



FC6943010R

Dual N-channel MOS FET

For switching

■ Features

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

■ Marking Symbol : V4

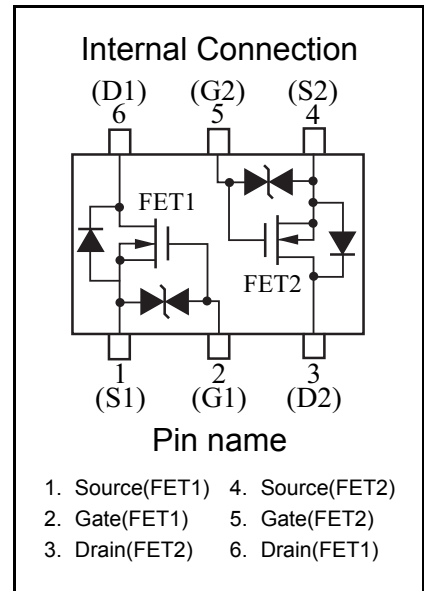
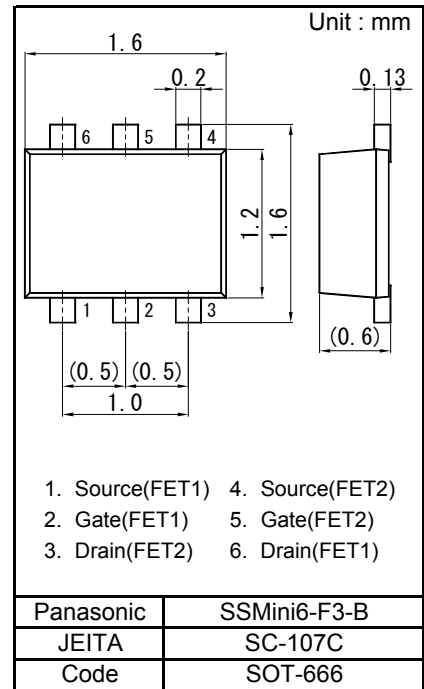
■ Basic Part Number : Dual FK330301 (Individual)

■ Packaging

Embossed type (Thermo-compression sealing): 8 000 pcs / reel (standard)

■ Absolute Maximum Ratings Ta = 25 °C

| Parameter | | Symbol | Rating | Unit |
|-----------|-------------------------------|--------|-------------|------|
| FET1 | Drain-source Voltage | VDSS | 30 | V |
| | Gate-source Voltage | VGSS | ±12 | V |
| | Drain current | ID | 100 | mA |
| FET2 | Pulse drain current | IDp | 200 | mA |
| Overall | Total power dissipation | PT | 125 | mW |
| | Channel temperature | Tch | 150 | °C |
| | Operating ambient temperature | Topr | -40 to +85 | °C |
| | Storage temperature | Tstg | -55 to +150 | °C |



