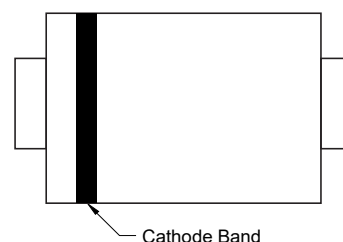


Features:

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- Fast switching for high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters

DO-214AB/SMC **RoHS**
COMPLIANT



Equivalent circuit



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	SS1045C	SS1060C	SS10100C	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 $T_a = 25^{\circ}C$ at Rated DC Reverse Voltage $T_a = 100^{\circ}C$	I_R	0.5 50			mA
Typical Thermal Resistance (1)	$R_{\theta JA}$	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

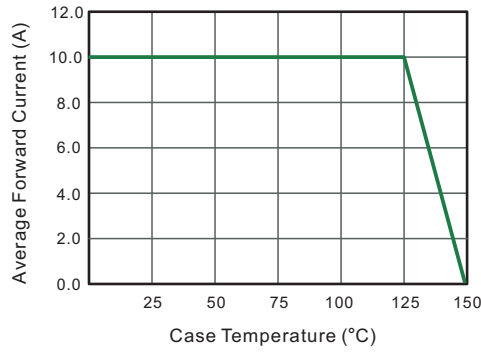


Fig.2 Typical Reverse Characteristics

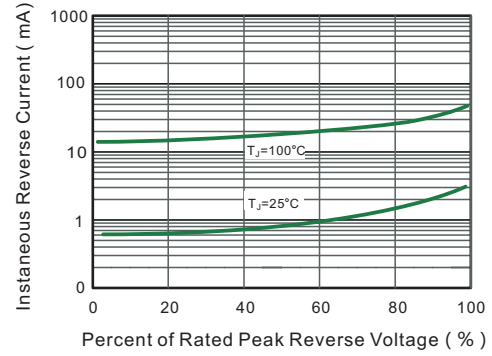


Fig.3 Typical Forward Characteristic

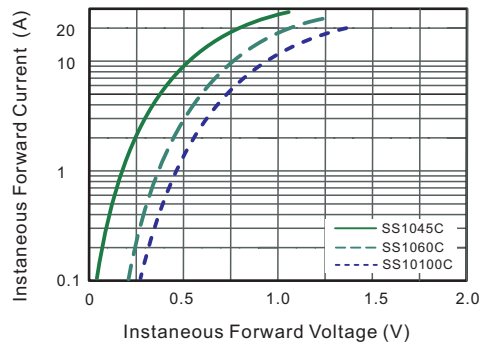


Fig.4- Typical Transient Thermal Impedance

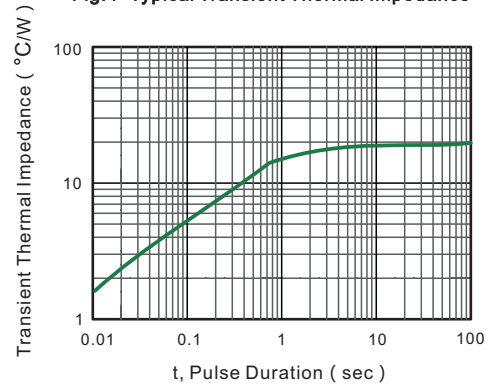
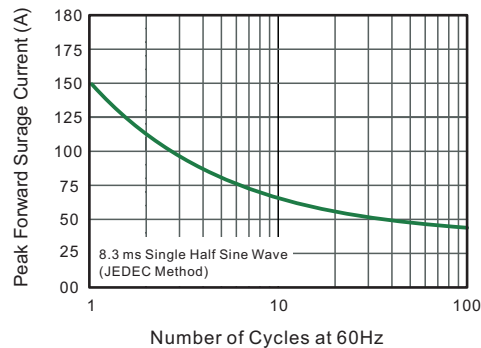
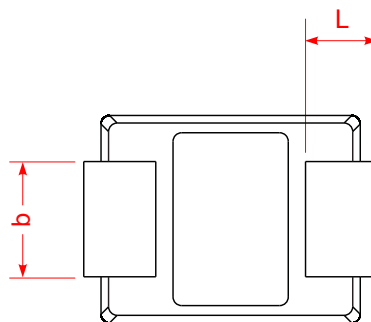
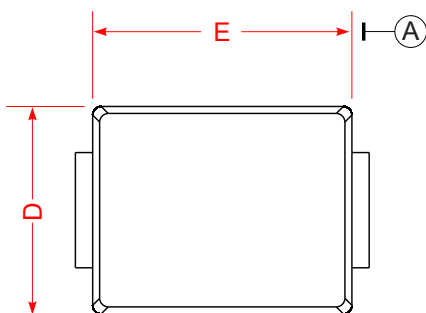
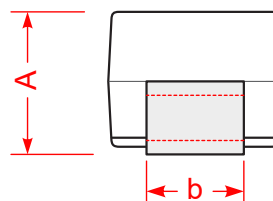
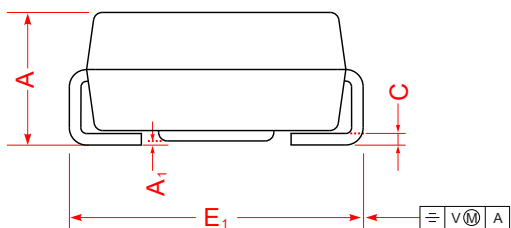


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

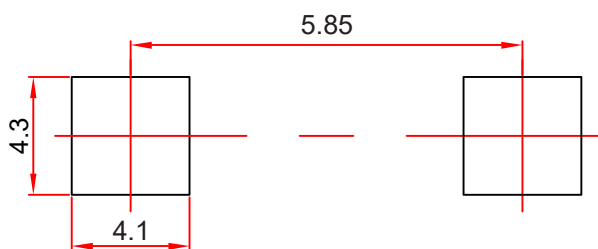


DO-214AB/SMC Package Outline Dimensions



Symbol	imensions In Millimeters		imensions In Inches	
	Min	Max	Min	Max
A	2.00	2.62	0.078	0.103
C	0.15	0.31	0.006	0.012
D	5.60	6.20	0.220	0.244
E	6.50	7.00	0.256	0.276
E ₁	7.60	8.00	0.229	0.315
b	2.75	3.25	0.108	0.128
L	0.90	1.60	0.035	0.063
A ₁	0.2 REF		0.008 REF	

DO-214AB/SMC Suggested Pad Layout



Note:

1. Controlling dimension: in/millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.