

Glass Passivated Low VF Bridge Rectifier

GBU-2

| | | | |
|----------------|--------------|----------------|------------|
| Voltage | 800 V | Current | 10A |
|----------------|--------------|----------------|------------|

Features



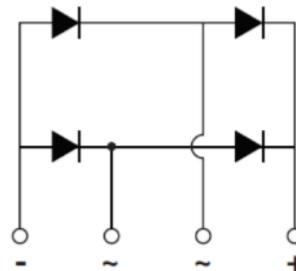
- Glass passivated chip junction
- UL recognition file number E526209
- Low forward voltage drop
- Lead free in compliance with EU RoHS 2.0
- Halogen-free according to IEC 61249 standard

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



| Key Parameters | |
|--|--------------|
| Parameter | Value |
| V_{RRM} | 800V |
| $I_F(AV)$ | 10A |
| I_{FSM} | 240A |
| $V_F@125^{\circ}C,(typ)$ | 0.82V |
| I_R | 5uA |
| Package | GBU-2 |

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 | 10 | A |
| | Without heatsink | 3.2 | |
| Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load | @ $T_A = 25\text{ }^\circ\text{C}$ | 240 | A |
| | @ $T_A = 125\text{ }^\circ\text{C}$ | 192 | |
| Peak Forward Surge Current : 1.0 ms Single Half Sine-Wave Superimposed On Rated Load | @ $T_A = 25\text{ }^\circ\text{C}$ | 480 | A |
| | @ $T_A = 125\text{ }^\circ\text{C}$ | 384 | |
| $I^2 t$ rating for fusing ($t = 8.3\text{ms}$) | $I^2 t$ | 239 | A^2S |
| Typical Junction Capacitance Measured at 1 MHz And Applied $V_R = 4\text{ V}$ | C_J | 85 | pF |
| Typical Thermal Resistance (Note 1) (with heatsink) | $R_{\theta JA}$ | 8 | $^\circ\text{C/W}$ |
| | $R_{\theta JL}$ | 3 | |
| | $R_{\theta JC}$ | 3 | |
| 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 | $I_F = 5\text{ A}, T_J = 25\text{ }^\circ\text{C}$ | - | - | 0.94 | V |
| | | $I_F = 5\text{ A}, T_J = 125\text{ }^\circ\text{C}$ | - | 0.82 | - | |
| Reverse Current | I_R | $V_R = 800\text{ V}, T_J = 25\text{ }^\circ\text{C}$ | - | - | 5 | uA |
| | | $V_R = 800\text{ V}, T_J = 125\text{ }^\circ\text{C}$ | - | - | 100 | |

NOTES :

