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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

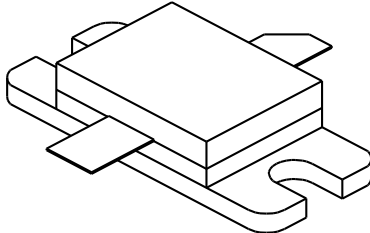
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



DME 500

500 Watts, 50 Volts, Pulsed
Avionics 1025 - 1150 MHz

<p>GENERAL DESCRIPTION</p> <p>The DME 500 is a high power COMMON BASE bipolar transistor. It is designed for pulsed systems in the frequency band 1025-1150 MHz. The device has gold thin-film metallization for proven highest MTTF. The transistor includes input and output prematch for broadband capability. Low thermal resistance package reduces junction temperature, extends life.</p>	<p>CASE OUTLINE 55KT, STYLE 1</p> 
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation @ 25°C² 1700 Watts</p> <p>Maximum Voltage and Current</p> <p>BVces Collector to Base Voltage 55 Volts BVebo Emitter to Base Voltage 3.5 Volts Ic Collector Current 40 Amps</p> <p>Maximum Temperatures</p> <p>Storage Temperature - 65 to + 200°C Operating Junction Temperature + 200°C</p>	

ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P_{out}	Power Out	F = 1025-1150 MHz	500			Watts
P_{in}	Power Input	V _{cc} = 50 Volts			125	Watts
P_g	Power Gain	PW = 10 μsec	6.0	6.5		dB
η_c	Collector Efficiency	DF = 1%		35		%
VSWR	Load Mismatch Tolerance	F = 1090 MHz			10:1	

BVebo	Emitter to Base Breakdown	I _e = 30 mA	3.5			Volts
BVces	Collector to Emitter Breakdown	I _c = 40 mA	55			Volts
h_{FE}	DC - Current Gain	I _c = 500 mA, V _{ce} = 5 V	10		100	
θ_{jc}²	Thermal Resistance				0.1	°C/W

Note 1: At rated output power and pulse conditions
 2: At rated pulse conditions

Initial Issue June, 1994

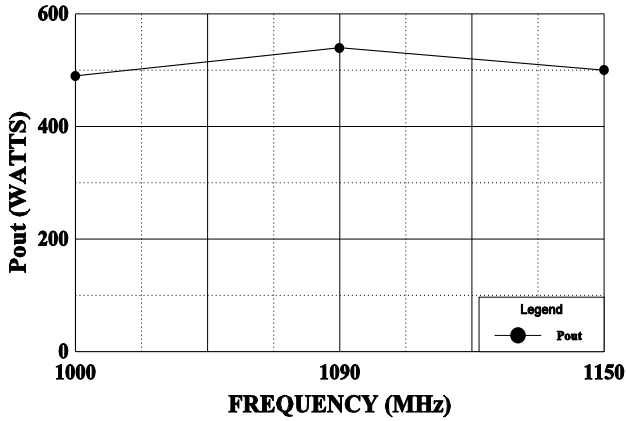
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GHZ TECHNOLOGY
RF-MICROWAVE SILICON POWER TRANSISTORS

