

MBR315AFC-AU

Surface Mount Schottky Barrier Rectifier

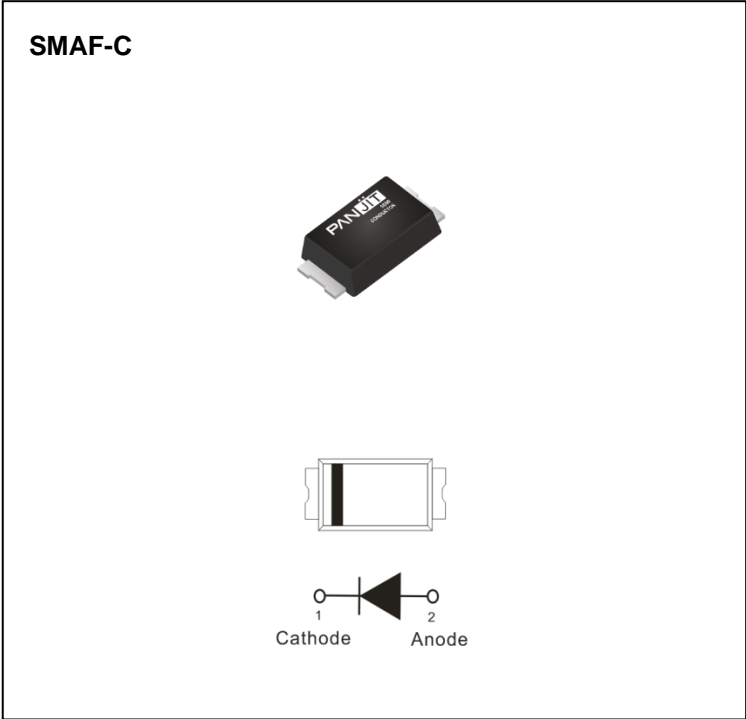
Voltage	150 V	Current	3 A
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Features

- 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 : 0.034 grams



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

PARAMETER	SYMBOL	LIMIT	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	150	V
Maximum RMS Voltage	V <sub>RMS</sub>	105	V
Maximum DC Blocking Voltage	V <sub>R</sub>	150	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	3	A
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	I <sub>FSM</sub>	80	A
Instantaneous Forward Voltage at 3A	V <sub>F</sub>	0.9	V
Reverse Current <sup>(Note 4)</sup>	I <sub>R</sub>	50	uA
Typical Junction Capacitance Measured at 1 MHz And Applied V <sub>R</sub> = 4V	C <sub>J</sub>	10	pF
Typical Thermal Resistance (Note 1) (Note 2) (Note 3)	R <sub>θJA</sub>	150	°C/W
	R <sub>θJL</sub>	20	
	R <sub>θJC</sub>	22	
Operating Junction Temperature Range	T <sub>J</sub>	-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, standard footprint.
  2. Mounted on a FR4 PCB, single-sided copper, with 48cm<sup>2</sup> copper pad area.
  3. Mounted on a FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area.
  4. Short duration pulse test used to minimize self-heating effect.

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TYPICAL CHARACTERISTIC CURVES

