

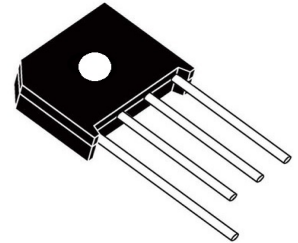
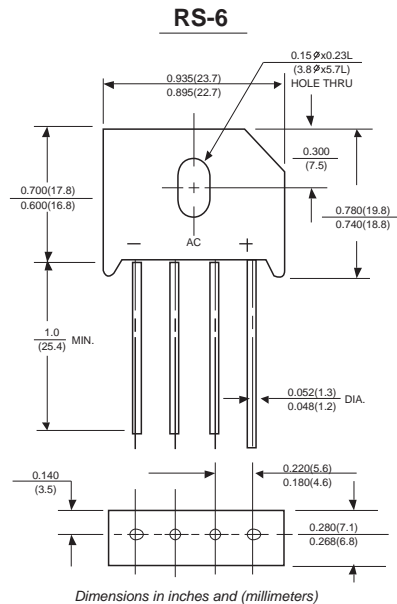
**VOLTAGE RANGE: 50 - 1000V**  
**CURRENT: 6.0 A**

### Features

- Ideal for printed circuit boards
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:  
260°C/10 seconds, 0.375" (9.5mm) lead length,  
5 lbs. (2.3kg) tension
- The plastic package carries Underwriters Laboratory
- Flammability Classification 94V-0

### Mechanical Data

- Case: Molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026
- Polarity: Polarity symbols marked on case
- Weight: 0.3 ounce, 8.0 grams



### Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic  | Symbol          | RS601       | RS602 | RS603 | RS604 | RS605 | RS606 | RS607 | Unit             |
|---|-----------------|-------------|-------|-------|-------|-------|-------|-------|------------------|
| Maximum repetitive peak reverse voltage   | $V_{RRM}$       | 50          | 100   | 200   | 400   | 600   | 800   | 1000  | V                |
| Maximum RMS voltage   | $V_{RMS}$       | 35          | 70    | 140   | 280   | 420   | 560   | 700   | V                |
| Maximum DC blocking voltage   | $V_{DC}$        | 50          | 100   | 200   | 400   | 600   | 800   | 1000  | V                |
| Maximum average forward output rectified current at $T_A=100^\circ\text{C}$ (Note 2)<br>$T_A=40^\circ\text{C}$ (Note 3) | $I_{(AV)}$      | 6.0         |       |       |       |       |       |       | A                |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on rated load (JEDEC Method)                     | $I_{FSM}$       | 150.0       |       |       |       |       |       |       | A                |
| Rating for Fusing ( $t < 8.3\text{ms}$ )  | $I_t^2$         | 93          |       |       |       |       |       |       | A <sup>2</sup> s |
| Maximum instantaneous forward voltage drop per bridge element at 6.0A   | $V_F$           | 1.0         |       |       |       |       |       |       | Volts            |
| Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$<br>$T_A=100^\circ\text{C}$               | $I_R$           | 10          |       |       |       |       |       |       | uA               |
| Typical Junction Capacitance (Note 1)   | $C_J$           | 105         |       |       |       |       |       |       | pF               |
| Typical Thermal Resistance  | $R_{\theta JA}$ | 4.7         |       |       |       |       |       |       | °C/W             |
| Operating junction temperature range  | $T_J$           | -65 to +150 |       |       |       |       |       |       | °C               |
| storage temperature range   | $T_{STG}$       | -65 to +150 |       |       |       |       |       |       | °C               |

NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Unit mounted on 2.6" x 1.4" x 0.06" thick (6.3x3.5x0.15cm) Al. plate.
3. Unit mounted on P.C. board with 0.5" x 0.5" (12x12mm) copper pads, 0.375" (9.5mm) lead length.



### RATINGS AND CHARACTERISTIC CURVES RS601 THRU RS607

