

**SINGLE-PHASE GLASS PASSIVATED  
SILICON BRIDGE RECTIFIER**  
VOLTAGE RANGE 50 to 1000 Volts CURRENT 10.0 Amperes

**FEATURES**

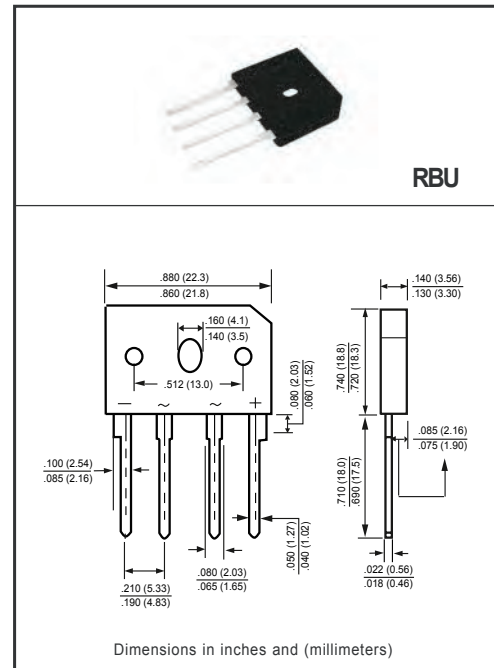
- \* Low leakage
- \* Low forward voltage
- \* Surge overload rating: 200 amperes peak
- \* Mounting position: Any

**MECHANICAL DATA**

- \* UL listed the recognize component directory file # E252754
- \* Epoxy: Device has UL flammability classification 94V-0

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
resistive or inductive load.



**MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)**

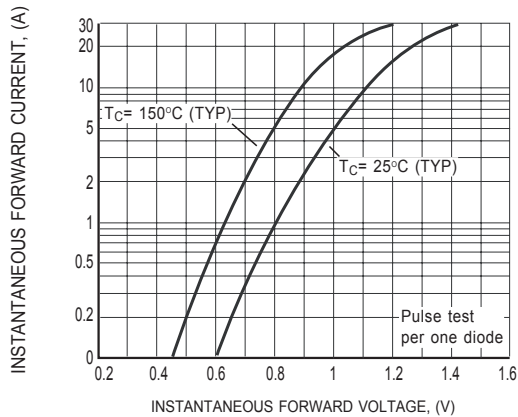
| RATINGS   | SYMBOL          | RBU1001M     | RBU1002M | RBU1003M | RBU1004M | RBU1005M | RBU1006M | RBU1007M | UNITS            |
|---|-----------------|--------------|----------|----------|----------|----------|----------|----------|------------------|
| Maximum Recurrent Peak Reverse Voltage  | $V_{RRM}$       | 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 Rectified Current   | $I_O$           | 10.0         |          |          |          |          |          |          | Amps             |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$       | 200          |          |          |          |          |          |          | Amps             |
| Typical Current Squared Time  | $I^2t$          | 165.9        |          |          |          |          |          |          | A <sup>2</sup> S |
| Isolation Voltage of case   | $V_{ISO}$       | 1600         |          |          |          |          |          |          | V <sub>AC</sub>  |
| Typical Thermal Resistance (Note 1)   | $R_{\theta JC}$ | 2.3          |          |          |          |          |          |          | °C/W             |
|   | $R_{\theta JA}$ | 26           |          |          |          |          |          |          |                  |
| Operating and Storage Temperature Range   | $T_J, T_{STG}$  | -55 to + 150 |          |          |          |          |          |          | °C               |

**ELECTRICAL CHARACTERISTICS (@ TA=25 °C unless otherwise noted)**

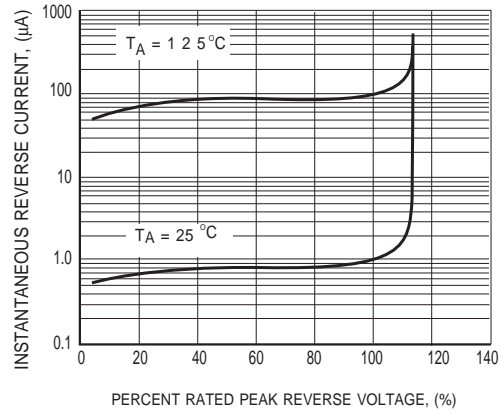
| CHARACTERISTICS   | SYMBOL                      | RBU1001M | RBU1002M | RBU1003M | RBU1004M | RBU1005M | RBU1006M | RBU1007M | UNITS |
|---|-----------------------------|----------|----------|----------|----------|----------|----------|----------|-------|
| Maximum Instantaneous Forward Voltage at 5.0A DC        | $V_F$                       | 1.0      |          |          |          |          |          |          | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | @ $T_A = 25^\circ\text{C}$  | 1.0      |          |          |          |          |          |          | uAmps |
|   | @ $T_A = 125^\circ\text{C}$ | 100      |          |          |          |          |          |          |       |

- NOTES : 1. Thermal Resistance : Heat-sink case mounted or if PCB mounted.  
 2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".  
 3. Equivalent to Vishay's GBU10 Series.  
 4. \*\*\* Heat Sink Temperature.  
 5. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

