



# THE DATASHEET OF 15SQ050



## 15SQ SERIES SCHOTTKY BARRIER RECTIFIER

### Applications:

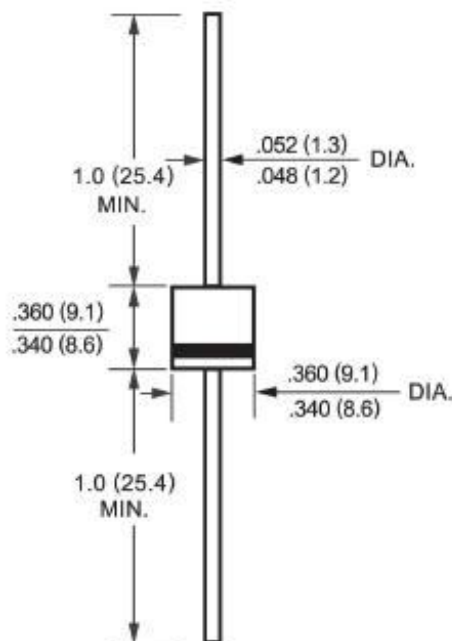
- DC-DC converters
- AC adapter
- High frequency rectification circuit
- Bypass diodes
- Photovoltaic Solar cell Protection Schottky Rectifier

### 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

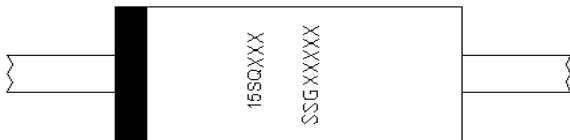


### Mechanical Dimensions: In Inches/ mm



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	$V_{RRM}$	-	15SQ030: 30	V
Working Peak Reverse Voltage	$V_{RWM}$		15SQ045: 45	
DC Blocking Voltage	$V_R$		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 15SQ045: 300 15SQ050: 300 15SQ060: 300 15SQ100: 340	A



# 15SQ SERIES

Technical Data  
Data Sheet N0129, Rev. B

Green Products

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

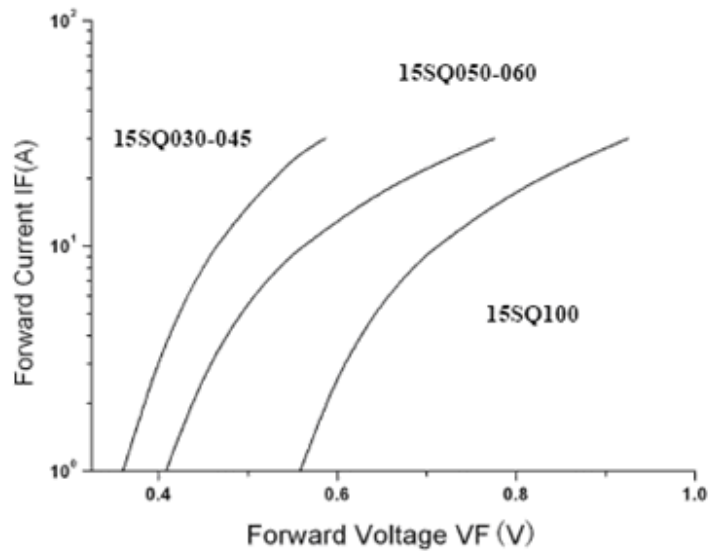
Characteristics	Symbol	Conditions		Typ.	Max.	Unit
Peak Forward Voltage*	V <sub>FM</sub>	I <sub>FM</sub> =15.0A, Ta=25°C	15SQ030	0.48	0.55	V
			15SQ045	0.48	0.55	
			15SQ050	0.58	0.68	
			15SQ060	0.58	0.68	
			15SQ100	0.78	0.83	
Peak Reverse Current*	I <sub>RRM1</sub>	V <sub>RM</sub> =V <sub>RRM</sub>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

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

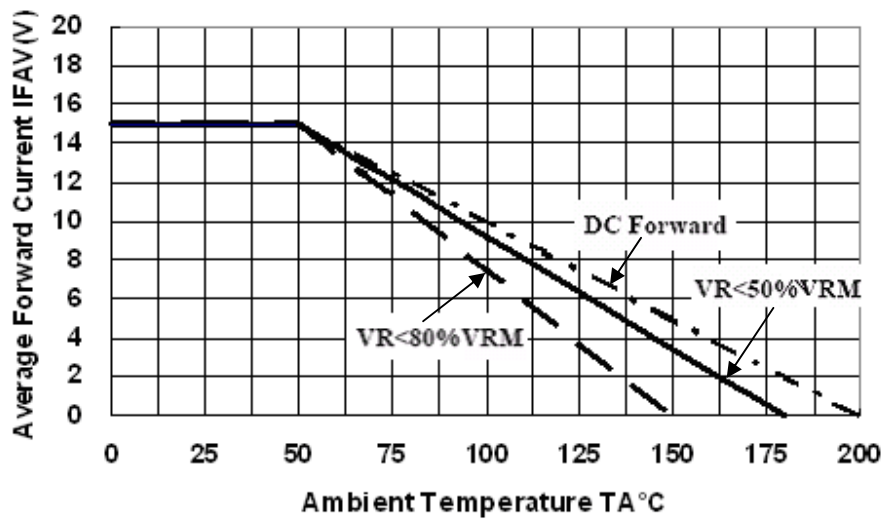
## Thermal-Mechanical Specifications:

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

- China - Germany - Korea - Singapore - United States •
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**Typical Forward Characteristics**



**Current Derating**





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