

Surface Mount Schottky Barrier Rectifiers

SS32C~SS320C

20 to 200 V

3A

SMC/DO-214AB

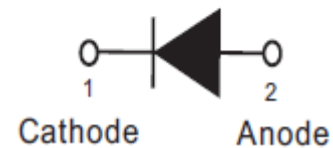
Features

- 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 Date

- 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.

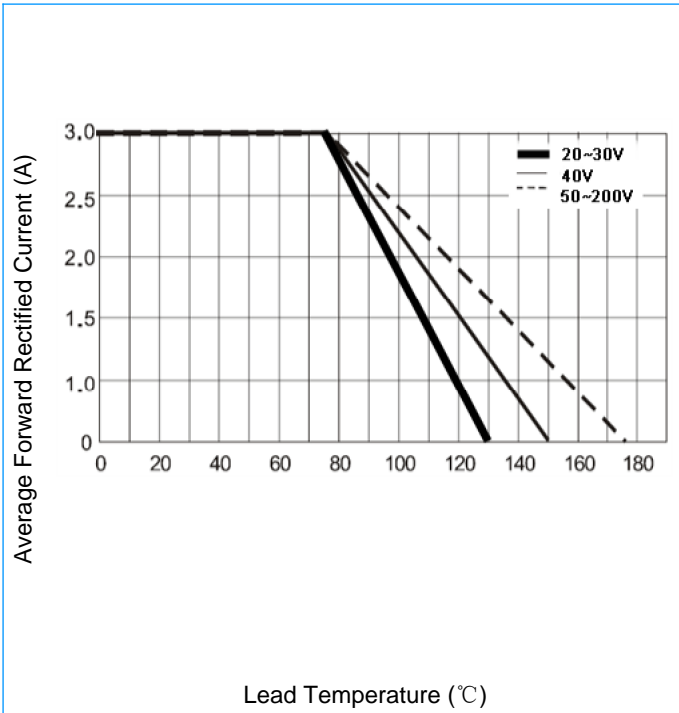
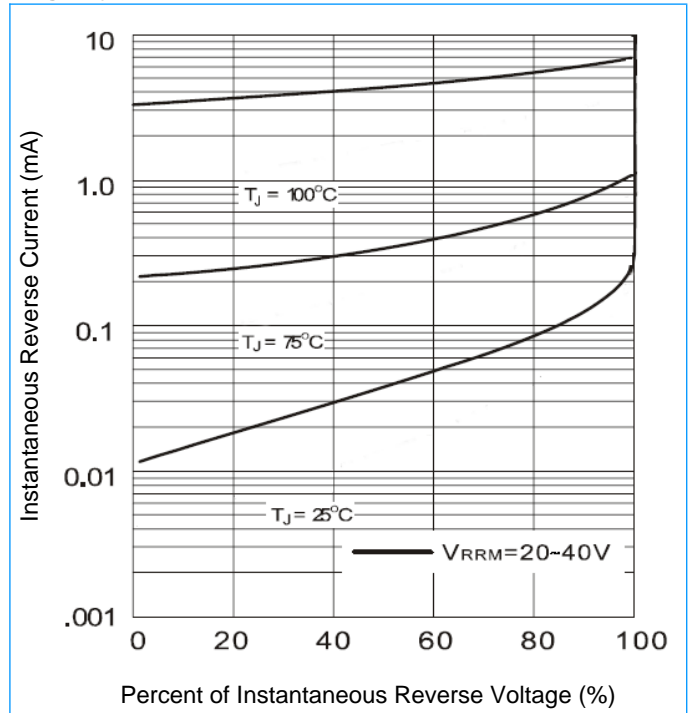
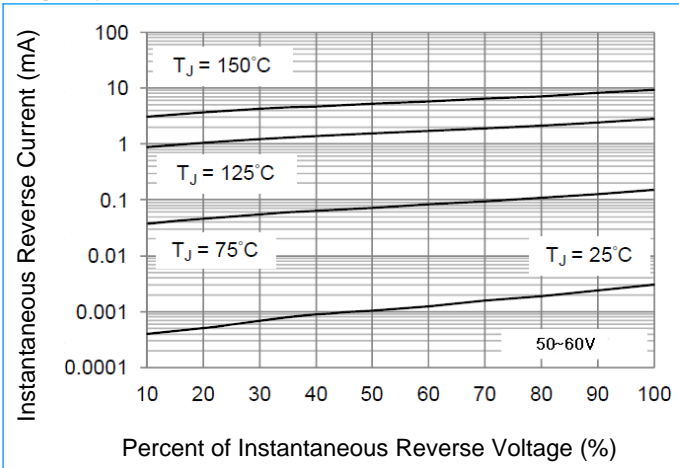
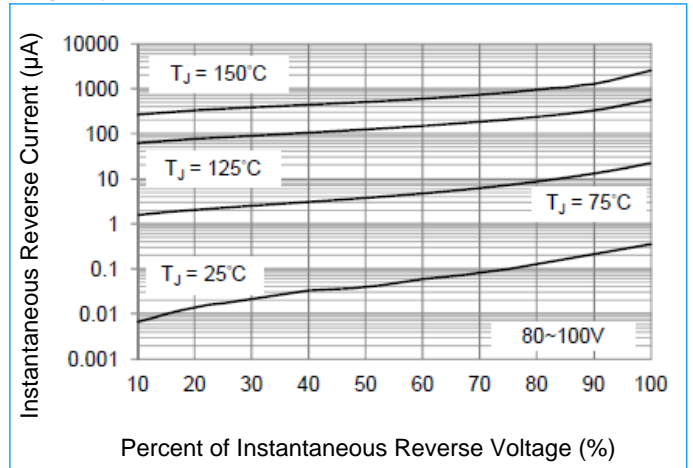
Parameter	Symbol	SS32C	SS33C	SS34C	SS35C	SS36C	SS38C	SS310C	SS315C	SS320C	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V
Maximum Average Forward Current	$I_{F(AV)}$	3									A
Peak Forward Surge Current : 8.3ms Single Half Sinewave Superimposed on Rated Load	I_{FSM}	100									A
Maximum Forward Voltage at 3A (Note 1)	V_F	0.5			0.74		0.8		0.9		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_J=25^\circ\text{C}$	0.2			0.05						mA
	$T_J=100^\circ\text{C}$	20			2		1				
Typical Thermal Resistance	(Note 2) $R_{\theta JL}$	15									°C/ W
	(Note 3) $R_{\theta JA}$	110									
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:**
- Pulse Test with $PW = 300\mu\text{sec}$, 1% Duty Cycle.
 - Mounted on a FR4 PCB, single-sided copper, with 100cm² copper pad area.
 - Mounted on a FR4 PCB, single-sided copper, mini pad.

