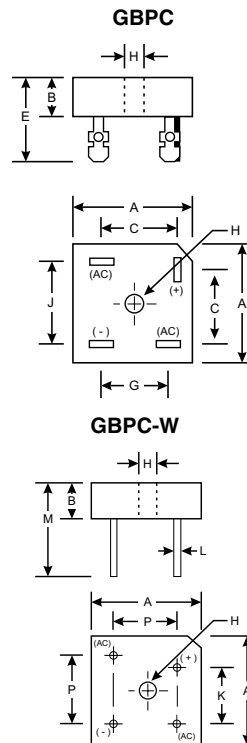


### Features

- Glass Passivated Die Construction
- Diffused Junction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Surge Overload Rating to 300A Peak
- Electrically Isolated Metal Base for Maximum Heat Dissipation
- Case to Terminal Isolation Voltage 1500V
- UL Listed Under Recognized Component Index, File Number E94661

### Mechanical Data

- Case: Molded Plastic with Heatsink Internally Mounted in the Bridge Encapsulation
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Mounting: Through Hole for #10 Screw
- Mounting Torque: 8.0 Inch-pounds Maximum
- GBPC Weight: 20 grams (approx.)
- GBPC-W Weight: 14 grams (approx.)
- Mounting Position: Any



| GBPC / GBPC-W        |                    |       |
|----------------------|--------------------|-------|
| Dim                  | Min                | Max   |
| A                    | 28.30              | 28.80 |
| B                    | 7.40               | 8.25  |
| C                    | 16.10              | 17.10 |
| E                    | 18.80              | 21.30 |
| G                    | 13.80              | 14.80 |
| H                    | Hole for #10 screw |       |
|                      | 5.08Ø              | 5.59Ø |
| J                    | 17.60              | 18.60 |
| K                    | 10.90              | 11.90 |
| L                    | 0.97Ø              | 1.07Ø |
| M                    | 31.80              | —     |
| P                    | 17.60              | 18.60 |
| All Dimensions in mm |                    |       |

"W" Suffix Designates Wire Leads  
 No Suffix Designates Faston Terminals

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

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

| Characteristic                                                                                                        | Symbol                            | GBPC15<br>005/W | GBPC15<br>01/W | GBPC15<br>02/W | GBPC15<br>04/W | GBPC15<br>06/W | GBPC15<br>08/W | GBPC15<br>10/W | Unit             |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|
| Peak Repetitive Reverse Voltage                                                                                       | V <sub>RRM</sub>                  | 50              | 100            | 200            | 400            | 600            | 800            | 1000           | V                |
| Working Peak Reverse Voltage                                                                                          | V <sub>RWM</sub>                  |                 |                |                |                |                |                |                |                  |
| DC Blocking Voltage                                                                                                   | V <sub>R</sub>                    |                 |                |                |                |                |                |                |                  |
| RMS Reverse Voltage                                                                                                   | V <sub>R(RMS)</sub>               | 35              | 70             | 140            | 280            | 420            | 560            | 700            | V                |
| Average Rectified Output Current @ T <sub>C</sub> = 70°C                                                              | I <sub>O</sub>                    | 15              |                |                |                |                |                |                | A                |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms single half sine-wave superimposed on rated load<br>(JEDEC Method) | I <sub>FSM</sub>                  | 300             |                |                |                |                |                |                | A                |
| Forward Voltage (per element) @ I <sub>F</sub> = 7.5A                                                                 | V <sub>FM</sub>                   | 1.1             |                |                |                |                |                |                | V                |
| Peak Reverse Current @ T <sub>C</sub> = 25°C                                                                          | I <sub>R</sub>                    | 5.0             |                |                |                |                |                |                | μA               |
| at Rated DC Blocking Voltage @ T <sub>C</sub> = 125°C                                                                 |                                   | 500             |                |                |                |                |                |                |                  |
| I <sup>2</sup> t Rating for Fusing (Note 1)                                                                           | I <sup>2</sup> t                  | 374             |                |                |                |                |                |                | A <sup>2</sup> s |
| Typical Junction Capacitance (Note 2)                                                                                 | C <sub>j</sub>                    | 300             |                |                |                |                |                |                | pF               |
| Typical Thermal Resistance per leg (Note 3)                                                                           | R <sub>θJC</sub>                  | 1.4             |                |                |                |                |                |                | °C/W             |
| Operating and Storage Temperature Range                                                                               | T <sub>j</sub> , T <sub>STG</sub> | -65 to +150     |                |                |                |                |                |                | °C               |

- Notes:
1. Non-repetitive, for t > 1.0ms and t < 8.3ms.
  2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
  3. Thermal resistance junction to case mounted on heatsink.

