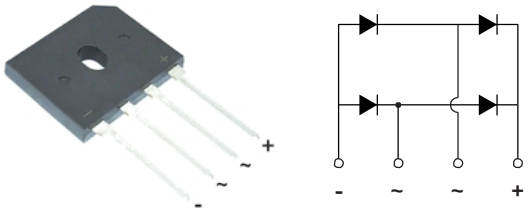
## GBU




## Features

- ROHS compliant
- Glass passivated chip
- High forward surge capability
- Meet MSL level 1, per J-STD-020 LF maximum peak of 250 °C
- Solder dip 260 °C / 40S
- Component in accordance to ROHS 2002/95/EC and WEEE 2002/96/WC
- UL recognition, file number E342874

## Primary characteristics

| | |
|---|---|
| $I_{F(AV)}$ | 4.0A |
| $V_{RRM}$ | 200V to 1000V |
| $I_{FSM}$ | 150A |
| $I_{RM}$ | 5uA |
| $V_{FM}$ at $I_F$=4A | 1.0V |
| *$T_J$ max.* | 150 °C |

## Applications

Ideal for ac-to-dc bridge full wave rectification suck as SMPS, home applianes, office equipment, indusrial automation applicatios

## Mechanical data

- Case: GBU
- Epoxy meets UL 94 V-0 flammability rating
- Terminals: Tin plated leads.
- Polarity: As marked.
- Mounting Torque:10cm-kg(8.8 inches-lbs)max.
- Recommended Torque:5.7 cm-kg(5 inches-lbs)

## Maximum rating (Ta=25°C unless otherwise noted)

| Parameter | | Sym | GBU | | | | | Unit |
|---|---|---|---|---|---|---|---|---|
| | | | 402 | 404 | 406 | 408 | 410 | |
| Max. repetitive peak reverse voltage | | $V_{RRM}$ | 200 | 400 | 600 | 800 | 1000 | V |
| Max. RMS reverse voltage | | $V_{RMS}$ | 140 | 280 | 420 | 560 | 700 | V |
| Max. DC blocking voltage | | $V_{DC}$ | 200 | 400 | 600 | 800 | 1000 | V |
| Max. average forward current | | $I_{F(AV)}$ | 4 | | | | | A |
| Non-repetitive peak forward surge current 8.3ms single half-sine-wave | | $I_{FSM}$ | 150 | | | | | A |
| Rating for fusing,1ms≦ t≦8.3ms | | $I^2t$ | 93 | | | | | $A^2S$ |
| Max. instantaneous forward voltage drop per diode | | $V_{FM}$ | 1.0(4A) | | | | | V |
| Max. instantaneous reverse current at rated DC blocking voltage | Ta=25 °C | $I_{RM}$ | 5 | | | | | μA |
| | Ta=125 °C | | 500 | | | | | μA |
| Operating junction temperature | | $T_J$ | -55 ~ +150 | | | | | °C |
| Storage temperature | | $T_{STG}$ | -55 ~ +150 | | | | | °C |
| Typical thermal resistance (Note1) | | $R_{\Theta J-A}$ | 23 | | | | | °C/W |
| | | $R_{\Theta J-C}$ | 5.5 | | | | | °C/W |

**Notes**

(1) Units mounted on PCB with 0.5" x 0.5" (12 mm x 12 mm) copper pads and 0.375" (9.5 mm) lead length

## Ordering information (Example)

| PREFERRED | UNIT WEIGHT (g) | PREFERRED PACKAGE CODE | BASE QUANTITY | DELIVERY MODE |
|---|---|---|---|---|
| GBU406 | 3.565 | 45 | 20 | Tube |
| GBU406 | 3.565 | 51 | 250 | Paper tray |

