

SSCSBAT54AS6

Schottky Barrier Diode

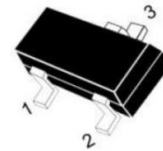
● Features

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

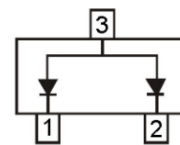
● Applications

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

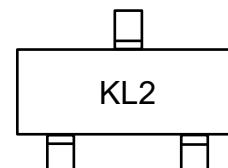
● PIN configuration



SOT-23



Circuit Diagram



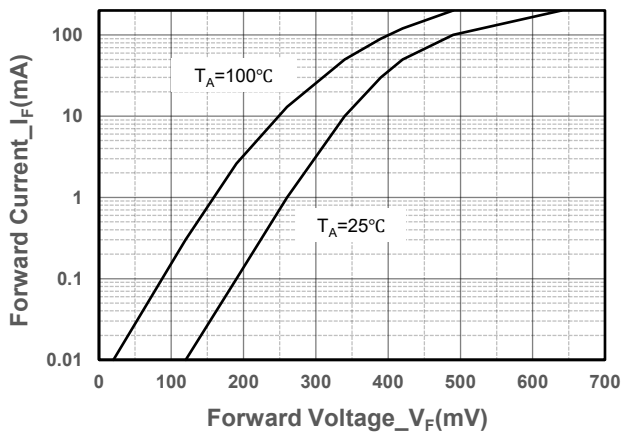
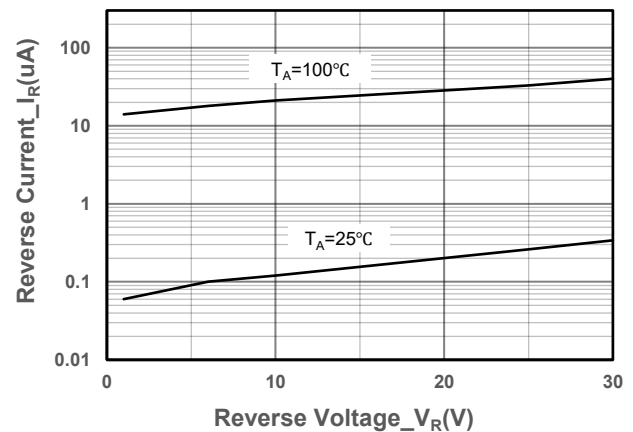
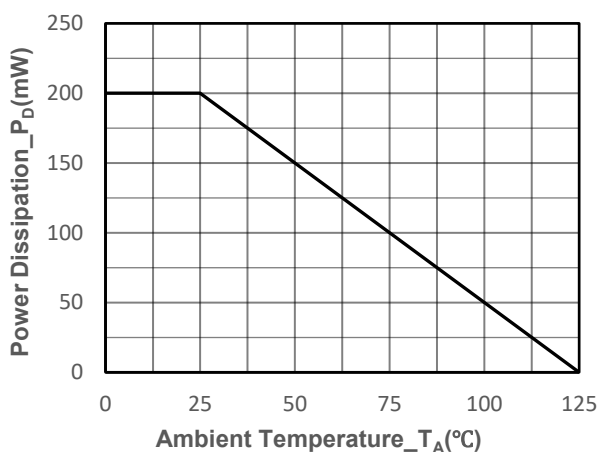
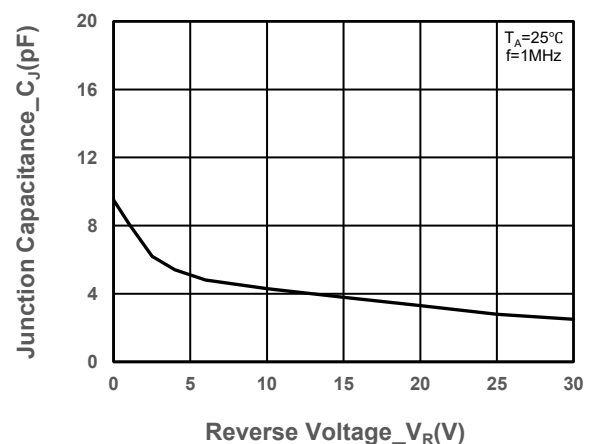
Marking (Top view)

