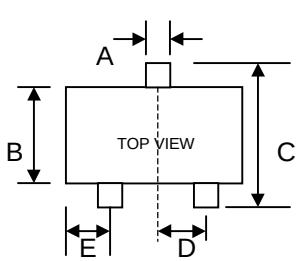
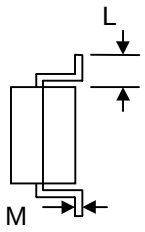
BAT54W / AW / CW / SW

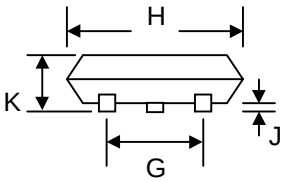
SURFACE MOUNT SCHOTTKY BARRIER DIODE

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



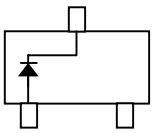




SOT-323		
Dim	**Min**	**Max**
A	0.30	0.40
B	1.15	1.35
C	2.00	2.20
D	0.65 Nominal	
E	0.30	0.40
G	1.20	1.40
H	1.80	2.20
J	—	0.10
K	0.90	1.10
L	0.25	—
M	0.05	0.15
All Dimensions in mm		

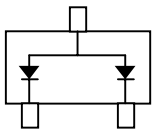
Mechanical Data

- 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



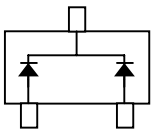
TOP VIEW

BAT54W Marking: L4



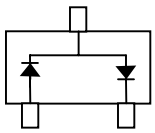
TOP VIEW

BAT54AW Marking: L42



TOP VIEW

BAT54CW Marking: L43



TOP VIEW

BAT54SW Marking: L44

Maximum Ratings and Electrical Characteristics, Single Diode @T_A=25°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
Forward Continuous Current (Note 1)	I_F	200	mA
Repetitive Peak Forward Current (Note 1)	I_{FRM}	300	mA
Forward Surge Current (Note 1) @ t < 1.0s	I_{FSM}	600	mA
Power Dissipation (Note 1)	P_d	200	mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	625	K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-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°C unless otherwise specified

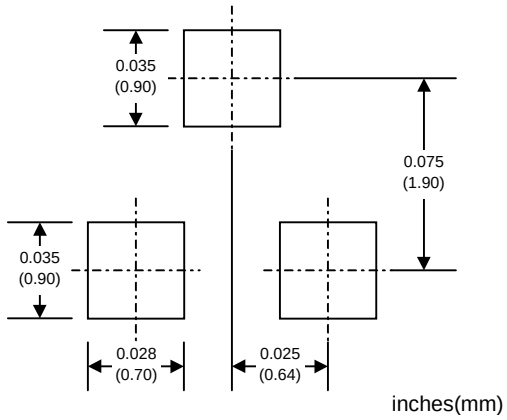
Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	30	—	—	V	@ I_{RS} = 100μA
Forward Voltage	V_F	—	—	240 320 400 500 1000	mV	t_p < 300μs, duty cycle < 2% @ I_F = 0.1mA @ I_F = 1mA @ I_F = 10mA @ I_F = 30mA @ I_F = 100mA
Reverse Leakage Current	I_R	—	—	2.0	μA	t_p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

ORDERING INFORMATION

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