

EITEL-McCULLOUGH, INC.

SAN BRUNO, CALIFORNIA

250TH

HIGH-MU TRIODE

MODULATOR
OSCILLATOR
AMPLIFIER

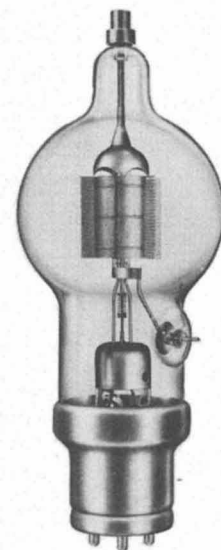
GENERAL CHARACTERISTICS

ELECTRICAL

Filament: Thoriated tungsten	
Voltage - - - - -	5.0 volts
Current - - - - -	10.5 amperes
Amplification Factor (Average) - - - - -	37
Direct Interelectrode Capacitances (Average)	
Grid-Plate - - - - -	2.9 uuf
Grid-Filament - - - - -	5.0 uuf
Plate-Filament - - - - -	0.7 uuf
Transconductance ($I_b=300$ ma., $E_b=3000$, $e_c=-20$)	6650 umhos
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.) - - - - -	0	-30	-65		volts
Peak A-F Grid Input Voltage - - - - -	410	460	460		volts
Zero-Signal D-C Plate Current - - - - -	220	140	100		ma.
Max.-Signal D-C Plate Current - - - - -	700	700	560		ma.
Max.-Signal Driving Power (approx.) - - -	36	34	24		watts
Effective Load, Plate-to-Plate - - - - -	4300	6000	12250		ohms
Max.-Signal Plate Power Output - - - - -	650	900	1150		watts

*Averaged over any sinusoidal audio frequency cycle.

