



**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

**SDA167  
Series**

**25 Amp  
Three Phase Bridge  
Rectifier Assembly  
400 – 1000 Volts**

**DESIGNER'S DATA SHEET**

**Part Number / Ordering Information**<sup>1/</sup>

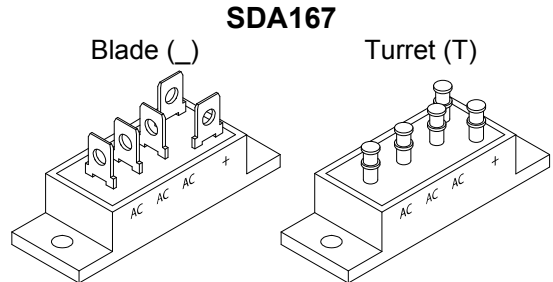
**SDA167**

- Screening**<sup>2/</sup>
  - \_\_\_ = Not Screened
  - TX = TX Level
  - TXV = TXV Level
  - S = S Level
- Terminal**<sup>3/</sup>
  - \_\_\_ = Blade
  - T = Turret
- Finish**
  - \_\_\_ = Anodized Case
  - N = Ni Plated Case
- Voltage**
  - D = 400V
  - E = 600V
  - F = 800V
  - G = 1000V

- 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 <sup>4/</sup>		Symbol	Value	Units
<b>Peak Repetitive Reverse and DC Blocking Voltage</b>	SDA167D	$V_{RRM}$ $V_{RWM}$ $V_R$	400	Volts
	SDA167E		600	
	SDA167F		800	
	SDA167G		1000	
<b>Average Rectified Forward Current</b> <sup>5/, 6/</sup> (Resistive Load, 60Hz Sine Wave, T <sub>c</sub> = 55°C)		I <sub>o</sub>	25	Amps
<b>Peak Surge Current</b> <sup>5/</sup> (8.3 ms Pulse, Superimposed on Rated Current at Rated Voltage, T <sub>c</sub> = 55°C)		I <sub>FSM</sub>	150	Amps
<b>Operating &amp; Storage Temperature Maximum Junction Temperature</b>		T <sub>op</sub> & T <sub>stg</sub> T <sub>J</sub>	-55 to +150 175	°C
<b>Maximum Thermal Resistance</b> <sup>5/</sup> (Junction to Case)		R <sub>θJC</sub>	1.5	°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/°C for T<sub>c</sub> > 55°C.



