



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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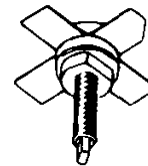


# MS1202

## RF & MICROWAVE TRANSISTORS FM MOBILE APPLICATIONS

### Features

- 175 MHz
- 12.5 VOLTS
- $P_{OUT} = 7.0 W$
- $G_P = 8.4 dB$  MINIMUM
- COMMON EMITTER CONFIGURATION

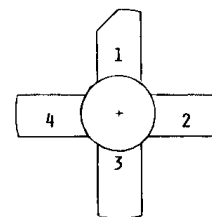


**.380 4LSTUD (M135)**  
epoxy sealed

### DESCRIPTION:

The MS1202 is a epitaxial silicon NPN transistor designed for 12.5 volt class C applications in the 118 – 136 MHz frequency band and 28 volt FM ground station applications. Gold metalization and emitter ballast resistors provide long term product ruggedness and reliability.

### PIN CONNECTION



1 collector  
2 emitter

3 base  
4 emitter

### ABSOLUTE MAXIMUM RATINGS ( $T_{case} = 25^{\circ}C$ )

Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector - Base Voltage	65	V
$V_{CEO}$	Collector - Emitter Voltage	35	V
$V_{EBO}$	Emitter - Base Voltage	4.0	V
$P_{DISS}$	Device Dissipation	15	W
$T_J$	Junction Temperature	200	$^{\circ}C$
$I_C$	Device Current	1.0	A
$T_{STG}$	Storage Temperature	-65 to +200	$^{\circ}C$

### Thermal Data

$R_{TH(J-C)}$	Thermal Resistance Junction-case	11.7	$^{\circ}C/W$
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Rev A January 2009

**ELECTRICAL SPECIFICATIONS (T<sub>case</sub> = 25°C)**
**STATIC**

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
<b>BV<sub>ces</sub></b>	<b>I<sub>C</sub> = 200 mA</b>	<b>V<sub>BE</sub> = 0 mA</b>	<b>65</b>	---	---	<b>V</b>
<b>BV<sub>ceo</sub></b>	<b>I<sub>C</sub> = 200 mA</b>	<b>I<sub>B</sub> = 0</b>	<b>35</b>	---	---	<b>V</b>
<b>BV<sub>ebo</sub></b>	<b>I<sub>E</sub> = 5 mA</b>	<b>I<sub>C</sub> = 0 mA</b>	<b>4</b>	---	---	<b>V</b>
<b>I<sub>cbo</sub></b>	<b>V<sub>CB</sub> = 30 V</b>	<b>I<sub>E</sub> = 0 mA</b>	---	---	<b>1.0</b>	<b>mA</b>
<b>H<sub>FE</sub></b>	<b>V<sub>CE</sub> = 5 V</b>	<b>I<sub>C</sub> = 100 mA</b>	<b>5</b>	---	<b>150</b>	---

**DYNAMIC**

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
<b>P<sub>OUT</sub></b>	<b>f = 175 MHz</b>	<b>V<sub>CE</sub> = 28V</b>	<b>7.0</b>	---	---	<b>W</b>
<b>G<sub>p</sub></b>	<b>f = 175 MHz</b>	<b>V<sub>CE</sub> = 28V</b>	<b>8.4</b>	---	---	<b>dB</b>
<b>η<sub>c</sub></b>	<b>f = 175 MHz</b>	<b>V<sub>CE</sub> = 28V</b>	<b>60</b>			<b>%</b>
<b>Cob</b>	<b>f = 1 MHz</b>	<b>V<sub>CE</sub> = 30V</b>	---	---	<b>15</b>	<b>pF</b>

## PACKAGE MECHANICAL DATA

