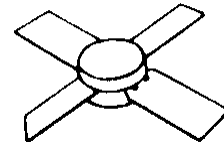


RF & MICROWAVE TRANSISTORS AVIONICS APPLICATIONS

- DESIGNED FOR HIGH POWER PULSED IFF, DME, TACAN APPLICATIONS
- 80 WATTS (typ.) IFF 1030 - 1090 MHz
- 75 WATTS (min.) DME 1025 - 1150 MHz
- 50 WATTS (typ.) TACAN 960 - 1215 MHz
- 8.0 dB MIN. GAIN
- REFRACTORY GOLD METALLIZATION
- EMITTER BALLASTING AND LOW THERMAL RESISTANCE FOR RELIABILITY AND RUGGEDNESS
- INFINITE LOAD VSWR CAPABILITY AT SPECIFIED OPERATING CONDITIONS
- INPUT MATCHED, COMMON BASE CONFIGURATION

DESCRIPTION

The SD1534-01 is a gold metallized silicon, NPN power transistor designed for applications requiring high peak power and low duty cycles such as IFF, DME and TACAN. The SD1534-01 is packaged in the .280" input matched stripline package resulting in improved broadband performance and a low thermal resistance.

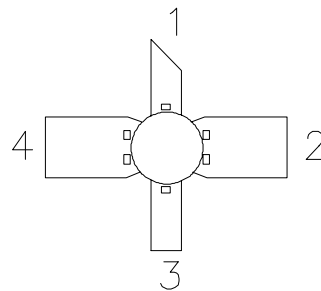


.280 4LSL (M115)
epoxy sealed

ORDER CODE
SD1534-01

BRANDING
1534-1

PIN CONNECTION



1. Collector	3. Emitter
2. Base	4. Base

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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	65	V
V_{CES}	Collector-Emitter Voltage	65	V
V_{EBO}	Emitter-Base Voltage	3.5	V
I_C	Device Current	5.5	A
P_{DISS}	Power Dissipation	218.7	W
T_J	Junction Temperature	+200	$^{\circ}C$
T_{STG}	Storage Temperature	- 65 to +150	$^{\circ}C$

THERMAL DATA

$R_{TH(j-c)}$	Junction-Case Thermal Resistance	0.8	$^{\circ}C/W$
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SD1534-01**ELECTRICAL SPECIFICATIONS** ($T_{\text{case}} = 25^{\circ}\text{C}$)**STATIC**

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CBO}	$I_{\text{C}} = 10\text{mA}$	$I_{\text{E}} = 0\text{mA}$	65	—	—	V
BV_{CES}	$I_{\text{C}} = 25\text{mA}$	$V_{\text{BE}} = 0\text{V}$	65	—	—	V
BV_{EBO}	$I_{\text{E}} = 10\text{mA}$	$I_{\text{C}} = 0\text{mA}$	3.5	—	—	V
I_{CES}	$V_{\text{CE}} = 50\text{V}$	$I_{\text{E}} = 0\text{mA}$	—	—	5	mA
h_{FE}	$V_{\text{CE}} = 5\text{V}$	$I_{\text{C}} = 100\text{mA}$	10	—	—	—

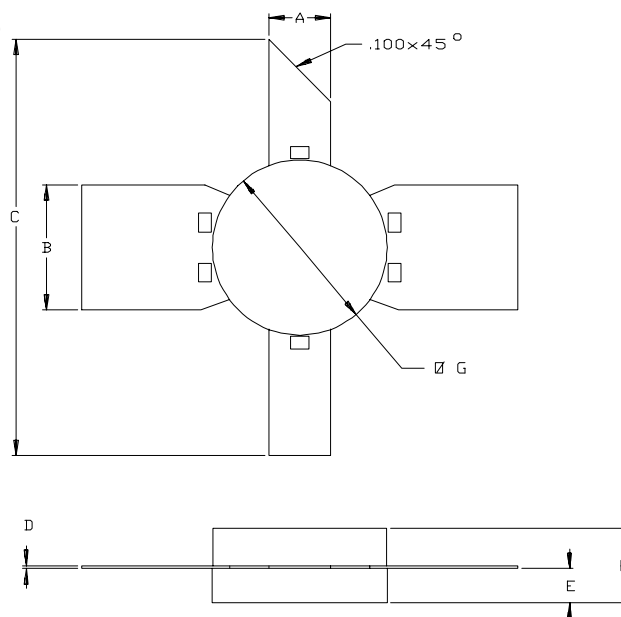
DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P_{OUT}	$f = 1025 \text{ — } 1150\text{MHz}$	$P_{\text{IN}} = 13.0\text{W}$	$V_{\text{CE}} = 50 \text{ V}$	75	—	—	W
G_{P}	$f = 1025 \text{ — } 1150\text{MHz}$	$P_{\text{IN}} = 13.0\text{W}$	$V_{\text{CE}} = 50 \text{ V}$	7.6	—	—	dB

Note: Pulse Width = $10\mu\text{Sec}$, Duty Cycle = 1%
This device is suitable for use under other pulse width/duty cycle conditions.
Please contact the factory for specific applications assistance.

PACKAGE MECHANICAL DATA

Ref.: Dwg. No.12-0115



SGS-THOMSON MICROELECTRONICS		
	MINIMUM Inches/mm	MAXIMUM Inches/mm
A	.095/2,41	.105/2,67
B	.195/4,95	.205/5,21
C	1.000/25,40	
D	.004/0,10	.007/0,18
E	.050/1,27	.065/1,65
F		.145/3,68
G	.275/6,99	.285/7,21

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