

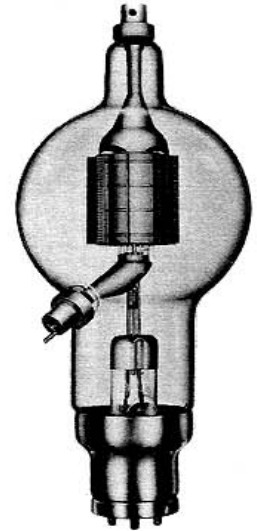
**GENERAL CHARACTERISTICS**

**ELECTRICAL**

Filament: Thoriated tungsten		
Voltage	- - - - -	7.5 volts
Current	- - - - -	12.0 amperes
Amplification Factor (Average)	- - - - -	18
Direct Interelectrode Capacitances (Average)		
Grid-Plate	- - - - -	5.2 $\mu\mu\text{f}$
Grid-Filament	- - - - -	7.3 $\mu\mu\text{f}$
Plate-Filament	- - - - -	0.9 $\mu\mu\text{f}$
Transconductance ( $I_b=500$ ma., $E_b=4000$ , $e_c=-75$ )	- - - - -	6060 $\mu\text{mhos}$

**MECHANICAL**

Base	- - - - -	4 pin, No. 5002B
Basing	- - - - -	RMA type 4AQ
Maximum Overall Dimensions:		
Length	- - - - -	12.625 inches
Diameter	- - - - -	5.125 inches
Net weight	- - - - -	1 pound
Shipping weight (Average)	- - - - -	4 pounds



**AUDIO FREQUENCY POWER AMPLIFIER AND MODULATOR**

**Class B**

	TYPICAL OPERATION—2 TUBES			MAX. RATING	
	3000	4000	5000		
D-C Plate Voltage	- - - - -	3000	4000	5000	6000 volts
Max.-Signal D-C Plate Current, per tube*	- - - - -	•	•	•	600 ma.
Plate Dissipation, per tube*	- - - - -	•	•	•	450 watts
D-C Grid Voltage (approx.)	- - - - -	-110	-175	-240	volts
Peak A-F Grid Input Voltage	- - - - -	650	740	860	volts
Zero-Signal D-C Plate Current	- - - - -	200	150	120	ma.
Max.-Signal D-C Plate Current	- - - - -	770	675	620	ma.
Max.-Signal Driving Power (approx.)	- - - - -	15	13	15	watts
Effective Load, Plate-to-Plate	- - - - -	7800	12800	18600	ohms
Max.-Signal Plate Power Output	- - - - -	1400	1800	2200	watts

\*Averaged over any sinusoidal audio frequency cycle.

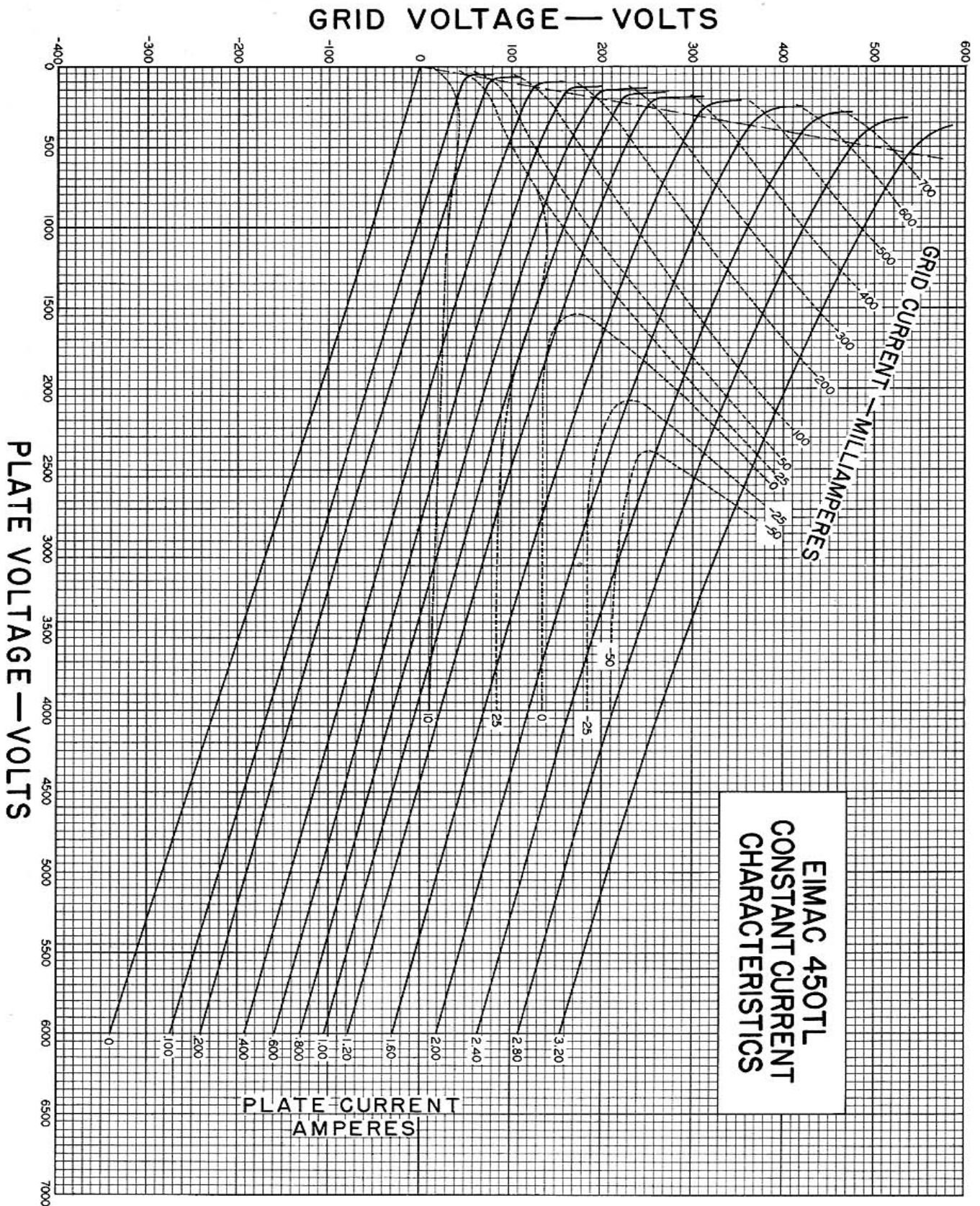
**RADIO FREQUENCY POWER AMPLIFIER AND OSCILLATOR**

**Class-C \*Telegraphy**

(Key down conditions without modulation)

	TYPICAL OPERATION—1 TUBE			MAX. RATING	
	3000	4000	5000		
D-C Plate Voltage	- - - - -	3000	4000	5000	6000 volts
D-C Plate Current	- - - - -	500	450	450	600 ma.
D-C Grid Current	- - - - -	65	53	54	75 ma.
D-C Grid Voltage	- - - - -	-275	-400	-500	volts
Plate Power Output	- - - - -	1050	1350	1800	watts
Plate Input	- - - - -	1500	1800	2250	watts
Plate Dissipation	- - - - -	450	450	450	450 watts
Peak R. F. Grid Input Voltage, (approx.)	- - - - -	640	740	870	volts
Driving Power, (approx.)	- - - - -	38	35	42	watts

\*The above figures show actual measured tube performance, and do not allow for variations in circuit losses.  
 (Effective 9-1-44)



## 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 3000, 4000, and 5000 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 3000, 4000, and 5000 volts respectively.

