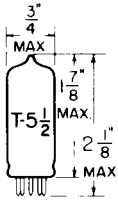
TUNG-SOL

HEPTODE

MINIATURE TYPE



GLASS BULB

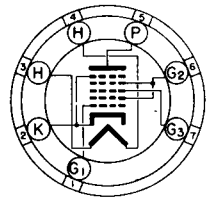
COATED UNIPOTENTIAL CATHODE

HEATER

6.3±10% VOLTS 0.3 AMP.

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW

MINIATURE BUTTON
7 PIN BASE

7CH

THE 6BE6 IS A PENTAGRID CONVERTER USING THE 7 PIN MINIATURE CONSTRUCTION. IT IS INTENDED FOR SERVICE AS A COMBINED OSCILLATOR AND MIXER IN SUPERHETERODYNE RECEIVERS.

DIRECT INTERELECTRODE CAPACITANCES

	WITH SHIELD[A]	WITHOUT SHIELD	
MIXER GRID TO PLATE: (G_3 TO P) MAX.	0.25	0.30	μμf
MIXER GRID TO OSCILLATOR GRID; (G_3 TO G_1) MAX.	0.15	0.15	μμf
RF INPUT: G_3 TO (H+K+G_1+$G_{2\&4}$+G_5+P)	7.0	7.0	μμf
OSCILLATOR INPUT: G_1 TO (H+K+$G_{2\&4}$+G_3+G_5+P)	5.5	5.5	μμf
MIXER OUTPUT: P TO (H+K+G_1+$G_{2\&4}$+G_3+G_5)	13	8.0	μμf
OSCILLATOR GRID TO CATHODE: (G_1 TO K+G_5)	3.0	3.0	μμf
OSCILLATOR OUTPUT: K TO (H+$G_{2\&4}$+G_3+P)	20	15	μμf
OSCILLATOR GRID TO PLATE: (G_1 TO P) MAX.	0.05	0.1	μμf

[A] EXTERNAL SHIELD #316 CONNECTED TO PIN #2.

RATINGS ←

INTERPRETED ACCORDING TO DESIGN MAXIMUM SYSTEM

HEATER VOLTAGE	6.3±10%	VOLTS
MAXIMUM PEAK HEATER-CATHODE VOLTAGE:		
HEATER NEGATIVE WITH RESPECT TO CATHODE	200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	200[C]	VOLTS
MAXIMUM PLATE VOLTAGE	330	VOLTS
MAXIMUM GRIDS #2 AND #4 VOLTAGE	110	VOLTS
MAXIMUM GRIDS #2 AND #4 SUPPLY VOLTAGE	330	VOLTS
MAXIMUM NEGATIVE DC GRID #3 VOLTAGE	-55	VOLTS
MAXIMUM POSITIVE DC GRID #3 VOLTAGE	0	VOLTS
MAXIMUM PLATE DISSIPATION	1.1	WATT
MAXIMUM GRIDS #2 AND #4 DISSIPATION	1.1	WATT
MAXIMUM CATHODE CURRENT	15.5	MA.

[C] THE DC COMPONENT MUST NOT EXCEED 100 VOLTS.

→ INDICATES A CHANGE.

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CONVERTER SERVICE – SEPARATE EXCITATION[B]

HEATER VOLTAGE	6.3±10%		VOLTS
HEATER CURRENT	0.3		AMP.
PLATE VOLTAGE	100	250	VOLTS
GRID #3 VOLTAGE	-1.5	-1.5	VOLTS
GRIDS #2 AND #4 VOLTAGE	100	100	VOLTS
GRID #1 VOLTAGE (OSCILLATOR GRID) RMS	10	10	VOLTS
GRID #1 RESISTANCE (OSCILLATOR GRID)	20 000	20 000	OHMS
PLATE RESISTANCE (APPROX.)	0.4	1.0	MEGOHMS
GRID #1 CURRENT (OSCILLATOR GRID)	0.5	0.5	MA.
CONVERSION TRANSCONDUCTANCE	455	475	µMHOS
PLATE CURRENT	2.6	2.9	MA.
GRIDS #2 AND #4 CURRENT	7.0	6.8	MA.
CATHODE CURRENT	10.1	10.2	MA.
GRID #3 VOLTAGE FOR G_C = 10 µMHOS (APPROX.)	-30	-30	VOLTS
GRID #3 VOLTAGE FOR G_C = 100 µMHOS (APPROX.)	-6	-6	VOLTS

[B] CHARACTERISTICS SHOWN ARE OBTAINED IN THE STANDARD RMA CONVERSION CONDUCTANCE TEST SET WHICH USES SEPARATE EXCITATION. THE CHARACTERISTICS UNDER THESE CONDITIONS CORRESPOND VERY CLOSELY WITH THOSE OBTAINED IN A SELF-EXCITED OSCILLATORY CIRCUIT OPERATING WITH ZERO BIAS.

