

## **Maximum Ratings** $@T_A = 25^{\circ}C$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitance load, derate current by 20%.

| Characteristic  | Symbol   | Value | Unit |
|---|--|-------|------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage (Note 4)     | V <sub>RRM</sub><br>V <sub>RWM</sub><br>V <sub>R</sub> | 80    | V    |
| Average Rectified Output Current @ T <sub>T</sub> = 125°C   | lo   | 3.0   | A    |
| Non-Repetitive Peak Forward Surge Current 8.3ms<br>Single Half Sine-Wave Superimposed on Rated Load | I <sub>FSM</sub>                                       | 100   | A    |

## **Thermal Characteristics**

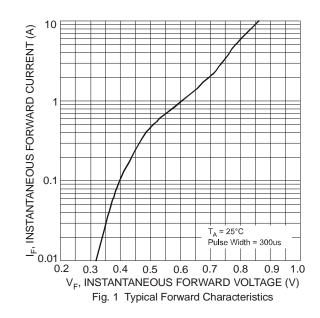
| Characteristic   | Symbol                            | Value       | Unit |
|--|-----------------------------------|-------------|------|
| Typical Thermal Resistance Junction to Terminal (Note 5) | $R_{	heta JT}$                    | 10          | °C/W |
| Operating and Storage Temperature Range                  | T <sub>J</sub> , T <sub>STG</sub> | -55 to +150 | °C   |

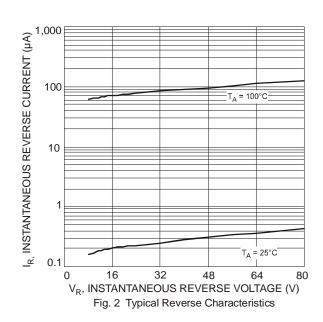
## **Electrical Characteristics** @T<sub>A</sub> = 25°C unless otherwise specified

| Characteristic                | Symbol         | Min | Тур | Max  | Unit | Test Condition                                |
|-------------------------------|----------------|-----|-----|------|------|---|
| Forward Voltage Drop          | V <sub>F</sub> | -   | -   | 0.79 |      | I <sub>F</sub> = 3.0A, T <sub>A</sub> = 25°C  |
|                               |                | -   | -   | 0.69 |      | I <sub>F</sub> = 3.0A, T <sub>A</sub> = 100°C |
| Peak Reverse Current (Note 4) |                | -   | -   | 0.5  | mA   | $V_R = 80V, T_A = 25^{\circ}C$                |
|                               | IR             | -   | -   | 20   |      | V <sub>R</sub> = 80V, T <sub>A</sub> = 100°C  |
| Typical Total Capacitance     | C <sub>T</sub> | =   | 120 | -    | pF   | $V_R = 4.0V, f = 1MHz$                        |

Notes:

- 4. Short duration pulse test used to minimize self-heating effect.
- Valid provided that terminals are kept at ambient temperature.







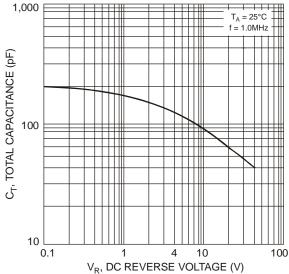
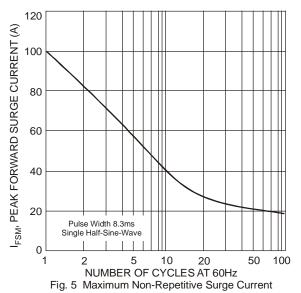
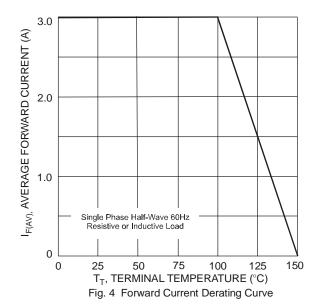
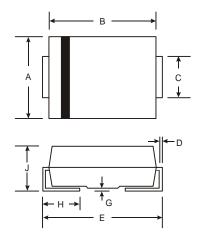


Fig. 3 Typical Total Capacitance vs. Reverse Voltage





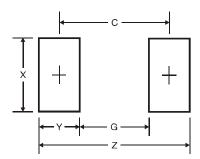
# **Package Outline Dimensions**



| SMB                  |      |      |  |
|----------------------|------|------|--|
| Dim                  | Min  | Max  |  |
| Α                    | 3.30 | 3.94 |  |
| В                    | 4.06 | 4.57 |  |
| С                    | 1.96 | 2.21 |  |
| D                    | 0.15 | 0.31 |  |
| E                    | 5.00 | 5.59 |  |
| G                    | 0.05 | 0.20 |  |
| Н                    | 0.76 | 1.52 |  |
| J                    | 2.00 | 2.50 |  |
| All Dimensions in mm |      |      |  |



### Suggested Pad Layout



| Dimensions | Value (in mm) |
|------------|---------------|
| Z          | 6.8           |
| G          | 1.8           |
| Х          | 2.3           |
| Υ          | 2.5           |
| С          | 4.3           |

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