

TUNG-SOL

CATHODE RAY

THE 20BP4 IS A DIRECT-VIEW PICTURE TUBE DESIGNED FOR USE IN TELEVISION APPLICATIONS. ITS FEATURES INCLUDE:

ROUND GLASS CONSTRUCTION UNIPOTENTIAL CATHODE
MAGNETIC FOCUS AND DEFLECTION EXTERNAL SINGLE FIELD ION TRAP
17" X 12 3/4" RASTER SIZE

ELECTRICAL DATA

FOCUSING METHOD		MAGNETIC
DEFLECTING METHOD		MAGNETIC
DEFLECTION ANGLE (APPROX.)	54	DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.):		
CATHODE TO ALL OTHER ELECTRODES	7	$\mu\mu\text{f}$
GRID #1 TO ALL OTHER ELECTRODES	8	$\mu\mu\text{f}$

OPTICAL DATA

PHOSPHOR NUMBER	NO. 4
FLUORESCENT COLOR	WHITE
PHOSPHORESCENT COLOR	WHITE
PERSISTENCE	MEDIUM

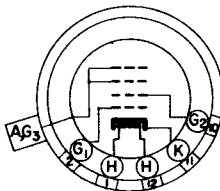
MECHANICAL DATA

OVERALL LENGTH	$28 \pm 3/4$	INCHES
GREATEST DIAMETER OF BULB	$20 \pm 3/8$	INCHES
MINIMUM USEFUL SCREEN DIAMETER	$18 \frac{3}{4}$	INCHES
BULB CONTACT	MEDIUM METAL CAP	C1-5
BASE	SMALL SHELL DUODECAL 5 PIN	B5-57
BASING		120
BULB CONTACT ALIGNMENT		
C1-5 CONTACT ALIGNS WITH PIN POSITION #3 \pm 10 DEGREES		

PIN CONNECTIONS

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

PIN 12 - HEATER
ANODE CAP:
GRID NO. 3



BOTTOM VIEW

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RATINGS
 DESIGN CENTER VALUES

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	0.6	AMP.
MAXIMUM DC ANODE VOLTAGE	20 000	VOLTS
MAXIMUM DC GRID #2 VOLTAGE	410	VOLTS
MAXIMUM GRID #1 VOLTAGE ^A		
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	140	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE:	140	VOLTS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC ANODE VOLTAGE	15 000	VOLTS
DC GRID #2 VOLTAGE	250	VOLTS
DC GRID #1 VOLTAGE ^A	-27 TO -63	VOLTS
DC FOCUSING COIL CURRENT (APPROX.) ^B	135	MA.

^A VISUAL EXTINCTION OF UNDEFLECTED FOCUSED SPOT.

^B FOR STANDARD FOCUS COIL #106, OR EQUIVALENT, WITH THE COMBINED GRID #1 BIAS VOLTAGE AND VIDEO SIGNAL VOLTAGE ADJUSTED TO PRODUCE A HIGHLIGHT BRIGHTNESS OF 25 FOOT LAMBERTS ON A 12 3/4" X 17" 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	MEG OHMS
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