TUNG-SOL

DOUBLE-DIODE TRIODE

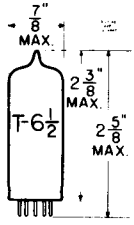
MINIATURE TYPE

COATED UNIPOTENTIAL CATHODE

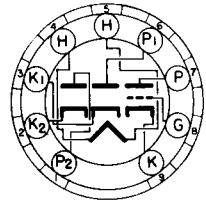
HEATER

6.3±10% VOLTS 0.6 AMP.
AC OR DC

ANY MOUNTING POSITION



GLASS BULB



BOTTOM VIEW
SMALL BUTTON
9 PIN BASE
9ER

THE 6BN8 IS A HIGH MU TRIODE DOUBLE DIODE IN THE 9 PIN MINIATURE CONSTRUCTION. THE TUBE HAS SEPARATE CATHODE CONNECTIONS FOR EACH SECTION AND IS INTENDED FOR APPLICATIONS IN BOTH MONOCHROME AND COLOR 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 NO EXTERNAL SHIELD

TRIODE SECTION		
GRID TO PLATE: (G TO P)	2.5	μμf
INPUT: G TO (H +TK)	3.6	μμf
OUTPUT: P TO (H +TK)	0.25	μμf
DIODE SECTION		
#1 PLATE TO TRIODE GRID (MAX.)	0.060	μμf
#2 PLATE TO TRIODE GRID (MAX.)	0.10	μμf
#1 CATHODE TO ALL: 1DK TO (H+TK+2DK+TP+1DP+TG+2DP)	5.0	μμf
#2 CATHODE TO ALL: 2DK TO (H+TK+1DK+TP+1DP+2DP+TG)	5.0	μμf
#1 PLATE TO #2 PLATE (MAX.)	0.070	μμf
#1 PLATE TO #1 CATHODE + HEATER: 1DP TO (1DK+ H)	1.9	μμf
#2 PLATE TO #2 CATHODE + HEATER: 2DP TO (2DK+ H)	1.9	μμf
#1 CATHODE TO #1 PLATE + HEATER: 1DK TO (1DP+ H)	4.8	μμf
#2 CATHODE TO #2 PLATE + HEATER: 2DK TO (2DP+ H)	4.8	μμf
#1 PLATE TO ALL: 1DP TO (H+TK+1DK+2DK+TP+2DP+TG)	3.0	μμf
#2 PLATE TO ALL: 2DP TO (H+TK+1DK+2DK+TP+1DP+TG)	3.0	μμf

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

EACH SECTION

HEATER VOLTAGE	→ 6.3±10%	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE		
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
HEATER WARM-UP TIME [A]	11	SECONDS

[A] 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.

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TUNG-SOL

CONTINUED FROM PRECEDING PAGE

RATINGS – CONT'D.

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

EACH SECTION

TRIODE SECTION		
MAXIMUM PLATE VOLTAGE	330 ←	VOLTS
MAXIMUM POSITIVE DC GRID VOLTAGE	0	VOLTS
MAXIMUM PLATE DISSIPATION	1.7 ←	WATTS
MAXIMUM GRID CIRCUIT RESISTANCE	1.0	MEGOHM
DIODE SECTION		
MAXIMUM PEAK PLATE CURRENT, (EACH PLATE)	54	MA.
MAXIMUM DC CURRENT, (EACH PLATE)	9	MA.

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A_1 AMPLIFIER

TRIODE SECTION			
HEATER VOLTAGE	→ 6.3±10%	6.3±10%	VOLTS
HEATER CURRENT	0.6	0.6	AMP.
PLATE VOLTAGE	100	250	VOLTS
GRID VOLTAGE	−1	−3	VOLTS
PLATE RESISTANCE (APPROX.)	21 000	28 000	OHMS
TRANSCONDUCTANCE	3 500	2 500	μMHOS
AMPLIFICATION FACTOR	75	70	
PLATE CURRENT	1.5	1.6	MA.
GRID VOLTAGE (APPROX.) FOR I_b = 10 μA	−2.5	−5.5	VOLTS
DIODE SECTION			
AVERAGE CURRENT (EACH PLATE) AT 10 VOLTS DC		50	MA.
VOLTAGE DROP (EACH SECTION) AT I_b=9 MA DC		2.6	VOLTS