

## RBV2500 - RBV2510

**PRV : 50 - 1000 Volts**

**Io : 25 Amperes**

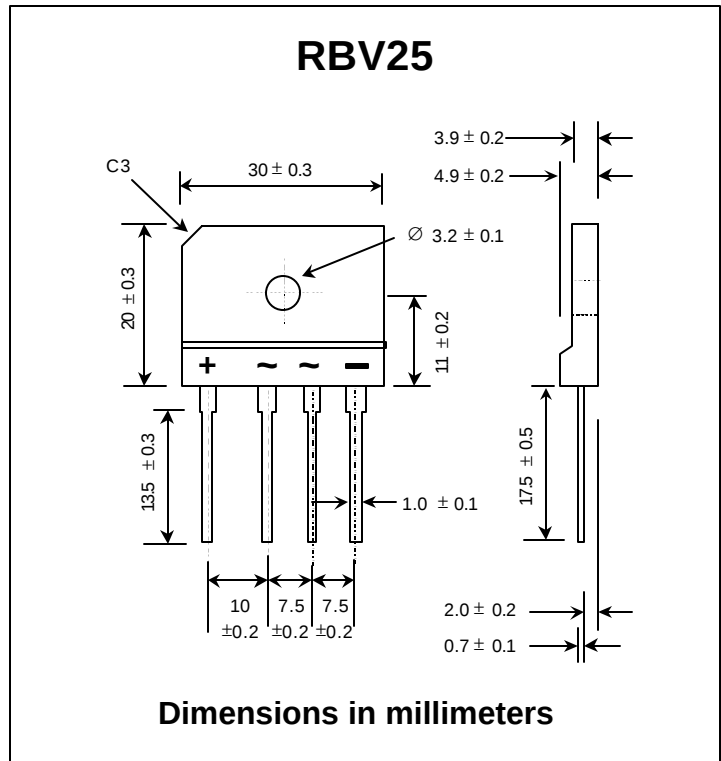
### FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* High case dielectric strength of 2000 V<sub>DC</sub>
- \* Ideal for printed circuit board
- \* Very good heat dissipation

### 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 : 7.7 grams

## SILICON BRIDGE RECTIFIERS



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

| RATING                                                                                     | SYMBOL                      | RBV 2500      | RBV 2501 | RBV 2502 | RBV 2504 | RBV 2506 | RBV 2508 | RBV 2510 | UNIT             |
|--------------------------------------------------------------------------------------------|-----------------------------|---------------|----------|----------|----------|----------|----------|----------|------------------|
| Maximum Recurrent Peak Reverse Voltage                                                     | V <sub>RRM</sub>            | 50            | 100      | 200      | 400      | 600      | 800      | 1000     | Volts            |
| Maximum RMS Voltage                                                                        | V <sub>RMS</sub>            | 35            | 70       | 140      | 280      | 420      | 560      | 700      | Volts            |
| Maximum DC Blocking Voltage                                                                | V <sub>DC</sub>             | 50            | 100      | 200      | 400      | 600      | 800      | 1000     | Volts            |
| Maximum Average Forward Current T <sub>c</sub> = 55 °C                                     | I <sub>F(AV)</sub>          | 25            |          |          |          |          |          |          | Amps.            |
| Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method) | I <sub>FSM</sub>            | 300           |          |          |          |          |          |          | Amps.            |
| Current Squared Time at t < 8.3 ms.                                                        | I <sup>2</sup> <sub>t</sub> | 375           |          |          |          |          |          |          | A <sup>2</sup> S |
| Maximum Forward Voltage per Diode at I <sub>F</sub> = 12.5 Amps.                           | V <sub>F</sub>              | 1.1           |          |          |          |          |          |          | Volts            |
| Maximum DC Reverse Current Ta = 25 °C                                                      | I <sub>R</sub>              | 10            |          |          |          |          |          |          | μA               |
| at Rated DC Blocking Voltage Ta = 100 °C                                                   | I <sub>R(H)</sub>           | 200           |          |          |          |          |          |          | μA               |
| Typical Thermal Resistance (Note 1)                                                        | R <sub>θJC</sub>            | 1.45          |          |          |          |          |          |          | °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               |

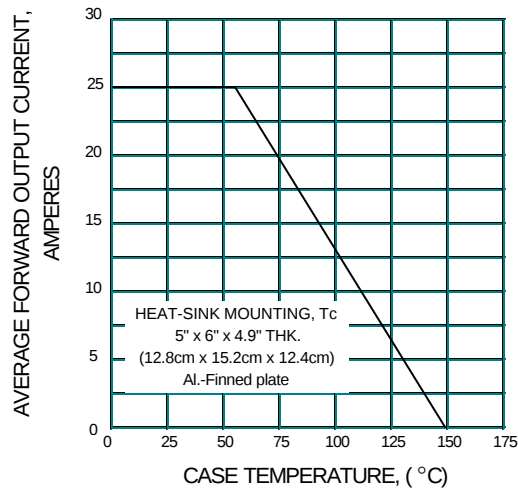
### Notes :

1. Thermal resistance from junction to case with units mounted on a 5" x 6" x 4.9" (12.8cm.x 15.2cm.x 12.4cm.) Al.-Finned Plate

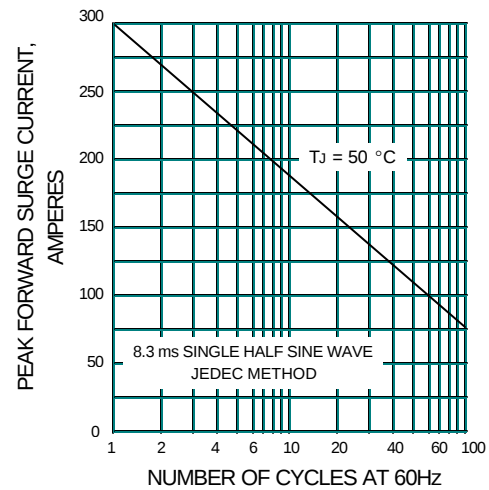
**UPDATE : NOVEMBER 1,1998**

## RATING AND CHARACTERISTIC CURVES ( RBV2500 - RBV2510 )

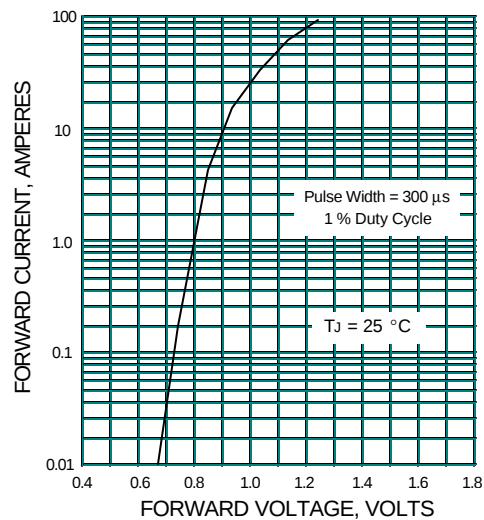
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



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



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

