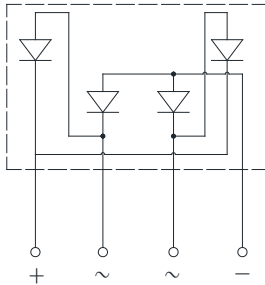
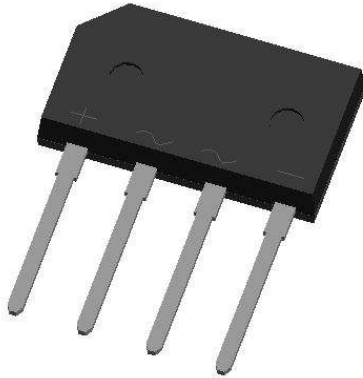


## Bridge Rectifiers



### Features

- UL recognition, file #E230084
- Thin single in-line package
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### Typical Applications

General purpose use in AC/DC bridge full wave rectification for switching power supply, home appliances, office equipment, industrial automation applications.

### Mechanical Data

- **Package:** 2KBJ  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

### ■ Maximum Ratings ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER  | SYMBOL           | UNIT                 | GBL4005    | GBL401 | GBL402 | GBL404 | GBL406 | GBL408 | GBL410 |
|--|------------------|----------------------|------------|--------|--------|--------|--------|--------|--------|
| Device marking code  |                  |                      | GBL4005    | GBL401 | GBL402 | GBL404 | GBL406 | GBL408 | GBL410 |
| Repetitive peak reverse voltage  | VRRM             | V                    | 50         | 100    | 200    | 400    | 600    | 800    | 1000   |
| Average Rectified Output Current<br>@60Hz sine wave, R-load, $T_a=25^\circ\text{C}$                        | $I_O$            | A                    | 4.0        |        |        |        |        |        |        |
| Surge(non-repetitive)forward current<br>@60Hz half-sine wave, 1 cycle, $T_j=25^\circ\text{C}$              | IFSM             | A                    | 135        |        |        |        |        |        |        |
| Current squared time<br>@ $1\text{ms}\leq t\leq 8.3\text{ms}$ $T_j=25^\circ\text{C}$ , rating of per diode | $I^2t$           | $\text{A}^2\text{S}$ | 75         |        |        |        |        |        |        |
| Storage temperature  | $T_{\text{stg}}$ | $^\circ\text{C}$     | -55 ~ +150 |        |        |        |        |        |        |
| Junction temperature   | $T_j$            | $^\circ\text{C}$     | -55 ~ +150 |        |        |        |        |        |        |

### ■ Electrical Characteristics ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER   | SYMBOL           | UNIT          | TEST CONDITIONS                   | GBL4005 | GBL401 | GBL402 | GBL404 | GBL406 | GBL408 | GBL410 |
|---|------------------|---------------|-----------------------------------|---------|--------|--------|--------|--------|--------|--------|
| Maximum instantaneous forward voltage drop per diode              | V <sub>F</sub>   | V             | IFM=2A                            | 1.00    |        |        |        |        |        |        |
| Maximum DC reverse current at rated DC blocking voltage per diode | I <sub>RRM</sub> | $\mu\text{A}$ | V <sub>RM</sub> =V <sub>RRM</sub> | 5       |        |        |        |        |        |        |



