



# SBA340AL-AU

## Surface Mount Extreme Low $V_F$ Schottky Barrier Rectifier

<b>Voltage</b>	<b>40 V</b>	<b>Current</b>	<b>3 A</b>
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### Features

- Extreme low forward voltage drop
- Low power loss, high efficiency
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### Applications

- Low voltage rectification
- Reverse polarity protection
- Low power consumption applications

### Mechanical Data

- Case : SOD-123FL Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0173 grams

SOD-123FL



1 Cathode 2 Anode

### Maximum Ratings ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	40	V
Maximum RMS voltage	$V_{RMS}$	28	V
Maximum DC blocking voltage	$V_R$	40	V
Maximum average forward rectified current	$I_{F(AV)}$	3	A
Peak forward surge current : 8.3ms single half sine-wave Superimposed on rated load	$I_{FSM}$	50	A
Typical thermal resistance	(Note 2) $R_{\theta JC}$	32	$^\circ\text{C/W}$
	(Note 1) $R_{\theta JA}$	200	
Operating junction temperature range	$T_J$	-55 to +150	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150	$^\circ\text{C}$

### Electrical Characteristics

PARAMETER	SYMBOL	TEST CONDITION	LIMIT		UNIT
			TYP.	MAX.	
Forward voltage	$V_F$	$I_F = 10\text{mA}$	0.21	-	V
		$I_F = 1\text{A}$	0.35	-	
		$I_F = 3\text{A}$	-	0.48	
		$I_F = 10\text{mA}$	0.06	-	V
Reverse current	$I_R$	$V_R = 10\text{V}$	16	-	uA
		$V_R = 20\text{V}$	21	-	
		$V_R = 30\text{V}$	35	-	
		$V_R = 40\text{V}$	-	150	
		$V_R = 20\text{V}$	5.1	-	mA
		$V_R = 30\text{V}$	7.6	-	
$V_R = 40\text{V}$	12	-			

NOTES : 1. Mounted on a FR4 PCB, single-sided copper, standard footprint.

2. Mounted on a FR4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area.



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## TYPICAL CHARACTERISTIC CURVES

