

TUNG-SOL

TRIODE-PENTODE

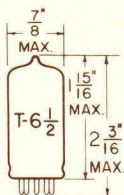
MINIATURE TYPE

UNIPOTENTIAL CATHODE

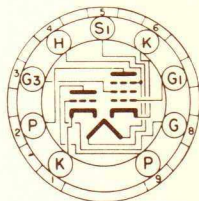
HEATER

6.3 VOLTS 0.45 AMP.
AC OR DC

ANY MOUNTING POSITION



GLASS BULB



BOTTOM VIEW

SMALL-BUTTON NOVAL
9 PIN BASE

9FT

THE 6CH8 IS A GENERAL PURPOSE MULTIUNIT TUBE OF THE 9 PIN MINIATURE CONSTRUCTION CONTAINING A MEDIUM MU TRIODE AND SHARP CUTOFF PENTODE IN ONE ENVELOPE. IT IS INTENDED FOR A WIDE VARIETY OF APPLICATIONS IN BLACK AND WHITE AND COLOR TELEVISION RECEIVERS. THE PENTODE UNIT MAY BE USED AS AN INTERMEDIATE FREQUENCY AMPLIFIER, VIDEO AMPLIFIER, AGC AMPLIFIER AND AS A REACTANCE TUBE WHILE THE TRIODE UNIT IS WELL SUITED FOR USE IN LOW-FREQUENCY OSCILLATOR, SYNC-SEPARATOR, SYNC-CLIPPER, AND PHASE-SPLITTER CIRCUITS.

DIRECT INTERELECTRODE CAPACITANCES
WITHOUT EXTERNAL SHIELD

TRIODE UNIT:

GRID TO PLATE	1.6	μf
GRID TO CATHODE, HEATER & GRID #3 AND INTERNAL SHIELD	1.9	μf
PLATE TO CATHODE, HEATER & GRID #3 AND INTERNAL SHIELD	1.6	μf

PENTODE UNIT:

GRID #1 TO PLATE (MAX.)	0.025	μf
GRID #1 TO HEATER & INTERNAL SHIELD & GRID #3, GRID #2, & CATHODE	7	μf
PLATE TO HEATER & INTERNAL SHIELD & GRID #3, GRID #2, & CATHODE	2.25	μf
PENTODE GRID #1 TO TRIODE PLATE	0.02	μf
PENTODE PLATE TO TRIODE PLATE	0.04	μf
TRIODE GRID TO PENTODE PLATE	0.005	μf

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

CLASS A₁ AMPLIFIER

	TRIODE UNIT	PENTODE UNIT	
HEATER VOLTAGE	6.3	6.3	VOLTS
MAXIMUM PLATE VOLTAGE	300	300	VOLTS
MAXIMUM GRID #3 VOLTAGE POSITIVE VALUE	---	0	VOLTS
MAXIMUM GRID #2 SUPPLY VOLTAGE	---	300	VOLTS
MAXIMUM GRID #2 (SCREEN) VOLTAGE	---	SEE FIGURE #1	

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TUNG-SOL

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RATINGS — CONT'D
 INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM
 CLASS A₁ AMPLIFIER

	TRIODE UNIT	PENTODE UNIT	
MAXIMUM GRID #1 (CONTROL-GRID) VOLTAGE:			
POSITIVE BIAS VALUE	0	0	VOLTS
MAXIMUM PLATE DISSIPATION	2.6	2	WATTS
MAXIMUM GRID #2 INPUT:			
FOR GRID* #2 VOLTAGES UP TO 150 VOLTS	---	0.5	WATT
FOR GRID #2 VOLTAGES BETWEEN 150 & 300V.	---	SEE FIGURE 1	
MAXIMUM PEAK HEATER-CATHODE VOLTAGE:			
HEATER NEGATIVE WITH RESPECT TO CATHODE	200	--- ^A	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	200 ^B	0	VOLTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE:*			
FOR CATHODE-BIAS OPERATION	1.0	1.0	MEGOHM
FOR FIXED-BIAS OPERATION	0.5	0.25	MEGOHM

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS
 CLASS A₁ AMPLIFIER

	TRIODE UNIT	PENTODE UNIT	
HEATER VOLTAGE	6.3	6.3	VOLTS
HEATER CURRENT	0.45	0.45	AMP.
PLATE SUPPLY VOLTAGE	200	200	VOLTS
GRID #3 SUPPLY VOLTAGE	---	0	VOLTS
GRID #2 SUPPLY VOLTAGE	---	150	VOLTS
GRID #1 VOLTAGE	-6	---	VOLTS
CATHODE-BIAS RESISTOR	---	180	OHMS
AMPLIFICATION FACTOR	19	---	
PLATE RESISTANCE (APPROX.)	5 750	300 000	OHMS
TRANSCONDUCTANCE	3 300	6 200	μMHOS
GRID #1 VOLTAGE (APPROX.) FOR			
PLATE CURRENT OF 10 μAMP	-19	-8	VOLTS
PLATE CURRENT	13	9.5	MA.
GRID #2 CURRENT	---	2.8	MA.

^A THE HEATER-CATHODE VOLTAGE SHOULD NOT EXCEED THE VALUE OF THE OPERATING CATHODE BIAS BECAUSE THE VOLTAGE BETWEEN THE HEATER AND CATHODE IS ALSO APPLIED BETWEEN THE CATHODE AND GRID #3. THE NET RESULT IS TO MAKE GRID #3 NEGATIVE WITH RESPECT TO CATHODE WITH POSSIBLE CHANGE IN TUBE CHARACTERISTICS.

^B THE DC COMPONENT MUST NOT EXCEED 100 VOLTS.

* IF EITHER UNIT IS OPERATED AT MAXIMUM RATED CONDITIONS, GRID-#1-CIRCUIT RESISTANCE FOR BOTH UNITS SHOULD NOT EXCEED THE STATED VALUES.

