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

FC5516010R

Dual N-channel MOSFET

For switching

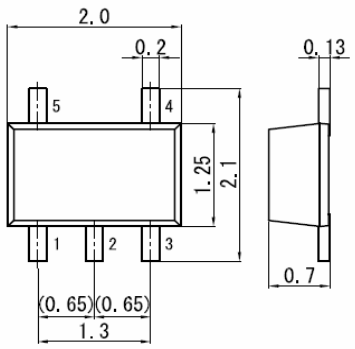
■ Features
- Low drive voltage: 2.5 V drive
- Halogen-free / RoHS compliant
  (EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)

■ Marking Symbol: V5

■ Basic Part Number
Dual FK350601 (Source Common type)

■ Packaging
FC5516010R Embossed type (Thermo-compression sealing):
3 000 pcs / reel (standard)

Unit: mm



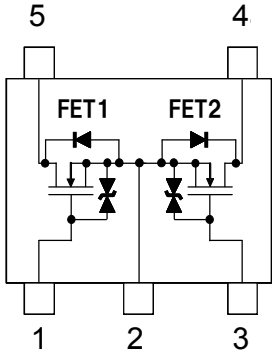
1. Gate(FET1)
2. Source(FET1,2)
3. Gate(FET2)
4. Drain(FET2)
5. Drain(FET1)

Panasonic	SMini5-F3-B
JEITA	SC-113CB
Code	SOT-353

■ Absolute Maximum Ratings Ta = 25 °C

Parameter		Symbol	Rating	Unit
FET1 FET2	Drain-source Voltage	VDS	60	V
	Gate-source Voltage	VGS	±12	V
	Drain current	ID	100	mA
	Drain current (Pulsed)	IDp	200	mA
Overall	Total power dissipation	PD	150	mW
	Channel temperature	Tch	150	°C
	Storage temperature	Tstg	-55 to +150	°C

Internal Connection



Pin name

1. Gate(FET1)
2. Source(FET1,2)
3. Gate(FET2)
4. Drain(FET2)
5. Drain(FET1)

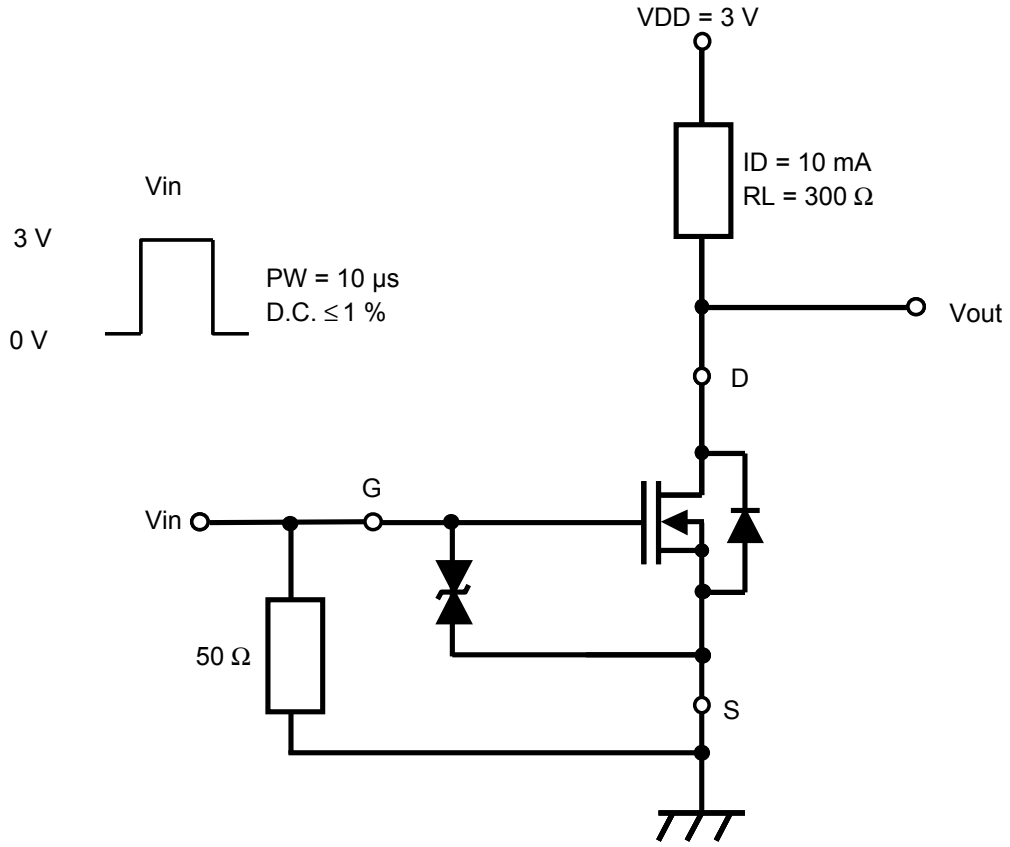
■ Electrical Characteristics Ta = 25 °C ± 3 °C
FET1,FET2

