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# SB33AFC-AU ~ SB34AFC-AU Series

## **Surface Mount Schottky Barrier Rectifier**

Voltage 30~40 V Current 3 A

### **Features**

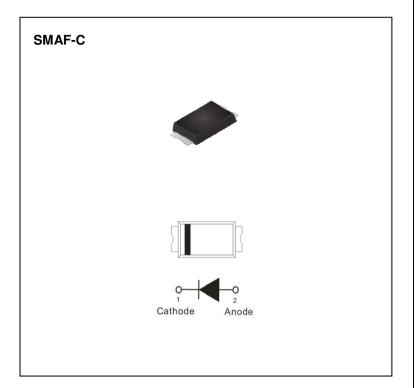
- Low power loss, high efficiency
- High surge current capability
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### **Mechanical Data**

• Case : Molded plastic, SMAF-C

• Terminals : Solderable per MIL-STD-750, Method 2026

• Approx. Weight: 0.0012 ounces, 0.034 grams



## Maximum Ratings and Thermal Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)

PARAMETER	SYMBOL	SB33AFC-AU	SB34AFC-AU	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	30	40	V
Maximum RMS Voltage	V <sub>RMS</sub>	21	28	\
Maximum DC Blocking Voltage	V <sub>R</sub>	30	40	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	3		А
Peak Forward Surge Current: 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	Іғѕм	80		А
Forward Voltage at 3A	VF	0.5		V
Reverse Current(Note 3)	I <sub>R</sub>	100		uA
Typical Junction Capacitance  Measured at 1 MHz And Applied $V_R = 4V$	CJ	160		pF
Typical Thermal Resistance (Note 1) (Note 2)	Rejl Reja	20 150		°C/W
Operating Junction Temperature Range	Тл	-55 to +150		°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150		°C

#### NOTES:

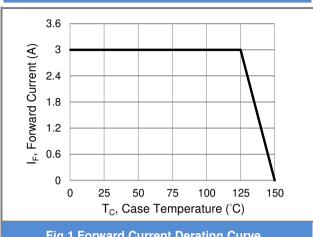
- 1. Mounted on a FR4 PCB, single-sided copper, with 48cm<sup>2</sup> copper pad area
- 2. Mounted on a FR4 PCB, single-sided copper, standard footprint
- 3. Short duration pulse test used to minimize self-heating effect





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### **TYPICAL CHARACTERISTIC CURVES**



**Fig.1 Forward Current Derating Curve** 

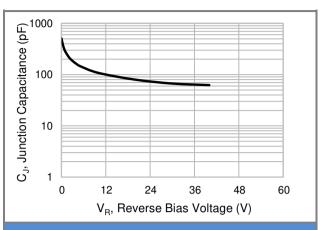
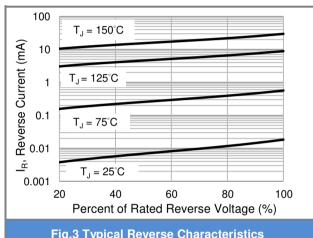


Fig.2 Typical Junction Capacitance



**Fig.3 Typical Reverse Characteristics** 

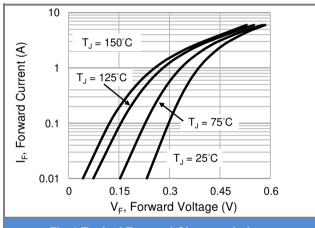
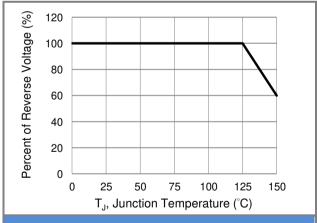


Fig.4 Typical Forward Characteristics



**Fig.5 Operating Temperature Derating Curve** 



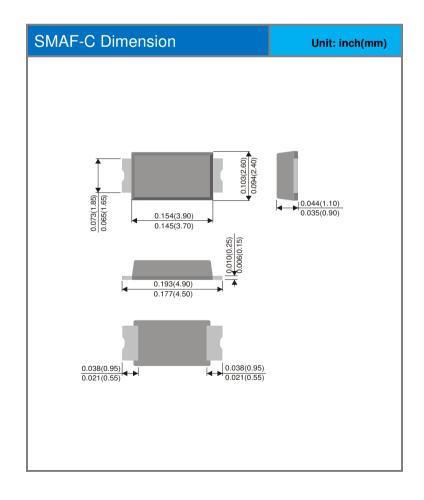


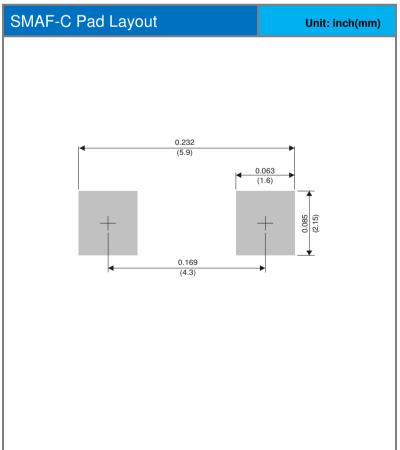
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# Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
SB33AFC-AU_R1_000A1	SMAF-C	3K pcs / 7" reel	SB33	Halogen free
SB34AFC-AU_R1_000A1	SMAF-C	3K pcs / 7" reel	SB34	Halogen free

## **Packaging Information & Mounting Pad Layout**









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