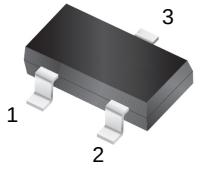
GOOD-ARK
SEMICONDUCTOR

GSBAT54KxW
Schottky Barrier Diode

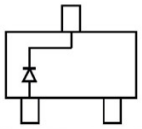
Features

- Low forward voltage drop
- Fast switching

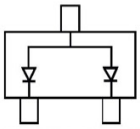


SOT-323

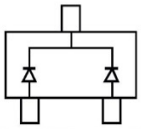
Schematic Diagram and Marking



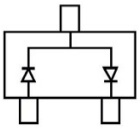
GSBAT54KW
Marking: KL5



GSBAT54KAW
Marking: KL6



GSBAT54KCW
Marking: KL7



GSBAT54KSW
Marking: KL8

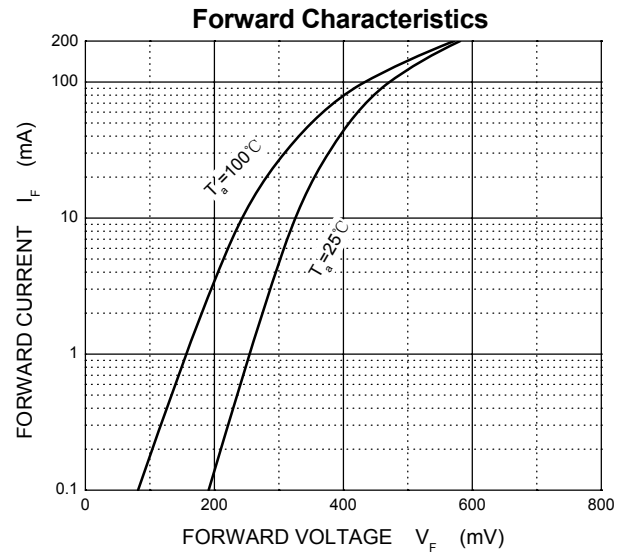
Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

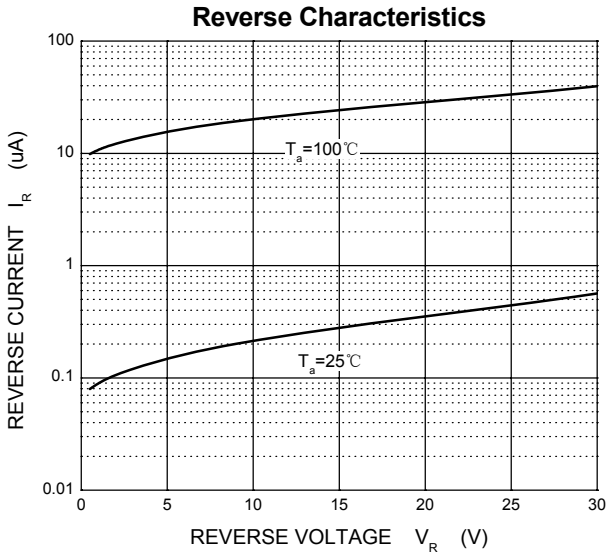
Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	V
Forward Continuous Current	I_{FM}	200	mA
Non-repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	600	mA
Repetitive Peak Forward Current @ t≤1s, δ ≤0.5	I_{FRM}	300	mA
Power Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient	$R_{\Theta JA}$	500	℃/W
Junction Temperature	T_J	125	℃
Storage Temperature	T_{STG}	-55 to +150	℃

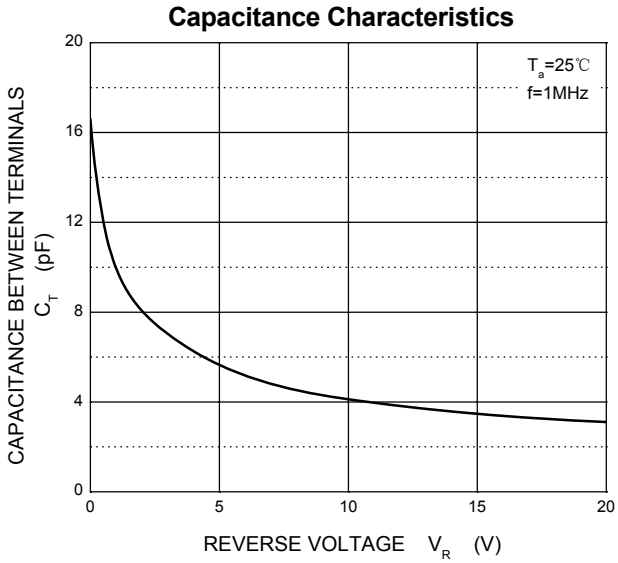
Electrical Characteristics (T_A=25°C unless otherwise specified)