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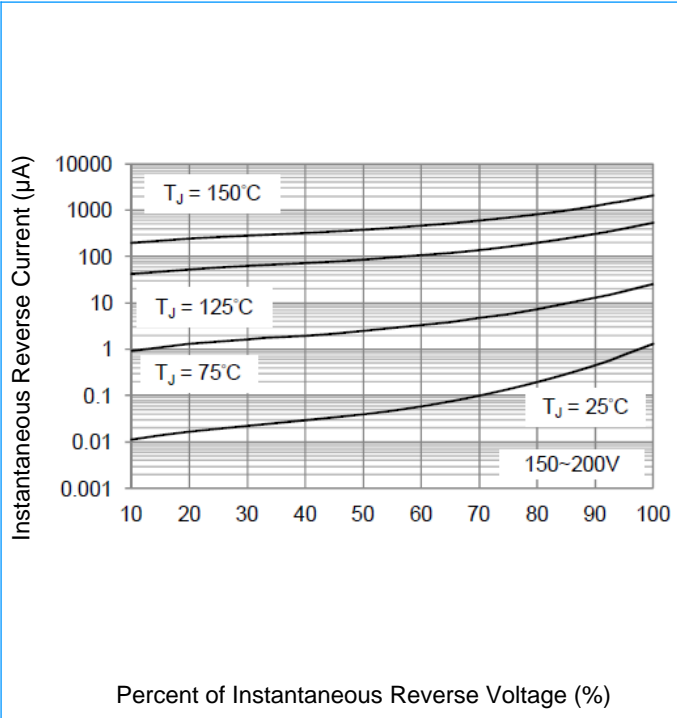
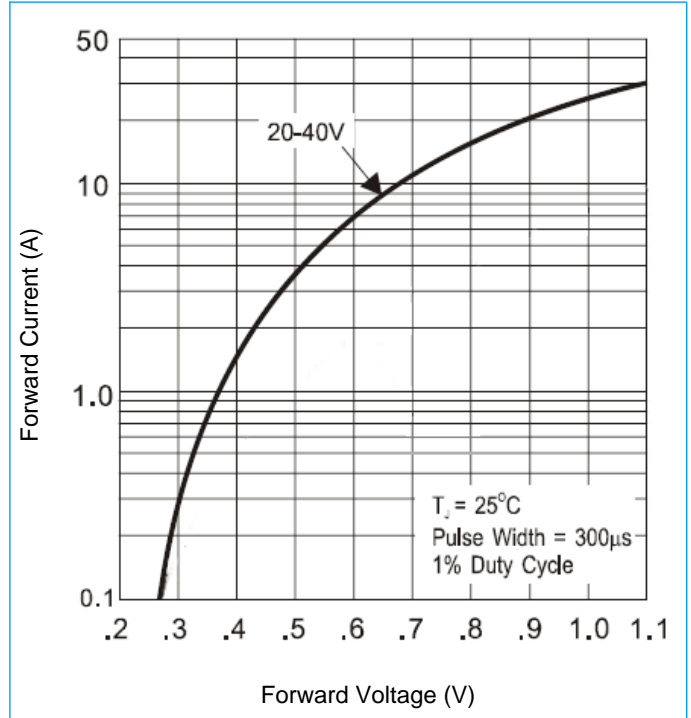
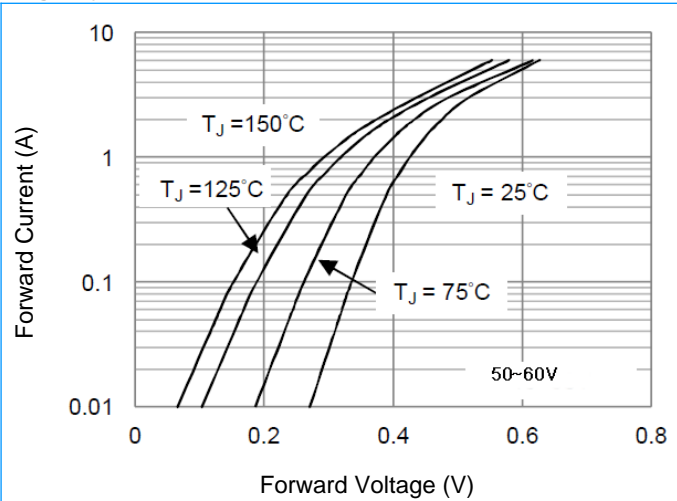
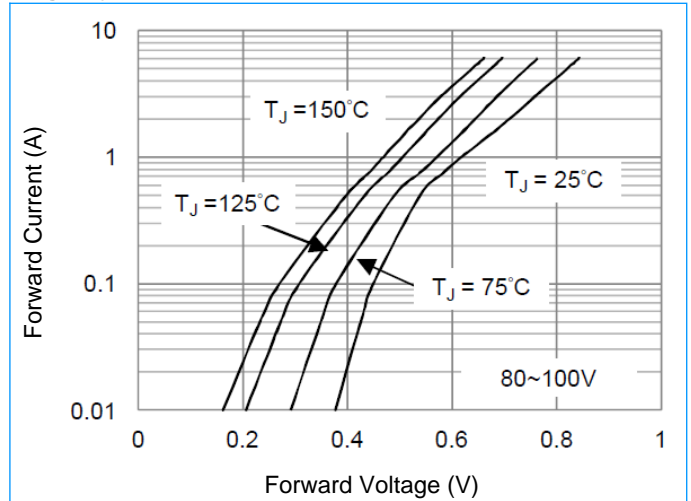
Rating and Characteristic Curves

