



**THE DATASHEET OF
RS2505M-C-LV**



**SINGLE-PHASE GLASS PASSIVATED
SILICON BRIDGE RECTIFIER**
VOLTAGE RANGE 600 Volts CURRENT 25 Amperes

FEATURES

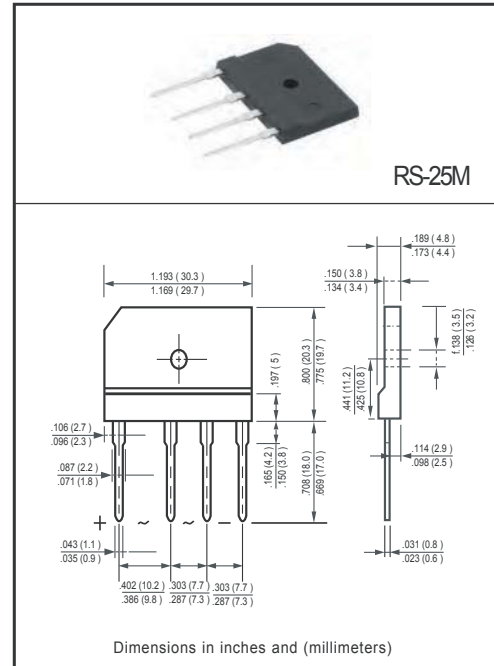
- * Low leakage
- * Low forward voltage
- * Mounting position: Any
- * Surge overload rating: 300 amperes peak
- * Ideal for printed circuit boards
- * High forward surge current capability

MECHANICAL DATA

- * Epoxy: Device has UL flammability classification 94V-0
- * UL list the recognized component directory, file #E94233
- * Halogen-free

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	RS2505M-C-LV	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	600	Volts
Maximum RMS Voltage		V_{RMS}	420	Volts
Maximum DC Blocking Voltage		V_{DC}	600	Volts
Maximum Average Forward Rectified Current at $T_C=55^\circ\text{C}$	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}	300	Amps
Typical Current Squared Time		I_t^2	373.3	A^2S
Insulation voltage		Viso	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	RS2505M-C-LV	UNITS
Maximum Forward Voltage at 12.5A DC		V_F	0.92	Volts
Maximum DC Average Reverse Current at Rated DC Blocking Voltage	@ $T_A = 25^\circ\text{C}$	I_R	5.0	μAmps
	@ $T_A = 125^\circ\text{C}$		200	

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

2017-11
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RATING AND CHARACTERISTICS CURVES (RS2505M-C-LV)

