

SBA340AL-AU

Surface Mount Extreme Low V_F Schottky Barrier Rectifier

Voltage

40 V

Current

3 A

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	$I_F = 10\text{mA}$	$T_J = 25^\circ\text{C}$	0.21	-	V
		$I_F = 1\text{A}$		0.35	-	
		$I_F = 3\text{A}$		-	0.48	
		$I_F = 10\text{mA}$	$T_J = 125^\circ\text{C}$	0.06	-	V
		$I_F = 1\text{A}$		0.27	-	
Reverse current	I_R	$V_R = 10\text{V}$	$T_J = 25^\circ\text{C}$	16	-	μA
		$V_R = 20\text{V}$		21	-	
		$V_R = 30\text{V}$		35	-	
		$V_R = 40\text{V}$		-	150	
		$V_R = 20\text{V}$	$T_J = 125^\circ\text{C}$	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 100cm² copper pad area.

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TYPICAL CHARACTERISTIC CURVES

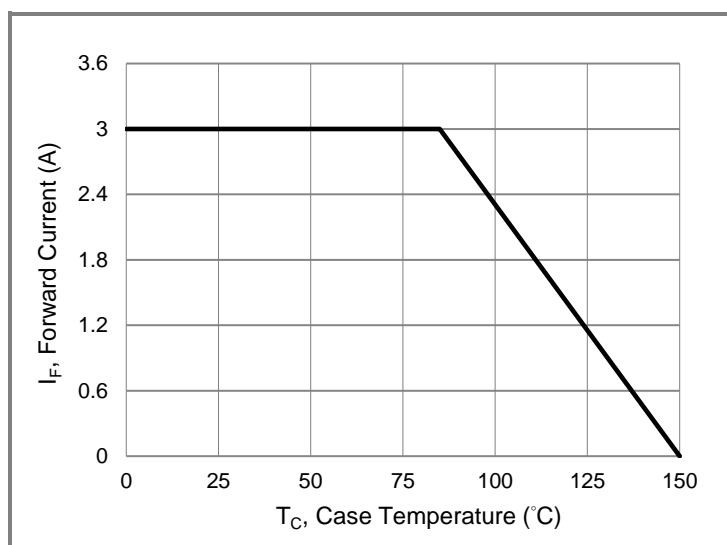


Fig.1 Forward Current Derating Curve

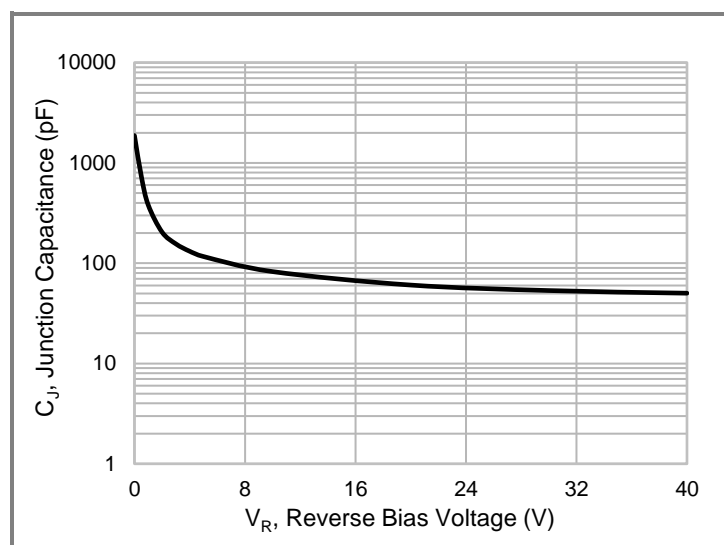


Fig. 2 Typical Junction Capacitance

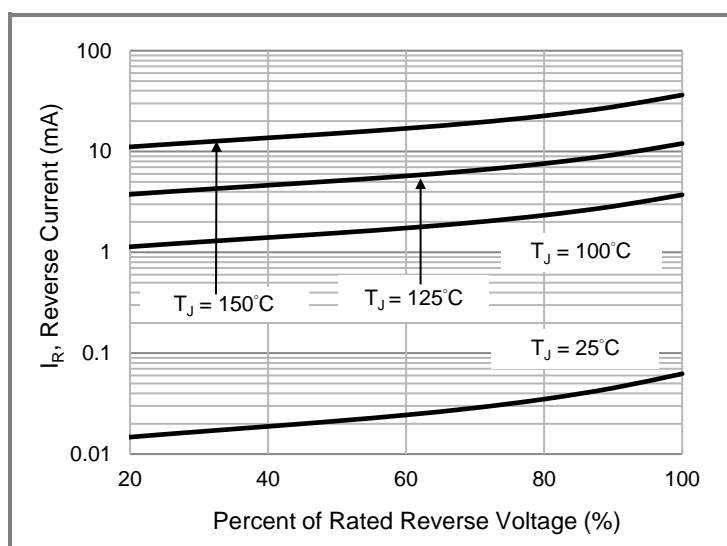


