



BAT48

Small-Signal Diode
Schottky Diode

Features

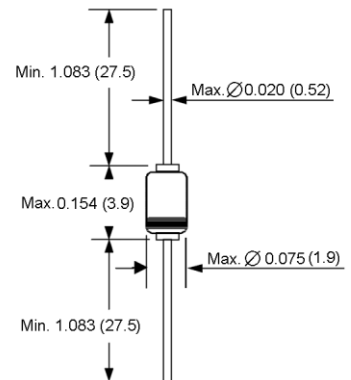
- ◆ For general purpose applications.
- ◆ These diodes feature very low turn-on voltage and fast switching. These devices are protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges
- ◆ This diode is also available in the MiniMELF case with type designation LL48.



DO-204AH (DO-35 Glass)

Mechanical Data

- ◆ Case: DO-35 Glass Case
- ◆ Weight: approx. 0.13g



Dimensions in inches and (millimeters)

Maximum Ratings and Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Value	Unit
Repetitive peak reverse voltage	V_{RRM}	40	Volts
Forward continuous current at $T_{amb}=25^{\circ}\text{C}$	I_F	350 ⁽¹⁾	mA
Repetitive peak forward current at $t_p < 1\text{s}$, $\delta < 0.5$, $T_{amb}=25^{\circ}\text{C}$	I_{FRM}	1.0 ⁽¹⁾	Amp
Surge forward current at $t_p < 10\text{ms}$, $T_{amb}=25^{\circ}\text{C}$	I_{FSM}	7.5 ⁽¹⁾	Amps
Power dissipation ⁽¹⁾ at $T_{amb}=65^{\circ}\text{C}$	P_{tot}	330 ⁽¹⁾	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	300 ⁽¹⁾	$^{\circ}\text{C}/\text{W}$
Junction temperature	T_j	125	$^{\circ}\text{C}$
Ambient operating temperature range	T_{amb}	-65 to +125	$^{\circ}\text{C}$
Storage temperature range	T_s	-65 to +150	$^{\circ}\text{C}$

Notes: 1. Valid provided that leads at a distance of 4mm from case are kept at ambient temperature.

Electrical Characteristics

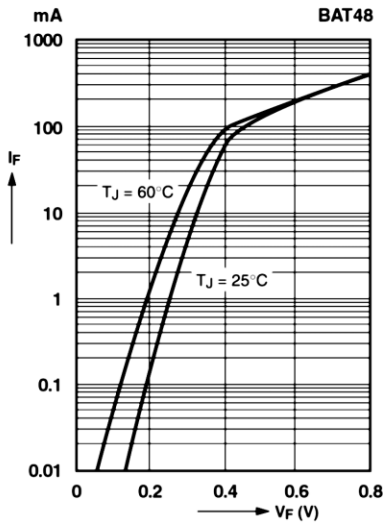
Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse breakdown voltage tested with 100uA pulses	$V_{(BR)R}$	40	-	-	Volts
Leakage current pulse test $t_p < 300\mu s$, $\delta < 2\%$ at $V_R = 10V$ at $V_R = 10V$, $T_J = 60^\circ C$ at $V_R = 20V$ at $V_R = 20V$, $T_J = 60^\circ C$ at $V_R = 40V$ at $V_R = 40V$, $T_J = 60^\circ C$	I_R	-	-	2 15 5 25 25 50	μA
Forward voltage pulse test $t_p < 300\mu s$, $\delta < 2\%$ at $I_F = 0.1mA$ at $I_F = 1.0mA$ at $I_F = 10mA$ at $I_F = 50mA$ at $I_F = 200mA$ at $I_F = 500mA$	V_F	-	-	0.25 0.30 0.40 0.50 0.75 0.90	Volt
Capacitance at $V_R = 1V$, $f = 1MHz$	C_{tot}	-	12	-	pF

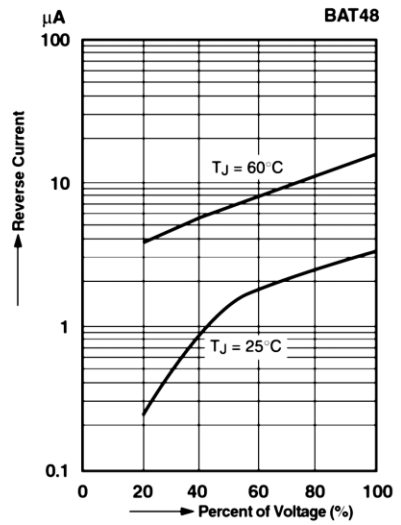
Notes: 1. Valid provided that leads at a distance of 4mm from case are kept at ambient temperature(DO-35)

RATINGS AND CHARACTERISTIC CURVES

Forward Characteristics



Typical Reverse Characteristics



Admissible Power Dissipation vs. Ambient Temperature

