TUNG-SOL

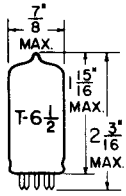
TRIODE PENTODE

MINIATURE TYPE

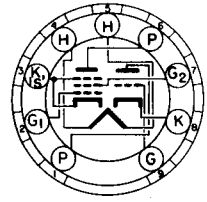
COATED UNIPOTENTIAL CATHODE

HEATER
6.3 VOLTS 0.45 AMP.
AC OR DC

ANY MOUNTING POSITION



GLASS BULB



BOTTOM VIEW
SMALL BUTTON
9 PIN BASE
9FZ

THE 6CM8 IS A MULTIUNIT TUBE OF THE 9-PIN MINIATURE CONSTRUCTION CONTAINING A HIGH-MU TRIODE AND SHARP CUTOFF PENTODE IN ONE ENVELOPE. THE PENTODE SECTION MAY BE USED AS AN INTERMEDIATE FREQUENCY AMPLIFIER, AGC AMPLIFIER AND REACTANCE TUBE. THERMAL CHARACTERISTICS OF THE HEATER ARE CONTROLLED SUCH THAT HEATER VOLTAGE SURGES DURING THE WARM-UP CYCLE ARE MINIMIZED PROVIDED IT IS USED WITH OTHER TYPES WHICH ARE SIMILARLY CONTROLLED. EXCEPT FOR HEATER RATINGS AND HEATER WARM-UP TIME, THE 6CM8 IS IDENTICAL TO THE 5CM8.

DIRECT INTERELECTRODE CAPACITANCES – APPROX.

TRIODE SECTION		
GRID TO PLATE G TO P	1.9	μμf
INPUT G TO (H+K)	1.6	μμf
OUTPUT P TO (H+K)	0.22	μμf
PENTODE SECTION		
GRID #1 TO PLATE G_1 TO P (MAX.)	0.04 ←	μμf
INPUT: G_1 TO (H+K+G_2+G_3+I.S.)	6.0	μμf
OUTPUT: P TO (H+K+G_2+G_3+I.S.)	2.6	μμf
COUPLING		
PENTODE PLATE TO TRIODE GRID (MAX.)	0.01	μμf
PENTODE GRID #1 TO TRIODE PLATE (MAX.)	0.15	μμf
PENTODE PLATE TO TRIODE PLATE (MAX.)	0.10	μμf

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

	TRIODE	PENTODE	
HEATER VOLTAGE	6.3		VOLTS
MAXIMUM PLATE VOLTAGE	300	300	VOLTS
MAXIMUM GRID #2 SUPPLY VOLTAGE		300	VOLTS
MAXIMUM GRID #2 VOLTAGE	SEE RATING CHART		
MAXIMUM POSITIVE GRID #1 VOLTAGE	0	0	VOLTS
MAXIMUM PLATE DISSIPATION	1.0	2.0	WATTS
MAXIMUM GRID #2 DISSIPATION		0.5	WATT
MAXIMUM GRID #1 CIRCUIT RESISTANCE			
SELF BIAS		1.0	MEGOHM
FIXED BIAS		0.25	MEGOHM

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

RATINGS — CONT'D

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

	TRIODE	PENTODE	
MAXIMUM HEATER–CATHODE VOLTAGE			
HEATER NEGATIVE WITH RESPECT TO CATHODE			
TOTAL DC AND PEAK	200	200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE			
DC	100	100	VOLTS
TOTAL DC AND PEAK	200	200	VOLTS
HEATER WARM–UP TIME (APPROX.)*	11.0		SECONDS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A_1 AMPLIFIER

	TRIODE	PENTODE	
HEATER VOLTAGE	6.3		VOLTS
HEATER CURRENT	0.45		AMP.
PLATE SUPPLY VOLTAGE	250	200	VOLTS
GRID #2 VOLTAGE		150	VOLTS
GRID #1 VOLTAGE	−2	0	VOLTS
CATHODE BIAS RESISTOR		180	OHMS
PLATE CURRENT	1.8	9.5	MA.
GRID #2 CURRENT		2.8	MA.
AMPLIFICATION FACTOR	100		
PLATE RESISTANCE (APPROX.)	50 000	600 000	OHMS
TRANSCONDUCTANCE	2 000	6 200	μMHOS
GRID #1 VOLTAGE FOR Ib=10μA (APPROX.)		−8	VOLTS

*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.

→ INDICATES A CHANGE.