

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

**VOLTAGE RANGE 50 to 1000 Volts CURRENT 6.0 Amperes**

**FEATURES**

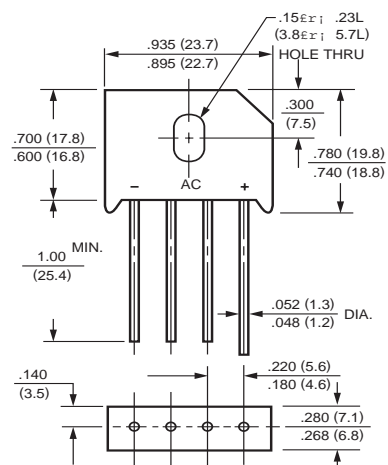
- \* Low leakage
- \* Low forward voltage
- \* Mounting position: Any
- \* Surge overload rating: 150 amperes peak
- \* Silver-plated copper leads

**MECHANICAL DATA**

- \* Epoxy : UL flammability classification 94V-0
- \* UL listed under the recognized component directory, File# E94233



**RS-6**



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 RATINGS** (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	RS601	RS602	RS603	RS604	RS605	RS606	RS607	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input 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 Output Current at Tc = 75°C	I <sub>o</sub>	6.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	150							Amps
Typical Thermal Resistance (NOTE 1)	R <sub>θJA</sub>	28							°C/W
Typical Thermal Resistance (NOTE 2)	R <sub>θJC</sub>	7.5							
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 150							°C

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

CHARACTERISTICS	SYMBOL	RS601	RS602	RS603	RS604	RS605	RS606	RS607	UNITS
Maximum Forward Voltage Drop per element at 6.0A DC	V <sub>F</sub>	1.1							Volts
Maximum Reverse Current at Rated	I <sub>R</sub>	5.0							uAmps
DC Blocking Voltage per element		1.0							mAmps

NOTES: 1. Thermal resistance from junction to ambient with units in free air, P.C.B. mounted on 0.5x0.5" (12x12mm) copper pads, 0.375" (9.5mm) lead length.  
 2. Thermal resistance from junction to case with units mounted on a 2.6x1.4x0.06" thick (6.5x3.5x.15cm) Al. Plate.  
 3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

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# RATING AND CHARACTERISTIC CURVES ( RS601 THRU RS607 )

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

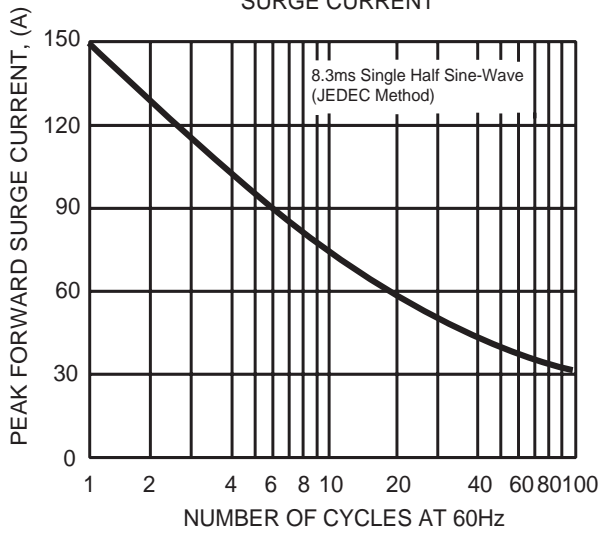


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

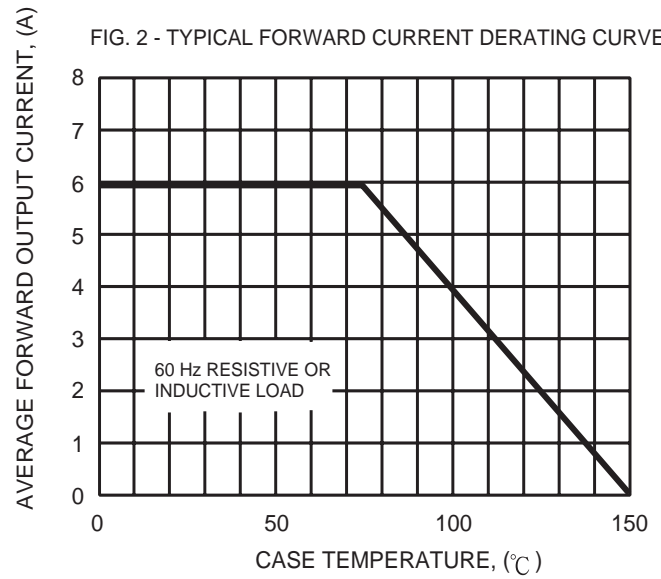


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

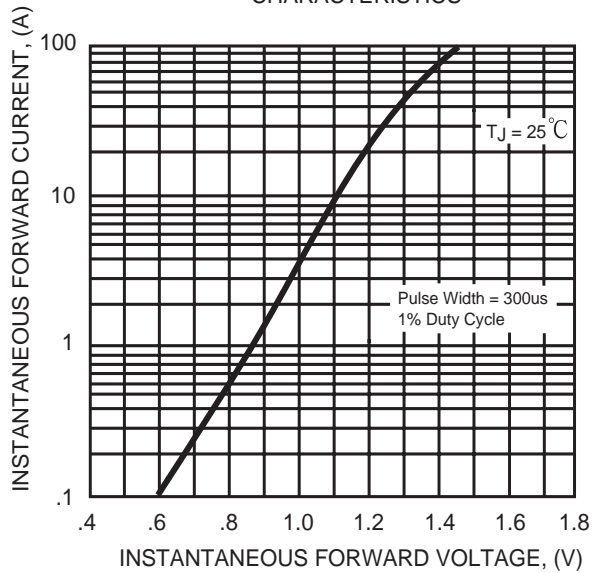


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

