

**SINGLE-PHASE GLASS PASSIVATED  
SILICON BRIDGE RECTIFIER**  
**VOLTAGE RANGE 50 to 1000 Volts CURRENT 4.0 Amperes**

**FEATURES**

- \* Ideal for printed circuit board
- \* Surge overload rating: 150 amperes peak
- \* Mounting position: Any
- \* Weight: 4.8 grams
- \* Molded structure

**MECHANICAL DATA**

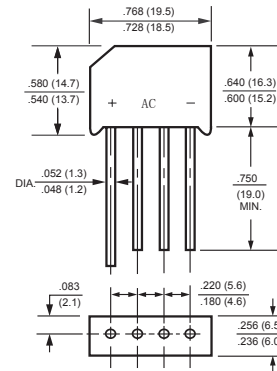
- \* UL listed the recognized component directory, file #E94233
- \* Epoxy: Device has UL flammability classification 94V-O

**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%.



**RS-4L**



Dimensions in inches and (millimeters)

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

| RATINGS                                                                                           | SYMBOL                            | RS401L       | RS402L | RS403L | RS404L | RS405L | RS406L | RS407L | 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>A</sub> = 50°C                                | I <sub>O</sub>                    | 4.0          |        |        |        |        |        |        | Amps  |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I <sub>FSM</sub>                  | 150          |        |        |        |        |        |        | Amps  |
| Typical Thermal Resistance (Note 1)                                                               | R <sub>θJC</sub>                  | 10           |        |        |        |        |        |        | °C/W  |
|                                                                                                   | R <sub>θJA</sub>                  | 28           |        |        |        |        |        |        |       |
| Typical Junction Capacitance (Note 3)                                                             | C <sub>J</sub>                    | 40           |        |        |        |        |        |        | pF    |
| 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         | RS401L | RS402L | RS403L | RS404L | RS405L | RS406L | RS407L | UNITS |
|------------------------------------------------------------|-------------------------|----------------|--------|--------|--------|--------|--------|--------|--------|-------|
| Maximum Instantaneous Forward Voltage at 4.0A DC           |                         | V <sub>F</sub> | 1.1    |        |        |        |        |        |        | Volts |
| Maximum DC Reverse Current<br>at Rated DC Blocking Voltage | @T <sub>A</sub> = 25°C  | I <sub>R</sub> | 2.0    |        |        |        |        |        |        | 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.

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REV: A

RATING AND CHARACTERISTICS CURVES ( RS401L THRU RS407L )

