



TECHNICAL SPECIFICATION

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

VOLTAGE RANGE 50 to 1000 Volts CURRENT 4.0 Amperes

**RS401L
THRU
RS407L**

FEATURES

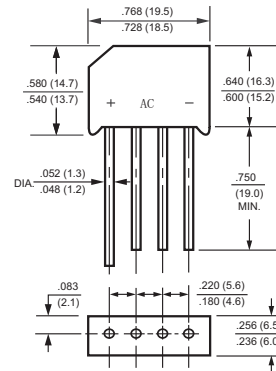
- * Ideal for printed circuit board
- * Surge overload rating: 150 amperes peak
- * Mounting position: Any
- * Weight: 4.8 grams
- * Molded structure

MECHANICAL DATA

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



RS-4L



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 (@ TA=25 °C unless otherwise noted)

| RATINGS | SYMBOL | RS401L | RS402L | RS403L | RS404L | RS405L | RS406L | RS407L | UNITS |
|---|-----------------------------------|--------------|--------|--------|--------|--------|--------|--------|---------------------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS 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 Current at T _A = 50 °C | I _O | 4.0 | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 150 | | | | | | | Amps |
| Typical Current Squared Time | i ² t | 93.37 | | | | | | | A ² /Sec |
| Typical Thermal Resistance (Note 1) | R _{θJC} | 10 | | | | | | | °C/W |
| | R _{θJA} | 28 | | | | | | | |
| Typical Junction Capacitance (Note 3) | C _J | 40 | | | | | | | pF |
| Operating and Storage Temperature Range | T _J , T _{STG} | -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 _F | 1.1 | | | | | | | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | @ T _A = 25 °C | 2.0 | | | | | | | uAmps |
| | @ T _A = 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.

2016-09
REV: B

RATING AND CHARACTERISTICS CURVES (RS401L THRU RS407L)

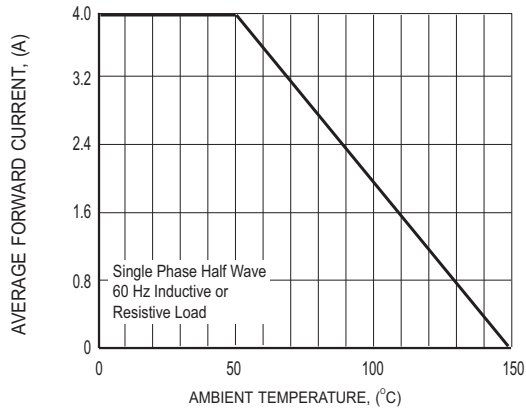


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

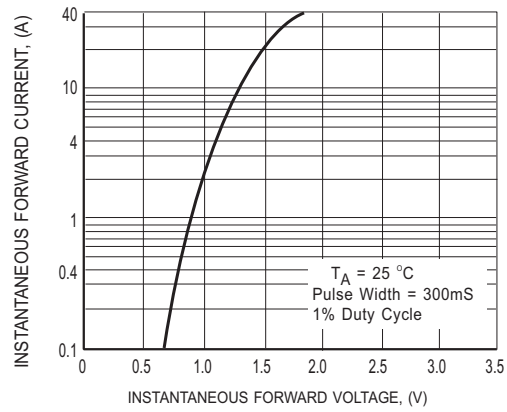


FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

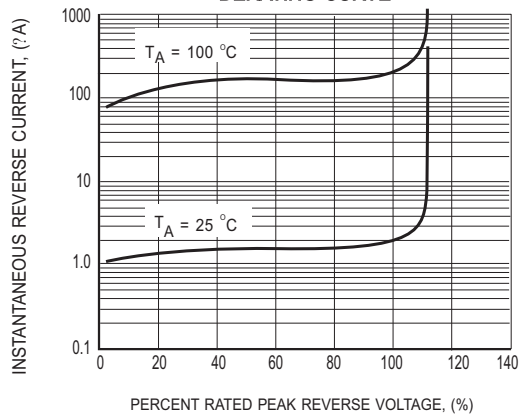


FIG.3 TYPICAL REVERSE CHARACTERISTICS

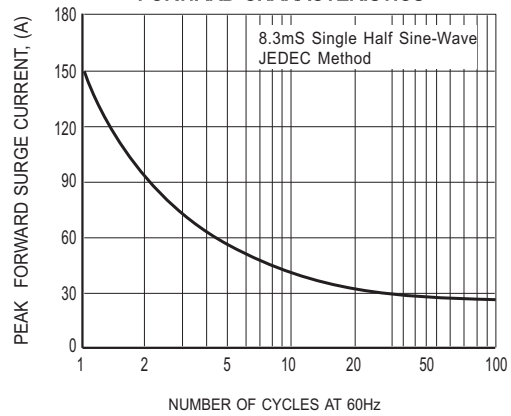
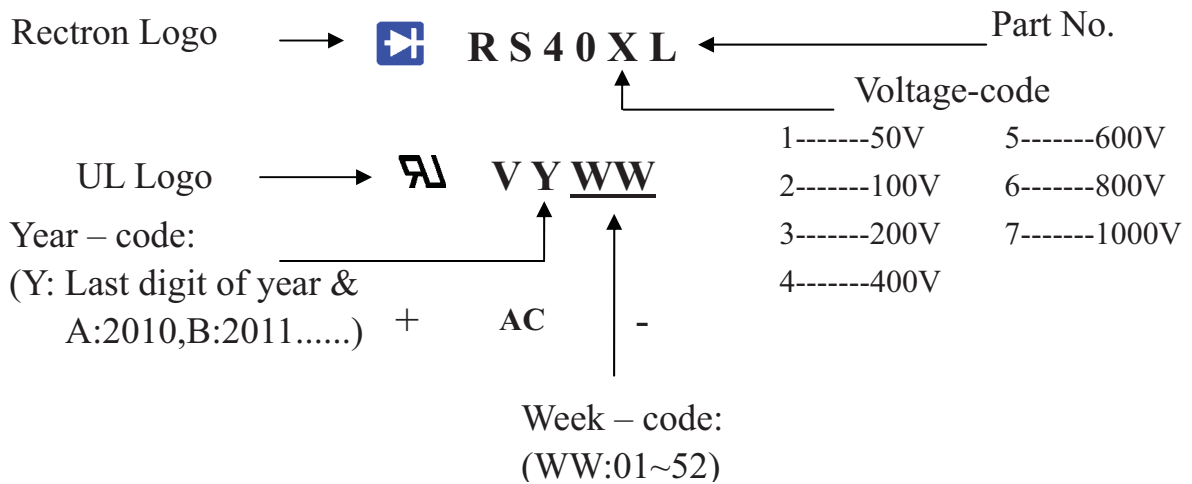


FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

Marking Description



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

BULK PACK

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

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