

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-6107

PACKAGED VOLTAGE-TUNABLE MAGNETRON

2820-3180 Megacycles

20 Watts Output

The ZM-6107 is a voltage-tunable magnetron for operation in the 2820-to-3180 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 20 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 * 2.0 Volts

Filament Current * 2.0 Amperes

Mechanical

Mounting Position - Any

Net Weight 4.0 Pounds

Thermal

Type of Cooling - Conduction or Convection

Ambient Air Temperature, maximum 90 C

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

Maximum Ratings, Absolute Values

Filament Current 2.5 Amperes

Anode Voltage 2300 Volts

Anode Current 30 Milliampers

Power Input, with forced-air cooling 68 Watts

Injection Electrode Voltage 660 Volts

Typical Operating Conditions

Operation with 60-cycle Sweep Voltage

Filament Voltage *, approximate 2.5 Volts

Filament Current 2.0 Amperes

Tunable Range † 2820-3180 Megacycles

Tuning Sensitivity, approximate 1.50 Megacycles per Volt

Anode Voltage at 3.0 Gigacycles 2100 Volts

Anode Current, average 20-25 Milliampers

Voltage Standing Wave Ratio of Load 1.1

Power Output, minimum 20 Watts

Control Electrode Voltage 600 Volts

* 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 1.5 megacycles, it is necessary that the ripple voltage of the anode supply be small enough not to cause an excess of undesirable frequency modulation.

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

