

GENERAL DESCRIPTION

This device utilizes the most advanced design and process technologies. These features provide the most consistent and reliable chip and package combination designed, built and tested specifically for use in VHF, 12 volt land mobile applications.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C Case Temperature 195 W

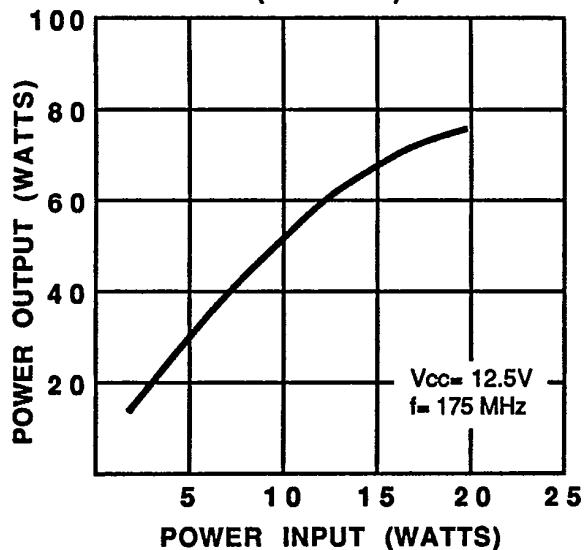
Maximum Voltage and Current

BVces Collector to Emitter Voltage 36V
 BVebo Emitter to Base Voltage 4.0V
 Ic Collector Current 15 A

Maximum Temperatures

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

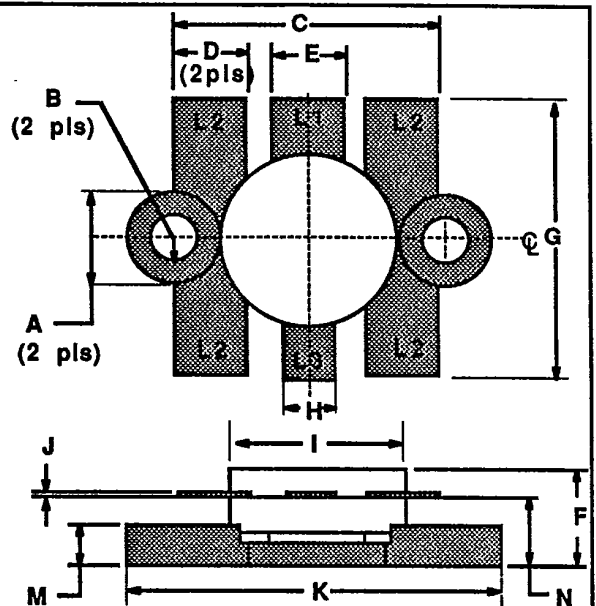
POWER OUTPUT VS POWER INPUT (TYPICAL)



VMOB70

70 WATT - 12.5 VOLTS
 136-175 MHz

MOBILE COMMUNICATIONS

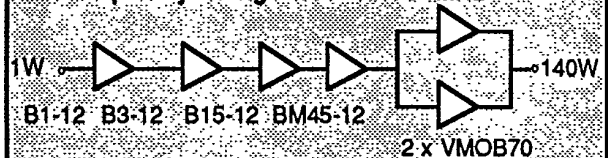


DIM	Millimeter	TOL	Inches	TOL
L1 : B				
L2 : E				
L3 : C				
A	6.35 DIA	.13	.250 DIA	.005
B	3.17 DIA	.13	.125 DIA	.005
C	18.41	.13	.725	.005
D	5.46	.13	.215	.005
E	5.21	.13	.205	.005
F	6.73	REF	.265	REF
G	17.27	.38	.680	.015
H	3.94	.13	.155	.005
I	12.70 DIA	.13	.500 DIA	.005
J	0.13	.02	.005	.001
K	24.76	.13	.975	.005
M	2.41	.13	.095	.005
N	4.32	.13	.170	.005

