



**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

**SSR4010N  
 SSR4010P**

**40 AMP  
 100 VOLTS  
 SCHOTTKY RECTIFIER**

**Designer's Data Sheet**

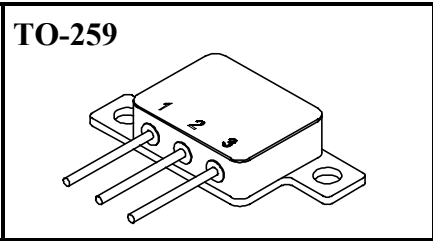
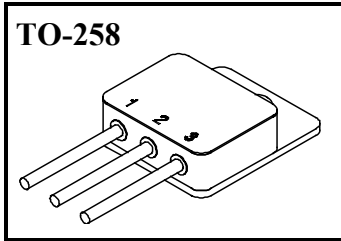
**Part Number/Ordering Information <sup>1/</sup>**  
**SSR4010**                        

    |    **Screening <sup>2/</sup>**         = Not Screened  
     |                            TX    = TX Level  
     |                            TXV = TXV  
     |                            S    = S Level

    |    **Lead Options**         = Straight Leads,  
     |                            D = Bent Down, U = Bent Up

    |    **Package**  
     |    N = TO-258, P = TO-259 (.060" Dia. Leads)  
     |    NA = TO-258, PA = TO-259 (.040" Dia. Leads)

- FEATURES:**
- PIV 100 Volts
  - Low Forward Voltage Drop
  - Low Reverse Leakage Current
  - Isolated Hermetically Sealed Power Package
  - Available with Ceramic Seals
  - Custom Lead Forming Available
  - Guard Ring for Overvoltage Protection
  - Eutectic Die Attach
  - 175°C Operating Junction Temperature
  - TX, TXV, or Space Level Screening Available



**MAXIMUM RATINGS**

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage and DC Blocking Voltage SSR4010N, SSR4010P	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	100	Volts
Average Rectified Output Current <sup>3/</sup> (Resistive Load, 60Hz, Sine Wave, TA=25°C)	I <sub>O</sub>	40	Amps
Peak Surge Current <sup>3/</sup> (8.3 ms Pulse, Half Sine Wave, superimposed on I <sub>O</sub> , allow junction to reach equilibrium between pulses, TA=25°C)	I <sub>FSM</sub>	400	Amps
Operating and Storage Temperature	T <sub>OP</sub> & T <sub>STG</sub>	-65 to +175	°C
Maximum Thermal Resistance <sup>3/</sup> Junction to Case	R <sub>θJC</sub>	0.6	°C/W

**NOTES:** <sup>1/</sup> For ordering information, price, and availability- Contact Factory.  
<sup>2/</sup> Screened to MIL-PRF-19500.  
<sup>3/</sup> Pins 2 and 3 connected together.



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**SSR4010N**  
**SSR4010P**

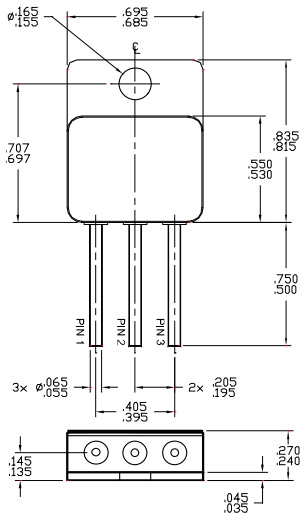
**ELECTRICAL CHARACTERISTICS**

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 10 \text{ A}$ , $T_A = 25^\circ \text{C}$ , Pulse) ( $I_F = 20 \text{ A}$ , $T_A = 25^\circ \text{C}$ , Pulse) ( $I_F = 40 \text{ A}$ , $T_A = 25^\circ \text{C}$ , Pulse)	$V_{F1}$ $V_{F2}$ $V_{F3}$	0.7 0.77 0.90	Vdc
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 20 \text{ A}$ , $T_A = -55^\circ \text{C}$ , Pulse)	$V_{F4}$	0.89	Vdc
<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> ( $V_R = 10 \text{ V}$ , $T_A = 25^\circ \text{C}$ , $f = 1 \text{ MHz}$ )	$C_J$	1,600	pF

**Case Outlines-**

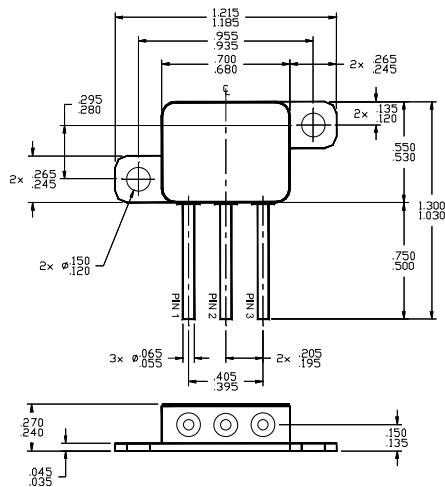
**TO-258 (N Suffix)**

**PIN OUT:**  
**PIN 1- CATHODE**  
**PIN 2- ANODE**  
**PIN 3- ANODE**

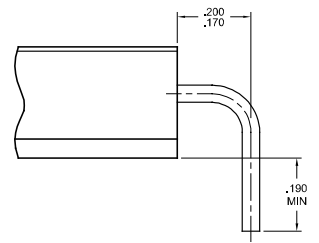


**TO-259 (P Suffix)**

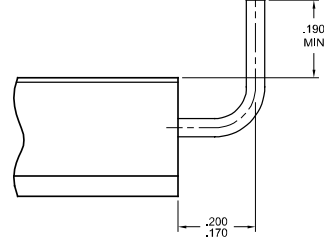
**PIN OUT:**  
**PIN 1- CATHODE**  
**PIN 2- ANODE**  
**PIN 3- ANODE**



**Optional Bent Down Leads (ND & PD Suffix)**



**Optional with Bent Up Leads (NU & PU Suffix)**



For information on curves, contact the Factory Representative for Engineering Assistance.