



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



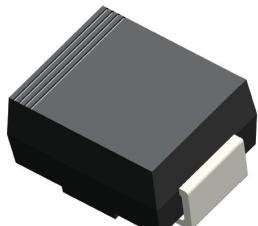
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30BQ015 SCHOTTKY RECTIFIER



SMC

Features

- Small foot print, surface mountable
- 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	V_{RRM}		15(DC)	
Working Peak Reverse Voltage	V_{RWM}		25(Working)	V
DC Blocking Voltage	V_R	-		
Average Rectified Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_C = 83^\circ C$, rectangular wave form	3.0	A
Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine pulse, $T_C = 25^\circ C$	114	A

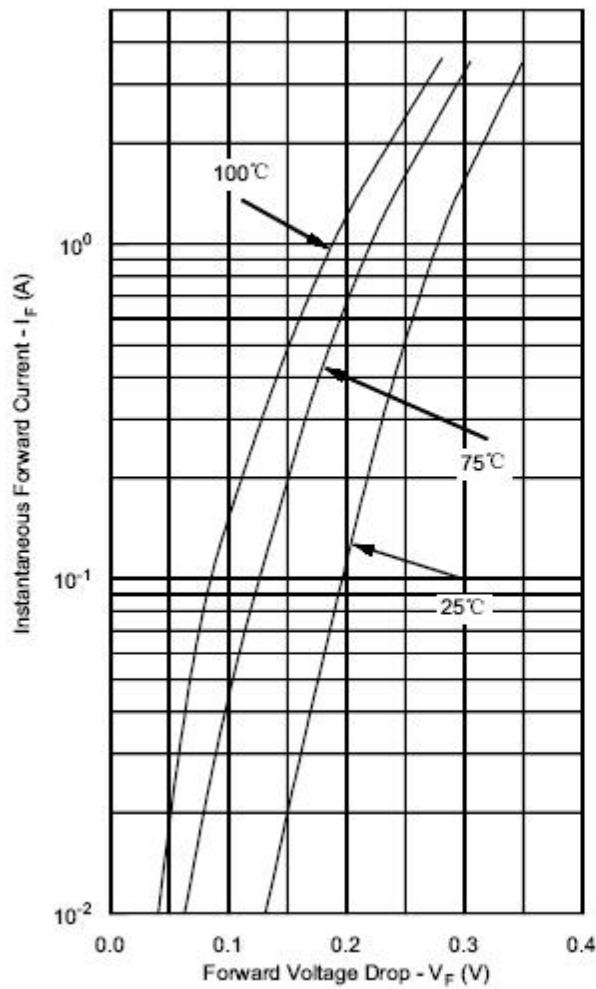
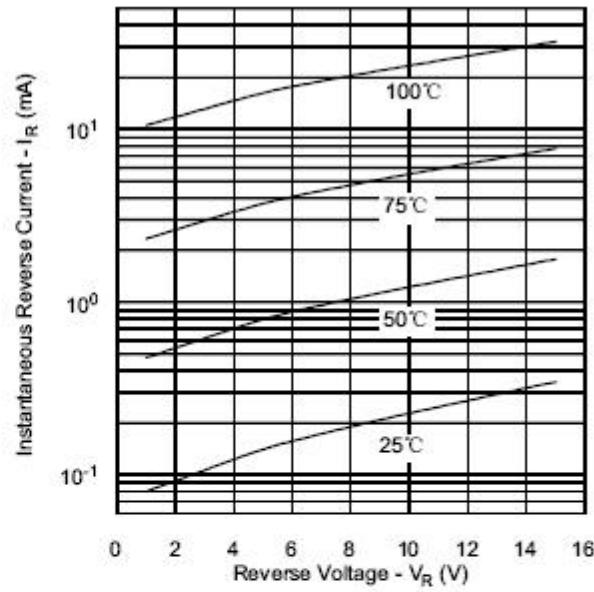
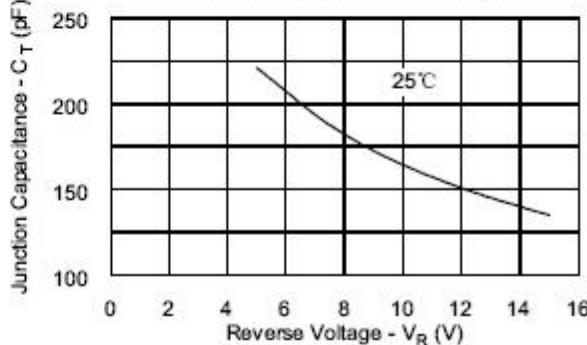
Electrical Characteristics:

Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop*	V_{F1}	@ 3 A, Pulse, $T_J = 25^\circ C$	0.33	0.35	V
	V_{F2}	@ 3 A, Pulse, $T_J = 75^\circ C$	0.28	0.30	V
Reverse Current*	I_{R1}	@ $V_R = \text{Rated } V_R$, Pulse, $T_J = 25^\circ C$	0.4	4	mA
	I_{R2}	@ $V_R = \text{Rated } V_R$, Pulse, $T_J = 100^\circ C$	30	50	mA
Junction Capacitance	C_T	@ $V_R = 5V$, $T_C = 25^\circ C$ $f_{SIG} = 1MHz$	220	1120	pF
Series Inductance	L_S	Measured lead to lead 5 mm from package body	3.0	-	nH
Voltage Rate of Change	dv/dt	-	-	10,000	V/ μ s

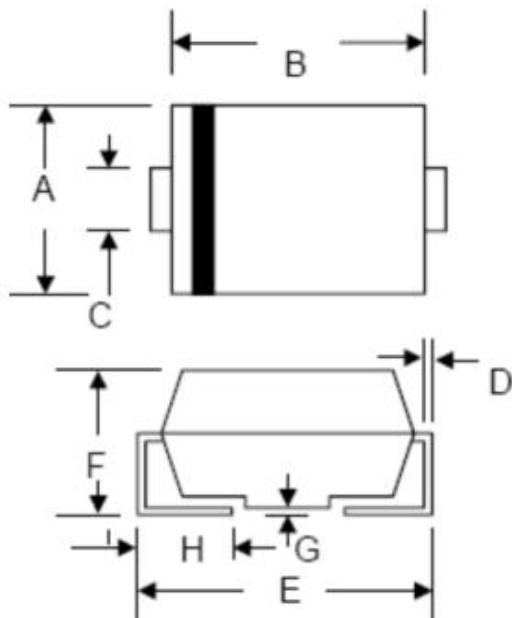
 * Pulse width < 300 μ s, duty cycle < 2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +125	°C
Storage Temperature	T_{stg}	-	-55 to +150	°C
Typical Thermal Resistance Junction to Lead	R_{0JL}	-	12	°C/W
Typical Thermal Resistance Junction to Case	R_{0JA}	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


Mechanical Dimensions SMC



SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	5.59	6.22	0.220	0.245
B	6.60	7.11	0.260	0.280
C	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
H	0.76	1.60	0.030	0.063

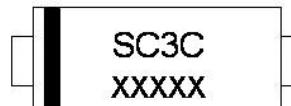
Ordering Information

Device	Package	Shipping
30BQ015	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

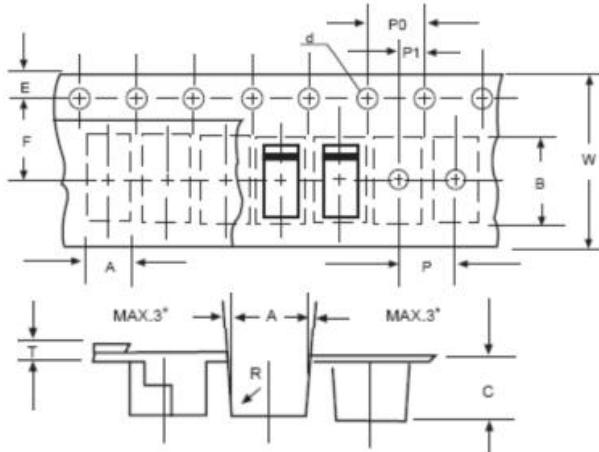
Where XXXXX is YYWWL



SC3C = Part Name
 YY = Year
 WW = Week
 L = Lot Number

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

Carrier Tape Specification SMC



SYMBOL	Millimeters	
	Min.	Max.
A	5.90	6.10
B	8.20	8.40
C	2.40	2.60
d	1.40	1.60
E	1.40	1.60
F	7.60	7.70
P	7.90	8.10
P0	3.90	4.10
P1	3.90	4.10
T	-	0.600
W	15.80	16.20

**Technical Data
Data Sheet N0025, Rev. A**

RoHS



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