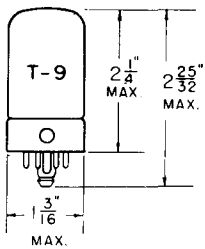
TUNG-SOL

OCTODE CONVERTER

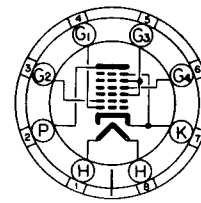
COATED UNIPOTENTIAL CATHODE



HEATER
6.3 VOLTS 0.15 AMPERE
AC OR DC

GLASS BULB

LOCKING-IN 8-PIN BASE



BOTTOM VIEW

THE 7A8 IS A PENTAGRID CONVERTER DESIGNED FOR SERVICE AS A COMBINED OSCILLATOR AND MIXER IN AC, STORAGE BATTERY, AND AC - DC OPERATED RECEIVERS.

RATINGS

INTERPRETED ACCORDING TO RMA STANDARD M8-210

CONVERTER SERVICE

MAXIMUM PLATE VOLTAGE	250	VOLTS
MAXIMUM SCREEN VOLTAGE (GRID #3 AND #5)	100	VOLTS
MAXIMUM SCREEN SUPPLY VOLTAGE	250	VOLTS
MAXIMUM PLATE DISSIPATION	1.0	WATT
MAXIMUM SCREEN DISSIPATION	0.3	WATT
MAXIMUM TOTAL CATHODE CURRENT	13	MA.
MAXIMUM ANODE-GRID VOLTAGE (GRID #2)	200	VOLTS
MAXIMUM ANODE-GRID SUPPLY VOLTAGE	250	VOLTS
MAXIMUM ANODE-GRID DISSIPATION	0.75	WATT
MINIMUM CONTROL-GRID (GRID #4) VOLTAGE	0	VOLTS
MAXIMUM HEATER-CATHODE POTENTIAL	100	VOLTS

DIRECT INTERELECTRODE CAPACITANCES

WITH CLOSE-FITTING SHIELD CONNECTED TO CATHODE

SIGNAL GRID TO MIXER PLATE (GRID #4 TO PLATE)	0.15 MAX.	μμf
SIGNAL GRID TO OSC. PLATE (GRID #4 TO GRID #2)	0.15 MAX.	μμf
SIGNAL GRID TO OSC. GRID (GRID #4 TO GRID #1)	0.15 MAX.	μμf
OSC. GRID TO OSC. PLATE (GRID #1 TO GRID #2)	0.60	μμf
SIGNAL INPUT (GRID #4 TO ALL OTHER ELECTRODES= R-F INPUT)	7.5	μμf
OSC. INPUT (GRID #1 TO ALL OTHER ELECTRODES EXCEPT GRID #2)	3.8	μμf
OSC. OUTPUT (GRID #2 TO ALL OTHER ELECTRODES EXCEPT GRID #1)	3.4	μμf
MIXER OUTPUT (PLATE TO ALL OTHER ELECTRODES)	9.0	μμf.

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CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

PLATE VOLTAGE	100	250	VOLTS
SCREEN VOLTAGE	75	100	VOLTS
ANODE-GRID VOLTAGE	100	-	VOLTS
ANODE-GRID SUPPLY VOLTAGE[A]	-	250	VOLTS
CONTROL-GRID VOLTAGE	-3.0	-3.0	VOLTS
OSCILLATOR-GRID (GRID #1) RES.	50 000	50 000	OHMS
PLATE RESISTANCE	0.65	0.7 APPROX.	MEGOHM
CONVERSION TRANSCONDUCTANCE	375	550	µMHOS
CONVERSION TRANSCONDUCTANCE FOR GRID BIAS OF -30 VOLTS	-	2.0 APPROX.	µMHOS
PLATE CURRENT	1.8	3.0	MA.
SCREEN CURRENT	2.7	3.2	MA.
ANODE-GRID CURRENT	2.8	4.2	MA.
OSCILLATOR-GRID CURRENT	0.2	0.4	MA.
TOTAL CATHODE CURRENT	8.5	10.8	MA.

NOTE: THE TRANSCONDUCTANCE BETWEEN GRID #1 AND GRID #2 (NOT OSCILLATING) IS APPROXIMATELY 1600 MICROMHOS UNDER THE FOLLOWING CONDITIONS: PLATE VOLTS, 250; SCREEN VOLTS, 100; ANODE-GRID VOLTS, 180; OSCILLATOR-GRID VOLTS, 0; AND CONTROL-GRID CONNECTED TO CATHODE.

