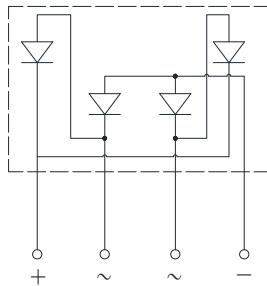
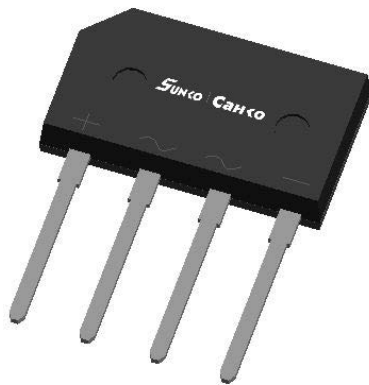


## Bridge Rectifiers



### Features

- UL recognition, file #E230084
- Glass passivated chip junction
- 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, -
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

### ■Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMETER                                                                        | SYMBOL           | UNIT             | GBJ2005    | GBJ201 | GBJ202 | GBJ204 | GBJ206 | GBJ208 | GBJ210 |
|----------------------------------------------------------------------------------|------------------|------------------|------------|--------|--------|--------|--------|--------|--------|
| Device marking code                                                              |                  |                  | GBJ2005    | GBJ201 | GBJ202 | GBJ204 | GBJ206 | GBJ208 | GBJ210 |
| Maximum Repetitive Peak Reverse Voltage                                          | VRRM             | V                | 50         | 100    | 200    | 400    | 600    | 800    | 1000   |
| Maximum RMS Voltage                                                              | VRMS             | V                | 35         | 70     | 140    | 280    | 420    | 560    | 700    |
| Maximum DC blocking Voltage                                                      | VDC              | V                | 50         | 100    | 200    | 400    | 600    | 800    | 1000   |
| Average Rectified Output Current<br>@60Hz sine wave, R-load, Ta=25°C             | IO               | A                | 2.0        |        |        |        |        |        |        |
| Forward Surge Current (Non-repetitive)<br>@60Hz Half-sine wave, 1 cycle, Tj=25°C | IFSM             | A                | 90         |        |        |        |        |        |        |
| Forward Surge Current (Non-repetitive)<br>@1ms, square wave, 1 cycle, Tj=25°C    |                  |                  | 180        |        |        |        |        |        |        |
| Current squared time<br>@1ms≤t<8.3ms Tj=25°C, rating of per diode                | I <sup>2</sup> t | A <sup>2</sup> S | 33.6       |        |        |        |        |        |        |
| Dielectric strength<br>@ terminals to case, AC 1 minute                          | Vdis             | KV               | 2          |        |        |        |        |        |        |
| Storage temperature                                                              | Tstg             | °C               | -55 ~ +150 |        |        |        |        |        |        |
| Junction temperature                                                             | Tj               | °C               | -55 ~ +150 |        |        |        |        |        |        |

### ■Electrical Characteristics (Ta=25°C Unless otherwise specified)

| PARAMETER                                                         | SYMBOL | UNIT | TEST CONDITIONS                                           | GBJ2005 | GBJ201 | GBJ202 | GBJ204 | GBJ206 | GBJ208 | GBJ210 |
|-------------------------------------------------------------------|--------|------|-----------------------------------------------------------|---------|--------|--------|--------|--------|--------|--------|
| Maximum instantaneous forward voltage drop per diode              | VF     | V    | IFM=1.0A                                                  | 1.0     |        |        |        |        |        |        |
| Maximum DC reverse current at rated DC blocking voltage per diode | IR     | μA   | Tj=25°C                                                   | 5       |        |        |        |        |        |        |
|                                                                   |        |      | Tj=125°C                                                  | 100     |        |        |        |        |        |        |
| Typical junction capacitance                                      | Cj     | pF   | Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C | 26      |        |        |        |        |        |        |

