

# Schottky Barrier Rectifier

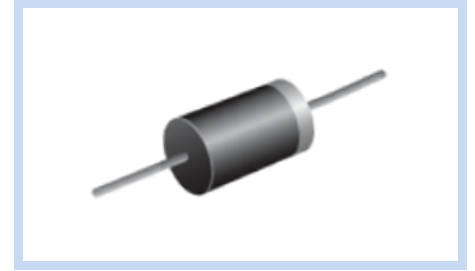
## 2A, 20~200V DO-15

SB220 to SB2200

MERITEK

### FEATURE

- Operating Temperature: -55 ~ 150°C
- High Current and Surge Capability
- Low Forward Voltage Drop
- Flame Resistance UL-94V-O
- Applications: High Frequency Inverters, Free Wheeling, and Protection



### ELECTRICAL CHARACTERISTICS

| Parameter  | Symbol          | SB 220                             | SB 230 | SB 240 | SB 250 | SB 260      | SB 280 | SB 2100 | SB 2150 | SB 2200 |
|--|-----------------|------------------------------------|--------|--------|--------|-------------|--------|---------|---------|---------|
| Maximum Recurrent Peak Reverse Voltage               | $V_{RRM}$       | 20V                                | 30V    | 40V    | 50V    | 60V         | 80V    | 100V    | 150V    | 200V    |
| Maximum RMS Voltage                                  | $V_{RMS}$       | 14V                                | 21V    | 28V    | 35V    | 42V         | 56V    | 70V     | 105V    | 140V    |
| Maximum DC Blocking Voltage                          | $V_{DC}$        | 20V                                | 30V    | 40V    | 50V    | 60V         | 80V    | 100V    | 150V    | 200V    |
| Maximum Average Forward Rectified Current            | $I_{AV}$        | 2.0A                               |        |        |        |             |        |         |         |         |
| Peak Forward Surge Current (JEDEC method)            | $I_{FSM}$       | 50.0A                              |        |        |        |             |        |         |         |         |
| Maximum Forward Voltage at 5.0A and 25°C             | $V_F$           | 0.55V                              |        | 0.70V  |        | 0.85V       |        | 0.95V   |         |         |
| Maximum Reverse Current at Rated DC Blocking Voltage | $I_R$           | 0.5mA, at $T_A = 25^\circ\text{C}$ |        |        |        |             |        |         |         |         |
|  |                 | 20mA, at $T_A = 100^\circ\text{C}$ |        |        |        |             |        |         |         |         |
| Typical Junction Capacitance <sup>Note 1</sup>       | $C_J$           | 180pF                              |        |        |        |             |        |         |         |         |
| Typical Thermal Resistance <sup>Note 2</sup>         | $R_{\theta JA}$ | 45.0°C/W                           |        |        |        |             |        |         |         |         |
| Operating Junction Temperature                       | $T_J$           | -55 ~ 125°C                        |        |        |        | -55 ~ 150°C |        |         |         |         |
| Storage Temperature                                  | $T_{stg}$       | -55 ~ 125°C                        |        |        |        | -55 ~ 150°C |        |         |         |         |

Notes:

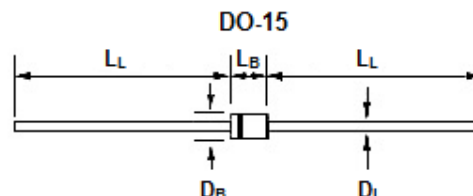
1. Measured at 1MHz and applied reverse voltage of 4.0 VDC.

2. Thermal Resistance Junction to Ambient and from junction to lead at 9.5mm lead length P.C.B. Mounted.

3.  $T_A = 25^\circ\text{C}$  unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load, for capacitive load, derate current by 20%.

### DIMENSIONS

| Item  | Min (mm) | Max (mm) |
|-------|----------|----------|
| $L_B$ | 5.8      | 7.6      |
| $L_L$ | 25.4     | -        |
| $D_B$ | 2.6      | 3.6      |
| $D_L$ | 0.7      | 0.9      |