TYPICAL AMPLIFIER LINE UP

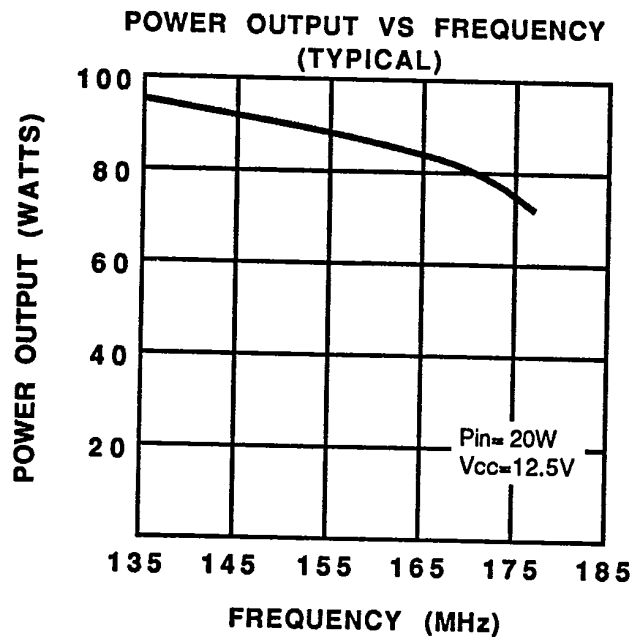
Vcc=12.5 Volts

Frequency Range=136 - 175 MHz



VMOB70-2**ELECTRICAL CHARACTERISTICS¹**

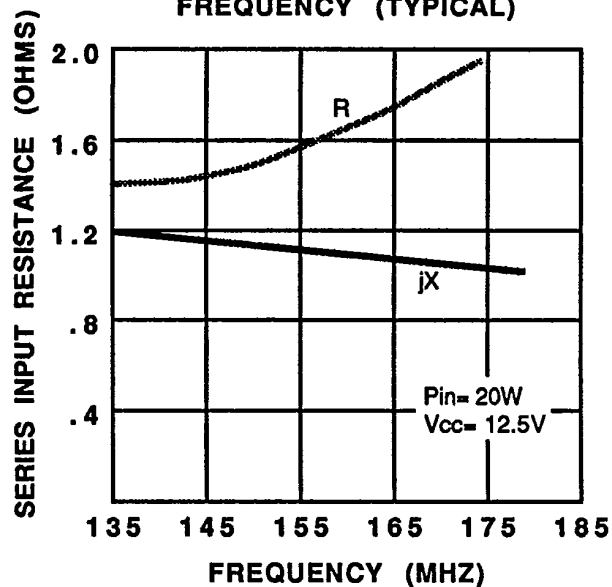
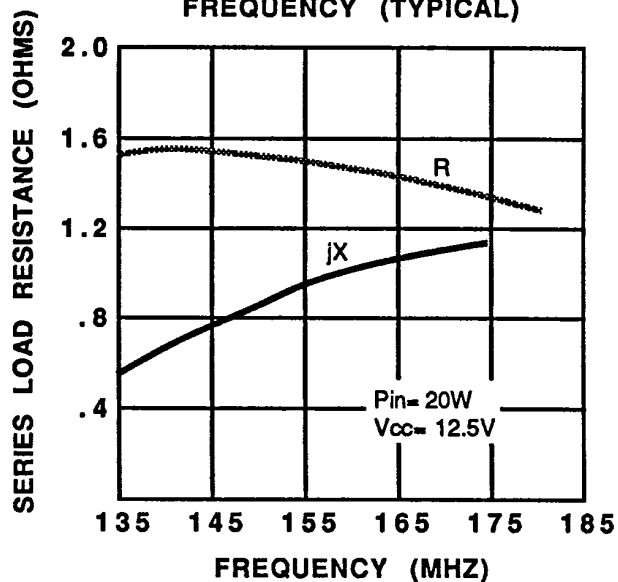
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
P _{out}	Power Output	f = 136 - 175 MHz V _{cc} = 12.5V	70			Watts
P _{in}	Power Input			18	20	Watts
P _g	Power Gain			6.0		dB
η_c	Collector Efficiency			65		%
VSWR	Load Mismatch Tolerance	f = 150 MHz, P _{in} = 20W, V _{cc} = 16V			25:1	
BV _{ebo}	Breakdown Voltage (Emitter to Base)	I _c = 0A, I _e = 10mA	4.0			Volts
BV _{ces}	Breakdown Voltage (Collector to Emitter)	V _{be} = 0A, I _c = 50 mA	36			Volts
BV _{ceo}	Breakdown Voltage (Collector to Emitter)	I _b = 0A, I _c = 50 mA	16			Volts
θ_{jc}	Thermal Resistance				0.9	°C/W
h _{FE}	DC Current Gain	V _c = 5v, I _c = 1A	10			

Note 1: T_c = +25°C unless otherwise specified

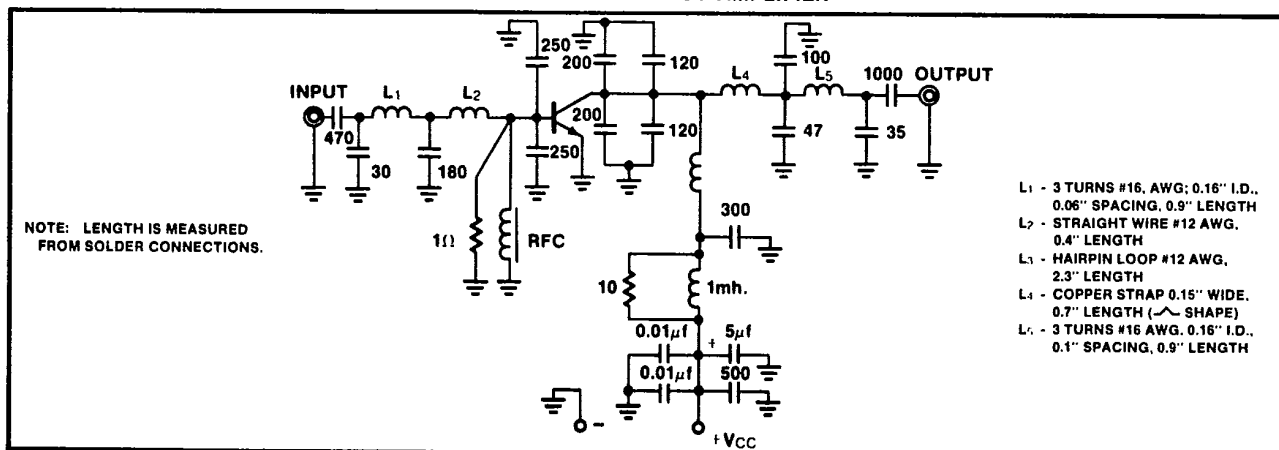
SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE

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VMOB70-3

SERIES INPUT IMPEDANCE VS
FREQUENCY (TYPICAL)SERIES LOAD IMPEDANCE VS
FREQUENCY (TYPICAL)

136-175 MHz TEST AMPLIFIER



NOTE 1. Under the normal operating conditions as specified. Junction temperature to be 200°C maximum as measured by I.R. scan of the chip.