

SB140CS-AU

Very Low V_F Schottky Rectifier

Voltage

40 V

Current

1 A

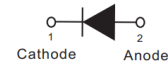
Features

- Very low forward voltage drop
- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case : SOD-323 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0041 grams

SOD-323



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

PARAMETER		SYMBOL	LIMIT	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	40	V
Maximum RMS Voltage		V_{RMS}	28	V
Maximum DC Blocking Voltage		V_{DC}	40	V
Maximum Average Forward Rectified Current		$I_{F(AV)}$	1	A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	8	A
Typical Thermal Resistance	(Note 1)	$R_{\theta JL}$	280	$^{\circ}\text{C/W}$
	(Note 1)	$R_{\theta JC}$	230	
	(Note 2)	$R_{\theta JA}$	650	
Operating Junction Temperature Range		T_J	-55~150	$^{\circ}\text{C}$
Storage Temperature Range		T_{STG}	-55~150	$^{\circ}\text{C}$

SB140CS-AU

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNITS
Forward Voltage	V_F	$I_F = 10\text{ mA}$	$T_J = 25^\circ\text{C}$	-	0.29	-	V
		$I_F = 0.5\text{ A}$		-	0.45	-	
		$I_F = 1\text{ A}$		-	0.53	0.54	
		$I_F = 10\text{ mA}$	$T_J = 125^\circ\text{C}$	-	0.14	-	V
		$I_F = 0.5\text{ A}$		-	0.37	-	
Reverse Current ^(Note 3)	I_R	$V_R = 20\text{ V}$	$T_J = 25^\circ\text{C}$	-	0.8	-	μA
		$V_R = 40\text{ V}$		-	2.7	50	
		$V_R = 20\text{ V}$	$T_J = 125^\circ\text{C}$	-	1.0	-	mA
		$V_R = 40\text{ V}$		-	2.1	-	

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.

