



パワー-MOSFET/Power MOSFETs

Super FAP-E³シリーズ Super FAP-E³ series

低オン抵抗、低ノイズ Low-on resistance and low switching noise

型式 Device type	V _{DSS} Volts	I _D Amps.	I _D (pulse) Amps.	R _{DS} (on) Max. *1 Ohms (Ω)	P _D *2 Watts	V _{GS} Volts	V _{GS} (th) Volts	Qg Typ. nC	パッケージ Package	質量 Net mass Grams
▲ FMP05N50E	500	5	20	1.5	60	30	3±0.5	TBD	TO-220AB	2.0
▲ FMA05N50E	500	5	20	1.5	21	30	3±0.5	TBD	TO-220F	2.0
▲ FMI05N50E	500	5	20	1.5	60	30	3±0.5	TBD	T-Pack(L)	1.6
▲ FMC05N50E	500	5	20	1.5	60	30	3±0.5	TBD	T-Pack(S)	1.6
▲ FMP07N50E	500	6.5	26	0.85	90	30	3±0.5	TBD	TO-220AB	2.0
▲ FMA07N50E	500	6.5	26	0.85	32	30	3±0.5	TBD	TO-220F	2.0
▲ FMI07N50E	500	6.5	26	0.85	90	30	3±0.5	TBD	T-Pack(L)	1.6
▲ FMC07N50E	500	6.5	26	0.85	90	30	3±0.5	TBD	T-Pack(S)	1.6
▲ FMP08N50E	500	7.5	30	0.79	105	30	3±0.5	TBD	TO-220AB	2.0
▲ FMA08N50E	500	7.5	30	0.79	37	30	3±0.5	TBD	TO-220F	2.0
▲ FMP12N50E	500	12	48	0.52	165	30	3±0.5	TBD	TO-220AB	2.0
▲ FMA12N50E	500	12	48	0.52	60	30	3±0.5	TBD	TO-220F	2.0
▲ FMI12N50E	500	12	48	0.52	165	30	3±0.5	TBD	T-Pack(L)	1.6
▲ FMC12N50E	500	12	48	0.52	165	30	3±0.5	TBD	T-Pack(S)	1.6
FMP16N50E	500	16	64	0.38	225	30	3±0.5	60	TO-220AB	2.0
FMA16N50E	500	16	64	0.38	80	30	3±0.5	60	TO-220F	2.0
FMI16N50E	500	16	64	0.38	225	30	3±0.5	60	T-Pack(L)	1.6
FMC16N50E	500	16	64	0.38	225	30	3±0.5	60	T-Pack(S)	1.6
FMP20N50E	500	20	80	0.31	270	30	3±0.5	77	TO-220AB	2.0
FMA20N50E	500	20	80	0.31	95	30	3±0.5	77	TO-220F	2.0
FMI20N50E	500	20	80	0.31	270	30	3±0.5	77	T-Pack(L)	1.6
FMC20N50E	500	20	80	0.31	270	30	3±0.5	77	T-Pack(S)	1.6
▲ FMA23N50E	500	23	92	0.245	130	30	3±0.5	TBD	TO-220F	2.0
▲ FMH23N50E	500	23	92	0.245	315	30	3±0.5	TBD	TO-3P(Q)	5.0
▲ FMR23N50E	500	23	92	0.245	150	30	3±0.5	TBD	TO-3PF	6.0
▲ FMH28N50E	500	28	112	0.19	400	30	3±0.5	TBD	TO-3P(Q)	5.0
▲ FMR28N50E	500	28	112	0.19	200	30	3±0.5	TBD	TO-3PF	6.0

*1 R_{DS} (on): V_{GS}=10V, *2 P_D: T_C=25°C

記号 Letter symbols

V _{DSS} : ドレイン・ソース電圧	Drain-source voltage	P _D : 許容損失電力	Maximum power dissipation
I _D : ドレイン電流	Continuous drain current	V _{GS} : ゲート・ソース電圧	Gate-source voltage
I _D (pulse): パルスドレイン電流	Pulsed drain current	V _{GS} (th): ゲートしきい値電圧	Gate threshold voltage
R _{DS} (on): ドレイン・ソース オン抵抗	Drain-source on-state resistance	Qg: トータルゲートチャージ量	Total gate charge

▲ 開発中 Under development

SuperFAP-E³ シリーズは、一般民生用向けの品質保証製品であります。車載用、医療機器など高度な信頼性を要求される機器へ適用される場合には、弊社にお問い合わせください。また、航空宇宙用など高度な信頼性を要求される機器への適用は行わないでください。

The Super FAP-E³ series is a product satisfying the quality assurance level of general consumer use.

If you intend to use the product for equipment requiring higher reliability, such as equipment for vehicles and medical equipment, please contact Fuji Electric Device Technology. Do not use the product for the equipment requiring strict reliability such as aerospace equipment.



■ Super FAP-E³シリーズ Super FAP-E³ series

低オン抵抗、低ノイズ Low-on resistance and low switching noise (Continued)

