CATHODE RAY

THE 24ZP4 IS A DIRECT VIEW PICTURE TUBE DESIGNED FOR TELEVISION APPLICATIONS. ITS FEATURES INCLUDE:

- Aluminized Screen
- Electrosopic Focus
- Magnetic Deflection
- Unipotential Cathode
- Gray Filter Faceplate
- 21 1/8" x 16 3/8" Raster Size
- External Conductive Coating
- Rectangular Glass Construction
- Does Not Require Ion Trap

ELECTRICAL DATA

FOCUSING METHOD
DEFLECTING METHOD
DEFLECTION ANGLE (APPROX.):
- Horizontal: 85 degrees
- Vertical: 70 degrees
- Diagonal: 90 degrees

DIRECT INTERELECTRODE CAPACITANCES (APPROX.):
- Cathode to all other electrodes: 5 µf
- Grid #4 to all other electrodes: 6 µf
- Maximum external conductive coating to anode: 750 µf
- Minimum external conductive coating to anode: 500 µf

OPTICAL DATA

- Phosphor Number: Sulphide Type P-4
- Fluorescent Color: White
- Phosphorescent Color: White
- Persistence: Short
- Faceplate Transmission at Center (Approx.): 68 Percent

RATINGS

- Heater Voltage: 6.3 Volts
- Heater Current: 0.6 ±10% Amp.
- Maximum DC Anode Voltage: 20,000 Volts
- Maximum DC Grid #4 Voltage: -500 to +1000 Volts
- Maximum DC Grid #2 Voltage: 500 Volts
- Maximum Grid #1 Voltage:
  - DC Negative-Bias Value: 125 Volts
  - DC Positive-Bias Value: 0 Volts
  - Positive-Peak Value: 2 Volts
- Maximum DC Peak Heater-Cathode Voltage:
  - Heater Negative with Respect to Cathode During Warm-Up Period Not To Exceed 45 Seconds: 410 Volts
  - After Equipment Warm-Up Period: 180 Volts
  - Heater Positive with Respect to Cathode: 180 Volts
- Maximum Grid #1 Circuit Resistance: 1.5 Megohms

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

- DC Anode Voltage: 16,000 Volts
- DC Grid #4 Voltage: 0 to 500 Volts
- DC Grid #2 Voltage: 300 Volts
- DC Grid #1 Voltage:
  - 28 to -72 Volts

A. Cathode should be returned to one side or to the midtap of the heater transformer winding.
B. Brilliance and definition decrease with decreasing anode voltage. In general, the anode voltage should not be less than 14,000 volts.
C. Visual extinction of focused raster.

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MECHANICAL DATA

OVERALL LENGTH 21 1/8 ± 3/8 INCHES

GREATEST DIMENSIONS OF BULB:

DIAGONAL 24 ± 1/8 INCHES
WIDTH 22 43/64 ± 1/8 INCHES
HEIGHT 18 7/16 ± 1/8 INCHES

MIN. USEFUL SCREEN DIMENSIONS:

DIAGONAL 22 9/16 INCHES
WIDTH 21 1/4 INCHES
HEIGHT 16 3/4 INCHES

BULB CONTACT RECESSED SMALL CAVITY CAP J1-21
BASE SMALL SHELL DUODECAL 6 PIN B6-63
BASING 12L

BULB CONTACT ALIGNMENT:
J1-24 CONTACT ALIGNS WITH PIN POSITION #6 ± 30 DEGREES

PIN 1 - HEATER
PIN 2 - GRID #1
PIN 6 - GRID #4
PIN 10 - GRID #2
PIN 11 - CATHODE

PIN CONNECTIONS

PIN 12 - HEATER: ANODE CAP:
GRID NO. 3
GRID NO. 5

BOTTOM VIEW