

TUNG-SOL

TRIODE

MINIATURE TYPE

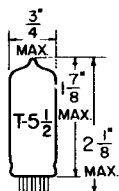
COATED UNIPOTENTIAL CATHODE

HEATER

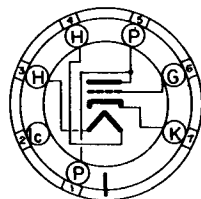
6.3 VOLTS 150 MA.

AC OR DC

ANY MOUNTING POSITION



GLASS BULB


 BOTTOM VIEW
 MINIATURE BUTTON
 7 PIN BASE

THE 6C4 IS A LOW-MU TRIODE VOLTAGE AMPLIFIER OF THE MINIATURE TYPE. IT IS PARTICULARLY USEFUL AS A HIGH FREQUENCY LOW-POWER OSCILLATOR DUE TO ITS HIGH TRANSCONDUCTANCE, LOW CAPACITANCES AND LEAD INDUCTANCES. LOW HEATER POWER REQUIREMENTS MAKE IT ATTRACTIVE FOR USE IN PORTABLE AND ALSO IN SERIES-HEATER CONNECTED CIRCUITS.

DIRECT INTERELECTRODE CAPACITANCES

WITH NO EXTERNAL SHIELD

GRID TO PLATE: (G TO P)	1.6	μf
INPUT: G TO (H+K)	1.8	μf
OUTPUT: P TO (H+K)	1.3	μf

RATINGS

INTERPRETED ACCORDING TO RMA STANDARD M8-210

	AF AMPLIFIER	RF AMPLIFIER	
HEATER VOLTAGE	6.3	6.3	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE	90	90	VOLTS
MAXIMUM PLATE VOLTAGE	300	300	VOLTS
MAXIMUM NEGATIVE DC GRID VOLTAGE	---	50	VOLTS
MAXIMUM GRID CIRCUIT RESISTANCE (FIXED BIAS)	0.25	---	MEG.
MAXIMUM GRID CIRCUIT RESISTANCE (SELF BIAS)	1	---	MEG.
MAXIMUM DC PLATE CURRENT	---	25	MA.
MAXIMUM DC GRID CURRENT	---	8	MA.
PLATE DISSIPATION	3.5	5	WATTS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A_1 AMPLIFIER

HEATER VOLTAGE	6.3	6.3	VOLTS
HEATER CURRENT	150	150	MA.
PLATE VOLTAGE	100	250	VOLTS
GRID VOLTAGE ^A	0	-8.5	VOLTS
PLATE CURRENT	11.8	10.5	MA.
PLATE RESISTANCE	6 250	7 700	OHMS
TRANSCONDUCTANCE	3 100	2 200	μMHOS
AMPLIFICATION FACTOR	19.5	17	

^A THE TYPE OF INPUT COUPLING USED SHOULD NOT INTRODUCE TOO MUCH RESISTANCE IN THE GRID CIRCUIT. TRANSFORMER OR IMPEDANCE COUPLING DEVICES ARE RECOMMENDED.

CONTINUED ON FOLLOWING PAGE

→ INDICATES A CHANGE OR ADDITION.

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

RF POWER AMPLIFIER AND OSCILLATOR - CLASS C TELEGRAPHY
 AS AN OSCILLATOR AT 150 MC APPROXIMATELY 2.5 WATTS CAN BE OBTAINED WITH
 A GRID RESISTOR OF 10000 OHMS AND MAXIMUM RATED INPUT.

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	150	MA.
DC PLATE VOLTAGE	300	VOLTS
DC GRID VOLTAGE	-27	VOLTS
DC PLATE CURRENT	25	MA.
DC GRID CURRENT (APPROX.)	7	MA.
DRIVING POWER (APPROX.)	0.35	WATT
POWER OUTPUT (APPROX.)	5.5	WATTS

