

**BAT54WS SURFACE MOUNT SCHOTTKY BARRIER DIODE**

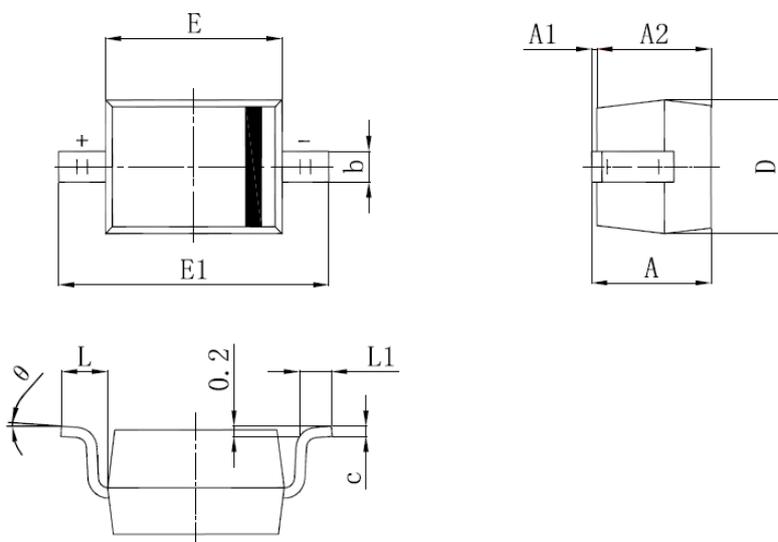
**Features:**

- 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

**Mechanical Data:**

- Case: SOD-323, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.004 grams(approx)

**Mechanical Dimensions: In mm / Inches**



Symbol	Dimensions In Millimeters		Dimensions In 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
θ	0°		8°	

**SOD-323(CJ)**

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - [sales@smc-diodes.com](mailto:sales@smc-diodes.com) •



Marking Diagram:



L9 = Part Name

**Cautions:** Molding resin  
Epoxy resin UL:94V-0

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.



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

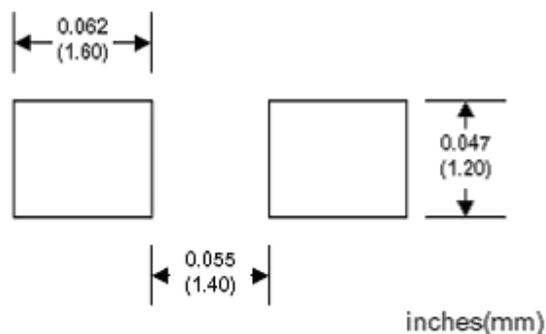
Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	30	V
Forward Continuous Current (Note 1)	I <sub>F</sub>	200	mA
Repetitive Peak Forward Current (Note 1)	I <sub>FRM</sub>	300	mA
Non-Repetitive Peak Forward Surge Current @ t < 1.0s	I <sub>FSM</sub>	600	mA
Power Dissipation (Note 1)	P <sub>d</sub>	200	mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	R <sub>θJA</sub>	625	K/W
Operating 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

Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage @ I <sub>RS</sub> = 100µA	V <sub>(BR)R</sub>	30	-	-	V
Forward Voltage (Note 2) @ I <sub>F</sub> = 1.0mA @ I <sub>F</sub> = 100mA	V <sub>F</sub>	-	-	0.32 1.0	V
Reverse Leakage Current (Note 2) @ V <sub>R</sub> = 25V	I <sub>R</sub>	-	-	2.0	µA
Typical Junction Capacitance (V <sub>R</sub> = 1.0V, f = 1.0MHz)	C <sub>j</sub>	-	-	10	pF
Reverse Recovery Time (Note 3)	t <sub>rr</sub>	-	-	5.0	nS

Note: 1. Valid provided that terminals are kept at ambient temperature.  
 2. t < 300µs, duty cycle < 2%.  
 3. I<sub>F</sub> = 10mA through I<sub>R</sub> = 10mA to I<sub>R</sub> = 1.0mA, R<sub>L</sub> = 100Ω

**RECOMMENDED FOOTPRINT**





**BAT54WS**

**Technical Data**  
**Data Sheet N0714, Rev. C**

***Green Products***

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