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

TYPICAL CHARACTERISTIC CURVES

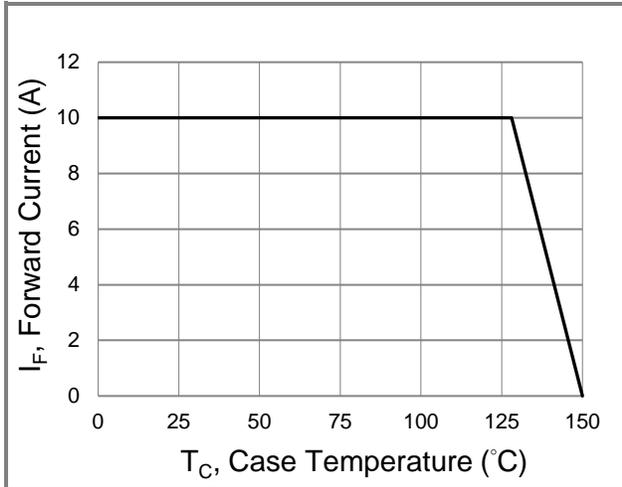


Fig.1 Forward Current Derating Curve

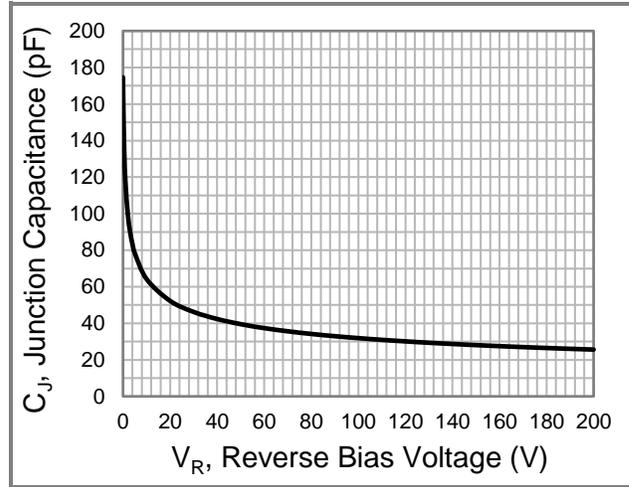


Fig.2 Typical Junction Capacitance

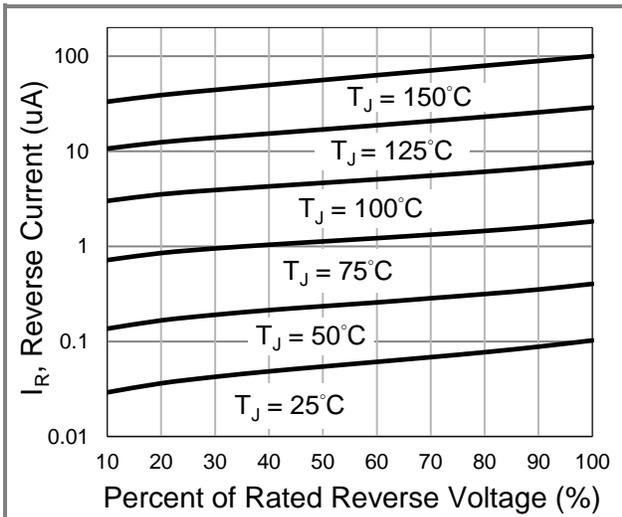


Fig.3 Typical Reverse Characteristics

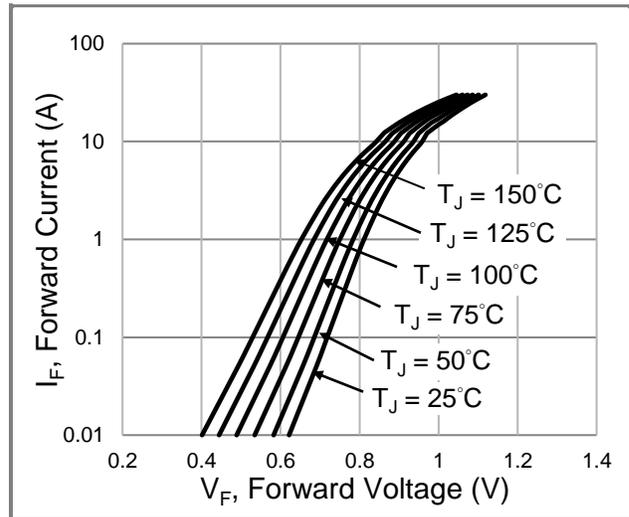
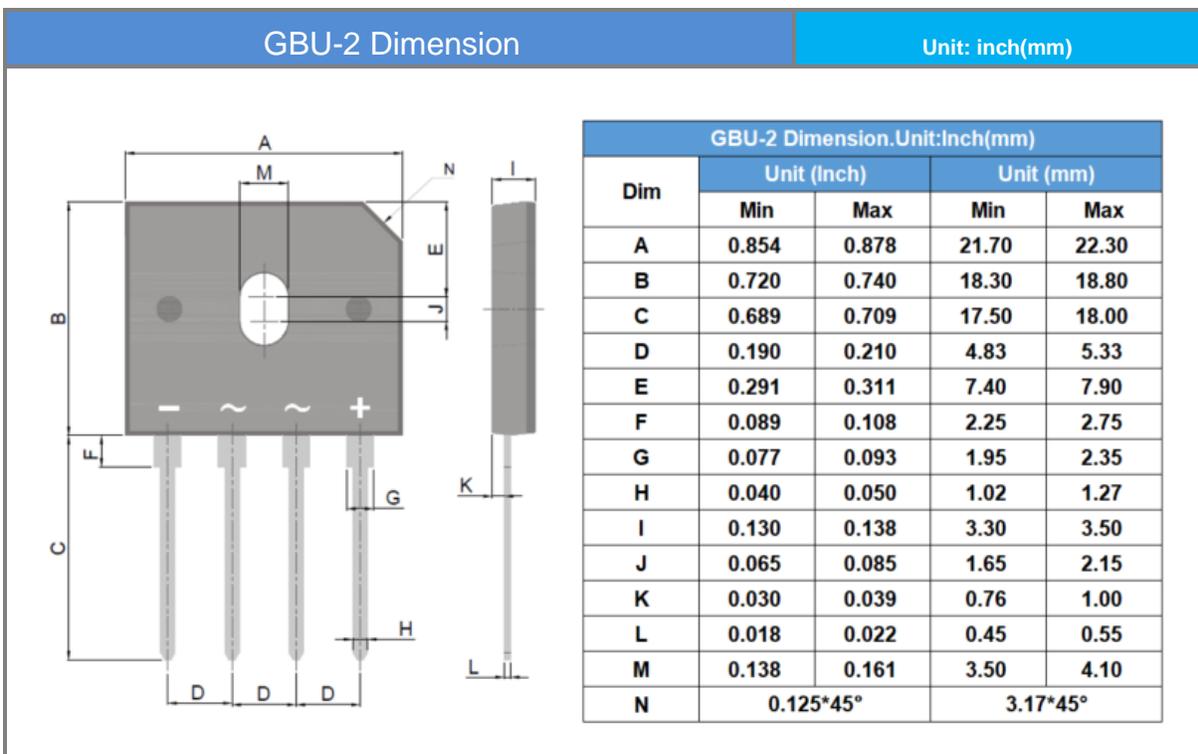


Fig.4 Typical Forward Characteristics

Part No. Marking Code Version

| Approved Part No. | Package Type | Packing Type | Marking |
|-------------------|--------------|---------------|-----------|
| GBU1008LV | GBU-2 | 20 pcs / tube | GBU1008LV |

Packaging Information



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