

## Maximum Ratings (@T<sub>A</sub> = +25°C, unless otherwise specified.)

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

| Electrical Characteristics (TA = 25°C, unless otherwise specified)                                  |                  |        |        |      |
|-----------------------------------------------------------------------------------------------------|------------------|--------|--------|------|
| Characteristic                                                                                      | Symbol           | B250AF | B260AF | Unit |
| Peak Repetitive Reverse Voltage                                                                     | V <sub>RRM</sub> | 50     | 60     | V    |
| Working Peak Reverse Voltage                                                                        | V <sub>RWM</sub> |        |        |      |
| DC Blocking Voltage                                                                                 | V <sub>RM</sub>  |        |        |      |
| Average Rectified Output Current                                                                    | I <sub>O</sub>   | 2      |        | A    |
| Non-Repetitive Peak Forward Surge Current 8.3ms<br>Single Half Sine-Wave Superimposed on Rated Load | I <sub>FSM</sub> | 50     |        | A    |

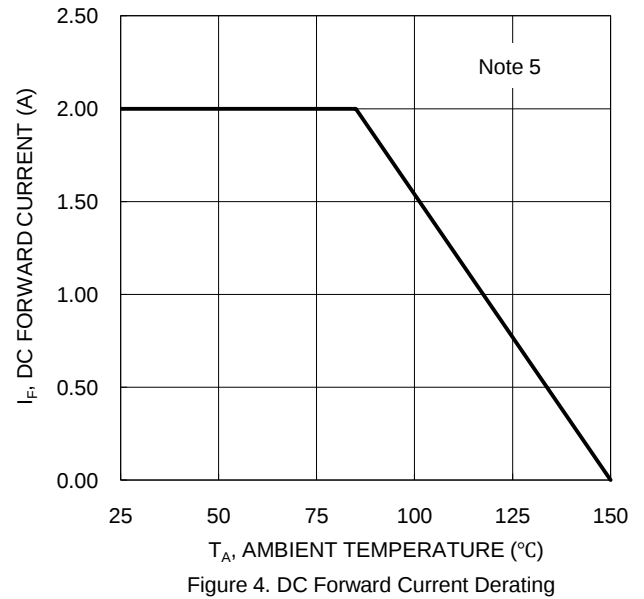
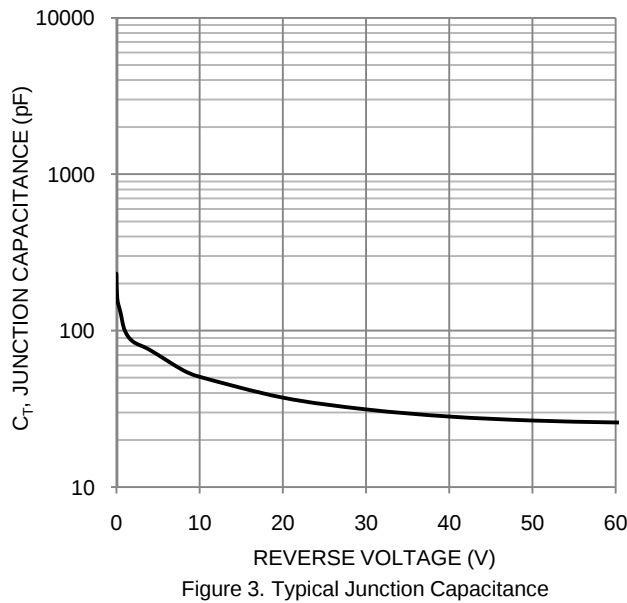
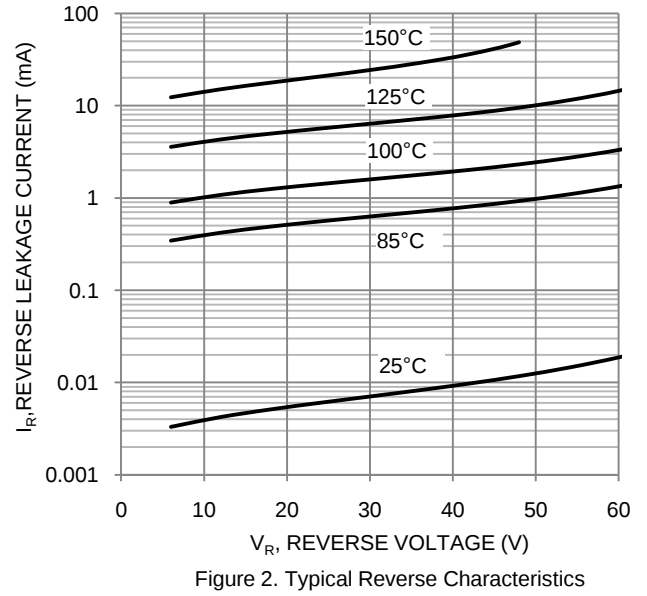
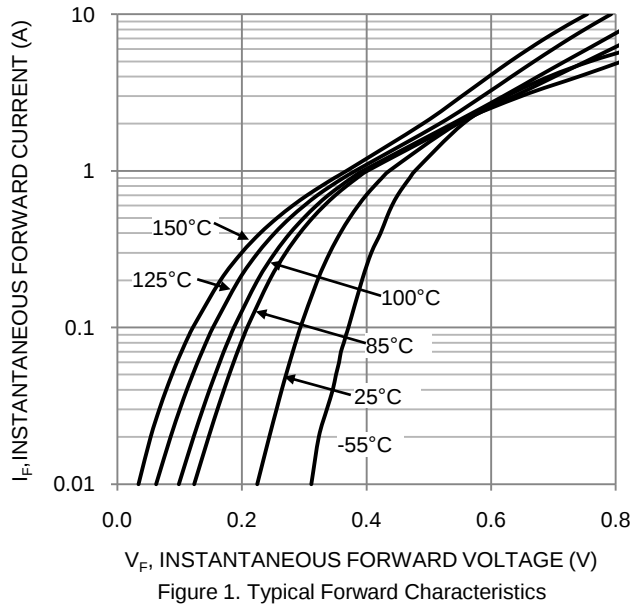
## Thermal Characteristics

