

GENERAL DESCRIPTION

The DME 375 is an internally matched, common base transistor capable of providing 375 watts of pulse RF output power at 10 microsecond pulse widths and 1 percent duty cycles across the 1025 - 1150 MHz band. This hermetically sealed transistor is specifically designed for pulse TACAN and DME applications. It Utilizes gold metallization and diffused ballasting to provide high reliability and supreme ruggedness.

DME 375
375 WATTS - 50 VOLTS
1090 MHz

AVIONICS

ABSOLUTE MAXIMUM RATINGS

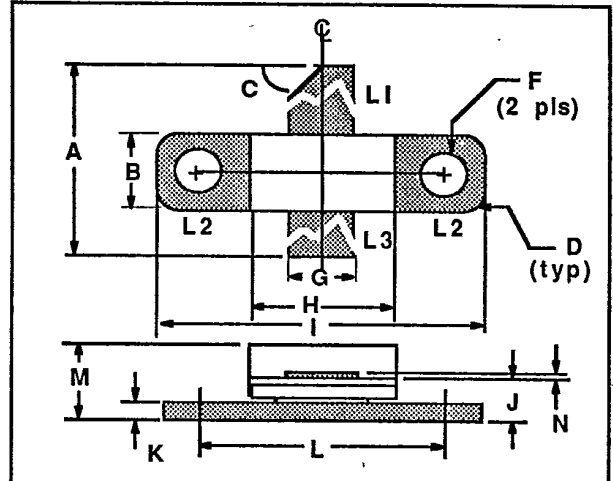
Maximum Power Dissipation @ 25°C Case Temperature 875W

Maximum Voltage and Current

BVces Collector to Emitter Voltage 60 V
 BVebo Emitter to Base Voltage 4.0 V
 Ic Collector Current 30 A

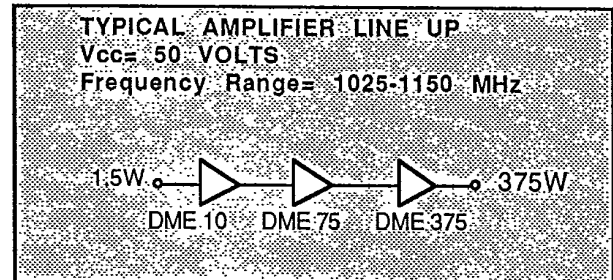
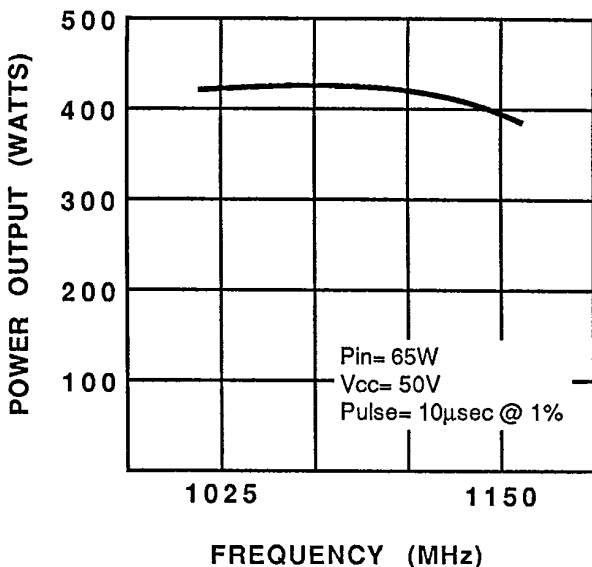
Maximum Temperatures

