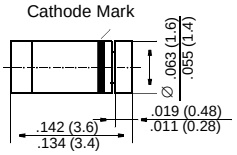
LL48

Schottky Diodes

Mini-MELF



Dimensions in inches and (millimeters)

FEATURES

- For general purpose applications.
- These diodes feature low turn-on voltage and high break-down voltage. These devices are 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: Mini-MELF Glass Case (SOD-80)
Weight: approx. 0.05 g

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Forward Continuous Current at T_{amb} = 25 °C	I_F	350[1)]	mA
Repetitive Peak Forward Current at t_p < 1 s, δ < 0.5, T_{amb} = 25 °C	I_{FRM}	1[1)]	A
Surge Forward Current at t_p < 10 ms, T_{amb} = 25 °C	I_{FSM}	7.5[1)]	A
Power Dissipation at T_{amb} = 80 °C	P_{tot}	330[1)]	mW
Junction Temperature	T_j	125	°C
Ambient Operating Temperature Range	T_{amb}	−55 to +125	°C
Storage Temperature Range	T_S	−65 to +150	°C

[1)] Valid provided that electrodes are kept at ambient temperature.

GENERAL SEMICONDUCTOR®

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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 100 µA Pulses	$V_{(BR)R}$	40	–	–	V
Forward Voltage Pulse Test t_p < 300 µs, δ < 2% at I_F = 0.1 mA at I_F = 10 mA at I_F = 250 mA	 V_F V_F V_F	 – – –	 – – –	 0.25 0.40 0.90	 V V V
Leakage Current Pulse Test t_p < 300 µs, δ < 2% at V_R = 10 V at V_R = 10 V, T_j = 60 °C at V_R = 20 V at V_R = 20 V, T_j = 60 °C at V_R = 40 V at V_R = 40 V, T_j = 60 °C	 I_R I_R I_R I_R I_R I_R	 – – – – – –	 – – – – – –	 2 15 5 25 25 50	 µA µA µA µA µA µA
Capacitance at V_R = 1 V, f = 1 MHz	C_{tot}	–	12	–	pF
Thermal Resistance Junction to Ambient Air	R_{thJA}	–	–	0.3[1)]	K/mW

[1)] Valid provided that electrodes are kept at ambient temperature.