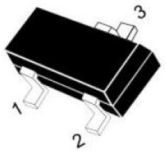
SSCSBAT54/A/C/SS6 Series

Schottky Barrier Diode

● Features

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

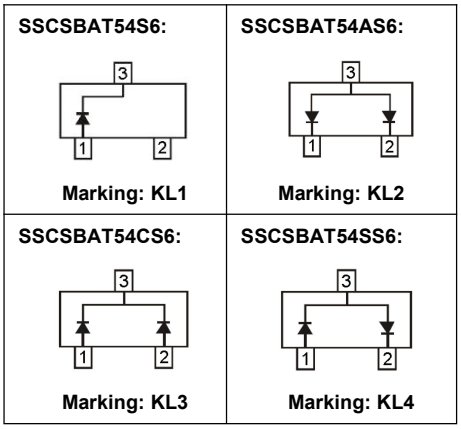
● PIN configuration



SOT-23

● Applications

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



Circuit Diagram

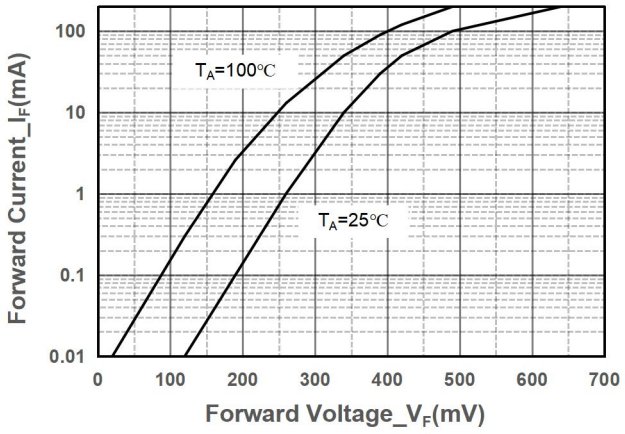
● Absolute maximum rating @T_A=25℃

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	℃

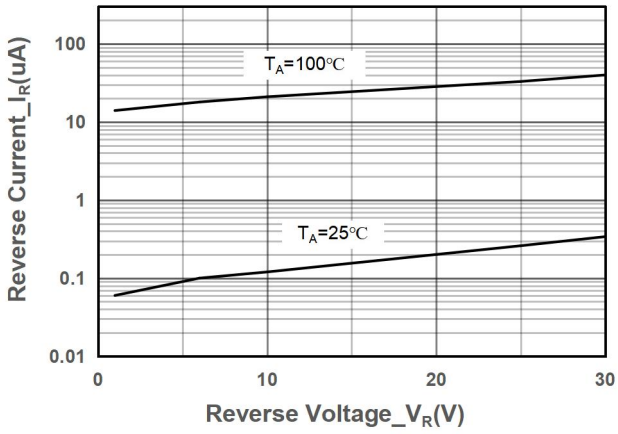
Electrical Characteristics @T_A=25℃

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

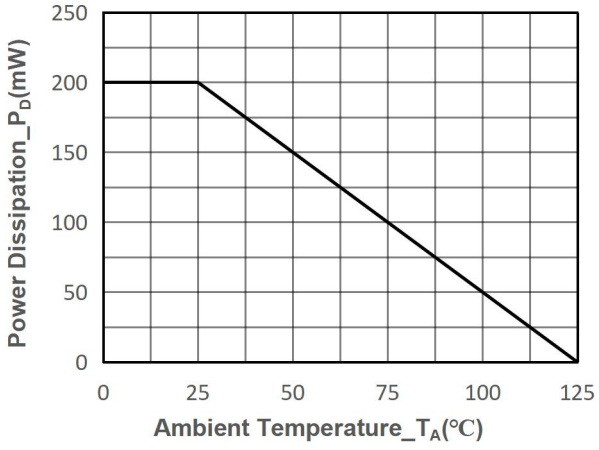
Typical Performance Characteristics



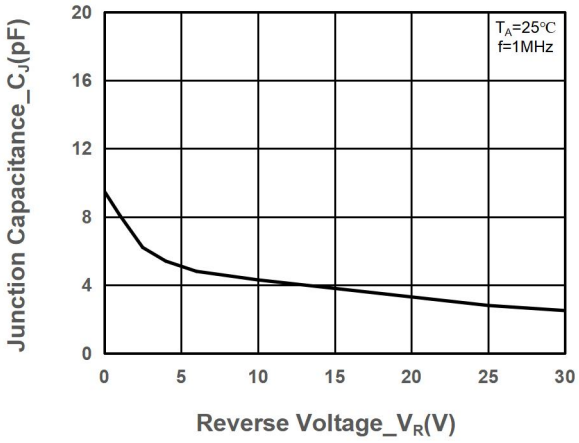
Forward Current vs. Forward Voltage



Reverse Current vs. Reverse Voltage



Power Derating vs. Ambient Temperature



Junction Capacitance vs. Reverse Voltage

● Package Information

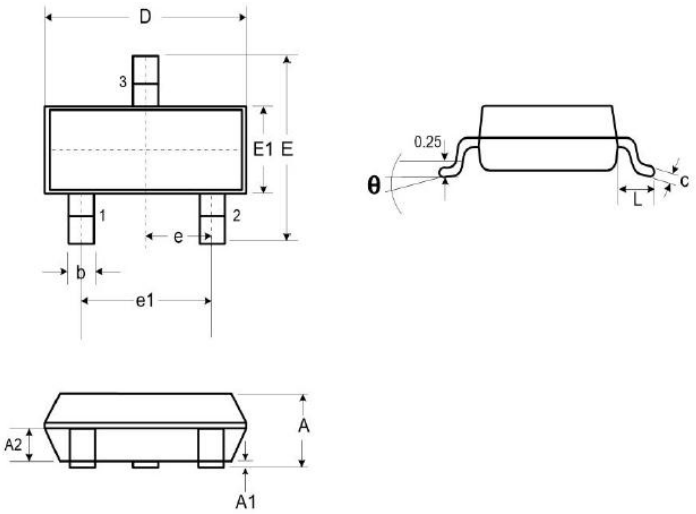
Ordering Information

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

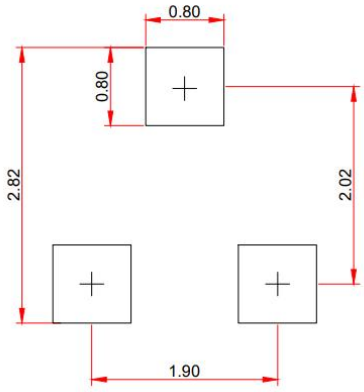
Case: SOT-23

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
e1	1.90		
e	0.95		
L	0.40	0.50	0.60
L1	0.55		
N	3		
θ	0°	-	8°

Recommended Pad outline (Unit: mm)



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