

EIMAC

300T

LOW CAPACITY, SEMI-HIGH POWER, RADIATION COOLED TRIODE

THE EIMAC 300T fills the need for an efficient low capacity tube in the semi-high power radiation cooled tube field. The power capabilities of the EIMAC 300T are such that this tube fills the requirements for most practical communication applications. Like all tubes in the EIMAC line this tube finds particular application at the very high radio frequencies. Appreciating the limitations of most transmitting tubes of this power group it will be interesting to note the very low interelectrode capacities, the high electrode insulation, the heavy leads, the large rugged cathode, the unique grid structure, and the ample bulb size of the EIMAC 300T. To assure complete freedom from failures caused by gas released through accidental overloads the electrodes are fabricated from completely degassed tantalum. This rare metal is the only material suitable for use in vacuum tubes that assures freedom from such failures. The excellent electrical characteristics of the EIMAC 300T becomes apparent from a study of the accompanying sets of curves. The EIMAC 300T is capable of very high, undistorted output, when this tube is used as a class "B" audio amplifier.

EIMAC 300T CHARACTERISTICS AND RATINGS

Filament Voltage (A.C.)	7½ to 8 volts	Plate-Filament Capacitance	.6 mmfds
Filament Current (approx.)	11½ amps.	Bulb	GT 40 Nonex
Amplification Factor (average)	16	Base	Standard 50 watt
Grid-Plate Capacitance	4 mmfds	Overall Height	12½ inches
Grid-Filament Capacitance	4 mmfds	Maximum Diameter	5 inches

Maximum Ratings on All Frequencies Less Than 40 Megacycles

Maximum Plate-Voltage	3500 volts	Maximum Grid Current	.075 amperes
Maximum Plate Current	.350 amperes	Maximum Plate Dissipation	300 watts

Typical Operating Conditions Capable of Linear 100% Plate Modulation

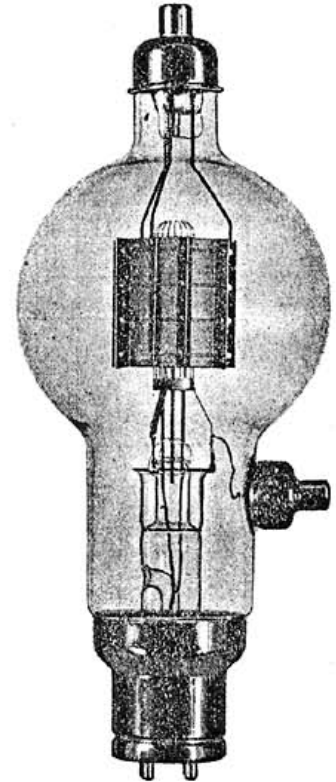
Plate Voltage	1500	2500	3500	Grid Bias Voltage	250	400	600
Plate Currents (amps.)	.300	.300	.300	Power Output (watts)	340	560	800
Grid Curr. (d.c. amps.)	.060	.060	.060	(75% efficiency)			

Operating with the normal maximum permissible input, the EIMAC 300T is capable of a radio frequency output in excess of 920 watts. This output is obtained at a readily obtained plate efficiency of 75%. Higher plate efficiencies will give correspondingly higher outputs. Commercial communication companies will be interested in noting that a pair of EIMAC 300T tubes are capable of giving an antenna power in excess of 2500 watts. Write for more detailed information on the operation of these tubes in a practical efficient amplifier circuit that not only is economical, but does away with inconvenient water cooling systems usually necessary for a power output of this magnitude. The extremely low interelectrode capaci-

ties of the EIMAC 300T permits efficient operation on the highest communication frequencies.

The Federal Communication Commission's ratings do not take into consideration the excellent electrical characteristics of the EIMAC 300T or utilize this tube's full capabilities. The present F. C. C. ratings must take into account all types of vacuum tubes and is based on a relatively low order of plate efficiency for high level modulation. The plate dissipation rating for the Eimac 300T is 300 watts, which gives this tube the following F. C. C. ratings:

For high level modulation.....carrier power 350 watts
 For low level modulation.....carrier power 125 watts
 For grid bias modulation.....carrier power 100 watts



EIMAC 300T

EITEL-McCULLOUGH, INC.

SAN BRUNO, CALIFORNIA
 U. S. A.

CABLE "EIMAC"