

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!



# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China









140 COMMERCE DRIVE MONTGOMERYVILLE, PA 18936-1013

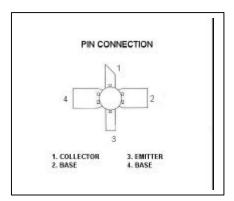
PHONE: (215) 631-9840 FAX: (215) 631-9855

### **MS2361**

# RF & MICROWAVE TRANSISTORS AVIONICS APPLICATIONS

#### Features

- DESIGNED FOR HIGH POWER PULSED IFF, DME, TACAN, APPLICATIONS
- 80 WATTS (typ.) IFF 1030 1090 MHz
- 75 WATTS (min.) DME 1025 1150 MHz
- 50 WATTS (typ.) TACAN 960 1215 MHz
- 7.6 dB MIN. GAIN
- REFRACTORY GOLD METALLIZATION
- EMITTER BALLASTING AND LOW THERMAL RESISTANCE FOR RELIABILITY AND RUGGEDNESS
- INFINITE LOAD VSWR CAPABILITY AT SPECIFIED OPERATING CONDITIONS
- INPUT MATCHED, COMMON BASE CONFIGURATION



.280 4LSL (M115)

epoxy sealed

### **DESCRIPTION:**

The MS2361 is a gold metallized silicon, NPN power transistor designed for applications requiring high peak power and low duty cycles such as IFF, DME and TACAN. The MS2361 is packaged in the 0.280" input matched stripline package resulting in improved broadband performance and a low thermal resistance.

## ABSOLUTE MAXIMUM RATINGS (Tcase = 25°C)

Symbol	Parameter	Value	Unit
V <sub>CBO</sub>	Collector-Base Voltage	65	V
V <sub>CES</sub>	Collector-Emitter Voltage	65	V
V <sub>EBO</sub>	Emitter-Base Voltage	3.5	V
Ic	Device Current	5.5	Α
P <sub>DISS</sub>	Power Dissipation	218.7	W
TJ	Junction Temperature	+200	°C
T <sub>STG</sub>	Storage Temperature	-65 to +150	°C

### Thermal Data

R <sub>TH(J-C)</sub> Jui	nction-case Thermal Resistance	0.8	°C/W
--------------------------	--------------------------------	-----	------



**MS2361** 

# ELECTRICAL SPECIFICATIONS (Tcase = 25°C)

### **STATIC**

Cumbal	Took Conditions		Value			
Symbol	Test Conditions		Min.	Тур.	Max.	Unit
BV <sub>CBO</sub>	I <sub>C</sub> = 10mA	I <sub>E</sub> = 0mA	65			٧
BV <sub>CES</sub>	I <sub>C</sub> = 25mA	$V_{BE} = 0V$	65			V
BV <sub>EBO</sub>	I <sub>E</sub> = 10mA	I <sub>C</sub> = 0mA	3.5			V
I <sub>CES</sub>	V <sub>CE</sub> = 50V	I <sub>E</sub> = 0mA			5	mA
h <sub>FE</sub>	V <sub>CE</sub> = 5V	I <sub>C</sub> = 100mA	10			

#### **DYNAMIC**

Symbol	ool Test Conditions		Value		
Syllibol			Тур.	Max.	Unit
P <sub>OUT</sub>	f =1025 - 1150 MHz	75			W
G <sub>P</sub>	$f = 1025 - 1150 \text{ MHz}$ $P_{IN} = 13.0 \text{W}$ $V_{CE} = 50 \text{V}$	7.6			dB

Note: Pulse Width = 10us, Duty Cycle = 1%

This device is suitable for use under other pulse width/duty cycle conditions.

Please contact the factory for specific application assistance.

### **IMPEDANCE DATA**

FREQ	<b>Z</b> <sub>IN</sub> (Ω)	$Z_{CL}(\Omega)$
960 MHz	2.5 + j 13.0	4.6 + j 5.5
1030 MHz	5.2 + j 15.0	5.0 + j 5.5
1090 MHz	16.3 + j 15.0	4.8 + j 5.5
1150 MHz	14.7 + j 2.5	4.7 – j 7.0
1215 MHz	7.6 + j 0.5	4.7 – j 5.0

 $\begin{array}{l} P_{IN}=13W \\ V_{CC}=50V \end{array}$ 

Pulse Width = 10uSec

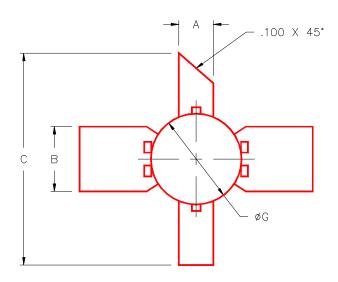
Duty Cycle = 1%

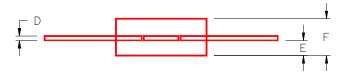




### PACKAGE MECHANICAL DATA

#### PACKAGE STYLE M115





	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
	INCHES/MM	INCHES/MM	INCHES/MM	INCHES/MM
Α	.095/2,41	.105/2,67		
В	.195/4,95	.205/5,21		
С	1.000/25,40			
D	.004/0,10	.007/0,18		
Ε	.050/1,27	.065/1,65		
F	.120/3,05	.135/3,43		
G	.275/6,99	.285/7,21		