

**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.



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

RATINGS	SYMBOL	RS801M	RS802M	RS803M	RS804M	RS805M	RS806M	RS807M	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> = 75 °C (with heat sink)	I <sub>O</sub>	8.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	200							Amps
Current Squared Time	I <sup>2</sup> T	165.9							A <sup>2</sup> /Sec
RMS isolation voltage from case to lead	V <sub>iso</sub>	2000							Vac
Typical Thermal Resistance (Note 1)	R <sub>θJC</sub>	3.4							°C/W
	R <sub>θJA</sub>	26							
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	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	I <sub>R</sub>	@T <sub>A</sub> = 25°C							uAmps
		@T <sub>A</sub> = 125°C							
		500							

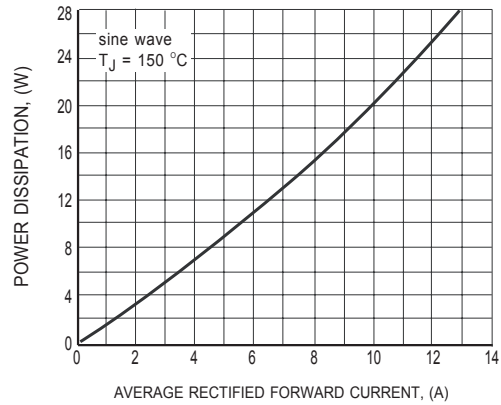
NOTES : 1. Thermal Resistance : Heat-sink case mounted or if PCB mounted.  
2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

2010-01  
REV:A

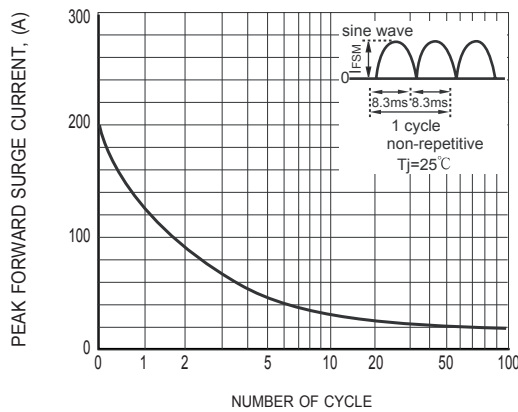
# RATING AND CHARACTERISTICS CURVES ( RS801M THRU RS807M )



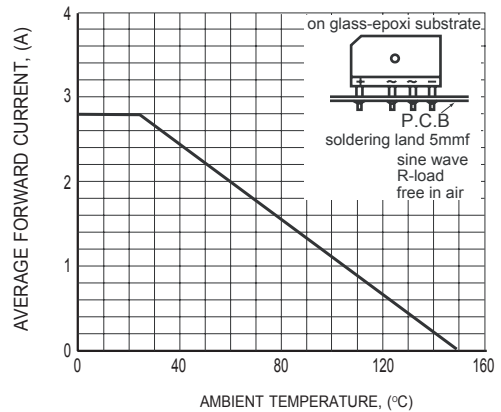
**FIG.1 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



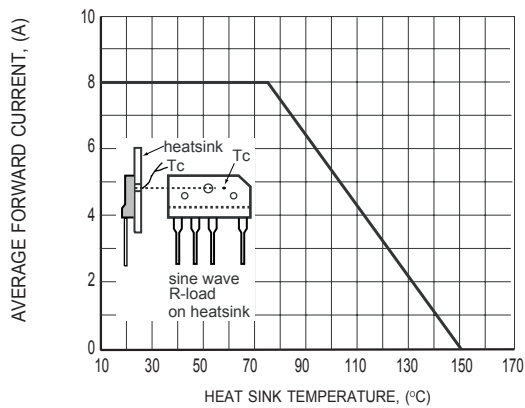
**FIG.2 POWER DISSIPATION**



**FIG.3 SURGE FORWARD CURRENT CAPABILITY**

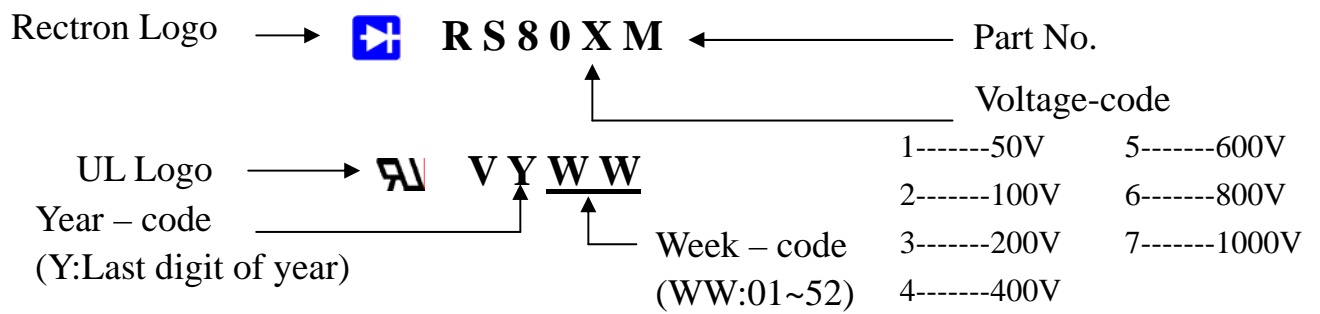


**FIG.4 TYPICAL FORWARD CURRENT DERATING CURVE**



**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 (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS 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 (mm)	CARTON SIZE (mm)	EA PER CARTON	WEIGHT(Kg)
RS-8M	-C	600	490*135*110	510*293*131	1,200	13.12

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### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9