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BAT81 - BAT83

SCHOTTKY BARRIER DIODES

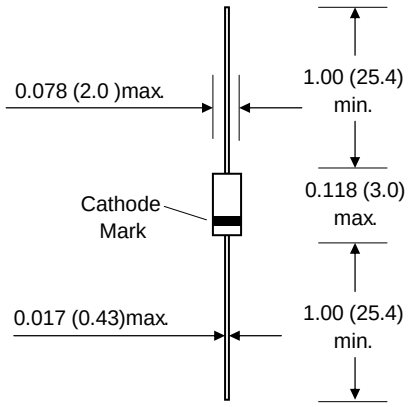
FEATURES :

- Low forward voltage
- High breakdown voltage
- Guard ring protected
- Hermetically-sealed leaded glass package
- Low diode capacitance.
- Pb / RoHS Free

MECHANICAL DATA :

Case: DO-34 Glass Case
Weight: approx. 0.11g

DO - 34 Glass



Dimensions in inches and (millimeters)

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

Parameter		Symbol	Value	Unit
Continuous Reverse Voltage	BAT81	V_R	40	V
	BAT82		50	
	BAT83		60	
Forward Continuous Current		I_F	30(1)	mA
Repetitive Peak Forward Current at tp ≤1s		I_{FRM}	150(1)	mA
Non-repetitive Peak Forward Surge Current at tp ≤ 10ms		I_{FSM}	500(1)	mA
Power Dissipation (Infinite Heatsink)		P_D	200(1)	mW
Thermal Resistance Junction to Ambient Air		$R_{\theta JA}$	430(1)	°C/W
Junction Temperature		T_J	125	°C
Storage temperature range		T_S	-65 to + 150	°C

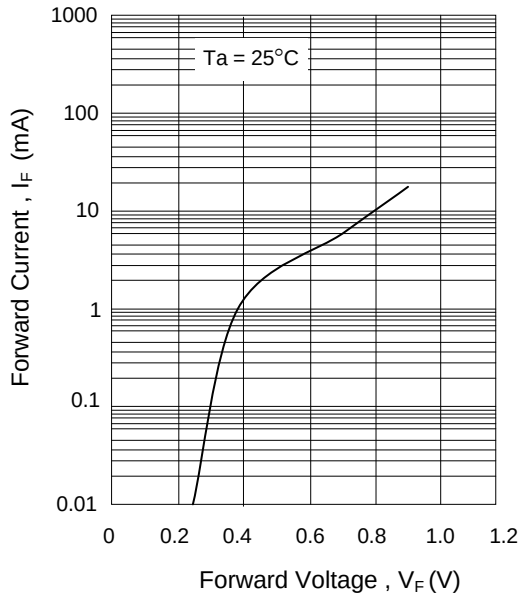
Note: (1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature.

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

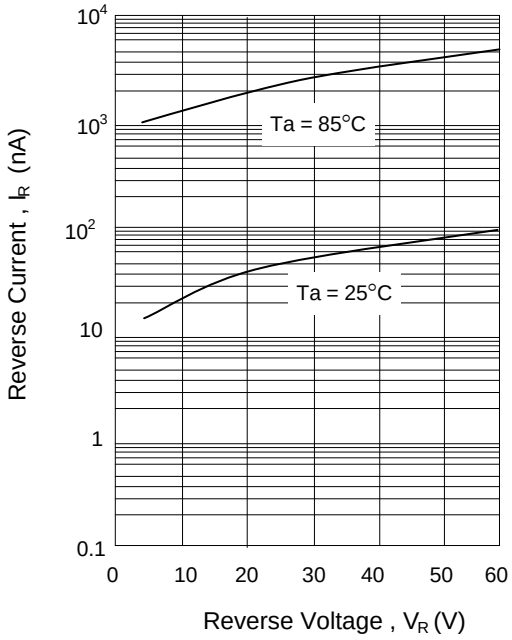
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Current	I_R	$V_R = V_{Rmax}$	-	-	200	nA
Forward Voltage	V_F	I_F = 1mA	-	-	0.41	V
		I_F = 15mA	-	-	1.0	
Diode Capacitance	Cd	V_R = 1V, f = 1MHz	-	-	1.6	pF

RATING AND CHARACTERISTIC CURVES (BAT81 - BAT83)

Typical forward characteristics



Typical reverse characteristics



Typical diode capacitance as a function of reverse voltage