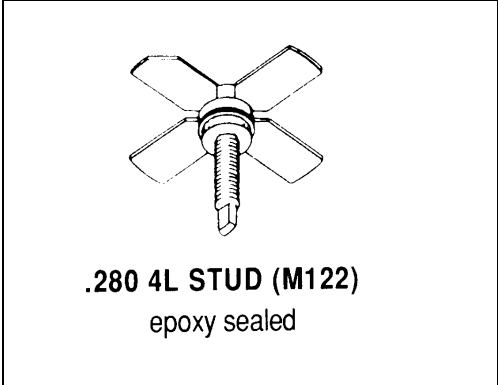


MS1261

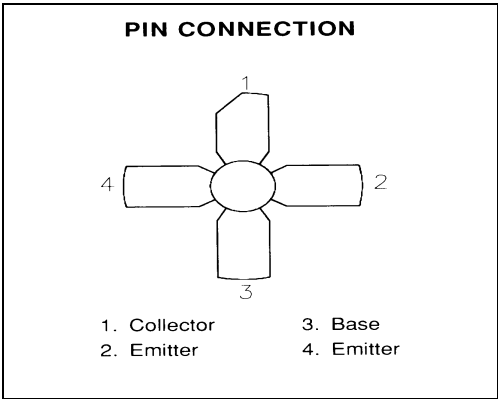
**RF & MICROWAVE TRANSISTORS
VHF MOBILE APPLICATIONS**

- **Features**
- 175 MHz
- 12.5 VOLTS
- P_{OUT} = 15 WATTS
- G_p = 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_{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	2.5	A
P _{DISS}	Power Dissipation	34	W
T _J	Junction Temperature	+200	°C
T _{STG}	Storage Temperature	-65 to +150	°C

Thermal Data

R _{TH(J-C)}	Thermal Resistance Junction-case	8.75	°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 = 50 mA V_{BE} = 0V	36	---	---	V
BV_{CEO}	I_C = 15 mA	18	---	---	V
BV_{EBO}	I_E = 2.5 mA I_C = 0mA	4.0	---	---	V
I_{CBO}	V_{CE} = 15 V I_E = 0mA	---	---	1	mA
H_{FE}	V_{CE} = 5 V I_C = 250mA	20	---	200	---

DYNAMIC

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
P_{OUT}	f = 175 MHz P_{IN} = 1W V_{CE} = 12.5V	15	---	---	W
η_c	f = 175 MHz P_{IN} = 1W V_{CE} = 12.5V	60	---	---	%
G_p	f = 175 MHz P_{IN} = 1W V_{CE} = 12.5V	12	---	---	dB
C_{OB}	f = 1 MHz V_{CB} = 12.5V	---	---	45	pf

IMPEDANCE DATA

FREQ	Z _{IN} (Ω)	Z _{CL} (Ω)
175 MHz	1.2 – j0.4	5.2 + j1.1

P_{OUT} = 15W
V_{CC} = 12.5V

PACKAGE MECHANICAL DATA

