



SB52AFC ~ SB56AFC Series

Surface Mount Schottky Barrier Rectifier

Voltage

20~60 V

Current

5 A

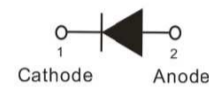
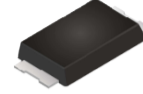
Features

- 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

SMAF-C



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

PARAMETER	SYMBOL	SB52AFC	SB53AFC	SB54AFC	SB56AFC	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	60	V
Maximum RMS Voltage	V _{RMS}	14	21	28	42	V
Maximum DC Blocking Voltage	V _R	20	30	40	60	V
Maximum Average Forward Rectified Current	I _{F(AV)}	5				A
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load	I _{FSM}	100				A
Instantaneous Forward Voltage at 5A	V _F	0.54			0.66	V
Reverse Current ^(Note 3)	T _J = 25 °C	I _R	100			uA
Reverse Current ^(Note 3)	T _J = 100 °C	I _R	30		20	mA
Typical Junction Capacitance Measured at 1 MHz And Applied V _R = 10V	C _J	159			125	pF
Typical Thermal Resistance ^(Note 1)	R _{θJL}	15				°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 a FR4 PCB, single-sided copper, with 100cm² 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



SB52AFC ~ SB56AFC Series

TYPICAL CHARACTERISTIC CURVES

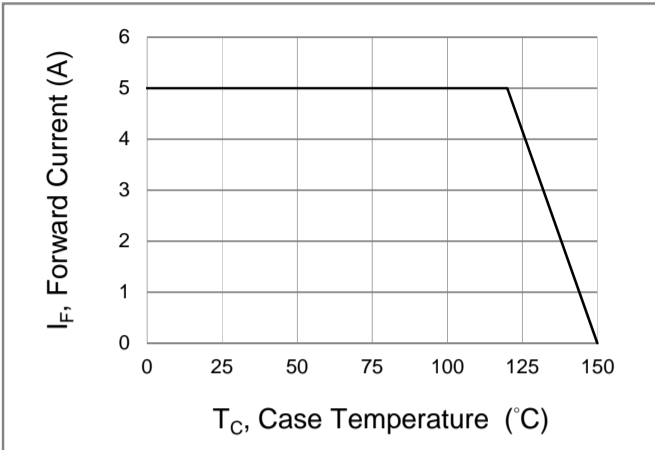


Fig.1 Forward Current Derating Curve

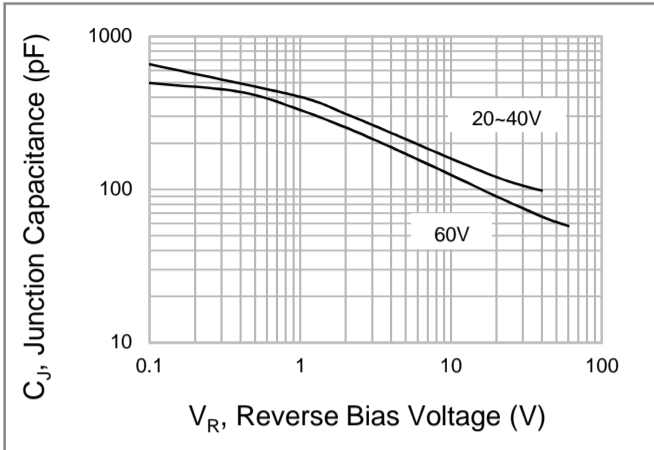


Fig.2 Typical Junction Capacitance

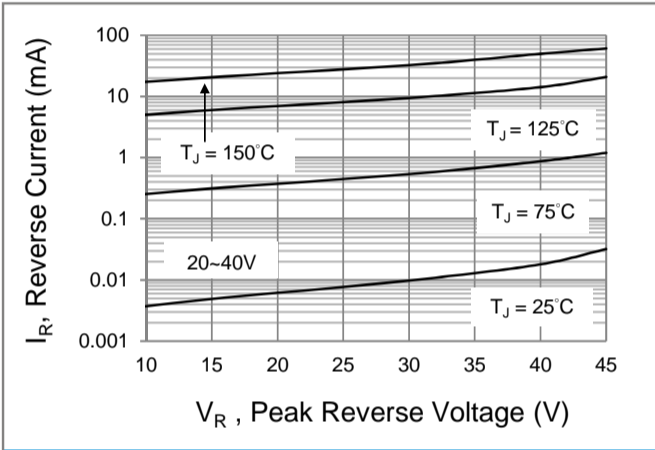


Fig.3 Typical Reverse Characteristics

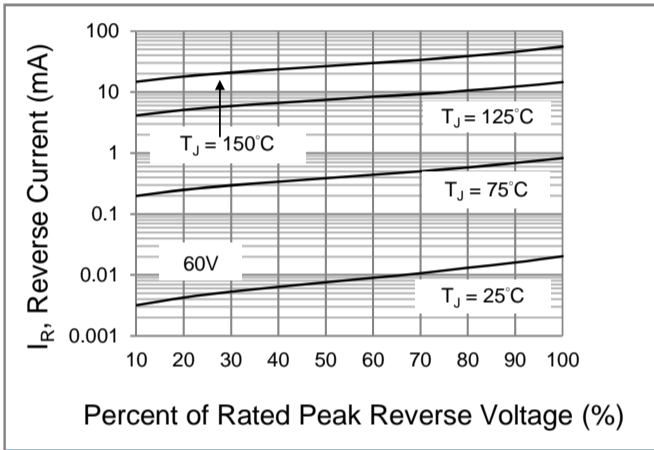


Fig.4 Typical Reverse Characteristics

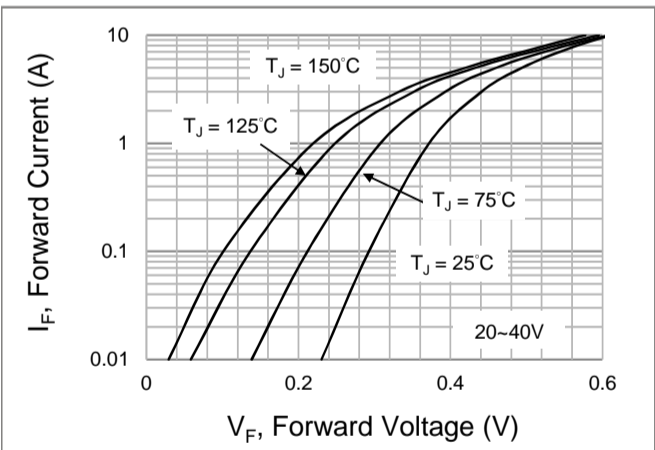


Fig.5 Typical Forward Characteristics

