

TUNG-SOL

DOUBLE-DIODE TRIODE

MINIATURE TYPE

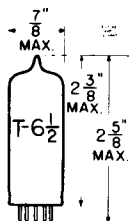
COATED UNIPOTENTIAL CATHODE

HEATER

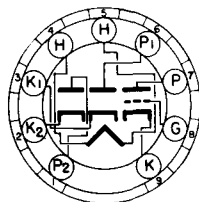
 $6.3 \pm 10\%$ VOLTS 0.6 AMP.

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 μf

INPUT: G TO (H + TK)

3.6 μf

OUTPUT: P TO (H + TK)

0.25 μf

DIODE SECTION

#1 PLATE TO TRIODE GRID (MAX.)

0.060 μf

#2 PLATE TO TRIODE GRID (MAX.)

0.10 μf #1 CATHODE TO ALL: $1\text{DK TO (H+TK+2DK+TP+1DP+TG+2DP)}$ 5.0 μf #2 CATHODE TO ALL: $2\text{DK TO (H+TK+1DK+TP+1DP+2BP+TG)}$ 5.0 μf

#1 PLATE TO #2 PLATE (MAX.)

0.070 μf #1 PLATE TO #1 CATHODE + HEATER: 1DP TO (1DK+H) 1.9 μf #2 PLATE TO #2 CATHODE + HEATER: 2DP TO (2DK+H) 1.9 μf #1 CATHODE TO #1 PLATE + HEATER: 1DK TO (1DP+H) 4.8 μf #2 CATHODE TO #2 PLATE + HEATER: 2DK TO (2DP+H) 4.8 μf #1 PLATE TO ALL: $1\text{DP TO (H+TK+1DK+2DK+TP+2DP+TG)}$ 3.0 μf #2 PLATE TO ALL: $2\text{DP TO (H+TK+1DK+2DK+TP+1DP+TG)}$ 3.0 μf

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

EACH SECTION

HEATER VOLTAGE

 $\rightarrow 6.3 \pm 10\%$ 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.

 $\rightarrow$ 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 A₁ 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