



SSCSBAT54/A/C/SS8Series

Schottky Barrier Diode

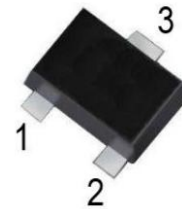
● Features

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

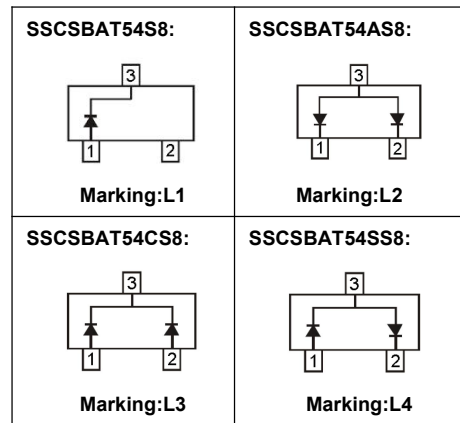
● Applications

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

● PIN configuration



SOT-523



Circuit Diagram

● Absolute maximum rating @T_A=25℃

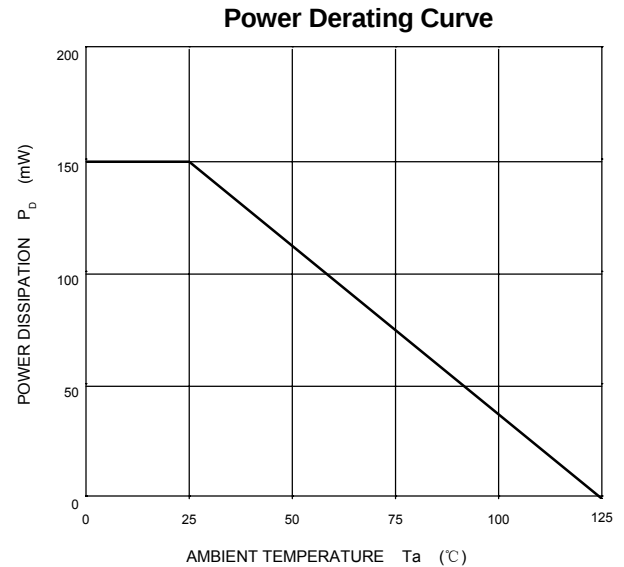
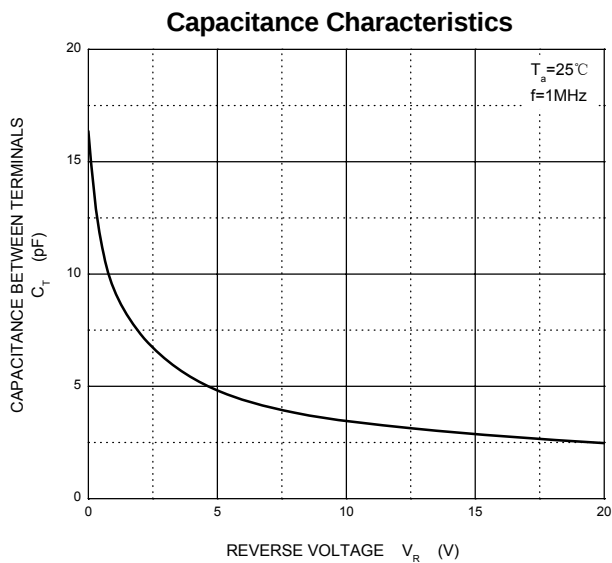
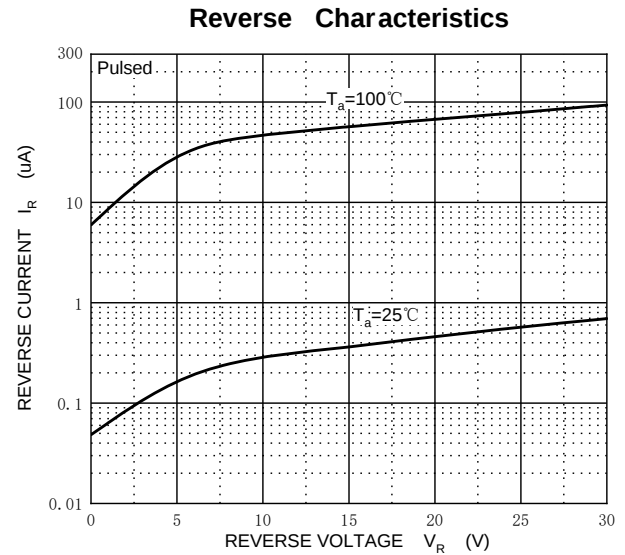
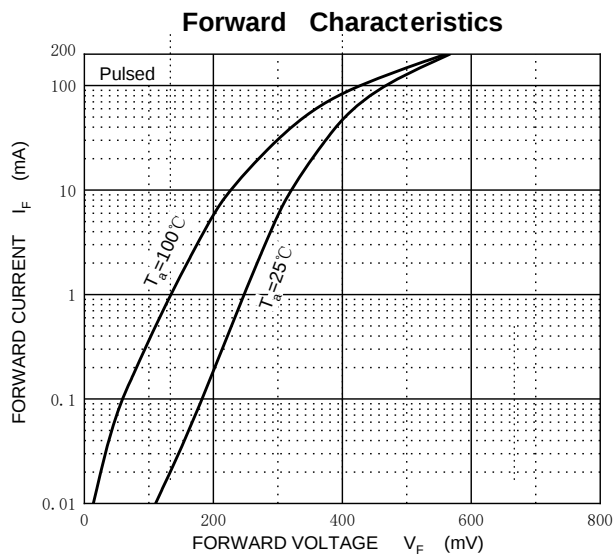
Parameter	Symbol	Value	Unit
Reverse Voltage(DC)	V _R	30	V
Average Rectified Forward Current	I _O	200	mA
Non-repetitive Peak Forward Surge Current @ t=8.3ms	I _{FSM}	600	mA
Power Dissipation	P _D	150	mW
Thermal Resistance from Junction to Ambient	R _{θJA}	600	℃/W
Junction Temperature	T _J	125	℃
Storage Temperature	T _{STG}	-55 ~ +150	℃