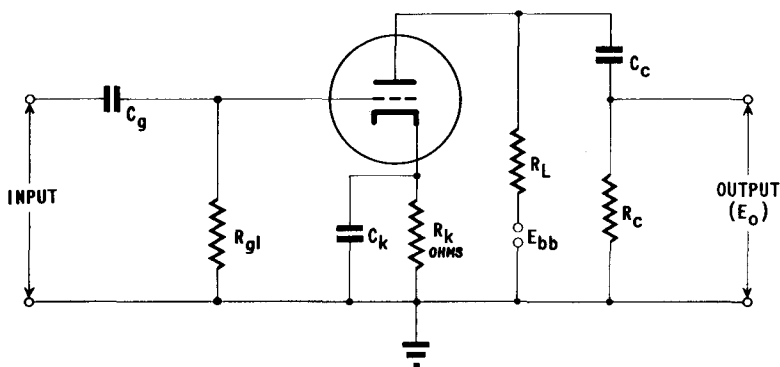
RESISTANCE COUPLED AMPLIFIER

R_L MEG.	R_{g1} 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
0.10	A	0.10	3000	11	12	2000	12	23	1600	13	34
0.10	A	0.24	3300	12	15	2400	12	30	1800	13	40
0.24	A	0.24	7500	12	14	4700	13	25	3600	13	37
0.24	A	0.51	8200	12	16	6200	13	32	4300	13	43
0.51	A	0.51	12000	12	13	8200	13	24	6200	13	33
0.51	A	1.0	13000	12	15	9100	13	28	6800	13	36
0.24	10	0.24	---	13	12	---	15	24	---	16	35
0.24	10	0.51	---	14	15	---	16	28	---	17	49
0.51	10	0.51	---	14	13	---	15	25	---	17	40
0.51	10	1.0	---	14	16	---	16	32	---	17	54

^A VALUE OF R_{g1} IS NOT CRITICAL.

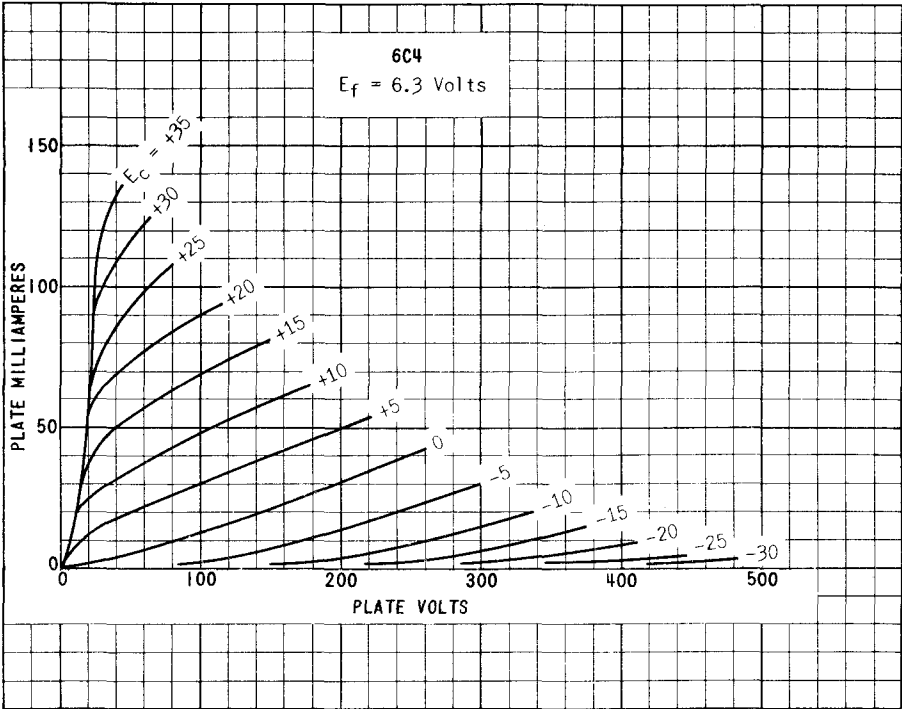
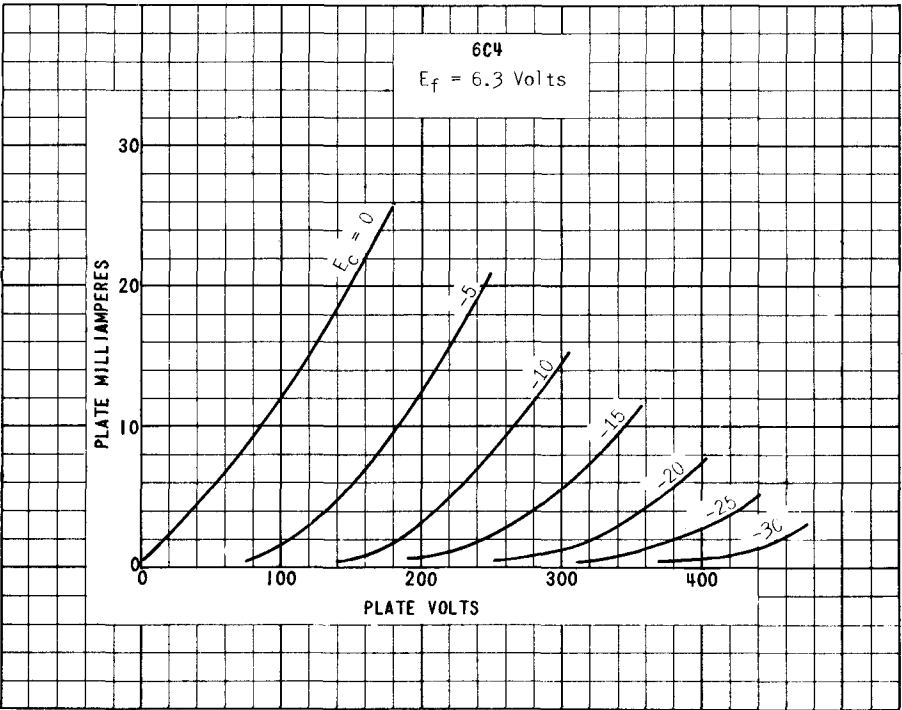
GAIN MEASURED AT $E_o = 2.0$ VOLTS RMS OUTPUT.

