## CHARACTERISTICS

### GENERAL DATA

| | |
|---|---|
| Focusing Method | Electrostatic |
| Deflection Method | Magnetic |
| Deflection Angles (Approx.) | |
| Horizontal | 104 Degrees |
| Diagonal | 110 Degrees |
| Vertical | 85 Degrees |
| Phosphor | Aluminized P4 |
| Fluorescence | White |
| Persistence | Short to Medium |
| Faceplate | Gray Filter Glass |
| Light Transmittance (Approx.) | 70 Percent |

### ELECTRICAL DATA

| | | |
|---|---|---|
| Heater Voltage | 6.3 Volts | |
| Heater Current | 0.6 ± 5 % Ampere | |
| Heater Warm-up Time[1] | 11 Seconds | |
| Direct Interelectrode Capacitances (Approx.) | | |
| Cathode to All Other Electrodes | 5 μμf | |
| Grid No. 1 to All Other Electrodes | 6 μμf | |
| External Conductive Coating to Anode[2] | 2500 μμf | Max. |
| | 2000 μμf | Min. |

### MECHANICAL DATA

| | |
|---|---|
| Minimum Useful Screen Dimensions (Maximum Assured) | |
| Height | 18 5/8 Inches |
| Width | 24 1/4 Inches |
| Diagonal | 25 3/4 Inches |
| Minimum Useful Screen Area | 425 Sq. Inches |
| Neck Length | 5 3/8 ± 3/16 Inches |
| Overall Length | 17 5/16 ± 3/8 Inches |
| Bulb Contact (Recessed Small Cavity Cap) | J1-21 |
| Bulb | J214 1/2B |
| Base | B7-208 |
| Basing | 8HR |
| Weight (Approx.) | 41 Pounds |

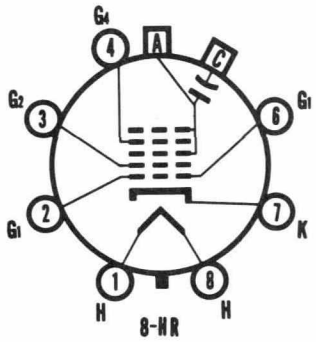
## RATINGS

### MAXIMUM RATINGS (Design Maximum Values) Grid Drive Service

| | | |
|---|---|---|
| Maximum Anode Voltage | 22,000 Volts | dc |
| Minimum Anode Voltage | 12,000 Volts | dc |
| Grid No. 4 Voltage (Focusing Electrode) | −550 to +1100 Volts | dc |
| Grid No. 2 Voltage | 550 Volts | dc |
| 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 | |
| Maximum Heater Voltage | 6.9 Volts | |
| Minimum Heater Voltage | 5.7 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 | |

## QUICK REFERENCE DATA

Television Picture Tube
27″ Direct Viewed
Rectangular Glass Type
Spherical Faceplate
Gray Filter Glass
Aluminized Screen
Electrostatic Focus
110° Magnetic Deflection
1 1/8″ Neck Diameter
No Ion Trap
External Conductive Coating




SYLVANIA
ELECTRONIC TUBES

A Division of
Sylvania Electric Products Inc.

PICTURE TUBE
OPERATIONS

SENECA FALLS, NEW YORK

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*File Under*
TELEVISION PICTURE TUBES

## TYPICAL OPERATING CONDITIONS, Grid Drive Service

| | | |
|---|---|---|
| Anode Voltage | 18,000 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[3] | −35 to −72 Volts | dc |

