## Notification about the transfer of the semiconductor business

The semiconductor business of Panasonic Corporation was transferred on September 1, 2020 to Nuvoton Technology Corporation (hereinafter referred to as "Nuvoton"). Accordingly, Panasonic Semiconductor Solutions Co., Ltd. became under the umbrella of the Nuvoton Group, with the new name of Nuvoton Technology Corporation Japan (hereinafter referred to as "NTCJ").

In accordance with this transfer, semiconductor products will be handled as NTCJ-made products after September 1, 2020. However, such products will be continuously sold through Panasonic Corporation.

Publisher of this Document is NTCJ.

If you would find description "Panasonic" or "Panasonic semiconductor solutions", please replace it with NTCJ.

\* Except below description page

"Request for your special attention and precautions in using the technical information and semiconductors described in this book"

Nuvoton Technology Corporation Japan



#### MOS FET FK3506010L

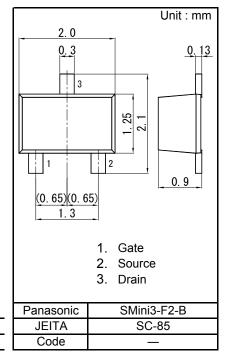
FK3506010L Silicon N-channel MOS FET

For switching

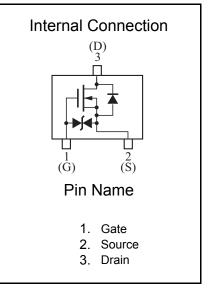
FK330601 in SMini3 type package

- Features
- Low drive voltage : 2.5 V drive
- Halogen-free / RoHS compliant (EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)
- Marking Symbol : CV
- Packaging

Embossed type (Thermo-compression sealing): 3 000 pcs / reel (standard)



#### Absolute Maximum Ratings Ta = 25 °C Parameter Symbol Rating Unit Drain-source voltage VDS 60 V VGS V Gate-source voltage ±12 100 Drain current ID mΑ 200 Pulse drain current IDp mΑ Total power dissipation PD 150 mW Channel temperature Tch 150 °C Operating ambient temperature Topr -40 to +85 °C Tstg -55 to +150 °C Storage temperature

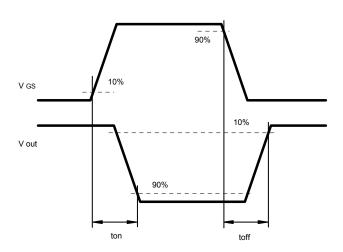


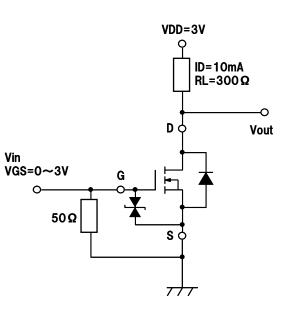
## **Panasonic**

## MOS FET FK3506010L

| ■ Electrical Characteristics Ta = 25 °C ± 3 °C |         |                               |     |     |     |      |
|--|---------|-------------------------------|-----|-----|-----|------|
| Parameter                                      | Symbol  | Conditions                    | Min | Тур | Max | Unit |
| Drain-source breakdown voltage                 | VDSS    | ID = 1 mA, VGS = 0            | 60  |     |     | V    |
| Drain-source cutoff current                    | IDSS    | VDS = 60 V, VGS = 0           |     |     | 1.0 | μA   |
| Gate-source cutoff current                     | IGSS    | VGS = ±10 V, VDS = 0          |     |     | ±10 | μA   |
| Gate threshold voltage                         | VTH     | ID = 1.0 μA, VDS = 3.0 V      | 0.9 | 1.2 | 1.5 | V    |
| Drain-source ON resistance                     | RDS(on) | ID = 10 mA, VGS = 2.5 V       |     | 8   | 15  | Ω    |
|  |         | ID = 10 mA, VGS = 4.0 V       |     | 6   | 12  | Ω    |
| Forward transfer admittance                    | Yfs     | ID = 10 mA, VDS = 3.0 V       | 20  | 60  |     | mS   |
| Input capacitance                              | Ciss    | VDS = 3 V, VGS = 0, f = 1 MHz |     | 12  |     | pF   |
| Output capacitance                             | Coss    |                               |     | 7   |     | pF   |
| Reverse transfer capacitance                   | Crss    |                               |     | 3   |     | рF   |
| Turn-on time <sup>*1</sup>                     | ton     | VDD = 3 V, VGS = 0 to 3 V,    | 100 | 100 |     | ns   |
|  |         | ID = 10 mA                    |     | 100 |     |      |
| Turn-off time <sup>*1</sup>                    | toff    | VDD = 3 V, VGS = 3 to 0 V,    |     | 100 |     | ns   |
|  |         | ID = 10 mA                    |     |     |     | 115  |

