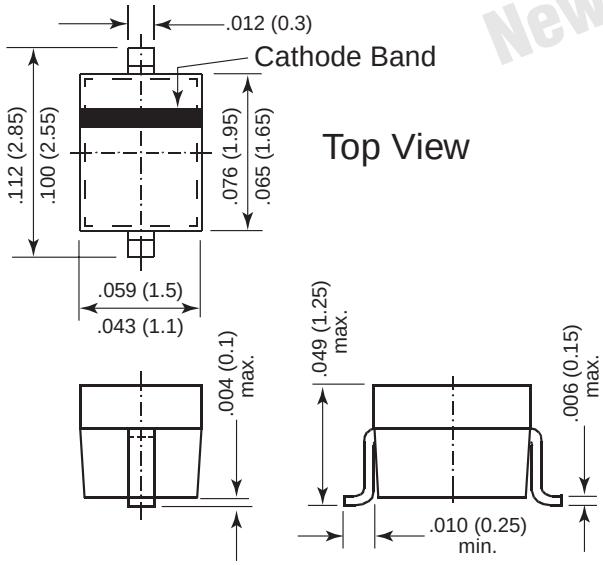
GENERAL SEMICONDUCTOR®

BAT54WS

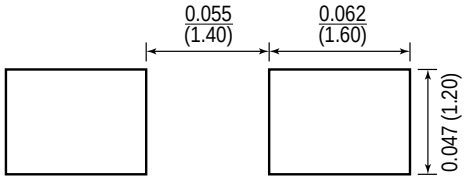
Schottky Diode

New Product

SOD-323



Mounting Pad Layout



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. 0.004 grams
Marking Code: L4
Packaging Codes/Options:
D5/10K per 13” reel (8mm tape)
D6/3K per 7” reel (8mm tape)

Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Forward Continuous Current at T_{amb} = 25°C	I_F	200(1)	mA
Repetitive Peak Forward Current at T_{amb} = 25°C	I_{FRM}	300(1)	mA
Surge Forward Current at t_p < 1 s, T_{amb} = 25°C	I_{FSM}	600(1)	mA
Power Dissipation at T_{amb} = 25°C	P_{tot}	150(1)	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	650(1)	°C/W
Maximum Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	–65 to +150	°C

Electrical Characteristics (T_J = 25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	100 µA pulses	30	—	—	V
Leakage Current(2)	I_R	Pulse Test t_p < 300 µs	—	—	2	µA
Forward Voltage(2)	V_F	I_F = 0.1 mA	—	—	240	mV
		I_F = 1 mA	—	—	320	
		I_F = 10 mA	—	—	400	
		I_F = 30 mA	—	—	500	
		I_F = 100 mA	—	—	1000	
Capacitance	C_{tot}	V_F = 1 V, f = 1 MHz	—	—	10	pF
Reverse Recovery Time	t_{rr}	I_F = 10 mA, I_R = 10 mA I_{rr} = 1 mA, R_L = 100 Ω	—	—	5	ns

Notes: (1) Valid provided that electrodes are kept at ambient temperature
(2) Pulse test: tp < 300µs,δ < 2%

2/24/00