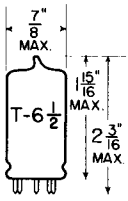
TUNG-SOL

DOUBLE TRIODE

MINIATURE TYPE

UNIPOTENTIAL CATHODES



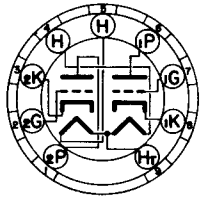
GLASS BULB

HEATER

SERIES	PARALLEL
12.6 VOLTS 150 MA.	6.3 VOLTS 300 MA.

AC OR DC

FOR 12.6 VOLT OPERATION APPLY HEATER VOLTAGE BETWEEN PINS #4 AND #5. FOR 6.3 VOLT OPERATION APPLY HEATER VOLTAGE BETWEEN PIN #9 AND PINS #4 AND #5 CONNECTED TOGETHER.



BOTTOM VIEW
SMALL BUTTON
9 PIN BASE

ANY MOUNTING POSITION

THE 12AX7 COMBINES TWO COMPLETELY INDEPENDENT HIGH-MU TRIODES IN THE SMALL 9 PIN BUTTON CONSTRUCTION. IT IS ADAPTABLE TO APPLICATIONS WHERE HIGH VOLTAGE GAIN AND LOW HEATER POWER ARE THE IMPORTANT CONSIDERATION, SUCH AS VOLTAGE AMPLIFIERS, PHASE INVERTERS AND MULTIVIBRATORS. THE CENTER TAPPED HEATER CONNECTION PERMITS OPERATION FROM EITHER A 6.3 VOLT OR 12.6 VOLT SUPPLY AND IN 300 MA. OR 150 MA. SERIES HEATER SERVICE.

DIRECT INTERELECTRODE CAPACITANCES

WITH NO EXTERNAL SHIELD

	TRIODE UNIT 1	TRIODE UNIT 2	
GRID TO PLATE: (G TO P)	1.7	1.7	μμf
INPUT: G TO (H + K)	1.6	1.6	μμf
OUTPUT: P TO (H + K)	0.46	0.34	μμf

RATINGS

INTERPRETED ACCORDING TO RMA STANDARD M8-210

EACH TRIODE UNIT

HEATER VOLTAGE	12.6	6.3	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE	180		VOLTS
MAXIMUM PLATE VOLTAGE	300		VOLTS
MAXIMUM NEGATIVE DC GRID VOLTAGE	50		VOLTS
MAXIMUM POSITIVE DC GRID VOLTAGE	0		VOLTS
MAXIMUM PLATE DISSIPATION	1		WATT

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A_1 AMPLIFIER - EACH TRIODE UNIT

HEATER VOLTAGE	12.6	6.3	12.6	6.3	VOLTS
HEATER CURRENT	150	300	150	300	MA.
PLATE VOLTAGE	100		250		VOLTS
GRID VOLTAGE	-1		-2		VOLTS
PLATE CURRENT	0.5		1.2		MA.
PLATE RESISTANCE	80 000		62 500		OHMS
TRANSCONDUCTANCE	1 250		1 600		μMHOS
AMPLIFICATION FACTOR	100		100		

SIMILIAR TYPE REFERENCE: Characteristics somewhat similiar to types 6SL7GT and 12SL7GT.

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RESISTANCE COUPLED AMPLIFIER

R_1 MEG.	R_C MEG.	E_{bb} = 90 VOLTS			E_{bb} = 180 VOLTS			E_{bb} = 300 VOLTS		
		R_k	GAIN	E_o	R_k	GAIN	E_o	R_k	GAIN	E_o
0.1	0.22	4700	35[A]	4	2000	47	18	1500	52	40
0.22	0.47	7400	45[B]	6	3500	59	24	2800	65	49
0.47	1.0	13000	52[C]	8	6700	66	28	5200	73	54

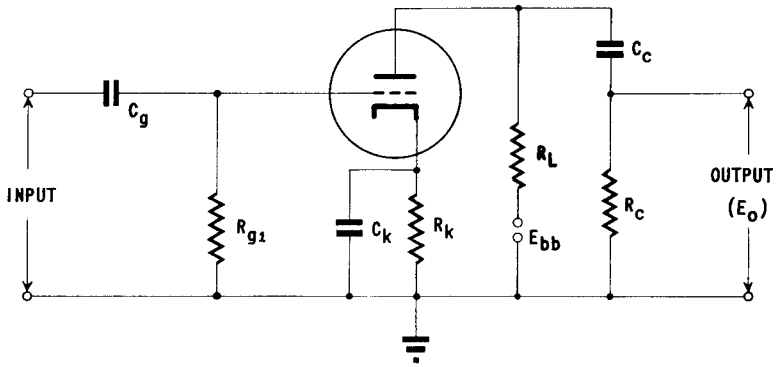
E_o IS RMS OUTPUT AT GRID CURRENT POINT.

