



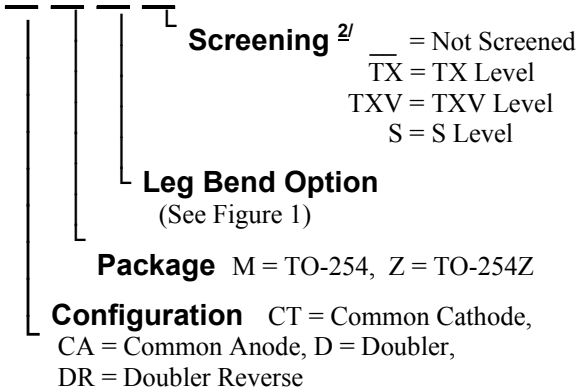
# Solid State Devices, Inc.

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## Designer's Data Sheet

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

SSR3515



# SSR3515CTM & Z

## 35Amp/150 V CENTER TAP POWER SCHOTTKY RECTIFIER

### Features:

- Low forward voltage drop resulting in extremely low conduction losses
- Extremely low switching losses
- Hermetically Sealed, Isolated Package
- Available in Common Anode, Common Cathode, Doubler, and Doubler Reverse Configurations
- Ceramic Seal for Improved Hermeticity Available
- TX, TXV, and S-Level Screening Available <sup>2/</sup>
- Enhanced operating temperature range

Maximum Ratings		Symbol	Value	Units
Peak Surge Reverse Voltage		$V_{RSM}$	150	Volts
Peak Repetitive Reverse Voltage		$V_{RRM}$	150	Volts
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, $T_A = 25^\circ\text{C}$ )	Each leg	$I_O$	20	Amps
	Package total	$I_{D2}$	35	
Non-repetitive Peak Surge Current (8.3 ms Pulse, Half Sine Wave, Each leg)	@ $T_C = 25^\circ\text{C}$	$I_{FSM}$	200	Amps
Max. Avalanche repetitive reverse current	@ $1.5 \times V_{RRM}$	$I_{AR}$	0.2	A
Max. Avalanche non-repetitive reverse current		$I_{AS}$	8	
Non-repetitive Avalanche Energy	@ $L = 0.18 \text{ mH}$	$E_{AR}$	7	mJ
Total Power Dissipation	@ $T_C = 25^\circ\text{C}$	$P_D$	TBD	W
Operating & Storage Temperature		$T_{OP} \& T_{STG}$	-55 to +175	$^\circ\text{C}$
Maximum Thermal Resistance, Junction to Case	Each Leg	$R_{\theta JC}$	2.5	$^\circ\text{C/W}$
	Per Package		1.25	

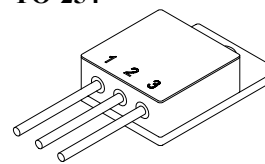
### Notes:

1/ For ordering information, Price, Operating Curves, and Availability- Contact Factory.  
 2/ Screened to MIL-PRF-19500.

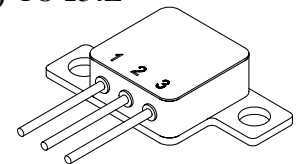
### PIN ASSIGNMENT

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	Doubler Reverse	Anode	Common	Cathode

TO-254



(M) TO-254Z



(Z)

