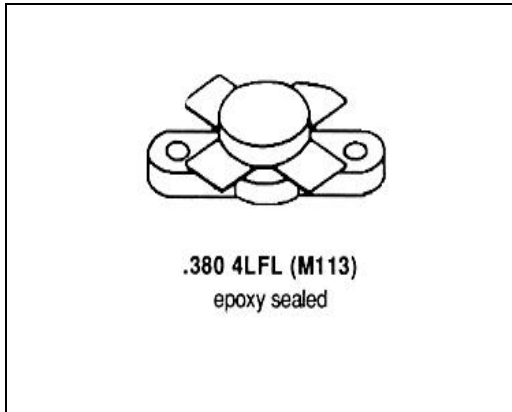


**MS1226**

**RF & MICROWAVE TRANSISTORS**  
**HF SSB APPLICATIONS**

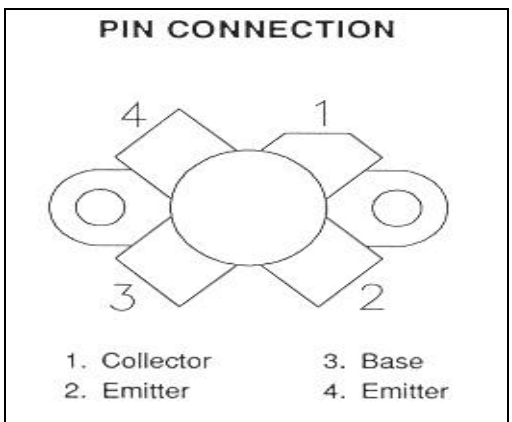
**Features**

- 30 MHz
- 28 VOLTS
- IMD = -28 dB
- P<sub>OUT</sub> = 30 WATTS
- G<sub>P</sub> = 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	Parameter	Value	Unit
V <sub>CBO</sub>	Collector-base Voltage	65	V
V <sub>CEO</sub>	Collector-emitter Voltage	36	V
V <sub>EBO</sub>	Emitter-Base Voltage	4.0	V
I <sub>C</sub>	Device Current	4.5	A
P <sub>DISS</sub>	Power Dissipation	80	W
T <sub>J</sub>	Junction Temperature	+200	°C
T <sub>STG</sub>	Storage Temperature	-65 to +150	°C

**Thermal Data**

R <sub>TH(J-C)</sub>	Junction-case Thermal Resistance	2.2	°C/W
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**MS1226**

**ELECTRICAL SPECIFICATIONS (Tcase = 25°C)**

**STATIC**

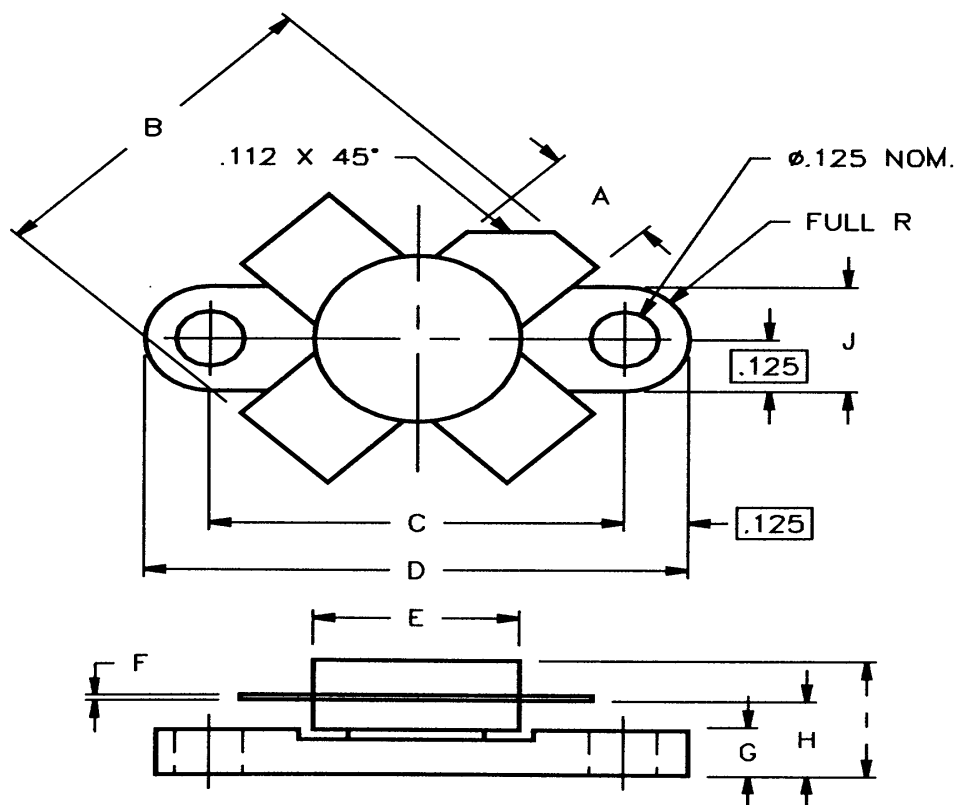
Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BVcbo	I <sub>C</sub> = 200 mA	I <sub>E</sub> = 0 mA	65	---	---	V
BVces	I <sub>C</sub> = 200 mA	V <sub>BE</sub> = 0 V	65	---	---	V
BVceo	I <sub>C</sub> = 200 mA	I <sub>B</sub> = 0 mA	35	---	---	V
BVebo	I <sub>E</sub> = 10 mA	I <sub>C</sub> = 0 mA	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			Unit
				Min.	Typ.	Max.	
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 <sub>IN</sub> = 0.48W	V <sub>CE</sub> = 28V	18	---	---	dB
IMD	f = 30 MHz	P <sub>IN</sub> = 0.48W	V <sub>CE</sub> = 28V	---	----	-28	dB <sub>c</sub>
Cob	f = 1 MHz	V <sub>CB</sub> = 30V		---	---	65	pf
Condition	V <sub>CE</sub> = 28 V	I <sub>CQ</sub> = 25 mA					

MS1226

**PACKAGE MECHANICAL DATA**



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