



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, CA 90638
 Phone: (562) 404-4474 * Fax: (562) 404-1773
 ssdi@ssdi-power.com * www.ssdi-power.com

SDA188UF Series

50 Amps Centertap Ultra Fast Rectifier Assembly 400 - 900 Volts

DESIGNER'S DATA SHEET

Part Number/Ordering Information ^{1/}
 SDA188 UF

Screening ^{2/}
 — = Not Screened
 TX = TX Level
 TXV = TXV Level
 S = S Level

Reverse Recovery
 UF = Ultra Fast

Configuration
 CT = Common Cathode
 CA = Common Anode
 D = Doubler

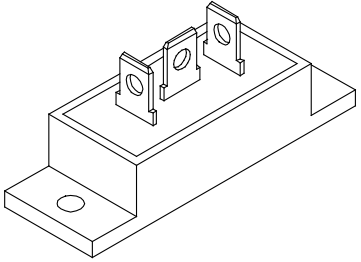
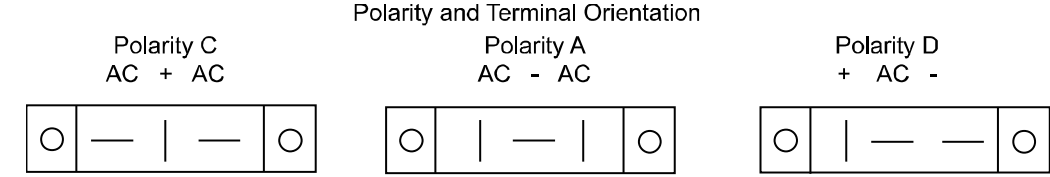
Voltage/Family
 D = 400V
 E = 600V
 F = 800V
 G = 900V

Polarity/Terminal Orientation
 C = Polarity C
 A = Polarity A
 D = Polarity D

- Features:**
- Low Cost Modules
 - Aerospace Quality
 - Average Output from 50 Amps
 - PIV from 400 to 900 Volts
 - Low Reverse Leakage Current
 - Anodized Aluminum Case
 - Case Electrically Isolated
 - Constructed of Hermetically Sealed Diode Cells
 - -150 to +150°C Operating and Storage Temperature
 - TX, TXV, and Space Level Screening Available. Consult Factory. ^{2/}
 - Configurations: CT = Common Cathode
 CA = Common Anode
 D = Doubler

Maximum Ratings	Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	SDA188_D_UF SDA188_E_UF SDA188_F_UF SDA188_G_UF	V_{RRM} V_{RWM} V_R	400 600 800 900 Volts
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, $T_A = 55^\circ\text{C}$)	I_o	50	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$)	I_{FSM}	350	Amps
Operating & Storage Temperature	Top & Tstg	-55 to +150	°C
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	1.0	°C/W

Notes:
 1/ For ordering information, price, operating curves, and availability – contact factory.
 2/ Screening based on MIL-PRF-19500. Screening flows available on request.





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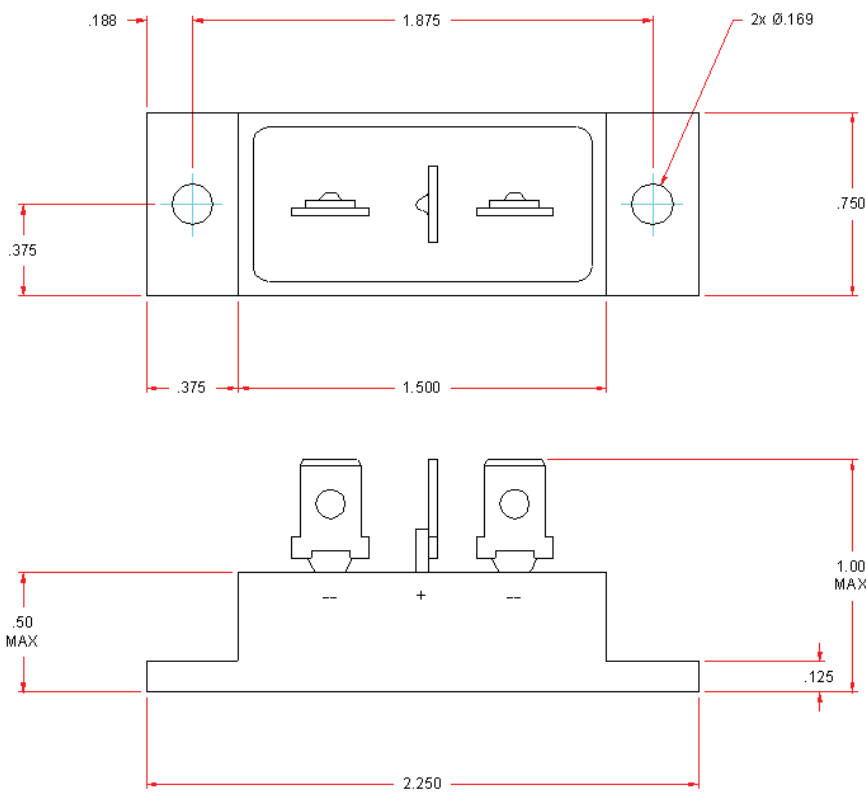
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ELECTRICAL CHARACTERISTICS

Part Number <small>CT= Common Cathode CA= Common Anode D= Doubler</small>	Peak Inverse Voltage (per leg)	Average Rectified Forward Current	Average Rectified Forward Current	Peak Surge Current (1 Cycle)	Forward Voltage Drop (per leg) 300 μsec Pulse	Reverse Leakage Current (per leg) @ rated PIV 300 μsec Pulse	Reverse Recovery Time
Symbol	PIV	I_o	I_o	I_F	V_F	I_R	t_{rr}
Units	Volts	Amps	Amps	Amps	Volts	μA	ns
Conditions		55°C	100°C	$T_A = 25^\circ C$	25°C	25°C	$I_F = 0.5 A, I_R = 1 A,$ $I_{RR} = 0.25 A,$ $T_A = 25^\circ C$
SDA188_D_UF	400	50	33	350	2.0	15	100
SDA188_E_UF	600	50	33	350	2.0	15	100
SDA188_F_UF	800	50	33	350	2.0	15	100
SDA188_G_UF	900	50	33	350	2.0	15	100

Case Outline:



TOLERANCE: XX±.03
 XXX±.020
 FRACTIONAL = NOM DIM