

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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#### **MS1226**

# RF & MICROWAVE TRANSISTORS HF SSB APPLICATIONS

#### **Features**

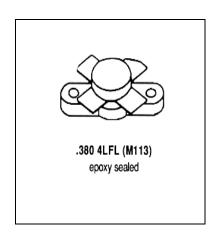
30 MHz 28 VOLTS

IMD = -28 dB

P<sub>OUT</sub> = 30 WATTS

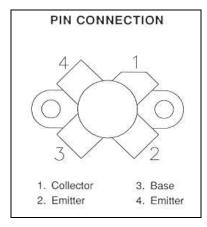
 $G_P = 18 dB MINIMUM$ 

**COMMON EMITTER CONFIGURATION** 



#### **DESCRIPTION:**

The MS1226 is a 28V epitaxial silicon NPN planar transistor designed primarily for SSB communications. This device utilizes emitter ballasting for improved ruggedness and reliability.



#### **ABSOLUTE MAXIMUM RATINGS**

Symbol	Paramete r	Value	J nit
$V_{\sf CBO}$	Co llector-base Voltage	65	V
V <sub>CEO</sub>	Co llector-emitter Voltage	36	V
$V_{EBO}$	Emit ter-Base Voltage	4.0	V
I <sub>C</sub> C	ev ice Current	4.5	Α
P <sub>DISS</sub>	Po wer Dissipation	80	W
T <sub>J</sub> .	u nction Temperature	+200	С
T <sub>STG</sub>	Storage Temperature	-65 to +150	С

#### **Thermal Data**

D	Junction-case Thermal Resistance	2.2	C/W
TH(J-C)	Junction-case Thermal Resistance	2.2	C/VV



MS1226

# ELECTRICAL SPECIFICATIONS (Tcase = $25^{\circ}$ C) static

Symbol	Test Conditions			Value		
			Min.	Тур.	Max.	Unit
BVcbo	I <sub>C</sub> = 200 mA	I <sub>E</sub> = 0 mA	65			V
BVces	I <sub>C</sub> = 200 mA	V <sub>BE</sub> = 0 V	65			V
BVceo	I <sub>C</sub> = 200 mA	I <sub>B</sub> = 0 mA	35			٧
BVebo	I <sub>E</sub> = 10 mA	I <sub>C</sub> = 0 mA	4.0			V
Icbo	V <sub>CB</sub> = 30 V	I <sub>E</sub> = 0 mA			1.0	mA
H <sub>FE</sub>	V <sub>CE</sub> = 5 V	I <sub>C</sub> = 500 mA	10		200	

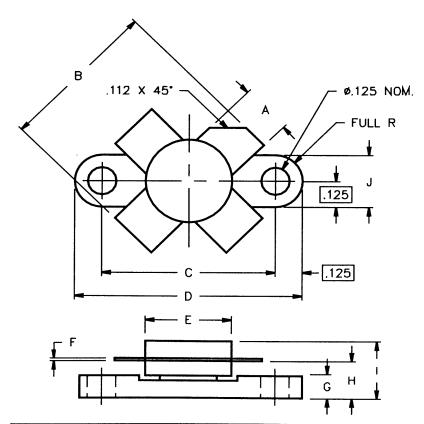
#### **DYNAMIC**

Symbol	Test Conditions		Value				
				Min.	Typ.	Max.	Unit
P <sub>OUT</sub>	f = 30 MHz	P <sub>IN</sub> = 0.48W	V <sub>CE</sub> = 28V	30			W
G <sub>P</sub>	f = 30 MHz	$P_{IN} = 0.48W$	V <sub>CE</sub> = 28V	18			dB
IMD	f = 30 MHz	$P_{IN} = 0.48W$	V <sub>CE</sub> = 28V			-28	dB <sub>c</sub>
Cob	f = 1 MHz	V <sub>CB</sub> = 30V				65	pf
Conditions	V <sub>CE</sub> = 28 V	I <sub>CQ</sub> = 25 mA					





### **PACKAGE MECHANICAL DATA**



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
Α	.220/5,59	.230/5,84	1		.260/7,11
В	.785/19,94		7	.240/6,10	.255/6,48
С	.720/18,29	.730/18,54			
D	.970/24,64	.980/24,89			
Ε		.385/9,78			
F	.004/0,10	.006/0,15			
G	.085/2,16	.105/2,67			
Н	.160/4,06	.180/4,57			