

## SB1100 SCHOTTKY RECTIFIER

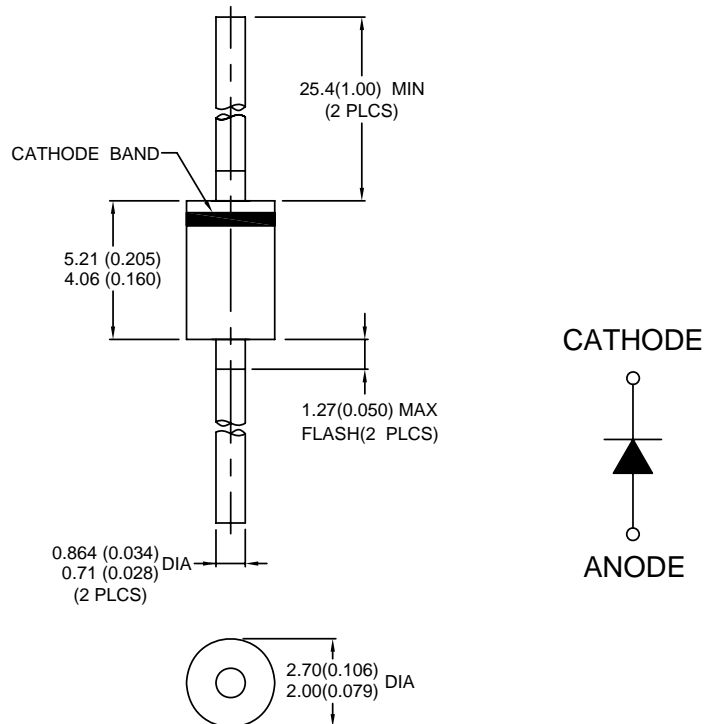
### Applications:

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection
- Disk drives
- Battery charging

### Features:

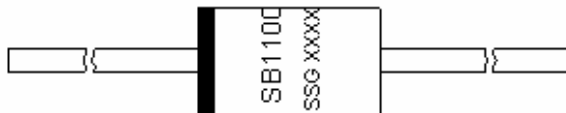
- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 50A Peak
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability
- Classification Rating 94V-0
- Green Products in Compliance with the RoHS Directive
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Mechanical Dimensions: In mm



**DO-41**

**Marking Diagram:**



Where XXXXX is YYWWL

SB = Device Type  
1 = Forward Current (1A)  
100 = Reverse Voltage (100V)  
SSG = SSG  
YY = Year  
WW = Week  
L = Lot Number

**Cautions :** Molding resin  
Epoxy resin UL:94V-0

**Ordering Information:**

Device	Package	Shipping
SB1100	DO-41 (Pb-Free)	5000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

**Maximum Ratings:**

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	$V_{RWM}$	-	100	V
Max. Average Forward	$I_{F(AV)}$	50% duty cycle @TC =105°C rectangular wave form(L=0.375")	1.0	A
Max. Peak One Cycle Non-Repetitive Surge Current	$I_{FSM}$	8.3 ms, half Sine pulse	26	A



