

## Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 45 to 100V

Forward Current - 10.0A

### FEATURES

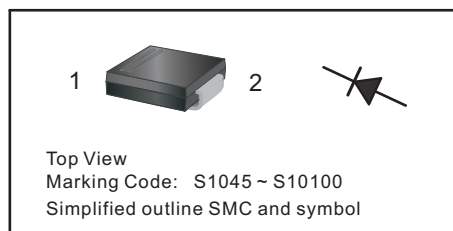
- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

### MECHANICAL DATA

- Case: SMC
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.22g / 0.0077oz

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



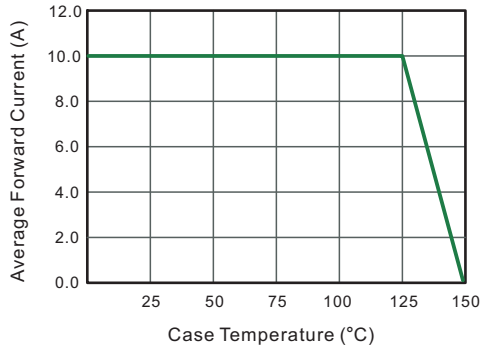
### Absolute Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

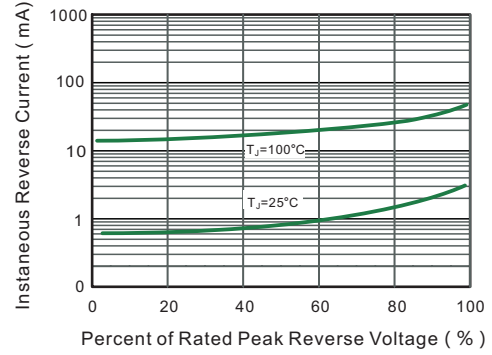
Parameter	Symbols	SS1045CG	SS1060CG	SS10100CG	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	45	60	100	V
Maximum RMS voltage	$V_{RMS}$	32	42	70	V
Maximum DC Blocking Voltage	$V_{DC}$	45	60	100	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	10.0			A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	150			A
Max Instantaneous Forward Voltage @10.0 A	$V_F$	0.55	0.75	0.90	V
Maximum DC Reverse Current $T_j = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_j = 100^\circ\text{C}$	$I_R$	0.5 50			mA
Typical Thermal Resistance	$R_{\theta JA}$	20			$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	$T_j$	-55 ~ +150			$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 ~ +150			$^\circ\text{C}$

( 1 ) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

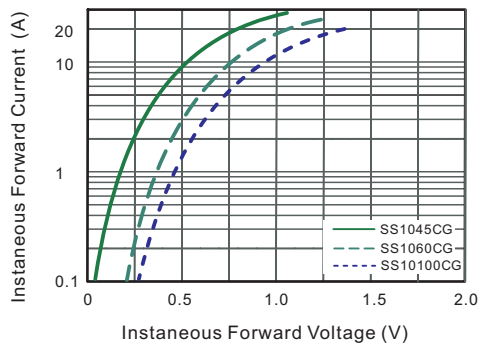
**Fig.1 Forward Current Derating Curve**



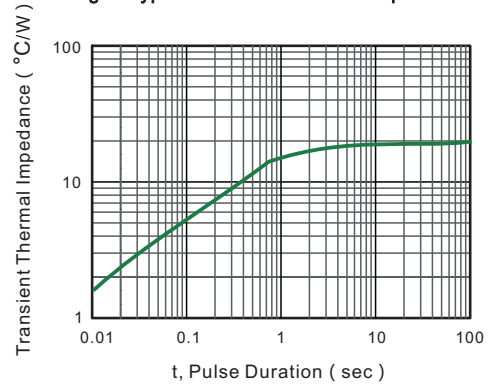
**Fig.2 Typical Reverse Characteristics**



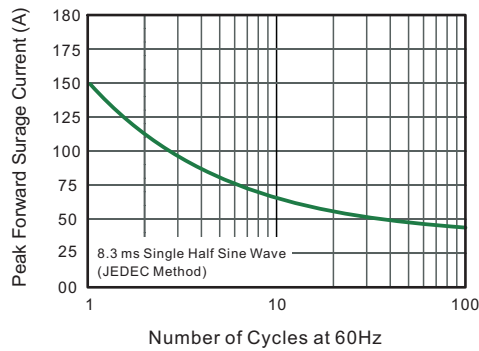
**Fig.3 Typical Forward Characteristic**



**Fig.4- Typical Transient Thermal Impedance**



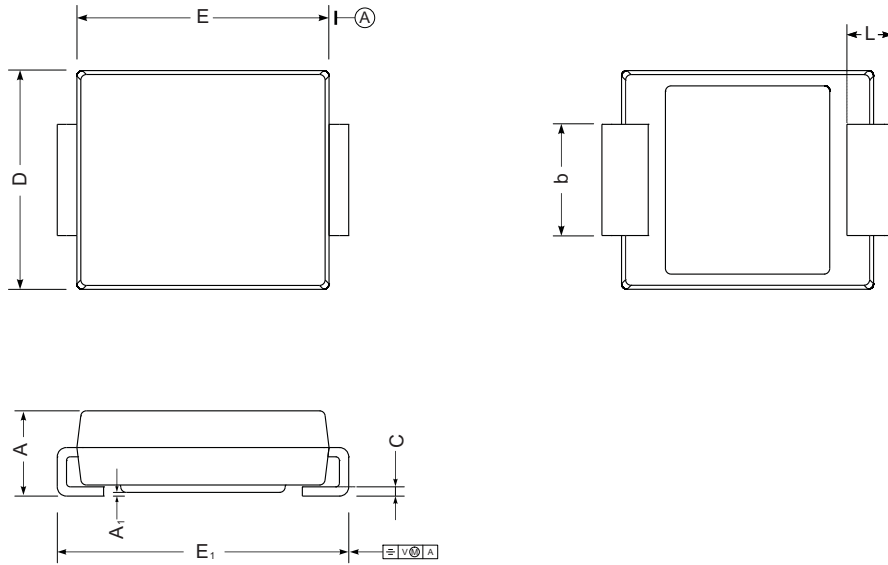
**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

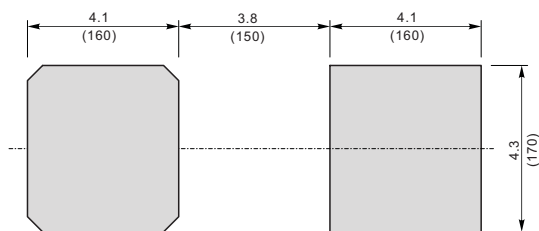
SMC



SMC mechanical data

UNIT		A	E	D	E <sub>1</sub>	A <sub>1</sub>	C	L	b
mm	max	2.62	7.0	6.2	8.0	0.21	0.31	1.6	3.25
	min	2.00	6.5	5.6	7.6	0.05	0.15	0.9	2.75
mil	max	103	276	244	315	8.3	12	63	128
	min	79	256	220	299	2.0	5.9	35	108

## The recommended mounting pad size



Unit:  $\frac{\text{mm}}{\text{mil}}$

## Marking

Type number	Marking code
SS1045CG	S1045
SS1060CG	S1060
SS10100CG	S10100

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