

Electronics Department

GENERAL ELECTRIC

The 10DP4 is a ten-inch cathode-ray picture tube with a direct-view screen and semi-flat face for television receiving application. Features of this tube are electrostatic focus requiring no appreciable focus current, and a metal-backed screen to prevent screen burning by ions and to increase screen brightness.

GENERAL CHARACTERISTICS

Electrical

| | | |
|----------------|-----------|---------|
| Heater Voltage | 6.3 ± 10% | Volts |
| Heater Current | 0.6 ± 10% | Amperes |

| | | |
|---------------------------------|----|---------|
| Focusing Method - Electrostatic | | |
| Deflecting Method - Magnetic | | |
| Maximum Deflecting Angle | 50 | Degrees |

Phosphor - P4
 Fluorescence - White
 Persistence - Medium

| | | |
|---|----|-----|
| Direct Interelectrode Capacitances, Nominal | | |
| Cathode to All Other Electrodes | 6 | uuf |
| Grid No. 1 to All Other Electrodes | 10 | uuf |

Mechanical

| | | |
|--------------------------------|----------------------------|--------|
| Overall Length | 17 5/8 ± 3/8 | Inches |
| Greatest Diameter of Bulb | 10 1/2 ± 1/8 | Inches |
| Minimum Useful Screen Diameter | 9 | Inches |
| Bulb Contact JEDEC Designation | J1 - 21 | |
| Base JEDEC Designation | Small-shell Duodecal 7-Pin | |
| Basing JEDEC Designation | 12C | |

MAXIMUM RATINGS Design Center Values

| | | |
|---------------------|-----------|-----------|
| Anode No. 2 Voltage | 10000 Max | Volts D-C |
| Anode No. 1 Voltage | 3600 Max | Volts D-C |
| Grid No. 2 Voltage | 410 Max | Volts D-C |
| Grid No. 1 Voltage | | |
| Negative-Bias Value | 150 Max | Volts D-C |
| Positive-Bias Value | 0 Max | Volts D-C |
| Positive-Peak Value | 2 Max | Volts |

Peak Heater-Cathode Voltage*

| | | |
|--|---------|-----------|
| Heater Negative With Respect to Cathode After Equipment Warm-up Period | 125 Max | Volts D-C |
| Heater Positive With Respect to Cathode At Any Time | 125 Max | Volts D-C |
| Heater Negative With Respect to Cathode During Equipment Warm-up Period Not to Exceed 15 Seconds | 410 Max | Volts D-C |

TYPICAL OPERATING CONDITIONS

| | | | |
|----------------------------|---------|--------|-------------|
| Anode No. 2 Voltage | | 9000 | Volts D-C |
| Anode No. 1 Voltage | 2550 to | 3250 | Volts D-C |
| Grid No. 2 Voltage | | 250 | Volts D-C |
| Grid No. 1 Voltage/ | 36 to | 84 | Volts D-C |
| Spot Position (Undelected) | | 16 Max | Millimeters |