型式 Device type	V _{DSS} Volts	I _D Amps.	I _D (pulse) Amps.	R _{DS} (on) Max. * ¹ Ohms (Ω)	P _D * ² Watts	V _{GS} Volts	V _{GS} (th) Volts	Q _g Typ. nC	パッケージ Package	質量 Net mass Grams
▲ FMP03N60E	600	3	12	2.3	60	30	3±0.5	TBD	TO-220AB	2.0
▲ FMA03N60E	600	3	12	2.3	21	30	3±0.5	TBD	TO-220F	2.0
▲ FMI03N60E	600	3	12	2.3	60	30	3±0.5	TBD	T-Pack(L)	1.6
▲ FMC03N60E	600	3	12	2.3	60	30	3±0.5	TBD	T-Pack(S)	1.6
▲ FMP05N60E	600	5.5	22	1.3	90	30	3±0.5	TBD	TO-220AB	2.0
▲ FMA05N60E	600	5.5	22	1.3	32	30	3±0.5	TBD	TO-220F	2.0
▲ FMI05N60E	600	5.5	22	1.3	90	30	3±0.5	TBD	T-Pack(L)	1.6
▲ FMC05N60E	600	5.5	22	1.3	90	30	3±0.5	TBD	T-Pack(S)	1.6
▲ FMP06N60E	600	6	24	1.2	105	30	3±0.5	TBD	TO-220AB	2.0
▲ FMA06N60E	600	6	24	1.2	37	30	3±0.5	TBD	TO-220F	2.0
▲ FMP10N60E	600	10	40	0.79	165	30	3±0.5	TBD	TO-220AB	2.0
▲ FMA10N60E	600	10	40	0.79	60	30	3±0.5	TBD	TO-220F	2.0
▲ FMI10N60E	600	10	40	0.79	165	30	3±0.5	TBD	T-Pack(L)	1.6
▲ FMC10N60E	600	10	40	0.79	165	30	3±0.5	TBD	T-Pack(S)	1.6
▲ FMP11N60E	600	11	44	0.75	180	30	3±0.5	TBD	TO-220AB	2.0
▲ FMA11N60E	600	11	44	0.75	65	30	3±0.5	TBD	TO-220F	2.0
▲ FMI11N60E	600	11	44	0.75	180	30	3±0.5	TBD	T-Pack(L)	1.6
▲ FMC11N60E	600	11	44	0.75	180	30	3±0.5	TBD	T-Pack(S)	1.6
FMP13N60E	600	13	52	0.58	225	30	3±0.5	60	TO-220AB	2.0
FMA13N60E	600	13	52	0.58	80	30	3±0.5	60	TO-220F	2.0
FMI13N60E	600	13	52	0.58	225	30	3±0.5	60	T-Pack(L)	1.6
FMC13N60E	600	13	52	0.58	225	30	3±0.5	60	T-Pack(S)	1.6
FMP16N60E	600	16	64	0.47	270	30	3±0.5	76	TO-220AB	2.0
FMA16N60E	600	16	64	0.47	95	30	3±0.5	76	TO-220F	2.0
FMI16N60E	600	16	64	0.47	270	30	3±0.5	76	T-Pack(L)	1.6
FMC16N60E	600	16	64	0.47	270	30	3±0.5	76	T-Pack(S)	1.6
▲ FMA19N60E	600	19	76	0.365	130	30	3±0.5	TBD	TO-220F	2.0
▲ FMH19N60E	600	19	76	0.365	315	30	3±0.5	TBD	TO-3P(Q)	5.0
▲ FMR19N60E	600	19	76	0.365	150	30	3±0.5	TBD	TO-3PF	6.0
▲ FMH23N60E	600	23	92	0.28	400	30	3±0.5	TBD	TO-3P(Q)	5.0
▲ FMR23N60E	600	23	92	0.28	200	30	3±0.5	TBD	TO-3PF	6.0

*¹ R_{DS} (on): V_{GS}=10V, *² P_D: T_C=25°C



パワー-MOSFET/Power MOSFETs

Super FAP-Gシリーズ Super FAP-G series

低オン抵抗、低ゲート容量 Low-on resistance and low gate charge

型式 Device type	V _{DSS} Volts	I _D Amps.	I _D (pulse) Amps.	R _{DS} (on) Max. *1 Ohms (Ω)	P _D *2 Watts	V _{GS} Volts	V _{GS} (th) Volts	Qg Typ. nC	パッケージ Package	質量 Net mass Grams
2SK3598-01	100	29	116	0.062	105	±30	3 to 5	22	TO-220AB	2.0
2SK3599-01MR	100	29	116	0.062	37	±30	3 to 5	22	TO-220F	2.0
2SK3600-01L, S, SJ	100	29	116	0.062	105	±30	3 to 5	22	T-pack	1.6
2SK3601-01	100	29	116	0.062	105	±30	3 to 5	22	TFP	0.8
2SK3771-01MR	100	29	116	0.059	37	±30	3 to 5	23	TO-220F	2.0
2SK3644-01	100	41	164	0.044	150	±30	3 to 5	32	TO-220AB	2.0
2SK3645-01MR	100	41	164	0.044	53	±30	3 to 5	32	TO-220F	2.0
2SK3646-01L, S, SJ	100	41	164	0.044	150	±30	3 to 5	32	T-pack	1.6
2SK3647-01	100	41	164	0.044	150	±30	3 to 5	32	TFP	0.8
2SK3586-01	100	73	292	0.025	270	±30	3 to 5	52	TO-220AB	2.0
2SK3587-01MR	100	73	292	0.025	95	±30	3 to 5	52	TO-220F	2.0
2SK3588-01L, S, SJ	100	73	292	0.025	270	±30	3 to 5	52	T-pack	1.6
2SK3589-01	100	73	292	0.025	270	±30	3 to 5	52	TFP	0.8
2SK3770-01MR	120	26	104	0.078	37	±30	3 to 5	26	TO-220F	2.0
2SK3920-01	120	67	268	0.03	270	±30	3 to 5	52	TO-220AB	2.0
2SK3886-01MR	120	67	268	0.03	95	±30	3 to 5	52	TO-220F	2.0
2SK3921-01L, S, SJ	120	67	268	0.03	270	±30	3 to 5	52	T-pack	1.6
2SK3922-01	120	67	268	0.03	270	±30	3 to 5	52	TFP	0.8
2SK3602-01	150	23	92	0.105	105	±30	3 to 5	21	TO-220AB	2.0
2SK3603-01MR	150	23	92	0.105	37	±30	3 to 5	21	TO-220F	2.0
2SK3604-01L, S, SJ	150	23	92	0.105	105	±30	3 to 5	21	T-pack	1.6
2SK3605-01	150	23	92	0.105	105	±30	3 to 5	21	TFP	0.8
2SK3769-01MR	150	23	92	0.1	37	±30	3 to 5	23	TO-220F	2.0
2SK3648-01	150	33	132	0.07	150	±30	3 to 5	34	TO-220AB	2.0
2SK3649-01MR	150	33	132	0.07	53	±30	3 to 5	34	TO-220F	2.0
2SK3650-01L, S, SJ	150	33	132	0.07	150	±30	3 to 5	34	T-pack	1.6
2SK3474-01	150	33	132	0.07	150	±30	3 to 5	34	TFP	0.8
2SK3537-01MR	150	33	132	0.07	53	±20	1 to 2.5	46	TO-220F	2.0
2SK3590-01	150	57	228	0.041	270	±30	3 to 5	52	TO-220AB	2.0
2SK3591-01MR	150	57	228	0.041	95	±30	3 to 5	52	TO-220F	2.0
2SK3592-01L, S, SJ	150	57	228	0.041	270	±30	3 to 5	52	T-pack	1.6
2SK3593-01	150	57	228	0.041	270	±30	3 to 5	52	TFP	0.8
FMW92N15G	150	92	368	0.026	410	±30	3 to 5	80	TO-247-K1	6.0
2SK3788-01	150	92	368	0.026	410	±30	3 to 5	80	TO-247	5.5
2SK3789-01R	150	92	368	0.026	210	±30	3 to 5	80	TO-3PF	6.0
2SK3882-01	150	100	400	0.016	600	±30	3 to 5	140	TO-247	5.5
2SK3606-01	200	18	72	0.17	105	±30	3 to 5	21	TO-220AB	2.0
2SK3607-01MR	200	18	72	0.17	37	±30	3 to 5	21	TO-220F	2.0
2SK3608-01L, S, SJ	200	18	72	0.17	105	±30	3 to 5	21	T-pack	1.6
2SK3609-01	200	18	72	0.17	105	±30	3 to 5	21	TFP	0.8
2SK3594-01	200	45	180	0.066	270	±30	3 to 5	51	TO-220AB	2.0
2SK3595-01MR	200	45	180	0.066	95	±30	3 to 5	51	TO-220F	2.0
2SK3596-01L, S, SJ	200	45	180	0.066	270	±30	3 to 5	51	T-pack	1.6
2SK3597-01	200	45	180	0.066	270	±30	3 to 5	51	TFP	0.8
FMW73N20G	200	73	292	0.036	410	±30	3 to 5	80	TO-247-K1	6.0
2SK3780-01	200	73	292	0.036	410	±30	3 to 5	80	TO-247	5.5
2SK3781-01R	200	73	292	0.036	210	±30	3 to 5	80	TO-3PF	6.0
2SK3883-01	200	100	400	0.02	600	±30	3 to 5	140	TO-247	5.5