● Absolute maximum rating @T_A=25°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=8.3ms	I _{FSM}	600	mA
Power Dissipation	P _D	200	mW
Thermal Resistance from Junction to Ambient	R _{θJA}	500	°C/W
Junction Temperature	T _J	125	°C
Storage Temperature	T _{STG}	-55 ~ +150	°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**

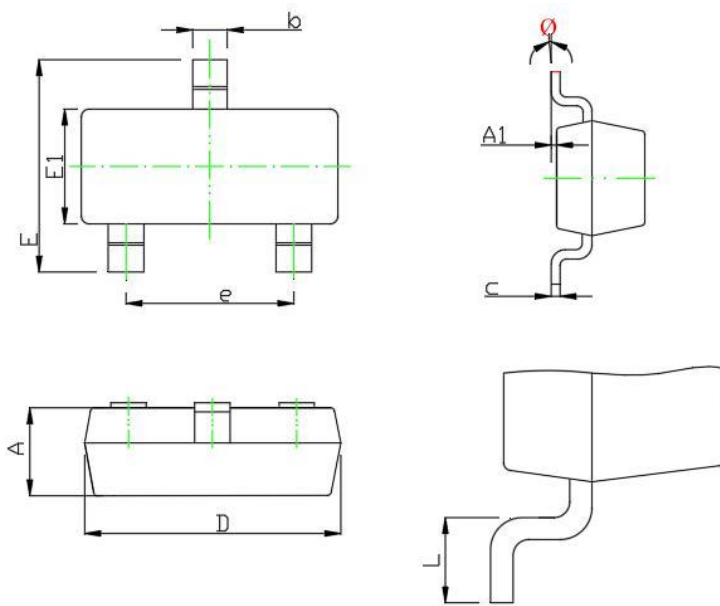
Ordering Information

Device	Package	Marking	Qty per Reel	Reel Size	MSL
SSCSBAT54AS6	SOT-23	KL2	3000	7 Inch	3

