



**Solid State Devices, Inc.**

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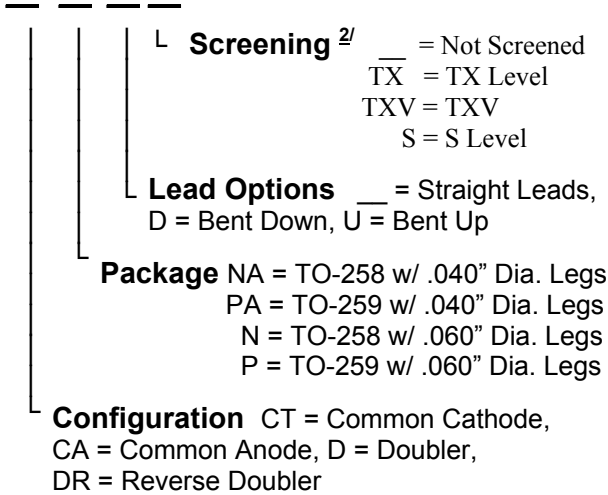
**SSR4010CTNA  
 SSR4010CTPA**

**40 AMP, 100 VOLTS  
 SCHOTTKY RECTIFIER**

**Designer's Data Sheet**

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

**SSR4010**



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

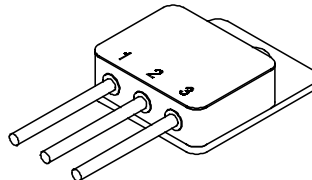
**MAXIMUM RATINGS**

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage and DC Blocking Voltage SSR4010CTNA, SSR4010CTPA	$V_{RRM}$ $V_{RWM}$ $V_R$	100	Volts
Average Rectified Output Current <sup>3/ 4/</sup> (Resistive Load, 60Hz, Sine Wave, TA=25°C)	$I_O$	40	Amps
Peak Surge Current <sup>3/ 4/</sup> (8.3 ms Pulse, Half Sine Wave, superimposed on $I_O$ , allow junction to reach equilibrium between pulses, TA=25°C)	$I_{FSM}$	400	Amps
Operating and Storage Temperature	$T_{OP}$ & $T_{STG}$	-65 to +175	°C
Maximum Thermal Resistance Junction to Case <sup>3/</sup> Junction to Case (Per Leg)	$R_{\theta JC}$	0.6 1.2	°C/W

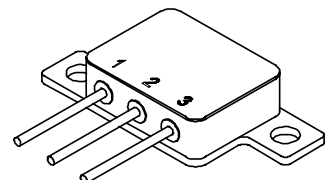
**NOTES:**

- <sup>1/</sup> For ordering information, price, and availability- Contact Factory
- <sup>2/</sup> Screened to MIL-PRF-19500.
- <sup>3/</sup> Both Legs Tied Together.
- <sup>4/</sup> Doubler:  $I_O = 20A$ ,  $I_{FSM} = 200A$ .

**TO-258**



**TO-259**



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

**DATA SHEET #: RS0099F**

**DOC**



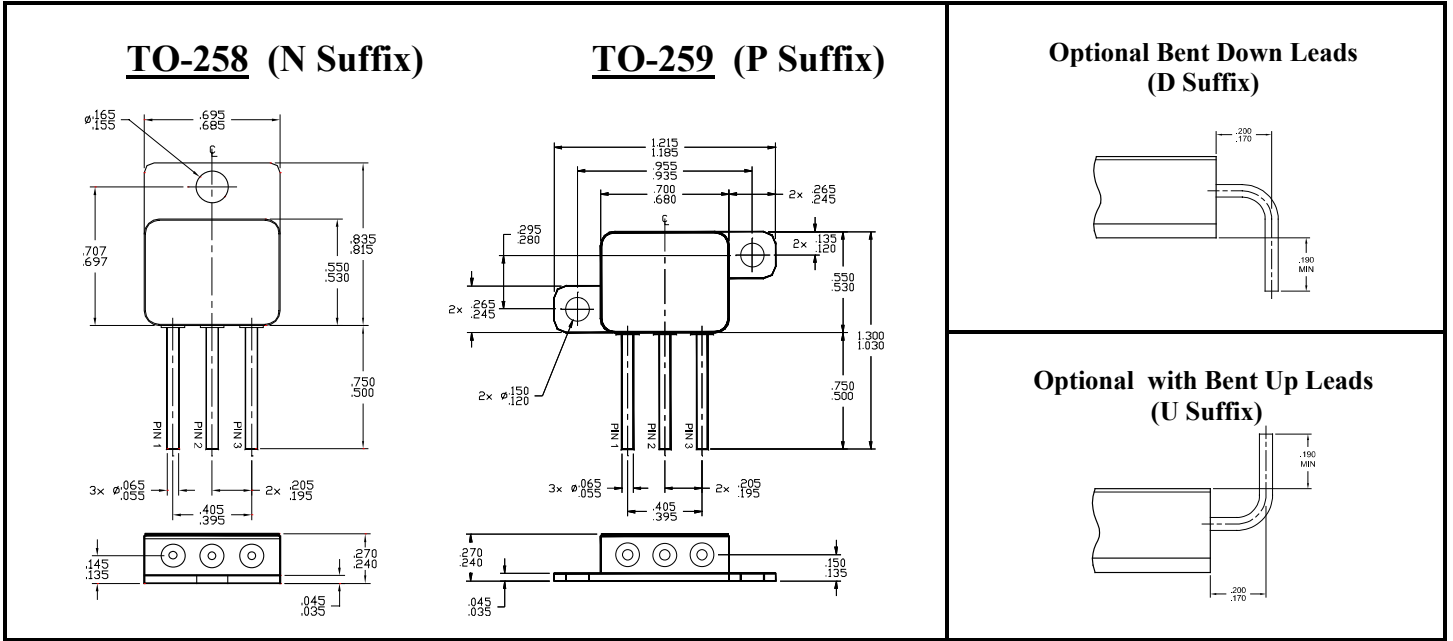
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**SSR4010CTNA**  
**SSR4010CTPA**

**ELECTRICAL CHARACTERISTICS (Per Leg)**

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 10\text{ A}$ , $T_A = 25^\circ\text{C}$ , Pulse) ( $I_F = 15\text{ A}$ , $T_A = 25^\circ\text{C}$ , Pulse) ( $I_F = 20\text{ A}$ , $T_A = 25^\circ\text{C}$ , Pulse)	$V_{F1}$	0.75	Vdc
	$V_{F2}$	0.82	
	$V_{F3}$	0.85	
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 10\text{ A}$ , $T_A = -55^\circ\text{C}$ , Pulse)	$V_{F4}$	0.84	Vdc
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 25^\circ\text{C}$ , Pulse)	$I_{R1}$	200	$\mu\text{A}$
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 100^\circ\text{C}$ , Pulse)	$I_{R2}$	10	mA
<b>Junction Capacitance</b> ( $V_R = 10\text{ V}$ , $T_A = 25^\circ\text{C}$ , $f = 1\text{ MHz}$ )	$C_J$	800	pF



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

**Pin Assignment**

Code	Function	Pin 1	Pin 2	Pin 3
CT	Common Cathode	Anode	Cathode	Anode
CA	Common Anode	Cathode	Anode	Cathode
D	Doubler	Cathode	Common	Anode
DR	Reverse Doubler	Anode	Common	Cathode