EITEL-McCULLOUGH, INC.
SAN BRUNO, CALIFORNIA

250TL
(3-250A2)
LOW-MU TRIODE
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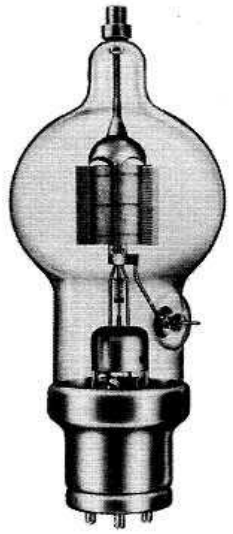
MODULATOR
OSCILLATOR
AMPLIFIER



GENERAL CHARACTERISTICS

ELECTRICAL

Filament: Thoriated tungsten		
Voltage	5.0	volts
Current	10.5	amperes
Amplification Factor (Average)	14	
Direct Interelectrode Capacitances (Average)		
Grid-Plate	3.1	μμf
Grid-Filament	3.7	μμf
Plate-Filament	0.7	μμf
Transconductance (I_b=350 ma., E_b=3000, e_c=–130)	2650	μmhos
Frequency for Maximum Ratings	40	mc

MECHANICAL

Base	4 pin, No. 5001B	
Basing	RMA type 2N	
Maximum Overall Dimensions:		
Length	10.125	inches
Diameter	3.813	inches
Net weight	12	ounces
Shipping weight (Average)	2.25	pounds

AUDIO FREQUENCY POWER AMPLIFIER AND MODULATOR
Class B

	TYPICAL OPERATION—2 TUBES			MAX. RATING	
D-C Plate Voltage	1500	2000	3000	3000	volts
Max.-Signal D-C Plate Current, per tube*	•	•	•	350	ma.
Plate Dissipation, per tube*	•	•	•	250	watts
D-C Grid Voltage (approx.)	–40	–80	–175		volts
Peak A-F Grid Input Voltage	770	800	840		volts
Zero-Signal D-C Plate Current	200	150	100		ma.
Max.-Signal D-C Plate Current	700	650	500		ma.
Max.-Signal Driving Power (approx.)	32	28	17		watts
Effective Load, Plate-to-Plate	3700	6150	13000		ohms
Max.-Signal Plate Power Output	580	800	1000		watts

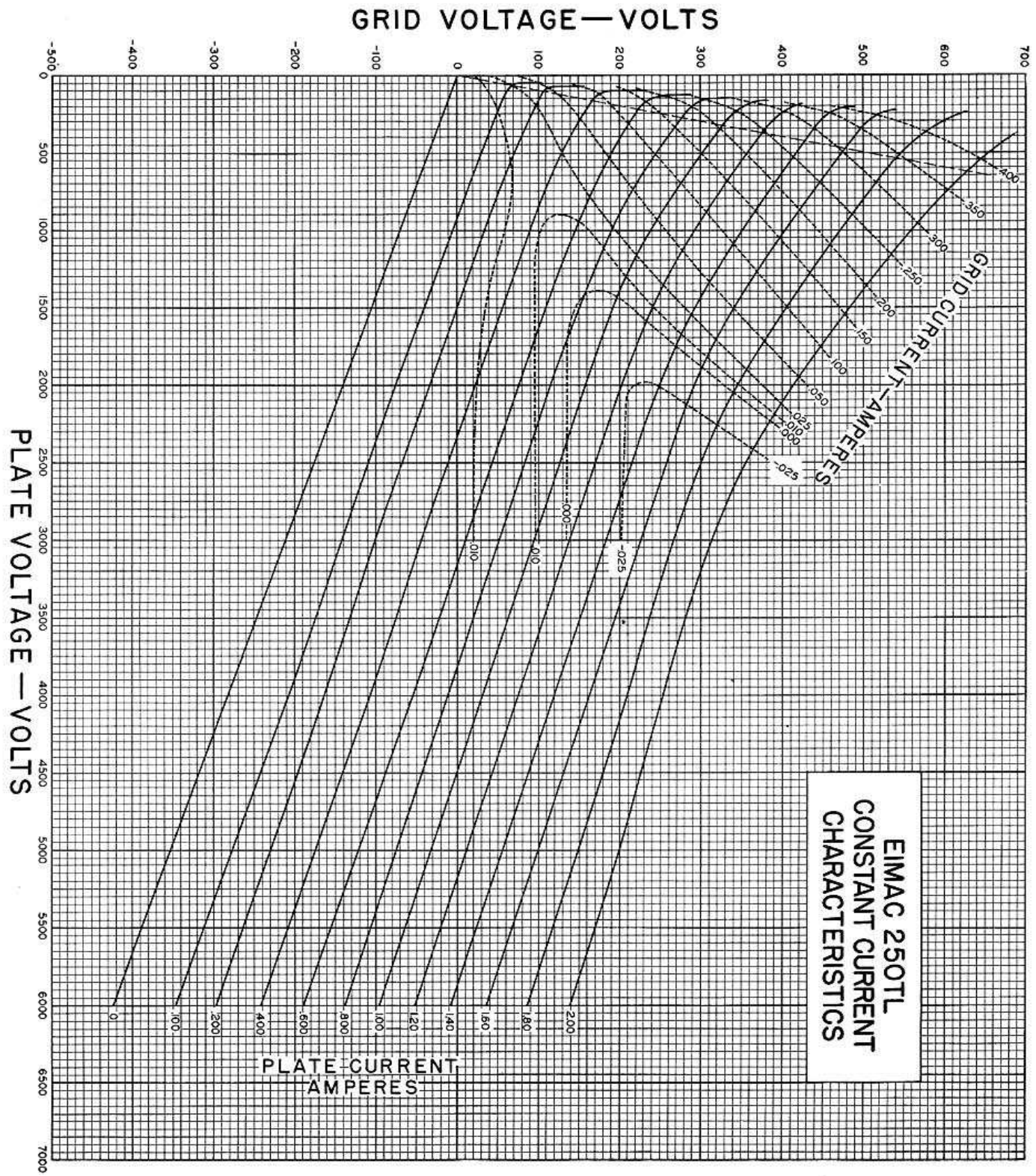
*Averaged over any sinusoidal audio frequency cycle.

