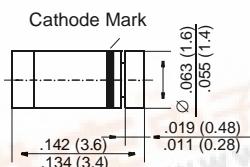


LL46

Schottky Diodes

MiniMELF

*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 BAT46 and in the SOD-123 case with type designation BAT46W.



MECHANICAL DATA

Case: MiniMELF 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}	100	V
Forward Continuous Current at $T_{amb} = 25^\circ C$	I_F	150 ¹⁾	mA
Repetitive Peak Forward Current at $t_p < 1$ s, $\delta < 0.5$, $T_{amb} = 25^\circ C$	I_{FRM}	350 ¹⁾	mA
Surge Forward Current at $t_p < 10$ ms, $T_{amb} = 25^\circ C$	I_{FSM}	750 ¹⁾	mA
Power Dissipation at $T_{amb} = 80^\circ C$	P_{tot}	200 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.

LL46

ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage tested with 100 µA Pulses	$V_{(BR)R}$	100	—	—	V
Forward Voltage Pulse Test $t_p < 300 \mu s$, $\delta < 2\%$ at $I_F = 0.1 \text{ mA}$ at $I_F = 10 \text{ mA}$ at $I_F = 250 \text{ mA}$	V_F V_F V_F	— — —	— — —	0.25 0.45 1	V V V
Leakage Current Pulse Test $t_p < 300 \mu s$, $\delta < 2\%$ at $V_R = 1.5 \text{ V}$ at $V_R = 1.5 \text{ V}$, $T_j = 60 \text{ }^\circ\text{C}$ at $V_R = 10 \text{ V}$ at $V_R = 10 \text{ V}$, $T_j = 60 \text{ }^\circ\text{C}$ at $V_R = 50 \text{ V}$ at $V_R = 50 \text{ V}$, $T_j = 60 \text{ }^\circ\text{C}$ at $V_R = 75 \text{ V}$ at $V_R = 75 \text{ V}$, $T_j = 60 \text{ }^\circ\text{C}$	I_R I_R I_R I_R I_R I_R I_R I_R	— — — — — — — —	— — — — — — — —	0.5 5 0.8 7.5 2 15 5 20	μA μA μA μA μA μA μA μA
Capacitance at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$ at $V_R = 1 \text{ V}$, $f = 1 \text{ MHz}$	C_{tot} C_{tot}	— —	10 6	— —	pF pF
Thermal Resistance Junction to Ambient Air	R_{thJA}	—	—	0.3 ¹⁾	K/mW

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