



Solid State Devices, Inc.

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SDA188A – SDA188G Series

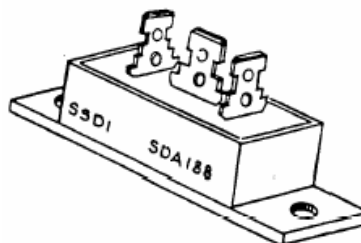
Designer's Data Sheet

FEATURES:

- Average Output Current 50 Amps
- PIV 50 to 1000 Volts
- Maximum Thermal Resistance 0.5 °C/Watt
- 500 Amp Surge Capability
- Hermetically Sealed
- Choice of Three Terminal Configurations
- For Ordering Information, Price, and Availability Contact Factory.

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

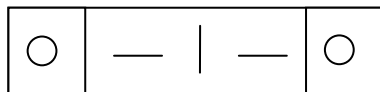
**50 AMPS
50 – 1000 VOLTS
RECTIFIER ASSEMBLY**



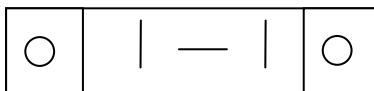
| Maximum Ratings | Symbol | Value | Units |
|--|-----------------|-------------|-------|
| Peak Repetitive Reverse Voltage and DC Blocking Voltage | SDA188_A | V_{RRM} | 50 |
| | SDA188_B | V_{RRM} | 100 |
| | SDA188_C | V_{RWM} | 200 |
| | SDA188_D | V_{RWM} | 400 |
| | SDA188_E | V_R | 600 |
| | SDA188_F | V_R | 800 |
| | SDA188_G | V_R | 1000 |
| Average DC Output Current Tc = Case Temp =55°C | $I_{O(DC)}$ | See table | Amps |
| Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C) | I_{FSM} | 500 | Amps |
| Operating and Storage Temperature | TOP & Tstg | -55 to +150 | °C |
| Maximum Thermal Resistance Junction to Case | $R_{\theta JC}$ | 0.5 | °C/W |

Polarity and Terminal Orientation ⁴

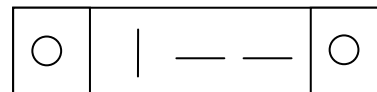
Polarity C
AC + AC



Polarity A
AC - AC



Polarity D
+ AC -



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

DATA SHEET #: RA0035B



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SDA188A – SDA188G Series

ELECTRICAL CHARACTERISTICS ^{1/, 2/}

| Part # ^{4/} | Peak Inverse Voltage | Sine Wave RMS Input Voltage Max. | Average DC Output Current TC=Case Temp | | | Peak Surge Current (1 Cycle) | Peak Forward Current | Maximum Forward Voltage @ 25 A _(DC) | Maximum Reverse Current | |
|----------------------|----------------------|----------------------------------|---|-------|-------|------------------------------|----------------------|--|-------------------------|-------|
| | | | 55°C | 100°C | 125°C | | | | 25 °C | 100°C |
| Symbol | PIV | | I _O (DC) | | | I _{FSM} | I _F | V _F | I _R @ PIV | |
| Units | Volts ^{3/} | Volts | Amps | | | Amps | Amps | Volts | µA | |
| SDA188_A | 50 | 35 | 50 | 33 | 16 | 500 | 200 | 1.05 | 1.0 | 100 |
| SDA188_B | 100 | 70 | 50 | 33 | 16 | 500 | 200 | 1.05 | 1.0 | 100 |
| SDA188_C | 200 | 140 | 50 | 33 | 16 | 500 | 200 | 1.05 | 1.0 | 100 |
| SDA188_D | 400 | 280 | 50 | 33 | 16 | 500 | 200 | 1.05 | 1.0 | 100 |
| SDA188_E | 600 | 420 | 50 | 33 | 16 | 500 | 200 | 1.05 | 1.0 | 100 |
| SDA188_F | 800 | 560 | 50 | 33 | 16 | 500 | 200 | 1.05 | 1.0 | 100 |
| SDA188_G | 1000 | 700 | 50 | 33 | 16 | 500 | 200 | 1.05 | 1.0 | 100 |

NOTES:

- * Pulse Test: Pulse Width = 300µsec, Duty Cycle = 2%
- *For information on curves, contact the Factory Representative for Engineering Assistance.
- ^{1/} Unless Otherwise Specified, All Electrical Characteristics Per Leg
- ^{2/} Unless Otherwise Specified, All Electrical Characteristics @25°C
- ^{3/} Higher Voltages Are Available. Contact Factory.
- ^{4/} Polarity Code precedes voltage code i.e. SDA188CG is a common cathode, 1000 V part

