

## Maximum Ratings (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitance load, derate current by 20%.

Characteristic	Symbol	S5AC	S5BC	S5DC	S5GC	S5JC	S5KC	S5MC	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>								
Working Peak Reverse Voltage	V <sub>RWM</sub>	50	100	200	400	600	800	1,000	V
DC Blocking Voltage	V <sub>R</sub>								
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Rectified Output Current @ T <sub>T</sub> = +75°C	I <sub>O</sub>	5.0							A
Non-Repetitive Peak Forward Surge Current, 8.3ms	I <sub>FSM</sub>	100							A
Single Half Sine-Wave Superimposed on Rated Load									
Non-Repetitive Peak Forward Surge Current, 1.0ms	I <sub>FSM</sub>	200							A
Single Half Sine-Wave Superimposed on Rated Load									

## Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance, Junction to Terminal (Note 5)	R <sub>θJT</sub>	10	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150	°C

## Electrical Characteristics (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Maximum Forward Voltage @ I <sub>F</sub> = 5.0A	V <sub>FM</sub>	1.15	V
Peak Reverse Current @ T <sub>A</sub> = +25°C	I <sub>RM</sub>	10	μA
at Rated DC Blocking Voltage @ T <sub>A</sub> = +125°C		250	
Typical Total Capacitance (Note 6)	C <sub>T</sub>	40	pF

Notes: 5. Thermal Resistance Junction to Terminal, unit mounted on PC board with 5.0mm<sup>2</sup> (0.013mm thick) copper pads as Heat Sink.  
6. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

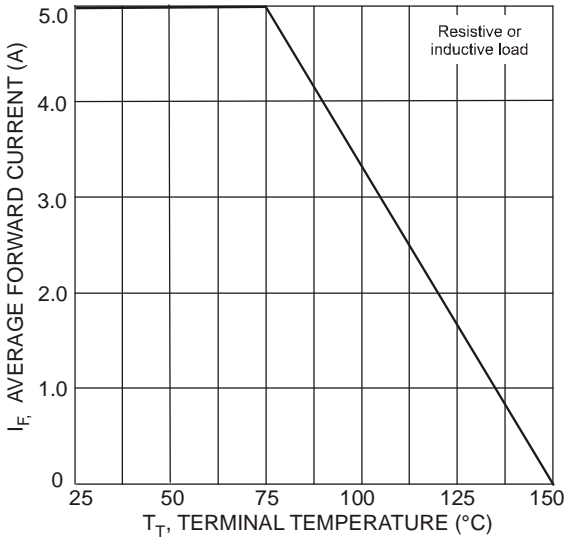


Fig. 1 Forward Current Derating Curve

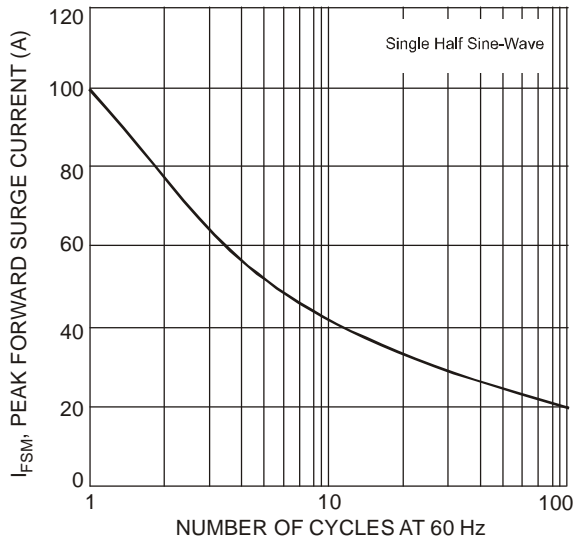


Fig. 3 Forward Surge Current Derating Curve

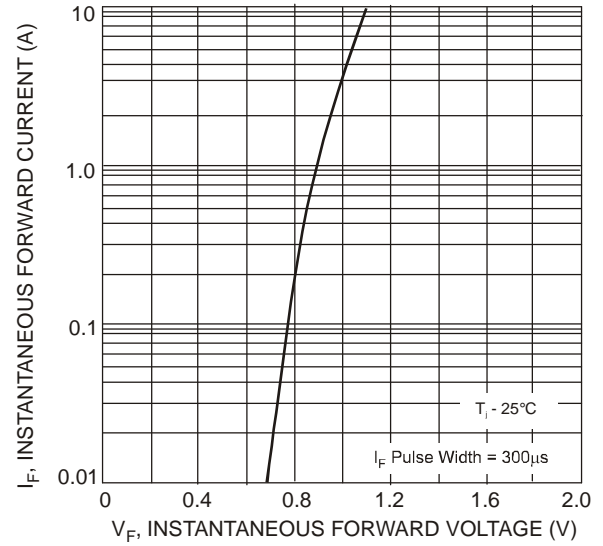


Fig. 2 Typical Forward Characteristics

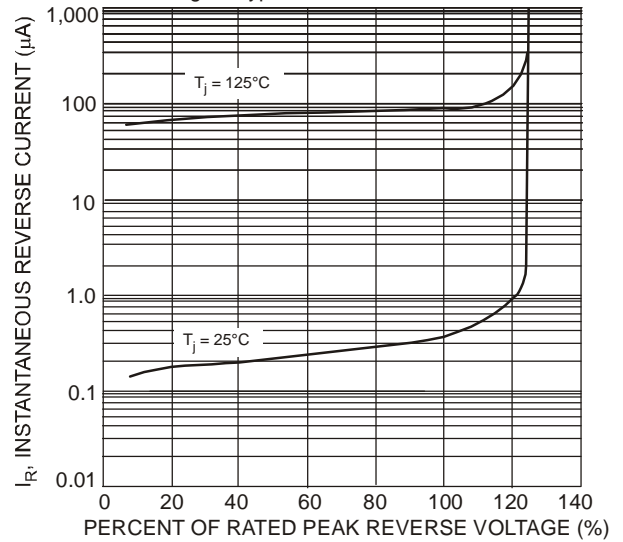
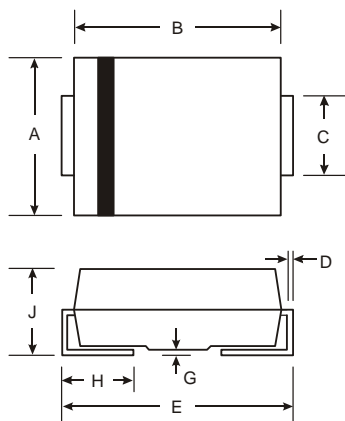


Fig. 4 Typical Reverse Characteristics

## Package Outline Dimensions

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

### SMC

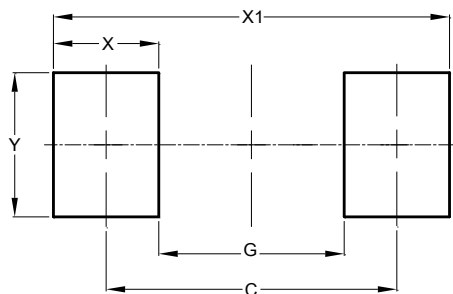


SMC		
Dim	Min	Max
A	5.59	6.22
B	6.60	7.11
C	2.75	3.18
D	0.15	0.31
E	7.75	8.13
G	0.10	0.20
H	0.76	1.52
J	2.00	2.50
All Dimensions in mm		

## Suggested Pad Layout

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

### SMC



Dimensions	Value (in mm)
C	6.90
G	4.40
X	2.50
X1	9.40
Y	3.30

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