TUMB-SOL -

CATHODE RAY

THE 178SP4 IS A DIRECT VIEW PICTURE TUBE DESIGNED FOR TELEVISION APPLICATIONS. ITS FEATURES INCLUDE:

ALUMINIZED SCREEN
MAGNETIC DEFLECTION
GRAY FILTER FACEPLATE
DOES NOT REQUIRE ION TRAP

ELECTROSTATIC FOCUS
UNIPOTENTIAL CATHODE
14 5/16" X 11 1/8" RASTER SIZE
RECTANGULAR GLASS CONSTRUCTION

ELECTRICAL DATA

FOCUSING METHOD	ELECTROSTATIC	
DEFLECTING METHOD		MAGNETIC
DEFLECTION ANGLE (APPROX.):		
HORIZONTAL	85	DEGREES
VERTICAL	68	DEGREES
DIAGONAL	90	DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.):		
CATHODE TO ALL OTHER ELECTRODES	5	$\mu\mu$ f
GRID #1 TO ALL OTHER ELECTRODES	6	$\mu\mu$ f
MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	1500	μμιf
MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	1200	$\mu\mu$ f

OPTICAL DATA

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

RATINGS INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	0.45 ±10%	AMP.
MAXIMUM DC ANODE VOLTAGE	16 000	VOLTS
MAXIMUM DC GRID #4 VOLTAGE	-500 то +1000	VOLTS
MAXIMUM DC GRID #2 VOLTAGE	500	VOLTS
MAXIMUM GRID #4 VOLTAGE:		
DC NEGATIVE-BIAS VALUE	140	VOLTS
DC POSITIVE-BIAS VALUE	0	VOLTS
POSITIVE-PEAK VALUE	2	VOLTS
MAXIMUM DC PEAK HEATER-CATHODE VOLTAGE: A		
HEATER NEGATIVE WITH RESPECT TO CATHODE		
DURING WARM-UP PERIOD NOT TO EXCEED 15 SECON	NDS 410	VOLTS
AFTER EQUIPMENT WARM-UP PERIOD	180	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	180	VOLTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE	1.5	MEGOHMS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC ANODE VOLTAGE	14 000	VOLTS
DC GRID #4 VOLTAGE	−50 то +350	VOLTS
DC GRID #2 VOLTAGE	300	VOLTS
DC GRID #1 VOLTAGE ^C	~28 TO -72	VOLTS

ACATHODE SHOULD BE RETURNED TO ONE SIDE OR TO THE MIDTAP OF THE HEATER TRANSFORMER WINDING.

CONTINUED ON FOLLOWING PAGE

CVISUAL EXTINCTION OF FOCUSED RASTER.

17BSP4

12L

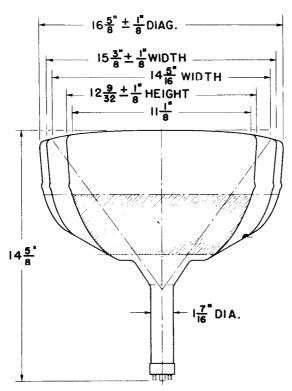
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MECHANICAL DATA

MEGNATIVAE DATA			
OVERALL LENGTH	14 5/8	INCHES	
GREATEST DIMENSIONS OF BULB:			
DIAGONAL	16 5/8 ± 1/8	INCHES	
WIDTH	.15 3/8 ± 1/8	INCHES	
HEIGHT	12 9/32 ± 1/8	INCHES	
MIN. USEFUL SCREEN DIMENSIONS:			
WIDTH	14 5/16	INCHES	
HEIGHT	11 1/8	INCHES	
BULB CONTACT	RECESSED SMALL CAVITY CAP	J1-21	
BASE	SMALL SHELL DUODECAL 6 PIN	B6-63	
BASING		1 2 L	

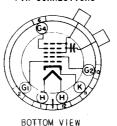
BULB CONTACT ALIGNMENT

J1-21 CONTACT ALIGNS WITH PIN POSITION #6 ± 30 DEGREES



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

PIN CONNECTIONS



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