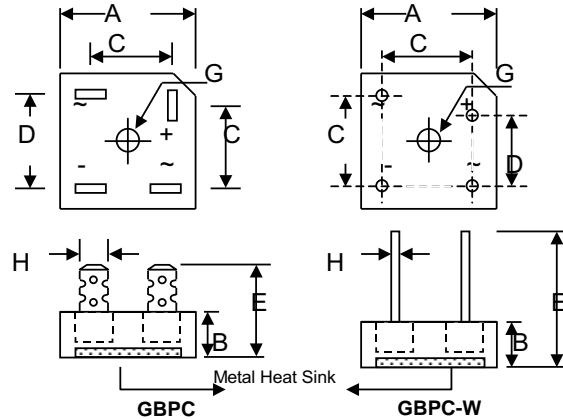


Data Sheet 1336 Rev.B

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
- UL Recognized File # E223064



Mechanical Data

- Case: Epoxy Case with Heat Sink Internally Mounted in the Bridge Encapsulation
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Symbols Marked on Case
- Mounting: Through Hole for #8 Screw
- Weight: GBPC 24 grams (approx.)
GBPC-W 21 grams (approx.)
- Marking: Type Number

"W" Suffix Designates Wire Leads

No Suffix Designates Faston Terminals

*All Models are Available on B(Height)=7.62mm Max. Epoxy Case

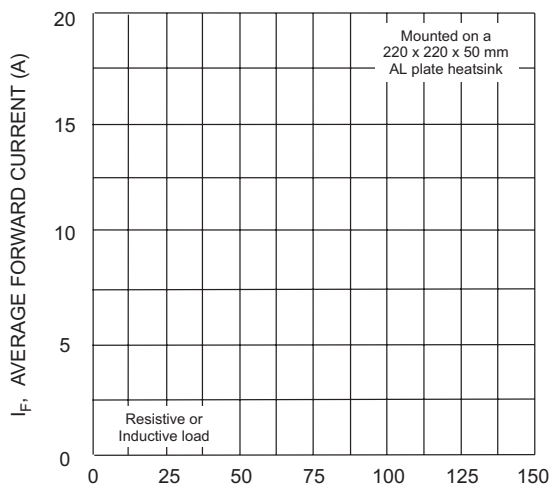
| Dim | GBPC | | GBPC-W | |
|---------------------|----------------------------------|-------|-------------|-------|
| | Min | Max | Min | Max |
| A | 28.40 | 28.70 | 28.40 | 28.70 |
| B | 10.97 | 11.23 | 10.97 | 11.23 |
| C | 15.70 | 16.70 | 17.10 | 19.10 |
| D | 17.50 | 18.50 | 10.90 | 11.90 |
| E | 22.86 | 25.40 | 30.50 | — |
| G | Hole for #8 screw, 4.90Ø 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

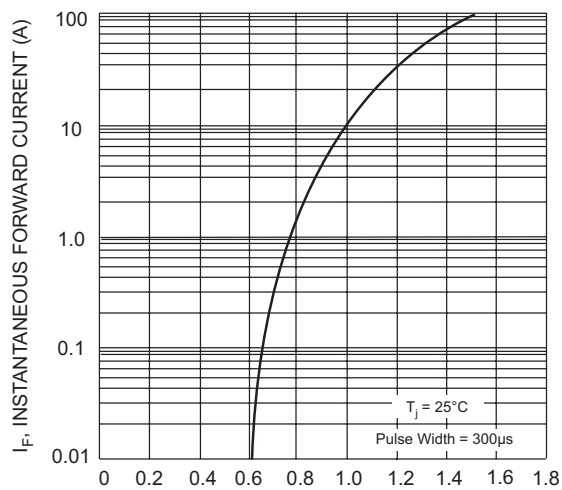
Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| Characteristic | Symbol | GBPC 1000/W | GBPC 1001/W | GBPC 1002/W | GBPC 1004/W | GBPC 1006/W | GBPC 1008/W | GBPC 1010/W | Unit |
|---|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------|
| Peak Repetitive Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | 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 | V |
| Average Rectified Output Current @ _{T_A} = 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 element) @ _{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 |
| Typical Junction Capacitance (Note 1) | C _j | 300 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | R _{θJC} | 5.3 | | | | | | | K/W |
| RMS Isolation Voltage from Case to Lead | V _{ISO} | 2500 | | | | | | | V |
| Operating and Storage Temperature Range | T _j , T _{STG} | -65 to +150 | | | | | | | °C |

