

## Surface Mount Schottky Barrier Rectifiers

**SS52C~SS520C**
**20 to 200 V**
**5A**
**SMC/DO-214AB**

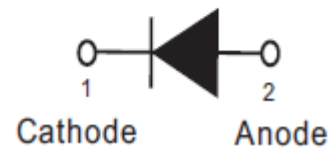
### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
- For surface mounted applications in order to optimize board space.
- Low power loss, high efficiency.
- High surge capacity.
- Lead free in compliance with EU RoHS 2.0.
- Green molding compound as per IEC 61249 standard.

### Mechanical Data

- Case: JEDEC DO-214AB molded plastic.
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026.
- Polarity: Color band denotes cathode end.
- Standard packaging: 16mm tape (EIA-481).
- Approx. Weight: 0.0082 ounces, 0.2325 grams.

### SMC/DO-214AB



### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load.

Parameter	Symbol	SS52C	SS53C	SS54C	SS55C	SS56C	SS58C	SS510C	SS515C	SS520C	Unit	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	V	
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	140	V	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	V	
Maximum Average Forward Rectified Current at $T_L = 75^\circ\text{C}$	$I_{F(AV)}$	5									A	
Peak Forward Surge Current : 8.3ms Single Half Sinewave Superimposed on Rated Load	$I_{FSM}$	100									A	
Maximum Forward Voltage at 5A (Note 1)	$V_F$	0.55			0.74		0.8		0.9		V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	0.2			0.05						mA	
		20			10							
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$					17						$^\circ\text{C}/\text{W}$
						55						
Operating Junction Temperature Range	$T_J$	-55 to +125		-55 to +150		-65 to +175					$^\circ\text{C}$	
Storage Temperature Range	$T_{STG}$	-55 to +150				-65 to +175					$^\circ\text{C}$	

