



# Avalanche Rectifier Diodes

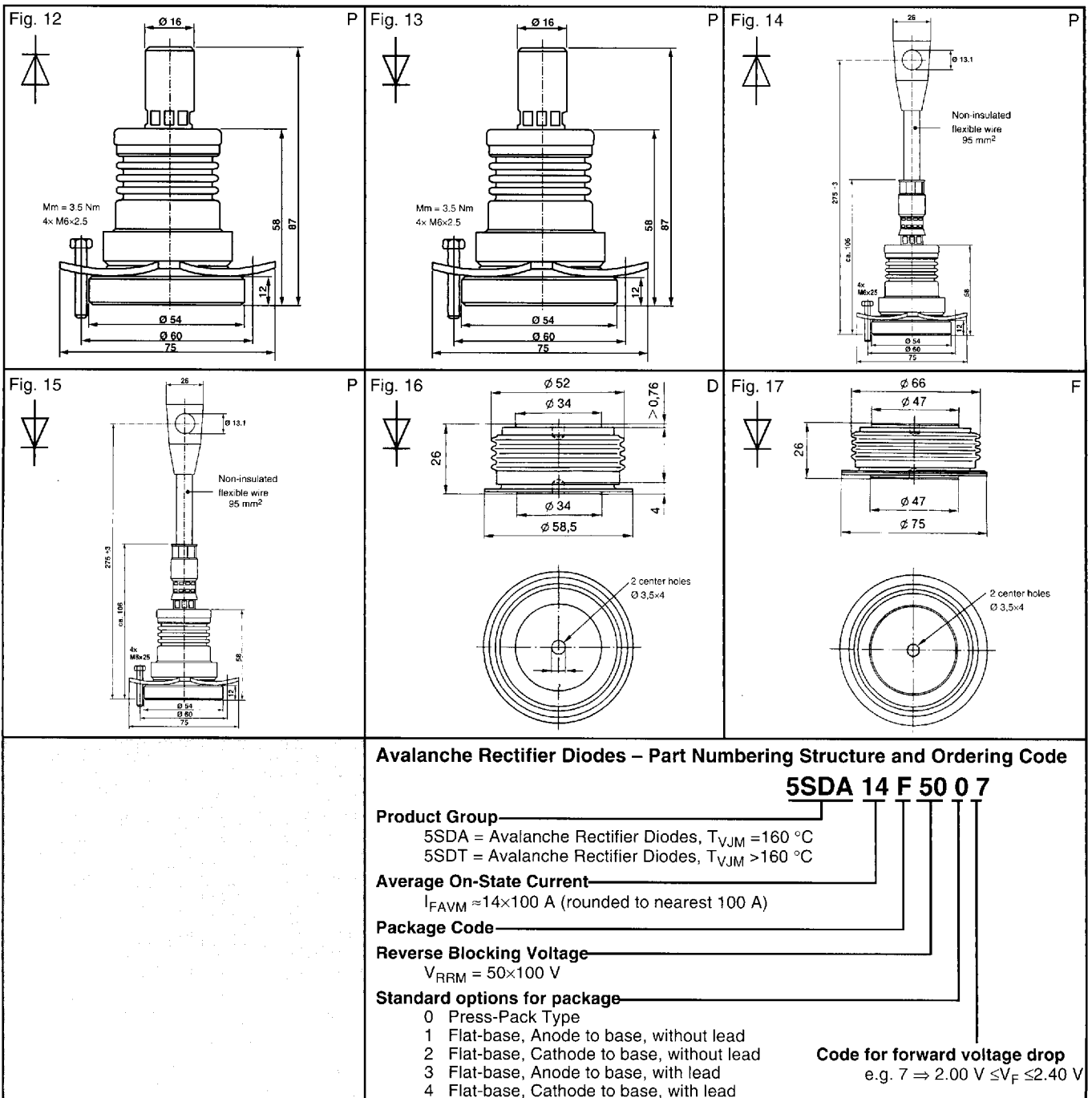
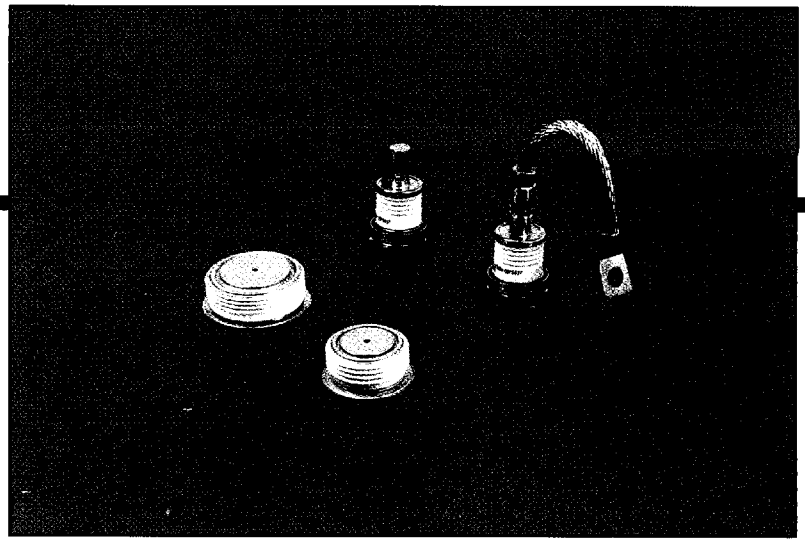
ABB Semiconductors AG

- 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.
- High temperature versions available up to  $T_{VJM} = 200\text{ }^\circ\text{C}$ .

