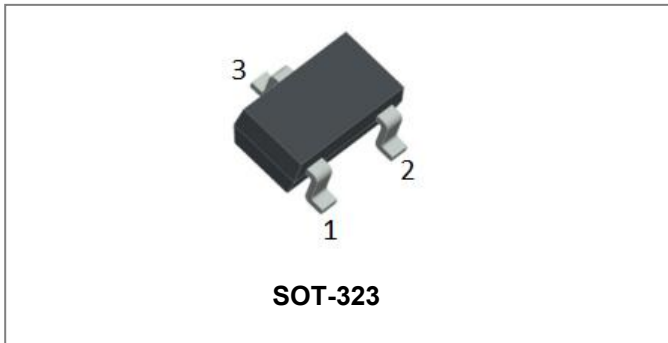
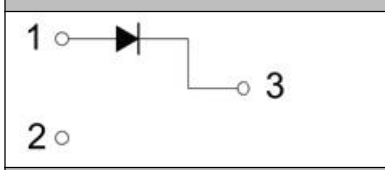
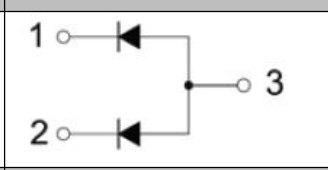
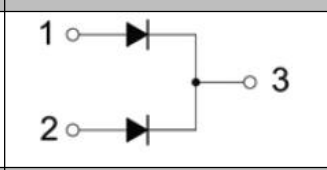
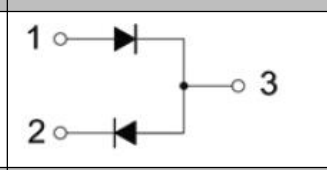
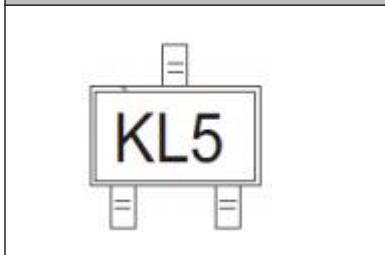
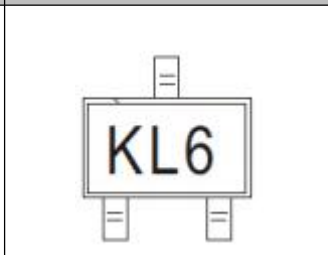
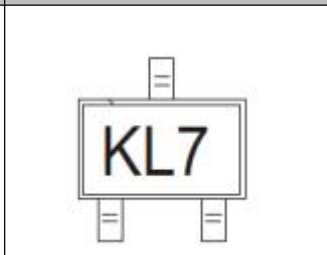
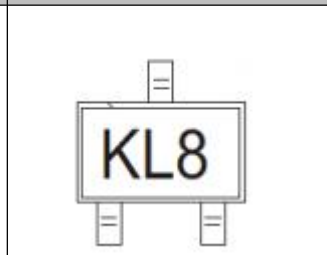


BAT54W/AW/CW/SW SCHOTTKY BARRIER DIODE



Features

- Extremely Fast Switching Speed
- Low forward voltage
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

