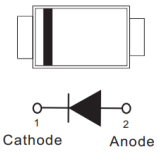
SB140CS

Very Low V_F Schottky Rectifier

Voltage	40 V	Current	1 A

SOD-323



Features

- Very low forward voltage drop
- Fast switching speed
- Surface mount package ideally suited for autmatic insertion
- 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

Maximum Ratings and Thermal Characteristics (T_A = 25°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) (Note 1) (Note 2)	$R_{\theta JL}$ $R_{\theta JC}$ $R_{\theta JA}$	280 230 650	°C/W
Operating Junction Temperature Range		T_J	-55~150	°C
Storage Temperature Range		T_{STG}	-55~150	°C

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Electrical Characteristics (T_A = 25°C unless otherwise noted)

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

NOTES :

1. Mounted on a FR4 PCB, single-sided copper, with 100cm^2 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

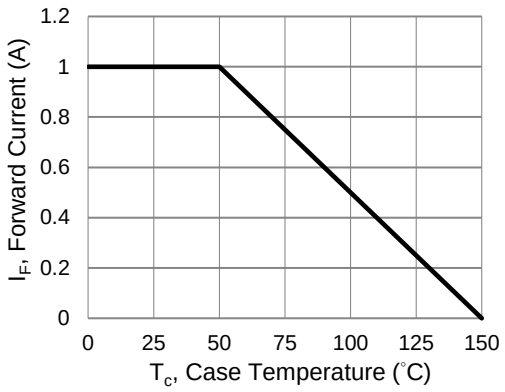

Fig.1 Forward Current Derating Curve

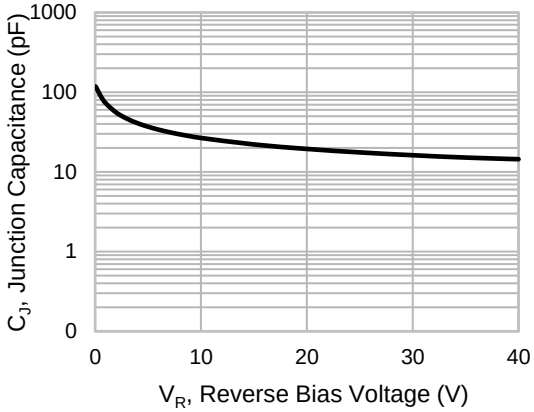

Fig.2 Typical Junction Capacitance

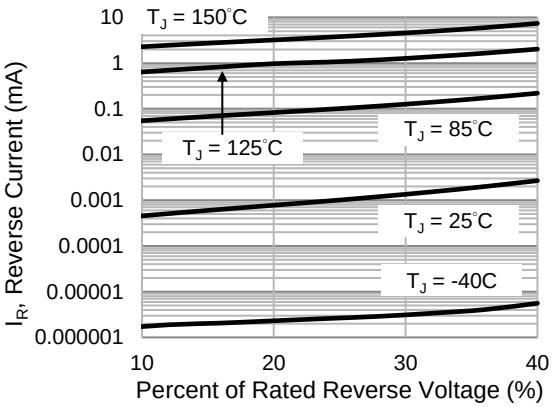

Fig.3 Typical Reverse Characteristics

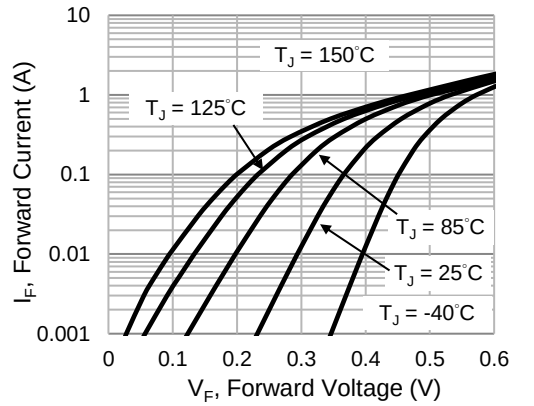

Fig.4 Typical Forward Characteristics

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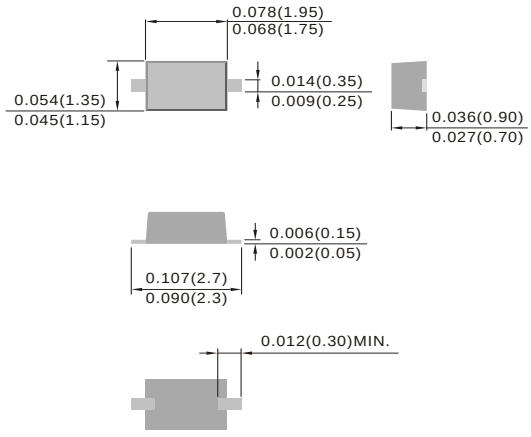
Product and Packing Information

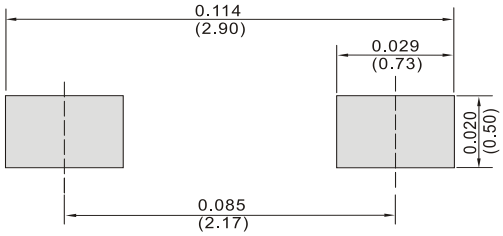
Part No.	Package Type	Packing Type	Marking
SB140CS	SOD-323	5K pcs / 7" reel	AAG

Packaging Information & Mounting Pad Layout

SOD-323 Dimension — Unit: inch(mm)



SOD-323 Pad Layout — Unit: inch(mm)



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