



#### **Surface Mount Schottky Barrier Rectifier**

Voltage 20~60 V Current 3 A

#### **Features**

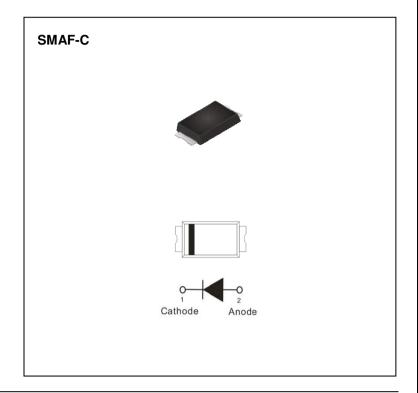
- Low power loss, high efficiency
- High surge current capability
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

#### **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	SB32AFC	SB33AFC	SB34AFC	SB35AFC	SB36AFC	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	٧
Maximum DC Blocking Voltage	V <sub>R</sub>	20	30	40	50	60	٧
Maximum Average Forward Rectified Current	l <sub>F(AV)</sub>	3					Α
Peak Forward Surge Current: 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	IFSM	80					Α
Instantaneous Forward Voltage at 3A	VF	0.5 0.75			75	٧	
Reverse Current(Note 3)	I <sub>R</sub>	100				uA	
Typical Junction Capacitance  Measured at 1 MHz And Applied $V_R = 0V$	Сı	485 385		35	pF		
Typical Thermal Resistance (Note 1) (Note 2)	Røjl Røja	20 150				°C/W	
Operating Junction Temperature Range	TJ	-55 to +150					°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150				°C	

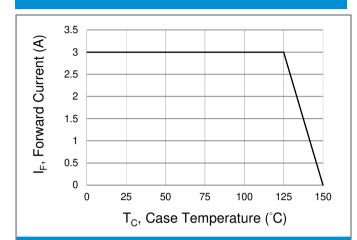
#### NOTES:

- 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  $% \left( 1\right) =\left( 1\right) \left( 1\right) \left$





#### **TYPICAL CHARACTERISTIC CURVES**



**Fig.1 Forward Current Derating Curve** 

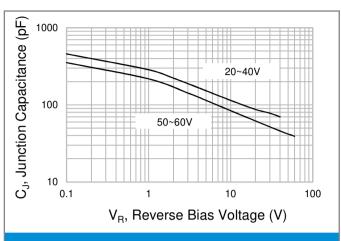


Fig.2 Typical Junction Capacitance

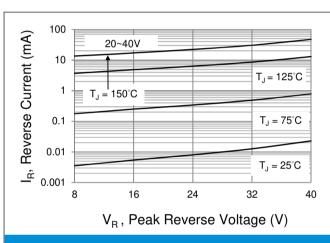
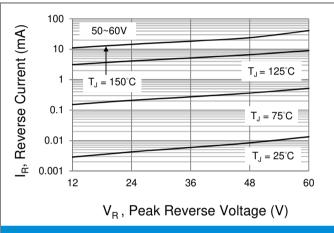
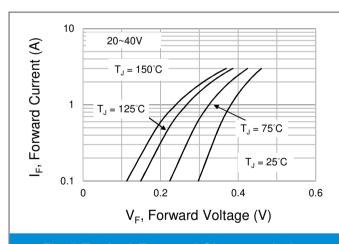


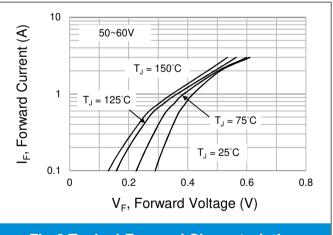
Fig.3 Typical Reverse Characteristics



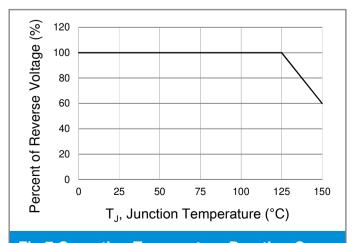
**Fig.4 Typical Reverse Characteristics** 



**Fig.5 Typical Forward Characteristics** 



**Fig.6 Typical Forward Characteristics** 



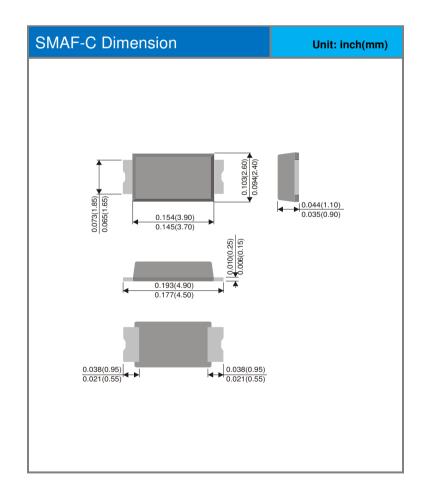


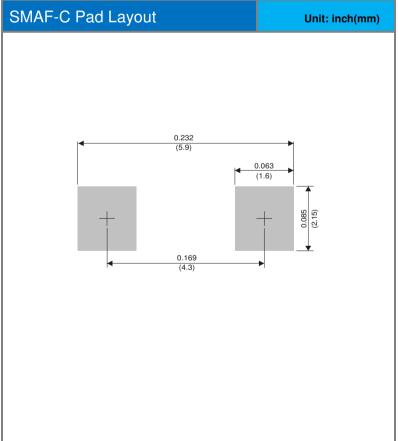


### Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
SB32AFC_R1_00001	SMAF-C	3K pcs / 7" reel	SB32	Halogen free
SB33AFC_R1_00001	SMAF-C	3K pcs / 7" reel	SB33	Halogen free
SB34AFC_R1_00001	SMAF-C	3K pcs / 7" reel	SB34	Halogen free
SB35AFC_R1_00001	SMAF-C	3K pcs / 7" reel	SB35	Halogen free
SB36AFC_R1_00001	SMAF-C	3K pcs / 7" reel	SB36	Halogen free

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









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