Storage Temperature -65 to +150°C
 Operating Junction Temperature +200°C



L1 : C	DIM	Millimeter	TOL	Inches	TOL
L2 : E	A	17.78	.76	.70	.03
L3 : B	B	5.84	.13	.230	.005
	C	45°	5°	45°	5°
	D	0.63R	.13	.025R	.005
	E	0.13	.02	.005	.001
	F	3.30 DIA	.13	.130 DIA	.005
	G	5.46	.13	.215	.005
	H	9.14	.13	.360	.005
	I	20.32	.13	.800	.005
	J	3.17	.13	.125	.005
	K	1.14	.13	.045	.010
	L	14.22	.13	.560	.005
	M	5.46	REF	.215	REF

POWER OUTPUT VS FREQUENCY (TYPICAL)

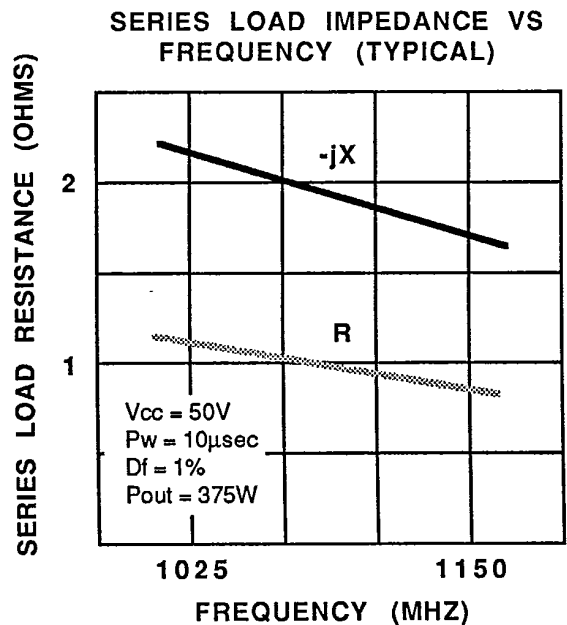
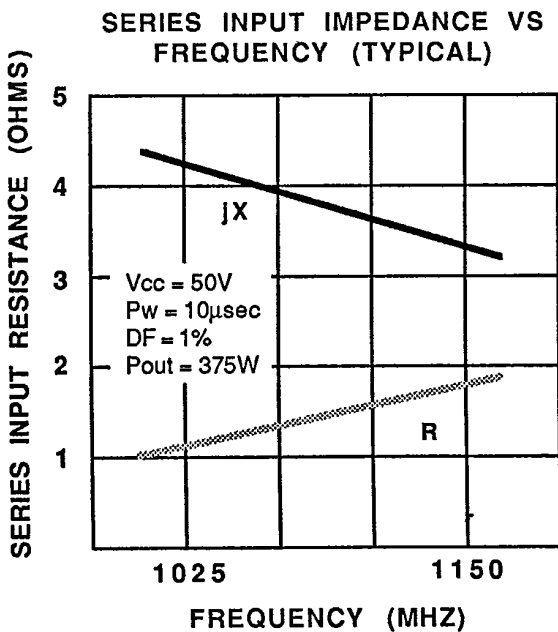


36

ELECTRICAL CHARACTERISTICS¹

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
P _{out}	Power Output	f= 1025-1150 MHz V _{cc} = 50 V Pulse Width = 10μsec Duty Cycle = 1%	375			Watts
P _{in}	Power Input				75	Watts
P _g ²	Power Gain			8.0		dB
η _c ²	Collector Efficiency			40		%
VSWR ²	Load Mismatch Tolerance					∞:1
B _{Vebo}	Breakdown Voltage (Emitter to Base)	I _c = 0A, I _e = 20mA	4.0			Volts
B _{Vces}	Breakdown Voltage (Collector to Emitter)	V _{be} = 0A, I _c = 25 mA	60			Volts
h _{FE}	DC-Current Gain	V _c = 5, I _c = 1A	10			
θ _{jc}	Thermal Resistance				0.20	°C/W

Note 1: T_c = +25°C unless otherwise specified
 2: At rated power output



SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE

27

DME375-3

**POWER OUTPUT VS POWER INPUT
(TYPICAL)**

