



**Solid State Devices, Inc.**

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**SSR1505CTM thru SSR1507CTM  
 and  
 SSR1505CTJ thru SSR1507CTJ**

**15 AMP  
 CENTERTAP SCHOTTKY RECTIFIER  
 50 - 70 VOLTS**

**Designer's Data Sheet**

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

**SSR15**

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

**Package**        M = TO-254  
                      J = TO-257

**Configuration**    CT = Centertap

**Voltage**        05 = 50 V  
                      06 = 60 V  
                      07 = 70 V

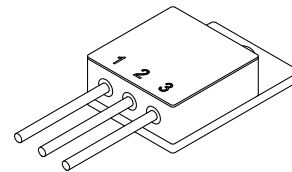
- FEATURES:**
- Extremely low forward voltage drop
  - Low reverse leakage
  - Hermetically sealed custom surface mount package
  - Guard ring for overvoltage protection
  - Eutectic die attach
  - 175°C operating junction temperature
  - TX, TXV, and S level screening available - consult factory

<b>MAXIMUM RATINGS<sup>3/</sup></b>		<b>Symbol</b>	<b>Value</b>	<b>Units</b>
<b>Peak Repetitive Reverse and DC Blocking Voltage</b>	SSR1505CT	$V_{RRM}$	50	<b>Volts</b>
	SSR1506CT	$V_{RWM}$	60	
	SSR1507CT	$V_R$	70	
<b>Average Rectified Forward Current</b> (Resistive load, 60 Hz, sine wave, $T_A = 25^\circ\text{C}$ ) <sup>4/</sup>		$I_O$	15	<b>Amps</b>
<b>Peak Surge Current</b> (8.3 ms pulse, half sine wave superimposed on $I_O$ , allow junction to reach equilibrium between pulses, $T_A = 25^\circ\text{C}$ )		$I_{FSM}$	100	<b>Amps</b>
<b>Operating &amp; Storage Temperature</b>		$T_{OP} \ \& \ T_{stg}$	-65 to +175	<b>°C</b>
<b>Maximum Thermal Resistance</b> (Junction to Case) <sup>4/</sup>	TO-254	$R_{\theta JC}$	2.2	<b>°C/W</b>
	TO-257		2.2	

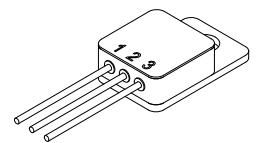
**NOTES:**

- 1/ For ordering information, price, and availability - contact factory.
- 2/ Screening based on MIL-PRF-19500. Screening flows available on request.
- 3/ Unless otherwise specified, all electrical characteristics @25°C.
- 4/ Both legs together.

**TO-254 (M)**



**TO-257 (J)**





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**SSR1505CTM thru SSR1507CTM  
 and  
 SSR1505CTJ thru SSR1507CTJ**

<b>ELECTRICAL CHARACTERISTICS (per leg)<sup>3/</sup></b>	<b>Symbol</b>	<b>Min</b>	<b>Typ</b>	<b>Max</b>	<b>Units</b>	
<b>Instantaneous Forward Voltage Drop</b> (T <sub>A</sub> =25°C, 300μsec pulse)	I <sub>F</sub> = 1 A	V <sub>F1</sub>	—	0.38	0.43	V <sub>DC</sub>
	I <sub>F</sub> = 5 A	V <sub>F2</sub>	—	0.51	0.58	
	I <sub>F</sub> = 10 A	V <sub>F3</sub>	—	0.62	0.70	
<b>Instantaneous Forward Voltage Drop</b> (T <sub>A</sub> =-55°C, 300μsec pulse)	I <sub>F</sub> = 1 A	V <sub>F4</sub>	—	0.46	0.50	V <sub>DC</sub>
	I <sub>F</sub> = 5 A	V <sub>F5</sub>	—	0.54	0.62	
	I <sub>F</sub> = 10 A	V <sub>F6</sub>	—	0.61	—	
<b>Instantaneous Forward Voltage Drop</b> (T <sub>A</sub> =125°C, 300μsec pulse)	I <sub>F</sub> = 1 A	V <sub>F7</sub>	—	0.26	0.35	V <sub>DC</sub>
	I <sub>F</sub> = 5 A	V <sub>F8</sub>	—	0.45	0.53	
	I <sub>F</sub> = 10 A	V <sub>F9</sub>	—	0.53	—	
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , T <sub>A</sub> = 25°C, 300μsec pulse minimum)		I <sub>R1</sub>	—	25	100	μA
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , T <sub>A</sub> = 100°C, 300μsec pulse minimum)		I <sub>R2</sub>	—	4	—	mA
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , T <sub>A</sub> = 125°C, 300μsec pulse minimum)		I <sub>R3</sub>	—	15	25	mA
<b>Junction Capacitance</b> (V <sub>R</sub> = 10V, f = 1MHz, T <sub>A</sub> = 25°C)		C <sub>J</sub>	—	—	300	pF

**Package Outline: TO-254**

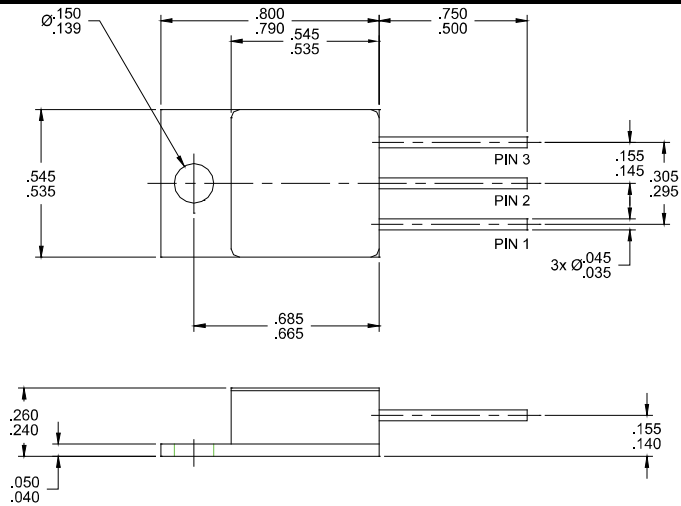
PIN OUT:

PIN 1: ANODE 1

PIN 2: ANODE 2

TAB: CATHODE

Note: For optimal performance, connect anode terminals together.



**Package Outline: TO-257**

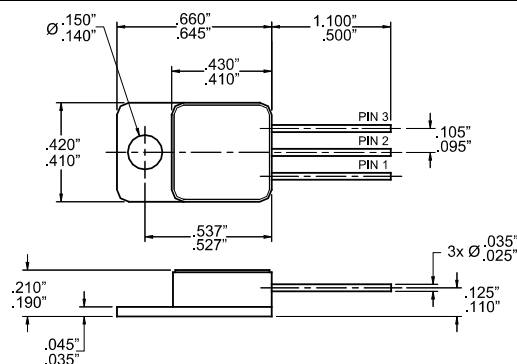
PIN OUT:

PIN 1: ANODE 1

PIN 2: ANODE 2

TAB: CATHODE

Note: For optimal performance, connect anode terminals together.



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

**DATA SHEET #: SH0055A**

**DOC**