OSCILLATOR CHARACTERISTICS
NOT OSCILLATING

GRID #3 VOLTAGE	0	VOLTS
GRID #1 VOLTAGE (OSCILLATOR GRID)	0	VOLTS
GRIDS #2 AND #4 CONNECTED TO PLATE	100	VOLTS
TRANSCONDUCTANCE BETWEEN GRID #1 AND GRIDS #2 AND #4 CONNECTED TO PLATE	7 250	µMHOS
AMPLIFICATION FACTOR BETWEEN GRID #1 AND GRIDS #2 AND #4 CONNECTED TO PLATE	20	
CATHODE CURRENT	25	MA.
GRID #1 VOLTAGE (APPROX.) FOR I_b = 10 µA	-11	VOLTS

SIMILAR TYPE REFERENCE: Except for heater ratings, the 6BE6 is identical to the 12BE6.

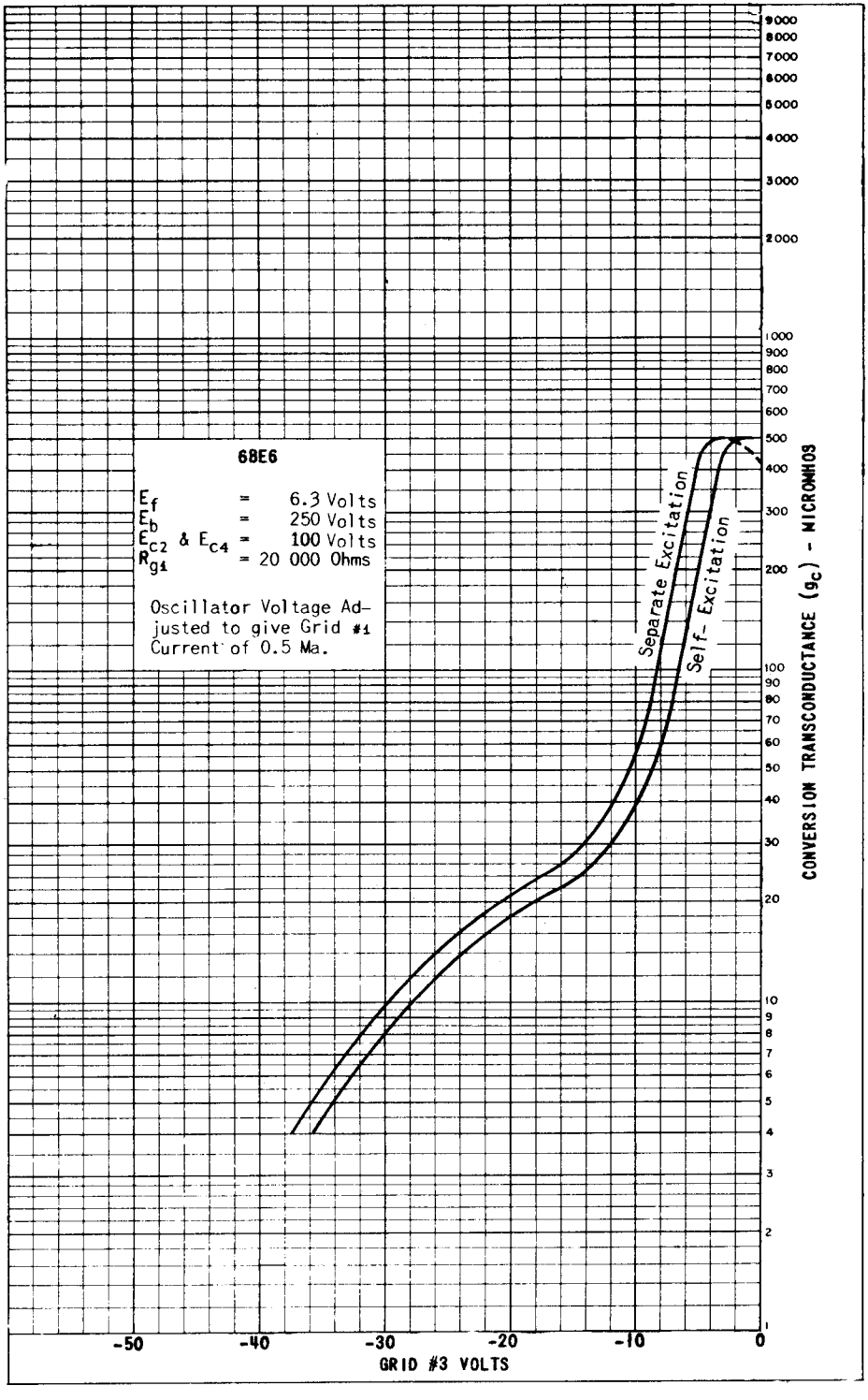


PLATE 2050
AUG. 2, 1948

6BE6 (12BE6)

