

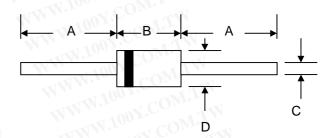
勝 特 力 材 料 886-3-5753170 胜特力电子(上海) 86-21-54151736 胜特力电子(深圳) 86-755-83298787 Http://www.100y.com.tw

# SB220 - SB260

## 2.0A SCHOTTKY BARRIER RECTIFIER

### **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

| Man and a second |             | - 11 11 1 |
|------------------|-------------|-----------|
| TIW.             | DO-15       | OM        |
| Dim              | Min         | Max       |
| Α                | 25.4        | COPE TO   |
| В                | 5.50        | 7.62      |
| С                | 0.71        | 0.864     |
| D                | 2.60        | 3.60      |
| All D            | imensions i | n mm      |

## Maximum Ratings and Electrical Characteristics @TA=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    |      |
| RMS Reverse Voltage   | VR(RMS)            | 14          | 21     | 28        | 35    | 42    |      |
| Average Rectified Output Current (Note 1) @T <sub>L</sub> = 100°C   | lo                 | 2.0         |        | M. Inc    | A     |       |      |
| Non-Repetitive Peak Forward Surge Current 8.3ms<br>Single half sine-wave superimposed on rated load<br>(JEDEC Method) | IFSM               | 100X.       | COM.   | 50        | W     | NW.19 | OA.C |
| Forward Voltage @I <sub>F</sub> = 2.0A  | VFM                | N. Jan      | 0.50   | TW        | 0.    | 70    | V    |
| Peak Reverse Current $@T_A = 25^{\circ}C$ At Rated DC Blocking Voltage $@T_A = 100^{\circ}C$                          | IRM                | M.100       | ov.co  | 0.5<br>10 |       | WWW   | mA   |
| Typical Junction Capacitance (Note 2)   | C <sub>j</sub>     | 1           | 170    | OM.TY     | 14    | 40    | pF   |
| Typical Thermal Resistance Junction to Lead   | R <sub>θ</sub> JL  | M           | 100X.C | 15        | W     | Al A  | K/W  |
| Typical Thermal Resistance Junction to Ambient (Note 1)   | $R_{\theta}$ JA    | MM          | 1 100Y | 50        | LW    | W     | K/W  |
| Operating and Storage Temperature Range   | Тј, Тѕтс           | -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.

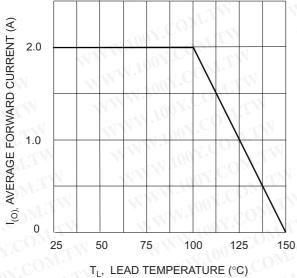
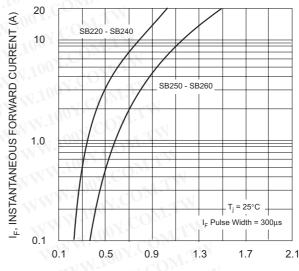
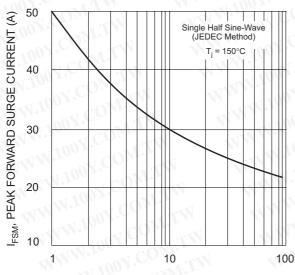


Fig. 1 Forward Current Derating Curve

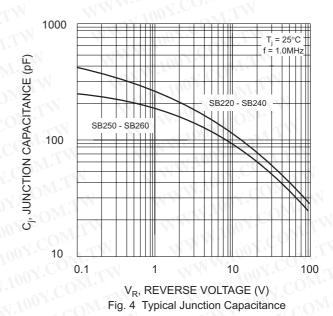


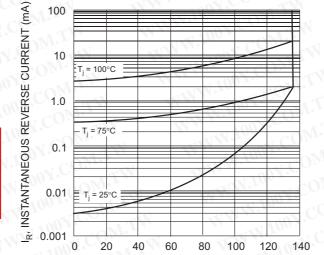
V<sub>E</sub>, INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typical Forward Characteristics



NUMBER OF CYCLES AT 60 Hz Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

100





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PERCENT OF RATED PEAK REVERSE VOLTAGE (%)

Fig. 5 Typical Reverse Characteristics

#### **ORDERING INFORMATION**

| Product No.◆ | Package Type | Shipping Quantit |
|--------------|--------------|------------------|
| SB220-T3     | DO-15        | 4000/Tape & Reel |
| SB220-TB     | DO-15        | 3000/Tape & Box  |
| SB220        | DO-15        | 1000 Units/Box   |
| SB230-T3     | DO-15        | 4000/Tape & Reel |
| SB230-TB     | DO-15        | 3000/Tape & Box  |
| SB230        | DO-15        | 1000 Units/Box   |
| SB240-T3     | DO-15        | 4000/Tape & Reel |
| SB240-TB     | DO-15        | 3000/Tape & Box  |
| SB240        | DO-15        | 1000 Units/Box   |
| SB250-T3     | DO-15        | 4000/Tape & Reel |
| SB250-TB     | DO-15        | 3000/Tape & Box  |
| SB250        | DO-15        | 1000 Units/Box   |
| SB260-T3     | DO-15        | 4000/Tape & Reel |
| SB260-TB     | DO-15        | 3000/Tape & Box  |
| SB260        | DO-15        | 1000 Units/Box   |

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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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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.