



## 10BQ200 SCHOTTKY RECTIFIER

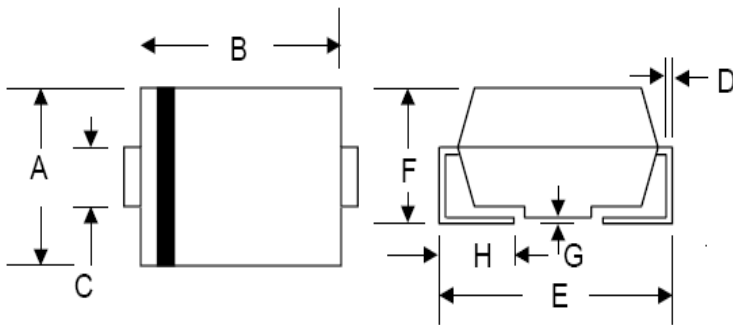
### Applications:

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

### Features:

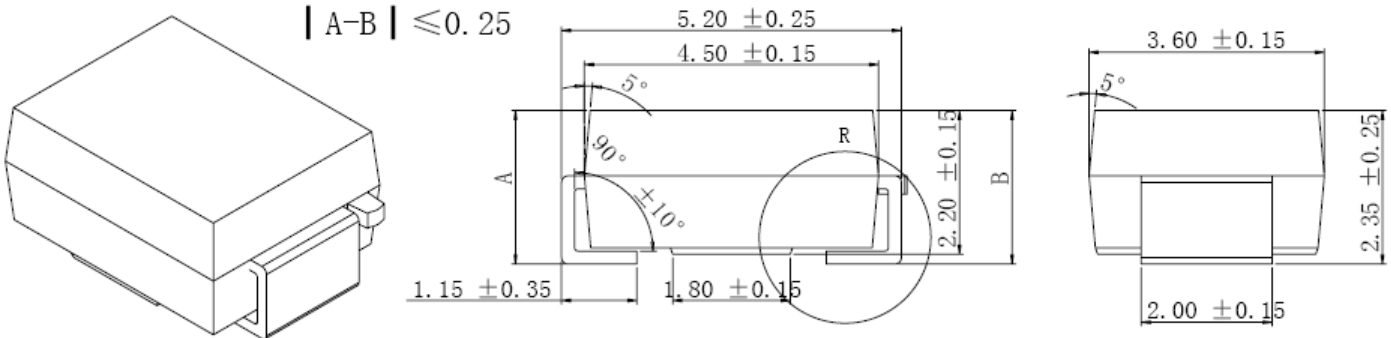
- Small foot print, surface moutable
- Low forward voltage drop
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Mechanical Dimensions: In mm

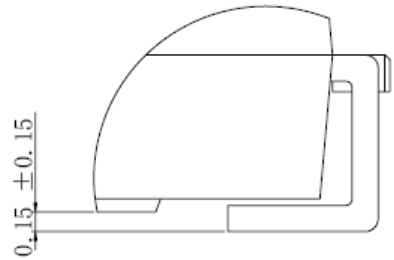
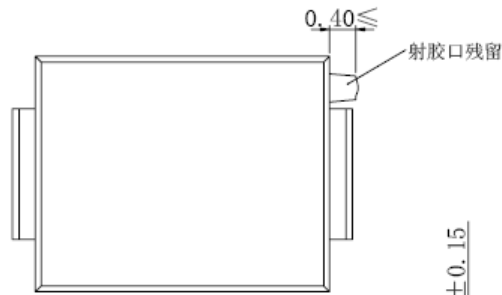


SMB/DO-214AA				
Dim	Min	Max	Min	Max
A	3.30	3.94	0.130	0.155
B	4.06	4.70	0.160	0.185
C	1.91	2.11	0.075	0.083
D	0.152	0.305	0.006	0.012
E	5.08	5.59	0.2	0.220
F	2.13	2.44	0.084	0.096
G	0.051	0.203	0.002	0.008
H	0.76	1.27	0.029	0.05
	in mm		In inch	

### OPTION 1



$|A-B| \leq 0.25$



**OPTION 2(JK)**

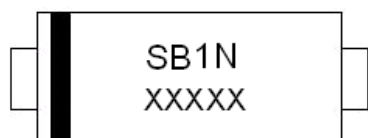
**SMB**



**Technical Data**  
**Data Sheet N0648, Rev. -**

**Green Products**

**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
Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_L=105^{\circ}C$ , rectangular wave form	1.0	A
Peak One Cycle Non-Repetitive Surge Current (per leg)	$I_{FSM}$	8.3 ms, half Sine pulse	20	A



**Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop*	$V_{F1}$	@ 1 A, Pulse, $T_J = 25\text{ }^\circ\text{C}$	0.92	V
	$V_{F2}$	@ 1 A, Pulse, $T_J = 125\text{ }^\circ\text{C}$	0.76	V
Reverse Current *	$I_{R1}$	@ $V_R = \text{Rated } V_R$ , Pulse, $T_J = 25\text{ }^\circ\text{C}$	0.5	mA
	$I_{R2}$	@ $V_R = \text{Rated } V_R$ , Pulse, $T_J = 125\text{ }^\circ\text{C}$	1.0	mA
Max. Junction Capacitance	$C_T$	@ $V_R = 5\text{V}$ , $T_C = 25\text{ }^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$	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/ $\mu\text{s}$

