



Certificate Number: Q10561



Certificate Number: E17276

## SB220 - SB2B0

## SCHOTTKY BARRIER RECTIFIER DIODES

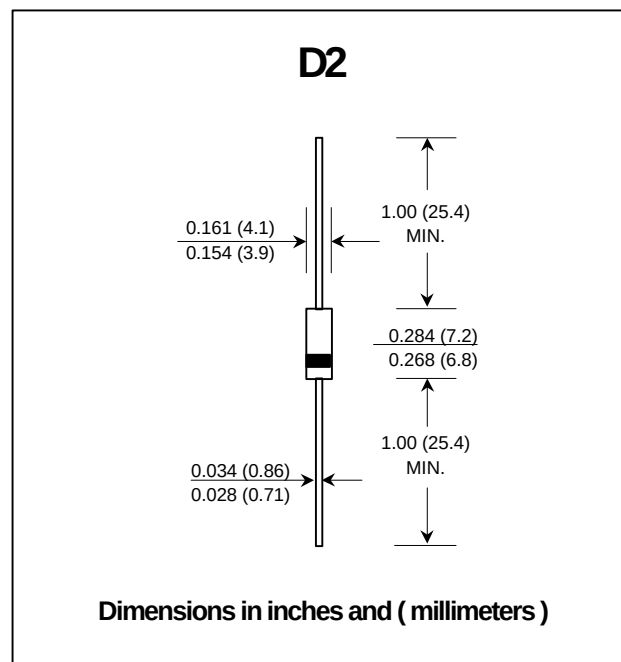
**PRV : 20 - 100 Volts**  
**I<sub>o</sub> : 2.0 Amperes**

### FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* High efficiency
- \* Low power loss
- \* Low cost
- \* Low forward voltage drop

### MECHANICAL DATA :

- \* Case : D2 Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.465 gram



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| RATING                                                                                                  | SYMBOL      | SB 220        | SB 230 | SB 240 | SB 250        | SB 260 | SB 270 | SB 280 | SB 290 | SB 2B0 | UNIT  |
|---------------------------------------------------------------------------------------------------------|-------------|---------------|--------|--------|---------------|--------|--------|--------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                                  | $V_{RRM}$   | 20            | 30     | 40     | 50            | 60     | 70     | 80     | 90     | 100    | Volts |
| Maximum RMS Voltage                                                                                     | $V_{RMS}$   | 14            | 21     | 28     | 35            | 42     | 49     | 56     | 63     | 70     | Volts |
| Maximum DC Blocking Voltage                                                                             | $V_{DC}$    | 20            | 30     | 40     | 50            | 60     | 70     | 80     | 90     | 100    | Volts |
| Maximum Average Forward Current<br>0.375", 9.5mm Lead Length See Fig.1                                  | $I_{F(AV)}$ | 2.0           |        |        |               |        |        |        |        |        | Amps. |
| Peak Forward Surge Current,<br>8.3ms single half sine wave superimposed<br>on rated load (JEDEC Method) | $I_{FSM}$   | 60            |        |        |               |        |        |        |        |        | Amps. |
| Maximum Forward Voltage at $I_F = 2.0$ Amps. (Note 1)                                                   | $V_F$       | 0.5           |        |        | 0.74          |        |        | 0.79   |        |        | Volt. |
| Maximum Reverse Current at<br>Rated DC Blocking Voltage (Note 1)                                        | $I_R$       | 0.5           |        |        |               |        |        |        |        |        | mA    |
| Junction Temperature Range                                                                              | $T_J$       | - 65 to + 125 |        |        | - 65 to + 150 |        |        |        |        |        | °C    |
| Storage Temperature Range                                                                               | $T_{STG}$   | - 65 to + 150 |        |        |               |        |        |        |        |        | °C    |

### Notes :

(1) Pulse Test : Pulse Width = 300  $\mu$ s, Duty Cycle = 2%.

UPDATE : SEPTEMBER 12, 1998

## RATING AND CHARACTERISTIC CURVES ( SB220 - SB2B0 )

FIG.1 - FORWARD CURRENT DERATING CURVE

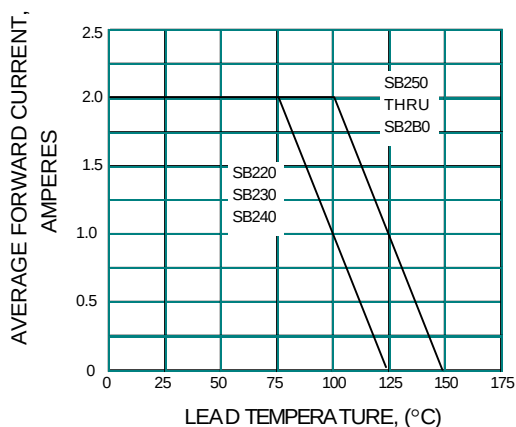


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

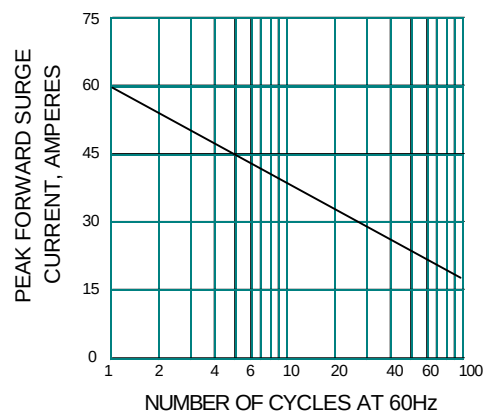


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

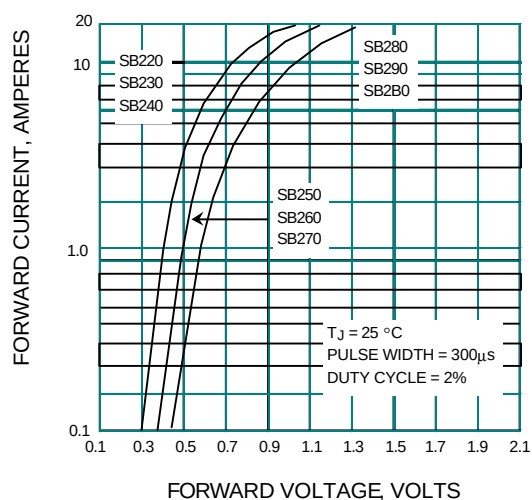


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