RADIO FREQUENCY POWER AMPLIFIER AND OSCILLATOR

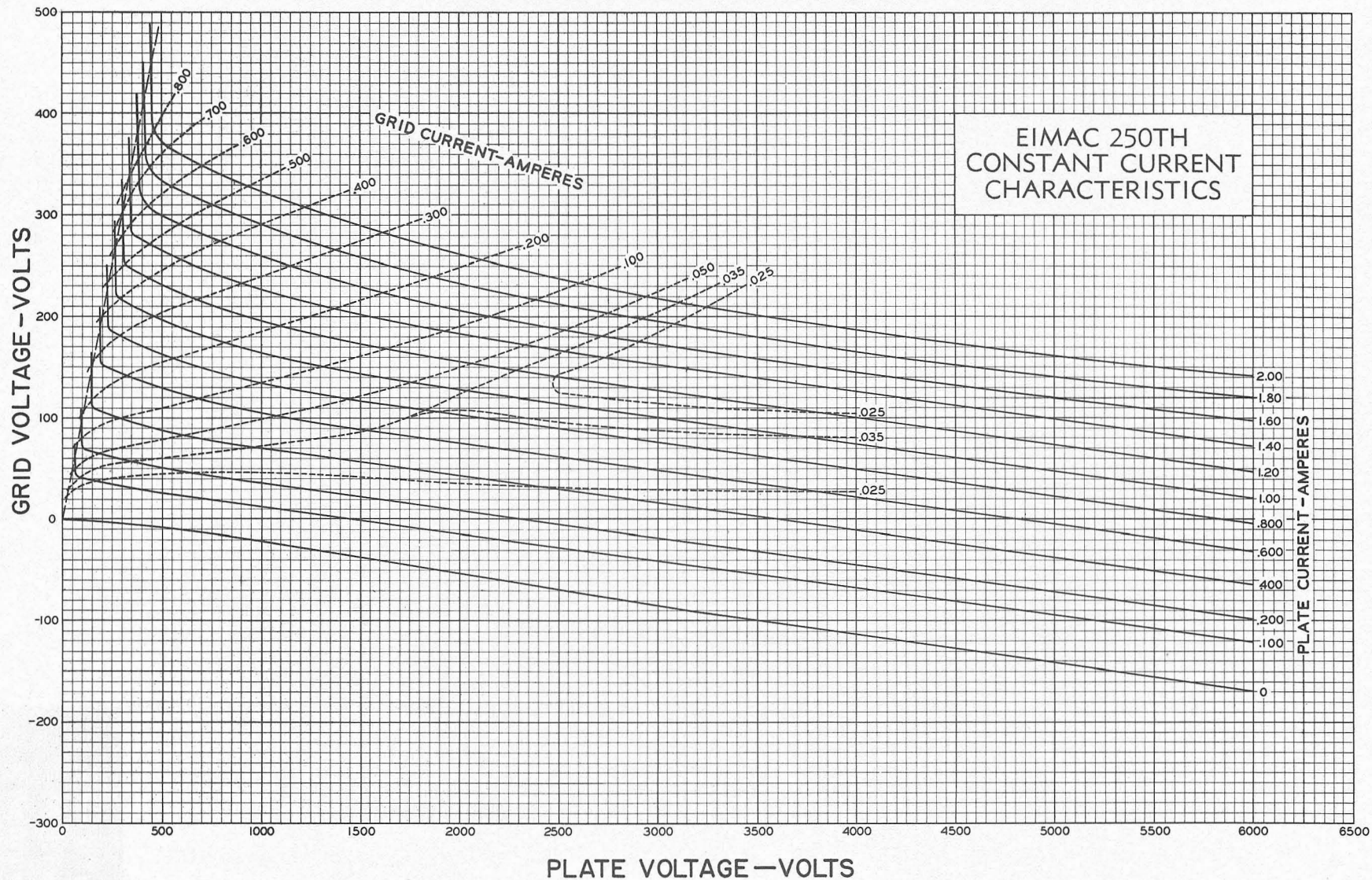
Class-C *Telegraphy

(Key down conditions without modulation)

	TYPICAL OPERATION—1 TUBE			MAX. RATING	
D-C Plate Voltage - - - - -	2000	3000	4000	4000	volts
D-C Plate Current - - - - -	357	333	313	350	ma.
D-C Grid Current - - - - -	94	90	93	100	ma.
D-C Grid Voltage - - - - -	-100	-150	-220		volts
Plate Power Output - - - - -	464	750	1000		watts
Plate Input - - - - -	714	1000	1250		watts
Plate Dissipation - - - - -	250	250	250	250	watts
Peak R. F. Grid Input Voltage, (approx.) -	345	395	470		volts
Driving Power, (approx.) - - - - -	29	32	39		watts