# GBJ2005 THRU GBJ210

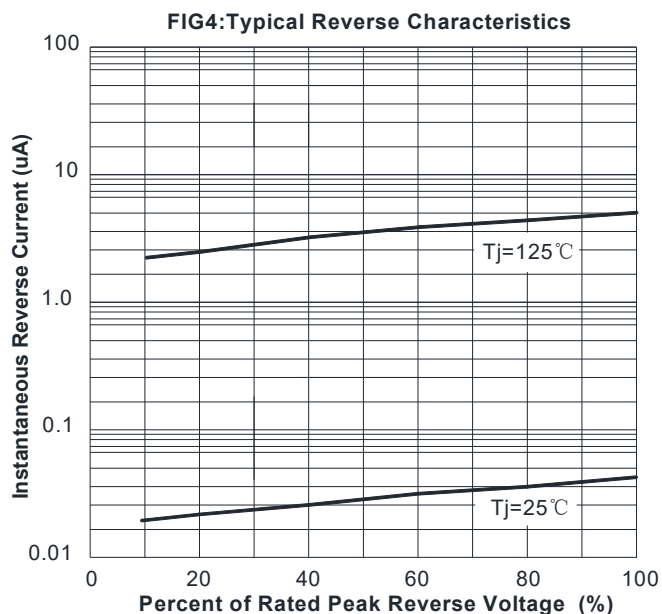
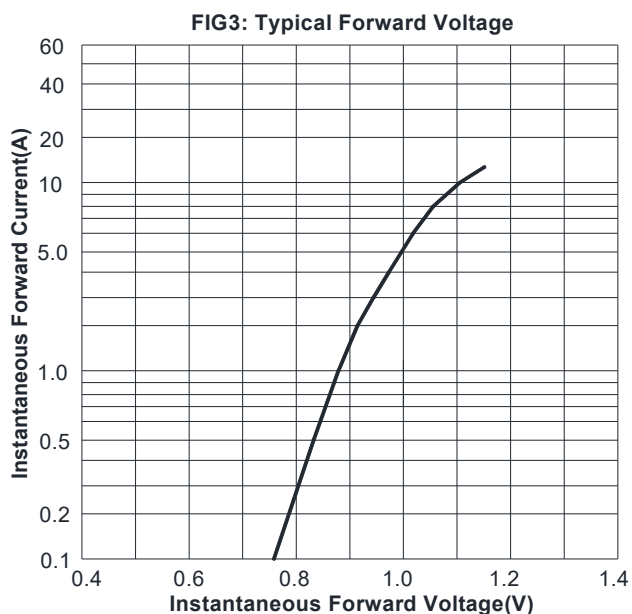
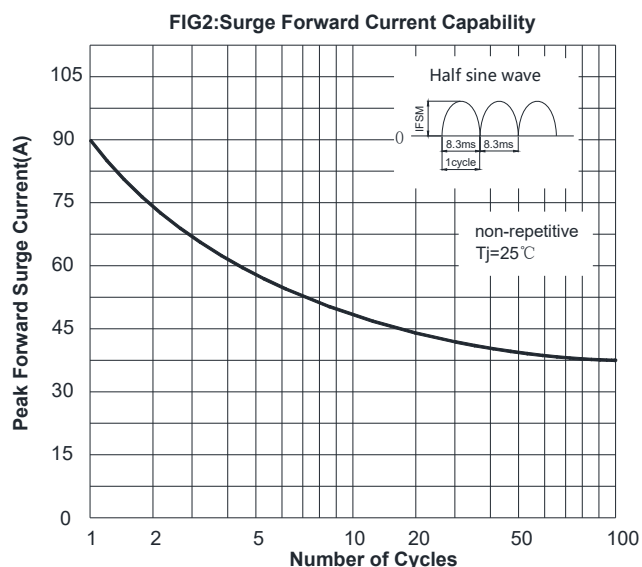
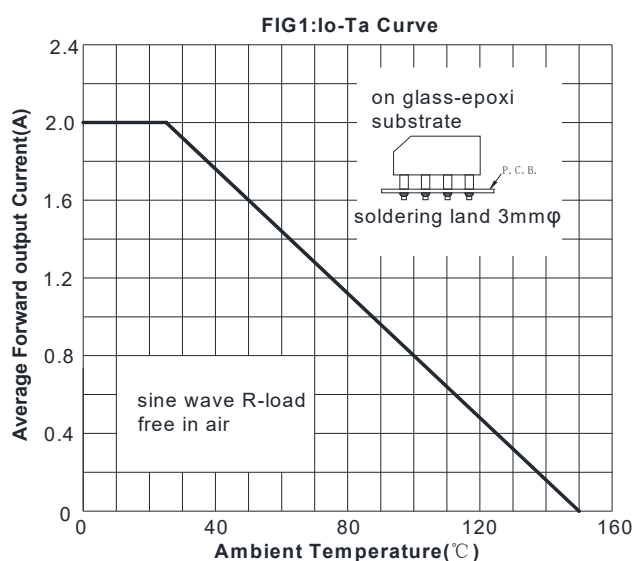
## ■ Thermal Characteristics (Ta=25°C Unless otherwise specified)

