

BAT54 / A / C / S

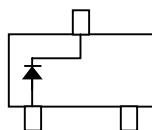
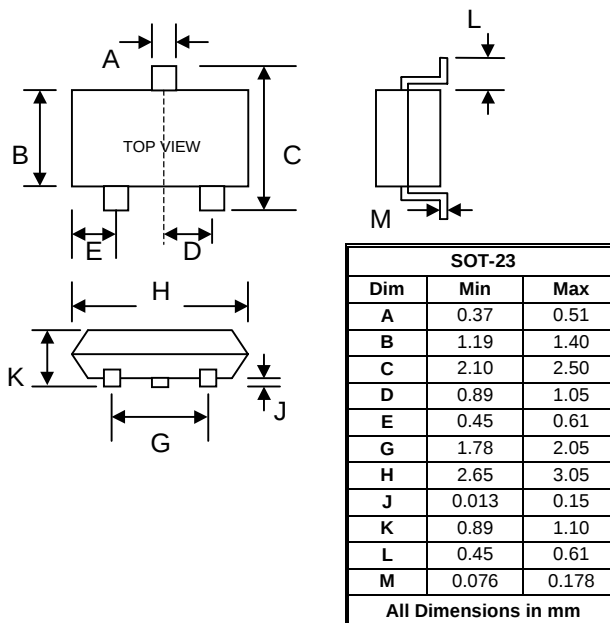
SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

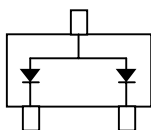
- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Designed for Surface Mount Application
- Plastic Material – UL Recognition Flammability Classification 94V-O

Mechanical Data

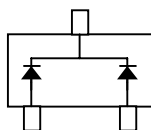
- Case: SOT-23, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagrams Below
- Weight: 0.008 grams (approx.)
- Mounting Position: Any



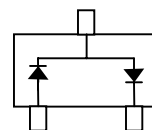
TOP VIEW



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°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 <1.0s (Note 1)	I _{FSM}	600	mA
Power Dissipation (Note 1)	P _d	200	mW
Typical Thermal Resistance, Junction to Ambient Air	R _{θJA}	500	K/W
Operating and Storage Temperature Range	T _j , T _{STG}	-65 to +125	°C

Note: 1. Device on fiberglass substrate.

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	tp < 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	tp < 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

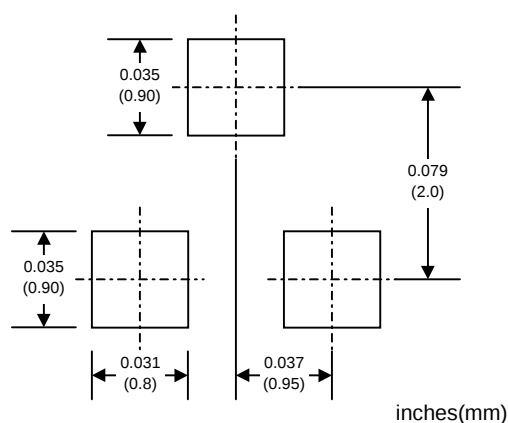
Product No.◆	Package Type	Shipping Quantity
BAT54-T1	SOT-23	3000/Tape & Reel
BAT54-T3	SOT-23	10000/Tape & Reel
BAT54A-T1	SOT-23	3000/Tape & Reel
BAT54A-T3	SOT-23	10000/Tape & Reel
BAT54C-T1	SOT-23	3000/Tape & Reel
BAT54C-T3	SOT-23	10000/Tape & Reel
BAT54S-T1	SOT-23	3000/Tape & Reel
BAT54S-T3	SOT-23	10000/Tape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



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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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