



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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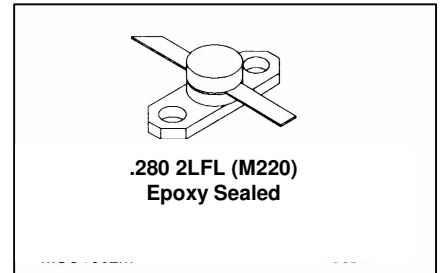


MS2205

RF & MICROWAVE TRANSISTORS AVIONICS APPLICATIONS

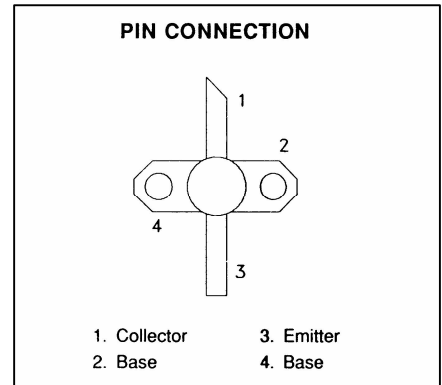
Features

- 1025-1150 MHz
- GOLD METALLIZATION
- INFINITE VSWR CAPABILITY @ RATED CONDITIONS
- Pout = 4 W MINIMUM
- G_p= 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_{case} = 25°C)

| Symbol | Parameter | Value | Unit |
|-------------------|--------------------------------|-------------|------|
| P _{DISS} | Power Dissipation | 7.5 | W |
| V _{CE} | Collector-Emitter Bias Voltage | 37 | V |
| T _J | Junction Temperature | 200 | °C |
| I _c | Device Current | 1.0 | A |
| T _{STG} | Storage Temperature | -65 to +200 | °C |

Thermal Data

| | | | |
|----------------------|-----------------------------------|----|------|
| R _{TH(J-C)} | Junction-case Thermal Resistance* | 35 | °C/W |
|----------------------|-----------------------------------|----|------|

Revision 1

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

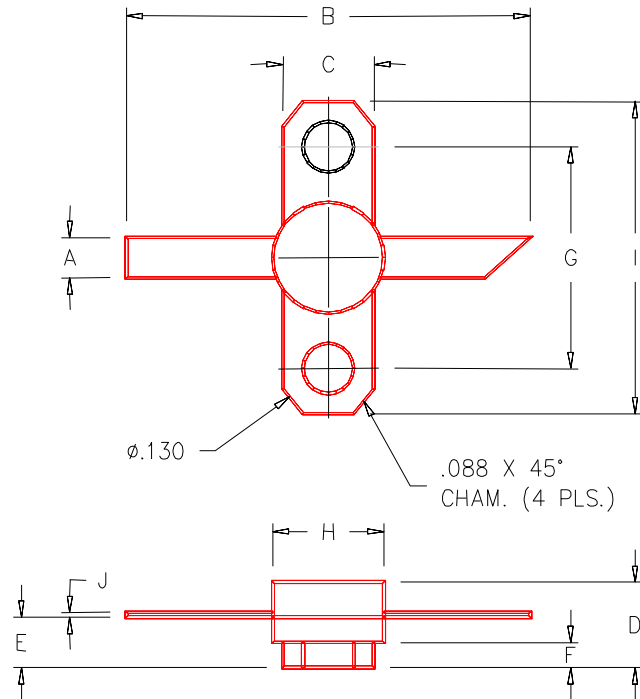
| Symbol | Test Conditions | | Value | | | Unit |
|-------------------------|-------------------------------|-------------------------------|------------|------|------------|-----------|
| | | | Min. | Typ. | Max. | |
| BV_{CBO} | I_C = 1 mA | I_E = 0 mA | 45 | --- | --- | V |
| BV_{CEO} | I_C = 5 mA | I_B = 0mA | 20 | --- | --- | V |
| BV_{EBO} | I_E = 1.0 mA | I_C = 0 mA | 3.5 | --- | --- | V |
| I_{CES} | V_{CE} = 35 V | | --- | --- | 1.0 | mA |
| HFE | V_{CE} = 5 V | I_C = 100 mA | 20 | --- | 120 | --- |

DYNAMIC

| Symbol | Test Conditions | | | Value | | | Unit |
|------------------------|--|-------------------------------|-----------------------------|-----------|------|------|-----------|
| | | | | Min. | Typ. | Max. | |
| P_{OUT} | f = 1025 - 1150 MHz | P_{IN} = 400mW | V_{CE} = 35V | 4 | --- | --- | W |
| G_P | f = 1025 - 1150 MHz | P_{IN} = 400mW | V_{CE} = 35V | 10 | --- | --- | dB |
| Conditions | Pulse Width = 10 μs Duty Cycle = 1% | | | | | | |

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 | | | | |