



Solid State Devices, Inc.

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SDAD103 Series

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

Designer's Data Sheet

Part Number/Ordering Information ^{1/}
SDAD10 3

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 = 3 Inches Diameter

- FEATURES:**
- Stackable to 600 kV+
 - PIV 2.5kV to 15kV
 - High Current Ratings
 - Standard Reverse Recovery Time
 - Void-free, Hermetically Sealed Diode Cells
 - Controlled Avalanche
 - Modular Design for Easy Stacking
 - Storage and Operating Temps -65°C to +150°C
 - Available in Fast, Ultra Fast and Hyper Fast Versions
 - TX, TXV, and S-Level Screening Available ^{2/}
 - Direct Replacement Upgrade – Microsemi / Unitorde type UGE-2.5 through type UGB-10 and 1N5603

ELECTRICAL CHARACTERISTICS ^{3/}

Part Number	Peak Inverse Voltage	Reverse Recovery Time ^{5/}	Average DC Output Current Tc = Case Temperature ^{4/}			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	
SDAD103E2.5	2.5	5000	6.60	10.0	8.25	200	5.0	3.30	10	UGE-2.5
SDAD103E5.0	5.0	5000	5.00	7.50	6.25	200	10	2.5	15	UGE-5 1N5603
SDAD103 B 5.0	5.0	5000	4.40	6.60	5.50	100	9.0	2.2	5	UGB-5
SDAD103 E 7.5	7.5	5000	3.30	5.00	4.10	200	13	1.6	10	UGE-7.5
SDAD103 B 7.5	7.5	5000	3.00	4.80	3.75	100	13	1.5	5	UGB-7.5
SDAD103 B 10	10	5000	2.30	3.50	2.85	100	17	1.1	5	UGB-10
SDAD103 A 15	15	5000	1.54	2.07	1.84	30	25	0.72	2	---
High Current Versions										
SDAD103 H 2.5	2.5	5000	12.2	20.0	16.5	300	3.10	10	30	---
SDAD103 H 5.0	5.0	5000	10.0	15.0	12.5	300	6.20	8.0	30	---
SDAD103 H 7.5	7.5	5000	6.60	10.0	8.20	250	8.45	5.0	20	---
SDAD103 H 10	10	5000	4.60	7.0	5.70	150	12.1	3.5	10	---
SDAD103 H 15	15	5000	3.08	4.14	3.68	125	16.8	2.8	10	---

SDAD103 Package:

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.

