

SBM36VAFC-AU

Surface Mount Extreme Low Vf Schottky Barrier Rectifier

Voltage

60 V

Current

3 A

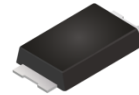
Features

- Extreme low forward voltage drop
- Low power loss, high efficiency
- AEC-Q101 qualified
- 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_A = 25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	60	V
Maximum Rms Voltage	V _{RMS}	42	V
Maximum Dc Blocking Voltage	V _{DC}	60	V
Maximum Average Forward 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 = 4 V	C _J	200	pF
Typical Thermal Resistance (Note 1)	R _{θJA}	150	°C/W
(Note 2)	R _{θJC}	20	
Operating Junction Temperature Range	T _J	-55~150	°C
Storage Temperature Range	T _{STG}	-55~150	°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
		$I_F = 3\text{ A}, T_J = 25^\circ\text{C}$	-	-	0.50	
		$I_F = 1\text{ A}, T_J = 125^\circ\text{C}$	-	0.27	-	
		$I_F = 3\text{ A}, T_J = 125^\circ\text{C}$	-	0.43	-	
Reverse Current ^(Note 3)	I_R	$V_R = 48\text{ V}, T_J = 25^\circ\text{C}$	-	35	-	μA
		$V_R = 60\text{ V}, T_J = 25^\circ\text{C}$	-	-	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 100cm² copper pad area
3. Short duration pulse test used to minimize self-heating effect

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TYPICAL CHARACTERISTIC CURVES

