IGBT modules

Type	V_{CES}	I_C	I_{CRM} t_p = 1 ms	v_{CEsat} t_{vj} = 25 °C, typ.	t_{on} t_{vj} = 25 °C, typ.	t_s t_{vj} = 25 °C, typ.	t_f t_{vj} 25 °C, typ.	R_{thJC} DC per arm	$t_{vj\ max}$	Outline
	V	A	A	V	µs	µs	µs	°C/W	°C	
Dual modules										
FF 15 R 12 KF	1200	15	30	3	0.4	0.5	0.2	1	150	61
FF 25 R 06 KF2	600	25	50	2.7	0.4	0.4	0.15	1	150	
FF 25 R 12 KF	1200	25	50	3	0.4	0.5	0.2	0.5	150	
FF 25 R 12 KF2	1200	25	50	3	0.4	0.5	0.2	0.5	150	
▲ FF 30 R 17 KF	1700	30	60	3.2	0.5	0.4	0.6	0.25	150	
FF 50 R 06 KF2	600	50	100	2.7	0.4	0.4	0.15	0.5	150	
▲ FF 50 R 06 KF3	600	50	100	2.1	0.4	0.35	0.15	0.45	150	
FF 50 R 12 KF	1200	50	100	3	0.4	0.5	0.2	0.31	150	
FF 50 R 12 KF2	1200	50	100	3	0.4	0.5	0.2	0.31	150	
FF 75 R 06 KF2	600	75	150	2.7	0.4	0.4	0.15	0.35	150	61
▲ FF 75 R 06 KF3	600	75	150	2.1	0.4	0.35	0.15	0.32	150	61
FF 75 R 12 KF	1200	75	150	3	0.4	0.5	0.2	0.2	150	62
FF 75 R 12 KF2	1200	75	150	3	0.4	0.5	0.2	0.22	150	61
▲ FF 90 R 17 KF	1700	90	180	3.2	0.5	0.4	0.6	0.11	150	63
FF 100 R 06 KF2	600	100	200	2.7	0.4	0.4	0.15	0.31	150	61
▲ FF 100 R 06 KF3	600	200	200	2.1	0.4	0.35	0.15	0.28	150	61
FF 100 R 12 KF	1200	100	200	3	0.4	0.6	0.2	0.15	150	63
FF 100 R 12 KF2	1200	100	200	3	0.4	0.6	0.2	0.19	150	63
FF 150 R 06 KF2	600	150	300	2.7	0.4	0.4	0.15	0.18	150	73
▲ FF 150 R 06 KF3	700	150	300	2.1	0.4	0.35	0.15	0.16	150	73
FF 150 R 12 KF	1200	150	300	3	0.4	0.6	0.2	0.11	150	63
FF 150 R 12 KF2	1200	150	300	3	0.4	0.6	0.2	0.11	150	63
▲ FF 180 R 17 KF	1700	180	360	3.2	0.5	0.4	0.6	0.069	150	76
FF 200 R 06 KF2	600	200	400	2.7	0.4	0.4	0.15	0.16	150	73
▲ FF 200 R 06 KF3	600	200	400	2.1	0.4	0.35	0.15	0.14	150	73
FF 200 R 12 KF	1200	200	400	3	0.4	0.6	0.2	0.088	150	63
FF 200 R 12 KF 2	1200	200	400	3	0.4	0.6	0.2	0.096	150	63
FF 300 R 06 KF2	600	300	600	2.7	0.4	0.4	0.15	0.1	150	63
▲ FF 300 R 06 KF3	600	300	600	2.1	0.4	0.35	0.15	0.09	150	63
FF 300 R 12 KF2	1200	300	600	3	0.4	0.6	0.2	0.069	150	76
FF 400 R 06 KF2	600	400	800	2.7	0.4	0.4	0.15	0.069	150	76
▲ FF 400 R 06 KF3	600	400	800	2.1	0.4	0.35	0.15	0.069	150	76
▲ FF 400 R 12 KF1	1200	400	800	3	0.7	0.9	0.25	0.04	150	77
▲ FF 400 R 16 KF1	1600	400	800	3.5	1.1	1.1	0.25	0.04	150	77
▲ FF 600 R 12 KF1	1200	600	1200	3	0.7	0.9	0.25	0.032	150	77
▲ FF 600 R 16 KF1	1600	600	1200	3.5	1.1	1.1	0.25	0.032	150	

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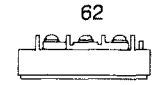

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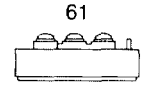

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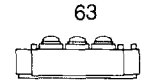

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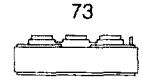

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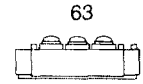

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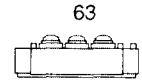

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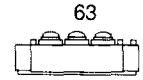

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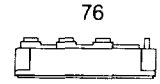

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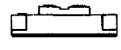
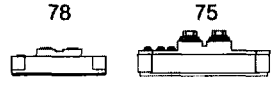
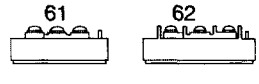
Most types of the power module have been **UL**-recognized.
▲ New type

