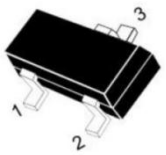
SSCSBAT54/A/C/SS6 Series

Schottky Barrier Diode

● Features

- ✧ Extremely fast switching speed
- ✧ Low forward voltage
- ✧ Very small conduction losses

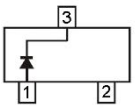
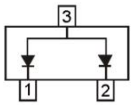
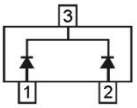
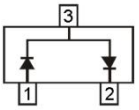
● PIN configuration



SOT-23

● Applications

- ✧ Ultra high-speed switching
- ✧ Voltage clamping
- ✧ Protection circuits
- ✧ Blocking diodes

SSCSBAT54S6:  **Marking:KL1**	**SSCSBAT54AS6:**  **Marking:KL2**
SSCSBAT54CS6:  **Marking:KL3**	**SSCSBAT54SS6:**  **Marking:KL4**

Circuit Diagram

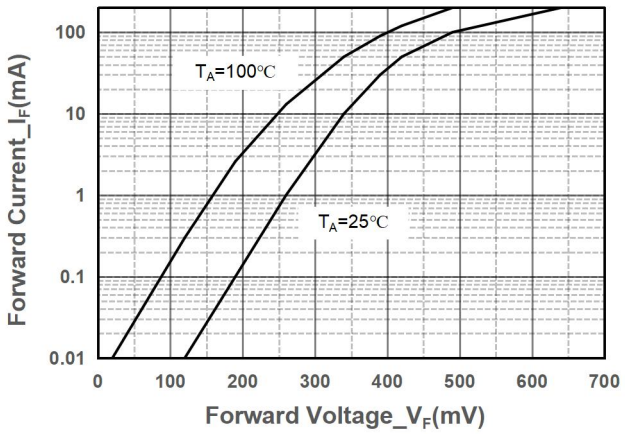
● Absolute maximum rating @T_A=25℃

Parameter	Symbol	Value	Unit
Reverse Voltage(DC)	V_R	30	V
Average Rectified Forward Current	I_{FM}	200	mA
Non-repetitive Peak Forward Surge Current @ t=8.3ms	I_{FSM}	600	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 ~ +150	℃

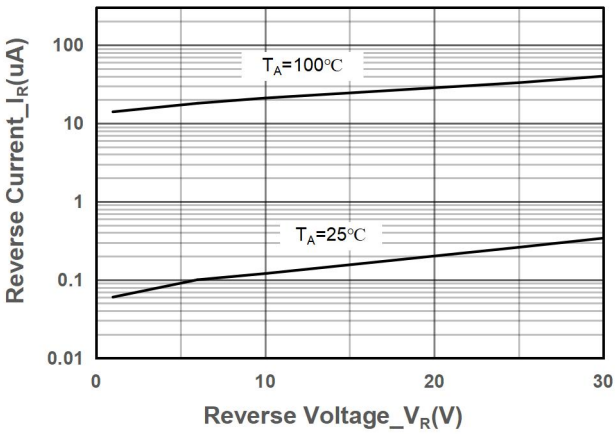
Electrical Characteristics @T_A=25℃

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Voltage	V_R	I_R = 100uA	30			V
Forward Voltage	V_F	I_F = 0.1mA			0.23	V
		I_F = 1mA			0.30	V
		I_F = 10mA			0.40	V
		I_F = 30mA			0.50	V
		I_F = 100mA			1.00	V
Reverse Current	I_R	V_R = 25V			2	uA
Junction Capacitance	C_J	V_R=1V,f=1MHz			10	pF
Reverse recovery time	t_{rr}	I_F=I_R=10mA,R_L=100Ω,I_{RR}=0.1I_R			5	ns

