



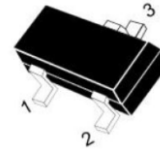
## SSCSBAT54/A/C/SS7Series

### Schottky Barrier Diode

- **Features**

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

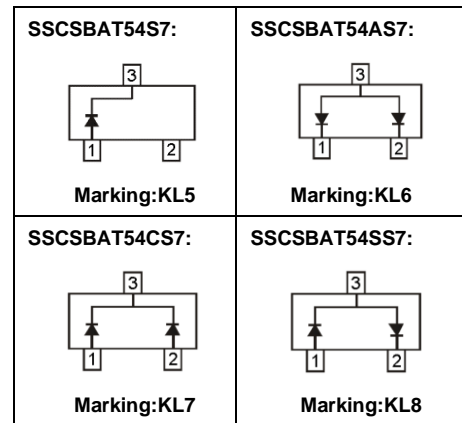
- **PIN configuration**



**SOT-323**

- **Applications**

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



**Circuit Diagram**

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

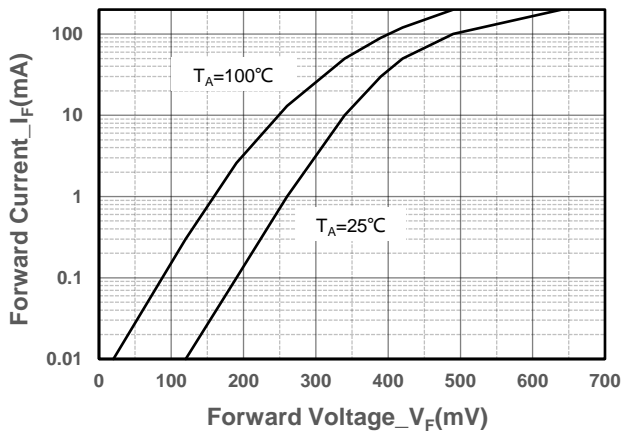
Parameter	Symbol	Value	Unit
Reverse Voltage(DC)	V <sub>R</sub>	30	V
Average Rectified Forward Current	I <sub>FM</sub>	200	mA
Non-repetitive Peak Forward Surge Current @ t=8.3ms	I <sub>FSM</sub>	600	mA
Power Dissipation	P <sub>D</sub>	200	mW
Thermal Resistance from Junction to Ambient	R <sub>θJA</sub>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



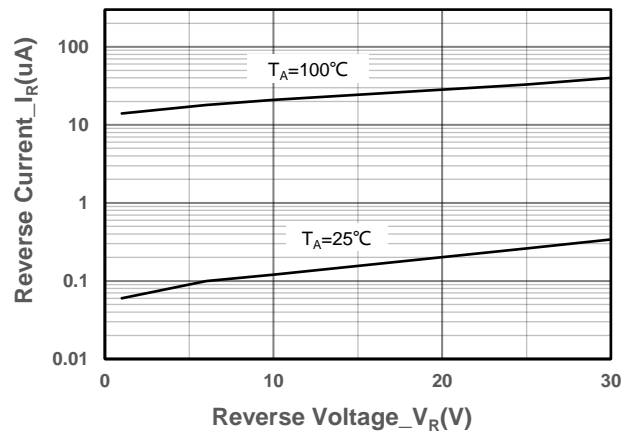
● Electrical Characteristics @T<sub>A</sub>=25°C

