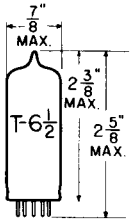
TUNG-SOL

DOUBLE TRIODE

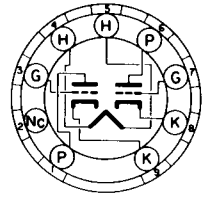
MINIATURE TYPE



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	μμf
INPUT: G_1 TO K+H	2.0	5.5	μμf
OUTPUT: P TO K+H	0.415	0.82	μμf

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

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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	μMHOS
AMPLIFICATION FACTOR	20	6.3	
PLATE CURRENT	9.0	40	MA.
CONTROL-GRID VOLTAGE (APPROX.) FOR Ib = 0.5 MA.		-42	VOLTS
CONTROL-GRID VOLTAGE (APPROX.) FOR gm = 30 μMHOS AND Ib = 50 μA	-16.5		VOLTS
ZERO BIAS PLATE CURRENT FOR Eb = 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.