

TUNG-SOL

CATHODE RAY

THE 27AP4 IS A DIRECT-VIEW PICTURE TUBE DESIGNED FOR USE IN TELEVISION APPLICATIONS. ITS FEATURES INCLUDE:

ELECTROSTATIC FOCUS	MAGNETIC DEFLECTION
GREY FILTER FACEPLATE	UNIPOTENTIAL CATHODE
RECTANGULAR METAL CONSTRUCTION	EXTERNAL SINGLE FIELD ION TRAP
23 7/16" X 18 1/8" RASTER SIZE	

ELECTRICAL DATA

FOCUSING METHOD	ELECTROSTATIC	
DEFLECTING METHOD	MAGNETIC	
DEFLECTION ANGLE (APPROX.):		
DIAGONAL	90	DEGREES
HORIZONTAL	85	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

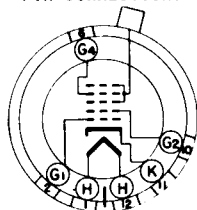
PHOSPHOR NUMBER	NO. 4
FLUORESCENT COLOR	WHITE
PHOSPHORESCENT COLOR	WHITE
PERSISTENCE	MEDIUM
FACEPLATE LIGHT TRANSMISSION AT CENTER (APPROX.)	66 PERCENT
SPECULAR REFLECTION OF AMBIENT LIGHT	2.5 PERCENT

MECHANICAL DATA

OVERALL LENGTH	21 5/8 $\pm$ 9/16	INCHES
GREATEST DIMENSIONS OF BULB:		
DIAGONAL	26 7/8 $\pm$ 3/16	INCHES
WIDTH	25 1/4 $\pm$ 1/8	INCHES
HEIGHT	19 15/16 $\pm$ 1/8	INCHES
MINIMUM USEFUL SCREEN DIMENSIONS:		
WIDTH	23 7/16	INCHES
HEIGHT	18 1/8	INCHES
BULB CONTACT	METAL SHELL LIP	
BASE	SMALL SHELL DUODECAL 6 PIN	B6-63
BASING		12M

PIN CONNECTIONS

PIN 1 - HEATER
 PIN 2 - GRID NO. 1
 PIN 6 - GRID NO. 4
 PIN 10 - GRID NO. 2
 PIN 11 - CATHODE



PIN 12 - HEATER
 METAL SHELL LIP:
 GRID NO. 3
 GRID NO. 5
 COLLECTOR

BOTTOM VIEW

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RATINGS

DESIGN CENTER VALUES

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	0.6	AMP.
MAXIMUM DC GRID #3, GRID #5, COLLECTOR VOLTAGE	18 000	VOLTS
MAXIMUM DC GRID #4 VOLTAGE ^A	-500 TO +1000	VOLTS
MAXIMUM DC 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

^A THE FOCUS ELECTRODE MAY BE MODULATED TO IMPROVE OVERALL FOCUS.

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC GRID #3, GRID #5, COLLECTOR VOLTAGE	15 000	VOLTS
DC GRID #4 VOLTAGE ^B	-60 TO +300	VOLTS
DC GRID #2 VOLTAGE	300	VOLTS
DC GRID #1 VOLTAGE ^C	-33 TO -77	VOLTS
DC ION TRAP CURRENT STANDARD COIL #111 (APPROX.)	85	MA.
DC GRID #4 CURRENT	-15 TO +25	μAMP.

^B MEASURED AT 100 UAMP. ANODE CURRENT AND EQUAL VERTICAL AND HORIZONTAL RESOLUTION.

^C VISUAL EXTINCTION OF UNDEFLECTED FOCUSED SPOT.

CIRCUIT VALUES

MAXIMUM GRID #1 CIRCUIT RESISTANCE	1.5	MEGOHMS
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