

TUNG-SOL

CATHODE RAY

COATED UNIPOTENTIAL CATHODE

HEATER

6.3 VOLTS 0.6 AMP.

AC OR DC

ANY MOUNTING POSITION

GLASS BULB

MEDIUM SHELL DIHEPTAL 12 PIN BASE

THE 8BP4 IS A DIRECTLY VIEWED PICTURE TUBE INTENDED FOR USE IN LOW COST TELEVISION RECEIVERS. IT HAS A HIGH-EFFICIENCY, WHITE FLUORESCENT SCREEN AND USES ELECTROSTATIC FOCUS AND ELECTROSTATIC DEFLECTION TO PROVIDE PICTURES 4 3/4" X 6 1/2".

DESCRIPTION

FLUORESCENCE AND PHOSPHORESCENCE
PERSISTENCE
DEFLECTING METHOD
FOCUSING METHOD

WHITE
MEDIUM
ELECTROSTATIC
ELECTROSTATIC

DIRECT INTERELECTRODE CAPACITANCES - APPROX.

CATHODE TO ALL OTHER ELECTRODES	10	$\mu\mu f$
GRID #1 TO ALL OTHER ELECTRODES	8	$\mu\mu f$
DJ ₁ TO DJ ₂	4	$\mu\mu f$
DJ ₃ TO DJ ₄	2	$\mu\mu f$
DJ ₁ TO ALL OTHER ELECTRODES EXCEPT DJ ₂	8	$\mu\mu f$
DJ ₂ TO ALL OTHER ELECTRODES EXCEPT DJ ₁	8	$\mu\mu f$
DJ ₃ TO ALL OTHER ELECTRODES EXCEPT DJ ₄	6	$\mu\mu f$
DJ ₄ TO ALL OTHER ELECTRODES EXCEPT DJ ₃	6	$\mu\mu f$

RATINGS

INTERPRETED ACCORDING TO RMA STANDARD MB-210

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	0.6	VOLTS
MAXIMUM ANODE #2 AND GRID #2 VOLTAGE	6 600	VOLTS
MAXIMUM ANODE #1 VOLTAGE	3 100	VOLTS
MAXIMUM GRID #1 VOLTAGE:		
NEGATIVE BIAS VOLTAGE ^A	200	VOLTS
POSITIVE BIAS VOLTAGE ^A	0	VOLTS
POSITIVE PEAK VOLTAGE	2	VOLTS
MAXIMUM PEAK VOLTAGE BETWEEN ANODE #2 AND ANY DEFLECTING ELECTRODE	750	VOLTS
MAXIMUM PEAK HEATER-CATHODE VOLTAGE:		
HEATER NEGATIVE WITH RESPECT TO CATHODE:		
DURING EQUIPMENT WARM-UP PERIOD		
NOT EXCEEDING 15 SECONDS	410	VOLTS
AFTER EQUIPMENT WARM-UP PERIOD	125	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	125	VOLTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE	1.5	MEG OHMS
MAXIMUM RESISTANCE IN ANY DEFLECTING ELECTRODE CIRCUIT ^B	5	MEG OHMS

^A FOR OPERATION WITH ZERO VOLTS ON GRID #1 AND WITH 4000 TO 6000 VOLTS ON ANODE #2 IT IS ESSENTIAL THAT THE RESISTANCE OF THE ANODE #2 SUPPLY BE ADEQUATE TO LIMIT THE ANODE #2 INPUT POWER TO 6 WATTS.

^B IT IS RECOMMENDED THAT THE DEFLECTING-ELECTRODE-CIRCUIT RESISTANCES BE APPROXIMATELY EQUAL.

