



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

**SDA2500UF thru
SDA25000UF**

**0.5 AMP, 2.5kV thru 25kV
ULTRA FAST RECOVERY
RECTIFIER ASSEMBLY**

Designer's Data Sheet

Part Number/Ordering Information ^{1/}

SDA 25000 UF S

L Screening ^{2/}

- = Not Screened
- TX = TX Level
- TXV = TXV Level
- S = S Level

Reverse Recovery Time

UF = Ultra Fast

Voltage

- 2500 = 2,500 V 12500 = 12,500 V
- 5000 = 5,000 V 15000 = 15,000 V
- 7500 = 7,500 V 20000 = 20,000 V
- 10,000 = 10,000 V 25000 = 25,000 V

FEATURES:

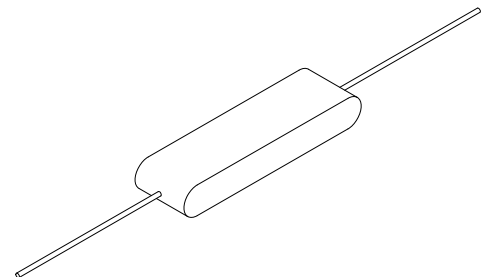
- Average output current: 0.5 A
- 2,500 to 25,000 V blocking voltage
- Ultra fast recovery: 80 nsec maximum
- Low reverse leakage current
- Corona free construction
- Glass passivated rectifiers
- Hermetically sealed discretes
- Superior thermal shock resistance
- TX, TXV, and S-level screening available^{2/}

MAXIMUM RATINGS^{3/}		SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage	SDA2500UF	V_{RM} V_{RWM} V_R	2,500	Volts
	SDA5000UF		5,000	
	SDA7500UF		7,500	
	SDA10000UF		10,000	
	SDA12500UF		12,500	
	SDA15000UF		15,000	
	SDA20000UF		20,000	
	SDA25000UF		25,000	
Average Rectified Forward Current Resistive load, 60Hz, sine wave, T _A = 25°C, no heatsink		I _O	0.5	Amps
Peak Surge Current 8.3 ms pulse, half sine wave, T _A = 25°C		I _{FSM}	25	Amps
Operating and Storage Temperature		T _{OP} & T _{STG}	-55 to +150	°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





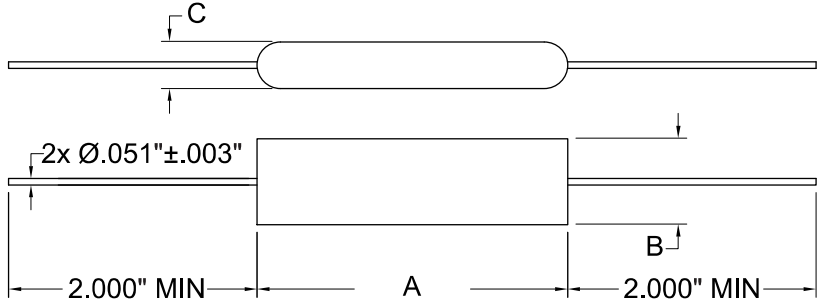
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SDA2500UF thru SDA25000UF

ELECTRICAL CHARACTERISTICS (per leg) ^{3/}

PARAMETER	SYMBOL	VALUE	UNIT
Instantaneous Forward Voltage Drop $I_F = 0.5A, 300 - 500\mu\text{sec pulse}$		5.5	Volts
	SDA2500UF	9.5	
	SDA5000UF	15.0	
	SDA7500UF	19.0	
	SDA10000UF	24.5	
	SDA12500UF	28.5	
	SDA15000UF	38.0	
	SDA20000UF	47.5	
Reverse Leakage Current Rated $V_R, 300\mu\text{s pulse minimum}$	I_{R1}	2	μA
Reverse Leakage Current Rated $V_R, T_A = 100^\circ C, 300\mu\text{s pulse minimum}$	I_{R2}	0.40	mA
Reverse Recovery Time $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$	t_{RR}	80	nsec

Package Outlines: HV Stick 	Part Number	A $\pm.030$	B $\pm.020$	C $\pm.010$
		SDA2500UF	1.125	0.500
	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