

TUNG-SOL

DOUBLE-DIODE TRIODE

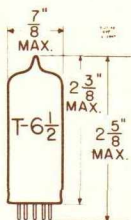
MINIATURE TYPE

COATED UNIPOTENTIAL CATHODE

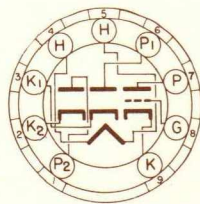
HEATER

 $6.3 \pm 10\%$ 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)

INPUT: G TO (H + TK)

OUTPUT: P TO (H + TK)

2.5	μf
3.6	μf
0.25	μf

DIODE SECTION

#1 PLATE TO TRIODE GRID (MAX.)

#2 PLATE TO TRIODE GRID (MAX.)

#1 CATHODE TO ALL: 1DK TO (H+TK+2DK+TP+1DP+TG+2DP)

#2 CATHODE TO ALL: 2DK TO (H+TK+1DK+TP+1DP+2BP+TG)

#1 PLATE TO #2 PLATE (MAX.)

#1 PLATE TO #1 CATHODE + HEATER: 1DP TO (1DK+H)

#2 PLATE TO #2 CATHODE + HEATER: 2DP TO (2DK+H)

#1 CATHODE TO #1 PLATE + HEATER: 1DK TO (1DP+H)

#2 CATHODE TO #2 PLATE + HEATER: 2DK TO (2DP+H)

#1 PLATE TO ALL: 1DP TO (H+TK+1DK+2DK+TP+2DP+TG)

#2 PLATE TO ALL: 2DP TO (H+TK+1DK+2DK+TP+1DP+TG)

0.060	μf
0.10	μf
5.0	μf
5.0	μf
0.070	μf
1.9	μf
1.9	μf
4.8	μf
4.8	μf
3.0	μf
3.0	μf

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

EACH SECTION

HEATER VOLTAGE

→ $6.3 \pm 10\%$ 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.

→ INDICATES A CHANGE.

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TUNG-SOL

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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