[A] APPLIED THROUGH A PROPERLY BY-PASSED 20 000 OHM VOLTAGE-DROPPING RESISTOR.

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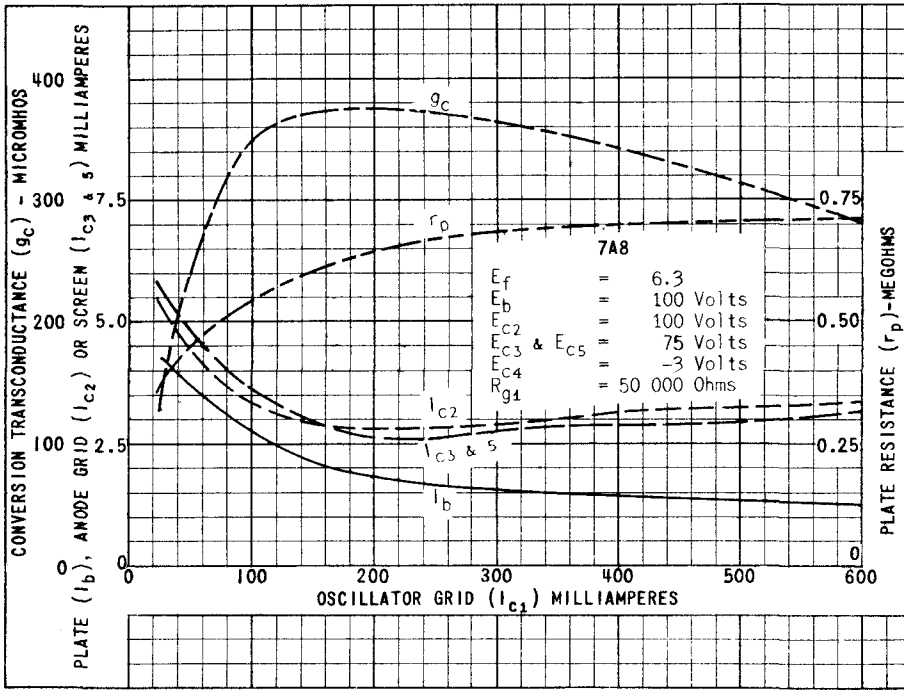

