



# SB36AFC-AU

## Surface Mount Schottky Barrier Rectifier

**Voltage** 60 V **Current** 3 A

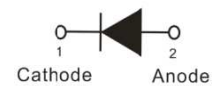
### Features

- Low power loss, high efficiency
- High surge current capability
- 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<sub>A</sub> = 25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	60	V
Maximum Rms Voltage	V <sub>RMS</sub>	42	V
Maximum Dc Blocking Voltage	V <sub>DC</sub>	60	V
Maximum Average Forward Current	I <sub>F(AV)</sub>	3	A
Peak Forward Surge Current : 8.3ms 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> = 4 V	C <sub>J</sub>	125	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>	-55~150	°C
Storage Temperature Range	T <sub>STG</sub>	-55~150	°C



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## Electrical Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 1 A, T <sub>J</sub> = 25 °C	-	0.44	-	V
		I <sub>F</sub> = 3 A, T <sub>J</sub> = 25 °C	-	-	0.75	
		I <sub>F</sub> = 1 A, T <sub>J</sub> = 125 °C	-	0.38	-	
		I <sub>F</sub> = 3 A, T <sub>J</sub> = 125 °C	-	0.56	-	
Reverse Current <sup>(Note 3)</sup>	I <sub>R</sub>	V <sub>R</sub> = 48 V, T <sub>J</sub> = 25 °C	-	8.1	-	μA
		V <sub>R</sub> = 60 V, T <sub>J</sub> = 25 °C	-	-	100	
		V <sub>R</sub> = 60 V, T <sub>J</sub> = 125 °C	-	6	-	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

