

SBM34AVAFC

Surface Mount Extreme Low V_F Schottky Barrier Rectifier

Voltage	45 V	Current	3 A
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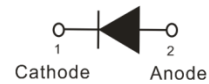
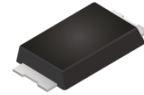
Features

- Extreme low forward voltage drop
- Low power loss, high efficiency
- 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 ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	45	V
Maximum RMS Voltage	V_{RMS}	32	V
Maximum DC Blocking Voltage	V_R	45	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	3	A
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	I_{FSM}	80	A
Typical Junction Capacitance Measured at 1 MHz And Applied $V_R = 4V$	C_J	220	pF
Typical Thermal Resistance ^(Note 1)	$R_{\theta JL}$	20	$^\circ\text{C/W}$
	$R_{\theta JA}$	150	
Operating Junction Temperature Range	T_J	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

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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	$I_F = 1\text{ A}, T_J = 25\text{ }^\circ\text{C}$	-	0.34	-	V
		$I_F = 3\text{ A}, T_J = 25\text{ }^\circ\text{C}$	-	0.42	0.47	
		$I_F = 1\text{ A}, T_J = 125\text{ }^\circ\text{C}$	-	0.26	-	
		$I_F = 3\text{ A}, T_J = 125\text{ }^\circ\text{C}$	-	0.39	-	
Reverse Current ^(Note 2)	I_R	$V_R = 36\text{ V}, T_J = 25\text{ }^\circ\text{C}$	-	20	-	uA
		$V_R = 45\text{ V}, T_J = 25\text{ }^\circ\text{C}$	-	-	210	
		$V_R = 45\text{ V}, T_J = 125\text{ }^\circ\text{C}$	-	7	-	mA

NOTES :

1. Mounted on a FR4 PCB, single-sided copper, standard footprint.
2. Short duration pulse test used to minimize self-heating effect.

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TYPICAL CHARACTERISTIC CURVES

