

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

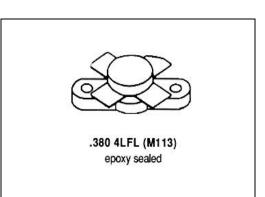
RF & MICROWAVE TRANSISTORS VHF MOBILE APPLICATIONS

Features

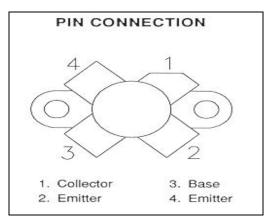
- 175 MHz
- 12.5 VOLTS
- P_{OUT} = 10 W
- $G_P = 10 \text{ dB MINIMUM}$
- COMMON EMITTER CONFIGURATION

DESCRIPTION:

The SD1143-01 is a 12.5 V epitaxial silicon, NPN transistor designed primarily for Class C, VHF communications equipment. Emitter ballast resistors provide high VSWR operating capability.



SD1143-01



ABSOLUTE MAXIMUM RATINGS (Tcase = 25°C)

Symbol	Parameter	Value	Unit
V _{сво}	Collector-Base Voltage	36	V
V _{CER}	Collector-Emitter Voltage	18	V
V _{EBO}	Emitter-Base Voltage	4.0	V
Ι _c	Device Current	2.0	Α
P _{DISS}	Power Dissipation	20	W
ΤJ	Junction Temperature	+200	°C
T _{STG}	Storage Temperature	-65 to +150	°C

THERMAL DATA

R _{TH(J-C)} Junct	tion-case Thermal Resistance*	8.75	°C/W
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ELECTRICAL SPECIFICATIONS (Tcase = 25°C) STATIC

Symbol	Test Conditions		Value			
	Test conditions		Min.	Typ.	Max.	Unit
BV _{CES}	I _C = 50mA	V _{BE} = 0 V	36			V
BV _{CEO}	I _E = 15mA	I _B = 0mA	18			V
BV _{EBO}	I _E = 2.5mA	I _C = 0mA	4.0			V
I _{CES}	V _{CE} = 15 V	I _E = 0mA			2	mA
h _{FE}	$V_{CE} = 5 V$	I _c = 250mA	5		200	

DYNAMIC

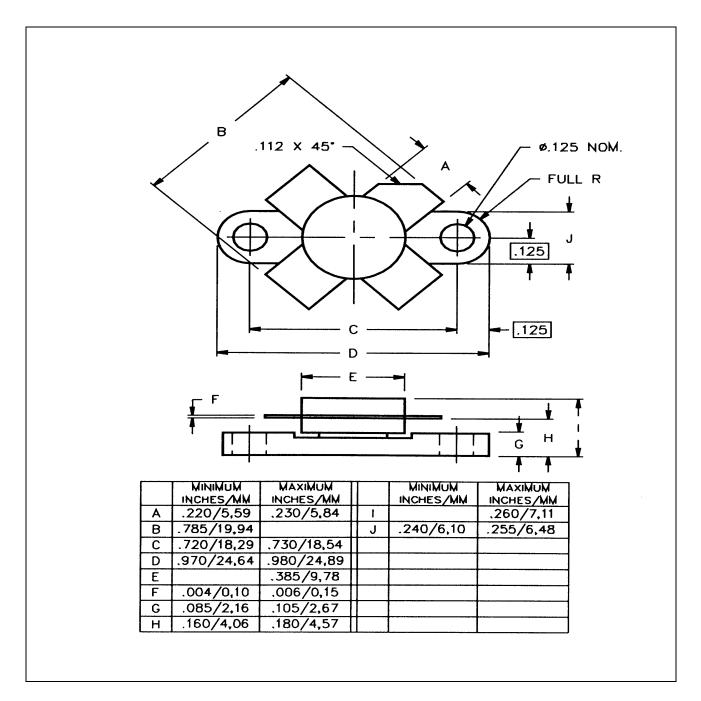
Symbol	Test Conditions		Value			Unit	
Symbol			Min.	Typ.	Max.	Onit	
Pout	f = 175 MHz	$P_{IN} = 1 W$	$V_{\rm CC} = 12.5V$	10			w
G _P	f = 175 MHz	$P_{IN} = 1 W$	$V_{\rm CC} = 12.5V$	10			dB
Сов	f = 1 MHz	V _{CB} = 15V				45	pf

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PACKAGE MECHANICAL DATA



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