



# Solid State Devices, Inc.

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## SDA180A – SD180G Series

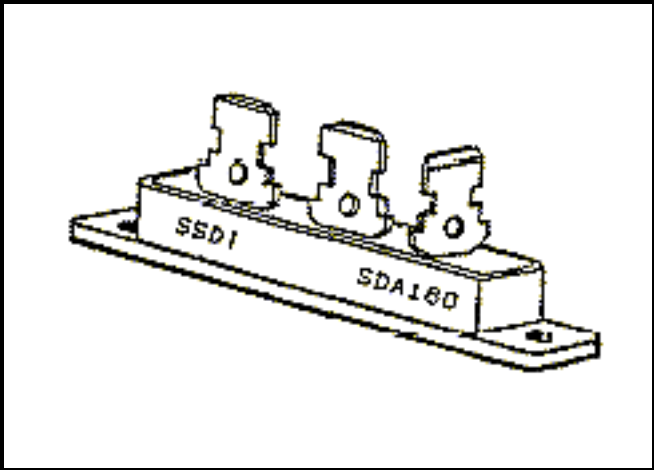
### 15 AMPS 50 - 1000 VOLTS RECTIFIER ASSEMBLY

### Designer's Data Sheet

#### FEATURES:

- Average Output Current 15 Amps
- PIV 50 to 1000 Volts
- Max Thermal Resistance 1.5°C/Watt
- Glass Passivated Rectifier Cells
- Hermetically Sealed
- Choice of Three Terminal Configurations

SSDI introduces a new and complete series of Ultra Fast Recovery Doublers and Center Tap Rectifier Circuits. Designed in cast aluminum cases to provide maximum thermal conductivity and simple installation.



Maximum Ratings		Symbol	Value	Units
<b>Peak Repetitive Reverse Voltage and DC Blocking Voltage</b>	SDA180A	$V_{RRM}$	50	Volts
	SDA180B		100	
	SDA180C	$V_{RWM}$	200	
	SDA180D		400	
	SDA180E	$V_R$	600	
	SDA180F		800	
SDA180G	1000			
<b>Average DC Output Current</b> TA = Ambient Temp (No Heat Sink) =55°C		$I_{O(DC)}$	See table	Amps
<b>Peak Surge Current</b> (8.3 ms Pulse, Half Sine Wave, TA=25°C)		$I_{FSM}$	150	Amps
<b>Operating and Storage Temperature</b>		$T_{OP} \& T_{stg}$	-55 to +150	°C
<b>Maximum Thermal Resistance</b> Junction to Case		$R_{\theta JC}$	1.5	°C/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 #: RA0033A**

**DOC**


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### ELECTRICAL CHARACTERISTICS <sup>1/, 2/</sup>

Part Number	Peak Inverse Voltage	Sine Wave RMS Input Voltage Max.	Average DC Output Current TC=Case Temp			Average DC Output Current No Heatsink			Peak Surge Current (1 Cycle)	Peak Forward Current	Maximum Forward Voltage @ 5 A (DC)	Maximum Reverse Current	
Symbol	PIV		I <sub>O(DC)</sub>			I <sub>O(DC)</sub>			I <sub>FSM</sub>	I <sub>F</sub>	V <sub>F</sub>	I <sub>R @ PIV</sub>	
Units	Volts <sup>4/</sup>	Volts	Amps			Amps			Amps	Amps	μA	μA	
Conditions	25°C	25°C	55°C	100°C	125°C	25°C	55°C	100°C	25°C	25°C	25°C	25°C	100°C
<b>SDA180A</b>	50	35	15	10	5	5	4	2.5	150	18	1.0	1	50
<b>SDA180B</b>	100	70	15	10	5	5	4	2.5	150	18	1.0	1	50
<b>SDA180C</b>	200	140	15	10	5	5	4	2.5	150	18	1.0	1	50
<b>SDA180D</b>	400	280	15	10	5	5	4	2.5	150	18	1.0	1	50
<b>SDA180E</b>	600	420	15	10	5	5	4	2.5	150	18	1.0	1	50
<b>SDA180F</b>	800	560	15	10	5	5	4	2.5	150	18	1.0	1	50
<b>SDA180G</b>	1000	700	15	10	5	5	4	2.5	150	18	1.0	1	50

**NOTES:**

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

<sup>1/</sup> Unless Otherwise Specified, All Electrical Characteristics Per Leg.<sup>2/</sup> Unless Otherwise Specified, All Electrical Characteristics @25°C<sup>3/</sup> Reverse Recovery Test Conditions: I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1A, I<sub>RR</sub> = 0.25A, T<sub>A</sub> = 25°C<sup>4/</sup> Higher Voltages Are Available – Contact the Factory.

\*For information on curves, contact the Factory Representative for Engineering Assistance.

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