

**Glass Passivated Low VF Bridge Rectifier**

**GBU-2**

|                |              |                |            |
|----------------|--------------|----------------|------------|
| <b>Voltage</b> | <b>800 V</b> | <b>Current</b> | <b>20A</b> |
|----------------|--------------|----------------|------------|

**Features**



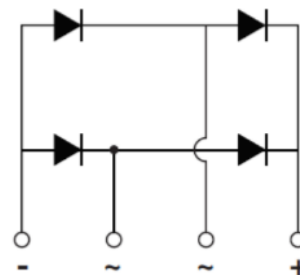
- Glass passivated chip junction
- Low forward voltage drop
- Lead free in compliance with EU RoHS 2.0
- Halogen-free according to IEC 61249 standard

**Mechanical Data**

- Case : GBU-2 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 3.8348 grams

**Application**

- Computing Power / Desktop Power
- Game Console Power
- Server Power
- Air Conditioner out door power board
- High Power/High Efficiency Power
- Home Appliances Power Board



| <b>Key Parameters</b>                      |              |
|--|--------------|
| <b>Parameter</b>                           | <b>Value</b> |
| <b><math>V_{RRM}</math></b>                | <b>800V</b>  |
| <b><math>I_F(AV)</math></b>                | <b>20A</b>   |
| <b><math>I_{FSM}</math></b>                | <b>400A</b>  |
| <b><math>V_F@125^{\circ}C,(typ)</math></b> | <b>0.82V</b> |
| <b><math>I_R</math></b>                    | <b>5uA</b>   |
| <b>Package</b>                             | <b>GBU-2</b> |

**Maximum Ratings and Thermal Characteristics** ( $T_A = 25\text{ }^\circ\text{C}$  unless otherwise noted)

| PARAMETER  | SYMBOL                              | LIMIT   | UNITS              |
|--|-------------------------------------|---------|--------------------|
| Maximum Repetitive Peak Reverse Voltage  | $V_{RRM}$                           | 800     | V                  |
| Maximum RMS Voltage  | $V_{RMS}$                           | 560     | V                  |
| Maximum DC Blocking Voltage  | $V_{DC}$                            | 800     | V                  |
| Maximum Average Forward Current  | With heatsink                       | 20      | A                  |
|  | Without heatsink                    | 3.5     |                    |
| Peak Forward Surge Current : 8.3 ms<br>Single Half Sine-Wave Superimposed<br>On Rated Load | @ $T_A = 25\text{ }^\circ\text{C}$  | 400     | A                  |
|  | @ $T_A = 125\text{ }^\circ\text{C}$ | 320     |                    |
| Peak Forward Surge Current : 1.0 ms<br>Single Half Sine-Wave Superimposed<br>On Rated Load | @ $T_A = 25\text{ }^\circ\text{C}$  | 800     | A                  |
|  | @ $T_A = 125\text{ }^\circ\text{C}$ | 640     |                    |
| $I^2 t$ rating for fusing ( $t = 8.3\text{ms}$ )   | $I^2 t$                             | 664     | $A^2S$             |
| Typical Junction Capacitance<br>Measured at 1 MHz And Applied $V_R = 4\text{ V}$           | $C_J$                               | 140     | pF                 |
| Typical Thermal Resistance (Note 1) (with heatsink)  | $R_{\theta JA}$                     | 5       | $^\circ\text{C/W}$ |
|  | $R_{\theta JL}$                     | 3       |                    |
|  | $R_{\theta JC}$                     | 2       |                    |
| Operating junction and storage temperature range   | $T_J, T_{STG}$                      | -55~150 | $^\circ\text{C}$   |
| Mounting torque @ Recommend torque:5Kg.cm  | Tor                                 | 8       | Kg.cm              |

**Electrical Characteristics** ( $T_A = 25\text{ }^\circ\text{C}$  unless otherwise noted)

| PARAMETER       | SYMBOL | TEST CONDITION  | MIN. | TYP. | MAX. | UNITS         |
|-----------------|--------|---|------|------|------|---------------|
| Forward Voltage | $V_F$  | $I_F = 10\text{ A}, T_J = 25\text{ }^\circ\text{C}$   | -    | -    | 0.92 | V             |
|                 |        | $I_F = 10\text{ A}, T_J = 125\text{ }^\circ\text{C}$  | -    | 0.82 | -    |               |
| Reverse Current | $I_R$  | $V_R = 800\text{ V}, T_J = 25\text{ }^\circ\text{C}$  | -    | -    | 5    | $\mu\text{A}$ |
|                 |        | $V_R = 800\text{ V}, T_J = 125\text{ }^\circ\text{C}$ | -    | -    | 100  |               |