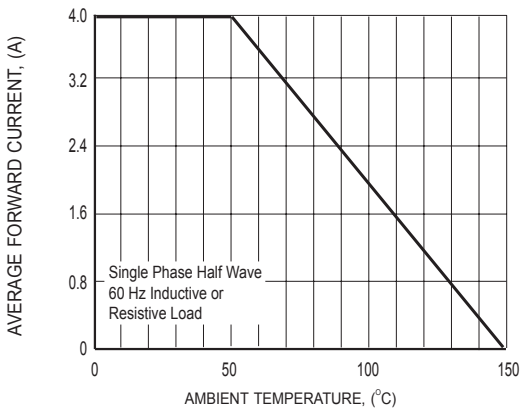


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

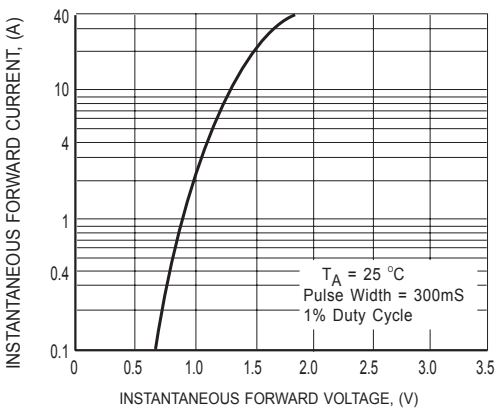


FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

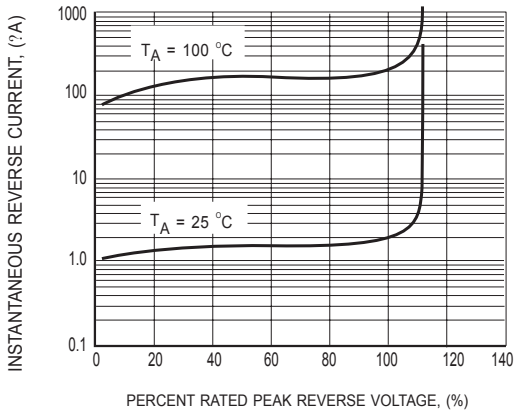


FIG.3 TYPICAL REVERSE CHARACTERISTICS

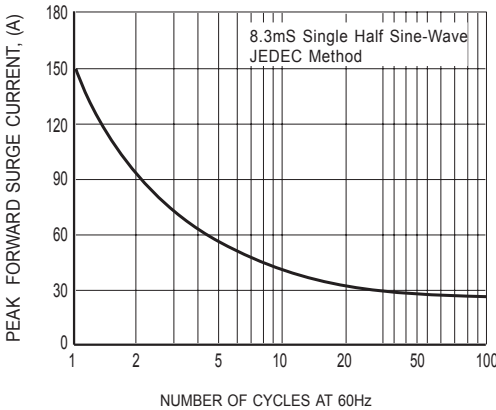
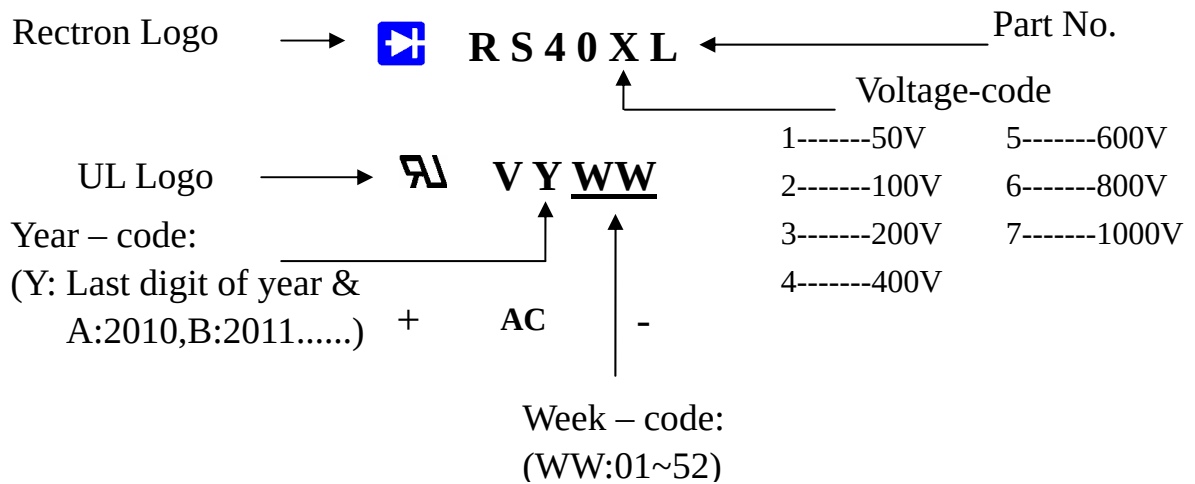


FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

## Marking Description



## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### BULK PACK

| PACKAGE | PACKING CODE | EA PER BOX | INNER BOX SIZE<br>(mm) | CARTON SIZE<br>(mm) | EA PER CARTON | GROSS<br>WEIGHT(Kg) |
|---------|--------------|------------|------------------------|---------------------|---------------|---------------------|
| RS-4L   | -B           | 300        | 230*162*52             | 502*251*126         | 1,800         | 11.3                |

### TUBE PACK

| PACKAGE | PACKING CODE | EA PER BOX | INNER BOX SIZE<br>(mm) | CARTON SIZE<br>(mm) | EA PER CARTON | WEIGHT(Kg) |
|---------|--------------|------------|------------------------|---------------------|---------------|------------|
| RS-4L   | -C           | 750        | 540*118*118            | 560*259*144         | 1,500         | 12.1       |

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