

# RECTIFIER DIODES

- Optimized for line frequency rectifiers.
- Low on-state voltage, narrow  $V_F$ -bands for parallel operation.
- Self protected against transient over voltages.
- Guaranteed maximum avalanche power dissipation.
- Optimiert für Anwendungen mit Netzfrequenz.
- Niedrige Durchlassspannung, enge Durchlass-Spannungsbereiche für Parallelschaltung.
- Selbstschutz gegen transiente Überspannungen.
- Garantierte maximale Verlustleistung bei Avalanche.
- 商用周波数用途に最適
- 並列接続に適した均一で低い $V_F$ 特性
- 過渡過電圧に対する自己保護機能
- 保証された最大アバランシェ電力値

## Avalanche

Type and ordering number	$V_{RRM}$	$V_{FRM}$	$V_{FRM}$	$I_{FAVM}$	$I_{FSM}$		$V_{FO}$	$r_F$	$P_{RSM}$	$T_{VJM}$	$R_{thJC}$	$R_{thCH}$	$M_m/F_m$	Pkg
		1800 A 25°C		$T_c=85^\circ\text{C}$	8.3 ms	10 ms								
	V	V	A	kA	kA	V	mΩ	kW	°C	K/kW	Nm/kN			
5SDA 09P**X3	2300 2000 1700	1.20	1.35	850	14.5	13.5	0.83	0.300	50	160	60	30	3.5 Nm	P
5SDA 08P**X4	2600 2300 2000	1.35	1.50	770	12.5	11.5	0.87	0.390	50	160	60	30	3.5 Nm	P
5SDA 07P**X5	3200 2900	1.50	1.70	690	10.0	9.2	0.93	0.520	50	160	60	30	3.5 Nm	P
5SDA 06P**X6	3800 3200	1.70	2.00	600	8.2	7.6	1.01	0.720	50	160	60	30	3.5 Nm	P
5SDA 05P**X7	5000 4400 3800	2.00	2.40	520	7.6	7.0	1.10	1.010	50	160	60	30	3.5 Nm	P
5SDA 11D**02	1700 1400 1100	1.05	1.25	1310	16.0	15.0	0.74	0.250	50	160	40	8	11 kN	D
5SDA 10D**03	2300 2000 1700	1.20	1.35	1140	14.5	13.5	0.83	0.300	50	160	40	8	11 kN	D
5SDA 09D**04	2600 2300 2000	1.35	1.50	1020	12.5	11.5	0.87	0.390	50	160	40	8	11 kN	D
5SDA 08D**05	3200 2900	1.50	1.70	910	10.0	9.2	0.93	0.520	50	160	40	8	11 kN	D
5SDA 07D**06	3800 3200	1.70	2.00	790	8.2	7.6	1.01	0.720	50	160	40	8	11 kN	D
5SDA 06D**07	5000 4400 3800	2.00	2.40	690	7.6	7.0	1.10	1.010	50	160	40	8	11 kN	D
5SDA 27F**02	2000 1700 1400	1.05*	1.20*	2700	33.5	31.0	0.79	0.090	100	160	20	5	22 kN	F
5SDA 24F**03	2300 2000 1700	1.20*	1.35*	2350	30.5	29.0	0.84	0.130	75	160	20	5	22 kN	F
5SDA 21F**04	3200 2900 2600	1.35*	1.50*	2110	28.0	26.0	0.89	0.170	75	160	20	5	22 kN	F
5SDA 19F**05	3200 2900	1.50*	1.70*	1870	25.0	23.5	0.95	0.230	75	160	20	5	22 kN	F
5SDA 16F**06	3800 3200	1.70*	2.00*	1620	22.3	20.5	1.03	0.320	50	160	20	5	22 kN	F
5SDA 14F**07	5000 4400 3800	2.00*	2.40*	1410	19.0	17.5	1.13	0.440	50	160	20	5	22 kN	F

\* at 4000 A, 25°C

X = 1 Flat-base, Anode to base, without lead, P1

X = 2 Flat-base, Cathode to base, without lead, P1

X = 3 Flat-base, Anode to base, with lead, P2

X = 4 Flat-base, Cathode to base, with lead, P2

## Normal Recovery

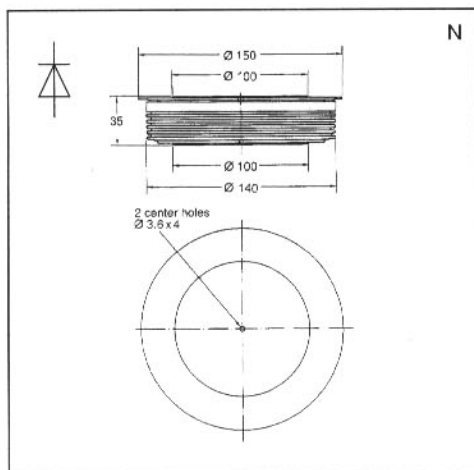
Type and ordering number	$V_{RSM}$	$V_{RRM}$	$I_{FAVM}$	$I_{FSM}$		$V_{FO}$	$r_F$	$T_{VJM}$	$R_{thJC}$	$R_{thCH}$	$F_m$	Pkg
			$T_c=85^\circ\text{C}$	8.3 ms	10 ms							
	**= $V_{RSM}/100V$	V	V	A	kA	kA	V	mΩ	°C	K/kW	kN	
5SDD 40B0200	200	200	6130	50.0	45.0	0.80	0.030	170	10	5	22	B
5SDD 71B0200	200	200	7110	60.0	55.0	0.74	0.026	170	10	5	22	B
5SDD 51L**00 1)	2800 2600 2200	2000 1850 1600	5150	70.0	65.0	0.77	0.082	175	8	3	70	L
5SDD 33L**00 1)	5000 4800 4400	4000 3800 3600	3300	54.0	50.0	1.00	0.130	150	8	3	70	L
5SDD 60N**00 2)	2800 2600 2200	2000 1850 1600	6200	95.0	87.0	0.73	0.070	160	6	2	90	N

Note 1: For the type 5SDD 51L\*\*00 and 5SDD 33L\*\*00,  $V_{RRM}$  at  $T_{VJM}$  and 50Hz is equal to  $0.7 \times V_{RSM}$ . Please contact us for further information

Note 2: Advanced information

Contact factory for information on our new 6000V diodes in D & F housings and our new 12000A/200V diode in the new C package.

Please refer to page 27 for part numbering structure and ordering code.



Dimensions in mm.