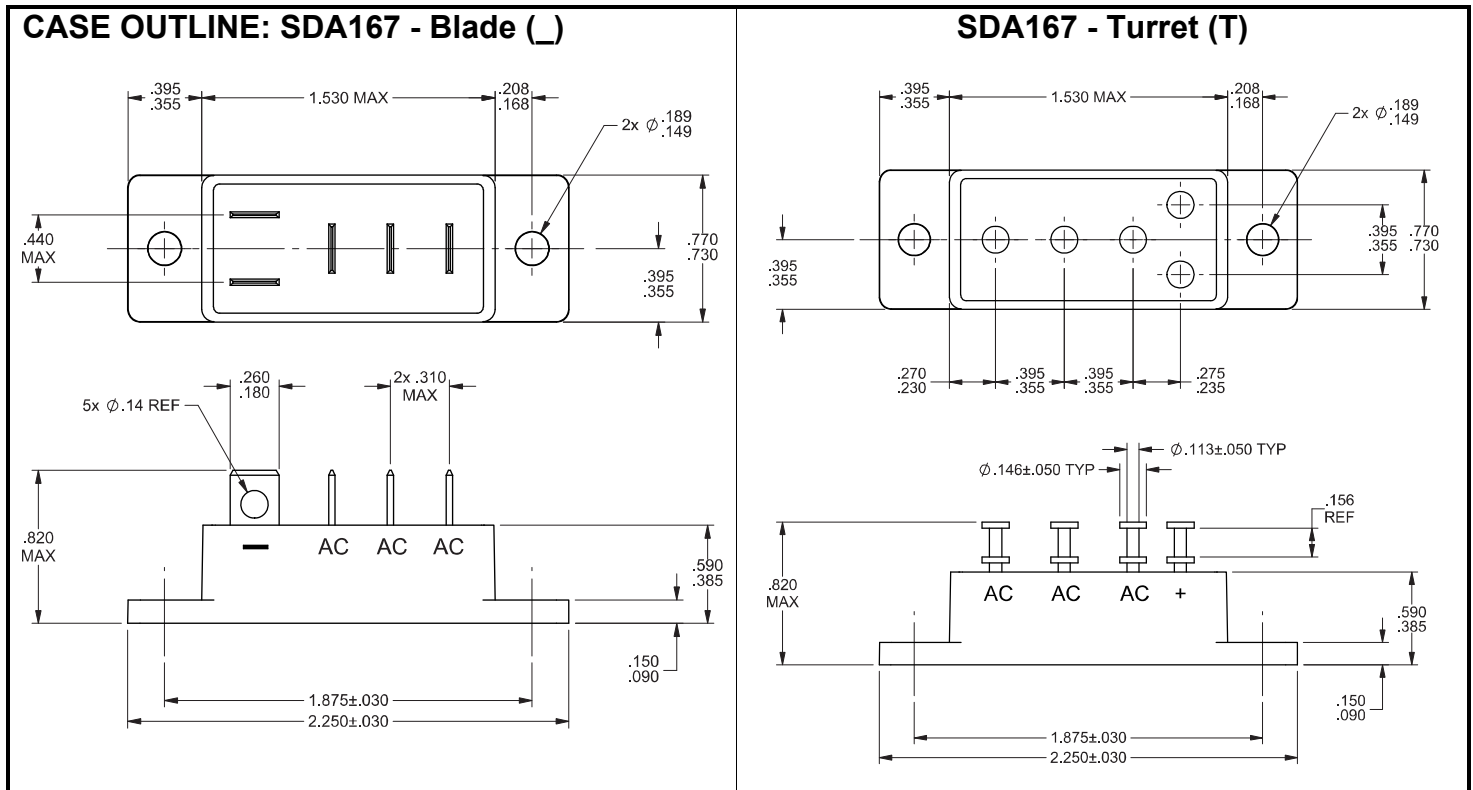


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# SDA167 Series

Electrical Characteristic (per leg) <sup>4/</sup>	Symbol	Min	Typ	Max	Units
<b>Peak Reverse Voltage</b> (I <sub>R</sub> = 50μA)	SDA167D	420	-	-	<b>Volts</b>
	SDA167E	620	-	-	
	SDA167F	820	-	-	
	SDA167G	1020	-	-	
<b>Instantaneous Forward Voltage Drop</b> (300 - 500μsec pulse)	I <sub>F</sub> = 3 A	-	-	1.05	<b>Volts</b>
	I <sub>F</sub> = 9 A	-	-	1.20	
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , 300μs pulse minimum)	I <sub>R1</sub>	-	-	10	<b>μA</b>
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , T <sub>A</sub> = 100°C, 300μs pulse minimum)	I <sub>R2</sub>	-	-	100	<b>μA</b>
<b>Insulation Leakage</b> (All terminals to case, V <sub>R</sub> = 1500V, R <sub>INS</sub> = 100MΩ)		-	-	15	<b>μA</b>



<p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>*Pulse Test: Pulse Width = 300μsec, Duty Cycle = 2%.</li> <li>1/ For ordering information, price, and availability - contact factory.</li> <li>2/ Screening flows available on request.</li> <li>3/ Other termination available – contact factory.</li> <li>4/ Unless otherwise specified, all maximum ratings / electrical characteristics @25°C.</li> <li>5/ Rating applies to the total bridge.</li> <li>6/ Derate linearly at 0.263 A/°C for T<sub>C</sub> &gt; 55°C.</li> </ul>	<p><b>Available Part Numbers:</b></p> <p>SDA167D, SDA167DT          SDA167E, SDA167ET          SDA167F, SDA167FT          SDA167G, SDA167GT</p>
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