



**THE DATASHEET OF  
MS2473**





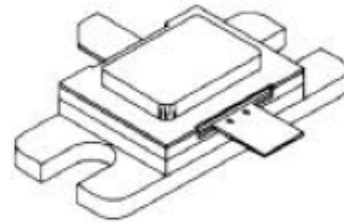
# MS2473

600 Watts, 50 Volts, Pulsed  
Avionics 1090 MHz

## GENERAL DESCRIPTION

The MS2473 is a high power COMMON BASE bipolar transistor. It is designed for pulsed systems in the 1090MHz frequency band. The device has gold thin-film metallization for proven highest MTTF. Low thermal resistance packaging reduces the junction temperature and extends device lifetime.

## CASE OUTLINE M112



**.400 x .500 2LFL (M112)**  
hermetically sealed

## ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C<sup>2</sup> 2300 Watts

### Maximum Voltage and Current

BVcbo Collector to Base Voltage 65 Volts  
BVebo Emitter to Base Voltage 3.5 Volts  
Ic Collector Current 46 Amps

### Maximum Temperatures

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

## ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P <sub>out</sub>	Power Out	F = 1090 MHz	600			Watts
P <sub>in</sub>	Power Input = 150W	V <sub>cc</sub> = 50 Volts		150		Watts
P <sub>g</sub>	Power Gain	PW = 10 μsec	6.0			dB
η <sub>c</sub>	Collector Efficiency	DF = 1%	35			%
RL <sub>IN</sub>	Input Return Loss	F = 1090 MHz	10			dB

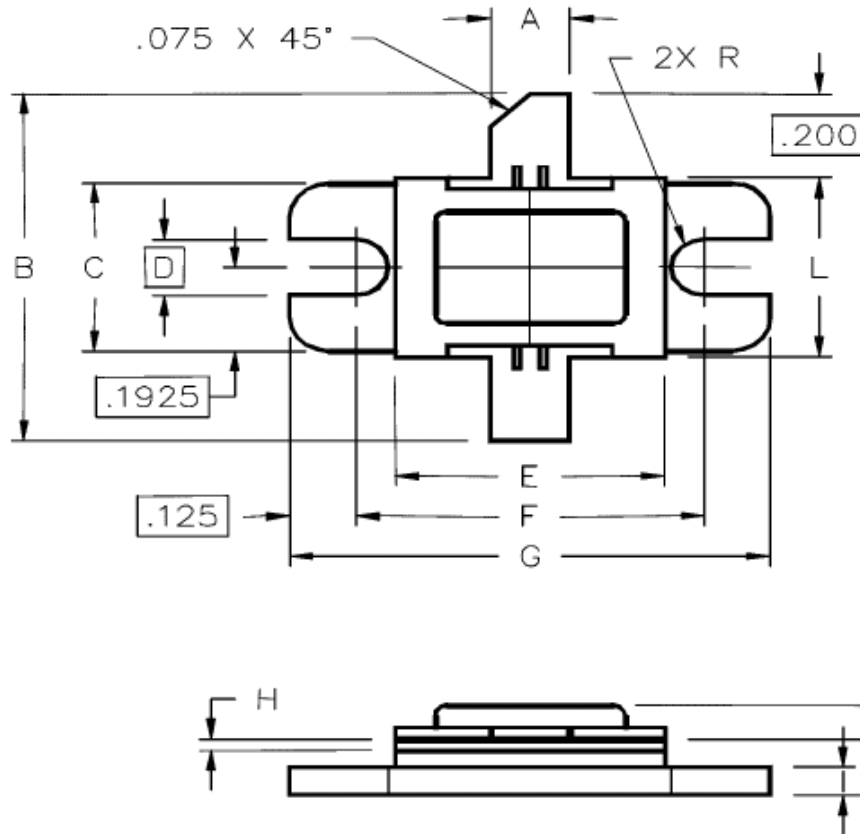
BVebo	Emitter to Base Breakdown	I <sub>e</sub> = 10 mA	3.5			Volts
BVcbo	Collector to Base Breakdown	I <sub>c</sub> = 25 mA	65			Volts
I <sub>ces</sub>	Collector to Emitter Leakage	V <sub>ce</sub> = 50V			35	mA
h <sub>FE</sub>	DC - Current Gain	V <sub>ce</sub> = 5V, I <sub>c</sub> = 1A	5		200	
Θ <sub>jc</sub> <sup>2</sup>	Thermal Resistance			0.06		C/W

Note 1: At rated output power and pulse conditions

2: At rated pulse conditions

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**PACKAGE STYLE M112**


	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.145/3,68	.155/3,93	I	.055/1,40	.065/1,65
B	.750/19,05		J	.115/2,92	.135/3,43
C	.380/9,65	.390/9,91	K		.230/5,64
D	.130/3,30		L	.395/10,03	.410/10,41
E	.495/12,57	.505/12,83			
F	.640/16,26	.655/16,64			
G	.890/22,61	.910/23,11			
H	.002/0,05	.006/0,15			

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