



TYPICAL OPERATING CHARACTERISTICS

Frequency	- - - - -	8.0 to 12.0 gigahertz
Minimum Output Power	- - - - -	3.0 watts
Small Signal Gain	- - - - -	30 decibels
DC Beam Voltage*	- - - - -	3300 volts
DC Cathode Current	- - - - -	28 milliamperes
DC Focus Electrode Voltage*	- - - - -	—40 volts
DC Focus Electrode Current	- - - - -	0 milliamperes

*All voltages referred to cathode.

APPLICATION

Cooling: The EM1051 is designed to be heat sink cooled by means of the mounting available and integral with the tube and PPM structure. Under environmental conditions normally encountered in military equipments, additional cooling will not be required.

Cathode: The heater voltage should be maintained within ± 5 per cent of the rated value of 6.3 volts if variations in performance are to be minimized and best tube life obtained.

Helix: The helix, collector and anode are internally connected to the tube body and are operated at the same potential. Therefore, it is often convenient to operate these elements at chassis potential, with the cathode and focus electrode at appropriate negative potentials. The cathode potential should be maintained within ± 1 per cent to insure proper operation.

Focus Electrode: The focus electrode power supply must be regulated within ± 2 per cent to minimize variations in performance.

Special Applications: For any additional information concerning this tube or its application, write to Microwave Product Manager, EIMAC, Division of Varian, 301 Industrial Way, San Carlos, Calif.

ENVIRONMENTAL

The EM1051 conforms generally with MIL-E-5272C, "Environmental Testing, Aeronautical and Associated Equipment, General Specification for," and MIL-E-5400, "Electronic Equipment, Aircraft, General Specification for," Class II.

Vibration	- - - - -	10 g to 2000 Hz (Curve A of Proc. XII, MIL-E-5272C)
Shock	- - - - -	25 g, 11 ± 1 ms
Acceleration	- - - - -	Sustained, 25 g's
Temperature	- - - - -	—54°C to +85°C
Altitude	- - - - -	70,000 ft.

