



**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

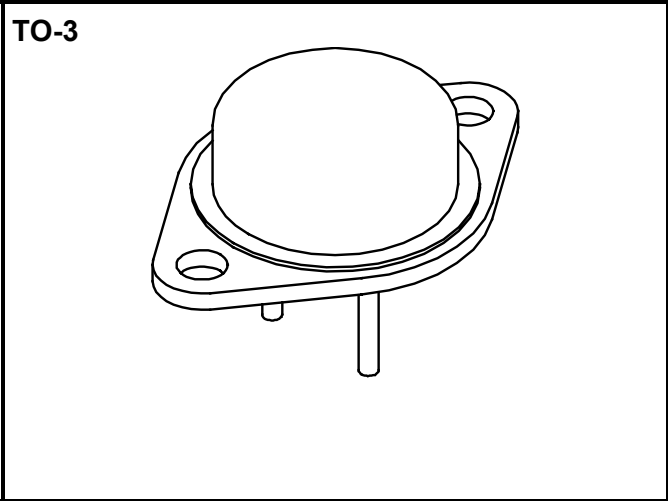
**SSR4010CT/3**

**Designer's Data Sheet**

**FEATURES:**

- PIV: 100 Volts
- Very Low Forward Voltage Drop
- Low Reverse Leakage
- Hermetically Sealed Package
- Guard Ring for Overvoltage Protection
- Available in Isolated and Non-isolated versions
- Gold Eutectic Die Attach
- 175°C Operating Junction Temperature
- Also Available in the following Configurations:  
Common Anode- SSR4010CA/3  
Doubler- SSR4010D/3
- TX, TXV, and Space Level Screening Available

**40 AMPS  
100 VOLTS  
POSITIVE CENTERTAP  
SCHOTTKY  
RECTIFIER**



MAXIMUM RATINGS		Symbol	Value	Units
Peak Repetitive Reverse Voltage and DC Blocking Voltage	SSR4010CT/3	$V_{RRM}$ $V_{RWM}$ $V_R$	100	Volts
Average Rectified Forward Current <sup>1/</sup> (Resistive Load, 60 Hz, Sine Wave, $T_A=25^\circ C$ )		$I_O$	40	Amps
Peak Surge Current <sup>1/</sup> (8.3 ms Pulse, Half Sine Wave Superimposed on $I_O$ , allow junction to reach equilibrium between pulses, $T_A=25^\circ C$ )		$I_{FSM}$	400	Amps
Operating and Storage Temperature		$T_{OP}$ & $T_{stg}$	-65 to +175	°C
Maximum Thermal Resistance <sup>1/</sup> Junction to Case		$R_{\theta JC}$	0.6	°C/W

Notes:

<sup>1/</sup> Both Legs Tied Together. (Doubler Per Leg:  $I_O = 20A$ ,  $I_{FSM} = 300A$ ,  $R_{\theta JC} = 1.2^\circ C/W$ )



**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

**SSR4010CT/3**

ELECTRICAL CHARACTERISTICS (Per Leg)	Symbol	Max	Unit	
<b>Instantaneous Forward Voltage Drop</b> ( $T_A = 25^\circ\text{C}$ , Pulse)	$I_F = 10\text{Amps}$	$V_{F1}$	0.75	<b>Volts</b>
	$I_F = 15\text{Amps}$	$V_{F2}$	0.82	
	$I_F = 20\text{Amps}$	$V_{F3}$	0.85	
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 10\text{Amps}$ , $T_A = -55^\circ\text{C}$ , Pulse)		$V_{F4}$	0.87	<b>Volts</b>
<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	<b>mA</b>
<b>Junction Capacitance</b> ( $V_R = 10\text{V}_{DC}$ , $T_A = 25^\circ\text{C}$ , $f = 1\text{MHz}$ )		$C_J$	800	<b>pF</b>

**CASE OUTLINE:  
TO-3**

**PIN OUT: SSR4010CT/3**  
 (Common Cathode)  
 CASE: CATHODE  
 PIN 1: ANODE 1  
 PIN 2: ANODE 2

**PIN OUT: SSR4010CA/3**  
 (Common Anode)  
 CASE: ANODE  
 PIN 1: CATHODE 1  
 PIN 2: CATHODE 2

**PIN OUT: SSR4010D/3**  
 (Doubler)  
 CASE: AC  
 PIN 1: ANODE  
 PIN 2: CATHODE

Technical drawing of the TO-3 case outline. The side view shows a total height of .135 MAX and a base diameter of  $\varnothing.875$  MAX. The top view shows a circular base with a diameter of 1.197 and a central hole diameter of  $\varnothing.165$ . Two mounting holes are located at a distance of .225 from the center, with a diameter of  $\varnothing.205$ . The distance between the mounting holes is .675. The distance from the center to the edge of the case is .525 MAX. The case has a thickness of .450 and a base thickness of .250. The mounting holes are spaced .312 MIN apart. The case has a seating plane and a radius of 2x R.188 MAX.