GAIN MEASURED AT 5.0 VOLTS RMS OUTPUT EXCEPT AS INDICATED.

[A] OUTPUT VOLTAGE OF 2 VOLTS RMS.

[B] OUTPUT VOLTAGE OF 3 VOLTS RMS.

[C] OUTPUT VOLTAGE OF 4 VOLTS RMS.



NOTE: COUPLING CAPACITORS C_g AND C_c SHOULD BE SELECTED TO GIVE DESIRED FREQUENCY RESPONSE. R_k SHOULD BE ADEQUATELY BY-PASSED BY CAPACITOR C_k.

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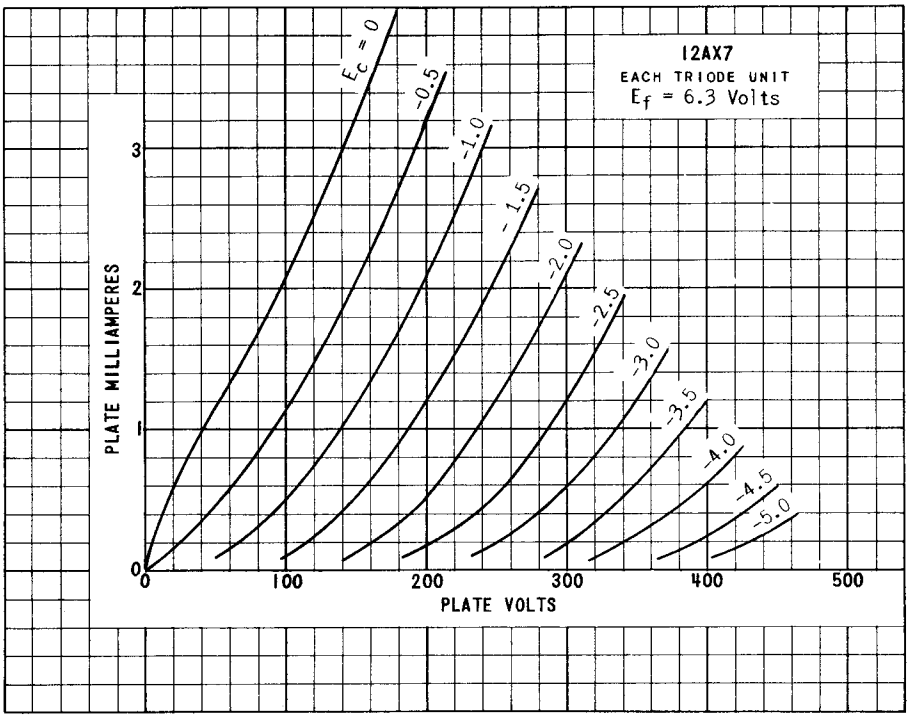

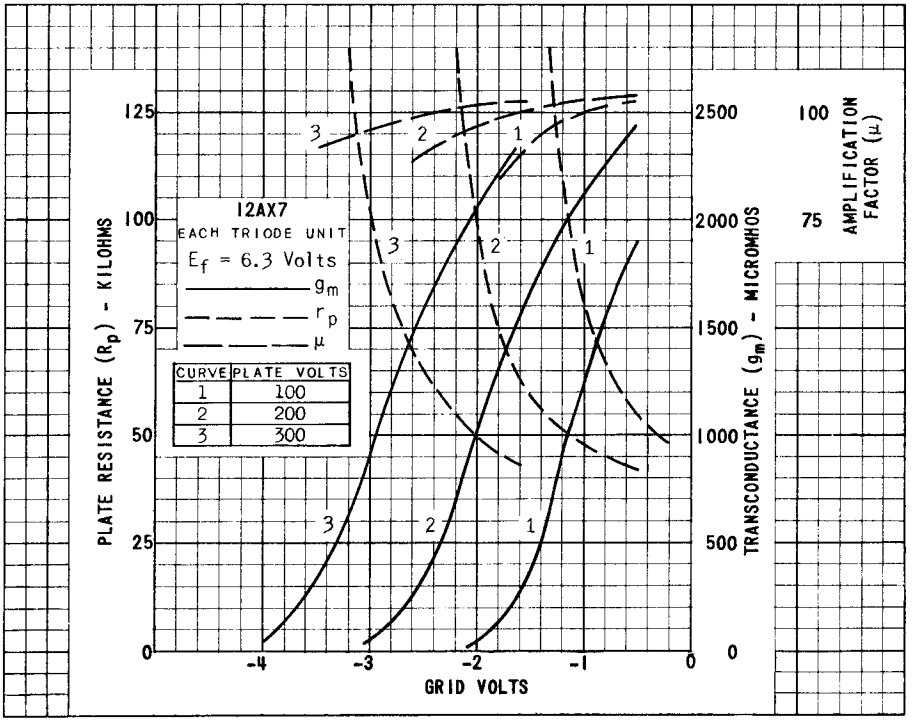

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