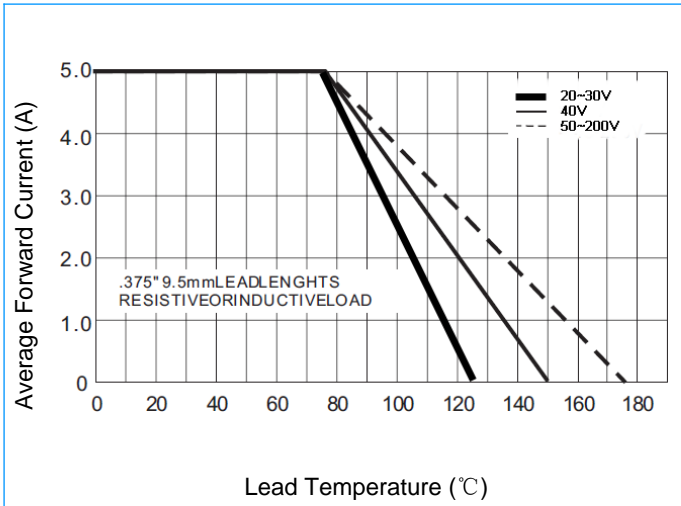
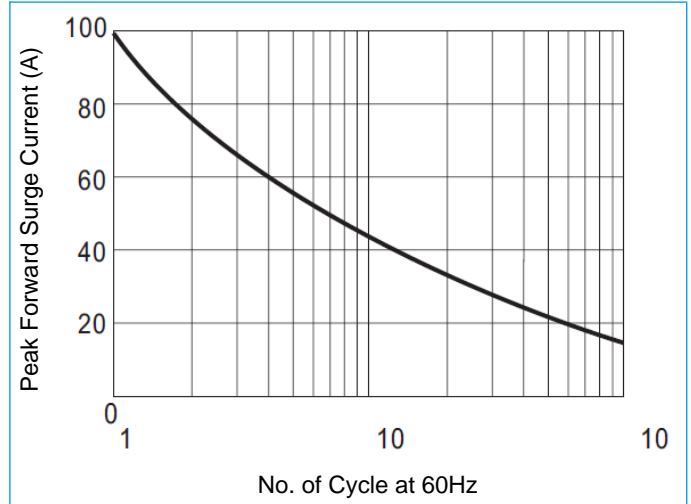
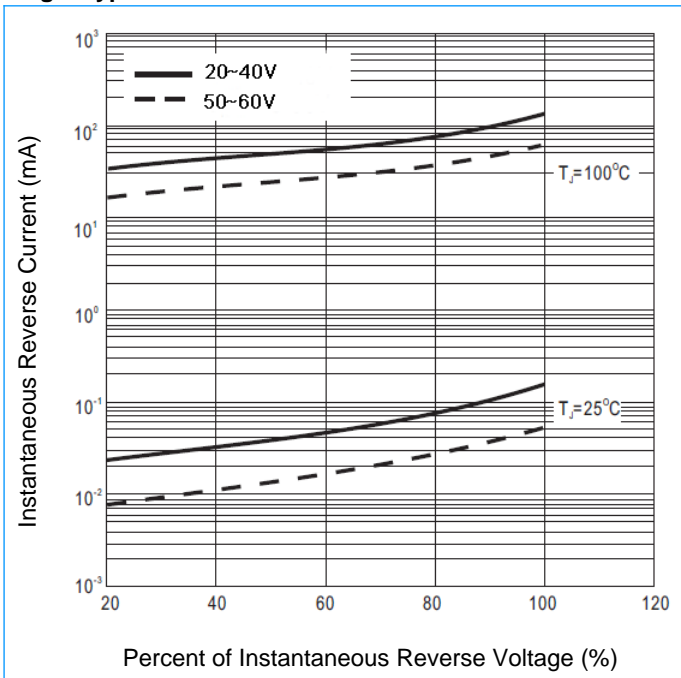
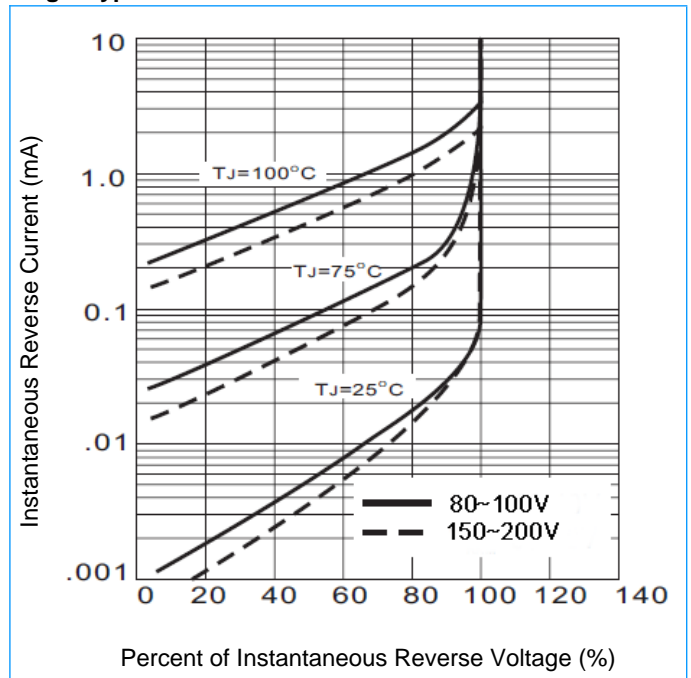
**Notes:** 1. Pulse Test with  $PW = 300\mu\text{sec}$ , 1% Duty Cycle.

