GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER
REVERSE VOLTAGE: 50 to 1000 V
FORWARD CURRENT: 10 A

## Features

- Glass passivated chip junction
- Ideal for printed circuit board
- Low reverse leakage current
- Low forward voltage drop
- High surge current capability


## Mechanical data

- Case:Molded plastic, GBJ
- Epoxy: UL 94V-0 rate flame retardant
- Mounting Position: Any

GBJ


Dimensions in inches and (millimeters)

## Absolute Maximum Ratings and Characteristics

Ratings at $25^{\circ} \mathrm{C}$ ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz , resistive or inductive load. For capacitive load, derate current by $20 \%$.

| Parameter | Symbols | $\begin{gathered} \text { GBJ } \\ 10005 \end{gathered}$ | $\begin{gathered} \hline \text { GBJ } \\ 1001 \end{gathered}$ | $\begin{gathered} \hline \text { GBJ } \\ 1002 \end{gathered}$ | $\begin{aligned} & \hline \text { GBJ } \\ & 1004 \end{aligned}$ | $\begin{gathered} \hline \text { GBJ } \\ 1006 \end{gathered}$ | $\begin{gathered} \hline \text { GBJ } \\ 1008 \end{gathered}$ | $\begin{gathered} \hline \text { GBJ } \\ 1010 \end{gathered}$ | Units |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maximum Recurrent Peak Reverse Voltage | $\mathrm{V}_{\text {RRM }}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | $\mathrm{V}_{\text {RMS }}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | $V_{D C}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current with Heatsink at $\mathrm{T}_{\mathrm{C}}=100^{\circ} \mathrm{C}$ | $\mathrm{I}_{\text {(AV) }}$ | 10 |  |  |  |  |  |  | A |
| Peak Forward Surge Current, 8.3 ms Single Half-Sine -Wave superimposed on rated load (JEDEC Method) | $\mathrm{I}_{\text {FSM }}$ | 170 |  |  |  |  |  |  | A |
| Current Squared Time at $1 \mathrm{~ms} \leq \mathrm{t} \leq 8.3 \mathrm{~ms}$ | $1^{2} \mathrm{t}$ | 120 |  |  |  |  |  |  | $A^{2} S$ |
| Maximum Forward Voltage at 5 A DC | $\mathrm{V}_{\mathrm{F}}$ | 1.1 |  |  |  |  |  |  | V |
| Maximum Reverse Current at $\mathrm{T}_{\mathrm{A}}=25^{\circ} \mathrm{C}$ at Rated DC Blocking Voltage $\mathrm{T}_{\mathrm{A}}=125^{\circ} \mathrm{C}$ | $\mathrm{I}_{\mathrm{R}}$ | $\begin{gathered} 10 \\ 500 \end{gathered}$ |  |  |  |  |  |  | $\mu \mathrm{A}$ |
| Typical Thermal Resistance, without heatsink | $\mathrm{R}_{\text {өJA }}$ | 25 |  |  |  |  |  |  | ${ }^{\circ} \mathrm{C} / \mathrm{W}$ |
| Typical Thermal Resistance, with heatsink | $\mathrm{R}_{\text {өлс }}$ | 2.3 |  |  |  |  |  |  | ${ }^{\circ} \mathrm{C} / \mathrm{W}$ |
| Operating and Storage Temperature Range | $\mathrm{T}_{\mathrm{J},}, \mathrm{T}_{\text {Stg }}$ | -55 to + 150 |  |  |  |  |  |  | ${ }^{\circ} \mathrm{C}$ |



