BAT42 - BAT43

SCHOTTKY BARRIER DIODES

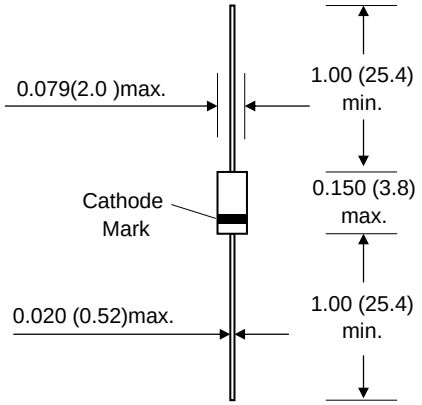
FEATURES :

- 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 electro-static discharges
- These diodes are also available in the MiniMELF case with the type designations LL42 to LL43.
- Pb / RoHS Free

MECHANICAL DATA :

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

DO - 35 Glass
(DO-204AH)



Dimensions in inches and (millimeters)

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Continuous Forward Current	I_F	200(1)	mA
Repetitive Peak Forward Current at tp < 1s,	I_{FRM}	500(1)	mA
Forward Surge Current at tp < 10 ms,	I_{FSM}	4(1)	A
Power Dissipation ,Ta = 65 °C	P_D	200(1)	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	300(1)	°C/W
Junction Temperature	T_J	125	°C
Ambient Operating Temperature Range	Ta	-65 to + 125	°C
Storage temperature range	T_S	-65 to + 150	°C

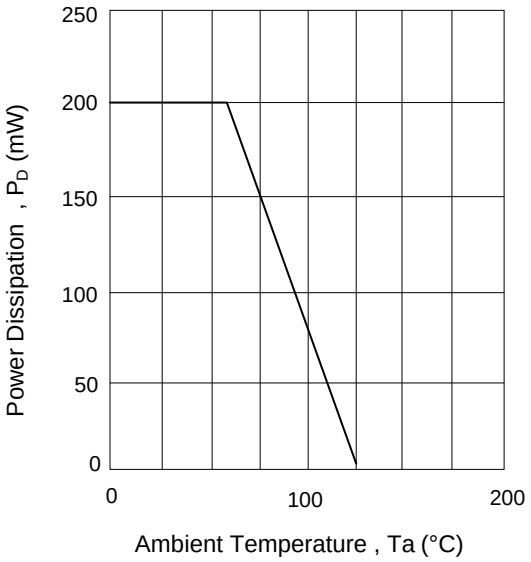
Note: (1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature.

Electrical Characteristics (T_J = 25°C unless otherwise noted)

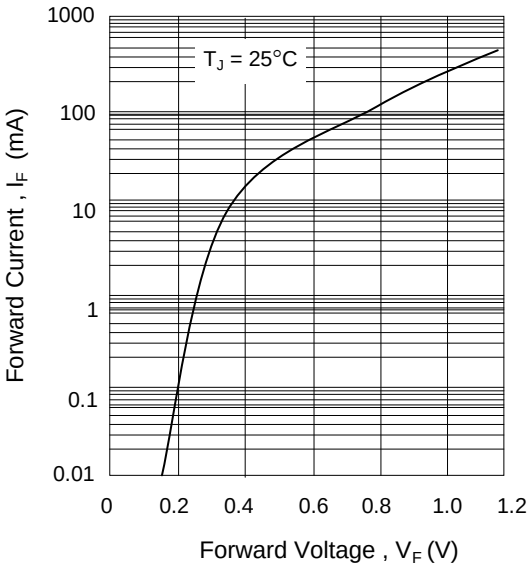
Parameter		Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage		$V_{(BR)R}$	I_R = 100 μA (pulsed)	30	-	-	V
Reverse Current		I_R	V_R = 25 V	-	-	1.0	μA
Pulse Test tp <300μs , δ <2%			V_R = 25 V , T_J = 100°C	-	-	100	
Forward Voltage	BAT42 , 43	V_F	I_F = 200mA	-	-	1.00	V
	BAT42		I_F = 10mA	-	-	0.40	
Pulse Test tp <300μs , δ <2%	BAT42		I_F = 50mA	-	-	0.65	
	BAT43		I_F = 2mA	0.26	-	0.33	
	BAT43		I_F = 15mA	-	-	0.45	
Diode Capacitance		Cd	V_R = 1V, f = 1MHz	-	7	-	pF
Reverse Recovery Time		Trr	I_F = 10mA, I_R = 10mA , Irr = 1mA, R_L = 100Ω	-	-	5	ns

RATING AND CHARACTERISTIC CURVES (BAT42 AND BAT43)

Admissible Power Dissipation vs. Ambient Temperature



Typical Forward Characteristics



Typical Reverse Characteristics