Fig1. Forward Current Derating Curve

Fig2. Typical Reverse Characteristics

Fig3. Typical Reverse Characteristics

Fig4. Typical Reverse Characteristics


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Rating and Characteristic Curves (Continue)

Fig5. Typical Reverse Characteristics

Fig6. Typical Forward Characteristics

Fig7. Typical Forward Characteristics

Fig8. Typical Forward Characteristics


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Rating and Characteristic Curves (Continue)

Fig9. Typical Forward Characteristics

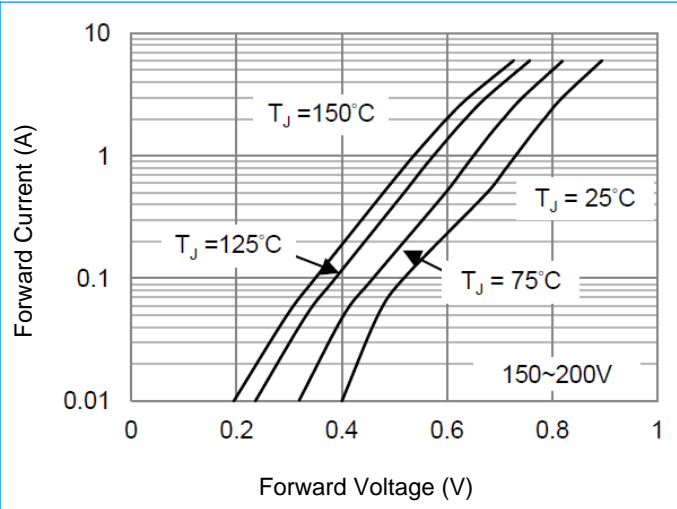
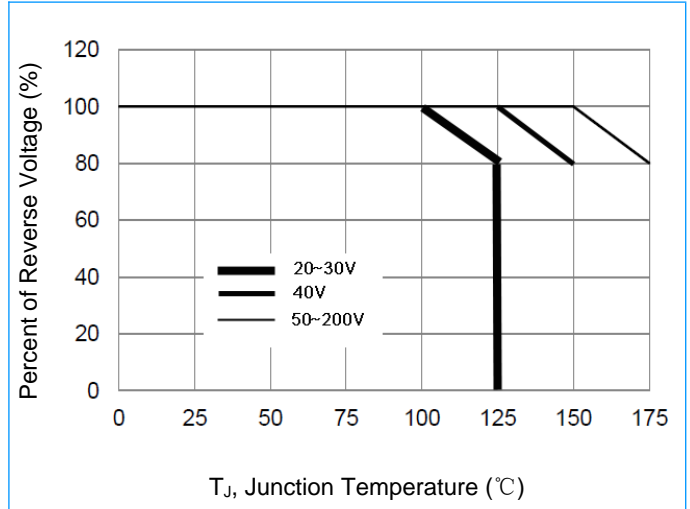
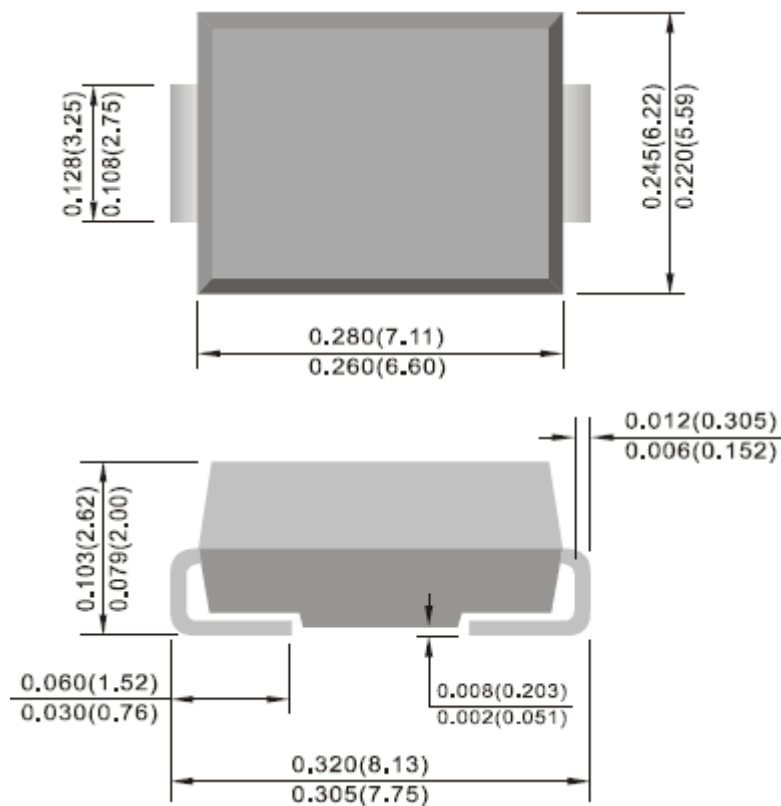


