**Solid State Devices, Inc.**
14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

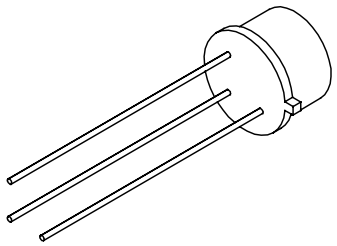
# SSR1008/5
# SSR1009/5
# SSR1010/5

## Designer's Data Sheet

**FEATURES:**

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

## 10 AMP
## 80 – 100 VOLTS
## SCHOTTKY RECTIFIER



**TO-5**

## MAXIMUM RATINGS

| RATING | SYMBOL | VALUE | UNIT |
|---|---|---|---|
| **Peak Repetitive Reverse Voltage and DC Blocking Voltage**<br>**SSR1008/5**<br>**SSR1009/5**<br>**SSR1010/5** | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | **80**<br>**90**<br>**100** | **Volts** |
| **Average Rectified Output Current** 1/<br>(Resistive Load, 60Hz, Sine Wave, TA=25°C) | $I_O$ | **10** | **Amps** |
| **Peak Surge Current** 1/<br>(8.3 ms Pulse, Half Sine Wave, superimposed on $I_O$, allow junction to reach equilibrium between pulses, TA=25°C) | $I_{FSM}$ | **150** | **Amps** |
| **Operating and Storage Temperature** | $T_{OP}$ & $T_{STG}$ | **-65 to +175** | **°C** |
| **Maximum Thermal Resistance** 1/<br>Junction to Case | $R_{\theta JC}$ | **7.0** | **°C/W** |

Notes: 1/ For optimal performance, connect leads 1 & 2 together (Anode).

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## ELECTRICAL CHARACTERISTICS

| CHARACTERISTICS | SYMBOL | MAXIMUM | UNIT |
|---|---|---|---|
| **Instantaneous Forward Voltage Drop** [2/]<br>($I_F$ = 1 Adc, $T_A$ = 25°C, 300 - 500µs Pulse)<br>($I_F$ = 5 Adc, $T_A$ = 25°C, 300 - 500µs Pulse)<br>($I_F$ = 10 Adc, $T_A$ = 25°C, 300 - 500µs Pulse) | $V_{F1}$<br>$V_{F2}$<br>$V_{F3}$ | 0.56<br>0.73<br>0.85 | Vdc |
| **Instantaneous Forward Voltage Drop**<br>($I_F$ = 5 Adc, $T_A$ = -55°C, 300 - 500µs Pulse) | $V_{F4}$ | 0.82 | Vdc |
| **Reverse Leakage Current**<br>(Rated $V_R$, $T_A$ = 25°C, 300µs Pulse Minimum) | $I_{R1}$ | 100 | µA |
| **Reverse Leakage Current**<br>(Rated $V_R$, $T_A$ = 100°C, 300µs Pulse Minimum) | $I_{R2}$ | 5 | mA |
| **Junction Capacitance**<br>($V_R$ = 10 Vdc, $T_A$ = 25°C, f = 1 MHz) | $C_J$ | 400 | pF |

NOTES:

**2/** $V_F$ as measured between pins 1 and 2 in common, within .100" from the case, and pin 3 directly at the case.

**Case Outline- TO-5**

**PIN 1- ANODE**
**PIN 2- ANODE**
**PIN 3- CATHODE**
**CASE- CATHODE**