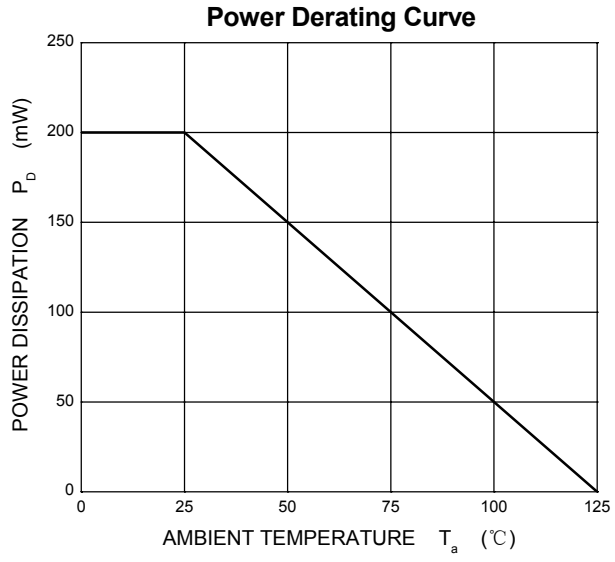
Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse Voltage	$V_{(BR)}$	I_R=100μA	30	-	V
Reverse Current	I_R	V_R=25V	-	2	μA
Forward Voltage	V_F	I_{F1}=0.1mA	-	0.24	V
		I_{F2}=1mA	-	0.32	V
		I_{F3}=10mA	-	0.40	V
		I_{F4}=30mA	-	0.50	V
		I_{F5}=100mA	-	1	V
Diode Capacitance	C_D	V_R=0V,f=1MHz	-	10	pF
Reverse Recovery Time	trr	I_F=I_R=10mA Irr=0.1×I_R,R_L=100Ω	-	5	ns

Typical Characteristic Curves



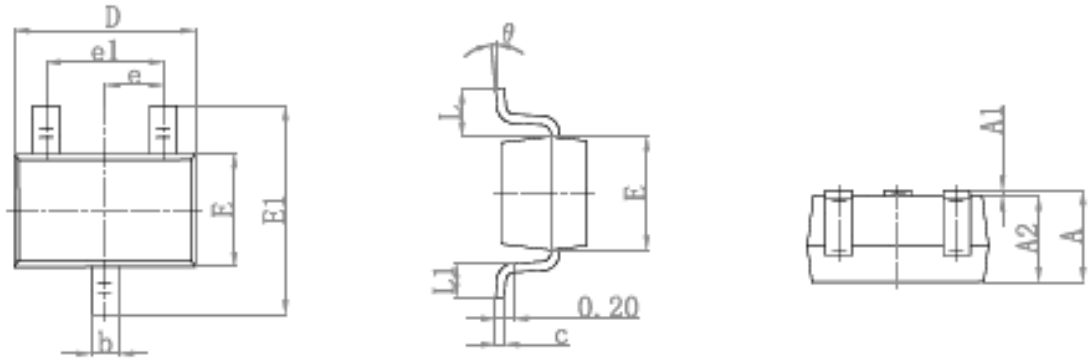






Product Outline Dimensions

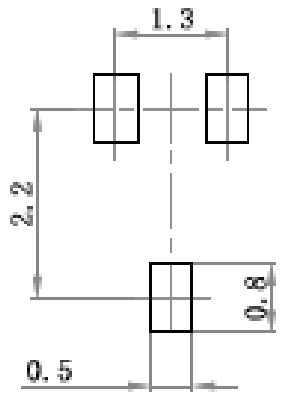
SOT-323



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

Suggested Pad Layout

SOT-323



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.