

Surface Mount Schottky Barrier Rectifiers

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

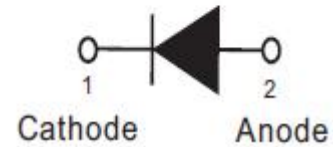
Features

- ◆ 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°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	T _J =25°C	I_R	0.2			0.05						mA
	T _J =100°C		20			10						
Typical Thermal Resistance (Note 2)		R_{θJL} R_{θJA}	17 55									°C/ W
Operating Junction Temperature Range		T_J	-55 to +125		-55 to +150	-65 to +175						°C
Storage Temperature Range		T_{STG}	-55 to +150			-65 to +175						°C

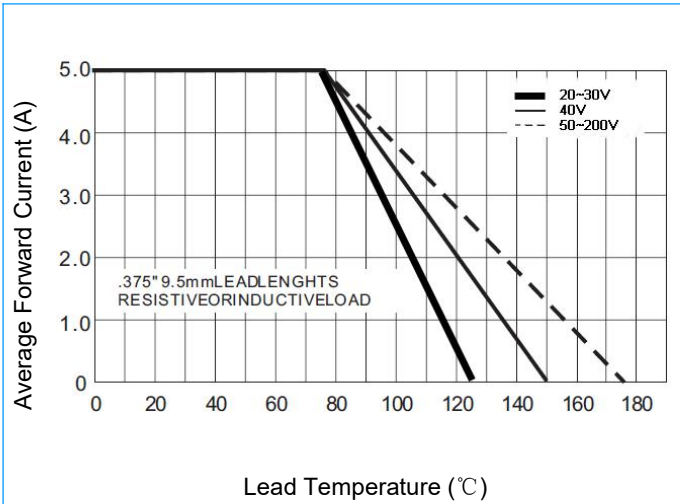
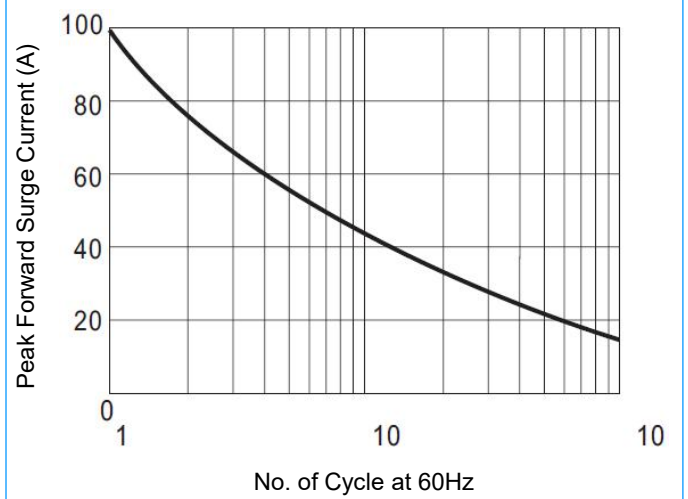
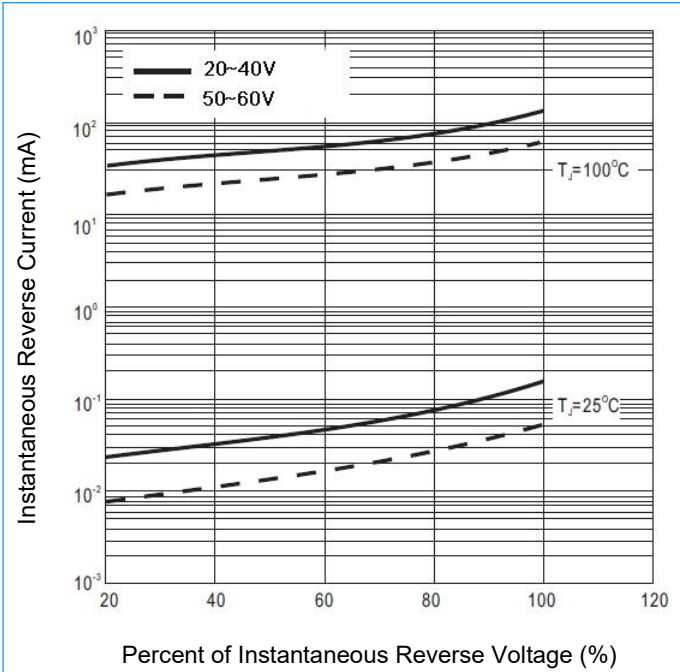
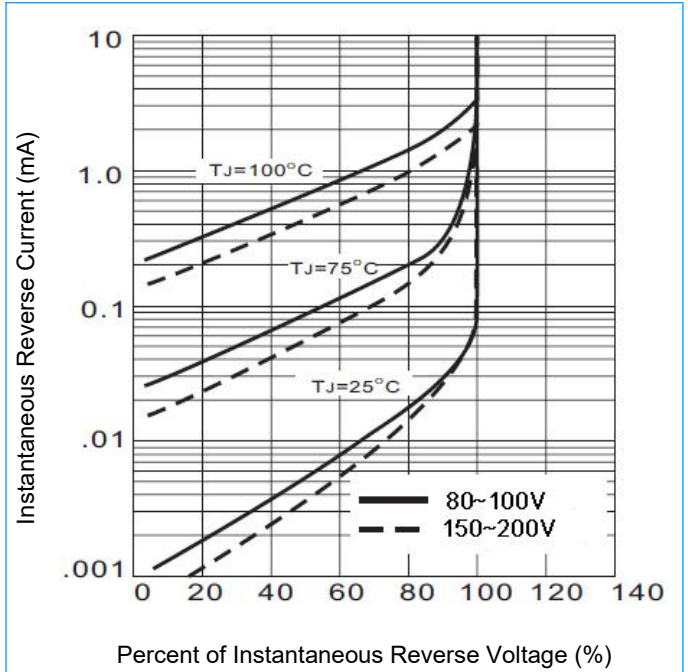
Notes: 1. Pulse Test with $PW = 300\mu\text{sec}$, 1% Duty Cycle.