| PARAMETER          |                              | SYMBOL         | UNIT | GBJ2005 | GBJ201 | GBJ202 | GBJ204 | GBJ206 | GBJ208 | GBJ210 |
|--------------------|------------------------------|----------------|------|---------|--------|--------|--------|--------|--------|--------|
| Thermal Resistance | Between junction and ambient | R $\theta$ J-A | °C/W | 47      |        |        |        |        |        |        |
|                    | Between junction and case    | R $\theta$ J-C |      | 10      |        |        |        |        |        |        |

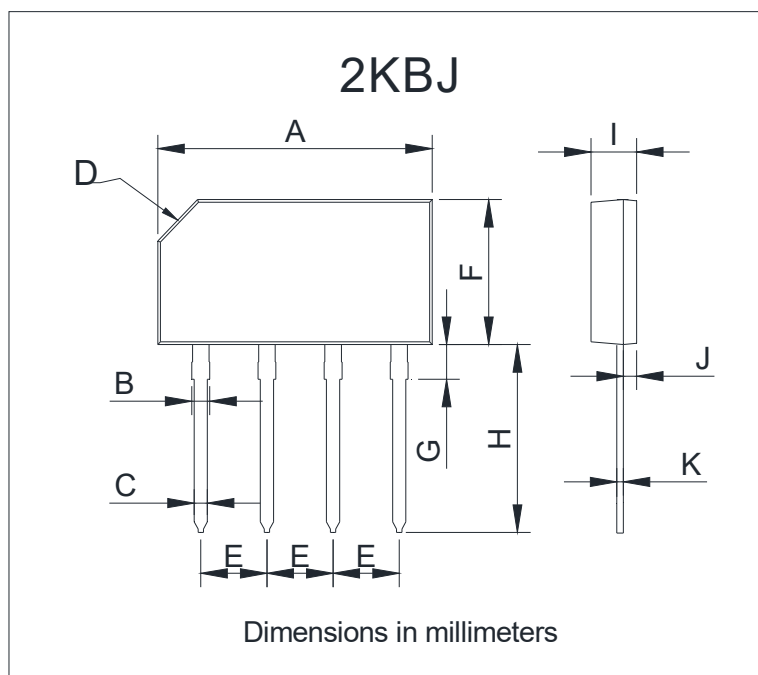
## ■ Ordering Information (Example)

| PREFERRED P/N  | PACKAGE CODE | UNIT WEIGHT(g)   | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|----------------|--------------|------------------|----------------------|-------------------------|----------------------------|---------------|
| GBJ2005-GBJ210 | B1           | Approximate 2.19 | 22                   | 1320                    | 5280                       | Tube          |

## ■ Characteristics (Typical)



■ 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  |

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