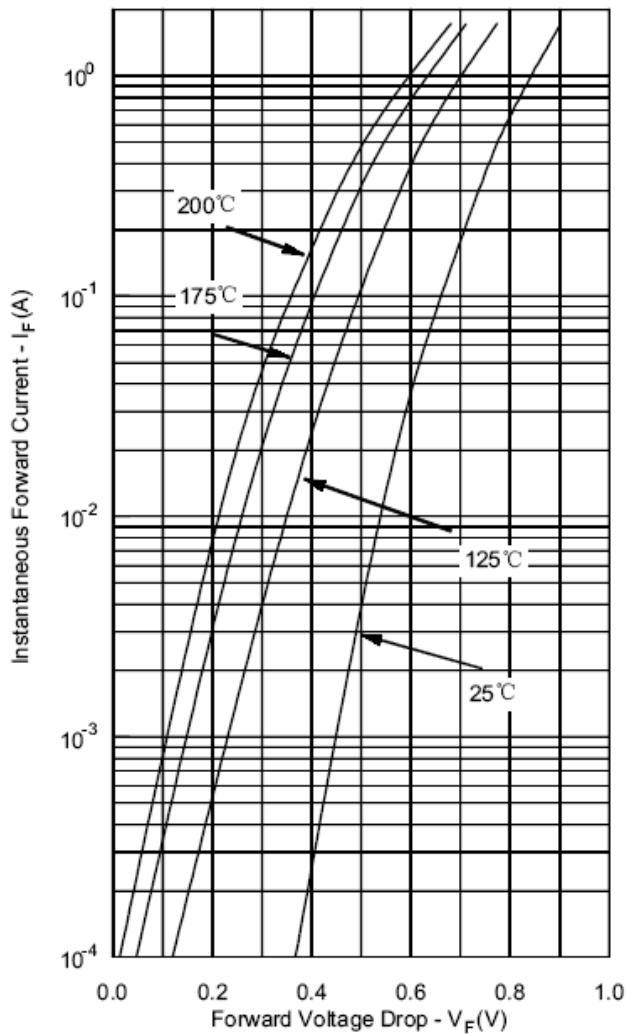
\* Pulse Width < 300 $\mu\text{s}$ , Duty Cycle < 2%

**Thermal-Mechanical Specifications:**

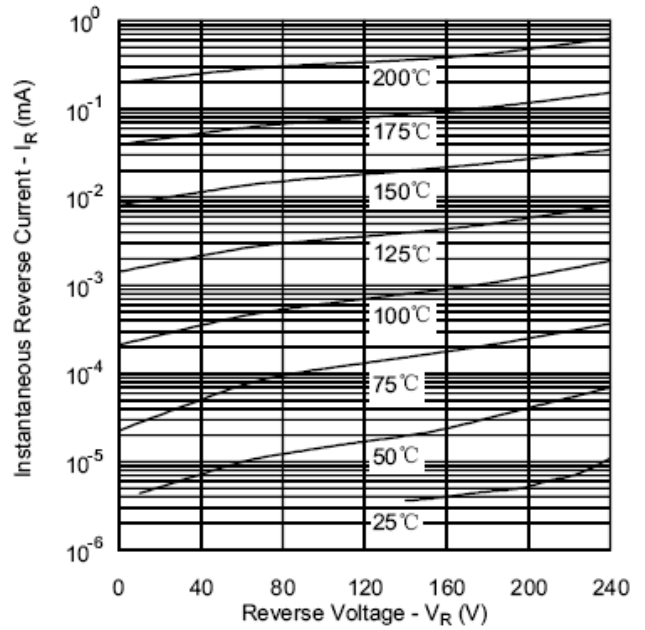
Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	$T_J$	-	-55 to +175	$^\circ\text{C}$
Max. Storage Temperature	$T_{stg}$	-	-55 to +175	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Ambient	$R_{\theta JA}$	DC operation	140	$^\circ\text{C/W}$
Approximate Weight	wt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



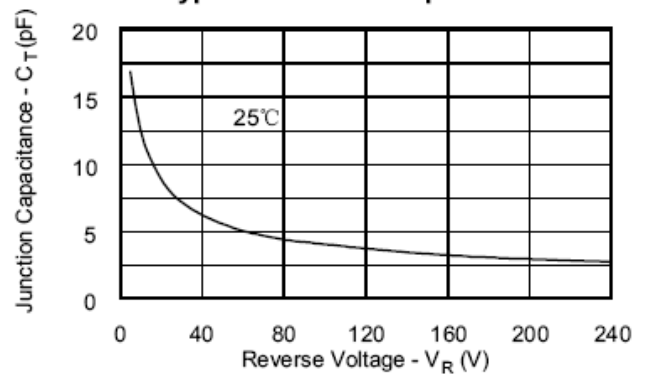
**Typical Forward Characteristics**



**Typical Reverse Characteristics**



**Typical Junction Capacitance**





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