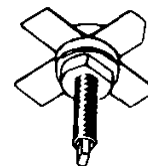


MS1202

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

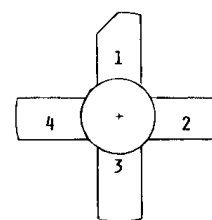


.380 4LSTUD (M135)
epoxy sealed

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_{case} = 25°C)
STATIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{ces}	I_C = 200 mA	V_{BE} = 0 mA	65	---	---	V
BV_{ceo}	I_C = 200 mA	I_B = 0	35	---	---	V
BV_{ebo}	I_E = 5 mA	I_C = 0 mA	4	---	---	V
I_{cbo}	V_{CB} = 30 V	I_E = 0 mA	---	---	1.0	mA
H_{FE}	V_{CE} = 5 V	I_C = 100 mA	5	---	150	---

DYNAMIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
P_{OUT}	f = 175 MHz	V_{CE} = 28V	7.0	---	---	W
G_P	f = 175 MHz	V_{CE} = 28V	8.4	---	---	dB
η_c	f = 175 MHz	V_{CE} = 28V	60			%
Cob	f = 1 MHz	V_{CE} = 30V	---	---	15	pF

PACKAGE MECHANICAL DATA

