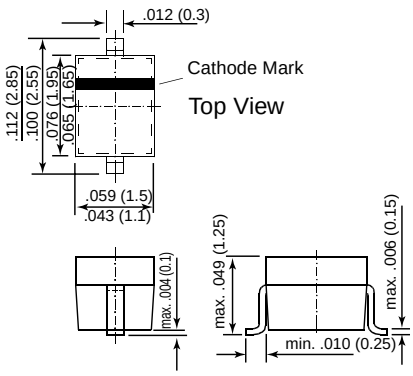
BAT54WS

SCHOTTKY DIODES

SOD-323



Dimensions in inches and (millimeters)

FEATURES

- These diodes feature very low turn-on voltage and fast switching.
- These devices are protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges.

MECHANICAL DATA

Case: SOD-323 Plastic Package
Weight: approx. 0.004g
Marking Code: L4

MAXIMUM RATINGS

Ratings at 25°C ambient temperature unless otherwise specified

	SYMBOL	*VALUE*	*UNIT*
Repetitive Peak Reverse Voltage	V_{RRM}	30	Volts
Forward Continuous Current at Tamb = 25 °C	I_F	200[1)]	mA
Repetitive Peak Forward Current at Tamb = 25 °C	I_{FRM}	300[1)]	mA
Surge Forward Current at tp < 1s, Tamb = 25 °C	I_{FSM}	600[1)]	mA
Power dissipation at Tamb = 25 °C	P_{tot}	150[1)]	mW
Maximum Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	– 65 to +150	°C

NOTES:

(1) Valid provided that electrodes are kept at ambient temperature

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ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

	SYMBOL	MIN.	TYP.	MAX.	UNIT
Reverse Breakdown Voltage tested with 100µA Pulses	$V_{(BR)R}$	30	–	–	Volts
Forward Voltage Pulse Test tp < 300µs, δ < 2% at I_F = 0.1mA at I_F = 1mA at I_F = 10mA at I_F = 30mA at I_F = 100mA	 V_F V_F V_F V_F V_F	 – – – – –	 – – – – –	 240 320 400 500 1000	 mV mV mV mV mV
Leakage Current Pulse Test t_p < 300µs, δ < 2% at V_R = 25 V	I_R	–	–	2	µA
Capacitance at V_F = 1 V, f = 1 MHz	C_{tot}	–	–	10	pF
Reverse Recovery Time from I_F = 10mA through I_R = 10 mA to I_R = 1mA, R_L = 100 Ω	t_{rr}	–	–	5	ns
Thermal Resistance Junction to Ambient Air	R_{thJA}	–	–	650[1)]	°C/W

NOTES:
(1) Valid provided that electrodes are kept at ambient temperature