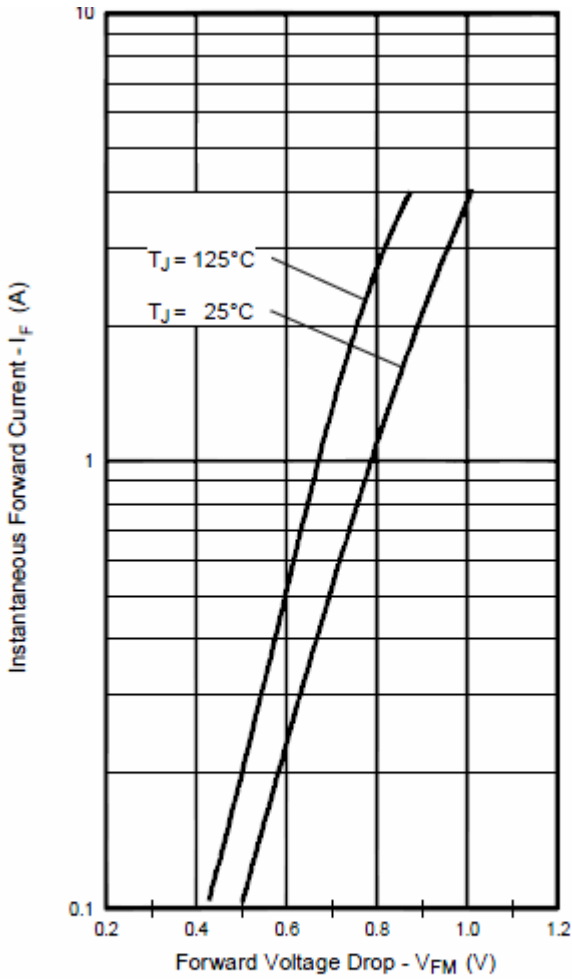
**Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	$V_{F1}$	@ 1.0A, Pulse, $T_J = 25^\circ\text{C}$	0.85	V
	$V_{F2}$	@ 1.0A, Pulse, $T_J = 125^\circ\text{C}$	0.75	
Max. Reverse Current	$I_{R1}$	@ $V_R = \text{rated VR}$ $T_J = 25^\circ\text{C}$	1.0	mA
Typical Junction Capacitance	$C_j$	@ $V_R = 5.0\text{ V}$ , $T_c = 25^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$	80	pF

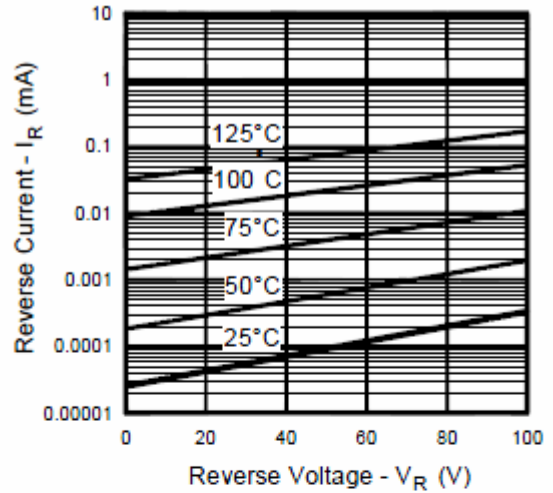
\* Pulse Width < 300 $\mu\text{s}$ , Duty Cycle < 2%

**Thermal-Mechanical Specifications:**

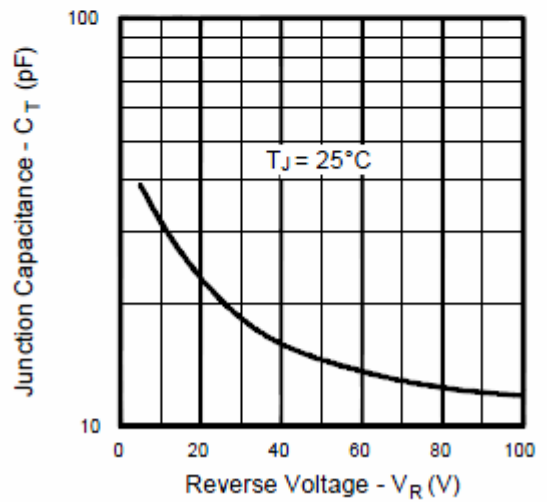
Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	$T_J$	-	-55 to +150	$^\circ\text{C}$
Max. Storage Temperature	$T_{stg}$	-	-55 to +150	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	15	$^\circ\text{C/W}$
Maximum Thermal Resistance, Case to Heat Sink	$R_{\theta JA}$	DC operation	65	$^\circ\text{C/W}$
Approximate Weight	wt	-	0.35	g
Case Style	DO-41			



**Fig. 1** Max. Forward Voltage Drop Characteristics (Per Leg)



**Fig. 2** Typical Values of Reverse Current Vs. Reverse Voltage (Per Leg)



**Fig. 3** Typical Junction Capacitance Vs. Reverse Voltage (Per Leg)



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