

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

FEATURES

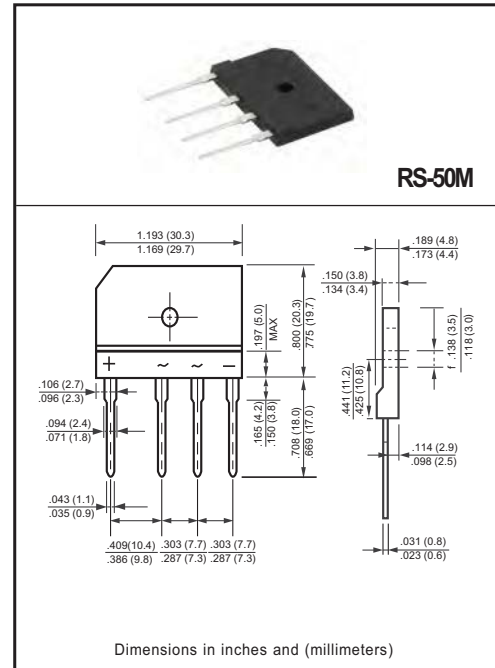
- * Low leakage
- * Low forward voltage
- * Mounting position: Any
- * Ideal for printed circuit boards
- * High forward surge current capability

MECHANICAL DATA

- * Epoxy: Device has UL flammability classification 94V-0
- * UL list the recognized component directory, file #E252754

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	RS5007M	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	1000	Volts
Maximum RMS Voltage	V _{RMS}	700	Volts
Maximum DC Blocking Voltage	V _{DC}	1000	Volts
Maximum Average Forward Rectified Current	I _O	50	Amps
Insulation voltage	V _{iso}	3000	Volts
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	500	Amps
Typical Current Squared Time	I ² _t	1037.5	A ² S
Typical Thermal Resistance (Note 1)	R _{θJC}	1.5	°C/W
	R _{θJA}	18	°C/W
Typical Junction Capacitance (Note 3)	C _J	190	pF
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to + 150	°C

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

CHARACTERISTICS	SYMBOL	RS5007M	UNITS
Maximum Instantaneous Forward Voltage at 25 A DC	V _F	1.1	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ T _A = 25°C	10	uAmps
	@ T _A = 125°C	500	

NOTES : 1. Thermal Resistance : Heat-sink case mounted or if PCB mounted.
2. RoHS compliant.
3. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

2025-04/10
REV:B

RATING AND CHARACTERISTICS CURVES (RS5007M)

