



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 Series

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

Designer's Data Sheet

Part Number/Ordering Information ^{1/}

SDAD10 2

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

Reverse Recovery Time
 ___ = Standard 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 600 kV+
 - PIV 2.5kV to 15kV
 - High Current Ratings
 - Standard 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 Fast, Ultra Fast and Hyper Fast Versions
 - Replacement Upgrade- Microsemi/Unitrode types UDE-2.5 through UDA-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	
SDAD102E2.5	2.5	5000	6.00	7.70	7.00	200	5.0	3.0	10	UDE-2.5
SDAD102B2.5	2.5	5000	3.00	4.25	3.75	100	4.0	1.5	5	UDB-2.5
SDAD102E5.0	5.0	5000	4.50	5.50	5.00	200	10	2.2	10	UDE-5
SDAD102B5.0	5.0	5000	2.00	2.75	2.50	100	8.0	1.0	5	UDB-5 / 1N5600
SDAD102A5.0	5.0	5000	1.65	2.20	2.00	30	8.0	0.82	2	UDA-5
SDAD102B7.5	7.5	5000	1.33	2.00	1.65	100	12	0.7	5	UDB-7.5
SDAD102A7.5	7.5	5000	1.25	1.75	1.55	30	12	0.6	2	UDA-7.5
SDAD102A10	10	5000	1.00	1.40	1.25	30	16	0.5	2	UDA-10 / 1N5597
SDAD102A15	15	5000	0.67	0.90	0.80	30	25	0.33	2	UDA-15
High Current Versions										
SDAD102H2.5	2.5	5000	12.0	15.4	14.0	250	3.40	10	20	
SDAD102H5.0	5.0	5000	9.00	11.0	10.0	250	6.80	3.5	20	
SDAD102H7.5	7.5	5000	2.66	4.00	3.30	125	8.85	2.0	10	
SDAD102H10	10	5000	2.00	2.80	2.50	100	12.1	1.8	10	
SDAD102H15	15	5000	1.33	1.80	1.60	100	17.6	1.1	10	

NOTES:

- 1/ For ordering information, price, 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.
- 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.

SDAD102 Package:

