

50 A GLASS PASSIVATED BRIDGE RECTIFIER

Reverse Voltage - 100 to 1000 V

Forward Current – 50 A

Features

- ◆ Glass passivated die construction
- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ High surge current capability
- ◆ Plastic material-UL flammability 94V-0
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

Mechanical Data

- ◆ Case: GBPC
- ◆ Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- ◆ Polarity: As Marked on Case
- ◆ Mounting Position: Any
- ◆ Marking: Type Number
- ◆ Lead Free: For RoHS / Lead Free Version

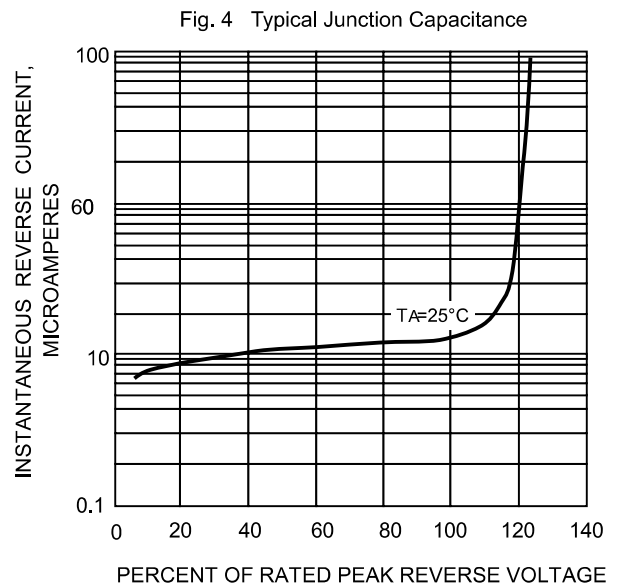
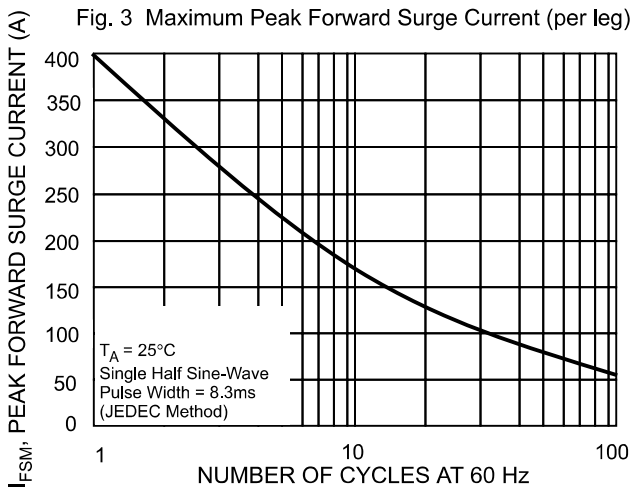
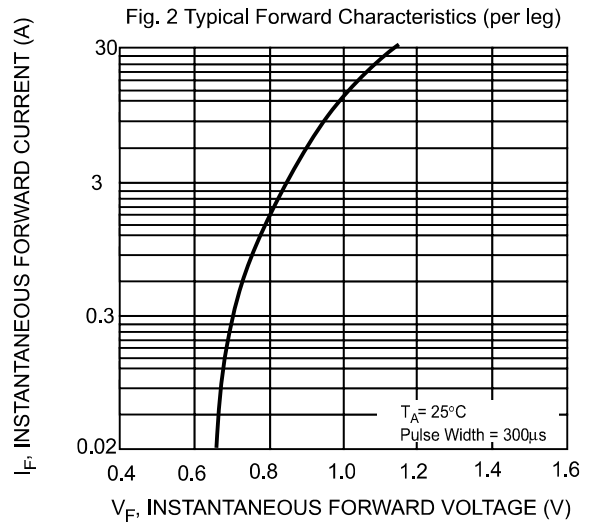
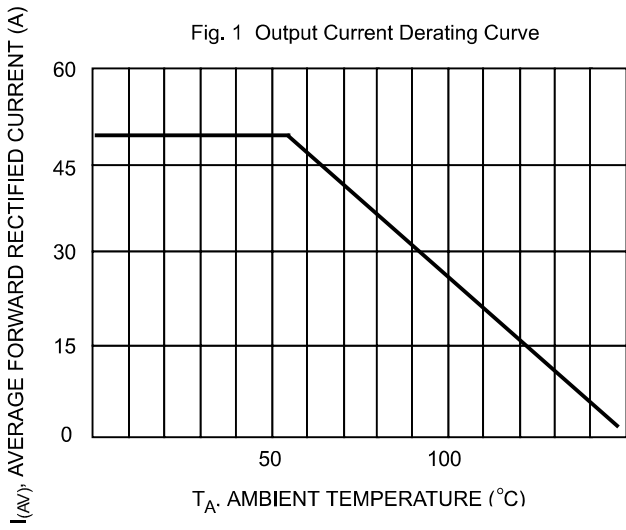


