



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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MS2201

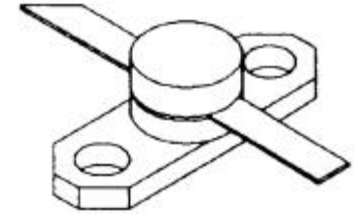
RF & MICROWAVE TRANSISTORS AVIONICS APPLICATIONS

Features

- 1025-1150 MHz
- GOLD METALLIZATION
- INFINITE VSWR CAPABILITY @ RATED CONDITIONS
- Pout = 2 W MINIMUM
- G_p = 9 dB

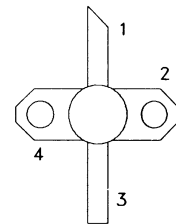
DESCRIPTION:

The MS2201 is a silicon NPN, Class C 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.



**.280 2LFL M220
epoxy sealed**

PIN CONNECTION



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

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

Symbol	Parameter	Value	Unit
P _{DISS}	Power Dissipation	10	W
V _{CC}	Collector-Supply Voltage	37	V
T _J	Junction Temperature	200	°C
I _C	Device Current	250	mA
T _{STG}	Storage Temperature	-65 to +200	°C

Thermal Data

R _{TH(J-C)}	Junction-case Thermal Resistance*	10	°C/W
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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_{CER}	I_C = 5 mA R_{BE} = 10Ω	45	---	---	V
BV_{EBO}	I_E = 1 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	30	---	300	---

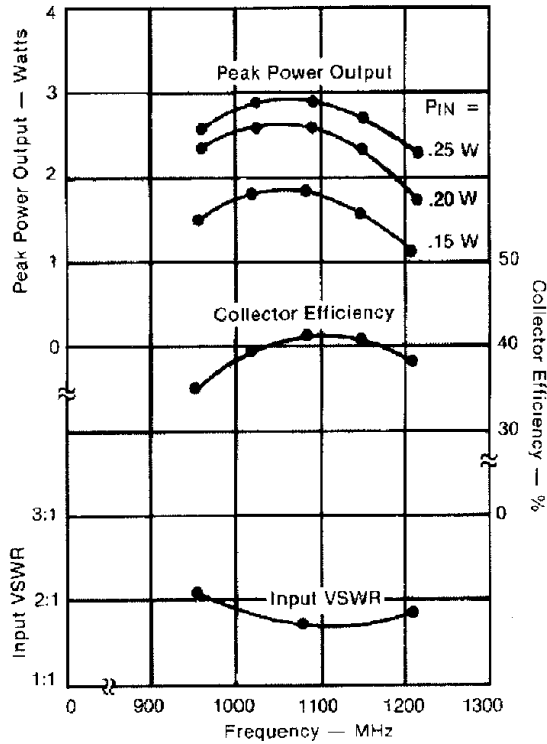
DYNAMIC

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
P_{OUT}	f = 1025 - 1150 MHz P_{IN} = 250mW V_{CE} = 35V	2	---	---	W
η_C	f = 1025 - 1150 MHz P_{IN} = 250mW V_{CE} = 35V	35	---	---	%
G_p	f = 1025 - 1150 MHz P_{IN} = 250mW V_{CE} = 35V	9	---	---	dB

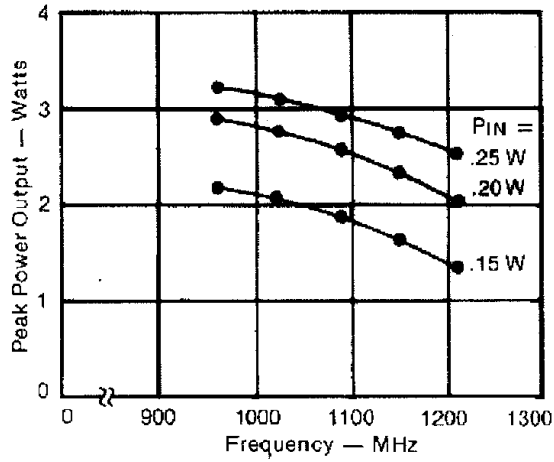
Conditions: Pulse Width = 10 μs Duty Cycle = 1%

