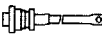
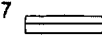
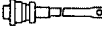


Fast rectifier diodes

Type	V_{RRM} $V_{RSM} = V_{RRM} + 100 \text{ V}^1)$ V	I_{FRMSM} A	I_{FSM} 10 ms, $t_{vj \text{ max}}$ kA	$\int i^2 dt$ 10 ms, $t_{vj \text{ max}}$ kA ² s	I_{FAVM}/t_C A/°C	$V_{(TO)}$ $t_{vj} =$ $t_{vj \text{ max}}$ V	r_T $t_{vj} =$ $t_{vj \text{ max}}$ mΩ	I_{RM} $V_R \leq 0.5 V_{RRM}$, $V_{RM} = 0.8 V_{RRM}$ $t_{vj} = t_{vj \text{ max}}$ $I_F = I_{FAVM}$ $di_F/dt = 50 \text{ A}/\mu\text{s}$ A	R_{thJC} 180 °el sin. °C/W	$t_{vj \text{ max}}$ °C	Outline
D 56 S	4000 4500	160	1.35	9.1	56/ 85 102/ 28	1.64	8	230 ²⁾	0.26	125	20 
D 56 U	4000 4500	140	1.2	7.2	56/ 73 89/ 22	1.64	8	230 ²⁾	0.34	125	
■ D 101 S	1000 1200 1400	265	1.9	18	170/ 45 100/100	1	2.2	78	0.32	150	21 
■ D 101 U	1000 1200 1400	265	1.9	18	170/ 10 80/100	1	2.2	78	0.43	150	
D 138 S	800 900 1000	230	1.6	12.8	146/ 82 138/ 85	1.32	2.2	47 ³⁾	0.14	125	27 
D 170 S	2500	400	3.7	68.45	255/ 44 170/ 85	1.1	1.4	340 ⁴⁾	0.19	140	19 
D 170 U	2500	330	3.15	49.6	210/ 38 170/ 64	1.1	1.5	340 ⁴⁾	0.26	140	
D 178 S	600 800 1000	280	1.9	18	180/100	1.05	1.8	56	0.15	150	27 
D 188 S	1000 1200 1400	290	1.9	18	185/100	1	1.8	80	0.15	150	
■ D 211 S	1000 1200 1400	400	4.3	92	255/ 85 210/100	1	1	100	0.155	150	21 
■ D 211 U	1000 1200 1400	400	3.9	76	255/ 48 150/100	1	1	100	0.245	150	
D 238 S	800 1000 1200	455	3.2	51.2	290/ 73 238/ 85	1.45	1.1	45	0.08	125	27 
D 291 S	3500 4000 4500	700	4.5	100	445/ 51 290/ 85	1.9	1.76	470 ⁵⁾	0.0432	125	37 
D 348 S	1600 1800 2000	645	4.6	106	410/ 86 348/100	1	0.9	160	0.08	150	27 
D 358 S	600 800 1000	730	5.2	135	465/ 77 358/100	1.05	0.8	70	0.079	150	
D 368 S	1000 1200 1400	730	5.2	135	465/ 78 368/100	1	0.8	102	0.08	150	
▲ D 371 S	4500	800	6	180	510/ 51 330/ 85	2	1.49	—	—	125	37
D 438 S D 440 S	1600 1800 2000	740	5.3	140.45	470/ 95 440/100	1.14	0.725	770 ⁶⁾	0.059	150	27 35
D 509 S	1800 2000 2200 2400 2600	1050	7.5	281	670/ 74 509/100	1	0.8	205	0.049	150	31

1) $V_{RRM} > 1000 \text{ V}$: $V_{RSM} = V_{RRM} + 100 \text{ V}$

2) $i_{FM} = 150 \text{ A}$, $-di_F/dt = 200 \text{ A}/\mu\text{s}$

3) $i_{FM} = 225 \text{ A}$, $-di_F/dt = 100 \text{ A}/\mu\text{s}$

4) $i_{FM} = 500 \text{ A}$, $-di_F/dt = 200 \text{ A}/\mu\text{s}$

5) $i_{FM} = 500 \text{ A}$, $-di_F/dt = 250 \text{ A}/\mu\text{s}$

6) $i_{FM} = 760 \text{ A}$, $-di_F/dt = 500 \text{ A}/\mu\text{s}$

▲ New type

■ Not for new design

Fast rectifier diodes

Type	V_{RRM} $V_{RSM} = V_{RRM} + 100 \text{ V}^1)$ V			I_{FRMSM} A	I_{FSM} 10 ms, $t_{vj \text{ max}}$ kA	$\int i^2 dt$ 10 ms, $t_{vj \text{ max}}$ kA ² s	I_{FAVM}/t_C A/ °C	$V_{(TO)}$ $t_{vj} =$ $t_{vj \text{ max}}$ V	r_T $t_{vj} =$ $t_{vj \text{ max}}$ mΩ	I_{RM} $t_{vj} = t_{vj \text{ max}}$ $I_F = I_{FAVM}$ $di_F/dt = 50 \text{ A}/\mu\text{s}$ A	R_{thJC} 180 °el sin. °C/W	$t_{vj \text{ max}}$ °C	Outline	
D648S	600	800	1000	1400	10.1	510	900/ 70 648/100	1.05	0.43	82	0.044	150	28	
D649S	600	800	1000	1400	10.1	510	900/ 63 610/100	1.05	0.43	82	0.048	150	31	
D658S	1000	1200	1400	1400	10.1	510	900/ 71 658/100	1	0.45	122	0.044	150	28	
D659S	1000	1200	1400	1400	10.1	510	900/ 64 620/100	1	0.45	122	0.048	150	31	
D675S	2000	2500		1200	8.5	361	765/ 75 675/ 85	1.25	0.5	860 ⁴⁾	0.039	140	35	
D689S	1800	2000	2200	1600	11.5	661	1020/ 60 690/100	1	0.5	230	0.039	150	31	
D721S	3500	4000	4500	1700	15	$1.13 \cdot 10^3$	1080/ 52 720/ 85	1.7	0.69	600 ³⁾	0.0192	125	38	
D1169S D1170S	2000	2500		3360	24	$2.88 \cdot 10^3$	2140/ 31 1170/ 85	1.16	0.21	580 ⁵⁾	0.0194	125	32 34	 
D1201S	4500	5000	5500	2500	19	$1.8 \cdot 10^3$	1590/ 57 1200/ 85	1.16	0.4	160 ³⁾	0.0192	140	37	
D1408S	2000	2500		3360	24	$2.88 \cdot 10^3$	2140/ 52 1410/ 85	1.16	0.21	580 ⁵⁾	0.015	125	30	
D1461S	3500	4000	4500	2700	24.5	$3 \cdot 10^3$	1720/ 70 1460/ 85	1.43	0.38	840 ⁵⁾	0.0134	140	39	

1) $V_{RRM} > 1000 \text{ V}$: $V_{RSM} = V_{RRM} + 100 \text{ V}$

3) $I_{FM} = 1000 \text{ A}$, $di_F/dt = 20 \text{ A}/\mu\text{s}$

5) $I_{FM} = 1000 \text{ A}$, $di_F/dt = 250 \text{ A}/\mu\text{s}$

2) $I_{FM} = 760 \text{ A}$, $-di_F/dt = 500 \text{ A}/\mu\text{s}$

4) $I_{FM} = 1600 \text{ A}$, $-di_F/dt = 600 \text{ A}/\mu\text{s}$