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

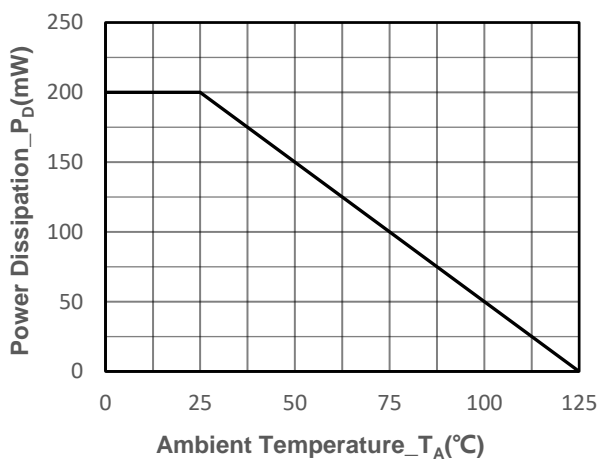
● Typical Performance Characteristics



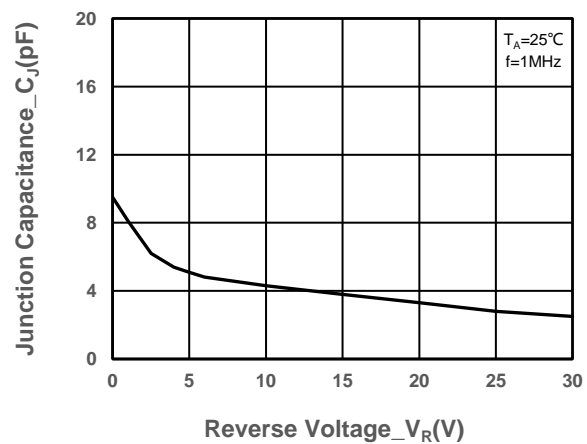
Forward Current vs. Forward Voltage



Reverse Current vs. Reverse Voltage



Power Derating vs. Ambient Temperature



Junction Capacitance vs. Reverse Voltage



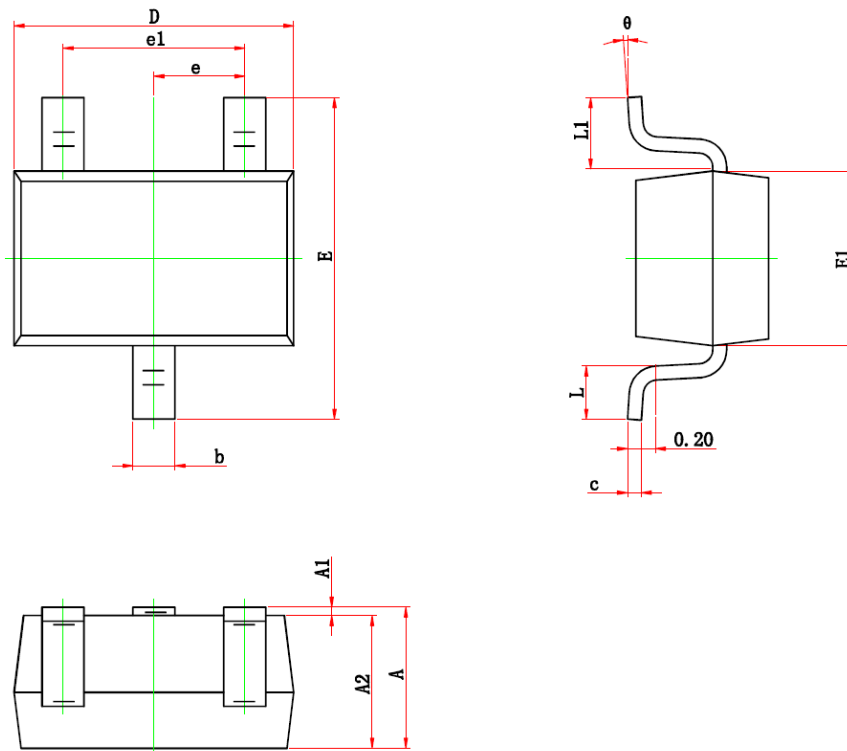
## ● Package Information

### Ordering Information

Device	Package	Marking	Qty per Reel	Reel Size
SSCSBAT54S7	SOT-323	KL5	3000	7 Inch
SSCSBAT54AS7	SOT-323	KL6	3000	7 Inch
SSCSBAT54CS7	SOT-323	KL7	3000	7 Inch
SSCSBAT54SS7	SOT-323	KL8	3000	7 Inch

### Mechanical Data (Unit: mm)

Case: 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	2.150	2.450	0.085	0.096
E1	1.150	1.350	0.045	0.053
e	0.650 TYP.		0.026 TYP.	
e1	1.200	1.400	0.047	0.055
L	0.260	0.460	0.010	0.018
L1	0.525 REF.		0.021 REF.	
θ	0°	8°	0°	8°



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