GBPC15005T/W thru GBPC1504T/W

$$
\begin{aligned}
& V_{R R M}=50 \mathrm{~V}-1000 \mathrm{~V} \\
& \mathrm{I}_{\mathrm{F}}=15 \mathrm{~A}
\end{aligned}
$$

## Features

- Integrally molded heat sink provides low thermal resistance for maximum heat dissipation
- Types up to 1000 V VRRM
- Void-free junction by using vacuum soldering

GBPC-T/W Package

- High surge current capability
- High temperature soldering guaranteed: $260^{\circ} \mathrm{C} / 10$ seconds at $5 \mathrm{lbs}(2.3 \mathrm{~kg})$ tension
- Universal 3-way terminals: snap on, wire-around, or P.C board mounting


## Mechanical Data

Case: Molded plastic with heat sink mounted in the bridge Mounting position: Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface
Terminals: Either nickel plated 0.25 "(6.35 mm) Faston lugs or 0.040 " $(1.02 \mathrm{~mm}$ ) diameter copper leads.

Weight: 15 grams or 0.53 ounces
Mounting torque: 20 inch-Ibs max
Polarity: Marked on body
Maximum ratings, at $\mathrm{T}_{\mathrm{j}}=\mathbf{2 5}^{\circ} \mathrm{C}$, unless otherwise specified (GBPCXXXXT uses GBPC-T package while GBPCXXXXW uses GBPC-W package)

| Parameter | Symbol | Conditions | GBPC15005T/W | GBPC1501T/V | BPC1502T/ | BPC1504T/W | Unit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Repetitive peak reverse voltage | $\mathrm{V}_{\text {RRM }}$ |  | 50 | 100 | 200 | 400 | V |
| RMS reverse voltage | $\mathrm{V}_{\text {RMS }}$ |  | 35 | 70 | 140 | 280 | V |
| DC blocking voltage | $V_{D C}$ |  | 50 | 100 | 200 | 400 | V |
| Continuous forward current | $\mathrm{I}_{\mathrm{F}}$ | $\mathrm{T}_{\mathrm{C}} \leq 55^{\circ} \mathrm{C}$ | 15 | 15 | 15 | 15 | A |
| Surge non-repetitive forward current, Half Sine Wave | $\mathrm{I}_{\mathrm{F}, \mathrm{SM}}$ | $\mathrm{T}_{\mathrm{C}}=25^{\circ} \mathrm{C}, \mathrm{t}_{\mathrm{p}}=8.3 \mathrm{~ms}$ | 300 | 300 | 300 | 300 | A |
| Operating temperature | $\mathrm{T}_{\mathrm{j}}$ |  | -55 to 150 | -55 to 150 | -55 to 150 | -55 to 150 | ${ }^{\circ} \mathrm{C}$ |
| Storage temperature | $\mathrm{T}_{\text {stg }}$ |  | -55 to 150 | -55 to 150 | -55 to 150 | -55 to 150 | ${ }^{\circ} \mathrm{C}$ |

Electrical characteristics, at $\mathrm{Tj}=25^{\circ} \mathrm{C}$, unless otherwise specified

| Parameter | Symbol | Conditions | GBPC15005T/W GBPC1501T/W GBPC1502T/W GBPC1504T/W |  |  |  | Unit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Diode forward voltage | $V_{F}$ | $\mathrm{I}_{\mathrm{F}}=7.5 \mathrm{~A}, \mathrm{~T}_{\mathrm{j}}=25^{\circ} \mathrm{C}$ | 1.1 | 1.1 | 1.1 | 1.1 | V |
| Reverse current | $\mathrm{I}_{\mathrm{R}}$ | $\mathrm{V}_{\mathrm{R}}=50 \mathrm{~V}, \mathrm{~T}_{\mathrm{j}}=25^{\circ} \mathrm{C}$ | 5 | 5 | 5 | 5 | $\mu \mathrm{A}$ |
| Reverse current | $\mathrm{I}_{\mathrm{R}}$ | $\mathrm{V}_{\mathrm{R}}=50 \mathrm{~V}, \mathrm{~T}_{\mathrm{j}}=125^{\circ} \mathrm{C}$ | 500 | 500 | 500 | 500 | $\mu \mathrm{A}$ |
| Thermal characteristics |  |  |  |  |  |  |  |
| Thermal resistance, junction case | $\mathrm{R}_{\text {thJc }}$ |  | 1.9 | 1.9 | 1.9 | 1.9 | ${ }^{\circ} \mathrm{C} / \mathrm{W}$ |




FIG.8-TYPICAL TRANSIET THERMAL INPEDANCE PER LEG


