



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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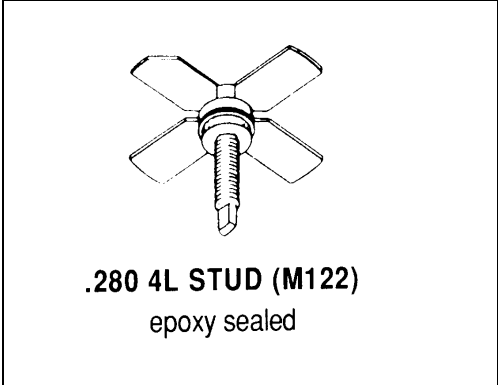
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MS1261

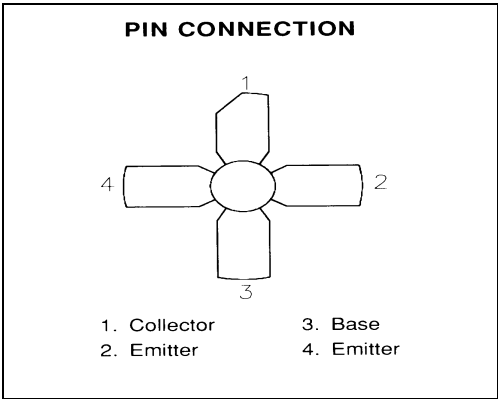
**RF & MICROWAVE TRANSISTORS  
VHF MOBILE APPLICATIONS**

- Features
- 175 MHz
- 12.5 VOLTS
- P<sub>OUT</sub> = 15 WATTS
- G<sub>p</sub> = 12 dB MINIMUM
- INPUT IMPEDANCE MATCHING
- COMMON EMITTER CONFIGURATION



**DESCRIPTION:**

The MS1261 is a Class C 12.5V epitaxial silicon NPN planar transistor designed primarily for UHF communications. This device utilizes a gold metallized, emitter ballasted die geometry for superior reliability and infinite VSWR capability.



**ABSOLUTE MAXIMUM RATINGS (T<sub>case</sub> = 25°C)**

Symbol	Parameter	Value	Unit
V <sub>CBO</sub>	Collector-Base Voltage	36	V
V <sub>CEO</sub>	Collector-Emitter Voltage	18	V
V <sub>CES</sub>	Collector-Emitter Voltage	36	V
V <sub>EBO</sub>	Emitter-Base Voltage	4.0	V
I <sub>C</sub>	Device Current	2.5	A
P <sub>DISS</sub>	Power Dissipation	34	W
T <sub>J</sub>	Junction Temperature	+200	°C
T <sub>STG</sub>	Storage Temperature	-65 to +150	°C

**Thermal Data**

R <sub>TH(J-C)</sub>	Thermal Resistance Junction-case	8.75	°C/W
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**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> = 50 mA</b> <b>V<sub>BE</sub> = 0V</b>	<b>36</b>	---	---	<b>V</b>
<b>BV<sub>CEO</sub></b>	<b>I<sub>C</sub> = 15 mA</b>	<b>18</b>	---	---	<b>V</b>
<b>BV<sub>EBO</sub></b>	<b>I<sub>E</sub> = 2.5 mA</b> <b>I<sub>C</sub> = 0mA</b>	<b>4.0</b>	---	---	<b>V</b>
<b>I<sub>CBO</sub></b>	<b>V<sub>CE</sub> = 15 V</b> <b>I<sub>E</sub> = 0mA</b>	---	---	<b>1</b>	<b>mA</b>
<b>H<sub>FE</sub></b>	<b>V<sub>CE</sub> = 5 V</b> <b>I<sub>C</sub> = 250mA</b>	<b>20</b>	---	<b>200</b>	---

**DYNAMIC**

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
<b>P<sub>OUT</sub></b>	<b>f = 175 MHz</b> <b>P<sub>IN</sub> = 1W</b> <b>V<sub>CE</sub> = 12.5V</b>	<b>15</b>	---	---	<b>W</b>
<b>η<sub>c</sub></b>	<b>f = 175 MHz</b> <b>P<sub>IN</sub> = 1W</b> <b>V<sub>CE</sub> = 12.5V</b>	<b>60</b>	---	---	<b>%</b>
<b>G<sub>p</sub></b>	<b>f = 175 MHz</b> <b>P<sub>IN</sub> = 1W</b> <b>V<sub>CE</sub> = 12.5V</b>	<b>12</b>	---	---	<b>dB</b>
<b>C<sub>OB</sub></b>	<b>f = 1 MHz</b> <b>V<sub>CB</sub> = 12.5V</b>	---	---	<b>45</b>	<b>pf</b>

**IMPEDANCE DATA**

FREQ	Z <sub>IN</sub> (Ω)	Z <sub>CL</sub> (Ω)
175 MHz	1.2 – j0.4	5.2 + j1.1

**P<sub>OUT</sub> = 15W**  
**V<sub>CC</sub> = 12.5V**

**PACKAGE MECHANICAL DATA**

