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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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140 COMMERCE DRIVE MONTGOMERYVILLE, PA 18936-1013

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### **MS2341**

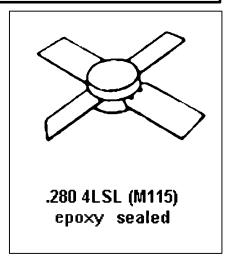
# RF & MICROWAVE TRANSISTORS AVIONICS APPLICATIONS

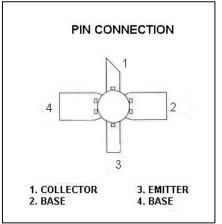
#### **Features**

- DESIGNED FOR HIGH POWER PULSED IFF, DME, AND TACAN APPLICATIONS
- 40 W (typ.) IFF 1030–1090 MHz
- 35 W (min.) DME 1025-1150 MHz
- 25 W (typ.) TACAN 960–1215 MHz
- 960 1215 MHz
- GOLD METALLIZATION
- Pout = 25 W MINIMUM
- Gp = 9.0 dB
- INTERNAL INPUT MATCHING
- INFINITE VSWR CAPABILITY @ RATED CONDITIONS
- COMMON BASE CONFIGURATION

## **DESCRIPTION:**

The MS2341 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 MS2341 utilizes internal impedance matching for improved broadband performance.





### 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	2.6	Α
P <sub>DISS</sub>	Power Dissipation	87.5	W
TJ	Junction Temperature	200	οC
T <sub>STG</sub>	Storage Temperature	-65 to +150	οC

#### Thermal Data

R <sub>TH(J-C)</sub>	Junction-case Thermal Resistance	2.0	°C/W
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MS2341

# ELECTRICAL SPECIFICATIONS (Tcase = 25°C)

# **STATIC**

Symbol	Test Conditions		Value			
Symbol	rest conditions		Min.	Тур.	Max.	Unit
BV <sub>CBO</sub>	I <sub>C</sub> = 20 mA	I <sub>E</sub> = 0 mA	60			V
BV <sub>CES</sub>	I <sub>C</sub> = 20 mA	V <sub>BE</sub> = 0 V	60			V
BV <sub>EBO</sub>	I <sub>E</sub> = 2.0 mA	$I_C = 0 \text{ mA}$	3.5			V
I <sub>CBO</sub>	V <sub>CB</sub> = 50 V	I <sub>E</sub> = 0 mA			2	mA

### **DYNAMIC**

Symbol	Test Conditions	Value			Unit
Symbol		Min.	Тур.	Max.	Offic
Pout	f = 1025 - 1150 MHz P <sub>IN</sub> = 5.6 W V <sub>CE</sub> = 50V	35			W
G <sub>P</sub>	f = 1025 - 1150 MHz P <sub>IN</sub> = 5.6 W V <sub>CE</sub> = 50V	9.0			dB

**Conditions:** 

Pulse Width = 10  $\mu$ s Duty Cycle = 1%

#### **IMPEDANCE DATA**

FREQ	$Z_IN(\Omega)$	$Z_{CL}(\Omega)$	
1025 MHz	2.7 + j9.1	16 - j5.8	
1090 MHz	2.9 + j9.8	11 - j3.9	
1150 MHz	2.8 + j11.7	11.4 - j4.7	



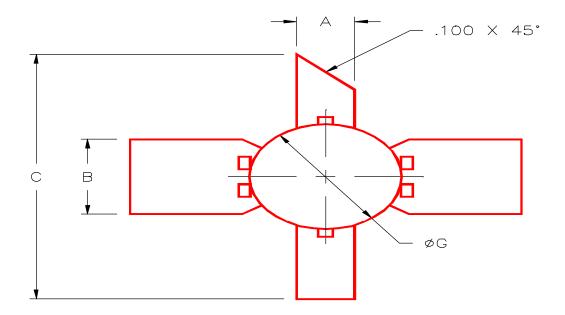
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### PACKAGE MECHANICAL DATA

### PACKAGE STYLE M 1 1 5





	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		
E	.050/1,27	.065/1,65		
F	.120/3,05	.135/3,43		
G	.275/6,99	.285/7,21		