

These ratings represent those of current samples of this type. Refer to the Objective Technical Information sheet for design-objective ratings.

This technical information is proprietary and is furnished only as a service to customers.

ZM-6051

PACKAGED VOLTAGE-TUNABLE MAGNETRON

1000-2000 Megacycles

0.1 Watt CW Output

The ZM-6051 is a packaged voltage-tunable magnetron designed for low noise, voltage-tunable operation in the 1000-to-2000-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 one watt 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	Minimum	Bogey	Maximum	
Cathode-Directly Heated				
Filament Voltage *	2.1	2.2	2.5	Volts
Filament Current	-	2.0	-	Amperes
Mechanical				
Mounting Position - Any				
Net Weight			3.0	Pounds
Thermal				
Type of Cooling - Forced Air				
Air Flow			5	Cubic Feet per Minute
Ambient Air Temperature Maximum			50	C

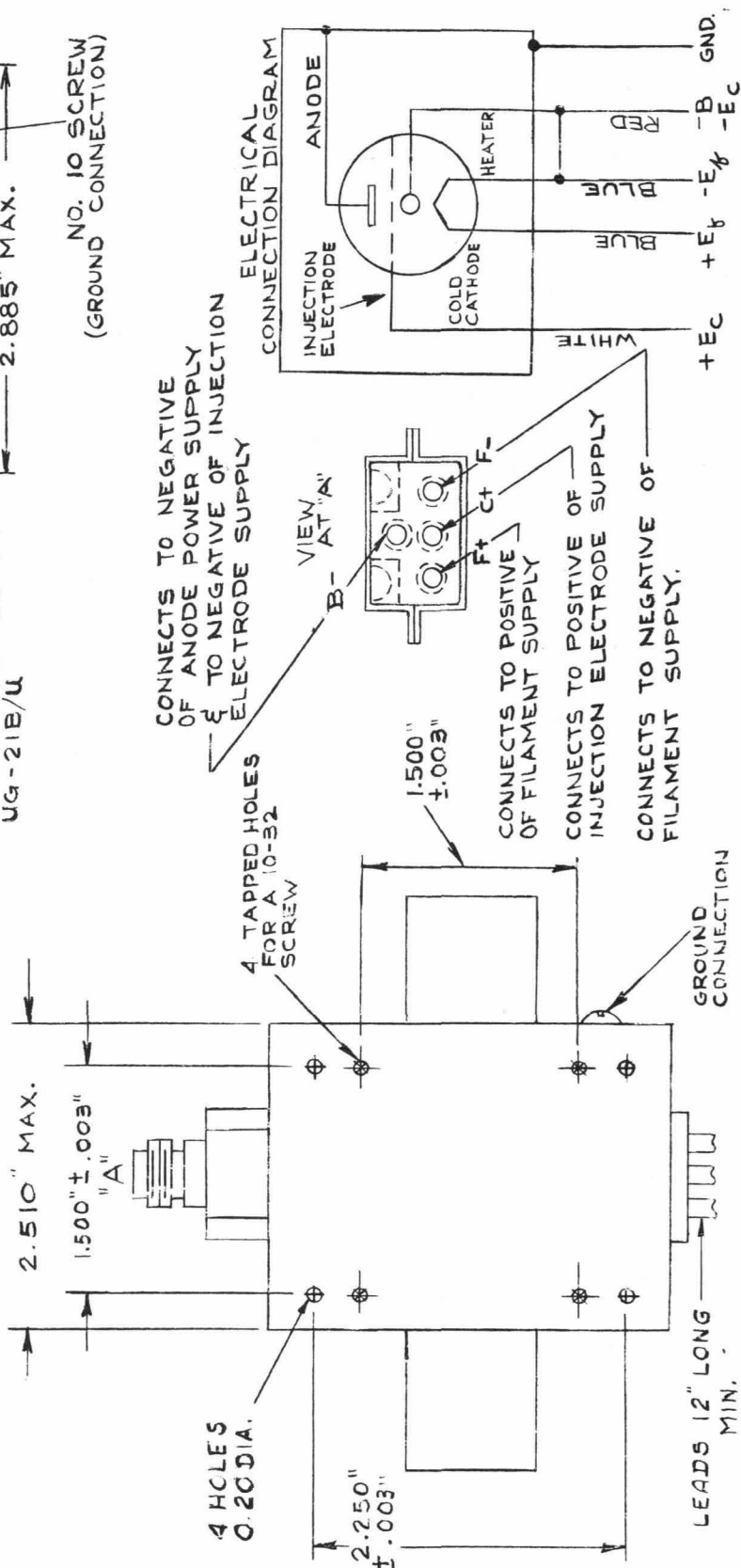
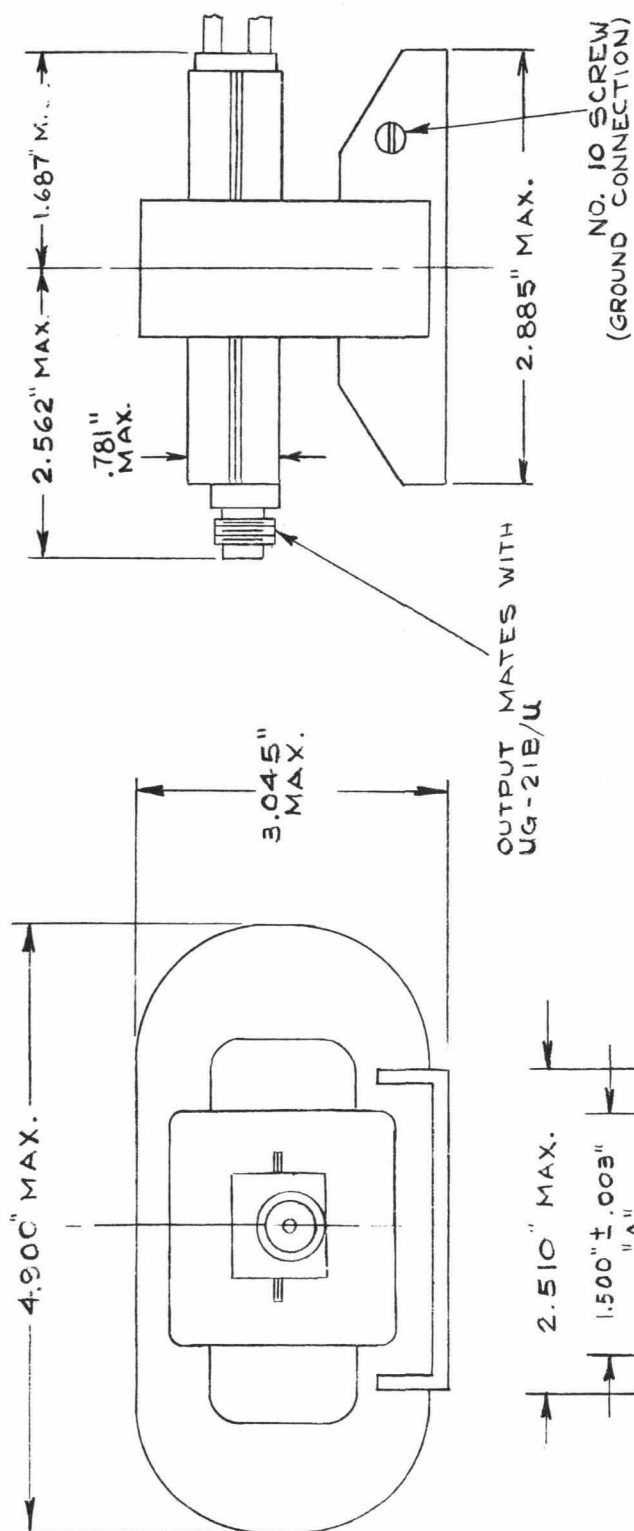
MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

