



THE DATASHEET OF GBU10D-BP



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|---|----------------|
|  | E502650 |
|---|----------------|

Features

- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant (Note 2) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- High Surge Overload Rating

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 2.2°C/W Junction To Case (Note 3)

Mechanical Data

- Mounting Torque: 5in-lbs

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| GBU10A | GBU10A | 50V | 35V | 50V |
| GBU10B | GBU10B | 100V | 70V | 100V |
| GBU10D | GBU10D | 200V | 140V | 200V |
| GBU10G | GBU10G | 400V | 280V | 400V |
| GBU10J | GBU10J | 600V | 420V | 600V |
| GBU10K | GBU10K | 800V | 560V | 800V |
| GBU10M | GBU10M | 1000V | 700V | 1000V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

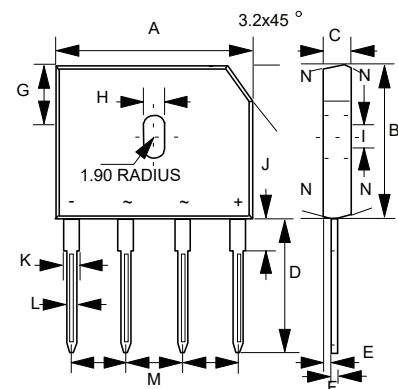
| | | | |
|---|-------------|--|--|
| Maximum Average Forward Current | $I_{F(AV)}$ | 10A | $T_C = 100^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 240A 220A 480A 440A | $T_J = 25^\circ\text{C}$ 8.3ms, Half Sine $T_J = 125^\circ\text{C}$ $T_J = 25^\circ\text{C}$ 1.0ms, Half Sine $T_J = 125^\circ\text{C}$ |
| Maximum Instantaneous Forward Voltage | V_F | 1.0V 1.2V | $I_{FM} = 5A;$ $I_{FM} = 10A;$ |
| Rating for fusing | I^2t | 239A ² s 115.2A ² s | $t < 8.3ms$ $t < 1.0ms$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 5μA 500μA | $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$ |
| Typical Junction Capacitance | C_J | 70pF | Measured at 1.0MHz, $V_R = 4.0V$ |

Note:

1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High temperature solder exemption applied, see EU directive annex 7a.
3. Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

10 Amp Single Phase Glass Passivated Bridge Rectifiers 50 to 1000 Volts

GBU



| DIM | DIMENSIONS | | | | NOTE |
|-----|--------------|-------|-------|-------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | 0.860 | 0.880 | 21.80 | 22.30 | |
| B | 0.720 | 0.740 | 18.30 | 18.80 | |
| C | 0.130 | 0.142 | 3.30 | 3.60 | |
| D | 0.690 | 0.717 | 17.50 | 18.20 | |
| E | 0.030 | 0.039 | 0.76 | 1.00 | |
| F | 0.018 | 0.024 | 0.46 | 0.60 | |
| G | 0.290 | 0.310 | 7.40 | 7.90 | |
| H | 0.140 | 0.160 | 3.50 | 4.10 | |
| I | 0.065 | 0.085 | 1.65 | 2.16 | |
| J | 0.060 | 0.096 | 1.52 | 2.45 | |
| K | 0.077 | 0.098 | 1.95 | 2.50 | |
| L | 0.040 | 0.050 | 1.02 | 1.27 | |
| M | 0.190 | 0.210 | 4.83 | 5.33 | |
| N | 7.0° TYPICAL | | | | |

