

## SB3100 SCHOTTKY RECTIFIER

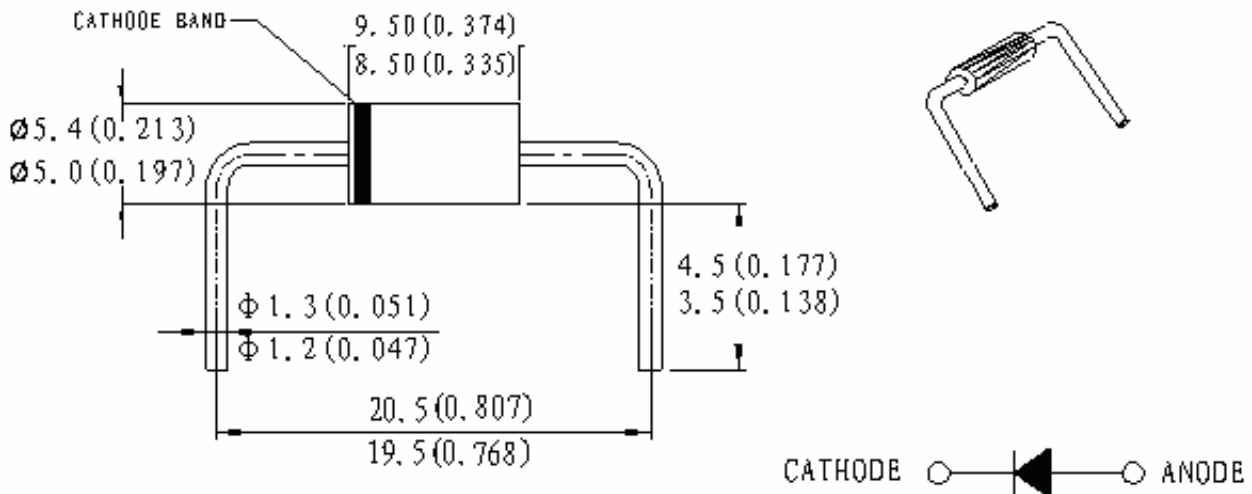
### Applications:

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

### Features:

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

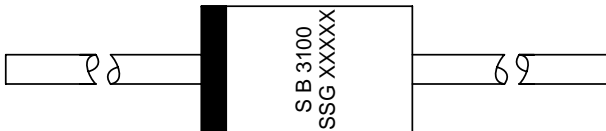
### Mechanical Dimensions: In Inches / mm



**DO-201AD(C-02)**

**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(C-02) (Pb-Free)	200 pcs / bag

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



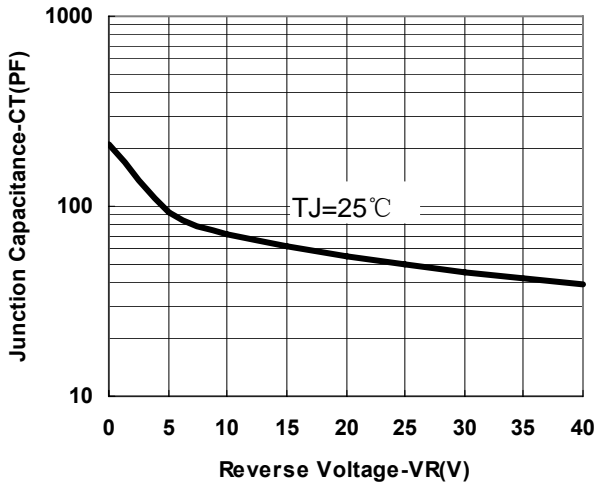
**Electrical Characteristics:**

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

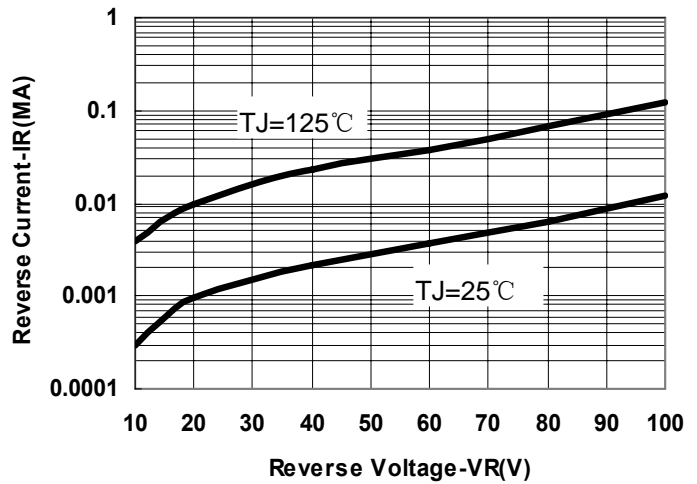
\* Pulse Width < 300 $\mu\text{s}$ , Duty Cycle <2%

**Thermal-Mechanical Specifications:**

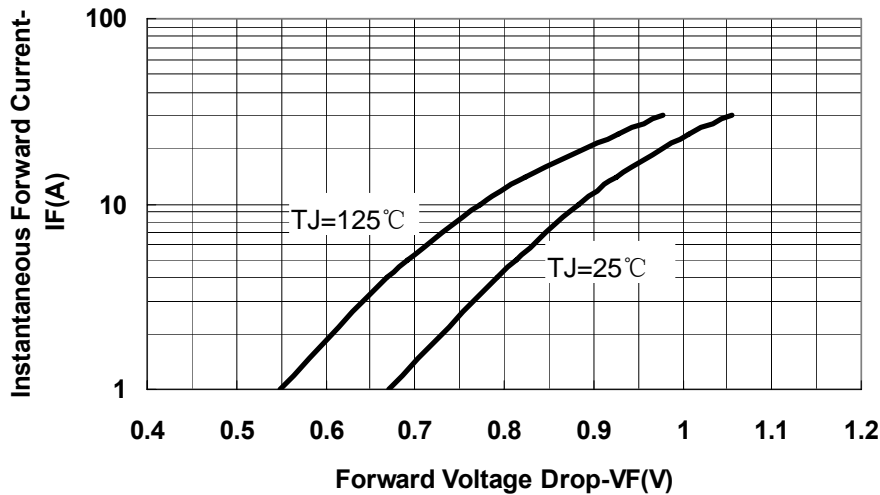
Characteristics	Symbol	Condition	Specification	Units
Junction Temperature Range	$T_J$	-	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	$T_{\text{stg}}$	-	-55 to +150	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case	$R_{\theta\text{JC}}$	DC operation	8	$^\circ\text{C/W}$
Approximate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