

## Maximum Ratings and Electrical Characteristics (@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%.

| Characteristic  |                           | Symbol                            | Value       | Unit             |
|---|---------------------------|-----------------------------------|-------------|------------------|
| Peak Repetitive Reverse Voltage   |                           | V <sub>RRM</sub>                  | 1,000       | V                |
| Working Peak Reverse Voltage  |                           | V <sub>RWM</sub>                  |             |                  |
| DC Blocking Voltage   |                           | V <sub>R</sub>                    |             |                  |
| RMS Reverse Voltage   |                           | V <sub>R(RMS)</sub>               | 700         | V                |
| Average Forward Rectified Current (Note 4)  | With Heatsink             | I <sub>(AV)</sub>                 | 4.0         | A                |
|   | Without Heatsink          |                                   | 2.4         |                  |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single Half Sine-Wave Superimposed on Rated Load |                           | I <sub>FSM</sub>                  | 150         | A                |
| Forward Voltage (Per Element)   | @ I <sub>F</sub> = 2.0A   | V <sub>FM</sub>                   | 1.0         | V                |
| Peak Reverse Current at Rated DC Blocking Voltage   | @ T <sub>J</sub> = +25°C  | I <sub>R</sub>                    | 5           | μA               |
|   | @ T <sub>J</sub> = +125°C |                                   | 500         |                  |
| I <sup>2</sup> t Rating for Fusing (Note 5)   |                           | I <sup>2</sup> <sub>t</sub>       | 93          | A <sup>2</sup> s |
| Typical Total Capacitance per Element (Note 6)  |                           | C <sub>T</sub>                    | 35          | pF               |
| Typical Thermal Resistance Junction to Case (Note 4)  |                           | R <sub>θJC</sub>                  | 4.2         | °C/W             |
| Typical Thermal Resistance Junction to Lead   |                           | R <sub>θJL</sub>                  | 4.0         | °C/W             |
| Typical Thermal Resistance Junction to Ambient (Note 4)   |                           | R <sub>θJA</sub>                  | 10          | °C/W             |
| Operating and Storage Temperature Range   |                           | T <sub>J</sub> , T <sub>STG</sub> | -55 to +150 | °C               |

- Notes:
- Unit mounted on 50x50x1.6mm Cu plate heatsink.
  - Non-repetitive, for t > 3.0ms and < 8.3ms.
  - Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

