

**SINGLE-PHASE GLASS PASSIVATED  
SILICON BRIDGE RECTIFIER**  
**VOLTAGE RANGE 50 to 1000 Volts CURRENT 8.0 Amperes**

**FEATURES**

- \* Low leakage
- \* Low forward voltage
- \* Surge overload rating : 200 amperes peak
- \* Mounting position: Any
- \* Ideal for printed circuit boards
- \* High forward surge current capability

**MECHANICAL DATA**

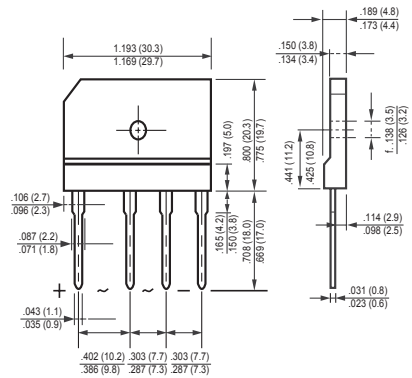
- \* Epoxy: Device has UL flammability classification 94V-O
- \* UL list the recognized component directory, file #E94233

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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



**RS-8M**



Dimensions in inches and (millimeters)

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

| RATINGS   | SYMBOL          | RS801M       | RS802M | RS803M | RS804M | RS805M | RS806M | RS807M | 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 at $T_C = 75^\circ\text{C}$ (with heat sink)            | $I_O$           | 8.0          |        |        |        |        |        |        | Amps                |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$       | 200          |        |        |        |        |        |        | Amps                |
| Current Squared Time  | $I^2T$          | 165.9        |        |        |        |        |        |        | A <sup>2</sup> /Sec |
| RMS isolation voltage from case to lead   | $V_{iso}$       | 2000         |        |        |        |        |        |        | Vac                 |
| Typical Thermal Resistance (Note 1)   | $R_{\theta JC}$ | 3.4          |        |        |        |        |        |        | °C/W                |
|   | $R_{\theta JA}$ | 26           |        |        |        |        |        |        | °C/W                |
| Operating and Storage Temperature Range   | $T_J, T_{STG}$  | -55 to + 150 |        |        |        |        |        |        | °C                  |

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

| CHARACTERISTICS   |                         | SYMBOL         | RS801M | RS802M | RS803M | RS804M | RS805M | RS806M | RS807M | UNITS |
|---|-------------------------|----------------|--------|--------|--------|--------|--------|--------|--------|-------|
| Maximum Instantaneous Forward Voltage at 8.0A DC        |                         | V <sub>F</sub> | 1.2    |        |        |        |        |        |        | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | @T <sub>A</sub> = 25°C  | I <sub>R</sub> | 5.0    |        |        |        |        |        |        | uAmps |
|   | @T <sub>A</sub> = 125°C |                | 500    |        |        |        |        |        |        |       |

NOTES : 1. Thermal Resistance : Heat-sink case mounted or if PCB mounted.  
2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