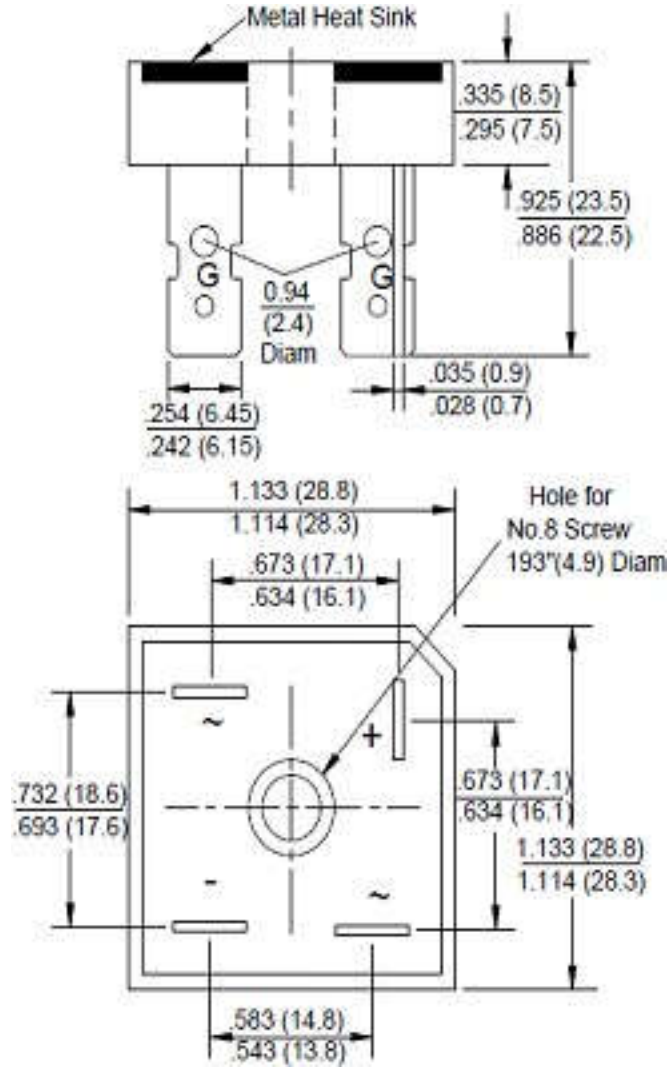
Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

| Parameter | Symbols | GBPC 5001 | GBPC 5002 | GBPC 5004 | GBPC 5006 | GBPC 5008 | GBPC 5010 | Units |
|---|----------------|-------------|-----------|-----------|-----------|-----------|-----------|-------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Peak Repetitive Reverse Voltage | V_{RWM} | 70 | 140 | 280 | 420 | 560 | 700 | V |
| DC Blocking Voltage | V_{RMS} | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Average Rectified Output Current (Note1) @TA=55 °C | $I_{(AV)}$ | 50.0 | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 500 | | | | | | A |
| Forward Voltage per element @IF =25.0A | V_F | 1.1 | | | | | | V |
| Peak Reverse Current @TA=25°C At Rated DC Blocking Voltage @TA=125°C | I_R | 10.0 500 | | | | | | μA |
| Typical Junction Capacitance per leg | C_J | 300 | | | | | | pF |
| Typical Thermal Resistance per leg (Note 2) | $R_{θJL}$ | 2.2 | | | | | | °C/W |
| Operating and Storage Temperature Range | T_j, T_{stg} | -55 ~ +150 | | | | | | °C |

1. Mounted on glass epoxy PC board with 1.3mm² solder pad.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.





Summary of Packing Options

| Package | Packing Description | Packing Quantity | Industry Standard |
|---------|---------------------|------------------|-------------------|
| GBPC | BOX | 50 | EIA-481-1 |