

TUNG-SOL

CATHODE RAY

THE 21CBP4 IS A DIRECT VIEW PICTURE TUBE DESIGNED FOR TELEVISION APPLICATIONS. ITS FEATURES INCLUDE:

ELECTROSTATIC FOCUS	UNIPOTENTIAL CATHODE
MAGNETIC DEFLECTION	ALUMINIZED SCREEN
GREY FILTER FACEPLATE	EXTERNAL CONDUCTIVE COATING
19 1/16" X 15 1/16" RASTER SIZE	REQUIRES NO ION TRAP MAGNET

ELECTRICAL DATA

		ELECTROSTATIC	
FOCUSING METHOD			
DEFLECTING METHOD			
DEFLECTION ANGLE (APPROX.):			MAGNETIC
HORIZONTAL		85	DEGREES
VERTICAL		68	DEGREES
DIAGONAL		90	DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.):			
CATHODE TO ALL OTHER ELECTRODES	5	$\mu\mu\text{f}$	
GRID #1 TO ALL OTHER ELECTRODES	6	$\mu\mu\text{f}$	
MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	2500	$\mu\mu\text{f}$	
MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	2000	$\mu\mu\text{f}$	

OPTICAL DATA

PHOSPHOR NUMBER	SULFIDE TYPE	P-4
FLUORESCENT COLOR		WHITE
PHOSPHORESCENT COLOR		WHITE
PERSISTENCE		SHORT
FACEPLATE TRANSMISSION AT CENTER (APPROX.):	74	PERCENT

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	0.6 $\pm$ 10%	AMP.
MAXIMUM DC ANODE VOLTAGE *	18,000	VOLTS
MAXIMUM DC GRID #4 VOLTAGE	-500 TO +1000	VOLTS
MAXIMUM DC GRID #2 VOLTAGE	550	VOLTS
MAXIMUM GRID #1 VOLTAGE:		
DC NEGATIVE-BIAS VALUE	140	VOLTS
DC POSITIVE-BIAS VALUE	0	VOLTS
POSITIVE-PEAK VALUE	0	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
MAXIMUM GRID #1 CIRCUIT RESISTANCE	1.5	MEG OHMS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC ANODE VOLTAGE	14 000	VOLTS
DC GRID #4 VOLTAGE	-55 TO 300	VOLTS
DC GRID #2 VOLTAGE	300	VOLTS
DC GRID #1 VOLTAGE ^A	-28 TO -72	VOLTS

^A VISUAL EXTINCTION OF FOCUSED RASTER.

* BRILLIANCE AND DEFINITION DECREASE WITH DECREASING ANODE VOLTAGE. IN GENERAL, ANODE VOLTAGE SHOULD NOT BE LESS THAN 14,000 VOLTS.

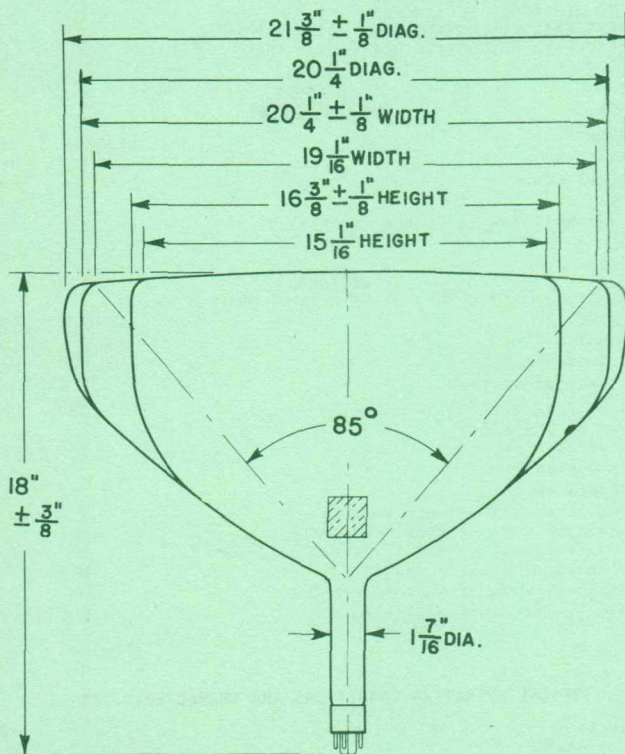
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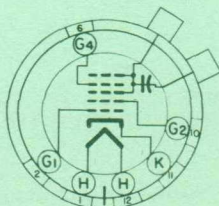
MECHANICAL DATA

OVERALL LENGTH	$18 \pm \frac{3}{8}$	INCHES
GREATEST DIMENSIONS OF BULB:		
DIAGONAL	$21 \frac{3}{8} \pm \frac{1}{8}$	INCHES
WIDTH	$20 \frac{1}{4} \pm \frac{1}{8}$	INCHES
HEIGHT	$16 \frac{3}{8} \pm \frac{1}{8}$	INCHES
MIN. USEFUL SCREEN DIMENSIONS:		
DIAGONAL	$20 \frac{1}{4}$	INCHES
WIDTH	$19 \frac{1}{16}$	INCHES
HEIGHT	$15 \frac{1}{16}$	INCHES
BULB CONTACT	RECESSED SMALL CAVITY CAP	J1-21
BASE	SMALL SHELL DUODECAL 6 PIN	B6-63
BASING		12L
BULB CONTACT ALIGNMENT		
J1-21 CONTACT ALIGNS WITH PIN POSITION #6 ± 30 DEGREES		



PIN CONNECTIONS

PIN 1 - HEATER
 PIN 2 - GRID #1
 PIN 6 - GRID #4
 PIN 10 - GRID #2
 PIN 11 - CATHODE



PIN 12 - HEATER
 ANODE CAP:
 GRID NO. 3
 GRID NO. 5

BOTTOM VIEW