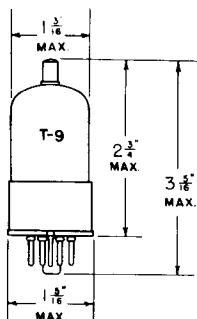


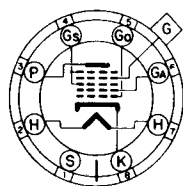
TUNG-SOL



PENTAGRID CONVERTER

UNIPOTENTIAL CATHODE

HEATER

12.6 VOLTS 0.15 AMPERE
AC OR DC

BOTTOM VIEW

GLASS BULB

SMALL WAFER 8 PIN OCTAL BASE WITH METAL SHELL

THE TUNG-SOL 12A8GT IS A PENTAGRID CONVERTER DESIGNED FOR SERVICE IN AC-DC OPERATED SUPERHETERODYNE RECEIVERS USING 150 MA. HEATER TUBES. WITH THE EXCEPTION OF HEATER RATINGS AND CAPACITANCES, ITS ELECTRICAL CHARACTERISTICS ARE IDENTICAL TO THOSE OF TYPES 7B8, 6A8, 6A8G AND 6A8GT.

RATINGS

MAXIMUM PLATE VOLTAGE	300	VOLTS
MAXIMUM SCREEN (G_s) SUPPLY VOLTAGE	300	VOLTS
MAXIMUM SCREEN (G_s) VOLTAGE	100	VOLTS
MINIMUM EXTERNAL CONTROL GRID (G) BIAS VOLTAGE	0	VOLTS
MAXIMUM OSCILLATOR ANODE (G_a) SUPPLY VOLTAGE	300	VOLTS
MAXIMUM OSCILLATOR ANODE (G_a) VOLTAGE	200	VOLTS
MAXIMUM TOTAL CATHODE CURRENT	14	MA.
MAXIMUM PLATE DISSIPATION	1.0	WATT
MAXIMUM SCREEN DISSIPATION	0.3	WATT
MAXIMUM OSCILLATOR ANODE (G_a) DISSIPATION	.75	WATT

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

CONTINUED NEXT PAGE

TUNG-SOL

DIRECT INTERELECTRODE CAPACITANCES⁵

CONTROL GRID (G) TO MIXER PLATE (P)	0.26 ^{MAX.}	μμf
CONTROL GRID (G) TO OSCILLATOR ANODE (G _A)	0.19 ^{MAX.}	μμf
CONTROL GRID (G) TO OSCILLATOR GRID (G ₀)	0.16 ^{MAX.}	μμf
OSCILLATOR GRID (G ₀) TO OSCILLATOR ANODE (G _A)	1.1	μμf
RF INPUT: CONTROL GRID (G) TO ALL OTHER ELECTRODES	9.5	μμf
OSCILLATOR INPUT: OSCILLATOR GRID (G ₀) TO ALL OTHER ELECTRODES EXCEPT OSCILLATOR ANODE (G _A)	6.0	μμf
OSCILLATOR OUTPUT: OSCILLATOR ANODE (G _A) TO ALL OTHER ELECTRODES EXCEPT OSCILLATOR GRID (G ₀)	4.6	μμf
MIXER OUTPUT: MIXER PLATE (P) TO ALL OTHER ELECTRODES	12	μμf

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CONVERTER SERVICE

HEATER VOLTAGE	12.6	12.6	VOLTS
HEATER CURRENT	0.15	0.15	AMPERE
PLATE (P) VOLTAGE	100	250	VOLTS
SCREEN (G _S) VOLTAGE	50	100	VOLTS
CONTROL GRID (G) VOLTAGE	-1.5	-3	VOLTS
OSCILLATOR ANODE (G _A) SUPPLY VOLTAGE ^A	-	250	VOLTS
OSCILLATOR ANODE (G _A) VOLTAGE	100	-	VOLTS
OSCILLATOR GRID (G ₀) RESISTOR	50 000	50 000	OHMS
PLATE CURRENT	1.1	3.5	MA.
SCREEN CURRENT	1.3	2.7	MA.
OSCILLATOR ANODE CURRENT	2.0	4.0	MA.
OSCILLATOR GRID CURRENT	25	0.4	MA.
TOTAL CATHODE CURRENT	4.6	10.6	MA.
PLATE RESISTANCE ^{APPROX.}	0.6	0.36	MEG OHM
CONVERSION TRANSCONDUCTANCE			
FOR CONTROL GRID (G) VOLTAGE = -1.5 V.	360	-	μMHOS
CONVERSION TRANSCONDUCTANCE			
FOR CONTROL GRID (G) VOLTAGE = -3 V.	180	550	μMHOS
CONVERSION TRANSCONDUCTANCE			
FOR CONTROL GRID (G) VOLTAGE = -6 V.	50	325	μMHOS
CONVERSION TRANSCONDUCTANCE			
FOR CONTROL GRID (G) VOLTAGE = -10 V.	-	100	μMHOS
CONVERSION TRANSCONDUCTANCE ^{APPROX.}			
FOR CONTROL GRID (G) VOLTAGE = -20 V.	3	-	μMHOS
CONVERSION TRANSCONDUCTANCE ^{APPROX.}			
FOR CONTROL GRID (G) VOLTAGE = -35 V.	-	6	μMHOS

^A APPLIED THROUGH A PROPERLY BY-PASSED 20000 OHM DROPPING RESISTOR.

⁵ WITH EXTERNAL SHIELD CONNECTED TO CATHODE.

NOTE: THE TRANSCONDUCTANCE OF THE OSCILLATOR SECTION (NOT OSCILLATING IS APPROXIMATELY 1150 μMHOS, THE AMPLIFICATION FACTOR IS 75 AND THE OSCILLATOR ANODE CURRENT IS 4.0 MA. CONDITIONS: PLATE VOLTAGE = 250 V., OSCILLATOR ANODE VOLTAGE = 100 V., SCREEN VOLTAGE = 55 V., CONTROL GRID VOLTAGE = -2.0 V., AND THE OSCILLATOR GRID VOLTAGE = -1.0 V.