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■ Super FAP-Gシリーズ Super FAP-G series

低オン抵抗、低ゲート容量 Low-on resistance and low gate charge (Continued)

型式 Device type	V _{DSS} Volts	I _D Amps.	I _D (pulse) Amps.	R _{DS (on)} Max. *1 Ohms (Ω)	P _D *2 Watts	V _{GS} Volts	V _{GS} (th) Volts	Qg Typ. nC	パッケージ Package	質量 Net mass Grams
2SK3870-01	230	40	160	0.076	270	±30	3 to 5	42	TO-220AB	2.0
2SK3871-01MR	230	40	160	0.076	270	±30	3 to 5	42	TO-220F	2.0
2SK3872-01L, S, SJ	230	40	160	0.076	270	±30	3 to 5	42	T-pack	1.6
2SK3610-01	250	14	56	0.26	105	±30	3 to 5	21	TO-220AB	2.0
2SK3611-01MR	250	14	56	0.26	37	±30	3 to 5	21	TO-220F	2.0
2SK3612-01L, S	250	14	56	0.26	105	±30	3 to 5	21	T-pack	1.6
2SK3613-01	250	14	56	0.26	105	±30	3 to 5	21	TFP	0.8
FMA18N25G	250	18	72	0.19	48	±30	3 to 5	26	TO-220F	2.0
2SK3554-01	250	37	148	0.1	270	±30	3 to 5	44	TO-220AB	2.0
2SK3555-01MR	250	37	148	0.1	95	±30	3 to 5	44	TO-220F	2.0
2SK3556-01L, S, SJ	250	37	148	0.1	270	±30	3 to 5	44	T-pack	1.6
2SK3535-01	250	37	148	0.1	270	±30	3 to 5	44	TFP	0.8
2SK3651-01R	250	37	148	0.1	115	±30	3 to 5	44	TO-3PF	6.0
FMW59N25G	250	59	236	0.053	410	±30	3 to 5	80	TO-247-K1	6.0
2SK3778-01	250	59	236	0.053	410	±30	3 to 5	80	TO-247	5.5
2SK3779-01R	250	59	236	0.053	210	±30	3 to 5	80	TO-3PF	6.0
2SK3884-01	250	96	400	0.03	600	±30	3 to 5	140	TO-247	5.5
FMW56N28G	280	56	224	0.061	410	±30	3 to 5	80	TO-247-K1	6.0
2SK3873-01	280	56	224	0.061	410	±30	3 to 5	80	TO-247	5.5
2SK3874-01R	280	56	224	0.061	210	±30	3 to 5	80	TO-3PF	6.0
2SK3580-01MR	300	15	60	0.28	48	±30	3.5 to 4.5	23	TO-220F	2.0
2SK3772-01	300	32	128	0.13	270	±30	3 to 5	44.5	TO-220AB	2.0
2SK3773-01MR	300	32	128	0.13	95	±30	3 to 5	44.5	TO-220F	2.0
2SK3774-01L, S, SJ	300	32	128	0.13	270	±30	3 to 5	44.5	T-pack	1.6
2SK3775-01	300	32	128	0.13	270	±30	3 to 5	44.5	TFP	0.8
FMW53N30G	300	53	212	0.072	410	±30	3 to 5	80	TO-247-K1	6.0
2SK3776-01	300	53	212	0.072	410	±30	3 to 5	80	TO-247	5.5
2SK3777-01R	300	53	212	0.072	210	±30	3 to 5	80	TO-3PF	6.0
2SK3885-01	300	86	344	0.04	600	±30	3 to 5	140	TO-247	5.5
2SK3725-01	450	3	12	2.5	50	±30	3 to 5	10.5	TO-220AB	2.0
2SK3726-01MR	450	3	12	2.5	17	±30	3 to 5	10.5	TO-220F	2.0
FMU03N45G	450	3	12	2.5	65	±30	3 to 5	10.5	K-pack(L)-C2	0.6
FMD03N45G	450	3	12	2.5	65	±30	3 to 5	10.5	K-pack(S)-C2	0.6
2SK3916-01	450	4.3	17.2	1.6	21	±30	3 to 5	13	TO-220AB	2.0
2SK3917-01MR	450	4.3	17.2	1.6	21	±30	3 to 5	13	TO-220F	2.0
FMU04N45G	450	4.3	17.2	1.6	90	±30	3 to 5	13	K-pack(L)-C2	0.6
FMD04N45G	450	4.3	17.2	1.6	90	±30	3 to 5	13	K-pack(S)-C2	0.6
2SK3914-01	450	6	24	1.2	90	±30	3 to 5	15.5	TO-220AB	2.0
2SK3915-01MR	450	6	24	1.2	32	±30	3 to 5	15.5	TO-220F	2.0
FMU06N45G	450	6	24	1.2	105	±30	3 to 5	15.5	K-pack(L)-C2	0.6
FMD06N45G	450	6	24	1.2	105	±30	3 to 5	15.5	K-pack(S)-C2	0.6
2SK3514-01	450	10	40	0.65	135	±30	3 to 5	22	TO-220AB	2.0
2SK3515-01MR	450	10	40	0.65	48	±30	3 to 5	22	TO-220F	2.0
2SK3516-01L, S	450	10	40	0.65	135	±30	3 to 5	22	T-pack	1.6
2SK3692-01	450	17	68	0.38	225	±30	3 to 5	33	TO-220AB	2.0
2SK3693-01MR	450	17	68	0.38	80	±30	3 to 5	33	TO-220F	2.0
2SK3694-01L, S, SJ	450	17	68	0.38	225	±30	3 to 5	33	T-pack	1.6
2SK4040-01	450	17	68	0.38	225	±30	3 to 5	33	TFP	0.8

