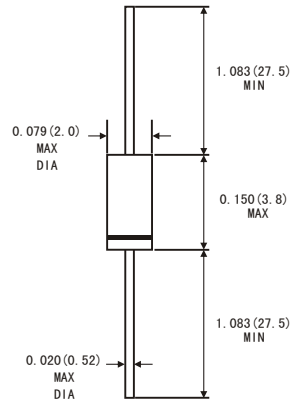
BAT48

SMALL SIGNAL SCHOTTKY DIODES

FEATURES

- For general purpose applications
- This diode features very low turn-on voltage and fast switching.
- This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges.
- This diode is also available in the MiniMELF case with the type designation LI48.
- High temperature soldering guaranteed: 260℃/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

DO-35



Dimensions in inches and (millimeters)

MECHANICAL DATA

- *Case*: DO-35 glass case
- *Polarity:* color band denotes cathode end
- *Weight*: Approx. 0.13 gram

ABSOLUTE RATINGS(LIMITING VALUES)

	Symbols	Value	Units
Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Forward Continuous Current at T_A=25˚C	I_F	350 [1)]	mA
Repetitive Peak Forward Current at t_p<1s, δ<0. 5 T_A=25˚C	I_{FRM}	1 [1)]	A
Surge forward current at t_p<10ms , T_A=25˚C	I_{FSM}	7.5 [1)]	A
Power Dissipation at T_A=65˚C	P_{tot}	330 [1)]	mW
Junction temperature	T_J	125	℃
Ambient Operating temperature Range	T_A	-65 to+125	℃
Storage Temperature Range	T_{STG}	-65 to+150	℃
1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature			

ELECTRICAL CHARACTERISTICS

	Symbols	Min.	Typ.	Max.	Unis
Reverse breakdown voltage Tested with 100μA pulses	$V_{(BR)R}$	40			V
Forward voltage Pulse Test t_p < 300μs,δ<2% at I_F=0.1mA, at I_F=10mA, at I_F=250mA	 V_F V_F V_F			 0.25 0.40 0.90	 V V V
Leakage current pulse test t_p < 300μs ,δ<2% at V_R=10V at V_R=10V, T_J=60°C at V_R=20V at V_R=20V, T_J=60°C at V_R=40V at V_R=40V, 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=1V ,f=1MHz	C_J		12		pF
Thermal resistance junction to ambient Air	$R_{\theta JA}$			300 [1)]	K/W
1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature(DO-35)					

RATINGS AND CHARACTERISTIC CURVES BAT47/BAT48

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

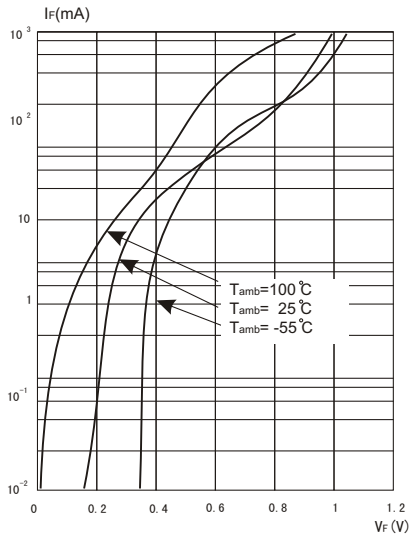


Figure 2. Forward current versus forward voltage (typical values)

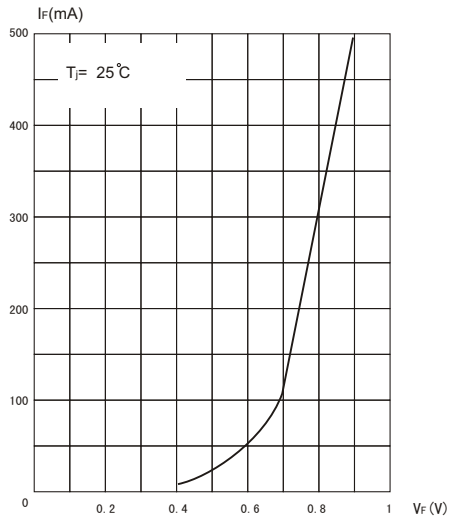


Figure 3.Reverse current versus ambient temperatures

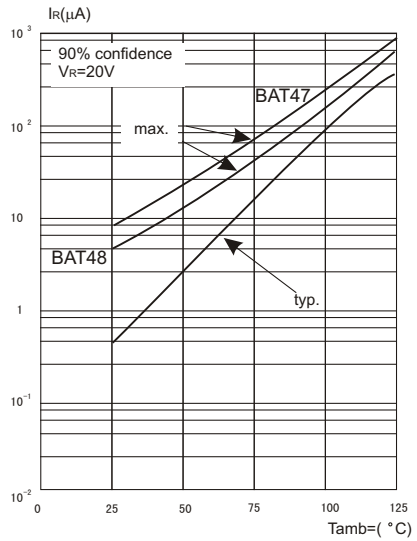


Figure 4.Reverse current versus continuous Reverse voltage(typical values)

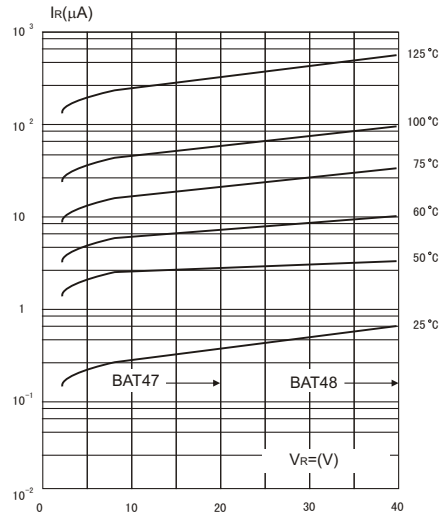


Figure 5.Capacitance C_J versus reverse applied voltage V_R (typical values)