

## Power Schottky Rectifier - 5Amp 20~100Volt

**Features**

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

**Mechanical data**

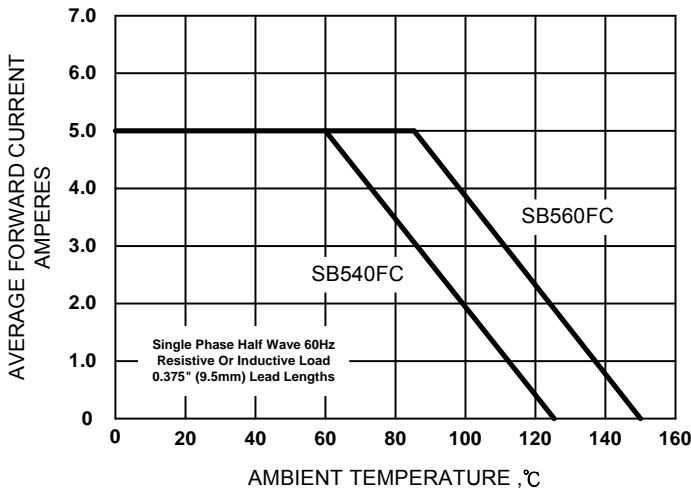
- Case : Molded plastic
- Epoxy : UL 94V-0 rate flame retardant
- Lead : Axial leads, solderable per MIL-STD-202,method 208 guaranteed
- Polarity : Color band denotes cathode end
- Mounting position : Any
- Weight : 1.10 grams

**Maximum ratings and Electrical characteristics**

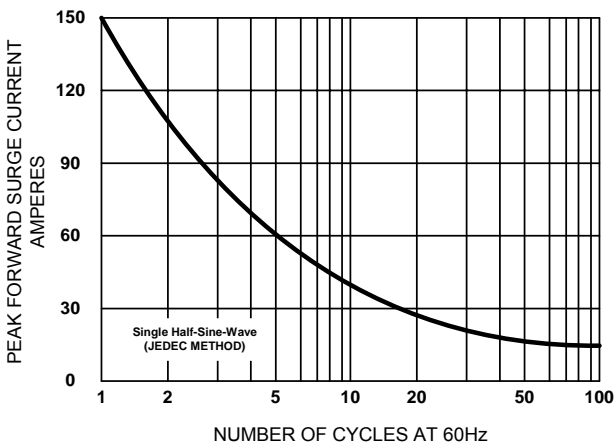
| TYPE   |            | SB540FC   | SB560FC | SB5100FC | UNIT |
|--|------------|-----------|---------|----------|------|
| Maximum Recurrent Peak Reverse Voltage   |            | 40        | 60      | 100      | V    |
| Maximum RMS Voltage  |            | 28        | 42      | 70       | V    |
| Maximum 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      | 0.65    | 0.82     | V    |
| Maximum DC Reverse Current at Rated DC Blocking Voltage                            | Ta = 25°C  | 0.5       | 0.3     | 0.01     | mA   |
|  | Ta = 100°C | 20        | 15      | 10       |      |
| Typical Junction Capacitance   |            | 380       |         |          | pF   |
| Typical Thermal Resistance R <sub>θJA</sub>  |            | 7         |         |          | °C/W |
| Operating Temperature Range T <sub>J</sub>   |            | -50 - 125 |         |          | °C   |
| Storage Temperature Range T <sub>STG</sub>   |            | -65 - 150 |         |          | °C   |

Note: Pulse Test : 380µs pulse width, 2% duty cycle

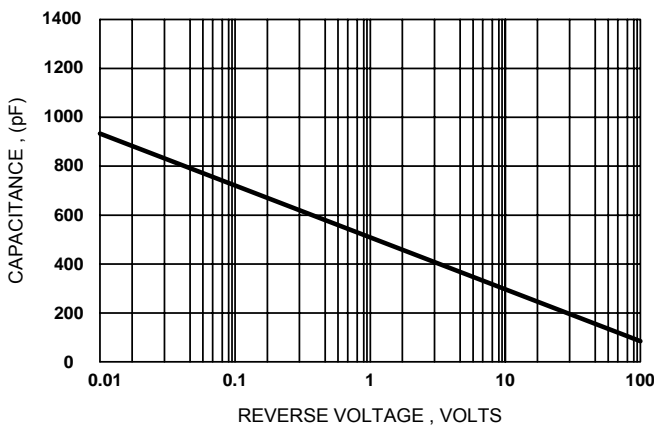
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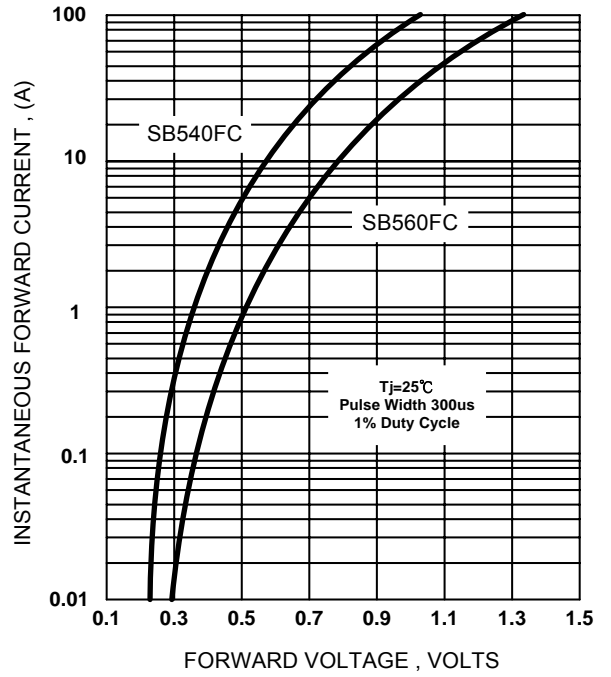
**Figure 1. Forward Current Derating Curve**



