CATHODE RAY

THE 17JP4 IS A DIRECT VIEW PICTURE TUBE DESIGNED FOR USE IN TELEVISION APPLICATIONS. ITS FEATURES INCLUDE:

- NEUTRAL DENSITY FACEPLATE
- UNIPOTENTIAL CATHODE
- EXTERNAL CONDUCTIVE COATING
- MAGNETIC FOCUS & DEFLECTION
- RECTANGULAR GLASS CONSTRUCTION
- EXTERNAL SINGLE FIELD ION TRAP
- 10 3/8" X 14 1/4" RASTER SIZE

ELECTRICAL DATA

FOCUSING METHOD MAGNETIC
DEFLECTING METHOD MAGNETIC
DEFLECTION ANGLE (APPROX.)
   HORIZONTAL 65 DEGREES
   VERTICAL 50 DEGREES
   DIAGONAL 70 DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.)
   CATHODE TO ALL OTHER ELECTRODES 5 &
   GRID #1 TO ALL OTHER ELECTRODES 6 &
   MAXIMUM EXTERNAL CONDUCTIVE COATING TO COLLECTOR 750 &
   MINIMUM EXTERNAL CONDUCTIVE COATING TO COLLECTOR 500 &

OPTICAL DATA

PHOSPHOR NUMBER SULFIDE TYPE NO. 4
FLUORESCENT COLOR WHITE
PHOSPHORESCENT COLOR WHITE
PERSISTENCE MEDIUM
FACEPLATE LIGHT TRANSMISSION AT CENTER (APPROX.) 66 PERCENT

MECHANICAL DATA

OVERALL LENGTH 19 3/16 ± 3/8 INCHES
GREATEST DIMENSIONS OF BULB
   DIAGONAL 16 5/8 ± 1/8 INCHES
   WIDTH 15 3/8 ± 1/8 INCHES
   HEIGHT 12 9/32 ±1/8 -7/32 INCHES
MINIMUM USEFUL SCREEN DIMENSIONS
   DIAGONAL 15 1/2 INCHES
   WIDTH 14 1/4 INCHES
   HEIGHT 10 3/4 INCHES
BULB CONTACT RECESSED SMALL CAVITY CAP J4-21
BASE SMALL SHELL DIODECAL 5 PIN 85-S7
BASING 12N
BULB CONTACT ALIGNMENT
   J4-24 CONTACT ALIGNS WITH PIN POSITION #6 ± 30 DEGREES

PIN CONNECTIONS

PIN 1 - HEATER
PIN 2 - GRID NO. 1
PIN 10 - GRID NO. 2
PIN 11 - CATHODE

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

BOTTOM VIEW

CONTINUED ON FOLLOWING PAGE
RATINGS
DESIGN CENTER VALUES

HEATER VOLTAGE 6.3 VOLTS
HEATER CURRENT 0.6 AMP.
MAXIMUM DC GRID #3 & COLLECTOR VOLTAGE 18000 VOLTS
MAXIMUM DC GRID #2 VOLTAGE 410 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 15 SECONDS 410 VOLTS
AFTER EQUIPMENT WARM-UP PERIOD 150 VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE 150 VOLTS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC GRID #3 & COLLECTOR VOLTAGE 16000 VOLTS
DC GRID #2 VOLTAGE 300 VOLTS
DC GRID #1 VOLTAGE A −33 TO −77 VOLTS
DC FOCUSING COIL CURRENT (APPROX.) B 110 ± 10% MA.
ION TRAP RATED STRENGTH STANDARD COIL #11 50 GAUSSES

A VISUAL EXTINCTION OF UNDEFOCUSED FOCUSED SPOT.

B FOR STANDARD FOCUS COIL #109, OR EQUIVALENT, WITH THE COMBINED GRID #1 BIAS VOLTAGE AND VIDEO SIGNAL VOLTAGE ADJUSTED TO PRODUCE A HIGHLIGHT BRIGHTNESS OF 30 FOOT LAMBERTS ON A 24 1/4" BY 36 3/4" PICTURE SIZE, DISTANCE FROM REFERENCE LINE TO CENTER OF AIR GAP ON FOCUS COIL SHALL BE 3.0 INCHES.

CIRCUIT VALUES

MAXIMUM GRID #1 CIRCUIT RESISTANCE 1.5 MEGOHMS