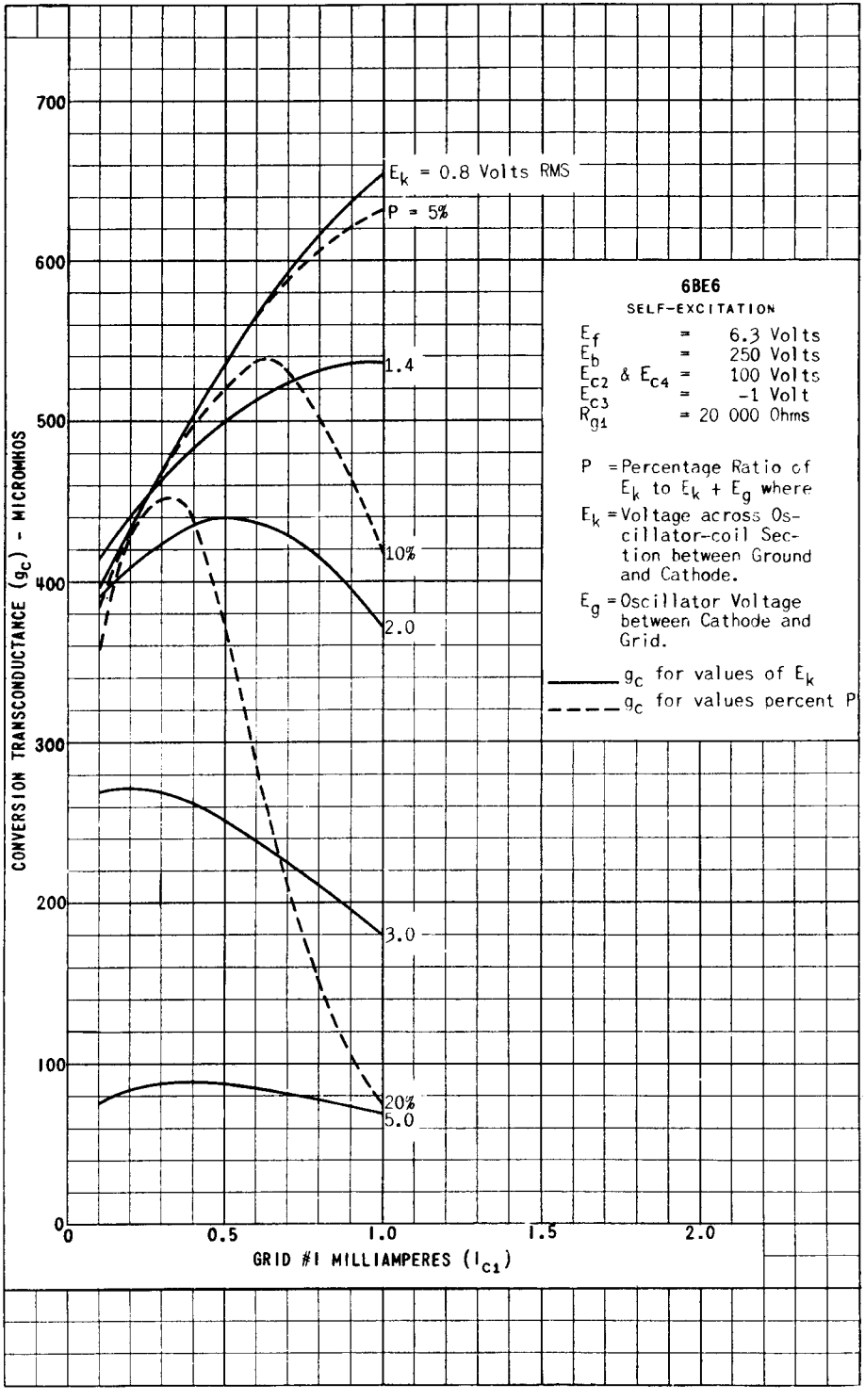
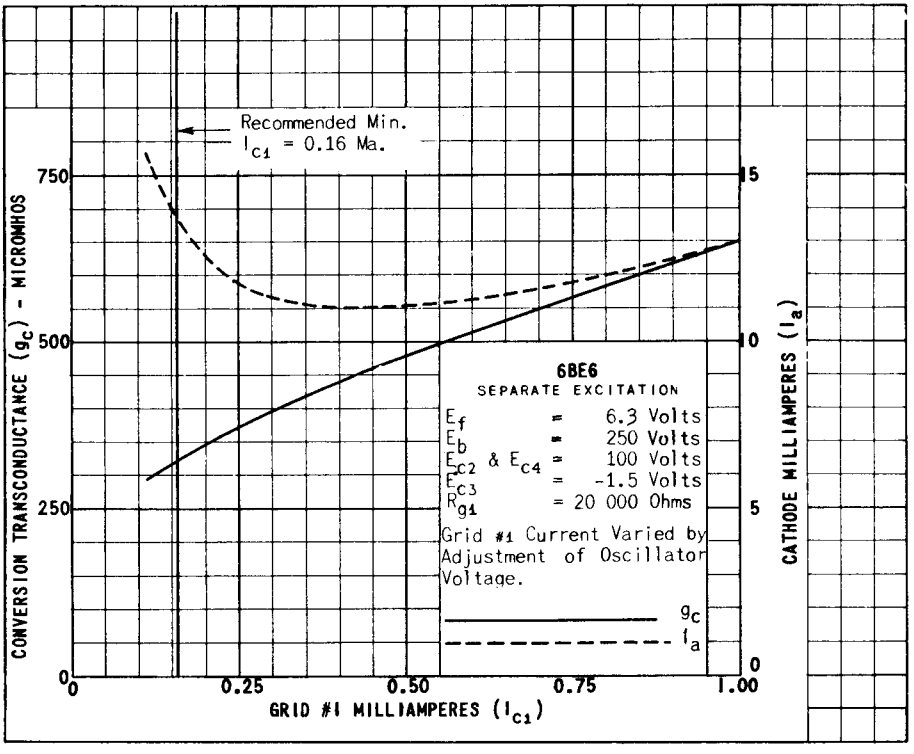