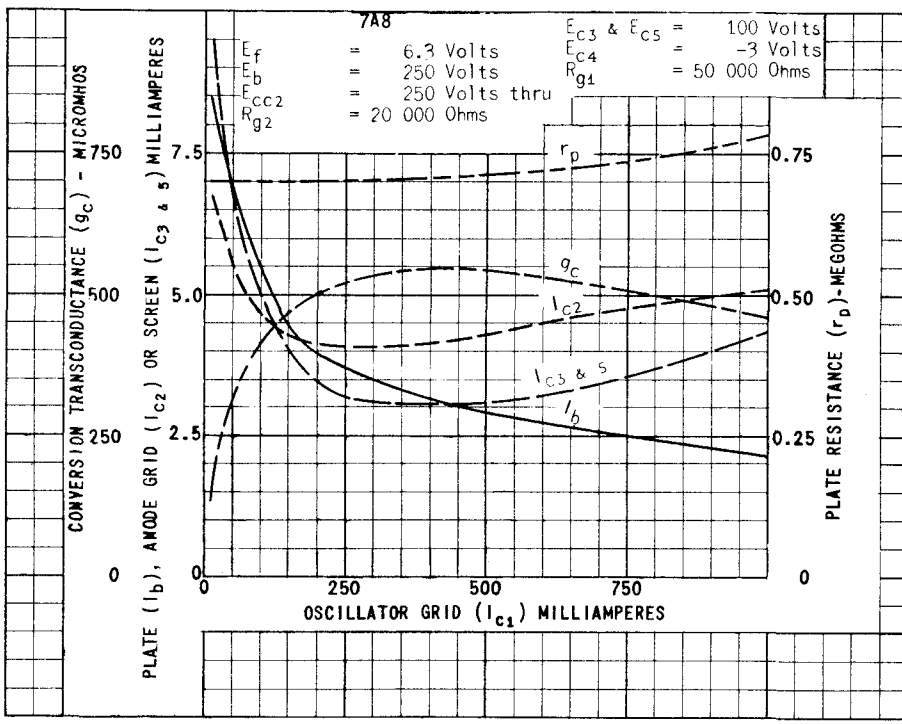

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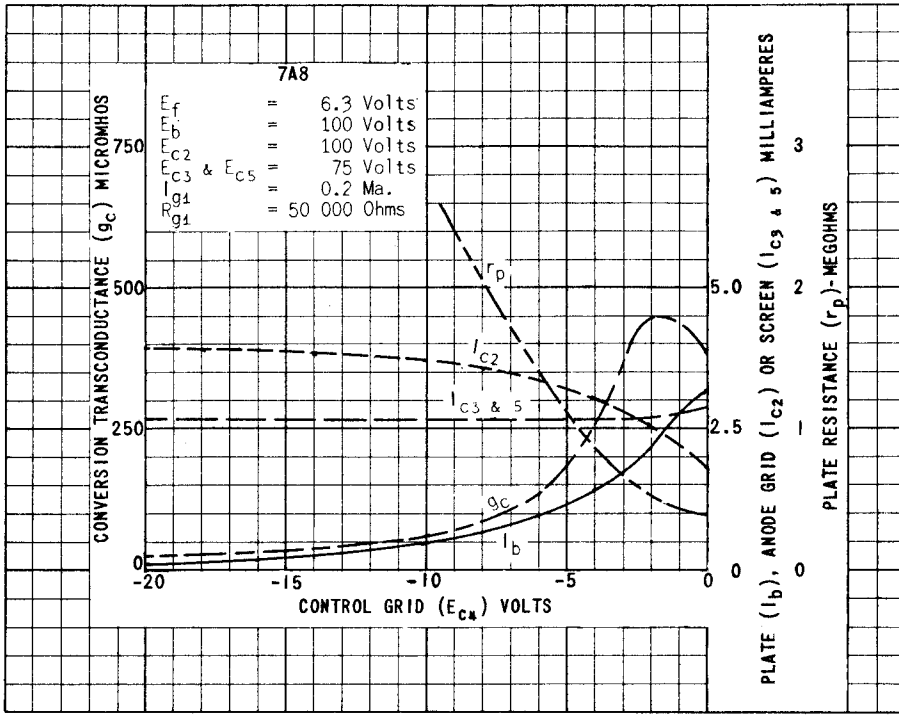

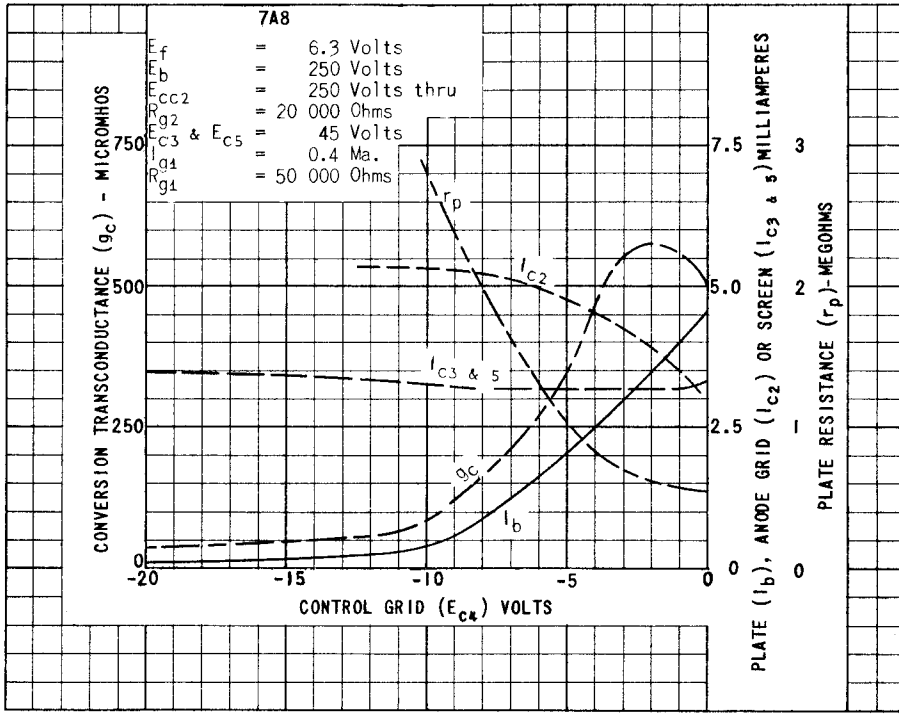

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