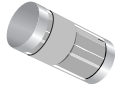
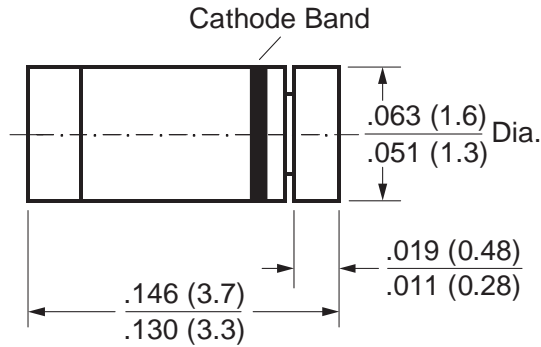


Schottky Diode

Reverse Voltage 40V
Forward Current 350mA



MiniMELF (SOD-80C)



Dimensions in inches and (millimeters)

Features

- For general purpose applications
- This diode features low turn-on voltage and high break-down voltage.
- 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 type designation BAT48.

Mechanical Data

Case: MiniMELF Glass Case (SOD-80C)

Weight: approx. 0.05g

Cathode Band Color: Green

Packaging Codes/Options:

D1/10K per 13" reel (8mm tape), 20K/box

D2/2.5K per 7" reel (8mm tape), 20K/box

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameters	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Forward Continuous Current at $T_{amb} = 25^{\circ}C$	I_F	350 ⁽¹⁾	mA
Repetitive Peak Forward Current at $t_p < 1s, \delta < 0.5, T_{amb} = 25^{\circ}C$	I_{FRM}	1.0 ⁽¹⁾	A
Surge Forward Current at $t_p < 10ms, T_{amb} = 25^{\circ}C$	I_{FSM}	7.5 ⁽¹⁾	A
Power Dissipation ⁽¹⁾ at $T_{amb} = 80^{\circ}C$	P_{tot}	330 ⁽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}	-65 to +125	$^{\circ}C$
Storage Temperature Range	T_s	-65 to +150	$^{\circ}C$

Note:

(1) Valid provided that leads at a distance of 4mm from case 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	$V_{(BR)R}$	100 μA pulses	40	—	—	V
Leakage Current Pulse Test $t_p = 300\mu\text{s}$, $\delta < 2\%$	I_R	$V_R = 10\text{V}$	—	—	2	μA
		$V_R = 10\text{V}$, $T_J = 60^\circ\text{C}$	—	—	15	
		$V_R = 20\text{V}$	—	—	5	
		$V_R = 20\text{V}$, $T_J = 60^\circ\text{C}$	—	—	25	
		$V_R = 40\text{V}$	—	—	25	
Forward Voltage Pulse Test $t_p < 300\mu\text{s}$, $\delta < 2\%$	V_F	$I_F = 0.1\text{mA}$	—	—	0.25	V
		$I_F = 1.0\text{mA}$	—	—	0.30	
		$I_F = 10\text{mA}$	—	—	0.40	
		$I_F = 50\text{mA}$	—	—	0.50	
		$I_F = 200\text{mA}$	—	—	0.75	
		$I_F = 500\text{mA}$	—	—	0.90	
Capacitance	C_{tot}	$V_R = 1\text{V}$, $f = 1\text{MHz}$	—	12	—	pF

Note:

(1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature

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Datasheets for electronics components.