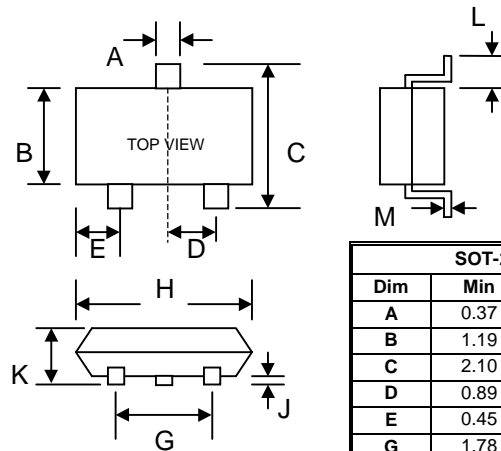


### Features

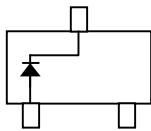
- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Designed for Surface Mount Application
- Plastic Material – UL Recognition Flammability Classification 94V-0



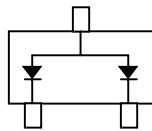
SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.19	1.40
C	2.10	2.50
D	0.89	1.05
E	0.45	0.61
G	1.78	2.05
H	2.65	3.05
J	0.013	0.15
K	0.89	1.10
L	0.45	0.61
M	0.076	0.178
All Dimensions in mm		

### Mechanical Data

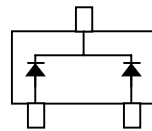
- Case: SOT-23, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagrams Below
- Weight: 0.008 grams (approx.)
- Mounting Position: Any



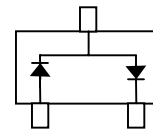
TOP VIEW



TOP VIEW



TOP VIEW



TOP VIEW

BAT54 Marking: L4    BAT54A Marking: L42    BAT54C Marking: L43    BAT54S Marking: L44

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

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	30	V
Average Rectified Output Current	$I_O$	100	mA
Forward Continuous Current (Note 1)	$I_F$	200	mA
Repetitive Peak Forward Current (Note 1)	$I_{FRM}$	300	mA
Forward Surge Current @ $t_p < 1.0\text{s}$ (Note 1)	$I_{FSM}$	600	mA
Power Dissipation (Note 1)	$P_d$	200	mW
Typical Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	500	K/W
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +125	$^\circ\text{C}$

Note: 1. Device on fiberglass substrate.

**Maximum Ratings and Electrical Characteristics, Single Diode** @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage	V <sub>(BR)R</sub>	30	—	—	V	I <sub>RS</sub> = 100μA
Forward Voltage	V <sub>F</sub>	—	—	240 320 400 500 1000	mV	tp < 300μs, duty cycle < 2% @ I <sub>F</sub> = 0.1mA @ I <sub>F</sub> = 1mA @ I <sub>F</sub> = 10mA @ I <sub>F</sub> = 30mA @ I <sub>F</sub> = 100mA
Reverse Leakage Current	I <sub>R</sub>	—	—	2.0	μA	tp < 300μs, duty cycle < 2% @ V <sub>R</sub> = 25V
Junction Capacitance	C <sub>j</sub>	—	—	10	pF	V <sub>R</sub> = 1.0V, f = 1.0MHz
Reverse Recovery Time	t <sub>rr</sub>	—	—	5.0	nS	I <sub>F</sub> = 10mA through I <sub>R</sub> = 10mA to I <sub>R</sub> = 1.0mA, R <sub>L</sub> = 100Ω

## ORDERING INFORMATION

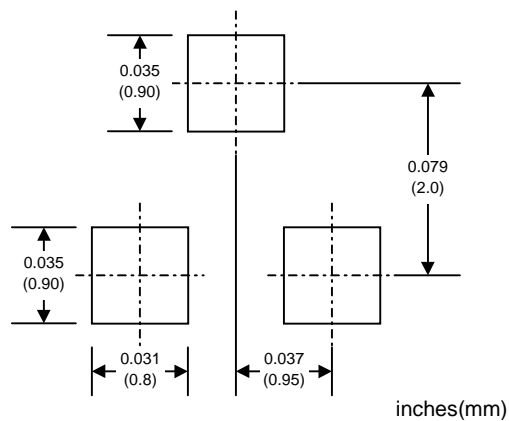
Product No.♦	Package Type	Shipping Quantity
<b>BAT54-T1</b>	SOT-23	3000/Tape & Reel
BAT54-T3	SOT-23	10000/Tape & Reel
<b>BAT54A-T1</b>	SOT-23	3000/Tape & Reel
BAT54A-T3	SOT-23	10000/Tape & Reel
<b>BAT54C-T1</b>	SOT-23	3000/Tape & Reel
BAT54C-T3	SOT-23	10000/Tape & Reel
<b>BAT54S-T1</b>	SOT-23	3000/Tape & Reel
BAT54S-T3	SOT-23	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



Won-Top Electronics Co., Ltd (WTE) has checked all information carefully and believes it to be correct and accurate. However, WTE cannot assume any responsibility for inaccuracies. Furthermore, this information does not give the purchaser of semiconductor devices any license under patent rights to manufacturer. WTE reserves the right to change any or all information herein without further notice.

**WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT.** WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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*We power your everyday.*