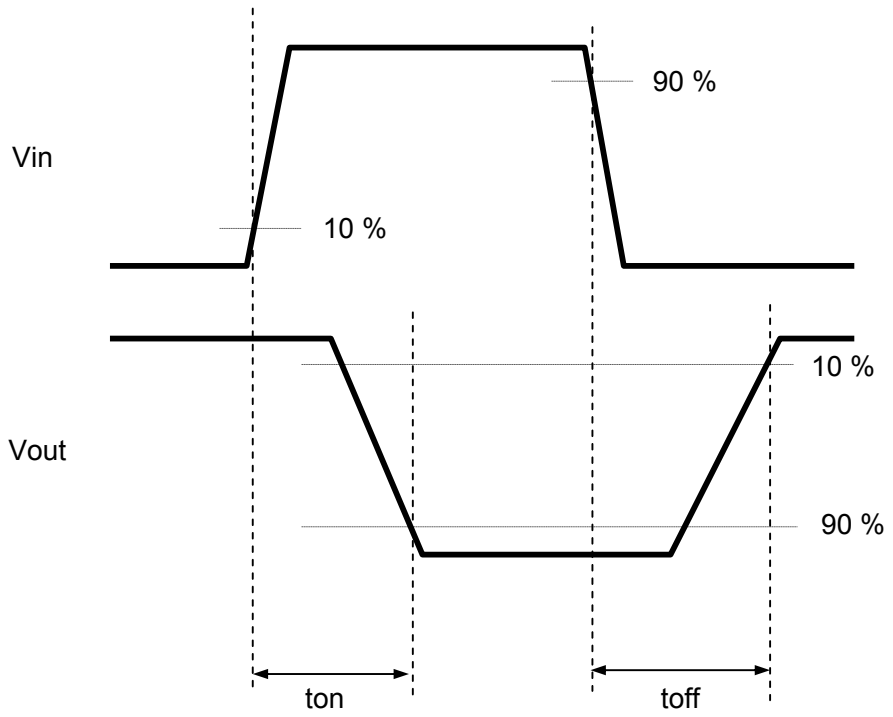
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Drain-source Breakdown Voltage	VDSS	ID = 1.0 mA, VGS = 0 V	60			V
Zero Gate Voltage Drain Current	IDSS	VDS = 60 V, VGS = 0 V			1.0	μA
Gate-source Leakage Current	IGSS	VGS = ±10 V, VDS = 0 V			±10	μA
Gate-source Threshold Voltage	Vth	ID = 1.0 μA, VDS = 3.0 V	0.9	1.2	1.5	V
Drain-source On-state Resistance	RDS(on)1	ID = 10 mA, VGS = 2.5 V		8	15	Ω
	RDS(on)2	ID = 10 mA, VGS = 4.0 V		6	12	
Forward transfer admittance	|Yfs|	ID = 10 mA, VDS = 3.0 V	20	60		mS
Input Capacitance	Ciss	VDS = 3 V, VGS = 0 V, f = 1 MHz		12		pF
Output Capacitance	Coss			7		
Reverse Transfer Capacitance	Crss			3		
Turn-on time *1	ton	VDD = 3 V, VGS = 0 V to 3 V ID = 10 mA		100		ns
Turn-off time *1	toff	VDD = 3 V, VGS = 3 V to 0 V ID = 10 mA		100		ns

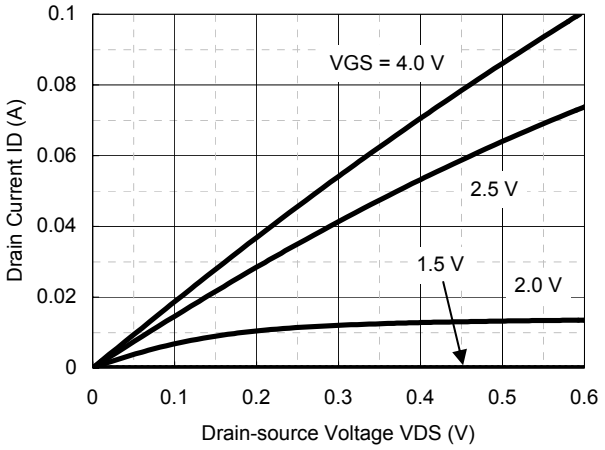
Note Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.