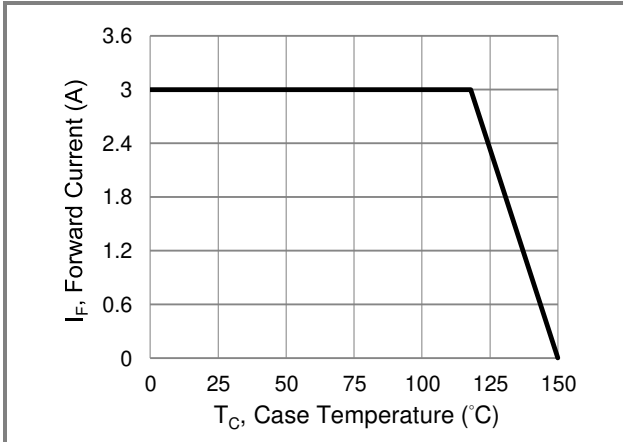


Fig.1 Forward Current Derating Curve

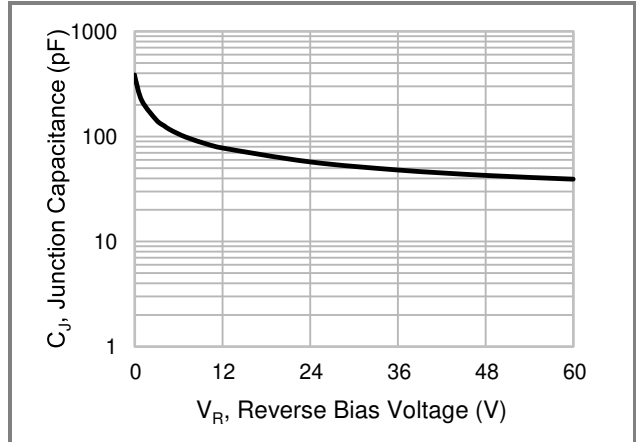


Fig.2 Typical Junction Capacitance

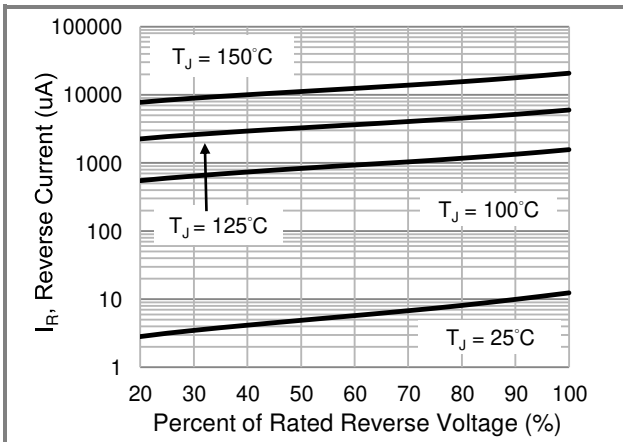


Fig.3 Typical Reverse Characteristics

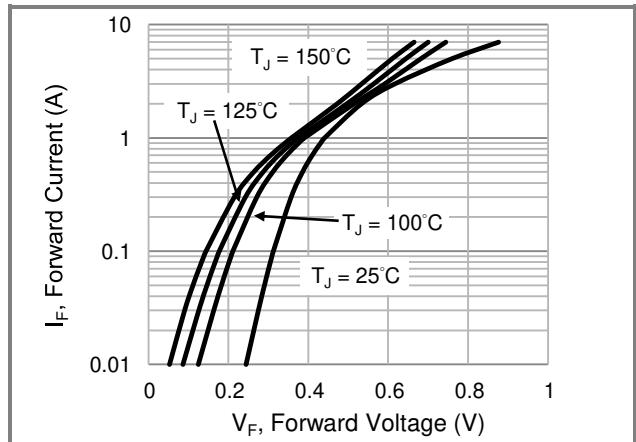


Fig.4 Typical Forward Characteristics

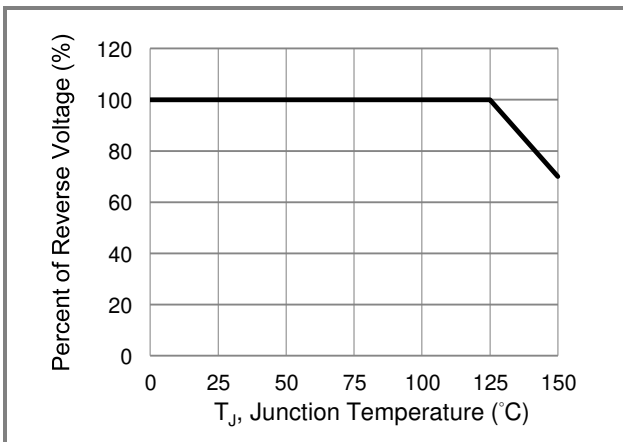


Fig.5 Operating Temperature Derating Curve

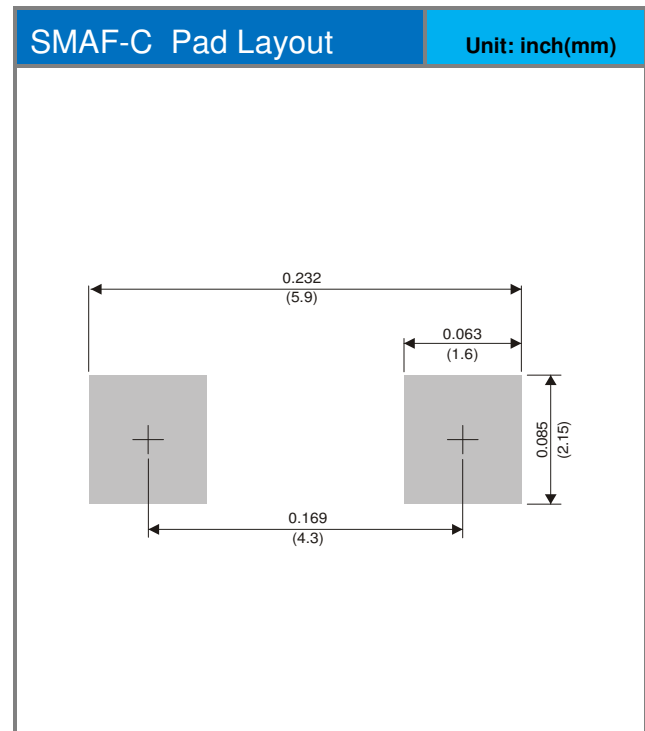
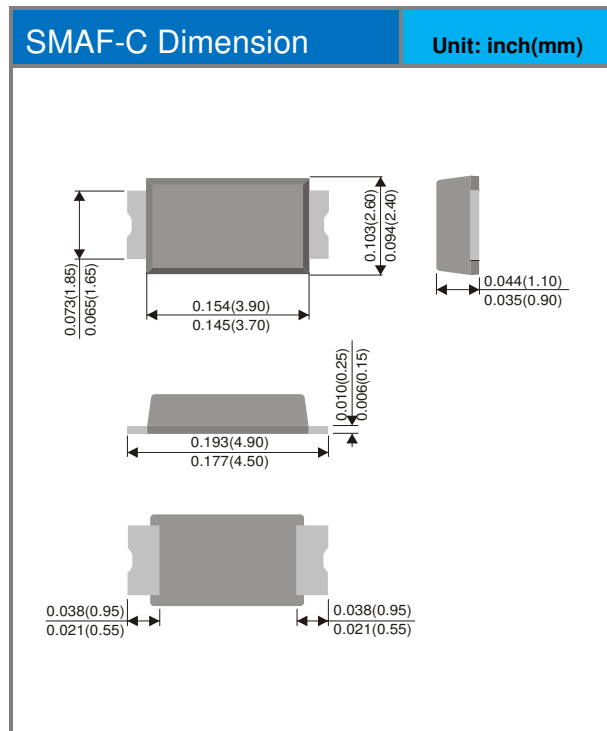


# SB36AFC-AU

Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
SB36AFC-AU_R1_000A1	SMAF-C	3K pcs / 7" reel	SB36	Halogen free

## Packaging Information & Mounting Pad Layout





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