



**Solid State Devices, Inc.**

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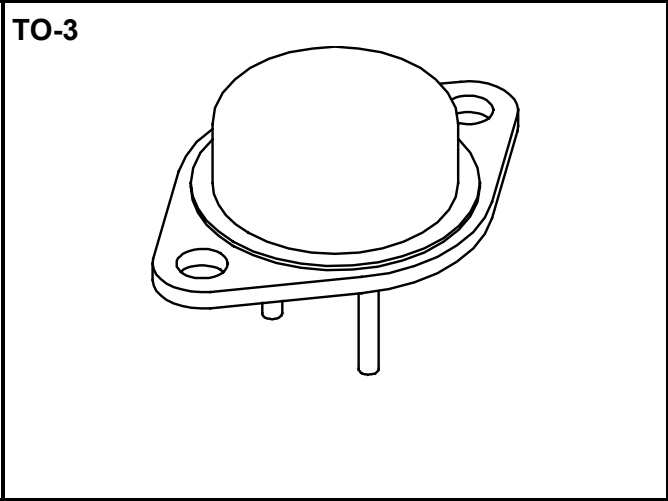
**SSR4010/3**

**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	$V_{RRM}$ $V_{RWM}$ $V_R$	100	Volts
Average Rectified Forward Current <sup>1/</sup> (Resistive Load, 60 Hz, Sine Wave, T <sub>A</sub> =25°C)		$I_O$	40	Amps
Peak Surge Current <sup>1/</sup> (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> 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> ( $T_A = 25^\circ\text{C}$ , Pulse)	$I_F = 10$ Amps $I_F = 20$ Amps $I_F = 40$ Amps	$V_{F1}$ $V_{F2}$ $V_{F3}$	0.7 0.77 0.90	Volts
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 20$ Amps, $T_A = -55^\circ\text{C}$ , Pulse)		$V_{F4}$	0.89	Volts
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 25^\circ\text{C}$ , Pulse)		$I_{R1}$	400	$\mu\text{A}$
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 100^\circ\text{C}$ , Pulse)		$I_{R2}$	20	mA
<b>Junction Capacitance</b> ( $V_R = 10$ V <sub>DC</sub> , $T_A = 25^\circ\text{C}$ , $f = 1$ MHz)		$C_J$	1,600	pF

