# --- TUNG·SOL --

## CATHODE RAY

THE 24BP4 IS A DIRECT-VIEW PICTURE TUBE DESIGNED FOR USE IN TELEVISION APPLICATIONS. ITS FEATURES INCLUDE:

> ELECTROSTATIC FOCUS GREY FILTER FACEPLATE ROUND METAL CONSTRUCTION

MAGNETIC DEFLECTION UNIPOTENTIAL CATHODE EXTERNAL SINGLE FIELD ION TRAP

### ELECTRICAL DATA

FOCUSING METHOD		ELECTROSTATIC
DEFLECTING METHOD		MAGNETIC
DEFLECTION ANGLE (APPROX.)	70	DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.):		
CATHODE TO ALL OTHER ELECTRODES	5	μμf
GRID #1 TO ALL OTHER ELECTRODES	6	μμf

#### OPTICAL DATA

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

### MECHANICAL DATA

OVER	ALL LENGTH	24 1/4 ± 1/2	INCHES
GREA	TEST DIAMETER OF BULB	24	INCHES
MINI	MUM USEFUL SCREEN DIAMETER	22 1/4	INCHES
BULB	CONTACT	METAL SHELL LIP	
BASE		SMALL SHELL DUODECAL 6 PIN	B6-63
BASI	NG		1 2M

### 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 HEATER CURRENT MAXIMUM DC GRID #3, GRID #5, COLLECTOR VOLTAGE MAXIMUM DC GRID #4 VOLTAGE RANGE	6.3 0.6 16 000	VOLTS AMP. VOLTS
(FOCUSING ELECTRODE) -64	то 350 о +1000 500	VOLTS VOLTS VOLTS
DC NEGATIVE—BIAS VALUE DC POSITIVE—BIAS VALUE POSITIVE—PEAK VALUE MAXIMUM DC PEAK HEATER—CATHODE VOLTAGE:	125 0 2	VOLTS VOLTS VOLTS
HEATER NEGATIVE WITH RESPECT TO CATHODE DURING WARM—UP PERIOD NOT TO EXCEED 15 SECONDS AFTER EQUIPMENT WARM—UP PERIOD HEATER POSITIVE WITH RESPECT TO CATHODE	410 180 180	VOLTS VOLTS VOLTS

AFOCUS ELECTRODE MAY BE MODULATED TO IMPROVE OVERALL FOCUS.

## TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC GRID #3, GRID #5, COLLECTOR VOLTAGE	12 000	VOLTS
DC GRID #4 VOLTAGE RANGE <sup>B</sup>	<del>-</del> 48 то 260	VOLTS
DC GRID #4 CURRENT	-15 TO +25	μA.
DC GRID #2 VOLTAGE	300	VOLTS
DC GRID #1 VOLTAGE <sup>C</sup>	-33 то -77	VOLTS
DC ION TRAP CURRENT STANDARD COIL #411 (APPROX.)	75	MA.

BMEASURED AT 100 MA. ANODE CURRENT AND EQUAL VERTICAL AND HORIZONTAL RESOLUTION.

# CIRCUIT VALUES

MAXIMUM GRID #4 CIRCUIT RESISTANCE 1.5 MEGOHMS

 $<sup>^{\</sup>mathbf{C}}$  visual extinction of undeflected focused spot.