*1 R_{DS (on)}: V_{GS}=10V, *2 P_D: T_C=25°C



パワー-MOSFET/Power MOSFETs

■ Super FAP-Gシリーズ Super FAP-G series

低オン抵抗、低ゲート容量 Low-on resistance and low gate charge (Continued)

型式 Device type	V _{DSS} Volts	I _D Amps.	I _D (pulse) Amps.	R _{DS} (on) Max. *1 Ohms (Ω)	P _D *2 Watts	V _{GS} Volts	V _{GS} (th) Volts	Qg Typ. nC	パッケージ Package	質量 Net mass Grams
2SK3985-01	500	3.6	14.4	2.3	60	±30	3 to 5	13	TO-220AB	2.0
2SK3986-01MR	500	3.6	14.4	2.3	21	±30	3 to 5	13	TO-220F	2.0
2SK3987-01L, S, SJ	500	3.6	14.4	2.3	60	±30	3 to 5	13	T-pack	1.6
FMU04N50G	500	3.6	14.4	2.0	90	±30	3 to 5	13	K-pack(L)-C2	0.6
FMD04N50G	500	3.6	14.4	2.0	90	±30	3 to 5	13	K-pack(S)-C2	0.6
2SK3517-01	500	6	24	1.5	90	±30	3 to 5	15	TO-220AB	2.0
2SK3518-01MR	500	6	24	1.5	32	±30	3 to 5	15	TO-220F	2.0
FMU06N50G	500	6	24	1.5	105	±30	3 to 5	15	K-pack(L)-C2	0.6
FMD06N50G	500	6	24	1.5	105	±30	3 to 5	15	K-pack(S)-C2	0.6
2SK3519-01	500	9	36	0.85	135	±30	3 to 5	20	TO-220AB	2.0
2SK3520-01MR	500	9	36	0.85	48	±30	3 to 5	20	TO-220F	2.0
2SK4004-01MR	500	9	36	0.85	48	±30	2.5 to 3.5	24	TO-220F	2.0
2SK3521-01L, S	500	9	36	0.85	135	±30	3 to 5	20	T-pack	1.6
2SK4007-01	500	9	36	0.85	135	±30	3 to 5	20	TFP	0.8
2SK3931-01	500	11	44	0.70	165	±30	3 to 5	25	TO-220AB	2.0
2SK3932-01MR	500	11	44	0.70	60	±30	3 to 5	25	TO-220F	2.0
2SK3933-01L, S, SJ	500	11	44	0.70	165	±30	3 to 5	25	T-pack	1.6
2SK3468-01	500	14	56	0.52	195	±30	3 to 5	30	TO-220AB	2.0
2SK3469-01MR	500	14	56	0.52	70	±30	3 to 5	30	TO-220F	2.0
2SK3512-01L, S	500	14	56	0.52	195	±30	3 to 5	30	T-pack	1.6
2SK3504-01	500	16	64	0.46	225	±30	3 to 5	33	TO-220AB	2.0
2SK3505-01MR	500	16	64	0.46	80	±30	3 to 5	33	TO-220F	2.0
2SK3581-01L, S	500	16	64	0.46	225	±30	3 to 5	33	T-pack	1.6
2SK3682-01	500	19	76	0.38	270	±30	3 to 5	32	TO-220AB	2.0
2SK3683-01MR	500	19	76	0.38	95	±30	3 to 5	32	TO-220F	2.0
2SK3684-01L, S	500	19	76	0.38	270	±30	3 to 5	32	T-pack	1.6
2SK3685-01	500	19	76	0.38	235	±30	3 to 5	32	TO-247	5.5
FML19N50G	500	19	76	0.38	270	±30	3 to 5	32	TFP	0.8
FMW25N50G	500	25	100	0.26	335	±30	3 to 5	54	TO-247-K1	6.0
2SK3522-01	500	25	100	0.26	335	±30	3 to 5	54	TO-247	5.5
2SK3523-01R	500	25	100	0.26	160	±30	3 to 5	54	TO-3PF	6.0
2SK3680-01	500	51	208	0.11	600	±30	3 to 5	118	TO-247	5.5
2SK3974-01L	600	1	2	12	30	±30	3 to 5	8	K-pack(L)-C2	0.6
2SK3974-01S	600	1	2	12	30	±30	3 to 5	8	K-pack(S)-C2	0.6
2SK3988-01	600	3	12	3.3	60	±30	3 to 5	13	TO-220AB	2.0
2SK3989-01MR	600	3	12	3.3	21	±30	3 to 5	13	TO-220F	2.0
2SK3990-01L, S, SJ	600	3	12	3.3	60	±30	3 to 5	13	T-pack	1.6
FMU03N60G	600	3	12	2.8	90	±30	3 to 5	13	K-pack(L)-C2	0.6
FMD03N60G	600	3	12	2.8	90	±30	3 to 5	13	K-pack(S)-C2	0.6