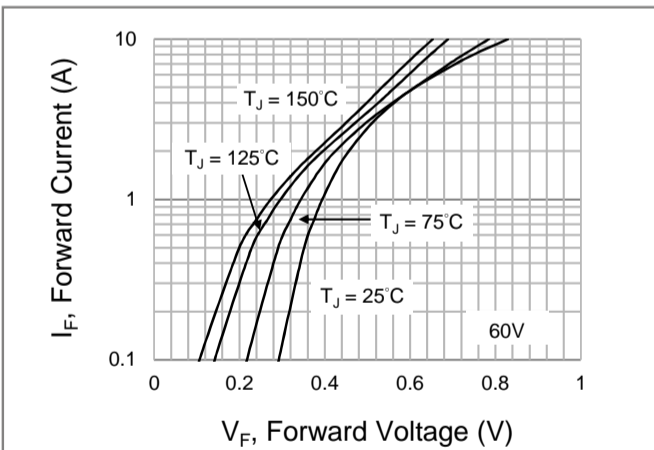


Fig.6 Typical Forward Characteristics

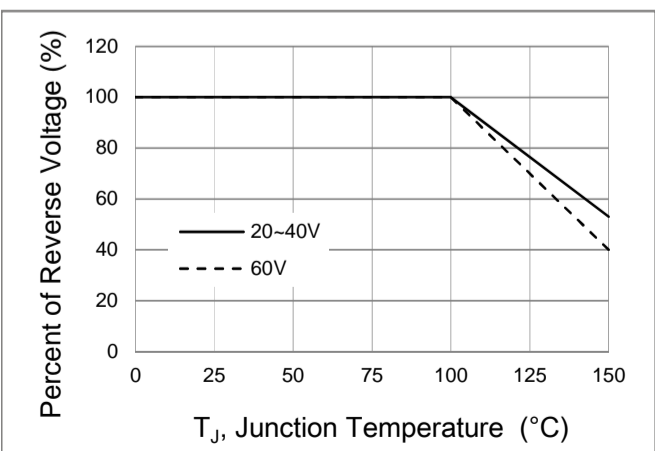


Fig.7 Operating Temperature Derating Curve

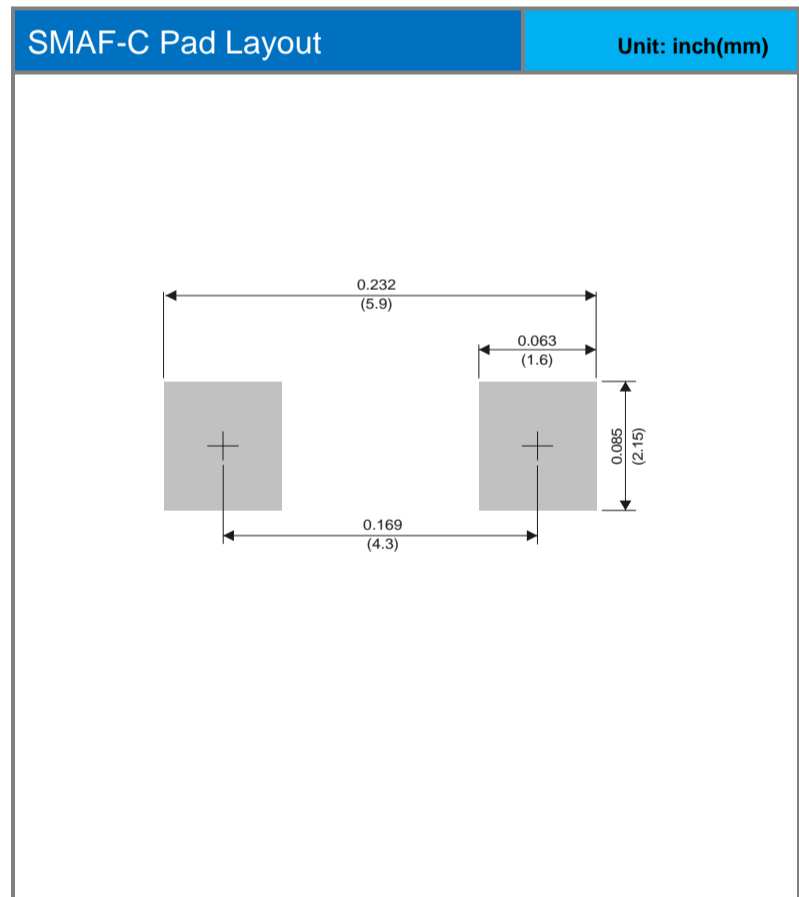
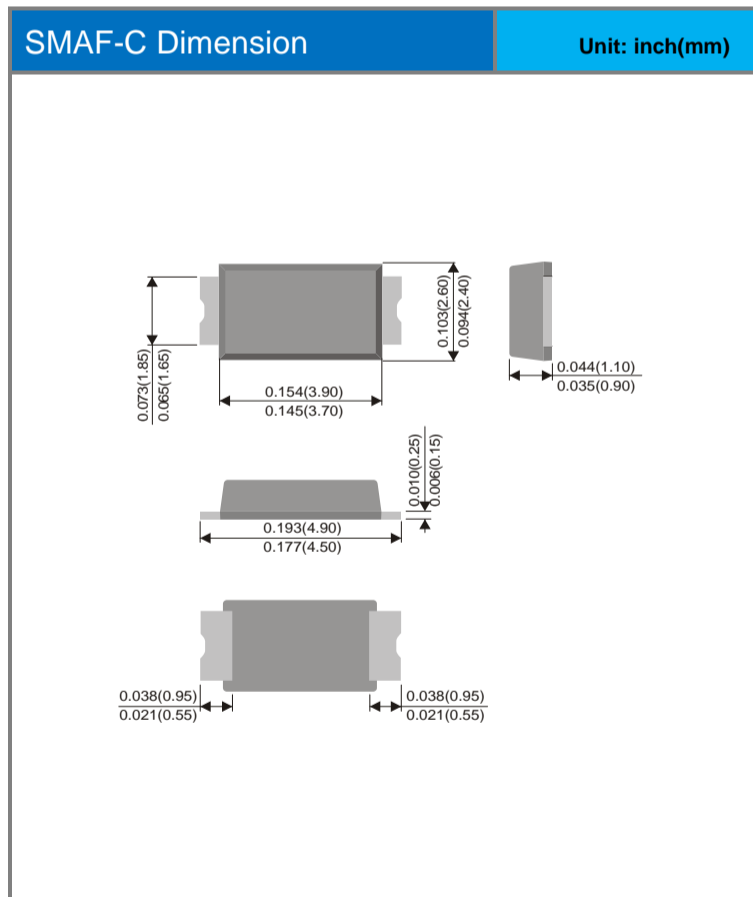


SB52AFC ~ SB56AFC Series

Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
SB52AFC_R1_00001	SMAF-C	3K pcs / 7" reel	SB52	Halogen free
SB53AFC_R1_00001	SMAF-C	3K pcs / 7" reel	SB53	Halogen free
SB54AFC_R1_00001	SMAF-C	3K pcs / 7" reel	SB54	Halogen free
SB56AFC_R1_00001	SMAF-C	3K pcs / 7" reel	SB56	Halogen free

Packaging Information & Mounting Pad Layout





SB52AFC ~ SB56AFC Series

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Panjit:](#)

[SB52AFC_R1_00001](#) [SB53AFC_R1_00001](#) [SB54AFC_R1_00001](#) [SB56AFC_R1_00001](#)