

TUNG-SOL

CATHODE RAY

THE 30BP4 IS A DIRECT-VIEW PICTURE TUBE DESIGNED FOR USE IN TELEVISION APPLICATIONS. ITS FEATURES INCLUDE:

GREY FILTER FACEPLATE	UNIPOTENTIAL CATHODE
MAGNETIC FOCUS & DEFLECTION	ROUND METAL CONSTRUCTION
EXTERNAL SINGLE FIELD ION TRAP	25 9/16" X 19 1/4" RASTER SIZE

MECHANICAL DATA

FOCUSING METHOD		
DEFLECTING METHOD		MAGNETIC
DEFLECTION ANGLE (APPROX.)	90	MAGNETIC
DIRECT INTERELECTRODE CAPACITANCES (APPROX.):		DEGREES
CATHODE TO ALL OTHER ELECTRODES	5	μf
GRID #1 TO ALL OTHER ELECTRODES	7	μf

OPTICAL DATA

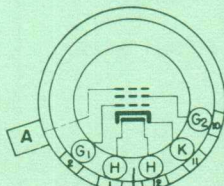
PHOSPHOR NUMBER		NO. 4
FLUORESCENT COLOR		WHITE
PHOSPHORESCENT COLOR		WHITE
PERSISTENCE		MEDIUM
FACEPLATE LIGHT TRANSMISSION AT CENTER (APPROX.)	66	PERCENT

MECHANICAL DATA

OVERALL LENGTH	23 9/16 $\pm$ 1/2	INCHES
GREATEST DIAMETER OF BULB	30 1/8 $\pm$ 1/4	INCHES
MINIMUM USEFUL SCREEN DIAMETER	28 1/4	INCHES
BULB CONTACT	METAL SHELL LIP	
BASE	SMALL SHELL DUODECAL 5 PIN	85-57
BASING		12D

PIN CONNECTIONS

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



PIN 11 - CATHODE
PIN 12 - HEATER
ANODE CAP

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 VOLTAGE ^A	30 000	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:		
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 PROTECT AGAINST POSSIBLE INJURY FROM PROLONGED EXPOSURE AT CLOSE RANGE. SUCH PROTECTION MAY BE PROVIDED BY THE PROTECTIVE FACE VIEWING WINDOW OF APPARATUS USING TUBES OF THIS TYPE.

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC ANODE VOLTAGE	12 000	VOLTS
DC GRID #2 VOLTAGE	300	VOLTS
DC GRID #1 VOLTAGE ^B	-33 TO -77	VOLTS
DC FOCUSING COIL CURRENT ^C (APPROX.)	95 $\pm$ 20%	MA.
DC ION TRAP CURRENT STANDARD COIL #111 (APPROX.)	75 $\pm$ 50%	MA.

^B VISUAL EXTINCTION OF UNDEFLECTED FOCUSED SPOT.

^C FOR STANDARD FOCUS COIL #109, OR EQUIVALENT, WITH THE COMBINED GRID #1 BIAS VOLTAGE AND VIDEO-SIGNAL VOLTAGE ADJUSTED TO PRODUCE A HIGHLIGHT BRIGHTNESS OF 7 FOOT LAMBERTS ON A 19 1/4" BY 25 9/16" PICTURE SIZE. DISTANCE FROM REFERENCE LINE TO CENTER OF AIR GAP ON FOCUS COIL SHALL BE 3.0 INCHES.

CIRCUIT VALUES

MAXIMUM GRID #1 CIRCUIT RESISTANCE	1.5	MEGOHMS
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