RADIO FREQUENCY POWER AMPLIFIER AND OSCILLATOR
Class-C *Telegraphy
(Key down conditions without modulation)

	TYPICAL OPERATION—1 TUBE			MAX. RATING	
D-C Plate Voltage	2000	3000	4000	4000	volts
D-C Plate Current	350	335	310	350	ma.
D-C Grid Current	45	45	40	50	ma.
D-C Grid Voltage	–200	–350	–500		volts
Plate Power Output	455	750	1000		watts
Plate Input	700	1000	1250		watts
Plate Dissipation	245	250	250	250	watts
Peak R. F. Grid Input Voltage, (approx.)	575	720	900		volts
Driving Power, (approx.)	22	29	33		watts

*The above figures show actual measured tube performance, and do not allow for variations in circuit losses.

(Effective 7-1-44)


GRID VOLTAGE—VOLTS
-500
-400
-300
-200
-100
0
100
200
300
400
500
600
700
PLATE VOLTAGE—VOLTS
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
6500
7000
GRID CURRENT—AMPERES
.400
.350
.300
.250
.200
.150
.100
.050
.025
.010
.000
-.025
.010
.000
-.025
PLATE CURRENT AMPERES
0
.100
.200
.400
.600
.800
1.00
1.20
1.40
1.60
1.80
2.00
EIMAC 250TL
CONSTANT CURRENT
CHARACTERISTICS

DRIVING POWER vs. POWER OUTPUT

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The three charts on this page show the relationship of plate efficiency, power output and grid driving power at plate voltages of 2000, 3000 and 4000 volts. These charts show combined grid and bias losses only. The driving power and power output figures do not include circuit losses. The plate dissipation in watts is indicated by P_p.

Points A, B, and C are identical to the typical Class C operating conditions shown on the first page under 2000, 3000, and 4000 volts respectively.

