



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## BAT54WS SURFACE MOUNT SCHOTTKY BARRIER DIODE



### Features

- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring Transient and ESD Protection
- Designed for Surface Mount Application
- Plastic Material —UL Recognition Flammability Classification 94V-0
- Green Products in Compliance with the ROHS Directive
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Schematic & Pin Configuration



### Mechanical Characteristics

- Case: SOD-323, Molded plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.04 grams(approx)

### Maximum Ratings @T<sub>A</sub>=25°C unless otherwise specified

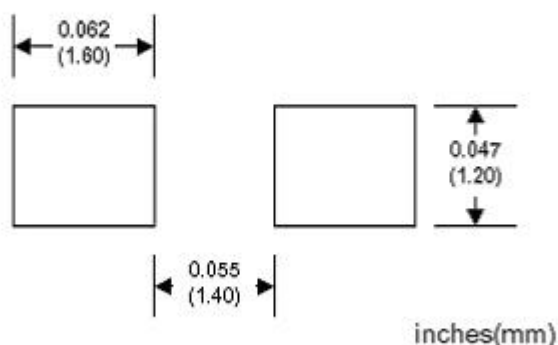
Characteristic	Symbol	Value	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	30	V
Forward Continuous Current	I <sub>FM</sub>	200	mA
Repetitive Peak Forward Current	I <sub>FRM</sub>	300	mA
Non-Repetitive Peak Forward Surge Current @t<1s	I <sub>FSM</sub>	600	mA
Power Dissipation	P <sub>D</sub>	200	mW
Thermal Resistance, Junction to Ambient	R <sub>θJA</sub>	625	°C/W
Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

**Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified**

Characteristics	Symbol	Condition	Min.	Max.	Units
Reverse Breakdown Voltage*	V <sub>BR</sub>	@ I <sub>BS</sub> =100uA	30	-	V
Forward Voltage Drop*	V <sub>F1</sub>	@ 1.0mA, Pulse, T <sub>J</sub> = 25 °C	-	0.32	V
		@ 100mA, Pulse, T <sub>J</sub> = 25 °C	-	1	V
Reverse Current*	I <sub>R1</sub>	@V <sub>R</sub> = 25V, Pulse, T <sub>J</sub> = 25 °C	-	2	μA
Capacitance between terminals	C <sub>T</sub>	@V <sub>R</sub> = 0 V, T <sub>C</sub> =25, f <sub>SIG</sub> = 1MHz	-	10	pF
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =10mA I <sub>R</sub> = 10mA T <sub>J</sub> = 25 °C I <sub>rr</sub> = 1 mA R <sub>L</sub> =100Ω	-	5	ns

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

**RECOMMENDED FOOTPRINT**





## Ordering Information

Device	Package	Shipping
BAT54WS	SOD-323 (Pb-Free)	3000pcs / reel

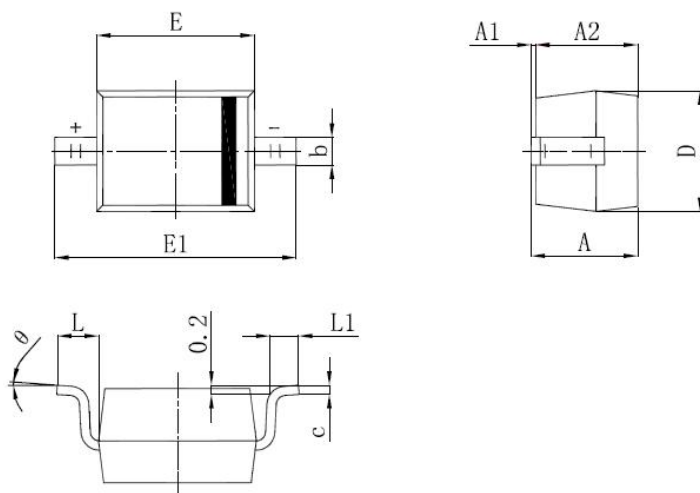
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

## Marking Diagram



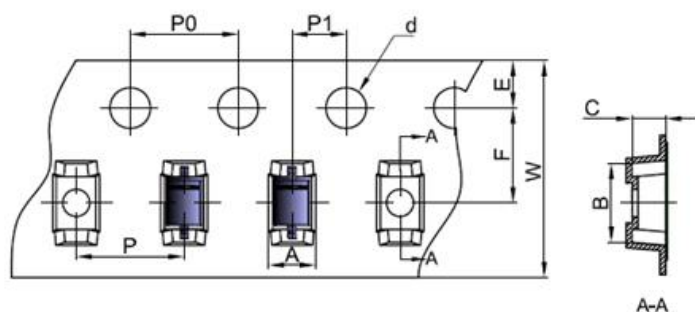
L9 = Marking Code

## Mechanical Dimensions SOD-323



SYMBOL	Millimeters		Inches	
	MIN.	MAX.	MIN.	MAX.
A	-	1.000	-	0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.500	2.700	0.098	0.106
L	0.475 REF.		0.019 REF.	
L1	0.250	0.400	0.010	0.016
$\theta$	0°	8°	0°	8°

## Carrier Tape Specification SOD-323



SYMB OL	Millimeters	
	Min.	Max.
B	2.85	2.95
C	1.20	1.30
d	1.40	1.60
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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