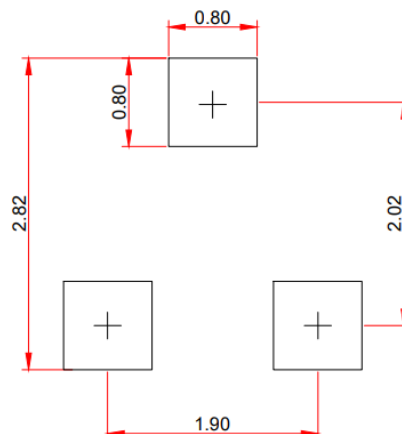
Mechanical Data

Case: SOT-23

Case Material: Molded Plastic. UL Flammability

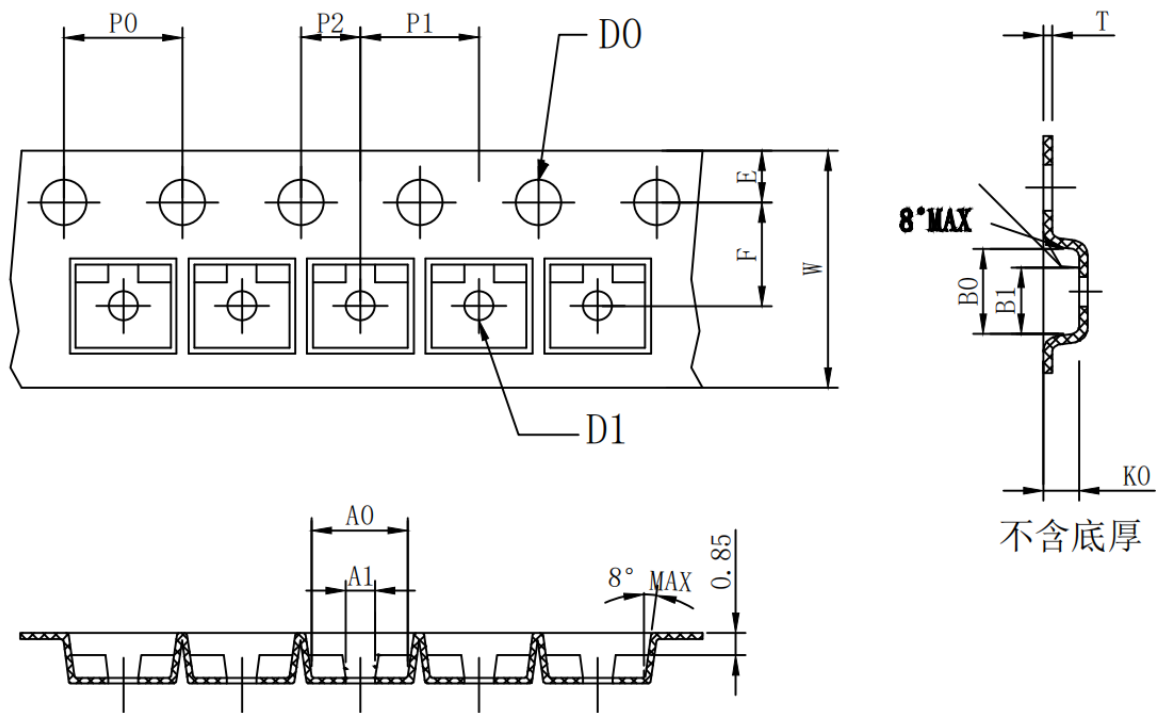


DIM	Millimeters		
	Min.	Typ.	Max.
A	0.9	1.00	1.15
A1	0.01	0.05	0.10
b	0.35	0.40	0.45
c	0.08	0.11	0.16
D	2.80	2.90	3.00
E	2.25	2.40	2.55
E1	1.20	1.30	1.40
e	0.80	1.90	2.00
L	0.30	0.40	0.50
θ	0°	-	8°

Recommended Pad outline (Unit: mm)

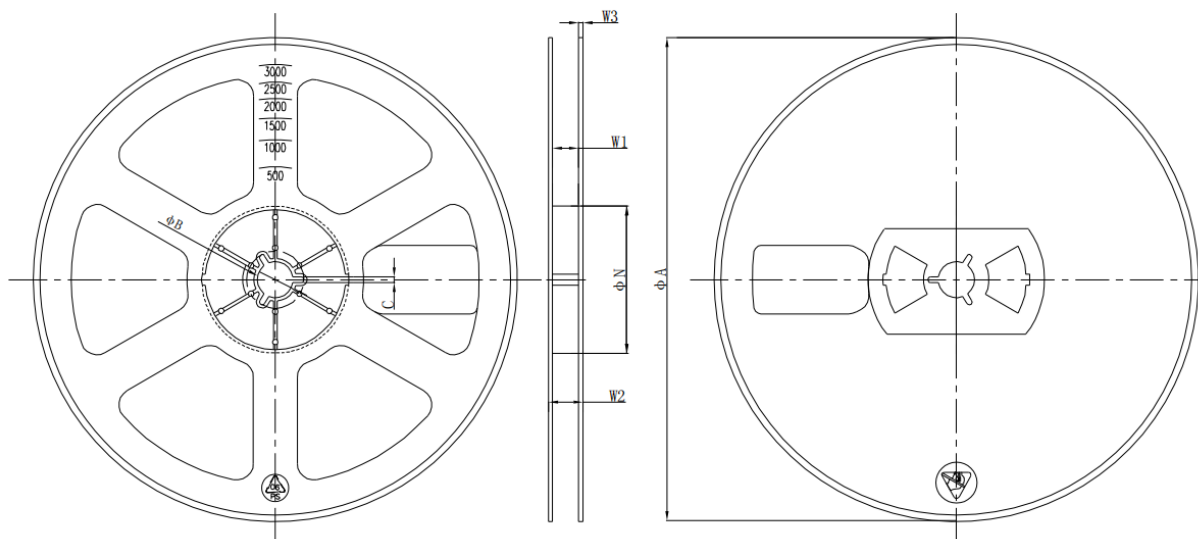


● Type and Reel Information-SOT-23



(Unit: mm)

A0	A1	B0	B1	K0	D0	D1	P0
3.15±0.1	1.15±0.1	2.80±0.1	2.15±0.1	1.3±0.1	1.55±0.1	1.10±0.1	4.00±0.1
P1	W	E	P2	T	10*P0	F	
4.00±0.1	7.90 - 8.00	1.75±0.1	2.00±0.1	0.21±0.02	40.00±0.1	3.5±0.1	



A	N	B	C	W1	W2	W3
Φ 178±2	Φ 54±2	Φ 13.2±0.3	2.2±0.3	9.5±1	13 _{MAX}	1.4±0.4



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