

140 COMMERCE DRIVE MONTGOMERYVILLE, PA 18936-1013 PHONE: (215) 631-9840 FAX: (215) 631-9855

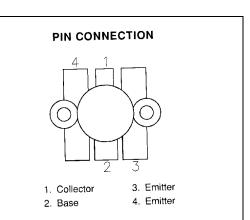
RF & MICROWAVE TRANSISTORS UHF MOBILE APPLICATIONS

Features

- 470 MHz
- 12.5 VOLTS
- **P**out = 45 W
- $G_P = 5.0 \text{ dB MINIMUM}$
- COMMON EMITTER CONFIGURATION



The MS1480 is an epitaxial silicon NPN planar transistor designed primarily for 12.5 V Class C UHF communications. This device utilizes diffused emitter resistors to achieve infinite VSWR capability under specified operating conditions.



ABSOLUTE MAXIMUM RATINGS (Tcase = 25°C)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	36	V
V _{CEO}	Collector-Emitter Voltage	16	V
V _{CES}	Collector-Emitter Voltage	36	V
V _{EBO}	Emitter-Base Voltage	4.0	V
P _{DISS}	Power Dissipation	175	W
Ιc	Device Current	10.0	Α
TJ	Junction Temperature	200	°C
T _{STG}	Storage Temperature	-65 to +150	°C

Thermal Data

R _{TH(J-C)}	Thermal Resistance Junction-case	1.0	°C/W
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.500 6LFL (M111)

epoxy sealed



MS1480

ELECTRICAL SPECIFICATIONS (Tcase = 25°C) STATIC

Symbol	Test Conditions			Value		
			Min.	Typ.	Max.	Unit
BV _{CBO}	I _c = 5 mA	l _E = 0 mA	36			V
BV _{CES}	I _c = 20 mA	$V_{BE} = 0 V$	36			V
BV _{CEO}	l _c = 50 mA	I _B = 0 mA	16			V
BV _{EBO}	I _E = 5 mA	I _C = 0 mA	4.0			V
I _{CES}	V _{CE} = 22 V	Ι _Ε = 0 mA			5	mA
I _{СВО}	V _{CB} = 15 V	I _E = 0 mA			5	mA
HFE	V _{CE} = 5 V	I _C = 1A	20		200	

DYNAMIC

Symbol	Symbol Test Conditions		Value			Unit	
Symbol			Min.	Typ.	Max.	Onit	
Pout	f = 470 MHz	P _{IN} = 14 W	V _{CE} = 12.5V	45			w
G _P	f = 470 MHz	P _{IN} = 14 W	V _{CE} = 12.5V	5.0			dB
Сов	V _{CB} = 12.5 V	f = 1 MHz			130		pf

IMPEDANCE DATA

FREQ	$Z_{IN}(\Omega)$	$Z_{CL}(\Omega)$
470 MHz	1.5 – j2.8	1.4 – j2.4
512MHz	0.75 – j1.3	0.6 – j0.8
$P_{\rm m} = 14W$		

P_{IN} = 14W V_{CE} =12.5V



MS1480

PACKAGE MECHANICAL DATA PACKAGE STYLE M111

В С Ø.125 NOM. FULL R D Ε .725/18,42 F t G T M T. L Κ 4 4 4 Н

	MINIMUM	MAXIMUM		MINIMUM	MAXIMUM
	INCHES/MM	INCHES/MM		INCHES/MM	INCHES/MM
Α	.150/3,43	.160/4,06		.720/18,29	.730/18,54
В	.045/1,14		J	.970/24,64	.980/24,89
С	.210/5,33	.220/5,59	K	.095/2,41	.105/2,67
D	.835/21,21	.865/21,97	L	.150/3,81	.170/4,32
E	.200/5,08	.210/5,33	M		.280/7,11
F	.490/12,45	.510/12,95			
G	.003/0,08	.007/0,18			
Н	.125/3,18				

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