



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

**SDA2500F thru
SDA25000F**

**0.5 AMP
2.5 kV thru 25 kV
FAST RECOVERY
RECTIFIER ASSEMBLY
180 nsec**

Designer's Data Sheet

Part Number/Ordering Information^{1/}

SDA **F** **L**

Screening^{2/}
 — = Not Screened
 TX = TX Level
 TXV = TXV
 S = S Level

Reverse Recovery Time
 F = Fast Recovery

Voltage/Family
 2500 = 2500V
 5000 = 5000V
 7500 = 7500V
 10000 = 10000V
 12500 = 12500V
 15000 = 15000V
 20000 = 20000V
 25000 = 25000V

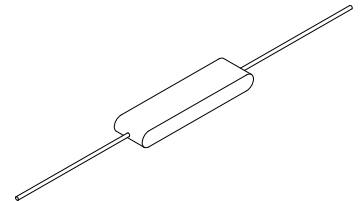
- FEATURES:**
- Average Output Current: 0.5 Amps
 - 2,500 to 25,000 V Blocking Voltage
 - Fast Recovery: 180 nsec Maximum
 - Low Reverse Leakage Current
 - Corona Free Construction
 - Glass Passivated Rectifiers
 - Hermetically Sealed Discretes
 - Superior Thermal Shock Resistance
 - Also Available in Ultra Fast and Hyper Fast Versions - Consult Factory
 - TX, TXV, and S-Level Screening Available - Consult Factory

MAXIMUM RATINGS^{3/}	SYMBOL	VALUE	UNITS	
Peak Repetitive Reverse and DC Blocking Voltage	V_{RRM} V_{RWM} V_R	SDA2500F SDA5000F SDA7500F SDA10000F SDA12500F SDA15000F SDA20000F SDA25000F	2500 5000 7500 10000 12500 15000 20000 25000	Volts
Average Rectified Forward Current (Resistive load, 60 Hz, Sine Wave, $T_A = 25^\circ\text{C}$, No Heatsink)		I_o	0.5	Amp
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$, per leg)		I_{FSM}	25	Amps
Operating and Storage Temperature		$T_{OP} \& T_{STG}$	-55 to +150	$^\circ\text{C}$

NOTES:

1. For ordering information, price, operating curves, and availability – contact factory.
2. Screening based on MIL-PRF-19500. Screening flows available on request.
3. Unless otherwise specified, all electrical characteristics @25°C

HV STICK





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ELECTRICAL CHARACTERISTICS ^{3/}	SYMBOL	VALUE	UNITS
Instantaneous Forward Voltage Drop ($I_F = 0.5\text{ A}$, 300 – 500 μsec pulse)	SDA2500F	4.5	V_{DC}
	SDA5000F	7.5	
	SDA7500F	12.0	
	SDA10000F	15.0	
	SDA12500F	19.5	
	SDA15000F	22.5	
	SDA20000F	30.0	
	SDA25000F	37.5	
Reverse Leakage Current (Rated V_R , 300 μsec pulse minimum)	I_{R1}	2	μA
Reverse Leakage Current (Rated V_R , $T_A = 100^\circ\text{C}$, 300 μsec pulse minimum)	I_{R2}	0.25	mA
Reverse Recovery Time ($I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{RR} = 0.25\text{ A}$)	t_{RR}	180	nsec

CASE OUTLINE: HV STICK 	Part Number	A ±.030	B ±.020	C ±.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

NOTES:

*For information on curves, contact the Factory Representative for Engineering Assistance.

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