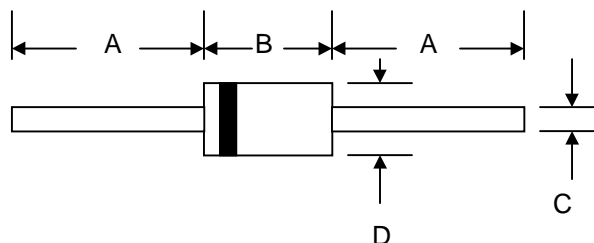


### Features

- 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



### Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.40 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

| DO-15                |      |       |
|----------------------|------|-------|
| Dim                  | Min  | Max   |
| A                    | 25.4 | —     |
| B                    | 5.50 | 7.62  |
| C                    | 0.71 | 0.864 |
| D                    | 2.60 | 3.60  |
| All Dimensions in mm |      |       |

### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

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

| Characteristic  | Symbol             | SB220       | SB230 | SB240 | SB250 | SB260 | Unit |
|---|--------------------|-------------|-------|-------|-------|-------|------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                                | VRRM<br>VRWM<br>VR | 20          | 30    | 40    | 50    | 60    | V    |
| RMS Reverse Voltage   | VR(RMS)            | 14          | 21    | 28    | 35    | 42    | V    |
| Average Rectified Output Current (Note 1) @T <sub>L</sub> = 100°C   | Io                 | 2.0         |       |       |       |       | A    |
| Non-Repetitive Peak Forward Surge Current 8.3ms<br>Single half sine-wave superimposed on rated load<br>(JEDEC Method) | IFSM               | 50          |       |       |       |       | A    |
| Forward Voltage @IF = 2.0A  | VFM                | 0.50        |       |       | 0.70  |       | V    |
| Peak Reverse Current @TA = 25°C<br>At Rated DC Blocking Voltage @TA = 100°C   | IRM                | 0.5<br>10   |       |       |       |       | mA   |
| Typical Junction Capacitance (Note 2)   | Cj                 | 170         |       |       | 140   |       | pF   |
| Typical Thermal Resistance Junction to Lead   | R θJL              | 15          |       |       |       |       | K/W  |
| Typical Thermal Resistance Junction to Ambient (Note 1)   | R θJA              | 50          |       |       |       |       | K/W  |
| Operating and Storage Temperature Range   | Tj, TSTG           | -65 to +150 |       |       |       |       | °C   |

Note: 1. Valid provided that leads are kept 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.

