



# THE DATASHEET OF RS1005M



**SINGLE-PHASE GLASS PASSIVATED  
SILICON BRIDGE RECTIFIER**

VOLTAGE RANGE 50 to 1000 Volts CURRENT 10 Amperes

**FEATURES**

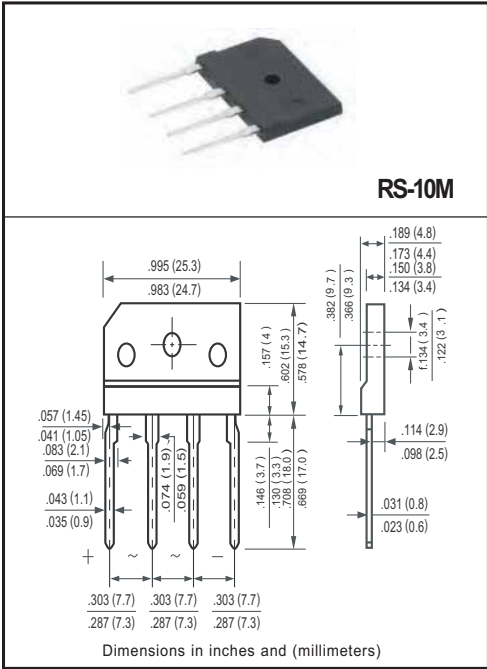
- \* Low leakage
- \* Low forward voltage
- \* Mounting position : Any
- \* Surge overload rating: 200 Amperes peak
- \* Ideal for printed circuit boards
- \* MSL: Level 1

**MECHANICAL DATA**

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

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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



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

CHARACTERISTICS	SYMBOL	RS1001M	RS1002M	RS1003M	RS1004M	RS1005M	RS1006M	RS1007M	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input 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 Output Current at T <sub>c</sub> =100 degree with heatsink	I <sub>o</sub>	10							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	200							Amps
Typical Current Square Time	i <sup>2</sup> T	166							A <sup>2</sup> S
Insulation voltage	V <sub>iso</sub>	3000							Volts
Typical Thermal Resistance from junction to ambient	R <sub>θJA</sub>	22							°C/W
Typical Thermal Resistance from junction to case	R <sub>θJC</sub>	1.0							
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	RS1001M	RS1002M	RS1003M	RS1004M	RS1005M	RS1006M	RS1007M	UNITS
Maximum Forward Voltage Drop per element at 5.0A DC	@TA=25 °C	1.1							Volts
	@TA=125 °C	0.98							
Maximum Reverse Current at Rated DC Blocking Voltage per element	@TA=25 °C	5.0							μAmps
	@TA=125 °C	30							μAmps

Note: " ROHS compliant".