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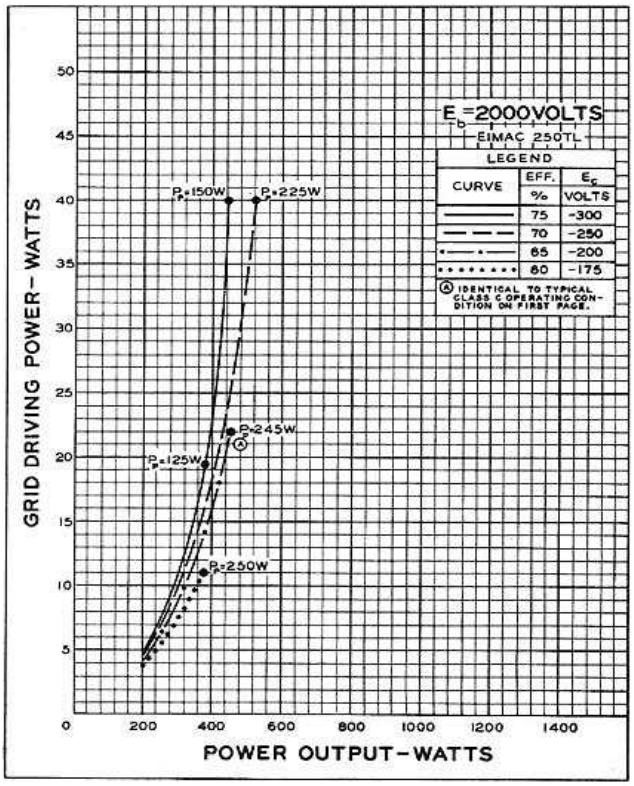
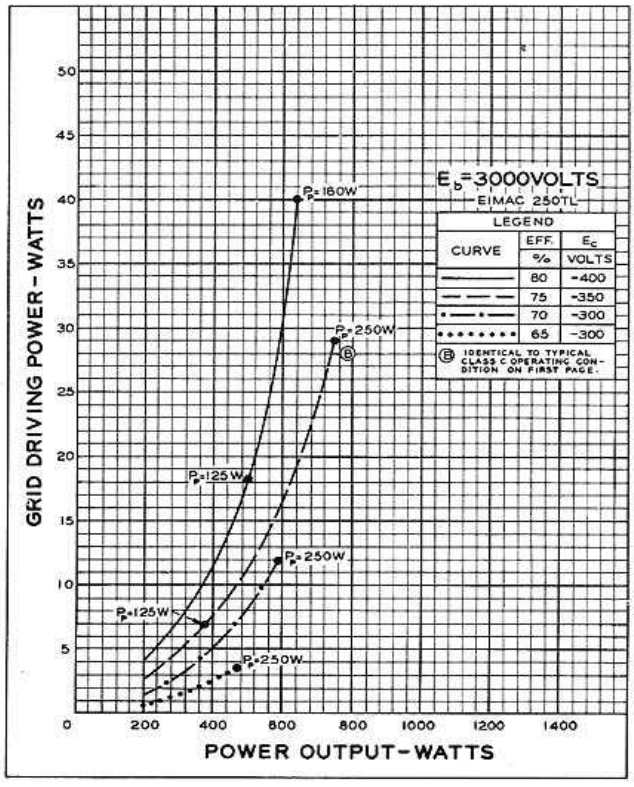
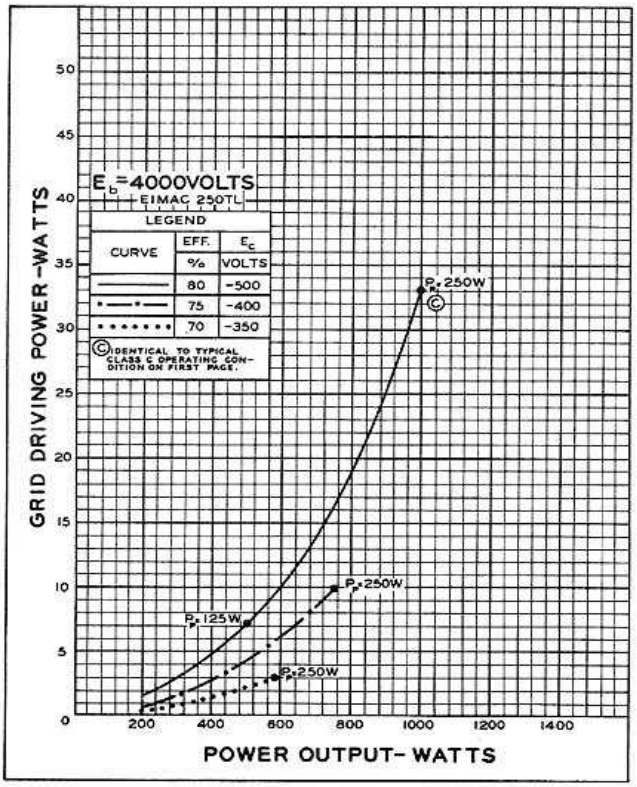
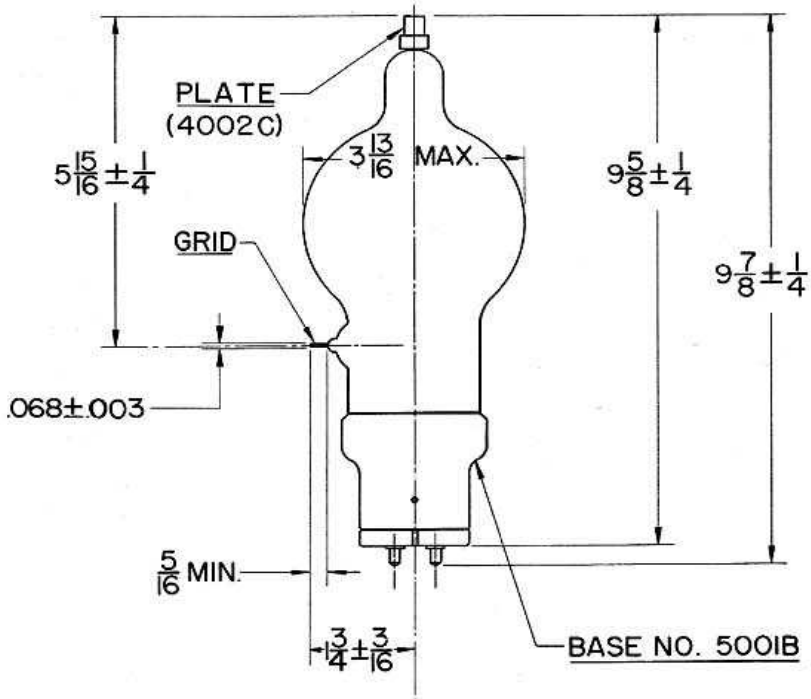
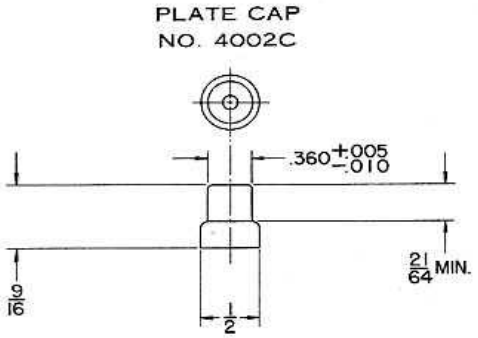




