



# Solid State Devices, Inc.

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## SDR933/61 thru SDR936/61

### 30 Amp ULTRA FAST RECTIFIER 300 – 600 Volts 35 nsec

- FEATURES:**
- Ultra Fast Reverse Recovery Time: 35 nsec Max
  - Isolated Package
  - Reverse Voltage to 600 Volts
  - Low Reverse Leakage
  - Hermetically Sealed
  - Single Chip Construction
  - 200°C Operating Temperature
  - Ultrasonic Aluminum Wire Bonds
  - TX, TXV, and S-Level Screening Available<sup>2/</sup>

### Designer's Data Sheet

**Part Number/Ordering Information <sup>1/</sup>**

**SDR93** \_\_\_\_\_

\_\_\_\_\_ **Screening <sup>2/</sup>**

      \_\_\_\_\_ = Not Screened

      TX = TX Level

      TXV = TXV

      S = S Level

\_\_\_\_\_ **Package Type**

      /61 = TO-61

\_\_\_\_\_ **Device Type (VRWM)**

      3 = 300V

      4 = 400V

      5 = 500V

      6 = 600V

MAXIMUM RATINGS <sup>3/</sup>				
	RATING	SYMBOL	VALUE	UNIT
<b>Peak Repetitive Reverse Voltage</b> <b>DC Blocking Voltage</b> (IR = 100µA)	SDR933/61	$V_{RM(rep)}$ $V_R$	300	Volts
	SDR934/61		400	
	SDR935/61		500	
	SDR936/61		600	
<b>RMS Reverse Voltage</b>	SDR932/61	$V_r$	140	Volts
	SDR933/61		210	
	SDR934/61		280	
	SDR935/61		350	
<b>Half Wave Rectified Forward Current, Averaged Over Full Cycle</b> (Resistive Load, 60 Hz, Sine Wave, T <sub>C</sub> = 25°C)		$I_o$	30	Amps
<b>Peak Repetitive Forward Current</b> (T <sub>C</sub> = 55°C, 8.3 ms pulse, allow junction to reach equilibrium between pulses)		$I_{FM(rep)}$	120	Amps
<b>Peak Surge Current</b> (T <sub>C</sub> = 25°C, half sinewave 8.3 ms pulse or equivalent DC)		$I_{FSM}$	300	Amps
<b>Operating &amp; Storage Temperature</b>		T <sub>OP</sub> and T <sub>STG</sub>	-65 to +175	°C
<b>Thermal Resistance</b>	Junction to Case	R <sub>θJC</sub>	1.5	°C/W

### NOTES:

- <sup>1/</sup> For Ordering Information, Price, and Availability- Contact Factory.
- <sup>2/</sup> Screening Based on MIL-PRF-19500. Screening Flows Available on Request.
- <sup>3/</sup> Unless Otherwise Specified, All Electrical Characteristics @25°C.

TO-61



