

**SINGLE-PHASE GLASS PASSIVATED  
SILICON BRIDGE RECTIFIER**  
VOLTAGE RANGE 50 to 1000 Volts CURRENT 20 Amperes

**FEATURES**

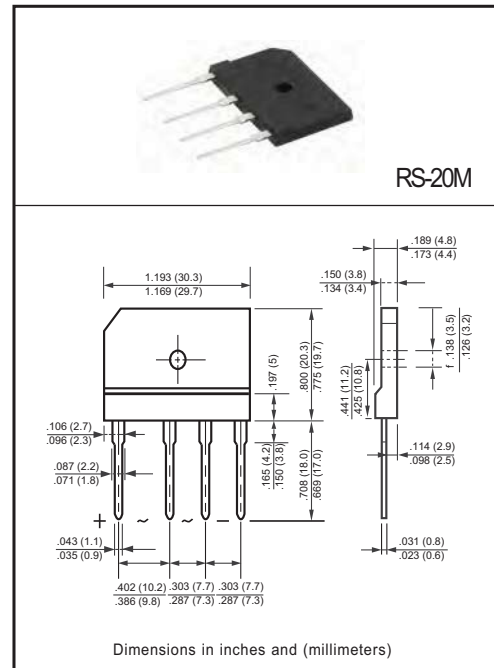
- \* Low leakage
- \* Low forward voltage
- \* Surge overload rating : 300 amperes peak
- \* Mounting position: Any
- \* Ideal for printed circuit boards
- \* High forward surge current capability

**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.



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

| RATINGS   | SYMBOL          | RS2001M      | RS2002M | RS2003M | RS2004M | RS2005M | RS2006M | RS2007M | 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 $T_C = 55^\circ C$                                   | $I_O$           | 20           |         |         |         |         |         |         | Amps         |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$       | 300          |         |         |         |         |         |         | Amps         |
| Typical Current Squared Time  | $I^2T$          | 373.3        |         |         |         |         |         |         | $A^2S$       |
| Typical Thermal Resistance (Note 1)   | $R_{\theta JC}$ | 1.5          |         |         |         |         |         |         | $^\circ C/W$ |
|   | $R_{\theta JA}$ | 22           |         |         |         |         |         |         |              |
| Operating and Storage Temperature Range   | $T_J, T_{STG}$  | -55 to + 150 |         |         |         |         |         |         | $^\circ C$   |

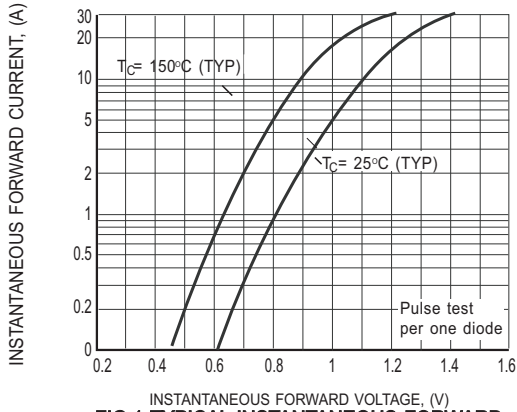
ELECTRICAL CHARACTERISTICS(@TA=25 °C unless otherwise noted)

| CHARACTERISTICS   | SYMBOL                | RS2001M | RS2002M | RS2003M | RS2004M | RS2005M | RS2006M | RS2007M | UNITS |
|---|-----------------------|---------|---------|---------|---------|---------|---------|---------|-------|
| Maximum Instantaneous Forward Voltage at 10A DC         | $V_F$                 | 1.1     |         |         |         |         |         |         | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | @ $T_A = 25^\circ C$  | 5.0     |         |         |         |         |         |         | uAmps |
|   | @ $T_A = 100^\circ C$ | 200     |         |         |         |         |         |         |       |

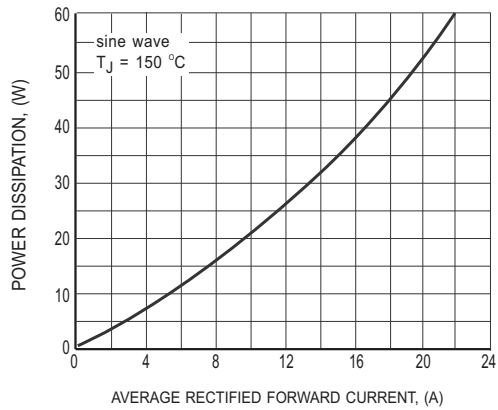
NOTES : 1. Thermal Resistance : Heat-sink case mounted or if PCB mounted.  
2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