NOTES :

1. Device mounted on 10 cm \* 9.4 cm \* 2.6 cm Fin type heat sink .

TYPICAL CHARACTERISTIC CURVES

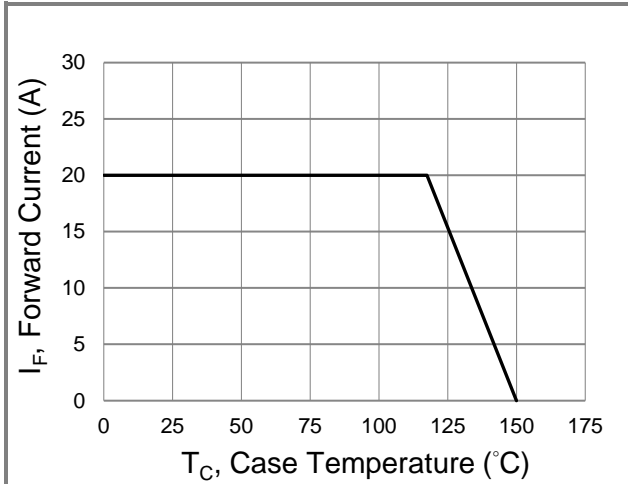


Fig.1 Forward Current Derating Curve

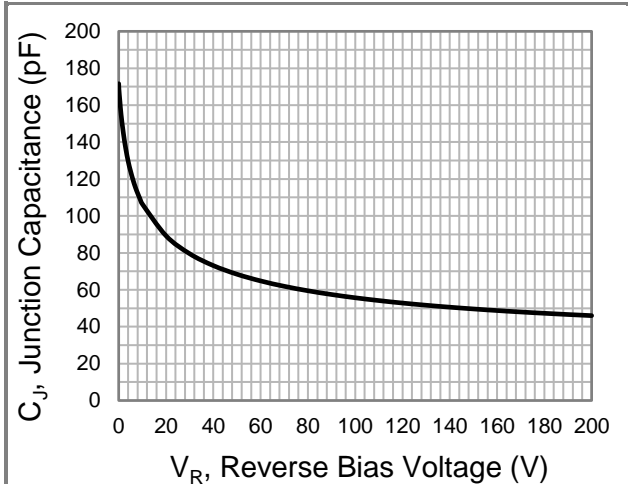


Fig.2 Typical Junction Capacitance

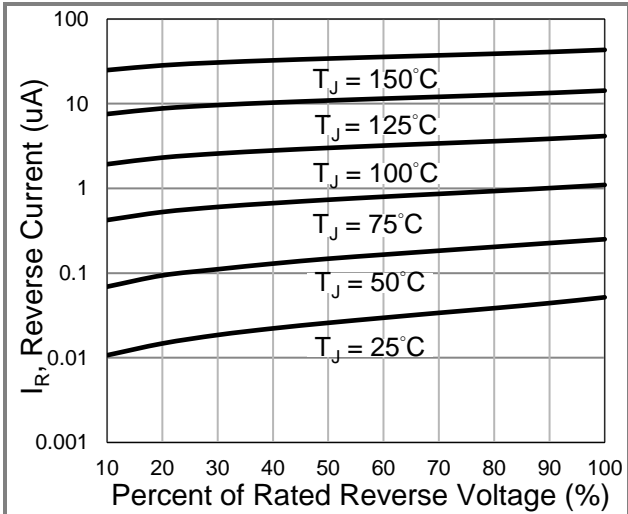


Fig.3 Typical Reverse Characteristics

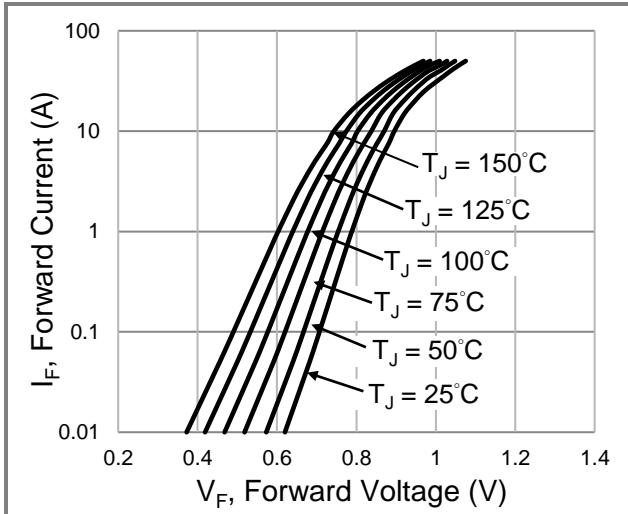
