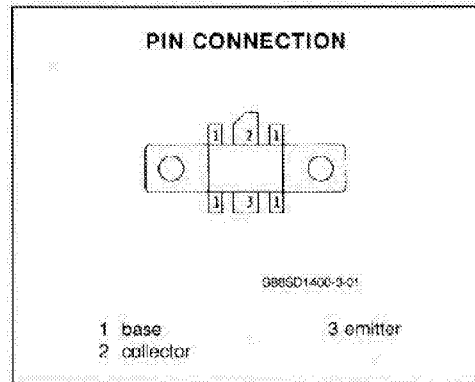
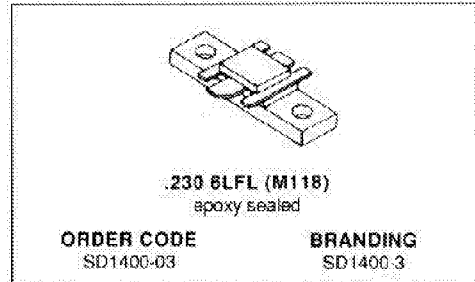


RF & MICROWAVE TRANSISTORS
900-960MHz CLASS C, BASE STATIONS

- CLASS C TRANSISTOR
- FREQUENCY 930MHz
- VOLTAGE 24V
- POWER OUT 14.0W
- POWER GAIN 9.5dB
- EFFICIENCY 50%
- GOLD METALLIZATION
- COMMON BASE



DESCRIPTION

The SD1400-3 is a 24V epitaxial silicon NPN planar transistor designed primarily for amplifier applications in the 900-960MHz frequency range. Internal input matching and common base configuration assure optimum gain and efficiency across the entire frequency band.

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

Symbol	Parameter	Value	Unit
V _{CE0}	Collector - Base Voltage	55.0	V
V _{CE0}	Collector - Emitter Voltage	28.0	V
V _{CE-R}	Collector - Emitter Voltage	55.0	V
V _{EB0}	Emitter - Base Voltage	4.0	V
I _C	Collector Current	2.0	A
P _{tot}	Total Power Dissipation	50.0	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	3.5	°C/W
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SD1400-3**ELECTRICAL CHARACTERISTICS** ($T_{case} = 25^{\circ}C$)**STATIC**

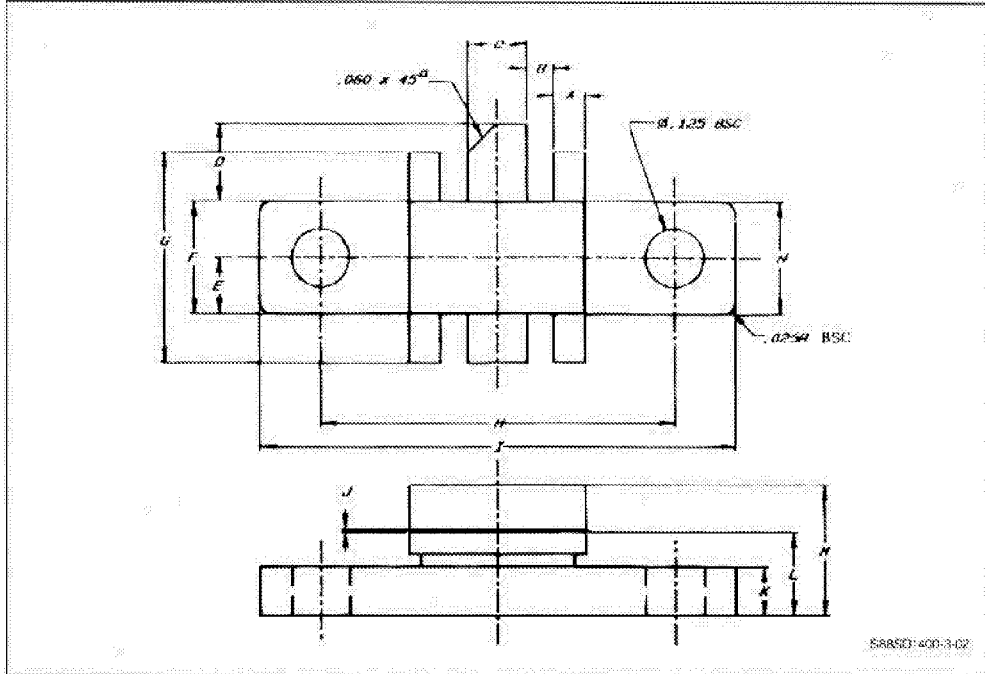
Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CES}	$I_C = 50.0mA$	$V_{BE} = 0$	55.0			V
BV_{CEO}	$I_C = 50.0mA$	$I_B = 0$	28.0			V
BV_{EBO}	$I_E = 10.0mA$	$I_C = 0$	4.0			V
I_{CBO}	$V_{CB} = 15V$	$I_E = 0$			2.5	mA
h_{FE}	$V_{CE} = 5.0V$	$I_C = 1.0A$	30.0			

DYNAMIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
P_O	$f = 960MHz$	$V_{CE} = 24V$	14.0			W
G_P	$f = 960MHz$	$V_{CE} = 24V$	9.5			dB
η_D	$f = 960MHz$	$V_{CE} = 24V$	50.0			%
C_{OB}	$f = 1MHz$	$V_{CE} = 24V$		12.5	18	pF

PACKAGE MECHANICAL DATA

.230 6LFL



	Minimum Inches/mm	Maximum Inches/mm
A	.135/3.43	.145/3.68
B	.125/3.18 BSC	
C	.380/9.65	.390/9.91
D	.885/22.48	
E	.392/9.96	.402/10.29
F	.645/16.38	.655/16.64

	Minimum Inches/mm	Maximum Inches/mm
G	.885/22.73	.905/22.99
H	.002/0.05	.006/0.15
I	.055/1.40	.065/1.65
J	.105/2.67	.125/3.18
K		.230/5.84
L	.392/9.96	.402/10.29