

SB25UAFC

Surface Mount Schottky Barrier Rectifier

Voltage

50 V

Current

2 A

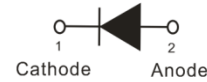
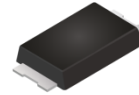
Features

- Low power loss, high efficiency
- High surge current capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC61249 Standard

Mechanical Data

- Case : SMAF-C plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0012 ounces, 0.034 grams

SMAF-C



Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	V
Maximum RMS Voltage	V _{RMS}	35	V
Maximum DC Blocking Voltage	V _R	50	V
Maximum Average Forward Rectified Current	I _{F(AV)}	2	A
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	I _{FSM}	50	A
Typical Thermal Resistance	(Note 1) R _{θJA}	150	°C/W
	(Note 2) R _{θJL}	17	
Operating Junction Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

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Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	$I_F = 1\text{ A}, T_J = 25^\circ\text{C}$	-	0.41	-	V
		$I_F = 2\text{ A}, T_J = 25^\circ\text{C}$	-	0.47	0.52	
		$I_F = 1\text{ A}, T_J = 125^\circ\text{C}$	-	0.32	-	
		$I_F = 2\text{ A}, T_J = 125^\circ\text{C}$	-	0.41	-	
Reverse Current ^(Note 3)	I_R	$V_R = 40\text{ V}, T_J = 25^\circ\text{C}$	-	10	-	uA
		$V_R = 50\text{ V}, T_J = 25^\circ\text{C}$	-	-	100	
		$V_R = 50\text{ V}, T_J = 125^\circ\text{C}$	-	11	-	mA

NOTES :

1. Mounted on a FR4 PCB, single-sided copper, standard footprint.
2. Mounted on a FR4 PCB, single-sided copper, with 10cm x 10cm copper pad area.
3. Short duration pulse test used to minimize self-heating effect.

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TYPICAL CHARACTERISTIC CURVES