2. Mounted on P.C. Board with 14mm^2 (0.013mm thick) copper pad areas.

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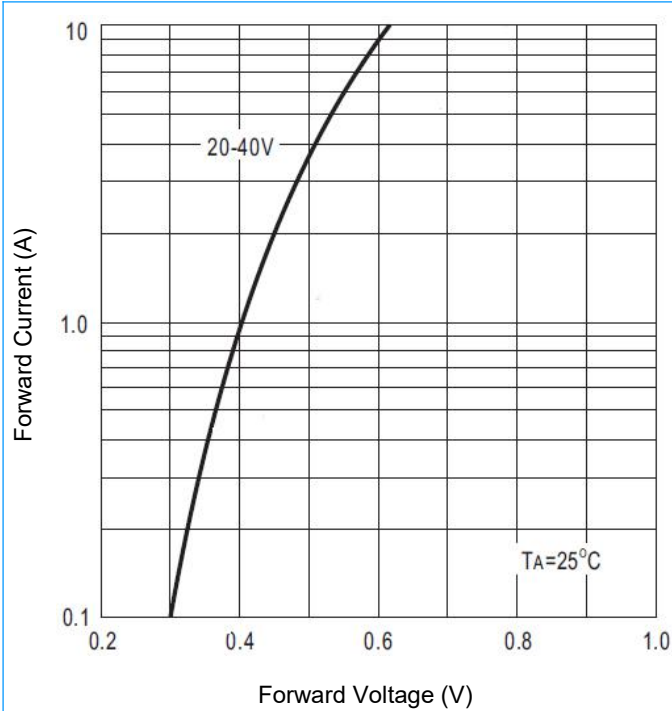
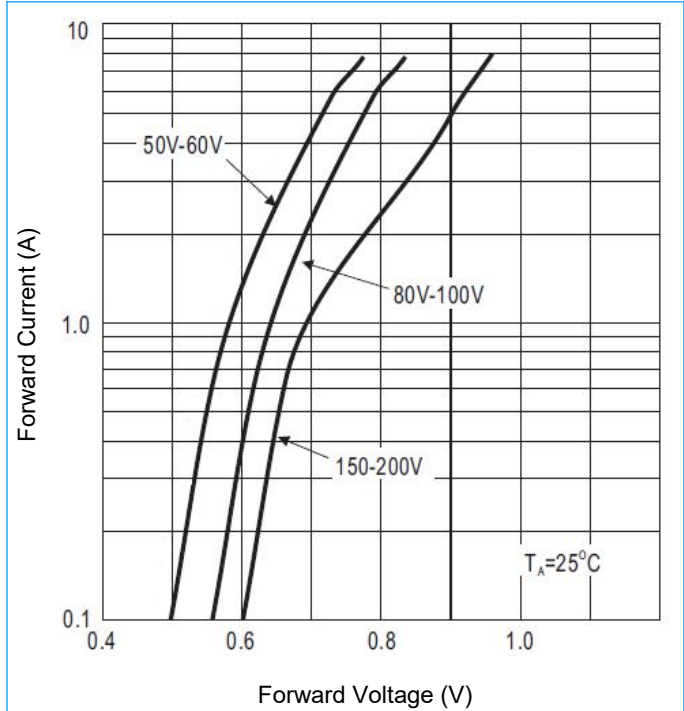
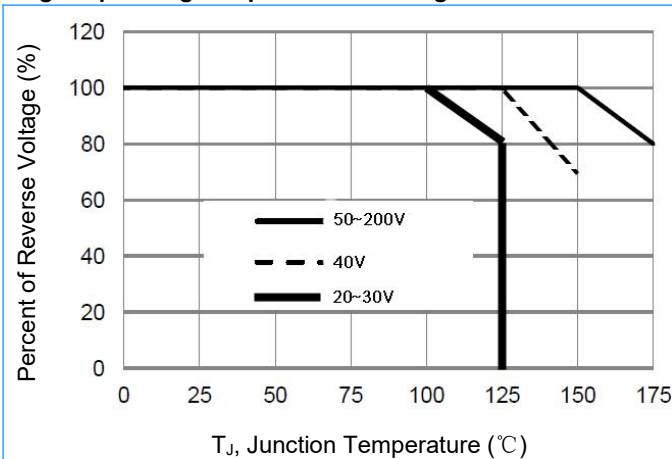
Rating and Characteristic Curves