TYPICAL PERFORMANCE

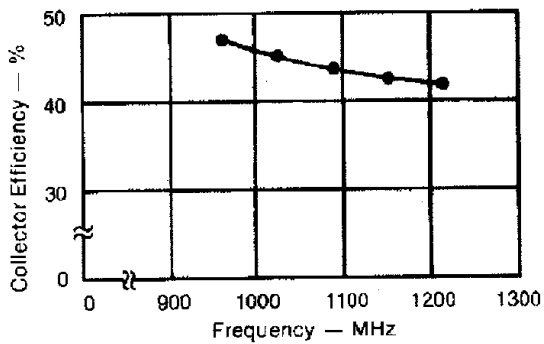
BROADBAND POWER AMPLIFIER



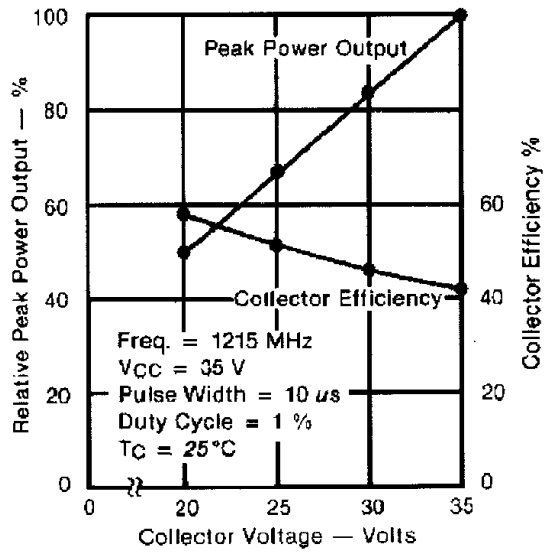
NARROWBAND PEAK POWER OUTPUT vs FREQUENCY



NARROWBAND COLLECTOR EFFICIENCY vs FREQUENCY



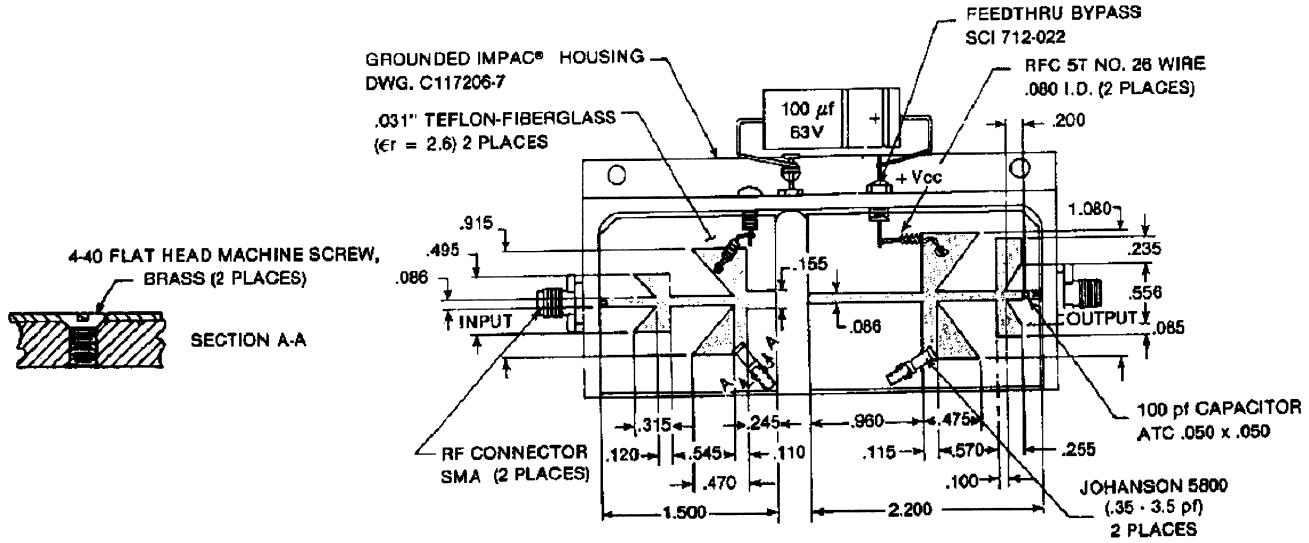
RELATIVE PEAK POWER OUTPUT & COLLECTOR EFFICIENCY vs COLLECTOR VOLTAGE



MS2201

TEST CIRCUIT

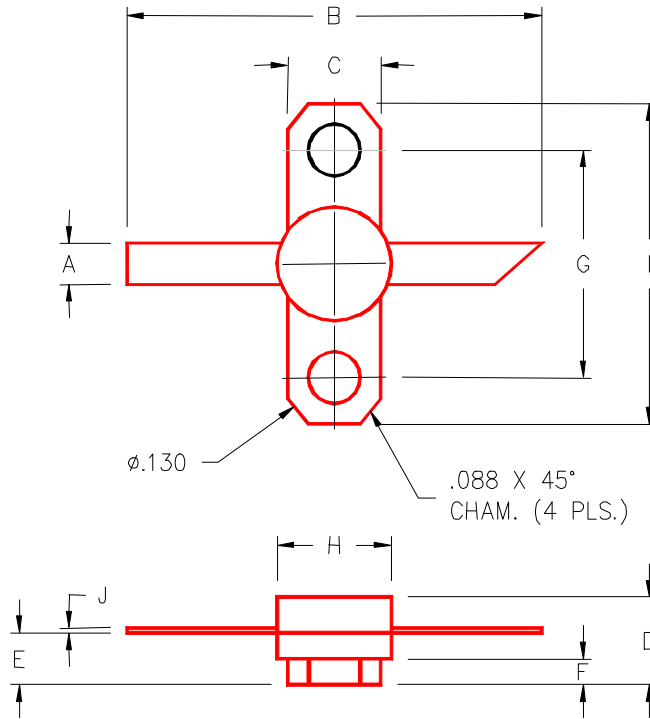
Ref.: Dwg. No. C127298



All dimensions are in inches.

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				