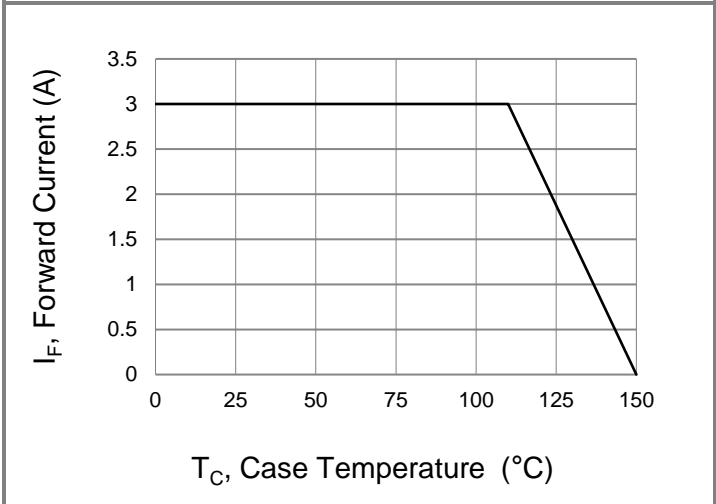


Fig.1 Forward Current Derating Curve

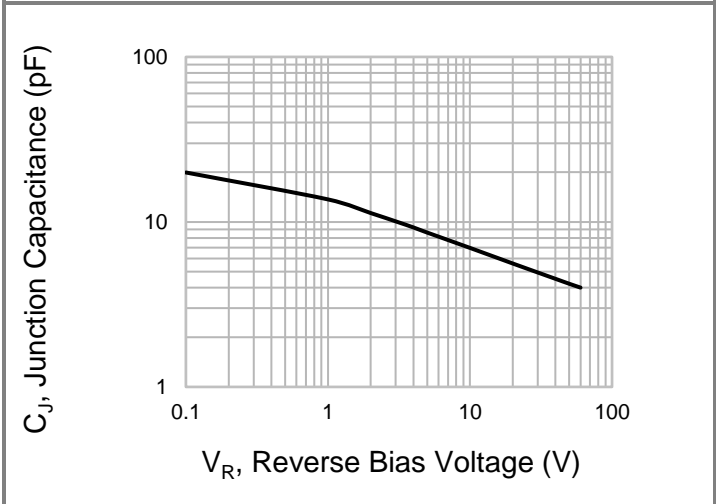


Fig.2 Typical Junction Capacitance

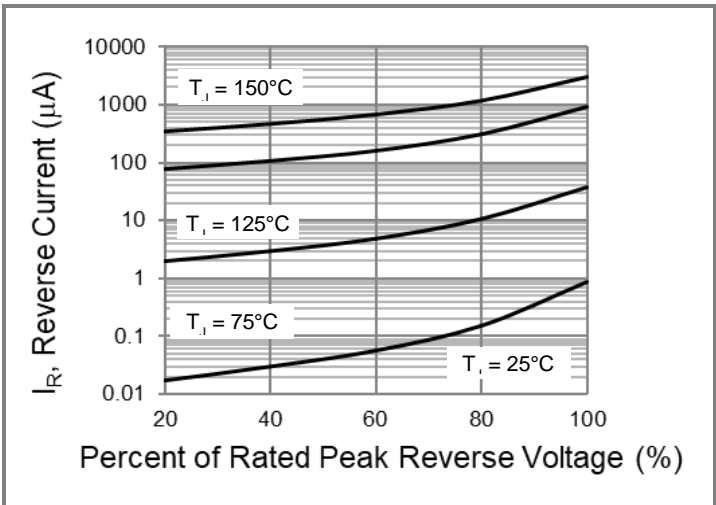


Fig.3 Typical Reverse Characteristics

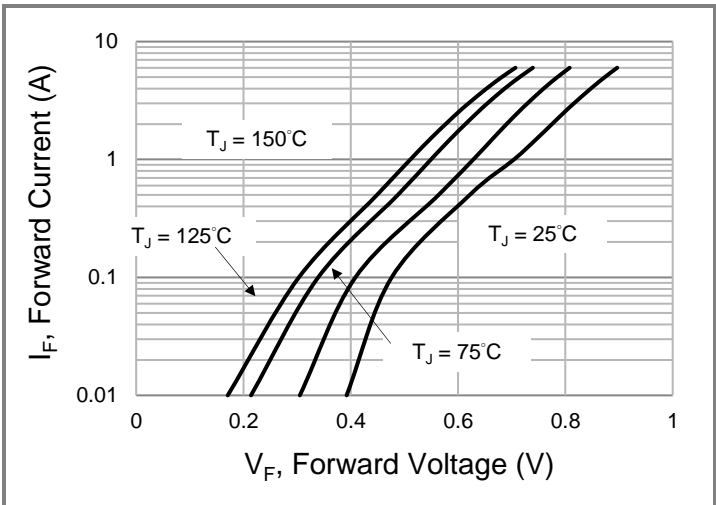


Fig.4 Typical Forward Characteristics

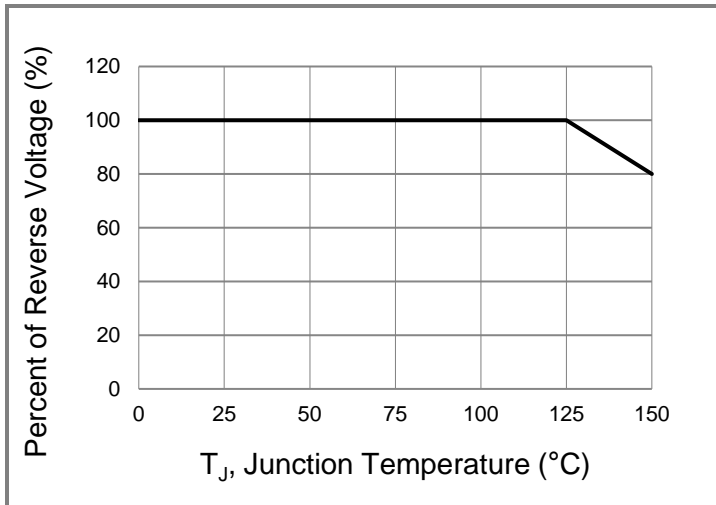