*1 R_{DS} (on): V_{GS}=10V, *2 P_D: T_C=25°C



■ Super FAP-Gシリーズ Super FAP-G series

低オン抵抗、低ゲート容量 Low-on resistance and low gate charge (Continued)

型式 Device type	V _{DSS} Volts	I _D Amps.	I _D (pulse) Amps.	R _{DS} (on) Max. *1 Ohms (Ω)	P _D *2 Watts	V _{GS} Volts	V _{GS} (th) Volts	Qg Typ. nC	パッケージ Package	質量 Net mass Grams
FMU05N60G	600	4.5	18	2.3	105	±30	3 to 5	15	K-pack(L)-C2	0.6
FMD05N60G	600	4.5	18	2.3	105	±30	3 to 5	15	K-pack(S)-C2	0.6
2SK3690-01	600	4.5	18	2.3	80	±30	3 to 5	15	TO-220AB	2.0
2SK3691-01MR	600	4.5	18	2.3	28	±30	3 to 5	15	TO-220F	2.0
2SK3524-01	600	8	32	1.2	135	±30	3 to 5	20	TO-220AB	2.0
2SK3525-01MR	600	8	32	1.2	48	±30	3 to 5	20	TO-220F	2.0
2SK3526-01L, S	600	8	32	1.2	135	±30	3 to 5	20	T-pack	1.6
2SK3887-01	600	9	36	1.0	165	±30	3 to 5	25	TO-220AB	2.0
2SK3888-01MR	600	9	36	1.0	60	±30	3 to 5	25	TO-220F	2.0
2SK3889-01L, S, SJ	600	9	36	1.0	165	±30	3 to 5	25	T-pack	1.6
2SK3501-01	600	12	48	0.75	195	±30	3 to 5	30	TO-220AB	2.0
2SK3502-01MR	600	12	48	0.75	70	±30	3 to 5	30	TO-220F	2.0
2SK3513-01L, S	600	12	48	0.75	195	±30	3 to 5	30	T-pack	1.6
2SK3450-01	600	13	52	0.65	225	±30	3 to 5	34	TO-220AB	2.0
2SK3451-01MR	600	13	52	0.65	80	±30	3 to 5	34	TO-220F	2.0
2SK3753-01R	600	13	52	0.65	95	±30	3 to 5	34	TO-3PF	6.0
2SK3686-01	600	16	64	0.57	270	±30	3 to 5	33	TO-220AB	2.0
2SK3687-01MR	600	16	64	0.57	97	±30	3 to 5	33	TO-220F	2.0
2SK3688-01L, S	600	16	64	0.57	270	±30	3 to 5	33	T-pack	1.6
FMW16N60G	600	16	64	0.57	235	±30	3 to 5	33	TO-247-K1	6.0
2SK3689-01	600	16	64	0.57	235	±30	3 to 5	33	TO-247	5.5
FMW21N60G	600	21	84	0.37	335	±30	3 to 5	54	TO-247-K1	6.0
2SK3527-01	600	21	84	0.37	335	±30	3 to 5	54	TO-247	5.5
2SK3528-01R	600	21	84	0.37	160	±30	3 to 5	54	TO-3PF	6.0
2SK3681-01	600	43	172	0.16	600	±30	3 to 5	118	TO-247	5.5
2SK3673-01MR	700	10	40	1.18	80	±30	3 to 5	25	TO-220F	2.0
2SK3677-01MR	700	12	48	0.93	95	±30	3 to 5	31	TO-220F	2.0
2SK3891-01R	700	17	68	0.6	170	±30	3 to 5	46	TO-3PF	6.0
FMW17N70G	700	17	68	0.6	170	±30	3 to 5	46	TO-247-K1	6.0
2SK3529-01	800	7	28	1.9	195	±30	3 to 5	21.5	TO-220AB	2.0
2SK3530-01MR	800	7	28	1.9	70	±30	3 to 5	21.5	TO-220F	2.0

*1 R_{DS} (on): V_{GS}=10V, *2 P_D: T_C=25°C



パワー-MOSFET/Power MOSFETs

Super FAP-Gシリーズ Super FAP-G series

低オン抵抗、低ゲート容量 Low-on resistance and low gate charge (Continued)

型式 Device type	V _{DSS} Volts	I _D Amps.	I _D (pulse) Amps.	R _{DS} (on) Max. *1 Ohms (Ω)	P _D *2 Watts	V _{GS} Volts	V _{GS} (th) Volts	Q _g Typ. nC	パッケージ Package	質量 Net mass Grams
2SK3727-01	900	2.2	8.8	8.0	75	±30	3.5 to 4.5	8.3	TO-220AB	2.0
2SK3728-01MR	900	2.2	8.8	8.0	26	±30	3.5 to 4.5	8	TO-220F	2.0
2SK3981-01	900	2.6	10.4	6.4	90	±30	3 to 5	13	TO-220AB	2.0
2SK3982-01MR	900	2.6	10.4	6.4	32	±30	3 to 5	13	TO-220F	2.0
2SK3983-01L, S, SJ	900	2.6	10.4	6.4	90	±30	3 to 5	13	T-pack	1.6
2SK3698-01	900	3.7	14.8	4.3	120	±30	3.5 to 4.5	13	TO-220AB	2.0
2SK3699-01MR	900	3.7	14.8	4.3	43	±30	3.5 to 4.5	13	TO-220F	2.0
2SK3531-01	900	6	24	2.5	195	±30	3 to 5	21.5	TO-220AB	2.0
2SK3532-01MR	900	6	24	2.5	70	±30	3 to 5	21.5	TO-220F	2.0
2SK3676-01L, S	900	6	24	2.5	195	±30	3 to 5	21.5	T-pack	1.6
2SK4005-01MR	900	6	24	2.5	70	±30	2.5 to 3.5	25	TO-220F	2.0
2SK3533-01	900	7	28	2.0	225	±30	3 to 5	25	TO-220AB	2.0
2SK3534-01MR	900	7	28	2.0	80	±30	3 to 5	25	TO-220F	2.0
2SK3674-01L, S	900	7	28	2.0	225	±30	3 to 5	25	T-pack	1.6
FMW07N90G	900	7	28	2.0	195	±30	3 to 5	25	TO-247-K1	6.0
2SK3675-01	900	7	28	2.0	195	±30	3 to 5	25	TO-247	5.5
2SK3678-01	900	9	36	1.58	270	±30	3 to 5	31	TO-220AB	2.0
2SK3679-01MR	900	9	36	1.58	95	±30	3 to 5	31	TO-220F	2.0
2SK4006-01L, S, SJ	900	9	36	1.58	270	±30	3 to 5	31	T-pack	1.6
FMW10N90G	900	10	40	1.4	270	±30	3 to 5	34.5	TO-247-K1	6.0
2SK3549-01	900	10	40	1.4	270	±30	3 to 5	34.5	TO-247	5.5
2SK3550-01R	900	10	40	1.4	130	±30	3 to 5	37	TO-3PF	6.0
FMW13N90G	900	13	52	1.0	355	±30	3 to 5	46	TO-247-K1	6.0
2SK3875-01	900	13	52	1.0	355	±30	3 to 5	46	TO-247	5.5
2SK3876-01R	900	13	52	1.0	170	±30	3 to 5	46	TO-3PF	6.0

