

MBR28AFC ~ MBR220AFC Series

Surface Mount Schottky Barrier Rectifier

Voltage 80~200 V **Current** 2 A

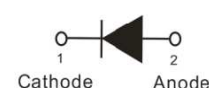
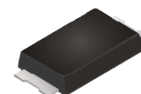
Features

- 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) R _{θJL}	20					°C/W
	^(Note 2) 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

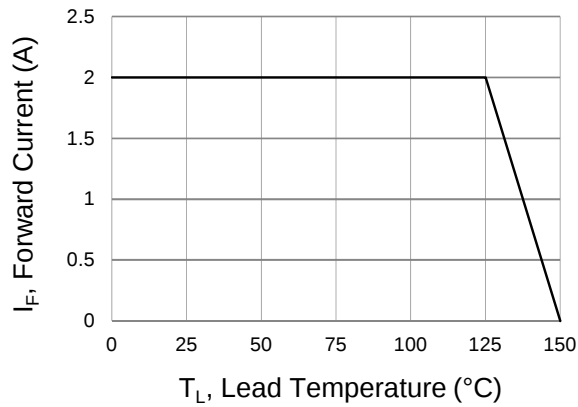


Fig.1 Forward Current Derating Curve

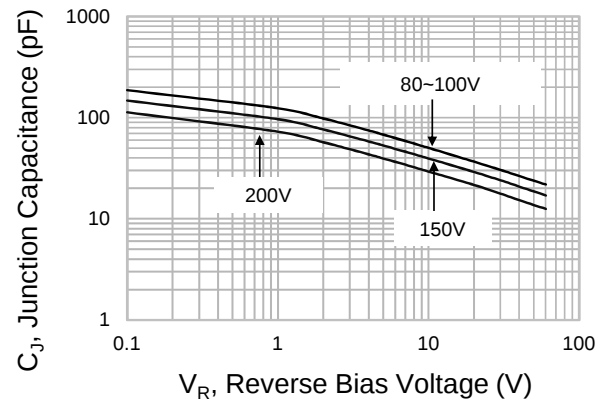


Fig.2 Typical Junction Capacitance

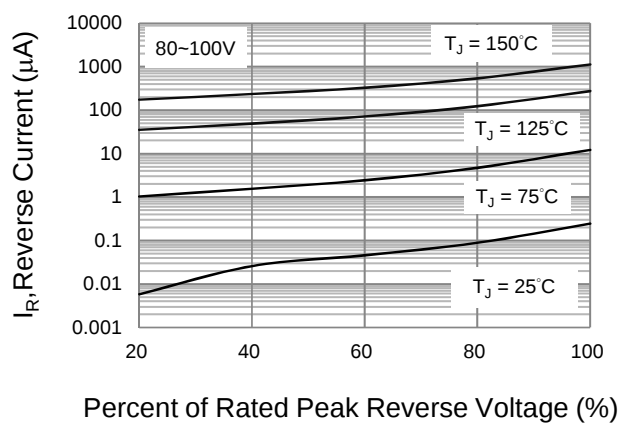


Fig.3 Typical Reverse Characteristics

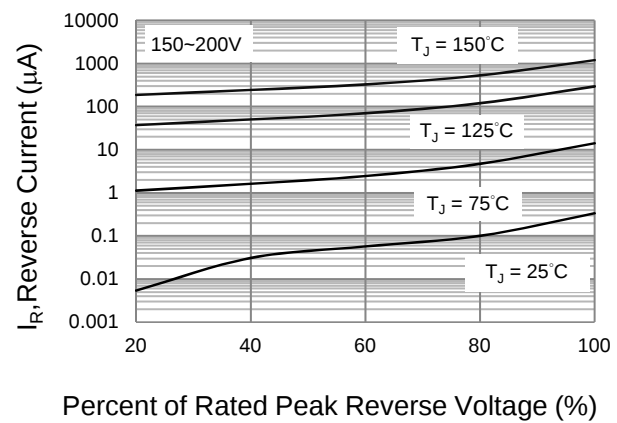


Fig.4 Typical Reverse Characteristics

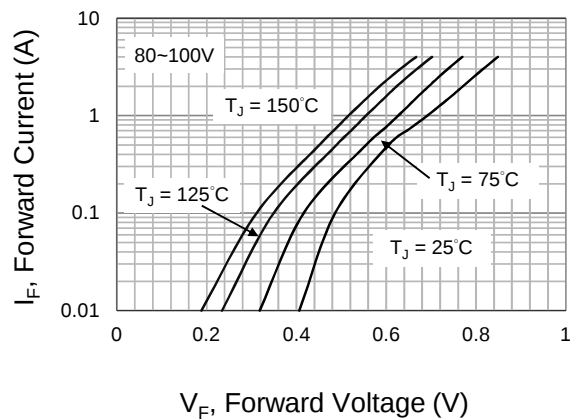


Fig.5 Typical Reverse Characteristics

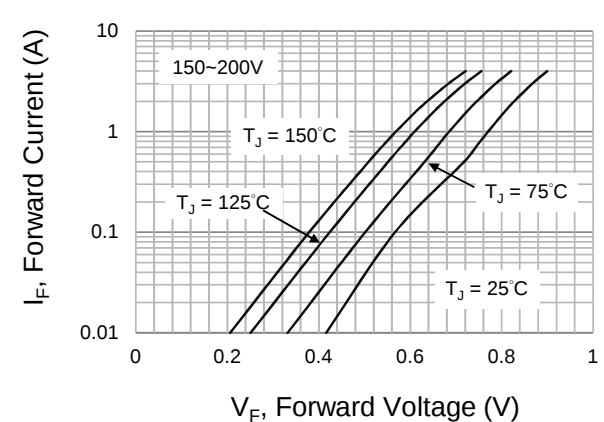


