TUNG-SOL

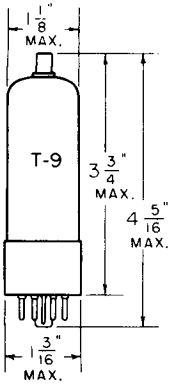
PENTAGRID CONVERTER

COATED FILAMENT

1.4 VOLTS DC 0.05 AMPERE

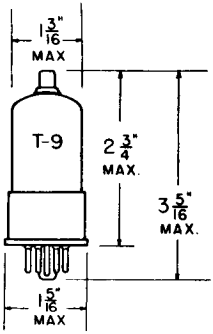
GLASS BULB

ANY MOUNTING POSITION



1A7G

SKIRTED MINIATURE CAP

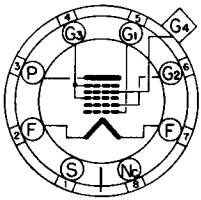


1A7GT

SKIRTED MINIATURE CAP

BOTTOM VIEW

SMALL 8 PIN OCTAL BASE



BOTTOM VIEW

SMALL WAFER 8 PIN OCTAL BASE WITH METAL SHELL

THE 1A7G AND 1A7GT ARE FILAMENT TYPE PENTAGRID CONVERTERS DESIGNED FOR SERVICE AS COMBINED OSCILLATORS AND MIXERS IN PORTABLE BATTERY OPERATED EQUIPMENT. THEY FEATURE HIGH EFFICIENCY FILAMENTS AND PROVIDE REASONABLE CONVERSION GAINS WITH LOW BATTERY VOLTAGES AND LOW ELECTRON CURRENTS.

RATINGS

INTERPRETED ACCORDING TO RMA STANDARD M8-210

MAXIMUM PLATE VOLTAGE	110	VOLTS
MAXIMUM SCREEN (G3 AND G5) VOLTAGE	60	VOLTS
MAXIMUM SCREEN SUPPLY VOLTAGE	110	VOLTS
MAXIMUM ANODE-GRID (G2) VOLTAGE	110	VOLTS
MAXIMUM TOTAL ZERO-SIGNAL CATHODE CURRENT	4.0	MA.

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DIRECT INTERELECTRODE CAPACITANCES

WITH EXTERNAL SHIELD CONNECTED TO NEGATIVE FILAMENT TERMINAL

GRID #4 TO PLATE	0.5 MAX.	μμf
GRID #4 TO GRID #2	0.4 MAX.	μμf
GRID #4 TO GRID #1	0.2 MAX.	μμf
GRID #1 TO GRID #2	0.9	μμf
GRID #4 TO ALL OTHER ELECTRODES (R-F INPUT)	7.0	μμf
GRID #2 TO ALL OTHER ELECTRODES EXCEPT GRID #1 (OSCILLATOR OUTPUT)	4.4	μμf
GRID #1 TO ALL OTHER ELECTRODES EXCEPT GRID #2 (OSCILLATOR INPUT)	3.4	μμf
PLATE TO ALL OTHER ELECTRODES (MIXER OUTPUT)	10	μμf

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CONVERTER SERVICE

PLATE VOLTAGE	90	VOLTS
SCREEN (G2 AND G5) VOLTAGE[A]	45	VOLTS
ANODE-GRID (G2) VOLTAGE	90	VOLTS
CONTROL-GRID (G4) VOLTAGE[B]	0	VOLTS
OSCILLATOR-GRID (G1) RESISTOR	200 000	OHMS
PLATE RESISTANCE	0.6	MEGOHM
CONVERSION TRANSCONDUCTANCE	250	μMHOS
CONVERSION TRANSCONDUCTANCE WITH GRID #4 BIAS OF -3 VOLTS	5.0 APPROX.	μMHOS
PLATE CURRENT	0.6	MA.
SCREEN (G3 AND G5) CURRENT	0.7	MA.
ANODE-GRID (G2) CURRENT	1.2	MA.
OSCILLATOR-GRID (G1) CURRENT	0.035	MA.
TOTAL CATHODE CURRENT	2.5	MA.

THE TRANSCONDUCTANCE OF THE OSCILLATOR PORTION (NOT OSCILLATING) IS 550 MICROMHOS UNDER THE FOLLOWING CONDITIONS: PLATE VOLTS, 90; SCREEN VOLTS, 45; CONTROL-GRID VOLTS, 0; ANODE-GRID VOLTS, 90; AND OSCILLATOR-GRID VOLTS, 0.

[A] OBTAINED PREFERABLY BY USING A PROPERLY BY-PASSED 45 000 TO 75 000 OHM VOLTAGE-DROPPING RESISTOR IN SERIES WITH THE 90 VOLT SUPPLY.

[B] A RESISTANCE OF AT LEAST 1.0 MEGOHM SHOULD BE USED IN THE GRID RETURN TO NEGATIVE FILAMENT PIN.

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