Technical Data
Data Sheet N0676, Rev. -

Green Products

30BQ100 SCHOTTKY RECTIFIER

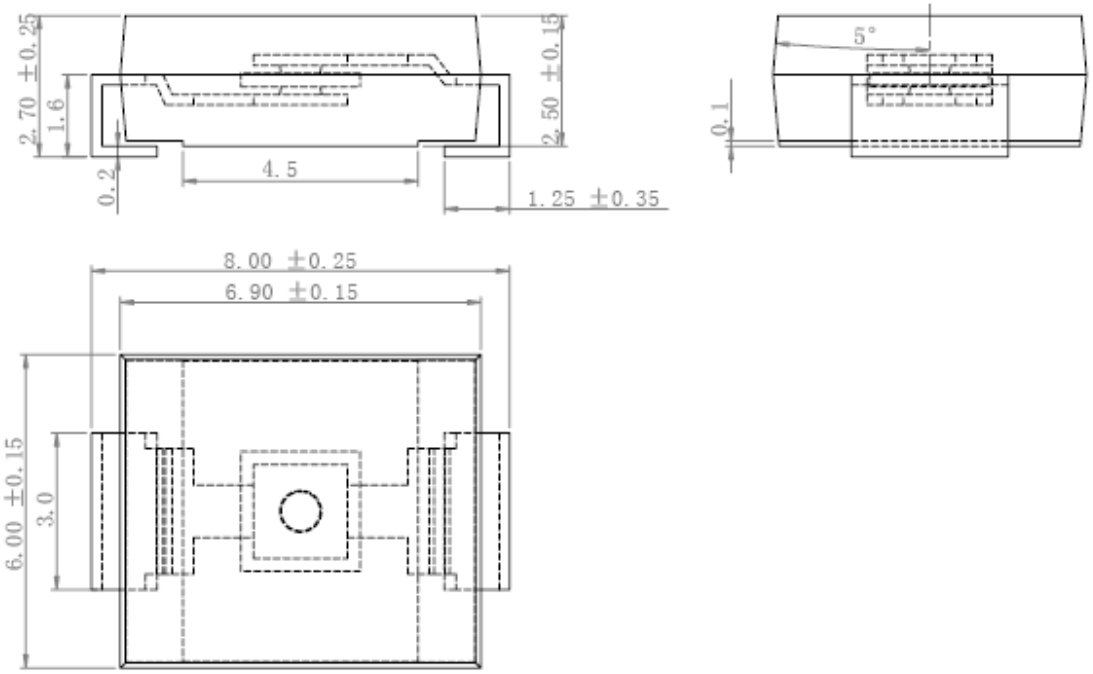
Applications:

- **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 / Inches):



SMC

Technical Data
Data Sheet N0676, Rev. -

Green Products

Marking Diagram:

Where XXXXX is YYWWL

SC3J = Part Name
YY = Year
WW = Week
L = Lot Number

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

Ordering Information:

Device	Package	Shipping
30BQ100	SMC (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}	-	100	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle @T_C =148°C, rectangular wave form	3.0	A
Max. Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine pulse	120	A

Technical Data
Data Sheet N0676, Rev. -

Green Products

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop*	V_{F1}	@ 3 A, Pulse, T_J = 25 °C @ 6 A, Pulse, T_J = 25 °C	0.79 0.90	V
	V_{F2}	@ 3 A, Pulse, T_J = 125 °C @ 6 A, Pulse, T_J = 125°C	0.62 0.70	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	5	mA
Max. Junction Capacitance	C_T	@V_R = 5V, T_C = 25 °C f_{SIG} = 1MHz	115	PF
Typical Series Inductance	L_S	Measured lead to lead 5 mm from package body	3.0	nH
Max. Voltage Rate of Change	dv/dt	-	10,000	V/μs