Fig.3 Typical Reverse Characteristics

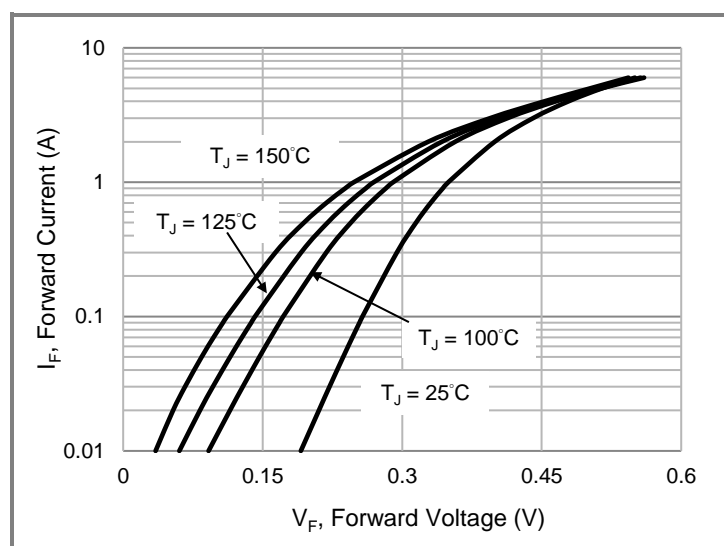


Fig.4 Typical Forward Characteristics

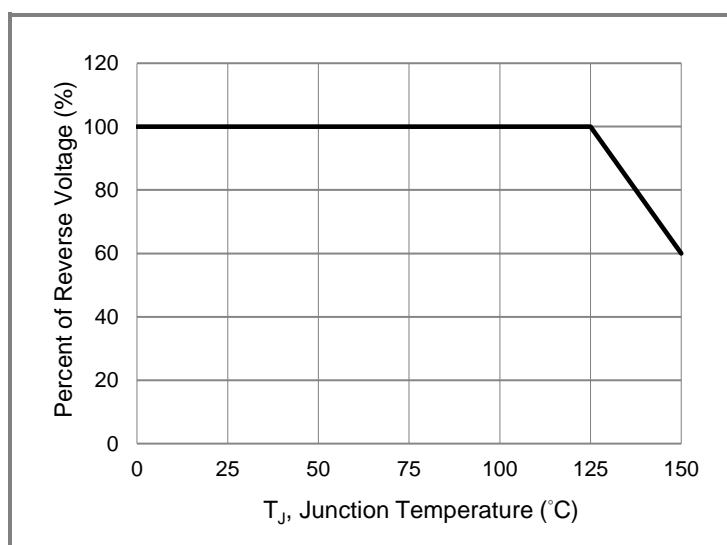


Fig.5 Operating Temperature Derating Curve

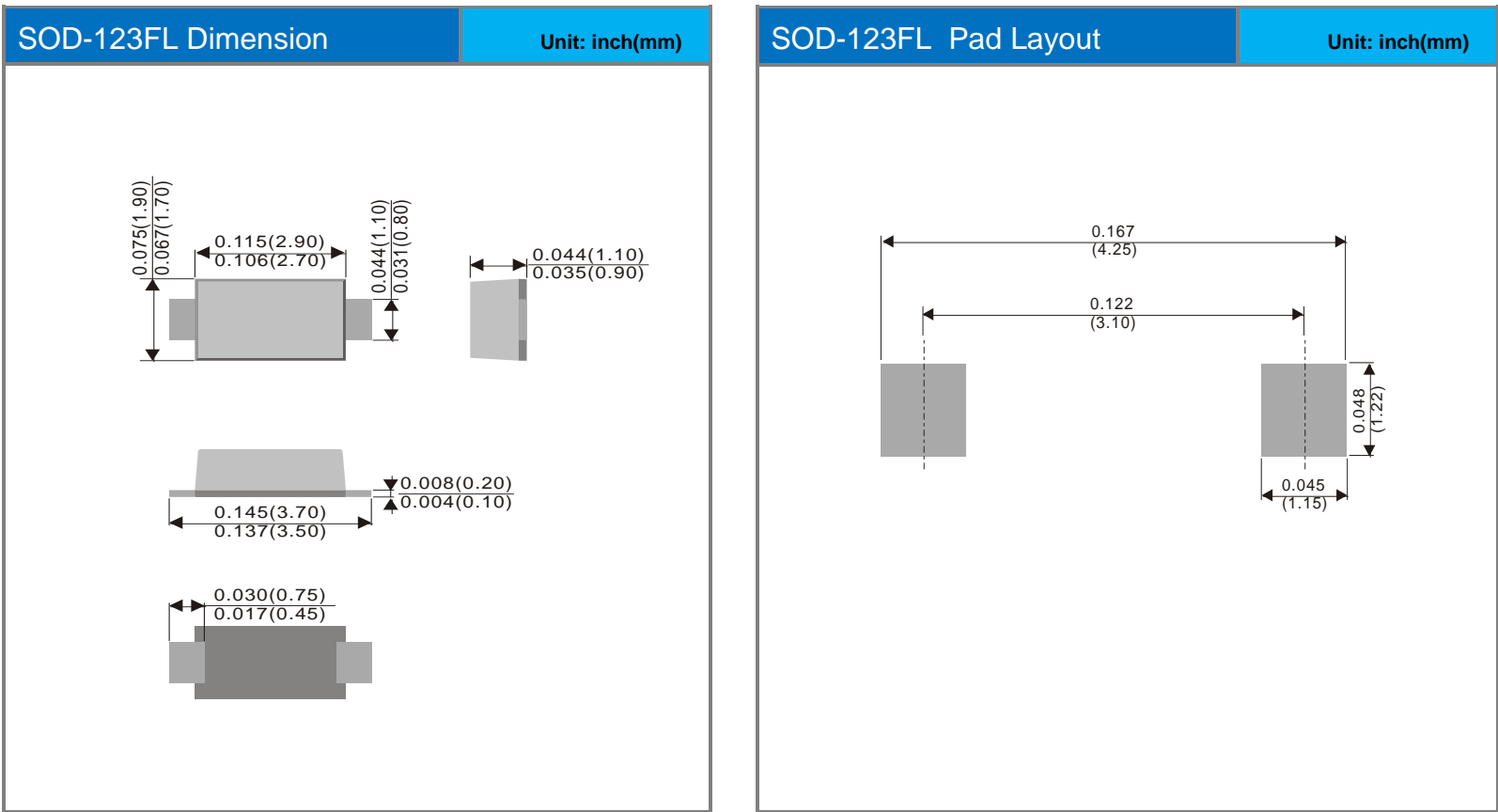


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Product and Packing Information

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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