GSDSBAT54xWF Series

Schottky Barrier Diode

Product Description

Reverse Voltage 30V
Forward Current 0.2A

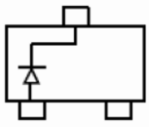
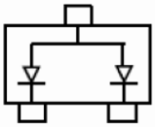
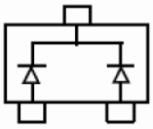
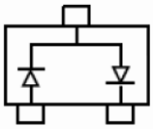
Features

- Low Forward Voltage Drop

Mechanical Data

- Case: SOT-323 Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Color Band denotes Cathode End
- RoHS Compliant and Halogen Free

Package and Pin Assignment

SOT-323			
GSDSBAT54WF	GSDSBAT54AWF	GSDSBAT54CWF	GSDSBAT54SWF
			

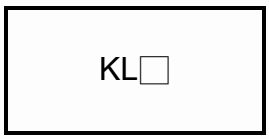
Ordering and Marking Information

Ordering Information			
Part Number	**Package**	**Marking Code**	**Quantity / Reel**
GSDSBAT54WF	SOT-323	KL5	3,000 PCS
GSDSBAT54AWF	SOT-323	KL6	3,000 PCS
GSDSBAT54CWF	SOT-323	KL7	3,000 PCS
GSDSBAT54SWF	SOT-323	KL8	3,000 PCS

GSDSBAT54 1 2 F

- **Product Code:** GSDSBAT54
- **Circuit Type Code:** 1 is blank, A, C and S
- **Package Code:** 2 **W** for SOT-323
- **Green Level:**
- **F** for RoHS Compliant and Halogen Free
-

Marking Information



- **Product Code:** KL
- **Circuit Type Code:** □is 5, 6, 7 and 8

Absolute Maximum Ratings (T_A=25°C. Unless Otherwise Specified.)

Symbol	Test Conditions	Value	Unit
V_{RRM}	Repetitive Peak Reverse Voltage	30	V
V_{RWM}	Working Peak Reverse Voltage	30	V
V_R	DC Blocking Voltage	30	V
I_F	Continuous Forward Current	200	mA
I_{FRM}	Repetitive Peak Forward Current (t =< 1s, Duty =< 0.5)	300	mA
I_{FSM}	Non-Repetitive Peak Forward Surge Current (at t = 8.3ms)	600	mA
P_D	Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	500	°C/W
T_J	Max. Junction Temperature	+125	°C
T_{STG}	Storage Temperature Range	-55 to +150	°C

Electrical Characteristics (T_A=25°C. Unless Otherwise Specified.)

Symbol	Description	Test Conditions	Min.	Max.	Unit
V_{BR}	Reverse Breakdown Voltage	I_R=100μA	30	-	V
I_R	Reverse Current	V_R=25V	-	2	μA
V_F	Forward Voltage	I_F=0.1mA	-	0.24	V
		I_F=1mA		0.32	
		I_F=10mA	-	0.4	
		I_F=30mA		0.5	
		I_F=100mA	-	1	
C_d	Diode Capacitance	V_R= 1V, f=1MHz	-	10	pF
t_{rr}	Reveres Recovery time	I_F=I_R=10mA, Irr=0.1×I_R, R_L=100Ω	-	5	nS

Typical Characteristics (T_A=25°C. Unless Otherwise Specified.)

