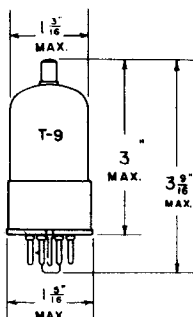


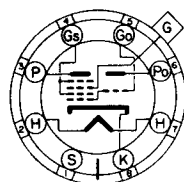
## TUNG-SOL



## TRIODE HEXODE CONVERTER

UNIPOTENTIAL CATHODE

HEATER

12.6 VOLTS 0.15 AMPERE  
AC OR DC

8 K

BOTTOM VIEW

GLASS BULB

SMALL WAFER 8 PIN OCTAL BASE WITH METAL SHELL

THE TUNG-SOL 12K8GT CONSISTS OF A TRIODE OSCILLATOR AND A HEXODE MIXER IN A COMMON ENVELOPE. THE PHYSICAL DESIGN OF THIS TUBE REDUCES INTER-ACTION BETWEEN THE OSCILLATOR AND MIXER SECTIONS AND MAKES FOR STABLE OPERATION ON THE HIGH FREQUENCIES AS WELL AS THE BROADCAST BAND. IT IS USED IN AC-DC SUPERHETERODYNES USING 150 MA. HEATER TUBES.

## RATINGS

MAXIMUM HEXODE PLATE (P) VOLTAGE	300	VOLTS
MAXIMUM HEXODE SCREEN (Gs) SUPPLY VOLTAGE	300	VOLTS
MAXIMUM HEXODE SCREEN (Gs) VOLTAGE	150	VOLTS
MAXIMUM HEXODE PLATE DISSIPATION	0.75	WATT
MAXIMUM HEXODE SCREEN DISSIPATION	0.7	WATT
MAXIMUM TOTAL CATHODE CURRENT	16	MA.
MINIMUM EXTERNAL SIGNAL GRID (G) BIAS VOLTAGE	0	VOLT
MAXIMUM OSCILLATOR ANODE (P0) VOLTAGE	125	VOLTS
MAXIMUM OSCILLATOR ANODE DISSIPATION	0.75	WATT

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

CONTINUED NEXT PAGE

## TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

## CONVERTER SERVICE

HEXODE PLATE (P) VOLTAGE	100	250	VOLTS
HEXODE SCREEN (G <sub>S</sub> ) VOLTAGE	100	100	VOLTS
HEXODE CONTROL GRID (G) VOLTAGE	-3	-3	VOLTS
OSCILLATOR ANODE (P <sub>0</sub> ) VOLTAGE	100	100	VOLTS
HEXODE PLATE CURRENT	2.3	2.5	MA.
HEXODE SCREEN CURRENT	6.2	6.0	MA.
OSCILLATOR ANODE CURRENT	3.8	3.8	MA.
OSCILLATOR GRID (G <sub>0</sub> ) CURRENT	0.15	0.15	MA.
TOTAL CATHODE CURRENT	12.5	12.5	MA.
OSCILLATOR GRID RESISTOR	50 000	50 000	OHMS
CONVERSION TRANSCONDUCTANCE	325	350	μMHOS
HEXODE PLATE RESISTANCE APPROX.	0.4	0.6	MEGOHM
HEXODE CONTROL GRID VOLTAGE APPROX.	-30	-30	VOLTS

FOR CONVERSION TRANSCONDUCTANCE = 2 μMHOS

DIRECT INTERELECTRODE CAPACITANCES<sup>5</sup>

SIGNAL GRID TO MIXER PLATE (G TO P)	0.08 <sup>MAX.</sup>	μμf
SIGNAL GRID TO OSCILLATOR PLATE (G TO P <sub>0</sub> )	0.05 <sup>MAX.</sup>	μμf
SIGNAL GRID TO OSCILLATOR GRID (G TO G <sub>0</sub> )	0.2 <sup>MAX.</sup>	μμf
OSCILLATOR GRID TO OSCILLATOR PLATE (G <sub>0</sub> TO P <sub>0</sub> )	1.8	μμf
SIGNAL INPUT: G TO ALL OTHER ELECTRODES	4.6	μμf
OSCILLATOR INPUT: G <sub>0</sub> TO ALL OTHER ELECTRODES EXCEPT P <sub>0</sub>	6.5	μμf
OSCILLATOR OUTPUT: P <sub>0</sub> TO ALL OTHER ELECTRODES EXCEPT G <sub>0</sub>	3.4	μμf
MIXER OUTPUT: P TO ALL OTHER ELECTRODES	4.8	μμf
OSCILLATOR GRID TO MIXER PLATE (G <sub>0</sub> TO P)	0.15 <sup>MAX.</sup>	μμf

<sup>A</sup> WITH EXTERNAL SHIELD CONNECTED TO CATHODE.

NOTE: THE TRANSCONDUCTANCE OF THE OSCILLATOR SECTION (NOT OSCILLATING) IS APPROXIMATELY 3000 μMHOS WHEN THE TRIODE PLATE VOLTAGE IS 100 VOLTS, AND THE TRIODE GRID VOLTAGE IS ZERO VOLTS.