# GBL4005 THRU GBL410

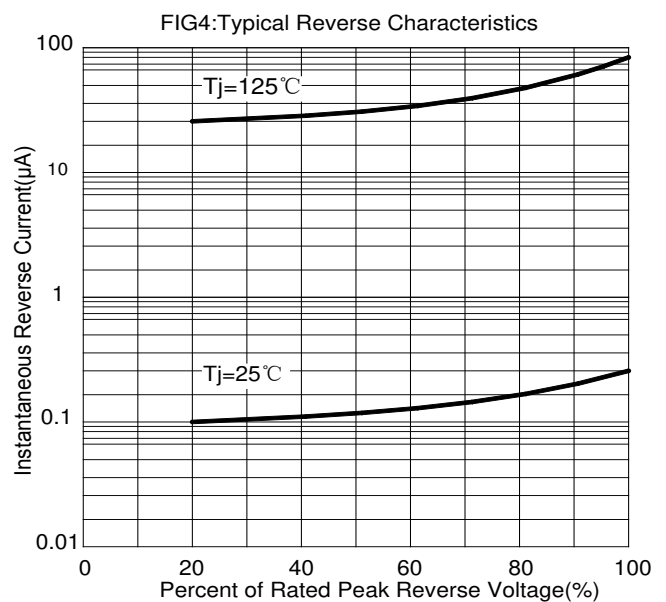
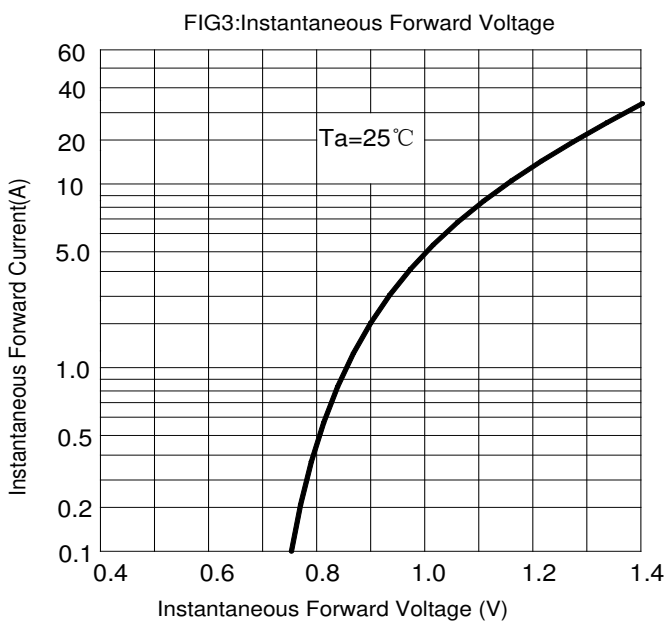
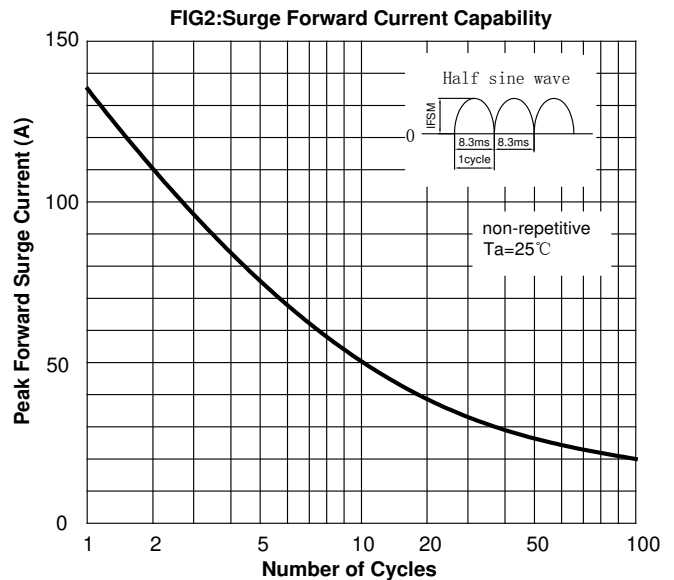
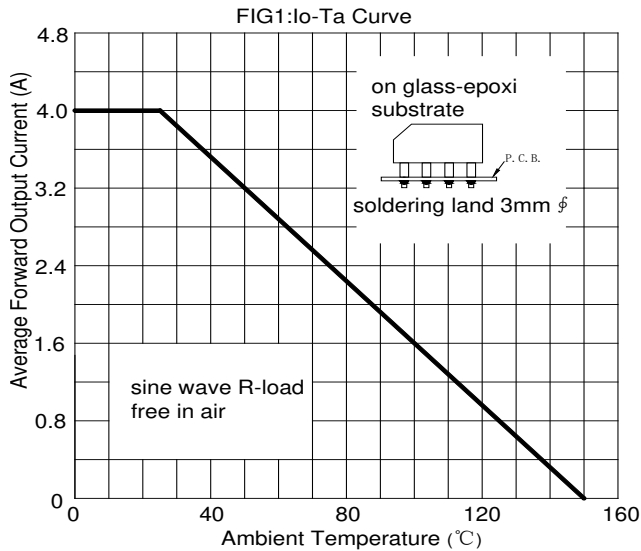
## ■ Thermal Characteristics ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER          |                              | SYMBOL           | UNIT                      | GBL4005 | GBL401 | GBL402 | GBL404 | GBL406 | GBL408 | GBL410 |
|--------------------|------------------------------|------------------|---------------------------|---------|--------|--------|--------|--------|--------|--------|
| Thermal Resistance | Between junction and ambient | $R_{\theta J-A}$ | $^\circ\text{C}/\text{W}$ | 47      |        |        |        |        |        |        |
|                    | Between junction and case,   | $R_{\theta J-C}$ |                           | 10      |        |        |        |        |        |        |

