

## SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 4.0 Amperes

### **FEATURES**

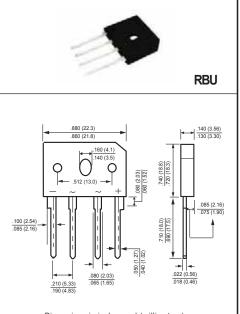
- \* Ideal for printed circuit board
- \* Surge overload rating: 150 amperes peak
- \* Mounting position: Any

### **MECHANICAL DATA**

- $^{\ast}$  UL listed the recognized component directory,file #E252754
- \* Epoxy: Device has UL flammability classification 94V-O

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.



Dimensions in inches and (millimeters)

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

For capacitive load, derate current by 20%.

| RATINGS  | SYMBOL           | RBU401M  | RBU402M | RBU403M | RBU404M | RBU405M          | RBU406M | RBU407M | UNITS |
|--|------------------|--|---------|---------|---------|------------------|---------|---------|-------|
| 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 RSM Voltage  | V <sub>RSM</sub> | 150  | 200     | 300     | 500     | 700              | 900     | 1100    | Volts |
| Maximum Average Forward Rectified Current<br>at T <sub>C</sub> = 100°C                               | I <sub>O</sub>   | 4.0  |         |         |         |                  | Amps    |         |       |
| Peak Forward Surge Current 8.3 ms single half sine-wave<br>superimposed on rated load (JEDEC method) | IFSM             | 150  |         |         |         | Amps             |         |         |       |
| Typical Current Squared Time   | l <sup>2</sup> t | 93.37  |         |         |         | A <sup>2</sup> S |         |         |       |
| Typical Junction Capacitance (Note 3)  | CJ               | CJ 40  |         |         | pF      |                  |         |         |       |
| Typical Thermal Resistance (Note 1)  | $R_{\theta JC}$  | 4.2  |         |         |         |                  |         |         | °C/W  |
|  | $R_{\theta JA}$  | 22   |         |         |         |                  |         |         | 0/10  |
| Operating and Storage Temperature Range  | TJ, TSTG         | T <sub>J</sub> , T <sub>STG</sub> -55 to + 150 |         |         |         | ٥C               |         |         |       |

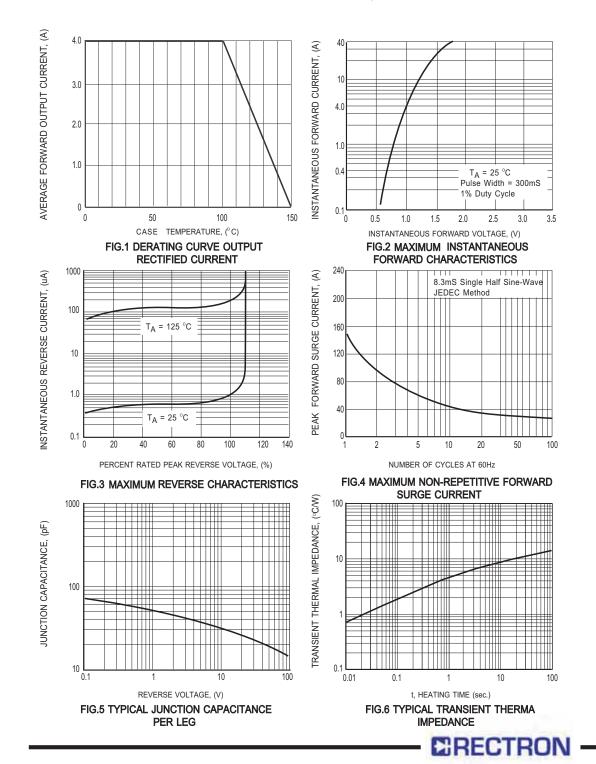
#### ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)

| CHARACTERISTICS                                  |                         | SYMBOL           | RBU401M | RBU402M | RBU403M | RBU404M | RBU405M | RBU406M | RBU407M | UNITS |
|--|-------------------------|------------------|---------|---------|---------|---------|---------|---------|---------|-------|
| Maximum Instantaneous Forward Voltage at 4.0A DC |                         | VF               | 1.0     |         |         |         |         |         | Volts   |       |
| Maximum DC Reverse Current                       | @T <sub>A</sub> = 25°C  | - I <sub>R</sub> | 1.0     |         |         |         |         | uAmps   |         |       |
| at Rated DC Blocking Voltage                     | @T <sub>A</sub> = 125°C |                  | 200     |         |         |         |         | uAmps   |         |       |

NOTES: 1.Thermal Resistance : Heat-sink case mounted or if PCB mounted. 2. " RoHS compliant".

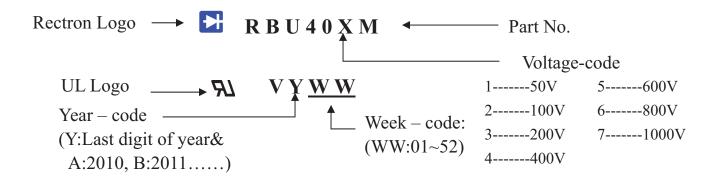
3. Measured at 1MHz and applied reverse voltage of 4.0 voltage.

2023-07 REV:E



## RATING AND CHARACTERISTICS CURVES (RBU401M THRU RBU407M)

## **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      |



|     | Revise History                                  |            |  |  |  |
|-----|---|------------|--|--|--|
| Rev | Content   | Data       |  |  |  |
| D   | Add Vrsm and Modify Ir 150 $^\circ\!\mathrm{C}$ | 2018-11-26 |  |  |  |
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