Solid State Devices, Inc.
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SDA180A – SD180G Series

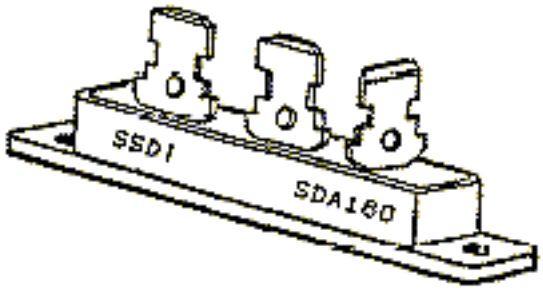
15 AMPS 50 - 1000 VOLTS RECTIFIER ASSEMBLY

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

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ELECTRICAL CHARACTERISTICS 1/, 2/

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**		**$I_{O(DC)}$**			**$I_{O(DC)}$**			**I_{FSM}**	**I_F**	**V_F**	**I_R @ PIV**	
Units	**Volts 4/**	**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
SDA180A	50	35	15	10	5	5	4	2.5	150	18	1.0	1	50
SDA180B	100	70	15	10	5	5	4	2.5	150	18	1.0	1	50
SDA180C	200	140	15	10	5	5	4	2.5	150	18	1.0	1	50
SDA180D	400	280	15	10	5	5	4	2.5	150	18	1.0	1	50
SDA180E	600	420	15	10	5	5	4	2.5	150	18	1.0	1	50
SDA180F	800	560	15	10	5	5	4	2.5	150	18	1.0	1	50
SDA180G	1000	700	15	10	5	5	4	2.5	150	18	1.0	1	50

NOTES:

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

1/ Unless Otherwise Specified, All Electrical Characteristics Per Leg.

2/ Unless Otherwise Specified, All Electrical Characteristics @25ºC

3/ Reverse Recovery Test Conditions: I_F = 0.5A, I_R = 1A, I_{RR} = 0.25A, TA = 25°C

4/ Higher Voltages Are Available – Contact the Factory.

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