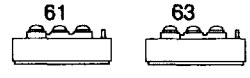
IGBT modules

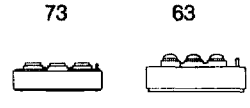
Type	V_{CES}	I_C	I_{CRM} t_p = 1 ms	v_{CEsat} t_{vj} = 25 °C, typ.	t_{on} t_{vj} = 25 °C, typ.	t_s t_{vj} = 25 °C, typ.	t_f t_{vj} = 25 °C, typ.	R_{thJC} DC per arm	$t_{vj\,max}$	Outline
	V	A	A	V	µs	µs	µs	°C/W	°C	
Single modules										
FZ 200 R 12 KF	1200	200	400	3	0.4	0.6	0.2	0.088	150	65
FZ 200 R 12 KF2	1200	200	400	3	0.4	0.6	0.2	0.089	150	
▲ FZ 240 R 17 KF	1700	240	480	3.2	0.5	0.4	0.6	0.052	150	
FZ 300 R 12 KF	1200	300	600	3	0.4	0.6	0.2	0.062	150	
FZ 300 R 12 KF2	1200	300	600	3	0.4	0.6	0.2	0.063	150	
▲ FZ 360 R 17 KF	1700	360	720	3.2	0.5	0.4	0.6	0.035	150	78
FZ 400 R 06 KF2	600	400	800	2.7	0.4	0.4	0.15	0.089	150	65
▲ FZ 400 R 06 KF3	600	400	800	2	0.4	0.35	0.15	0.074	150	
FZ 400 R 12 KF	1200	400	800	3	0.4	0.6	0.2	0.052	150	
FZ 400 R 12 KF2	1200	400	800	3	0.4	0.6	0.2	0.052	150	
FZ 500 R 12 KF	1200	500	1000	3	0.4	0.6	0.2	0.042	150	
▲ FZ 600 R 06 KF3	600	600	1200	2.1	—	0.35	0.15	0.057	150	78
FZ 600 R 12 KF2	1200	600	1200	3	0.4	0.6	0.2	0.035	150	
▲ FZ 800 R 06 KF3	600	800	1600	2.1	—	0.35	0.15	0.045	150	78
FZ 800 R 12 KF1	1200	800	1600	3	0.7	0.9	0.25	0.020	150	75
▲ FZ 800 R 16 KF1	1600	800	1600	3.5	1.1	1.1	0.25	0.020	150	75
FZ 1200 R 12 KF1	1200	1200	2400	3	0.7	0.9	0.25	0.016	150	75
▲ FZ 1200 R 16 KF1	1600	1200	2400	3.5	1.1	1.1	0.25	0.016	150	
Dual and single modules with low v_{CEsat}										
FF 25 R 12 KL	1200	25	50	2.2	0.4	0.5	0.3	0.5	150	61
FF 50 R 06 KL2	600	50	100	2	0.4	0.5	0.3	0.5	150	
FF 50 R 12 KL	1200	50	100	2.2	0.4	0.5	0.3	0.31	150	
FF 75 R 06 KL2	600	75	150	2	0.4	0.5	0.3	0.35	150	61
FF 75 R 12 KL	1200	75	150	2.2	0.4	0.5	0.3	0.2	150	62
FF 100 R 06 KL	600	100	200	2	0.4	0.5	0.3	0.31	150	61
FF 100 R 12 KL	1200	100	200	2.2	0.4	0.6	0.3	0.15	150	63
FF 150 R 06 KL2	600	150	300	2	0.4	0.5	0.3	0.18	150	73
FF 150 R 12 KL	1200	150	300	2.2	0.4	0.7	0.3	0.11	150	63
FF 200 R 06 KL2	600	200	400	2	0.4	0.5	0.3	0.16	150	73
FF 200 R 12 KL	1200	200	400	2.2	0.4	0.7	0.3	0.088	150	63
FF 300 R 06 KL2	600	300	600	2	0.4	0.5	0.3	0.1	150	63







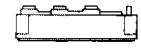


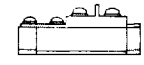


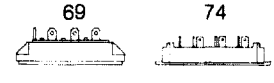
Most types of the power module have been **UL**-recognized.
▲ New type

