



Solid State Devices, Inc.

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SDAD102 F Series

2,500 to 15,000 VOLTS FASTRECOVERY STACKABLE HIGH VOLTAGE RECTIFIER

Designer's Data Sheet

Part Number/Ordering Information ^{1/}

SDAD10 2

+ Screening ^{2/}

— = 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 ^{2/}

ELECTRICAL CHARACTERISTICS ^{3/}

Part Number	Peak Inverse Voltage	Reverse Recovery Time ^{5/}	Average DC Output Current ^{4/} Tc = Case Temperature			Surge Non-repetitive	Maximum Forward Voltage Drop		Maximum Leakage Current @PIV	Replacement Part Number
	PIV (KV)	Max (ns)	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.

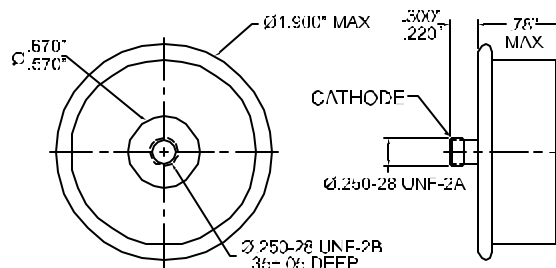
3/ Unless Otherwise Specified, All Electrical Characteristics @25°C.

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: If = 0.5 Amp, IR = 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