

## SB360 SCHOTTKY RECTIFIER

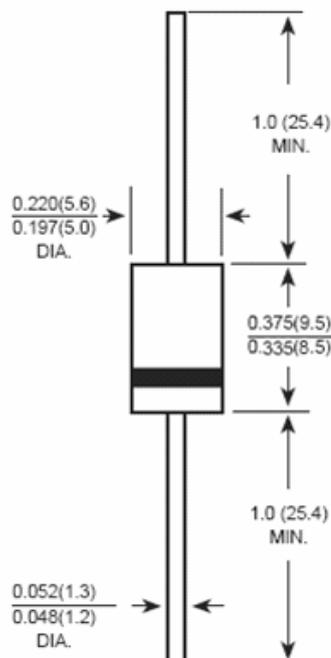
### Applications:

- 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**

**Marking Diagram:**



Where XXXXX is YYWWL

SB = Device Type  
3 = Forward Current (3A)  
60 = Reverse Voltage (60V)  
SSG = SSG  
YY = Year  
WW = Week  
L = Lot Number

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

**Ordering Information:**

| Device | Package               | Shipping        |
|--------|-----------------------|-----------------|
| SB360  | DO-201AD<br>(Pb-Free) | 1250 pcs / 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                                | $V_{RWM}$   | -                                                             | 60   | V     |
| Max. Average Forward                                | $I_{F(AV)}$ | 50% duty cycle @TC = 80 °C<br>rectangular wave form(L=0.375") | 3.0  | A     |
| Max. Peak One Cycle<br>Non-Repetitive Surge Current | $I_{FSM}$   | 8.3 ms, half Sine pulse                                       | 80   | A     |



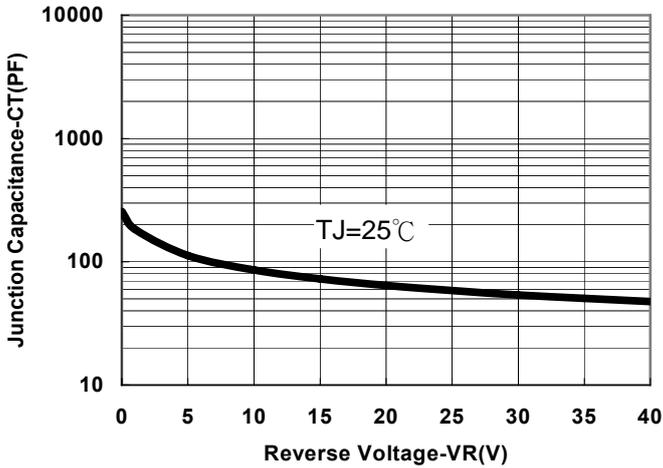
**Electrical Characteristics:**

| Characteristics              | Symbol   | Condition                                                                         | Max. | Units |
|------------------------------|----------|-----------------------------------------------------------------------------------|------|-------|
| Max. Forward Voltage Drop    | $V_{F1}$ | @ 3A, Pulse, $T_J = 25^\circ\text{C}$                                             | 0.74 | V     |
| Max. Reverse Current         | $I_{R1}$ | @ $V_R = \text{rated VR}$<br>$T_J = 25^\circ\text{C}$                             | 0.5  | mA    |
|                              | $I_{R2}$ | @ $V_R = \text{rated VR}$<br>$T_J = 100^\circ\text{C}$                            | 20   | mA    |
| Typical Junction Capacitance | $C_j$    | @ $V_R = 4.0\text{ V}$ , $T_c=25^\circ\text{C}$<br>$f_{\text{SIG}} = 1\text{MHz}$ | 250  | pF    |

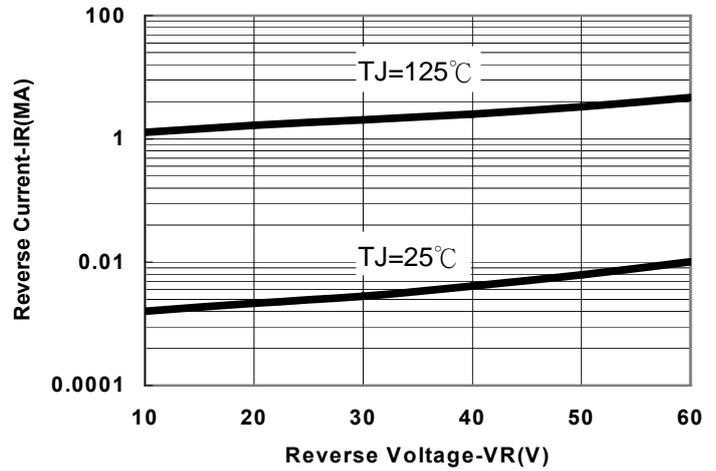
\* Pulse Width < 300 $\mu\text{s}$ , Duty Cycle <2%

**Thermal-Mechanical Specifications:**

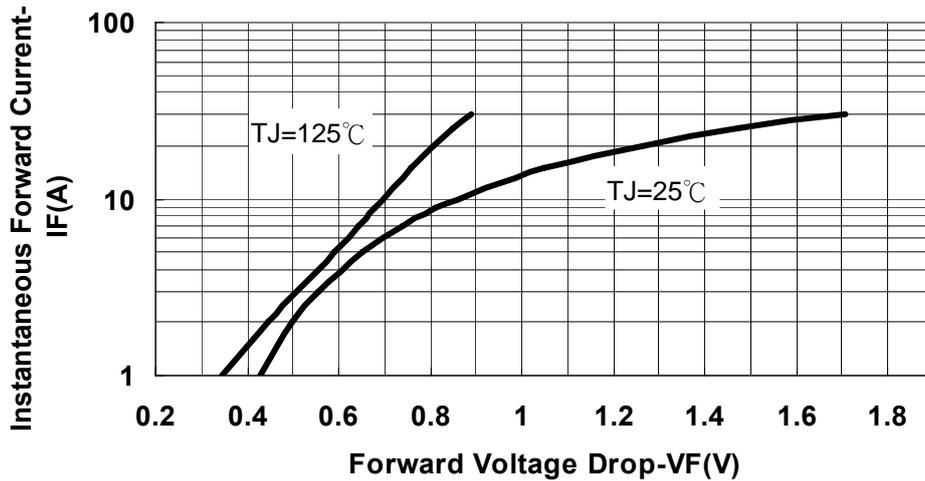
| Characteristics                             | Symbol                | Condition    | Specification | Units              |
|---------------------------------------------|-----------------------|--------------|---------------|--------------------|
| Max. Junction Temperature                   | $T_J$                 | -            | -55 to +150   | $^\circ\text{C}$   |
| Max. Storage Temperature                    | $T_{\text{stg}}$      | -            | -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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