2. Mounted on P.C. Board with  $14\text{mm}^2$  (0.013mm thick) copper pad areas.

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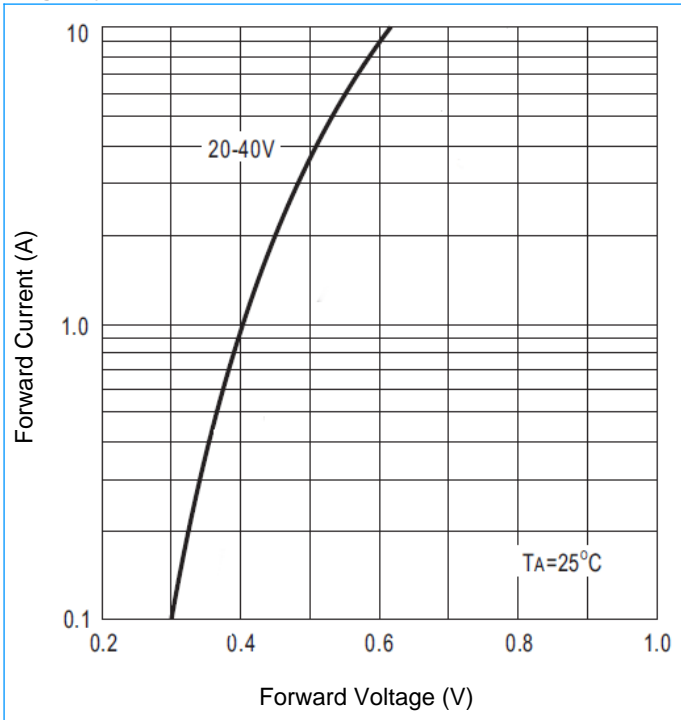
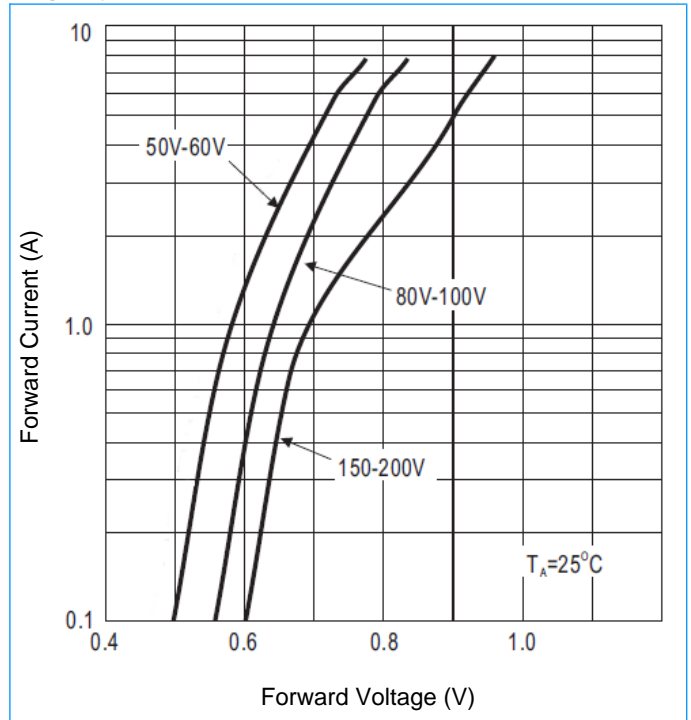
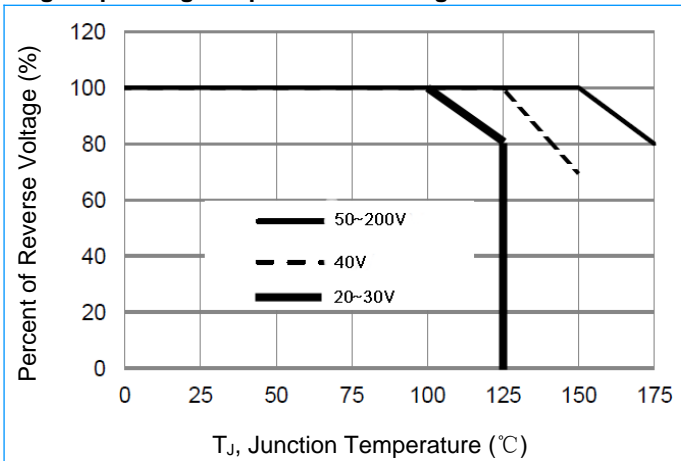
## Rating and Characteristic Curves

