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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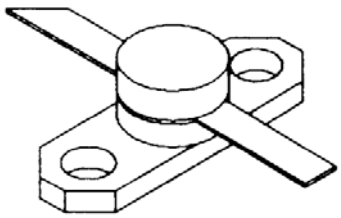
Microsemi
POWER PRODUCTS GROUP

MS2203

RF & MICROWAVE TRANSISTORS AVIONICS APPLICATIONS

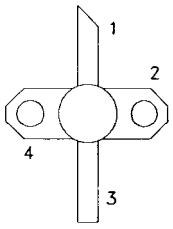


.280 2LFL M220
epoxy sealed

Features

- **1090 MHz**
- **18 VOLTS**
- **P_{OUT} = 0.6 WATTS**
- **G_P = 10.8 dB MINIMUM**
- **CLASS A OPERATION**
- **INFINITE VSWR CAPABILITY @ RATED CONDITIONS**
- **COMMON EMITTER CONFIGURATION**

PIN CONNECTION



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

DESCRIPTION:

The MS2203 is a common emitter, silicon NPN, microwave transistor designed for Class A 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 (Tcase = 25°C)

Symbol	Parameter	Value	Unit
V_{CE}	Collector-Emitter	20	V
I_C	Collector Current	300	mA
P_D	Total Device Dissipation	5	W
T_J	Junction Temperature	200	°C
T_{stg}	Storage Temperature Range	-65 + 150	°C

Thermal Data

$R_{TH(J-C)}$	Thermal Resistance Junction-case	35	°C/W

Rev A January 2009

ELECTRICAL SPECIFICATIONS (Tcase = 25°C)

STATIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CEO}	I_C = 5.0 mA	I_B = 0 mA	20	---	---	V
BV_{CBO}	I_C = 1.0 mA	I_E = 0 mA	50	---	---	V
BV_{EBO}	I_E = 1.0 mA	I_C = 0 mA	3.5	---	---	V
I_{CES}	V_{CE} = 28 V		---	---	1.0	mA
h_{FE}	V_{CE} = 5.0 V	I_C = 100 mA	15	---	120	---

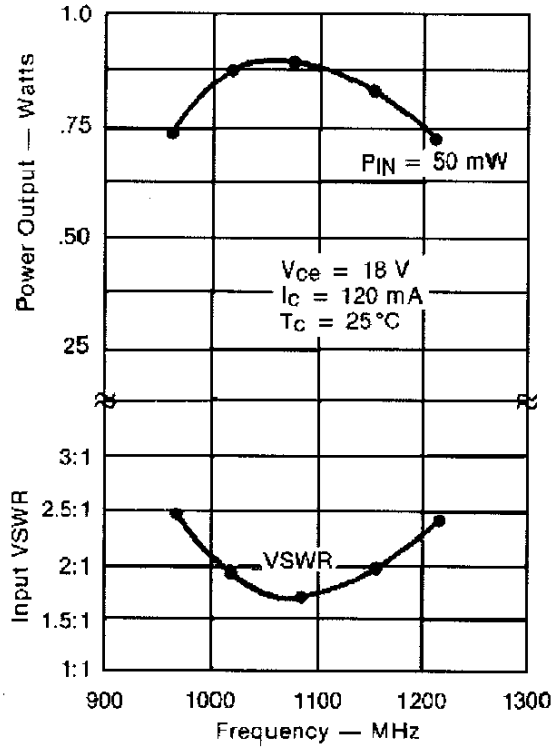
DYNAMIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
P_{OUT}	f = 1025 – 1150 MHz	P_{IN} = 50mW	0.6	0.85	---	W
G_{PE}	f = 1025 – 1150 MHz	P_{IN} = 50 mW	10.8	12.3	---	dB