Fig10. Operating Temperature Derating Curve



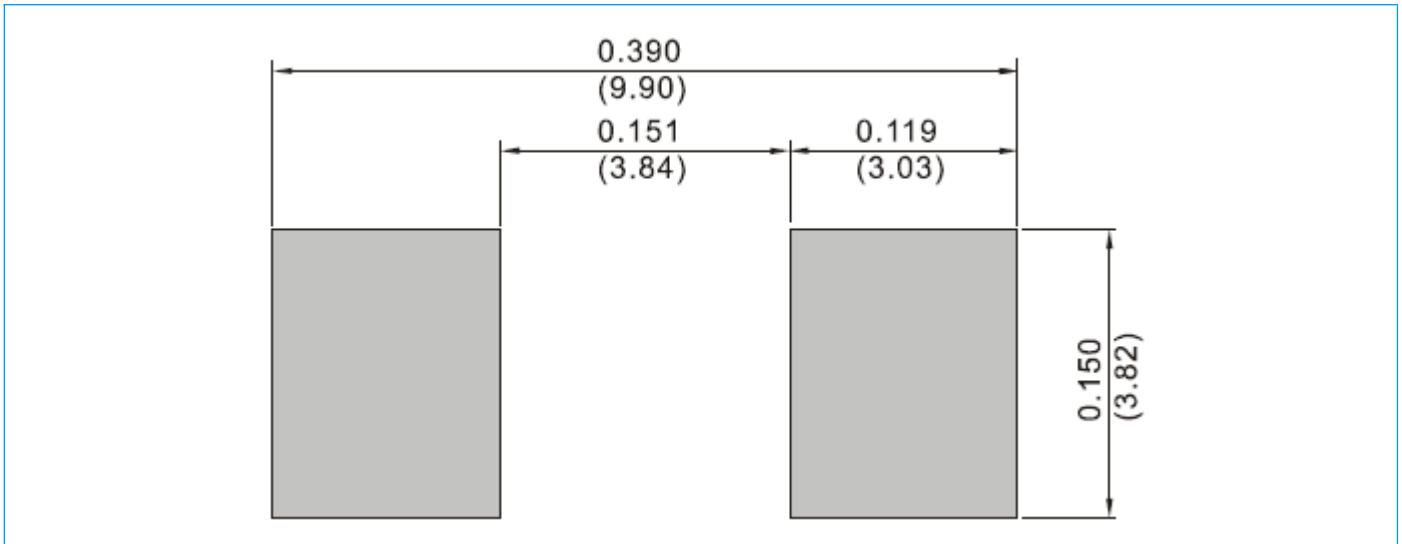
SMC/DO-214AB Package Outline (Unit: inch(mm))



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



Packaging Information

Part Number	Component Package	Quantity	Packaging Option
SS32C-SS320C	SMC/DO-214AB	3000 PCS	per 13" plastic Reel
		800 PCS	per 7" plastic Reel