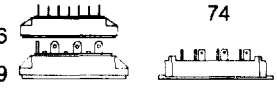
IGBT modules

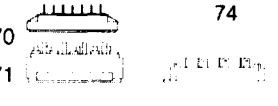
Type	V_{CES}	I_C	I_{CRM}	v_{CEsat}	t_{on}	t_s	t_f	R_{thJC} DC	$t_{vj\ max}$	Outline
			t_p = 1 ms	t_{vj} = 25 °C, typ.	t_{vj} = 25 °C, typ.	t_{vj} = 25 °C, typ.	t_{vj} 25 °C, typ.	per arm		
	V	A	A	V	µs	µs	µs	°C/W	°C	
Dual and single modules with low v_{CEsat}										
FF 400 R 06 KL2	600	400	800	2	0.4	0.5	0.3	0.069	150	76
FZ 300 R 06 KL	600	300	600	2.2	0.4	0.5	0.3	0.1	150	65
FZ 300 R 12 KL	1200	300	600	2.2	0.4	0.8	0.3	0.062	150	
FZ 400 R 06 KL2	600	400	800	2	0.4	0.5	0.3	0.089	150	
FZ 400 R 12 KL	1200	400	800	2.2	0.4	0.8	0.3	0.052	150	
FZ 500 R 12 KL	1200	500	1000	2.2	0.4	0.8	0.3	0.042	150	
Chopper modules										
DF 100 R 12 KF-A	1200	100	200	3	0.4	0.6	0.2	0.15	150	68
DF 150 R 12 KF-A	1200	150	300	3	0.4	0.6	0.2	0.11	150	
FD 150 R 12 KF-K	1200	150	300	3	0.4	0.6	0.2	0.11	150	
FD 200 R 12 KF-K	1200	200	400	3	0.4	0.6	0.2	0.088	150	
DF 200 R 12 KL-A	1200	200	400	2.2	0.4	0.7	0.3	0.088	150	
FD 200 R 12 KL-K	1200	200	400	2.2	0.4	0.7	0.3	0.088	150	
Six pack modules										
FS 8 R 12 KF	1200	8	16	3	0.4	0.4	0.2	1.56	150	69
FS 8 R 12 KF2	1200	8	16	3	0.4	0.4	0.2	1.56	150	74
FS 15 R 06 KF2	600	15	30	2.7	0.4	0.4	0.15	1.56	150	66
FS 15 R 12 KF	1200	15	30	3	0.4	0.5	0.2	1	150	69
FS 15 R 12 KF2	1200	15	30	3	0.4	0.5	0.2	1	150	74
FS 25 R 06 KF2	600	25	50	2.7	0.4	0.4	0.15	1.25	150	70 (1)
FS 25 R 12 KF	1200	25	50	3	0.4	0.5	0.2	0.625	150	71
FS 25 R 12 KF2	1200	25	50	3	0.4	0.5	0.2	0.83	150	74
FS 50 R 06 KF2	600	50	100	2.7	0.4	0.4	0.15	0.5	150	72
▲ FS 50 R 06 KF3	600	50	100	2.1	0.4	0.35	0.15	0.45	150	72
FS 50 R 12 KF	1200	50	100	3	0.4	0.5	0.2	0.41	150	71
FS 50 R 12 KF2	1200	50	100	3	0.4	0.5	0.2	0.5	150	71

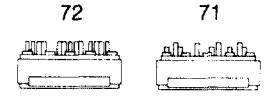








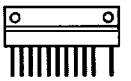




Most types of the power module have been **UL**-recognized.
▲ New type

IGBT modules

Type	V_{CES}	I_C	I_{CRM} t_p = 1 ms	V_{CEsat} t_{vj} = 25 °C, typ.	t_{on} t_{vj} = 25 °C, typ.	t_s t_{vj} = 25 °C, typ.	t_f t_{vj} 25 °C, typ.	R_{thJC} DC per arm	$t_{vj\ max}$	Outline
	V	A	A	V	µs	µs	µs	°C/W	°C	
Six pack modules										
FS 75 R 06 KF2	600	75	150	2.7	0.4	0.4	0.15	0.35	150	72
▲ FS 75 R 06 KF3	600	75	150	2.1	0.4	0.35	0.15	0.32	150	
FS 100 R 06 KF2	600	100	200	2.7	0.4	0.4	0.15	0.31	150	
▲ FS 100 R 06 KF3	600	100	200	2.1	0.4	0.35	0.15	0.28	150	
Six pack modules (Single in line)										
FS 15 R 06 KFS	600	15	30	3	0.4	0.4	0.15	2.27	150	79
FS 20 R 06 KFS	600	20	40	3	0.4	0.4	0.15	2.08	150	
FS 15 R 06 KLS	600	15	30	2.2	0.4	0.4	0.3	2.27	150	
FS 20 R 06 KLS	600	20	40	2.2	0.4	0.4	0.3	2.08	150	
Single pack modules ISOTOP										
FZ 25 A 06 KL	600	25	50	2.3	0.4	0.4	0.3	1	150	82
FZ 25 A 12 KL	1200	25	50	2.2	0.4	0.5	0.3	0.83	150	81
FZ 25 A 12 KF	1200	25	50	3	0.4	0.5	0.2	0.83	150	
FZ 50 A 06 KL	600	50	100	2.3	0.4	0.4	0.3	0.83	150	82
FZ 50 A 12 KL	1200	50	100	2.2	0.4	0.5	0.3	0.41	150	81
FZ 50 A 12 KF	1200	50	100	3	0.4	0.5	0.2	0.41	150	
FZ 75 A 06 KL	600	75	150	2.3	0.4	0.4	0.3	0.625	150	82
FZ 75 A 12 KL	1200	75	150	2.2	0.4	0.5	0.3	0.41	150	81
FZ 100 A 06 KL	600	100	200	2.3	0.4	0.4	0.3	0.41	150	82



Most types of the power module have been **UL**-recognized.
▲ New type