

## SB3100 SCHOTTKY RECTIFIER

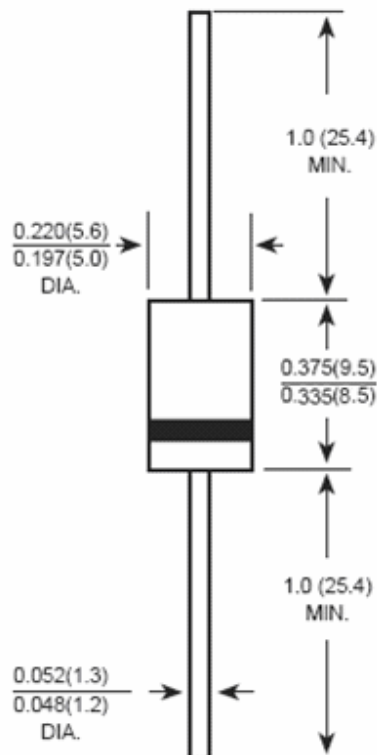
### Applications:

- Disk Drives
- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection
- Battery Charging

### Features:

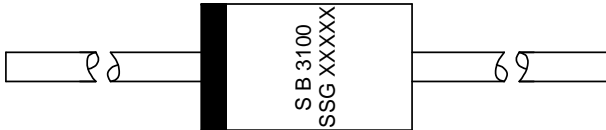
- Small foot print, surface moutable
- Low forward voltage drop
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Mechanical Dimensions: In Inches / mm



### DO-201AD

**Marking Diagram:**



Where XXXXX is YYWWL

- SB = Device Type
- 3 = Forward Current (3A)
- 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
SB3100	DO-201AD (Pb-Free)	1250pcs / tape

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")	3.0	A
Max. Peak One Cycle Non-Repetitive Surge Current	$I_{FSM}$	8.3 ms, half Sine pulse	110	A



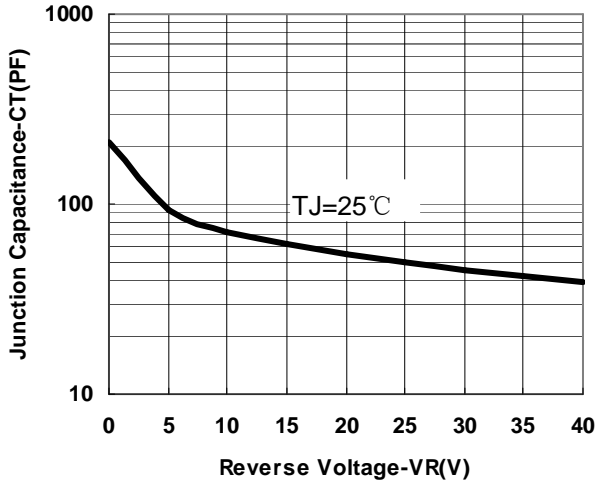
**Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	$V_{F1}$	@ 3A, Pulse, $T_J = 25^\circ\text{C}$	0.79	V
Max. Reverse Current	$I_{R1}$	@ $V_R = \text{rated VR}$ $T_J = 25^\circ\text{C}$	1.0	mA
	$I_{R2}$	@ $V_R = \text{rated VR}$ $T_J = 100^\circ\text{C}$	10	mA
Typical Junction Capacitance	$C_j$	@ $V_R = 5.0\text{ V}$ , $T_c = 25^\circ\text{C}$ $f_{\text{SIG}} = 1\text{MHz}$	250	pF

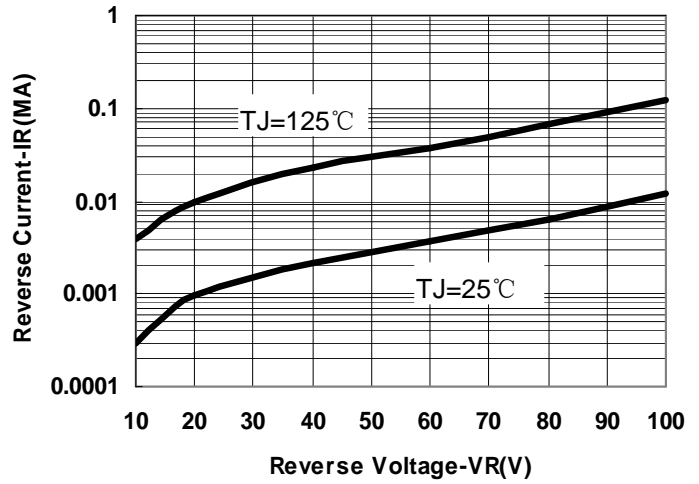
\* Pulse Width < 300 $\mu\text{s}$ , Duty Cycle < 2%

**Thermal-Mechanical Specifications:**

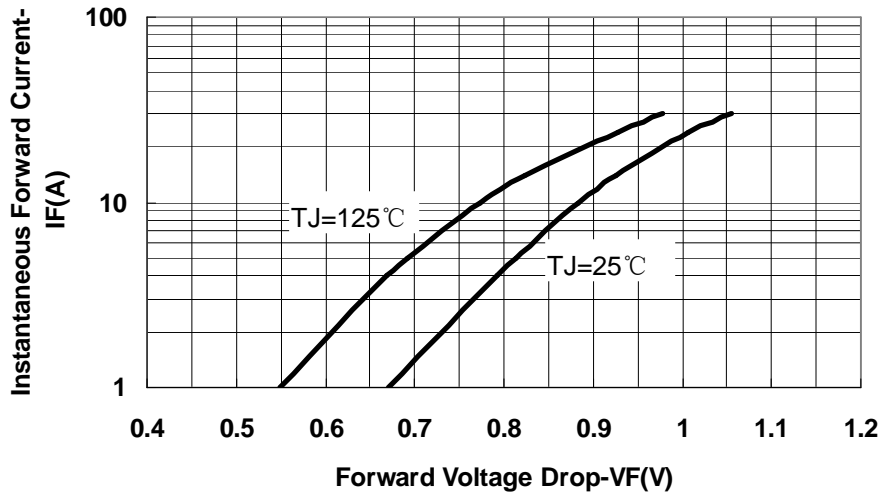
Characteristics	Symbol	Condition	Specification	Units
Junction Temperature Range	$T_J$	-	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	$T_{\text{stg}}$	-	-55 to +150	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case	$R_{\theta\text{JC}}$	DC operation	8	$^\circ\text{C/W}$
Approximate Weight	wt	-	1.02	g
Case Style	DO-201AD			



**Fig.1-Typical Junction Capacitance Vs.Reverse Voltage**



**Fig.2-Typical Values Of Reverse Current Vs.Reverse Voltage**



**Fig.3-Typical Forward Voltage Drop Characteristics**



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