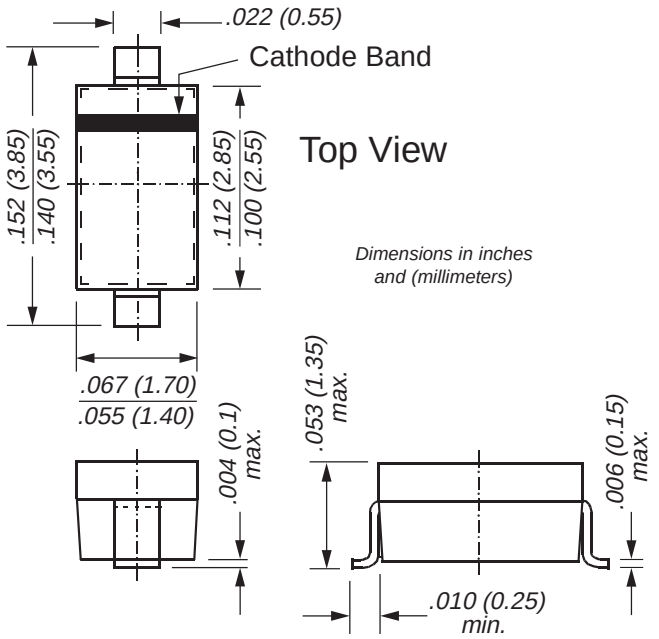
New Product

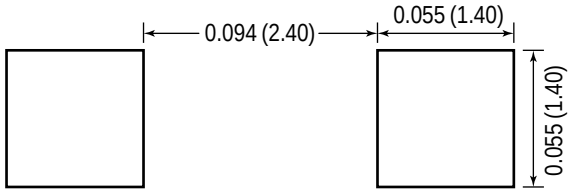
Vishay Semiconductors
formerly General Semiconductor

Schottky Diode

SOD-123



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-123 plastic case

Weight: approximately 0.01g

Marking Code: L4

Packaging Codes/Options:

D3/10K per 13” reel (8mm tape), 30K/box

D4/3K per 7” reel (8mm tape), 30K/box

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Forward Continuous Current at T_A = 25°C	I_F	200(1)	mA
Repetitive Peak Forward Current at T_A = 25°C	I_{FRM}	300(1)	mA
Surge Forward Current at tp < 1s, T_A = 25°C	I_{FSM}	600(1)	mA
Power dissipation at T_A = 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	125	°C
Storage Temperature Range	T_S	–65 to +150	°C

Note:

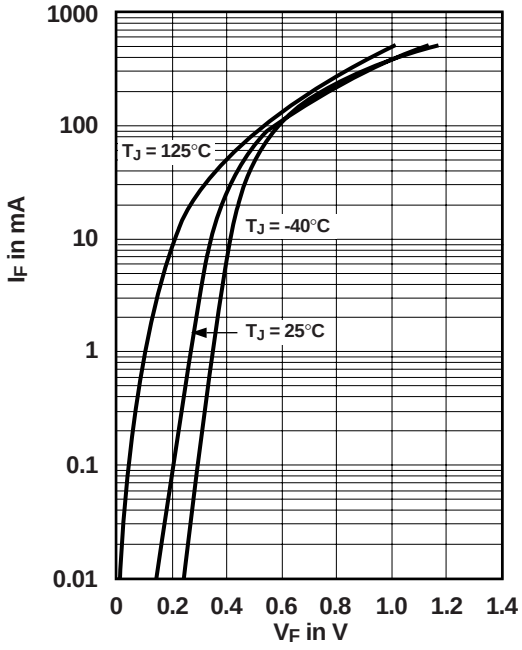
(1) Valid provided that electrodes are kept at ambient temperature

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

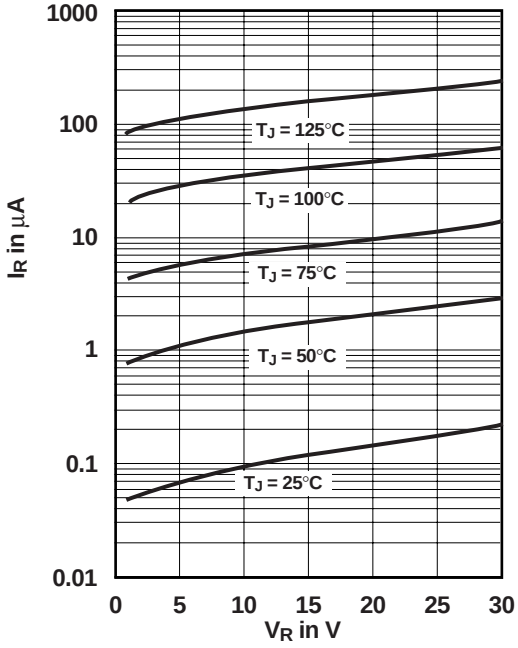
Parameter	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage tested with 100μA Pulses	$V_{(BR)R}$	30	–	–	V
Forward Voltage Pulse Test t_p < 300μs, δ < 2% at I_F = 0.1mA at I_F = 1mA at I_F = 10mA at I_F = 30mA at I_F = 100mA	V_F	–	–	 240 320 400 500 1000	mV
Leakage Current Pulse Test t_p < 300μs, δ < 2% at V_R = 25V	I_R	–	–	2	μA
Capacitance at V_F = 1V, f = 1 MHz	C_{tot}	–	–	10	pF
Reverse Recovery Time from I_F = 10mA through IR = 10mA to I_R = 1mA, R_L = 100Ω	t_{rr}	–	–	5	ns

Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

Typical Forward Voltage Forward Current at Various Temperatures



Typical Variation of Reverse Current at Various Temperatures



Typical Capacitance °C vs. Reverse Applied Voltage V_R