## Typical characteristics

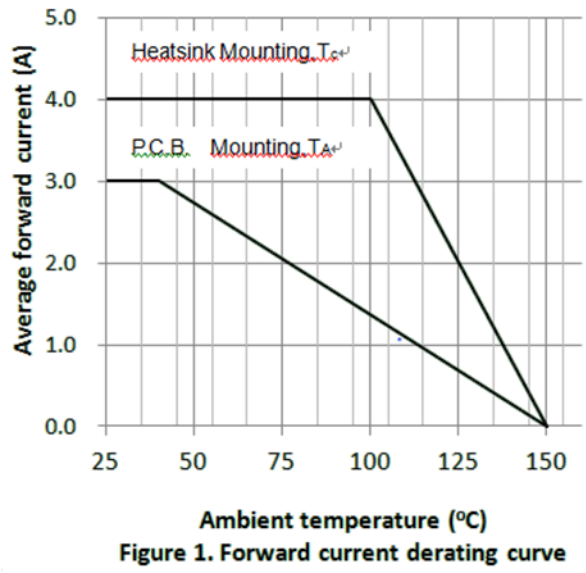



Figure 1. Forward current derating curve

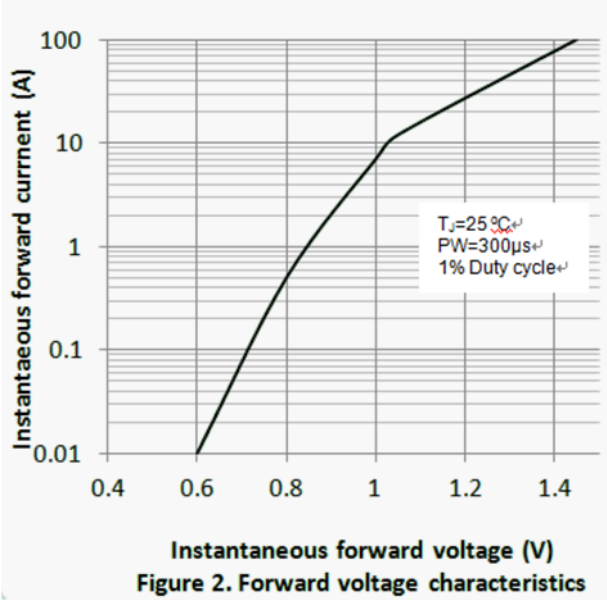



Figure 2. Forward voltage characteristics

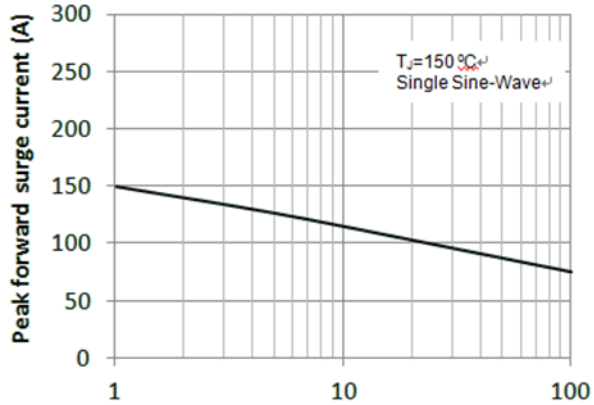



Figure 3. Non-repetitive surge current

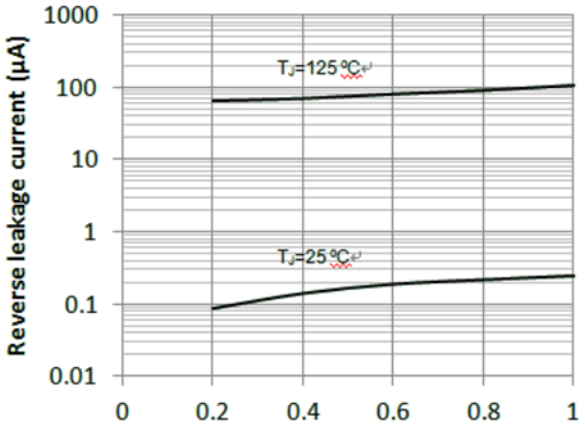
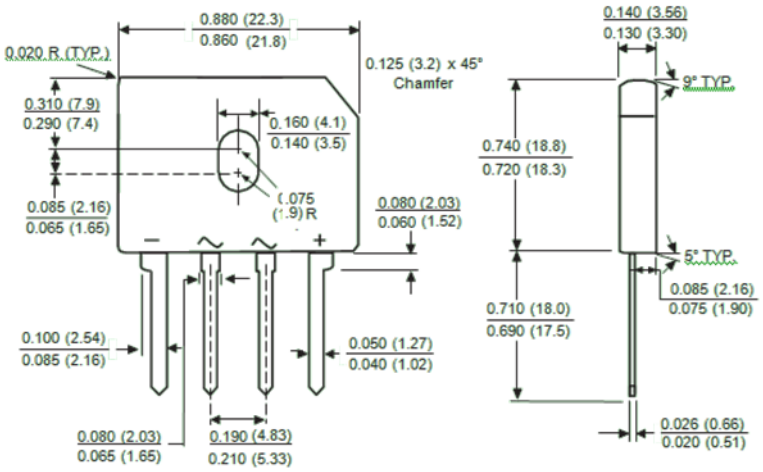



Figure 4. Reverse current characteristics

## Package outline dimensions

Case Type GBU

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