



PRELIMINARY

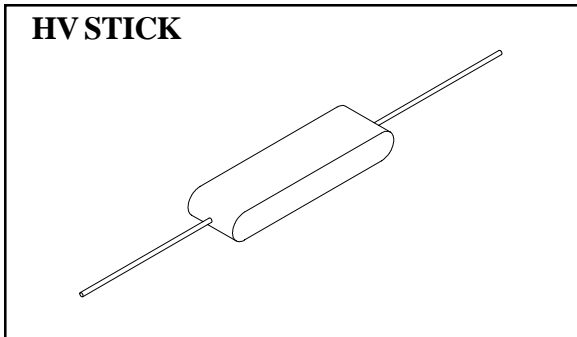
**SOLID STATE DEVICES, INC.**

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

**Designer's Data Sheet**

**SDAH2500UF  
thru  
SDAH25000UF**

**1.1 to 2 AMPS  
2.5kV thru 25kV  
ULTRAFAST RECOVERY  
RECTIFIER ASSEMBLY**



- FEATURES:**
- Average Output Current 1.1 to 2 Amps
  - PIV from 2500 to 25000 V
  - Ultrafast Recovery: 70 nsec Maximum
  - Low Reverse Leakage Current
  - Corona Free Construction
  - Constructed with Hermetically Sealed Discretes
  - Superior Thermal Shock Resistance
  - TX and TXV Level Screening Available
  - Fast and Hyper Fast Recovery Versions Available. Consult Factory.

Maximum Ratings		SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	SDAH2500UF	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	2500	Volts
	SDAH5000UF		5000	
	SDAH7500UF		7500	
	SDAH10000UF		10000	
	SDAH12500UF		12500	
	SDAH15000UF		15000	
	SDAH20000UF		20000	
	SDAH25000UF		25000	
Average Rectified Forward Current (Resistive load, 60Hz, Sine Wave, T <sub>A</sub> = 25°C 1/, No Heatsink)	SDAH2500UF	I <sub>o</sub>	2	Amps
	SDAH5000UF		2	
	SDAH7500UF		2	
	SDAH10000UF		2	
	SDAH12500UF		1.9	
	SDAH15000UF		1.9	
	SDAH20000UF		1.4	
	SDAH25000UF		1.1	
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, T <sub>A</sub> = 25°C, per leg)		I <sub>FSM</sub>	75	Amps
Operating and Storage Temperature		T <sub>OP</sub> & T <sub>stg</sub>	-55 TO +150	°C

**NOTE:**  
1/ T<sub>A</sub> = 25°C. Derate to 0 @ 150°C

**NOTE:** All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release. **DATA SHEET # : RA0003B**

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ELECTRICAL CHARACTERISTIC <sup>1/</sup>	SYMBOL	MAXIMUM	UNITS
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 2A$ , 300 - 500 $\mu$ sec pulse)	SDAH2500UF SDAH5000UF SDAH7500UF SDAH10000UF SDAH12500UF SDAH15000UF SDAH20000UF SDAH25000UF	5.5 9.5 15.0 19.0 24.5 28.5 38.0 47.5	Vdc
<b>Reverse Leakage Current</b> (Rated $V_R$ , 300 $\mu$ s pulse minimum)	$I_{R1}$	3	$\mu$ A
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 100^\circ C$ , 300 $\mu$ s pulse minimum)	$I_{R2}$	0.50	mA
<b>Reverse Recovery Time</b> ( $I_F = 0.5A$ , $I_R = 1.0A$ , $I_{RR} = 0.25A$ )	$t_{RR}$	70	nsec

<sup>1/</sup>  $T_A = 25^\circ C$ , Unless otherwise specified

CASE OUTLINE: HV STICK	PART NUMBER	A	B	C
		$\pm .030$	$\pm .020$	$\pm .010$
	SDAH2500UF	1.50	0.690	0.380
	SDAH5000UF	2.50	0.690	0.380
	SDAH7500UF	3.50	0.690	0.380
	SDAH10000UF	4.50	0.690	0.380
	SDAH12500UF	5.50	0.690	0.380
	SDAH15000UF	6.50	0.690	0.380
	SDAH20000UF	6.50	0.690	0.380
	SDAH25000UF	6.50	0.690	0.380