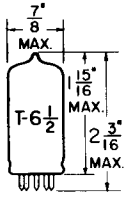
TUNG-SOL

TRIODE PENTODE

MINIATURE TYPE



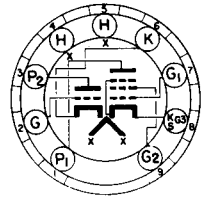
GLASS BULB

HEATER

4.7 VOLTS 0.6 AMP.

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW

MINIATURE BUTTON

9 PIN BASE

9JF

THE 5EU8 IS A HEATER-CATHODE TYPE TRIODE-PENTODE IN THE 9 PIN MINIATURE CONSTRUCTION. IT IS DESIGNED PRIMARILY FOR THE USE AS A COMBINED TRIODE OSCILLATOR AND PENTODE MIXER IN TELEVISION RECEIVERS. THE TRIODE HAS A CONTROLLED CATHODE WARM-UP CHARACTERISTIC. EXCEPT FOR HEATER CHARACTERISTICS, THE 5EU8 IS IDENTICAL TO THE 6EU8.

DIRECT INTERELECTRODE CAPACITANCES

	WITH SHIELD	WITHOUT SHIELD	
PENTODE SECTION:			
GRID #1 TO PLATE: (G1 TO P) (MAX.)	0.10	0.02	μμf
INPUT: G1 TO (H+K)	5.0	5.0	μμf
OUTPUT: P TO (H+K)	3.4	2.6	μμf
TRIODE SECTION:			
GRID TO PLATE: (G TO P)	1.7	1.7	μμf
INPUT: G TO (H+K)	3.2	3.0	μμf
OUTPUT: P TO (H+K+S)	1.1	1.6	μμf
CATHODE TO HEATER (EACH SECTION): (K TO H)	3.60	3.60	μμf

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER MAXIMUM SYSTEM

	TRIODE	PENTODE	
HEATER VOLTAGE	4.7	4.7	VOLTS
MAXIMUM PLATE VOLTAGE	330	330	VOLTS
MAXIMUM GRID #2 SUPPLY VOLTAGE	---	330	VOLTS
MAXIMUM POSITIVE DC GRID #1 VOLTAGE	0	0	VOLTS
MAXIMUM PLATE DISSIPATION	3.0	3.1	WATTS
MAXIMUM GRID #2 DISSIPATION	---	0.55	WATTS
MAXIMUM GRID #1 RESISTANCE	100	100	KILOHMS

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RATINGS - cont'd.

INTERPRETED ACCORDING TO DESIGN CENTER MAXIMUM SYSTEM

HEATER VOLTAGE	4.7	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE:		
HEATER POSITIVE WITH RESPECT TO CATHODE		
DC COMPONENT	100	VOLTS
TOTAL DC AND PEAK	200	VOLTS
HEATER NEGATIVE WITH RESPECT TO CATHODE		
TOTAL DC AND PEAK	200	VOLTS
HEATER WARM-UP TIME*	11.0	SECONDS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

	TRIODE	PENTODE	
HEATER VOLTAGE	4.7	4.7	VOLTS
HEATER CURRENT	0.6	0.6	AMP.
PLATE VOLTAGE	150	125	VOLTS
GRID #2 VOLTAGE	---	125	VOLTS
CATHODE RESISTOR	56	---	OHMS
GRID #1 VOLTAGE	---	-1.0	VOLT
AMPLIFICATION FACTOR	40.0	---	
TRANSCONDUCTANCE	8500	6400	μMHOS
PLATE RESISTANCE (APPROX.)	5000	80000	OHMS
PLATE CURRENT	18.0	12.0	MA.
GRID #2 CURRENT	---	4.0	MA.
GRID #1 VOLTAGE (APPROX.) FOR Ib = 10μA	-12.0	-9.0	VOLTS
CATHODE WARM-UP TIME[A]	35	---	SECONDS

* HEATER WARM-UP TIME IS DEFINED AS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TERMINALS TO INCREASE FROM ZERO TO THE HEATER TEST VOLTAGE (V_1).

FOR TYPE	5EU8
E=	18.8
V_1=	3.76
R=	23.5

A. CATHODE WARM-UP TIME IS DEFINED AS THE TIME REQUIRED FOR TRANSCONDUCTANCE TO REACH 6500 μMHOS WHEN A TUBE IS OPERATED FROM A COLD START AT A PLATE POTENTIAL OF 100 VOLTS DC, ZERO GRID BIAS, AND AT A CONSTANT HEATER CURRENT OF 560 MILLIAMPERES FOR 5EU8 OR A HEATER POTENTIAL OF 5.5 VOLTS FOR THE 6EU8.

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