

EITEL-McCULLOUGH, INC.

SAN BRUNO, CALIFORNIA

100TH
HIGH-MU TRIODE
•
MODULATOR
OSCILLATOR
AMPLIFIER

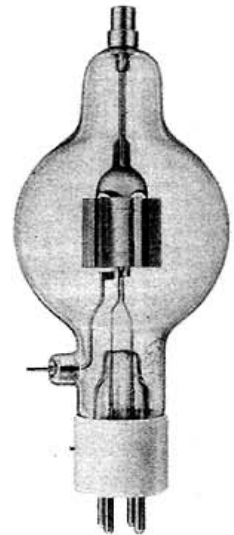
GENERAL CHARACTERISTICS

ELECTRICAL

Filament: Thoriated tungsten	
Voltage - - - - -	5.0 volts
Current - - - - -	6.3 amperes
Amplification Factor (Average) - - - - -	40
Direct Interelectrode Capacitances (Average)	
Grid-Plate - - - - -	2.0 $\mu\mu\text{f}$
Grid-Filament - - - - -	2.9 $\mu\mu\text{f}$
Plate-Filament - - - - -	0.4 $\mu\mu\text{f}$
Transconductance ($I_b=200 \text{ ma.}, E_b=3000, e_c=-15$)	5500 μmhos

MECHANICAL

Base - - - - -	(Medium 4-pin bayonet, ceramic)	RMA type M8-078
Basing - - - - -		RMA type 2M
Maximum Overall Dimensions:		
Length - - - - -		7.75 inches
Diameter - - - - -		3.19 inches
Net weight - - - - -		4 ounces
Shipping weight (Average) - - - - -		1.5 pounds



AUDIO FREQUENCY POWER AMPLIFIER AND MODULATOR Class B

	TYPICAL OPERATION—2 TUBES			MAX. RATING	
	1500	2000	3000		
D-C Plate Voltage - - - - -	1500	2000	3000	3000	volts
Max.-Signal D-C Plate Current, per tube* - - -	•	•	•	225	ma.
Plate Dissipation, per tube* - - - - -	•	•	•	100	watts
D-C Grid Voltage (approx.) - - - - -	-20	-35	-65		volts
Peak A-F Grid Input Voltage - - - - -	290	310	335		volts
Zero-Signal D-C Plate Current - - - - -	80	60	40		ma.
Max.-Signal D-C Plate Current - - - - -	320	280	215		ma.
Max.-Signal Driving Power (approx.) - - - - -	7	7	5		watts
Effective Load, Plate-to-Plate - - - - -	8750	15000	31000		ohms
Max.-Signal Plate Power Output - - - - -	280	360	650		watts

*Averaged over any sinusoidal audio frequency cycle.

RADIO FREQUENCY POWER AMPLIFIER AND OSCILLATOR Class-C *Telegraphy

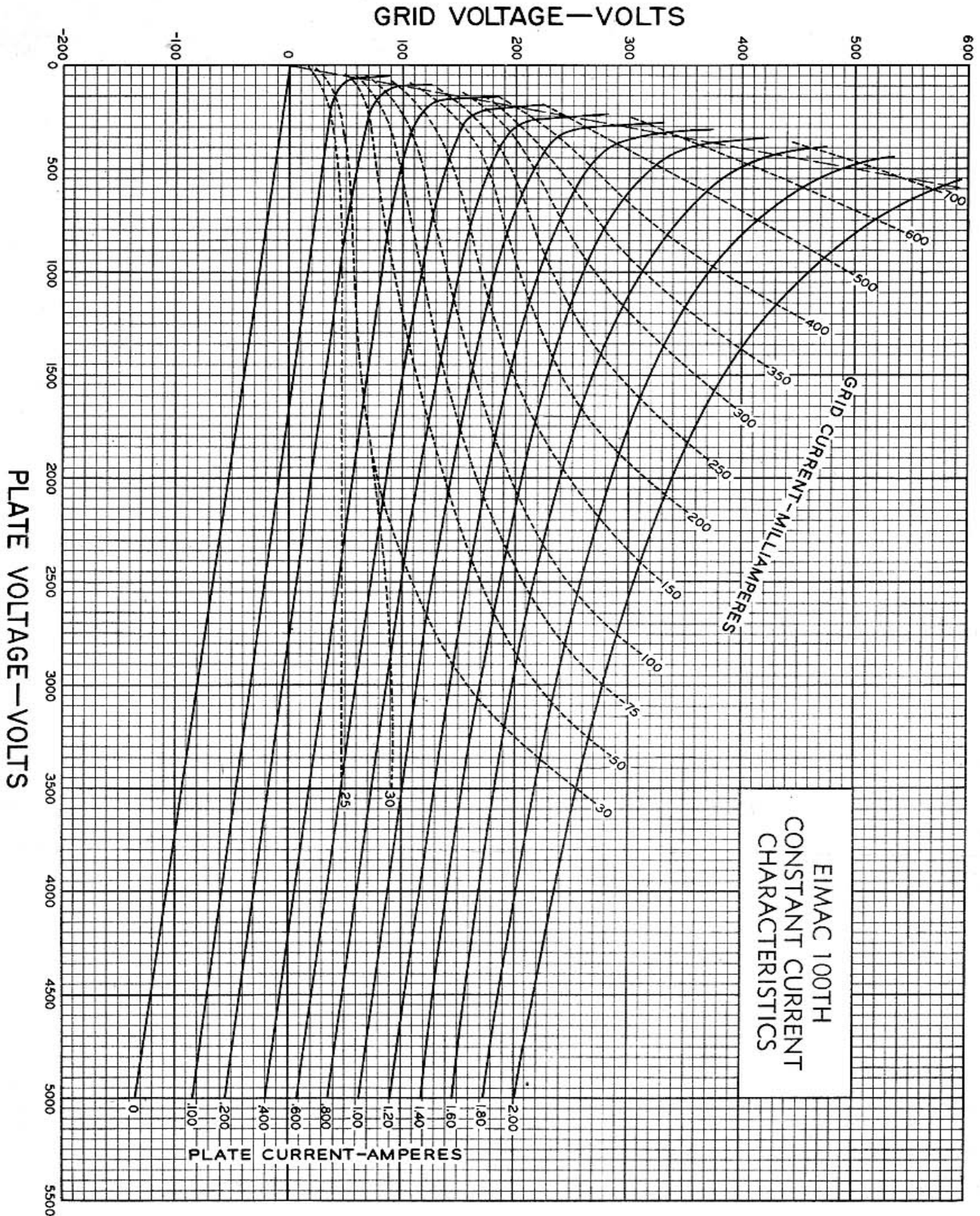
(Key down conditions without modulation)

	TYPICAL OPERATION—1 TUBE			MAX. RATING	
	1500	2000	3000		
D-C Plate Voltage - - - - -	1500	2000	3000	3000	volts
D-C Plate Current - - - - -	190	165	165	225	ma.
D-C Grid Current - - - - -	48	39	51	60	ma.
D-C Grid Voltage - - - - -	-65	-80	-200		volts
Plate Power Output - - - - -	185	235	400		watts
Plate Input - - - - -	285	335	500		watts
Plate Dissipation - - - - -	100	100	100	100	watts
Peak R. F. Grid Input Voltage, (approx.) - - -	230	230	385		volts
Driving Power, (approx.) - - - - -	10	8	18		watts

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



100TH



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 1500, 2000 and 3000 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 1500, 2000, and 3000 volts respectively.