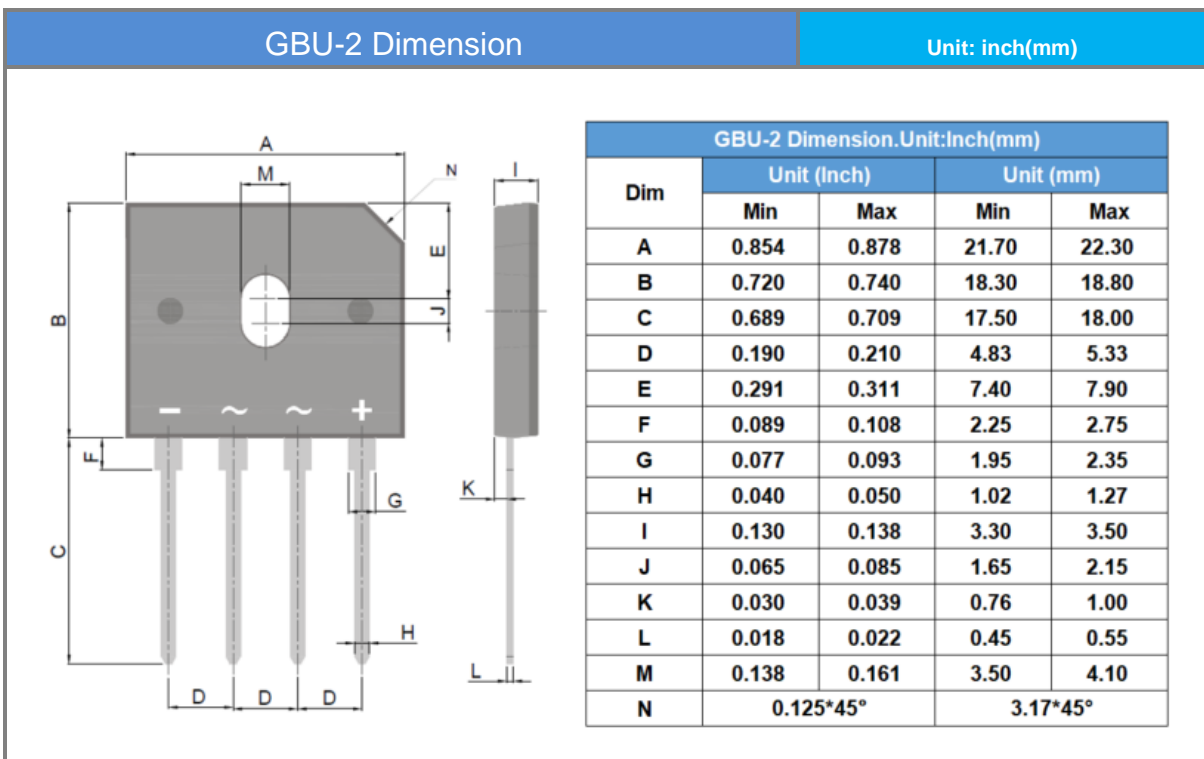


Fig.4 Typical Forward Characteristics

**Part No. Marking Code Version**

| Approved Part No. | Package Type | Packing Type  | Marking   |
|-------------------|--------------|---------------|-----------|
| GBU2008LV         | GBU-2        | 20 pcs / tube | GBU2008LV |

**Packaging Information**



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