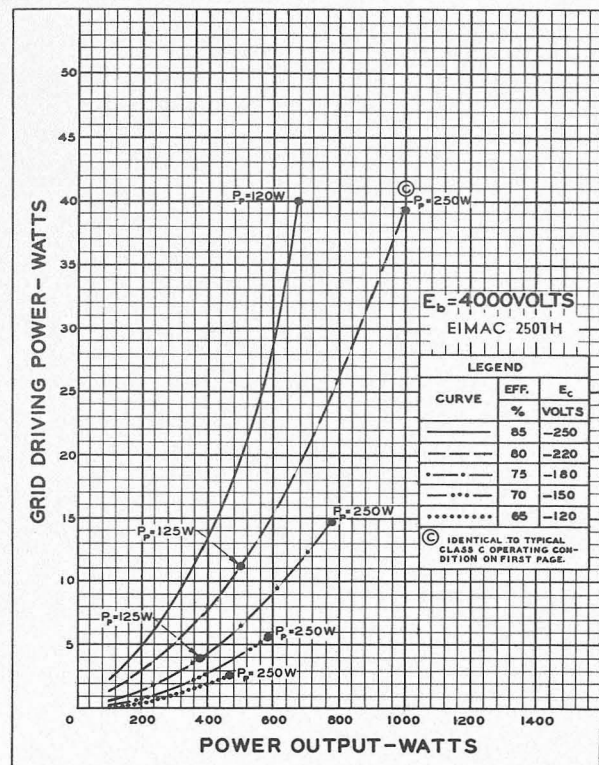
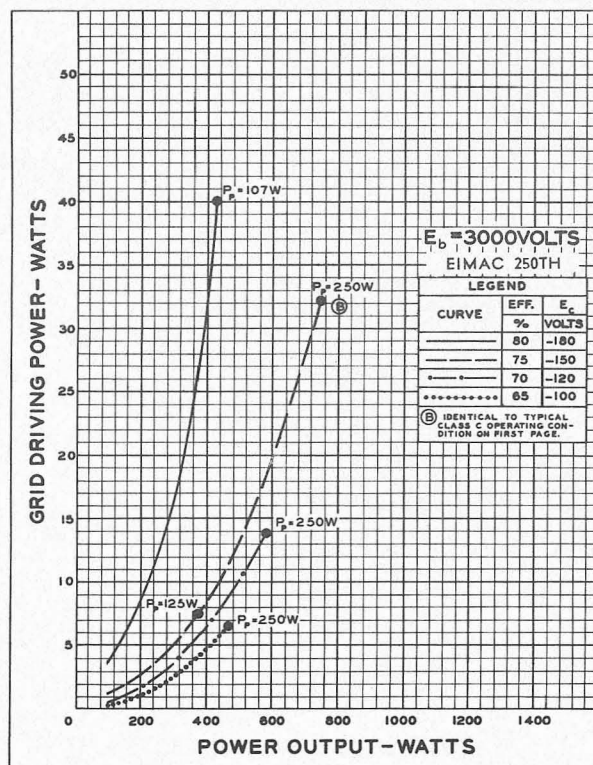
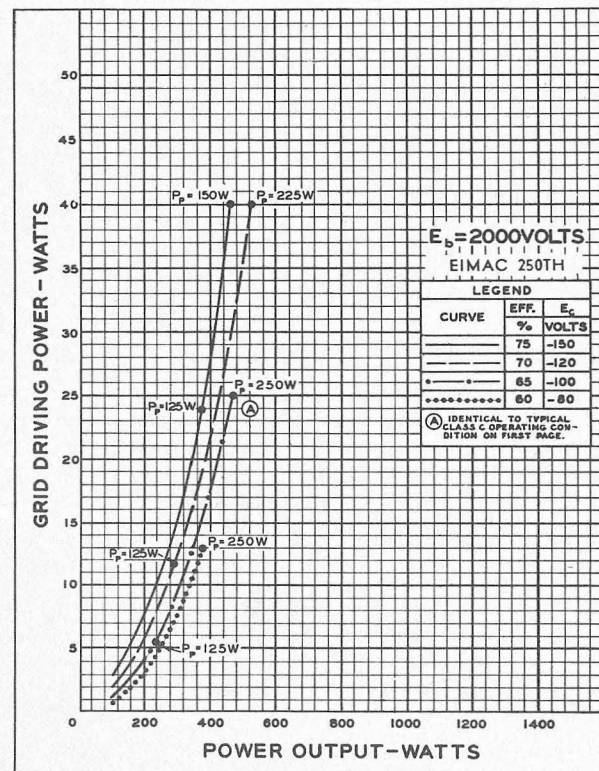
*The above figures show actual measured tube performance, and do not allow for variations in circuit losses.