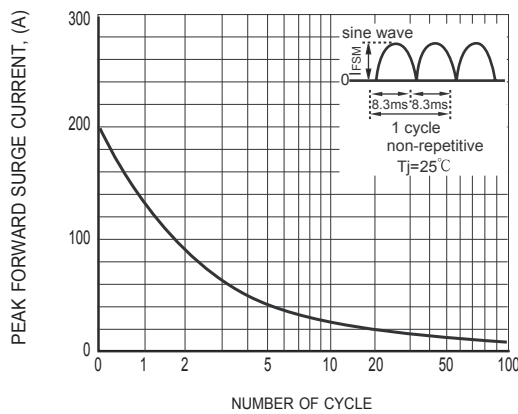
# RATING AND CHARACTERISTICS CURVES ( RBU1001M THRU RBU1007M )



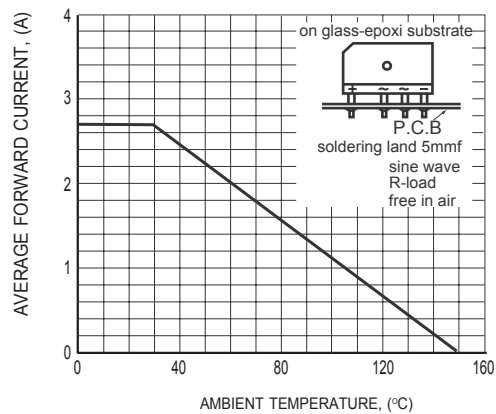
**FIG.1 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



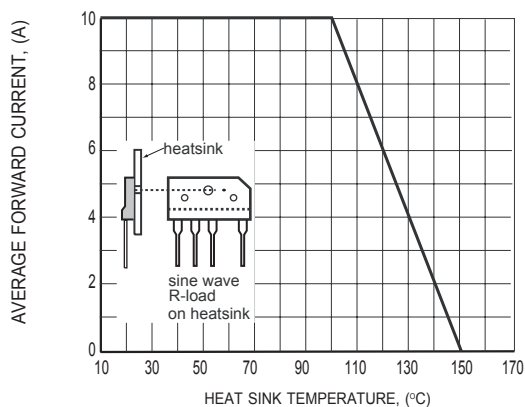
**FIG.2 MAXIMUM REVERSE CHARACTERISTICS**



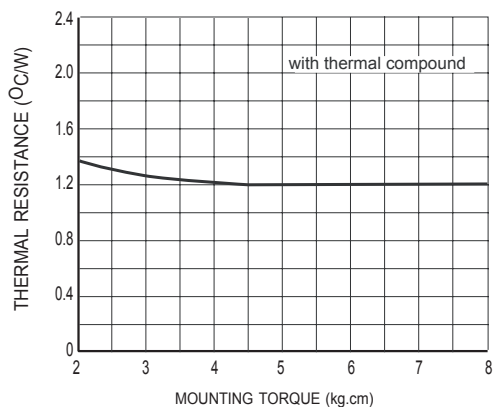
**FIG.3 SURGE FORWARD CURRENT CAPABILITY**



**FIG.4 TYPICAL FORWARD CURRENT DERATING CURVE**

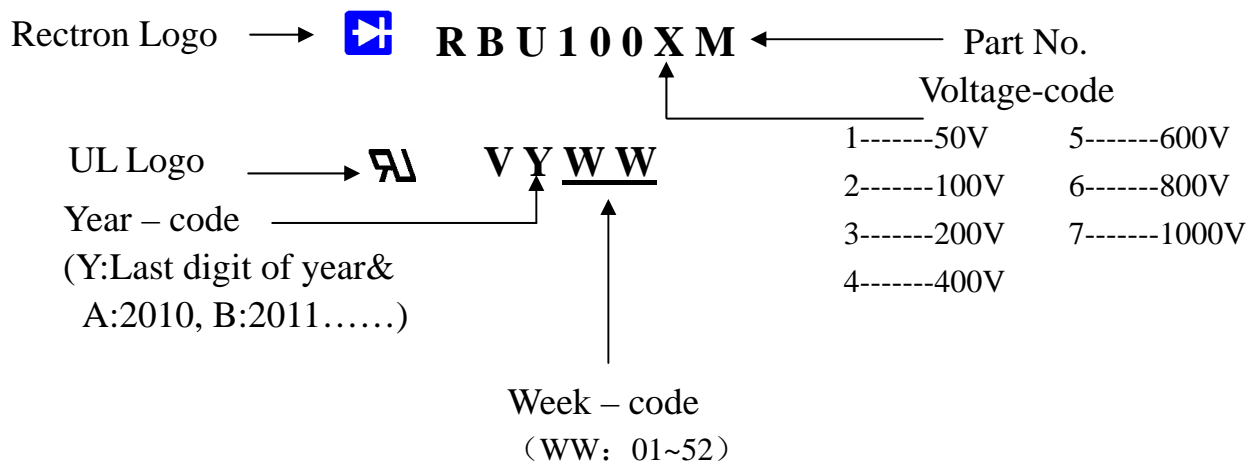


**FIG.5 TYPICAL FORWARD CURRENT DERATING CURVE**



**FIG.6 CONTACT THERMAL RESISTANCE for**

## Marking Description



# PACKAGING OF DIODE AND BRIDGE RECTIFIERS

## TUBE PACK

| PACKAGE | PACKING CODE | EA PER BOX | INNER BOX SIZE<br>(mm) | CARTON SIZE<br>(mm) | EA PER CARTON | WEIGHT(Kg) |
|---------|--------------|------------|------------------------|---------------------|---------------|------------|
| RBU     | -C           | 1,000      | 490*135*110            | 510*293*131         | 2,000         | 13.62      |