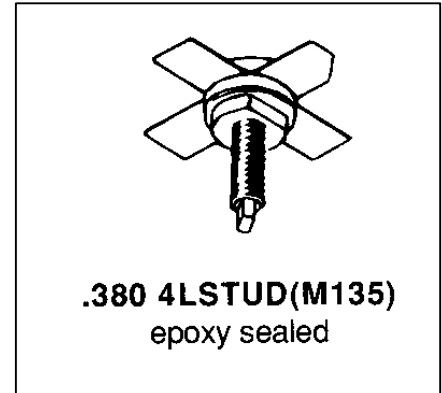


MS1252

**RF AND MICROWAVE TRANSISTORS**  
**HF - VHF COMMUNICATION APPLICATIONS**

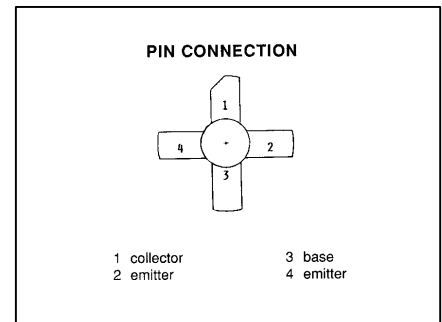
**Features**

- **FREQUENCY 160MHz**
- **VOLTAGE 13.6V**
- **COMMON EMITTER**
- **POWER OUT 40W**
- **POWER GAIN 9dB**



**DESCRIPTION:**

The MS1252 is especially designed for VHF large signal amplifier applications in industrial and commercial FM equipment operating up to 175 MHz. Ideally suited for marine radio applications.



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

Symbol	Parameter	Value	Unit
V <sub>CBO</sub>	<b>Collector-Base Voltage</b>	<b>36</b>	<b>V</b>
V <sub>CEO</sub>	<b>Collector-Emitter Voltage</b>	<b>18</b>	<b>V</b>
V <sub>EBO</sub>	<b>Emitter-Base Voltage</b>	<b>4</b>	<b>V</b>
I <sub>C</sub>	<b>Device Current</b>	<b>5</b>	<b>A</b>
P <sub>DISS</sub>	<b>Power Dissipation</b>	<b>70</b>	<b>W</b>
T <sub>J</sub>	<b>Junction Temperature</b>	<b>+ 200</b>	<b>°C</b>
T <sub>STG</sub>	<b>Storage Temperature</b>	<b>- 65 to + 150</b>	<b>°C</b>

**THERMAL DATA**

R <sub>TH(j-c)</sub>	<b>Junction-Case Thermal Resistance</b>	<b>2.5</b>	<b>°C/W</b>
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**ELECTRICAL SPECIFICATIONS (T<sub>case</sub> = 25°C)**
**STATIC**

