

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

VOLTAGE RANGE 50 to 1000 Volts CURRENT 25 Amperes

FEATURES

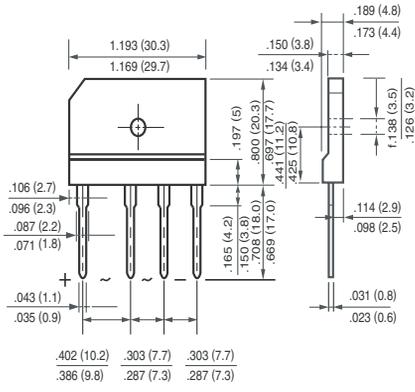
- * Low leakage
- * Low forward voltage
- * Mounting position : Any
- * Surge overload rating: 300 Amperes peak
- * Ideal for printed circuit boards
- * High forward surge current capability

MECHANICAL DATA

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



RS-25M



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 HZ, resistive or inductive load.
For capacitive load, derate current by 20%

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

CHARACTERISTICS	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 Bridge Input 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 Average Forward Rectified Output Current (with heatsink) (without heatsink)	I _O								25 4.3	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}								300	Amps
Typical Thermal Resistance from junction to ambient	R _{θJA}								22	°C/W
Typical Thermal Resistance from junction to case	R _{θJC}								1.0	
Operating and Storage Temperature Range	T _J ,T _{STG}								-55 to + 150	°C

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

CHARACTERISTICS	SYMBOL	RS2501M	RS2502M	RS2503M	RS2504M	RS2505M	RS2506M	RS2507M	UNITS	
Maximum Forward Voltage Drop per element at 12.5A DC	V _F								1.1	Volts
Maximum Reverse Current at Rated DC Blocking Voltage per element	@TA=25 °C								5.0	μAmps
	@TC=100 °C								0.2	mAmps

Note: "Fully ROHS compliant", "100% Sn plating (Pb-free)".

RATING AND CHARACTERISTICS CURVES (RS2501M THRU RS2507M)

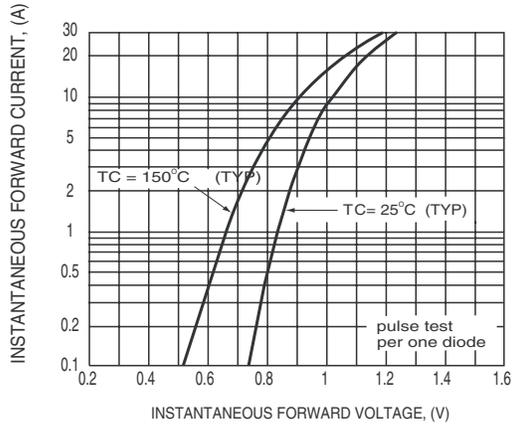


FIG.1 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

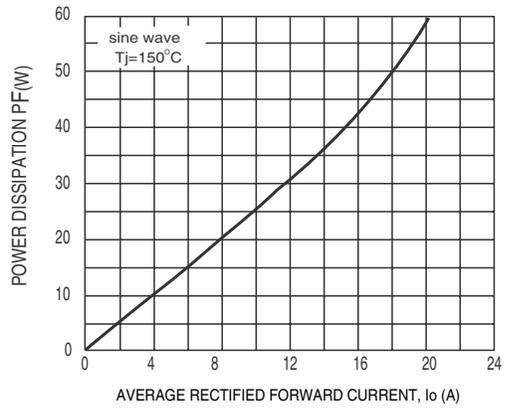


FIG.2 POWER DISSIPATION

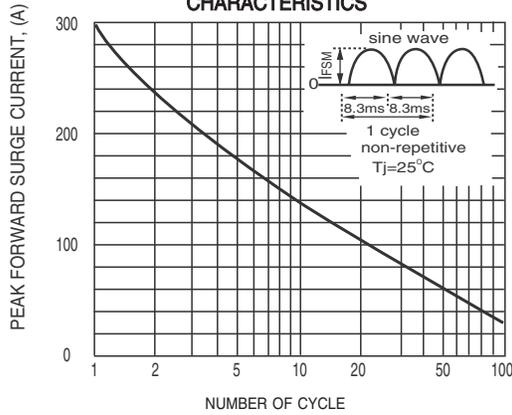


FIG.3 SURGE FORWARD CURRENT CAPABILITY

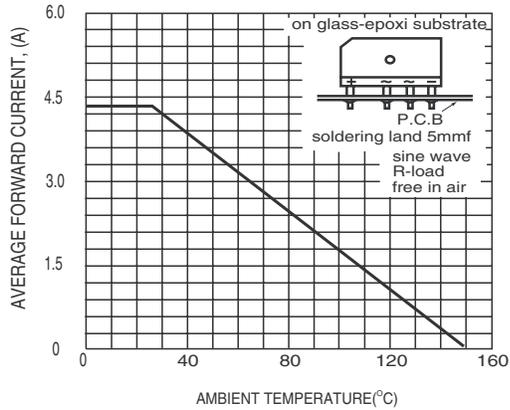


FIG.4 TYPICAL FORWARD CURRENT DERATING CURVE

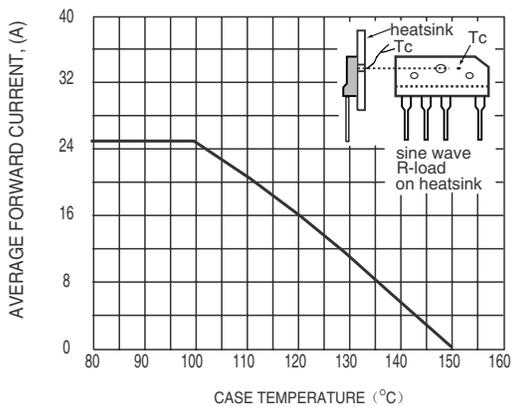


FIG.5 TYPICAL FORWARD CURRENT DERATING CURVE

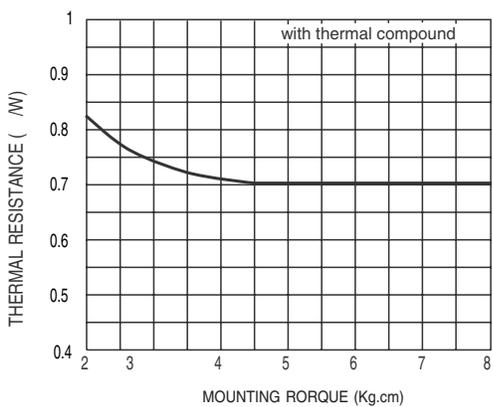


FIG.6 CONTACT THERMAL RESISTANCE

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