



**Solid State Devices, Inc.**

14701 Firestone Blvd \* La Mirada, Ca 90638  
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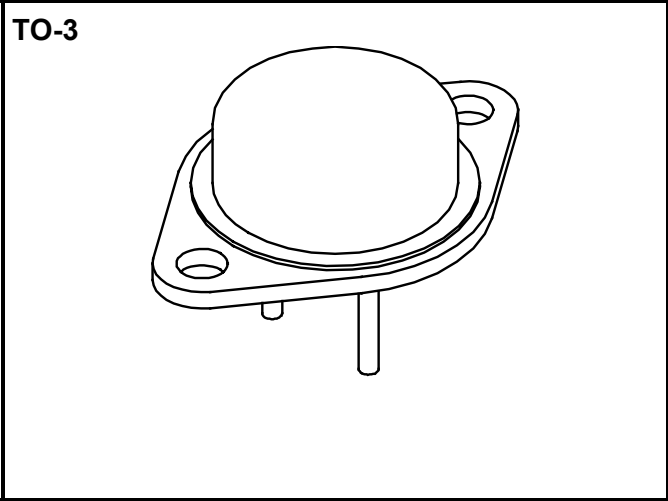
**SSR4010/3**

**Designer's Data Sheet**

**FEATURES:**

- PIV: 100 Volts
- Low Forward Voltage Drop
- Low Reverse Leakage
- Hermetically Sealed Package
- Guard Ring for Overvoltage Protection
- Available in Isolated and Non-isolated versions
- Eutectic Die Attach
- 175°C Operating Junction Temperature
- TX, TXV, and Space Level Screening Available

**40 AMPS  
100 VOLTS  
SCHOTTKY  
RECTIFIER**



| MAXIMUM RATINGS  |           | Symbol                             | Value       | Units |
|--|-----------|------------------------------------|-------------|-------|
| Peak Repetitive Reverse Voltage and DC Blocking Voltage  | SSR4010/3 | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$    | 100         | Volts |
| Average Rectified Forward Current <sup>1/</sup><br>(Resistive Load, 60 Hz, Sine Wave, T <sub>A</sub> =25°C)  |           | $I_O$                              | 40          | Amps  |
| Peak Surge Current <sup>1/</sup><br>(8.3 ms Pulse, Half Sine Wave Superimposed on I <sub>O</sub> , allow junction to reach equilibrium between pulses, T <sub>A</sub> =25°C) |           | $I_{FSM}$                          | 400         | Amps  |
| Operating and Storage Temperature  |           | T <sub>OP</sub> & T <sub>stg</sub> | -65 to +175 | °C    |
| Maximum Thermal Resistance <sup>1/</sup><br>Junction to Case   |           | R <sub>θJC</sub>                   | 0.6         | °C/W  |

Notes:

<sup>1/</sup> Both Legs Tied Together.



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# SSR4010/3

| ELECTRICAL CHARACTERISTICS  | Symbol  | Max                              | Unit                |                                 |
|---|---|----------------------------------|---------------------|---------------------------------|
| <b>Instantaneous Forward Voltage Drop</b><br>( $T_A = 25^\circ\text{C}$ , Pulse)                      | $I_F = 10$ Amps<br>$I_F = 20$ Amps<br>$I_F = 40$ Amps | $V_{F1}$<br>$V_{F2}$<br>$V_{F3}$ | 0.7<br>0.77<br>0.90 | <b>Volts</b>                    |
| <b>Instantaneous Forward Voltage Drop</b><br>( $I_F = 20$ Amps, $T_A = -55^\circ\text{C}$ , Pulse)    |   | $V_{F4}$                         | 0.89                | <b>Volts</b>                    |
| <b>Reverse Leakage Current</b><br>(Rated $V_R$ , $T_A = 25^\circ\text{C}$ , Pulse)                    |   | $I_{R1}$                         | 400                 | <b><math>\mu\text{A}</math></b> |
| <b>Reverse Leakage Current</b><br>(Rated $V_R$ , $T_A = 100^\circ\text{C}$ , Pulse)                   |   | $I_{R2}$                         | 20                  | <b>mA</b>                       |
| <b>Junction Capacitance</b><br>( $V_R = 10$ V <sub>DC</sub> , $T_A = 25^\circ\text{C}$ , $f = 1$ MHz) |   | $C_J$                            | 1,600               | <b>pF</b>                       |

