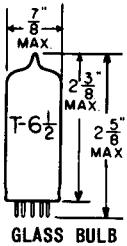
TUNG-SOL

TRIODE PENTODE

MINIATURE TYPE

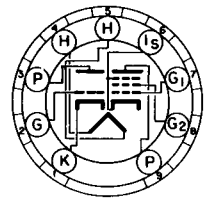


GLASS BULB

COATED UNIPOTENTIAL CATHODE

HEATER
6.3 VOLTS 0.6 AMP.
AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW
MINIATURE BUTTON
9 PIN BASE
9DX

THE 6BA8 IS A MEDIUM-MU TRIODE AND SHARP CUT-OFF PENTODE USING THE 9 PIN MINIATURE CONSTRUCTION. IT IS DESIGNED FOR USE IN 600 MA. SERIES HEATER OPERATED TELEVISION RECEIVERS. 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.

DIRECT INTERELECTRODE CAPACITANCES

	WITH SHIELD[A]	WITHOUT SHIELD	
TRIODE			
GRID TO PLATE	2.2	2.2	μμf
INPUT	2.7	2.5	μμf
OUTPUT	→ 1.9	→ 0.4	μμf
PENTODE			
GRID TO PLATE (MAX.)	.030	0.036	μμf
INPUT	→ 9.5	→ 9.5	μμf
OUTPUT	3.6	2.8	μμf
COUPLING			
PENTODE GRID #1 TO TRIODE PLATE (MAX.)	.005	→ .010	μμf
PENTODE PLATE TO TRIODE GRID (MAX.)	.012	.022	μμf
PENTODE PLATE TO TRIODE PLATE (MAX.)	.050	0.20	μμf

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

	TRIODE	PENTODE	
HEATER VOLTAGE	6.3		VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE:			
HEATER POSITIVE WITH RESPECT TO CATHODE			
DC AND PEAK	200		VOLTS
DC	100		VOLTS
HEATER NEGATIVE WITH RESPECT TO CATHODE			
DC AND PEAK	200		VOLTS
MAXIMUM PLATE VOLTAGE	300	300	VOLTS
MAXIMUM GRID #2 SUPPLY VOLTAGE	---	300	VOLTS
MAXIMUM GRID #2 VOLTAGE	SEE RATING CHART		
MAXIMUM PLATE DISSIPATION	2.0	3.25	WATTS
MAXIMUM GRID #2 DISSIPATION	---	1.0	WATT
MAXIMUM NEGATIVE GRID #1 VOLTAGE	---	50	VOLTS
MAXIMUM POSITIVE GRID #1 VOLTAGE	---	0	VOLTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE:			
FIXED BIAS	0.5	0.25	MEGOHM
SELF BIAS	1.0	1.0	MEGOHM
HEATER WARM-UP TIME (APPROX.)[B]	11.0		SECONDS

[A] SHIELD #315 TIED TO CATHODE BASE PIN OF SECTION UNDER TEST.

[B] 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

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A_1 AMPLIFIER

	TRIODE	PENTODE	
HEATER VOLTAGE	6.3		VOLTS
HEATER CURRENT	0.6		AMP.
PLATE VOLTAGE	200	200	VOLTS
GRID #2 VOLTAGE	---	150	VOLTS
GRID #1 VOLTAGE	-8	0	VOLTS
CATHODE BIAS RESISTOR	---	180	OHMS
AMPLIFICATION FACTOR	18	---	
PLATE RESISTANCE (APPROX.)	6 700	400 000	OHMS
TRANSCONDUCTANCE	2 700	9 000	μMHOS
PLATE CURRENT	8.0	13	MA.
GRID #2 CURRENT	---	3.5	MA.
GRID #1 VOLTAGE FOR I_b = 10 μA. (APPROX.)	-16	-10	VOLTS