E_o IS RMS OUTPUT FOR 5% TOTAL HARMONIC DISTORTION.



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 .

PLATE
1964
FEB. 2,
1948



PRINTED IN U. S. A.

PLATE
1965
FES. 2,
1948

6C4

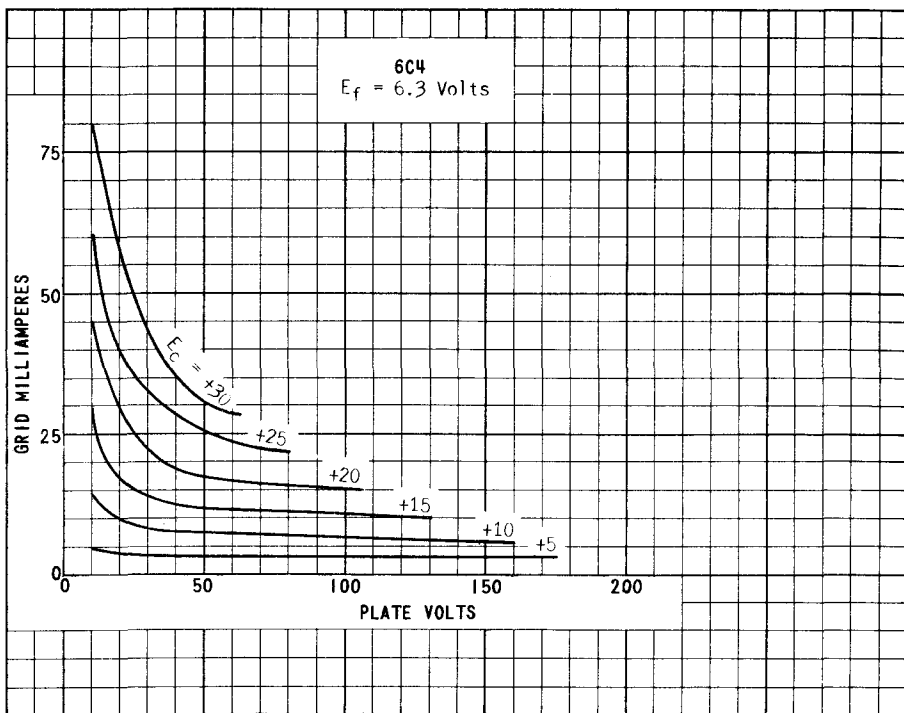


PLATE
1966
FEB. 2,
1968