



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!



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

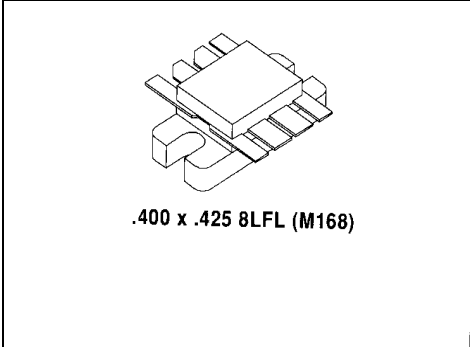


MS1509

**RF & MICROWAVE TRANSISTORS
TV/LINEAR APPLICATIONS**

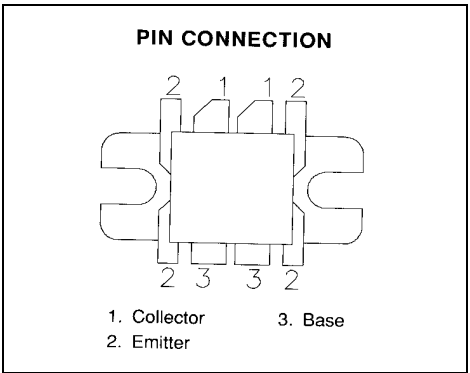
Features

- 500 MHz
- 28 VOLTS
- P_{OUT} = 100 WATTS
- G_P = 5.5 dB GAIN MINIMUM
- EFFICIENCY 55%
- GOLD METALLIZATION
- COMMON EMITTER CONFIGURATION



DESCRIPTION:

The MS1509 is a 28 V gold metallized, Class C epitaxial silicon NPN planar transistor designed for UHF military and commercial equipment. The MS1508 is an internally matched, broadband device optimized for operation within the 100 – 500 MHz frequency range. This device utilizes diffused emitter resistors to achieve 5:1 VSWR load mismatch capability at rated operating conditions.



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

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	60	V
V _{CEO}	Collector-Emitter Voltage	33	V
V _{CES}	Collector-Emitter Voltage	60	V
V _{EBO}	Emitter-Base Voltage	4.0	V
I _C	Device Current	15	A
P _{DISS}	Power Dissipation	260	W
T _J	Junction Temperature	+200	°C
T _{STG}	Storage Temperature	-65 to +150	°C

Thermal Data

R _{TH(J-C)}	Thermal Resistance Junction-case	0.67	°C/W
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ELECTRICAL SPECIFICATIONS (T_{case} = 25 °C)
STATIC

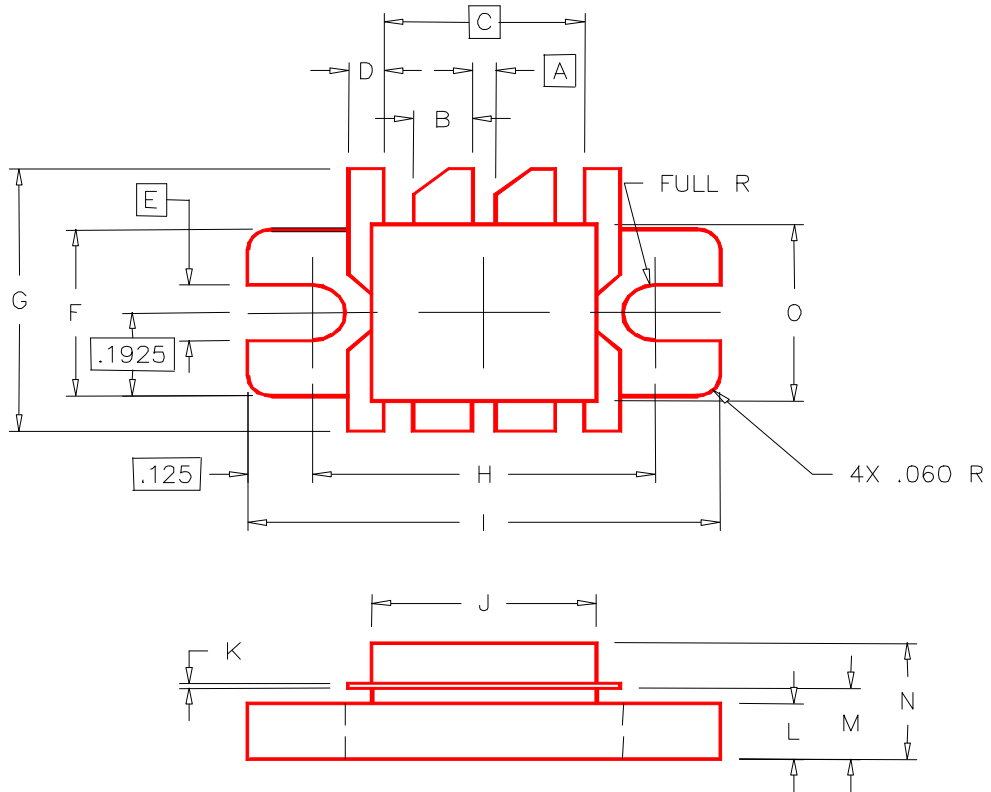
Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CBO}	I_C = 100 mA	I_E = 0 mA	60	---	---	V
BV_{CES}	I_C = 80 mA	V_{BE} = 0 V	60	---	---	V
BV_{CEO}	I_C = 50 mA	I_B = 0 mA	33	---	---	V
BV_{EBO}	I_E = 20 mA	I_C = 0 mA	4.0	---	---	V
I_{CBO}	V_{CB} = 30 V	I_E = 0 mA	---	---	10	mA
HFE	V_{CE} = 5 V	I_C = 1 mA	20	---	---	---

DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P_{OUT}	f = 500 MHz	P_{IN} = 28.2 W	V_{CC} = 28 V	100	---	---	W
G_P	f = 500 MHz	P_{IN} = 28.2 W	V_{CC} = 28 V	5.5	---	---	dB
η_C	f = 500 MHz	P_{IN} = 28.2 W	V_{CC} = 28 V	55	---	---	%

PACKAGE MECHANICAL DATA

PACKAGE STYLE M168



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.030/0,76		I	.895/22,73	.905/22,99
B	.115/2,92	.125/3,18	J	.420/10,67	.430/10,92
C	.360/9,14		K	.003/0,08	.007/0,18
D	.065/1,65	.075/1,91	L	.120/3,05	.130/3,30
E	.130/3,30		M	.159/4,04	.175/4,45
F	.380/9,65	.390/9,91	N		.280/7,11
G	.735/18,67	.765/19,43	O	.395/10,03	.405/10,29
H	.645/16,38	.655/16,64			