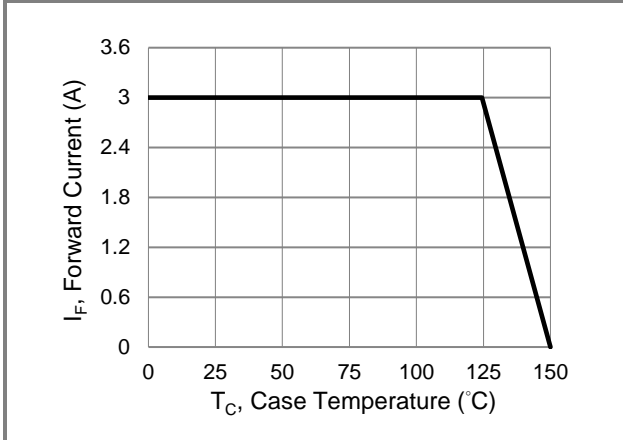


Fig.1 Forward Current Derating Curve

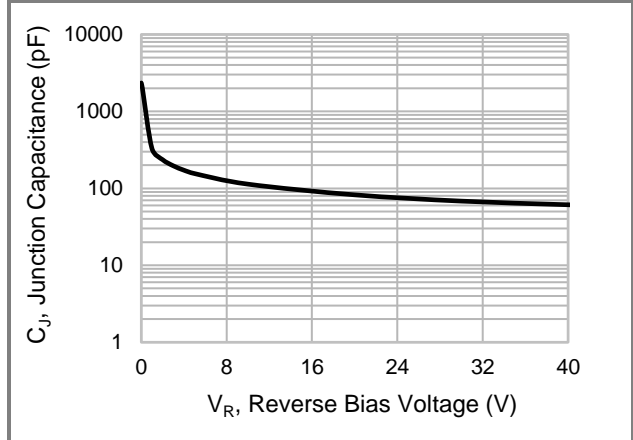


Fig.2 Typical Junction Capacitance

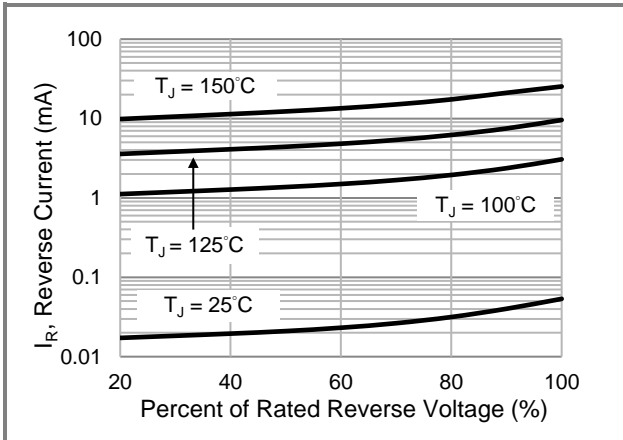


Fig.3 Typical Reverse Characteristics

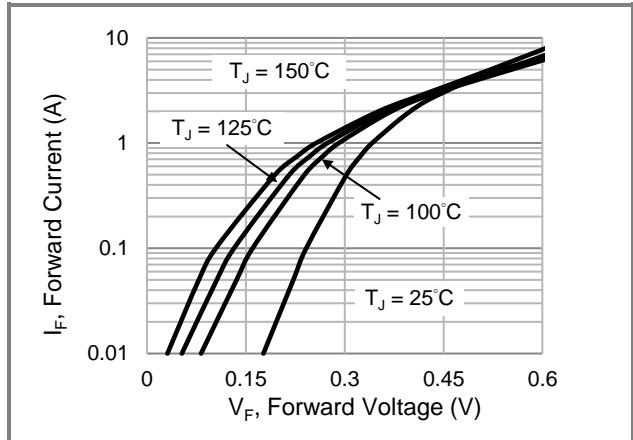


Fig.4 Typical Forward Characteristics

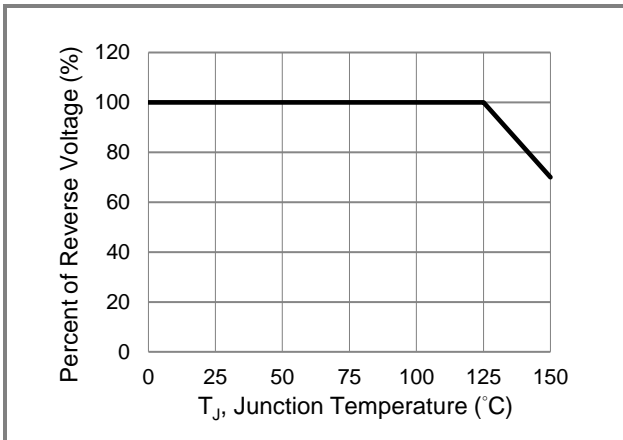


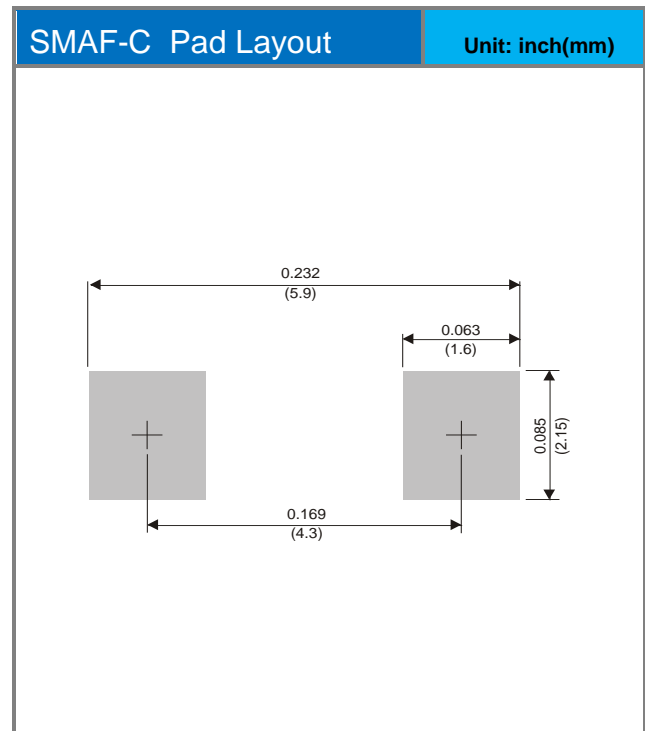
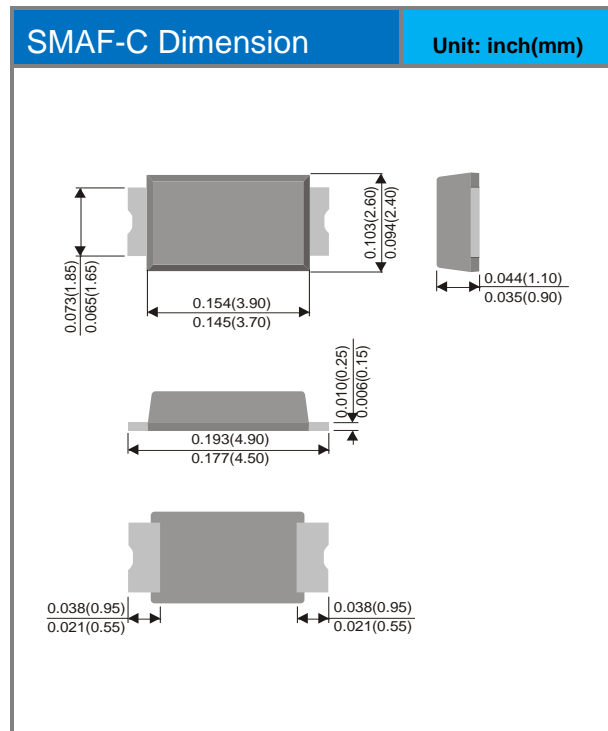
Fig.5 Operating Temperature Derating Curve

SBM36VAFC-AU

Product and Packing Information

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

Packaging Information & Mounting Pad Layout



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