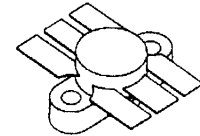


SD1462

RF & MICROWAVE TRANSISTORS UHF COMMUNICATIONS APPLICATIONS

Features

- 400 MHz
- 28 VOLTS
- $P_{OUT} = 70$ WATTS
- $G_P = 9$ dB GAIN MINIMUM
- EFFICIENCY 60%
- GOLD METALLIZATION
- COMMON EMITTER CONFIGURATION

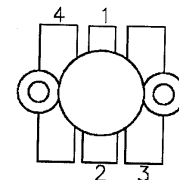


.500 6LFL (M111)
EPOXY SEALED

DESCRIPTION:

The SD1462 is a 28 V Class C epitaxial silicon NPN planar transistor designed primarily for UHF communications. This device utilizes diffused emitter resistors to achieve VSWR of 10:1 under operating conditions, and is internally input matched to optimize power gain and efficiency over the 225 – 400 MHz band.

PIN CONNECTION



1. Collector 3. Base
2. Emitter 4. Emitter

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

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	60	V
V _{CEO}	Collector-Emitter Voltage	33	V
V _{EBO}	Emitter-Base Voltage	4.0	V
I _C	Device Current	8.0	A
P _{DISS}	Power Dissipation	220	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	0.8	°C/W
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ELECTRICAL SPECIFICATIONS (T_{case} = 25°C)
STATIC

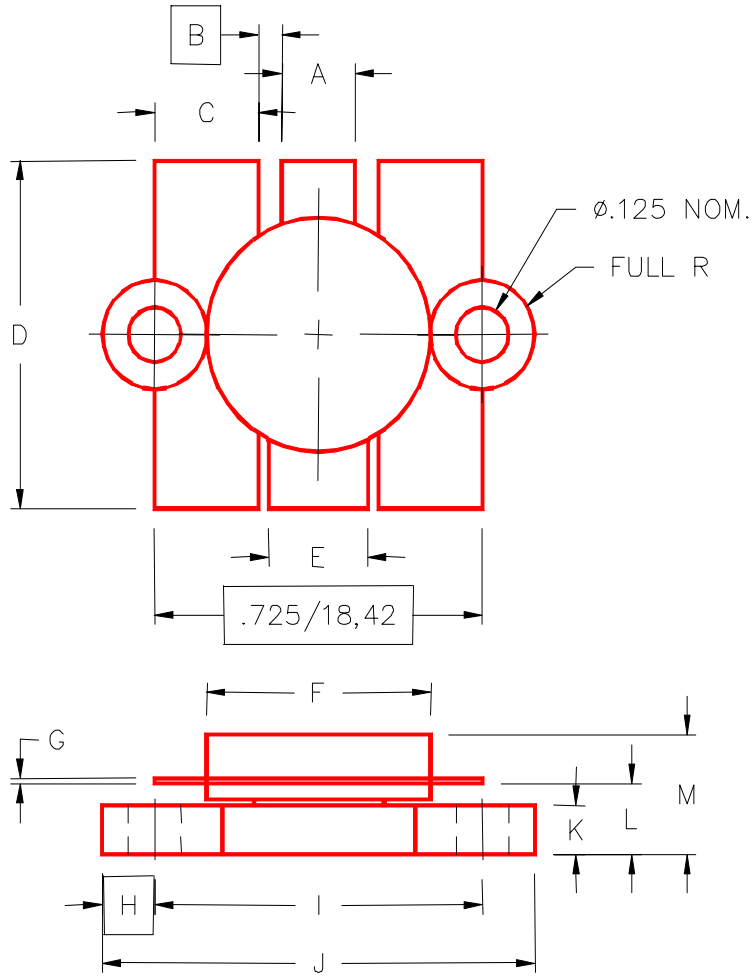
Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
BV _{CBO}	I _C = 50 mA	I _E = 0mA		60	---	---	V
BV _{CEO}	I _E = 50 mA	I _B = 0 mA		33	---	---	V
BV _{EBO}	I _C = 10 mA	I _C = 0mA		4.0	---	---	V
I _{CBO}	V _{CB} = 30 V	I _E = 0 mA		---	---	5	mA
HFE	V _{CE} = 5 V	I _C = 1 A		20	---	120	---

DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P _{OUT}	f = 400 MHz	P _{IN} = 8.8 W	V _{CE} = 28 V	70	---	---	W
G _P	f = 400 MHz	P _{IN} = 8.8 W	V _{CE} = 28 V	9.0	---	---	dB
η _C	f = 400 MHz	P _{IN} = 8.8 W	V _{CE} = 28 V	---	60	---	%
C _{OB}	f = 1 MHz	V _{CB} = 28 V		---	65	---	pF

PACKAGE MECHANICAL DATA

PACKAGE STYLE M111



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.150/3,43	.160/4,06	I	.720/18,29	.730/18,54
B	.045/1,14		J	.970/24,64	.980/24,89
C	.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			
H	.125/3,18				