

## Surface Mount Schottky Barrier Rectifiers

**SS510B**

**100 V**

**5A**

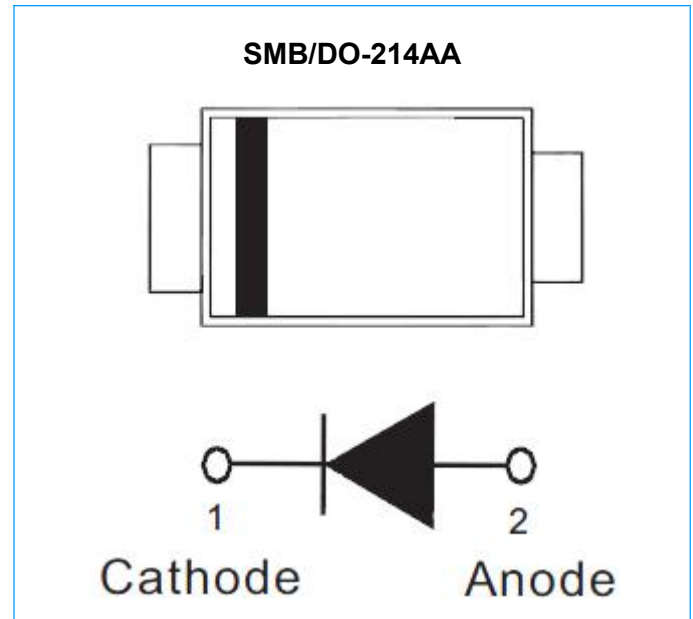
**SMB/DO-214AA**

### 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-214AA molded plastic.
- ◆ Terminals: Solder plated, solderable per MIL-STD-750, Method 2026.
- ◆ Polarity: Color band denotes cathode end.
- ◆ Standard packaging: 12mm tape (EIA-481).
- ◆ Weight: 0.0032 ounces, 0.092 grams.



### Maximum Ratings ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Ratings at  $25^\circ\text{C}$  ambient temperature unless otherwise specified. Resistive or inductive load.

