

MBR28AFC ~ MBR220AFC Series

Surface Mount Schottky Barrier Rectifier

Voltage

80~200 V

Current

2 A

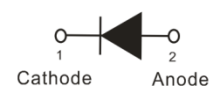
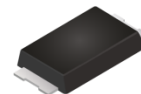
Features

- Low power loss, high efficiency
- High surge current capability
- High surge capacity
- 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

SMAF-C



Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

PARAMETER	SYMBOL	MBR28AFC	MBR29AFC	MBR210AFC	MBR215AFC	MBR220AFC	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	80	90	100	150	200	V
Maximum RMS Voltage	V _{RMS}	56	63	70	105	140	V
Maximum DC Blocking Voltage	V _R	80	90	100	150	200	V
Maximum Average Forward Rectified Current	I _{F(AV)}	2					A
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	I _{FSM}	50					A
Instantaneous Forward Voltage at 2A	V _F	0.8			0.9		V
Reverse Current ^(Note 3)	I _R	0.05					mA
Typical Junction Capacitance Measured at 1 MHz And Applied V _R = 4V	C _J	75			60	45	pF
Typical Thermal Resistance (Note 1) (Note 2)	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

NOTES:

1. Mounted on 48cm² 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

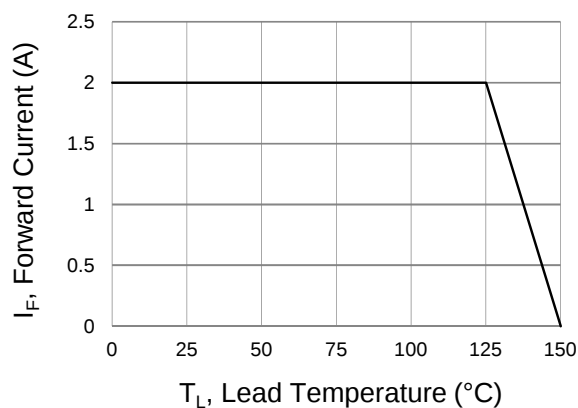


Fig.1 Forward Current Derating Curve

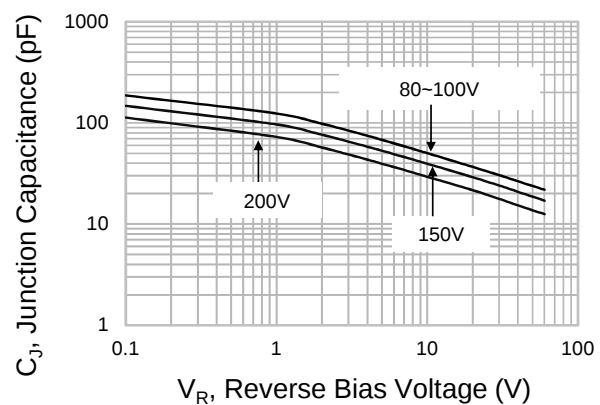


Fig.2 Typical Junction Capacitance

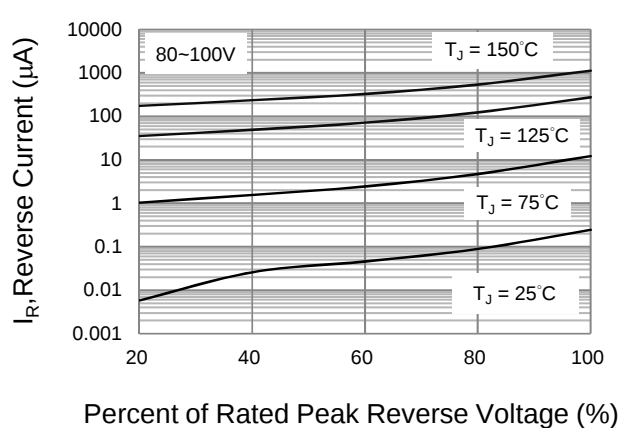


Fig.3 Typical Reverse Characteristics

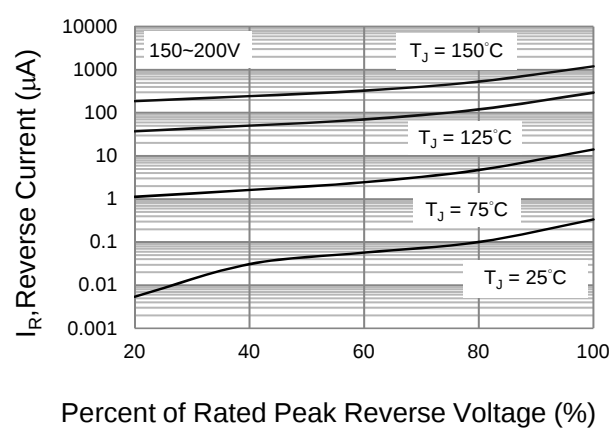


