

**SINGLE-PHASE GLASS PASSIVATED  
SILICON BRIDGE RECTIFIER**  
VOLTAGE RANGE 50 to 1000 Volts CURRENT 8.0 Amperes

**FEATURES**

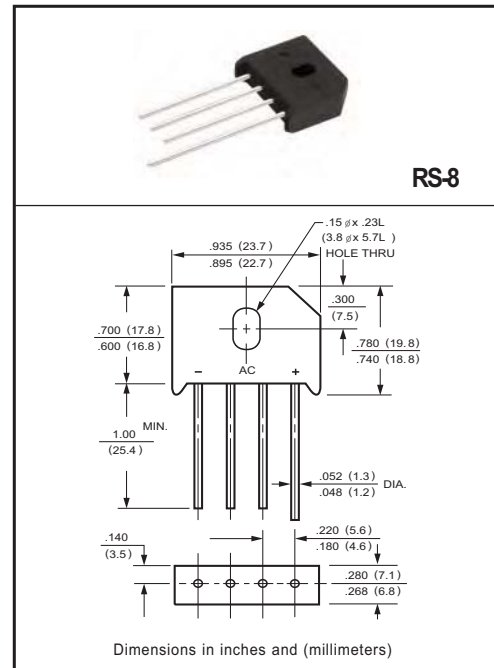
- \* Ideal for printed circuit board
- \* Surge overload rating: 50 amperes peak
- \* Low leakage
- \* Mounting position: Any
- \* Low forward voltage
- \* High forward surge current capability

**MECHANICAL DATA**

- \* Epoxy: Device has UL flammability classification 94V-0
- \* UL listed the recognized component directory, file #94233

**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)**

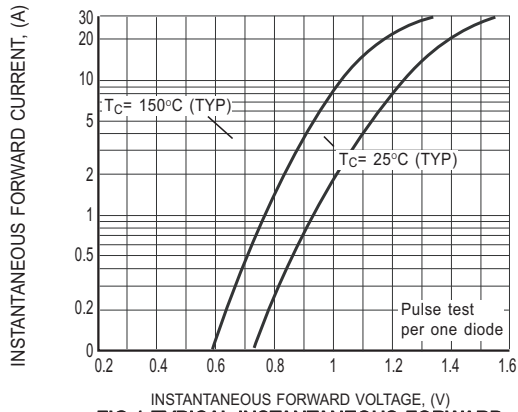
RATINGS	SYMBOL	RS801	RS802	RS803	RS804	RS805	RS806	RS807	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T <sub>C</sub> = 75 °C	I <sub>O</sub>	8.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	250							Amps
Current Squared Time	I <sup>2</sup> T	259.2							A <sup>2</sup> /Sec
Typical Thermal Resistance (Note 1)	R <sub>θJC</sub>	7							°C/W
	R <sub>θJA</sub>	18							
Current Square Time Value	I <sup>2</sup> T	259.3							A <sup>2</sup> S
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)**

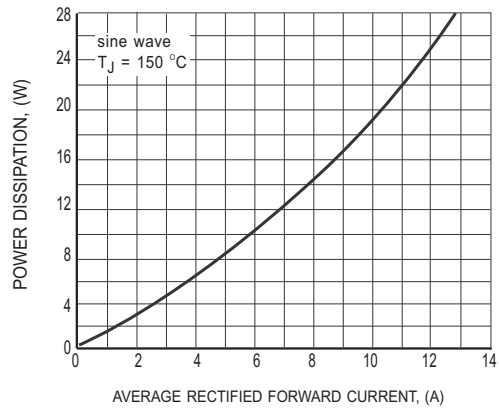
CHARACTERISTICS	SYMBOL	RS801	RS802	RS803	RS804	RS805	RS806	RS807	UNITS
Maximum Instantaneous Forward Voltage at 8.0A DC	V <sub>F</sub>	1.2							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T <sub>A</sub> = 25 °C	5.0							uAmps
	@T <sub>A</sub> = 100 °C	200							

- NOTES : 1. Thermal Resistance : Heat-sink case mounted or if PCB mounted.  
2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".  
3. Measured at 1MHz and applied reverse voltage of 4.0 volts.

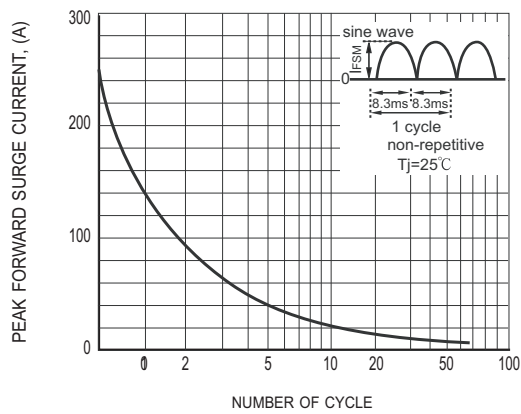
## RATING AND CHARACTERISTICS CURVES ( RS801 THRU RS807 )



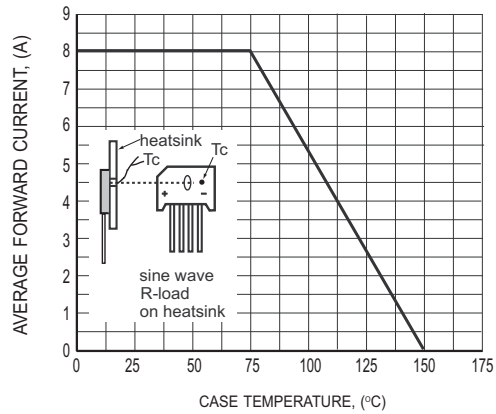
**FIG.1 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



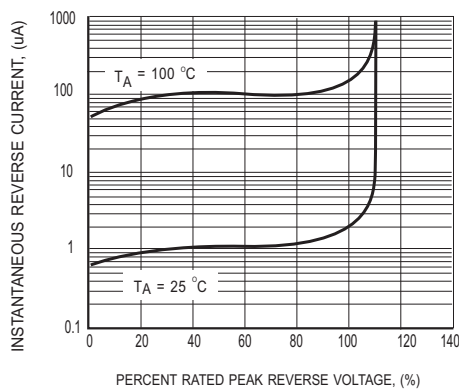
**FIG.2 POWER DISSIPATION**



**FIG.3 SURGE FORWARD CURRENT CAPABILITY**



**FIG.4 TYPICAL FORWARD CURRENT DERATING CURVE**



**FIG.5 TYPICAL REVERSE CHARACTERISTICS**

## 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-8	-B	200	236*236*34	497*255*162	1,600	13.6 / 14.5

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