*1 R_{DS} (on): V_{GS}=10V, *2 P_D: T_C=25°C

高速ダイオード内蔵 Built-in FRED

型式 Device type	V _{DSS} Volts	I _D Amps.	I _D (pulse) Amps.	R _{DS} (on) Max. *1 Ohms (Ω)	P _D *2 Watts	V _{GS} Volts	V _{GS} (th) Volts	Q _g Typ. nC	パッケージ Package	質量 Net mass Grams
2SK3913-01MR	250	14	56	0.28	37	±30	3 to 5	22	TO-220F	2.0
2SK3923-01	250	14	56	0.28	105	±30	3 to 5	22	TO-220AB	2.0
2SK3924-01L, S	250	14	56	0.28	105	±30	3 to 5	22	T-pack	1.6
2SK3925-01	250	34	136	0.11	270	±30	3 to 5	56	TO-220AB	2.0
2SK3926-01MR	250	34	136	0.11	95	±30	3 to 5	56	TO-220F	2.0
2SK3927-01L, S	250	34	136	0.11	270	±30	3 to 5	56	T-pack	1.6
2SK3695-01	500	13	52	0.55	195	±30	3 to 5	28	TO-220AB	2.0
2SK3696-01MR	500	13	52	0.55	70	±30	3 to 5	28	TO-220F	2.0
2SK3928-01	600	11	44	0.8	195	±30	3 to 5	30	TO-220AB	2.0
2SK3929-01MR	600	11	44	0.8	70	±30	3 to 5	30	TO-220F	2.0
2SK3930-01L, S	600	11	44	0.8	195	±30	3 to 5	30	T-pack	1.6
2SK3697-01	600	42	168	0.17	600	±30	3 to 5	105	TO-247	5.5

*1 R_{DS} (on): V_{GS}=10V, *2 P_D: T_C=25°C



■ 中耐圧トレンチ シリーズ Trench Power MOSFET

低オン抵抗、高ゲート耐圧 Low-on resistance and high gate capability

型 式 Device type	V _{DSS} Volts	I _D Amps.	I _D (pulse) Amps.	R _{DS} (on) Max. *1 Ohms (Ω)	P _D *2 Watts	V _{GS} Volts	V _{GS} (th) Volts	パッケージ Package	質 量 Net mass Grams
FMP80N10T2	100	80	320	0.0128	270	+30/-20	2 to 4	TO-220AB	2.0
FMA80N10T2	100	80	320	0.0128	95	+30/-20	2 to 4	TO-220F	2.0
FMI80N10T2	100	80	320	0.0128	270	+30/-20	2 to 4	T-pack(L)	1.6
FMC80N10T2	100	80	320	0.0128	270	+30/-20	2 to 4	T-pack(S)	1.6
FMB80N10T2	100	80	320	0.0128	270	+30/-20	2 to 4	T-pack(SJ)	1.6
FMP65N15T2	150	65	260	0.0245	270	+30/-20	2 to 4	TO-220AB	2.0
FMA65N15T2	150	65	260	0.0245	95	+30/-20	2 to 4	TO-220F	2.0
FMI65N15T2	150	65	260	0.0245	270	+30/-20	2 to 4	T-pack(L)	1.6
FMC65N15T2	150	65	260	0.0245	270	+30/-20	2 to 4	T-pack(S)	1.6
FMB65N15T2	150	65	260	0.0245	270	+30/-20	2 to 4	T-pack(SJ)	1.6
FMP49N20T2	200	49	196	0.047	270	+30/-20	2 to 4	TO-220AB	2.0
FMA49N20T2	200	49	196	0.047	95	+30/-20	2 to 4	TO-220F	2.0
FMI49N20T2	200	49	196	0.047	270	+30/-20	2 to 4	T-pack(L)	1.6
FMC49N20T2	200	49	196	0.047	270	+30/-20	2 to 4	T-pack(S)	1.6
FMB49N20T2	200	49	196	0.047	270	+30/-20	2 to 4	T-pack(SJ)	1.6

*1 R_{DS} (on): V_{GS}=10V, *2 P_D: T_C=25°C

中耐圧トレンチ シリーズは、一般民生用向けの品質保証製品であります。車載用、医療機器など高度な信頼性を要求される機器へ適用される場合には、弊社にお問い合わせください。また、航空宇宙用など高度な信頼性を要求される機器への適用は行わないでください。

The Trench Power MOSFET series is a product satisfying the quality assurance level of general consumer use.

If you intend to use the product for equipment requiring higher reliability, such as equipment for vehicles and medical equipment, please contact Fuji Electric Device Technology. Do not use the product for the equipment requiring strict reliability such as aerospace equipment.



