

140 COMMERCE DRIVE MONTGOMERYVILLE, PA 18936-1013

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

## MS1252

# RF AND MICROWAVE TRANSISTORS HF - VHF COMMUNICATION APPLICATIONS

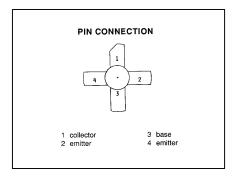
### **Features**

- 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 (Tcase = 25°C)

Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector-Base Voltage	36	V
$V_{\sf CEO}$	Collector-Emitter Voltage	18	V
V <sub>EBO</sub>	Emitter-Base Voltage	4	٧
Ic	Device Current	5	Α
P <sub>DISS</sub>	Power Dissipation	70	W
Τ <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>	Junction-Case Thermal Resistance	2.5	°C/W
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# ELECTRICAL SPECIFICATIONS (Tcase = 25°C)

### **STATIC**

Symbol	Test Conditions			Value		
			Min.	Тур.	Max.	Units
BV <sub>CBO</sub>	$I_C = 5 \text{ mA}$	$I_E = 0 \text{ mA}$	36			٧
BV <sub>CES</sub>	$I_C = 50 \text{ mA}$	$V_{BE} = 0 V$	36			٧
BV <sub>CEO</sub>	$I_C = 50 \text{ mA}$	$I_B = 0 \text{ mA}$	18			٧
BV <sub>EBO</sub>	$I_E = 10 \text{ mA}$	$I_C = 0 \text{ mA}$	4			٧
I <sub>CBO</sub>	V <sub>CB</sub> = 15 V	$I_E = 0 \text{ mA}$			5	mA
h <sub>FE</sub>	$V_{CE} = 5 V$	$I_C = 5 A$	20		200	

### **DYNAMIC**

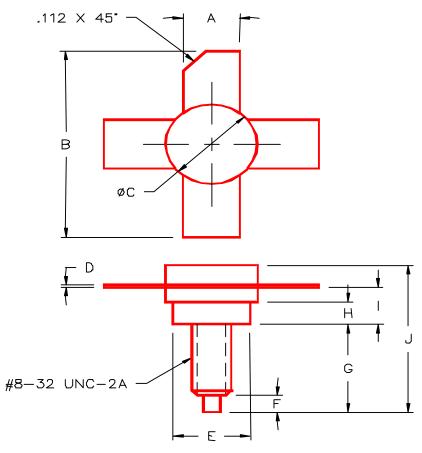
Symbol	Test Conditions			Value			
			Min.	Тур.	Max.	Units	
P <sub>out</sub>	f = 160 MHz	$P_{IN} = 5 W$	V <sub>CE</sub> = 50 V	40			W
G <sub>P</sub> ∗	f = 160 MHz	$P_{IN} = 5 W$	V <sub>CE</sub> = 50 V	9			dB
Çc *	f = 160 MHz	$P_{IN} = 5 W$	V <sub>CE</sub> = 50 V	55			%
Сов	f = 1 MHz		$V_{CB} = 13.6 \text{ V}$			135	PF





### PACKAGE MECHANICAL DATA

### PACKAGE STYLE M135



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		M/N/MUM INCHES/MM	MAXIMUM INCHES/MM
Α	.220/5,59	.230/5,84	1	.155/3,94	.175/4,45
В	.980/24,89		J		.750/19,05
С	.370/9,40	.385/9,78			
D	.004/0,10	.007/0,18			
Ε	.320/8,13	.330/8,38			
F	.100/2,54	.130/3,30			
G	.450/11,43	.490/12,45			
Н	.090/2,29	.100/2,54			