



SB53AFC-AU ~ SB54AFC-AU Series

Surface Mount Schottky Barrier Rectifier

Voltage

30~40 V

Current

5 A

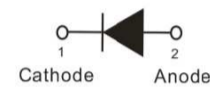
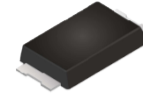
Features

- 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 : 0.0012 ounces, 0.034 grams

SMAF-C



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

PARAMETER	SYMBOL	SB53AFC-AU	SB54AFC-AU	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	30	40	V
Maximum RMS Voltage	V _{RMS}	21	28	V
Maximum DC Blocking Voltage	V _R	30	40	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
Forward Voltage at 5A	V _F	0.54		V
Reverse Current ^(Note 3)	T _J = 25 °C	100		uA
	T _J = 100 °C	30		mA
Typical Junction Capacitance Measured at 1 MHz And Applied V _R = 10V	C _J	159		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



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TYPICAL CHARACTERISTIC CURVES

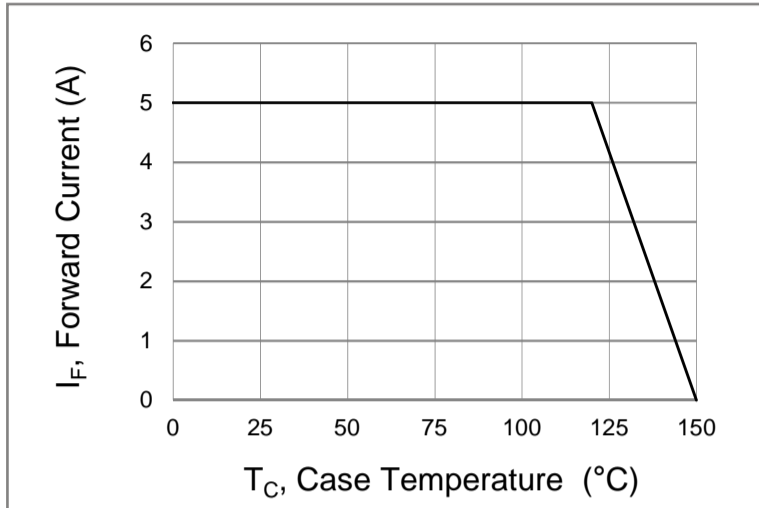


Fig.1 Forward Current Derating Curve

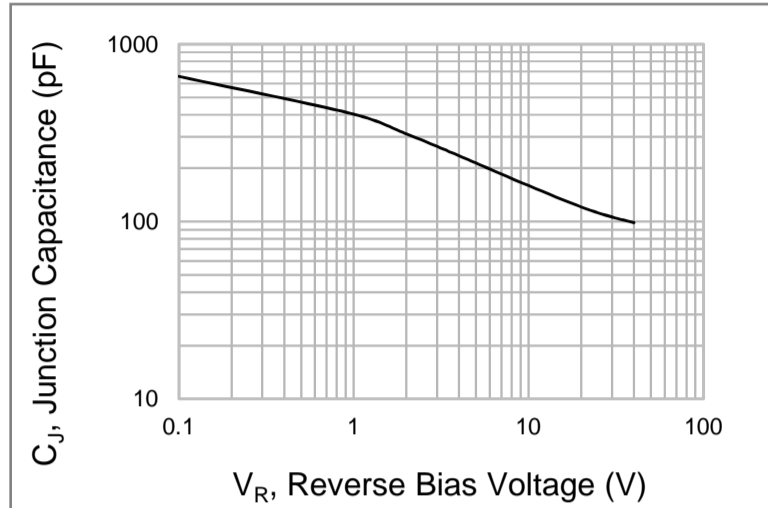


Fig.2 Typical Junction Capacitance

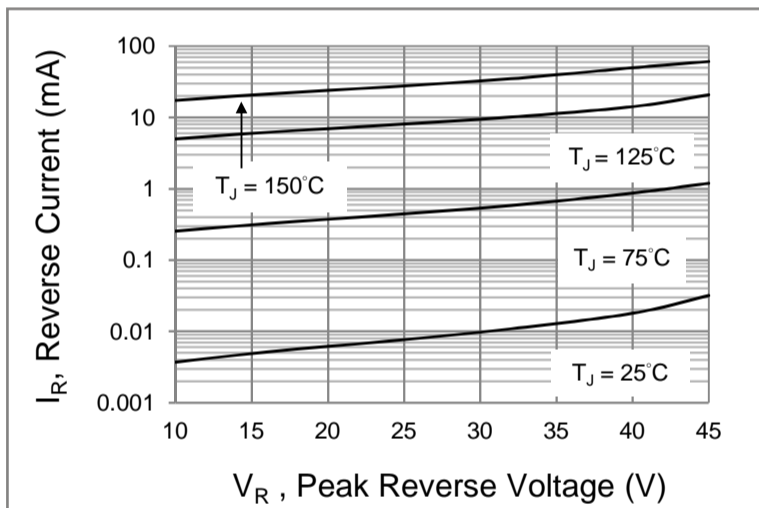


Fig.3 Typical Reverse Characteristics

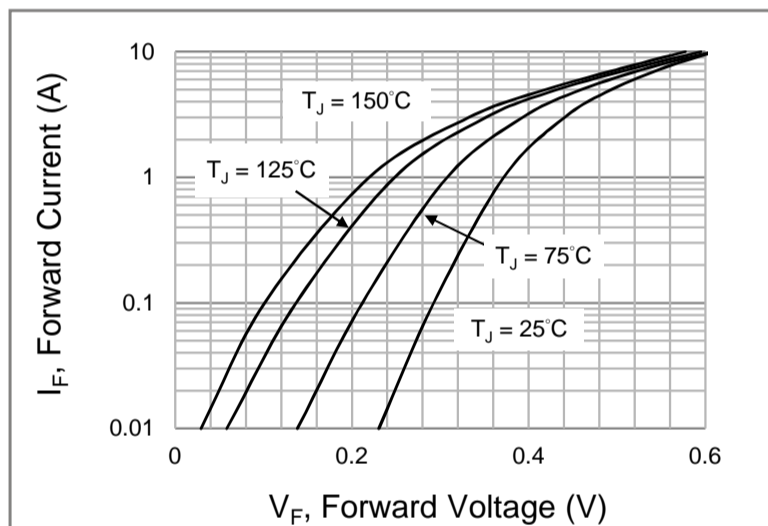


Fig.4 Typical Forward Characteristics

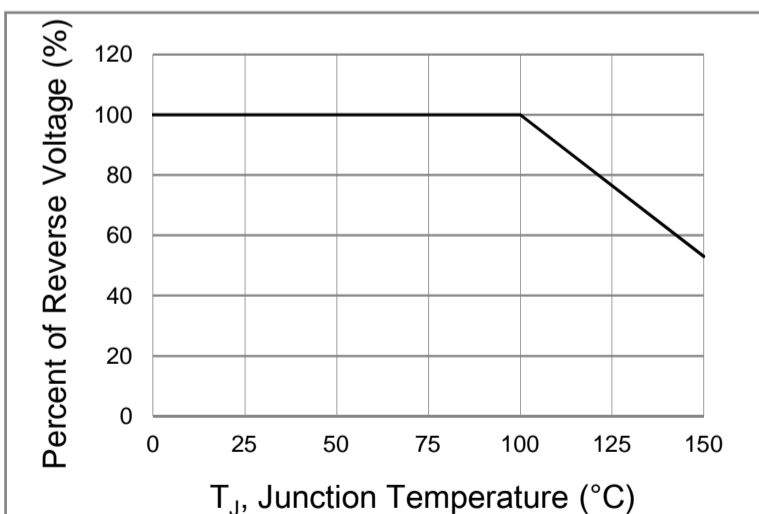


Fig.5 Operating Temperature Derating Curve



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Part No. Packing Code Version

Part No. Packing Code	Package Type	Packing Type	Marking	Version
SB53AFC-AU_R1_000A1	SMAF-C	3K pcs / 7" reel	SB53	Halogen free
SB54AFC-AU_R1_000A1	SMAF-C	3K pcs / 7" reel	SB54	Halogen free

Packaging Information & Mounting Pad Layout

