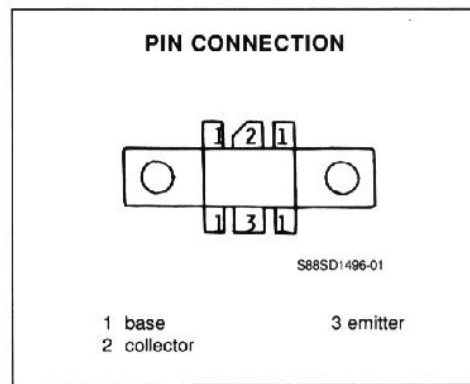
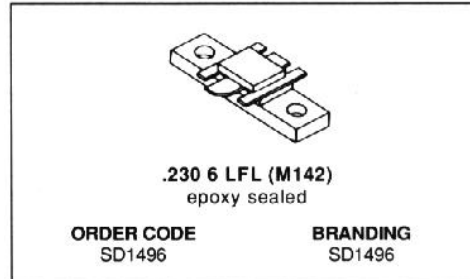


RF & MICROWAVE TRANSISTORS
860-900MHz CLASS C, BASE STATIONS

- CLASS C TRANSISTOR
- FREQUENCY 900MHz
- VOLTAGE 24V
- POWER OUT 60W
- POWER GAIN 7.5dB
- EFFICIENCY 50%
- COMMON BASE



DESCRIPTION

The SD1496 is an NPN silicon epitaxial planar transistor designed for base station applications in the 860-900MHz frequency range.

ABSOLUTE MAXIMUM RATINGS ($T_{case} = 25^{\circ}C$)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector - Base Voltage	50.0	V
V_{CEO}	Collector - Emitter Voltage	26	V
V_{CES}	Collector - Emitter Voltage	50.0	V
V_{EBO}	Emitter - Base Voltage	4.0	V
I_C	Collector Current	9	A
P_{tot}	Total Power Dissipation	190	W
T_{stg}	Storage Temperature	- 65 to 150	$^{\circ}C$
T_j	Junction Temperature	200	$^{\circ}C$

THERMAL DATA

$R_{th(j-c)}$	Junction-case Thermal Resistance	0.9	$^{\circ}C/W$
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SD1496**ELECTRICAL CHARACTERISTICS** ($T_{\text{case}} = 25^{\circ}\text{C}$)

STATIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CES}	$I_C = 50.0\text{mA}$	$V_{BE} = 0$	50.0			V
BV_{CEO}	$I_E = 50.0\text{mA}$	$I_B = 0$	26.0			V
BV_{FBO}	$I_E = 10.0\text{mA}$	$I_C = 0$	3.0			V
I_{CBO}	$V_{CB} = .0\text{V}$	$I_E = 0$			5.0	mA
h_{FE}	$V_{CE} = 5.0\text{V}$	$I_C = 1.0\text{A}$	20			

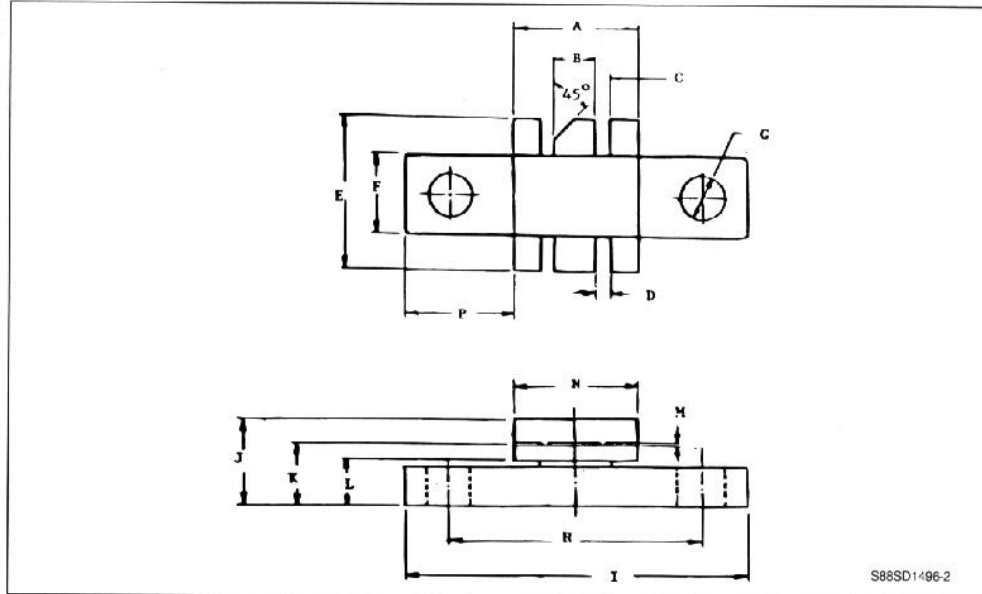
* Pulsed through 25MH Inductor.

DYNAMIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
P_O	$f = 860 - 900\text{MHz}$	$V_{CC} = 24\text{V}$	60			W
G_P	$f = 860 - 900\text{MHz}$	$V_{CC} = 24\text{V}$	7.5			dB
η_C	$f = 860 - 900\text{MHz}$	$V_{CC} = 24\text{V}$		50.0		%
C_{GB}	$V_{CE} = 24\text{V}$	$V_{CC} = 24\text{V}$		55.0		pF

PACKAGE MECHANICAL DATA

.230 6LFL



S88SD1496-2

	Minimum Inch/mm	Maximum Inch/mm
A	.355/9.01	.365/9.27
B	.115/2.92	.125/3.18
C	.075/1.91	.085/2.16
D	.035/0.89	.045/1.14
E	.425/10.80	.435/11.05
F	.225/5.72	.235/5.97
G	.115/2.92	.130/3.30
H	.720/18.29	.730/18.54

	Minimum Inch/mm	Maximum Inch/mm
I	.970/24.64	.980/24.89
J	.230/5.84	.260/6.60
K	.155/3.94	.175/4.45
L	.120/3.05	.130/3.30
M	.004/0.10	.006/0.15
N	.345/8.76	.360/9.14
P	.300/7.62	.314/7.98