

10KP- CATHODE-RAY TUBES

The Type 10KP- Cathode-ray Tubes are magnetically focussed and deflected cathode-ray tubes designed for radar systems and special applications requiring long persistence and large screen size. This tube is typical of the radar-type tubes available from Du Mont.

Radar types similar to the Type 10KP- include the 5-inch 5FP-, the 7-inch 7BP- and the 12-inch 12SP-. Selection of a tube of this type would be determined by the screen size desired and the exact electrical characteristics needed to fit the application.



GENERAL CHARACTERISTICS

Electrical

| | |
|---|-----------------------|
| Heater Voltage | 6.3 Volts |
| Heater Current | $0.6 \pm 10\%$ Ampere |
| Focusing Method | Magnetic |
| Deflecting Method | Magnetic |
| Deflecting Angle (Approx.) | 50 Degrees |
| Phosphor | No. 7 |
| Fluorescence | Blue |
| Phosphorescence | Yellow |
| Persistence | Long |
| Direct Interelectrode Capacitances, Approx. | |
| Cathode to all other electrodes | 5 μ f. |
| Grid No. 1 to all other electrodes | 6.5 μ f. |

Mechanical

| | |
|---|--|
| Overall Length | $17\frac{5}{8} \pm \frac{3}{8}$ Inches |
| Greatest Diameter of Bulb | $10\frac{1}{2} \pm \frac{1}{8}$ Inches |
| Minimum Useful Screen Diameter | 9 Inches |
| Bulb Contact (Recessed small cavity cap) | J1-21 |
| Base (Small shell duodecal 7-pin) | B7-51 |
| Basing | 12D |
| Bulb Contact Alignment J1-21 contact aligns with vacant pin position No. 3 .. | ± 10 Degrees |

MAXIMUM RATINGS—(Design Center Values)

| | |
|---|-----------------------|
| Anode Voltage | 10,000 Max. Volts D-C |
| Grid No. 2 Voltage | 700 Max. Volts D-C |
| Grid No. 1 Voltage | |
| Negative Bias Value | 180 Max. Volts D-C |
| Positive Bias Value ¹ | 0 Max. Volts D-C |
| Positive Peak Value | 2 Max. Volts |
| Peak Grid No. 1 Drive from Cut-off | 65 Max. Volts |
| Peak Heater-Cathode Voltage | |
| Heater Negative with respect to cathode | 150 Max. Volts D-C |
| Heater Positive with respect to cathode | 150 Max. Volts D-C |

TYPICAL OPERATING CONDITIONS

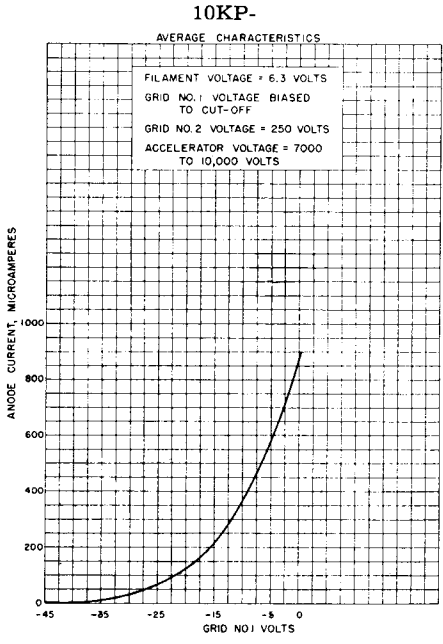
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|--|----------------------|
| Anode Voltage | 9,000 Volts D-C |
| Grid No. 2 Voltage | 250 Volts D-C |
| Grid No. 1 Voltage ² | -27 to -63 Volts D-C |
| Focusing Coil Current ³ | 105 Approx. Ma. D-C |

MAXIMUM CIRCUIT VALUES

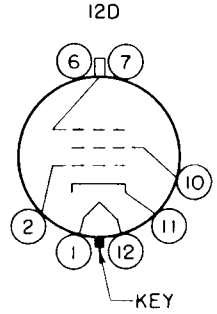
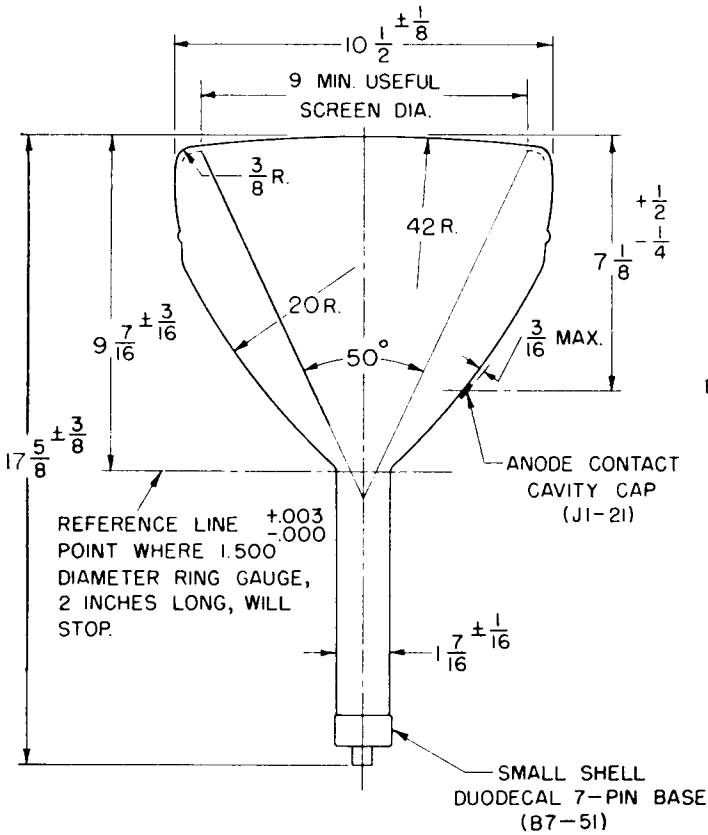
Grid No. 1 Circuit Resistance 1.5 Max. Megohms

NOTES

1. At or near this rating, the effective resistance of the anode supply should be adequate to limit the anode input power to 6 watts.
2. Visual extinction of undeflected focused spot.
3. For JETEC standard focus coil No. 106, or equivalent, with the Grid No. 1 voltage adjusted to produce an anode current of 200 microamperes and with distance (D) from reference line to center of air gap equal to 3.25 inches.



TYPE 10KP-



BOTTOM VIEW OF BASE

PIN NO. ELEMENT

- 1 — HEATER
- 2 — GRID NO. 1
- 10 — GRID NO. 2
- 11 — CATHODE
- 12 — HEATER
- CAP — ANODE