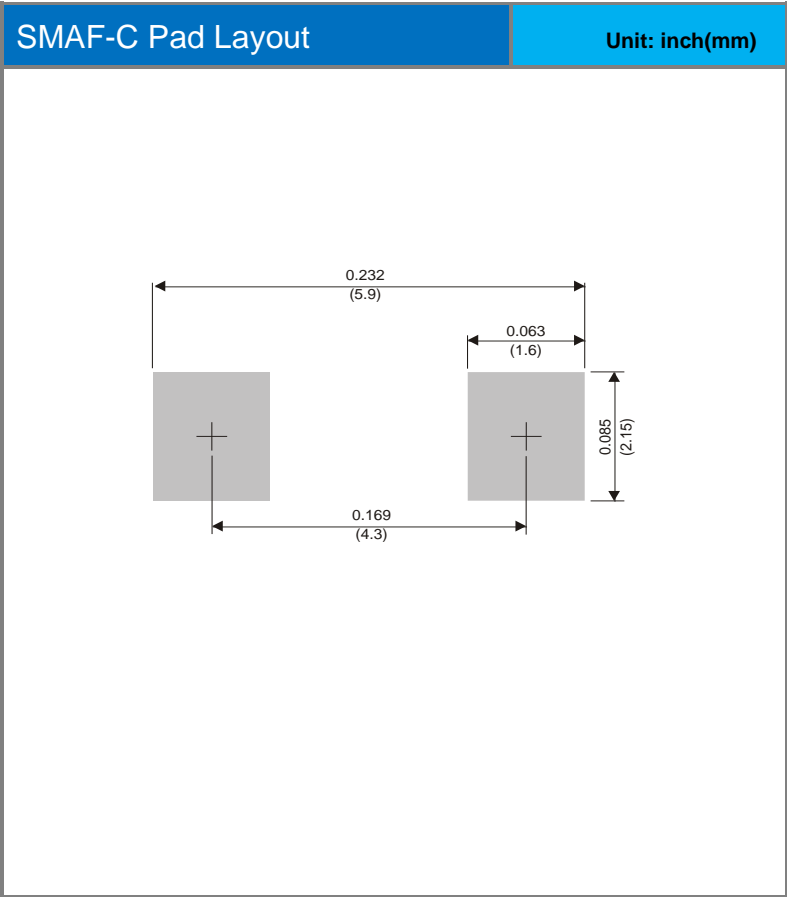
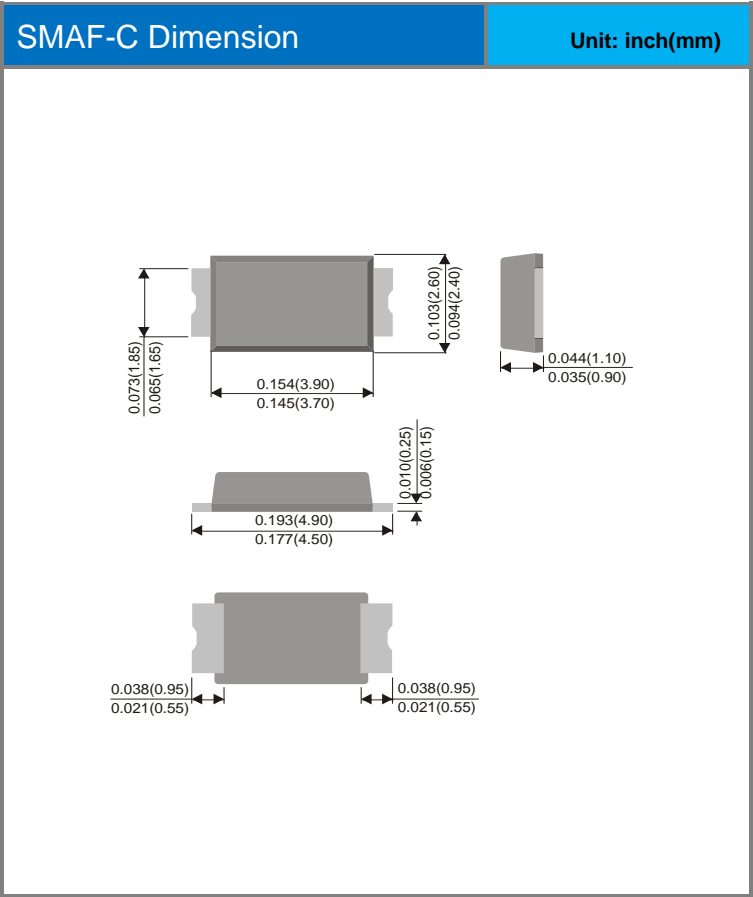
Fig.5 Operating Temperature Derating Curve

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
MBR315AFC-AU	SMAF-C	3K pcs / 7" reel	MBR315

Packaging Information & Mounting Pad Layout



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