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

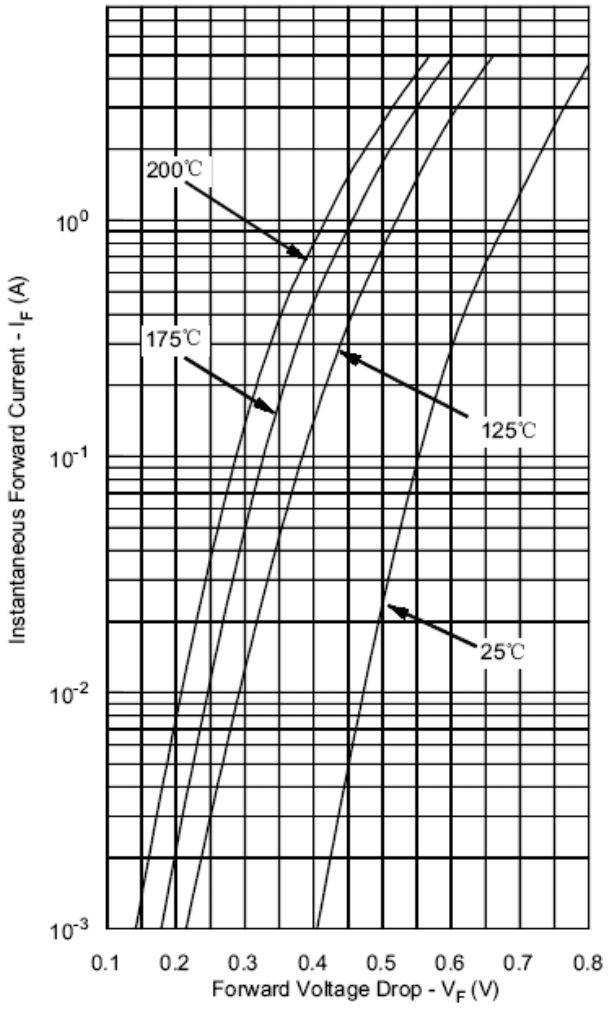
Thermal-Mechanical Specifications:

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 Lead	$R_{\theta JL}$	DC operation	12	°C/W
Maximum Thermal Resistance Junction to Case	$R_{\theta JA}$	DC operation	46	°C/W
Approximate Weight	wt	-	0.65	g
Case Style	SMC			

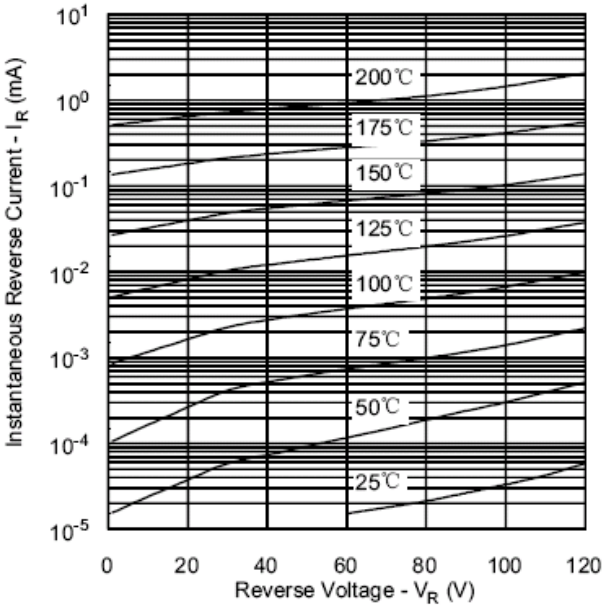
Technical Data
Data Sheet N0676, Rev. -

Green Products

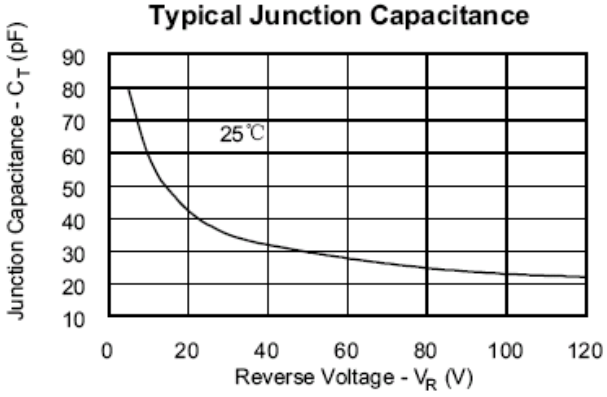
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



Technical Data *Green Products*

Data Sheet N0676, Rev. -