

BAT46

FEATURES :

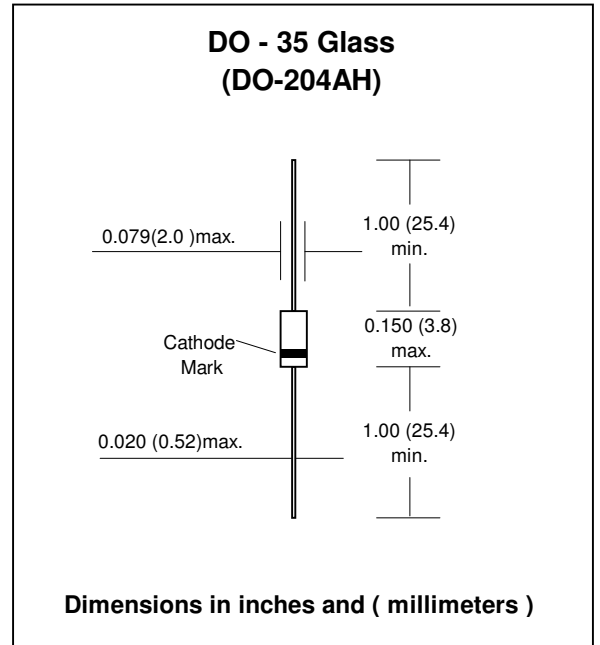
- For general purpose applications.
- This diode features very low turn-on voltage and fast switching. This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges
- This diode is also available in the MiniMELF case with type designations LL46.
- Pb / 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}	100	V
Continuous Forward Current	I_F	150 ⁽¹⁾	mA
Repetitive Peak Forward Current at $t_p < 1s$,	I_{FRM}	350 ⁽¹⁾	mA
Forward Surge Current at $t_p < 10ms$,	I_{FSM}	750 ⁽¹⁾	mA
Power Dissipation , $T_a = 65\text{ }^\circ\text{C}$	P_D	150 ⁽¹⁾	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	0.3 ⁽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	$^\circ\text{C}$

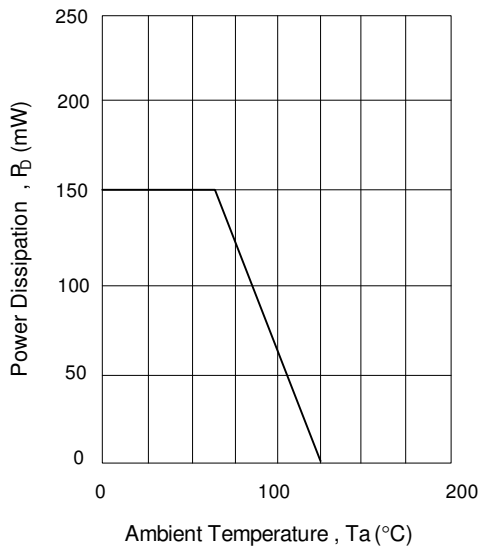
Note: (1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature.

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

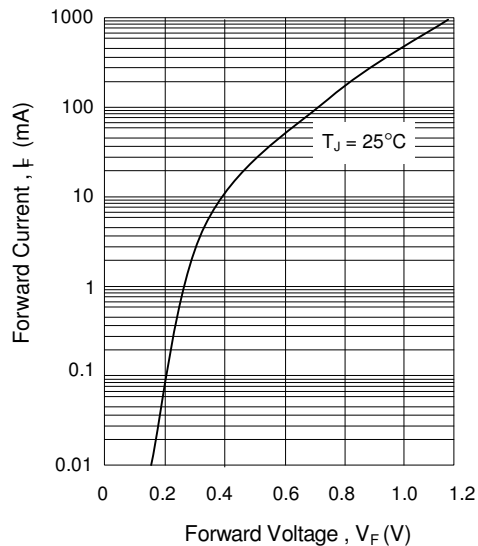
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 100\ \mu\text{A}$ (pulsed)	100	-	-	V
Reverse Current	I_R	$V_R = 10\ \text{V}$	-	-	0.8	μA
Pulse Test $t_p < 300\ \mu\text{s}$, $\delta < 2\%$		$V_R = 50\ \text{V}$	-	-	2.0	
		$V_R = 75\ \text{V}$	-	-	5.0	
Forward Voltage	V_F	$I_F = 10\ \text{mA}$	-	-	0.45	V
Pulse Test $t_p < 300\ \mu\text{s}$, $\delta < 2\%$		$I_F = 250\ \text{mA}$	-	-	1.00	
Diode Capacitance	Cd	$V_R = 1\ \text{V}$, $f = 1\ \text{MHz}$	-	6	-	pF

RATING AND CHARACTERISTIC CURVES (BAT46)

Admissible Power Dissipation vs. Ambient Temperature



Typical Forward Characteristics



Typical Reverse Characteristics