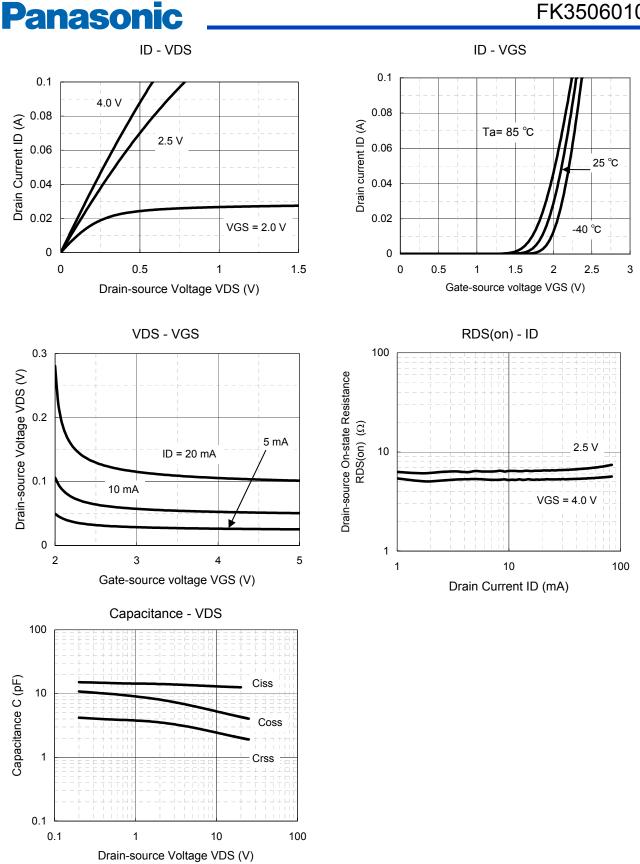
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.
2. \*1 Turn-on and Turn-off test circuit



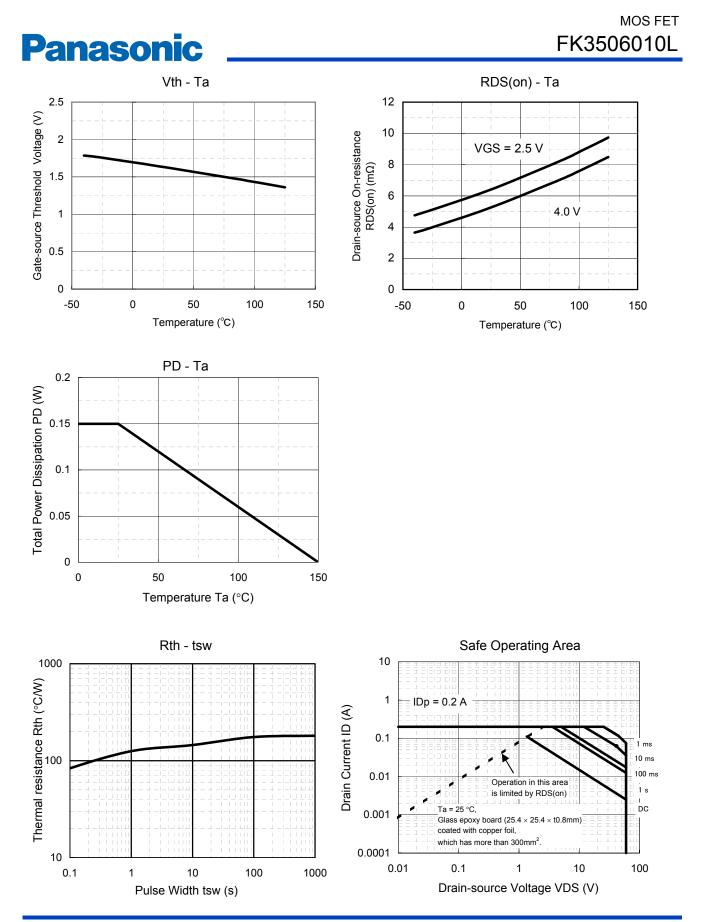




## MOS FET FK3506010L



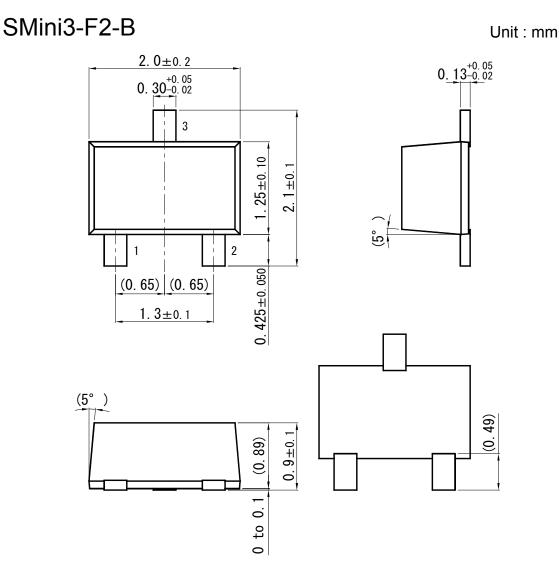




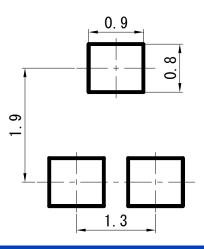
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MOS FET FK3506010L



■ Land Pattern (Reference) (Unit : mm)



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