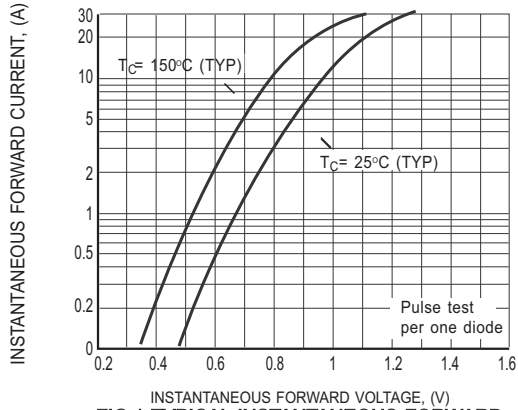


FIG.1 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

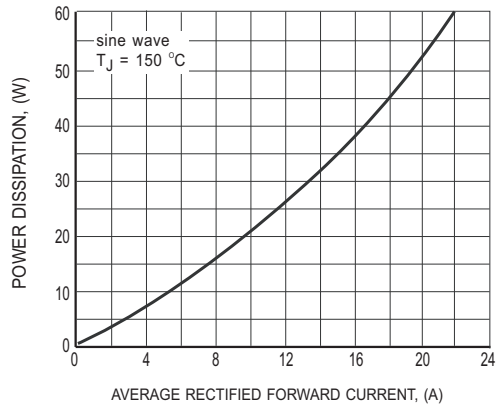


FIG.2 POWER DISSIPATION

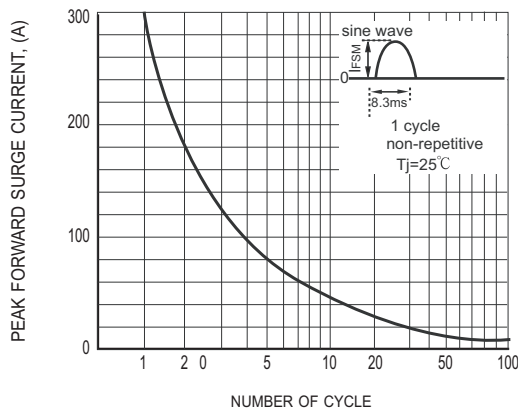


FIG.3 SURGE FORWARD CURRENT CAPABILITY

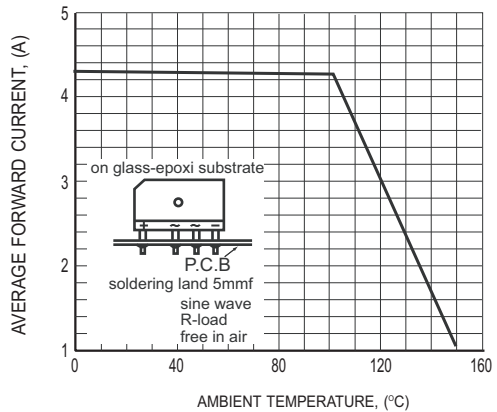


FIG.4 TYPICAL FORWARD CURRENT DERATING CURVE

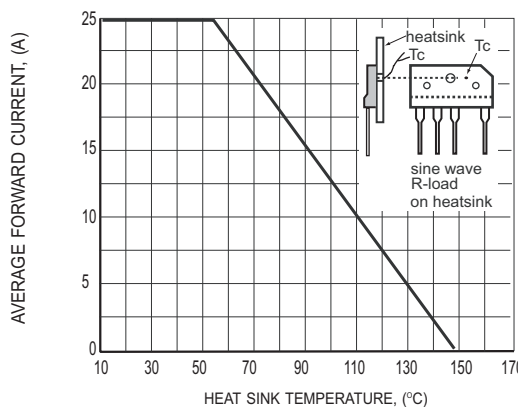


FIG.5 TYPICAL FORWARD CURRENT DERATING CURVE

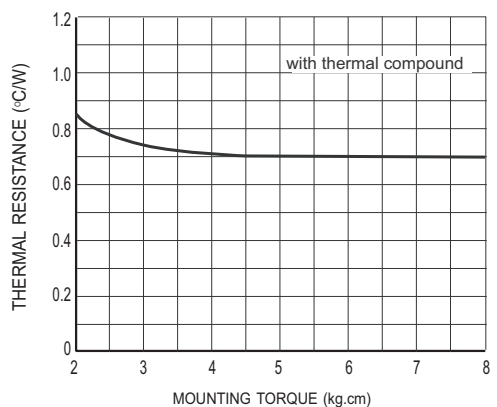
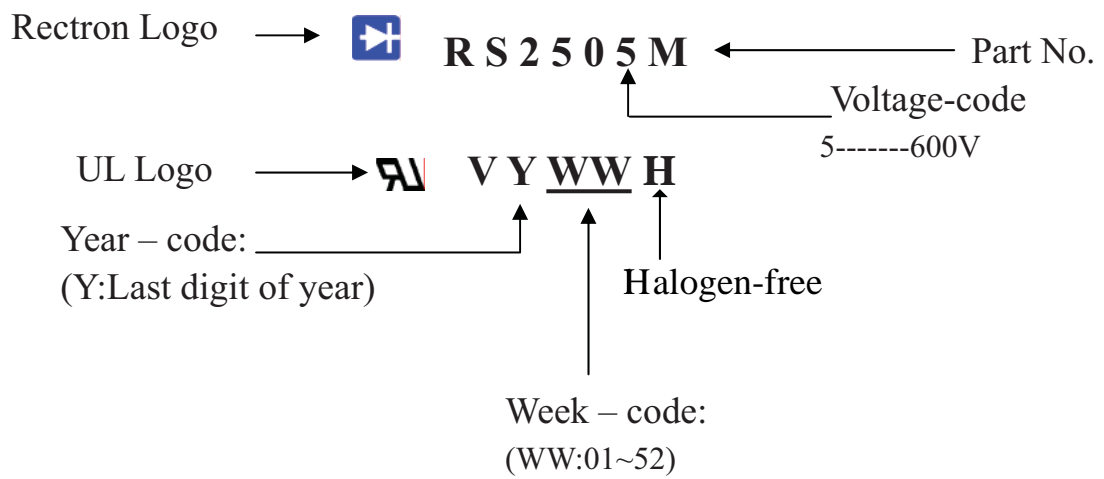


FIG.6 CONTACT THERMAL RESISTANCE fcf

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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