



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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!



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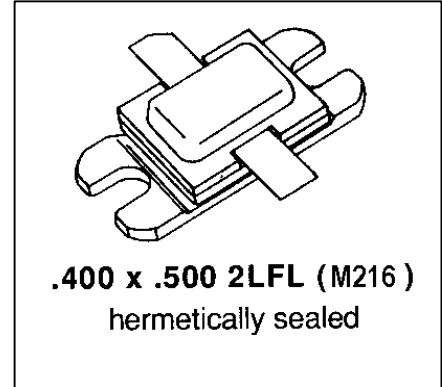


MSC1450M

RF AND MICROWAVE TRANSISTORS AVIONICS APPLICATIONS

Features

- REFRACTORY/GOLD METALLIZATION
- LOW THERMAL RESISTANCE
- RUGGEDIZED VSWR 25:1
- INTERNAL INPUT / OUTPUT MATCHING
- METAL/CERAMIC HERMETIC PACKAGE
- $P_{OUT} = 450 \text{ W}$ MINIMUM
- 7 dB gain

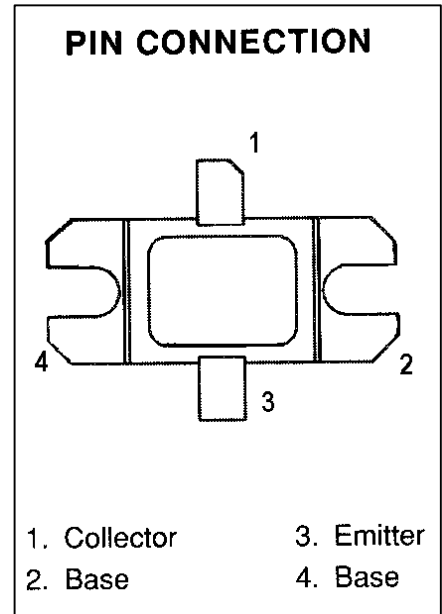


DESCRIPTION:

The MSC1450M is a high-power pulsed transistor specifically designed for IFF avionics applications.

This device is capable of withstanding a minimum 25:1 load mismatch at any phase angle under full rated conditions.

The MSC1450M is housed in the unique BIGPAC™ package with internal input/output matching structures.



ABSOLUTE MAXIMUM RATINGS (T_{case} = 25 °C)

Symbol	Parameter	Value	Unit
V_{CC}	Collector-Supply Voltage	55	V
I_C	Device Current	28	A
P_{DISS}	Power Dissipation	910	W
T_J	Junction Temperature	250	°C
T_{STG}	Storage Temperature	- 65 to + 200	°C

Thermal Data

$R_{TH(j-c)}$	Junction-Case Thermal Resistance	0.15	°C/W
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ELECTRICAL SPECIFICATIONS (T_{case} = 25 °C)
STATIC

Symbol	Test Conditions	Value			Units
		Min.	Typ.	Max.	
BV_{CBO}	I_C = 15 mA I_E = 0 mA	65			V
BV_{EBO}	I_E = 1 mA I_C = 0 mA	3.5			V
BV_{CER}	I_C = 50 mA R_{BE} = 10Ω	65			V
I_{CES}	V_{CE} = 50V			35	mA
h_{FE}	V_{CE} = 5 V I_C = 1 A	15		120	

