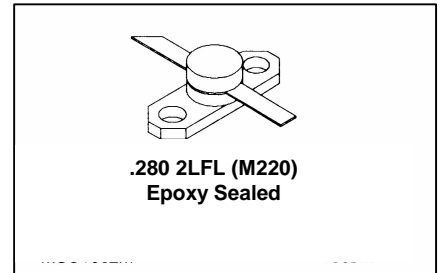


# MS2205

## RF & MICROWAVE TRANSISTORS AVIONICS APPLICATIONS

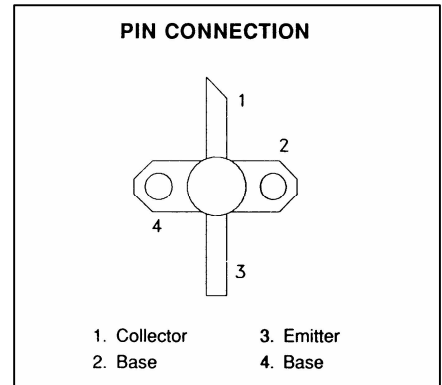
### Features

- 1025-1150 MHz
- GOLD METALLIZATION
- INFINITE VSWR CAPABILITY @ RATED CONDITIONS
- Pout = 4 W MINIMUM
- G<sub>p</sub>= 10 dB
- COMMON BASE CONFIGURATION



### DESCRIPTION:

The MS2205 is a common base, silicon NPN microwave transistor designed for Class C driver applications under DME or IFF pulse conditions. This device is capable of withstanding an infinite load VSWR at any phase angle under rated conditions.



### ABSOLUTE MAXIMUM RATINGS (T<sub>case</sub> = 25°C)

Symbol	Parameter	Value	Unit
P <sub>DISS</sub>	Power Dissipation	7.5	W
V <sub>CE</sub>	Collector-Emitter Bias Voltage	37	V
T <sub>J</sub>	Junction Temperature	200	°C
I <sub>c</sub>	Device Current	1.0	A
T <sub>STG</sub>	Storage Temperature	-65 to +200	°C

### Thermal Data

R <sub>TH(J-C)</sub>	Junction-case Thermal Resistance*	35	°C/W
----------------------	-----------------------------------	----	------

Revision 1

ELECTRICAL SPECIFICATIONS (T<sub>case</sub> = 25°C)

## STATIC

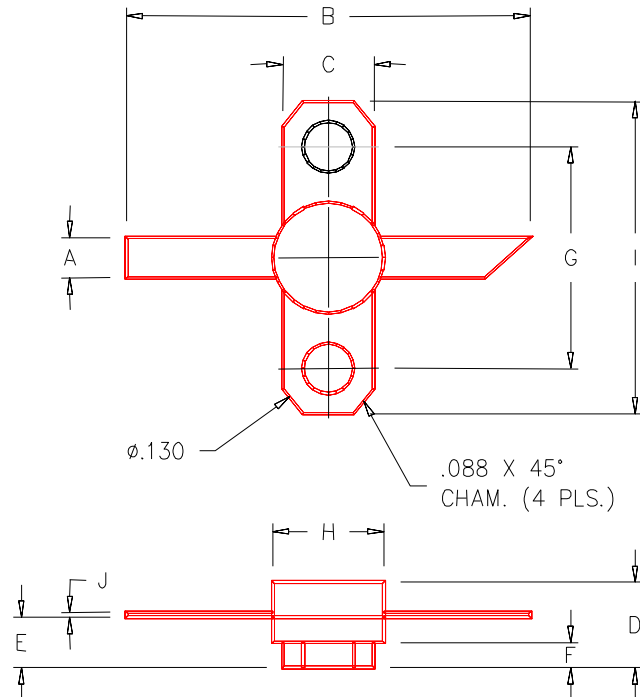
Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
<b>BV<sub>CBO</sub></b>	<b>I<sub>C</sub> = 1 mA</b>	<b>I<sub>E</sub> = 0 mA</b>	<b>45</b>	---	---	<b>V</b>
<b>BV<sub>CEO</sub></b>	<b>I<sub>C</sub> = 5 mA</b>	<b>I<sub>B</sub> = 0mA</b>	<b>20</b>	---	---	<b>V</b>
<b>BV<sub>EBO</sub></b>	<b>I<sub>E</sub> = 1.0 mA</b>	<b>I<sub>C</sub> = 0 mA</b>	<b>3.5</b>	---	---	<b>V</b>
<b>I<sub>CES</sub></b>	<b>V<sub>CE</sub> = 35 V</b>		---	---	<b>1.0</b>	<b>mA</b>
<b>HFE</b>	<b>V<sub>CE</sub> = 5 V</b>	<b>I<sub>C</sub> = 100 mA</b>	<b>20</b>	---	<b>120</b>	---

## DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
<b>P<sub>OUT</sub></b>	<b>f = 1025 - 1150 MHz</b>	<b>P<sub>IN</sub> = 400mW</b>	<b>V<sub>CE</sub> = 35V</b>	<b>4</b>	---	---	<b>W</b>
<b>G<sub>P</sub></b>	<b>f = 1025 - 1150 MHz</b>	<b>P<sub>IN</sub> = 400mW</b>	<b>V<sub>CE</sub> = 35V</b>	<b>10</b>	---	---	<b>dB</b>
<b>Conditions</b>	<b>Pulse Width = 10 μs    Duty Cycle = 1%</b>						

## PACKAGE MECHANICAL DATA

### 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				