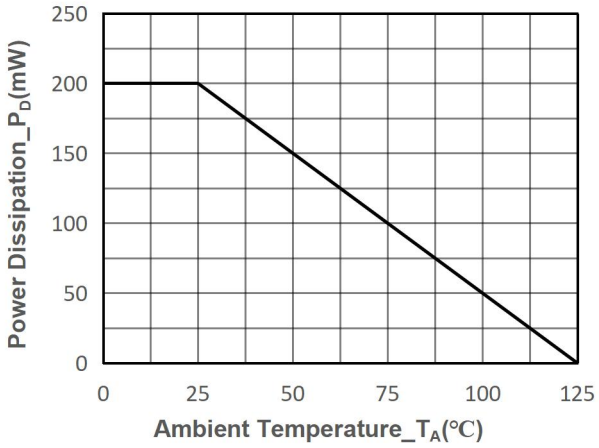
Typical Performance Characteristics



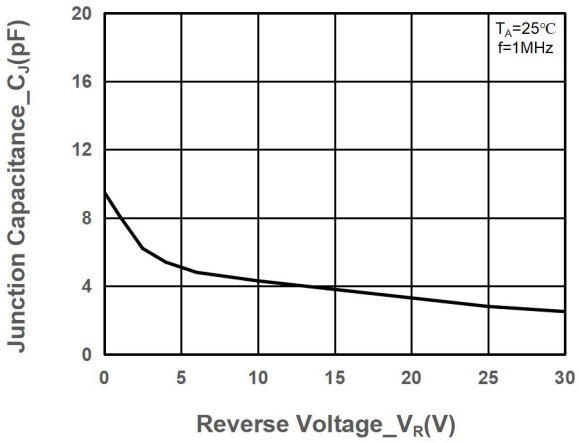
Forward Current vs. Forward Voltage



Reverse Current vs. Reverse Voltage



Power Derating vs. Ambient Temperature



Junction Capacitance vs. Reverse Voltage

Package Information

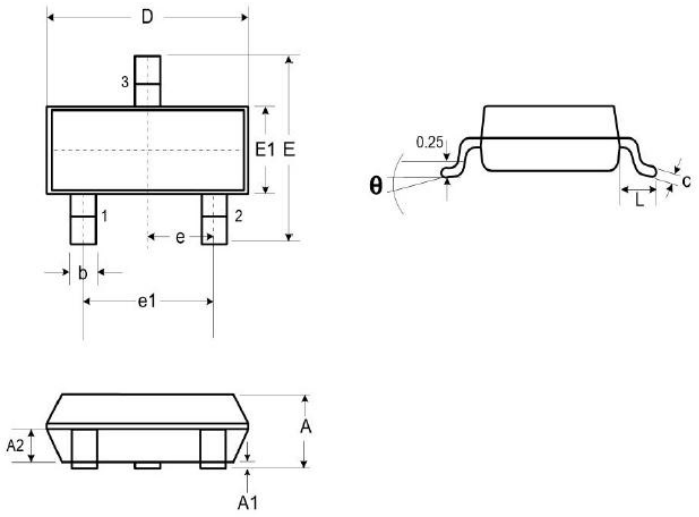
Ordering Information

Device	Package	Marking	Qty per Reel	Reel Size
SSCSBAT54S6	SOT-23	KL1	3000	7 Inch
SSCSBAT54AS6	SOT-23	KL2	3000	7 Inch
SSCSBAT54CS6	SOT-23	KL3	3000	7 Inch
SSCSBAT54SS6	SOT-23	KL4	3000	7 Inch

Mechanical Data

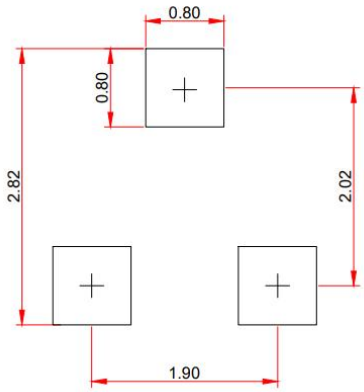
Case: SOT-23

Case Material: Molded Plastic. UL Flammability



DIM	Millimeters		
	Min.	Typ.	Max.
A	0.89	-	1.12
A1	0.01	-	0.10
A2	0.88	0.95	1.02
b	0.30	-	0.51
c	0.08	-	0.18
D	2.80	2.90	3.04
E	2.10	2.37	2.64
E1	1.20	1.30	1.40
e	0.95		
e1	1.90		
L	0.40	0.50	0.60
L1	0.55		
N	3		
θ	0°	-	8°

Recommended Pad outline(Unit: mm)



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