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

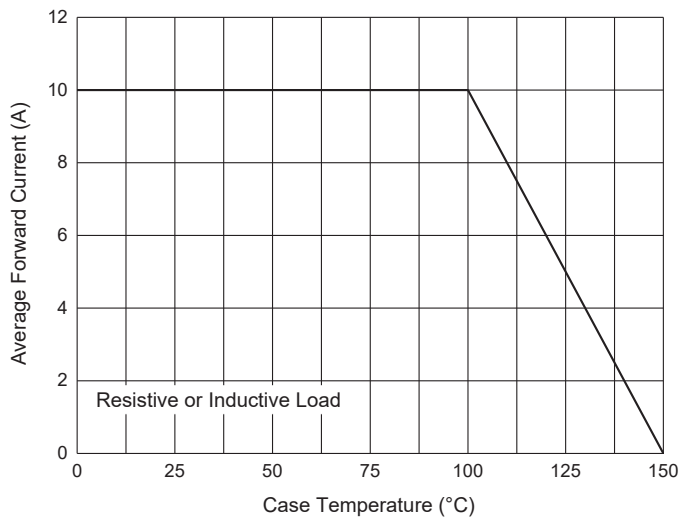


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

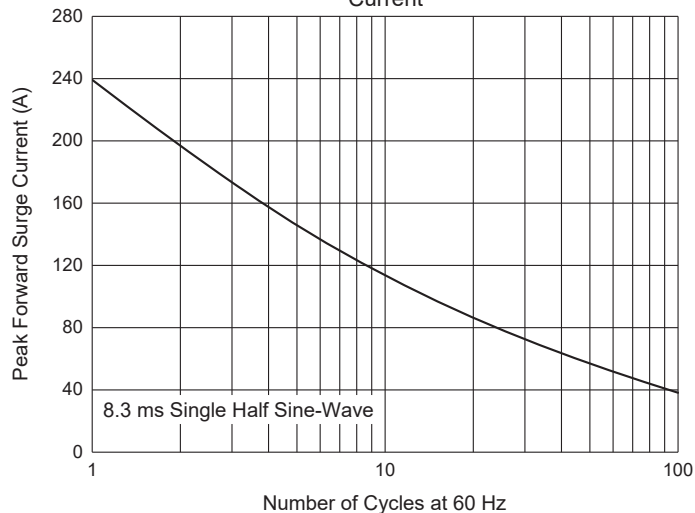


Fig. 3 - Typical Instantaneous Forward Characteristics

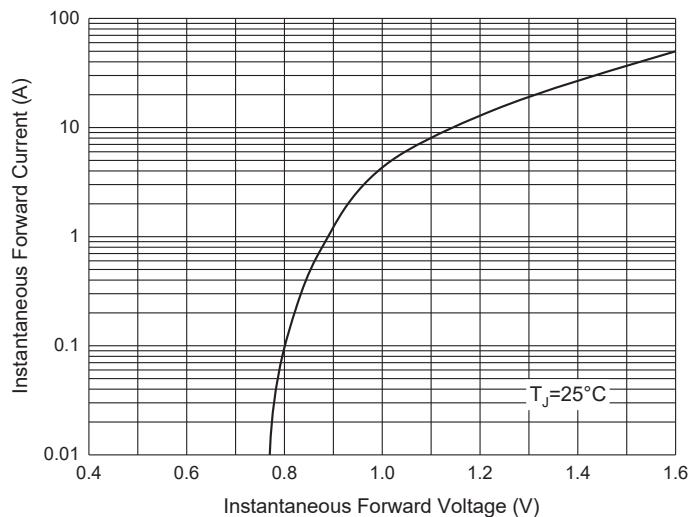
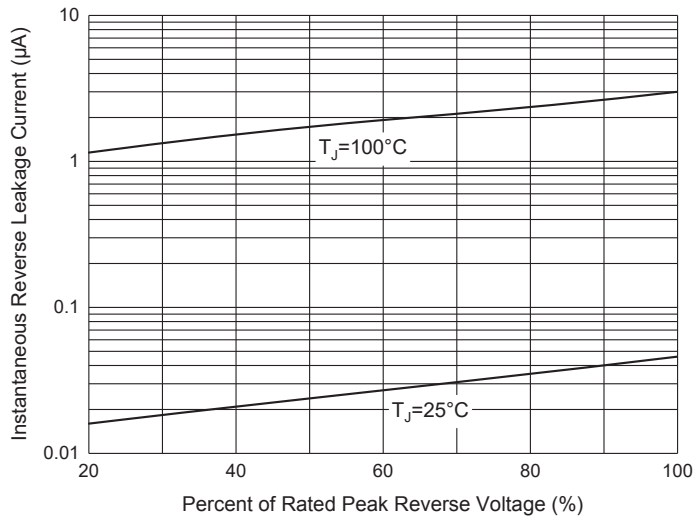


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

| Device | Packing |
|----------------|--|
| Part Number-BP | Bulk:20pcs/Tube,1Kpcs/Box,2Kpcs/Carton |

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