POWER OUTPUT

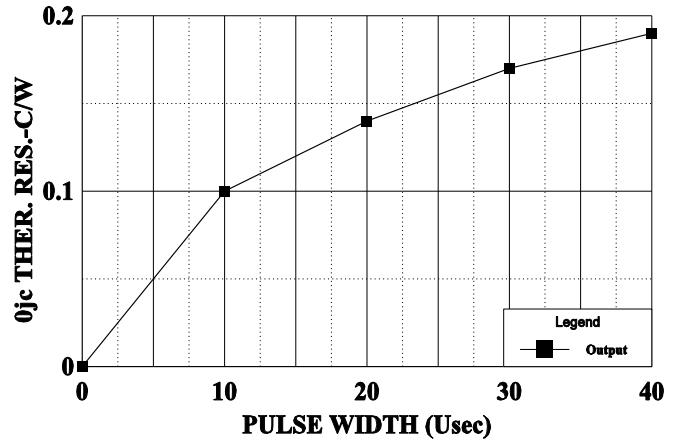
Vcc = 50 V, Pin = 125 W Peak



DME 500

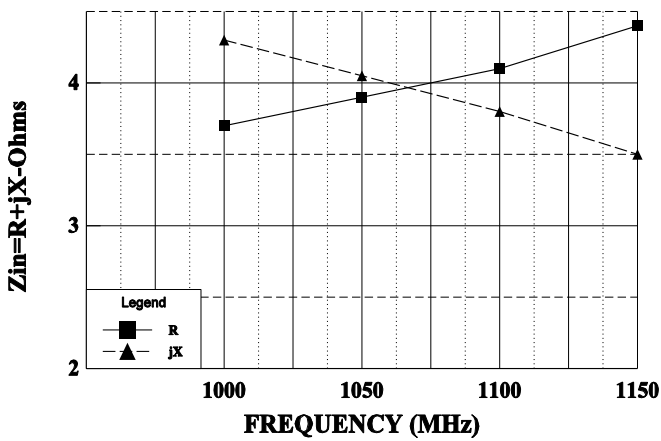
THERMAL RESISTANCE vs PULSE WIDTH

Vcc = 50 V, Tf = 30 C



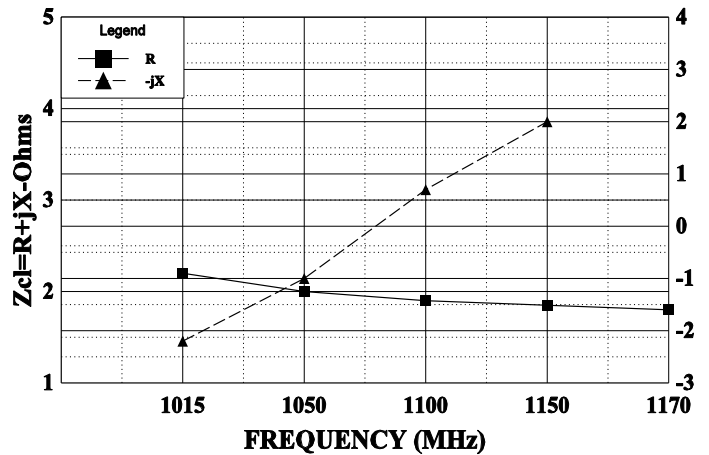
SERIES INPUT IMPEDANCE vs FREQUENCY

Vcc = 50 V, Po = 250 W



SERIES LOAD IMPEDANCE vs FREQUENCY

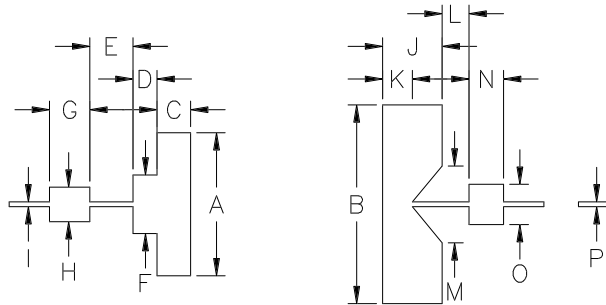
Vcc = 50 V, Po = 500 W



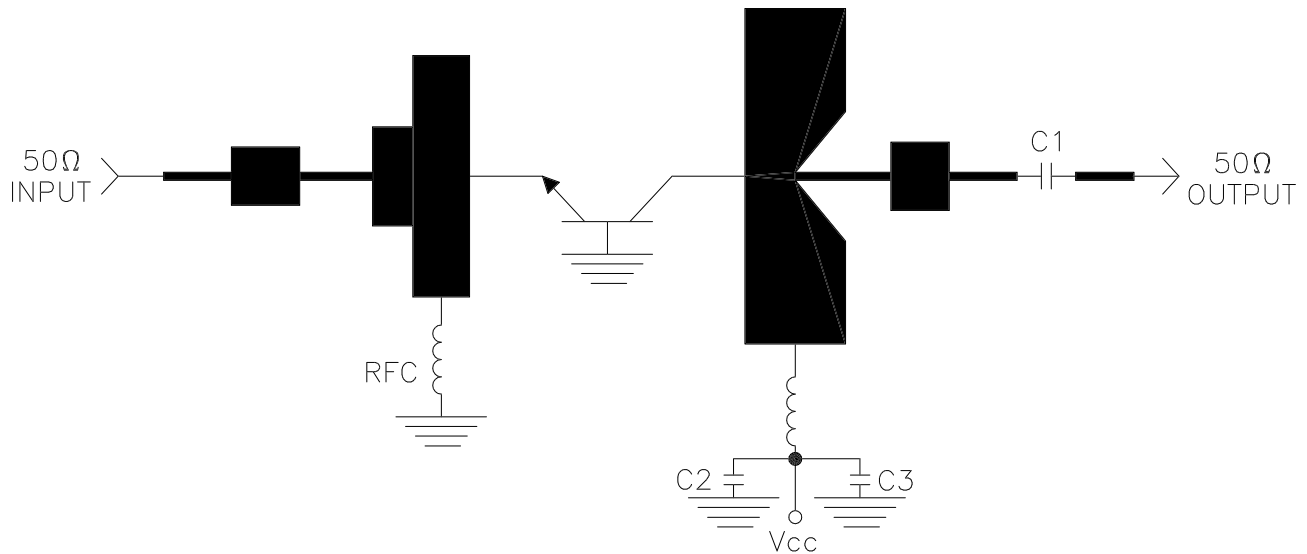
REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED
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DIM	INCHES
A	.745
B	1.035
C	.175
D	.125
E	.225
F	.305
G	.210
H	.180
I	.025
J	.310
K	.155
L	.140
M	.400
N	.180
O	.210
P	.025



1025/1150 MHz TEST AMPLIFIER



— = Microstrip line on E10, t=0.025"
 C1, C2 = 82PF chip capacitor
 C3 = 500μ Fdc @ 75V capacitor