

TUNG-SOL

CATHODE RAY

THE 27UP4 IS A DIRECT-VIEW PICTURE TUBE DESIGNED FOR USE IN TELEVISION APPLICATIONS. ITS FEATURES INCLUDE:

UNIPOTENTIAL CATHODE	MAGNETIC DEFLECTION
EXTERNAL CONDUCTIVE COATING	18 1/2" X 24" RASTER SIZE
RECTANGULAR GLASS CONSTRUCTION	EXTERNAL SINGLE FIELD ION TRAP
SPHERICAL GREY FILTER FACEPLATE	LOW VOLTAGE ELECTROSTATIC FOCUS

ELECTRICAL DATA

FOCUSING METHOD	LOW VOLTAGE ELECTROSTATIC	
DEFLECTING METHOD	MAGNETIC	
DEFLECTING ANGLE (APPROX.):		
HORIZONTAL	85	DEGREES
DIAGONAL	90	DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.):		
CATHODE TO ALL OTHER ELECTRODES	5	μf
GRID #1 TO ALL OTHER ELECTRODES	6	μf
MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	750	μf
MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	500	μf

OPTICAL DATA

PHOSPHOR NUMBER	P-4
FLUORESCENT COLOR	WHITE
PHOSPHORESCENT COLOR	WHITE
PERSISTENCE	MEDIUM
FACEPLATE TRANSMISSION AT CENTER (APPROX.)	68 PERCENT

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	0.6	AMP.
MAXIMUM DC ANODE, GRID #3, GRID #5 VOLTAGE ^A	20 000	VOLTS
MAXIMUM DC GRID #2 VOLTAGE	500	VOLTS
MAXIMUM GRID #1 VOLTAGE:		
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	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, GRID #3, GRID #5 VOLTAGE	16 000	VOLTS
DC GRID #4 VOLTAGE (FOCUS CONTROL ELECTRODE) ^B	0 TO +396	VOLTS
DC GRID #2 VOLTAGE	300	VOLTS
DC GRID #1 VOLTAGE ^C	-28 TO -72	VOLTS
DC ION TRAP MAGNET	40	GAUSSSES

^ABECAUSE THE RATING OF THIS TUBE PERMITS ANODE VOLTAGES AS HIGH AS 20 KILOVOLTS (ABSOLUTE MAXIMUM), SHIELDING OF X-RAY RADIATION FROM THE TUBE MAY BE NECESSARY. THIS PRECAUTION SHOULD BE OBSERVED WHEN THE ANODE IS OPERATED IN EXCESS OF 16 KILOVOLTS.

^BWITH THE COMBINED GRID #1 BIAS VOLTAGES AND VIDEO SIGNAL VOLTAGE ADJUSTED TO PRODUCE AN ANODE CURRENT OF 100 μA , ON A 24" X 18 1/2" PICTURE ADJUSTED FOR BEST OVERALL FOCUS. FOR OTHER ANODE VOLTAGES, THE FOCUS VOLTAGE WILL BE FROM -0.4% TO +2.2% OF THE ANODE VOLTAGE.

^CVISUAL EXTINCTION OF UNDEFLECTED FOCUSED RASTER.

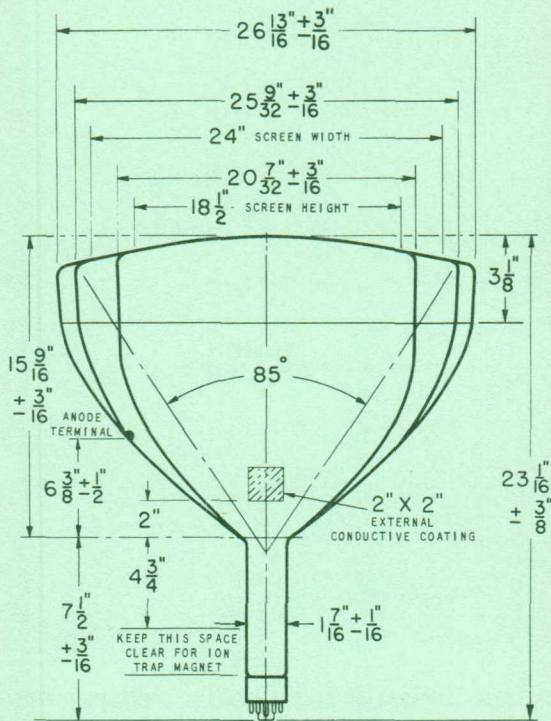
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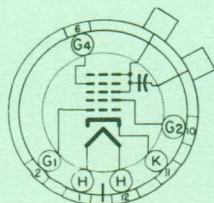
MECHANICAL DATA

OVERALL LENGTH	23 $\frac{1}{16}$ $\pm$ $\frac{3}{8}$	INCHES
GREATEST DIMENSIONS OF BULB:		
DIAGONAL	26 $\frac{13}{16}$ $\pm$ $\frac{3}{16}$	INCHES
WIDTH	25 $\frac{9}{32}$ $\pm$ $\frac{3}{16}$	INCHES
HEIGHT	20 $\frac{7}{32}$ $\pm$ $\frac{3}{16}$	INCHES
MINIMUM USEFUL SCREEN DIMENSIONS:		
WIDTH	24	INCHES
HEIGHT	18 $\frac{1}{2}$	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 $\pm$ 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 #3
 GRID #5

BOTTOM VIEW

SOCKET FOR THIS BASE SHOULD NOT BE RIGIDLY MOUNTED. IT SHOULD HAVE FLEXIBLE LEADS AND BE FREE TO MOVE.