

## SINGLE-PHASE BRIDGE RECTIFIER RS401 THRU RS407

**VOLTAGE RANGE** 50 to 1000 Volts  
**CURRENT** 4.0 Amperes

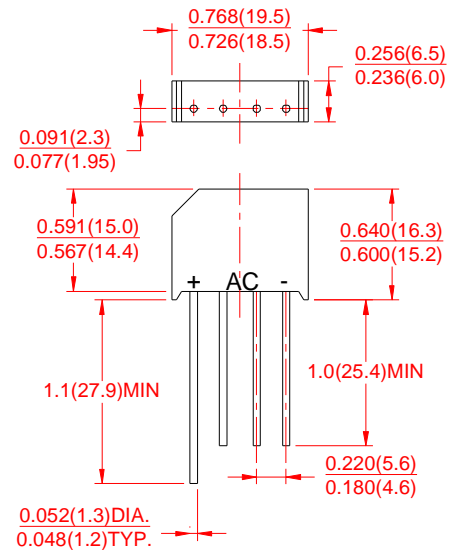
### FEATURES

- l Low cost
- l This series is UL recognized under component index , file number E127707
- l High forward surge current capability
- l Ideal for printed circuit board
- l High temperature soldering guaranteed:  
260°C/10 second, 0.375" (9.5mm) lead length at 5 lbs. (2.3kg) tension.

### MECHANICAL DATA

- l Case: Transfer molded plastic
- l Terminal: Lead solderable per MIL-STD-202E method 208C
- l Mounting: Any
- l Weight: 0.22 ounce, 6.21 gram

### RS-4



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load derate current by 20%.

|  | SYMBOLS                         | RS401       | RS402 | RS403 | RS404 | RS405 | RS406 | RS407                | UNITS |
|--|---------------------------------|-------------|-------|-------|-------|-------|-------|----------------------|-------|
| Maximum Repetitive 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 Output Current, at   | $T_C=50^\circ\text{C}$ (Note 2) | 4.0         |       |       |       |       |       | Amps                 |       |
|  | $T_A=50^\circ\text{C}$ (Note 3) | 3.0         |       |       |       |       |       |                      |       |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$                       | 150         |       |       |       |       |       | Amps                 |       |
| Rating for Fusing ( $t < 8.3\text{ms}$ )   | $I^2t$                          | 93          |       |       |       |       |       | $\text{A}^2\text{s}$ |       |
| Maximum Instantaneous Forward Voltage Drop per bridge element at 4.0A                            | $V_F$                           | 1.0         |       |       |       |       |       | Volts                |       |
| Maximum DC Reverse Current at rated DC blocking voltage per element                              | $T_A=25^\circ\text{C}$          | 10          |       |       |       |       |       | $\mu\text{Amps}$     |       |
|  | $T_A=100^\circ\text{C}$         | 1.0         |       |       |       |       |       | mAmps                |       |
| Typical Junction Capacitance (Note 1)  | $C_J$                           | 55          |       |       |       |       |       | pF                   |       |
| Typical Thermal Resistance (Note 2)  | $R_{\theta JA}$                 | 20          |       |       |       |       |       | $^\circ\text{C/W}$   |       |
| Operating and Storage Temperature Range  | $T_J, T_{STG}$                  | -65 to +150 |       |       |       |       |       | $^\circ\text{C}$     |       |

#### NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Unit mounted on 3.0"x3.0"x0.11" thick (7.5x7.5x0.3 cm) Al. plate.
3. P.C. Board mount with 0.5"x0.5" (12x12cm) copper pads 0.375" (9.5mm) lead length

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### RATINGS AND CHARACTERISTIC CURVES RS401 THRU RS407

