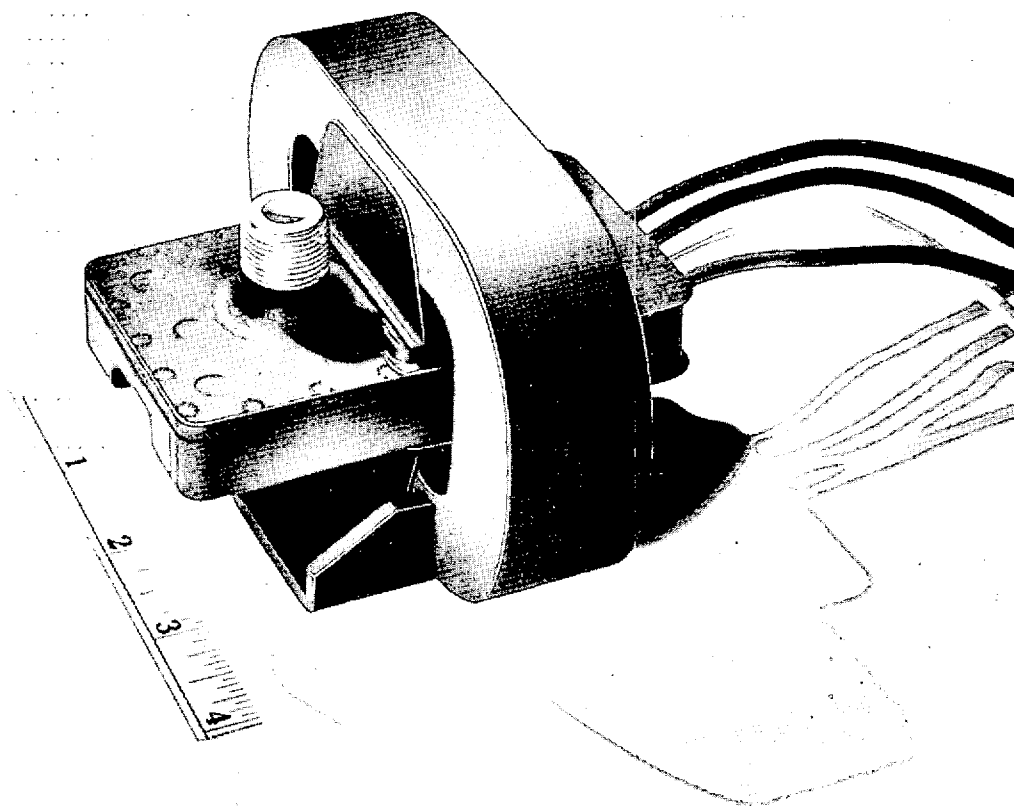




## PACKAGED VOLTAGE-TUNABLE MAGNETRON

2200-3850 MEGACYCLES

2 WATTS CW OUTPUT

The GL-7398 is a packaged voltage-tunable magnetron designed for voltage-tunable operation in the 2200 to 3850-megacycle frequency range. It is a complete r-f power source package requiring only input power connections and an r-f power output connection and has a minimum CW power

output of two watts across the entire frequency range. The tube may be voltage-tuned over a portion or all of the frequency range for which it is designed or operated at a fixed frequency. The voltage-frequency relationship is essentially linear.

### TECHNICAL INFORMATION

#### GENERAL

##### Electrical

Cathode—Directly Heated

Filament Voltage\*

Filament Current

Minimum Bogey

Maximum

2.2 2.5 2.7 Volts

— 3.0 — Amperes

##### Mechanical

Mounting Position—Any

Net Weight

3.5 Pounds

##### Thermal

Type of Cooling—Forced Air

Air Flow

Ambient Air Temperature

30 Cubic Feet per Minute

50 C

## TECHNICAL INFORMATION (CONT'D)

## MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

## Maximum Ratings, Absolute Values

|                                           |      |              |
|-------------------------------------------|------|--------------|
| Anode Voltage.....                        | 2000 | Volts        |
| Anode Current.....                        | 30   | Milliamperes |
| Power Input, with forced-air cooling..... | 45   | Watts        |
| Injection Electrode Voltage.....          | 700  | Volts        |
| Injection Electrode Current.....          | 1.0  | Milliamperes |
| Filament Current.....                     | 3.2  | Amperes      |
| Voltage Standing Wave Ratio.....          | 1.5  |              |

