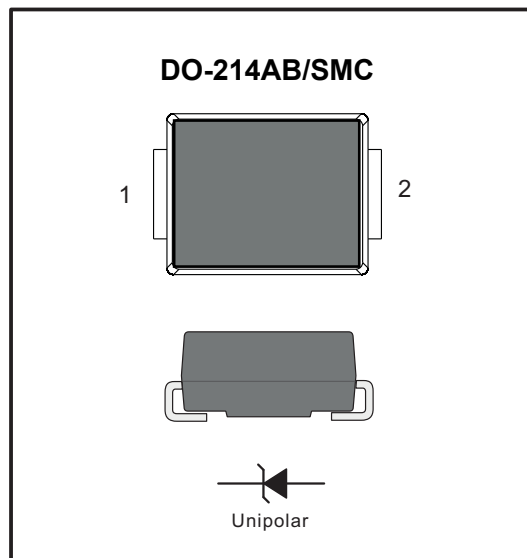


**PINNING**

PIN	DESCRIPTION
1	Cathode
2	Anode


**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 %

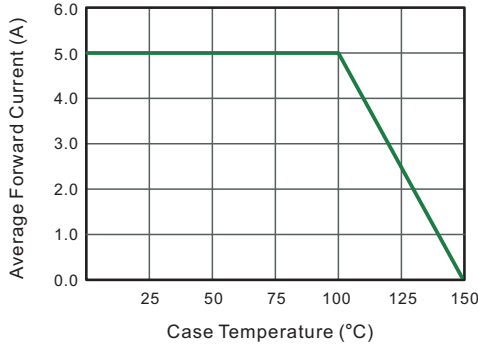
Parameter	Symbols	SS52	SS54	SS56	SS58	SS510	SS512	SS5150	SS520	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	$V_{RMS}$	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5.0								A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	175				150				A
Max Instantaneous Forward Voltage at 5 A	$V_F$	0.45	0.55	0.70		0.85				V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 100^\circ\text{C}$	$I_R$					1.0 50				mA
Typical Junction Capacitance <sup>(1)</sup>	$C_j$	600			400					pF
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$	35								°C/W
Operating Junction Temperature Range	$T_j$	-55 ~ +150								°C
Storage Temperature Range	$T_{stg}$	-55 ~ +150								°C

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

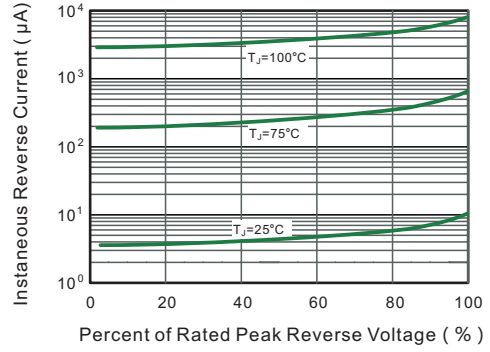
(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

## Typical Characteristics

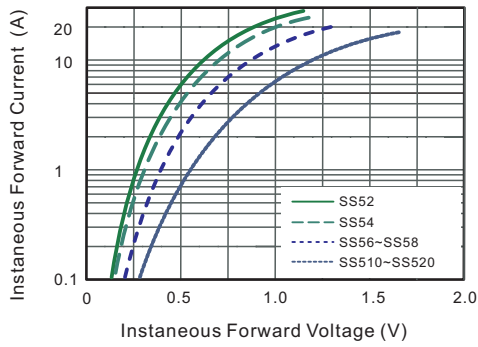
**Fig.1 Forward Current Derating Curve**



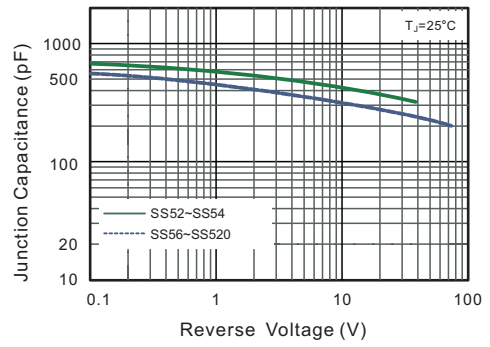
**Fig.2 Typical Reverse Characteristics**



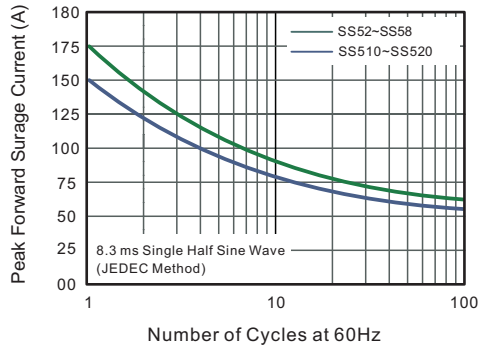
**Fig.3 Typical Forward Characteristic**



