

FEATURES

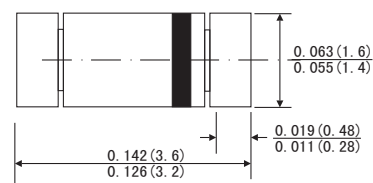
- For general purpose applications
- These diodes features very low turn-on voltage and fast switching
- These devices are protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges.
- This diode is also available in the DO-35 case with type designation BAT48.
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU

MECHANICAL DATA

- Case: MiniMELF glass case(SOD-80)
- Weight: Approx. 0.05 gram



MiniMELF



ABSOLUTE RATINGS(LIMITING VALUES)

Dimensions in inches and (millimeters)

	Symbols	Value	Units
Repetitive Peak Reverses Voltage	V_{RRM}	40	V
Forward Continuous Current at $T_A=25^{\circ}\text{C}$	I_F	350 ¹⁾	mA
Repetitive Peak Forward Current at $t_p<1\text{s}$, $\delta<0.5$, $T_A=25^{\circ}\text{C}$	I_{FRM}	1 ¹⁾	A
Surge forward current at $t_p<10\text{ms}$, $T_A=25^{\circ}\text{C}$	I_{FSM}	7.5 ¹⁾	A
Power Dissipation at $T_A=65^{\circ}\text{C}$	P_{tot}	330 ¹⁾	mW
Junction temperature	T_J	125	$^{\circ}\text{C}$
Ambient Operating temperature Range	T_A	-65 to+125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-65 to+150	$^{\circ}\text{C}$

1) Valid provided that electrodes are kept at ambient temperature

ELECTRICAL CHARACTERISTICS

	Symbols	Min.	Typ.	Max.	Unis
Reverse Breakdown Voltage Tested with 100 μA Pulses	$V_{(BR)R}$	40			V
Forward voltage Pulse Test $t_p<300\mu\text{s}$, $\delta<2\%$ 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 0.90	V V V
Leakage current pulse test $t_p<300\mu\text{s}$, $\delta<2\%$ at $V_R=10\text{V}$, $T_J=60^{\circ}\text{C}$ at $V_R=10\text{V}$, $T_J=60^{\circ}\text{C}$ at $V_R=20\text{V}$, $T_J=60^{\circ}\text{C}$ at $V_R=20\text{V}$, $T_J=60^{\circ}\text{C}$ at $V_R=40\text{V}$, $T_J=60^{\circ}\text{C}$ at $V_R=40\text{V}$, $T_J=60^{\circ}\text{C}$	I_R I_R I_R I_R I_R I_R			2 15 5 25 25 50	μA μA μA μA μA μA
Junction Capacitance at $V_R=1\text{V}$, $f=1\text{MHz}$	C_J		2		pF
Thermal resistance junction to ambient Air	$R_{\theta JA}$			300 ¹⁾	$^{\circ}\text{C/W}$

1) Valid provided that electrodes are kept at ambient temperature

RATINGS AND CHARACTERISTIC CURVES LL48

Figure 1. Forward current versus forward voltage at different temperatures(typical values)

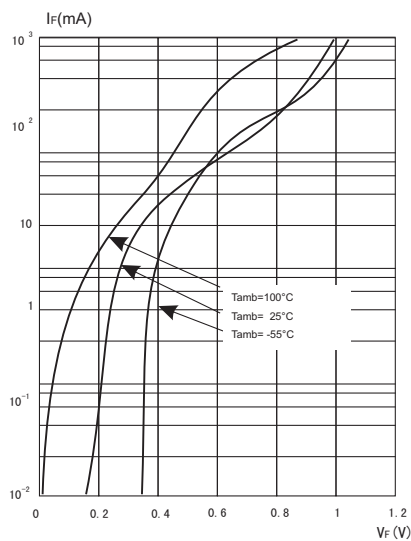


Figure 2. Forward current versus forward voltage (typical values)

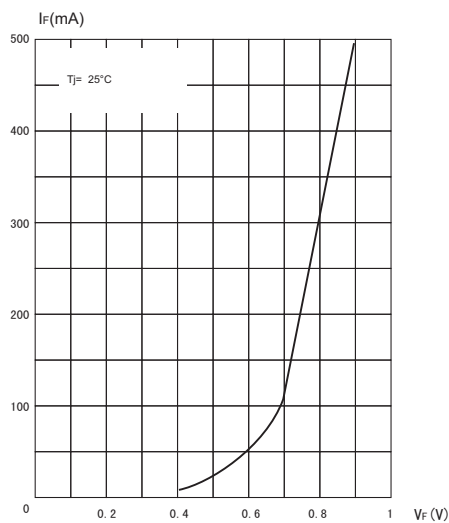
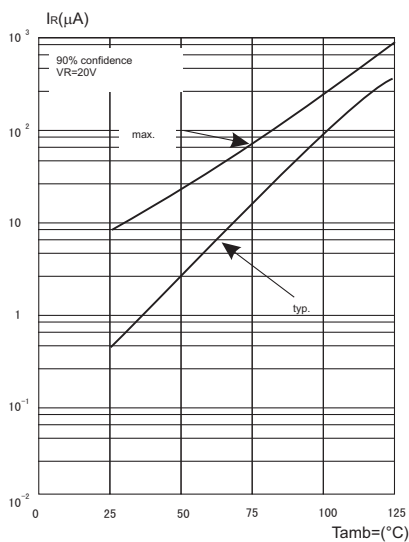


Figure 3.Reverse current versus ambient temperatures



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Figure 4.Reverse current versus continuous
Reverse voltage(typical values)

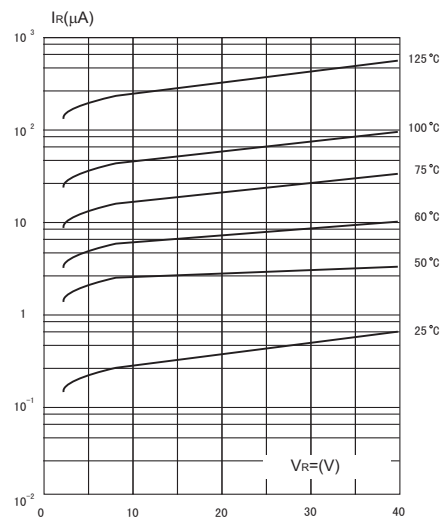


Figure 5.Capacitance C_J versus reverse applied
voltage V_R (typical values)

