

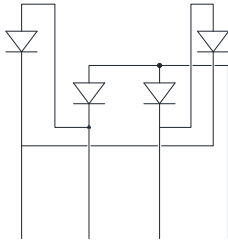
## Low VF Bridge Rectifiers

### 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: 6KBJ
- Molding compound meets UL 94 V-0 f M

### Maximum Ratings (T<sub>a</sub>=25 °C Unless otherwise specified)

|  |   |                  |                  |            |
|--|---|------------------|------------------|------------|
|  | Without heatsink<br>T <sub>a</sub> =25 °C |                  |                  | 3.5        |
| Forward Surge Current (Non-repetitive)<br>@60Hz Half-sine wave, 1 cycle, T <sub>j</sub> =25 °C |   | IFSM             | A                | 400        |
| Forward Surge Current (Non-repetitive)<br>@1ms, square wave, 1 cycle, T <sub>j</sub> =25 °C    |   |                  |                  | 800        |
| Current squared time<br>@1ms ≤ t ≤ 8.3ms T <sub>j</sub> =25 °C, Rating of per diode            |   | I <sup>2</sup> t | A <sup>2</sup> S | 664        |
| Storage temperature  |   | T <sub>stg</sub> | -                | -55 ~ +150 |
| Junction temperature   |   | T <sub>j</sub>   | -                | -55 ~ +150 |
| Dielectric strength<br>@ Terminals to case, AC 1 minute  |   | V <sub>dis</sub> | KV               | 2.5        |
| Mounting torque<br>@Recommend torque 5kg cm  |   | T <sub>or</sub>  | kg cm            | 8          |



# GBJL2006

## Electrical Characteristics $T_a=25$ Unless otherwise specified

| PARAMETER   | SYMBOL         | UNIT | TEST CONDITIONS   | GBJL2006 |
|---|----------------|------|---|----------|
| Maximum instantaneous forward voltage drop per diode              | V <sub>F</sub> | V    | I <sub>FM</sub> =10A                                      | 0.92     |
| Maximum DC reverse current at rated DC blocking voltage per diode | I <sub>R</sub> | μA   | T <sub>j</sub> =25 -                                      | 5        |
|   |                |      | T <sub>j</sub> =125 -                                     | 200      |
| Typical junction capacitance                                      | C <sub>j</sub> | pF   | Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C | 197      |

## Thermal Characteristics $T_a=25$ Unless otherwise specified

| PARAMETER                  |  | SYMBOL | UNIT | GBJL2006 |
|----------------------------|--|--------|------|----------|
| Typical Thermal Resistance | Between junction and ambient, Without heatsink | R J-A  | - /W | 18       |
|                            | Between junction and case, With heatsink       | R J-C  |      | 1.5      |

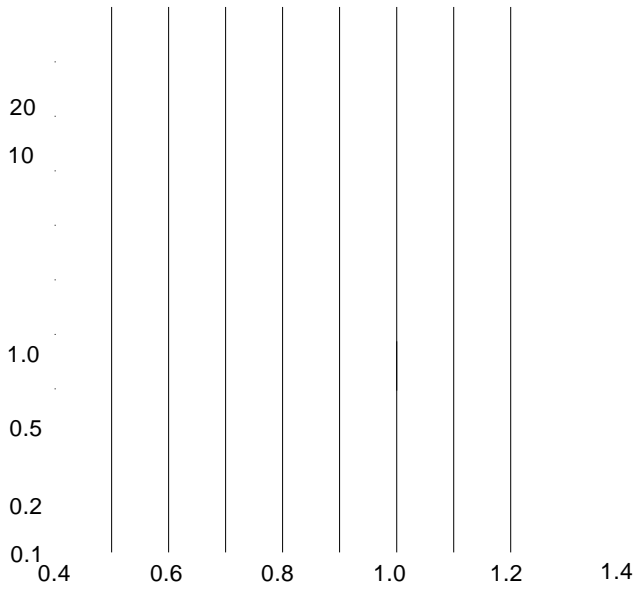
Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

## Ordering Information (Example)

| PREFERED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIIMUM |
|--------------|--------------|----------------|----------|
|--------------|--------------|----------------|----------|



FIG3: Typical Forward Voltage



Outline Dimensions

| 6KBJ |      |      |
|------|------|------|
| Dim  | Min  | Max  |
| A    | 29.7 | 30.3 |
| B    | 19.7 | 20.3 |
| C    | 17.0 | 18.0 |
| D    | 4.8  | 5.8  |
| E    | 3.8  | 4.2  |
| F    | 7.3  | 7.7  |
| G    | 9.8  | 10.2 |
| H    | 0.9  | 1.1  |
| I    | 2.0  | 2.4  |
| J    | 2.3  | 2.7  |
| K    | 3.4  | 3.8  |
| L    | 4.4  | 4.8  |
| M    | 10.8 | 11.2 |
| N    | 3.1  | 3.7  |
| O    | 3.1  | 3.4  |
| P    | 0.6  | 0.8  |



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