

# SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 4.0 Amperes

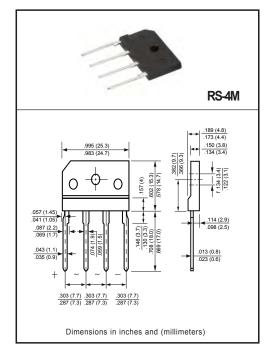
#### FEATURES

- \* Ideal for printed circuit board
- \* Surge overload rating: 130 amperes peak
- \* Mounting position: Any

### **MECHANICAL DATA**

\* Epoxy: Device has UL flammability classification 94V-O \* Epoxy: UL listed the recognized component,file #94233

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.



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

For capacitive load, derate current by 20%.

| RATINGS  | SYMBOL           | RS401M       | RS402M | RS403M | RS404M | RS405M | RS406M | RS407M           | 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<br>at T <sub>A</sub> = 50°C                                | Ι <sub>Ο</sub>   | 4.0          |        |        |        |        |        | Amps             |       |
| Peak Forward Surge Current 8.3 ms single half sine-wave<br>superimposed on rated load (JEDEC method) | I <sub>FSM</sub> | 130          |        |        |        |        |        | Amps             |       |
| Current Squared Time   | l <sup>2</sup> t | 70           |        |        |        |        |        | A <sup>2</sup> S |       |
| Typical Thermal Resistance (Note 1)  | $R_{\theta JC}$  | 6.0          |        |        |        |        |        |                  | °C/W  |
|  | $R_{\theta JA}$  | 26           |        |        |        |        |        |                  |       |
| Operating and Storage Temperature Range  | TJ, TSTG         | -55 to + 150 |        |        |        |        |        | ٥C               |       |

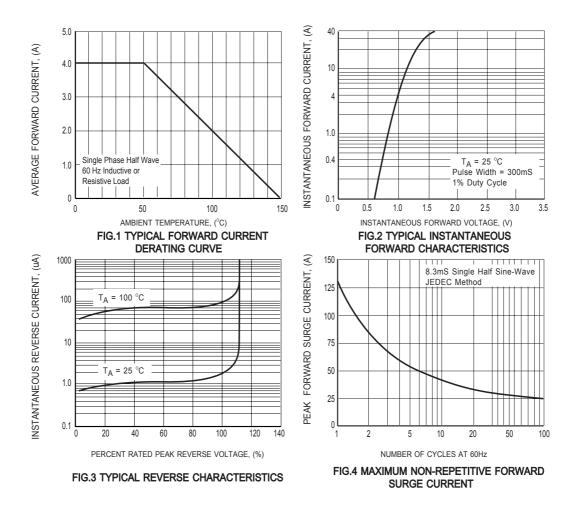
ELECTRICAL CHARACTERISTICS(@TA=25 °C unless otherwise noted)

| $ \begin{array}{ c c c c } \hline Maximum Instantaneous Forward Voltage at 4.0A DC & V_F & 1.1 & Volts \\ \hline Maximum DC Reverse Current \\ at Rated DC Blocking Voltage & \hline @T_A = 25^{\circ}C & \\ \hline @T_A = 100^{\circ}C & \\ \hline \end{tabular} P_R & \hline \end{tabular} \begin{array}{ c c } \hline S.0 & \\ \hline \end{tabular} \\ \hline \end{tabular} \begin{array}{ c } \hline & & \\ \hline & & \\ \hline \end{tabular} \end{array} \end{array} $ | CHARACTERISTICS                                  |                         | SYMBOL           | RS401M | RS402M | RS403M | RS404M | RS405M | RS406M | RS407M | UNITS |
|--|--|-------------------------|------------------|--------|--------|--------|--------|--------|--------|--------|-------|
| ut Pated DC Plasting Voltage   | Maximum Instantaneous Forward Voltage at 4.0A DC |                         | VF               | 1.1    |        |        |        |        |        |        | Volts |
|  |  | @T <sub>A</sub> = 25°C  | - I <sub>R</sub> | 5.0    |        |        |        |        |        |        | uAmps |
|  |  | @T <sub>A</sub> = 100°C |                  | 100    |        |        |        |        |        |        |       |

NOTES: 1. Thermal Resistance : Heat-sink case mounted or if PCB mounted. 2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

2007-10

### RATING AND CHARACTERISTICS CURVES (RS401M THRU RS407M)





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