



PRELIMINARY

**SOLID STATE DEVICES, INC.**

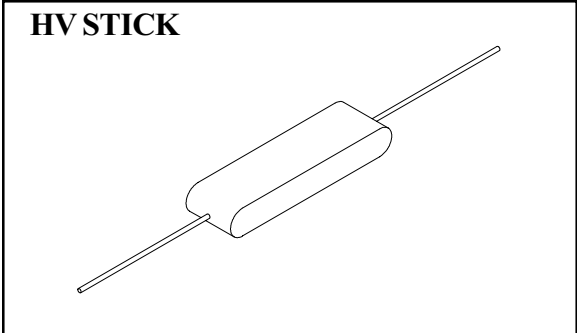
14005 Stage Road \* Santa Fe Springs, Ca 90670  
Phone: (562) 404-4474 \* Fax: (562) 404-1773

**Designer's Data Sheet**

- FEATURES:**
- Average Output Current 0.5Amps
  - 2500 to 25000 V Blocking Voltage
  - Ultrafast Recovery: 180 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

**SDA2500F  
thru  
SDA25000F**

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



Maximum Ratings	SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	SDA2500F SDA5000F SDA7500F SDA10000F SDA12500F SDA15000F SDA20000F SDA25000F	2500 5000 7500 10000 12500 15000 20000 25000	Volts
Average Rectified Forward Current (Resistive load, 60Hz, Sine Wave, T <sub>A</sub> = 25°C, No Heatsink)	I <sub>o</sub>	0.5	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, T <sub>A</sub> = 25°C, per leg)	I <sub>FSM</sub>	25	Amps
Operating and Storage Temperature	T <sub>OP</sub> & T <sub>stg</sub>	-55 TO +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 # : RA0007A**

**SDA2500F  
thru  
SDA25000F**

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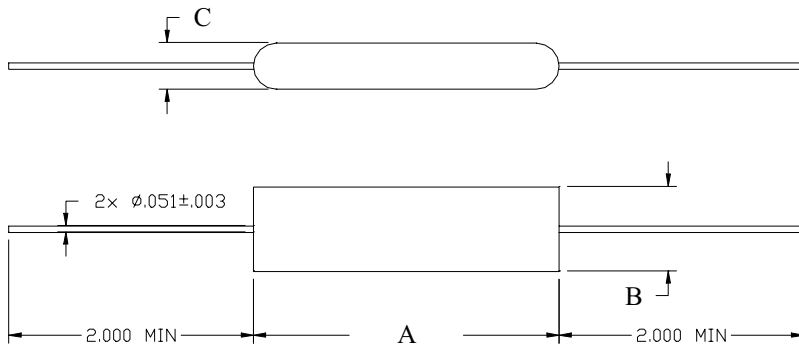
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ELECTRICAL CHARACTERISTIC <sup>1/</sup>	SYMBOL	MAXIMUM	UNITS
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 0.5A$ , 300 - 500 $\mu$ sec pulse)	<b>SDA2500F</b> <b>SDA5000F</b> <b>SDA7500F</b> <b>SDA10000F</b> <b>SDA12500F</b> <b>SDA15000F</b> <b>SDA20000F</b> <b>SDA25000F</b>	<b>4.5</b> <b>7.5</b> <b>12.0</b> <b>15.0</b> <b>19.5</b> <b>22.5</b> <b>30.0</b> <b>37.5</b>	<b>Vdc</b>
<b>Reverse Leakage Current</b> (Rated $V_R$ , 300 $\mu$ s pulse minimum)	<b><math>I_{R1}</math></b>	<b>2</b>	<b><math>\mu</math>A</b>
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 100^\circ C$ , 300 $\mu$ s pulse minimum)	<b><math>I_{R2}</math></b>	<b>0.25</b>	<b>mA</b>
<b>Reverse Recovery Time</b> ( $I_F = 0.5A$ , $I_R = 1.0A$ , $I_{RR} = 0.25A$ )	<b><math>t_{RR}</math></b>	<b>180</b>	<b>nsec</b>

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

**CASE OUTLINE: HV STICK**



PART NUMBER	<b>A</b> $\pm .030$	<b>B</b> $\pm .020$	<b>C</b> $\pm .010$
SDA2500F	1.125	0.500	0.250
SDA5000F	1.125	0.500	0.250
SDA7500F	1.625	0.500	0.250
SDA10000F	2.000	0.500	0.250
SDA12500F	2.375	0.500	0.250
SDA15000F	2.750	0.500	0.250
SDA20000F	3.500	0.500	0.250
SDA25000F	4.250	0.500	0.250