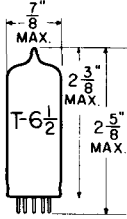


TUNG-SOL

DOUBLE TRIODE

MINIATURE TYPE



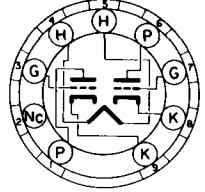
COATED UNIPOTENTIAL CATHODE

HEATER

10.5 VOLTS 0.6 AMP.

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW

MINIATURE BUTTON
9 PIN BASE

9EF

THE 10DA7 IS A MINIATURE 9-PIN DOUBLE TRIODE WITH DISSIMILAR SECTIONS. ONE IS A MEDIUM-MU TRIODE INTENDED FOR VERTICAL OSCILLATOR SERVICE; THE OTHER IS A LOW-MU TRIODE WITH HIGH PLATE DISSIPATION FOR VERTICAL AMPLIFIER SERVICE. THE 10DA7, THEREFORE, COMBINES THE FUNCTION OF OSCILLATOR AND HIGH CURRENT OUTPUT AMPLIFIER FOR VERTICAL SWEEP OF LARGE 90° PICTURE TUBES.

DIRECT INTERELECTRODE CAPACITANCES

	SECTION #1	SECTION #2	
GRID TO PLATE: G_1 TO P	2.3	6.9	μf
INPUT: G_1 TO K+H	2.0	5.5	μf
OUTPUT: P TO K+H	0.415	0.82	μf

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HEATER VOLTAGE	10.5	VOLTS
MAXIMUM PLATE VOLTAGE	300	500 VOLTS
MAXIMUM PLATE VOLTAGE, PEAK POSITIVE PULSE*		1800 VOLTS
MAXIMUM CONTROL-GRID VOLTAGE, PEAK NEGATIVE PULSE*	-400	-400 VOLTS
MAXIMUM CONTROL-GRID VOLTAGE, NEG., DC	-50	-50 VOLTS
MAXIMUM PLATE DISSIPATION	2.0	6.0 WATTS
MAXIMUM CATHODE CURRENT	20	40 MA.
MAXIMUM CONTROL-GRID CIRCUIT RESISTANCE SELF BIAS		2.2 MEGOHMS.
HEATER WARM-UP TIME (APPROX.) ^A	11.0	SECONDS
MAXIMUM HEATER CATHODE VOLTAGE:		
HEATER NEGATIVE WITH RESPECT TO CATHODE	200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE ^B	200	VOLTS
HEATER WARM-UP TIME (APPROX.) ^A	11.0	SECONDS

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

	SECTION #1	SECTION #2	
HEATER VOLTAGE	10.5		VOLTS
HEATER CURRENT	0.6		VOLTS
PLATE VOLTAGE	250	150	VOLTS
CONTROL-GRID VOLTAGE	-8	-17.5	VOLTS
PLATE RESISTANCE (APPROX.)	7700	1100	OHMS
TRANSCONDUCTANCE	2600	5700	μMHCS
AMPLIFICATION FACTOR	20	6.3	
PLATE CURRENT	9.0	40	MA.
CONTROL-GRID VOLTAGE (APPROX.)			
FOR $I_b = 0.5$ MA.		-42	VOLTS
CONTROL-GRID VOLTAGE (APPROX.)			
FOR $g_m = 30 \mu\text{MHOS}$ AND $I_b = 50 \mu\text{A}$	-16.5		VOLTS
ZERO BIAS PLATE CURRENT			
FOR $E_b = 60$ VOLTS		80	MA.

SIMILAR TYPE REFERENCE: Except for heater ratings and heater warm-up time the 10AD7 is identical to the 6AD7.

* FOR OPERATION IN A 525-LINE, 30-FRAME SYSTEM AS DESCRIBED IN "STANDARDS OF GOOD ENGINEERING PRACTICE FOR TELEVISION BROADCAST STATIONS: FEDERAL COMMUNICATIONS COMMISSION", THE DUTY CYCLE OF THE VOLTAGE PULSE MUST NOT EXCEED 15% OF ONE SCANNING CYCLE.

A HEATER WARM-UP TIME IS DEFINED AS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TO REACH 80% OF ITS RATED VOLTAGE AFTER APPLYING 4 TIMES RATED HEATER VOLTAGE TO A CIRCUIT CONSISTING OF THE TUBE HEATER IN SERIES WITH A RESISTANCE OF VALUE 3 TIMES THE NOMINAL HEATER OPERATING RESISTANCE.

B DC COMPONENT MUST NOT EXCEED 100 VOLTS MAX.