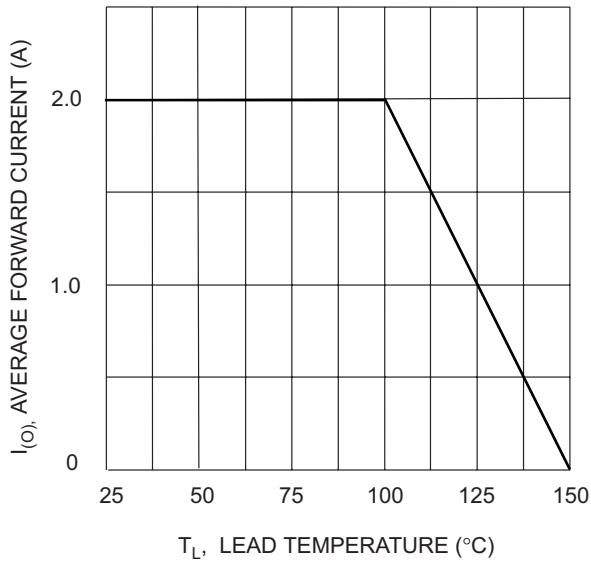


Fig. 1 Forward Current Derating Curve

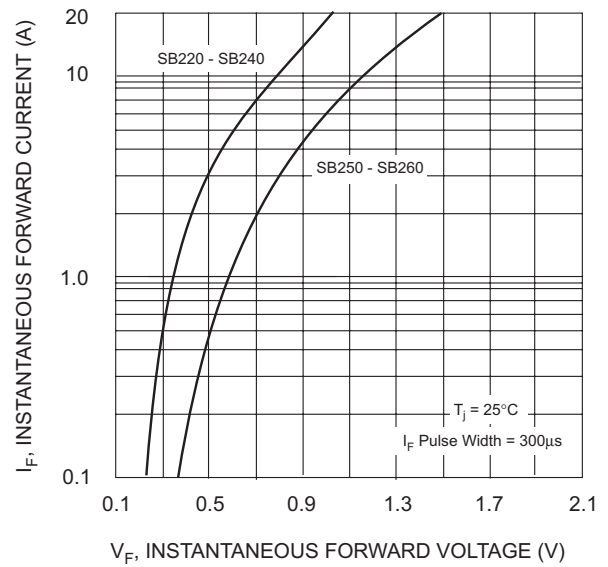


Fig. 2 Typical Forward Characteristics

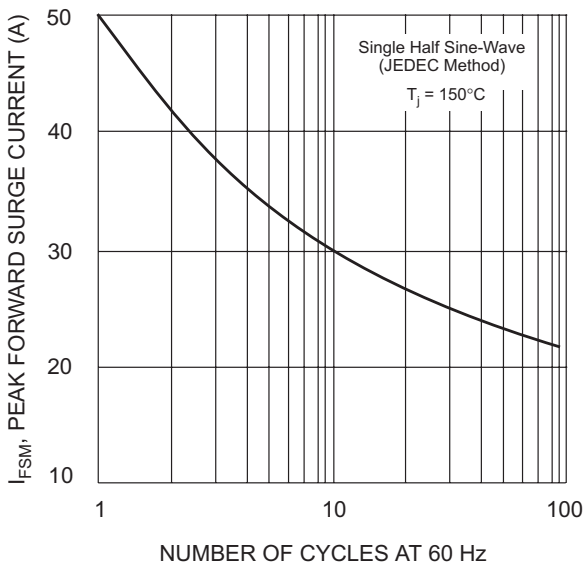


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

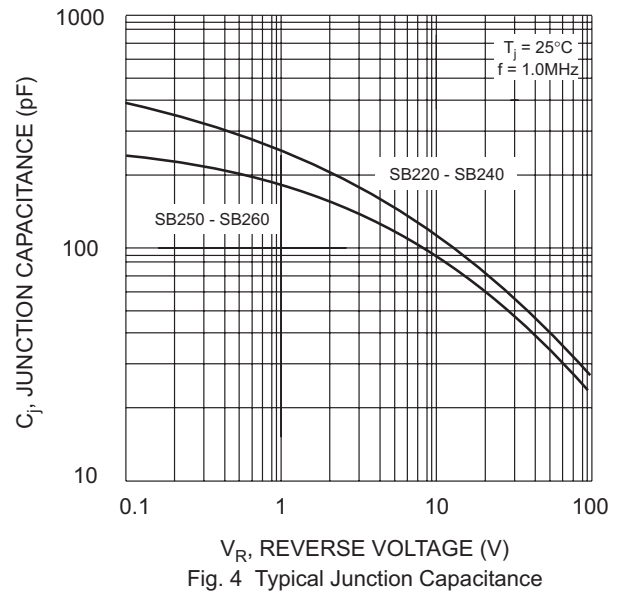


Fig. 4 Typical Junction Capacitance

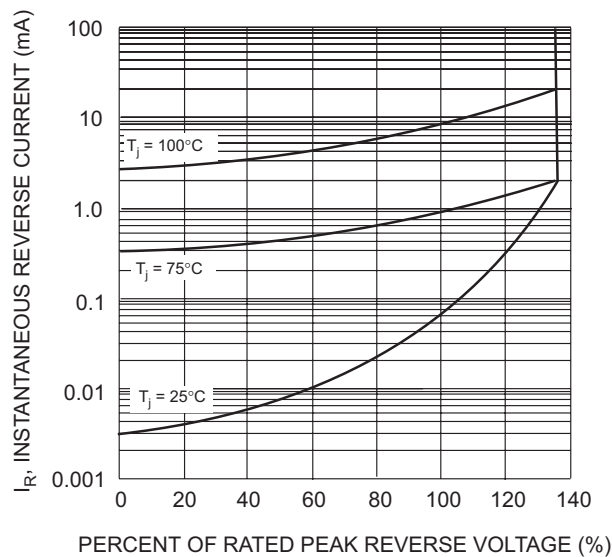


Fig. 5 Typical Reverse Characteristics

## ORDERING INFORMATION

| Product No.♦    | Package Type | Shipping Quantity |
|-----------------|--------------|-------------------|
| SB220-T3        | DO-15        | 4000/Tape & Reel  |
| <b>SB220-TB</b> | DO-15        | 3000/Tape & Box   |
| SB220           | DO-15        | 1000 Units/Box    |
| SB230-T3        | DO-15        | 4000/Tape & Reel  |
| <b>SB230-TB</b> | DO-15        | 3000/Tape & Box   |
| SB230           | DO-15        | 1000 Units/Box    |
| SB240-T3        | DO-15        | 4000/Tape & Reel  |
| <b>SB240-TB</b> | DO-15        | 3000/Tape & Box   |
| SB240           | DO-15        | 1000 Units/Box    |
| SB250-T3        | DO-15        | 4000/Tape & Reel  |
| <b>SB250-TB</b> | DO-15        | 3000/Tape & Box   |
| SB250           | DO-15        | 1000 Units/Box    |
| SB260-T3        | DO-15        | 4000/Tape & Reel  |
| <b>SB260-TB</b> | DO-15        | 3000/Tape & Box   |
| SB260           | DO-15        | 1000 Units/Box    |

Products listed in **bold** are WTE **Preferred** devices.

♦T3 suffix refers to a 13" reel. TB suffix refers to Ammo Pack.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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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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**Email:** sales@wontop.com

**Internet:** <http://www.wontop.com>

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