



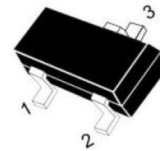
SSCSBAT54/A/C/SS6 Series

Schottky Barrier Diode

- **Features**

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

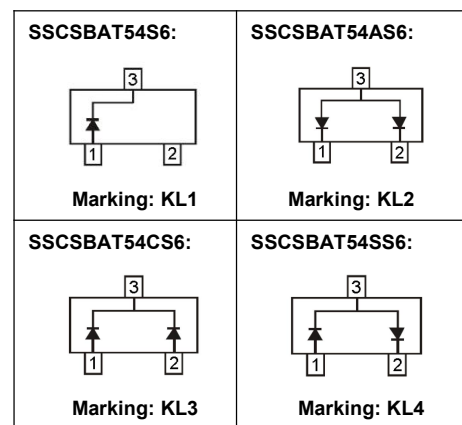
- **PIN configuration**



SOT-23

- **Applications**

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



Circuit Diagram

- **Absolute maximum rating @ $T_A=25^{\circ}\text{C}$**

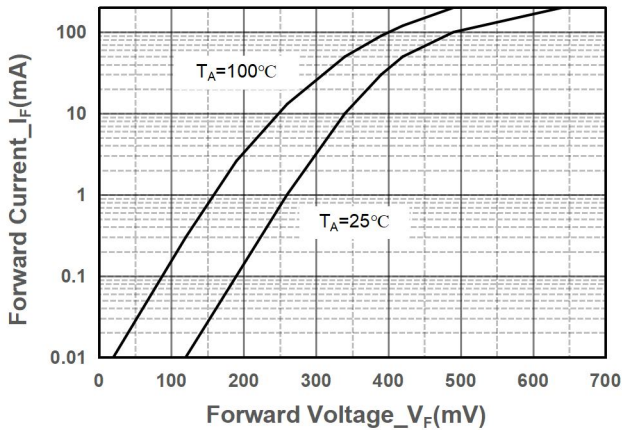
Parameter	Symbol	Value	Unit
Reverse Voltage (DC)	V_R	30	V
Average Rectified Forward Current	I_{FM}	200	mA
Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	600	mA
Power Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	500	$^{\circ}\text{C}/\text{W}$
Junction Temperature	T_J	125	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^{\circ}\text{C}$



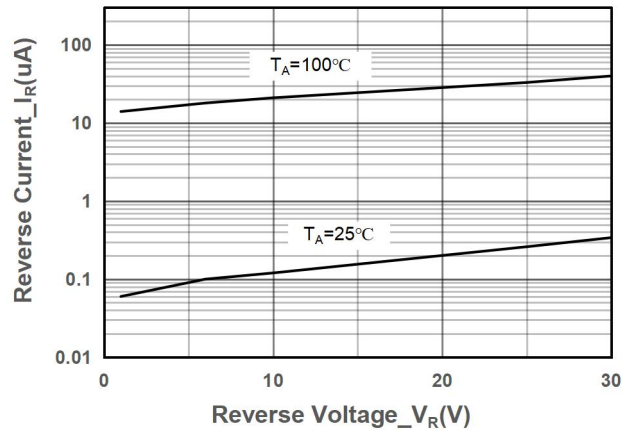
● Electrical Characteristics @T_A=25°C

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

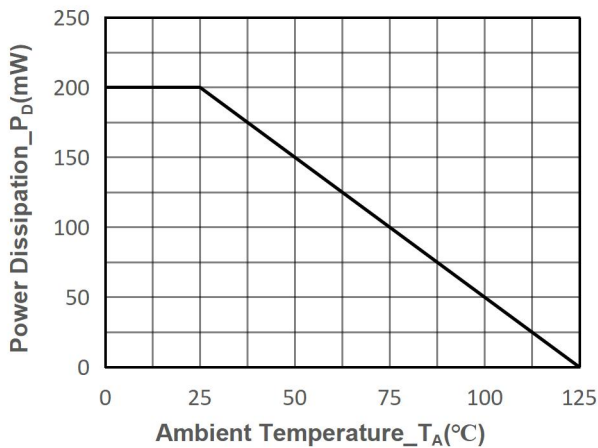
● Typical Performance Characteristics



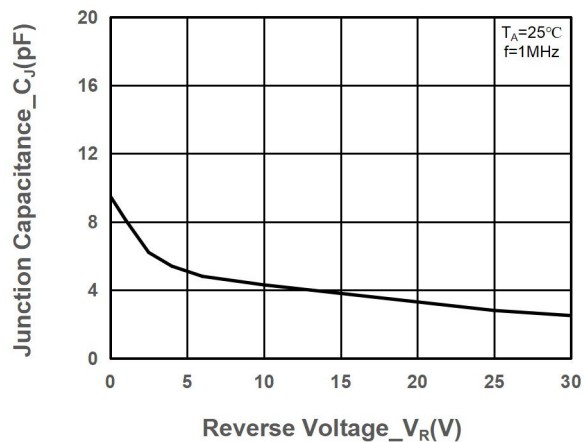
Forward Current vs. Forward Voltage



Reverse Current vs. Reverse Voltage



Power Derating vs. Ambient Temperature



Junction Capacitance vs. Reverse Voltage



● Package Information

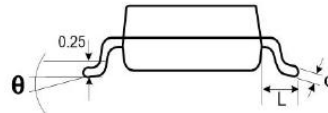
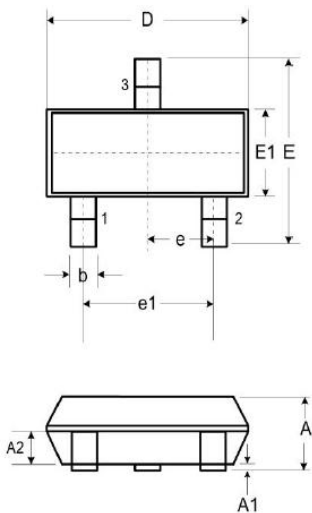
Ordering Information

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

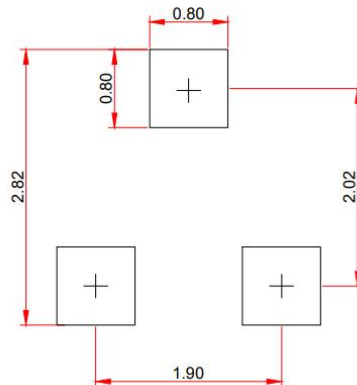
Case: SOT-23

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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