Maximum Ratings, Absolute Values		
Anode Voltage	2000	Volts
Anode Current	10	Milliamperes
Power Input	25	Watts
Injection Electrode Voltage	300	Volts
Injection Electrode Current	.01	Milliamperes
Filament Current	2.5	Amperes
Voltage Standing Wave Ratio	1.5	
Typical Operating Conditions		
Operation with 60-cycle Sweep Voltage in Wide-Band Circuit		
Filament Voltage *, approximate	2.2	Volts
Filament Current	2.0	Amperes
Tunable Range †	1000-2000	Megacycles
Tuning Rate, approximate	1.5	Megacycles per Volt
Anode Voltage at 1.6 Kilomegacycles	1100	Volts
Anode Current, average	1.5 to 6	Milliamperes
Injection Electrode Voltage, positive with respect to cathode	125	Volts
Injection Electrode Current	1	Microamperes
Voltage Standing Wave Ratio of Load	1.3	
Power Output, minimum	0.1	Watts
Variation over Band	Less than 4:1	
Noise	-90	Decibels per Megacycle

* Filament current should be adjusted to 2.0 amperes

† Frequency controlled by anode voltage.

CAUTION: A CLEARANCE OF NINE INCHES BETWEEN FERROMAGNETIC MATERIALS AND THE TUBE WILL PREVENT ANY SERIOUS CHANGE OF THE OPERATING CHARACTERISTICS.



BOTTOM VIEW