

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

**FEATURES**

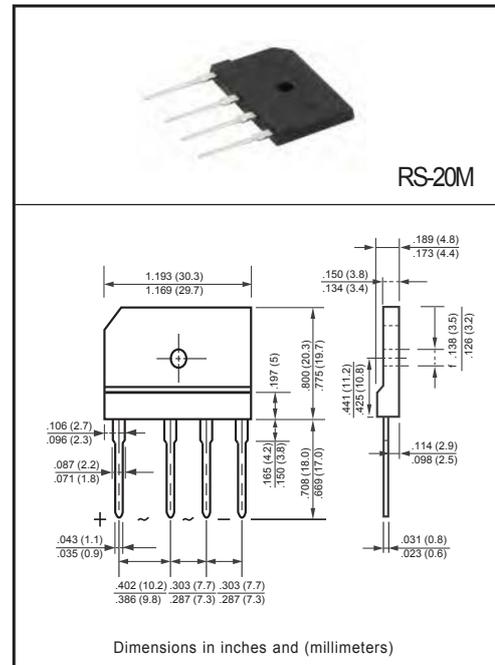
- \* Low leakage
- \* Low forward voltage
- \* Surge overload rating : 300 amperes peak
- \* Mounting position: Any
- \* Ideal for printed circuit boards
- \* High forward surge current capability

**MECHANICAL DATA**

- \* Epoxy: Device has UL flammability classification 94V-0
- \* 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 <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 Average Forward Rectified Current at T <sub>C</sub> = 55°C	I <sub>O</sub>	20							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	300							Amps
Typical Current Squared Time	i <sup>2</sup> T	373.3							A <sup>2</sup> S
Insulation voltage	V <sub>ISO</sub>	3000							Volts
Typical Thermal Resistance (Note 1)	R <sub>θJC</sub>	1.5							°C/W
	R <sub>θJA</sub>	22							
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 150							°C

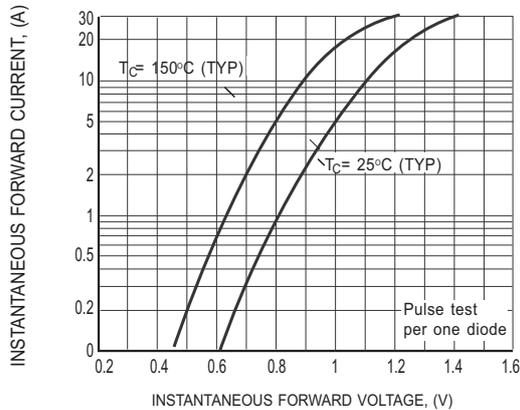
ELECTRICAL CHARACTERISTICS (@ TA=25 °C unless otherwise noted)

CHARACTERISTICS	SYMBOL	RS2001M	RS2002M	RS2003M	RS2004M	RS2005M	RS2006M	RS2007M	UNITS
Maximum Instantaneous Forward Voltage at 10A DC	V <sub>F</sub>	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	@ T <sub>A</sub> = 25°C							uAmps
		@ T <sub>A</sub> = 100°C							

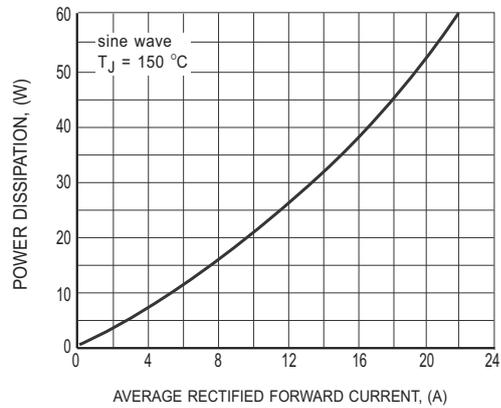
NOTES : 1. Thermal Resistance : Heat-sink case mounted or if PCB mounted.  
2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

2014-03  
REV:B

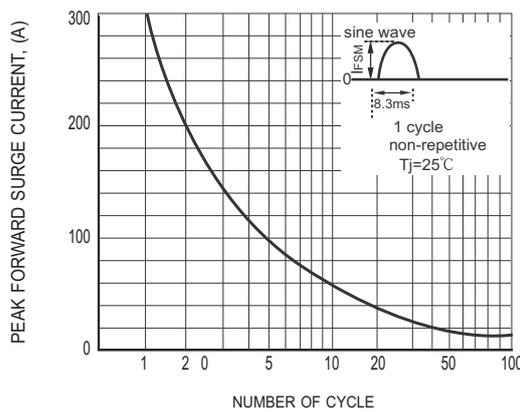
## RATING AND CHARACTERISTICS CURVES ( RS2001M THRU RS2007M )



