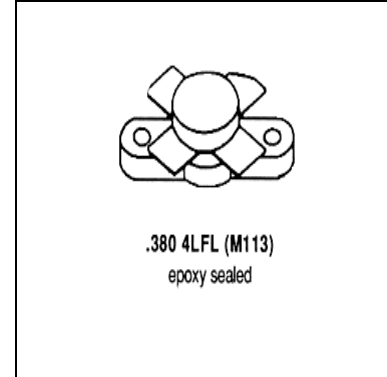


MS1505

RF & MICROWAVE TRANSISTORS VHF MOBILE APPLICATIONS

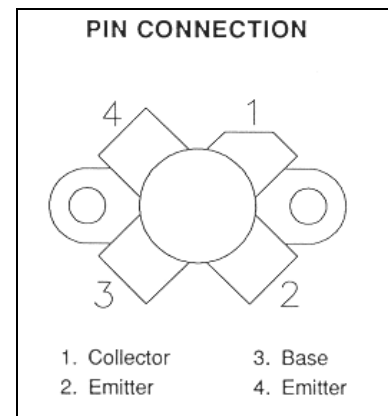
Features

- 160 MHz
- 13.6 VOLTS
- $P_{OUT} = 30$ WATTS
- $G_p = 10$ dB MINIMUM
- COMMON EMITTER CONFIGURATION



DESCRIPTION:

The MS1505 is a 13.6 volt Class C epitaxial silicon NPN planar transistor designed primarily for VHF communications. The MS1505 utilizes an emitter ballasted die geometry to withstand severe load VSWR 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 = 15mA	V _{BE} = 0mA	36	---	---	V
BV _{CEO}	I _C = 50mA	I _B = 0mA	18	---	---	V
BV _{EBO}	I _E = 5mA	I _C = 0mA	4.0	---	---	V
I _{CBO}	V _{CB} = 15V	I _E = 0mA	---	---	5	mA
h _{FE}	V _{CE} = 5V	I _C = 250mA	20	---	200	---

DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P _{OUT}	f = 160MHz	P _{IN} = 3.0W	V _{CE} = 13.6V	30	---	---	W
G _P	f = 160MHz	P _{IN} = 3.0W	V _{CE} = 13.6V	10	---	---	dB
C _{OB}	f = 1MHz	V _{CB} = 15V		---	---	110	pf

IMPEDANCE DATA

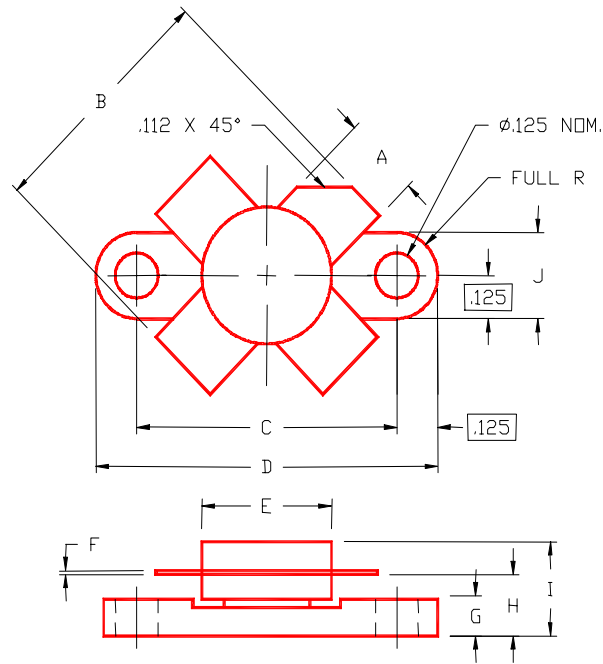
FREQ	Z _{IN} (Ω)	Z _{CL} (Ω)
160 MHz	1.0 +j0.4	2.3 + j0.1

P_{IN} = 3.0 W

V_{CE} = 12.5V

PACKAGE MECHANICAL DATA

PACKAGE STYLE M113



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.220/5,59	.230/5,84	I	.260/7,11	
B	.785/19,94		J	.240/6,10	.255/6,48
C	.720/18,29	.730/18,54			
D	.970/24,64	.980/24,89			
E		.385/9,78			
F	.004/0,10	.006/0,15			
G	.085/2,16	.105/2,67			
H	.160/4,06	.180/4,57			