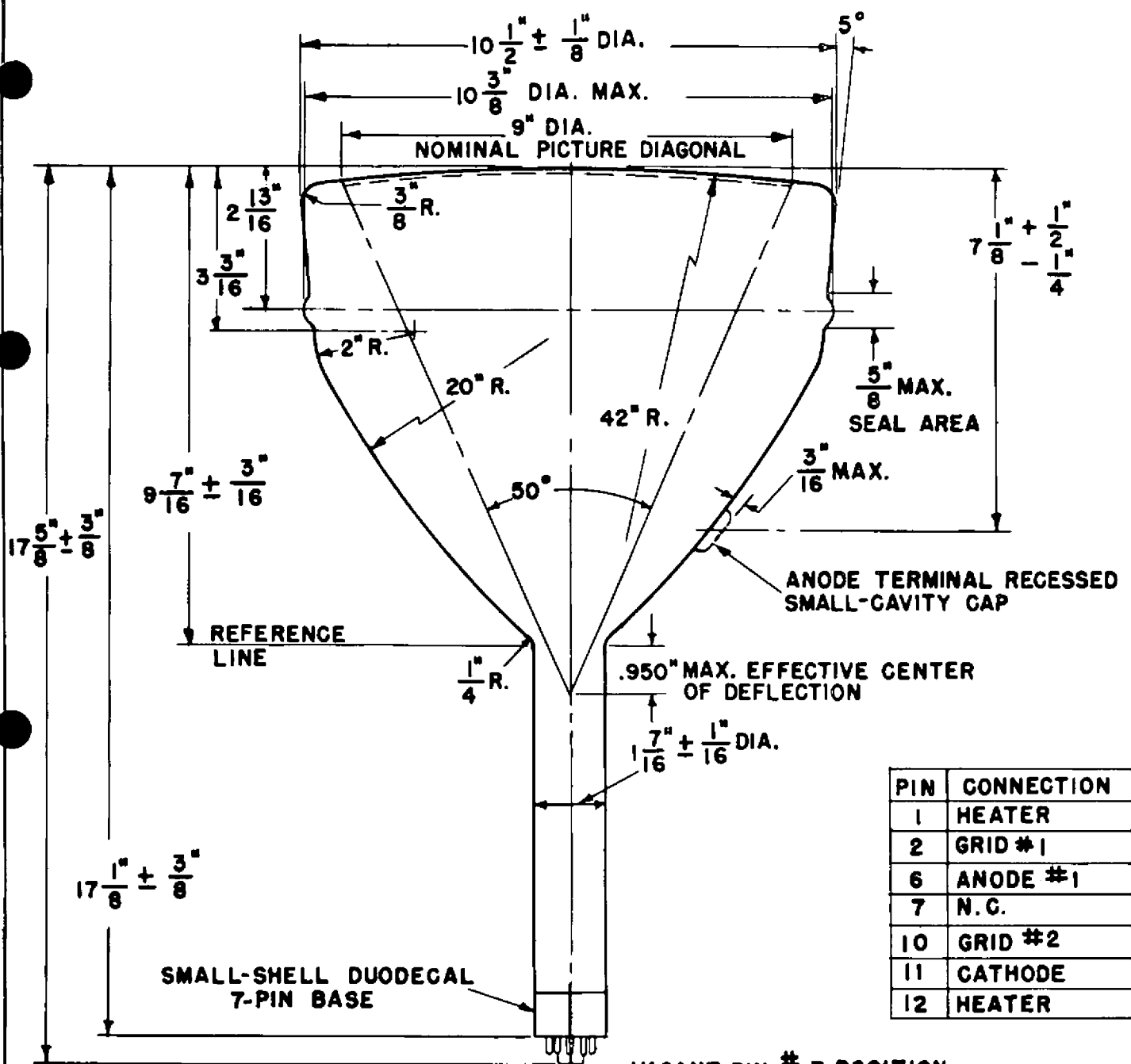
MAXIMUM CIRCUIT VALUES

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

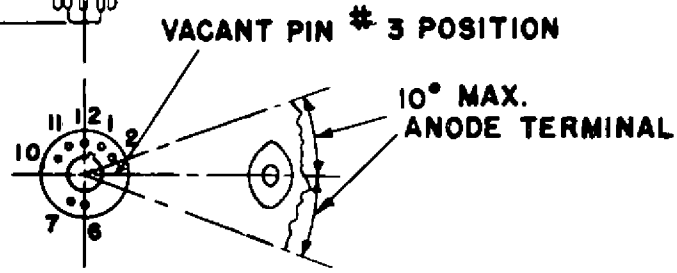
* Cathode should be returned to one side or to the mid-tap of the heater transformer winding.

/ Visual extinction of undeflected focused spot.

N20076AZ



REFERENCE LINE DETERMINED BY POSITION WHERE GAGE 1.500" ± .003" DIA. & 2" LONG WILL REST ON BULB CONE



OUTLINE-CATHODE-RAY TUBE

10DP4

| | | | |
|--|--|---|---|
| REVISIONS 2 W. SIMPSON APPROVED: J. K. 10724 | MADE BY: W. SIMPSON GENERAL ELECTRIC ELECTRONICS DEPARTMENT | INSPECTED BY: G. P. Walker TUBE DIVISION | N20076AZ SHEET No. CONT. ON SHEET |
| | PRINTED IN U.S.A. | | PRINTS TO |

745
9'
5'