

15SQ SERIES SCHOTTKY BARRIER RECTIFIER

Applications:

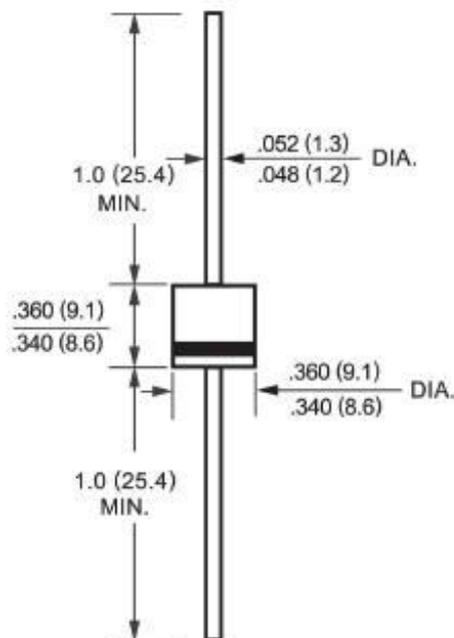
- DC-DC converters
- AC adapter
- High frequency rectification circuit
- Bypass diodes
- Photovoltaic Solar cell Protection Schottky Rectifier

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



Mechanical Dimensions: In Inches/ mm



R-6

Marking Diagram:



Where XXX is 030/045/050/060/100
Where XXXXX is YYWWL

- 15 = Forward Current (15A)
- S = Package Type
- Q = Device Type
- XXX = Reverse Voltage (30/45/50/60/100V)
- SSG = SSG
- YY = Year
- WW = Week
- L = Lot Number

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

Ordering Information:

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

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Maximum Rating:

Characteristics	Symbol	Conditions	Value	Unit	
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, $T_a=50^{\circ}C$	15	A	
Surge(Non-repetitive) Forward Current	I_{FSM}	8.3ms single half sine-wave	15SQ030	300	A
			15SQ045		
			15SQ050		
			15SQ060		
			15SQ100	340	



15SQ SERIES

Technical Data
Data Sheet N0129, Rev. B

Green Products

Electrical Characteristics (Ta=25°C Unless otherwise specified)

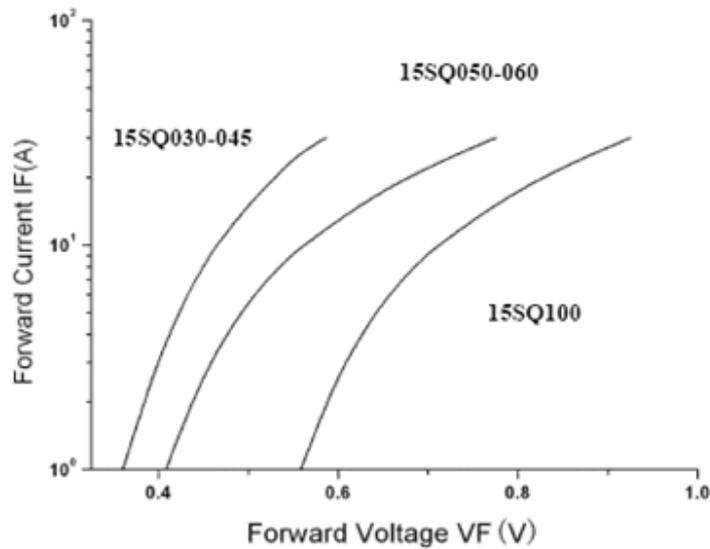
Characteristics	Symbol	Conditions		Typ.	Max.	Unit
Peak Forward Voltage*	V _{FM}	I _{FM} =15.0A, Ta=25°C	15SQ030	0.48	0.55	V
			15SQ045	0.48	0.55	
			15SQ050	0.58	0.68	
			15SQ060	0.58	0.68	
			15SQ100	0.78	0.83	
Peak Reverse Current*	I _{RRM1}	V _{RM} =V _{RRM}	Ta=25°C	-	-	0.5
	I _{RRM2}		Ta=100°C	-	-	25
Thermal Resistance	R _{θJ-c}	Between junction and case	-	3.0	-	°C/W
	R _{θJ-L}	Between junction and lead	-	2.0	-	

* Pulse Width < 300μs, Duty Cycle <2%

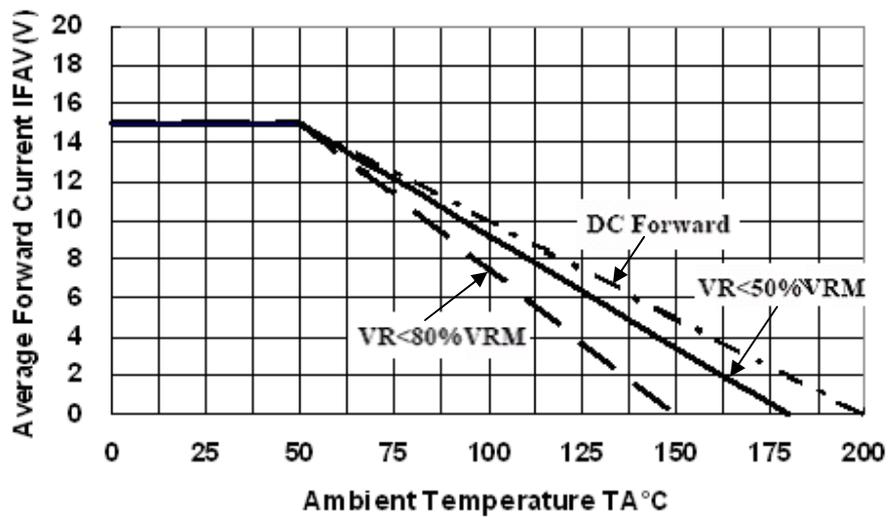
Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature at reduced reverse voltage at reduced reverse voltage in DC forward mode	T _J	V _R ≤ 80%V _{RRM}	-55 to +150	°C
		V _R ≤ 50%V _{RRM}	-55 to +180	
			-55 to +200	
Max. Storage Temperature	T _{stg}	-	-55 to +150	°C
Approximate Weight	wt	-	2.24	g
Case Style	R-6			

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



Typical Forward Characteristics



Current Derating



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