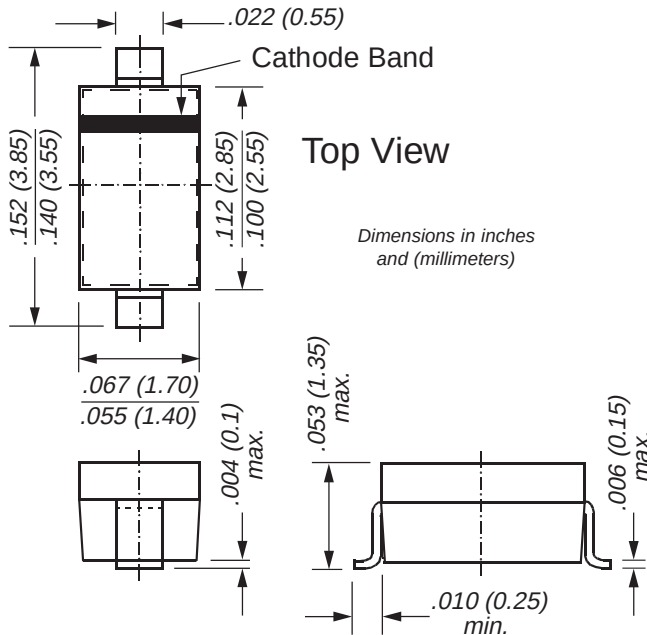




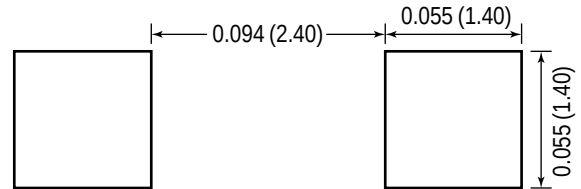
Schottky Diode



SOD-123



Mounting Pad Layout



Features

- For general purpose applications
- This diode features very low turn-on voltage and fast switching.
- This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges.
- This diode is also available in the DO-35 case with the type designation BAT46 and in the MiniMELF case with the type designation LL46.

Mechanical Data

Case: SOD-123 Plastic Package**Weight:** approx. 0.01g**Marking Code:** L6**Packaging Codes/Options:**

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

D4/3K per 7" reel (8mm tape), 30K/box

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Forward Continuous Current at $T_{amb} = 25^{\circ}C$	I_F	150 ⁽¹⁾	mA
Repetitive Peak Forward Current at $t_p < 1s$, $\delta < 0.5$, $T_{amb} = 25^{\circ}C$	I_{FRM}	350 ⁽¹⁾	mA
Surge Forward Current at $t_p < 10ms$, $T_{amb} = 25^{\circ}C$	I_{FSM}	750 ⁽¹⁾	mA
Power Dissipation ⁽¹⁾ at $T_{amb} = 65^{\circ}C$	P_{tot}	150 ⁽¹⁾	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	300 ⁽¹⁾	$^{\circ}C/W$
Junction Temperature	T_j	125	$^{\circ}C$
Ambient Operating Temperature Range	T_{amb}	-55 to +125	$^{\circ}C$
Storage Temperature Range	T_s	-55 to +150	$^{\circ}C$

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

Electrical Characteristics ($T_J = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 100\mu\text{A}$ (pulsed)	100	—	—	V
Leakage Current ⁽¹⁾	I_R	$V_R = 1.5\text{V}$	—	—	0.5	μA
		$V_R = 1.5\text{V}, T_J = 60^\circ\text{C}$	—	—	5.0	
		$V_R = 10\text{V}$	—	—	0.8	
		$V_R = 10\text{V}, T_J = 60^\circ\text{C}$	—	—	7.5	
		$V_R = 50\text{V}$	—	—	2.0	
		$V_R = 50\text{V}, T_J = 60^\circ\text{C}$	—	—	15	
		$V_R = 75\text{V}$	—	—	5.0	
Forward Voltage ⁽¹⁾	V_F	$I_F = 0.1\text{mA}$	—	—	0.25	V
		$I_F = 10\text{mA}$	—	—	0.45	
		$I_F = 250\text{mA}$	—	—	1.00	
Capacitance	C_{tot}	$V_R = 0\text{V}, f = 1\text{MHz}$	—	10	—	pF
		$V_R = 1\text{V}, f = 1\text{MHz}$	—	6	—	

Note: (1) Pulse Test $t_p < 300\mu\text{s}$, $\delta < 2\%$