



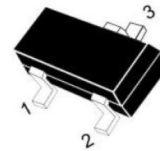
## SSCSBAT54/A/C/SS6 Series

### Schottky Barrier Diode

- **Features**

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

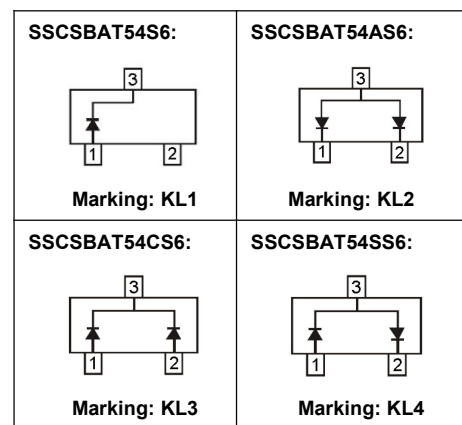
- **PIN configuration**



**SOT-23**

- **Applications**

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



**Circuit Diagram**

- **Absolute maximum rating @T<sub>A</sub>=25°C**

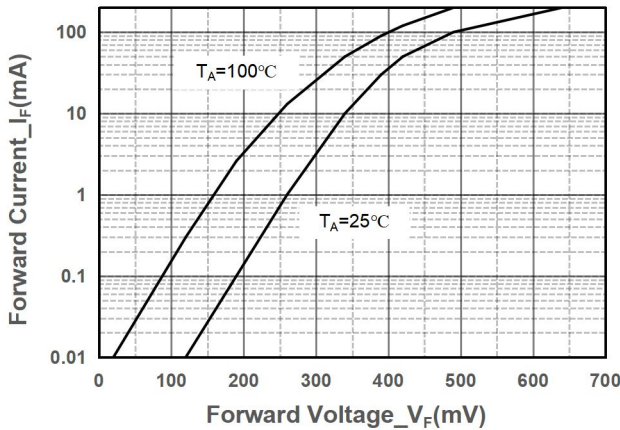
Parameter	Symbol	Value	Unit
Reverse Voltage (DC)	V <sub>R</sub>	30	V
Average Rectified Forward Current	I <sub>FM</sub>	200	mA
Non-repetitive Peak Forward Surge Current @ t=8.3ms	I <sub>FSM</sub>	600	mA
Power Dissipation	P <sub>D</sub>	200	mW
Thermal Resistance from Junction to Ambient	R <sub>θJA</sub>	500	°C/W
Junction Temperature	T <sub>J</sub>	125	°C
Storage Temperature	T <sub>STG</sub>	-55 ~ +150	°C



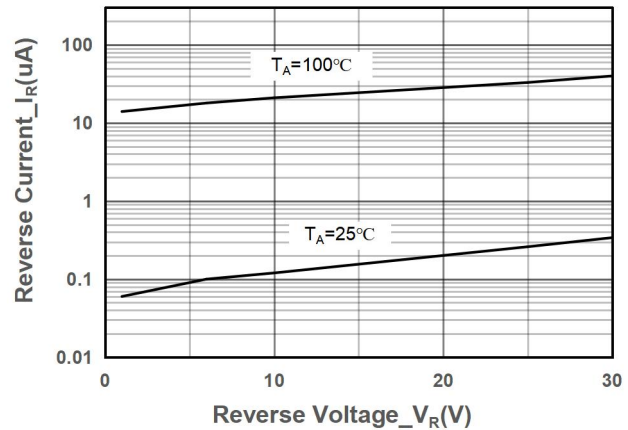
● **Electrical Characteristics @T<sub>A</sub>=25°C**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Voltage	V <sub>R</sub>	I <sub>R</sub> = 100uA	30			V
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 0.1mA			0.23	V
		I <sub>F</sub> = 1mA			0.30	V
		I <sub>F</sub> = 10mA			0.40	V
		I <sub>F</sub> = 30mA			0.50	V
		I <sub>F</sub> = 100mA			1.00	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 25V			2	uA
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> =1V,f=1MHz			10	pF
Reverse recovery time	t <sub>rr</sub>	I <sub>F</sub> =I <sub>R</sub> =10mA,R <sub>L</sub> =100Ω,I <sub>RR</sub> =0.1I <sub>R</sub>			5	ns

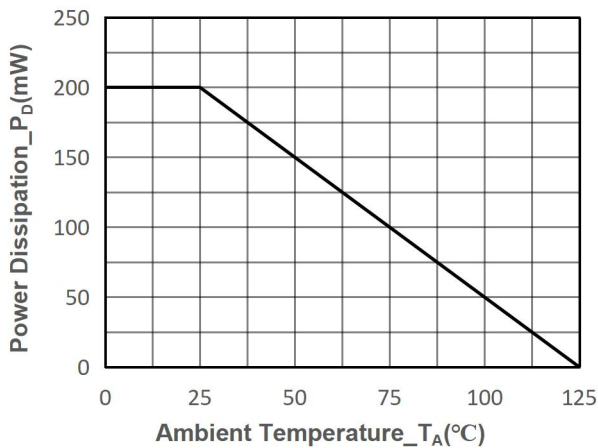
● **Typical Performance Characteristics**



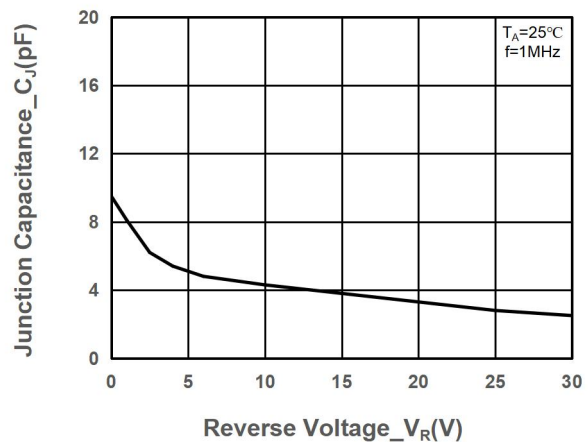
**Forward Current vs. Forward Voltage**



**Reverse Current vs. Reverse Voltage**



**Power Derating vs. Ambient Temperature**



**Junction Capacitance vs. Reverse Voltage**



## ● Package Information

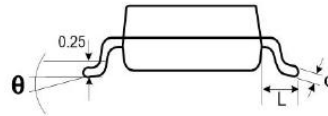
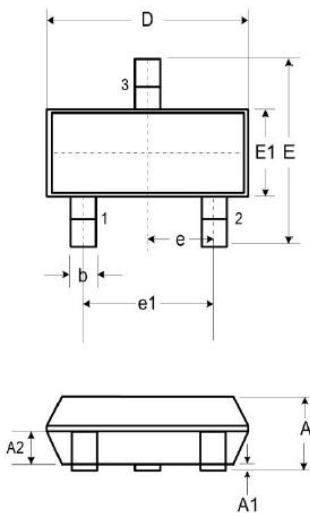
### Ordering Information

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

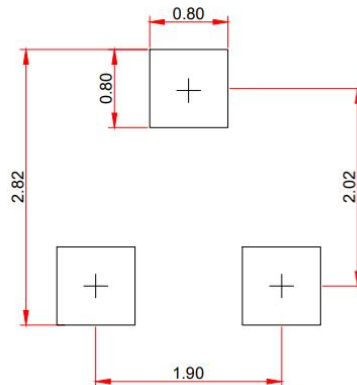
Case: SOT-23

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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