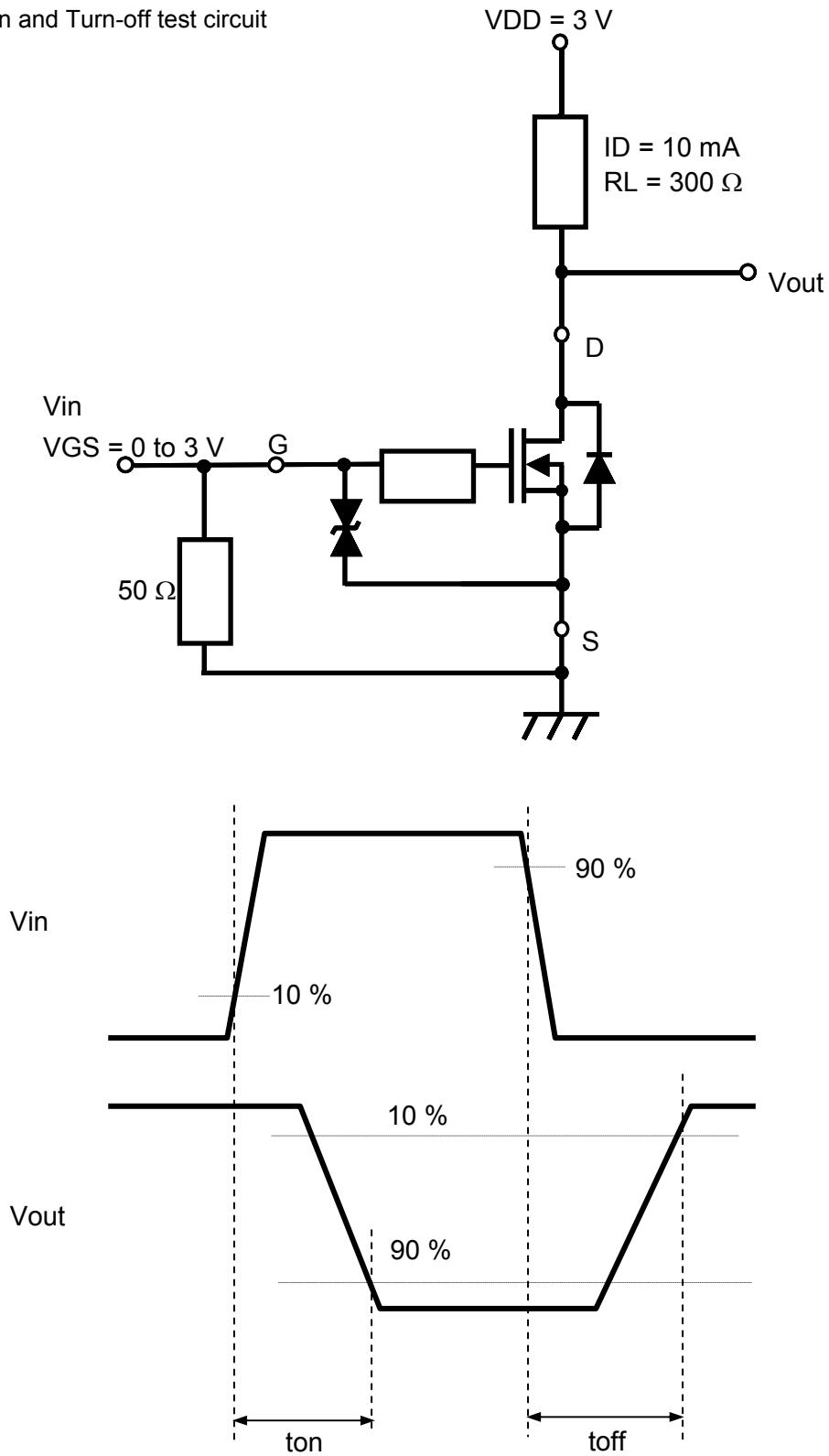
■ Electrical Characteristics Ta = 25 °C ± 3 °C

FET1,FET2

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|--------------------------------|----------|---|-----|-----|-----|------|
| Drain-source breakdown voltage | VDSS | ID = 1 mA, VGS = 0 | 30 | | | V |
| Drain-source cutoff current | IDSS | VDS = 30 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 | 0.5 | 1.0 | 1.5 | V |
| Drain-source ON resistance | RDS(on)1 | ID = 10 mA, VGS = 2.5 V | | 3 | 6 | Ω |
| | RDS(on)2 | ID = 10 mA, VGS = 4.0 V | | 2 | 3 | Ω |
| Forward transfer admittance | Yfs | ID = 10 mA, VDS = 3.0 V | 20 | 55 | | mS |
| Input capacitance | Ciss | VDS = 3 V, VGS = 0, f = 1 MHz | | 12 | | pF |
| Output capacitance | Coss | | | 7 | | pF |
| Reverse transfer capacitance | Crss | | | 3 | | pF |
| Turn-on time *1 | ton | VDD = 3 V, VGS = 0 to 3 V ID = 10 mA | | 100 | | ns |
| Turn-off time *1 | toff | VDD = 3 V, VGS = 3 to 0 V ID = 10 mA | | 100 | | ns |

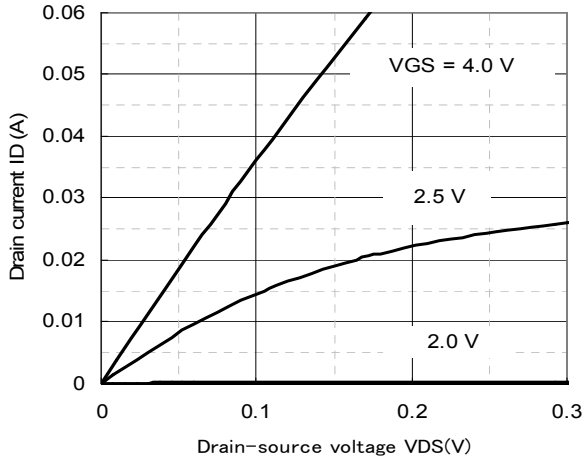
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.
 2. *1 Turn-on and Turn-off test circuit

