



Solid State Devices, Inc.

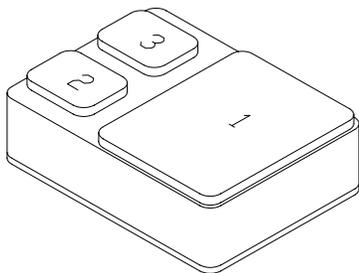
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 Phone: (562) 404-7855 * Fax: (562) 404-1773
 ssdi@ssdi-power.com * www.ssdi-power.com

SSR1510S.5

15 AMP /100 Volts LOW VOLTAGE DROP SCHOTTKY POWER DIODE

DESIGNER'S DATA SHEET

SMD.5

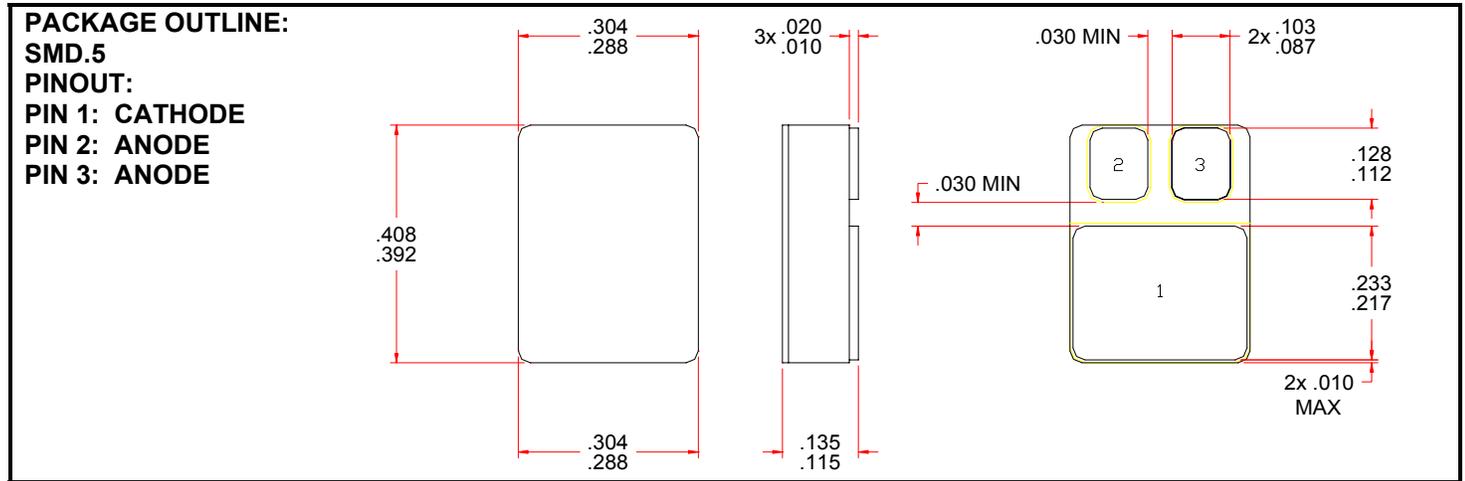


SSR1510

Screening ^{2/} = Commercial
 TX = TX Level
 TXV = TXV Level
 S = S Level
 Package: S.5 = SMD.5

- Features:**
- Extremely Low Forward Voltage Drop
 - Low reverse leakage
 - Excellent high temperature performance
 - Hermetically Sealed, low thermal resistance power Package
 - Eutectic die attach and monometallic contacts for improved reliability
 - Replacement for 15LJQ100 types
 - TX, TXV, S-Level screening available

Maximum Ratings	Symbol	Value	Units
Peak Repetitive Reverse Voltage and DC Blocking Voltage	V_{RRM} V_{RWM} V_R	100	V
Average Rectified Forward Current	I_O	15	A
Peak Surge Current	I_{FSM}	250	A
	8.3 ms pulse, half sinewave superimposed on I_O ; allow junction to reach equilibrium in between pulses; $T_a = 25^\circ\text{C}$		
Operating & Storage Temperature	T_{OP} & T_{STG}	-55 to +150	$^\circ\text{C}$
Maximum Thermal Resistance (Junction to Case)	$R_{\theta JC}$	2.25	$^\circ\text{C}/\text{W}$



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

DATA SHEET #: SH0034A DOC



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Electrical Characteristics ^{4/}		Symbol	Min	Typ	Max	Units
Instantaneous Forward Voltage Drop	$I_F = 1 \text{ A}$	V_{F1}		460	—	mV
	$I_F = 5 \text{ A}$	V_{F2}	—	600	635	
	$I_F = 10 \text{ A}$	V_{F3}		710	—	
	$I_F = 15 \text{ A}$	V_{F4}		850	890	
Instantaneous Forward Voltage Drop, $T_c = 125^\circ\text{C}$	$I_F = 5 \text{ A}$	V_{F5}	—	500	520	mV
	$I_F = 15 \text{ A}$	V_{F6}		675	700	
Instantaneous Forward Voltage Drop, $T_c = -55^\circ\text{C}$	$I_F = 5 \text{ A}$	V_{F7}	—	625	—	mV
	$I_F = 15 \text{ A}$	V_{F8}		825	—	
Reverse Leakage Current	$V_R = 100\text{V}$	I_{R1}	—	15	500	μA
Reverse Leakage Current, $T_c = 75^\circ\text{C}$	$V_R = 100\text{V}$	I_{R2}	—	500	—	μA
Reverse Leakage Current, $T_c = 125^\circ\text{C}$	$V_R = 100\text{V}$	I_{R3}	—	8	15	mA
Junction Capacitance	$V_R = 5\text{V}, f = 1 \text{ MHz}$	C_{j1}	—	380	500	pF
	$V_R = 10\text{V}, f = 1 \text{ MHz}$	C_{j2}	—	425	—	

NOTES:

* Pulse Test: Pulse Width = 300 μsec , Duty Cycle = 2%.

^{4/} Unless Otherwise Specified, All Electrical Characteristics @25 $^\circ\text{C}$.

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