PLATE 2051
AUG. 2, 1948



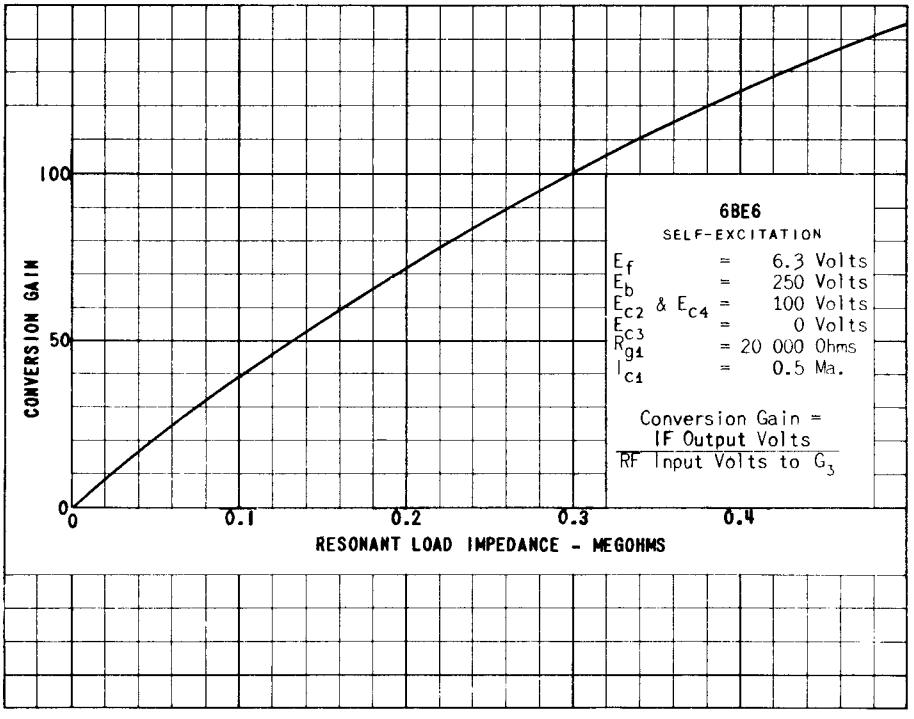


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PLATE 2052
AUG. 2, 1948