# RATING AND CHARACTERISTICS CURVES ( RS1001M THRU RS1007M )

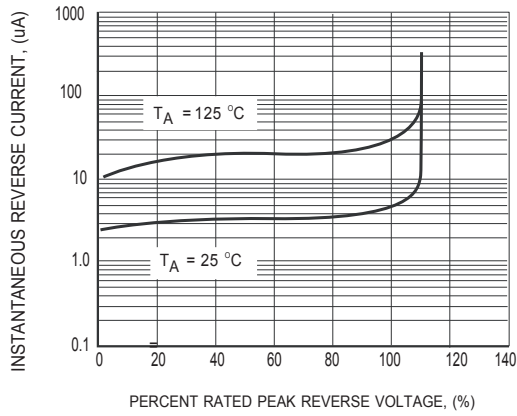


FIG.1 MAXIMUM REVERSE CHARACTERISTICS

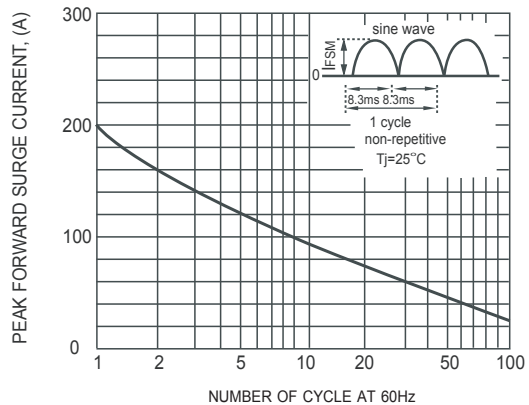


FIG.2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

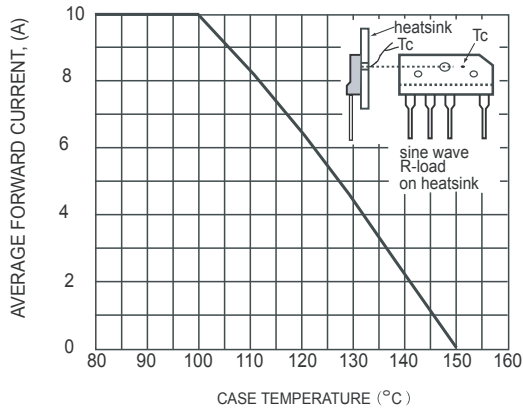


FIG.3 TYPICAL FORWARD CURRENT DERATING CURVE

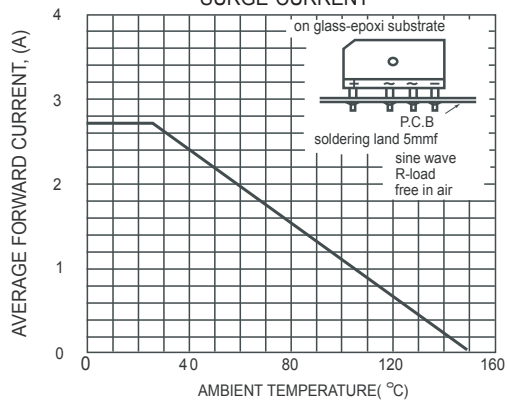


FIG.4 TYPICAL FORWARD CURRENT DERATING CURVE

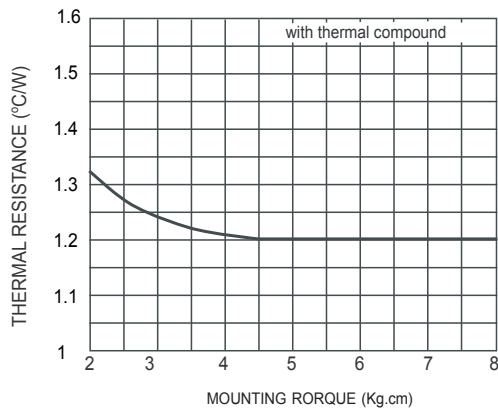


FIG.5 CONTACT THERMAL RESISTANCE

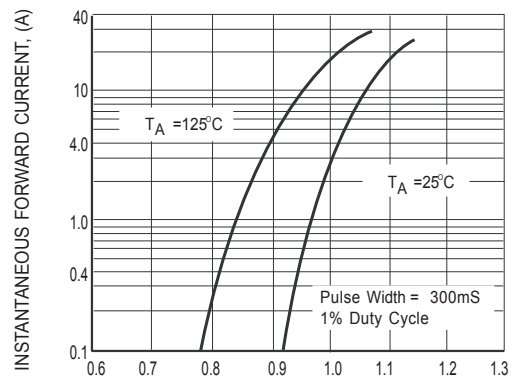
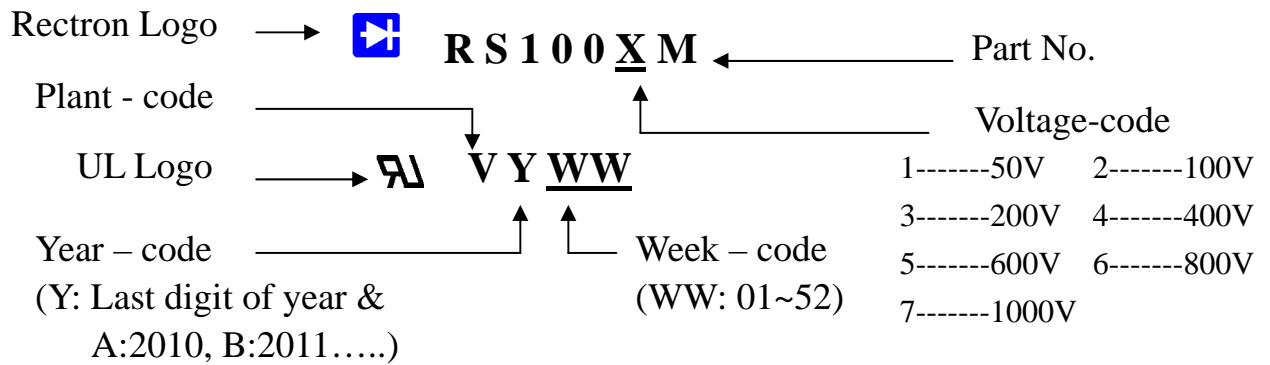


FIG.6 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

## Marking Description



# PACKAGING OF DIODE AND BRIDGE RECTIFIERS



## TUBE PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	WEIGHT(Kg)
RS-4M/-10M	-C	900	540*118*118	560*259*144	1,800	12.82



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