

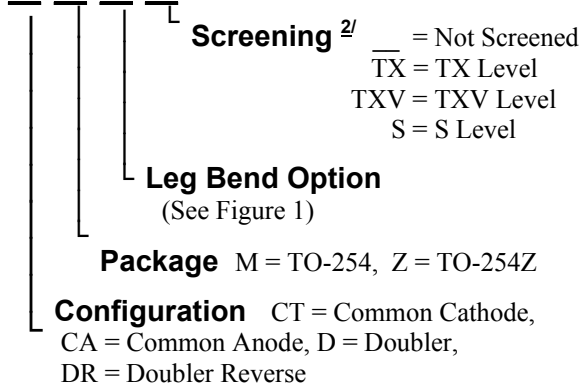
Solid State Devices, Inc.

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Designer's Data Sheet

Part Number/Ordering Information ^{1/}

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 ^{2/}
- Enhanced operating temperature range

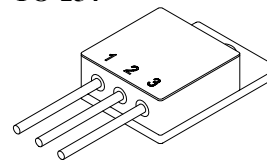
Maximum Ratings		Symbol	Value	Units
Peak Surge Reverse Voltage		V_{RSM}	150	Volts
Peak Repetitive Reverse Voltage		V_{RRM}	150	Volts
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, $T_A = 25^\circ C$)	Each leg	I_O	20	Amps
	Package total	I_{D2}	35	
Non-repetitive Peak Surge Current (8.3 ms Pulse, Half Sine Wave, Each leg)	@ $T_C = 25^\circ C$	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	@ $T_C = 25^\circ C$	P_D	TBD	W
Operating & Storage Temperature		$T_{OP} \& T_{STG}$	-55 to +175	$^\circ C$
Maximum Thermal Resistance, Junction to Case	Each Leg	$R_{\theta JC}$	2.5	$^\circ C/W$
	Per Package		1.25	

Notes:

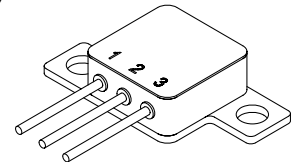
1/ For ordering information, Price, Operating Curves, and Availability- Contact Factory.
 2/ Screened to MIL-PRF-19500.

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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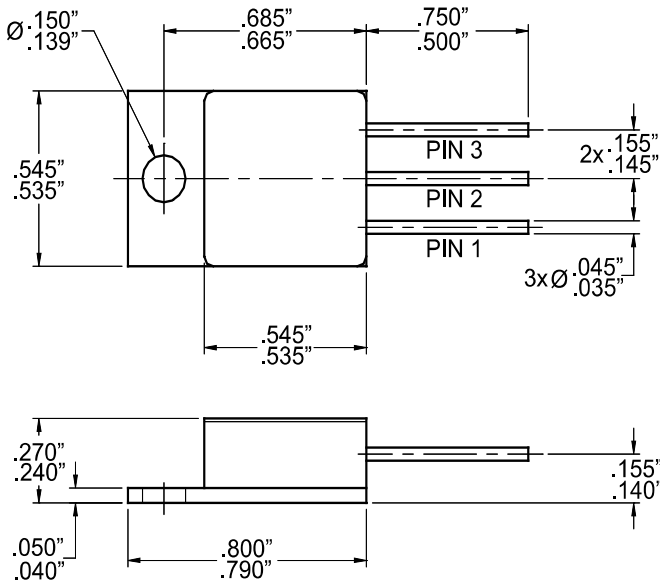
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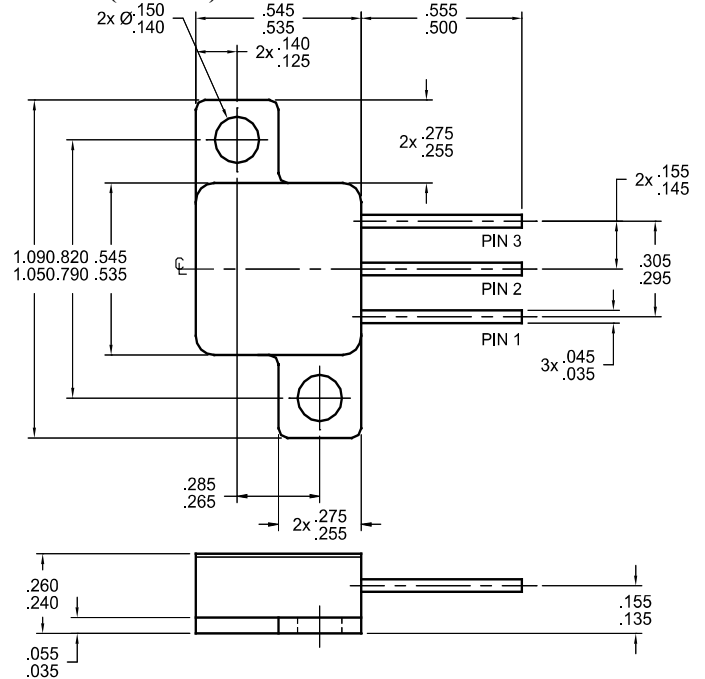
SSR3515CTM & Z

Electrical Characteristics, per leg		Symbol	Min	Typ	Max	Units
Instantaneous Forward Voltage Drop (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	
Instantaneous Forward Voltage Drop (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	
Instantaneous Forward Voltage Drop (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	
Reverse Leakage Current (Pulsed, $T_A = 25^\circ\text{C}$)	$V_R = 100\text{V}$	IR_1	—	5	—	μA
	$V_R = 125\text{V}$	IR_2	—	8	—	
	$V_R = 150\text{V}$	IR_3	—	12	500	
Reverse Leakage Current (Pulsed, $T_A = 125^\circ\text{C}$)	$V_R = 100\text{V}$	IR_4	—	1	—	mA
	$V_R = 125\text{V}$	IR_5	—	1.6	—	
	$V_R = 150\text{V}$	IR_6	—	2.5	20	
Reverse Leakage Current (Pulsed, $T_A = 175^\circ\text{C}$)	$V_R = 100\text{V}$	IR_7	—	20	—	mA
	$V_R = 125\text{V}$	IR_8	—	23	—	
	$V_R = 150\text{V}$	IR_9	—	30	—	
Junction Capacitance ($T_A = 25^\circ\text{C}$, $f = 1\text{MHz}$)	$V_R = 10\text{V}$	C_J	—	250	350	pF

TO-254 (Suffix M) Outline:



TO-254Z (Suffix Z) Outline:



Optional Lead Bends

