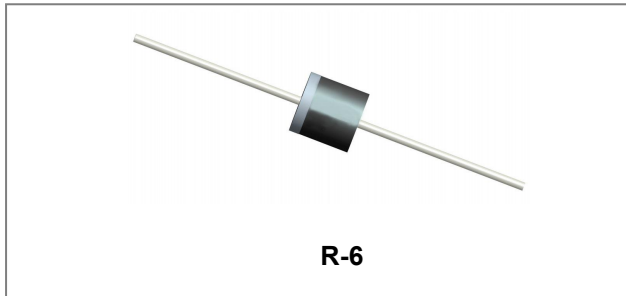


15SQ SERIES SCHOTTKY BARRIER RECTIFIER



Features

- Super-high speed & low noise switching
- Low voltage drop
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- DC-DC converters
- AC adapter
- High frequency rectification circuit
- Bypass diodes

Maximum Ratings:

Characteristics	Symbol	Conditions	Value		Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	-	15SQ030	30	V
			15SQ045	45	
			15SQ050	50	
			15SQ060	60	
			15SQ100	100	
Average Rectified Forward Current	$I_{F(AV)}$	R- load, $T_a=50^\circ\text{C}$	15		A
Surge(Non-repetitive) Forward Current	I_{FSM}	8.3ms single half sine-wave	15SQ030	300	A
			15SQ045		
			15SQ050		
			15SQ060		
			15SQ100	340	

Electrical Characteristics:

Characteristics	Symbol	Conditions		Typ.	Max.	Units
Peak Forward Voltage*	V_{FM}	$I_{FM}=15.0\text{A}, T_a=25^\circ\text{C}$		15SQ030	0.48	0.55
				15SQ045	0.48	0.55
				15SQ050	0.58	0.68
				15SQ060	0.58	0.68
				15SQ100	0.78	0.83
Peak Reverse Current*	I_{RRM1}	$V_{RM}=V_{RRM}$	$T_a=25^\circ\text{C}$	-	-	0.5
	I_{RRM2}		$T_a=100^\circ\text{C}$	-	-	25
Thermal Resistance	$R_{\theta J-C}$	Between junction and case		-	3.0	$^\circ\text{C/W}$
	$R_{\theta J-L}$	Between junction and lead		-	2.0	

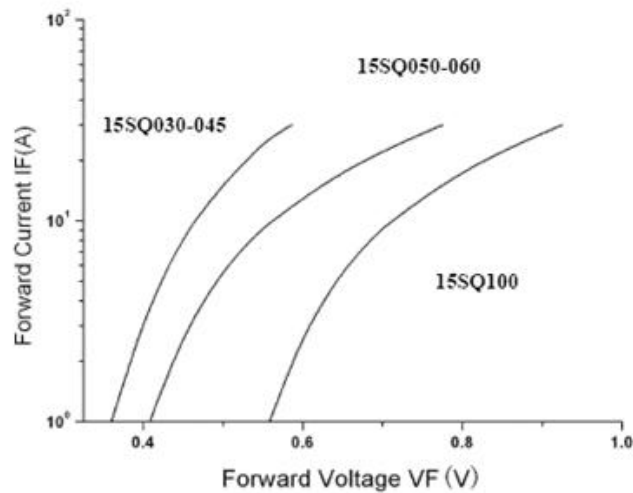
* Pulse width < 300 μs , duty cycle < 2%

