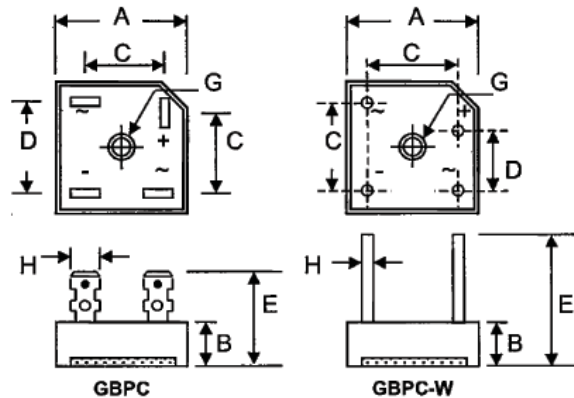


Features

- Glass Passivated Die Construction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Electrically Isolated Epoxy Case for Maximum Heat Dissipation
- Case to Terminal Isolation Voltage 2500V
- Recognized File # E157705

Mechanical Data

- Case: Molded Plastic with Heatsink, Available in Both Low Profile and Standard Case
- Terminals: Plated Faston Lugs or Wire Leads, Add "W" Suffix to Indicate Wire Leads
- Polarity: As Marked on Case
- Mounting: Through Hole with #10 Screw
- Mounting Torque: 23 cm·kg (20 in·lbs) Max.
- Weight: 21 grams (GBPC); 18 grams (GBPC-W)
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



| Dim | GBPC Low Profile / Standard | | GBPC-W Low Profile / Standard | |
|-----|-----------------------------------|---------------|----------------------------------|--------------|
| | Min | Max | Min | Max |
| A | 28.40 | 28.70 | 28.40 | 28.70 |
| B | 7.50 / 10.97 | 8.50 / 11.23 | 7.50 / 10.97 | 8.50 / 11.23 |
| C | 15.70 | 16.70 | 17.10 | 19.10 |
| D | 17.50 | 18.50 | 10.90 | 11.90 |
| E | 19.08 / 22.86 | 21.58 / 25.40 | 30.50 | — |
| G | Hole for #10 screw, 5.08Ø Nominal | | | |
| H | 6.35 Typical | | 0.97Ø | 1.07Ø |

All Dimension in mm

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

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

| Characteristic | Symbol | GBPC10 | | | | | | | | | | Unit |
|---|-----------------------------------|-------------|-----|-----|-----|-----|-----|------|------|------|------|------------------|
| | | 00 | 01 | 02 | 04 | 06 | 08 | 10 | 12 | 14 | 16 | |
| Peak Repetitive Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | 1200 | 1400 | 1600 | V |
| Working Peak Reverse Voltage | V _{RWM} | | | | | | | | | | | |
| DC Blocking Voltage | V _R | | | | | | | | | | | |
| RMS Reverse Voltage | V _{R(RMS)} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | 840 | 980 | 1120 | V |
| Average Rectified Output Current @T _C = 50°C | I _O | 10 | | | | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 200 | | | | | | | | | | A |
| Forward Voltage per leg @I _F = 5.0A | V _{FM} | 1.1 | | | | | | | | | | V |
| Peak Reverse Current @T _C = 25°C At Rated DC Blocking Voltage @T _C = 125°C | I _{RM} | 5.0 500 | | | | | | | | | | µA |
| I ² t Rating for Fusing (t < 8.3ms) | I ² t | 160 | | | | | | | | | | A ² s |
| Typical Junction Capacitance (Note 1) | C _J | 300 | | | | | | | | | | pF |
| Typical Thermal Resistance per leg (Note 2) | R _{θJC} | 2.0 | | | | | | | | | | °C/W |
| RMS Isolation Voltage from Case to Leads | V _{ISO} | 2500 | | | | | | | | | | V |
| Operating and Storage Temperature Range | T _J , T _{STG} | -65 to +150 | | | | | | | | | | °C |

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
2. Mounted on 152 x 56 x 56mm Al. finned plate.

