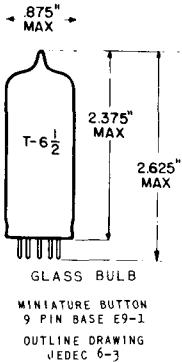


TUNG-SOL

DOUBLE TRIODE

MINIATURE TYPE



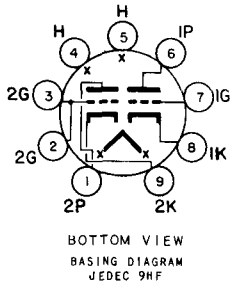
COATED UNIPOTENTIAL CATHODE

HEATER

6.3 VOLTS 500 MA.

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW
BASING DIAGRAM
JEDEC 9HF

THE 6DR7 IS A DOUBLE TRIODE WITH DISSIMILAR SECTION IN THE 9-PIN MINIATURE CONSTRUCTION. SECTION #1 HAS A HIGH MU AND IS INTENDED FOR USE AS A VERTICAL DEFLECTION OSCILLATOR. SECTION #2 HAS A LOW MU AND IS DESIGNED FOR USE AS A VERTICAL DEFLECTION AMPLIFIER. SECTION #2 OF THE 6DR7 IS IDENTICAL TO SECTION #2 OF THE 6DE7.

DIRECT INTERELECTRODE CAPACITANCES - APPROX.

GRID TO PLATE: (G TO P)	4.5	8.5	pf
INPUT: G TO (H+K)	2.2	5.5	pf
OUTPUT: P TO (H+K)	0.34	1.0	pf

RATINGS

DESIGN CENTER VALUES - SEE EIA STANDARD RS-239

VERTICAL DEFLECTION OSCILLATOR AND AMPLIFIER^A

	TRIODE #1 OSCILLATOR	TRIODE #2 AMPLIFIER
MAXIMUM HEATER-CATHODE VOLTAGE^B		
HEATER NEGATIVE WITH RESPECT TO CATHODE		
TOTAL DC AND PEAK	200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE		
DC	100	VOLTS
TOTAL DC AND PEAK	200	VOLTS
MAXIMUM DC PLATE VOLTAGE	330	275
MAXIMUM PEAK POSITIVE PULSE PLATE VOLTAGE (ABS. MAX.)	---	1500
MAXIMUM PEAK NEGATIVE PULSE GRID VOLTAGE	400	250
MAXIMUM PLATE DISSIPATION ^C	1.0	7.0
MAXIMUM AVERAGE CATHODE CURRENT	20	50
MAXIMUM PEAK CATHODE CURRENT	70	175
MAXIMUM GRID CIRCUIT RESISTANCE		
SELF BIAS	2.2	2.2
		MEGOHMS

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

	TRIODE #1	TRIODE #2	
PLATE VOLTAGE	250	150	VOLTS
GRID #1 VOLTAGE	-3	-17.5	VOLTS
PLATE CURRENT	1.4	35	MA.
TRANSCONDUCTANCE	1600	6500	μ MHOS
AMPLIFICATION FACTOR	64	6.0	
PLATE RESISTANCE (APPROX.)	40 000	925	
GRID VOLTAGE FOR $I_b = 10 \mu A$	5.5	---	VOLTS
GRID VOLTAGE FOR $I_b = 50 \mu A$	---	-44	VOLTS
PLATE CURRENT AT $E_c = -24 V_{dc}$	---	10	MA.
ZERO BIAS PLATE CURRENT			
$E_b = 60V$; $E_c = 0$ (INSTANTANEOUS VALUES)	---	80	MA.

→ INDICATES A CHANGE.

A. 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.

B. DESIGN-MAXIMUM RATINGS ARE THE LIMITING VALUES EXPRESSED WITH RESPECT TO BOTTLE TUBES AT WHICH SATISFACTORY TUBE LIFE CAN BE EXPECTED TO OCCUR. TO OBTAIN SATISFACTORY CIRCUIT PERFORMANCE, THEREFORE, THE EQUIPMENT DESIGNER MUST ESTABLISH THE CIRCUIT DESIGN SO THAT NO DESIGN-MAXIMUM VALUE IS EXCEEDED WITH A BOTTLE TUBE UNDER THE WORST PROBABLE OPERATING CONDITIONS WITH RESPECT TO SUPPLY-VOLTAGE VARIATION, EQUIPMENT COMPONENT VARIATION, EQUIPMENT CONTROL ADJUSTMENT, LOAD VARIATION, AND ENVIRONMENTAL CONDITIONS.

C. IN STAGES OPERATING WITH GRID LEAK BIAS, AN ADEQUATE CATHODE BIAS RESISTOR OR OTHER SUITABLE MEANS IS REQUIRED TO PROTECT THE TUBE IN THE ABSENCE OF EXCITATION.

SIMILAR TYPE REFERENCE: The 6DR7 is identical to the 10DR7 except for heater ratings and heater warm-up time of the 10DR7.