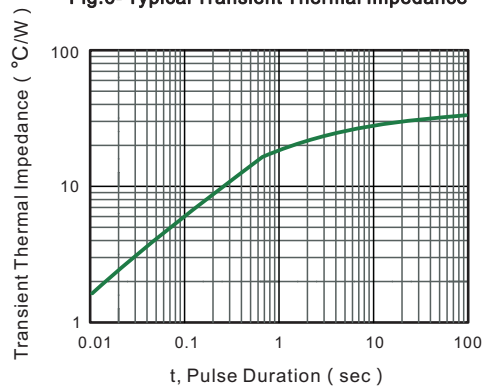
**Fig.4 Typical Junction Capacitance**



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



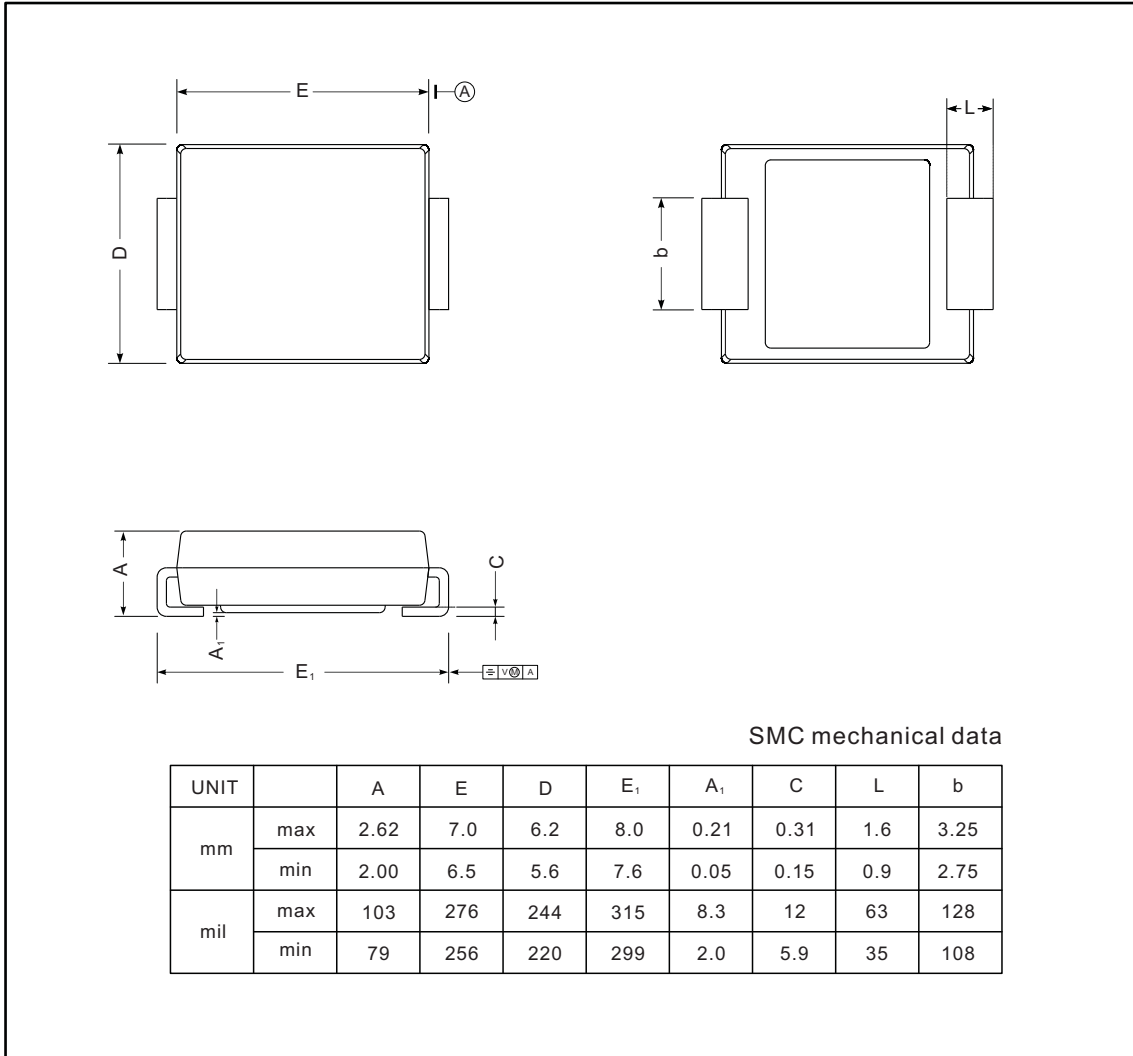
**Fig.6- Typical Transient Thermal Impedance**



**PACKAGE OUTLINE**

Plastic surface mounted package; 2 leads

SMC



**The recommended mounting pad size**