*1 Turn-on and Turn-off test circuit

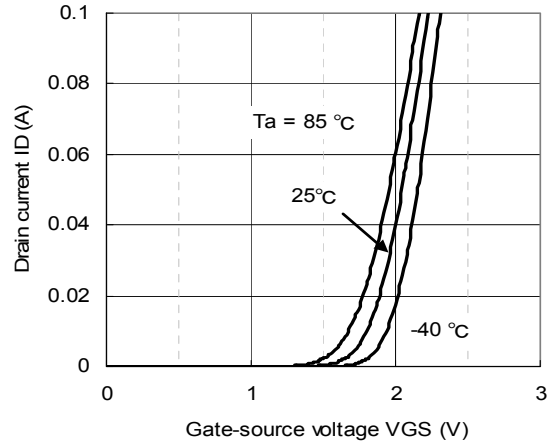


Technical Data (reference)

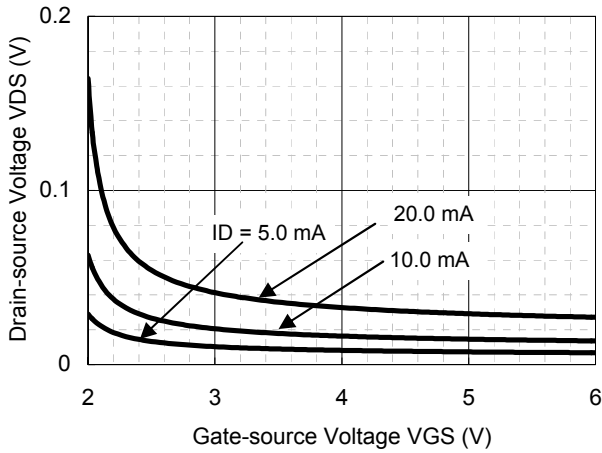
ID - VDS



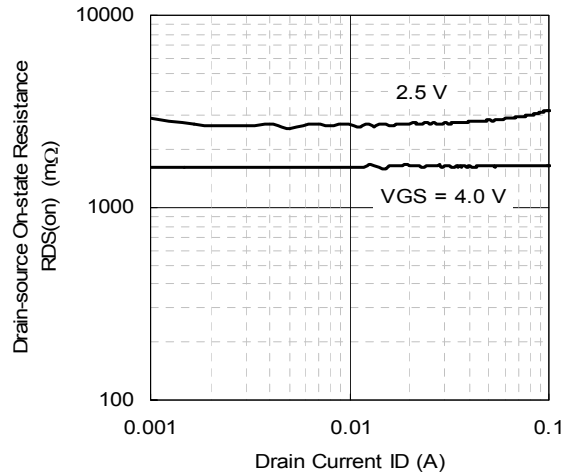
ID - VGS



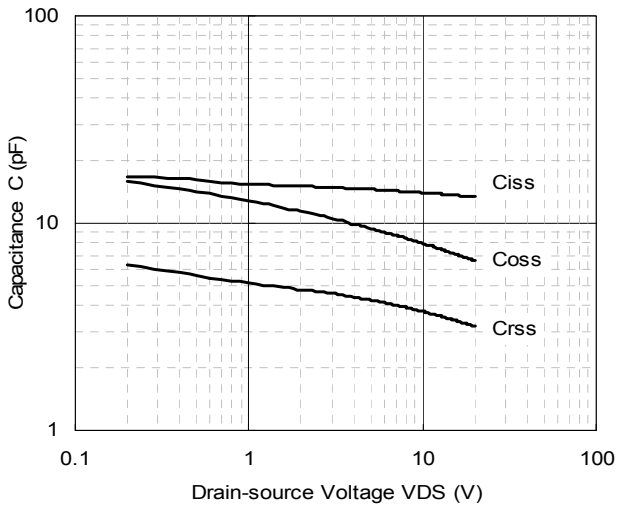
VDS - VGS



RDS(on) - ID

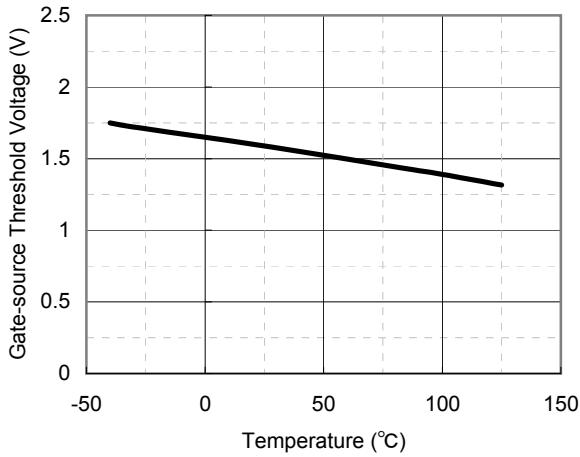


Capacitance - VDS

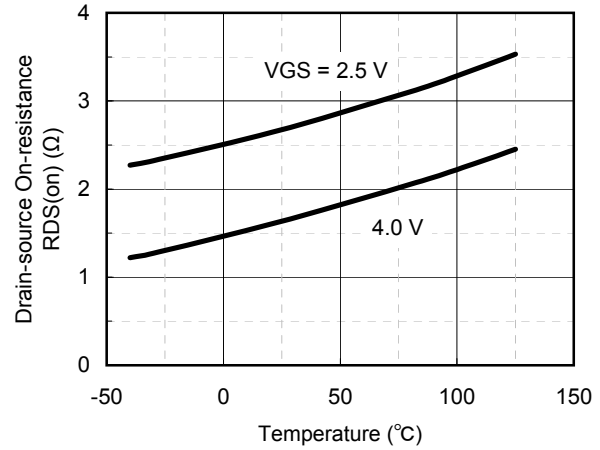


Technical Data (reference)

