



THE DATASHEET OF RS2507M



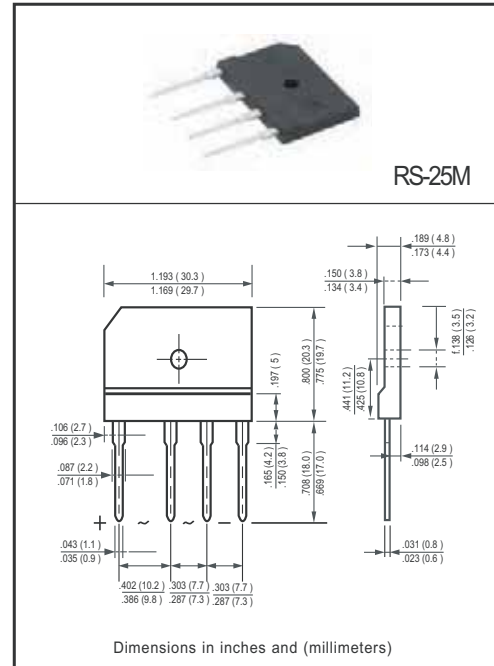
**SINGLE-PHASE GLASS PASSIVATED
SILICON BRIDGE RECTIFIER**
VOLTAGE RANGE 50 to 1000 Volts CURRENT 25 Amperes

FEATURES

- * Low leakage
- * Low forward voltage
- * Mounting position: Any
- * Surge overload rating: 350 amperes peak
- * Ideal for printed circuit boards
- * High forward surge current capability
- * ESD :HBM ----3B,MM----M4, CDM ----C7
- * MSL:Level 1

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.
Single phase, half wave, 60 Hz, resistive or inductive load.

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

RATINGS		SYMBOL	RS2501M	RS2502M	RS2503M	RS2504M	RS2505M	RS2506M	RS2507M	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 RSM Voltage		V_{RSM}	150	200	300	500	700	900	1100	Volts
Maximum Average Forward Rectified Current at $T_c = 100^\circ\text{C}$	with heatsink	I_o	25							Amps
	without heatsink		4.3							
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	350							Amps
Typical Current Squared Time		I_t^2	508							A^2S
Insulation voltage		V_{iso}	3000							Volts
Typical Thermal Resistance (Note 1)		$R_{\theta JC}$	1.0							$^\circ\text{C}/\text{W}$
Typical Thermal Resistance (Note 1)		$R_{\theta JA}$	22							$^\circ\text{C}/\text{W}$
Operating Temperature Range		T_J	150							$^\circ\text{C}$
Storage Temperature Range		T_{STG}	-55 to + 150							$^\circ\text{C}$

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

CHARACTERISTICS		SYMBOL	RS2501M	RS2502M	RS2503M	RS2504M	RS2505M	RS2506M	RS2507M	UNITS
Maximum Forward Voltage at 12.5A DC		V_F	1.0							Volts
Maximum DC Average Reverse Current at Rated DC Blocking Voltage	@TA = 25°C	I_R	0.5							μAmps
	@TA = 150°C		500							μAmps

NOTES : 1. Thermal resistance : Heat-sink case mounted.
2. "ROHS compliant".

2022-02
REV:1

RATING AND CHARACTERISTICS CURVES (RS2501M THRU RS2507M)

