Solid State Devices, Inc.
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SSR3515CTM & Z

35Amp/150 V
CENTER TAP POWER SCHOTTKY RECTIFIER

Designer's Data Sheet

Part Number/Ordering Information [1/]

SSR3515 ___ ___ ___ ___

Screening [2/] __ = Not Screened
TX = TX Level
TXV = TXV Level
S = S Level

Leg Bend Option
(See Figure 1)

Package M = TO-254, Z = TO-254Z

Configuration CT = Common Cathode,
CA = Common Anode, D = Doubler,
DR = Doubler Reverse

Features:

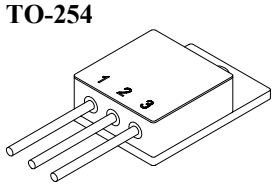
- **Low forward voltage drop resulting in extremely low conduction losses**
- **Extremely low switching losses**
- **Hermetically Sealed, Isolated Package**
- **Available in Common Anode, Common Cathode, Doubler, and Doubler Reverse Configurations**
- **Ceramic Seal for Improved Hermeticity Available**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

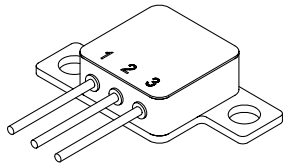
Maximum Ratings		Symbol	Value	Units
Peak Surge Reverse Voltage		V_{RSM}	150	**Volts**
Peak Repetitive Reverse Voltage		V_{RRM}	150	**Volts**
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, T_A = 25 °C)	Each leg Package total	I_O I_{D2}	20 35	**Amps**
Non-repetitive Peak Surge Current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

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)**



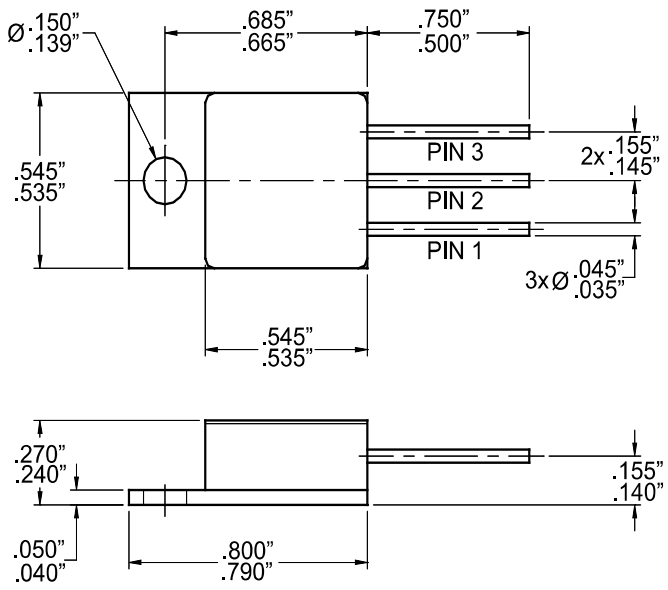


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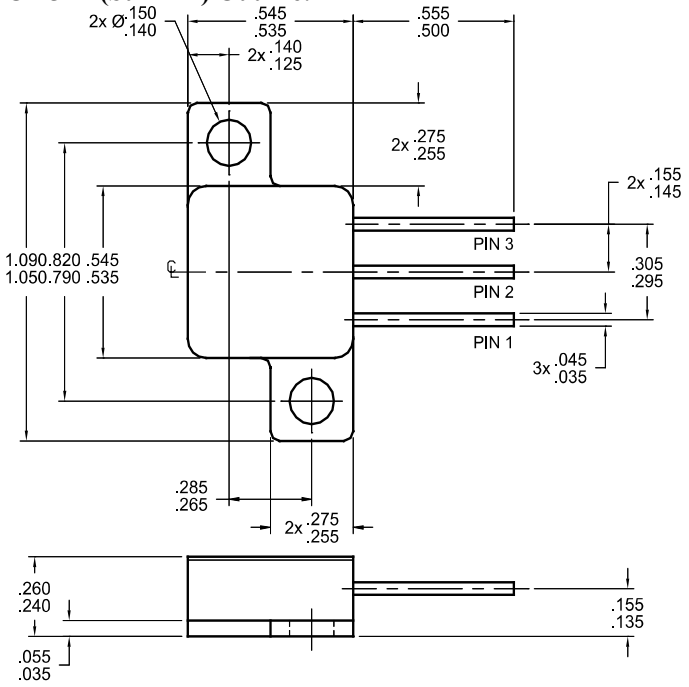
SSR3515CTM & Z

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

TO-254 (Suffix M) Outline:



TO-254Z (Suffix Z) Outline:



Optional Lead Bends

