

RATINGS

DESIGN CENTER VALUES

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	0.6	AMP.
MAXIMUM DC ANODE, GRID #3 VOLTAGE ^A	18 000	VOLTS
MAXIMUM DC GRID #2 VOLTAGE	500	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	410	VOLTS
DURING WARM-UP PERIOD NOT TO EXCEED 15 SECONDS		
AFTER EQUIPMENT WARM-UP PERIOD	150	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	150	VOLTS

^ABECAUSE THE RATING OF THIS TUBE PERMITS ANODE VOLTAGES AS HIGH AS 19.0KV, SHIELDING OF X-RAY RADIATION FROM THE TUBE MAY BE NECESSARY. THIS PRECAUTION SHOULD BE OBSERVED WHEN THE ANODE IS OPERATED IN EXCESS OF 16KV.

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC ANODE, GRID #3 VOLTAGE	12 000	VOLTS
DC GRID #2 VOLTAGE	300	VOLTS
DC GRID #4 VOLTAGE ^B	-35 TO -77	VOLTS
DC FOCUSING COIL CURRENT (APPROX.) ^C	95 ± 20%	MA.
DC ION TRAP CURRENT STANDARD COIL #414 (APPROX.)	75 ± 50%	MA.
ION TRAP FIELD INTENSITY (RATED STRENGTH)	35	GAUSSSES

^BVISUAL EXTINCTION OF UNDEFLECTED FOCUSED SPOT.

^CFOR STANDARD FOCUS COIL #109, OR EQUIVALENT, WITH THE COMBINED GRID #1 BIAS VOLTAGE AND VIDEO SIGNAL VOLTAGE ADJUSTED TO PRODUCE A BRIGHTNESS OF 20 FOOT LAMBERTS ON A 13 7/8" BY 19 1/8" PICTURE SIZE. DISTANCE FROM REFERENCE LINE TO CENTER OF AIR GAP ON FOCUS COIL SHALL BE 3.0 INCHES.

CIRCUIT VALUES

MAXIMUM GRID #4 CIRCUIT RESISTANCE 1.5 MEGOHMS

CATHODE RAY

THE 21EP4, 21EP4A AND 21EP4B ARE DIRECT-VIEW PICTURE TUBES DESIGNED FOR USE IN TELEVISION APPLICATIONS. THE 21EP4A AND 21EP4B HAVE EXTERNAL CONDUCTIVE COATINGS WITH THE 21EP4B ALSO HAVING AN ALUMINIZED SCREEN. IN ALL OTHER RESPECTS THESE TUBES ARE IDENTICAL. THEIR COMMON FEATURES INCLUDE:

- UNIPOTENTIAL CATHODE
- CYLINDRICAL FACEPLATE
- EXTERNAL SINGLE FIELD ION TRAP

- GREY FILTER FACEPLATE
- MAGNETIC FOCUS & DEFLECTION
- 19 1/8" X 13 7/8" RASTER SIZE

ELECTRICAL DATA

- FOCUSING METHOD
- DEFLECTING METHOD
- DEFLECTION ANGLE (APPROX.):
- HORIZONTAL
- DIAGONAL
- DIRECT INTERELECTRODE CAPACITANCES (APPROX.):
- CATHODE TO ALL OTHER ELECTRODES
- GRID #1 TO ALL OTHER ELECTRODES
- EXTERNAL CONDUCTIVE COATING TO ANODE (MAX.)
- EXTERNAL CONDUCTIVE COATING TO ANODE (MIN.)

500	21EP4B	500
750	21EP4A & 21EP4B	750
6		6
5		5

OPTICAL DATA

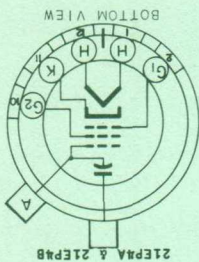
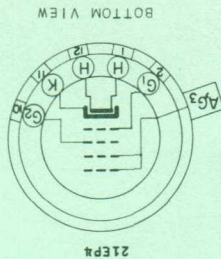
- PHOSPHOR NUMBER
- FLUORESCENT COLOR
- PHOSPHORESCENT COLOR
- PERSISTENCE
- FACEPLATE LIGHT TRANSMISSION AT CENTER (APPROX.)
- 66
- PERCENT
- NO. 4
- WHITE
- WHITE
- MEDIUM

MECHANICAL DATA

- OVERALL LENGTH
- DIAGONAL
- WIDTH
- HEIGHT
- MINIMUM USEFUL SCREEN DIMENSIONS:
- WIDTH
- HEIGHT
- BULB CONTACT
- BASE
- BASING
- BULB CONTACT ALIGNMENT
- J4-24 CONTACT ALIGNS WITH PIN POSITION #6 $\pm$ 30 DEGREES

PIN CONNECTIONS

- PIN 1 - HEATER
- PIN 2 - GRID NO. 1
- PIN 3 - GRID NO. 2
- PIN 4 - CATHODE
- PIN 12 - HEATER
- ANODE CAP:
- GRID NO. 3



TUNG-SOL