BAT54W	BAT54AW	BAT54CW	BAT54SW
			
MARKING:KL5	MARKING:KL6	MARKING:KL7	MARKING:KL8
			

Maximum Ratings@T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

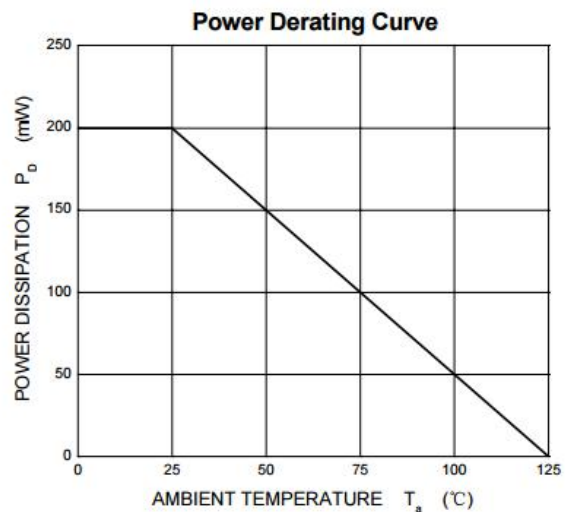
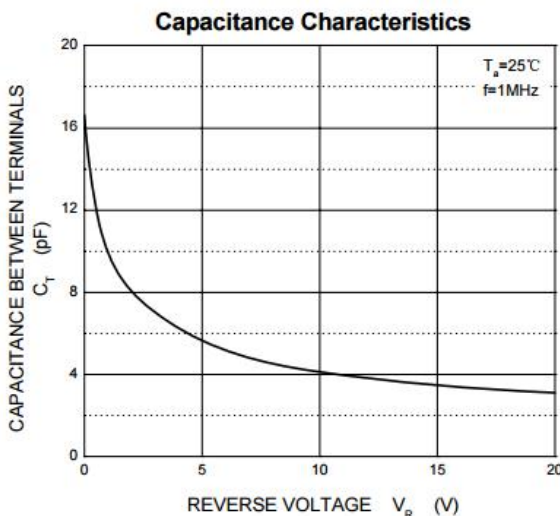
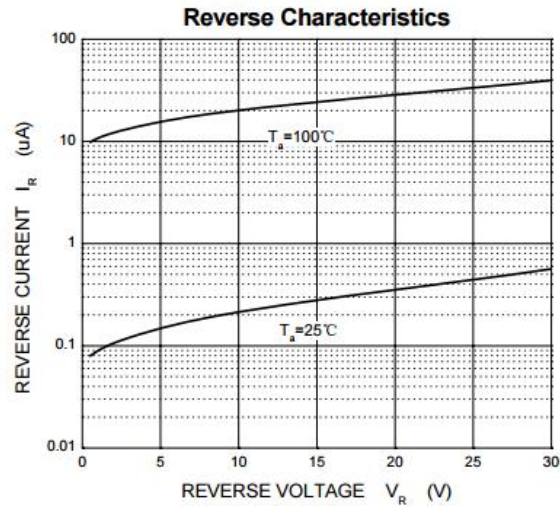
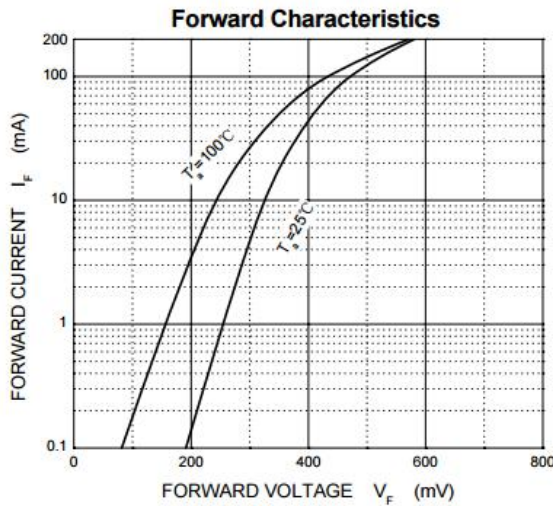
Characteristic	Symbol	Limit	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	30	V
Forward Continuous Current	I _{FM}	200	mA
Repetitive Peak Forward Current @ t ≤ 1s, δ ≤ 0.5	I _{FRM}	300	mA
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	600	mA
Power Dissipation	P _d	200	mW
Typical Thermal Resistance Junction to Ambient	R _{θJA}	500	°C/W
Junction Temperature Range	T _J	125	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Max	Units	Test Condition
Forward Voltage*	V_F	0.24 0.32 0.40 0.50 1.0	V	$I_F=0.1\text{mA}$ $I_F=1\text{mA}$ $I_F=10\text{mA}$ $I_F=30\text{mA}$ $I_F=100\text{mA}$
Reverse Leakage Current*	I_R	2	μA	$V_R=25\text{V}$
Diode capacitance	C_T	10	pF	$V_R=1\text{V}, f=1.0\text{MHz}$
Reverse recovery time	t_{rr}	5	ns	$I_F=I_R=10\text{mA}, I_{rr}=0.1 \times I_R, R_L=100\Omega$

* Pulse width < 300 μs , duty cycle < 2%

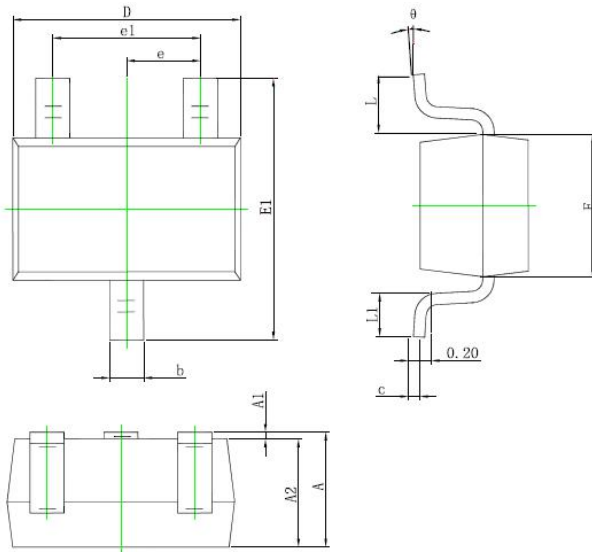
Ratings and Characteristics Curves



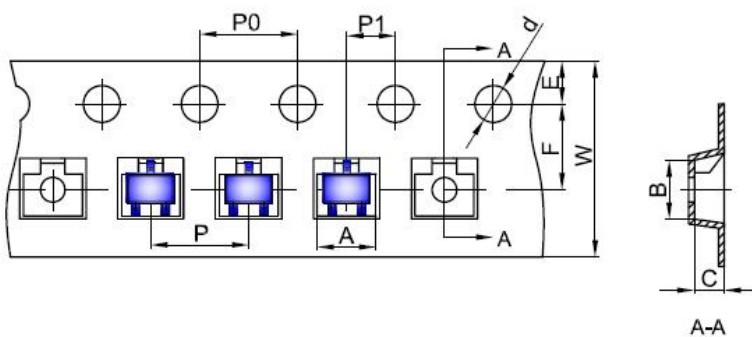
Ordering Information

Device	Package	Shipping
BAT54W/AW/CW/SW	SOT-323(Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Mechanical Dimensions SOT-323


SYMBOL	Millimeters		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°

Carrier Tape Specification SOT-323


SYMBOL	Millimeters	
	Min.	Max.
A	2.20	2.30
B	2.50	2.60
C	1.14	1.24
d	1.45	1.65
E	1.65	1.85
F	3.40	3.60
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
W	7.90	8.30

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