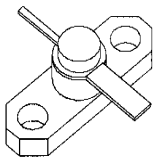
ADVANCED POWER TECHNOLOGY RF®

MS3011

RF & MICROWAVE TRANSISTORS
GENERAL PURPOSE LINEAR APPLICATIONS



.250 2LFL (M210)

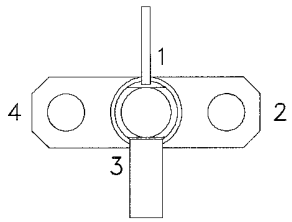
Features

- 2.0 GHz
- P_{OUT} = 30.0 dBm
- G_P = 7.0 dB MINIMUM
- 15:1 VSWR @ RATED CONDITIONS
- GOLD METALIZATION
- COMMON EMITTER CONFIGURATION

DESCRIPTION:

The MS3011 is a hermetically sealed NPN power transistor featuring a unique matrix structure. This device is specifically designed for Class A linear applications to provide high gain and high output power at the 1.0 dB compression point.

PIN CONNECTION



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

ABSOLUTE MAXIMUM RATINGS (Tcase = 25°C)

Symbol	Parameter	Value	Unit
P_{DISS}	Power Dissipation	5.5	W
V_{CE}	Collector-Emitter Bias Voltage	20	V
I_C	Device Current	500	mA
T_J	Junction Temperature	200	°C
T_{STG}	Storage Temperature	-65 to +200	°C

Thermal Data

$R_{TH(J-C)}$	Thermal Resistance Junction-case	17	°C/W

ELECTRICAL SPECIFICATIONS (Tcase = 25°C)

STATIC

Symbol	Test Conditions		Value			
			Min.	Typ.	Max.	Unit
BV_{CBO}	I_C = 1mA	I_E = 0mA	50	---	---	V
BV_{EBO}	I_E = 1mA	I_C = 0mA	3.5	---	---	V
BV_{CEO}	I_C = 5mA	I_B = 0mA	20	---	---	V
I_{CEO}	V_{CE} = 18V		---	---	1.0	mA
HFE	V_{CE} = 5V	I_C = 250mA	15	---	120	---

DYNAMIC

Symbol	Test Conditions			Value			
				Min.	Typ.	Max.	Unit
G_P	f = 2.0GHz	P_{OUT} = 30.0 dBm		7.0	---	---	dB
$+G_P$	f = 2.0GHz	P_{OUT} = 30.0 dBm	$+P_{OUT}$ = 10dB	---	---	1.0	dB
C_{OB}	f = 1 MHz	V_{CB} = 28V		---	---	5.0	pf
Conditions	V_{CE} = 18V	I_C = 220mA					

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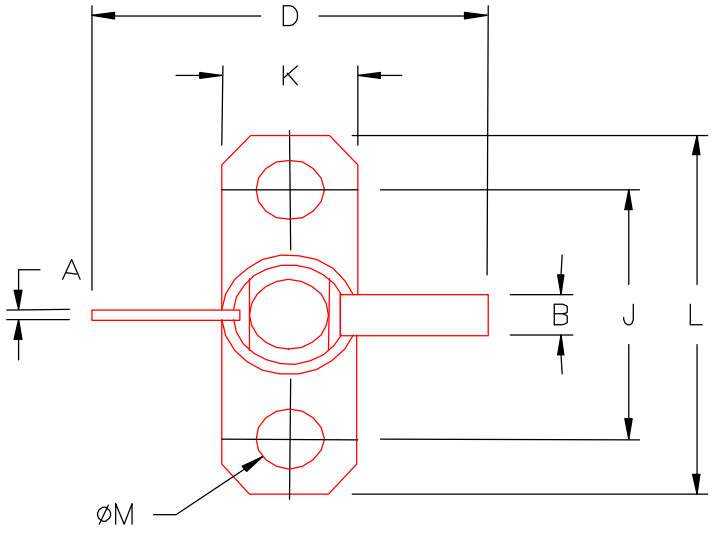
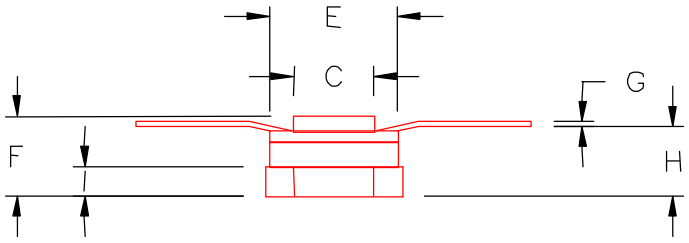
PACKAGE MECHANICAL DATA

PACKAGE STYLE M210





	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.028/0,71	.032/0,81	J	.115/2,92	.145/3,68
B	.110/2,80	.117/2,97	K	.245/6,22	.255/6,48
C	.165/4,19	.185/4,70	L	.790/20,07	.810/20,57
D	.740/18,80		M	.128/3,25	.132/3,35
E	.225/5,72	.235/5,97			
F	.149/2,30	.187/4,75			
G	.003/0,08	.007/0,18			
H	.117/2,97	.133/3,38			
I	.416/10,57	.465/11,81			