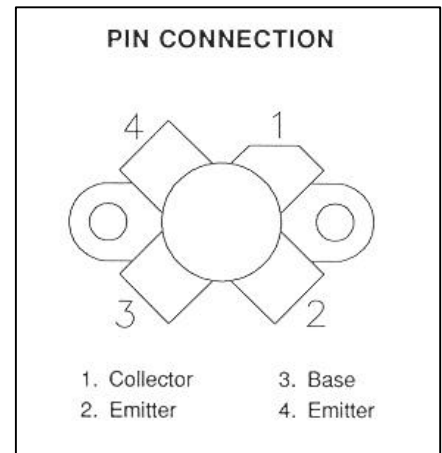
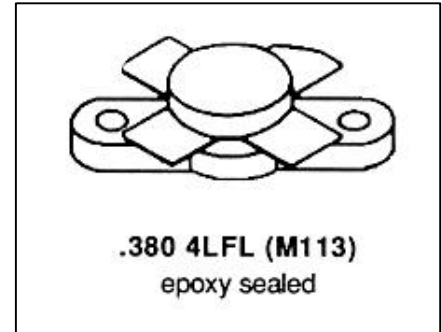


MS1408

RF AND MICROWAVE TRANSISTORS
108-152MHz APPLICATIONS

Features

- **FM CLASS C TRANSISTOR**
- **FREQUENCY 136MHz**
- **VOLTAGE 28V**
- **POWER OUT 20W**
- **POWER GAIN 8.2dB**
- **EFFICIENCY 55%**
- **COMMON EMITTER**



DESCRIPTION:

The MS1408 is a 28 volt epitaxial silicon NPN planar transistor designed for 108-152MHz AM class C and FM communications. This device utilizes diffused emitter resistors to achieve VSWR at rated operating conditions.

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

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	65	V
V _{CEO}	Collector-Emitter Voltage	35	V
V _{CES}	Collector-Emitter Voltage	65	V
V _{EBO}	Emitter-Base Voltage	4	V
I _C	Collector Current	3	A
P _{DISS}	Power Dissipation	30	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	5.83	°C/W
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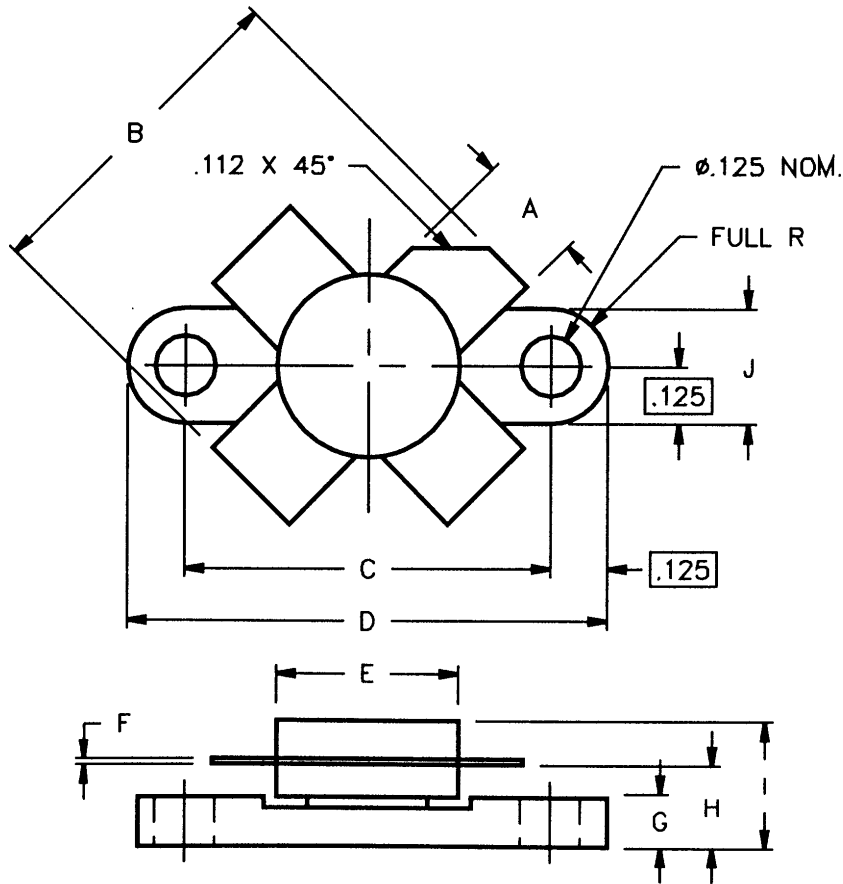
ELECTRICAL SPECIFICATIONS (T_{case} = 25°C)
STATIC

Symbol	Test Conditions	Value			Units
		Min.	Typ.	Max.	
BV_{CBO}	I_C = 200 mA I_E = 0 V	65			V
BV_{CES}	I_C = 200 mA V_{BE} = 0 V	65			V
BV_{CEO}	I_C = 200 mA I_B = 0 mA	35			V
BV_{EBO}	I_E = 10 mA I_C = 0 mA	4			V
I_{CBO}	V_{CB} = 30 V I_E = 0 V			1	mA
h_{FE}	V_{CE} = 5 V I_C = 200 mA	5			—

DYNAMIC

Symbol	Test Conditions	Value			Units
		Min.	Typ.	Max.	
P_{OUT}	f = 136 MHz V_{CE} = 28 V	20			W
G_{P*}	f = 136 MHz V_{CE} = 28 V	8.2			dB
C_{OB}	f = 1 MHz V_{CB} = 30 V I_E = 0 V			35	PF

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			