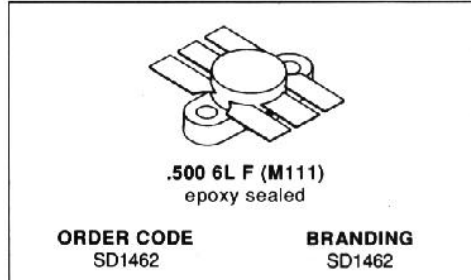


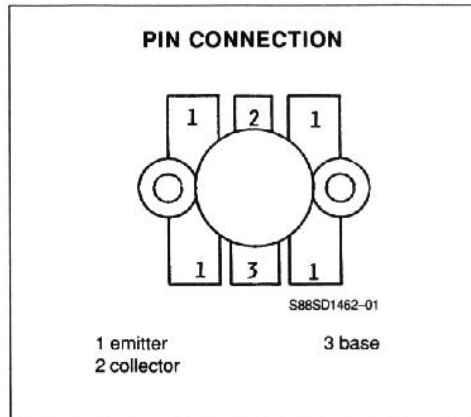
**RF & MICROWAVE TRANSISTORS
 WIDEBAND VHF-UHF CLASS C**

- CLASS C TRANSISTOR
- FREQUENCY 400MHz
- VOLTAGE 28V
- POWER OUT 70W
- POLWER GAIN 9.0dB
- EFFICIENCY 60%
- COMMON EMITTER
- GOLD METALLIZATION



DESCRIPTION

The SD1462 is a 28.0V 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 band.



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	V
I _C	Collector Current	8	A
P _{tot}	Total Power Dissipation	220	W
T _{stg}	Storage Temperature	- 65 to + 150	°C
T _j	Junction Temperature	+ 200	°C

THERMAL DATA

R _{th(j-c)}	Junction-case Thermal Resistance	0.8	°C/W
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SD1462**ELECTRICAL CHARACTERISTICS** ($T_{\text{case}} = 25^{\circ}\text{C}$)

STATIC

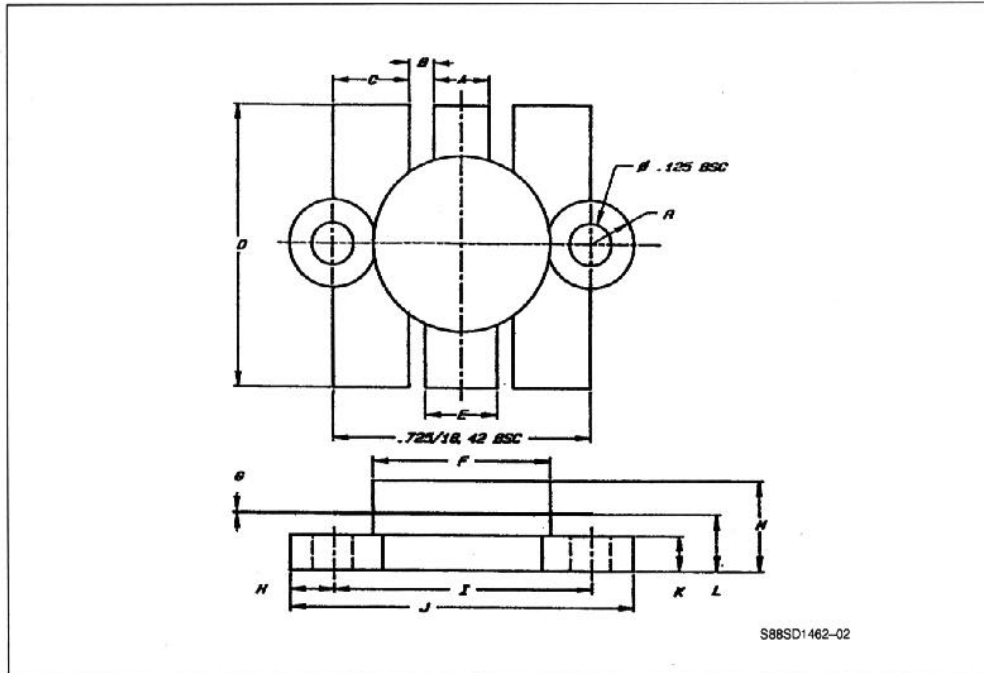
Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CBO}	$I_{\text{C}} = 50\text{mA}$	$I_{\text{E}} = 0$	60			V
BV_{CEO}	$I_{\text{C}} = 50\text{mA}$	$I_{\text{C}} = 0$	33			V
BV_{EBO}	$I_{\text{E}} = 10\text{mA}$	$I_{\text{C}} = 0$	4			V
I_{CBO}	$V_{\text{CB}} = 30\text{V}$	$I_{\text{E}} = 0$			5	mA
η_{FE}	$V_{\text{CE}} = 5\text{V}$	$I_{\text{C}} = 1\text{A}$	20		120	

DYNAMIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
P_{O}	$f = 400\text{MHz}$	$V_{\text{CE}} = 28\text{V}$	70			W
G_{P}	$f = 400\text{MHz}$	$V_{\text{CE}} = 28\text{V}$	9			dB
η_{c}	$f = 400\text{MHz}$	$V_{\text{CC}} = 28\text{V}$		60		%
C_{OB}	$f = 1\text{MHz}$	$V_{\text{CB}} = 30\text{V}$		65		pF

PACKAGE MECHANICAL DATA

.500 6LFL



	Minimum Inches/mm	Maximum Inches/mm
A	.150/3.43	.160/4.06
B	.045/1.14 BSC	
C	.210/5.33	.220/5.59
D	.835/21.21	.865/21.97
E	.200/5.08	.210/5.33
F	.490/12.45	.510/12.95
G	.002/0.05	.007/0.18

	Minimum Inches/mm	Maximum Inches/mm
H	.125/3.18 BSC	
I	.720/18.29	.730/18.54
J	.970/24.64	.980/24.89
K	.095/2.41	.105/2.67
L	.150/3.81	.170/4.32
M		.280/7.11