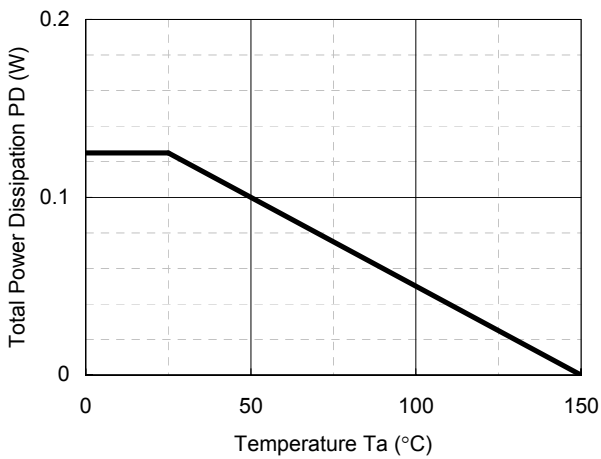
V_{th} - T_a



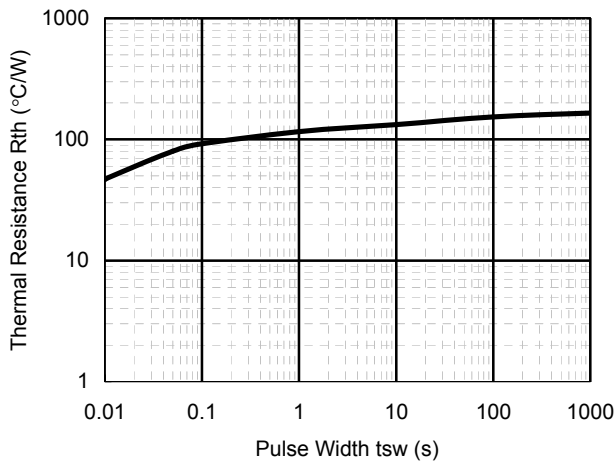
R_{DS(on)} - T_a



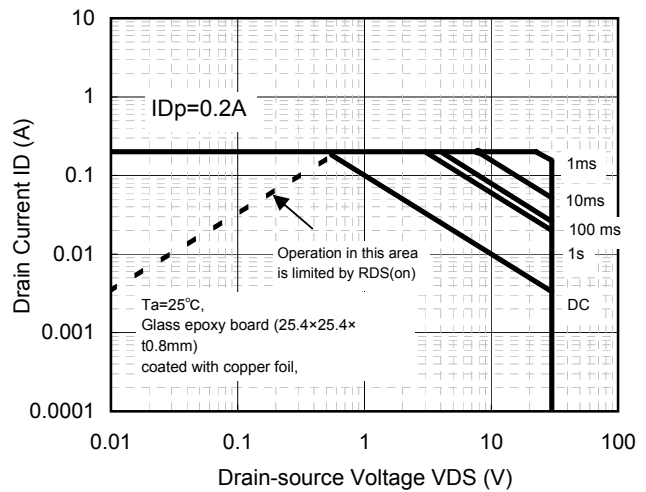
PD - T_a



R_{th} - t_{sw}

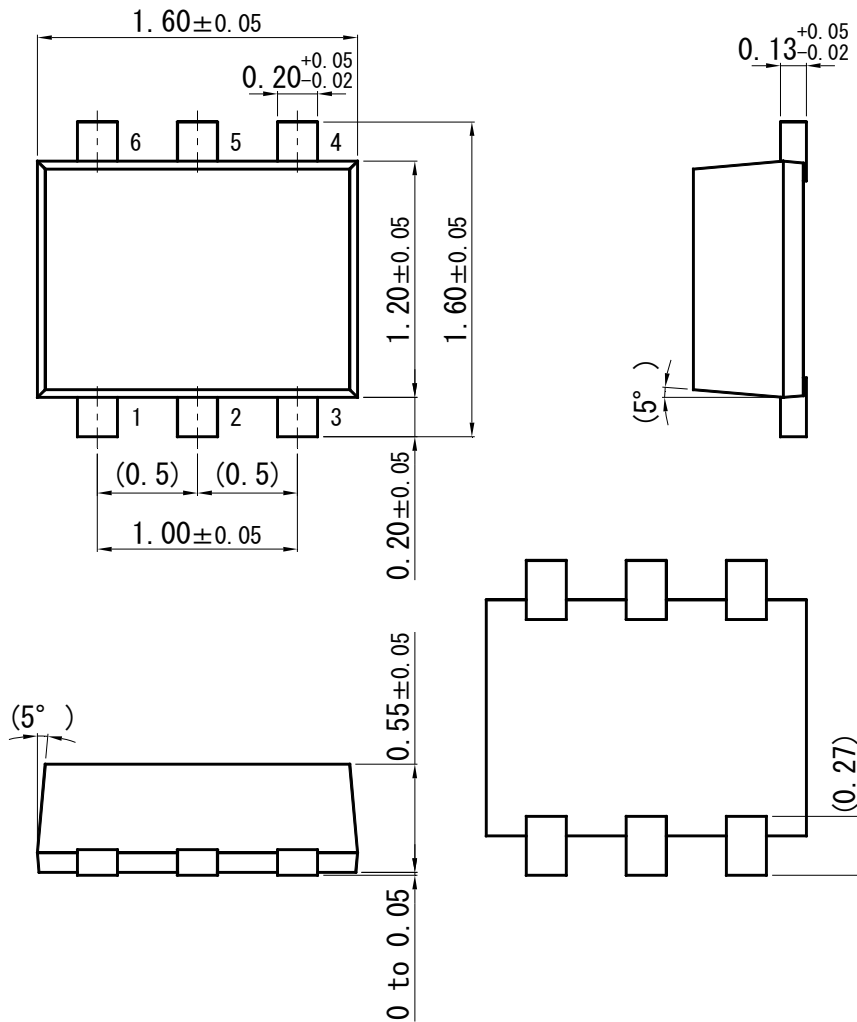


Safe Operating Area

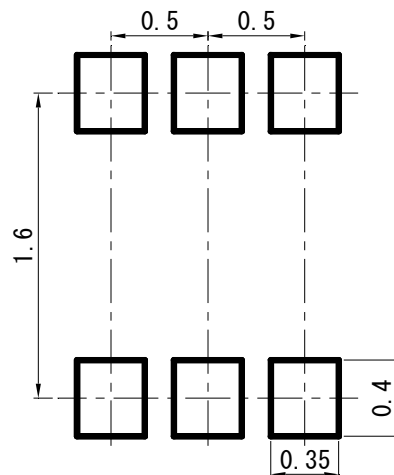


SSMini6-F3-B

Unit: mm



■ Land Pattern (Reference) (Unit : mm)



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Телефон: 8 (812) 309-75-97 (многоканальный)

Факс: 8 (812) 320-03-32

Электронная почта: ocean@oceanchips.ru

Web: <http://oceanchips.ru/>

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А