

# SBM36VAFC

## Surface Mount Extreme Low Vf Schottky Barrier Rectifier

**Voltage**

**60 V**

**Current**

**3 A**

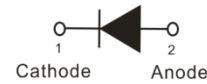
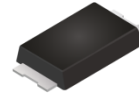
### Features

- Extreme low forward voltage drop
- Low power loss, high efficiency
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 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<sub>A</sub> = 25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	60	V
Maximum RMS Voltage	V <sub>RMS</sub>	42	V
Maximum DC Blocking Voltage	V <sub>R</sub>	60	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	3	A
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	I <sub>FSM</sub>	80	A
Typical Junction Capacitance Measured at 1 MHz And Applied V <sub>R</sub> = 4V	C <sub>J</sub>	200	pF
Typical Thermal Resistance (Note 1)	R <sub>θJA</sub>	150	°C/W
(Note 2)	R <sub>θJC</sub>	20	
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C

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

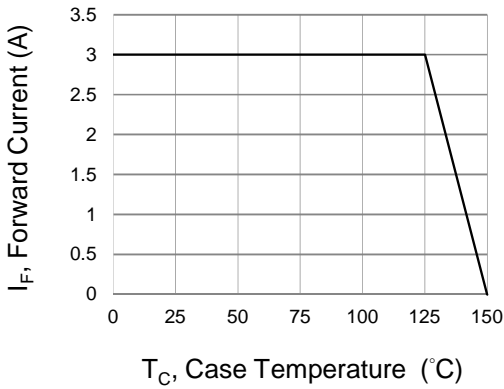
PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	$V_F$	$I_F = 1\text{ A}, T_J = 25^\circ\text{C}$	-	0.34	-	V
		$I_F = 3\text{ A}, T_J = 25^\circ\text{C}$	-	0.45	0.5	
		$I_F = 1\text{ A}, T_J = 125^\circ\text{C}$	-	0.27	-	
		$I_F = 3\text{ A}, T_J = 125^\circ\text{C}$	-	0.43	-	
Reverse Current <sup>(Note 3)</sup>	$I_R$	$V_R = 48\text{ V}, T_J = 25^\circ\text{C}$	-	35	-	uA
		$V_R = 60\text{ V}, T_J = 25^\circ\text{C}$	-	-	220	
		$V_R = 60\text{ V}, T_J = 125^\circ\text{C}$	-	10	-	mA

**NOTES:**

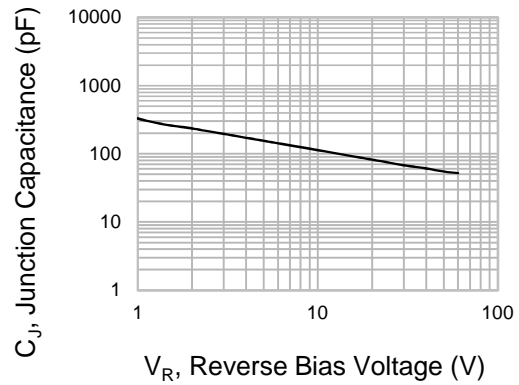
1. Mounted on a FR4 PCB, single-sided copper, standard footprint
2. Mounted on a FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area
3. Short duration pulse test used to minimize self-heating effect

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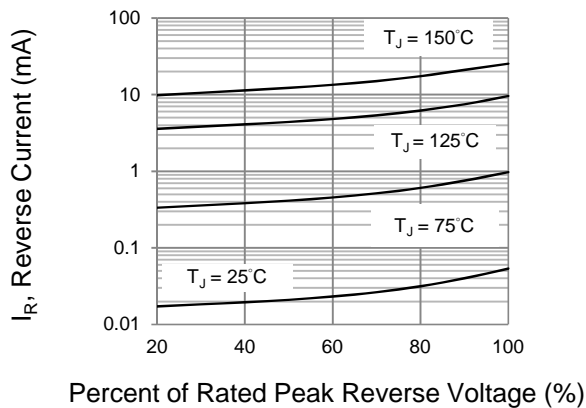
## TYPICAL CHARACTERISTIC CURVES



