

Converter and Avalanche Diodes Selection Chart

SINGLE SIDE COOLED (LEAD TYPE, PRESS FIT, STUD, FLAT BASE)

1	2	3	4	5	6	7	8
Device Type	Peak Repetitive Reverse Voltage V_{RRM} V	Average Forward Current		Continuous Forward Current I_F A	RMS Current I_{RMS} A	Surge Rating & Fusing 10 ms	
		I_T (AV) A	at T_C °C			I_{FSM} KA	I^2t A ² S × 10 ³
D3, DA3	200-1800	3	30Ta	3.2	10	.1	.05
D6, DA6	200-1800	6	130	10	20	.16	.13
D12, DA12	200-1800	12	125	20	25	.23	.29
D16, DA16	200-1800	16	135	25	30	.28	.39
D20, DA20	200-1800	20	125	32	40	.32	.51
D25, DA25	200-1800	25	120	40	40	.375	.7
D30, DA30	200-1600	30	125	50	55	.4	.8
D40, DA40	200-1600	40	125	53	70	.5	1.25
D55, DA55	200-1600	55	125	75	100	.8	3.2
D70, DA70	200-1600	70	125	100	150	1.0	5
D100, DA100	200-1600	100	125	160	200	1.75	15
D130, DA130	200-1600	130	125	210	260	2.0	20
D150, DA150	200-1600	150	125	250	260	3.6	64
D165, DA165	200-1600	165	120	210	260	2.5	31
D170, DA170	200-1600	170	125	250	260	4.5	101
D200, DA200	400-1600	200	125	300	360	5.0	125
D240, DA240	400-1600	240	125	350	500	5.0	125
D320	400-1600	320	125	450	700	.8	300
D375	400-1600	375	115	480	700	.8	300
D410	400-1600	410	110	530	700	.9	400
D470	1000-4400	470	100	580	736	9.2	441
D570	1000-3600	570	100	750	895	12	720
D580	400-2900	580	100	725	910	.9	405
D680	400-2900	680	100	850	1165	.9	405
D860	400-2900	860	100	1150	1350	16	1280
D1020	400-1200	1020	100	1180	1600	25.0	3125

DOUBLE SIDE COOLED (BUTTON CAPSULE)

Device Type	V_{RRM}	I_T (AV)	at T_H	I_F	I_{RMS}	I_{FSM}	I^2t
DS402	400-2000	575	55	765	900	4.5	100
DS502	400-1400	720	55	1130	1100	6.5	211
DS804	700-2100	1030	55	1380	1620	9.0	405
DS912	2500-5600	600	55	870	940	5.6	157
DS904	1000-2900	1140	55	1600	1790	9.0	405
DS1109	3000-4400	970	55	1350	1520	9.2	422
DS1107	2400-3600	1120	55	1600	1760	12	720
DS1104	1000-2900	1530	55	2130	2400	16	1280
DS1101	400-1200	2100	55	2800	3300	25	3120
DS1112	4700-5600	870	55	1200	1260	8.5	360
DS2009	3000-4400	1480	55	2100	2325	16.5	1350
DS2007	2400-4000	1720	55	2400	2700	20	2000
DS2004	1000-2400	2500	55	3400	3925	25	3120
DS2002	400-1500	2800	55	3950	4400	33	5440
DS2106	2000-3600	4000	55	5700	6280	50	12500

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9		10		11		12		13		14		15		16		17		18		19	
Peak Forward Voltage Drop		Peak Reverse Current		Max. Virtual Junction Temp.		Factors for Power Loss		Thermal Resistance		Torque for Standard outline		Outline		Device Type							
V_{FM} V	at I_{FM} A	I_{RRM} mA	T_{vj} °C	V_o V	R_o mΩ	$R_{th(j-c)}$ °C/W	Nm	Standard	Alternative												
1.35	20	.5	180	.76	30	51a	—	V	C	D3, DA3											
1.4	20	.5	180	.95	50	3.8	2	C	P	D6, DA6											
1.55	40	1	175	.90	25	2.3	2	C	P	D12, DA12											
1.5	50	1	175	.80	12	2.0	2	C	P, A	D16, DA16											
1.55	60	1	180	.85	11	2.0	2	P	C, A	D20, DA20											
1.5	75	1	180	.8	10	1.65	2	P	C, A	D25, DA25											
1.6	100	3	175	.9	8	1.1	4	D	L, A	D30, DA30											
1.6	150	3	175	.85	6	.85	4	D	L, A	D40, DA40											
1.6	200	4	175	.85	5	.60	4	D	L	D55, DA55											
1.5	200	5	180	.85	3	.55	4	D	L	D70, DA70											
1.55	400	10	180	.85	1.8	.45	10	M	W, H, R	D100, DA100											
1.5	500	10	180	.85	1.3	.35	10	M	W, H, R	D130, DA130											
1.4	500	10	175	.85	1.1	.25	10	M	W, H, R	D150, DA150											
1.4	500	10	180	.8	1.0	.30	10	M	W, H, R	D165, DA165											
1.25	450	15	175	.81	.84	.22	10	M	W, H, R	D170, DA170											
1.55	750	15	175	.9	.8	.2	30	B	H	D200, DA200											
1.4	750	25	180	.85	.6	.2	30	B	H	D240, DA240											
1.35	1000	40	180	.8	.45	.16	60	Z	S	D320											
1.3	1000	40	180	.8	.4	.15	60	Z	S	D375											
1.35	1200	40	180	.8	.35	.15	60	Z	S	D410											
1.8	1800	50	150	1.05	.54	.065	15	U	X	D470											
1.6	1800	50	150	.75	.44	.065	15	U	X	D570											
1.5	1800	50	175	.94	.32	.095	15	U	X	D580											
1.5	1800	50	175	.94	.32	.075	15	U	X	D680											
1.3	1800	50	175	.67	.31	.065	15	X	U	D860											
1.07	1800	50	175	.77	.118	.065	15	X	U	D1020											

V_{FM} at I_{FM} I_{RRM} T_{vj} V_o R_o $R_{th(j-h)}$ Mounting force for standard outline kN

1.25	450	15	175	.81	.84	.1	4.5	T		DS402	
1.2	600	30	175	.84	.667	.09	4.5	T		DS502	
1.3	1200	50	200	.94	.32	.065	8	E	R	DS804	
2.1	1200	50	150	1.15	1.02	.052	9	G	R	DS912	
1.3	1200	50	175	.94	.32	.052	9	G	R	DS904	
1.8	1800	50	150	1.05	.54	.04	12.5	G	R	DS1109	
1.6	1800	50	150	.75	.44	.04	12.5	G	R	DS1107	
1.3	1800	50	175	.67	.31	.04	12.5	G	R	DS1104	
1.07	1800	50	175	.77	.118	.04	12.5	G	R	DS1101	
2.1	1800	75	150	—	—	.04	12.5	G	R	DS1112	
1.8	3400	75	150	.82	.395	.026	19.5	D	N	DS2009	
1.6	3400	75	150	.8	.29	.026	19.5	D	N	DS2007	
1.3	3400	50	175	.82	.16	.026	19.5	D	N	DS2004	
1.25	3400	50	175	.75	.11	.026	19.5	D	N, K	DS2002	
1.25	3400	250	150	.72	.122	.0115	43	U	K	DS2106	

DIODE CASE OUTLINES

