

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.

PACKAGED VOLTAGE-TUNABLE MAGNETRON

320-525 MEGACYCLES

32-MILLIWATTS OUTPUT

The ZM-6206 voltage-tunable magnetron is a complete r-f power source package requiring only input power connections and an r-f power-output connection. The minimum CW power output across the frequency range is 32 milliwatts. This low-noise tube may be voltage tuned over a portion or all of the 320 to 525 mc frequency range.

A built-in 6-decibel attenuator makes this tube particularly suitable for use without a circulator or isolator.

The tube is environmentalized for airborne applications.

GENERAL

Electrical	Min.	Bogey	Max.	
Cathode - Directly Heated				
Filament Voltage*	3.3	3.7	4.0	Volts
Filament Current*	1.9	2.0	2.1	Amperes
Mechanical				
Mounting Position - Any				
Net Weight			2.5	Pounds
Altitude			100,000	Feet
Thermal				
Type of Cooling - Conduction or Convection				
Ambient Air Temperature, operating			85	C

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

Maximum Ratings, Absolute Values				
Anode Voltage	2500	Volts		
Anode Current	10	Milliamperes		
Power Input, with Forced Air Cooling	20	Watts		
Injection-Electrode Voltage	200	Volts		
Injection-Electrode Current	1.0	Milliamperes		
Filament Current	2.1	Amperes		
Typical Operating Conditions				
Operation with 60-cycle Sweep Voltage				
Filament Voltage*, approximate	3.7	Volts		
Filament Current*	2.0	Amperes		
Tunable Range#	320-525	Megacycles per Volt		
Tuning Sensitivity, average	0.3	Megacycles per Volt		
Anode Voltage at 420 Megacycles	1700	Volts		
Anode Current, average	1.5	Milliamperes		
Injection-Electrode Voltage, Positive with Respect to Cathode	40-80	Volts		
Injection-Electrode Current	0	Microamperes		
Voltage Standing Wave Ratio of Load	1.2			
Power Output †, minimum	32	Milliwatts		
Noise ‡	-85	Decibels per megacycle		

* Filament current should be adjusted to the value specified ± 1 percent.

Frequency controlled by anode voltage.

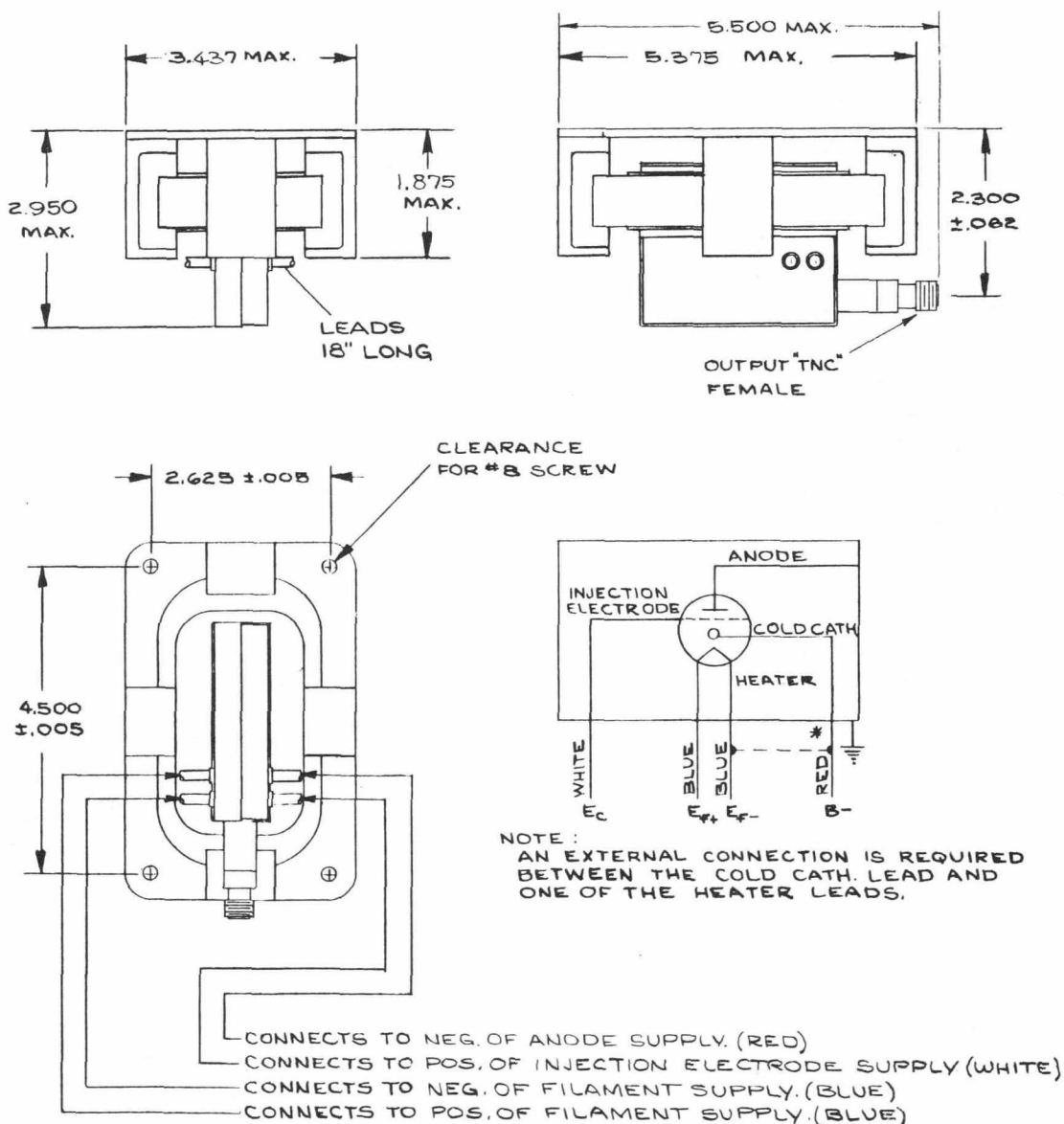
† This power level is measured at the output of the 6-decibel integral attenuator. This VTM is also available with a 125-milliwatt output.

‡ This noise level is measured with respect to the carrier level over a noise band 59 to 61 mc from carrier.

NOTE: Since a change in anode voltage of one volt produces a frequency change of approximately 0.3 megacycles, the anode supply should have sufficiently low ripple and high regulation to prevent an excess of frequency modulation.

CAUTION: A clearance of 6 inches between ferromagnetic materials and the tube will prevent serious change of the operating characteristics.

OUTLINE ZM-6206



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