

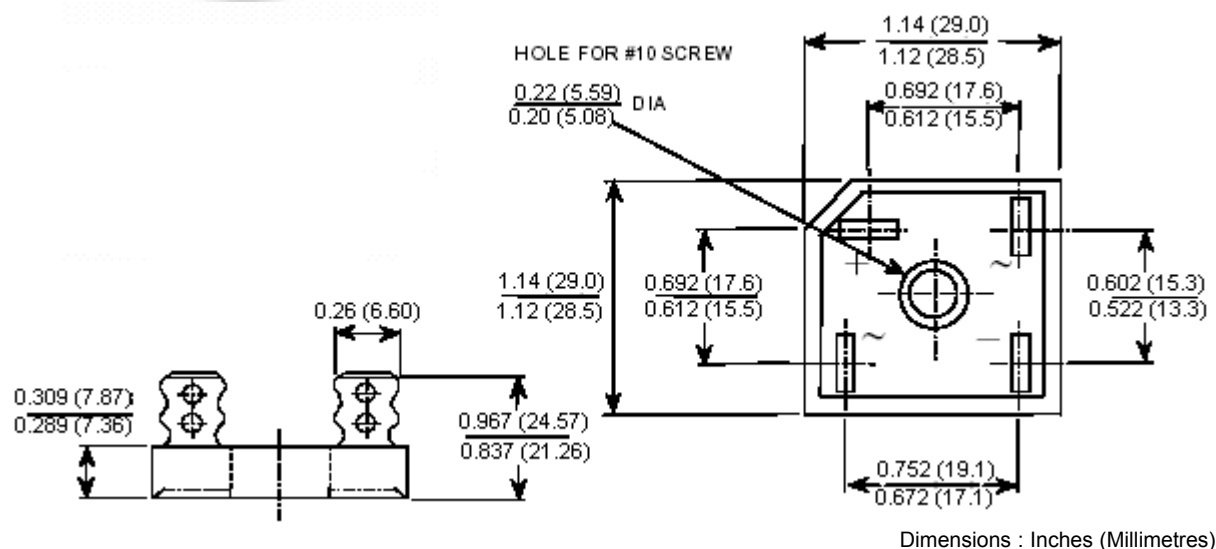
# GBPC50 Series

## Single Phase Bridge Rectifiers



### Features:

- The glass passivation process offers improvements to reliability at high operating temperatures, moisture resistance capability and overall durability.
- Integrally moulded heatsink provided very low thermal resistance for maximum heat dissipation.
- Universal 4-way terminals; snap-on, wrap-around, solder or P.C. board mounting.
- Surge overload rating 400 amperes.
- Terminals solderable per MIL-STD-202, Method 208.
- Typical  $I_R$  less than 0.2 uA.
- High temperature soldering guaranteed: 260°C/10 seconds/0.375" (9.5mm) lead lengths.
- Isolated voltage from case to lead over 2500 volts.



### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Type Number                                                                                          | Symbol                            | -005        | -02 | -04 | -10  | Unit |
|------------------------------------------------------------------------------------------------------|-----------------------------------|-------------|-----|-----|------|------|
| Maximum Recurrent Peak Reverse Voltage                                                               | V <sub>RRM</sub>                  | 50          | 200 | 400 | 1000 | V    |
| Maximum RMS Voltage                                                                                  | V <sub>RMS</sub>                  | 35          | 140 | 280 | 700  |      |
| Maximum DC Blocking Voltage                                                                          | V <sub>DC</sub>                   | 50          | 200 | 400 | 1000 |      |
| Maximum Average Forward Rectified Current at Tc = 55°C<br>GBPC50                                     | I <sub>(AV)</sub>                 | 50.0        |     |     |      | A    |
| Peak Forward Surge Current, Single Sine-wave<br>Superimposed on Rated Load (JEDEC method )<br>GBPC50 | I <sub>FSM</sub>                  | 400         |     |     |      |      |
| Maximum Instantaneous Forward Voltage<br>Drop Per Element at Specified Current<br>GBPC50 at 25A      | V <sub>F</sub>                    | 1.1         |     |     |      | V    |
| Maximum DC Reverse Current at Rated DC Blocking Voltage Per Element                                  | I <sub>R</sub>                    | 10          |     |     |      | uA   |
| Typical Thermal Resistance (Note 1)                                                                  | RθJC                              | 1.5         |     |     |      | °C/W |
| Operating and Storage Temperature Range                                                              | T <sub>J</sub> , T <sub>STG</sub> | -50 to +150 |     |     |      | °C   |

Note: 1. Thermal Resistance from Junction to Case.