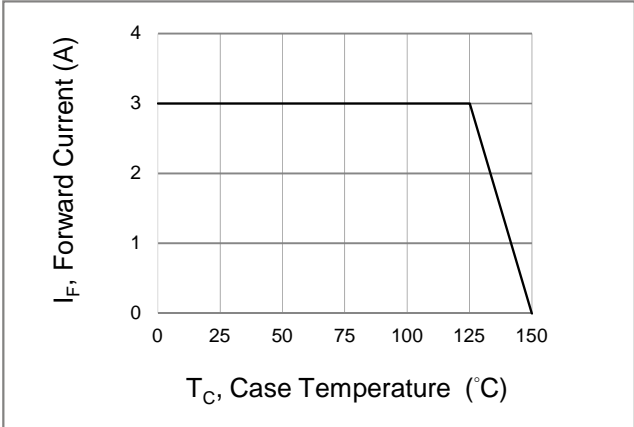


Fig.1 Forward Current Derating Curve

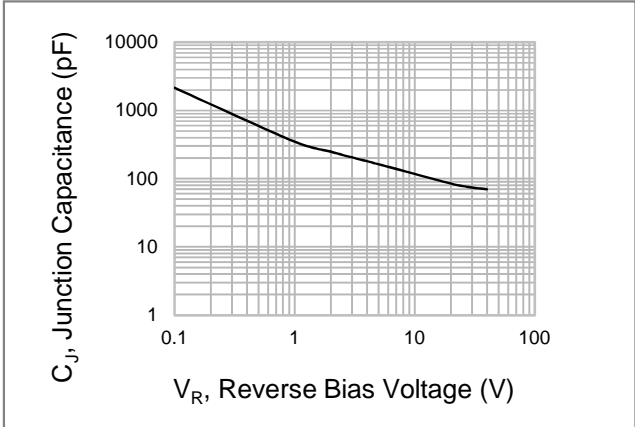


Fig.2 Typical Junction Capacitance

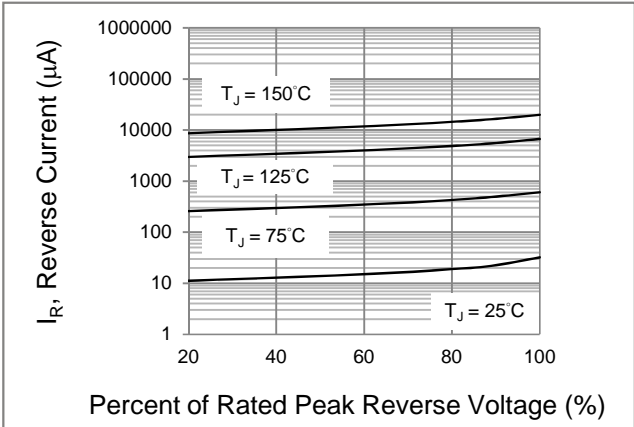


Fig.3 Typical Reverse Characteristics

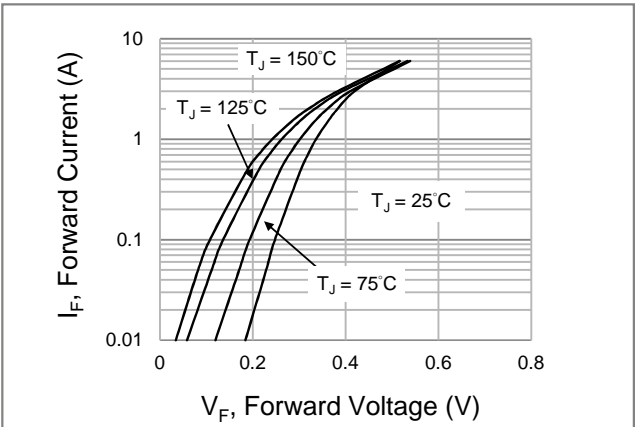


Fig.4 Typical Forward Characteristics

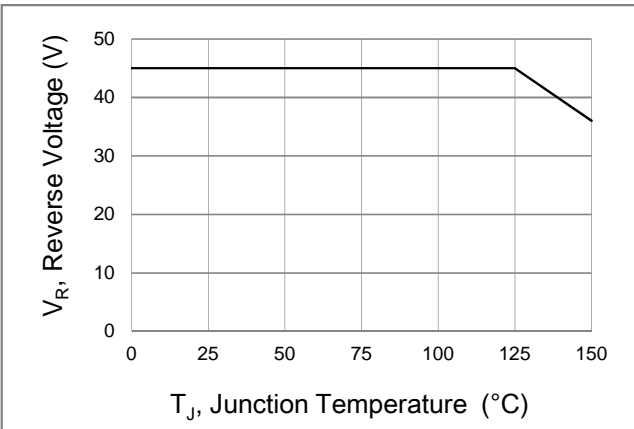


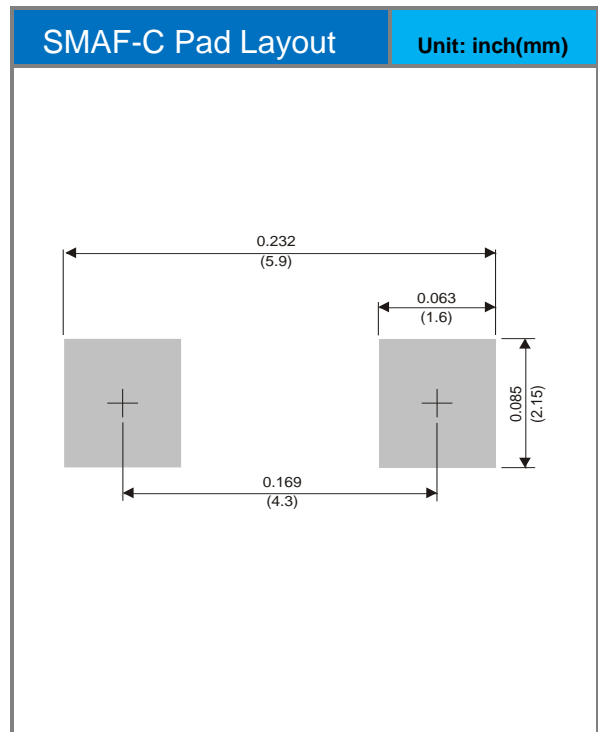
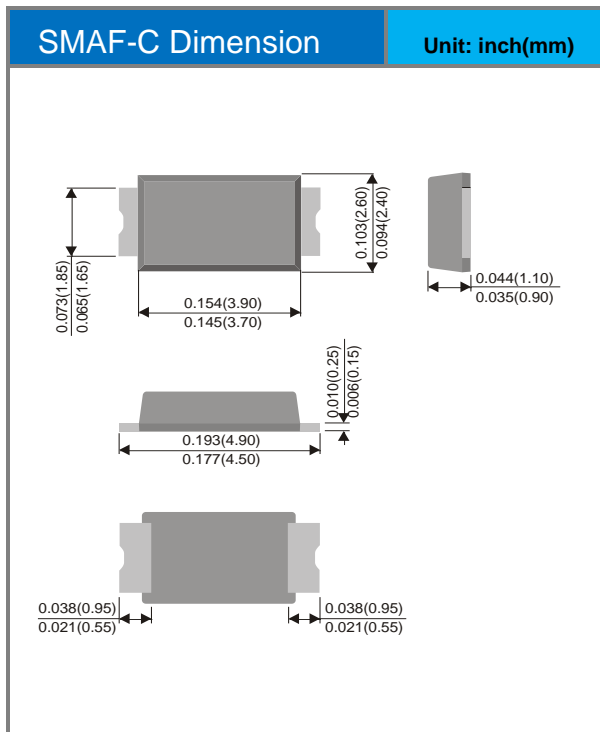
Fig.5 Operating Temperature Derating Curve

SBM34AVAFC

Product and Packing Information

Part No.	Package Type	Packing Type	Marking
SBM34AVAFC	SMAF-C	3K / 7" reel	SBM34AV

Packaging Information & Mounting Pad Layout



SBM34AV AFC

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