



**Solid State Devices, Inc.**

14701 Firestone Blvd \* La Mirada, CA 90638  
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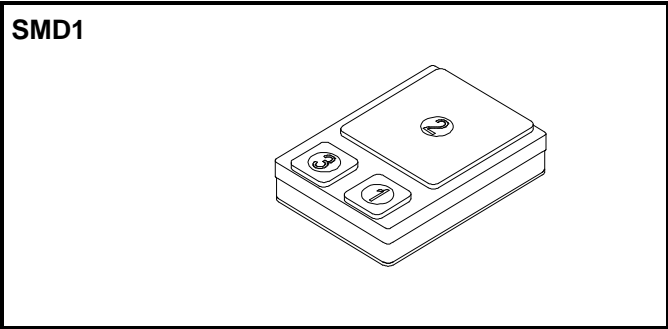
**SDR950S1  
THRU  
SDR952S1**

**60 AMP  
100-200 Volts  
35nsec  
Hyper Fast  
Rectifier**

**DESIGNER'S DATA SHEET**

**Features:**

- Hyper Fast Recovery: 35nsec typical
- High Surge Rating
- Low Reverse Leakage Current
- Low Junction Capacitance
- Hermetically Sealed Surface Mount Power Package
- Gold Eutectic Die Attach Available
- Ultrasonic Aluminum Wire Bonds
- TX, TXV, and Space Level Screening Available.



Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage <sup>1/</sup>	SDR950S1	V <sub>RRM</sub>	100	Volts
	SDR951S1	V <sub>RWM</sub>	150	
	SDR952S1	V <sub>R</sub>	200	
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, T <sub>A</sub> = 25°C)		I <sub>o</sub>	60	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, T <sub>A</sub> = 25°C) <sup>1/</sup>		I <sub>FSM</sub>	600	Amps
Operating & Storage Temperature		Top & Tstg	-65 to +200	°C
Maximum Thermal Resistance Junction to Case,		R <sub>qJL</sub>	0.8	°C/W

<sup>1/</sup> Connect pins 2&3 together



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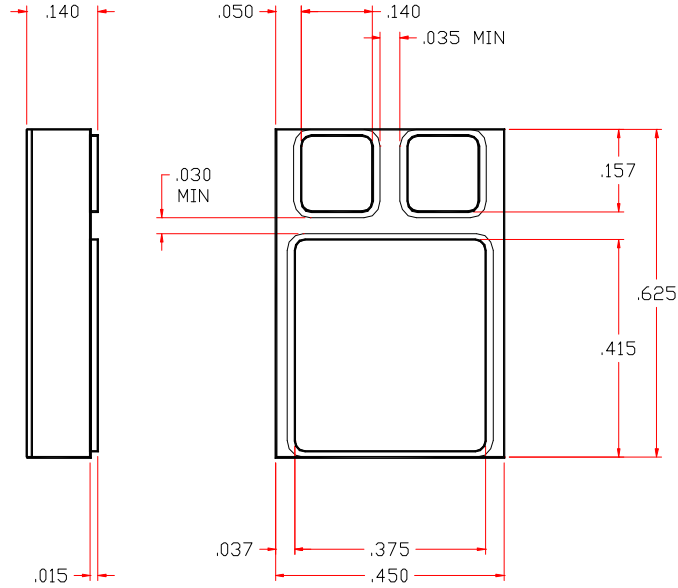
Electrical Characteristics	Symbol	Min	Max	Units
<b>Instantaneous Forward Voltage Drop</b> (IF=25Adc, TA = 25°C, 300 μsec pulse) (IF=50Adc, TA = 25°C, 300 μsec pulse)	<b>V<sub>F1</sub></b>	—	0.95 1.05	<b>Volts</b>
<b>Instantaneous Forward Voltage Drop</b> (IF= 50Adc, TA = 100°C, 300 μsec pulse) (IF= 50Adc, TA = -55°C, 300 μsec pulse)	<b>V<sub>F2</sub></b>	—	0.95 1.20	<b>Volts</b>
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , TA = 25°C, 300 μsec pulse minimum)	<b>I<sub>R1</sub></b>	—	10	<b>mA</b>
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , TA = 100°C, 300 μsec pulse minimum)	<b>I<sub>R2</sub></b>	—	1	<b>mA</b>
<b>Junction Capacitance</b> (V <sub>R</sub> = 10 Vdc, TA = 25°C, f = 1MHz)	<b>C<sub>J</sub></b>	—	950	<b>pF</b>
<b>Reverse Recovery Time</b> (I <sub>F</sub> = 0.5A, I <sub>R</sub> = 1A, I <sub>RR</sub> = 0.25A, TA = 25°C )	<b>t<sub>rr</sub></b>	—	45	<b>nsec</b>

**CASE OUTLINE: SMD1**

**Pin 1: CATHODE**

**Pin 2: ANODE**

**Pin 3: ANODE**



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

**DATA SHEET #: RH0037C**

**DOC**