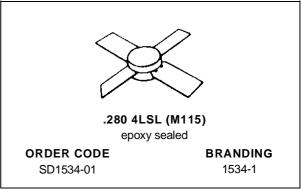


SD1534-01

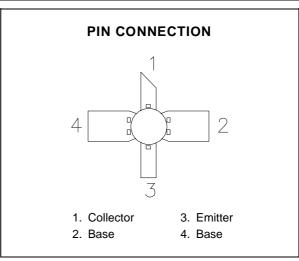
RF & MICROWAVE TRANSISTORS AVIONICS APPLICATIONS

- 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.



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	
Ic	Device Current	5.5	Α	
Poiss	Power Dissipation	218.7	W	
TJ	Junction Temperature	+200	°C	
T _{STG}	Storage Temperature	- 65 to +150	°C	

THERMAL DATA

R _{TH(j-c)}	Junction-Case Thermal Resistance	0.8	°C/W

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SD1534-01

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

STATIC

Symbol	Test Conditions	Value			Unit		
		Min.	Тур.	Max.	Onit		
ВУсво	I _C = 10mA	$I_E = 0mA$		65	_	_	٧
BVces	I _C = 25mA	$V_{BE} = 0V$		65	_	_	V
BV _{EBO}	I _E = 10mA	$I_C = 0mA$		3.5	_	_	V
ICES	V _{CE} = 50V	$I_E = 0mA$		_	_	5	mA
h _{FE}	Vce = 5V	$I_C = 100mA$		10	_	_	

DYNAMIC

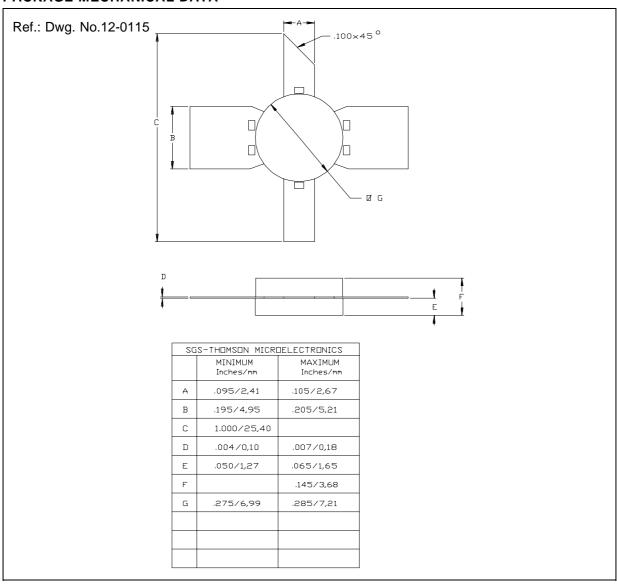
Symbol	Test Conditions		Value			Unit
Symbol			Min.	Тур.	Max.	Unit
Pout	f = 1025 — 1150MHz P _{IN} = 13.0W V	CE = 50 V	75	_		W
GP	f = 1025 — 1150MHz P _{IN} = 13.0W V	CE = 50 V	7.6	_		dB

Note: Pulse Width = $10\mu Sec$, 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



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