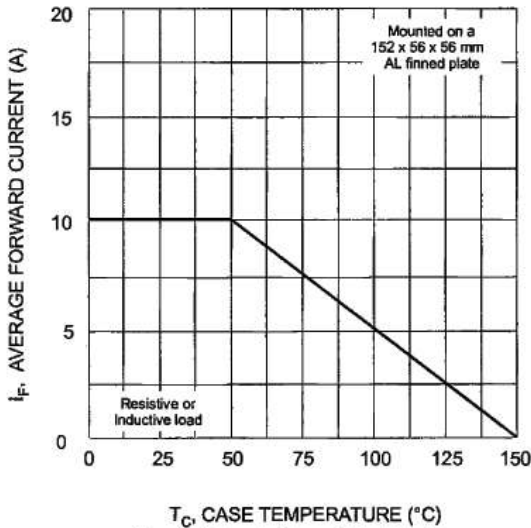


Fig. 1 Forward Current Derating Curve

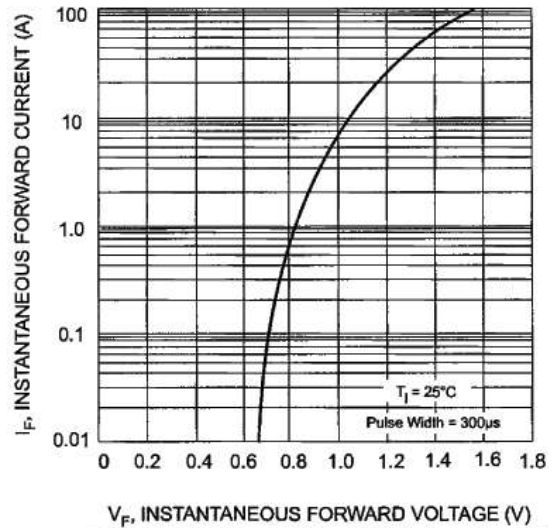


Fig. 2 Typical Forward Characteristics (per element)

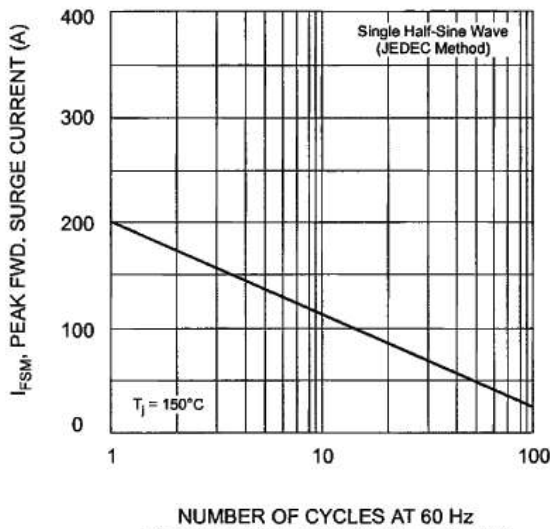


Fig. 3 Max Non-Repetitive Surge Current

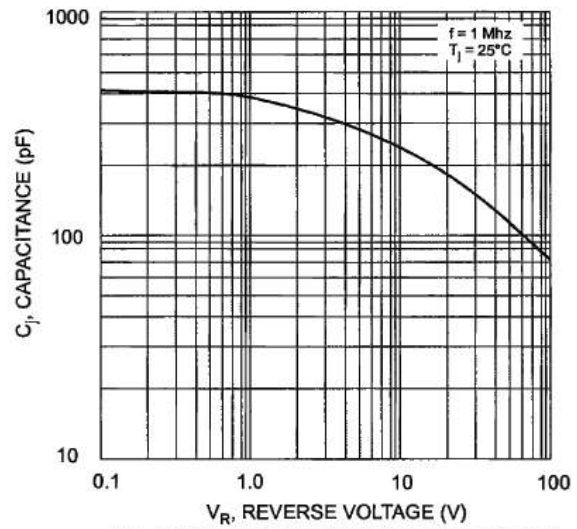


Fig. 4 Typical Junction Capacitance (per element)