## CIRCUIT VALUES

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

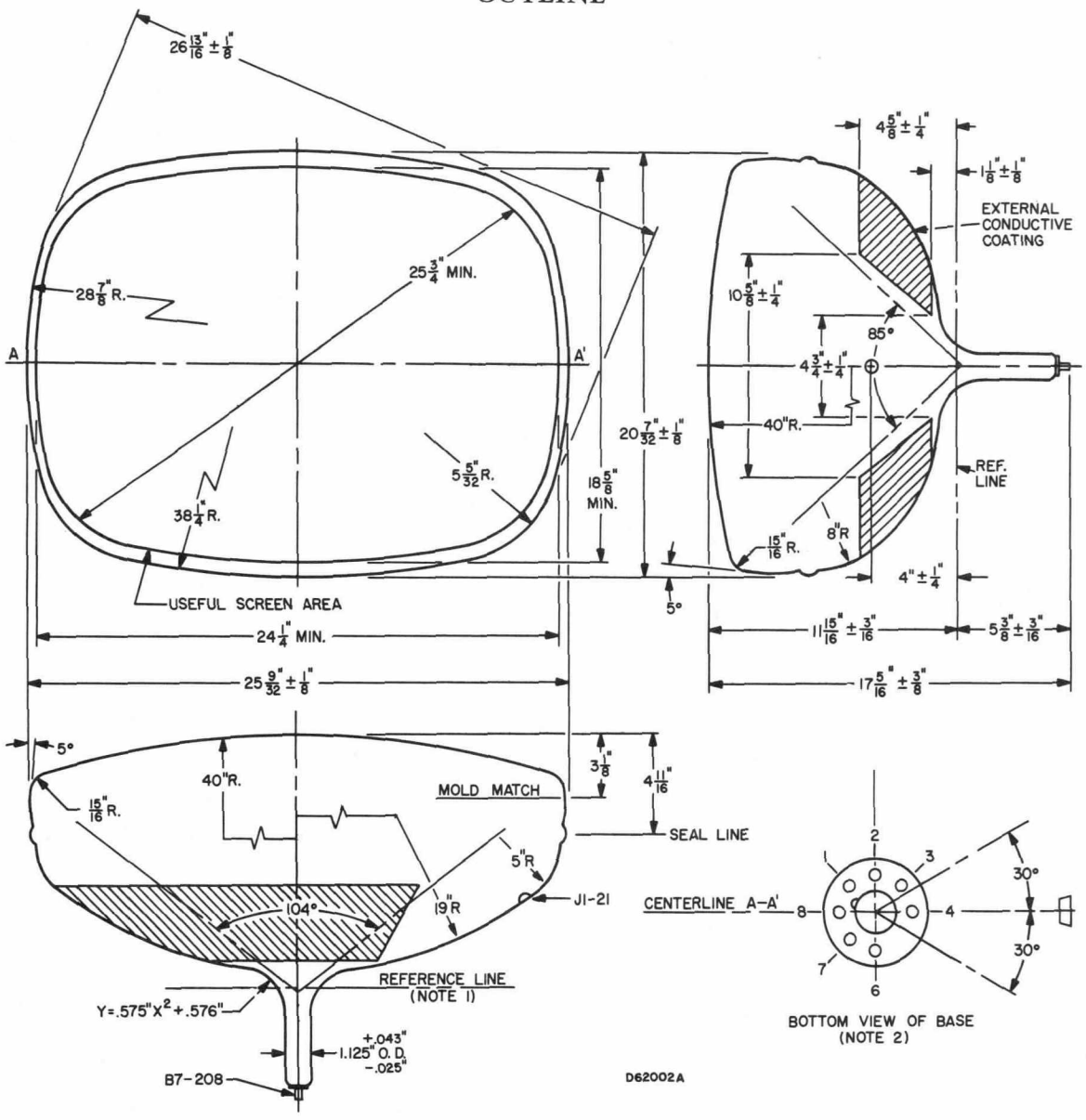
## NOTES:

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




## DIAGRAM NOTES:

1. *Reference line is determined by Plane C-C' of JEDEC No. 126 Reference Line Gauge, when gauge is seated against the bulb.*
2. *Base Pin No. 4 aligns with horizontal centerline of tube within 30°, and is on same side as anode contact, J1-21.*