**Fig1. Forward Current Derating Curve**

**Fig2. Maximum Non-Repetitive Surge Current**

**Fig3. Typical Reverse Characteristics**

**Fig4. Typical Reverse Characteristics**


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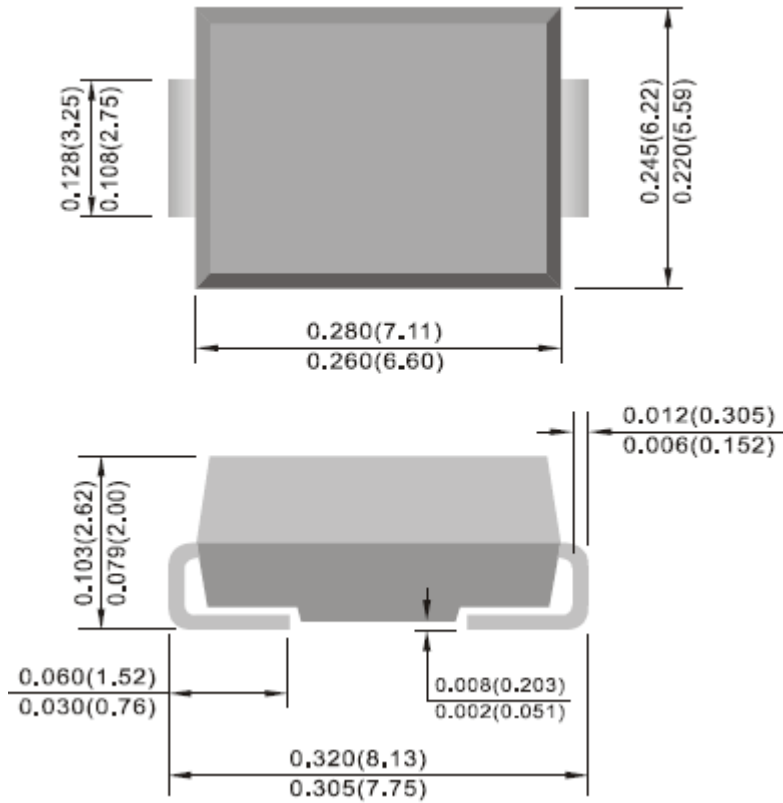
## Rating and Characteristic Curves (Continue)

**Fig5. Typical Instantaneous Forward Characteristics**

**Fig6. Typical Instantaneous Forward Characteristics**

**Fig7. Operating Temperature Derating Curve**


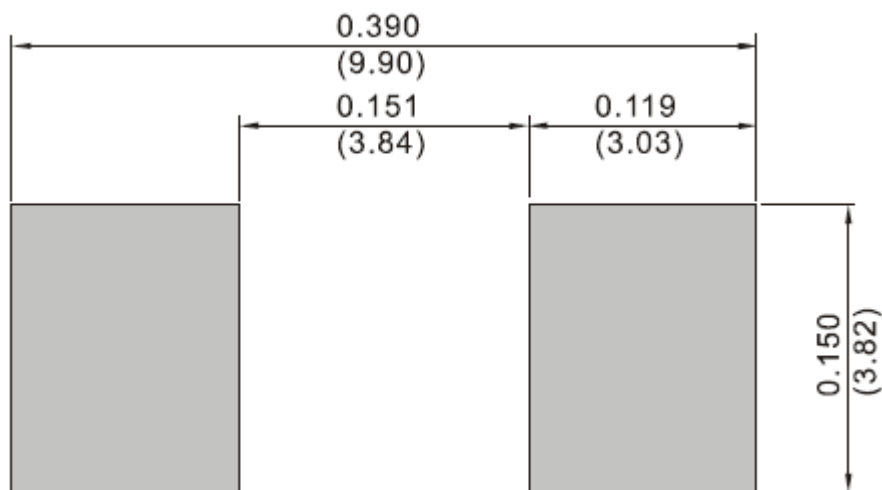
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### SMC/DO-214AB Package Outline (Unit: inch(mm))



### SMC/DO-214AB Mounting Pad Layout (Unit: inch(mm))



**Surface Mount Schottky Barrier Rectifiers****SS52C~SS520C****20 to 200 V****5A****SMC/DO-214AB****Packaging Information**

Part Number	Component Package	Quantity	Packaging Option
<b>SS52C~SS520C</b>	SMC/DO-214AB	3000 PCS	per 13" plastic Reel
		800 PCS	per 7" plastic Reel