Technical Data
Data Sheet N0648, Rev. -

Green Products

10BQ200 SCHOTTKY RECTIFIER

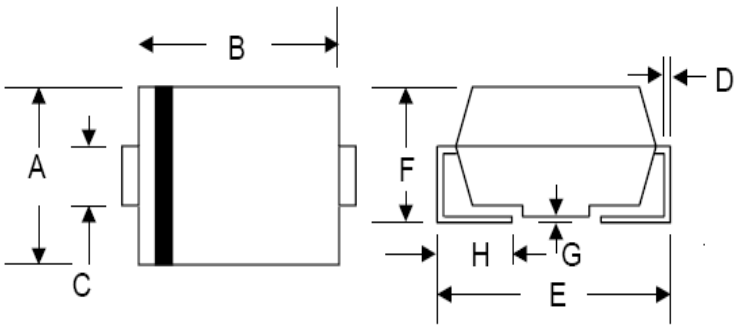
Applications:

- **Disk Drives**
- **Switching power supply**
- **Redundant power subsystems**
- **Converters**
- **Free-Wheeling diodes**
- **Reverse battery protection**
- **Battery Charging**

Features:

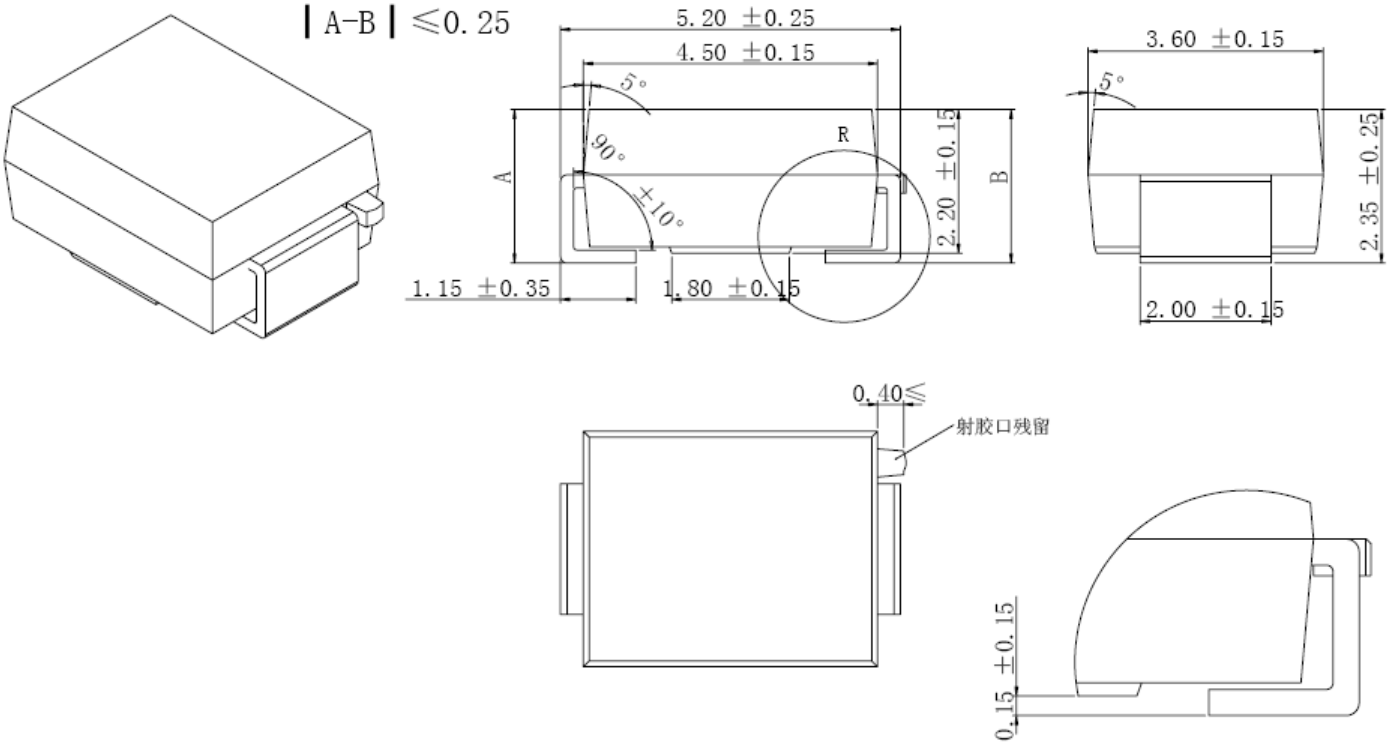
- **Small foot print, surface moutable**
- **Low forward voltage drop**
- **High frequency operation**
- **Guard ring for enhanced ruggedness and long term reliability**
- **This is a Pb − Free Device**
- **All SMC parts are traceable to the wafer lot**
- **Additional testing can be offered upon request**

Mechanical Dimensions: In mm



SMB/DO-214AA				
Dim	Min	Max	Min	Max
A	3.30	3.94	0.130	0.155
B	4.06	4.70	0.160	0.185
C	1.91	2.11	0.075	0.083
D	0.152	0.305	0.006	0.012
E	5.08	5.59	0.2	0.220
F	2.13	2.44	0.084	0.096
G	0.051	0.203	0.002	0.008
H	0.76	1.27	0.029	0.05
	in mm		In inch	

OPTION 1



OPTION 2(JK)

SMB

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Marking Diagram:

Where XXXXX is YYWWL

SB1N = Part Name
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Ordering Information:

