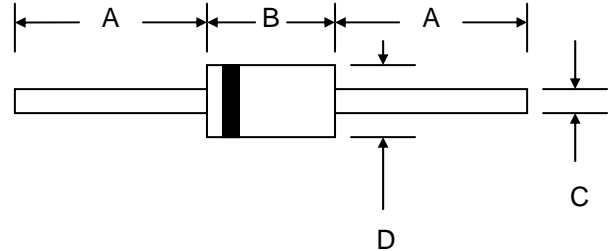


### Features

- Schottky Barrier Chip
- Guard Ring for Transient and ESD Protection
- Surge Overload Rating to 80A Peak
- Low Power Loss, High Efficiency
- Ideally Suited for Use in High Frequency SMPS, Inverters and As Free Wheeling Diodes



### Mechanical Data

- Case: DO-201AD, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.2 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**

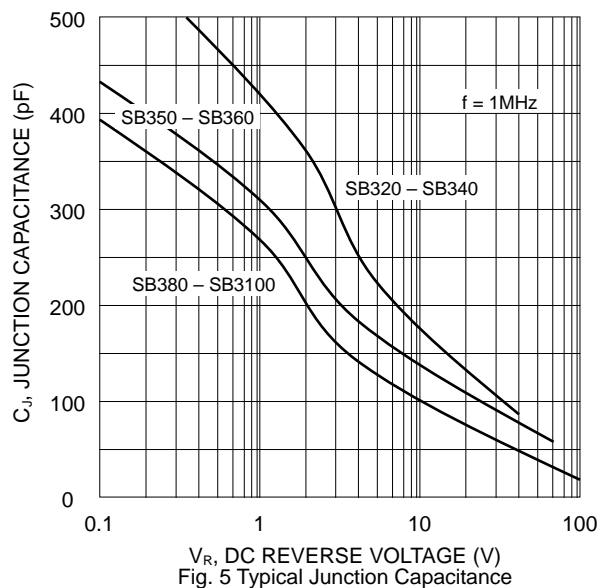
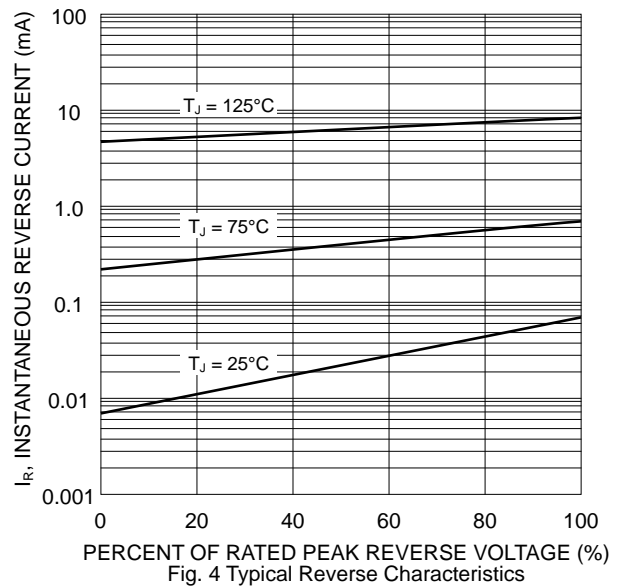
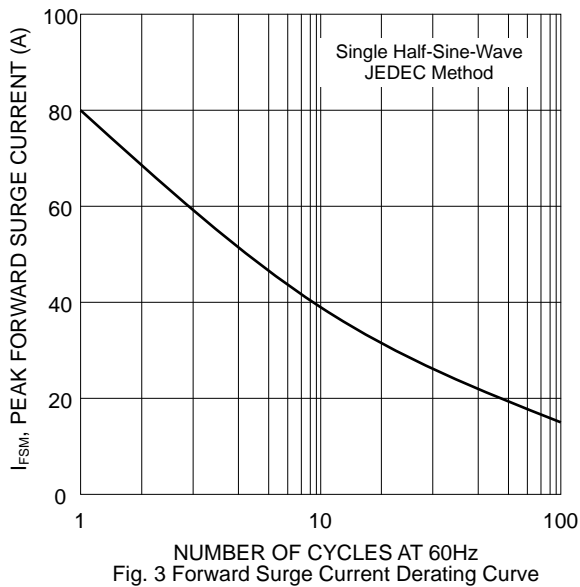
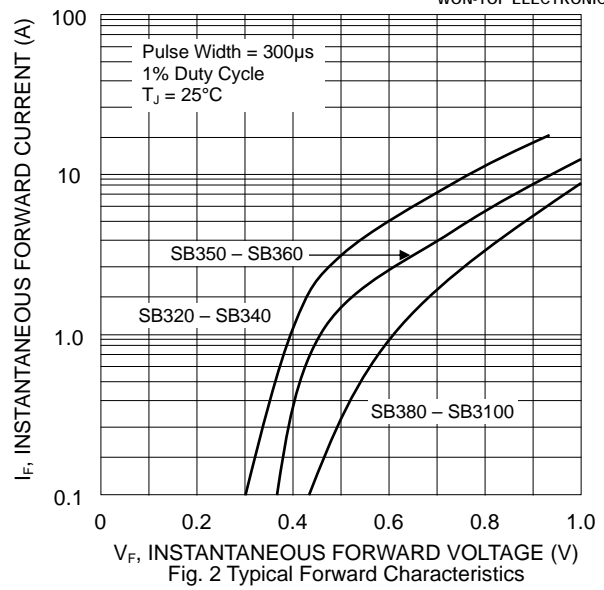
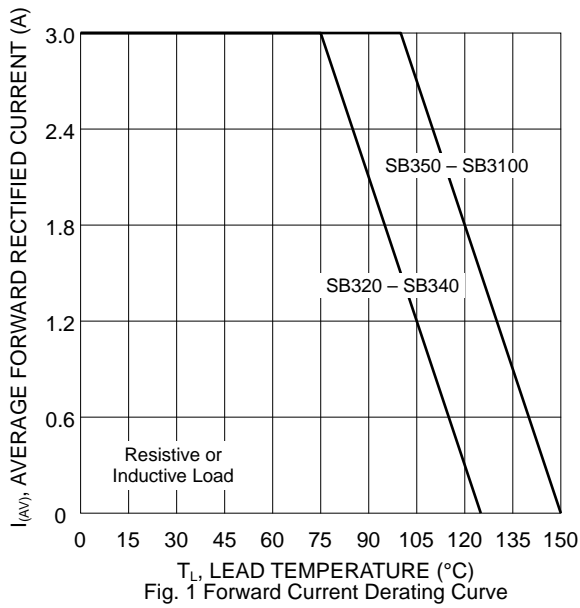
| DO-201AD             |      |      |
|----------------------|------|------|
| Dim                  | Min  | Max  |
| A                    | 25.4 | —    |
| B                    | 7.20 | 9.50 |
| C                    | 1.20 | 1.30 |
| D                    | 4.80 | 5.30 |
| All Dimensions in mm |      |      |

### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

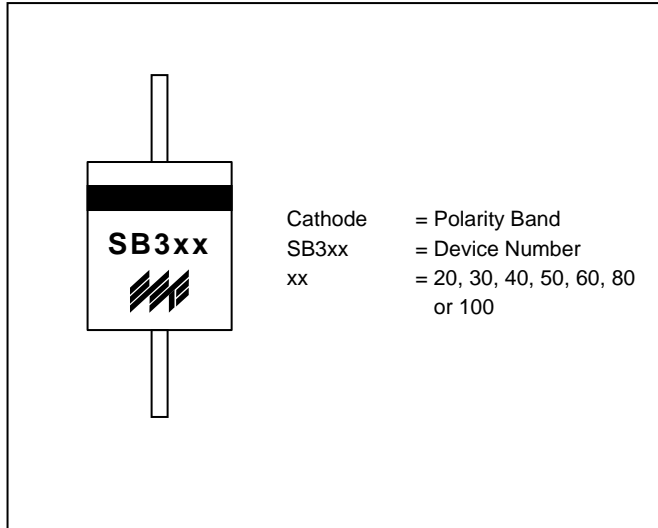
Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| Characteristic  | Symbol       | SB320       | SB330 | SB340 | SB350       | SB360 | SB380 | SB3100 | Unit |
|---|--------------|-------------|-------|-------|-------------|-------|-------|--------|------|
| Peak Repetitive Reverse Voltage   | $V_{RRM}$    | 20          | 30    | 40    | 50          | 60    | 80    | 100    | V    |
| Working Peak Reverse Voltage  | $V_{RWM}$    |             |       |       |             |       |       |        |      |
| DC Blocking Voltage   | $V_R$        |             |       |       |             |       |       |        |      |
| RMS Reverse Voltage   | $V_{R(RMS)}$ | 14          | 21    | 28    | 35          | 42    | 56    | 70     | V    |
| Average Rectified Output Current (Note 1)   | $I_O$        | 3.0         |       |       |             |       |       |        | A    |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single Half Sine-Wave Superimposed on<br>Rated Load (JEDEC Method) | $I_{FSM}$    | 80          |       |       |             |       |       |        | A    |
| Forward Voltage @ $I_F = 3.0\text{A}$   | $V_{FM}$     | 0.50        |       | 0.75  |             | 0.85  |       | V      |      |
| Peak Reverse Current @ $T_J = 25^\circ\text{C}$<br>At Rated DC Blocking Voltage @ $T_J = 100^\circ\text{C}$           | $I_{RM}$     | 0.5         |       |       |             | 20    |       |        | mA   |
| Typical Junction Capacitance (Note 2)   | $C_J$        | 250         |       |       | 180         |       | 140   |        | pF   |
| Thermal Resistance, Junction to Ambient (Note 3)  | $R_{JA}$     | 28          |       |       |             | °C/W  |       |        |      |
| Thermal Resistance, Junction to Lead (Note 3)   | $R_{JL}$     | 10          |       |       |             |       |       |        |      |
| Operating Temperature Range   | $T_J$        | -65 to +125 |       |       | -65 to +150 |       |       | °C     |      |
| Storage Temperature Range   | $T_{STG}$    | -65 to +150 |       |       |             |       |       |        | °C   |