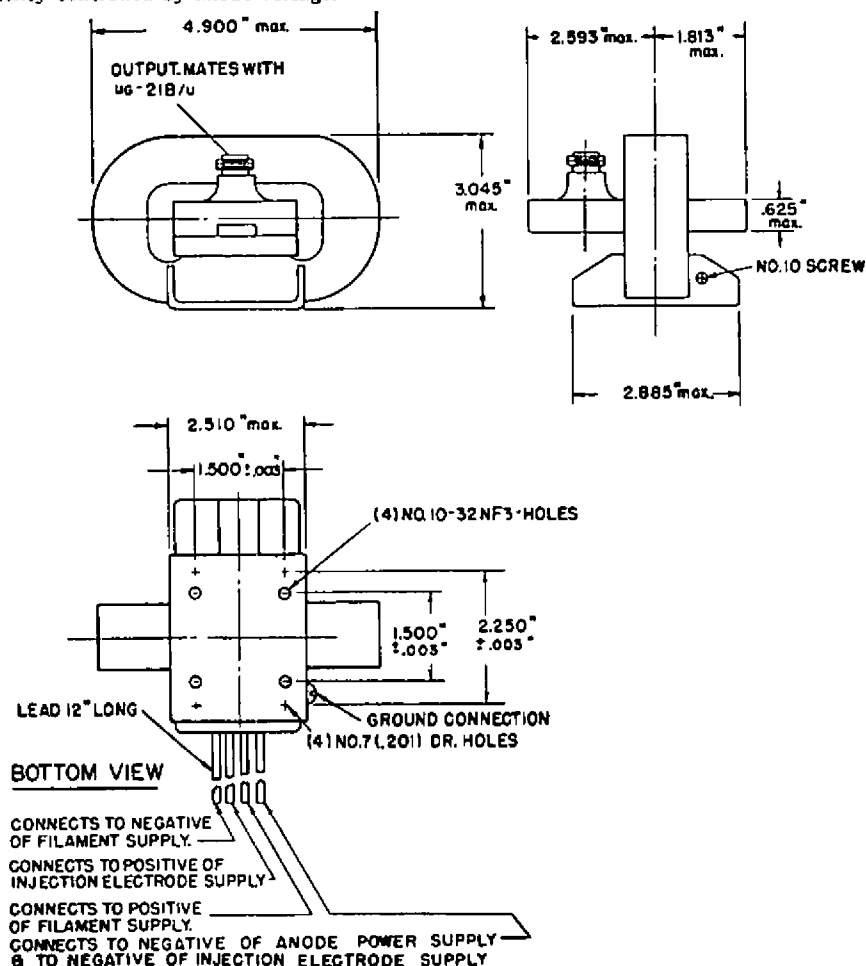
## Typical Operating Conditions

## Operation with 60-cycle Sweep Voltage in Wide-Band Circuit

|                                                                    |               |                     |
|--------------------------------------------------------------------|---------------|---------------------|
| Filament Voltage*, approximate.....                                | 2.50          | Volts               |
| Filament Current.....                                              | 3.0           | Amperes             |
| Tunable Range†.....                                                | 2200—3850     | Megacycles          |
| Tuning Rate, approximate.....                                      | 3.0           | Megacycles per Volt |
| Anode Voltage at 3 Kilomegacycles.....                             | 1250          | Volts               |
| Anode Current, average.....                                        | 10 to 20      | Milliamperes        |
| Injection Electrode Voltage, positive with respect to cathode..... | 300 to 600    | Volts               |
| Injection Electrode Current.....                                   | 0.1           | Milliamperes        |
| Voltage Standing Wave Ratio of Load.....                           | 1.3           |                     |
| Power Output, minimum.....                                         | 2.0           | Watts               |
| Variation over Band.....                                           | Less than 4:1 |                     |

\* Filament current should be adjusted to 3.0 amperes.

† Frequency controlled by anode voltage.



K-69087-72A870

6-8-59

ELECTRONIC COMPONENTS DIVISION

**GENERAL ELECTRIC**

Schenectady 5, N. Y.