TUNG-SOL

CATHODE RAY

THE 7DP4 IS A DIRECT VIEW PICTURE TUBE DESIGNED FOR TELEVISION APPLICATIONS. ITS FEATURES INCLUDE:

UNIPOTENTIAL CATHODE — **ELECTROSTATIC FOCUS**
ROUND GLASS CONSTRUCTION — **MAGNETIC DEFLECTION**
EXTERNAL CONDUCTIVE COATING — **EXTERNAL DOUBLE FIELD ION TRAP**
4" X 5 1/2" RASTER SIZE

ELECTRICAL DATA

FOCUSING METHOD		ELECTROSTATIC
DEFLECTING METHOD		MAGNETIC
DEFLECTION ANGLE (APPROX.):	50	DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.)		
CATHODE TO ALL OTHER ELECTRODES	5	μμf
GRID #1 TO ALL OTHER ELECTRODES	6	μμf
MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	1500	μμf
MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	400	μμf

OPTICAL DATA

PHOSPHOR NUMBER	SULFIDE TYPE	P-4
FLUORESCENT COLOR		WHITE
PHOSPHORESCENT COLOR		WHITE
PERSISTENCE		MEDIUM

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	0.6	AMP.
MAXIMUM DC ANODE #2, GRID #3 VOLTAGE[A]	8 000	VOLTS
MAXIMUM DC ANODE #1 VOLTAGE	2 400	VOLTS
MAXIMUM DC GRID #2 VOLTAGE	410	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	150	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	150	VOLTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE	1.5	MEGOHMS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC ANODE #2, GRID #3 VOLTAGE[B]	6 000	VOLTS
DC GRID #2 VOLTAGE	250	VOLTS
ANODE #1 VOLTAGE FOR FOCUS[D]	1215 TO 1645	VOLTS
DC GRID #1 VOLTAGE[C]	-27 TO -63	VOLTS
MAXIMUM ANODE #1 CURRENT RANGE	-15 TO +10	μAMP

[A] THE PRODUCT OF ANODE #2 VOLTAGE AND AVERAGE ANODE #2 CURRENT SHOULD NEVER EXCEED 6 WATTS.

[B] BRILLIANCE AND DEFINITION DECREASE WITH DECREASING ANODE #2 VOLTAGE. IN GENERAL, ANODE #2 VOLTAGE SHOULD NOT BE LESS THAN 5,000 VOLTS.

[C] VISUAL EXTINCTION OF UNDEFLECTED FOCUSED SPOT.

[D] WITH COMBINED GRID #1 BIAS VOLTAGE AND VIDEO SIGNAL VOLTAGE ADJUSTED TO PRODUCE A HIGHLIGHT BRIGHTNESS OF 12 FOOT LAMBERTS ON A 4" BY 5 1/2" PICTURE SIZE.

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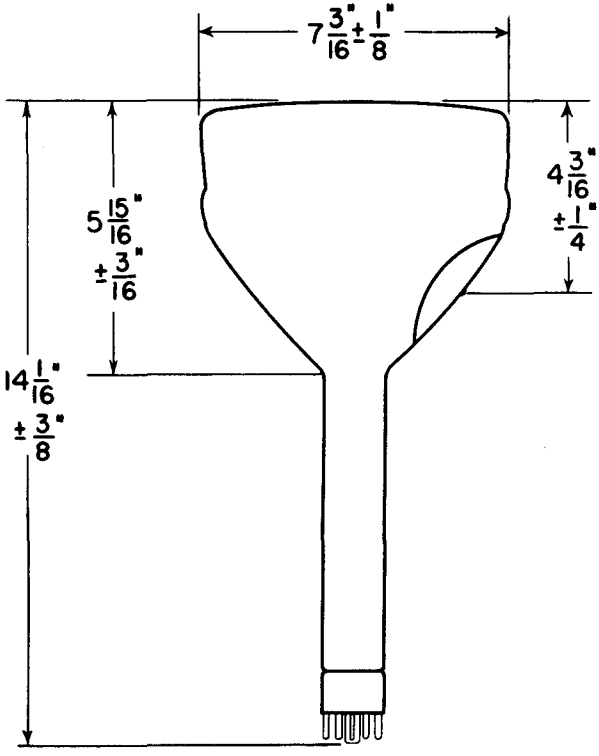
CONTINUED FROM PRECEDING PAGE

MECHANICAL DATA

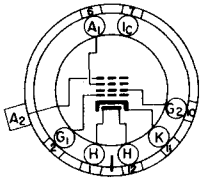
OVERALL LENGTH	14 1/16 ± 3/8	INCHES
GREATEST DIAMETER OF BULB	7 3/16 ± 1/8	INCHES
MIN. USEFUL SCREEN DIAMETER	6	INCHES
BULB CONTACT	RECESSED SMALL CAVITY CAP	J1-21
BASE	SMALL SHELL DUODECAL 7 PIN	
BASING		12C

BULB CONTACT ALIGNMENT
J1-21 CONTACT ALIGNS WITH PIN POSITION #2 ± 30 DEGREES



PIN CONNECTIONS

PIN 1 — HEATER
PIN 2 — GRID #1
PIN 6 — ANODE #1
PIN 7 — Ic DO NOT USE
PIN 10 — GRID #2
PIN 11 — CATHODE



BOTTOM VIEW

PIN 12 — HEATER
ANODE CAP:
GRID NO.3