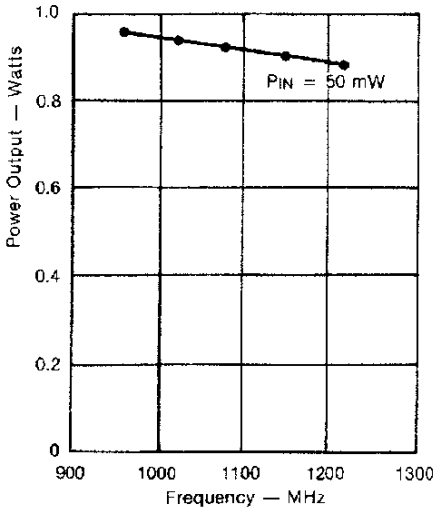
Conditions: V_{CE} = 18V
Icq = 120 mA

TYPICAL PERFORMANCE

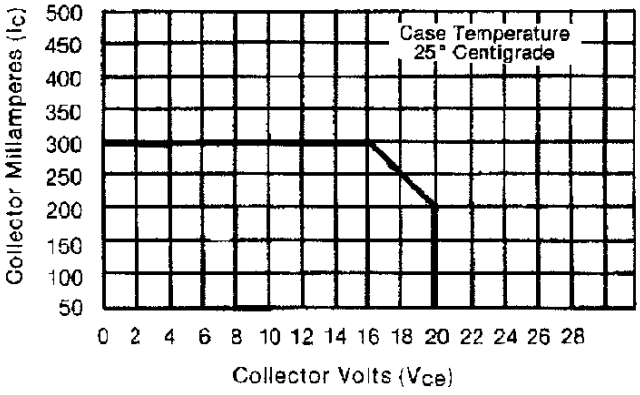
BROADBAND POWER AMPLIFIER



NARROWBAND POWER OUTPUT vs FREQUENCY

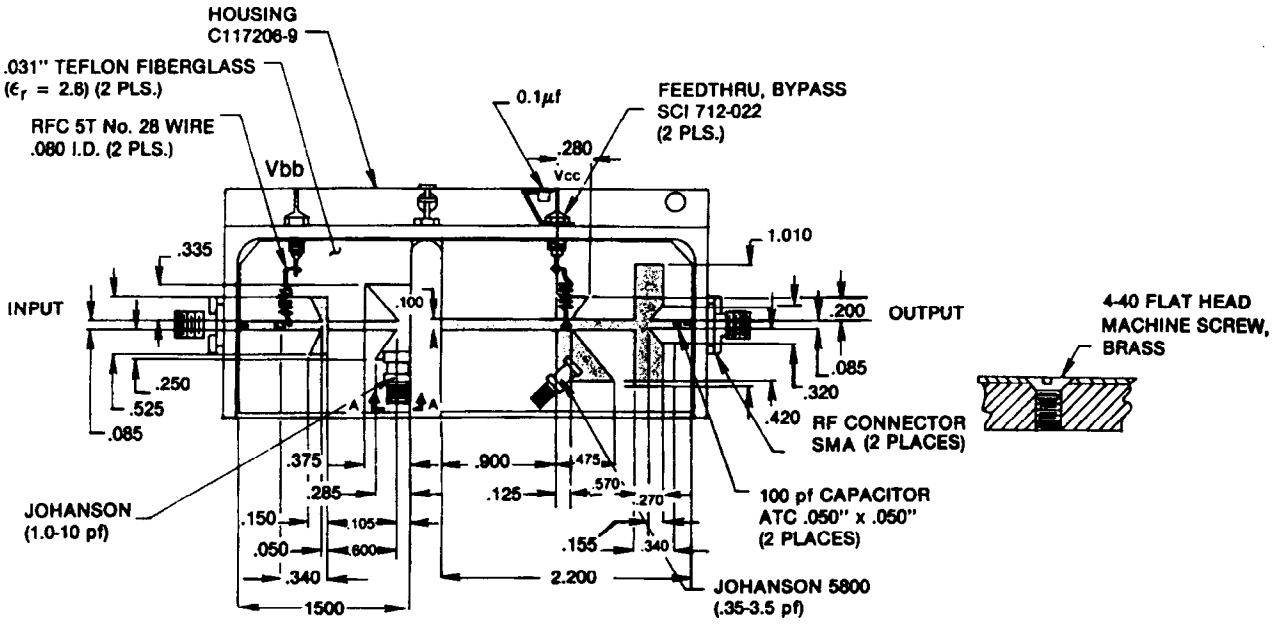


MAXIMUM OPERATING AREA for FORWARD BIAS OPERATION



TEST CIRCUIT

Ref.: Dwg No. C127297



All dimensions are in inches.

Microsemi
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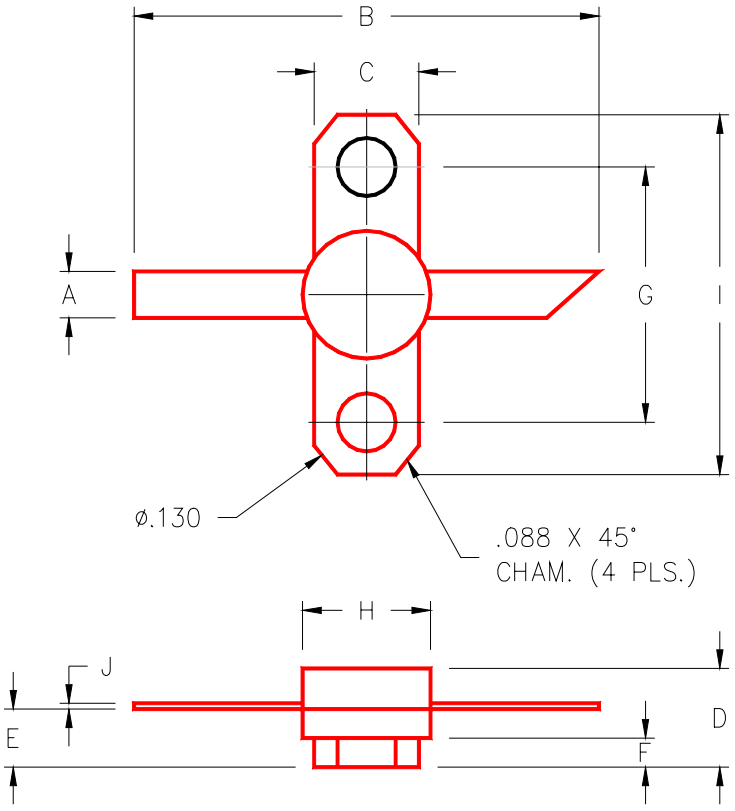
MS2203

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				