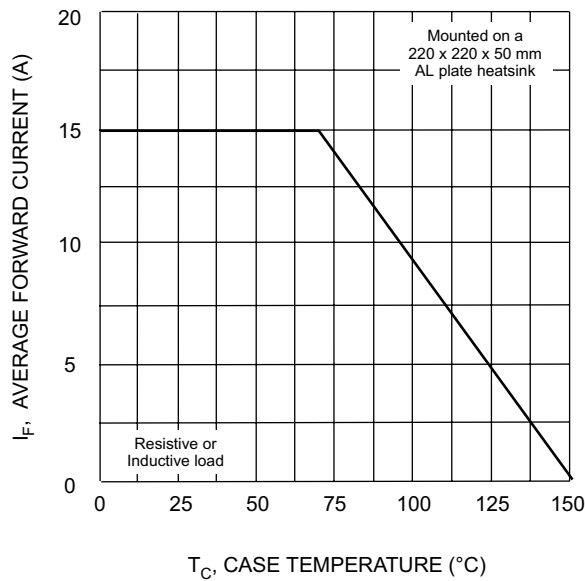


Fig. 1 Forward Current Derating Curve

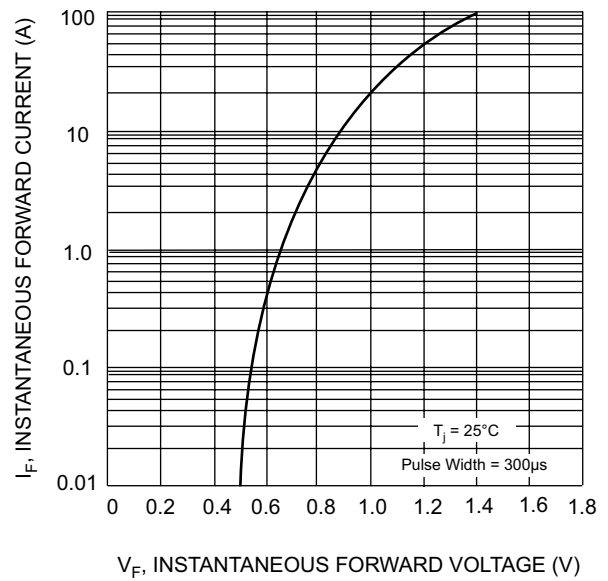


Fig. 2 Typical Forward Characteristics (per element)

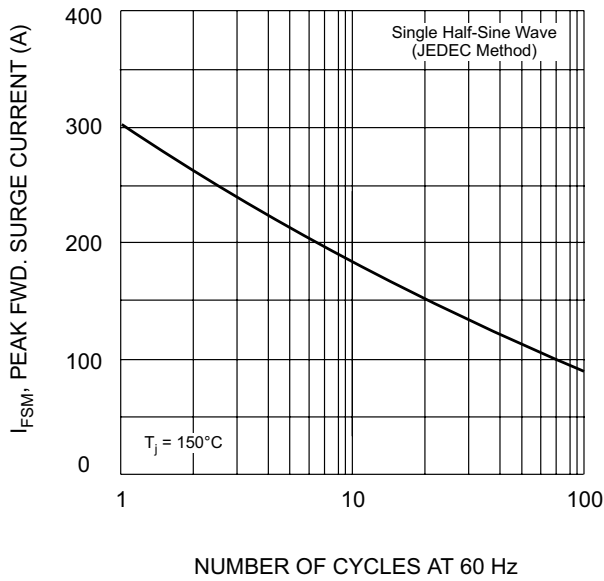


Fig. 3 Max Non-Repetitive Surge Current

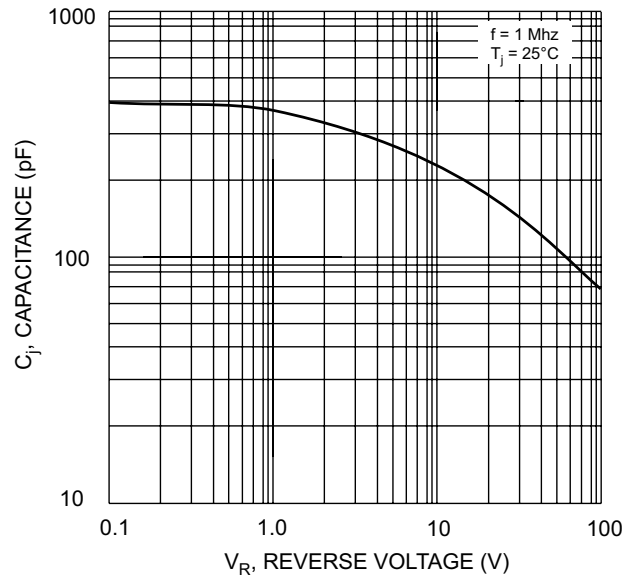


Fig. 4 Typical Junction Capacitance (per element)

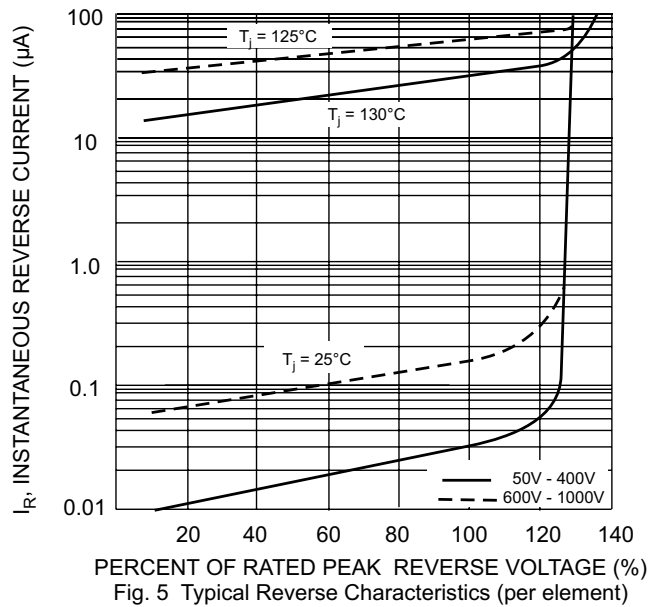


Fig. 5 Typical Reverse Characteristics (per element)