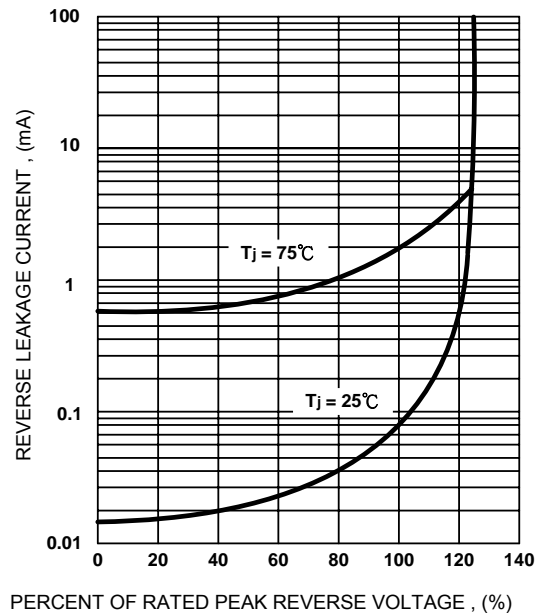
**Figure 2. Maximum Non-repetitive Surge Current**



**Figure 3. Typical Junction Capacitance**

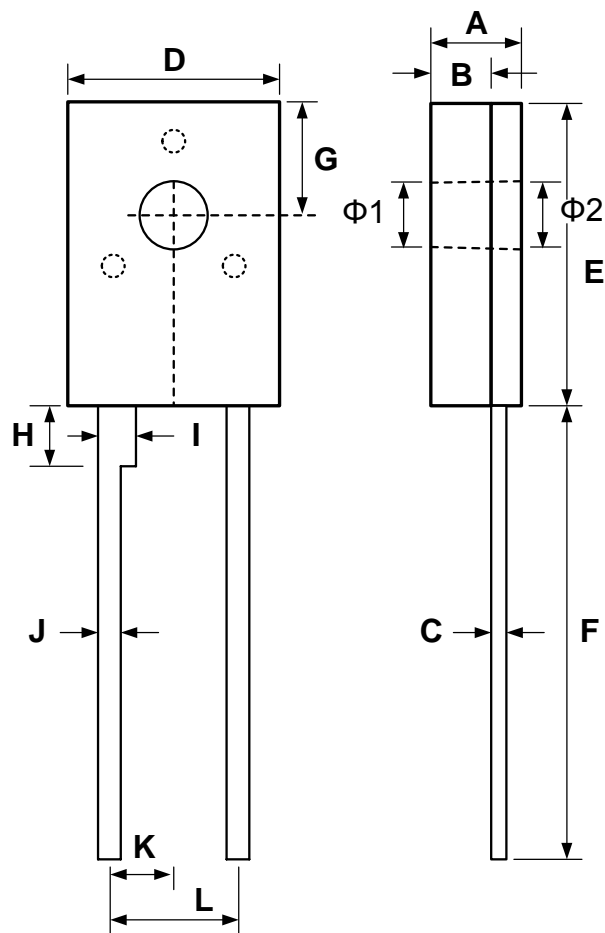


**Figure 4. Typical Forward Characteristics**



**Figure 5. Typical Reverse Characteristics**

T0-126FC PACKAGE



| DIMENSIONS |          |      |          |       |      |
|------------|----------|------|----------|-------|------|
| DIM        | INCHES   |      | MM       |       | NOTE |
|            | MIN      | MAX  | MIN      | MAX   |      |
| A          | .118     | .134 | 3.00     | 3.40  |      |
| B          | .071     | .087 | 1.80     | 2.20  |      |
| C          | .018     | .024 | 0.45     | 0.60  |      |
| D          | .307     | .323 | 7.80     | 8.20  |      |
| E          | .425     | .441 | 10.80    | 11.20 |      |
| F          | .594     | .610 | 15.10    | 15.50 |      |
| G          | .159     | .167 | 4.04     | 4.24  |      |
| H          | .078     | .088 | 1.98     | 2.25  |      |
| I          | .048     | .058 | 1.22     | 1.47  |      |
| J          | .026     | .034 | 0.66     | 0.86  |      |
| K          | .090 TYP |      | 2.28 TYP |       |      |
| L          | .176     | .183 | 4.46     | 4.66  |      |
| Φ1         | .106     | .114 | 2.70     | 2.90  |      |
| Φ2         | .122     | .130 | 3.10     | 3.30  |      |



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