

PRELIMINARY TECHNICAL INFORMATION

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

DEVELOPMENTAL
TYPE

ZM-6211
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This technical information is proprietary and is furnished only as a service to customers.

PACKAGED VOLTAGE-TUNABLE MAGNETRON

2500-3500 MEGACYCLES

10 WATT OUTPUT

The ZM-6211 is a voltage-tunable magnetron, designed for voltage-tunable operation in the 2500-3500 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 10 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.

GENERAL

Electrical	Min.	Bogey	Max.
Cathode - Directly Heated			
Filament Voltage*, approximate	2.2	2.5	2.7 Volts
Filament Current*	--	2.0	-- Amperes
Mechanical			
Mounting Position - Any			
Net Weight			1.8 Pounds
Thermal			
Type of Cooling - Forced Air			
Air Flow			30 Cubic Feet per Minute
Ambient Air Temperature			50 C

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

Absolute Values

Anode Voltage	2500 Volts
Anode Current	40 Milliamperes
Power Input, with Forced Air Cooling	75 Watts
Injection Electrode Voltage	700 Volts
Injection Electrode Current	1.0 Milliamperes
Filament Current	2.2 Amperes

Typical Operating Conditions

Operation with 60-cycle Sweep Voltage in Wide-band Circuit

Filament Voltage*, approximate	2.50 Volts
Filament Current	2.0 Amperes
Tunable Range #	2500-3500 Megacycles per Volt
Tuning Rate, Approximate	1.8 Megacycles per Volt
Anode Voltage at 3 Kilomegacycles	1850 Volts
Anode Current, Average	20-30 Milliamperes
Injection Electrode Voltage, Positive with Respect to Cathode	300-600 Volts
Injection Electrode Current	0.1 Milliamperes
Voltage Standing Wave Ratio of Load	1.3
Power Output, Minimum	10.0 Watts

* Filament current should be adjusted to 2.0 amperes

Frequency controlled by anode voltage.

NOTE: Since a change in anode voltage of one volt produces a frequency change of approximately 3.3 megacycles, the anode supply should have sufficiently low ripple and high regulation to prevent an excess of frequency modulation.

CAUTION: A clearance of 9 inches between ferromagnetic materials and the tube will prevent serious change of the operating characteristics.

OUTLINE ZM-6211

