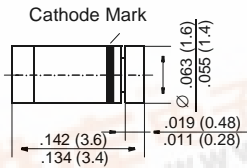


LL46

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 $T_{amb} = 25\text{ °C}$	I_F	150 ¹⁾	mA
Repetitive Peak Forward Current at $t_p < 1\text{ s}$, $\delta < 0.5$, $T_{amb} = 25\text{ °C}$	I_{FRM}	350 ¹⁾	mA
Surge Forward Current at $t_p < 10\text{ ms}$, $T_{amb} = 25\text{ °C}$	I_{FSM}	750 ¹⁾	mA
Power Dissipation at $T_{amb} = 80\text{ °C}$	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 μ A Pulses	$V_{(BR)R}$	100	—	—	V
Forward Voltage Pulse Test $t_p < 300 \mu s$, $\delta < 2\%$ at $I_F = 0.1$ mA at $I_F = 10$ mA at $I_F = 250$ mA	V_F V_F V_F	— — —	— — —	0.25 0.45 1	V V V
Leakage Current Pulse Test $t_p < 300 \mu s$, $\delta < 2\%$ at $V_R = 1.5$ V at $V_R = 1.5$ V, $T_j = 60$ °C at $V_R = 10$ V at $V_R = 10$ V, $T_j = 60$ °C at $V_R = 50$ V at $V_R = 50$ V, $T_j = 60$ °C at $V_R = 75$ V at $V_R = 75$ V, $T_j = 60$ °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	μ A μ A μ A μ A μ A μ A μ A μ A
Capacitance at $V_R = 0$ V, $f = 1$ MHz at $V_R = 1$ V, $f = 1$ 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.					