CATHODE RAY

THE 17SP4 IS A DIRECT VIEW PICTURE TUBE DESIGNED FOR USE IN TELEVISION APPLICATIONS. ITS FEATURES INCLUDE:

ELECTROSTATIC FOCUS  MAGNETIC DEFLECTION
CYLINDRICAL FACEPLATE  UNIPOTENTIAL CATHODE
EXTERNAL CONDUCTIVE COATING  GREY FILTER FACEPLATE
RECTANGULAR GLASS CONSTRUCTION  EXTERNAL SINGLE FIELD ION TRAP
14 1/2" X 10 7/8" RASTER SIZE

ELECTRICAL DATA

FOCUSING METHOD  ELECTROSTATIC
DELECTING METHOD  MAGNETIC
DEFLECTION ANGLE (APPROX.)
HORIZONTAL  70 DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.)
CATHODE TO ALL OTHER ELECTRODES  5 μf
GRID #4 TO ALL OTHER ELECTRODES  6.5 μf
MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE  750 μf
MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE  500 μf

OPTICAL DATA

PHOSPHOR NUMBER  NO. 4
FLUORESCENT COLOR  WHITE
PHOSPHORESCENT COLOR  WHITE
PERSISTENCE  MEDIUM
FACEPLATE LIGHT TRANSMISSION AT CENTER (APPROX.)  70 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 1/4 ± 1/8 INCHES
MINIMUM USEFUL SCREEN DIMENSIONS
DIAGONAL  15 13/16 INCHES
WIDTH  14 1/2 INCHES
HEIGHT  10 7/8 INCHES
BULB CONTACT  RECESSED SMALL CAVITY CAP J1-21
BASE  SMALL SHELL DUODECIAL 5 PIN 85-57
BASING  12N
BULB CONTACT ALIGNMENT  J1-21 CONTACT ALIGNS WITH PIN POSITION #3 ± 10 DEGREES

PIN CONNECTIONS

PIN 1 - HEATER
PIN 2 - GRID NO. 1
PIN 40 - GRID NO. 2
PIN 41 - CATHODE
PIN 42 - HEATER
ANODE CAP

CONTINUED ON FOLLOWING PAGE
RATINGS
DEVSIGN CENTER VALUES

HEATER VOLTAGE 6.3 VOLTS
HEATER CURRENT 0.6 AMP.
MAXIMUM DC ANODE, GRID #3 VOLTAGE 14,000 VOLTS
MAXIMUM DC GRID #2 VOLTAGE 410 VOLTS
MAXIMUM GRID #4 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 125 VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE 125 VOLTS

A CATHODE SHOULD BE RETURNED TO ONE SIDE OR TO THE MIDTAP OF THE HEATER TRANSFORMER WINDING.

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC ANODE, GRID #3 VOLTAGE 13,000 VOLTS
DC GRID #2 VOLTAGE 250 VOLTS
DC GRID #4 VOLTAGE B -33 TO -77 VOLTS
DC ION TRAP CURRENT STANDARD COIL #411 (APPROX.) 120 MA.

B VISUAL EXTINCTION OF UNCELECTED FOCUSED SPOT.

CIRCUIT VALUES

MAXIMUM GRID #4 CIRCUIT RESISTANCE 1.5 MEGOHMS