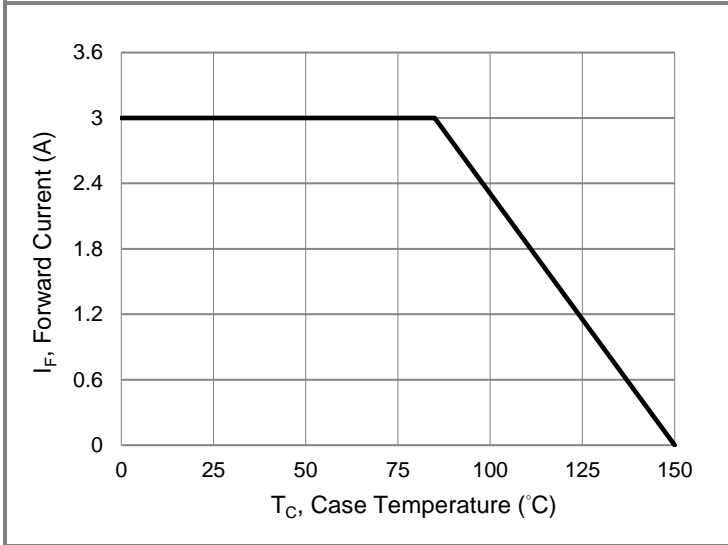


Fig.1 Forward Current Derating Curve

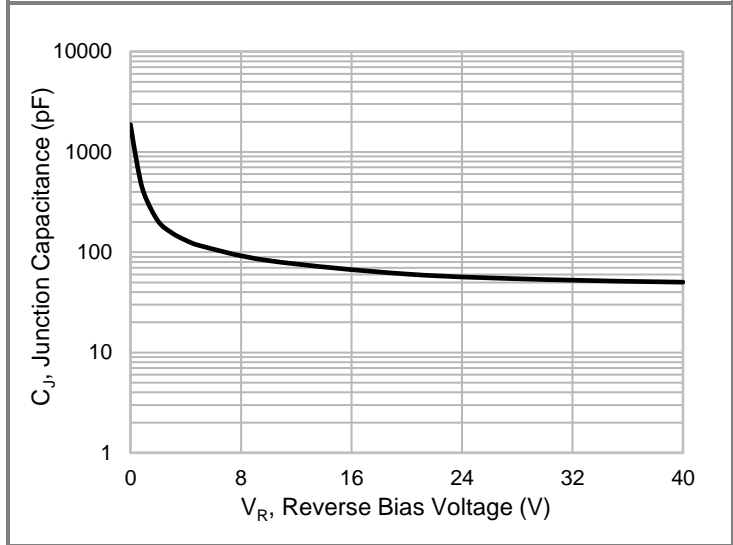


Fig. 2 Typical Junction Capacitance

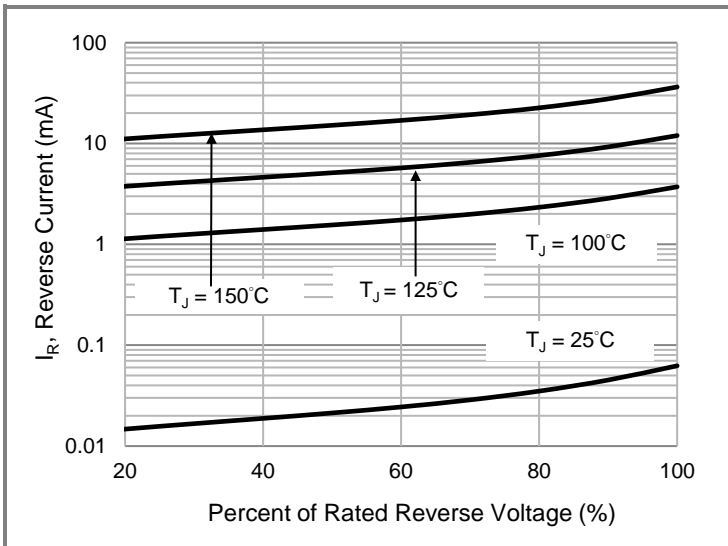


Fig.3 Typical Reverse Characteristics

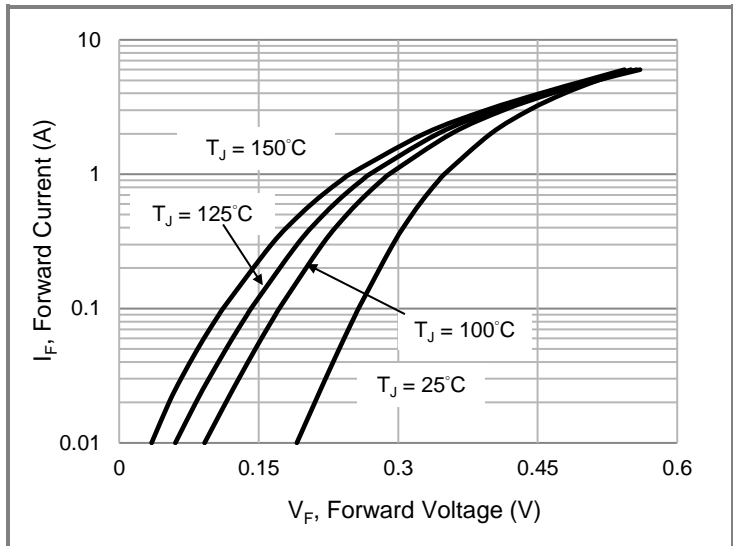


Fig.4 Typical Forward Characteristics

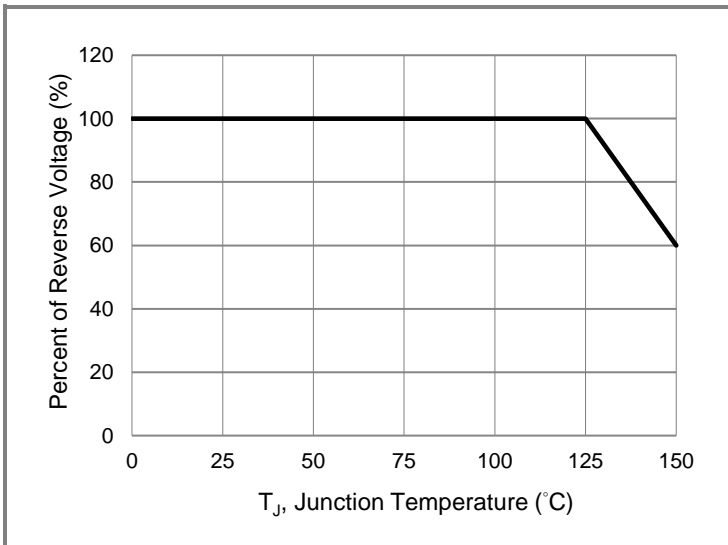


