



# GBU10/15/25(C)SERIES

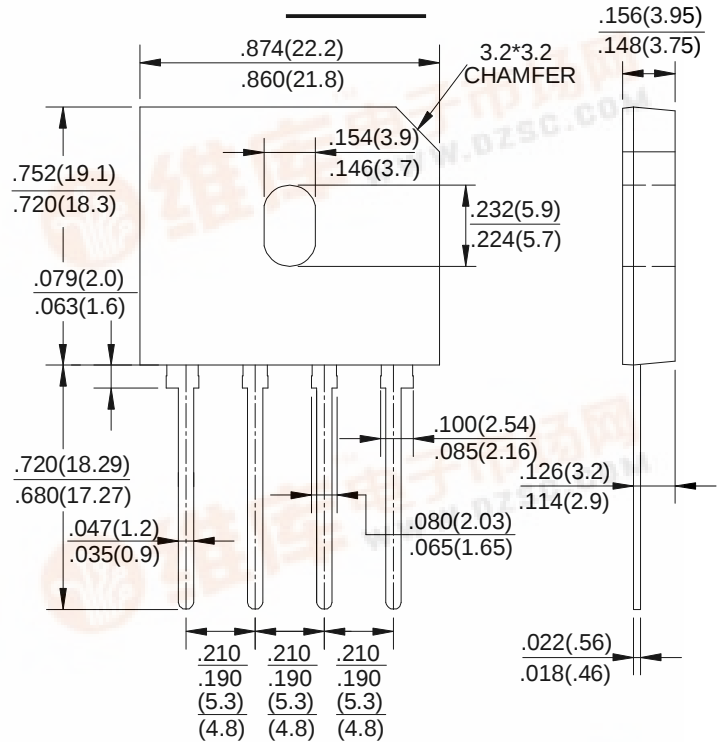
## SILICON BRIDGE RECTIFIERS

REVERSE VOLTAGE - 50 to 1000Volts  
FORWARD CURRENT - 10/15/25 Amperes

### FEATURES

- Surge overload rating -240~400 amperes peak
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Plastic material has U/L flammability classification 94V-0
- Mounting position:Any

### GBU-C



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| CHARACTERISTICS                                                                                               | SYMBOL            | GBU<br>10005C<br>15005C<br>25005C | GBU<br>1001C<br>1501C<br>2501C | GBU<br>1002C<br>1502C<br>2502C | GBU<br>1004C<br>1504C<br>2504C | GBU<br>1006C<br>1506C<br>2506C | GBU<br>1008C<br>1508C<br>2508C | GBU<br>1010C<br>1510C<br>2510C | UNIT |
|---------------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|------|
| Maximum Recurrent Peak Reverse Voltage                                                                        | V <sub>RRM</sub>  | 50                                | 100                            | 200                            | 400                            | 600                            | 800                            | 1000                           | V    |
| Maximum RMS Voltage                                                                                           | V <sub>RMS</sub>  | 30                                | 70                             | 140                            | 280                            | 420                            | 560                            | 700                            | V    |
| Maximum DC Blocking Voltage                                                                                   | V <sub>DC</sub>   | 50                                | 100                            | 200                            | 400                            | 600                            | 800                            | 1000                           | V    |
| Maximum Average Forward (with heatsink Note 2)<br>Rectified Current @ T <sub>c</sub> =100℃ (without heatsink) | I <sub>(AV)</sub> | GBU<br>10C                        | 10<br>3.0                      | GBU<br>15C                     | 15<br>3.2                      | GBU<br>25C                     | 25<br>4.2                      | A                              |      |
| Peak Forward Surge Current<br>8.3ms Single Half Sine-Wave<br>Super Imposed on Rated Load (JEDEC Method)       | I <sub>FSM</sub>  |                                   | 240                            |                                | 300                            |                                | 400                            | A                              |      |
| Maximum Forward Voltage at 5.0/7.5/12.5A DC                                                                   | V <sub>F</sub>    |                                   | 1.1                            |                                |                                |                                |                                |                                | V    |
| Maximum DC Reverse Current @ T <sub>J</sub> =25℃<br>at Rated DC Blocking Voltage @ T <sub>J</sub> =125℃       | I <sub>R</sub>    | 10<br>500                         |                                |                                |                                |                                |                                | uA                             |      |
| I <sup>2</sup> t Rating for Fusing (t<8.3ms)                                                                  | I <sup>2</sup> t  | 200                               |                                |                                |                                |                                |                                | A <sup>2</sup> s               |      |
| Typical Junction Capacitance Per Element (Note1)                                                              | C <sub>J</sub>    | 70                                |                                |                                |                                |                                |                                | pF                             |      |
| Typical Thermal Resistance (Note2)                                                                            | R <sub>θJC</sub>  | 2.2                               |                                |                                |                                |                                |                                | ℃/W                            |      |
| Operating Temperature Range                                                                                   | T <sub>J</sub>    | -55 to +125                       |                                |                                |                                |                                |                                | ℃                              |      |
| Storage Temperature Range                                                                                     | T <sub>STG</sub>  | -55 to +150                       |                                |                                |                                |                                |                                | ℃                              |      |

