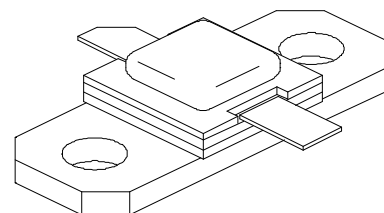


MS2211

RF & MICROWAVE TRANSISTORS AVIONICS APPLICATIONS

Features

- REFRACTORY/GOLD METALLIZATION
- EMITTER SITE BALLASTED
- 5:1 VSWR CAPABILITY
- LOW THERMAL RESISTANCE
- INPUT/OUTPUT MATCHING
- OVERLAY GEOMETRY
- METAL/CERAMIC HERMETIC PACKAGE
- $P_{OUT} = 6.0 \text{ W MIN. WITH } 9.3 \text{ dB Gain}$

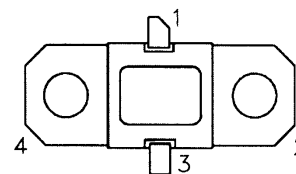


.310 x .310 2LFL
 hermetically sealed

DESCRIPTION:

The MS2211 is designed for specialized avionics applications, including JTIDS, where power is provided under pulse formats utilizing short pulse widths and high burst or overall duty cycles.

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 * (T _c ≤ 75°C)	25	W
I_c	Device Current *	0.9	A
V_{CC}	Collector - Supply Voltage *	32	V
T_J	Junction Temperature (Pulsed RF Operation)	250	°C
T_{STG}	Storage Temperature	- 65 to + 200	°C

Thermal Data

$R_{TH(j-c)}$	Junction-Case Thermal Resistance *	7.0	°C/W
---------------	------------------------------------	-----	------

* Applies only to rated RF amplifier operation

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

STATIC

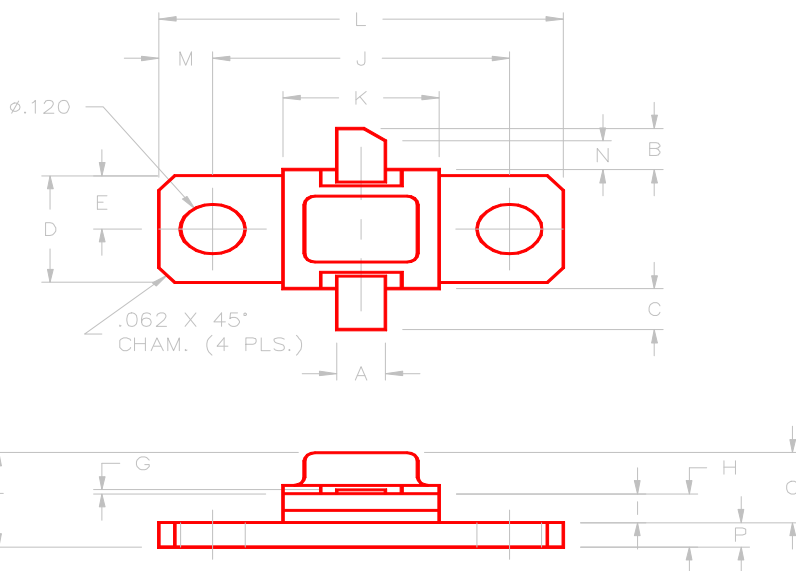
Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CBO}	I _C = 1 mA	I _E = 0 mA	48	----	----	V
BV_{EBO}	I _E = 1 mA	I _C = 0 mA	3.5	----	----	V
BV_{CER}	I _C = 5 mA	R _{BE} = 10Ω	48	----	----	V
I_{CES}	V _{BE} = 0V	V _{CE} = 28 V	----	----	0.5	mA
h_{FE}	V _{CE} = 5V	I _C = 250 mA	30	----	300	----

DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P_{OUT}	f = 960 - 1215 MHz	P _{IN} = 0.7 W	V _{CC} = 28 V	6.0	----	----	W
h_c	f = 960 - 1215 MHz	P _{IN} = 0.7 W	V _{CC} = 28 V	45	----	----	%
G_p	f = 960 - 1215 MHz	P _{IN} = 0.7 W	V _{CC} = 28 V	9.3	----	----	dB

Note: Pulse format: 6.4 μs on 6.6 μs off, repeat for 3.3 ms, then off for 4.5125 ms.
 Duty Cycle: Burst 49.2%, Overall 20.8%

PACKAGE MECHANICAL DATA



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.100/2,54		J	.562/14,28	
B	.110/2,80		K	.310/7,87	
C	.110/2,80		L	.800/20,32	
D	.296/7,52		M	.119/3,02	
E	.148/3,76		N	.050/1,27	
F		.230/5,84	O		.170/4,32
G	.003/0,08	.006/0,15	P	.062/1,58	
H	.118/3,00	.131/3,33			
I	.059/1,50				