



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

**SDA167HC
Series**

**33 Amp
Three Phase Bridge
Rectifier Assembly
600 – 1000 Volts**

DESIGNER'S DATA SHEET

Part Number / Ordering Information ^{1/}

SDA167H C E UF

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

Terminal ^{3/} ___ = Blade
 T = Turret

Finish ___ = Anodized Case
 N = Ni Plated Case

Recovery Time
 UF = Ultra Fast Recovery

Voltage
 E = 600V
 F = 800V
 G = 1000V

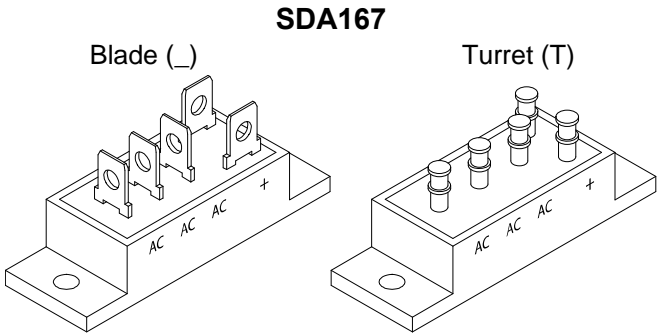
Polarity
 C = Normal
 R = Reverse

- Features:**
- Up to 1000 V Blocking Voltage
 - Average Output Current: 33 Amps
 - Low Reverse Leakage Current
 - Constructed with Void-Free, Hermetically Sealed Discretes
 - Aluminum Case for Maximum Thermal Conductivity
 - Electrically Insulated Aluminum Case
 - TX & TXV Level Screening Available
 - Standard and Fast Recovery Versions Available – Consult Factory

Maximum Ratings ^{4/}	Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	V_{RRM} V_{RWM} V_R	600 800 1000	Volts
Average Rectified Forward Current ^{5/, 6/} (Resistive load, 60Hz, Sine Wave, $T_C = 55^\circ C$)	I_O	33	Amps
Peak Surge Current ^{5/} (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ C$)	I_{FSM}	250	Amps
Operating & Storage Temperature Maximum Junction Temperature	T_{op} & T_{stg} T_J	-55 to +150 175	$^\circ C$
Maximum Thermal Resistance ^{5/} Junction to Case	$R_{\theta JC}$	0.85	$^\circ C/W$

Notes:

- 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 0.35A/°C for $T_C > 55^\circ C$.



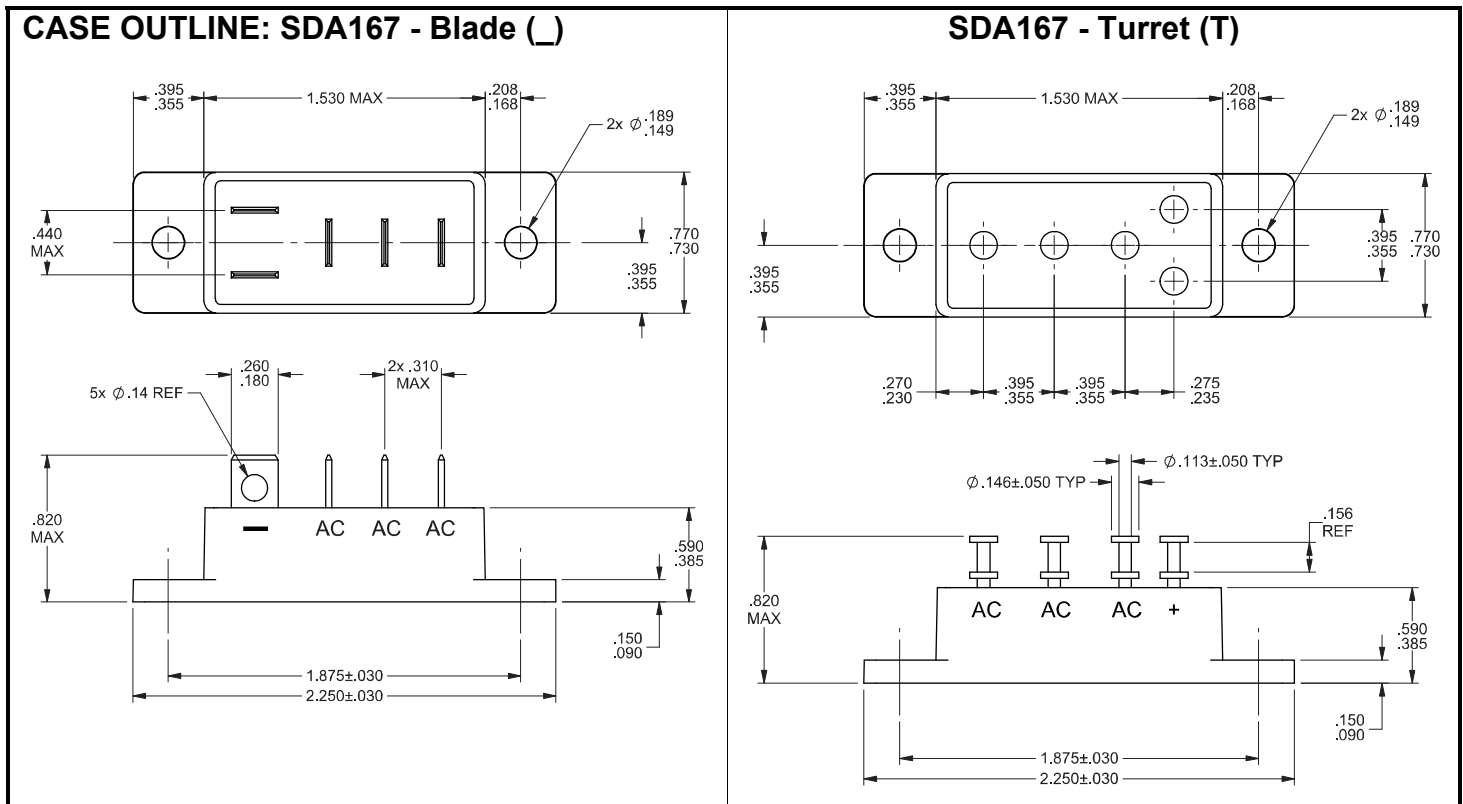


Solid State Devices, Inc.

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

SDA167HC Series

Electrical Characteristic (per leg) ^{4/}		Symbol	Min	Max	Units
Peak Reverse Voltage ($I_R = 100\mu A$)	SDA167HCEUF SDA167HCFUF SDA167HCGUF	BVR	620 820 1020	- - -	Vdc
Instantaneous Forward Voltage Drop (300 - 500 μ sec pulse)	$I_F = 3 A$ $I_F = 9 A$	V_{F1} V_{F2}	- -	1.42 1.80	Vdc
Reverse Leakage Current (Rated V_R , 300 μ s pulse minimum)		I_{R1}	-	20	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}	-	70	nsec
Isolation Resistance (All terminals in common to case)	1500 V	R_{ISO}	100	-	MΩ



Notes:

- 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 0.35A/°C for $T_C > 55^\circ C$.

Available Part Numbers:

- SDA167HCEUF, SDA167HCEUFT
- SDA167HCFUF, SDA167HCFUFT
- SDA167HCGUF, SDA167HCGUFT
- SDA167HREUF, SDA167HREUFT
- SDA167HRFUF, SDA167HRFUFT
- SDA167HRGUF, SDA167HRGUFT