

# GBJ2500 - GBJ2510

PRV : 50 - 1000 Volts

Io : 25 Amperes

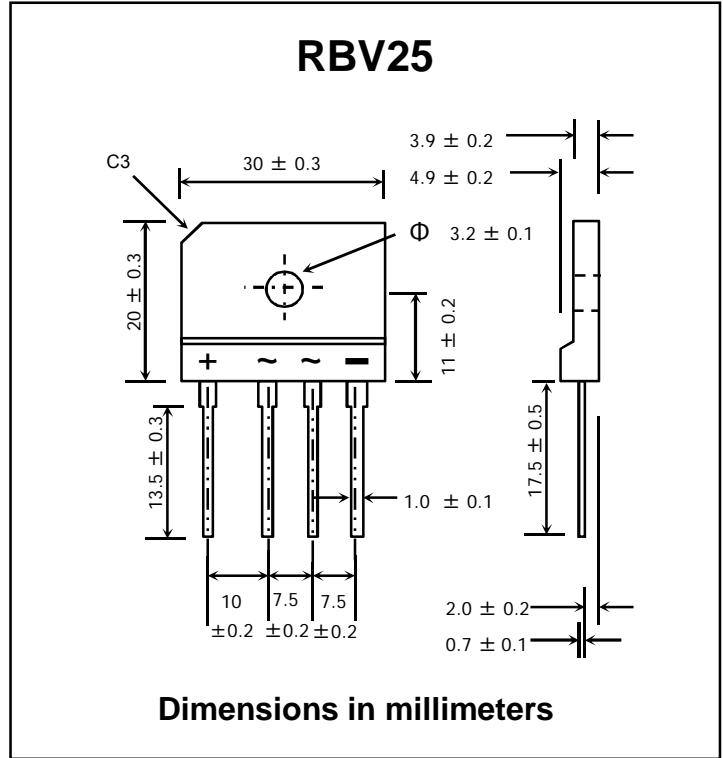
### FEATURES :

- \* Glass Passivated Die Construction
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* High case dielectric strength of 2000 V<sub>AC</sub> @1 Sec
- \* High current capability
- \* Very good heat dissipation
- \* Pb / RoHS Free

### MECHANICAL DATA :

- \* Case : Reliable low cost construction utilizing molded plastic technique
- \* Epoxy : UL94V-O rate flame retardant
- \* Terminals : Plated lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Polarity symbols marked on case
- \* Mounting position : Any
- \* Weight : 8.17 grams ( Approximally )

# SILICON BRIDGE RECTIFIERS



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

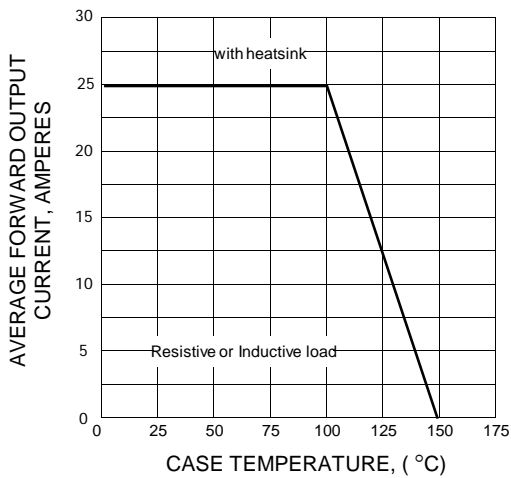
Rating at 25 °C ambient temperature unless otherwise specified.

| RATING   | SYMBOL             | GBJ 2500      | GBJ 2501 | GBJ 2502 | GBJ 2504 | GBJ 2506 | GBJ 2508 | GBJ 2510 | 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>   | 35            | 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 Current Tc = 100 °C  | I <sub>F(AV)</sub> | 25            |          |          |          |          |          |          | A                |
| Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method) | I <sub>FSM</sub>   | 300           |          |          |          |          |          |          | A                |
| Current Squared Time at t < 8.3 ms.  | I <sup>2</sup> t   | 510           |          |          |          |          |          |          | A <sup>2</sup> S |
| Maximum Forward Voltage per Diode at I <sub>F</sub> = 12.5 A                               | V <sub>F</sub>     | 1.1           |          |          |          |          |          |          | V                |
| Maximum DC Reverse Current at Rated DC Blocking Voltage                                    | I <sub>R</sub>     | 10            |          |          |          |          |          |          | μA               |
|  |                    | 500           |          |          |          |          |          |          | μA               |
| Thermal Resistance, Junction to Case   | R <sub>θJC</sub>   | 0.6           |          |          |          |          |          |          | °C/W             |
| Operating Junction Temperature Range   | T <sub>J</sub>     | - 40 to + 150 |          |          |          |          |          |          | °C               |
| Storage Temperature Range  | T <sub>STG</sub>   | - 40 to + 150 |          |          |          |          |          |          | °C               |

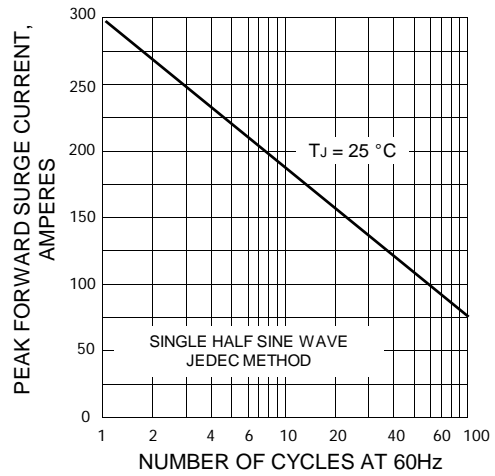
Note : (1) Thermal resistance from junction to case per element. Unit mounted on 220 x 220 x 1.6mm aluminum plate heat sink.

**RATING AND CHARACTERISTIC CURVES ( GBJ2500 - GBJ2510 )**

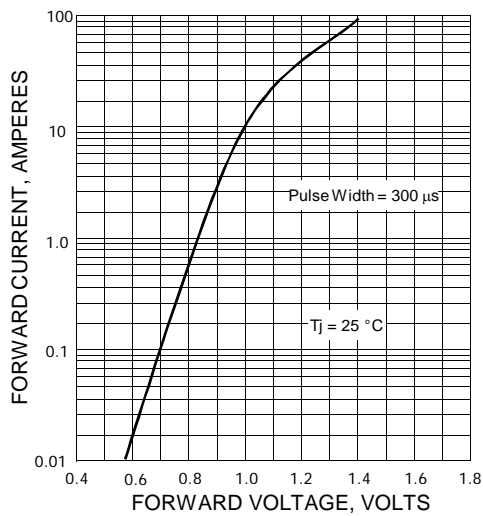
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE**

