

TUNG-SOL

CATHODE RAY

THE 24AP4, 24AP4A AND 24AP4B ARE DIRECT-VIEW PICTURE TUBES DESIGNED FOR USE IN TELEVISION APPLICATIONS. THEY ARE IDENTICAL *EXCEPT* FOR THE ALUMINIZED SCREEN ON THE 24AP4A AND THE FACEPLATE TREATED TO ELIMINATE SPECULAR REFLECTION ON THE 24AP4B. THEIR COMMON FEATURES INCLUDE:

UNIPOTENTIAL CATHODE
ROUND METAL CONSTRUCTION
MAGNETIC FOCUS & DEFLECTION

GREY FILTER FACEPLATE
EXTERNAL SINGLE FIELD ION TRAP
16 9/16" X 22 1/8" RASTER SIZE

ELECTRICAL DATA

FOCUSING METHOD			MAGNETIC
DEFLECTING METHOD			MAGNETIC
DEFLECTION ANGLE (APPROX.)	70		DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.):			
CATHODE TO ALL OTHER ELECTRODES	5	$\mu\mu\text{f}$	
GRID #1 TO ALL OTHER ELECTRODES	6	$\mu\mu\text{f}$	

OPTICAL DATA

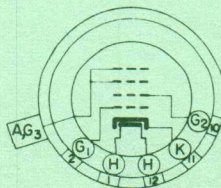
PHOSPHOR NUMBER		NO. 4
FLUORESCENT COLOR		WHITE
PHOSPHORESCENT COLOR		WHITE
PERSISTENCE		MEDIUM
FACEPLATE LIGHT TRANSMISSION AT CENTER (APPROX.)	62	PERCENT

MECHANICAL DATA

OVERALL LENGTH	23 15/16 $\pm$ 1/2	INCHES
GREATEST DIAMETER OF BULB	24 $\pm$ 1/4	INCHES
MINIMUM USEFUL SCREEN DIAMETER	22 1/8	INCHES
BULB CONTACT	METAL SHELL LIP	
BASE	SMALL SHELL DUODECAL 5 PIN	B5-57
BASING		12D

PIN CONNECTIONS

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



PIN 12 - HEATER
METAL SHELL LIP:
ANODE
GRID NO. 3

BOTTOM VIEW

CONTINUED ON FOLLOWING PAGE

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RATINGS

DESIGN CENTER VALUES

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	0.6	AMP.
MAXIMUM DC ANODE, GRID #3 VOLTAGE ^A	16 000	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: ^B		
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

^A IF THIS TUBE IS OPERATED AT VOLTAGES IN EXCESS OF 16,000 VOLTS, X-RAY RADIATION SHIELDING MAY BE NECESSARY TO AVERT POSSIBLE DANGER FROM PROLONGED EXPOSURE AT CLOSE RANGE.

^B CATHODE SHOULD BE RETURNED TO ONE SIDE OR TO THE MID-TAP OF THE HEATER TRANSFORMER WINDING.

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC ANODE, GRID #3 VOLTAGE	15 000	VOLTS
DC GRID #2 VOLTAGE	300	VOLTS
DC GRID #1 VOLTAGE ^C	-33 TO -77	VOLTS
DC FOCUSING COIL CURRENT (APPROX.)	114	MA.
ION TRAP (RATED STRENGTH) APPROX.	36	GAUSSES

^C VISUAL EXTINCTION OF UNDEFLECTED FOCUSED SPOT.

CIRCUIT VALUES

MAXIMUM GRID #1 CIRCUIT RESISTANCE	1.5	MEGOHMS
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