CATHODE RAY

THE 17BVP4 IS A VERY SHORT, DIRECT-VIEW PICTURE TUBE DESIGNED FOR TELEVISION APPLICATIONS. ITS FEATURES INCLUDE:

- ALUMINIZED SCREEN
- MAGNETIC DEFLECTION
- GRAY FILTER FACEPLATE
- 14 3/8 X 11 3/4 RASTER SIZE
- RECTANGULAR GLASS CONSTRUCTION
- ELECTROSTATIC FOCUS
- UNIPOTENTIAL CATHODE
- EXTERNAL CONDUCTIVE COATING
- EXTERNAL SINGLE FIELD ION TRAP
- CONTROLLED HEATER WARM-UP TIME

ELECTRICAL DATA

FOCUSING METHOD: ELECTROSTATIC
DEFLECTING METHOD: MAGNETIC
DEFLECTION ANGLE (APPROX.):
- HORIZONTAL: 10° DEGREES
- VERTICAL: 87 DEGREES
- DIAGONAL: 110 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: 1500 µF
- MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE: 1000 µF

OPTICAL DATA

PHOSPHOR NUMBER: SULFIDE TYPE
- P-4
FLUORESCENT COLOR: WHITE
PHOSPHORESCENT COLOR: WHITE
PERSISTENCE: SHORT TO MEDIUM
FACEPLATE TRANSMISSION AT CENTER (APPROX.): 79 PERCENT

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HEATER VOLTAGE: 6.3 VOLTS
HEATER CURRENT: 0.6 ±5% AMP.
MAXIMUM DC ANODE VOLTAGE: 17 600 VOLTS
MAXIMUM DC GRID #4 VOLTAGE: -550 TO +1100 VOLTS
MAXIMUM DC GRID #2 VOLTAGE: 550 VOLTS
MAXIMUM GRID #1 VOLTAGE:
- DC NEGATIVE-BIAS VALUE: 154 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 15 SECONDS: 450 VOLTS
- AFTER EQUIPMENT WARM-UP PERIOD: 200 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: 14 000 VOLTS
- DC GRID #4 VOLTAGE: -50 TO +350 VOLTS
- DC GRID #2 VOLTAGE: 300 VOLTS
- DC GRID #1 VOLTAGE: -35 TO -72 VOLTS
- DC ION TRAP MAGNET RATED STRENGTH: 33 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 E = 25 VOLTS AND SERIES R = 31.5 OHMS.

A VISUAL EXTINCTION OF FOCUSED RASTER.

CONTINUED ON FOLLOWING PAGE
MECHANICAL DATA

OVERALL LENGTH: 13 1/4 ± 5/16 INCHES
GREATEST DIMENSIONS OF BULB:
- Diagonal: 16.562 ± .100 INCHES
- Width: 15.625 ± .100 INCHES
- Height: 12.750 ± .100 INCHES
MIN. USEFUL SCREEN DIMENSIONS:
- Diagonal: 15.750 INCHES
- Width: 14.750 INCHES
- Height: 11.750 INCHES
BULB CONTACT: RECESSED SMALL CAVITY CAP J1-21
BASE:
BASING:
BULB CONTACT ALIGNMENT:
J1-21 CONTACT ALIGNS WITH PIN POSITION #7 ± 30 DEGREES

PIN CONNECTIONS

PIN 2 - CATHODE
PIN 3 - HEATER
PIN 4 - HEATER
PIN 5 - GRID #1
PIN 6 - GRID #4
PIN 7 - GRID #2

ANODE CAP:
GRID NO. 3