| Characteristic                                          | Symbol                            | Value       | Unit |
|---------------------------------------------------------|-----------------------------------|-------------|------|
| Typical Thermal Resistance Junction to Ambient (Note 5) | R <sub>θJA</sub>                  | 95          | °C/W |
| Typical Thermal Resistance Junction to Case (Note 5)    | R <sub>θJC</sub>                  | 45          | °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 | Typ                 | Max               | Unit | Test Condition                                                                                                                                |
|--------------------------|----------------|-----|---------------------|-------------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Forward Voltage Drop     | V <sub>F</sub> | —   | 0.55<br>0.52        | 0.65<br>—         | V    | I <sub>F</sub> = 2A, T <sub>J</sub> = +25°C<br>I <sub>F</sub> = 2A, T <sub>J</sub> = +125°C                                                   |
| Leakage Current (Note 6) | I <sub>R</sub> | —   | 0.015<br>0.02<br>15 | 0.10<br>0.20<br>— | mA   | V <sub>R</sub> = 50V, T <sub>J</sub> = +25°C<br>V <sub>R</sub> = 60V, T <sub>J</sub> = +25°C<br>V <sub>R</sub> = 60V, T <sub>J</sub> = +125°C |
| Typical Capacitance      | C <sub>T</sub> | —   | 80                  | —                 | pF   | V <sub>R</sub> = 4.0V, f = 1MHz                                                                                                               |

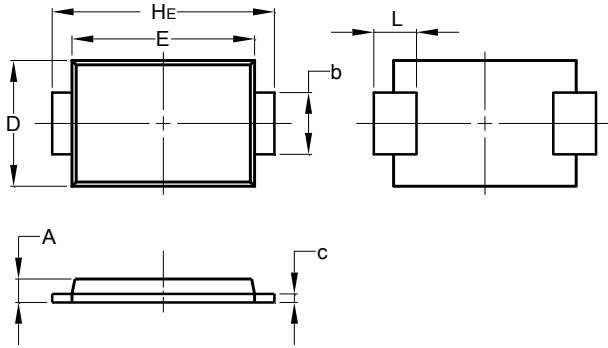
Notes: 5. Device mounted on FR-4 substrate, 0.4" x 0.5", 2oz, single-sided, PC boards with 0.2" x 0.25" copper pad.  
6. Short duration pulse test used to minimize self-heating effect.



## Package Outline Dimensions

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

### SMAF

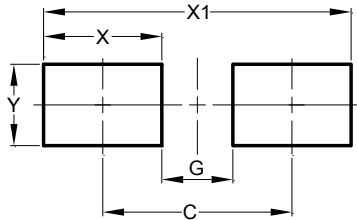


| SMAF                 |      |      |
|----------------------|------|------|
| Dim                  | Min  | Max  |
| A                    | 0.90 | 1.10 |
| b                    | 1.25 | 1.65 |
| c                    | 0.10 | 0.40 |
| D                    | 2.25 | 2.95 |
| E                    | 3.95 | 4.60 |
| H <sub>E</sub>       | 4.80 | 5.60 |
| L                    | 0.50 | 1.50 |
| All Dimensions in mm |      |      |

## Suggested Pad Layout

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

### SMAF



| Dimensions | Value (in mm) |
|------------|---------------|
| C          | 4.00          |
| G          | 1.50          |
| X          | 2.50          |
| X1         | 6.50          |
| Y          | 1.70          |

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