NOTES: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Device mounted on 100mm\*100mm\*1.6mm cu plate heatsink.

RATING AND CHARACTERISTIC CURVES  
GBU10/15/25(C)SERIES



FIG.1-MAXIMUM FORWARD SURGE CURRENT

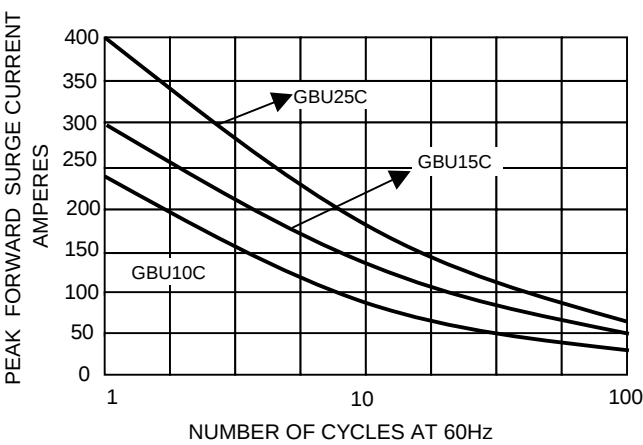


FIG.2- DERATING CURVE  
OUTPUT RECTIFIED CURRENT

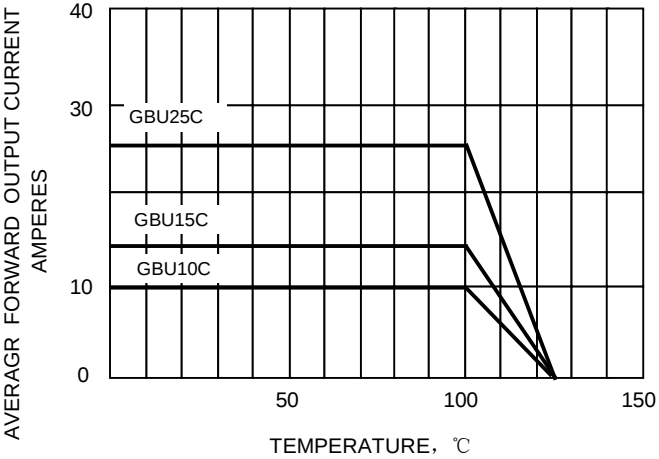


FIG.3-TYPICAL FORWARD  
CHARACTERISTICS

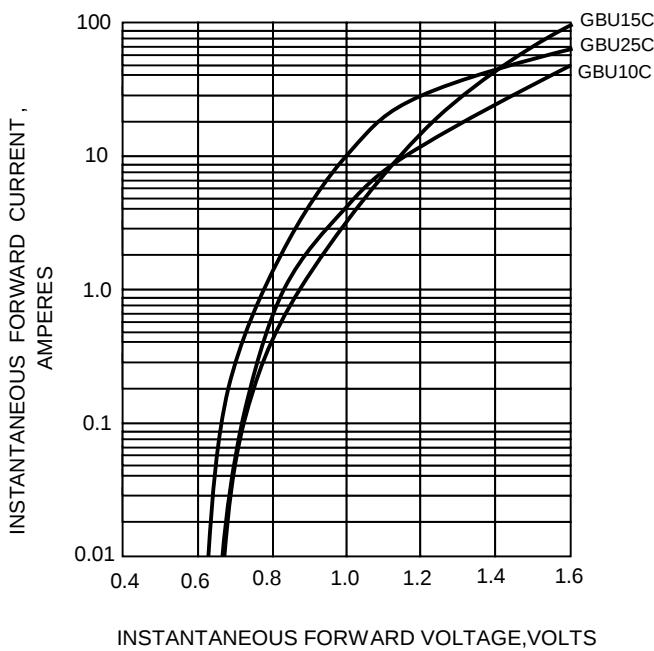


FIG.4-TYPICAL REVERSE  
CHARACTERISTICS