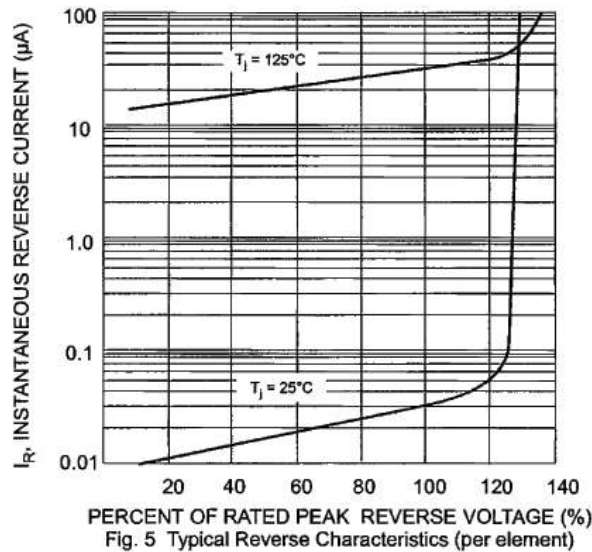


Fig. 5 Typical Reverse Characteristics (per element)

MARKING INFORMATION

| GBPC | GBPC-W |
|--|---|
| | |
| = Manufacturer's Logo GBPC15xx = Device Number xx = 00, 01, 02, 04, 06, 08, 10, 12, 14 or 16 Polarity = As Marked on Body | = Manufacturer's Logo GBPC15xxW = Device Number xx = 00, 01, 02, 04, 06, 08, 10, 12, 14 or 16 Polarity = As Marked on Body |

PACKAGING INFORMATION

| BULK | | | | | |
|------------|----------------------------------|-------------------|-------------------------------|-------------------|------------------------------|
| Case Style | Inner Box Size L x W x H (mm) | Quantity (PCS) | Carton Size L x W x H (mm) | Quantity (PCS) | Approx. Gross Weight (KG) |
| GBPC | 195 x 195 x 40 | 50 | 405 x 205 x 240 | 500 | 12.0 |
| GBPC-W | 195 x 195 x 40 | 50 | 405 x 205 x 240 | 500 | 11.0 |

Note: 1. Paper box, white or brown color.



ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------|---------------|-------------------|
| GBPC1000 | Square Bridge | 50 Units/Box |
| GBPC1000W | Square Bridge | 50 Units/Box |
| GBPC1001 | Square Bridge | 50 Units/Box |
| GBPC1001W | Square Bridge | 50 Units/Box |
| GBPC1002 | Square Bridge | 50 Units/Box |
| GBPC1002W | Square Bridge | 50 Units/Box |
| GBPC1004 | Square Bridge | 50 Units/Box |
| GBPC1004W | Square Bridge | 50 Units/Box |
| GBPC1006 | Square Bridge | 50 Units/Box |
| GBPC1006W | Square Bridge | 50 Units/Box |
| GBPC1008 | Square Bridge | 50 Units/Box |
| GBPC1008W | Square Bridge | 50 Units/Box |
| GBPC1010 | Square Bridge | 50 Units/Box |
| GBPC1010W | Square Bridge | 50 Units/Box |
| GBPC1012 | Square Bridge | 50 Units/Box |
| GBPC1012W | Square Bridge | 50 Units/Box |
| GBPC1014 | Square Bridge | 50 Units/Box |
| GBPC1014W | Square Bridge | 50 Units/Box |
| GBPC1016 | Square Bridge | 50 Units/Box |
| GBPC1016W | Square Bridge | 50 Units/Box |

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. To order Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, GBPC1000-LF.

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We power your everyday.