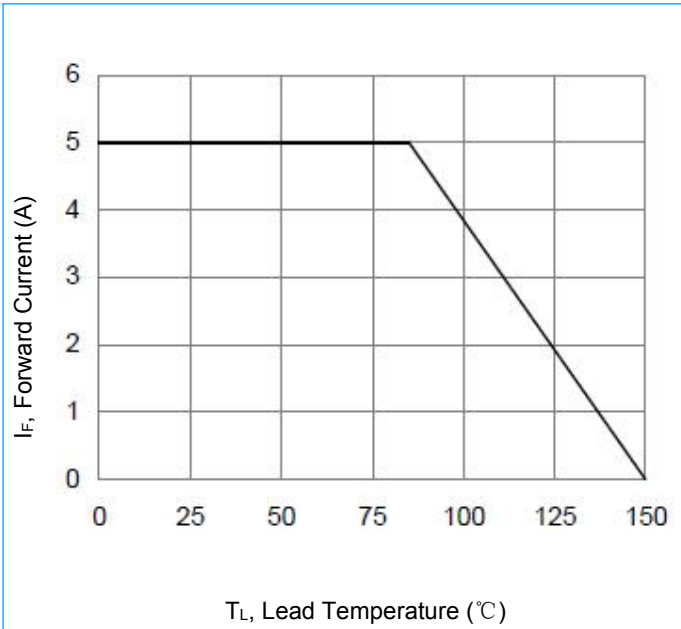
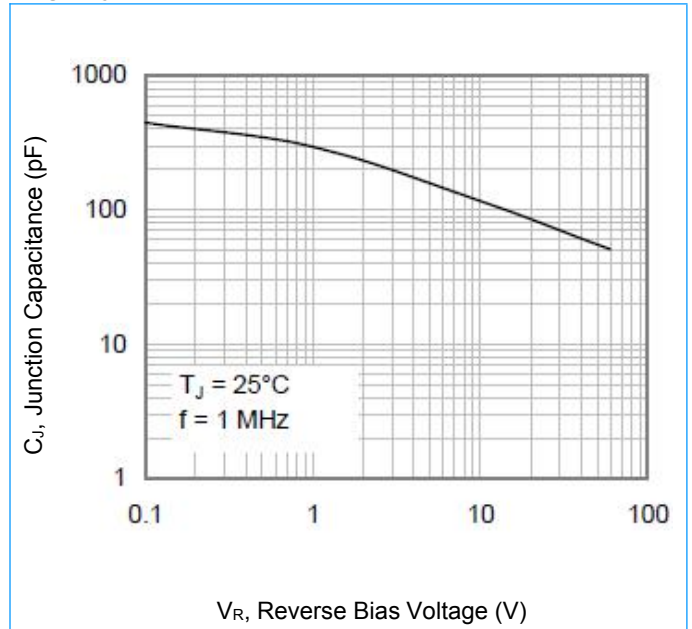
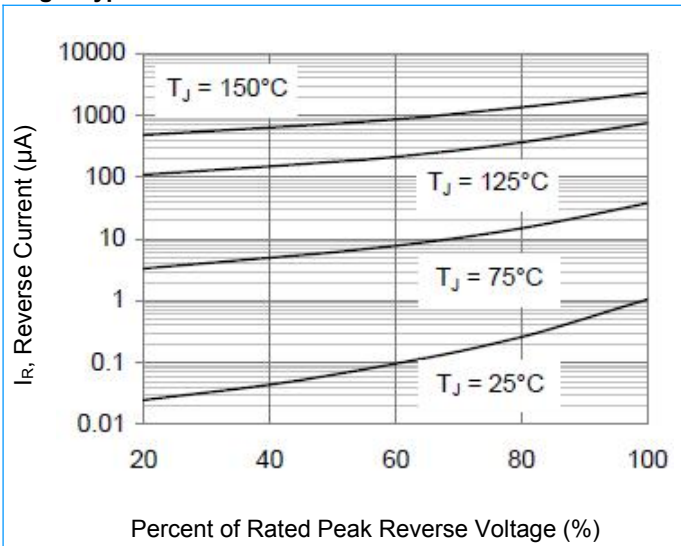
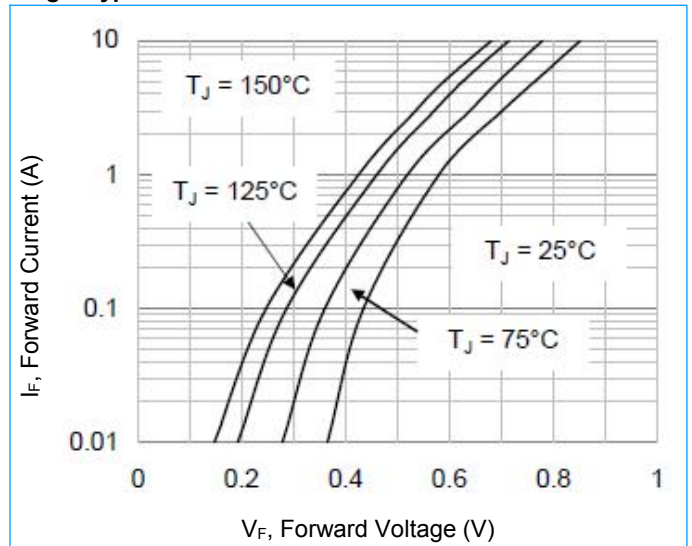
Parameter	Symbol	Value	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	100	V
Maximum RMS Voltage	$V_{RMS}$	70	V
Maximum DC Blocking Voltage	$V_{DC}$	100	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5	A
Peak Forward Surge Current : 8.3ms Single Half Sinewave Superimposed on Rated Load	$I_{FSM}$	120	A
Maximum Forward Voltage at 5A (Note 1)	$V_F$	0.85	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_J = 25^\circ\text{C}$	0.05
		$T_J = 125^\circ\text{C}$	2
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	100	$^\circ\text{C/W}$
	$R_{\theta JL}$	20	
Operating Junction Temperature Range	$T_J$	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^\circ\text{C}$

- Notes:** 1. Pulse Test with  $PW = 300\mu\text{sec}$ , 1% Duty Cycle.  
2. Mounted on PCB with minimum pad layout.