- Optimiert für Anwendungen mit Netzfrequenz.
- Niedrige Durchlaßspannung, enge Durchlaß-Spannungsbereiche für Parallelschaltung.
- Selbstschutz gegen transienten Überspannungen.
- Garantierte maximale Verlustleistung bei Avalanche.
- Hochtemperatur-Ausführungen bis  $T_{VJM} = 200\text{ }^\circ\text{C}$  erhältlich.

- ・商用周波数帯用整流素子
- ・オン電圧が低く、 $V_F$ のパラツキが小さい：バラ使いに最適
- ・過渡過電圧にこわれにくい
- ・ジャンクション温度 $200\text{ }^\circ\text{C}$ までの特注品にも対応

Type and ordering number	$V_{RRM}$	$V_{Fmin}$ $V_{Fmax}$		$I_{FAVM}$	$I_{FSM}$		$V_{F0}$	$r_F$	$P_{RSM}$	$T_{VJM}$	$R_{thJC}$	$R_{thCH}$	$M_m/F_m$	Fig.			
		1800 A 25 °C			$T_C=85\text{ }^\circ\text{C}$	8.3 ms									10 ms	$T_{VJM}$	20 $\mu\text{s}$
		V	V		A	kA									kA		
** = $V_{RRM}/100\text{ V}$	V	V	V	A	kA	kA	V	m $\Omega$	kW	°C	K/kW	K/kW	Nm/kN				
5SDA 09P**13	2300 2000 1700	1.20	1.35	850	14.5	13.5	0.83	0.300	50	160	60	30	3.5 Nm	12			
5SDA 09P**23	2300 2000 1700	1.20	1.35	850	14.5	13.5	0.83	0.300	50	160	60	30	3.5 Nm	13			
5SDA 09P**33	2300 2000 1700	1.20	1.35	850	14.5	13.5	0.83	0.300	50	160	60	30	3.5 Nm	14			
5SDA 09P**43	2300 2000 1700	1.20	1.35	850	14.5	13.5	0.83	0.300	50	160	60	30	3.5 Nm	15			
5SDA 08P**14	2600 2300 2000	1.35	1.50	770	12.5	11.5	0.87	0.390	50	160	60	30	3.5 Nm	12			
5SDA 08P**24	2600 2300 2000	1.35	1.50	770	12.5	11.5	0.87	0.390	50	160	60	30	3.5 Nm	13			
5SDA 08P**34	2600 2300 2000	1.35	1.50	770	12.5	11.5	0.87	0.390	50	160	60	30	3.5 Nm	14			
5SDA 08P**44	2600 2300 2000	1.35	1.50	770	12.5	11.5	0.87	0.390	50	160	60	30	3.5 Nm	15			
5SDA 07P**15	3200 2900	1.50	1.70	690	10.0	9.2	0.93	0.520	50	160	60	30	3.5 Nm	12			
5SDA 07P**25	3200 2900	1.50	1.70	690	10.0	9.2	0.93	0.520	50	160	60	30	3.5 Nm	13			
5SDA 07P**35	3200 2900	1.50	1.70	690	10.0	9.2	0.93	0.520	50	160	60	30	3.5 Nm	14			
5SDA 07P**45	3200 2900	1.50	1.70	690	10.0	9.2	0.93	0.520	50	160	60	30	3.5 Nm	15			
5SDA 06P**16	3800 3200	1.70	2.00	600	8.2	7.6	1.01	0.720	50	160	60	30	3.5 Nm	12			
5SDA 06P**26	3800 3200	1.70	2.00	600	8.2	7.6	1.01	0.720	50	160	60	30	3.5 Nm	13			
5SDA 06P**36	3800 3200	1.70	2.00	600	8.2	7.6	1.01	0.720	50	160	60	30	3.5 Nm	14			
5SDA 06P**46	3800 3200	1.70	2.00	600	8.2	7.6	1.01	0.720	50	160	60	30	3.5 Nm	15			
5SDA 05P**17	5000 4400 3800	2.00	2.40	520	7.6	7.0	1.10	1.010	50	160	60	30	3.5 Nm	12			
5SDA 05P**27	5000 4400 3800	2.00	2.40	520	7.6	7.0	1.10	1.010	50	160	60	30	3.5 Nm	13			
5SDA 05P**37	5000 4400 3800	2.00	2.40	520	7.6	7.0	1.10	1.010	50	160	60	30	3.5 Nm	14			
5SDA 05P**47	5000 4400 3800	2.00	2.40	520	7.6	7.0	1.10	1.010	50	160	60	30	3.5 Nm	15			
5SDA 11D**02	1700 1400 1100	1.05	1.25	1110	16.0	15.0	0.74	0.250	50	160	50	8	11 kN	16			
5SDA 10D**03	2300 2000 1700	1.20	1.35	970	14.5	13.5	0.83	0.300	50	160	50	8	11 kN	16			
5SDA 09D**04	2600 2300 2000	1.35	1.50	880	12.5	11.5	0.87	0.390	50	160	50	8	11 kN	16			
5SDA 08D**05	3200 2900	1.50	1.70	780	10.0	9.2	0.93	0.520	50	160	50	8	11 kN	16			
5SDA 07D**06	3800 3200	1.70	2.00	680	8.2	7.6	1.01	0.720	50	160	50	8	11 kN	16			
5SDA 06D**07	5000 4400 3800	2.00	2.40	590	7.6	7.0	1.10	1.010	50	160	50	8	11 kN	16			
		$V_{Fmin}$	$V_{Fmax}$														
		4000 A 25 °C															
		V	V														
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	17			
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	17			
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	17			
5SDA 19F**05	3200 2900	1.50	1.70	1870	25.0	23.5	0.96	0.230	75	160	20	5	22 kN	17			
5SDA 16F**06	3800 3200	1.70	2.00	1620	22.3	20.5	1.03	0.320	50	160	20	5	22 kN	17			
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	17			



Dimensions in mm.