

TUNG-SOL

CATHODE RAY

THE 21KP4 AND 21KP4A ARE DIRECT-VIEW PICTURE TUBES DESIGNED FOR USE IN TELEVISION APPLICATIONS. THEY ARE IDENTICAL *EXCEPT* FOR THE EXTERNAL CONDUCTIVE COATING ON THE 21KP4A. THEIR COMMON FEATURES INCLUDE:

ELECTROSTATIC FOCUS	MAGNETIC DEFLECTION
UNIPOTENTIAL CATHODE	CYLINDRICAL FACEPLATE
GREY FILTER FACEPLATE	13 7/8" X 19 1/8" RASTER SIZE
RECTANGULAR GLASS CONSTRUCTION	EXTERNAL SINGLE FIELD ION TRAP

ELECTRICAL DATA

FOCUSING METHOD		ELECTROSTATIC
DEFLECTING METHOD		MAGNETIC
DEFLECTION ANGLE (APPROX.):		
HORIZONTAL	65	DEGREES
DIAGONAL	70	DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.)		
CATHODE TO ALL OTHER ELECTRODES	6	μf
GRID #1 TO ALL OTHER ELECTRODES	6.5	μf
MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE 21KP4A	750	μf
MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE ONLY	500	μf

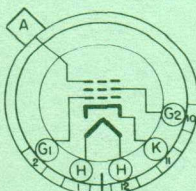
OPTICAL DATA

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

MECHANICAL DATA

OVERALL LENGTH	23 $\pm$ 3/8	INCHES
GREATEST DIMENSIONS OF BULB:		
DIAGONAL	21 7/32 $\pm$ 1/8	INCHES
WIDTH	20 1/4 $\pm$ 1/8	INCHES
HEIGHT	15 9/16 $\pm$ 1/8	INCHES
MINIMUM USEFUL SCREEN DIMENSIONS:		
WIDTH	19 1/8	INCHES
HEIGHT	13 7/8	INCHES
BULB CONTACT	RECESSED SMALL CAVITY CAP	J4-21
BASE	SMALL SHELL DUODECAL 5 PIN	B5-57
BASING	21KP4A - 12N	21KP4
BULB CONTACT ALIGNMENT		12D
J4-21 CONTACT ALIGNS WITH PIN POSITION #6 $\pm$ 30 DEGREES		

21KP4

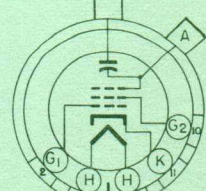


BOTTOM VIEW

PIN CONNECTIONS

PIN 1 - HEATER
 PIN 2 - GRID NO. 1
 PIN 10 - GRID NO. 2
 PIN 11 - CATHODE
 PIN 12 - HEATER
 ANODE CAP

21KP4A



BOTTOM VIEW

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RATINGS

DESIGN CENTER VALUES

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	0.6	AMP.
MAXIMUM DC ANODE VOLTAGE	18 000	VOLTS
MAXIMUM GRID #2 VOLTAGE	500	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	180	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	180	VOLTS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC ANODE VOLTAGE	12 000	VOLTS
DC GRID #2 VOLTAGE	300	VOLTS
DC GRID #1 VOLTAGE ^A	-33 TO -77	VOLTS
DC ION TRAP CURRENT STANDARD COIL #111 (APPROX.)	50 $\pm$ 50%	MA.
CENTERING MAGNET FIELD STRENGTH	0 TO 8	GAUSSSES

^A VISUAL EXTINCTION OF UNDEFLECTED FOCUSED SPOT.

CIRCUIT VALUES

MAXIMUM GRID #1 CIRCUIT RESISTANCE	1.5	MEGOHMS
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