

GSDSB0540D1F

Schottky Diode

Product Description

Schottky Barrier Diode 40V and 500mA



Features

- Low Forward Voltage


Mechanical Data

- SOD-123 Package
- RoHS Compliant and Halogen Free

Package and Pin Assignment

SOD-123		Equivalent Circuit	
			
Pin	Description	Pin	Description
1	Cathode	2	Anode

Ordering and Marking Information

GS P/N	Package	Marking	Quantity / Reel
GSDSB0540D1F	SOD-123	SF	3,000PCS
GSDSB0540D1F			
- Product Code: GSDSB0540	- Package Code: D1 for SOD-123	- Green Level: F for RoHS Compliant and Halogen Free	
Marking Information			
	- Product Code: □□ is SF		
	- Band denotes Cathode end		

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Symbol	Parameter	Value	Unit
V _R RM	Repetitive Peak Reverse Voltage	40	V
V _R	DC Blocking Voltage	40	V
V _R (RMS)	RMS Reverse Voltage	28	V
I _O	Forward Current	500	mA
I _{FSM}	Non-Repetitive Peak Forward Current (8.3ms single half sin-wave)	5.5	A
P _D	Power Dissipation	410	mW
T _J	Junction Temperature	125	°C
T _{STG}	Storage Temperature Range	-40 to +125	°C

Electrical Characteristics (T_A=25°C unless otherwise specified)

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V _{BR}	Breakdown Voltage	I _R =20μA	40			V
V _F	Forward Voltage	I _F =500mA			0.51	V
		I _F =1A			0.62	
I _R	Reverse Current	V _R =20V			10	μA
		V _R =40V			20	
C _J	Junction Capacitance	V _R =0V, f=1MHz			170	pF

Typical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

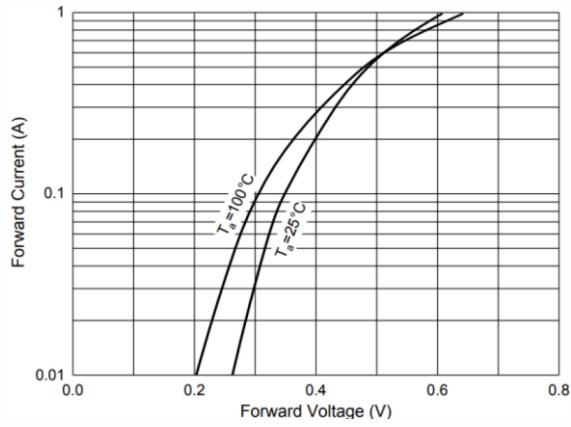


Fig.1 Forward Characteristics

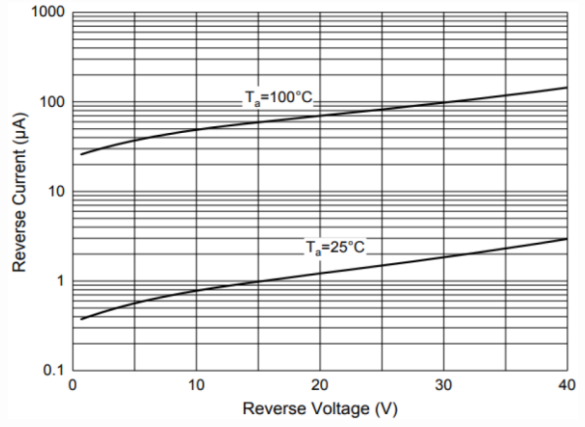


Fig.2 Typical Reverse Leakage Characteristics

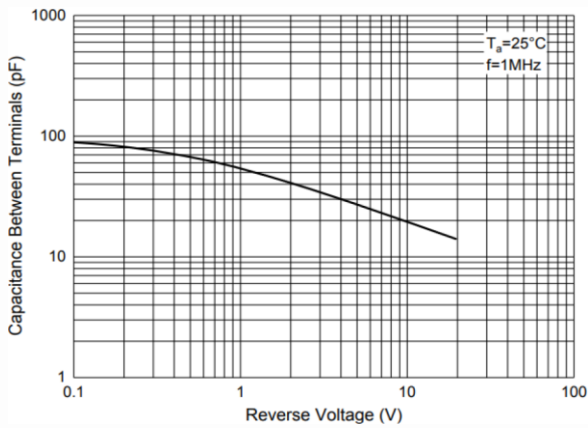


Fig.3 Capacitance Characteristics

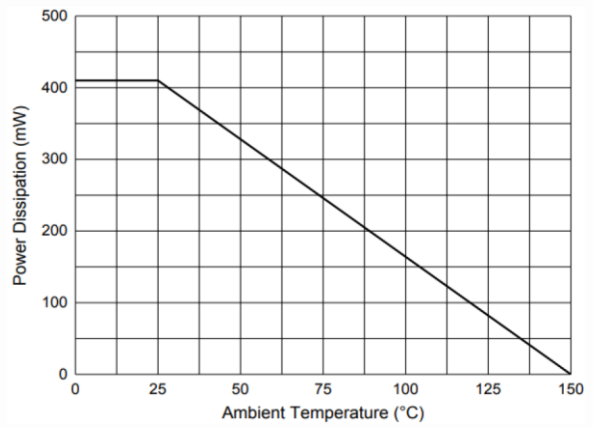
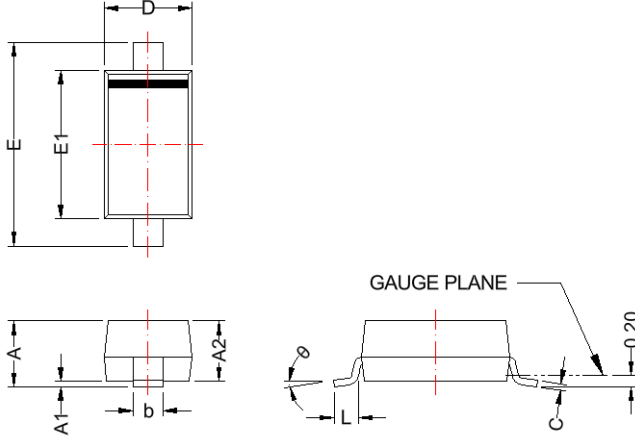


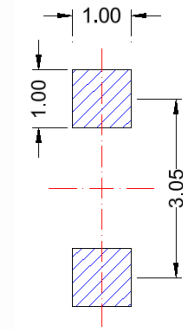
Fig.4 Power Derating Curve

SOD-123

Package Dimension



Recommended Land Pattern



Unit:mm

Dimensions				
SYMBOL	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	1.05	1.25	0.041	0.049
A1	0.00	0.10	0.000	0.004
A2	1.05	1.15	0.041	0.045
b	0.45	0.65	0.018	0.026
c	0.08	0.15	0.003	0.006
D	1.50	1.70	0.059	0.067
E	3.55	3.85	0.140	0.152
E1	2.60	2.80	0.102	0.110
L	0.25	0.45	0.010	0.018
θ	0°	8°	0°	8°





NOTE:



Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

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CONTACT US

GS Headquarter	
	4F, NO.43-1, Lane 11, Sec. 6, Minquan E. Rd Neihu District, Taipei City 114761, Taiwan (R.O.C).
	886-2-2657-9980
	886-2-2657-3630
	sales_twn@gs-power.com

RD Division	
	824 Bolton Drive Milpitas. CA. 95035
	1-408-457-0587