*1 See Test circuit

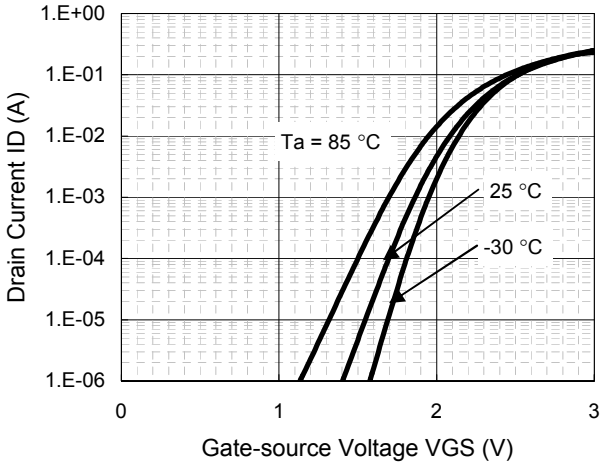
*1 Test circuit



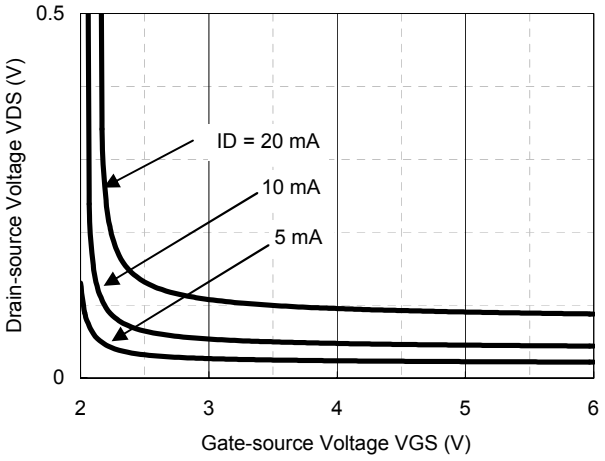




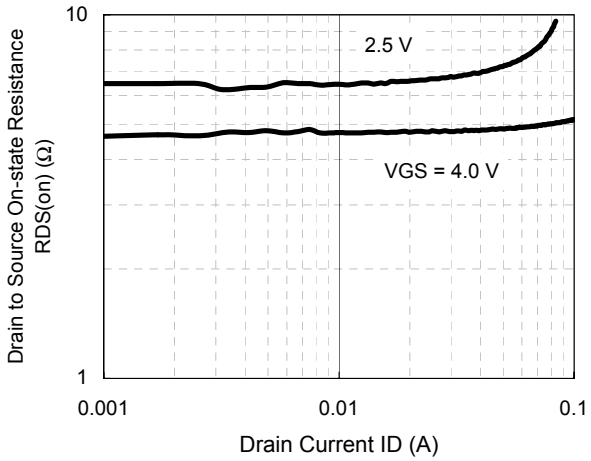
ID - VDS



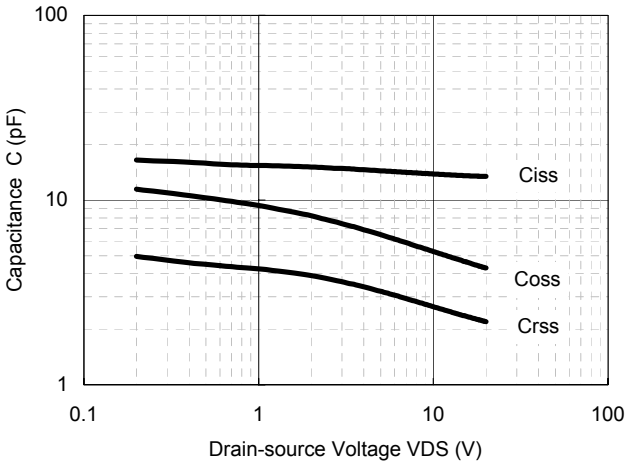
ID - VGS



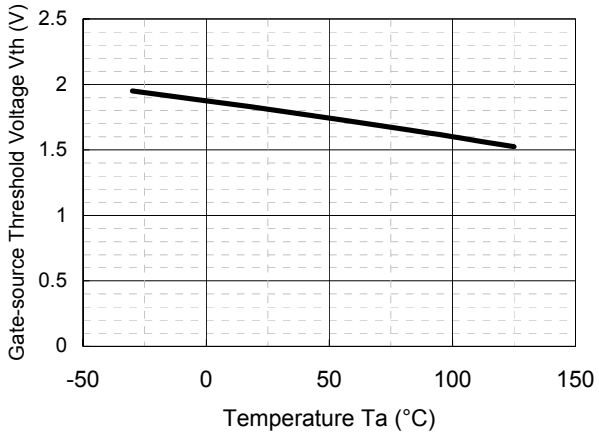