Fig.5 Operating Temperature Derating Curve

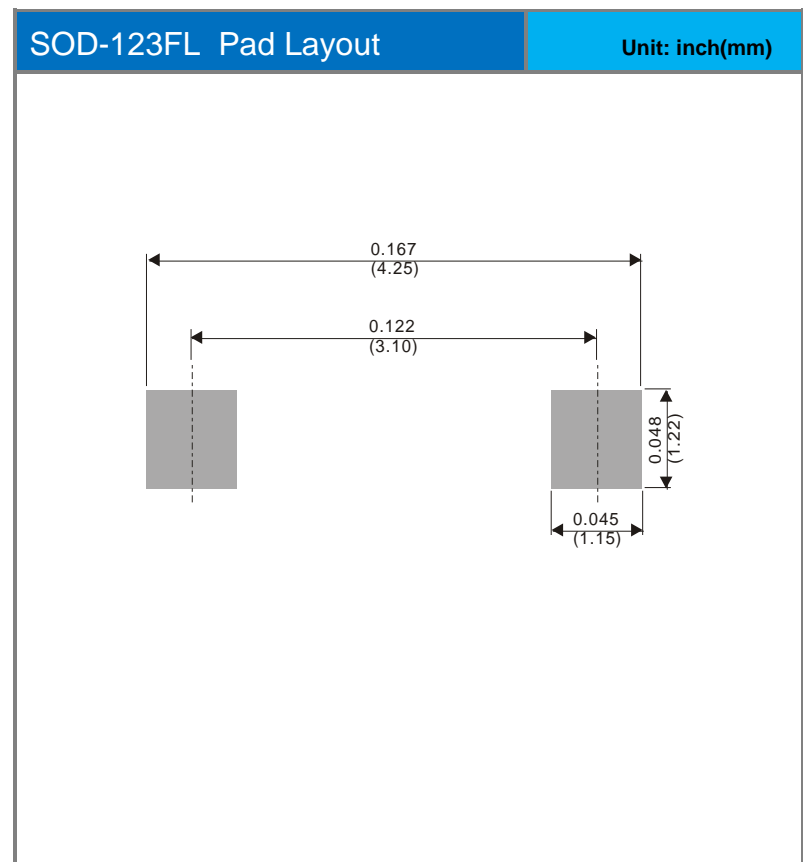
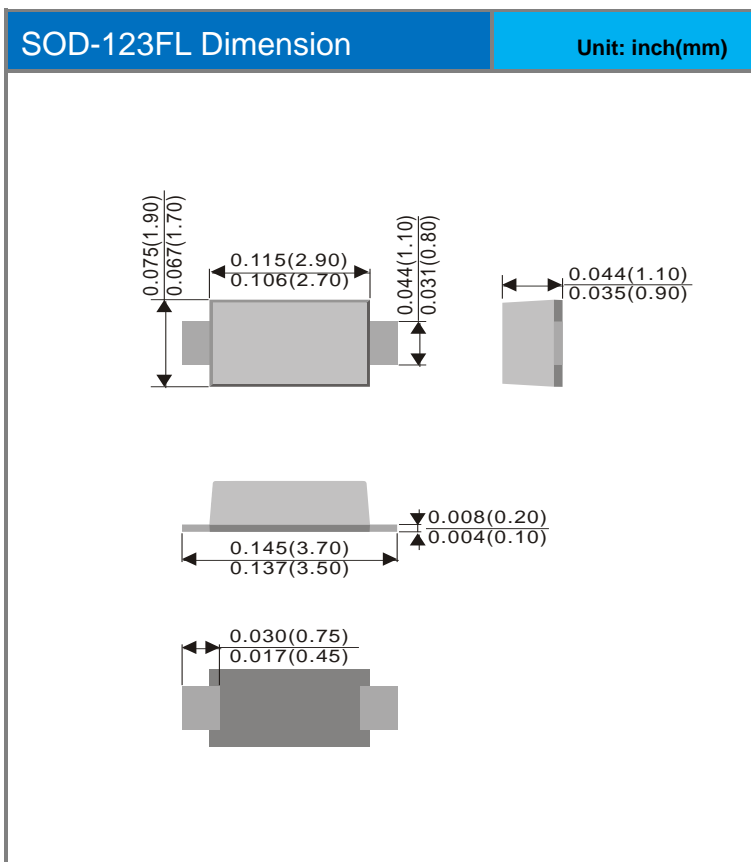


# SBA340AL-AU

## Product and Packing Information

Part No.	Package Type	Packing Type	Marking
SBA340AL-AU	SOD-123FL	3K pcs / 7" reel	G7

## Packaging Information & Mounting Pad Layout





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