

# Maximum Ratings (Per Leg) (@TA = +25°C unless otherwise specified.)

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

For capacitive load, derate current by 20%.

| Characteristic  | Symbol  | Value | Unit |
|---|---|-------|------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage              | V <sub>RRM</sub><br>V <sub>RWM</sub><br>V <sub>RM</sub> | 100   | V    |
| Average Rectified Output Current  | Io  | 10    | Α    |
| Non-Repetitive Peak Forward Surge Current 8.3ms<br>Single Half Sine-Wave Superimposed on Rated Load | I <sub>FSM</sub>  | 80    | А    |

## **Thermal Characteristics (Per Leg)**

| Characteristic                          | Symbol                            | Value       | Unit |
|---|-----------------------------------|-------------|------|
| Maximum Thermal Resistance (Note 5)     | $R_{\theta JC}$                   | 6           | °C/W |
| Operating and Storage Temperature Range | T <sub>J</sub> , T <sub>STG</sub> | -65 to +175 | °C   |

## Electrical Characteristics (Per Leg) (@T<sub>A</sub> = +25°C unless otherwise specified.)

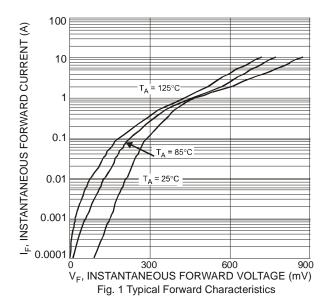
| Characteristic                 | Symbol         | Min | Тур  | Max  | Unit | Test Condition                                 |
|--------------------------------|----------------|-----|------|------|------|--|
| Forward Voltage Drop (Per Leg) | V <sub>F</sub> | -   | 0.77 | 0.84 | V    | I <sub>F</sub> = 5A, T <sub>J</sub> = +25°C    |
|                                |                |     | -    | 0.71 |      | I <sub>F</sub> = 5A, T <sub>J</sub> = +125°C   |
| Leakage Current (Note 6)       | I <sub>R</sub> | -   | -    | 0.2  | - MA | V <sub>R</sub> = 100V, T <sub>J</sub> = +25°C  |
|                                |                |     | 2    | 40   |      | V <sub>R</sub> = 100V, T <sub>J</sub> = +125°C |

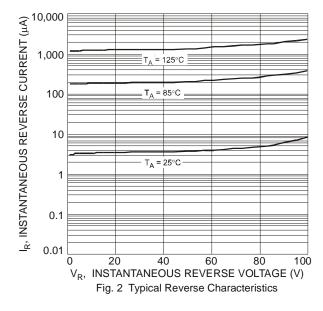
Notes:

<sup>5.</sup> Device mounted on 2-inch sq. Al board, minimum recommended pad layout as shown on Diodes Incorporated's suggested pad layout document, which can be found on our website at http://www.diodes.com/package-outlines.html.

<sup>6.</sup> Short duration pulse test used to minimize self-heating effect.







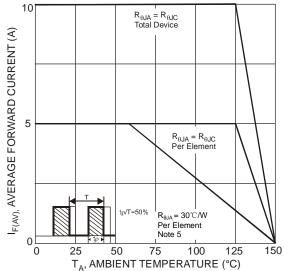


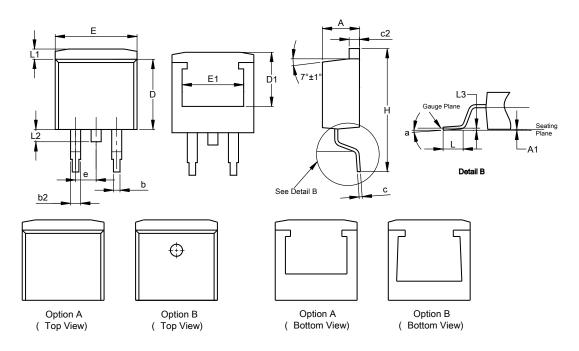
Fig. 3 Forward Current Derating Curve



### **Package Outline Dimensions**

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

### TO263AB (Standard)

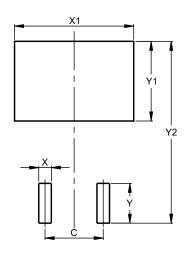


| TO2                  | TO263AB (Standard) |          |       |  |  |
|----------------------|--------------------|----------|-------|--|--|
| Dim                  | Min                | Max      | Тур   |  |  |
| Α                    | 4.07               | 4.82     | -     |  |  |
| A1                   | 0.00               | 0.25     | -     |  |  |
| b                    | 0.51               | 0.99     | -     |  |  |
| b2                   | 1.15               | 1.77     | -     |  |  |
| С                    | 0.356              | 0.73     | -     |  |  |
| c2                   | 1.143              | 1.65     | -     |  |  |
| D                    | 8.39               | 9.65     | -     |  |  |
| D1                   | 6.55               | 7.80     | -     |  |  |
| е                    | 2                  | 2.54 TYP |       |  |  |
| Е                    | 9.66               | 10.66    | -     |  |  |
| E1                   | 6.23               | 8.23     | -     |  |  |
| Н                    | 14.61              | 15.87    | -     |  |  |
| ١                    | 1.78               | 2.79     |       |  |  |
| L1                   | -                  | 1.67     | -     |  |  |
| L2                   | -                  | 1.77     | -     |  |  |
| L3                   | -                  | -        | 0.254 |  |  |
| а                    | 0°                 | 8°       | -     |  |  |
| All Dimensions in mm |                    |          |       |  |  |

## **Suggested Pad Layout**

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

### TO263AB (Standard)



| Dimensions | Value (in mm) |
|------------|---------------|
| С          | 5.08          |
| Х          | 1.10          |
| X1         | 10.41         |
| Y          | 3.50          |
| Y1         | 7.01          |
| Y2         | 15.99         |



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