VDS - VGS



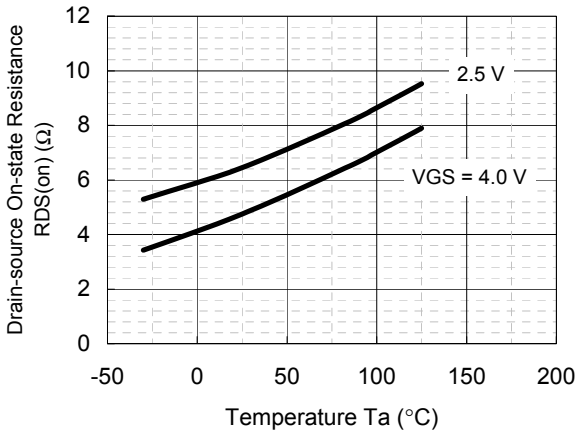
RDS(on) - ID



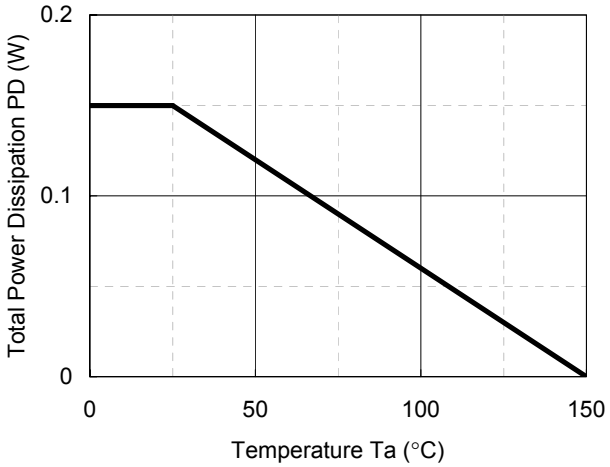
Capacitance - VDS



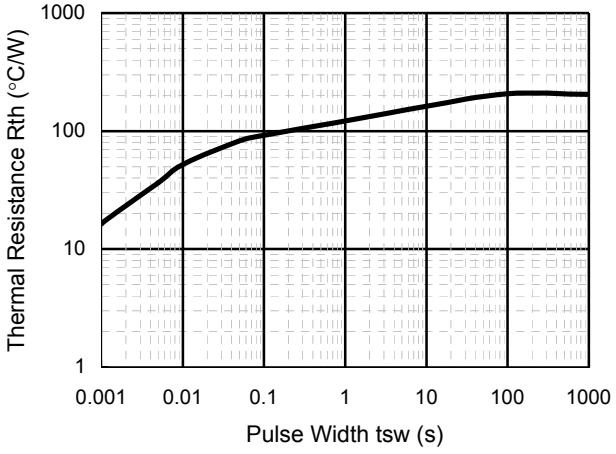
Vth - Ta



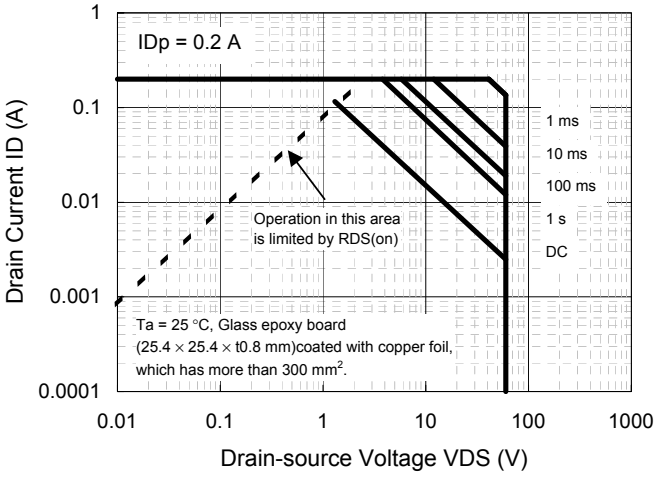
RDS(on) - Ta



PD - Ta