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - sales@smc-diodes.com •

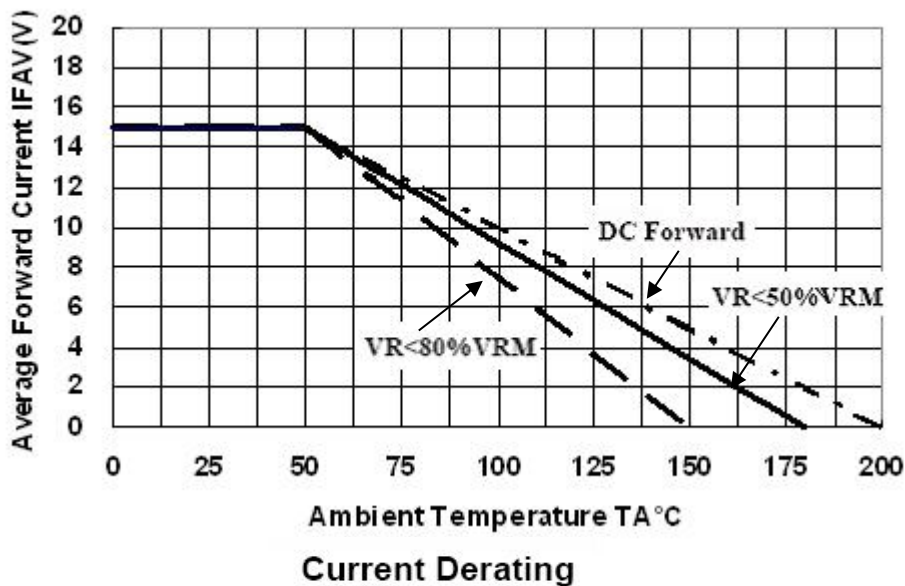
Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature at reduced reverse voltage at reduced reverse voltage in DC forward mode	T_J	$V_R \leq 80\%V_{RRM}$ $V_R \leq 50\%V_{RRM}$	-55 to +150 -55 to +180 -55 to +200	$^{\circ}\text{C}$
Max. Storage Temperature	T_{stg}	-	-55 to +150	$^{\circ}\text{C}$
Approximate Weight	wt	-	2.24	g

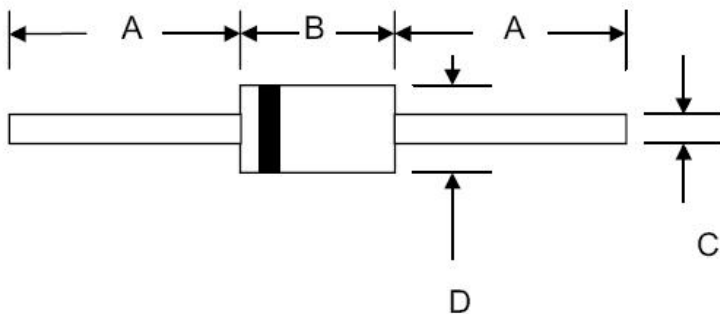
Ratings and Characteristics Curves



Typical Forward Characteristics



Mechanical Dimensions R-6



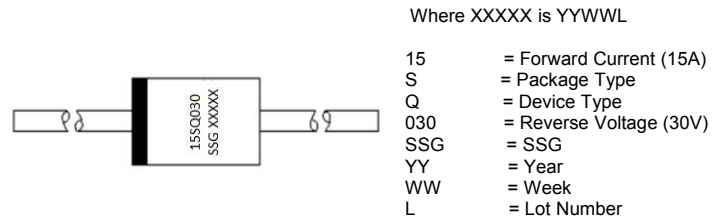
SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.4	-	1.000	-
B	8.60	9.10	0.340	0.360
C	1.2	1.3	0.048	0.052
D	8.60	9.10	0.340	0.360

Ordering Information

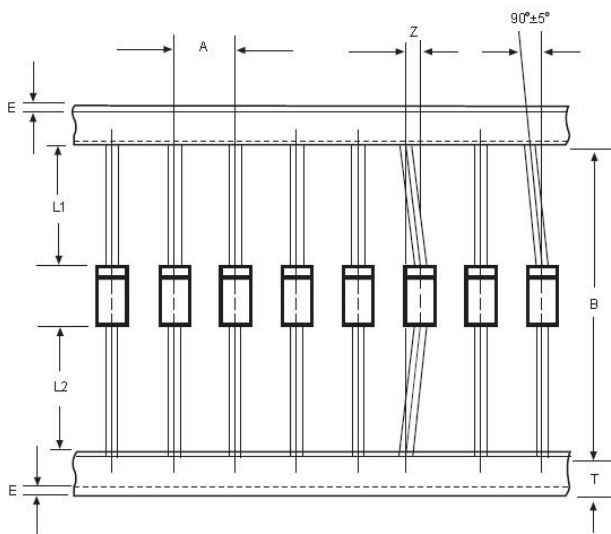
Device	Package	Shipping
15SQ030	R-6 (Pb-Free)	500pcs / reel
15SQ045		
15SQ050		
15SQ060		
15SQ100		

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



Carrier Tape Specification R-6



SYMBOL	Millimeters	
	Min.	Max.
A	9.50	10.50
B	50.9	53.9
Z	-	1.20
T	5.60	6.40
E	-	0.80
IL1-L2I	-	1.0

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