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

FOR ANODE #2 AND GRID #2 VOLTAGE OF	6 000	VOLTS
ANODE #1 VOLTAGE	1620 TO 2400	VOLTS
GRID #1 VOLTAGE ^C	-72 TO -168	VOLTS
DEFLECTION FACTORS:		
DJ ₁ AND DJ ₂	146 TO 198	VOLTS DC/IN
DJ ₃ AND DJ ₄	124 TO 168	VOLTS DC/IN
FOR ANODE #2 AND GRID #2 (E _{b2}) VOLTAGE BETWEEN	3000 TO 6000	VOLTS
ANODE #1 VOLTAGE FOR FOCUS ^D	27% TO 40% OF E _{b2}	VOLTS
GRID #1 VOLTAGE FOR VISUAL CUT-OFF OF SPOT	1.2% TO 2.8% OF E _{b2}	VOLTS
ANODE #1 CURRENT FOR ANY OPERATING CONDITION	-15 TO +10	μAMP.
DEFLECTION FACTORS:		
DJ ₁ AND DJ ₂ ^E	24 TO 33 V. DC/IN/KV OF E _{b2}	
DJ ₃ AND DJ ₄	21 TO 28 V. DC/IN/KV OF E _{b2}	
SPOT POSITION (UNDEFLECTED)	10 (MAX.)	MILLIMETERS

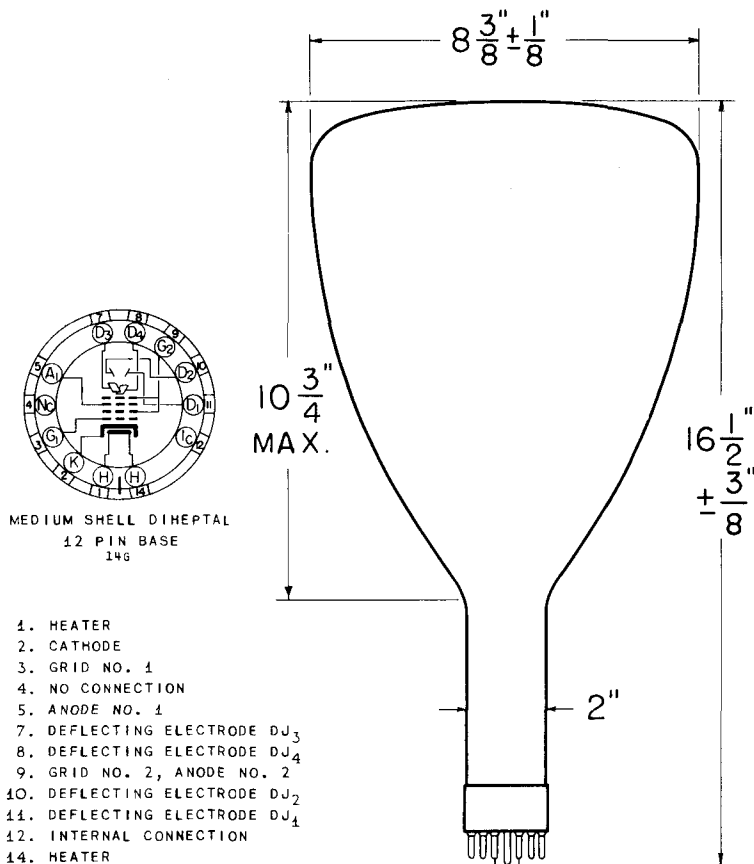
^C VISUAL EXTINCTION OF UNDEFLECTED FOCUSED SPOT.^D WITH THE COMBINED GRID #1 BIAS VOLTAGE AND VIDEO-SIGNAL VOLTAGE ADJUSTED TO PRODUCE A HIGHLIGHT BRIGHTNESS OF 15 FOOT-LAMBERTS ON A 4 3/4" X 6 1/2" PICTURE AREA.^E TO OBTAIN MAXIMUM DEFLECTION SENSITIVITY, DEFLECTING ELECTRODES DJ₁ AND DJ₂ ARE DESIGNED TO PRODUCE LESS THAN FULL SCREEN DEFLECTION. IT IS THEREFORE RECOMMENDED THAT FOR TELEVISION SERVICE THESE ELECTRODES BE USED FOR VERTICAL DEFLECTION.

PLATE
2276
NOV. 1,
1949