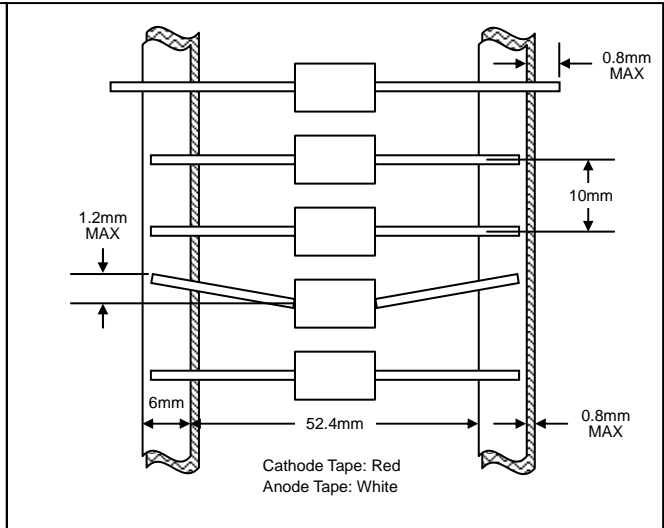
Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
3. Vertical PCB mounting with 12.7mm lead length on 63.5 x 63.5mm copper pad.



## MARKING INFORMATION

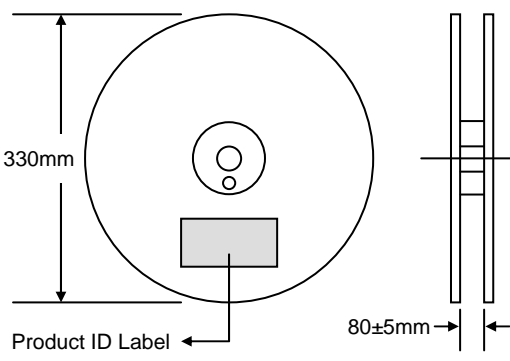


## TAPING SPECIFICATIONS



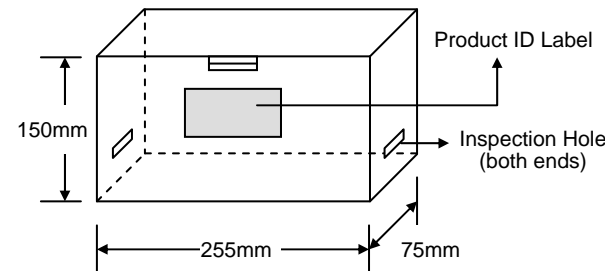
## PACKAGING INFORMATION

### TAPE & REEL



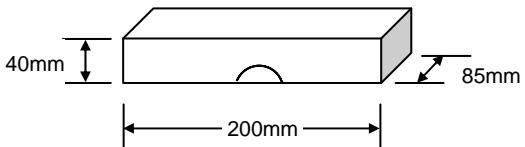
330mm  
 Product ID Label  
 80±5mm

### TAPE & BOX



150mm  
 Product ID Label  
 Inspection Hole (both ends)  
 255mm  
 75mm

### BULK



40mm  
 200mm  
 85mm


| Packaging              | Reel Diameter / Box Size (mm) | Quantity (PCS) | Carton Size (mm) | Quantity (PCS) | Approx. Gross Weight (KG) |
|------------------------|-------------------------------|----------------|------------------|----------------|---------------------------|
| <b>TAPE &amp; REEL</b> | 330                           | 1,200          | 370 x 370 x 420  | 6,000          | 10.0                      |
| <b>TAPE &amp; BOX</b>  | 255 x 75 x 150                | 1,200          | 400 x 273 x 415  | 12,000         | 17.0                      |
| <b>BULK</b>            | 200 x 85 x 40                 | 500            | 459 x 214 x 256  | 12,500         | 16.0                      |

**Note:** 1. Paper reel, white or gray color. Core material: plastic or metal.  
 2. Components are packed in accordance with EIA standard RS-296-E.

## ORDERING INFORMATION

| Product No.     | Package Type | Shipping Quantity |
|-----------------|--------------|-------------------|
| SB3xx-T3        | DO-201AD     | 1200/Tape & Reel  |
| <b>SB3xx-TB</b> | DO-201AD     | 1200/Tape & Box   |
| SB3xx           | DO-201AD     | 500 Units/Box     |

1. Products listed in **bold** are WTE **Preferred** devices.
2. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
3. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, SB320-TB-LF.**

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**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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