FIG.1-FORWARD CURRENT DERATING CURVE

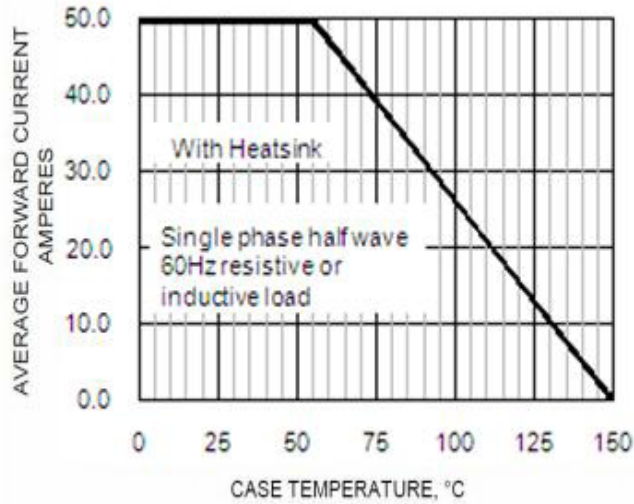


FIG.2-MAXMUN NON-REPETITIVE SURGE CURRENT

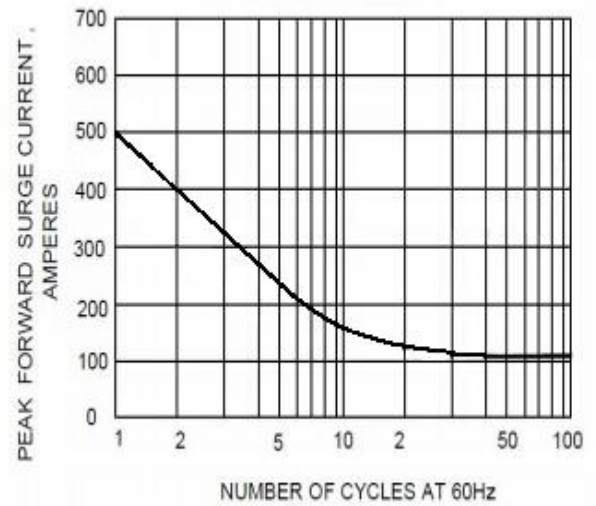


FIG.3-TYPICAL FORWARD CHARACTERISTICS

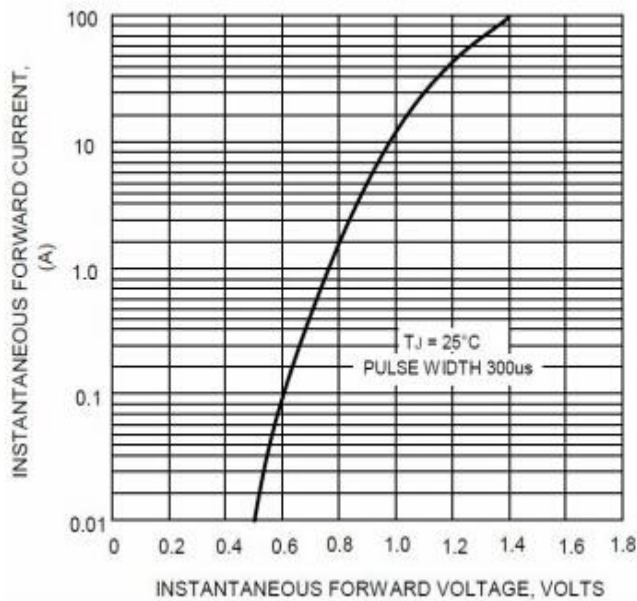
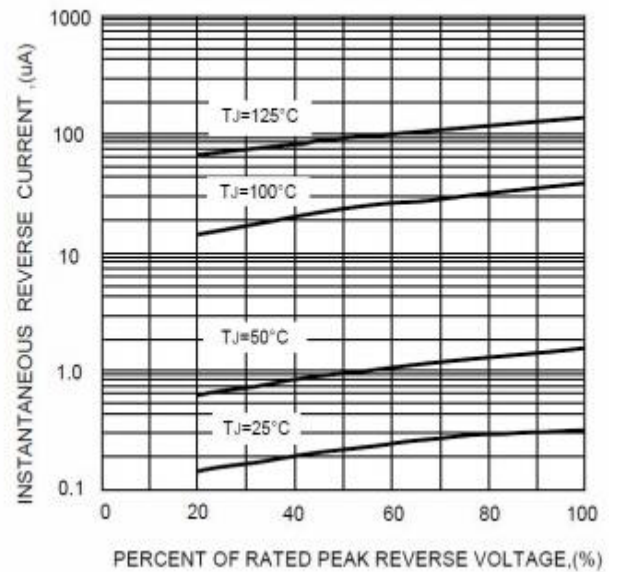
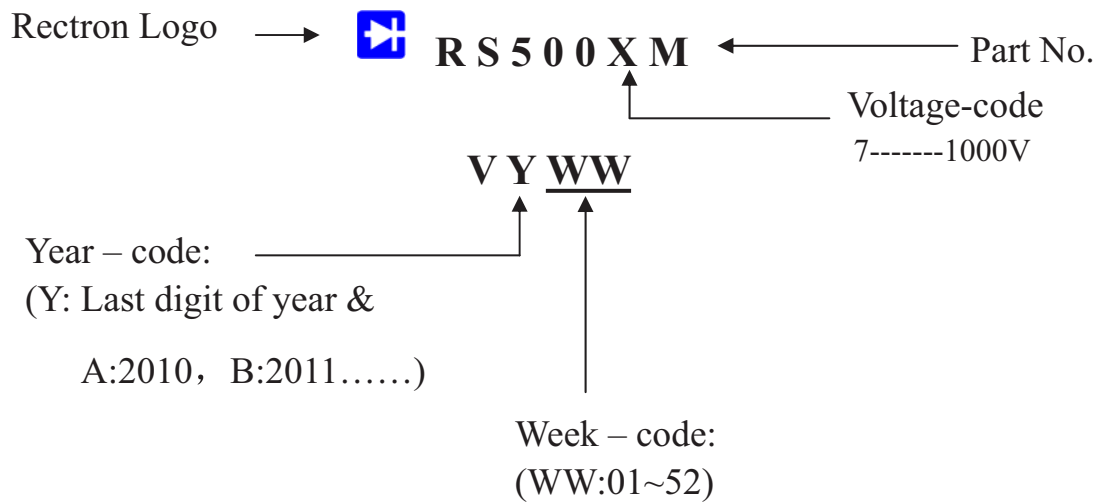


FIG.4-TYPICAL REVERSE CHARACTERISTICS



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-50M	-C	600	490*135*110	510*293*131	1,200	11.8

DISCLAIMER NOTICE

Rectron Inc reserves the right to make changes without notice to any product specification herein, to make corrections, modifications, enhancements or other changes. Rectron Inc or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies. Data sheet specifications and its information contained are intended to provide a product description only. "Typical" parameters which may be included on RECTRON data sheets and/ or specifications can and do vary in different applications and actual performance may vary over time. Rectron Inc does not assume any liability arising out of the application or use of any product or circuit.

Rectron products are not designed, intended or authorized for use in medical, life-saving implant or other applications intended for life-sustaining or other related applications where a failure or malfunction of component or circuitry may directly or indirectly cause injury or threaten a life without expressed written approval of Rectron Inc. Customers using or selling Rectron components for use in such applications do so at their own risk and shall agree to fully indemnify Rectron Inc and its subsidiaries harmless against all claims, damages and expenditures.