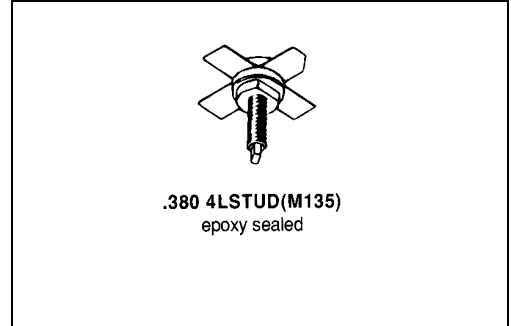


MS1336

RF & MICROWAVE TRANSISTORS VHF MOBILE APPLICATIONS

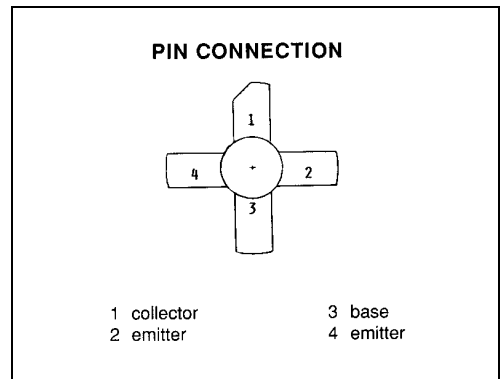
Features

- 175 MHz
- 12.5 VOLTS
- $P_{OUT} = 30W$ MINIMUM
- $G_P = 10$ dB GAIN
- COMMON EMITTER CONFIGURATION



DESCRIPTION:

The MS1337 is a 12.5 volt epitaxial silicon NPN planar transistor designed primarily for Class C, VHF communication applications. The MS1337 utilizes an emitter ballasted die geometry to withstand severe load mismatch conditions.



ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	36	V
V _{CEO}	Collector-Emitter Voltage	18	V
V _{CES}	Collector-Emitter Voltage	36	V
V _{EBO}	Emitter-Base Voltage	4.0	V
I _C	Device Current	8.0	A
P _{DISS}	Power Dissipation	70	W
T _J	Junction Temperature	+200	°C
T _{STG}	Storage Temperature	-65 to +150	°C

Thermal Data

R _{TH(J-C)}	Junction-case Thermal Resistance	1.2	°C/W
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ELECTRICAL SPECIFICATIONS (T_{case} = 25°C)
STATIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CES}	I_C = 15 mA	V_{BE} = 0 mA	36	---	---	V
BV_{CEO}	I_E = 50 mA	I_B = 0 mA	18	---	---	V
BV_{EBO}	I_E = 5 mA	I_C = 0 mA	4.0	---	---	V
I_{CBO}	V_{CB} = 15 V	I_E = 0 mA	---	---	5	mA
H_{FE}	V_{CE} = 5 V	I_C = 250 mA	20	---	200	---

DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P_{OUT}	f = 175 MHz	P_{IN} = 3.0 W	V_{CE} = 12.5 V	30	---	---	W
G_P	f = 175 MHz	P_{IN} = 3.0 W	V_{CE} = 12.5 V	10	---	---	DB
Cob	f = 1 MHz	V_{CB} = 15 V		---	---	120	Pf

IMPEDANCE DATA

FREQ	Z _{IN} (Ω)	Z _{CL} (Ω)
175 MHz	1.0 +j0.4	2.3 + j0.1

P_{IN} = 3.0W
V_{CE} = 12.5V



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MS1336

PACKAGE MECHANICAL DATA

MS1336