Fig.6 Typical Forward Characteristics

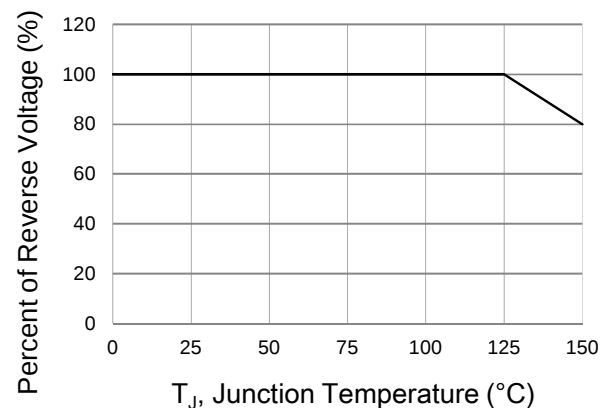


Fig.7 Operating Temperature Derating Curve



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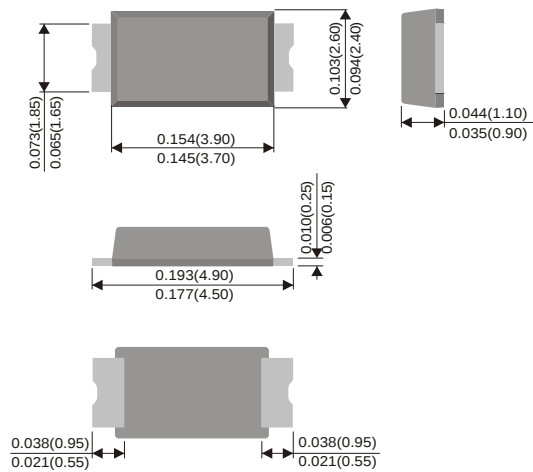
Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
MBR28AFC_R1_00001	SMAF-C	3K pcs / 7" reel	MBR28	Halogen free
MBR29AFC_R1_00001	SMAF-C	3K pcs / 7" reel	MBR29	Halogen free
MBR210AFC_R1_00001	SMAF-C	3K pcs / 7" reel	MBR210	Halogen free
MBR215AFC_R1_00001	SMAF-C	3K pcs / 7" reel	MBR215	Halogen free
MBR220AFC_R1_00001	SMAF-C	3K pcs / 7" reel	MBR220	Halogen free

Packaging Information & Mounting Pad Layout

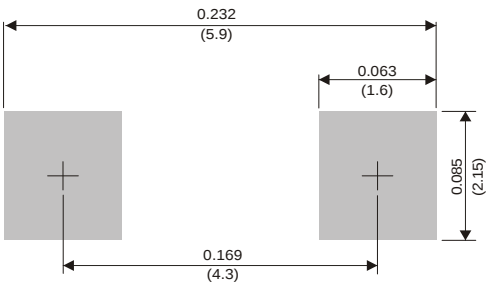
SMAF-C Dimension

Unit: inch(mm)



SMAF-C Pad Layout

Unit: inch(mm)





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