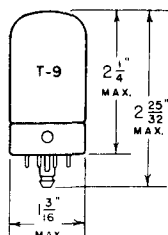


TUNG-SOL

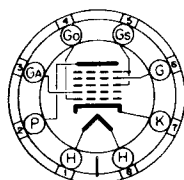
PENTAGRID CONVERTER



UNIPOENTIAL CATHODE

HEATER
6.3 VOLTS 0.3 AMPERE
AC OR DC

GLASS BULB



8X

BOTTOM VIEW

LOCKING-IN 8 PIN BASE

THE TUNG-SOL 7B8 IS A PENTAGRID CONVERTER DESIGNED FOR SERVICE IN AC, AC-DC AND STORAGE BATTERY OPERATED RECEIVERS. ITS APPLICATIONS AND ELECTRICAL CHARACTERISTICS ARE SIMILAR TO THOSE OF THE 6A8, 6A8G AND 6A8GT.

RATINGS

NOMINAL HEATER VOLTAGE	7.0	VOLTS
NOMINAL HEATER CURRENT	0.32	AMPERE
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 (P)	0.2 ^{MAX.}	μmf
CONTROL GRID (G) TO OSCILLATOR ANODE (G _A)	0.2 ^{MAX.}	μmf
CONTROL GRID (G) TO OSCILLATOR GRID (G ₀)	0.2 ^{MAX.}	μmf
OSCILLATOR GRID (G ₀) TO OSCILLATOR ANODE (G _A)	0.9	μmf
RF INPUT: CONTROL GRID (G) TO ALL OTHER ELECTRODES	10	μmf
OSCILLATOR INPUT: OSCILLATOR GRID (G ₀) TO ALL OTHER ELECTRODES	5.0	μmf
OSCILLATOR OUTPUT: OSCILLATOR ANODE (G _A) TO ALL OTHER ELECTRODES	3.4	μmf
MIXER OUTPUT: MIXER PLATE (P) TO ALL OTHER ELECTRODES	9.0	μmf

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CONVERTER SERVICE

HEATER VOLTAGE	6.3	6.3	VOLTS
HEATER CURRENT	0.3	0.3	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.
TOTAL CATHODE CURRENT	4.6	10.6	MA.
PLATE RESISTANCE ^{APPROX.}	0.6	0.36	MEGOHM
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.

PLATE
1131-1