● 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 = 1mA			0.32	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





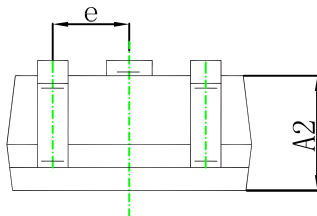
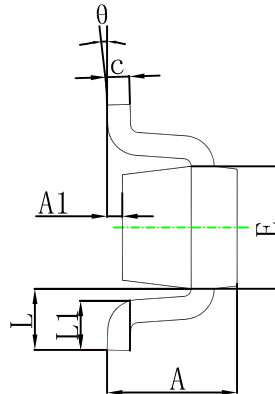
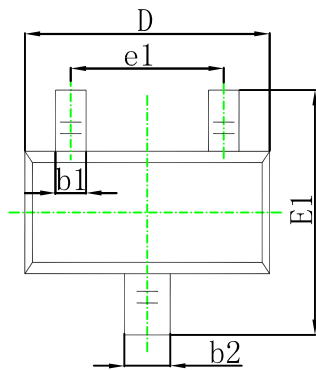
● Package Information

Ordering Information

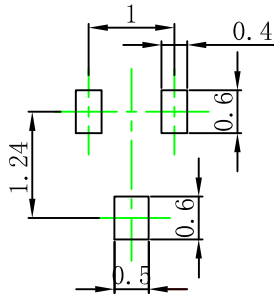
Device	Package	Marking	Qty per Reel	Reel Size
SSCSBAT54S8	SOT-523	L1	3000	7 Inch
SSCSBAT54AS8	SOT-523	L2	3000	7 Inch
SSCSBAT54CS8	SOT-523	L3	3000	7 Inch
SSCSBAT54SS8	SOT-523	L4	3000	7 Inch

Mechanical Data (Unit: mm)

Case: SOT-523



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.700	0.900	0.028	0.035
A1	0.000	0.100	0.000	0.004
A2	0.700	0.800	0.028	0.031
b1	0.150	0.250	0.006	0.010
b2	0.250	0.350	0.010	0.014
c	0.100	0.200	0.004	0.008
D	1.500	1.700	0.059	0.067
E	0.700	0.900	0.028	0.035
E1	1.450	1.750	0.057	0.069
e	0.500 TYP.		0.020 TYP.	
e1	0.900	1.100	0.035	0.043
L	0.400 REF.		0.016 REF.	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

SOT-523 Suggested Pad Layout


Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

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