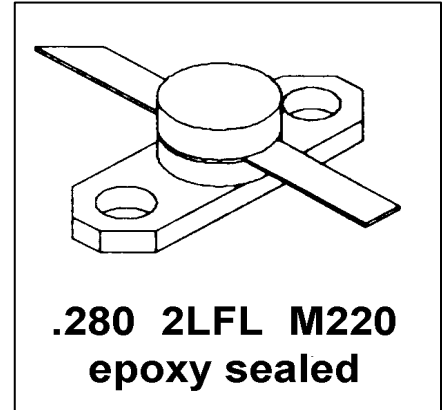
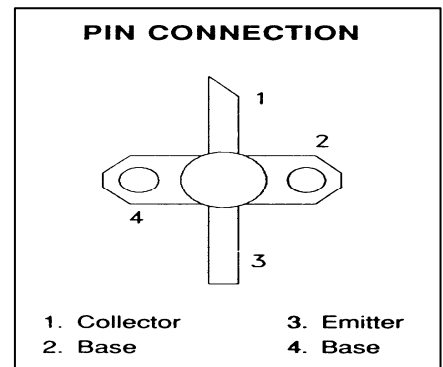


MSC1090M
**RF AND MICROWAVE TRANSISTORS
AVIONICS APPLICATIONS**
Features

- 1025-1150 MHz
- GOLD METALLIZATION
- INPUT MATCHED
- INFINITE VSWR CAPABILITY @ RATED CONDITIONS
- P_{OUT} = 90 W MINIMUM
- G_P = 8.4 dB


DESCRIPTION:

The MSC1090M is a medium power Class C transistor designed specifically for pulsed L-Band avionics applications. Low RF thermal resistance and emitter ballasting ensure high reliability and product consistency.


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

Symbol	Parameter	Value	Unit
P _{DISS}	Power Dissipation	220	W
V _{CBO}	Collector Base Voltage	65	V
V _{ces}	Collector Emitter Voltage	65	V
V _{ebo}	Emitter Base Voltage	3.5	V
T _J	Junction Temperature	200	°C
I _C	Device Current	5.52	A
T _{STG}	Storage Temperature	-65 to +150	°C

Thermal Data

R _{TH(j-c)}	Junction-Case Thermal Resistance	.8	°C/W
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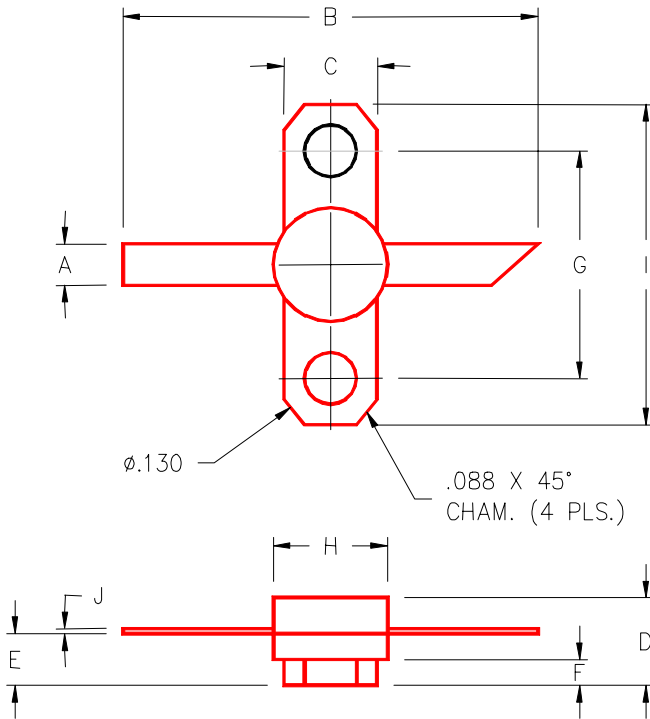
Revision A, January 2010

ELECTRICAL SPECIFICATIONS (T_{case} = 25°C)
STATIC

Symbol	Test Conditions		Value			Units
			Min.	Typ.	Max.	
BV_{CBO}	I_C = 10 mA	I_E = 0 mA	65	---	---	V
BV_{CER}	I_C = 10 mA	R_{BE} = 10Ω	65	---	---	V
BV_{EBO}	I_E = 1 mA	I_C = 0 mA	3.5	---	---	V
I_{CES}	V_{CE} = 50 V		---	---	6.25	mA
HFE	V_{CE} = 5 V	I_C = 500 mA	15	---	120	---

DYNAMIC

Symbol	Test Conditions			Value			Units
				Min.	Typ.	Max.	
P_{OUT}	f = 1025 - 1150 MHz	P_{IN} = 13W	V_{CE} = 50V	90	---	---	W
η_C	f = 1025 - 1150 MHz	P_{IN} = 13W	V_{CE} = 50V	35	---	---	%
G_P	f = 1025 - 1150 MHz	P_{IN} = 13W	V_{CE} = 50V	8.4	---	---	dB
Conditions	Pulse Width = 10 μs Duty Cycle = 1%						

MSC1090M
PACKAGE STYLE M220


	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.100/2,54		J	.003/0,08	.006/0,15
B	1.050/26,67				
C	.250/6,35				
D		.210/5,33			
E	.120/3,05	.130/3,30			
F	.062/1,58				
G	.562/14,28				
H		.285/7,24			
I	.800/20,32				