

RBV1500D - RBV1510D

SILICON BRIDGE RECTIFIERS

PRV : 50 - 1000 Volts

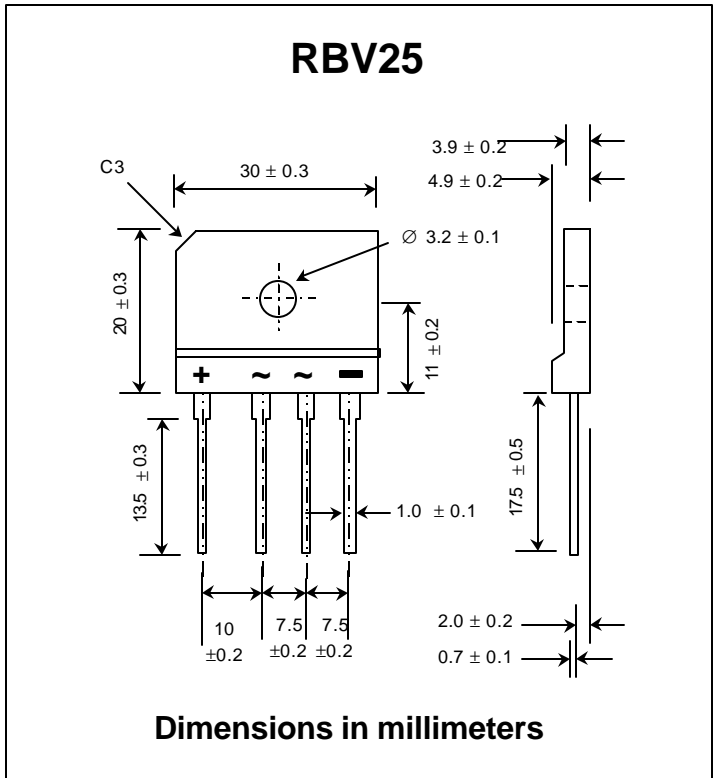
I_o : 15 Amperes

FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * High case dielectric strength of 2000 V_{DC}
- * 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



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 1500D | RBV 1501D | RBV 1502D | RBV 1504D | RBV 1506D | RBV 1508D | RBV 1510D | UNIT |
|--|-----------------------------|---------------|-----------|-----------|-----------|-----------|-----------|-----------|------------------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | V _{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Current T _c = 55°C | I _{F(AV)} | 15 | | | | | | | Amps. |
| Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method) | I _{FSM} | 300 | | | | | | | Amps. |
| Current Squared Time at t < 8.3 ms. | i ² _t | 375 | | | | | | | A ² S |
| Maximum Forward Voltage per Diode at I _F = 15 Amps. | V _F | 1.0 | | | | | | | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | I _R | 10 | | | | | | | μA |
| | | 200 | | | | | | | μA |
| Typical Thermal Resistance (Note 1) | R _{θJC} | 1.5 | | | | | | | °C/W |
| Operating Junction Temperature Range | T _J | - 40 to + 150 | | | | | | | °C |
| Storage Temperature Range | T _{STG} | - 40 to + 150 | | | | | | | °C |

Notes : 1. Thermal Resistance from junction to case with units mounted on a 5" x 4" x 3" (12.7cm.x 10.2cm.x 7.3cm.) Al.-Finned Plate.

RATING AND CHARACTERISTIC CURVES (RBV1500D - RBV1510D)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

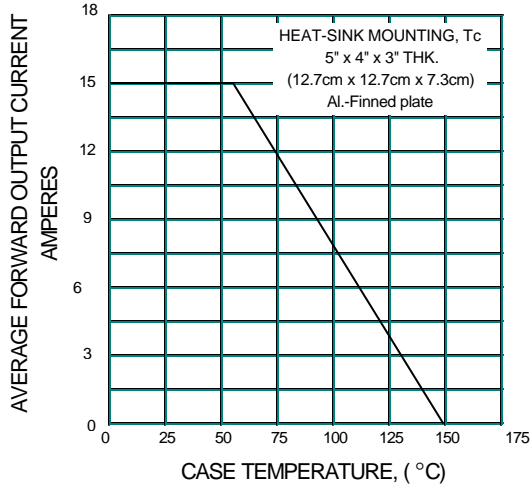


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

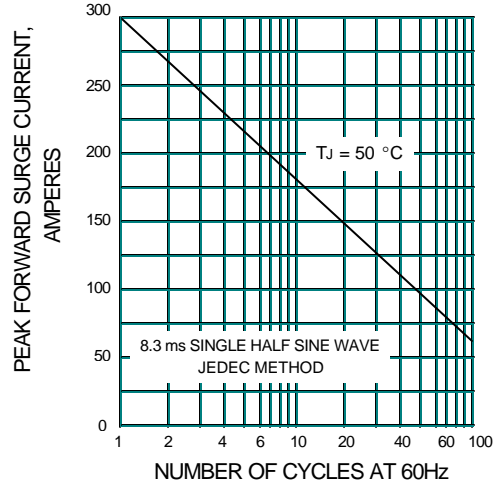


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

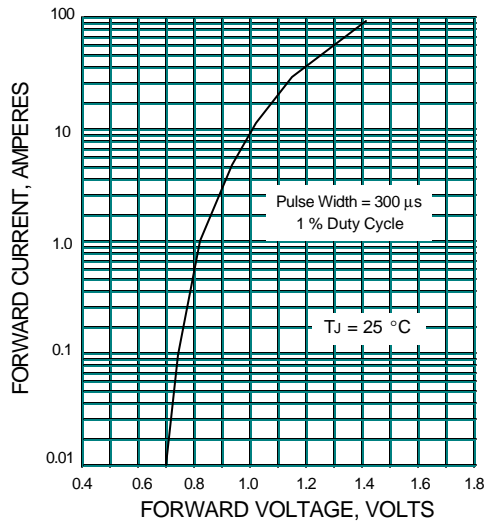


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE

