



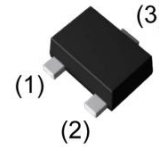
SSCSBAT54/A/C/SS8 Series

Schottky Barrier Diode

- **Features**

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

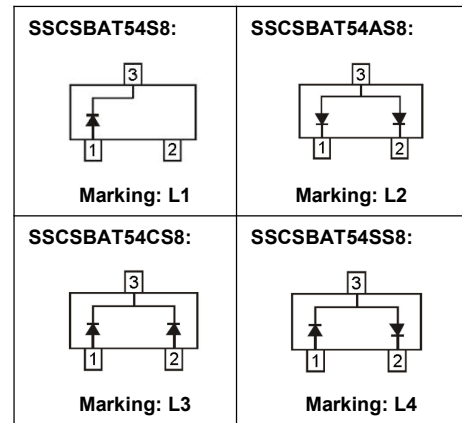
- **PIN configuration**



SOT-523

- **Applications**

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



Circuit Diagram

- **Absolute maximum rating @T_A=25°C**

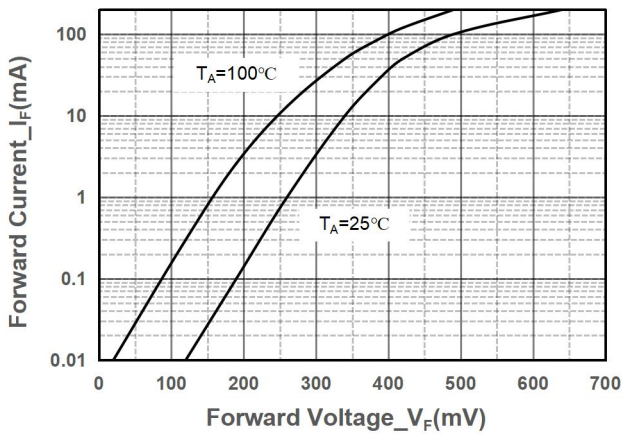
Parameter	Symbol	Value	Unit
Reverse Voltage (DC)	V _R	30	V
Average Rectified Forward Current	I _{FM}	200	mA
Non-repetitive Peak Forward Surge Current @ t=8.3ms	I _{FSM}	600	mA
Power Dissipation	P _D	150	mW
Thermal Resistance from Junction to Ambient	R _{θJA}	667	°C/W
Junction Temperature	T _J	125	°C
Storage Temperature	T _{STG}	-55 ~ +150	°C



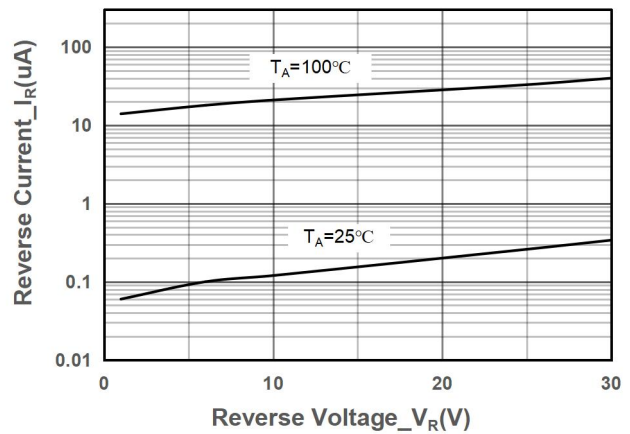
● Electrical Characteristics @T_A=25°C

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

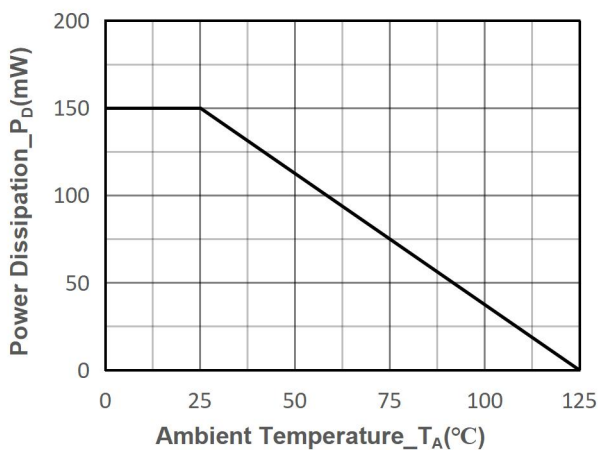
● Typical Performance Characteristics



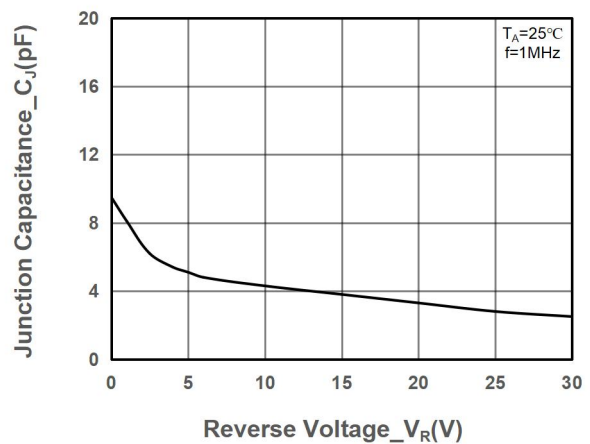
Forward Current vs. Forward Voltage



Reverse Current vs. Reverse Voltage



Power Derating vs. Ambient Temperature



Junction Capacitance vs. Reverse Voltage



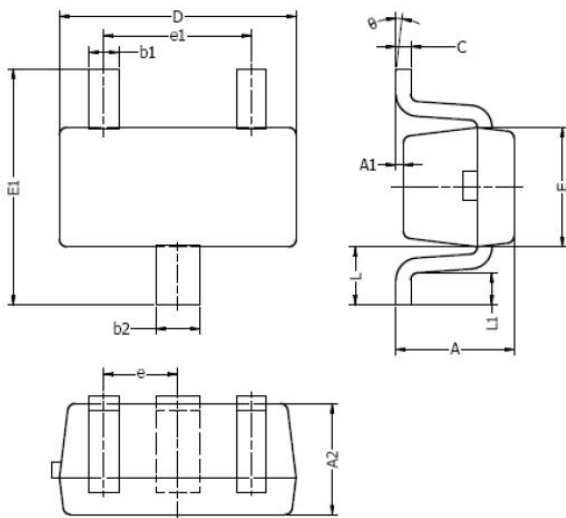
● Package Information

Ordering Information

Device	Package	Marking	Qty per Reel	Reel Size
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

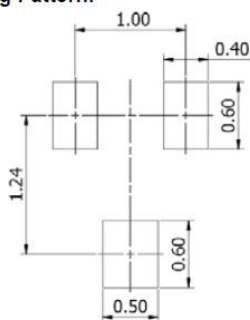
Mechanical Data

SOT-523



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.70	0.90	0.028	0.035
A1	0.00	0.10	0.000	0.004
A2	0.70	0.80	0.028	0.031
b1	0.15	0.25	0.006	0.010
b2	0.25	0.35	0.010	0.014
c	0.10	0.20	0.004	0.008
D	1.50	1.70	0.059	0.067
E	0.70	0.90	0.028	0.035
E1	1.45	1.75	0.057	0.069
e	0.50 TYP.		0.020 TYP.	
e1	0.90	1.10	0.035	0.043
L	0.40 REF.		0.016 REF.	
L1	0.10	0.30	0.004	0.012
θ	0°	8°	0°	8°

Typical Soldering Pattern:



NOTES:

- Above package outline conforms to JEITA EAIJ ED-7500A SC-75A.
- Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.



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