## ■ Ordering Information (Example)

| PREFERRED P/N  | PACKAGE CODE | UNIT WEIGHT(g)   | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|----------------|--------------|------------------|----------------------|-------------------------|----------------------------|---------------|
| GBL4005-GBL410 | B1           | Approximate 2.19 | 22                   | 1320                    | 5280                       | Tube          |
| GBL4005-GBL410 | A1           | Approximate 2.19 | 250                  | 250                     | 6000                       | Paper Box     |

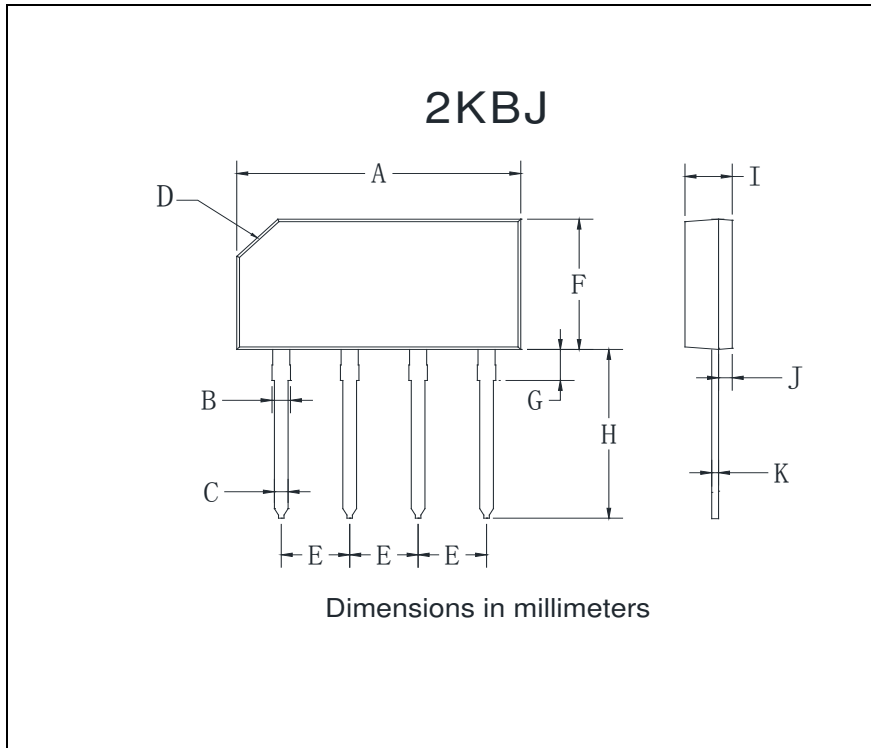
## ■ Characteristics(Typical)





# GBL4005 THRU GBL410

## ■ Outline Dimensions



| 2KBJ |          |      |
|------|----------|------|
| Dim  | Min      | Max  |
| A    | 19.2     | 21.2 |
| B    | 1.2      | 1.8  |
| C    | 1.0      | 1.2  |
| D    | Typ: 3.0 |      |
| E    | 4.9      | 5.1  |
| F    | 10.5     | 11.5 |
| G    | 2.0      | 3.0  |
| H    | 13.0     | 15.0 |
| I    | 3.0      | 4.0  |
| J    | 0.9      | 1.1  |
| K    | 0.4      | 0.6  |



## GBL4005 THRU GBL410

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