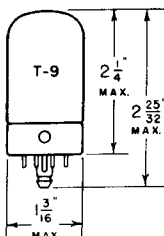


TUNG-SOL

TRIODE HEXODE CONVERTER



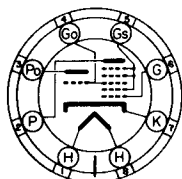
UNIPOTENTIAL CATHODE

HEATER

6.3 VOLTS 0.3 AMPERE

AC OR DC

GLASS BULB



8 AR

BOTTOM VIEW

LOCKING-IN 8 PIN BASE

THE TUNG-SOL 7J7 IS DESIGNED FOR SERVICE AS AN OSCILLATOR AND MIXER IN SUPERHETERODYNE CIRCUITS. IT CONSISTS OF A HEXODE MIXER AND A TRIODE OSCILLATOR WITH A COMMON CATHODE. THE INJECTOR GRID OF THE HEXODE IS INTERNALLY CONNECTED TO THE TRIODE GRID. ITS RATINGS AND ELECTRICAL CHARACTERISTICS ARE SIMILAR TO THOSE OF THE 6J8G

RATINGS

HEATER VOLTAGE — NOMINAL	7.0	VOLTS
HEATER CURRENT — NOMINAL	0.32	AMPERE
MAXIMUM HEXODE PLATE VOLTAGE (P)	300	VOLTS
MAXIMUM HEXODE SCREEN VOLTAGE (G_5)	100	VOLTS
MAXIMUM HEXODE SCREEN SUPPLY VOLTAGE	300	VOLTS
MAXIMUM TRIODE PLATE VOLTAGE (P_0)	150	VOLTS
MAXIMUM TRIODE PLATE SUPPLY VOLTAGE	300	VOLTS
MAXIMUM HEXODE PLATE DISSIPATION (P)	0.5	WATT
MAXIMUM HEXODE SCREEN DISSIPATION (G_5)	0.3	WATT
MAXIMUM TRIODE PLATE DISSIPATION (P_0)	1.25	WATTS
MAXIMUM TOTAL CATHODE CURRENT	14	MA.
MINIMUM EXTERNAL SIGNAL GRID BIAS VOLTAGE (G)	0	VOLT

DIRECT INTERELECTRODE CAPACITANCES^S

HEXODE GRID (G) TO HEXODE PLATE (P)	0.01 ^{MAX.} $\mu\mu\text{f}$
HEXODE GRID (G) TO TRIODE PLATE (P_0)	0.1 ^{MAX.} $\mu\mu\text{f}$
HEXODE GRID (G) TO TRIODE GRID AND HEXODE GRID (G_0)	0.2 ^{MAX.} $\mu\mu\text{f}$
TRIODE GRID (G_0) TO TRIODE PLATE (P_0)	1.0 $\mu\mu\text{f}$
SIGNAL INPUT: HEXODE GRID (G) TO ALL OTHER ELECTRODES	5.5 $\mu\mu\text{f}$
OSC. INPUT: TRIODE GRID AND HEXODE GRID (G_0) TO ALL OTHER ELECTRODES EXCEPT TRIODE PLATE (P_0)	8.5 $\mu\mu\text{f}$
OSC. OUTPUT: TRIODE PLATE (P_0) TO ALL OTHER ELECTRODES EXCEPT TRIODE GRID AND HEXODE GRID (G_0)	2.0 $\mu\mu\text{f}$
MIXER OUTPUT: HEXODE PLATE (P) TO ALL OTHER ELECTRODES	7.5 $\mu\mu\text{f}$

^S WITH EXTERNAL SHIELD CONNECTED TO CATHODE

CONTINUED NEXT PAGE

TUNG-SOL

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CONVERTER SERVICE

HEXODE PLATE (P) VOLTAGE	100	250	VOLTS
HEXODE SCREEN (G_S) VOLTAGE	100	100	VOLTS
TRIODE PLATE (P_O) VOLTAGE	100	—	VOLTS
TRIODE PLATE (P_O) SUPPLY VOLTAGE	—	250 ^A	VOLTS
HEXODE CONTROL GRID (G) VOLTAGE	-3	-3	VOLTS
HEXODE PLATE CURRENT	1.1	1.3	MA.
HEXODE SCREEN CURRENT	3.1	2.9	MA.
TRIODE PLATE CURRENT	3.7	5.4	MA.
TRIODE GRID (G_O) CURRENT	0.3	0.4	MA.
TOTAL CATHODE CURRENT	8.2	10.0	MA.
TRIODE GRID (G_O) RESISTOR	50000	50000	OHMS
HEXODE PLATE RESISTANCE	0.3	1.5	MEGOHMS
CONVERSION TRANSCONDUCTANCE	260	300	μ MHOS
CONTROL GRID VOLTAGE	-20	-20	VOLTS

FOR CONVERSION TRANSCONDUCTANCE = 2 μ MHOS

^A THIS VALUE OF TRIODE PLATE SUPPLY VOLTAGE APPLIED THROUGH A 20 000 OHM DROPPING RESISTOR.

STATIC CHARACTERISTICS OF TRIODE SECTION ONLY

PLATE VOLTAGE	150	VOLTS
GRID VOLTAGE	-3	VOLTS
PLATE CURRENT	7.5	MA.
PLATE RESISTANCE	10400	OHMS
TRANSCONDUCTANCE	1350	μ MHOS
AMPLIFICATION FACTOR	14	

FOR "INTERPRETATION OF RATINGS" REFER TO FRONT OF BOOK.

PLATE
859-1