



ELECTRONIC INNOVATIONS

IN ACTION

TUBES

OBJECTIVE TECHNICAL INFORMATION

These ratings represent the design objective for this product. Refer to the Preliminary Technical Information sheet for ratings currently achieved in the progression towards design objectives. If PTI sheets do not exist, consult your local Tube Department Regional Sales Office.

DEVELOPMENTAL

TYPE

ZM-6265A

OTI-214

Page 1

12-68

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

ZM-6265A

PACKAGED VOLTAGE-TUNABLE MAGNETRON

2500-3500 MEGACYCLES

10 WATT OUTPUT

The ZM-6265A is a small, lightweight, magnetically shielded voltage-tunable oscillator with an integral isolator which operates at a minimum power output of 10 watts over the 2500-3500 megacycle frequency range. Unlike conventional electron devices employing magnetic fields, this shielded VTM is unaffected by passive magnetic materials. When specified, the ZM-6265A can be aligned for low-noise performance. Its noise power is at least 80 decibels per megacycle below the carrier at one megacycle away from the carrier. It is a complete radio-frequency power source requiring only d-c input power and generates radio-frequency power over its electronically tuned frequency range. This shielded VTM may be operated over a portion or all of the frequency range or operated at a fixed frequency. Its frequency versus voltage-tuning characteristic is essentially linear.

GENERAL

Table with columns: Electrical, Mechanical, Thermal; Min., Bogey, Max.; and units (Volts, Amperes, Pounds, Cubic Feet per Minute, C). Rows include Cathode - Directly Heated, Filament Voltage*, Filament Current*, Mounting Position - Any, Net Weight, Type of Cooling - Forced Air, Air Flow, and Ambient Air Temperature.

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

Table with columns: Absolute Values, Typical Operating Conditions; and units (Volts, Milliamperes, Watts, Megacycles, Megacycles per Volt). Rows include Anode Voltage, Anode Current, Power Input, Injection Electrode Voltage, Injection Electrode Current, Filament Current, Filament Voltage*, Filament Current, Tunable Range#, Tuning Rate, Anode Voltage at 3 Kilomegacycles, Anode Current, Average, Injection Electrode Voltage, Positive with Respect to Cathode, Injection Electrode Current, Voltage Standing Wave Ratio of Load, Power Output, Minimum, and Noise †.

* Filament voltage should be adjusted to provide a filament current of 3.0 amperes under broadband swept oscillating conditions.

Frequency controlled by anode voltage.

The specifications of this type are subject to change. This device is now under development and is made available for experimental purposes only. For the most recent information concerning the status of this development, please consult your local Tube Department Regional Sales Office, or current Preliminary Technical Information for the same catalog number.

NOTE: Since a change in anode voltage of one volt produces a frequency change of approximately 1.8 megacycles, the anode supply should have sufficiently low ripple and high regulation to prevent an excess of frequency modulation.

† Measured at 1.5 megacycles away from carrier with respect to carrier power level. This is an optional parameter which is included on special order only.

