



**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

**SDAD102 F Series**

**2,500 to 15,000 VOLTS  
 FAST RECOVERY  
 STACKABLE HIGH VOLTAGE  
 RECTIFIER**

**Designer's Data Sheet**

**Part Number/Ordering Information <sup>1/</sup>**  
 SDAD10 2

**+ Screening <sup>2/</sup>**  
 \_\_\_ = Not Screened  
 TX = TX Level  
 TXV = TXV  
 S = S Level

**+ Reverse Recovery Time**  
 F = Fast Recovery Time

**+ Voltage** 2.5 = 2.5kV, 5 = 5kV,  
 7.5 = 7.5kV, 10 = 10kV, and 15 = 15kV

**+ Power Rating** (See Below)

**+ Package Size** = 2 Inches Diameter

- FEATURES:**
- Stackable to 160kV
  - PIV 2.5kV to 15kV
  - High Current Ratings
  - Fast Reverse Recovery Time
  - Only Hermetically Sealed Rectifiers Used
  - Controlled Avalanche Rated
  - Modular Design for Easy Stacking
  - Storage and Operating Temps -65°C to +150°C
  - Available in Standard, Ultra Fast and Hyper Fast Versions
  - Replacement Upgrade- Unitrode types UDF-2.5 through UDC-15
  - TX, TXV, and S-Level Screening Available <sup>2/</sup>

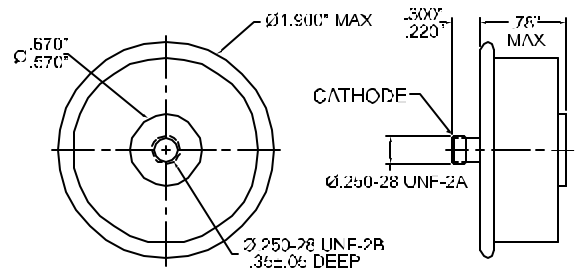
**ELECTRICAL CHARACTERISTICS <sup>3/</sup>**

Part Number	Peak Inverse Voltage	Reverse Recovery Time <sup>5/</sup>	Average DC Output Current <sup>4/</sup> Tc = Case Temperature			Surge Non-repetitive	Maximum Forward Voltage Drop		Maximum Leakage Current @ PIV	Replacement Part Number
	PIV (KV)	Max (ms)	If (avg)			Ifsm	Vf (V)	If (A)	Ir (uA)	
	25 °C	25 °C	75 °C	50 °C	60 °C	100 °C	25 °C		25 °C	
SDAD102 F 2.5 F	2.5	500	4.50	5.30	5.00	150	6.0	2.2	10	UDF-2.5
SDAD102 D 2.5 F	2.5	500	2.25	3.30	2.80	80	6.0	1.2	5	UDD-2.5
SDAD102 F 5.0 F	5.0	500	3.30	4.40	4.00	150	11	1.6	10	UDF-5
SDAD102 D 5.0 F	5.0	500	1.50	2.00	1.85	80	11	0.75	5	UDD-5
SDAD102 C 5.0 F	5.0	500	1.20	1.70	1.50	25	10	0.70	2	UDC-5
SDAD102 D 7.5 F	7.5	500	1.00	1.50	1.25	80	17	0.50	5	UDD-7.5
SDAD102 C 7.5 F	7.5	500	0.90	1.25	1.10	25	15	0.50	2	UDC-7.5
SDAD102 C 10 F	10	500	0.75	1.00	0.90	25	20	0.37	2	UDC-10
SDAD102 C 15 F	15	500	0.50	0.70	0.60	25	30	0.25	2	UDC-15
High Current Versions										
SDAD102 H 2.5 F	2.5	500	9.00	10.6	10.0	200	4.05	7.0	20	---
SDAD102 H 5.0 F	5.0	500	6.60	8.80	8.00	200	7.20	5.0	20	---
SDAD102 H 7.5 F	7.5	500	2.00	3.00	2.50	125	9.6	1.7	10	---
SDAD102 H 10 F	10	500	1.50	2.00	1.80	100	12.0	1.3	10	---
SDAD102 H 15 F	15	500	1.00	1.40	1.20	100	17.2	0.8	10	---

**SDAD102 Package:**

**NOTES:**

- 1/ For Ordering Information, Price, Curves, and Availability- Contact Factory.
- 2/ Screened to MIL-PRF-19500.
- 3/ Unless Otherwise Specified, All Electrical Characteristics @25°C.
- 4/ Tc = 50 °C typical operation in oil.  
 Tc = 75 °C is typical ambient Ta = 25 °C unheatsunk.  
 Tc = 60 °C typical operation with extender plates in air.
- 5/ Recovery Conditions: I<sub>F</sub> = 0.5 Amp, I<sub>R</sub> = 1.0 Amp rec. to .25 Amp.



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

**DATA SHEET #: RA0086A**

**DOC**