Fig1. Forward Current Derating Curve

Fig2. Maximum Non-Repetitive Surge Current

Fig3. Typical Reverse Characteristics

Fig4. Typical Reverse Characteristics


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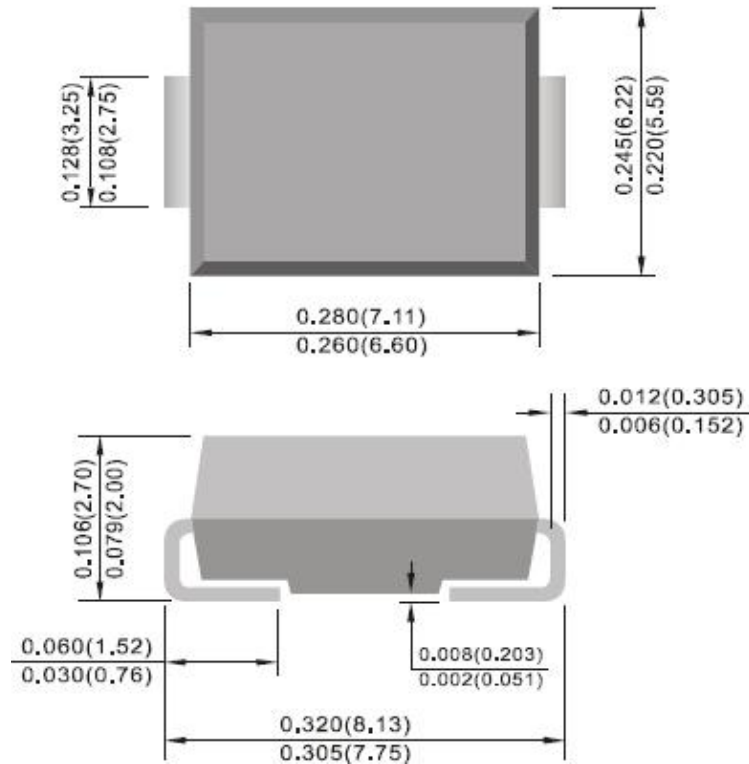
Rating and Characteristic Curves (Continue)

Fig5. Typical Instantaneous Forward Characteristics

Fig6. Typical Instantaneous Forward Characteristics

Fig7. Operating Temperature Derating Curve


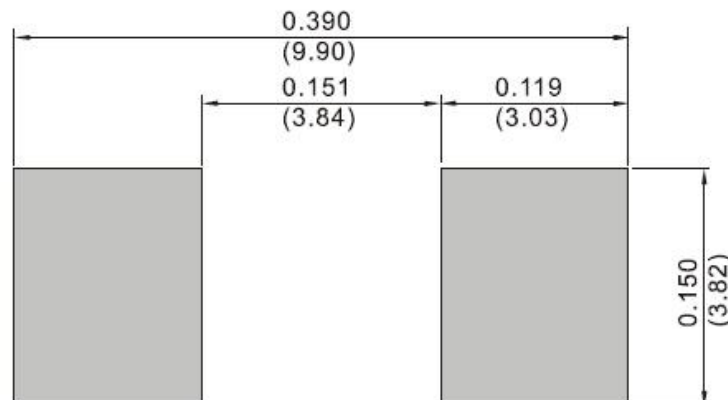
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SMC/DO-214AB Package Outline (Unit: inch(mm))



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



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Packaging Information

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

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