

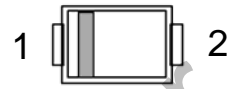
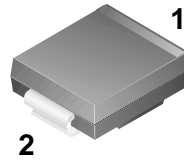
## 5 Ampere Surface Mount Schottky Barrier Rectifier



## SS52C-SS520C

## 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)

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	SS52C	SS54C	SS56C	SS58C	SS510C	SS512C	SS515C	SS520C	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	$V_F$	0.55	0.70	0.85		0.95			V		
Maximum DC Reverse Current at Rated DC Reverse Voltage $T_a = 25^\circ\text{C}$ $T_a = 100^\circ\text{C}$	$I_R$					1.0				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

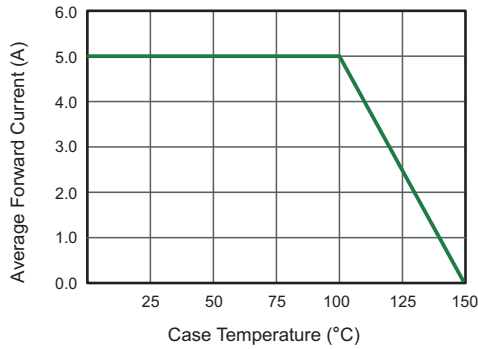


Fig.2 Typical Reverse Characteristics

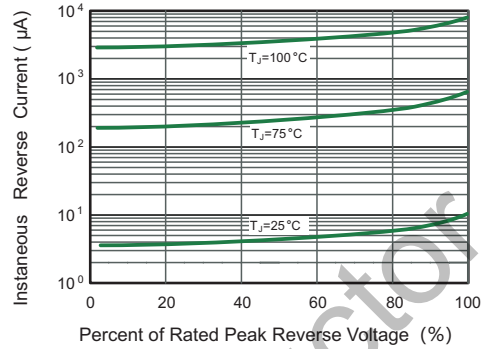


Fig.3 Typical Forward Characteristic

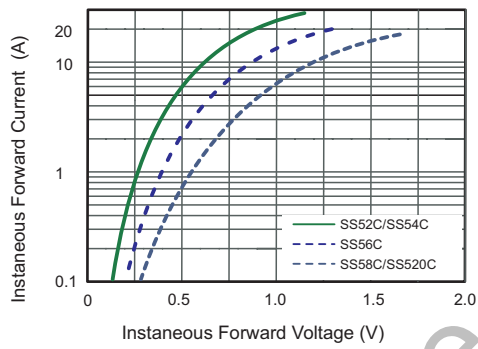


Fig.4 Typical Junction Capacitance

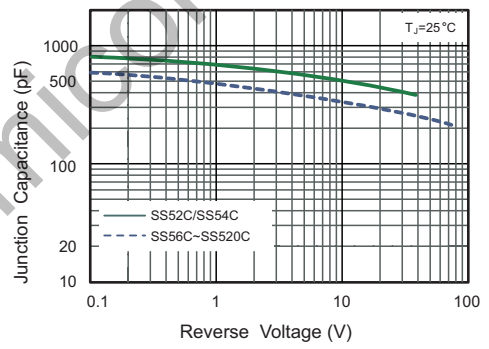


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

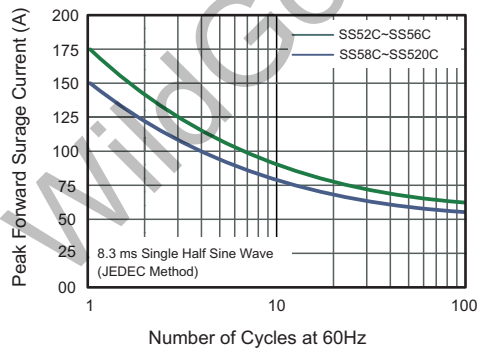
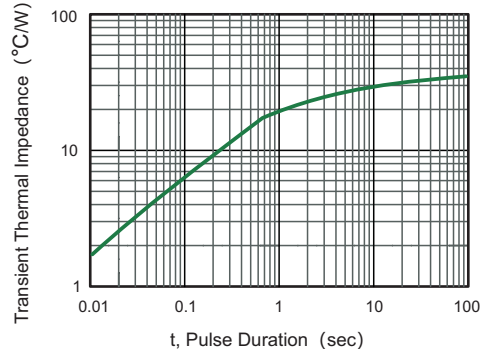
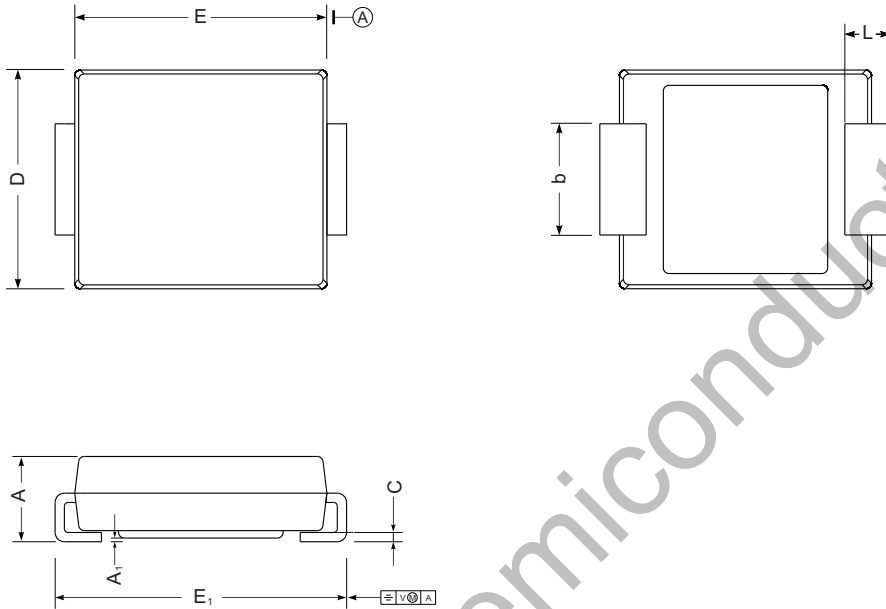


Fig.6- Typical Transient Thermal Impedance



**Package Dimension**

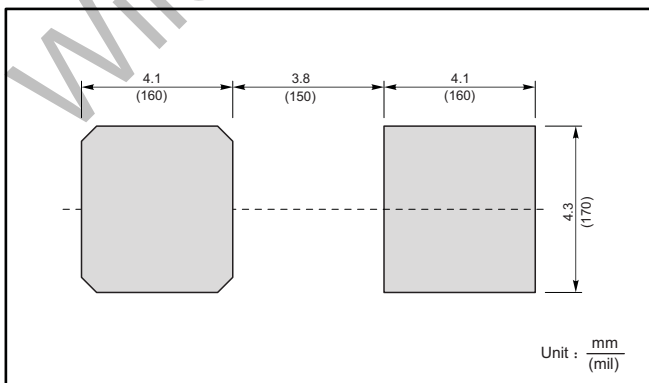
**DO-214AB (SMC)**



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**



**Marking**

Type number	Marking code
SS52C	SS52
SS54C	SS54
SS56C	SS56
SS58C	SS58
SS510C	SS510
SS512C	SS512
SS515C	SS515
SS520C	SS520

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