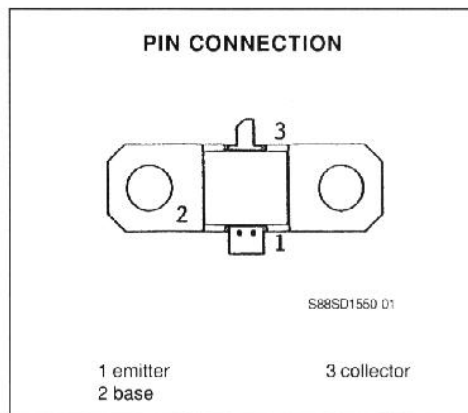
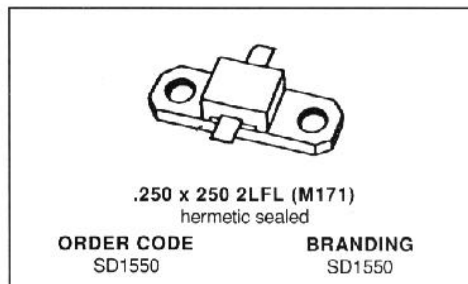


**RF & MICROWAVE TRANSISTORS
TACAN APPLICATIONS**

- DESIGNED FOR USE IN TACAN SYSTEMS
- EXTREMELY RUGGED
- THERMALLY STABLE
- GOLD METALLIZATION
- CAPABLE OF OPERATION AT GREATER THAN 20 μ s AND 10%
- STRIPLINE FLANGE PACKAGE



DESCRIPTION

The SD1550 is a gold metallized silicon NPN Planar Pulsed Transistor that has been designed for use in extended pulse width and duty cycle applications from 960 to 1215MHz. This device is extremely rugged, thermally stable, and is capable of operation at pulse widths in excess of 20 μ s and duty cycles greater than 10%.

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

Symbol	Parameter	Value	Unit
V _{CB0}	Collector - Base Voltage	65.0	V
V _{CE0}	Collector - Emitter Voltage	30.0	V
V _{EB0}	Emitter - Base Voltage	4.0	V
I _c	Collector Current (max.)	2.0	A
P _{TOT}	Total Device Dissipation at + 25°C	53.0	W
T _{STG}	Storage Temperature	- 65 to + 200	°C
T _J	Junction Temperature	+ 200	°C

THERMAL DATA

R _{TH(J-C)}	Junction-case Thermal Resistance	3.3	°C/W
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SD1550**ELECTRICAL CHARACTERISTICS** ($T_{\text{case}} = 25^{\circ}\text{C}$)

STATIC

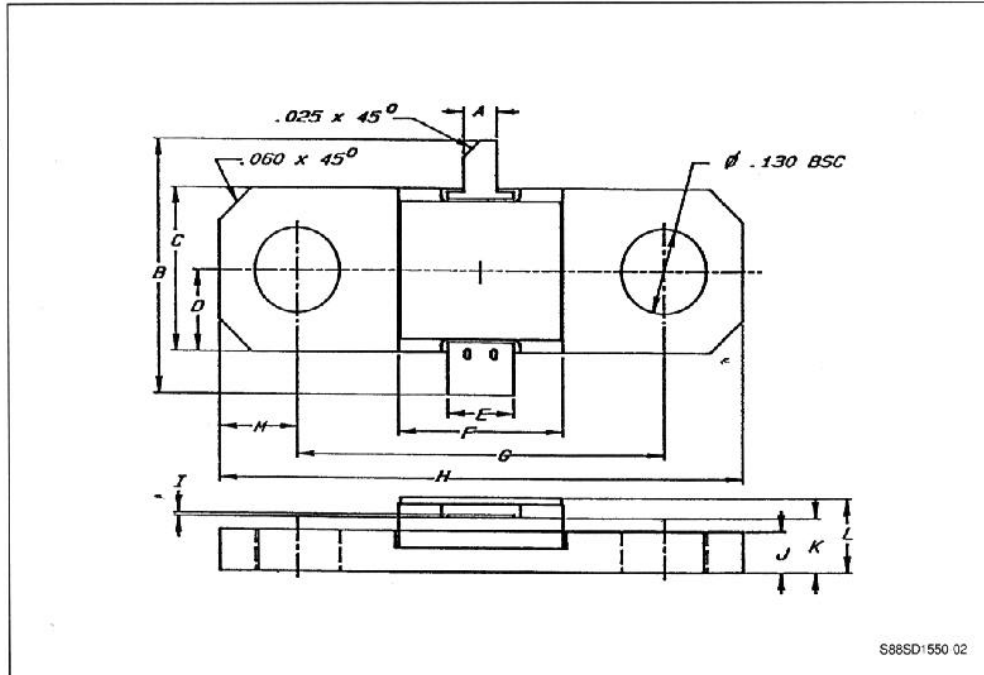
Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CEO}	$I_{\text{C}} = 10\text{mA}$	$I_{\text{B}} = 0$	30.0			V
BV_{CES}	$I_{\text{C}} = 25\text{mA}$	$V_{\text{BE}} = 0$	65.0			V
BV_{EBO}	$I_{\text{E}} = 10\text{mA}$	$I_{\text{C}} = 0$	4.0			V
I_{CBO}	$V_{\text{CB}} = 28\text{V}$	$I_{\text{E}} = 0$			5.0	mA
h_{FE}	$V_{\text{CE}} = 5\text{V}$	$I_{\text{C}} = 100.0\text{mA}$	20.0			

DYNAMIC

Symbol	Test Conditions				Value			Unit
					Min.	Typ.	Max.	
P_{out}	$f = 960$ to 1215MHz	$V_{\text{CE}} = 35\text{V}$	$\text{PW} = 20\mu\text{s}$	$\text{DC} = 10\%$	15.0			W
P_{Gain}	$f = 960$ to 1215MHz	$V_{\text{CE}} = 35\text{V}$	$\text{PW} = 20\mu\text{s}$	$\text{DC} = 10\%$	10.0			dB

PACKAGE MECHANICAL DATA

.250 x 250 2LFL



	Minimum Inches/mm	Maximum Inches/mm
A	.045/1.14	.055/1.40
B	.980/24.89	
C	.245/6.22	.255/6.48
D	.125/3.18 BSC	
E	.095/2.41	.105/2.67
F	.245/6.22	.255/6.48
G	.557/14.15	.567/14.40

	Minimum Inches/mm	Maximum Inches/mm
H	.795/20.19	.805/20.45
I	.002/0.05	.006/0.15
J	.057/1.45	.067/1.70
K	.076/1.93	.088/2.24
L		.130/3.30
M	.119/3.02 BSC	