

BAT48

FEATURES :

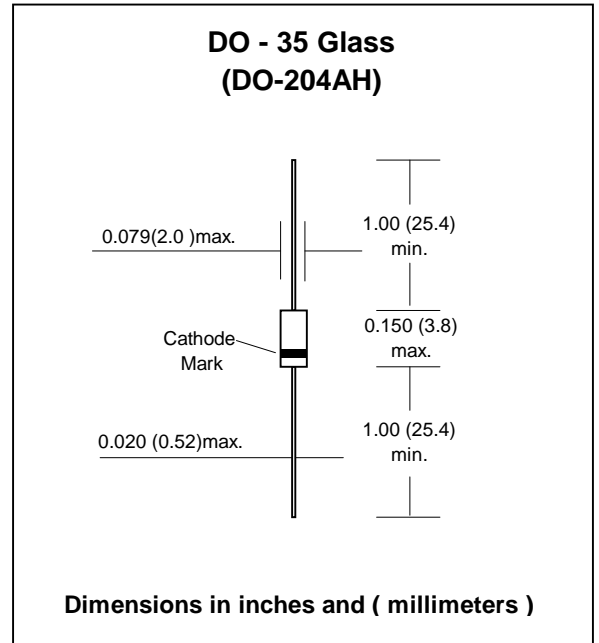
- For general purpose applications
- These diodes feature very low turn-on voltage and fast switching. These devices are protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges
- This diode is also available in the Mini-MELF case with type designations LL48
-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

MECHANICAL DATA :

Case: DO-35 Glass Case

Weight: approx. 0.13g

SCHOTTKY BARRIER DIODE



Maximum Ratings and Thermal Characteristics (Rating at 25 °C ambient temperature unless otherwise specified.)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Continuous Forward Current	I_F	350 ⁽¹⁾	mA
Repetitive Peak Forward Current at $t_p < 1s$,	I_{FRM}	1 ⁽¹⁾	A
Forward Surge Current at $t_p < 10ms$,	I_{FSM}	7.5 ⁽¹⁾	A
Power Dissipation , $T_a = 65\text{ }^\circ\text{C}$	P_D	330 ⁽¹⁾	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	300 ⁽¹⁾	$^\circ\text{C/W}$
Junction Temperature	T_J	125	$^\circ\text{C}$
Ambient Operating Temperature Range	T_a	-65 to + 125	$^\circ\text{C}$
Storage temperature range	T_s	-65 to + 150	$^\circ\text{C}$

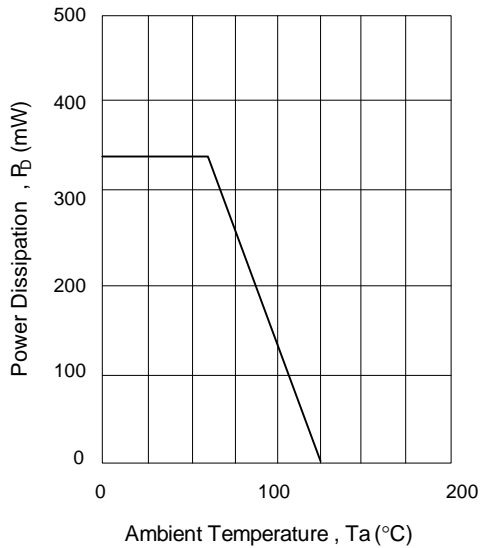
Note: (1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature.

Electrical Characteristics ($T_J = 25^\circ\text{C}$ unless otherwise noted)

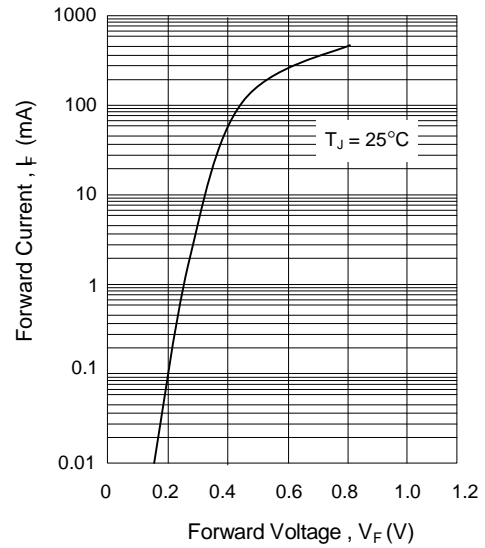
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 100\text{ }\mu\text{A}$ (pulsed)	40	-	-	V
Reverse Current	I_R	$V_R = 10\text{ V}$	-	-	2	μA
Pulse Test $t_p < 300\mu\text{s}$, $\delta < 2\%$		$V_R = 20\text{ V}$	-	-	5	
		$V_R = 40\text{ V}$	-	-	25	
Forward Voltage	V_F	$I_F = 1\text{ mA}$	-	-	0.30	V
Pulse Test $t_p < 300\mu\text{s}$, $\delta < 2\%$		$I_F = 10\text{ mA}$	-	-	0.40	
		$I_F = 30\text{ mA}$	-	-	0.50	
		$I_F = 100\text{ mA}$	-	-	0.75	
		$I_F = 500\text{ mA}$	-	-	0.90	
Diode Capacitance	C_d	$V_R = 1\text{ V}$, $f = 1\text{ MHz}$	-	12	-	pF

RATING AND CHARACTERISTIC CURVES (BAT48)

Admissible Power Dissipation vs. Ambient Temperature



Typical Forward Characteristics



Typical Reverse Characteristics

