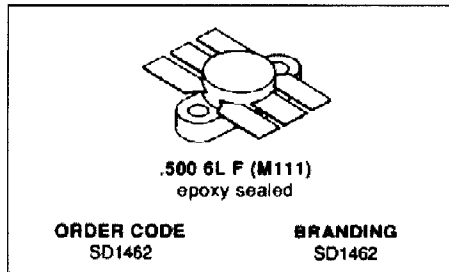


SD1462

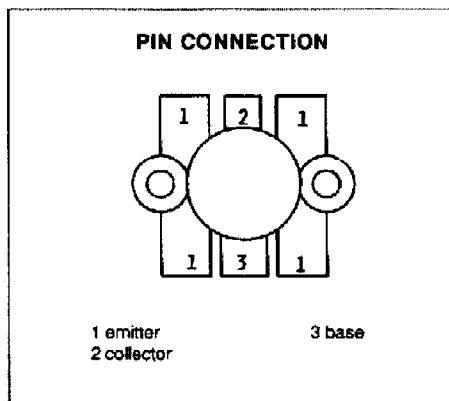
RF & MICROWAVE TRANSISTORS WIDEBAND VHF-UHF CLASS C

- 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 _{CB0}	Collector - Base Voltage	60	V
V _{CE0}	Collector - Emitter Voltage	33	V
V _{EB0}	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
----------------------	----------------------------------	-----	------



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

SD1462

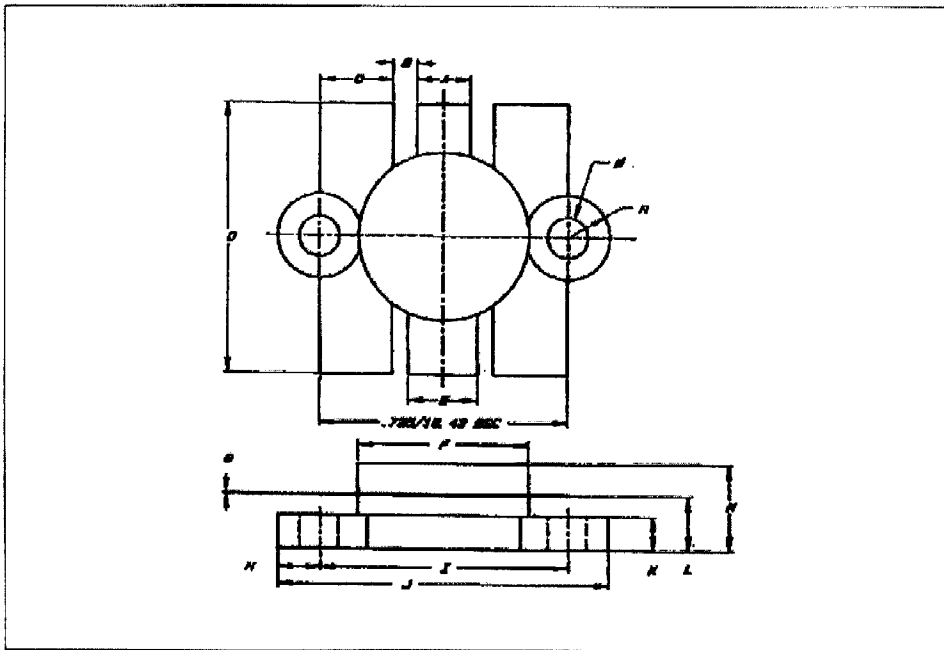
ELECTRICAL CHARACTERISTICS ($T_{case} = 25^{\circ}C$)

STATIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CE0}	$I_C = 50mA$	$I_F = 0$	60			V
BV_{CE0}	$I_C = 50mA$	$I_C = 0$	33			V
BV_{E0}	$I_E = 10mA$	$I_C = 0$	4			V
I_{CU0}	$V_{CU} = 30V$	$I_E = 0$			5	mA
h_{FE}	$V_{CE} = 5V$	$I_C = 1A$	20		120	

DYNAMIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
P_D	$f = 400MHz$	$V_{CE} = 28V$	70			W
G_P	$f = 400MHz$	$V_{CE} = 28V$	9			dB
η_c	$f = 400MHz$	$V_{CC} = 28V$		60		%
C_{0B}	$f = 1MHz$	$V_{CU} = 30V$		65		pF



	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