



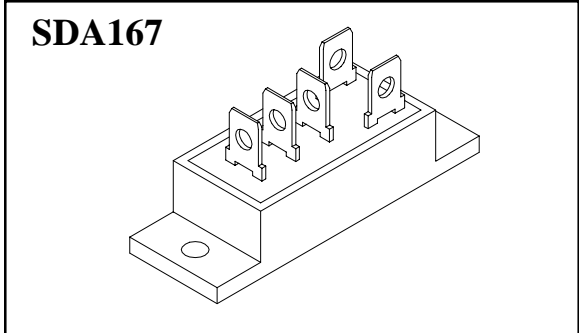
**SOLID STATE DEVICES, INC.**

14830 Valley View Blvd \* La Mirada, Ca 90638  
 Phone: (562) 404-7855 \* Fax: (562) 404-1773

**Designer's Data Sheet**

**SDA167HC Series**

**33A / 600 - 1000V  
 THREE PHASE BRIDGE  
 RECTIFIER  
 ASSEMBLY**



- 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 and TXV Level Screening Available
  - Standard and Fast Recovery Versions Available. Consult Factory.

Maximum Ratings		SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	SDA167HCEUF	$V_{RRM}$	600	Volts
	SDA167HCFUF	$V_{RWM}$	800	
	SDA167HCGUF	$V_R$	1000	
Average Rectified Forward Current <sup>1/</sup> , <sup>2/</sup> (Resistive load, 60Hz, Sine Wave, $T_C = 55^\circ C$ )		$I_o$	33	Amps
Peak Surge Current <sup>1/</sup> (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ C$ )		$I_{FSM}$	250	Amps
Operating and Storage Temperature Maximum Junction Temperature		$T_{OP}$ & $T_{stg}$ $T_J$	-65 TO +150 175	$^\circ C$
Maximum Thermal Resistance <sup>1/</sup> Junction to Case		$\theta_{JC}$	0.85	$^\circ C/W$

Available Part Numbers: <sup>4/</sup>

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

**Part Number /Ordering Information**

SDA167H C E UF-

Terminal: <sup>3/</sup> \_ = Lug  
 T = Turret

Finish: \_ = Anodized Case  
 N = Ni Plated Case

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

Polarity: C = Normal  
 R = Reverse

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

**DATA SHEET # : RA0018B**

# SDA167HC Series



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Electrical Characteristics <sup>5/</sup> (per leg)		SYMBOL	MIN	MAX	UNITS
<b>Peak Reverse Voltage</b> ( $I_R = 100\mu A$ )	<b>SDA167HCEUF</b>	<b>BVR</b>	620	-	<b>Vdc</b>
	<b>SDA167HCFUF</b>		820	-	
	<b>SDA167HCGUF</b>		1020	-	
<b>Instantaneous Forward Voltage Drop</b> (300 - 500 $\mu$ sec pulse)	$I_F = 3A$	<b>V<sub>F1</sub></b>	-	1.42	<b>Vdc</b>
	$I_F = 9A$	<b>V<sub>F2</sub></b>	-	1.80	
<b>Reverse Leakage Current</b> (Rated $V_R$ , 300 $\mu$ s pulse minimum )		<b>I<sub>R1</sub></b>	-	20	$\mu A$
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 100^\circ C$ , 300 $\mu$ s pulse minimum )		<b>I<sub>R2</sub></b>	-	750	$\mu A$
<b>Reverse Recovery Time</b> ( $I_F = 0.5A$ , $I_R = 1.0A$ , $I_{RR} = 0.25A$ )		<b>t<sub>RR</sub></b>	-	70	<b>nsec</b>
<b>Isolation Resistance</b> (All Terminals in Common to Case) ( $V = 1500V$ )		<b>R<sub>ISO</sub></b>	100	-	<b>M<math>\Omega</math></b>

**NOTES:**

- 1/ Rating Applies to the Total Bridge
- 2/ Derate Linearly at 0.35A/ $^\circ C$  for  $T_C > 55^\circ C$ .
- 3/ Other Termination available. Contact Factory
- 4/ For Package Outline and Part Availability Contact Factory.
- 5/ All Electrical Characteristics @25 $^\circ C$ , Unless Otherwise Specified.

**Package Outline**

Part Number	Document
SDA167HCEUF	70-0157-S167
SDA167HCFUF	70-0157-S167
SDA167HCGUF	70-0157-S167
SDA167HREUF	70-0157-S167
SDA167HRFUF	70-0157-S167
SDA167HRGUF	70-0157-S167
SDA167HCEUFT	70-0157-S167-1
SDA167HCFUFT	70-0157-S167-1
SDA167HCGUFT	70-0157-S167-1
SDA167HREUFT	70-0157-S167-1
SDA167HRFUFT	70-0157-S167-1
SDA167HRGUFT	70-0157-S167-1