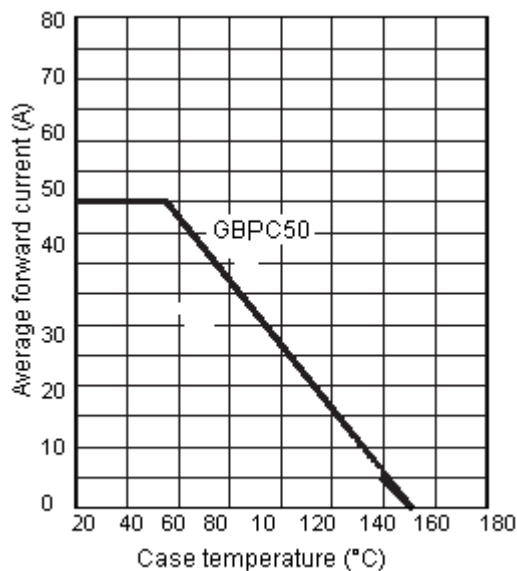
# GBPC50 Series

## Single Phase Bridge Rectifiers

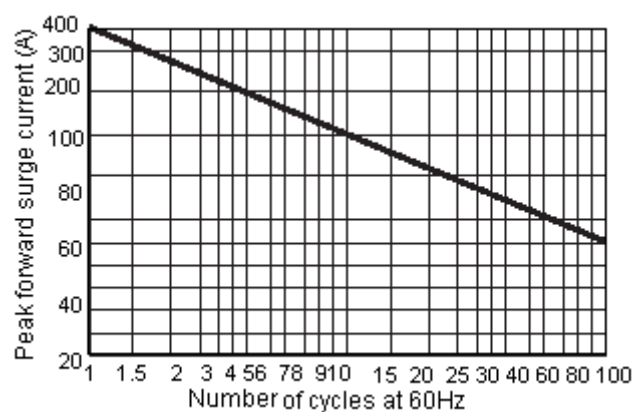


### Ratings and Characteristic Curves

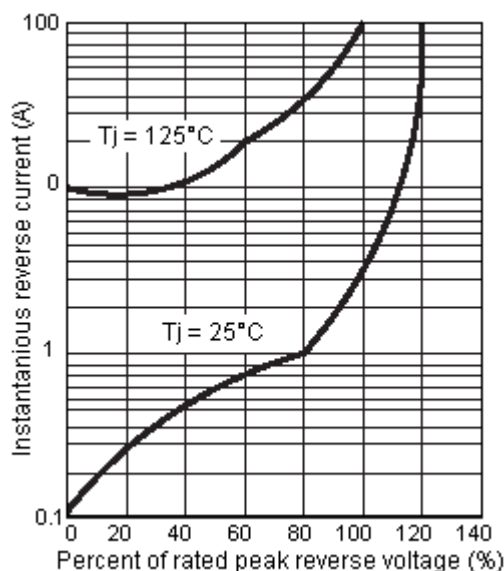
Maximum Forward Current Derating Curve



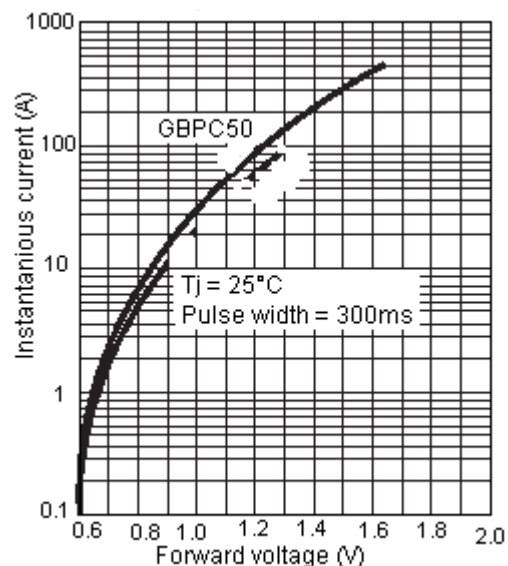
Maximum Non-Repetitive Forward Surge Current



Typical Reverse Characteristics per Bridge Element



Typical Forward Characteristics per Bridge Element



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### Specifications

| $V_{RRM}$<br>(V) | Maximum Input<br>Voltage<br>(V ac) | $I_O$<br>at 55°C<br>(A) | $I_{FSM}$<br>(A) | Part Number |
|------------------|------------------------------------|-------------------------|------------------|-------------|
| 50               | 35                                 | 50                      | 400              | GBPC50005.  |
| 200              | 140                                |                         |                  | GBPC5002.   |
| 600              | 420                                |                         |                  | GBPC5006.   |
| 1000             | 700                                |                         |                  | GBPC5010.   |
| 50               | 35                                 |                         |                  | GBPC50005   |

# GBPC50 Series

## Single Phase Bridge Rectifiers



### Notes:

### International Sales Offices:



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<http://www.farnellinone.com>

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