



Solid State Devices, Inc.

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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 (polarity C)

CA = Common Anode (polarity A)

D = Doubler (polarity D)

Voltage/Family

D = 400V

E = 600V

F = 800V

G = 900V

SDA188UF Series

50 Amps
Centertap Ultra Fast
Rectifier Assembly
400 - 900 Volts

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	SDA188D_UF SDA188E_UF SDA188F_UF SDA188G_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:

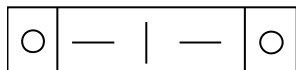
^{1/} For ordering information, price, operating curves, and availability – contact factory.

^{2/} Screening based on MIL-PRF-19500. Screening flows available on request.

Polarity and Terminal Orientation

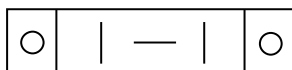
Polarity C

AC + AC



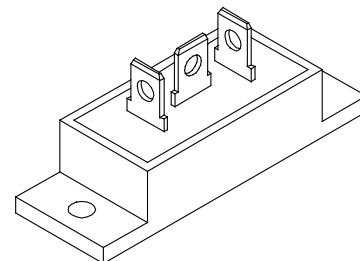
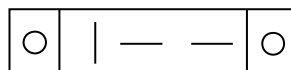
Polarity A

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 #: RA0051B

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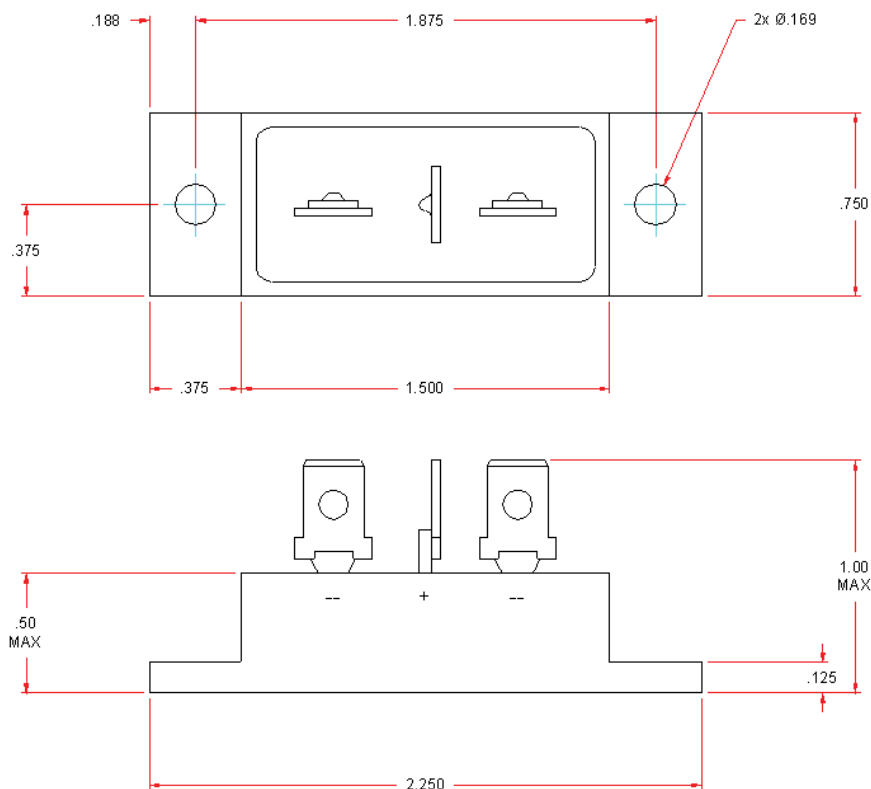
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SDA188UF Series

ELECTRICAL CHARACTERISTICS

Part Number CT= Common Cathode CA= Common Anode D= Doubler	Peak Inverse Voltage (per leg)	Average Rectified Forward Current	Average Rectified Forward Current	Peak Surge Current (1 Cycle)	Forward Voltage Drop (per leg) 300 μ sec Pulse @ 25A	Reverse Leakage Current (per leg) @ rated PIV 300 μ sec Pulse	Reverse Recovery Time @ $I_F = 0.5$ A, $I_R = 1$ A, $I_{RR} = 0.25$ A,
Symbol	PIV	I_o	I_o	I_F	V_F	I_R	t_{rr}
Units	Volts	Amps	Amps	Amps	Volts	μ A	ns
Conditions		55°C	100°C	25°C	25°C	25°C	25°C
SDA188D_UF	400	50	33	350	2.0	15	100
SDA188E_UF	600	50	33	350	2.0	15	100
SDA188F_UF	800	50	33	350	2.0	15	100
SDA188G_UF	900	50	33	350	2.0	15	100

Case Outline:



TOLERANCE: XX \pm .03
XXX \pm .020
FRACTIONAL = NOM DIM

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