# Surface Mount Schottky Barrier Rectifiers

**SS510B**
**100 V**
**5A**
**SMB/DO-214AA**

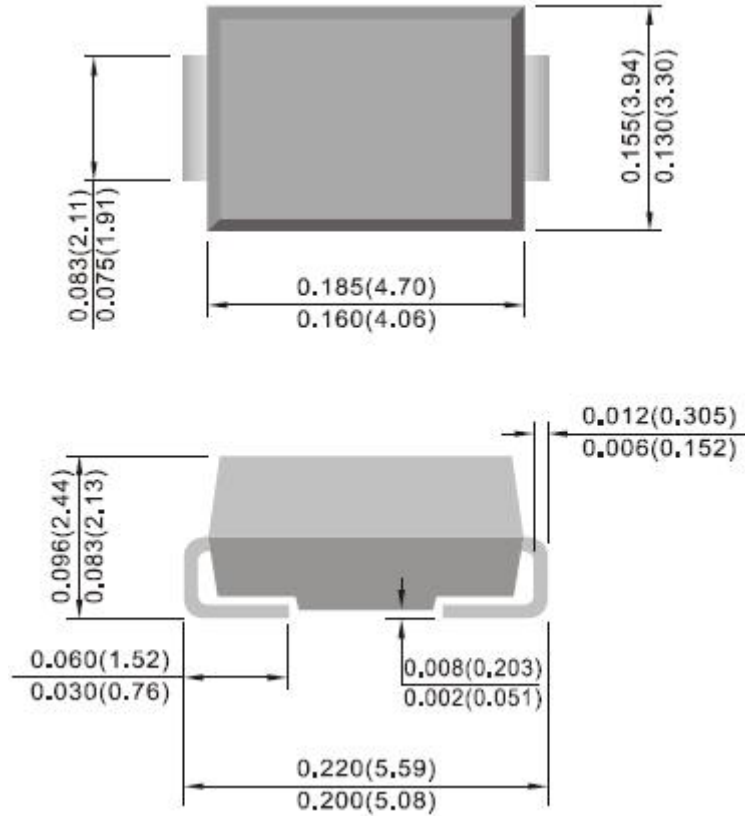
## Rating and Characteristic Curves

**Fig1. Forward Current Derating Curve**

**Fig2. Typical Junction Capacitance**

**Fig3. Typical Reverse Characteristics**

**Fig4. Typical Forward Characteristics**


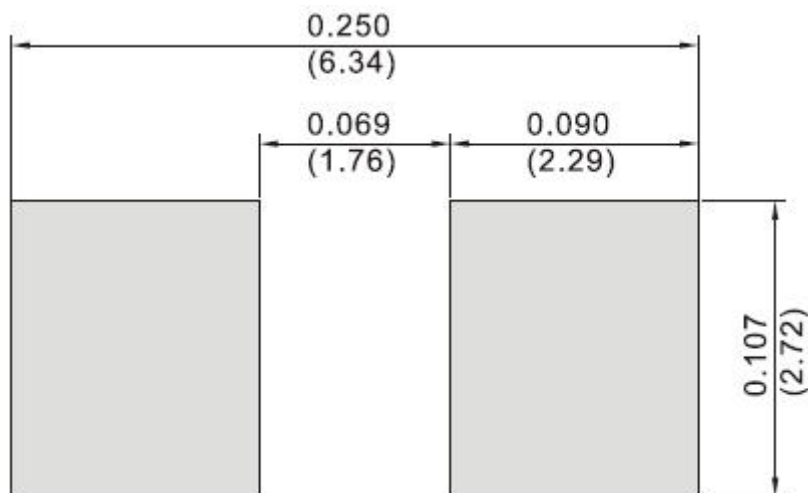
## Surface Mount Schottky Barrier Rectifiers

**SS510B**
**100 V**
**5A**
**SMB/DO-214AA**

### SMB/DO-214AA Package Outline (Unit: inch(mm))



### SMB/DO-214AA Mounting Pad Layout (Unit: inch(mm))



## Surface Mount Schottky Barrier Rectifiers

**SS510B****100 V****5A****SMB/DO-214AA**

### Packaging Information

Part Number	Component Package	Quantity	Packaging Option
<b>SS510B</b>	SMB/DO-214AA	3000 PCS	per 13" plastic Reel
		800 PCS	per 7" plastic Reel