voltage for Focus . . . . .                        | 0 to 400 Volts   | dc |
| Grid No. 2 Voltage . . . . .                                  | 300 Volts        | dc |
| Grid No. 1 Voltage Required for Cutoff <sup>3</sup> . . . . . | -35 to -72 Volts | dc |

CIRCUIT VALUES

|                                         |            |      |
|-----------------------------------------|------------|------|
| Grid No. 1 Circuit Resistance . . . . . | 1.5 Megohm | Max. |
|-----------------------------------------|------------|------|

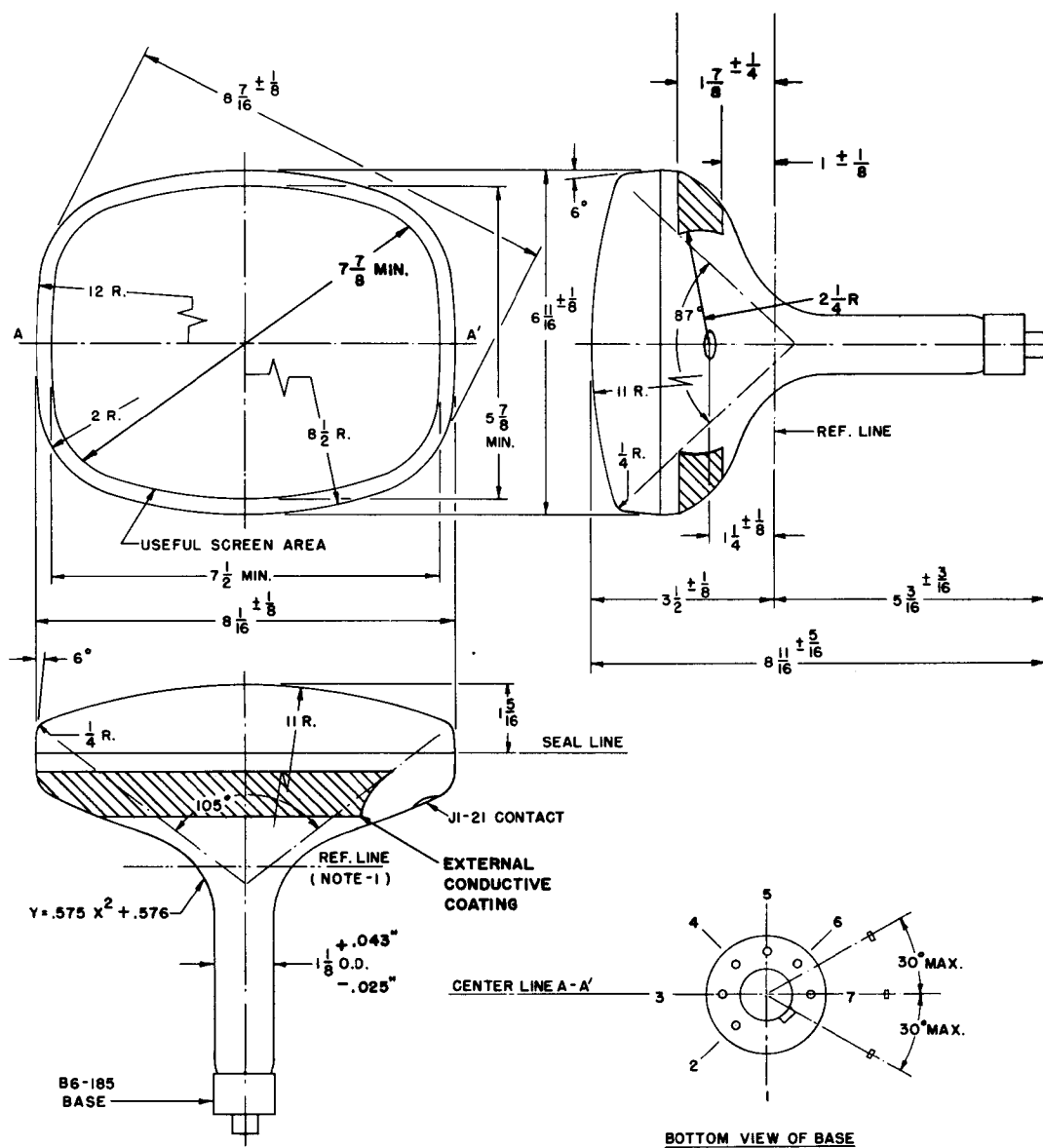
NOTES:

- 1. Heater Warm-up Time is defined as the time required for the voltage across the heater to reach 80% of the rated heater voltage after applying four (4) times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three (3) times the rated heater voltage divided by the rated heater current.
- 2. External conductive coating must be grounded.
- 3. Visual extinction of focused raster. Extinction of stationary focused spot will require that these values be about 5 volts more negative.

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.

## OUTLINE



**DB0001**

**DIAGRAM NOTES:**

1. Reference line is determined by the plane C-C' of JEDEC No. 126 reference line gauge when the gauge is seated against the bulb.
2. Base Pin No. 7 aligns with horizontal centerline within 30° and is on same side as anode contact (J1-21).
3. Dimensions are in inches.