

## Power Schottky Rectifier - 5Amp 40~100Volt

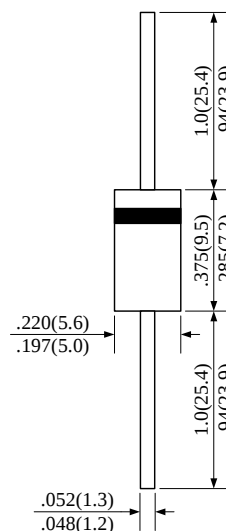
### □ Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

### □ Mechanical data

- Case : Molded plastic
- Epoxy : UL 94V-0 rate flame retardant
- Lead : Axial leads, solderable per MIL-STD-202,method 208 guaranteed
- Polarity : Color band denotes cathode end
- Mounting position : Any
- Weight : 1.10 grams

DO-27 / DO-201AD



### □ Maximum ratings and Electrical characteristics

| TYPE                                                                               |                     | SB540       | SB560 | SB5100      | UNIT         |
|------------------------------------------------------------------------------------|---------------------|-------------|-------|-------------|--------------|
| Maximum Recurrent Peak Reverse Voltage                                             |                     | 40          | 60    | 100         | V            |
| Maximum RMS Voltage                                                                |                     | 28          | 42    | 70          | V            |
| Maximum DC Blocking Voltage                                                        |                     | 40          | 60    | 100         | V            |
| Maximum Average Forward Rectified Current                                          |                     | 5.0         |       |             | A            |
| Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load |                     | 100         |       |             | A            |
| Maximum Instantaneous Forward Voltage at 5.0A                                      |                     | 0.55        | 0.70  | 0.82        | V            |
| Repetitive peak avalanche power, $t_p = 1\mu s$ $T_j = 25^\circ C$                 |                     | 2700        | 4000  |             | W            |
| Maximum DC Reverse Current at Rated DC Blocking Voltage                            | $T_a = 25^\circ C$  | 0.5         | 0.3   | 0.01        | mA           |
|                                                                                    | $T_a = 100^\circ C$ | 20          | 15    | 10          |              |
| Typical Junction Capacitance                                                       |                     | 380         |       |             | pF           |
| Typical Thermal Resistance $R_{\theta JA}$                                         |                     | 10          |       |             | $^\circ C/W$ |
| Operating Temperature Range $T_j$                                                  |                     | -50 to +150 |       | -50 to +175 | $^\circ C$   |
| Storage Temperature Range $T_{STG}$                                                |                     | -50 to +150 |       |             |              |

 Note: Pulse Test : 380 $\mu s$  pulse width, 2% duty cycle

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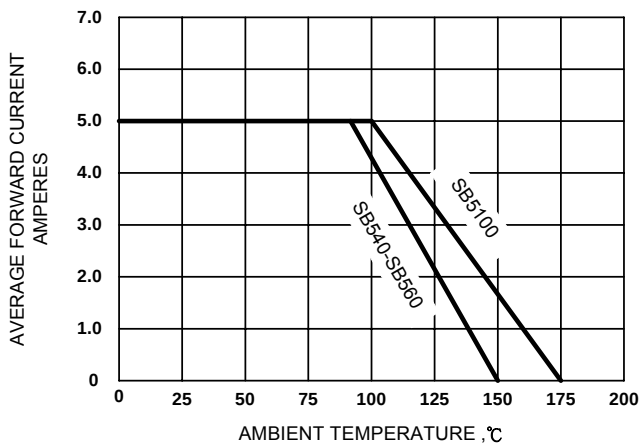