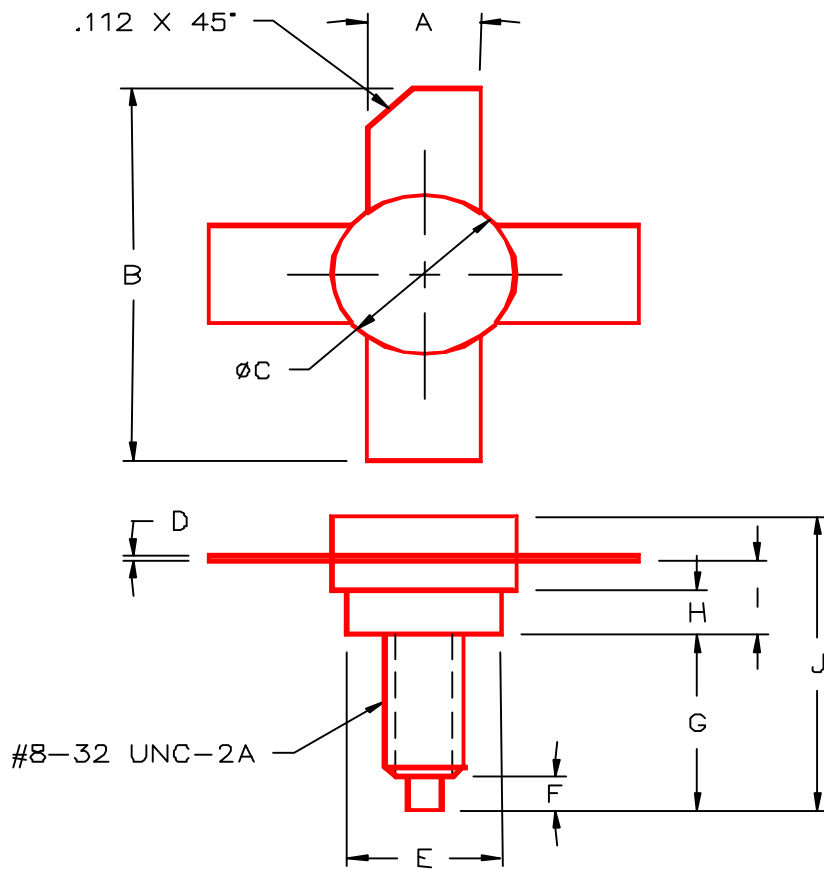
Symbol	Test Conditions		Value			Units
			Min.	Typ.	Max.	
<b>BV<sub>CBO</sub></b>	<b>I<sub>C</sub> = 5 mA</b>	<b>I<sub>E</sub> = 0 mA</b>	<b>36</b>	---	---	<b>V</b>
<b>BV<sub>CES</sub></b>	<b>I<sub>C</sub> = 50 mA</b>	<b>V<sub>BE</sub> = 0 V</b>	<b>36</b>	---	---	<b>V</b>
<b>BV<sub>CEO</sub></b>	<b>I<sub>C</sub> = 50 mA</b>	<b>I<sub>B</sub> = 0 mA</b>	<b>18</b>	---	---	<b>V</b>
<b>BV<sub>EBO</sub></b>	<b>I<sub>E</sub> = 10 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> = 15 V</b>	<b>I<sub>E</sub> = 0 mA</b>	---	---	<b>5</b>	<b>mA</b>
<b>h<sub>FE</sub></b>	<b>V<sub>CE</sub> = 5 V</b>	<b>I<sub>C</sub> = 5 A</b>	<b>20</b>	---	<b>200</b>	---

**DYNAMIC**

Symbol	Test Conditions			Value			Units
				Min.	Typ.	Max.	
<b>P<sub>OUT</sub></b>	<b>f = 160 MHz</b>	<b>P<sub>IN</sub> = 5 W</b>	<b>V<sub>CE</sub> = 50 V</b>	<b>40</b>			<b>W</b>
<b>G<sub>P*</sub></b>	<b>f = 160 MHz</b>	<b>P<sub>IN</sub> = 5 W</b>	<b>V<sub>CE</sub> = 50 V</b>	<b>9</b>			<b>dB</b>
<b>ç<sub>C*</sub></b>	<b>f = 160 MHz</b>	<b>P<sub>IN</sub> = 5 W</b>	<b>V<sub>CE</sub> = 50 V</b>	<b>55</b>			<b>%</b>
<b>C<sub>OB</sub></b>	<b>f = 1 MHz</b>		<b>V<sub>CB</sub> = 13.6 V</b>			<b>135</b>	<b>PF</b>

PACKAGE MECHANICAL DATA

PACKAGE STYLE M135



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.220/5,59	.230/5,84	I	.155/3,94	.175/4,45
B	.980/24,89		J		.750/19,05
C	.370/9,40	.385/9,78			
D	.004/0,10	.007/0,18			
E	.320/8,13	.330/8,38			
F	.100/2,54	.130/3,30			
G	.450/11,43	.490/12,45			
H	.090/2,29	.100/2,54			