



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
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SSR3515CTS1

**35 Amp
 CENTER TAP POWER
 SCHOTTKY RECTIFIER
 150 Volts**

Designer's Data Sheet

Part Number/Ordering Information ^{1/}

SSR3515

Screening ^{2/} = Not Screened
 TX = TX Level
 TXV = TXV Level
 S = S Level

Package S1 = SMD1

Configuration CT = Common Cathode

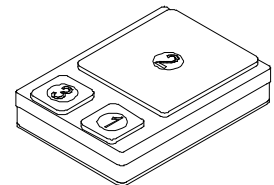
- Features:**
- Low forward voltage drop resulting in extremely low conduction losses
 - Extremely low switching losses
 - Hermetically Sealed Power Package
 - TX, TXV, and S-Level Screening Available ^{2/}
 - Enhanced operating temperature range

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 Package total	I_O I_{D2}	20 35	Amps
Non-repetitive Peak Surge Current (8.3 ms Pulse, Half Sine Wave, Each leg)	@ $T_C = 25^\circ C$	I_{FSM}	200	Amps
Max. Avalanche repetitive reverse current Max. Avalanche non-repetitive reverse current	@ $1.5 \times V_{RRM}$	I_{AR} I_{AS}	0.2 8	A
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 Per Package	$R_{\theta JC}$	2.5 1.25	$^\circ C/W$

Notes:

1/ For ordering information, price, operating curves, and availability- Contact factory.
 2/ Screening based on MIL-PRF-19500. Screening flows available on request.

SMD1 (S1)





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Electrical Characteristics, per leg		Symbol	Min	Typ	Max	Units
Instantaneous Forward Voltage Drop (Pulsed, $T_A = 25\text{ }^\circ\text{C}$)	$I_F = 10\text{A}_{dc}$	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, $T_A = 125\text{ }^\circ\text{C}$)	$I_F = 10\text{A}_{dc}$	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, $T_A = -55\text{ }^\circ\text{C}$)	$I_F = 10\text{A}_{dc}$	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, $T_A = 25\text{ }^\circ\text{C}$)	$V_R = 100\text{ V}$	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, $T_A = 125\text{ }^\circ\text{C}$)	$V_R = 100\text{ V}$	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, $T_A = 175\text{ }^\circ\text{C}$)	$V_R = 100\text{ V}$	IR_7	—	20	—	mA
	$V_R = 125\text{ V}$	IR_8	—	23	—	
	$V_R = 150\text{ V}$	IR_9	—	30	—	
Junction Capacitance ($T_A = 25\text{ }^\circ\text{C}$, $f = 1\text{MHz}$)	$V_R = 10\text{V}$	C_J	—	250	350	pF