2014-03  
REV:B

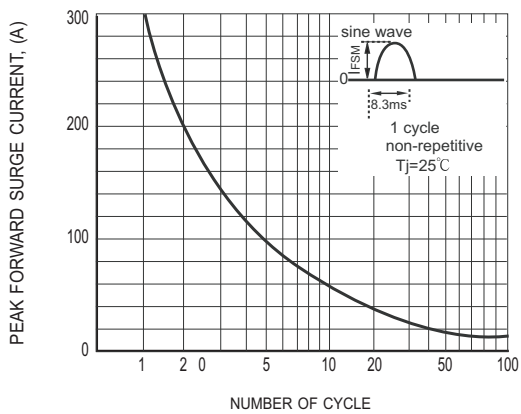
# RATING AND CHARACTERISTICS CURVES ( RS2001M THRU RS2007M )



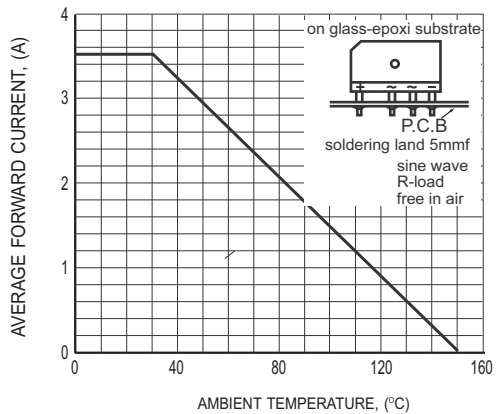
**FIG.1 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



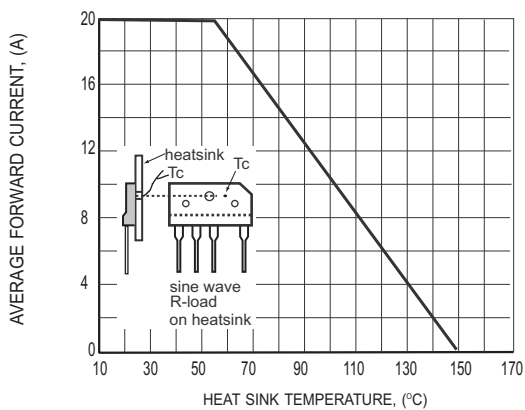
**FIG.2 POWER DISSIPATION**



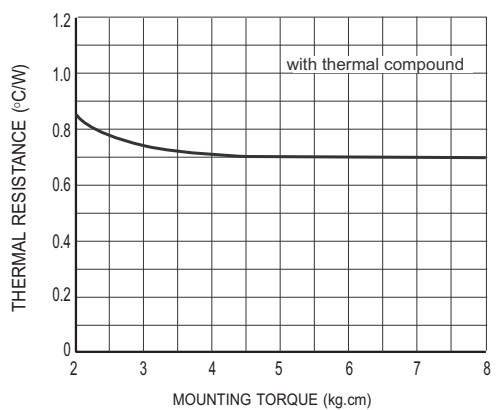
**FIG.3 SURGE FORWARD CURRENT CAPABILITY**



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

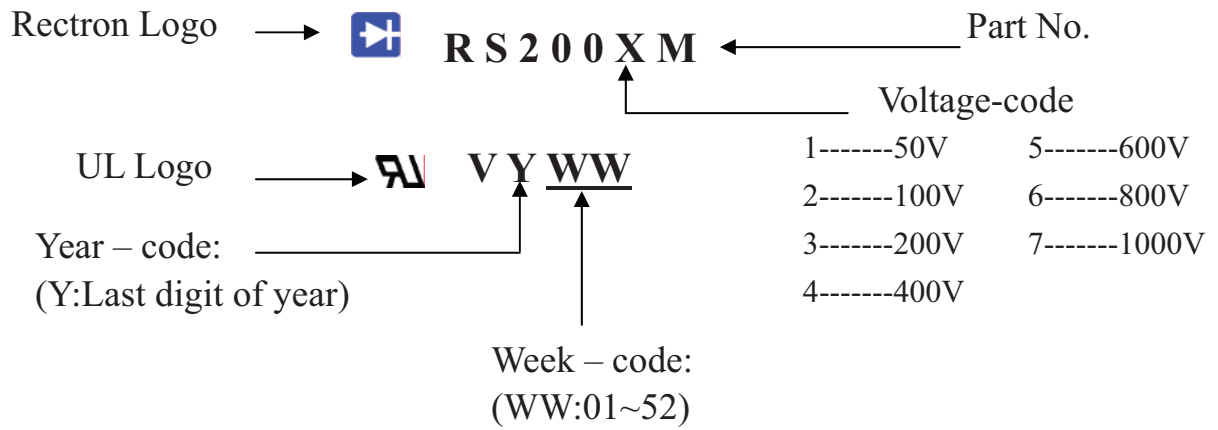


**FIG.5 TYPICAL FORWARD CURRENT DERATING CURVE**



**FIG.6 CONTACT THERMAL RESISTANCE fcf**

## 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-20M  | -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-20M  | -C           | 600        | 490*135*110            | 510*293*131         | 1,200         | 13.12      |