



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 | Q _g 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 | Q _g : 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



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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 |
|--------------------|---------------------------|-------------------------|---------------------------------|---|----------------------------|--------------------------|-------------------------------|------------------|------------------|-------------------------|
| 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)

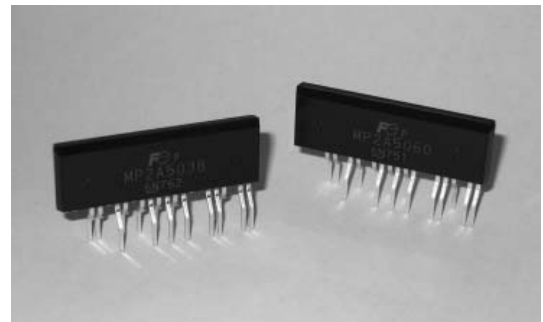
富士 M-Power2A シリーズはマルチチップ構成のスマートパワーデバイスで、2つのMOSFETと制御ICをSIP-23pinパッケージで実現しています。それに加えて、各種保護機能を内蔵しており、Fail-safeな電源を容易に設計可能です。

Fuji's ideal and original system

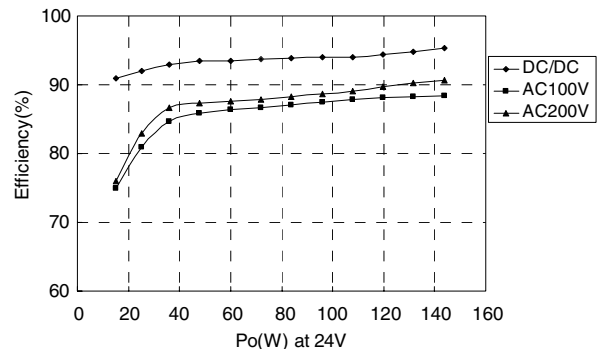
It includes many functions (Soft-switching, stand-by)
Multiple-chip Power Device : M-Power2A contains and two MOSFET's in SIP-23pin package.
M-Power2A has various types of protection function.

■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