DYNAMIC

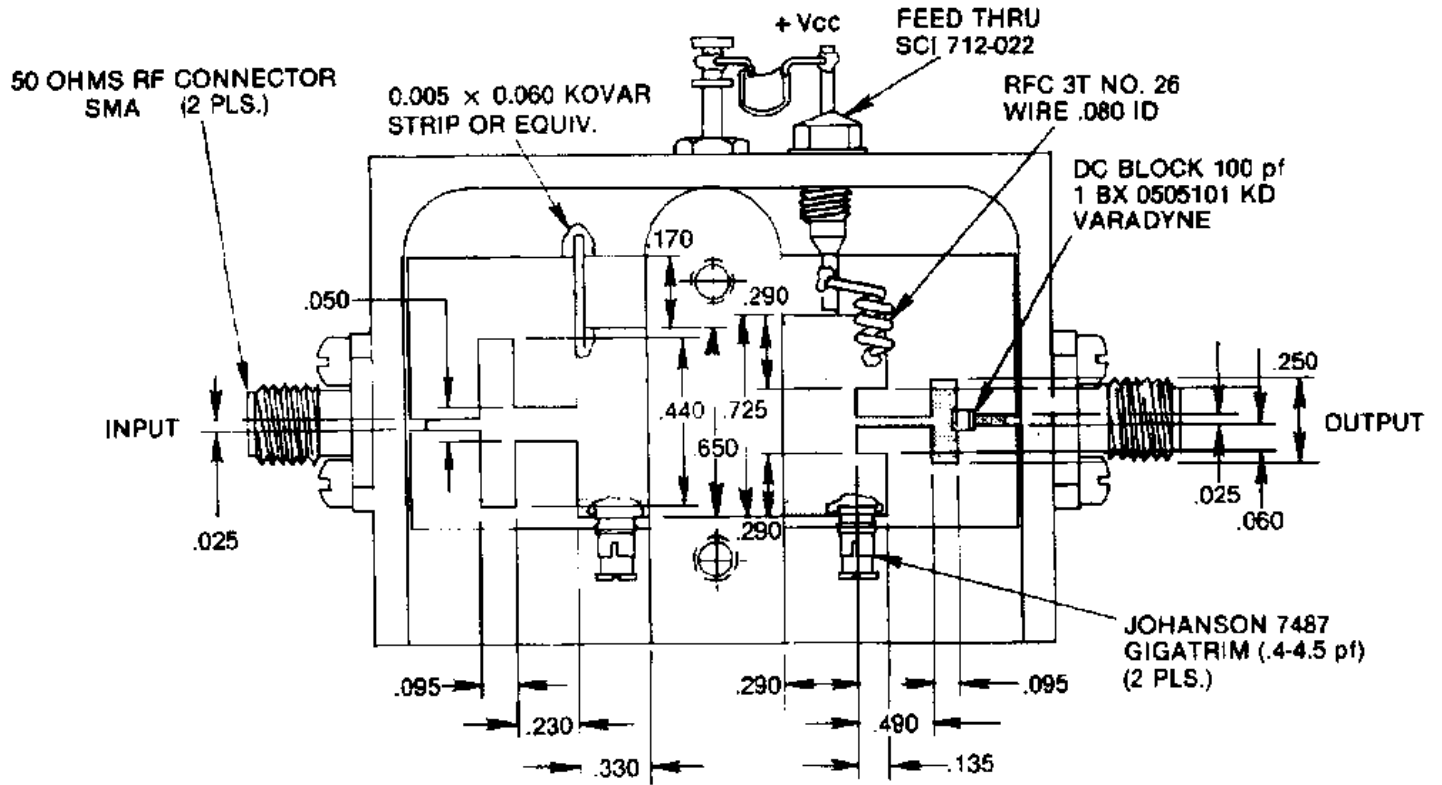
Symbol	Test Conditions	Value			Units
		Min.	Typ.	Max.	
P_{OUT}	f = 1090 MHz P_{IN} = 90 W V_{CC} = 50 V	450	500		W
ζ_C	f = 1090 MHz P_{IN} = 90 W V_{CC} = 50 V	40			%
G_P	f = 1090 MHz P_{IN} = 90 W V_{CC} = 50 V	7			dB

Note: Pulse width = 10μSec
 Duty Cycle = 1%

MSC1450M

TEST CIRCUIT

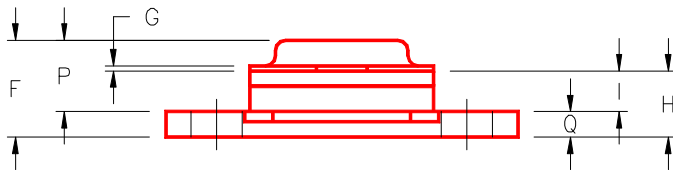
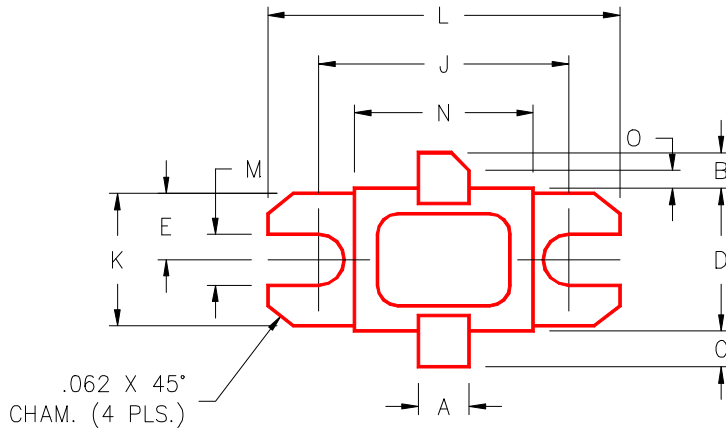
Ref.: Dwg. No. C125363



All dimensions are in inches.

PACKAGE MECHANICAL DATA

PACKAGE STYLE M216



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.140/3,56		J	.700/17,78	
B	.110/2,80		K	.386/9,80	
C	.110/2,80		L	.900/22,86	
D	.395/10,03	.407/10,34	M	.120/3,05	
E	.193/4,90		N	.500/12,70	
F		.230/5,84	O	.050/1,27	
G	.003/0,08	.006/0,15	P		.170/4,32
H	.118/3,00	.131/3,33	Q	.062/1,58	
I	.063/1,60				