

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

	Minimum	Bogey	Maximum
Filament Voltage [†]	2.2	2.5	2.7 Volts
Filament Current	—	3.0	— Amperes

Mechanical

Mounting Position—Any

Net Weight.....3.5 Pounds

Thermal

Type of Cooling—Forced Air

Air Flow	30	Cubic Feet per Minute
Ambient Air Temperature.....	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	

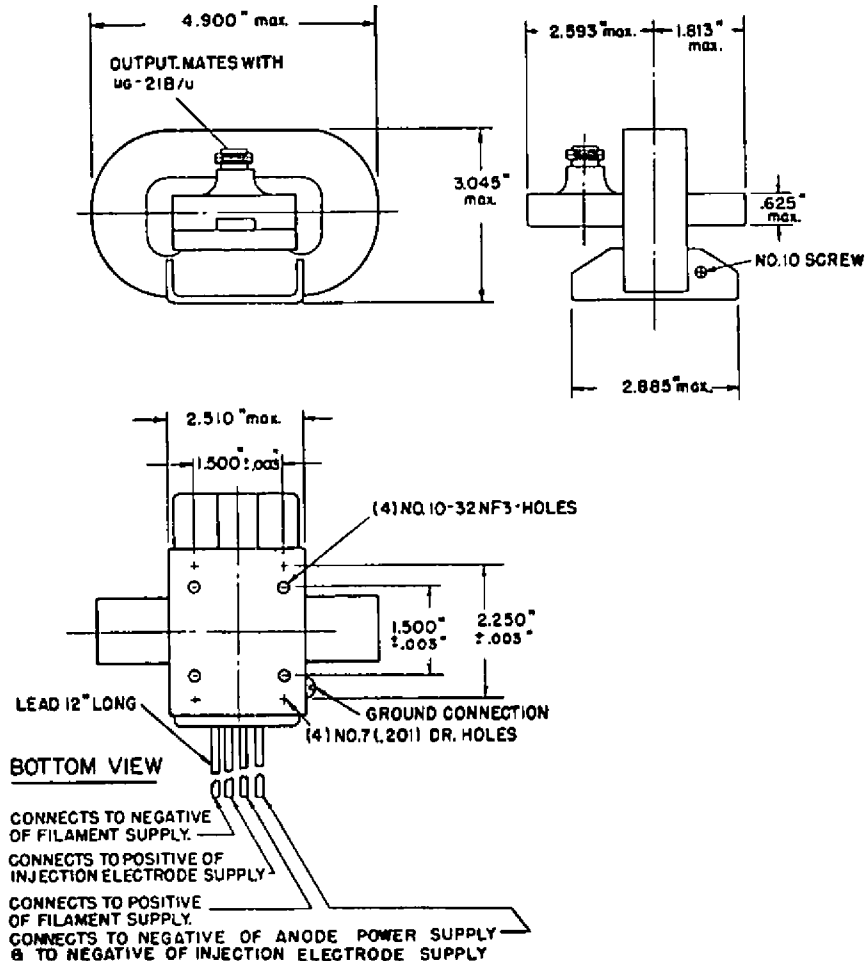
Typical Operating Conditions

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.



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