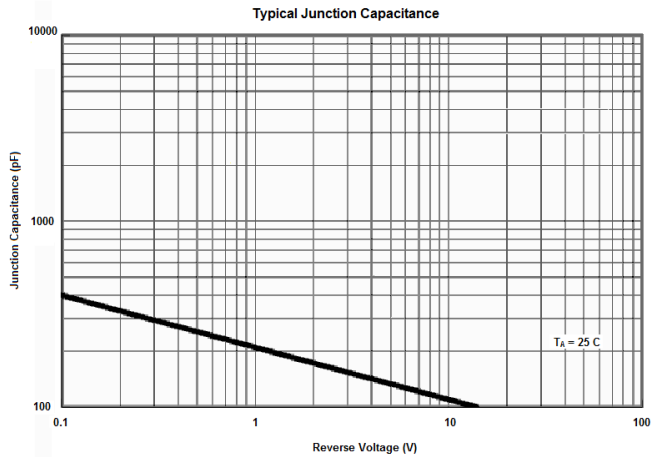
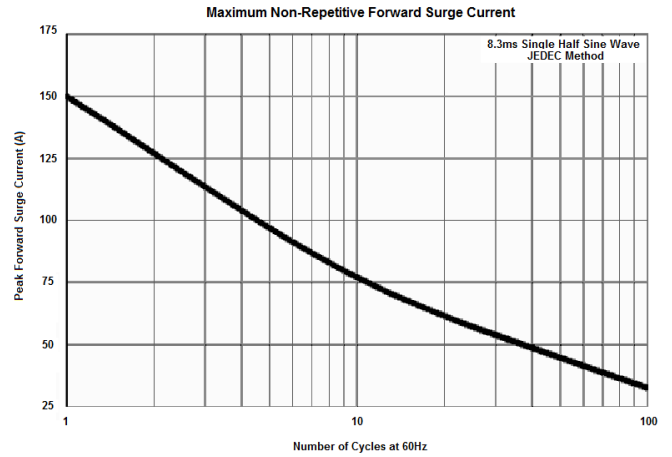
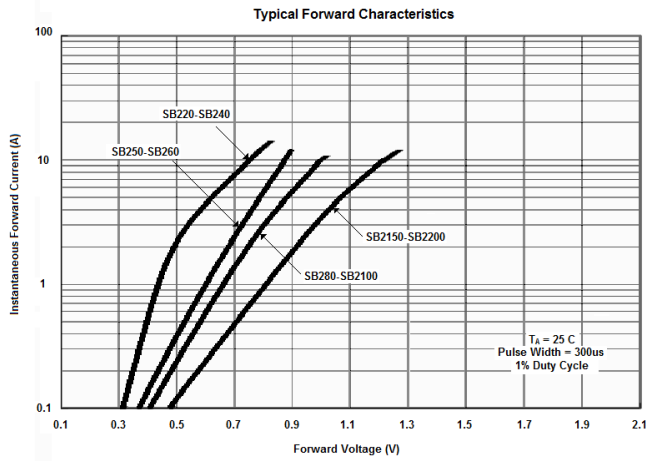
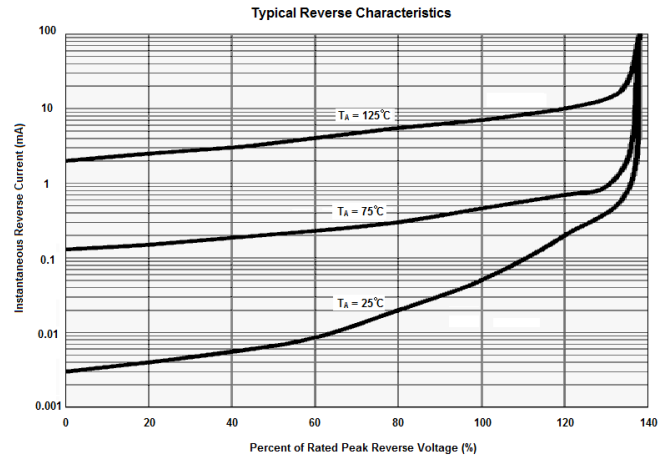
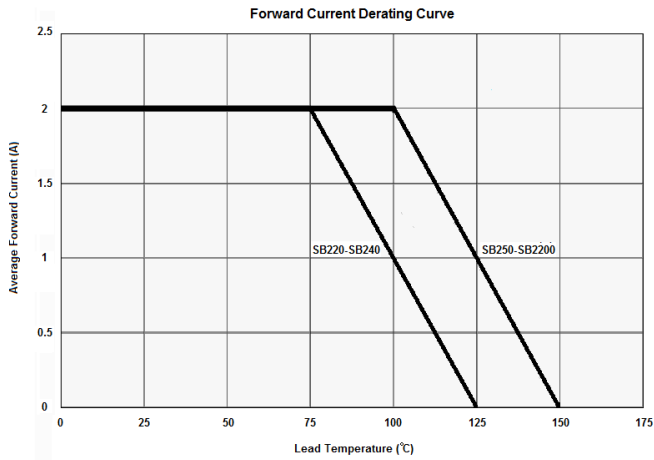
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**MERITEK**

### CHARACTERISTIC CURVES



Meritek Discrete Components Series: <http://www.meritekusa.com/EN/productlist/node/22>

Meritek Product Series: <http://www.meritekusa.com/EN/products>

\*Specifications subject to change without notice.