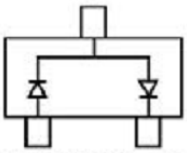
Features

Extremely Fast Switching Speed
Low forward voltage

SOT-323



BAT54SW

Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BAT54SW,115	SOT-323	KL8	3000

Maximum Ratings (Ta=25℃ unless otherwise noted)

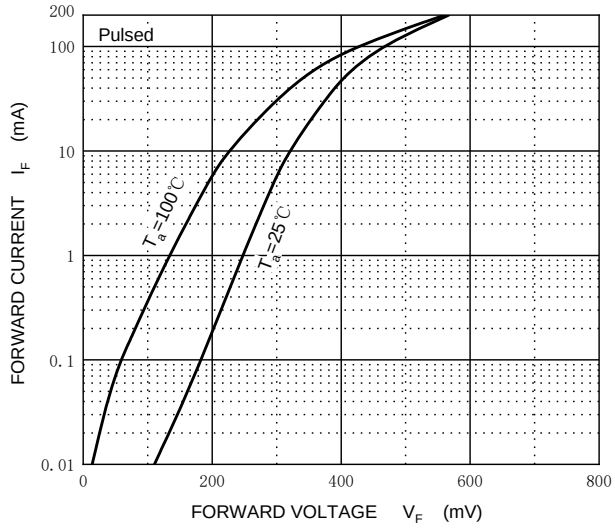
Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	V
Forward Continuous Current	I_{FM}	200	mA
Non-repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	600	mA
Repetitive Peak Forward Current @ t≤1s,δ≤0.5	I_{FRM}	300	mA
Power Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient	$R_{\Theta JA}$	500	℃/W
Operating Junction Temperature Range	T_j	-40 ~ +125	℃
Storage Temperature Range	T_{stg}	-55 ~ +150	℃

Electrical Characteristics (Ta=25℃ unless otherwise noted)

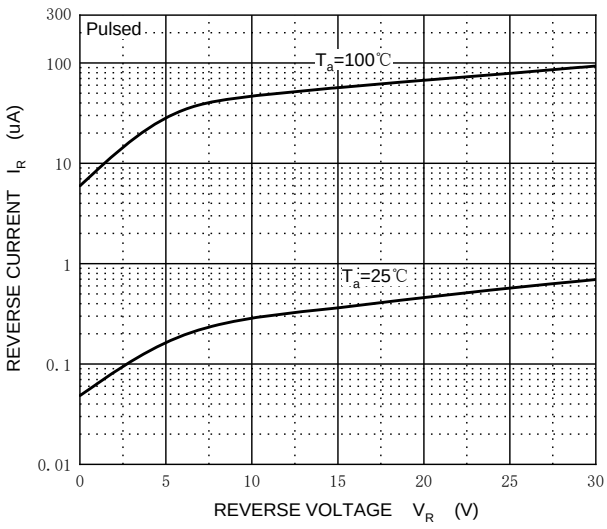
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	I_R=100μA	30			V
Reverse current	I_R	V_R=25V			2	μA
Forward voltage	V_F	I_{F1}=0.1mA			0.24	V
		I_{F2}=1mA			0.32	V
		I_{F3}=10mA			0.40	V
		I_{F4}=30mA			0.50	V
		I_{F5}=100mA			1	V
Diode capacitance	C_D	V_R=1V,f=1MHz			10	pF
Reverse recovery time	t_{rr}	IF=IR=10mA Irr=0.1×IR,RL=100Ω			5	ns

Typical Characteristics

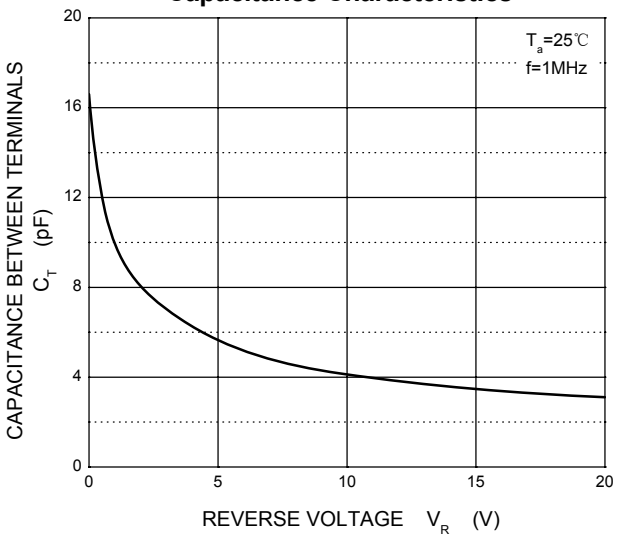
Forward Characteristics



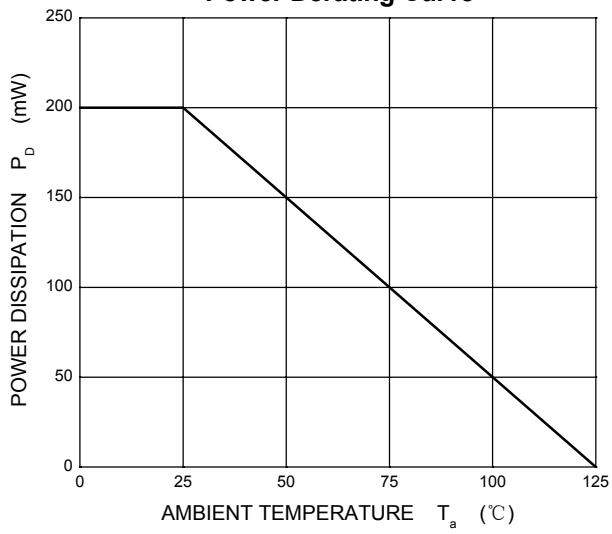
Reverse Characteristics



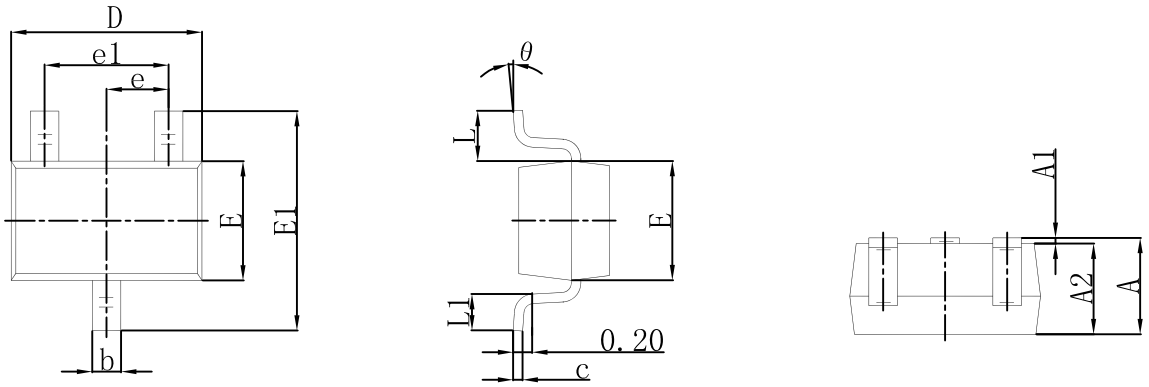
Capacitance Characteristics



Power Derating Curve



SOT-323 Package Outline Dimensions



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

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