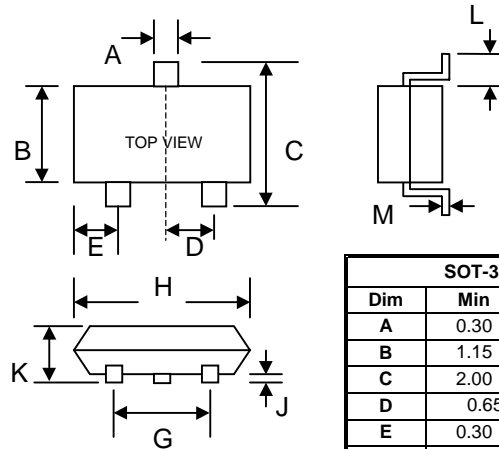


# BAT54W / AW / CW / SW

## SURFACE MOUNT SCHOTTKY BARRIER DIODE

### Features

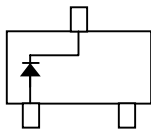
- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Designed for Surface Mount Application
- Plastic Material – UL Recognition Flammability Classification 94V-O



SOT-323		
Dim	Min	Max
A	0.30	0.40
B	1.15	1.35
C	2.00	2.20
D	0.65 Nominal	
E	0.30	0.40
G	1.20	1.40
H	1.80	2.20
J	—	0.10
K	0.90	1.10
L	0.25	—
M	0.05	0.15
All Dimensions in mm		

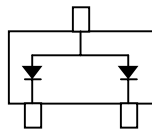
### Mechanical Data

- Case: SOT-323, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagrams Below
- Weight: 0.006 grams (approx.)
- Mounting Position: Any



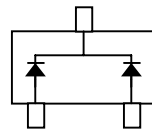
TOP VIEW

BAT54W Marking: L4



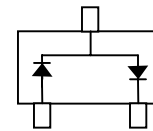
TOP VIEW

BAT54AW Marking: L42



TOP VIEW

BAT54CW Marking: L43



TOP VIEW

BAT54SW Marking: L44

### Maximum Ratings and Electrical Characteristics, Single Diode @<sub>T<sub>A</sub></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
Forward Surge Current (Note 1) @ 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>i</sub> , T <sub>STG</sub>	-55 to +125	°C

Note: 1. Devices are on fiberglass substrate and kept at ambient temperature.

**Maximum Ratings and Electrical Characteristics, Single Diode** @ $T_A=25^{\circ}\text{C}$  unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	30	—	—	V	@ $I_{RS} = 100\mu\text{A}$
Forward Voltage	$V_F$	—	—	240 320 400 500 1000	mV	$t_p < 300\mu\text{s}$ , duty cycle $< 2\%$ @ $I_F = 0.1\text{mA}$ @ $I_F = 1\text{mA}$ @ $I_F = 10\text{mA}$ @ $I_F = 30\text{mA}$ @ $I_F = 100\text{mA}$
Reverse Leakage Current	$I_R$	—	—	2.0	$\mu\text{A}$	$t_p < 300\mu\text{s}$ , duty cycle $< 2\%$ @ $V_R = 25\text{V}$
Junction Capacitance	$C_j$	—	—	10	pF	$V_R = 1.0\text{V}$ , $f = 1.0\text{MHz}$
Reverse Recovery Time	$t_{rr}$	—	—	5.0	nS	$I_F = 10\text{mA}$ through $I_R = 10\text{mA}$ to $I_R = 1.0\text{mA}$ , $R_L = 100\Omega$

## ORDERING INFORMATION

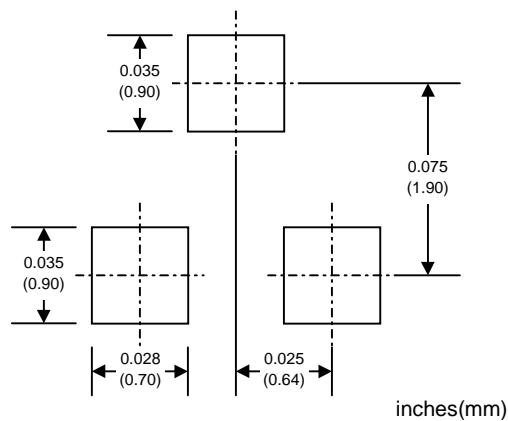
Product No.◆	Package Type	Shipping Quantity
<b>BAT54W-T1</b>	SOT-323	3000/Tape & Reel
BAT54W-T3	SOT-323	10000/Tape & Reel
<b>BAT54AW-T1</b>	SOT-323	3000/Tape & Reel
BAT54AW-T3	SOT-323	10000/Tape & Reel
<b>BAT54CW-T1</b>	SOT-323	3000/Tape & Reel
BAT54CW-T3	SOT-323	10000/Tape & Reel
<b>BAT54SW-T1</b>	SOT-323	3000/Tape & Reel
BAT54SW-T3	SOT-323	10000/Tape & Reel

Products listed in **bold** are WTE **Preferred** devices.

◆T1 suffix refers to a 7" reel. T3 suffix refers to a 13" reel.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

## RECOMMENDED FOOTPRINT



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**Internet:** <http://www.wontop.com>

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