



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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DESCRIPTION

The MS2552 device is a high power pulsed transistor specifically designed for DME/TACAN avionics applications.

This device is capable of withstanding an infinite load VSWR at any phase angle under full rated conditions. Low RF thermal resistance and semi-automatic bonding techniques ensure high reliability and product consistency.

The MS2552 is housed in the industry-standard AMPAC™ metal/ceramic hermetic package with internal input/output matching structures.

IMPORTANT: For the most current data, consult MICROSEMI's website: <http://www.microsemi.com>

KEY FEATURES

- Refractory/Gold Metallization
- Emitter Ballasted
- Ruggedized VSWR ∞ :1 Capability
- Input/Output Matching
- Overlay Geometry
- Metal/Ceramic Hermetic Package
- $P_{OUT} = 325$ W Min.
- $G_p = 6.7$ dB Gain

APPLICATIONS/BENEFITS

- Avionics Applications

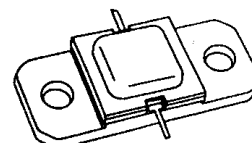
ABSOLUTE MAXIMUM RATINGS (T_{CASE} = 25°C)

Symbol	Parameter	Value	Unit
P_{DISS}	Power Dissipation* (T _C ≤ 100°C)	880	W
I_C	Device Current*	24	A
V_{CC}	Collector-Supply Voltage*	55	V
T_J	Junction Temperature (Pulsed RF Operation)	250	°C
T_{STG}	Storage Temperature	-65 to +150	°C

THERMAL DATA

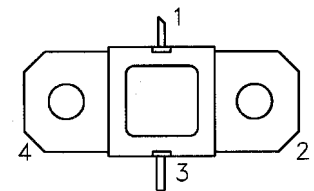
$R_{TH(j-c)}$	Junction-Case Thermal Resistance	0.17	°C/W
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Applies only to rated RF amplifier operation



**.400 X .400 2NLFL
hermetically sealed**

PIN CONNECTION



- 1. Collector
- 2. Base
- 3. Emitter
- 4. Base

STATIC ELECTRICAL SPECIFICATIONS (T_{CASE} = 25°C)

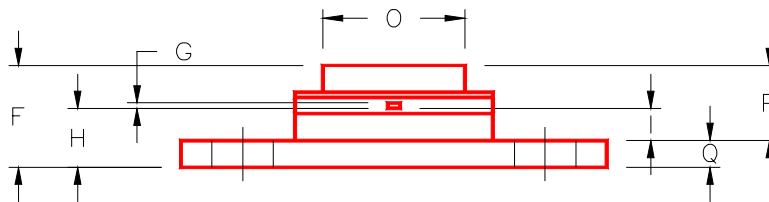
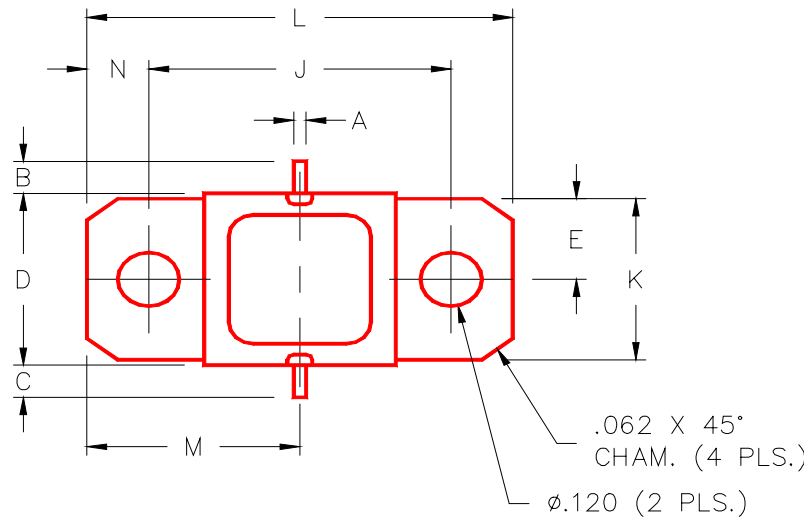
Symbol	Test Conditions		MS2552			Units
			Min.	Typ.	Max.	
BV_{CBO}	I_C = 10 mA	I_E = 0 mA	65	—	—	V
BV_{EBO}	I_E = 1 mA	I_C = 0 V	3.5	—	—	V
BV_{CER}	I_C = 25 mA	R_{BE} = 10 Ω	65	—	—	V
I_{CES}	V_{BE} = 0 V	v_{CE} = 50 V	—	—	25	mA
h_{FE}	V_{CE} = 5 V	I_C = 1 A	15	—	120	—

DYMANIC ELECTRICAL SPECIFICATIONS (T_{CASE} = 25°C)

Symbol	Test Conditions				MS2575			Units
					Min.	Typ.	Max.	
P_{OUT}	f = 1025 – 1150 MHz	P_{IN} = 70 W	V_{CC} = 50 V	325	360	—	W	
η_c	f = 1025 – 1150 MHz	P_{IN} = 70 W	V_{CC} = 50 V	40	41	—	%	
G_p	f = 1025 – 1150 MHz	P_{IN} = 70 W	V_{CC} = 50 V	6.7	7.1	—	dB	

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

PACKAGE STYLE M218



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.025/0,64		J	.650/16,51	
B	.100/2,54		K	.386/9,80	
C	.100/2,54		L	.900/22,86	
D	.395/10,03	.407/10,34	M	.450/11,43	
E	.193/4,90		N	.125/3,18	
F		.230/5,84	O	.405/10,29	
G	.004/0,10	.007/0,18	P		.170/4,32
H	.118/3,00	.131/3,33	Q	.062/1,58	
I	.063/1,60				



MS2552

RF & MICROWAVE TRANSISTORS

PRODUCT PREVIEW

www.Microsemi.com

NOTES