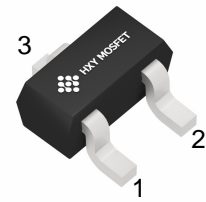




Features

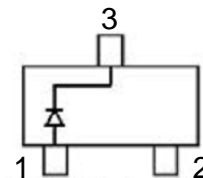
- Extremely Fast Switching Speed
- Low forward voltage



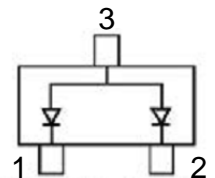
SOT-323

Package Marking and Ordering Information

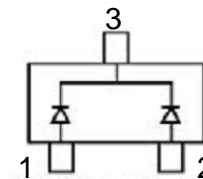
Product ID	Pack	Marking	Qty(PCS)
BAT54W	SOT-323	KL5	3000
BAT54AW	SOT-323	KL6	3000
BAT54CW	SOT-323	KL7	3000
BAT54SW	SOT-323	KL8	3000



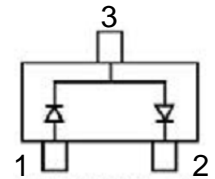
BAT54W



BAT54AW



BAT54CW



BAT54SW

Maximum Ratings (Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	30	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
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	°C/W
Operating Junction Temperature Range	T_j	-40 ~ +125	°C
Storage Temperature Range	T_{stg}	-55 ~ +150	°C

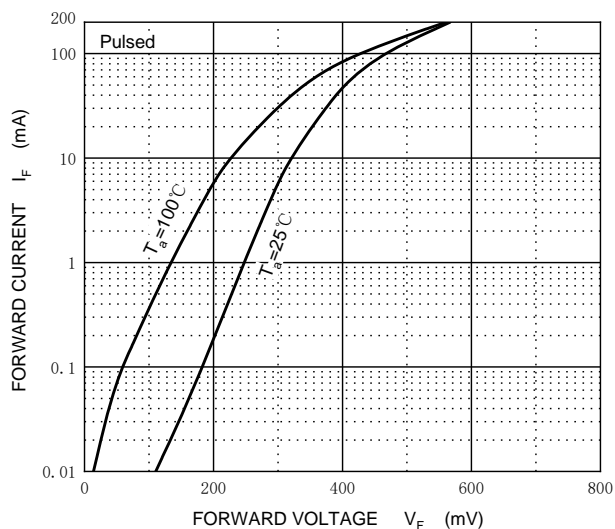
Electrical Characteristics(Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=100\mu A$	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}	$I_F=I_R=10mA$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$			5	ns

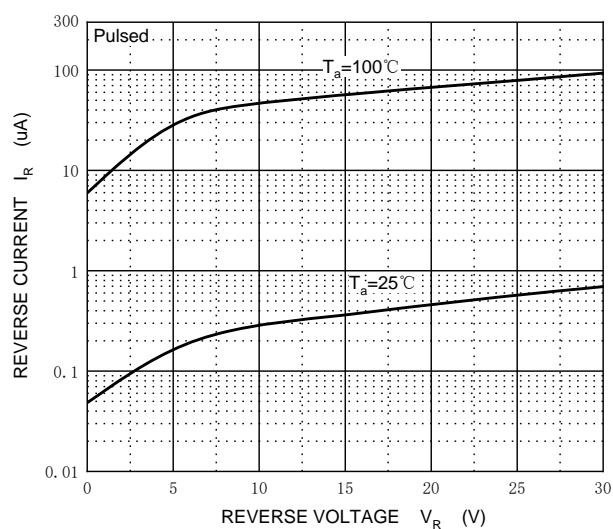


Typical Characteristics

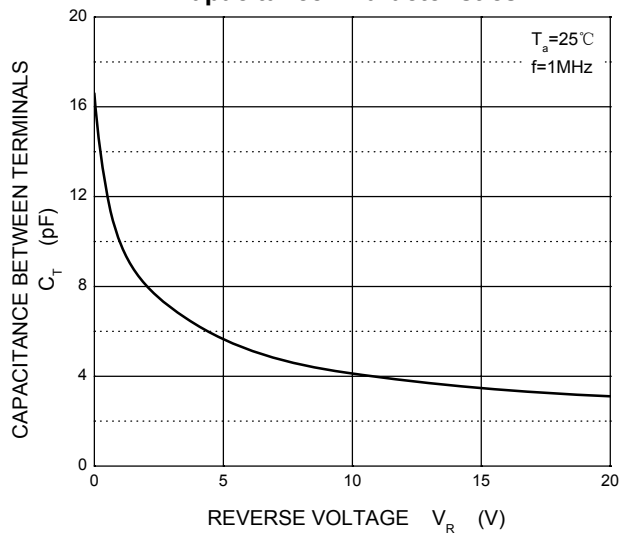
Forward Characteristics



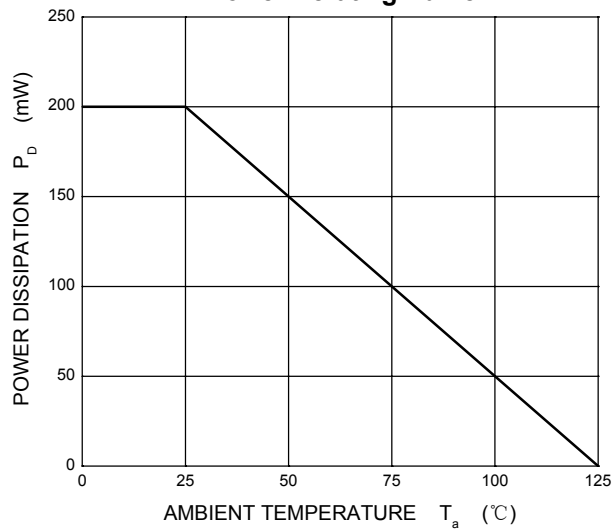
Reverse Characteristics



Capacitance Characteristics

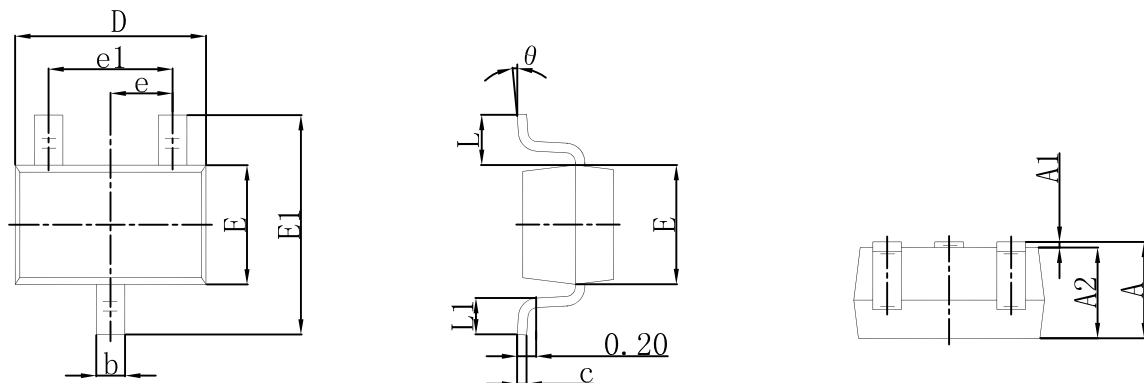


Power Derating Curve





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
θ	0°	8°	0°	8°



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