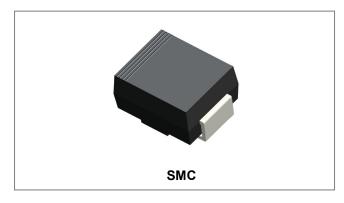






30BQ200 SCHOTTKY RECTIFIER



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

Circuit Diagram



Applications

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

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	-	200	V
Average Rectified Forward Current		50% duty cycle @T _L =148°C, rectangular wave form	3.0	^
	I _{F (AV)}	1 50% OHIV CYCIE (0) L = 1.38 C.	4.0	A
Peak One Cycle Non-Repetitive Surge Current	I _{FSM}	8.3 ms, half Sine pulse, T _C =25°C	55	Α

Electrical Characteristics:

Characteristics	Symbol	Condition	Тур.	Max.	Units
Forward Voltage Drop*	V _{F1}	@ 3 A, Pulse, T _J = 25 °C	0.83	0.92	V
	V _{F2}	@ 3 A, Pulse, T _J = 75 °C	-	0.76	V
Reverse Current*	I_{R1}	@V _R = Rated V _R , Pulse, T _J = 25 °C	0.00003	1	mA
	I_{R2}	$@V_R = Rated V_R$, Pulse, $T_J = 100 °C$	0.006	3	mA
Junction Capacitance	Ст	$@V_R = 5V, T_C = 25 °C$ $f_{SIG} = 1MHz$	50	60	pF
Series Inductance	Ls	Measured lead to lead 5 mm from package body 3.0 -		-	nH
Voltage Rate of Change	dv/dt	-	-	10,000	V/μs

^{*} Pulse width < 300 µs, duty cycle < 2%

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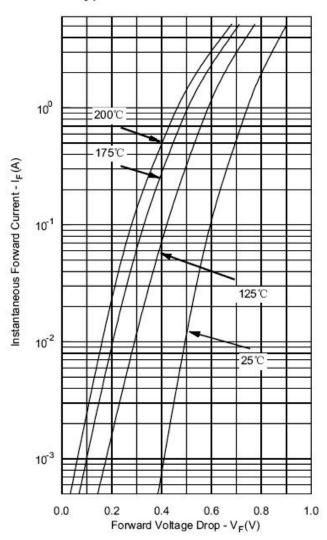


Thermal-Mechanical Specifications:

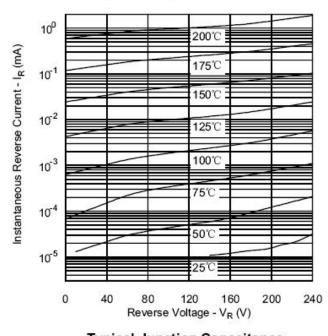
Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	TJ	-	-55 to +175	°C
Storage Temperature	T _{stg}	-	-55 to +175	°C
Typical Thermal Resistance Junction to Lead	R _{θJL}	-	12	°C/W
Typical Thermal Resistance Junction to Case	$R_{ heta JA}$	DC operation	46	°C/W
Approximate Weight	wt	-	0.21	g
Case Style	SMC			

Ratings and Characteristics Curves

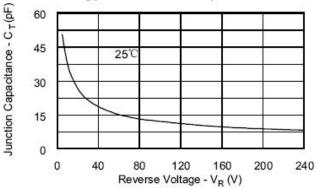
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



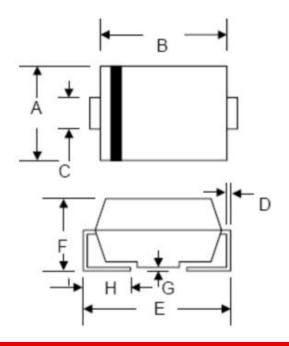
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Mechanical Dimensions SMC



SYMBOL	Millin	neters	Inches		
	Min.	Max.	Min.	Max.	
А	5.59	6.22	0.220	0.245	
В	6.60	7.11	0.260	0.280	
С	2.75	3.25	0.108	0.128	
D	0.152	0.305	0.006	0.012	
E	7.75	8.25	0.305	0.325	
F	2.00	2.95	0.079	0.116	
G	0.051	0.203	0.002	0.008	
Н	0.76	1.60	0.030	0.063	

Ordering Information

Device	Package	Shipping	
30BQ200	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.

Marking Diagram

SC3N XXXXX Where XXXXX is YYWWL

 SC3N
 = Part Name

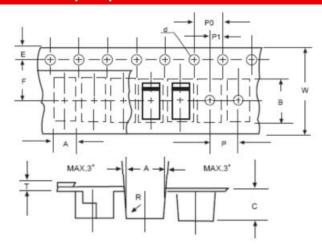
 YY
 = Year

 WW
 = Week

 L
 = Lot Number

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

Carrier Tape Specification SMC



SYMBOL	Millin	neters
	Min.	Max.
Α	5.90	6.10
В	8.20	8.40
C	2.40	2.60
d	1.40	1.60
E	1.40	1.60
F	7.60	7.70
Р	7.90	8.10
P0	3.90	4.10
P1	3.90	4.10
Т	-	0.600
W	15.80	16.20

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