



Solid State Devices, Inc.

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SDAD103 F Series

2,500 to 15,000 VOLTS FAST 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
 S = S Level
 + Reverse Recovery Time ^{4/ 5/}
 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 = 3 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 Ultra Fast and Hyper Fast Versions
- Replacement Upgrade - Unitrode types UGF-2.5 through UGC-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	
SDAD103 F 2.5 F	2.5	500	5.00	8.00	6.25	150	6.0	2.5	10	UGF-2.5
SDAD103 F 5.0 F	5.0	500	3.75	6.00	4.70	150	11	1.8	10	UGF-5
SDAD103 D 5.0 F	5.0	500	3.30	4.80	4.10	80	11	1.6	5	UGD-5
SDAD103 F 7.5 F	7.5	500	2.50	4.00	3.10	150	17	1.2	10	UGF-7.5
SDAD103 D 7.5 F	7.5	500	2.25	3.50	2.80	80	17	1.1	5	UGD-7.5
SDAD103 D 10 F	10	500	1.75	2.50	2.20	80	22	0.85	5	UGD-10
SDAD103 C 15 F	15	500	1.18	1.67	1.47	30	27	0.65	5	UGC-15
High Current Versions										
SDAD103 H 2.5 F	2.5	500	10.0	16.0	12.5	200	3.30	8.0	30	---
SDAD103 H 5.0 F	5.0	500	7.50	12.0	9.40	200	6.80	6.2	30	---
SDAD103 H 7.5 F	7.5	500	5.00	8.00	6.20	200	8.65	4.0	20	---
SDAD103 H 10 F	10	500	3.50	5.00	4.40	125	12.0	2.5	10	---
SDAD103 H 15 F	15	500	2.36	3.33	2.94	125	17.2	1.6	10	---

SDAD103 Package:

NOTES:

^{1/} For Ordering Information, Price, Curves, and Availability- Contact Factory.

^{2/} Screened to MIL-PRF-19500.

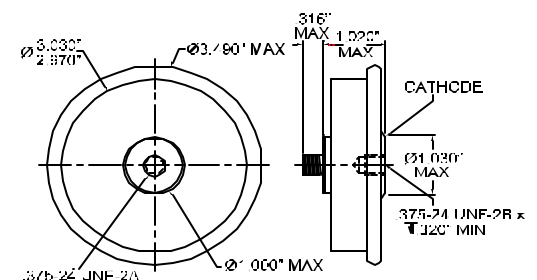
^{3/} Unless Otherwise Specified, All Electrical Characteristics @25°C.

^{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_F = 0.5 Amp, I_R = 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 #: RA0065B

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