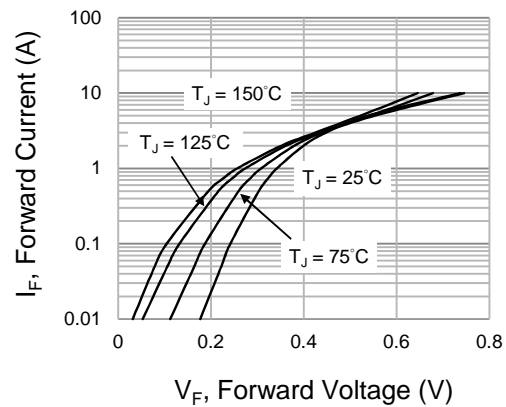
**Fig.1 Forward Current Derating Curve**



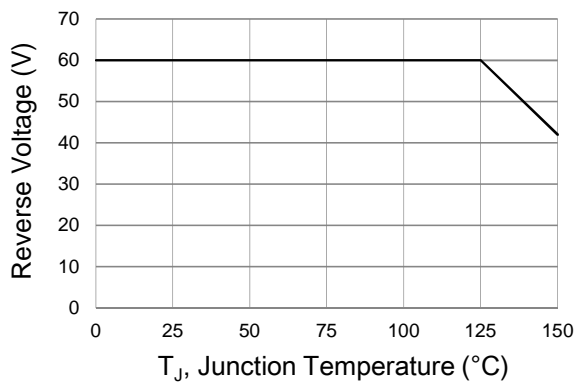
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**



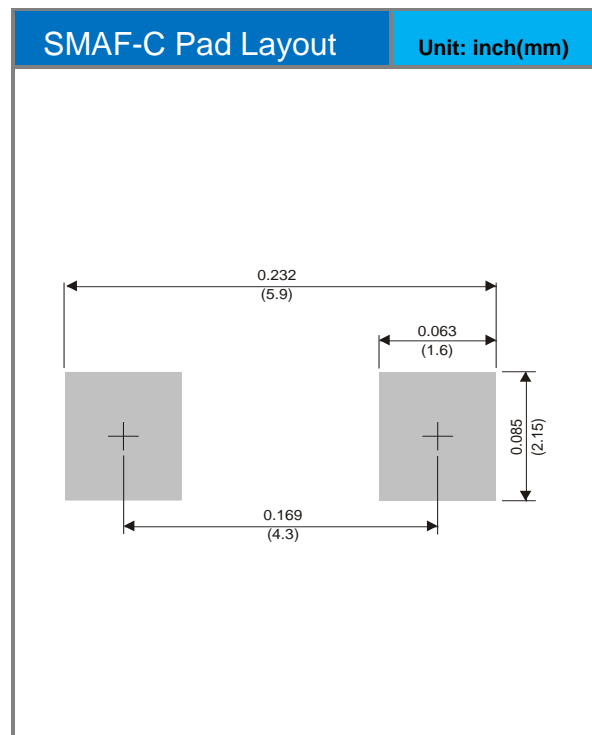
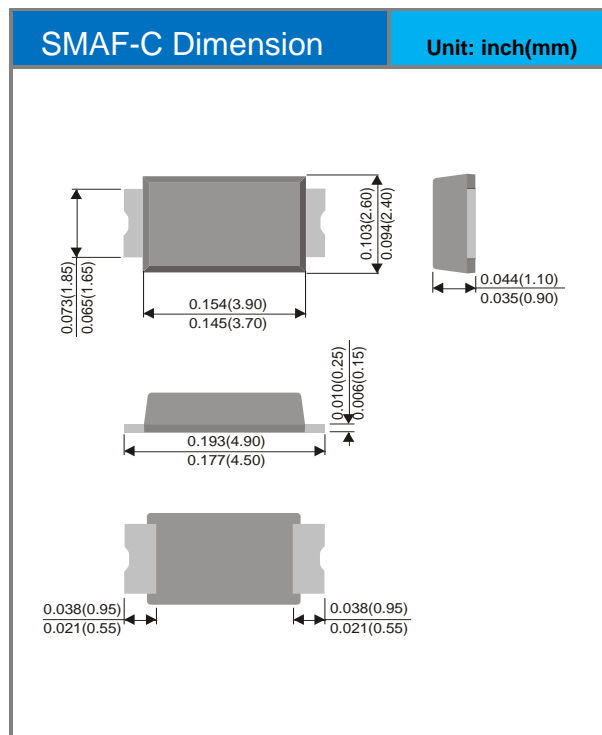
**Fig.5 Operating Temperature Derating Curve**

# SBM36VAFC

## Product and Packing Information

Part No.	Package Type	Packing Type	Marking
SBM36VAFC	SMAF-C	3K pcs / 7" reel	SBM36V

## Packaging Information & Mounting Pad Layout



## **SBM36VAFC**

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