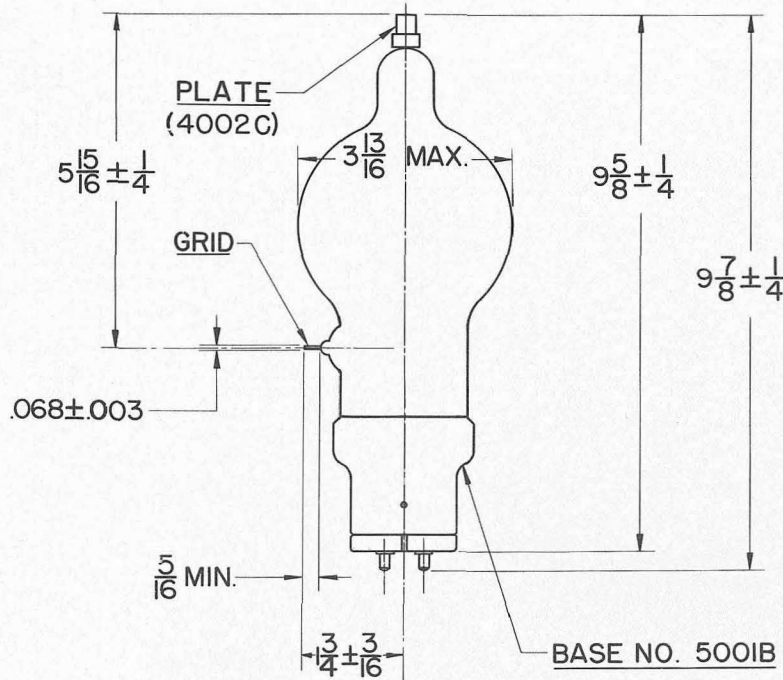
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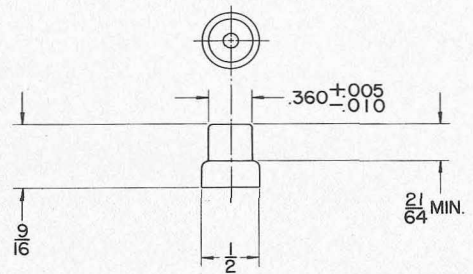
DRIVING POWER vs. POWER OUTPUT

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. 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.

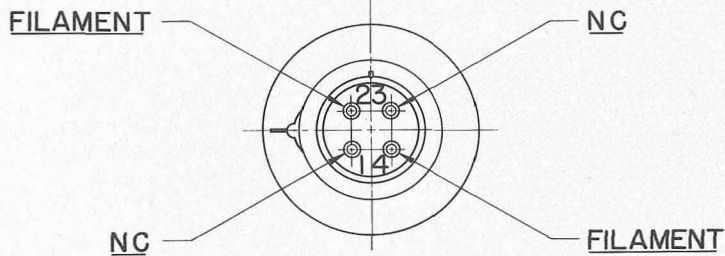




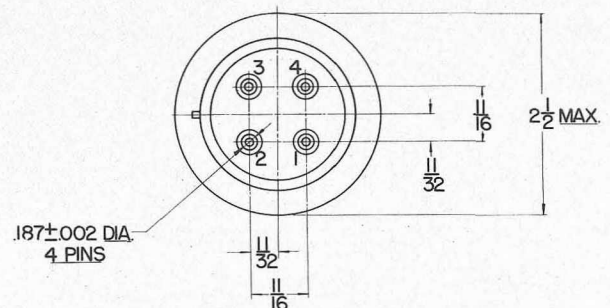
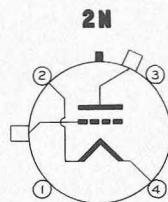
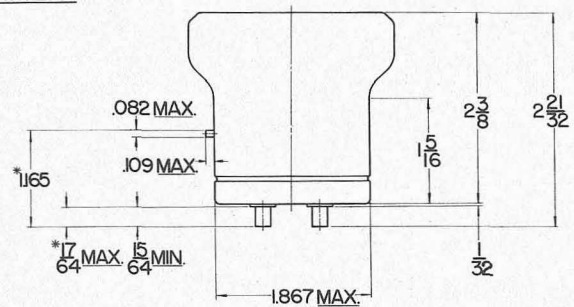
CAPS
PLATE
CAP NO. 4002C



(SEE TUBE OUTLINE DRAWING)



BASE NO. 500IB



*ON FINISHED TUBE ADD .060 FOR SOLDER