

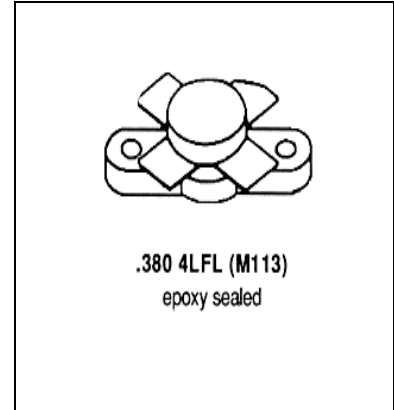


**THE DATASHEET OF**  
**MS1226**

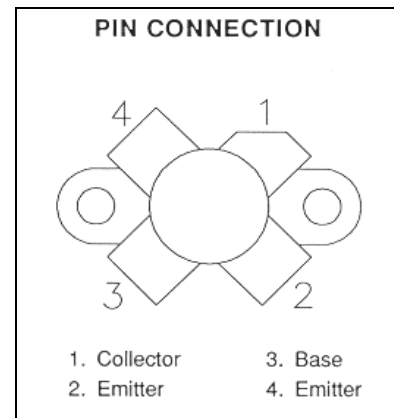


**MS1226**
**RF & MICROWAVE TRANSISTORS  
HF SSB APPLICATIONS**
**Features**

30 MHz  
 28 VOLTS  
 IMD = -28 dB  
 $P_{OUT} = 30$  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	Parameter	Value	Unit
$V_{CBO}$	Collector-base Voltage	65	V
$V_{CEO}$	Collector-emitter Voltage	36	V
$V_{EBO}$	Emitter-Base Voltage	4.0	V
$I_C$	Device Current	4.5	A
$P_{DISS}$	Power Dissipation	80	W
$T_J$	Junction Temperature	+200	C
$T_{STG}$	Storage Temperature	-65 to +150	C

**Thermal Data**

$R_{TH(J-C)}$	Junction-case Thermal Resistance	2.2	C/W
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## ELECTRICAL SPECIFICATIONS (T<sub>case</sub> = 25°C)

### STATIC

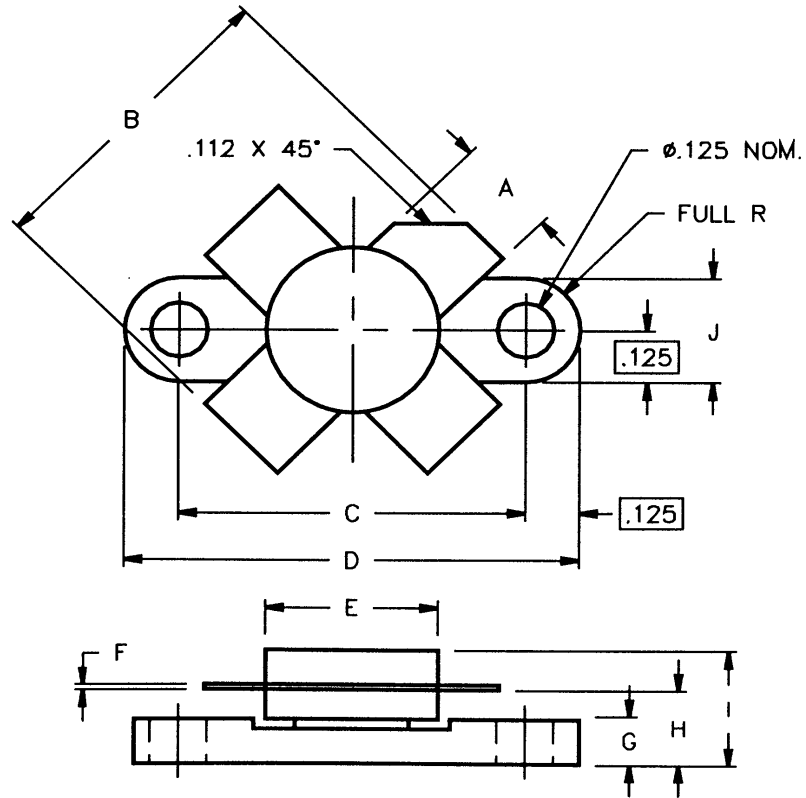
Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV <sub>cbo</sub>	I <sub>C</sub> = 200 mA	I <sub>E</sub> = 0 mA	65	---	---	V
BV <sub>ces</sub>	I <sub>C</sub> = 200 mA	V <sub>BE</sub> = 0 V	65	---	---	V
BV <sub>ceo</sub>	I <sub>C</sub> = 200 mA	I <sub>B</sub> = 0 mA	35	---	---	V
BV <sub>ebo</sub>	I <sub>E</sub> = 10 mA	I <sub>C</sub> = 0 mA	4.0	---	---	V
I <sub>cbo</sub>	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
Conditions	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			

## Looking for pricing, stock, or lifecycle information?

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