Figure 1. Forward Current Derating Curve

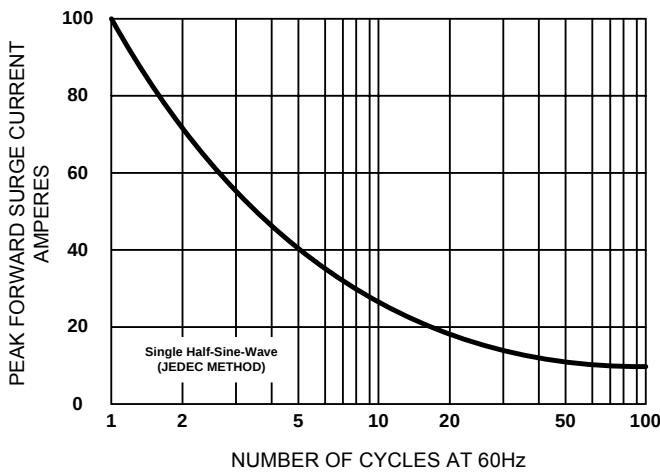


Figure 2. Maximum Non-repetitive Surge Current

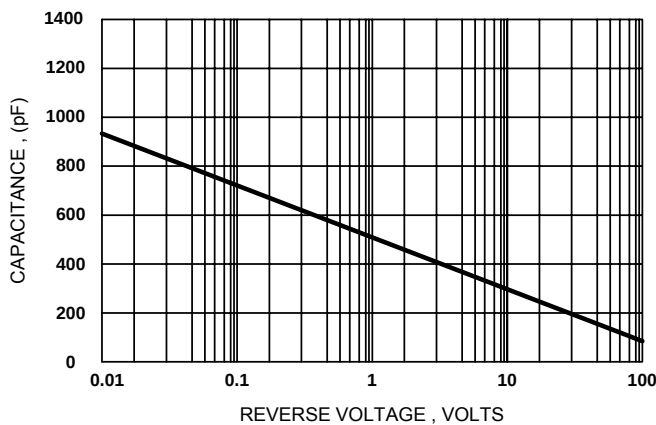


Figure 3. Typical Junction Capacitance

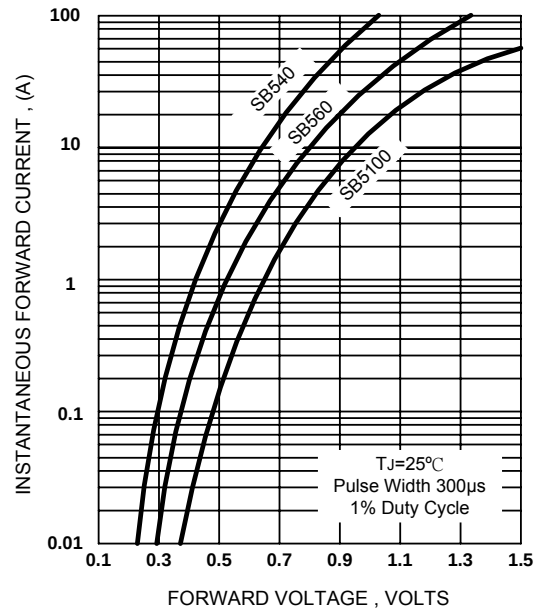


Figure 4. Typical Forward Characteristics

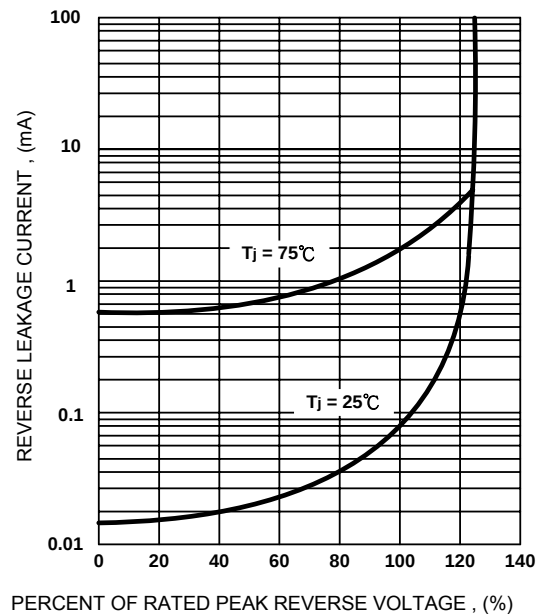


Figure 5. Typical Reverse Characteristics