Device	Package	Shipping
10BQ200	SMB (Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	200	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle @T_L =105°C, rectangular wave form On PC board 9mm^2 island	1.0	A
Max. Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	10 ms, half Sine pulse	20	A

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Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop*	V_{F1}	@ 1 A, Pulse, T_J = 25 °C	0.92	V
	V_{F2}	@ 1 A, Pulse, T_J = 125 °C	0.76	V
Max. Reverse Current *	I_{R1}	@V_R = Rated V_R, Pulse, T_J = 25 °C	0.5	mA
	I_{R2}	@V_R = Rated V_R, Pulse, T_J = 125 °C	1.0	mA
Max. Junction Capacitance	C_T	@V_R = 5V, T_C = 25 °C f_{SIG} = 1MHz	20	PF
Typical Series Inductance	L_S	Measured lead to lead 5 mm from package body	2.0	nH
Max. Voltage Rate of Change	dv/dt	-	10,000	V/μs

* Pulse Width < 300μs, Duty Cycle < 2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	T_J	-	-55 to +175	°C
Max. Storage Temperature	T_{stg}	-	-55 to +175	°C
Maximum Thermal Resistance Junction to Case	$R_{\theta JA}$	DC operation	140	°C/W
Approximate Weight	wt	-	0.68	g
Case Style	SMB			

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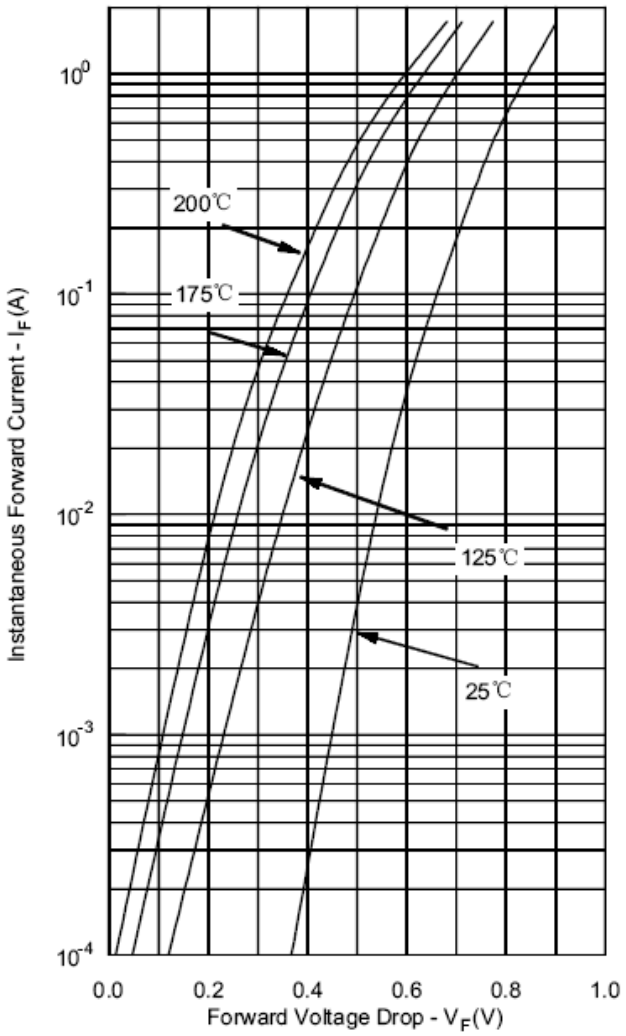
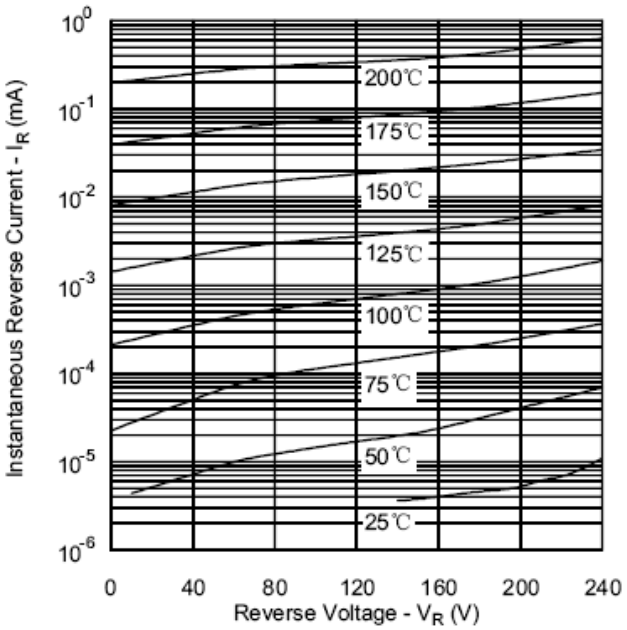
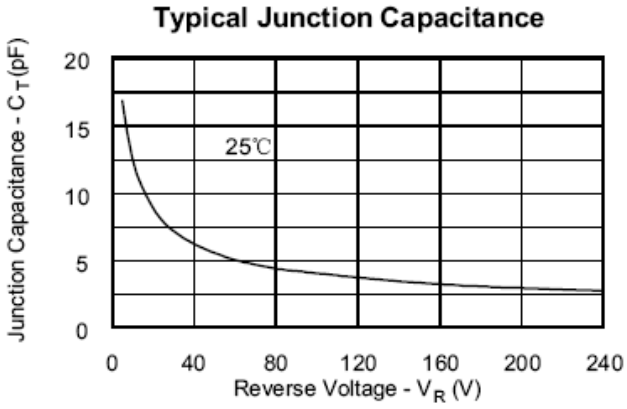
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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