



Solid State Devices, Inc.

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DESIGNER'S DATA SHEET

Part Number / Ordering Information ^{1/}

SDA167 **E** **UF**

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

Terminal ^{3/} — = Blade
 T = Turret

Finish — = Anodized Case
 N = Ni Plated Case

Recovery Time
 UF = Ultra Fast Recovery

Voltage
 D = 400V
 E = 600V
 F = 800V

Polarity
 — = Normal
 R = Reverse

SDA167UF Series

25 Amp Three Phase Bridge Rectifier Assembly 400 – 800 Volts

Features:

- PIV 400 – 800 Volts
- Average Output Current: 25 Amps
- Low Reverse Leakage Current
- Constructed with Void-Free, Hermetically Sealed Discretes
- Aluminum Case for Maximum Thermal Conductivity
- Electrically Insulated Aluminum Case
- TX, TXV, & Space Level Screening Available
- Available in Standard and Fast Recovery Versions – Consult Factory

Maximum Ratings ^{4/}	Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	SDA167DUF SDA167EUF SDA167FUF V_{RRM} V_{RWM} V_R	400 600 800	Volts
Average Rectified Forward Current ^{5/, 6/} (Resistive Load, 60Hz, Sine Wave, $T_C = 25^\circ\text{C}$)	I_O	25	Amps
Peak Surge Current ^{5/} ($T_C = 55^\circ\text{C}$, Superimposed on Rated Current at Rated Voltage, 8.3 ms Pulse)	I_{FSM}	150	Amps
Operating & Storage Temperature Maximum Junction Temperature	$T_{op} \text{ \& } T_{stg}$ T_J	-55 to +150 175	$^\circ\text{C}$
Maximum Thermal Resistance ^{5/} (Junction to Case)	$R_{\theta JC}$	1.5	$^\circ\text{C/W}$

Notes:

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

^{1/} For ordering information, price, and availability - contact factory.

^{2/} Screening flows available on request.

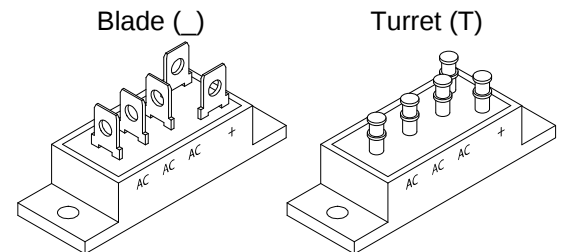
^{3/} Other termination available – contact factory.

^{4/} Unless otherwise specified, all maximum ratings / electrical characteristics @25°C.

^{5/} Rating applies to the total bridge.

^{6/} Derate linearly at 0.263 A/ $^\circ\text{C}$ for $T_C > 55^\circ\text{C}$.

SDA167



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

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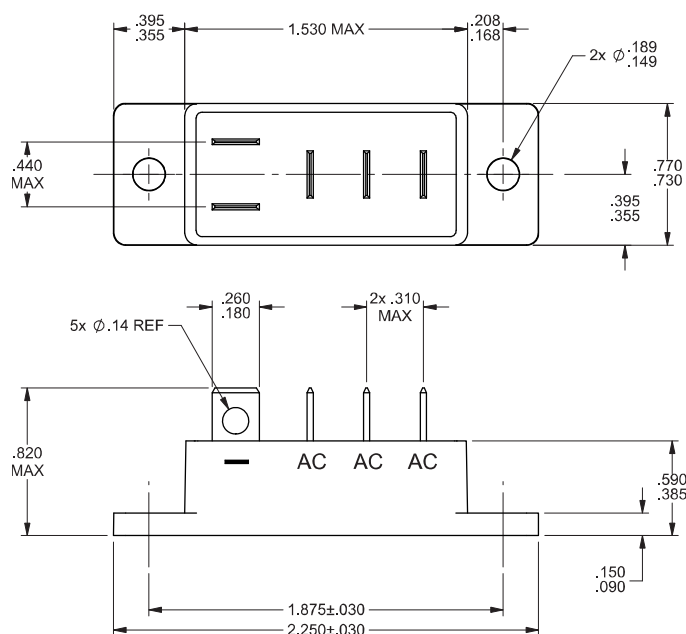
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SDA167UF

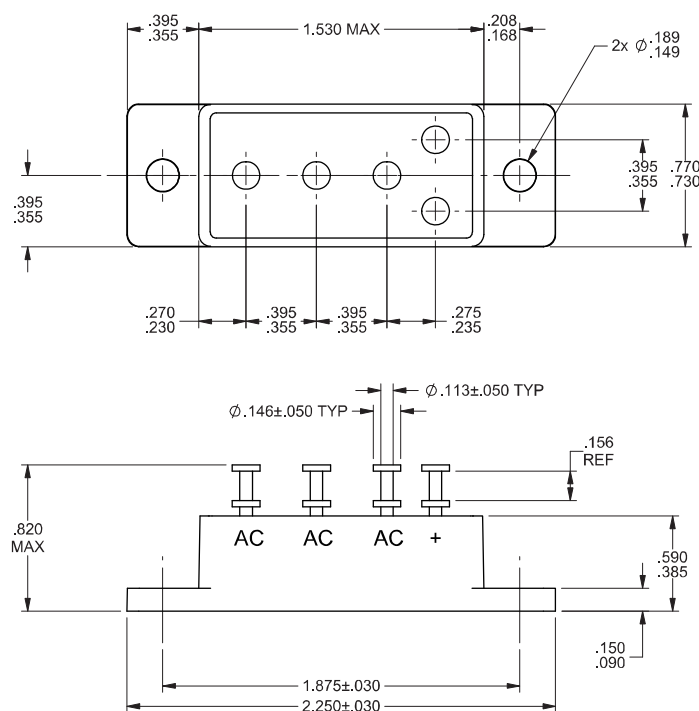
Series

Electrical Characteristic (per leg) ^{4/}		Symbol	Min	Max	Units
Peak Reverse Voltage ($I_R = 100\mu A$)	SDA167DUF SDA167EUF SDA167FUF	BVR	420 620 820	- - -	Vdc
Instantaneous Forward Voltage Drop ($I_F = 3 A$, 300 - 500 μ sec pulse)	D, E F	V_F	- -	1.35 1.50	Vdc
Reverse Leakage Current (Rated V_R , 300 μ s pulse minimum)		I_{R1}	-	10	μA
Reverse Leakage Current (Rated V_R , $T_A = 100^\circ C$, 300 μ s pulse minimum)		I_{R2}	-	750	μA
Reverse Recovery Time ($I_F = 0.5A$, $I_R = 1A$, $I_{RR} = 0.25A$)		t_{RR}	-	50	nsec
Isolation Resistance	1500 V	R_{INS}	100	-	MΩ

CASE OUTLINE: SDA167 - Blade (_)



SDA167 - Turret (T)



Notes:

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- 2/ Screening flows available on request.
- 3/ Other termination available - contact factory.
- 4/ Unless otherwise specified, all maximum ratings / electrical characteristics @25°C.
- 5/ Rating applies to the total bridge.
- 6/ Derate linearly at 0.263 A/°C for $T_C > 55^\circ C$.

Available Part Numbers:

SDA167DUF, SDA167DUFT
 SDA167EUF, SDA167EUFT
 SDA167FUF, SDA167FUFT
 SDA167RDUF, SDA167RDUFT
 SDA167REUF, SDA167REUFT
 SDA167RFUF, SDA167RFUFT

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