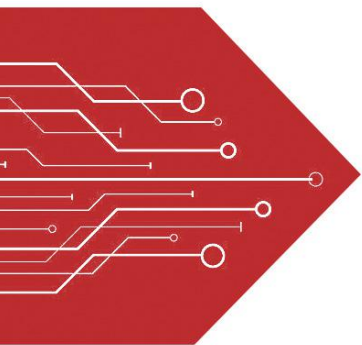


# MSKSEMI

SEMICONDUCTOR



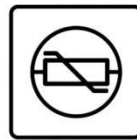
ESD



TVS



TSS



MOV



GDT



PLED

Product data sheet

[www.msksemi.com](http://www.msksemi.com)



SMC

**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

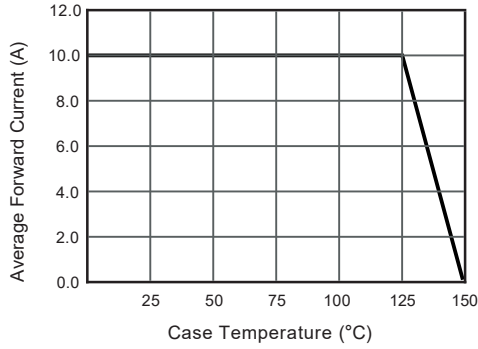
**Absolute Maximum Ratings and Electrical characteristics**

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

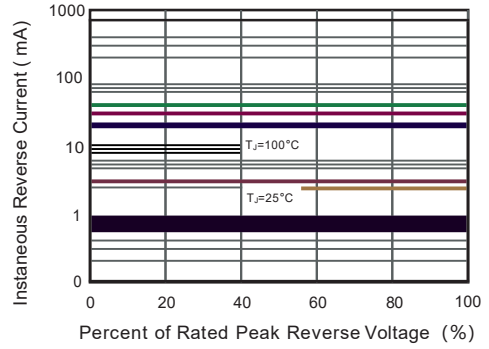
Parameter	Symbols	SS1045	SS1060	SS10100	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	45	60	100	V
Maximum RMS voltage	$V_{RMS}$	32	42	70	V
Maximum DC Blocking Voltage	$V_{DC}$	45	60	100	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	10.0			A
Peak Forward Surge Current, 8.3ms Single 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 $T_j = 25^{\circ}C$ at Rated DC Reverse Voltage $T_j = 100^{\circ}C$	$I_R$	0.5 50			mA
Typical Thermal Resistance	$R_{\theta JA}$	20			$^{\circ}C/W$
Operating Junction Temperature Range	$T_j$	-55 ~ +150			$^{\circ}C$
Storage Temperature Range	$T_{stg}$	-55 ~ +150			$^{\circ}C$

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

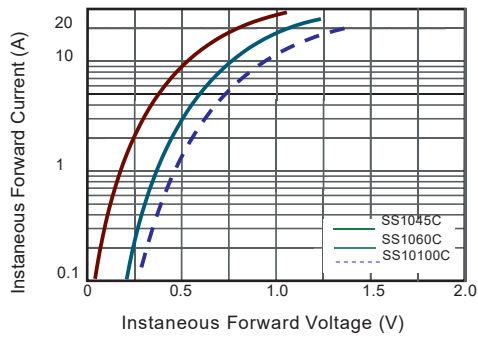
**Fig.1 Forward Current Derating Curve**



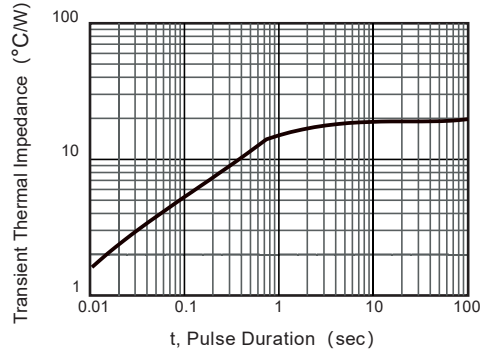
**Fig.2 Typical Reverse Characteristics**



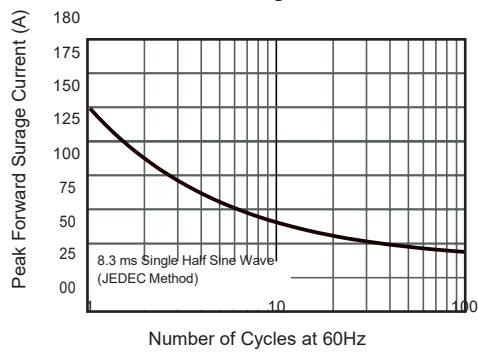
**Fig.3 Typical Forward Characteristic**



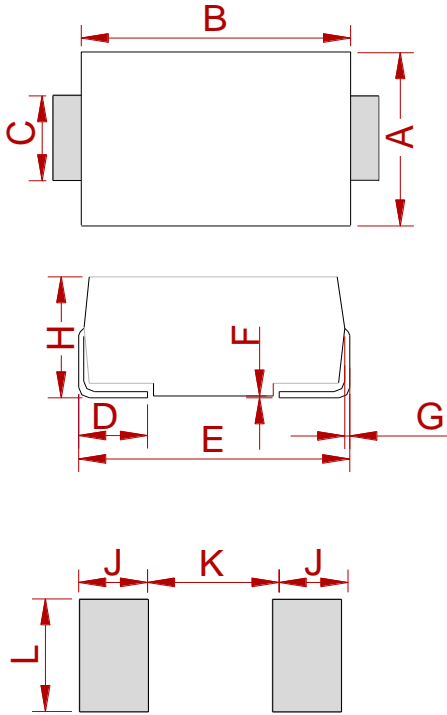
**Fig.4- Typical Transient Thermal Impedance**



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



**PACKAGE MECHANICAL DATA**



DO-214AB (SMC)

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	5.75	6.25	0.226	0.246
B	6.90	7.40	0.272	0.291
C	2.75	3.25	0.108	0.128
D	0.95	1.52	0.037	0.060
E	7.70	8.20	0.303	0.323
F	0.051	0.203	0.002	0.008
G	0.15	0.31	0.006	0.012
H	2.15	2.62	0.085	0.103
J	2.40		0.094	
K		4.20		0.165
L	3.30		0.130	

**REEL SPECIFICATION**

P/N	PKG	QTY
SS1045 THRU SS10100	SMC	3000

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