



# Solid State Devices, Inc.

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## SDAD103 UF Series

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

### Designer's Data Sheet

**Part Number/Ordering Information <sup>1/</sup>**  
**SDAD10 3**

**Screening <sup>2/</sup>**  
 — = Not Screened  
 TX = TX Level  
 TXV = TXV Level  
 S = S Level

**Reverse Recovery Time**  
 UF = Ultra 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** = 3 Inches Diameter

- FEATURES:**
- Stackable to 600 kV+
  - PIV 2.5kV to 15kV
  - High Current Ratings
  - Ultra 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 Fast and Hyper Fast Versions
  - 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
	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
SDAD103 H 2.5 UF	2.5	70	9.00	14.4	11.2	200	3.90	7.20	30
SDAD103 H 5.0 UF	5.0	70	6.75	10.8	8.46	200	7.60	5.40	30
SDAD103 H 7.5 UF	7.5	70	4.50	7.20	5.58	200	10.10	3.60	20
SDAD103 H 10 UF	10	70	3.15	4.50	4.00	125	13.85	2.25	10
SDAD103 H 15 UF	15	70	2.14	3.00	2.65	125	19.2	1.44	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.

