

**CHARACTERISTICS**

**GENERAL DATA**

Focusing Method . . . . .	Magnetic
Deflecting Method . . . . .	Magnetic
Deflecting Angle (approx.)	
Horizontal . . . . .	66 Degrees
Diagonal . . . . .	70 Degrees
Phosphor . . . . .	Aluminized, P4
Fluorescence . . . . .	White
Persistence . . . . .	Medium
Faceplate . . . . .	Gray Filter Glass
Light Transmittance (approx.) . . . . .	73 Percent

**ELECTRICAL DATA**

Heater Voltage . . . . .	6.3 Volts
Heater Current ( $\pm 10\%$ ) . . . . .	0.6 Ampere
Direct Interelectrode Capacitances (approx.)	
Cathode to All Other Electrodes . . . . .	5 $\mu\text{f}$
Grid No. 1 to All Other Electrodes . . . . .	6 $\mu\text{f}$
Ion Trap Magnet . . . . .	External, Single Field Type

**MECHANICAL DATA**

Minimum Useful Screen Dimensions . . . . .	12 $\frac{3}{4}$ x 17 Inches
Bulb Contact, (Recessed Small Cavity Cap) . . . . .	J1-21
Base (Small Shell Duodecal 5-Pin) . . . . .	B5-57
Basing . . . . .	12D

**RATINGS**

**MAXIMUM RATINGS (Design Center Values)**

Anode Voltage . . . . .	18,000 Volts dc
Grid No. 2 Voltage . . . . .	410 Volts dc
Grid No. 1 Voltage	
Negative Bias Value . . . . .	125 Volts dc
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 . . . . .	410 Volts
After Equipment Warm-up Period . . . . .	180 Volts
Heater Positive with Respect to Cathode . . . . .	180 Volts

**RECOMMENDED OPERATING CONDITIONS**

Anode Voltage <sup>1</sup> . . . . .	16,000 Volts dc
Grid No. 2 Voltage . . . . .	300 Volts dc
Grid No. 1 Voltage Required for Cutoff <sup>2</sup> . . . . .	-28 to -72 Volts dc
Focusing Coil Current (approx.) <sup>3</sup> . . . . .	95 Ma dc
Ion Trap Magnet Field Strength (approx.) . . . . .	35 Gauss

**CIRCUIT VALUES**

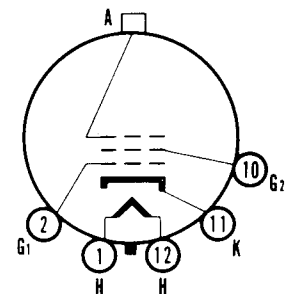
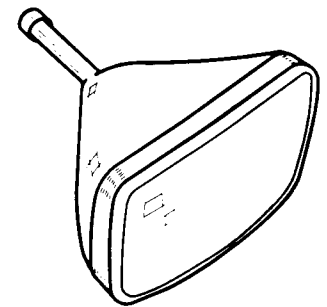
Grid No. 1 Resistance . . . . .	1.5 Megohms Max.
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**NOTES:**

1. Brilliance and definition decrease with decreasing anode voltage. In general, the anode voltage should not be less than this value.
2. Visual extinction of focused raster.
3. For JETEC focusing coil 109 or equivalent three inches from reference line, bias adjusted to 20 foot lamberts on a 12 $\frac{3}{4}$  x 17 inch picture area sharply focused at center of screen.

**QUICK REFERENCE DATA**

Television Picture Tube  
 20" Direct Viewed  
 Rectangular Glass Type  
 Gray Filter Glass  
 Magnetic Deflection  
 Magnetic Focus  
 Single Field Ion Trap  
 Spherical Face Plate  
 Aluminized Screen  
 (20DP4C Has External  
 Conductive Coating)



