

MS1227

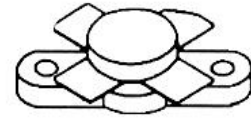
RF & MICROWAVE TRANSISTORS HF SSB APPLICATIONS

Features

- 30 MHz
- 12.5 VOLTS
- GOLD METALIZATION
- $P_{OUT} = 20$ W MINIMUM
- $G_P = 15$ dB
- COMMON EMITTER CONFIGURATION

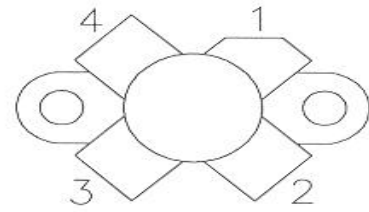
DESCRIPTION:

The MS1227 is a 12.5V epitaxial NPN planar transistor designed primarily for SSB communications. This device utilizes emitter ballasting for improved ruggedness and reliability.



.380 4LFL (M113)
epoxy sealed

PIN CONNECTION



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

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	36	V
V_{CEO}	Collector-Emitter Voltage	18	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_{case} = 25°C)

STATIC

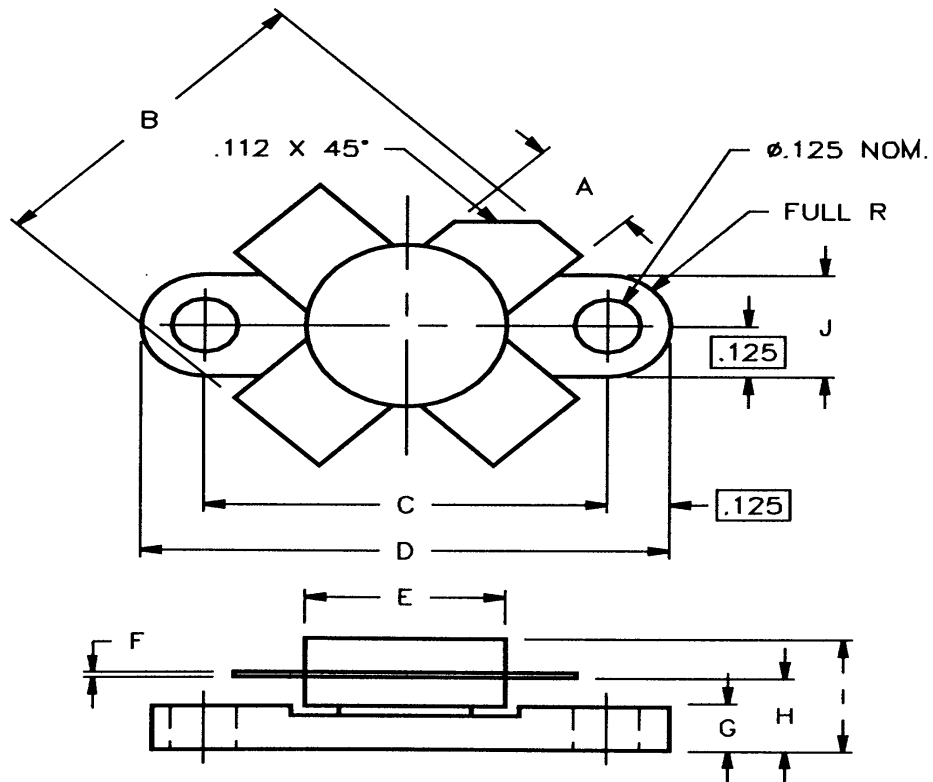
Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV _{cbo}	I _C = 50mA	I _E = 0mA	36	---	---	V
Bv _{ces}	I _C = 50mA	V _{BE} = 0V	36	---	---	V
Bv _{ceo}	I _C = 50mA	I _B = 0mA	18	---	---	V
Bvebo	I _E = 5mA	I _C = 0mA	4.0	---	---	V
I _{ces}	V _{CB} = 15V	I _E = 0mA	---	---	5	mA
H _{FE}	V _{CE} = 5V	I _C = 1A	10	---	200	---

DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P _{OUT}	f = 30MHz	V _{CC} = 12.5V	I _{CQ} = 25mA	20	---	---	W
G _p	f = 30MHz	V _{CC} = 12.5V	I _{CQ} = 25mA	15	---	---	dB
IMD	f = 30MHz	V _{CC} = 12.5V	I _{CQ} = 25mA	---	---	-30	dB
Cob	f = 1 MHz	V _{CB} = 30V		---	---	135	pf

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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			