

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-6212
PTI-144
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This technical information is proprietary and is furnished only as a service to customers.

PACKAGED VOLTAGE-TUNABLE MAGNETRON

4200-4400 Megacycles

1.5 Watts Output

The ZM-6212 is a voltage-tunable magnetron for operation in the 4200-4400 megacycle frequency range. A complete r-f power source package requiring only input power connections and an r-f power output connection, it has a minimum CW power output of 1.5 watts across the frequency range. The tube may be voltage-tuned over a portion or all of the frequency range for which it is designed.

GENERAL

Electrical

Cathode - Directly Heated

Filament Voltage *, approximate	3.0	Volts
Filament Current *	2.0	Amperes

Mechanical

Mounting Position - Any

Net Weight	1.8	Pounds
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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

Filament Current	2.2	Amperes
Anode Voltage	1600	Volts
Anode Current	25	Milliamperes
Power Input	25	Watts
Injection Electrode Voltage	350	Volts

Typical Operating Conditions

Operation with 60-cycle Sweep Voltage

Filament Voltage *, approximate	3.0	Volts
Filament Current	2.0	Amperes
Tunable Range #	4200-4400	Megacycles
Tuning Sensitivity, approximate	3.3	Megacycles per Volt
Anode Voltage at 4.3 Kilomegacycles	1375	Volts
Anode Current, average	10-20	Milliamperes
Injection Electrode Voltage	250	Volts
Power Output, minimum	1.5	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 3 inches between ferromagnetic materials and the tube will prevent any serious change of the operating characteristics.

OUTLINE ZM-6212

