

TENTATIVE DATA



**3X2500F3**

MEDIUM MU TRIODE

The Eimac 3X2500F3 is a medium-mu, forced air-cooled, external-anode power triode capable of high output at relatively low plate voltages. A single tube will deliver a radio-frequency plate power output of 5000 watts at a plate voltage of 3500.

Flexible grid and filament leads simplify socketing and equipment design for industrial and communication frequencies below 50 Mc. The grid lead is detachable so that for grounded-grid operation, complete external shielding may be used between plate and filament circuits.

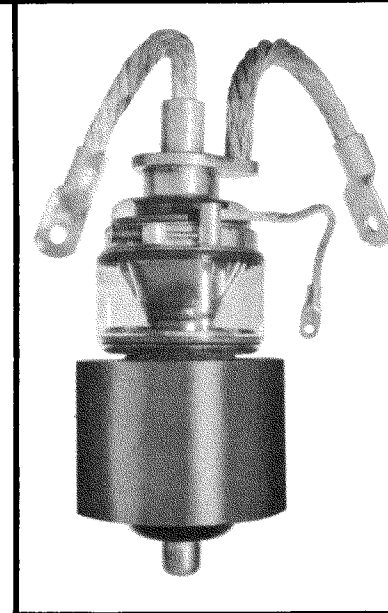
**GENERAL CHARACTERISTICS**

**ELECTRICAL**

Filament: Thoriated tungsten	
Voltage	7.5 volts
Current	48 amperes
Maximum starting current	100 amperes
Amplification Factor (Average)	20
Direct Interelectrode Capacitances (Average)	
Grid-Plate	20 $\mu\mu\text{fd.}$
Grid-Filament	48 $\mu\mu\text{fd.}$
Plate-Filament	1.2 $\mu\mu\text{fd.}$
Transconductance ( $i_b=830 \text{ ma.}, E_b=3000 \text{ v.}$ )	20,000 $\mu\text{mhos}$

**MECHANICAL**

Cooling	Forced air <sup>1</sup>
Maximum Overall Dimensions:	
Length	10 inches
Diameter	4.25 inches
Net Weight	7.5 pounds
Shipping Weight (Average)	17 pounds



**RADIO FREQUENCY POWER AMPLIFIER**

**Conventional Neutralized Amplifier**

**Class-C Telegraphy (Key-down conditions, per tube)**

**MAXIMUM RATINGS (Frequencies below 50 Mc.)**

D-C PLATE VOLTAGE	5000 MAX. VOLTS
D-C PLATE CURRENT	2.0 MAX. AMPS
PLATE DISSIPATION <sup>1</sup>	2500 MAX. WATTS
PLATE COOLER CORE TEMPERATURE	150 MAX. °C
GRID DISSIPATION	150 MAX. WATTS

**TYPICAL OPERATION**

D-C Plate Voltage	3500	4000	5000	volts
D-C Grid Voltage	-420	-360	-400	volts
D-C Plate Current	1.8	1.6	2	amps
D-C Grid Current	500	425	475	ma.
Peak R-F input Voltage	735	630	710	volts
Driving Power (approx.)	325	238	338	watts
Grid Dissipation	120	88	148	watts
Plate Input	6300	6400	10000	watts
Plate Dissipation	1300	1400	2500	watts
Plate Power Output	5000	5000	7500	watts

<sup>1</sup> A minimum flow of 120 cubic feet of air per minute must be passed through the plate cooler. The pressure drop across the cooler at this flow equals 1.6" of water. A minimum air flow of 6 cubic feet per minute must also be directed toward the filament stem structure, be-

tween the inner and outer filament conductors. Cooling air in the above quantities must be supplied to both plate cooler and filament seals before applying filament voltage, and should be continued for five minutes after the filament power is removed.