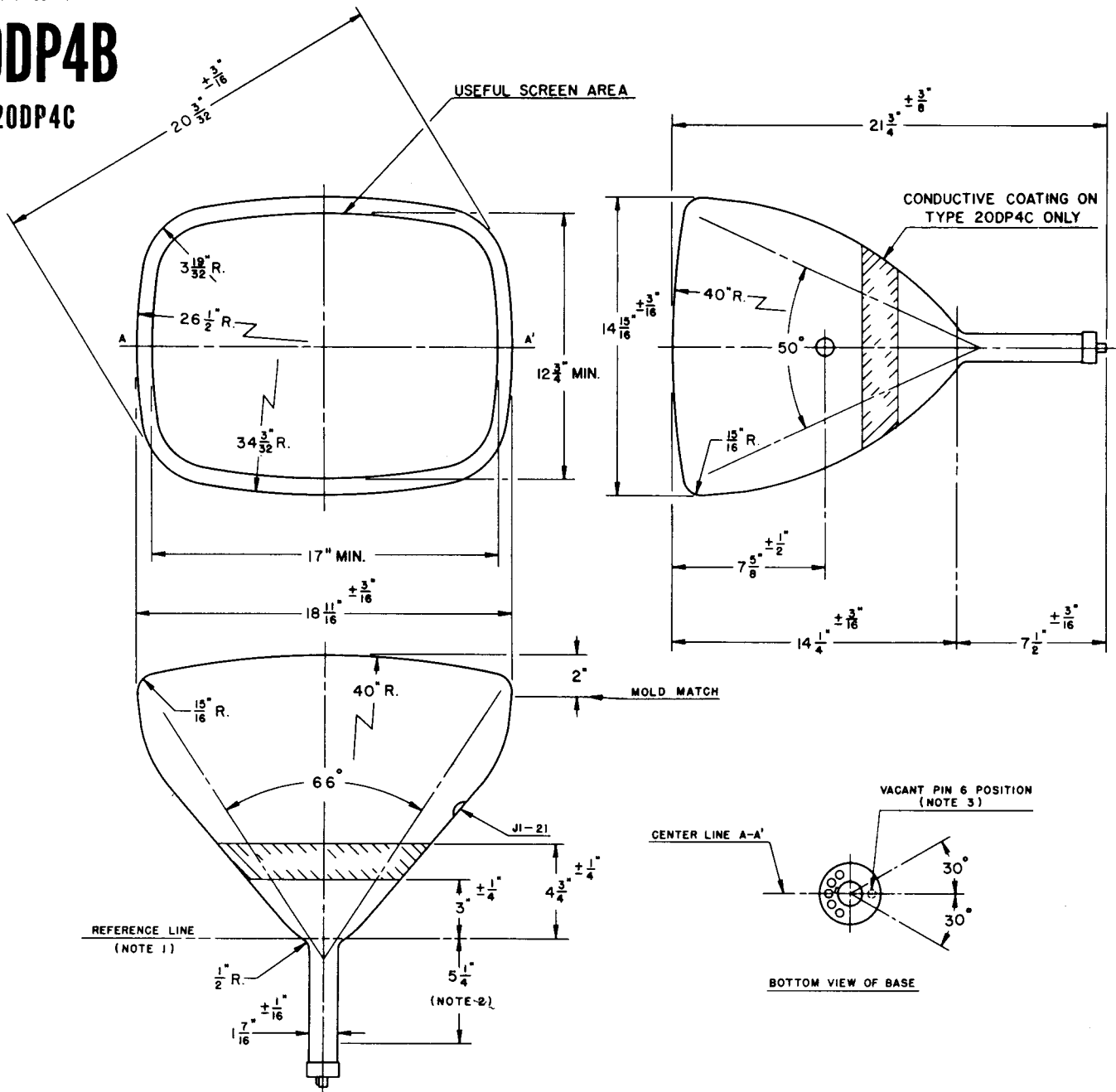
12-D

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# SYLVANIA 20DP4B

20DP4C



## DIAGRAM NOTES:

1. Reference line is determined by the plane of the upper edge of the reference line gauge (JETEC No. 110) when the gauge is resting on the glass cone.
2. Nominal position of ion trap magnet.
3. Anode contact aligns with vacant pin position No. 6  $\pm 30$  degrees.

## 20DP4C

The Sylvania Type 20DP4C is equivalent to the Type 20DP4B except for the addition of an external conductive coating.

External Conductive Coating to Anode Capacitance

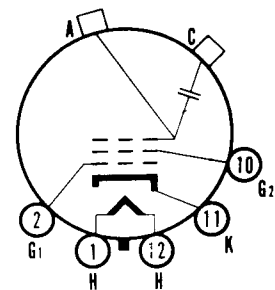
Maximum	750 $\mu\text{f}$
Minimum	500 $\mu\text{f}$
Basing	12N

## NOTES:

1. External conductive coating must be grounded.

## 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.



12-N