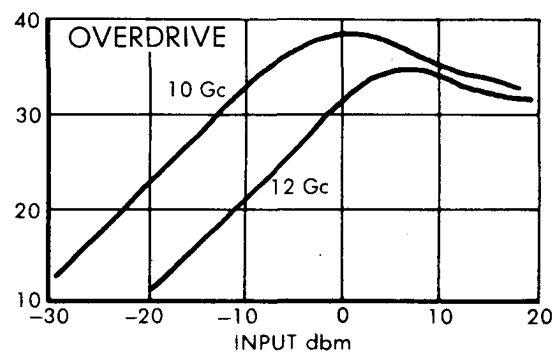
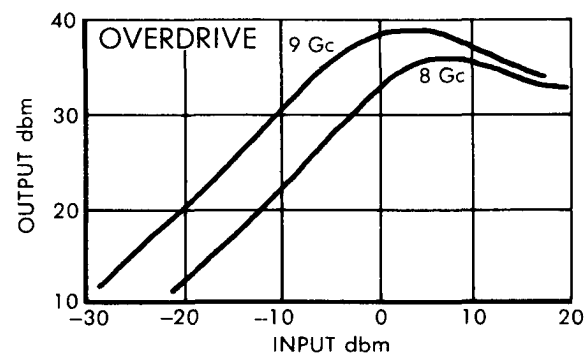
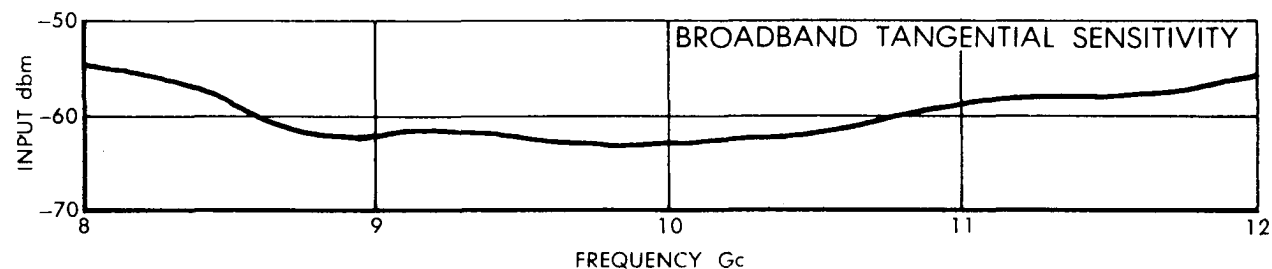
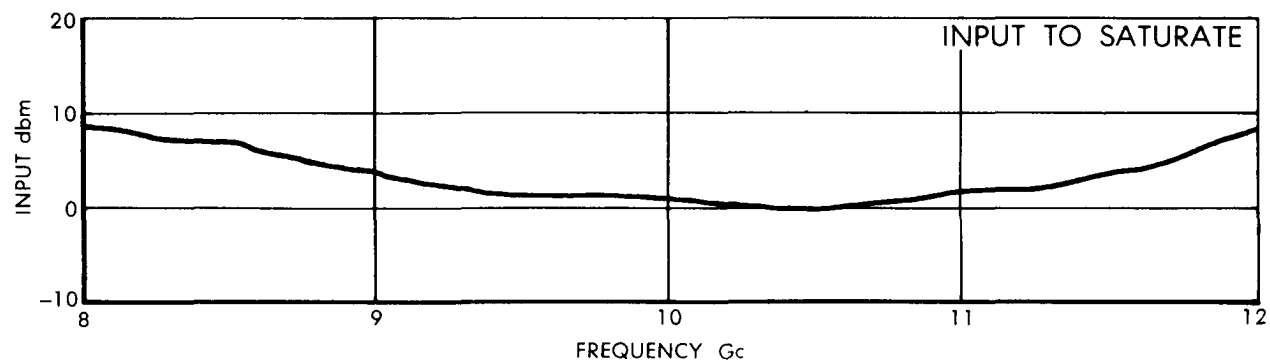
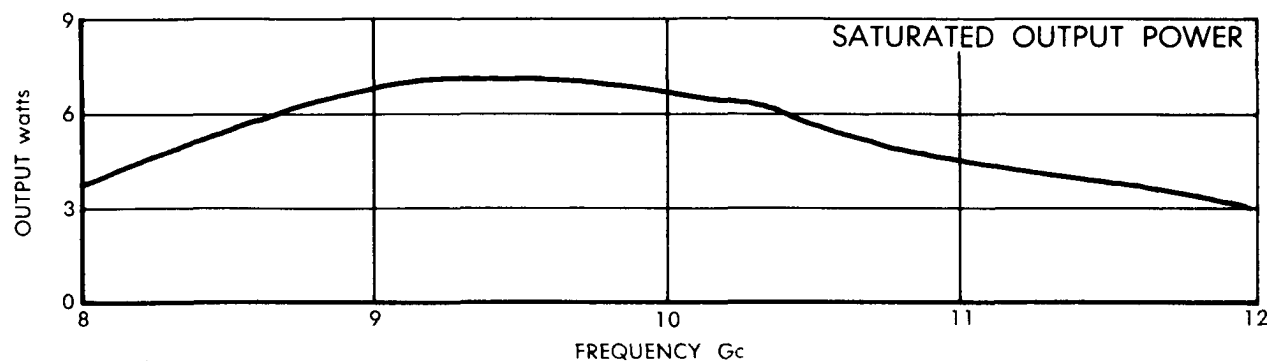
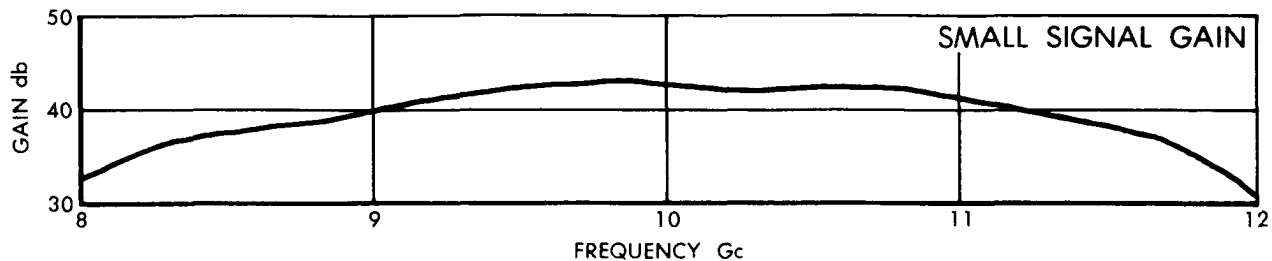
Note: This data should not be used for final equipment design.



EM-1051 TYPICAL OPERATING CHARACTERISTICS

ANODE VOLTAGE $\frac{3300 \text{ Vdc}}{28 \text{ mAdc}}$
CATHODE CURRENT

FOCUS VOLTAGE $\frac{-40 \text{ Vdc}}{6.3 \text{ Vac}}$
FILAMENT VOLTAGE





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CONNECTIONS

- 1. HEATER —BROWN
- 2. CATHODE HEATER—YELLOW
- 3. FOCUS ELECTRODE —GREEN
- 4. BODY GROUND —BLACK