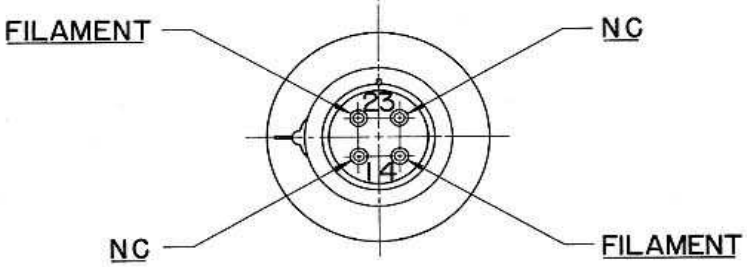


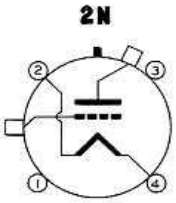
Eimac 250TL



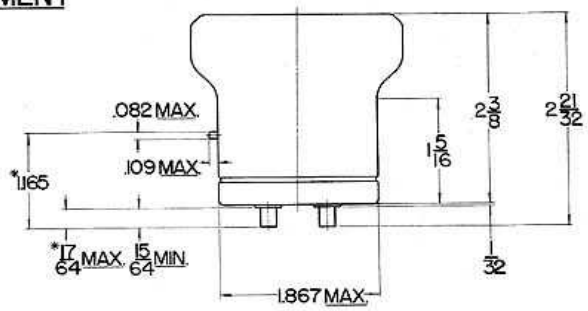


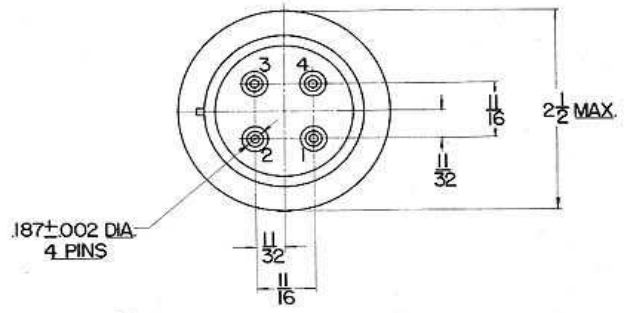
GRID CAP
(SEE TUBE OUTLINE DRAWING)





BASE NO. 5001B





*ON FINISHED TUBE ADD .060 FOR SOLDER.