

SBM34AVAF-C

Surface Mount Extreme Low Vf Schottky Barrier Rectifier

Voltage **45 V** **Current** **3 A**

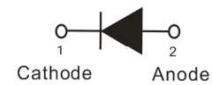
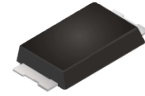
Features

- Extreme low forward voltage drop
- Low power loss, high efficiency
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per 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}	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 _{θJL}	20	°C/W
	R _{θJA}	150	
Operating Junction Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C



SBM34AVAFC

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

SBM34AVAFC

TYPICAL CHARACTERISTIC CURVES

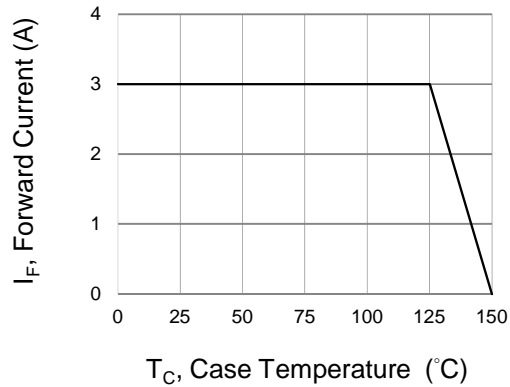


Fig.1 Forward Current Derating Curve

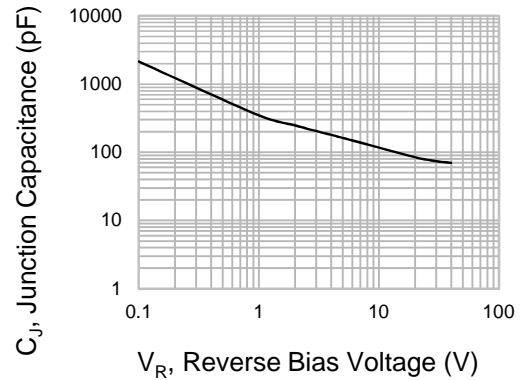


Fig.2 Typical Junction Capacitance

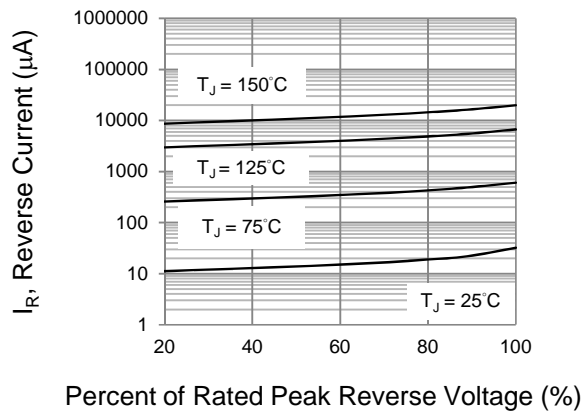


Fig.3 Typical Reverse Characteristics

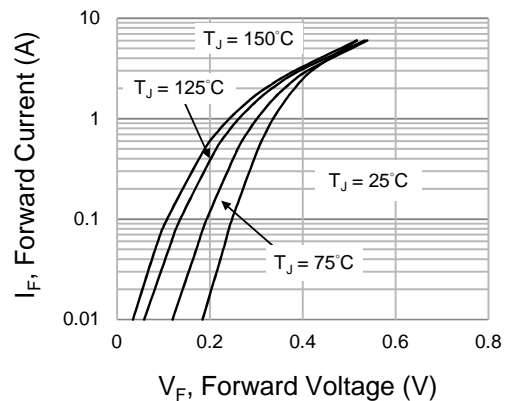


Fig.4 Typical Forward Characteristics

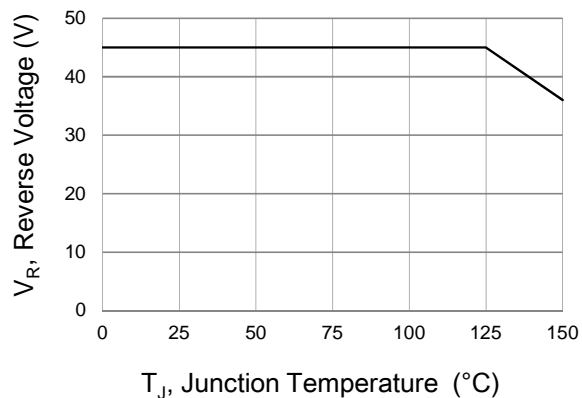


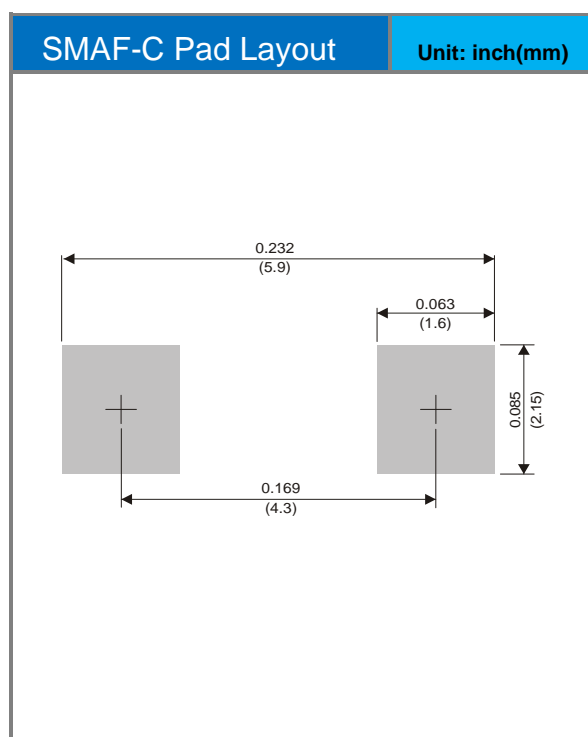
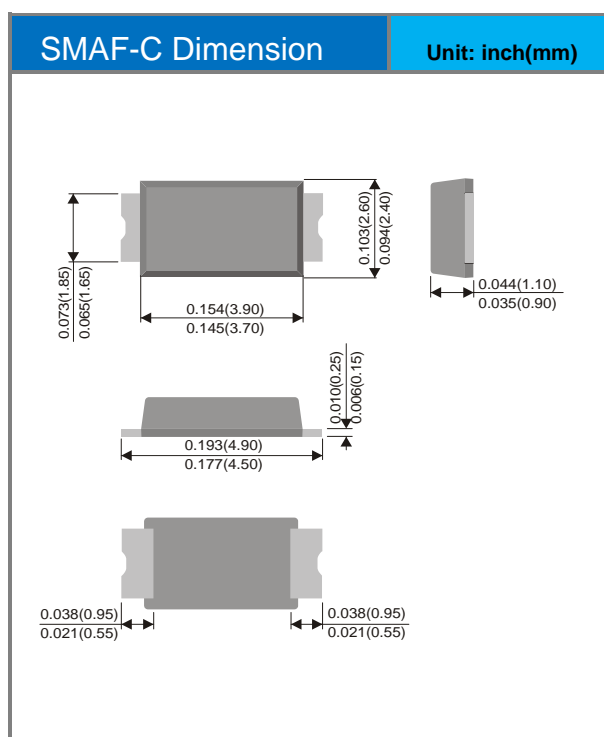
Fig.5 Operating Temperature Derating Curve

SBM34AV AFC

Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
SBM34AV AFC_R1_00001	SMAF-C	3K / 7" reel	SBM34AV	Halogen free

Packaging Information & Mounting Pad Layout





SBM34AVAF

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