



PRELIMINARY

**SOLID STATE DEVICES, INC.**

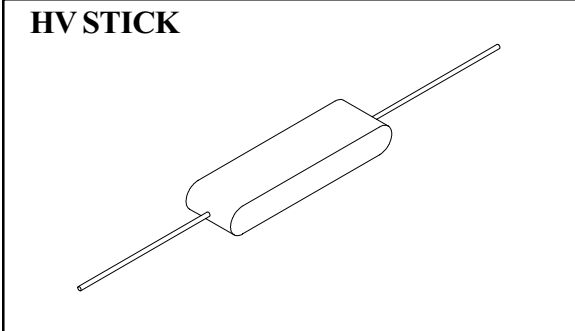
14830 Valley View Blvd \* La Mirada, Ca 90638  
Phone: (562) 404-7855 \* Fax: (562) 404-1773

**SDA2500UF  
thru  
SDA25000UF**

**0.5 AMPS  
2.5kV thru 25kV  
ULTRAFAST RECOVERY  
RECTIFIER ASSEMBLY**

**Designer's Data Sheet**

- FEATURES:**
- Average Output Current 0.5Amps
  - 2500 to 25000 V Blocking Voltage
  - Ultrafast Recovery: 80 nsec Maximum
  - Low Reverse Leakage Current
  - Corona Free Construction
  - Glass Passivated Rectifiers
  - Hermetically Sealed Discretes
  - Superior Thermal Shock Resistance
  - TX and TXV Level Screening Available



Maximum Ratings	SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	2500	Volts
SDA2500UF		5000	
SDA5000UF		7500	
SDA7500UF		10000	
SDA10000UF		12500	
SDA12500UF		15000	
SDA15000UF		20000	
SDA20000UF		25000	
Average Rectified Forward Current (Resistive load, 60Hz, Sine Wave, $T_A = 25^\circ\text{C}$ , No Heatsink)	$I_o$	0.5	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$ )	$I_{FSM}$	25	Amps
Operating and Storage Temperature	$T_{OP} \ \& \ T_{stg}$	-55 TO +150	$^\circ\text{C}$

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

**DATA SHEET # : RA0006A**

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ELECTRICAL CHARACTERISTIC <sup>1/</sup>	SYMBOL	MAXIMUM	UNITS
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 0.5A$ , 300 - 500 $\mu$ sec pulse)	SDA2500UF SDA5000UF SDA7500UF SDA10000UF SDA12500UF SDA15000UF SDA20000UF SDA25000UF	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)	$I_{R1}$	2	$\mu$ A
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 100^\circ C$ , 300 $\mu$ s pulse minimum)	$I_{R2}$	0.40	mA
<b>Reverse Recovery Time</b> ( $I_F = 0.5A$ , $I_R = 1.0A$ , $I_{RR} = 0.25A$ )	$t_{RR}$	80	nsec

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

CASE OUTLINE: HV STICK	PART NUMBER	A	B	C
		$\pm .030$	$\pm .020$	$\pm .010$
	SDA2500UF	1.125	0.500	0.250
	SDA5000UF	1.125	0.500	0.250
	SDA7500UF	1.625	0.500	0.250
	SDA10000UF	2.000	0.500	0.250
	SDA12500UF	2.375	0.500	0.250
	SDA15000UF	2.750	0.500	0.250
	SDA20000UF	3.500	0.500	0.250
	SDA25000UF	4.250	0.500	0.250