## Glass Passivated Bridge Rectifier

## GBU-2

## Voltage 1000 V Current <br> 10A

## Features

- Glass passivated chip junction
- UL recognition file number E526209
- 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 : 0.1353 ounces, 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 $_{\text {RRM }}$ | 1000 V |
| $\mathrm{I}_{\mathbf{F}}(\mathrm{AV})$ | 10 A |
| $\mathrm{I}_{\text {FSM }}$ | 240 A |
| $\mathrm{I}_{\mathbf{R}}$ | 5 uA |
| Package | GBU-2 |

Maximum Ratings and Thermal Characteristics ( $\mathrm{T}_{\mathrm{A}}=25^{\circ} \mathrm{C}$ unless otherwise noted)

| PARAMETER |  | SYMBOL | LIMIT | UNITS |
| :---: | :---: | :---: | :---: | :---: |
| Maximum Repetitive Peak Reverse Voltage |  | $V_{\text {RRM }}$ | 1000 | V |
| Maximum RMS Voltage |  | $V_{\text {RMS }}$ | 700 | V |
| Maximum DC Blocking Voltage |  | VDC | 1000 | V |
| Maximum Average Forward Current | With heatsink | $\mathrm{IF}_{\text {f(AV) }}$ | 10 | A |
|  | Without heatsink |  | 2.7 |  |
| Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load | $@ \mathrm{~T}_{\mathrm{A}}=25^{\circ} \mathrm{C}$ | IFSM | 240 | A |
|  | @ $\mathrm{T}_{\mathrm{A}}=125^{\circ} \mathrm{C}$ |  | 192 |  |
| Peak Forward Surge Current: 1.0 ms Single Half Square -Wave Superimposed On Rated Load | @ $\mathrm{T}_{\mathrm{A}}=25^{\circ} \mathrm{C}$ | IFSM | 400 | A |
|  | @ $\mathrm{T}_{\mathrm{A}}=125^{\circ} \mathrm{C}$ |  | 380 |  |
| $1^{2} \mathrm{t}$ rating for fusing ( $\mathrm{t}=8.3 \mathrm{~ms}$ ) |  | $1^{2} \mathrm{t}$ | 239 | $A^{2} \mathrm{~S}$ |
| Typical Junction Capacitance Measured at 1 MHZ And Applied $\mathrm{V}_{\mathrm{R}}=4 \mathrm{~V}$ |  | CJ | 70 | pF |
| Typical Thermal Resistance (Note 1) (with heatsink) |  | Reja | 8 | ºC/W |
|  |  | Rөөц | 3 |  |
|  |  | Rөөс | 4 |  |
| Operating junction and storage temperature range |  | $\mathrm{T}_{\mathrm{J},} \mathrm{T}_{\text {StG }}$ | -55~150 | ${ }^{\circ} \mathrm{C}$ |
| Mounting torque @ Recommend torque:5Kg.cm |  | Tor | 8 | Kg.cm |

Electrical Characteristics ( $\mathrm{T}_{\mathrm{A}}=25^{\circ} \mathrm{C}$ unless otherwise noted)

| PARAMETER | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNITS |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Forward Voltage | $\mathrm{V}_{\mathrm{F}}$ | $\mathrm{I}_{\mathrm{F}}=5 \mathrm{~A}, \mathrm{~T}_{J}=25^{\circ} \mathrm{C}$ | - | - | 1.05 | V |
| Reverse Current | $\mathrm{I}_{\mathrm{R}}$ | $\mathrm{V}_{\mathrm{R}}=1000 \mathrm{~V}, \mathrm{~T}_{J}=25^{\circ} \mathrm{C}$ | - | - | 5 | uA |
|  |  | $V_{R}=1000 \mathrm{~V}, \mathrm{~T}_{J}=125^{\circ} \mathrm{C}$ | - | - | 100 |  |

NOTES :

1. Device mounted on $10 \mathrm{~cm} * 9.4 \mathrm{~cm} * 2.6 \mathrm{~cm}$ Fin type heat sink

TYPICAL CHARACTERISTIC CURVES


Fig. 1 Forward Current Derating Curve


Fig. 3 Typical Reverse Characteristics


Fig. 2 Typical Junction Capacitance


Fig. 4 Typical Forward Characteristics

## Part No. Marking Code Version

| Approved Part No. | Package Type | Packing Type | Marking |
| :---: | :---: | :---: | :---: |
| GBU1010 | GBU-2 | $20 \mathrm{pcs} /$ tube | GBU1010 |

## Packaging Information



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