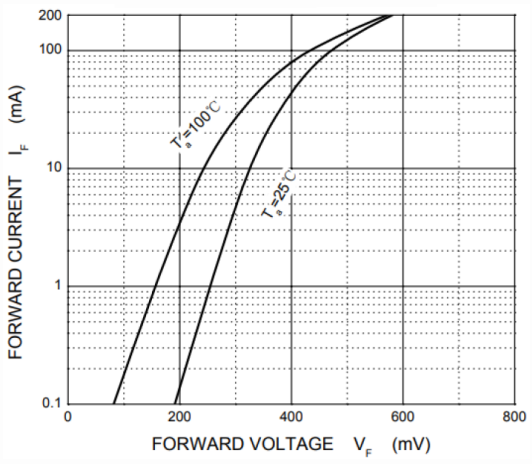


Fig. 1 Forward Characteristics

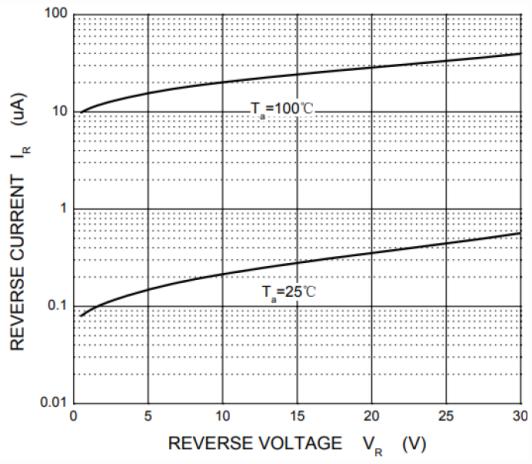


Fig. 2 Reverse Characteristics

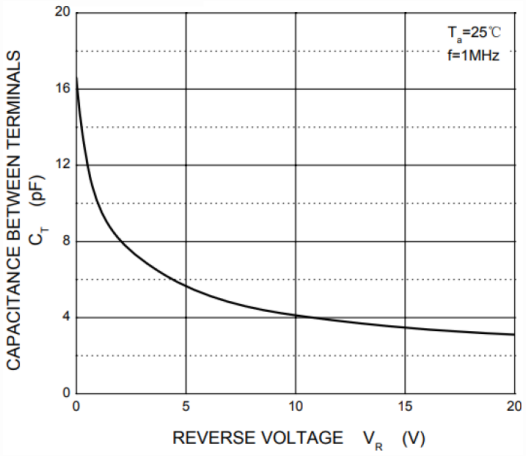


Fig. 3 Capacitance Characteristics

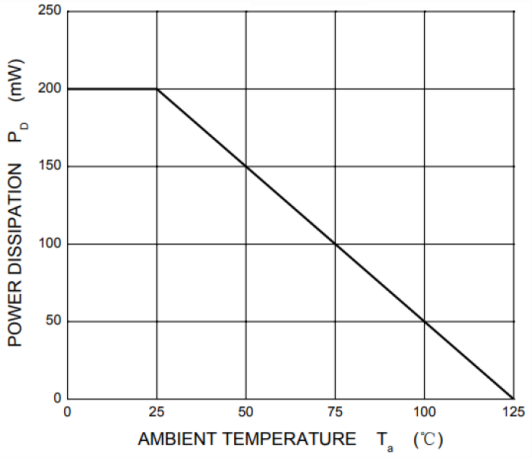
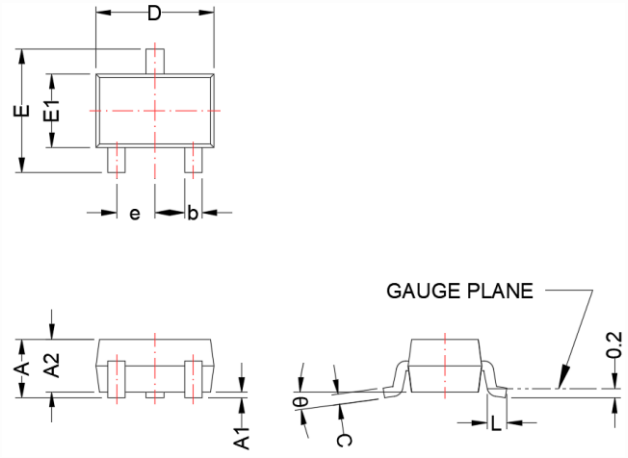


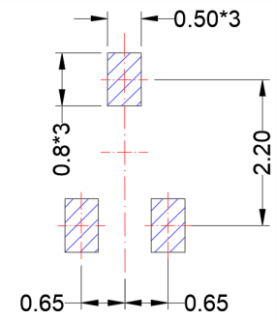
Fig. 4 Power Derating Curve

SOT-323

Package Dimension



Recommended Land Pattern



Unit:mm

Dimensions				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	0.80	1.10	0.031	0.043
A1	0.00	0.10	0.000	0.004
A2	0.80	1.00	0.031	0.039
b	0.20	0.40	0.008	0.016
c	0.08	0.26	0.003	0.010
D	1.80	2.20	0.071	0.087
E	1.80	2.40	0.071	0.094
E1	1.15	1.35	0.045	0.053
e	0.65 BSC		0.026 BSC	
L	0.26	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