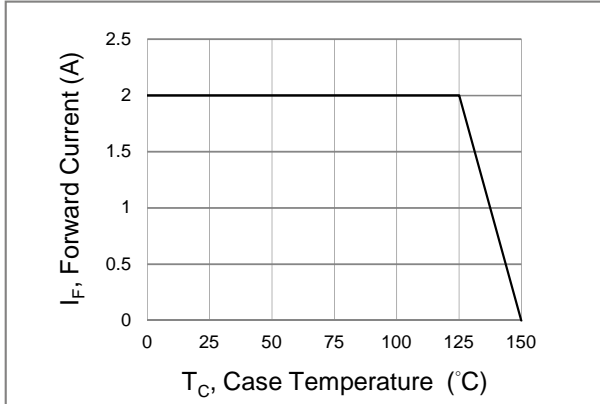


Fig.1 Forward Current Derating Curve

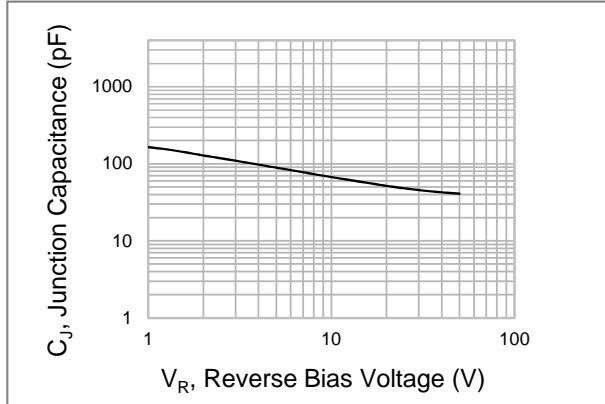


Fig.2 Typical Junction Capacitance

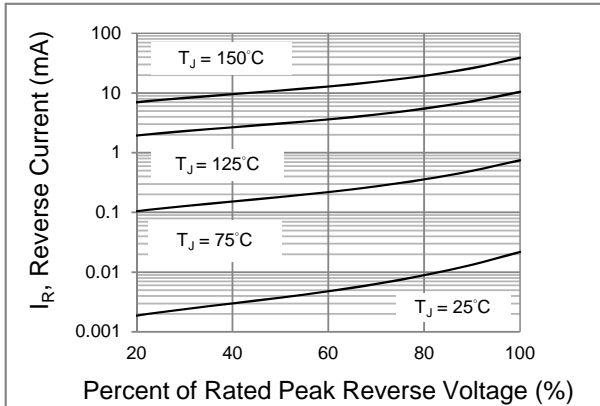


Fig.3 Typical Reverse Characteristics

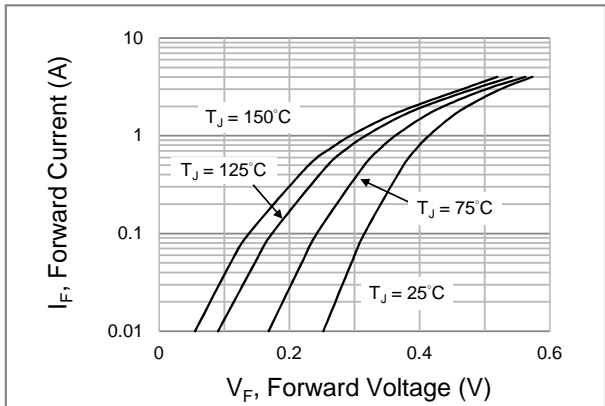


Fig.4 Typical Forward Characteristics

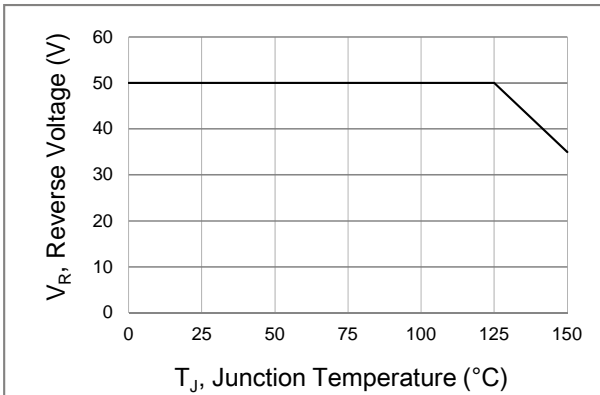


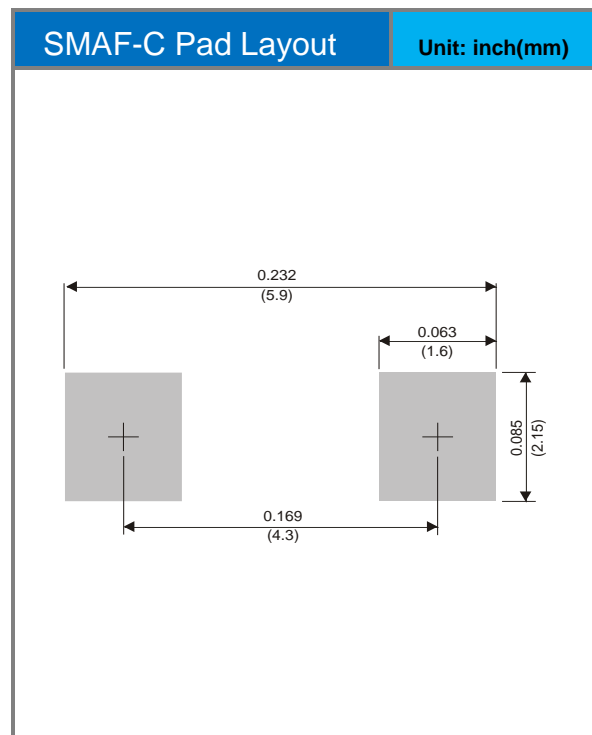
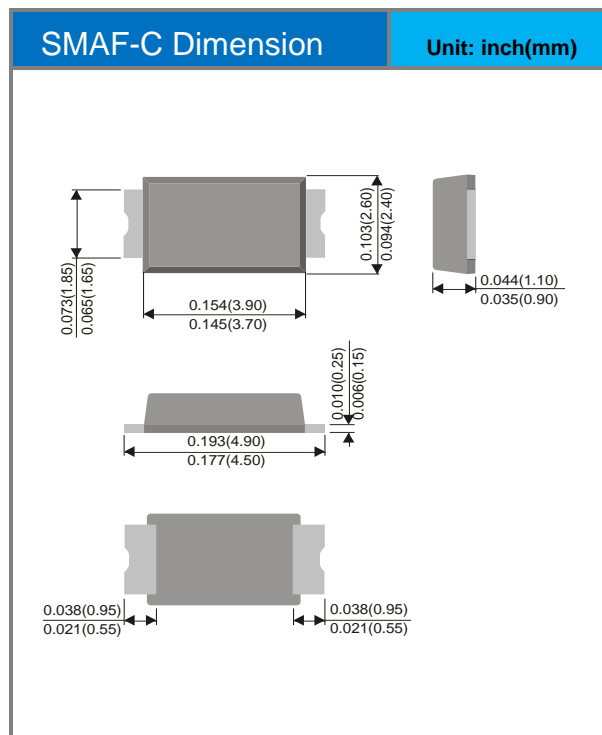
Fig.5 Operating Temperature Derating Curve

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
SB25UAFC	SMAF-C	3K pcs / 7" reel	SB25U

Packaging Information & Mounting Pad Layout



SB25UAFC

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