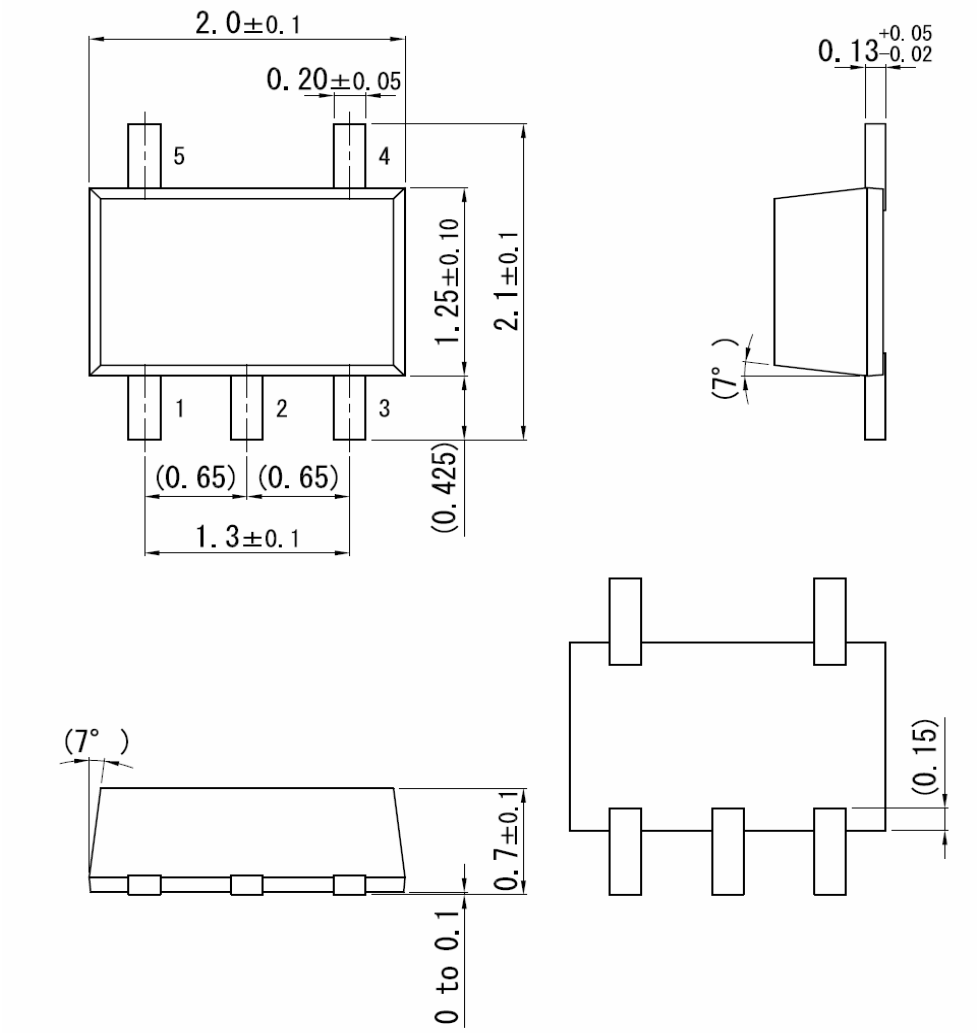
Rth -tsw



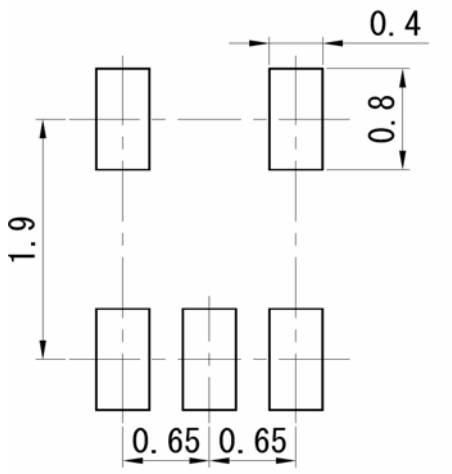
Safe Operating Area

SMini5-F3-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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

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