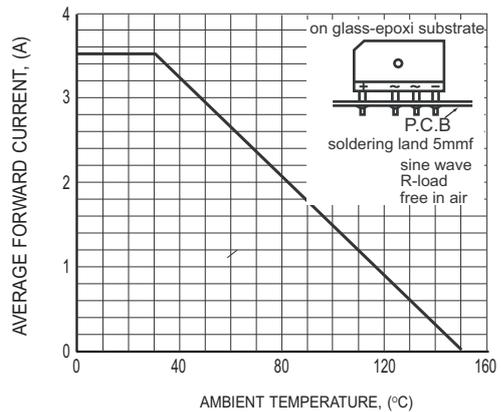
**FIG.1 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



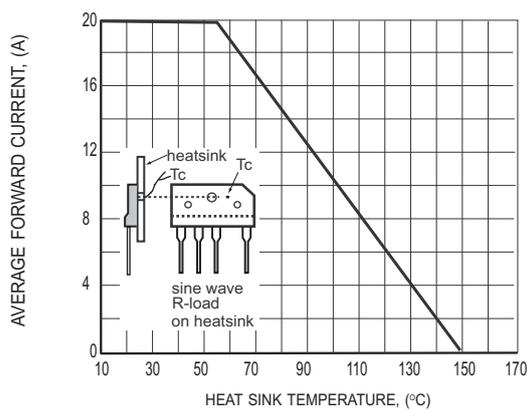
**FIG.2 POWER DISSIPATION**



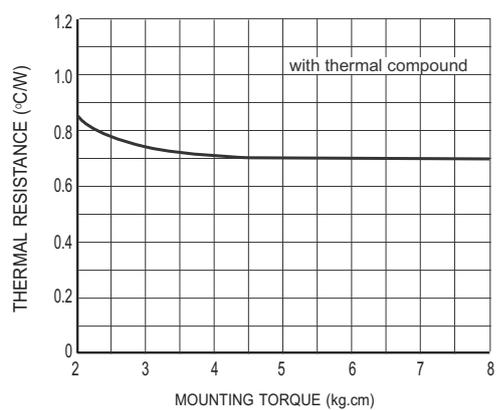
**FIG.3 SURGE FORWARD CURRENT CAPABILITY**



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

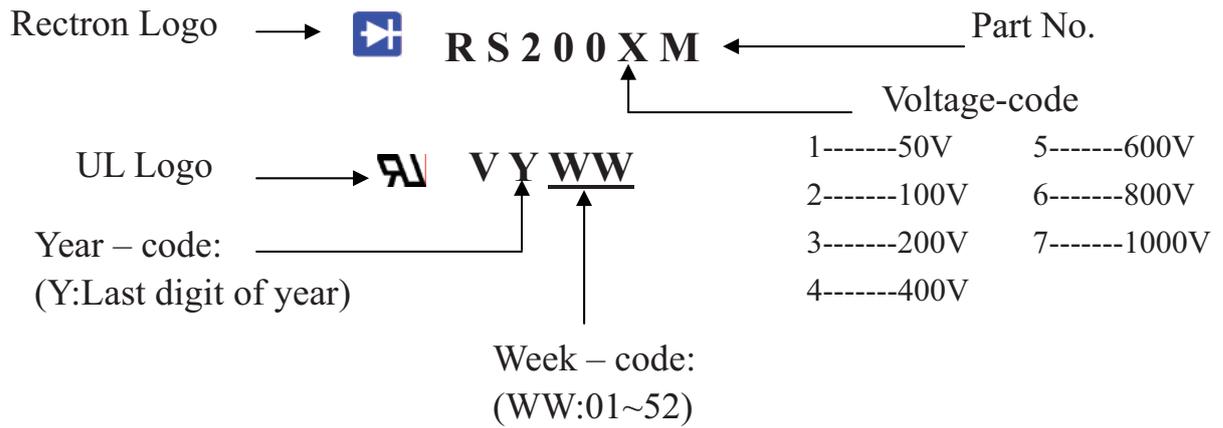


**FIG.5 TYPICAL FORWARD CURRENT DERATING CURVE**



**FIG.6 CONTACT THERMAL RESISTANCE  $f_{cf}$**

## Marking Description



## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### BULK PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS 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 (mm)	CARTON SIZE (mm)	EA PER CARTON	WEIGHT(Kg)
RS-20M	-C	600	490*135*110	510*293*131	1,200	13.12

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