



**Solid State Devices, Inc.**

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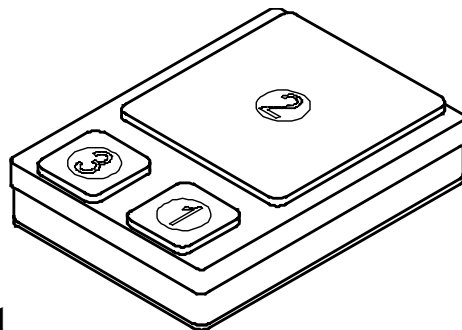
## Designer's Data Sheet

### FEATURES:

- **Extremely Low Forward Voltage Drop**
- **Low Reverse Leakage**
- **Hermetically Sealed Power Surface Mount Package**
- **Guard Ring for Overvoltage Protection**
- **Eutectic Die Attach**
- **175°C Operating Junction Temperature**
- **TX, TXV, or Space Level Screening Available**

**SSR1008**  
**SSR1009**  
**SSR1010**

**10 AMP**  
**100 VOLTS**  
**SCHOTTKY RECTIFIER**



**SMD1**

## MAXIMUM RATINGS

| RATING                                                                                                                                                         | SYMBOL                          | VALUE           | UNIT  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-----------------|-------|
| <b>Peak Repetitive Reverse Voltage and DC Blocking Voltage</b><br>SSR1008<br>SSR1009<br>SSR1010                                                                | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 80<br>90<br>100 | Volts |
| <b>Average Rectified Output Current</b> <sup>1/</sup><br>(Resistive Load, 60Hz, Sine Wave, TA=25°C)                                                            | $I_O$                           | 10              | Amps  |
| <b>Peak Surge Current</b> <sup>1/</sup><br>(8.3 ms Pulse, Half Sine Wave, superimposed on $I_O$ , allow junction to reach equilibrium between pulses, TA=25°C) | $I_{FSM}$                       | 200             | Amps  |
| <b>Operating and Storage Temperature</b>                                                                                                                       | $T_{OP}$ & $T_{STG}$            | -65 to +175     | °C    |
| <b>Maximum Thermal Resistance</b> <sup>1/</sup><br>Junction to Case                                                                                            | $R_{\theta JC}$                 | 1.6             | °C/W  |

Notes: 1/ For optimal performance, leads 1 & 3 should be connected.

**NOTE:** All specifications are subject to change without notification.  
SCD's for these devices should be reviewed by SSDI prior to release.

**DATA SHEET #: RS0197D**

**DOC**



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**SSR1008**  
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## ELECTRICAL CHARACTERISTICS

| CHARACTERISTICS                                                                                                                                                                                                                            | SYMBOL                           | MAXIMUM              | UNIT          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------|---------------|
| <b>Instantaneous Forward Voltage Drop</b><br>( $I_F = 1 \text{ Adc}$ , $T_A = 25^\circ \text{C}$ , Pulse)<br>( $I_F = 5 \text{ Adc}$ , $T_A = 25^\circ \text{C}$ , Pulse)<br>( $I_F = 10 \text{ Adc}$ , $T_A = 25^\circ \text{C}$ , Pulse) | $V_{F1}$<br>$V_{F2}$<br>$V_{F3}$ | 0.55<br>0.68<br>0.75 | Vdc           |
| <b>Instantaneous Forward Voltage Drop</b><br>( $I_F = 10 \text{ Adc}$ , $T_A = -55^\circ \text{C}$ , Pulse)                                                                                                                                | $V_{F4}$                         | 0.83                 | Vdc           |
| <b>Reverse Leakage Current</b><br>(Rated $V_R$ , $T_A = 25^\circ \text{C}$ , Pulse)                                                                                                                                                        | $I_{R1}$                         | 100                  | $\mu\text{A}$ |
| <b>Reverse Leakage Current</b><br>(Rated $V_R$ , $T_A = 100^\circ \text{C}$ , Pulse)                                                                                                                                                       | $I_{R2}$                         | 5                    | mA            |
| <b>Junction Capacitance</b><br>( $V_R = 10 \text{ Vdc}$ , $T_A = 25^\circ \text{C}$ , $f = 1 \text{ MHz}$ )                                                                                                                                | $C_J$                            | 400                  | pF            |

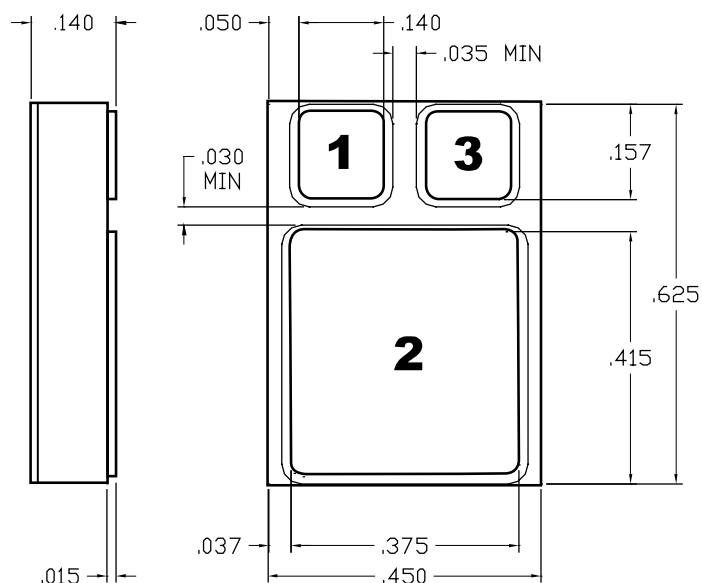
### Case Outline- SMD1

**PIN OUT: (Rectifier)**

**PIN 1- ANODE**

**PIN 2- CATHODE**

**PIN 3- ANODE**



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