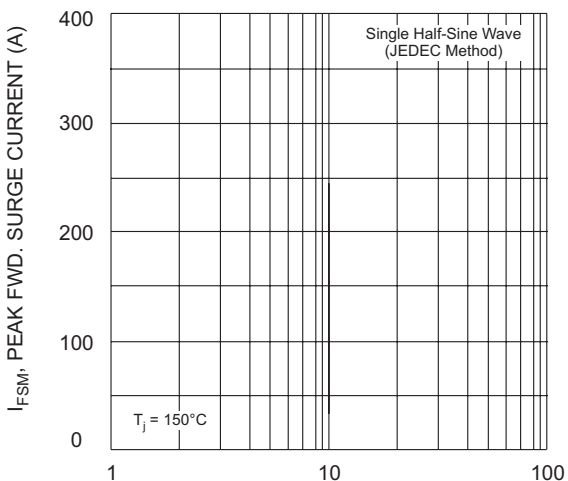
Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
2. Thermal resistance junction to case per element mounted on heatsink.



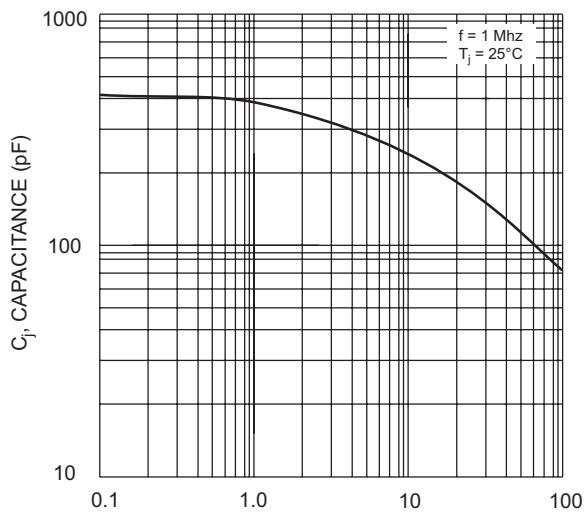
T_A , AMBIENT TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics (per element)



NUMBER OF CYCLES AT 60 Hz
Fig. 3 Max Non-Repetitive Surge Current



V_R , REVERSE VOLTAGE (V)
Fig. 4 Typical Junction Capacitance (per element)

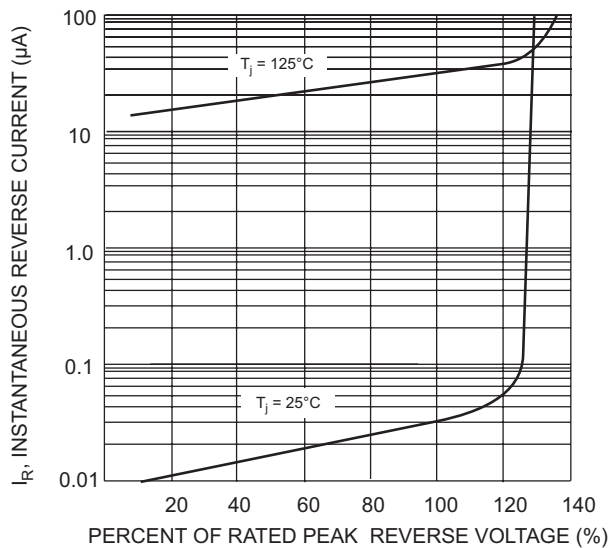


Fig. 5 Typical Reverse Characteristics (per element)

TECHNICAL DATA

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