パワーMOSFET/Power MOSFETs

■ FAP-III シリーズ (Pチャネル) FAP-III series (P channel)

アバランシェ耐量保証 Avalanche rated

型 式 Device type	V _{DSS} Volts	I _D Amps.	I _D (pulse) Amps.	R _{DS} (on) Max. *1 Ohms (Ω)	P _D *2 Watts	V _{GS} Volts	V _{GS} (th) Typ. Volts	パッケージ Package	質 量 Net mass Grams
2SJ472-01L, S	-30	-5	-20	0.4	15	±16	-1.5	K-pack	0.6
2SJ314-01L, S	-60	-5	-20	0.3	20	±20	-1.5	K-pack	0.6
2SJ473-01L, S	-60	-7	-28	0.2	20	±20	-1.5	K-pack	0.6
2SJ474-01L, S	-60	-7	-28	0.2	20	±20	-1.5	T-pack	1.6
2SJ475-01	-60	-25	-100	0.06	50	±20	-1.5	TO-220AB	2.0
2SJ476-01L, S	-60	-25	-100	0.06	50	±20	-1.5	T-pack	1.6
2SJ477-01MR	-60	-25	-100	0.06	40	±20	-1.5	TO-220F	2.0

*1 R_{DS} (on): V_{GS}=10V, *2 P_D: T_C=25°C

■ FAP-III B シリーズ FAP-III B series

超低オン抵抗・高アバランシェ耐量 Ultra low on-state resistance

型 式 Device type	V _{DSS} Volts	I _D Amps.	I _D (pulse) Amps.	R _{DS} (on) Max. *1 Ohms (Ω)	P _D *2 Watts	V _{GS} Volts	V _{GS} (th) Typ. Volts	パッケージ Package	質 量 Net mass Grams
2SK2806-01	30	35	140	0.02	60	±16	1.5	TO-220AB	2.0
2SK2807-01L, S	30	35	140	0.02	60	±16	1.5	T-pack	1.6
2SK2808-01MR	30	35	140	0.02	40	±16	1.5	TO-220F	2.0
2SK2687-01	30	50	200	0.01	60	±16	1.5	TO-220AB	2.0
2SK2688-01L, S	30	50	200	0.01	60	±16	1.5	T-pack	1.6
2SK2689-01MR	30	50	200	0.01	40	±16	1.5	TO-220F	2.0
2SK3363-01	30	50	200	0.0068	80	±20	1.5	TO-220AB	2.0
2SK2890-01MR	30	50	200	0.0068	80	±16	1.5	TO-220F	2.0
2SK2892-01R	30	90	360	0.0055	100	±16	1.5	TO-3PF	6.0
2SK2891-01	30	100	400	0.0055	125	±16	1.5	TO-3P	5.5
2SK2893-01	30	100	400	0.004	150	±16	1.5	TO-3P	5.5
2SK2894-01R	30	100	400	0.004	125	±16	1.5	TO-3PF	6.0
2SK2895-01	60	45	180	0.012	60	±20	1.5	TO-220AB	2.0
2SK2896-01L, S	60	45	180	0.012	60	±20	1.5	T-pack	1.6
2SK2897-01MR	60	45	180	0.012	40	±20	1.5	TO-220F	2.0
2SK2900-01	60	45	180	0.015	60	±30	3.0	TO-220AB	2.0
2SK2901-01L, S	60	45	180	0.015	60	±30	3.0	T-pack	1.6
2SK2902-01MR	60	45	180	0.015	40	±30	3.0	TO-220F	2.0
2SK3362-01	60	50	200	0.01	80	±20	1.5	TO-220AB	2.0
2SK2809-01MR	60	50	200	0.01	50	±20	1.5	TO-220F	2.0
2SK3364-01	60	50	200	0.012	80	±30	3.0	TO-220AB	2.0
2SK2903-01MR	60	50	200	0.012	80	±30	3.0	TO-220F	2.0
2SK2905-01R	60	70	280	0.012	100	±30	3.0	TO-3PF	6.0
2SK2691-01R	60	70	280	0.01	100	±20	1.5	TO-3PF	6.0
2SK2690-01	60	80	320	0.01	125	±20	1.5	TO-3P	5.5
2SK2904-01	60	80	400	0.012	125	±30	3.0	TO-3P	5.5
2SK2898-01	60	100	400	0.007	150	±20	1.5	TO-3P	5.5
2SK2899-01R	60	100	400	0.007	125	±20	1.5	TO-3PF	6.0
2SK2906-01	60	100	400	0.008	150	±30	3.0	TO-3P	5.5
2SK2907-01R	60	100	400	0.008	125	±30	3.0	TO-3PF	6.0

*1 R_{DS} (on): V_{GS}=10V, *2 P_D: T_C=25°C

■ スイッチング電源用マルチチップパワーデバイス Multi-chip Power Device for Switching Power Supply

M-Power 2Aシリーズ M-Power 2A series

型 式 Device type	Power MOSFET (Q1)		Power- MOSFET (Q2)		Control IC		パッケージ Package	質 量 Net mass
	V _{DSS}	R _{DS} (on) Max.	V _{DSS}	R _{DS} (on) Max.	V _{CC} (on)	T _j (OH)		
	Volts	Ohms (Ω)	Volts	Ohms (Ω)	Volts	°C		
MP2A5135	500	1.35	500	1.35	16.5	125 to 150	SIP-23(F233)	3.8
MP2A5100	500	1.00	500	1.00	16.5	125 to 150	SIP-23(F233)	3.8
MP2A5077	500	0.77	500	0.77	16.5	125 to 150	SIP-23(F233)	3.8
MP2A5060	500	0.6	500	0.6	16.5	125 to 150	SIP-23(F233)	3.8
MP2A5038	500	0.38	500	0.6	16.5	125 to 150	SIP-23(F233)	3.8
▲ MP2A2013	250	0.125	250	0.125	16.5	125 to 150	SIP-23(F233)	3.8
▲ MP2A2009	250	0.09	250	0.09	16.5	125 to 150	SIP-23(F233)	3.8

▲ 開発中 Under development

M-Power 3Aシリーズ M-Power 3A series

型 式 Device type	Power MOSFET (Q1)		Power- MOSFET (Q2)		Control IC		パッケージ Package	質 量 Net mass
	V _{DSS}	R _{DS} (on) Max.	V _{DSS}	R _{DS} (on) Max.	V _{CC} (on)	T _j (OH)		
	Volts	Ohms (Ω)	Volts	Ohms (Ω)	Volts	°C		
▲ MP3A5060	500	1.00	500	0.60	16.5	125 to 150	SIP-23(F233)	3.8
▲ MP3A5038	500	0.77	500	0.38	16.5	125 to 150	SIP-23(F233)	3.8

▲ 開発中 Under development

■概要 (M-Power2A) Summary (M-Power2A)