2010-01  
REV:A

## RATING AND CHARACTERISTICS CURVES ( RS801M THRU RS807M )

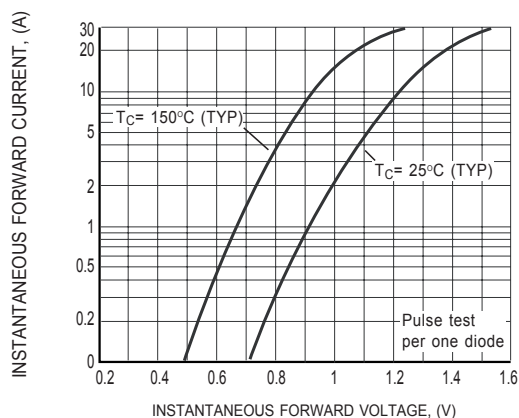


FIG.1 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

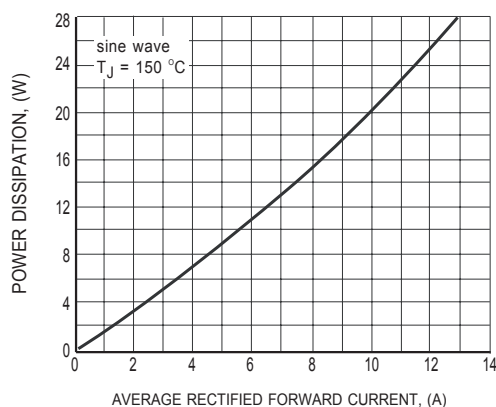


FIG.2 POWER DISSIPATION

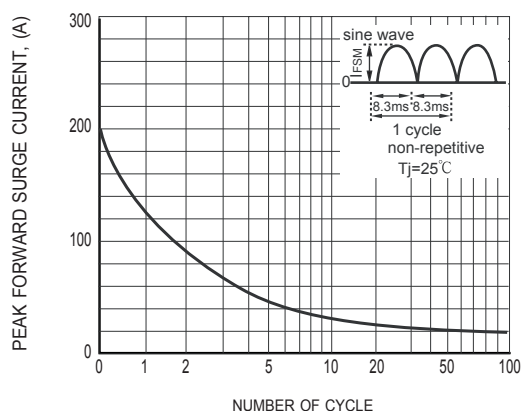


FIG.3 SURGE FORWARD CURRENT CAPABILITY

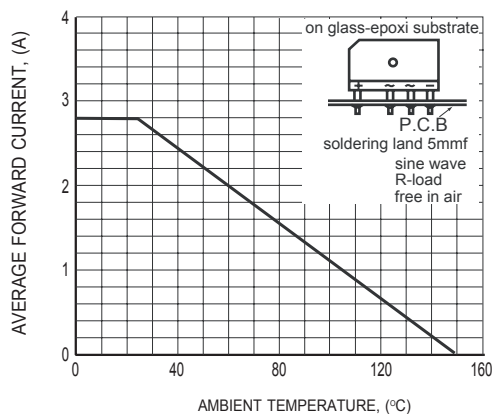


FIG.4 TYPICAL FORWARD CURRENT DERATING CURVE

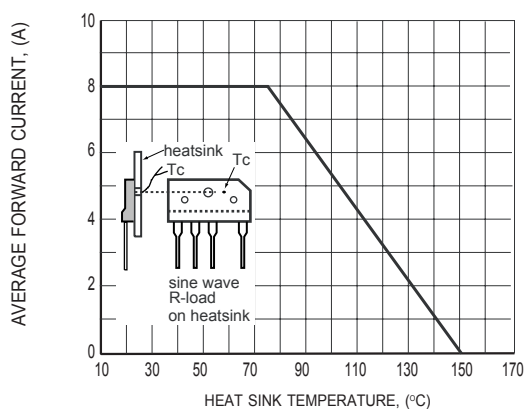
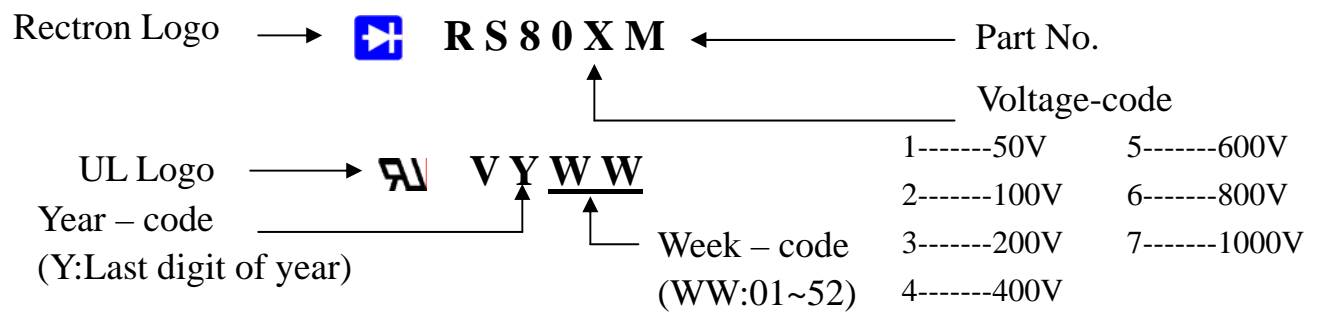


FIG.5 TYPICAL FORWARD CURRENT DERATING CURVE

## Marking Description



# PACKAGING OF DIODE AND BRIDGE RECTIFIERS

## BULK PACK

| PACKAGE | PACKING CODE | EA PER BOX | INNER BOX SIZE<br>(mm) | CARTON SIZE<br>(mm) | EA PER CARTON | GROSS<br>WEIGHT(Kg) |
|---------|--------------|------------|------------------------|---------------------|---------------|---------------------|
| RS-8M   | -B           | 300        | 230*190*46             | 410*243*157         | 1,800         | 13.37               |

## TUBE PACK

| PACKAGE | PACKING CODE | EA PER BOX | INNER BOX SIZE<br>(mm) | CARTON SIZE<br>(mm) | EA PER CARTON | WEIGHT(Kg) |
|---------|--------------|------------|------------------------|---------------------|---------------|------------|
| RS-8M   | -C           | 600        | 490*135*110            | 510*293*131         | 1,200         | 13.12      |

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