SB140CS-AU

TYPICAL CHARACTERISTIC CURVES

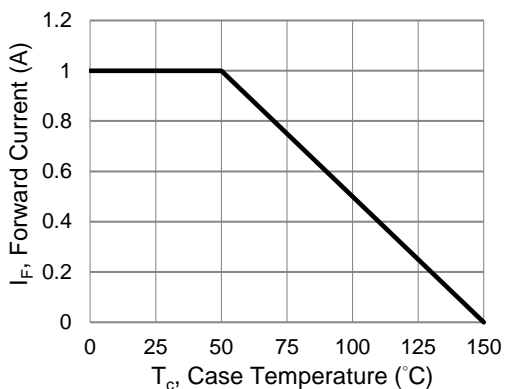


Fig.1 Forward Current Derating Curve

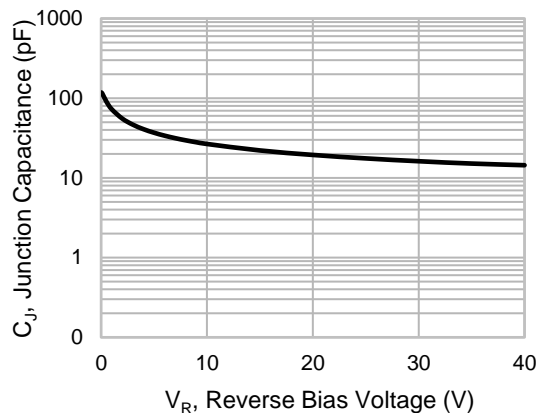


Fig.2 Typical Junction Capacitance

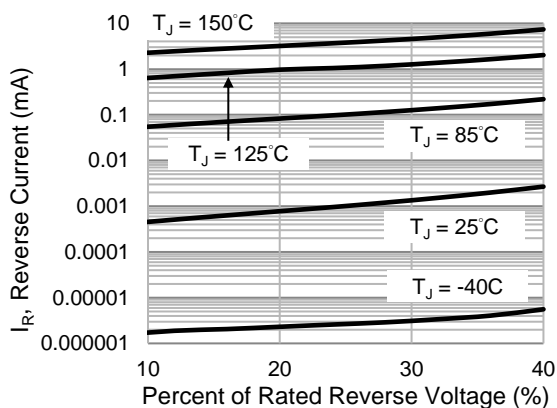


Fig.3 Typical Reverse Characteristics

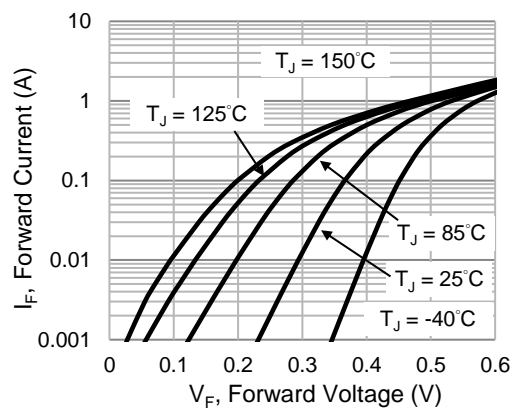


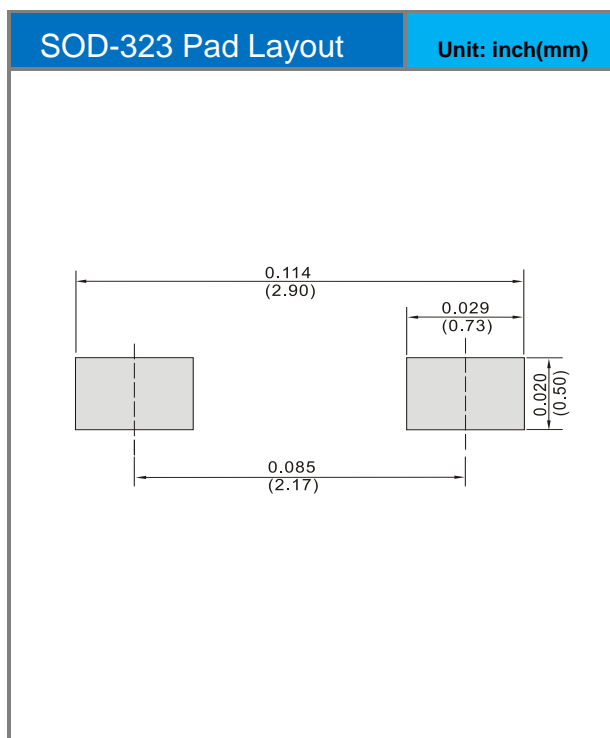
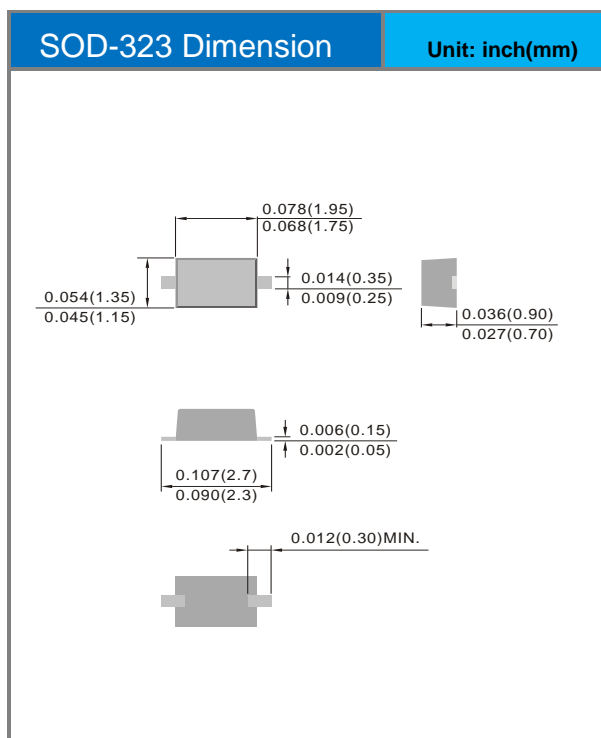
Fig.4 Typical Forward Characteristics

SB140CS-AU

Product and Packing Information

Part No.	Package Type	Packing Type	Marking
SB140CS-AU	SOD-323	5K pcs / 7" reel	AAG

Packaging Information & Mounting Pad Layout



SB140CS-AU

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 follow PCN procedure. 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 relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, 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.