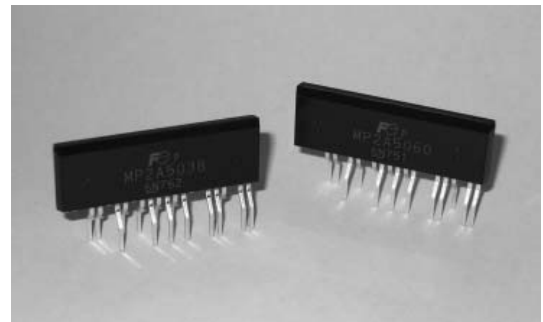
富士 M-Power2A シリーズはマルチチップ構成のスマートパワーデバイスで、2つの MOSFET と制御 IC を SIP-23pin パッケージで実現しています。それに加えて、各種保護機能を内蔵しており、Fail-safe な電源を容易に設計可能です。

Fuji's ideal and original system

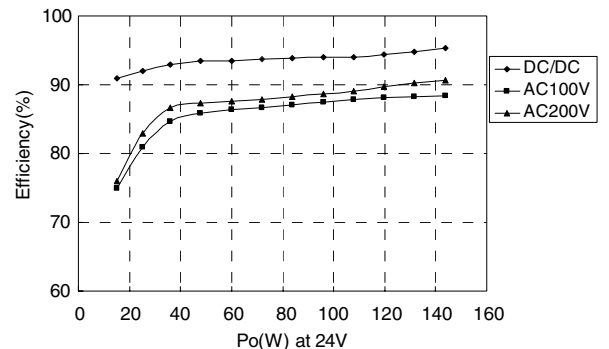
It includes many functions (Soft-switching, stand-by)
Multiple-chip Power Device : M-Power2A contains and two MOSFET's in SIP-23pin package.
M-Power2A has various types of protection function.

■特長 Features

- 高効率 (スイッチング電源の小型化が可能) DC/DC : 95.3%(DC input:385V,output:24V)
PFC+DC/DC : 88.4%(AC100V), 90.7%(AC200V)
- 低ノイズ (ノイズ対策部品の削減・小型化が可能)
 - MOSFETs :
 - ターンオン時 : ZVS+ZCS
 - ターンオフ時 : ZVS
 - 二次側ダイオード
リカバリー時のサージ電圧なし
- Fail-safety (各種保護機能内蔵 : OC, SC, OV, Tj(OH))
- Easy design power supply (Reduction of design time)
- 待機動作内蔵 (補助電源なしで待機動作可能)
- High efficiency (a reduction in SMPC size possible.)
DC/DC : 95.3% (DC input:385V, output:24V)
PFC+DC/DC : 88.4% (AC100V), 90.7%(AC200V)
- Stand-by mode
(A series : External, Conventional series : Built in)
- Low noise
(a reduction the noise suppression part is possible)
MOSFETs : Turn-on : ZVS+ZCS, Turn-off : ZVS
Diodes (secondary side)
Surge voltage does not occur at reverse recovery
- Fail-safety
(Built in protection functions : OC, SC, OV, Tj(OH))
- Easy design power supply (Reduction of design time)



■効率 Efficiency



Efficiency - Load characteristic at normal mode

DC/DC: 95.3%
(DC input:385V,output:24V)

PFC+DC/DC: 88.4%(AC100V)
90.7%(AC200V)



パワー-MOSFET/Power MOSFETs

自動車用トレンチMOSFET Automotive Trench Power MOSFET

型式 Device type	V _{DSS} Volts	I _D Amps.	I _D (pulse) Amps.	R _{DS} (on) Max. * Ohms (Ω)	P _D Watts	V _{GS} Volts	V _{GS} (th) Typ. Volts	パッケージ Package	質量 Net mass Grams
2SK3273-01MR	60	70	280	0.0065	70	-30/-20	3.0	TO-220F	2.0
2SK3270-01	60	80	320	0.0065	135	-30/-20	3.0	TO-220AB	2.0
2SK3272-01L, S	60	80	320	0.0065	135	-30/-20	3.0	T-pack	1.6
2SK3272-01SJ	60	80	320	0.0065	135	-30/-20	3.0	D2-pack	1.6
2SK3271-01	60	100	400	0.0065	155	-30/-20	3.0	TO-3P	5.5

* R_{DS} (on): V_{GS}=10V

自動車用高性能パワー-MOSFET Automotive Intelligent Power MOSFET

型式 Device type	V _{DSS} Volts	I _D Amps.	I _D (pulse) Amps.	R _{DS} (on) Max. * ¹ Ohms (Ω)	P _D Watts	V _{GS} Volts	V _{GS} (th) Typ. Volts	パッケージ Package	質量 Net mass Grams
F5018	40	8	-	0.14	15	-	-	K-pack	0.6
F5019	40	12	-	0.14	30	-	-	T-pack	1.6
F5020	40	3	-	0.40	10	-	-	K-pack	0.6
F5022	70	3	-	0.55	12	-	-	K-pack	0.6
F5033	40	1	-	0.60	1.5	-	-	SOP-8* ²	0.2
F5041	40	1	-	0.60	1.5	-	-	SOP-8* ²	0.2
F5042	40	8	-	0.14	15	-	-	K-pack	0.6
F5043	40	12	-	0.14	30	-	-	T-pack	1.6
F5048	80	15	27	0.125	43	-	-	T-pack	1.6
F5055	46	5.9	-	0.14	7.8	-	-	SSOP-20* ²	0.3

*¹ R_{DS} (on): V_{CC}=12V *² 2ch入り Contains 2 channels

自動車用 IPS シリーズ (インテリジェントパワースイッチ) Automotive IPS series (Intelligent Power Switches)

自己保護機能・診断機能内蔵 Self protection and safety check

型式 Device type	V _{DSS} Volts	I _D Amps.	I _D (pulse) Amps.	R _{DS} (on) Max. * Ohms (Ω)	P _D Watts	V _{GS} Volts	V _{GS} (th) Typ. Volts	パッケージ Package	質量 Net mass Grams
F5044H	50	2.5	-	0.12	1.5	-	-	SOP-8	0.2
F5045P	50	1	-	0.60	1.5	-	-	SOP-8	0.2
F5049H	50	2.5	-	0.12	1.5	-	-	SOP-8	0.2

* R_{DS} (on): V_{CC}=12V