PRELIMINARY

SOLID STATE DEVICES, INC.
14005 Stage Road * Santa Fe Springs, Ca 90670
Phone: (562) 404-4474 * Fax: (562) 404-1773

SDA2500F thru SDA25000F

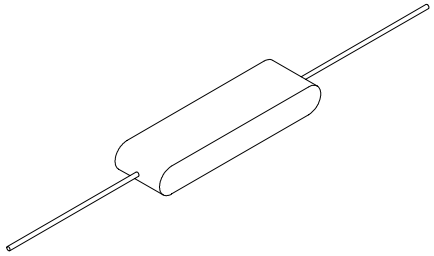
Designer's Data Sheet

0.5 AMPS 2.5kV thru 25kV FAST RECOVERY RECTIFIER ASSEMBLY

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**

HV STICK



Maximum Ratings		SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	**SDA2500F**	V_{RRM} V_{RWM} V_R	**2500**	**Volts**
	SDA5000F		**5000**	
	SDA7500F		**7500**	
	SDA10000F		**10000**	
	SDA12500F		**12500**	
	SDA15000F		**15000**	
	SDA20000F		**20000**	
	SDA25000F		**25000**	
Average Rectified Forward Current (Resistive load, 60Hz, Sine Wave, T_A = 25°C, No Heatsink)		**Io**	**0.5**	**Amps**
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, T_A = 25°C, per leg)		I_{FSM}	**25**	**Amps**
Operating and Storage Temperature		T_{OP} & Tstg	**-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

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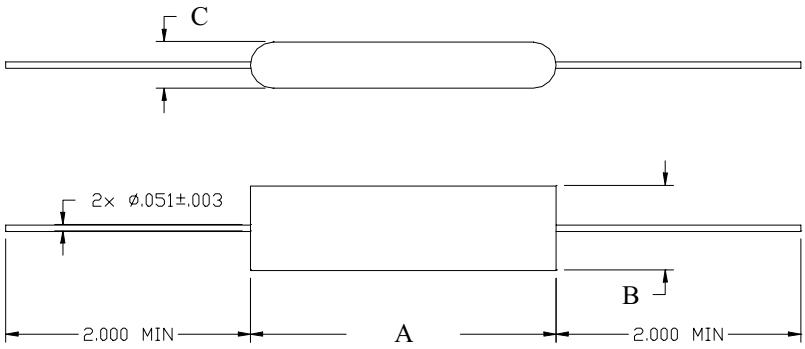
ELECTRICAL CHARACTERISTIC 1/		SYMBOL	MAXIMUM	UNITS
Instantaneous Forward Voltage Drop (I_F = 0.5A, 300 - 500μsec pulse)	**SDA2500F**	V_{F1}	**4.5**	**Vdc**
	SDA5000F		**7.5**	
	SDA7500F		**12.0**	
	SDA10000F		**15.0**	
	SDA12500F		**19.5**	
	SDA15000F		**22.5**	
	SDA20000F		**30.0**	
	SDA25000F		**37.5**	
Reverse Leakage Current (Rated V_R, 300μs pulse minimum)		I_{R1}	**2**	**μA**
Reverse Leakage Current (Rated V_R, T_A = 100°C, 300μs pulse minimum)		I_{R2}	**0.25**	**mA**
Reverse Recovery Time (I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A)		t_{RR}	**180**	**nsec**

1/ T_A = 25°C, Unless otherwise specified

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