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

DATA SHEET #: RS0206C

DOC



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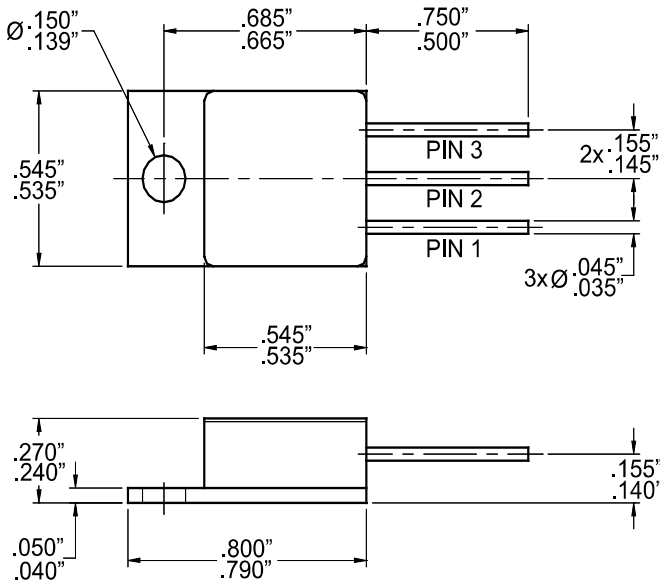
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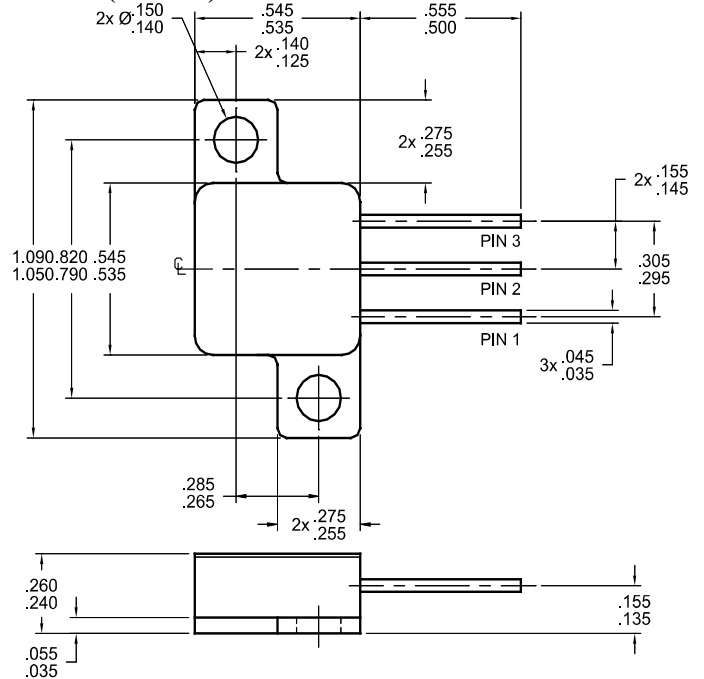
# SSR3515CTM & Z

Electrical Characteristics, per leg		Symbol	Min	Typ	Max	Units
<b>Instantaneous Forward Voltage Drop</b> (Pulsed, $T_A = 25^\circ\text{C}$ )	$I_F = 10\text{A dc}$	$V_{F1}$	—	0.800	0.85	$V_{DC}$
	$I_F = 15\text{A dc}$	$V_{F2}$	—	0.870	0.95	
	$I_F = 35\text{A dc}$	$V_{F3}$	—	1.075	1.20	
<b>Instantaneous Forward Voltage Drop</b> (Pulsed, $T_A = 125^\circ\text{C}$ )	$I_F = 10\text{A dc}$	$V_{F4}$	—	0.660	0.73	$V_{DC}$
	$I_F = 15\text{A dc}$	$V_{F5}$	—	0.740	0.85	
	$I_F = 35\text{A dc}$	$V_{F6}$	—	0.980	1.10	
<b>Instantaneous Forward Voltage Drop</b> (Pulsed, $T_A = -55^\circ\text{C}$ )	$I_F = 10\text{A dc}$	$V_{F7}$	—	0.950	1.00	$V_{DC}$
	$I_F = 15\text{A dc}$	$V_{F8}$	—	1.020	1.12	
	$I_F = 35\text{A dc}$	$V_{F9}$	—	1.280	1.43	
<b>Reverse Leakage Current</b> (Pulsed, $T_A = 25^\circ\text{C}$ )	$V_R = 100\text{V}$	$IR_1$	—	5	—	$\mu\text{A}$
	$V_R = 125\text{V}$	$IR_2$	—	8	—	
	$V_R = 150\text{V}$	$IR_3$	—	12	500	
<b>Reverse Leakage Current</b> (Pulsed, $T_A = 125^\circ\text{C}$ )	$V_R = 100\text{V}$	$IR_4$	—	1	—	<b>mA</b>
	$V_R = 125\text{V}$	$IR_5$	—	1.6	—	
	$V_R = 150\text{V}$	$IR_6$	—	2.5	20	
<b>Reverse Leakage Current</b> (Pulsed, $T_A = 175^\circ\text{C}$ )	$V_R = 100\text{V}$	$IR_7$	—	20	—	<b>mA</b>
	$V_R = 125\text{V}$	$IR_8$	—	23	—	
	$V_R = 150\text{V}$	$IR_9$	—	30	—	
<b>Junction Capacitance</b> ( $T_A = 25^\circ\text{C}$ , $f = 1\text{MHz}$ )	$V_R = 10\text{V}$	$C_J$	—	250	350	<b>pF</b>

### TO-254 (Suffix M) Outline:



### TO-254Z (Suffix Z) Outline:



### Optional Lead Bends

