

# RBV2500D - RBV2510D

# SILICON BRIDGE RECTIFIERS

**PRV : 50 - 1000 Volts**

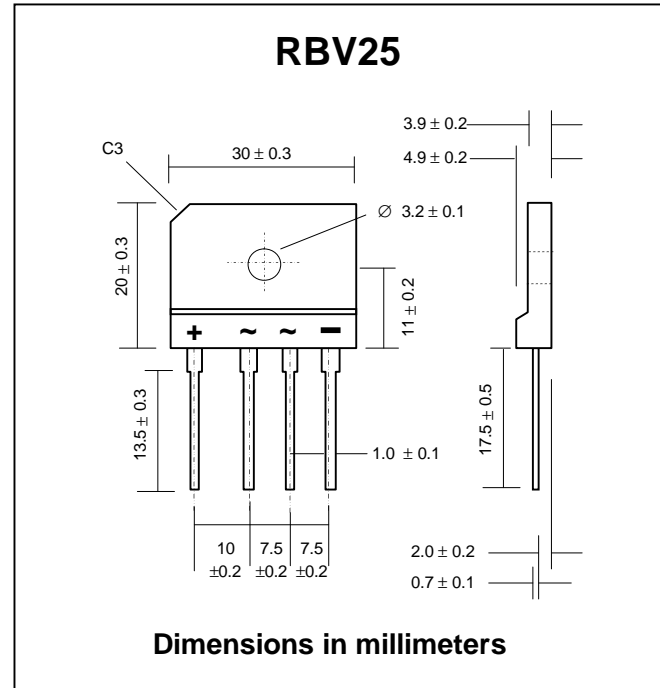
**Io : 25 Amperes**

**FEATURES :**

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* High case dielectric strength of 2000 Vdc
- \* Ideal for printed circuit board
- \* 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 ( Approximaly )



**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%.

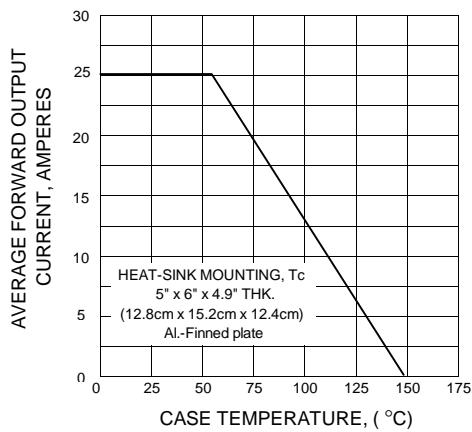
| RATING   | SYMBOL           | RBV 2500D     | RBV 2501D | RBV 2502D | RBV 2504D | RBV 2506D | RBV 2508D | RBV 2510D | UNIT |                  |
|--|------------------|---------------|-----------|-----------|-----------|-----------|-----------|-----------|------|------------------|
| Maximum Recurrent Peak Reverse Voltage   | VRRM             | 50            | 100       | 200       | 400       | 600       | 800       | 1000      | V    |                  |
| Maximum RMS Voltage  | VRMS             | 35            | 70        | 140       | 280       | 420       | 560       | 700       | V    |                  |
| Maximum DC Blocking Voltage  | VDC              | 50            | 100       | 200       | 400       | 600       | 800       | 1000      | V    |                  |
| Maximum Average Forward Current Tc = 55°C  | IF(AV)           | 25            |           |           |           |           |           |           |      | A                |
| Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method) | IFSM             | 400           |           |           |           |           |           |           |      | A                |
| Current Squared Time at t < 8.3 ms.  | I <sup>2</sup> t | 375           |           |           |           |           |           |           |      | A <sup>2</sup> S |
| Maximum Forward Voltage per Diode at IF = 25 A   | VF               | 1.1           |           |           |           |           |           |           |      | V                |
| Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta = 100 °C             | IR               | 10            |           |           |           |           |           |           |      | µA               |
|  | IR(H)            | 200           |           |           |           |           |           |           |      | µA               |
| Typical Thermal Resistance (Note 1)  | RθJC             | 1.2           |           |           |           |           |           |           |      | °C/W             |
| Operating Junction Temperature Range   | TJ               | - 40 to + 150 |           |           |           |           |           |           |      | °C               |
| Storage Temperature Range  | TSTG             | - 40 to + 150 |           |           |           |           |           |           |      | °C               |

**Notes :**

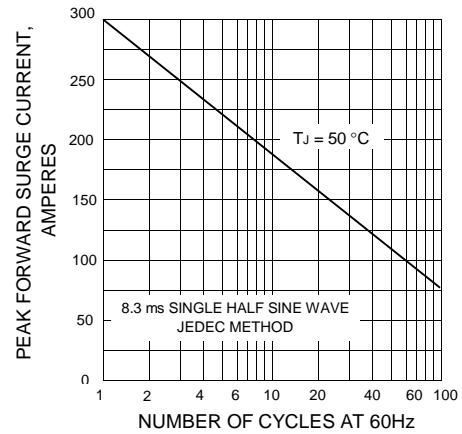
1. Thermal Resistance from junction to case with units mounted on a 5" x 6" x 4.9" (12.8cm.x 15.2cm.x 12.4cm.) Al.-Finned Plate

### RATING AND CHARACTERISTIC CURVES ( RBV2500D - RBV2510D )

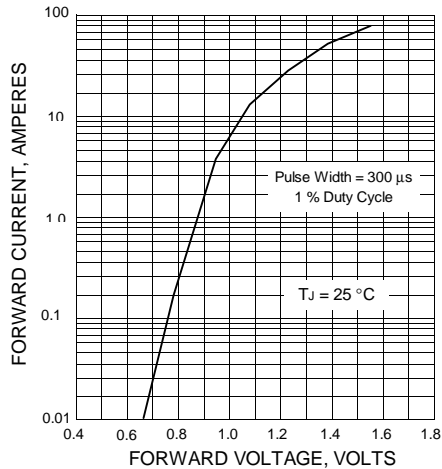
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



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



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