Fig.4 Typical Reverse Characteristics

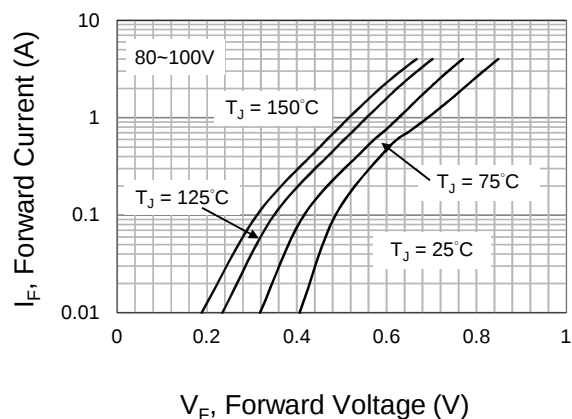


Fig.5 Typical Reverse Characteristics

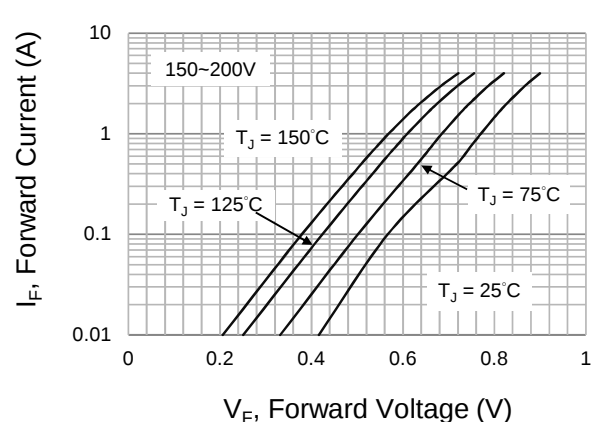


Fig.6 Typical Forward Characteristics

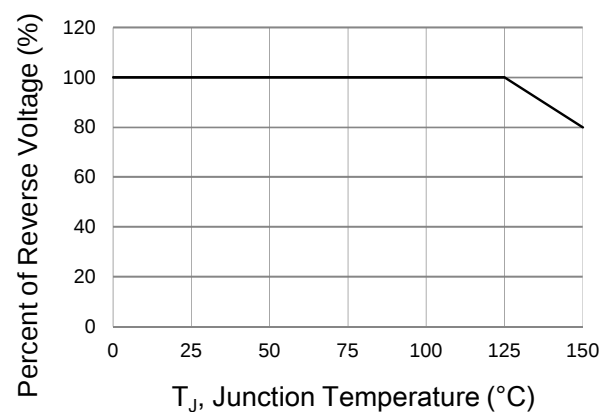


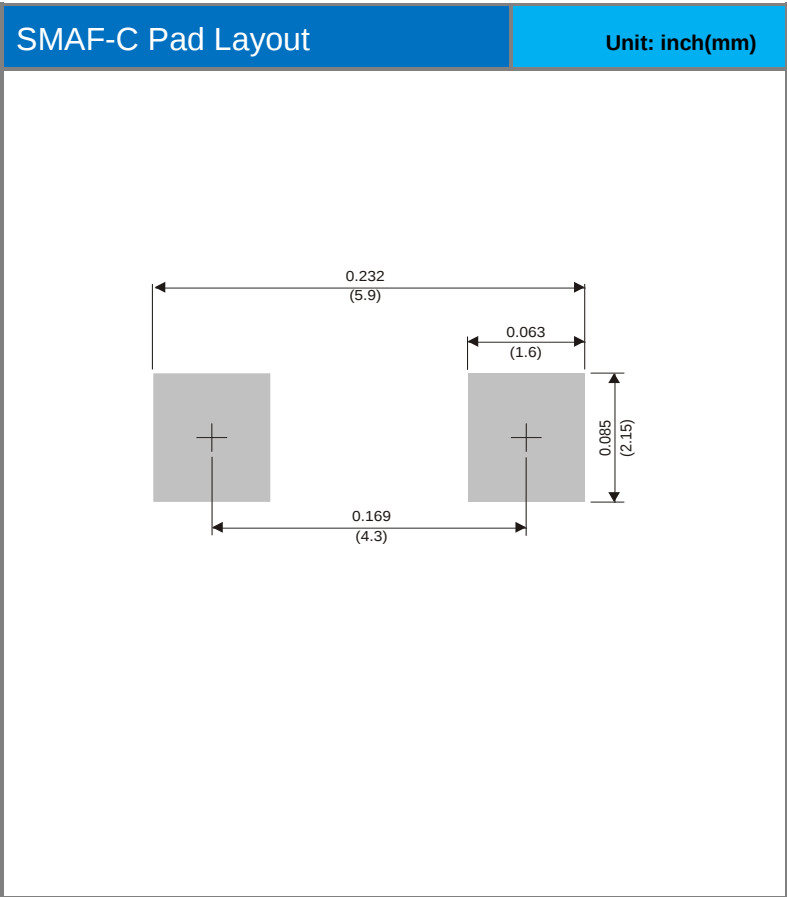
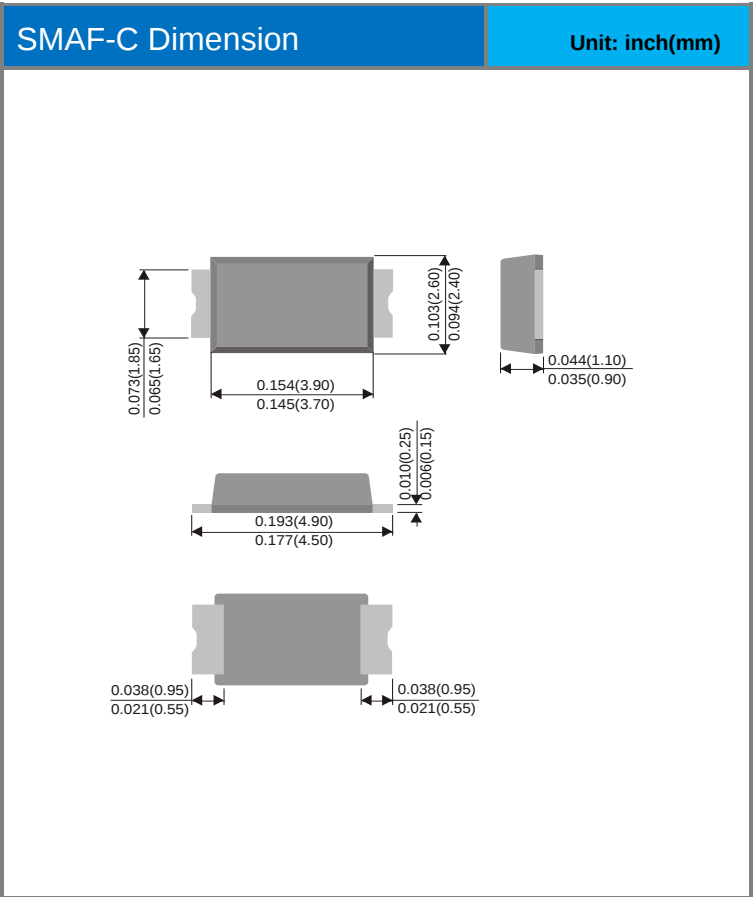
Fig.7 Operating Temperature Derating Curve

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
MBR28AFC	SMAF-C	3K pcs / 7" reel	MBR28
MBR29AFC	SMAF-C	3K pcs / 7" reel	MBR29
MBR210AFC	SMAF-C	3K pcs / 7" reel	MBR210
MBR215AFC	SMAF-C	3K pcs / 7" reel	MBR215
MBR220AFC	SMAF-C	3K pcs / 7" reel	MBR220

Packaging Information & Mounting Pad Layout



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