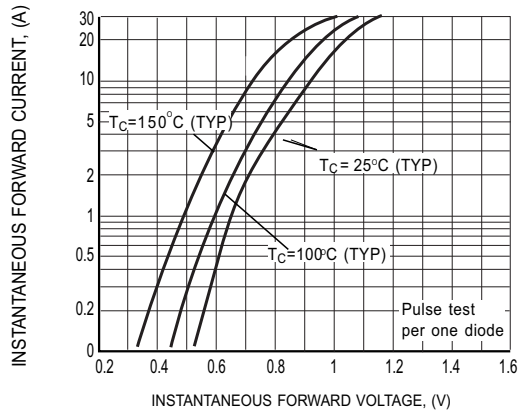


FIG.1 INSTANTANEOUS FORWARD CHARACTERISTICS

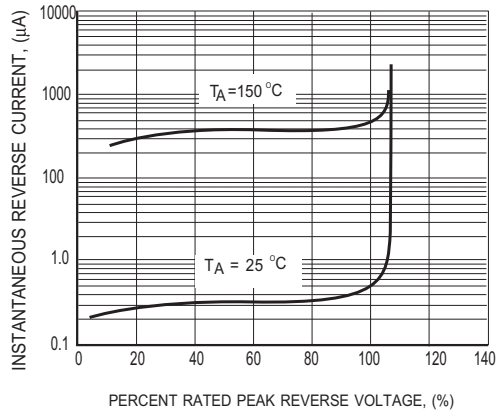


FIG.2 MAXIMUM REVERSE CHARACTERISTICS

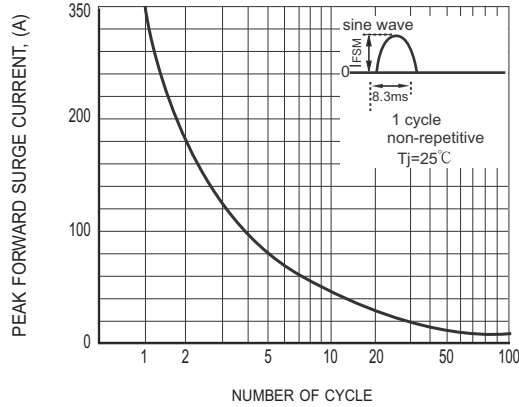


FIG.3 SURGE FORWARD CURRENT CAPABILITY

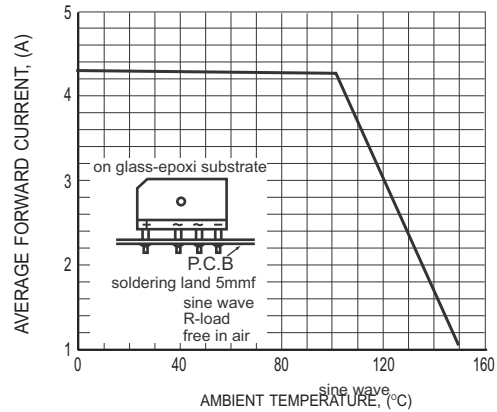


FIG.4 TYPICAL FORWARD CURRENT DERATING CURVE

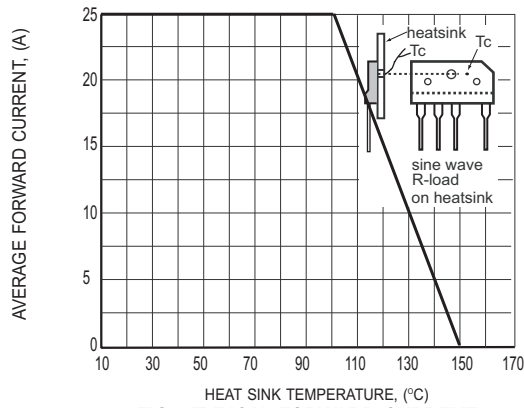


FIG.5 TYPICAL FORWARD CURRENT DERATING CURVE

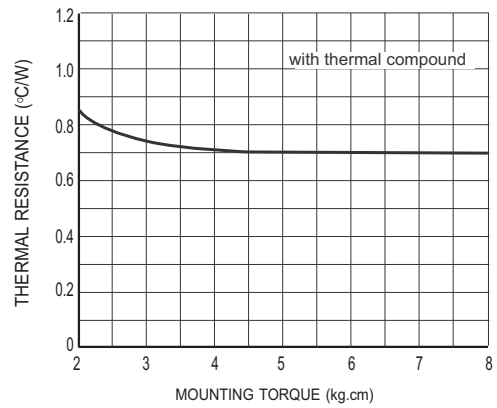


FIG.6 CONTACT THERMAL RESISTANCE fcf

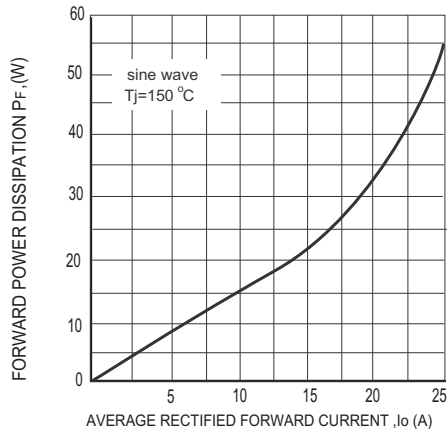
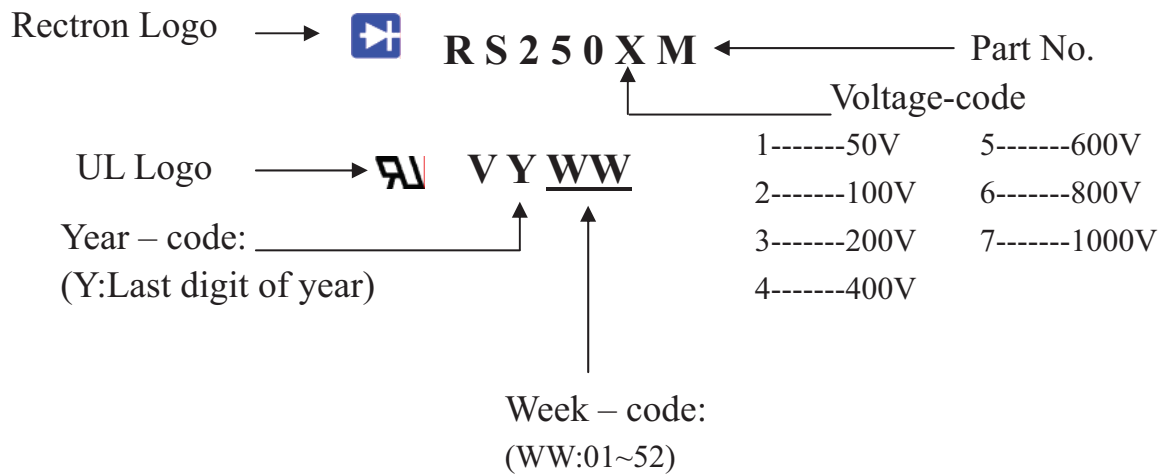


FIG.7 FORWARD POWER DISSIPATION

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-25M	-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-25M	-C	600	490*135*110	510*293*131	1,200	13.12

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