FIG.1 - FORWARD CURRENT DERATING CURVE

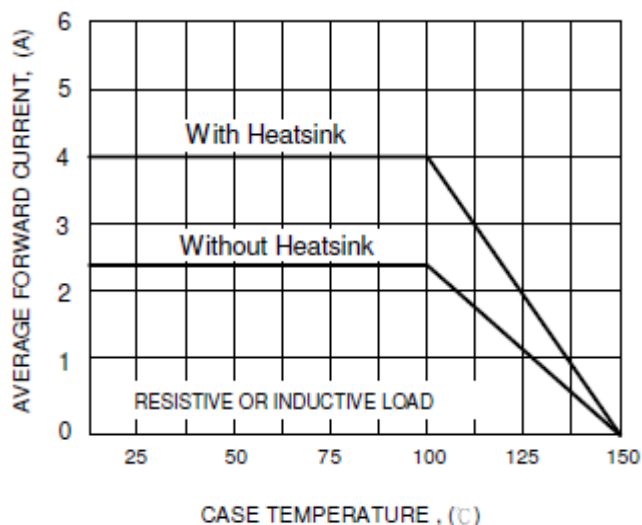


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

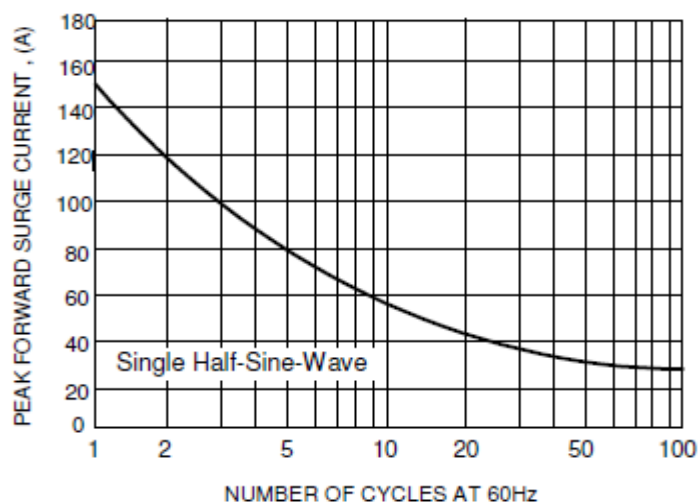


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

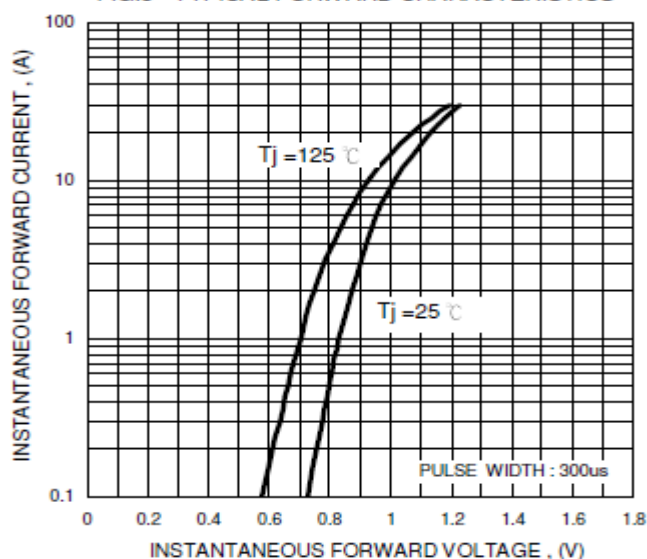


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

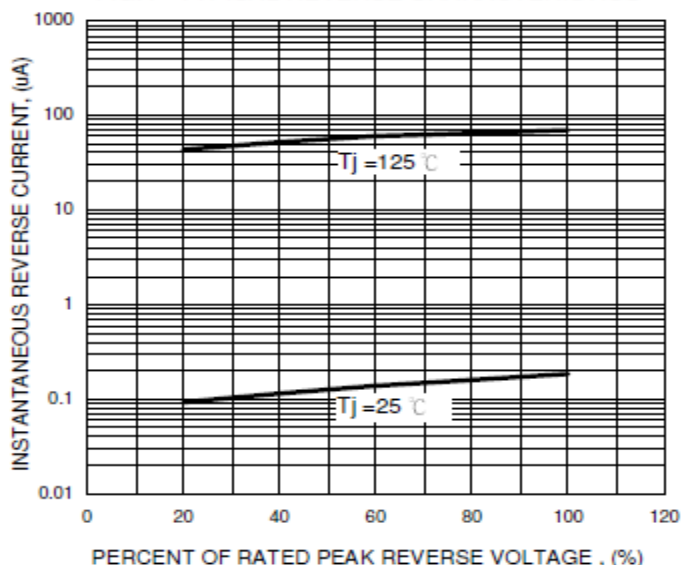


FIG.5 - TYPICAL JUNCTION CAPACITANCE

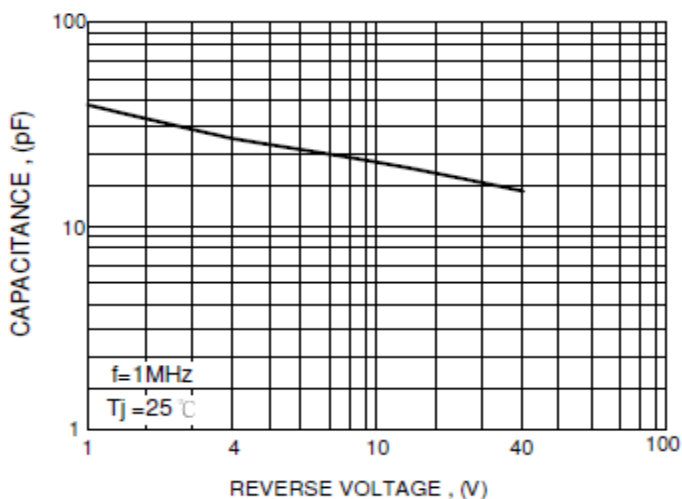
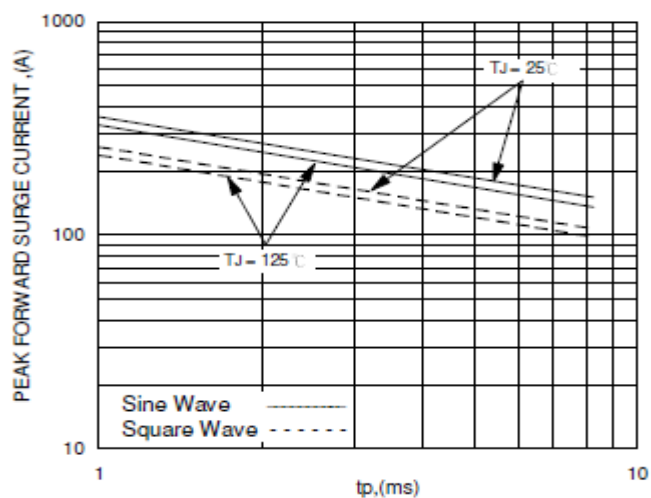


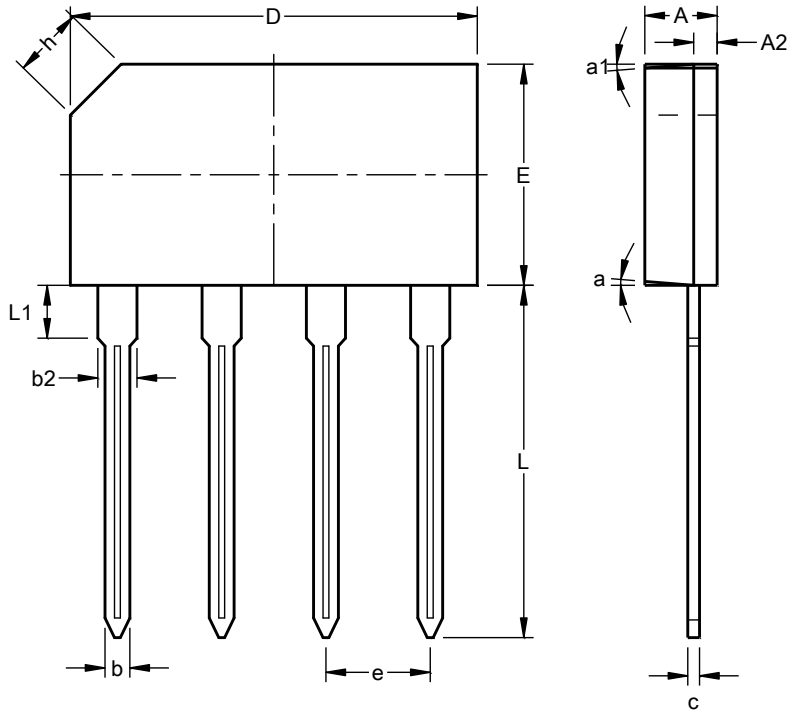
FIG.6 - NON-REPETITIVE SURGE CURRENT



## Package Outline Dimensions

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

**GBL**



| GBL                  |       |       |      |
|----------------------|-------|-------|------|
| Dim                  | Min   | Max   | Typ  |
| A                    | 3.30  | 3.70  | --   |
| A2                   | 0.80  | 1.20  | --   |
| b                    | 1.02  | 1.27  | --   |
| b2                   | 1.95  | 2.35  | --   |
| c                    | 0.40  | 0.60  | --   |
| D                    | 20.20 | 20.80 | --   |
| E                    | 10.70 | 11.30 | --   |
| e                    | 4.83  | 5.33  | --   |
| h                    | --    | --    | 0.35 |
| L                    | 17.50 | 18.00 | --   |
| L1                   | 2.30  | 2.70  | --   |
| a                    | --    | 5°    | --   |
| a1                   | --    | 5°    | --   |
| All Dimensions in mm |       |       |      |

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