CATHODE RAY

THE 24ADP4 IS A DIRECT VIEW PICTURE TUBE DESIGNED FOR TELEVISION APPLICATIONS. ITS FEATURES INCLUDE:

- GRAY FILTER FACEPLATE
- MAGNETIC FOCUS AND DEFOCTION
- RECTANGULAR GLASS CONSTRUCTION
- 21 7/16” X 16 7/8” RASTER SIZE
- ALUMINIZED SCREEN
- UNIPOTENTIAL CATHODE
- EXTERNAL CONDUCTIVE COATING
- EXTERNAL SINGLE FIELD ION TRAP

ELECTRICAL DATA

FOCUSING METHOD
DEFLECTING METHOD
DEFLECTION ANGLE (APPROX.):
  HORIZONTAL 85 DEGREES
  DIAGONAL 90 DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.):
  CATHODE TO ALL OTHER ELECTRODES 5 µF
  GRID #1 TO ALL OTHER ELECTRODES 6 µF
  MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE 2500 µF
  MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE 2000 µF

OPTICAL DATA

PHOSPHOR NUMBER
SULFIDE TYPE P-4
FLUORESCENT COLOR WHITE
PHOSPHORESCENT COLOR WHITE
PERSISTENCE SHORT TO MEDIUM
FACEPLATE TRANSMISSION AT CENTER (APPROX.) 75 PERCENT

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM
HEATER VOLTAGE 6.3 VOLTS
HEATER CURRENT 0.6 ±5% AMP.
MAXIMUM DC ANODE VOLTAGE 2400 VOLTS
MAXIMUM DC GRID #2 VOLTAGE 660 VOLTS
MAXIMUM GRID #1 VOLTAGE:
  DC NEGATIVE-BIAS VALUE 155 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 ±5 SECONDS
  AFTER EQUIPMENT WARM-UP PERIOD 450 VOLTS
  HEATER POSITIVE WITH RESPECT TO CATHODE 200 VOLTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE 1.5 MEGOHMS
HEATER WARM-UP TIME (APPROX.)* 11.0 SECONDS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC ANODE VOLTAGE 18,000 VOLTS
DC GRID #2 VOLTAGE 300 VOLTS
DC GRID #1 VOLTAGE 26 TO -72 VOLTS
DC FOCUSING COIL CURRENT (APPROX.) 125 ±15% MA.
DC ION TRAP MAGNET STANDARD COIL #117 (APPROX.) 32 MA.
DC ION TRAP MAGNET RATED STRENGTH 36 GAUSSES

*HEATER WARM-UP TIME IS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TERMINALS TO INCREASE TO 5.0 VOLTS IN THE JETEC TEST CIRCUIT, WITH ±25 VOLTS AND SERIES R = 31.5 OHMS.

CONTINUED ON FOLLOWING PAGE

TUNG-SOL ELECTRIC INC. ELECTRON TUBE DIVISION BLOOMFIELD, NEW JERSEY, U.S.A. APRIL 1, 1957 PLATE #4969
OVERALL LENGTH: 21 1/8 ± 3/8 INCHES
GREATEST DIMENSIONS OF BULB:
DIAGONAL: 24 ± 1/8 INCHES
WIDTH: 22 11/16 ± 1/8 INCHES
HEIGHT: 18 7/16 ± 1/8 INCHES
MIN. USEFUL SCREEN DIMENSIONS:
DIAGONAL: 22 11/16 INCHES
WIDTH: 21 7/16 INCHES
HEIGHT: 18 7/16 INCHES
BULB CONTACT: RECESSED SMALL CAVITY CAP
BASE: SMALL SHELL DUODECAL 5 PIN
BASING: 74-57
BULB CONTACT ALIGNMENT: J4-21 CONTACT ALIGNS WITH PIN POSITION #6 ± 30 DEGREES

PIN CONNECTIONS

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

PIN 12 - HEATER
ANODE CAP:
GRID NO. 3

BOTTOM VIEW