

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

Panasonic

MOS FET

MTM761110LBF

MTM761110LBF

Silicon P-channel MOSFET

For Switching

■ Features

- Low Drain-source On-state Resistance : $R_{DS(on)}$ typ. = 26 m Ω (V_{GS} = -4.5 V)
- Low Drive Voltage : 1.8 V Drive
- Halogen-free / RoHS compliant
(EU RoHS / UL-94 V-0 / MSL : Level 1 compliant)

■ Marking Symbol : GS

■ Packaging

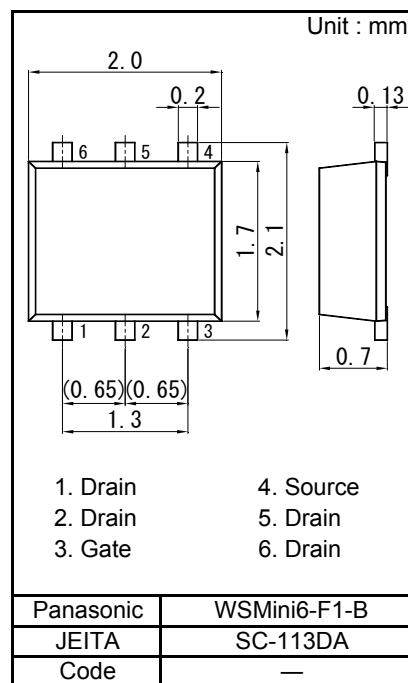
Embossed type (Thermo-compression sealing) : 3 000 pcs / reel (standard)

■ Absolute Maximum Ratings T_a = 25 °C

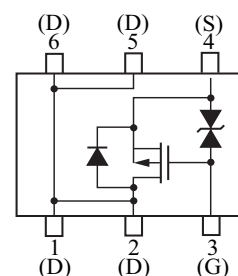
Parameter	Symbol	Rating	Unit
Drain to Source Voltage	V_{DS}	-12	V
Gate to Source Voltage	V_{GS}	± 8	V
Drain Current	I_D	-4.0	A
Drain Current (Pulsed)	I_{Dp}	-20	A
Total Power Dissipation ^{*1}	PD	700	mW
Channel Temperature	T_{ch}	150	°C
Operating ambient temperature	T_{opr}	-40 to +85	°C
Storage Temperature Range	T_{stg}	-55 to +150	°C

Note: *1 Measuring on ceramic board at 40 mm × 38 mm × 0.2 mm.

Absolute maximum rating PD Non-heat sink shall be made 150 mW.



Internal Connection



Pin Name

1. Drain 4. Source
2. Drain 5. Drain
3. Gate 6. Drain

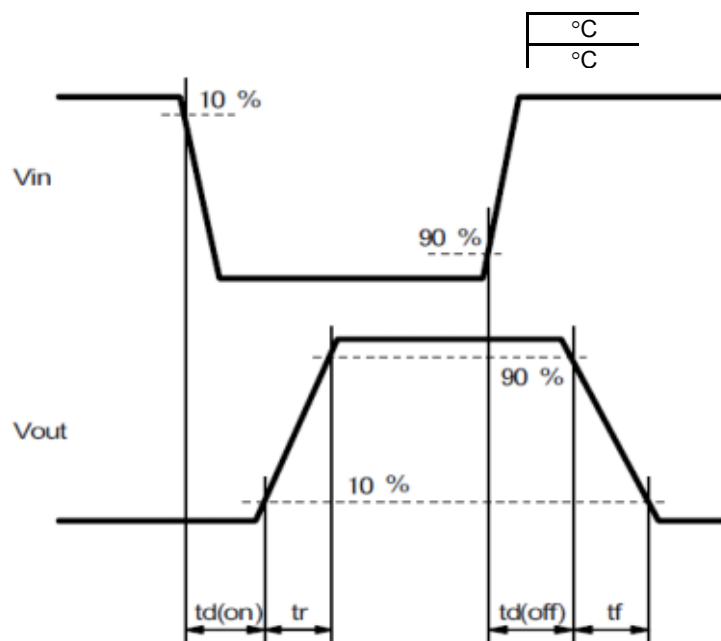
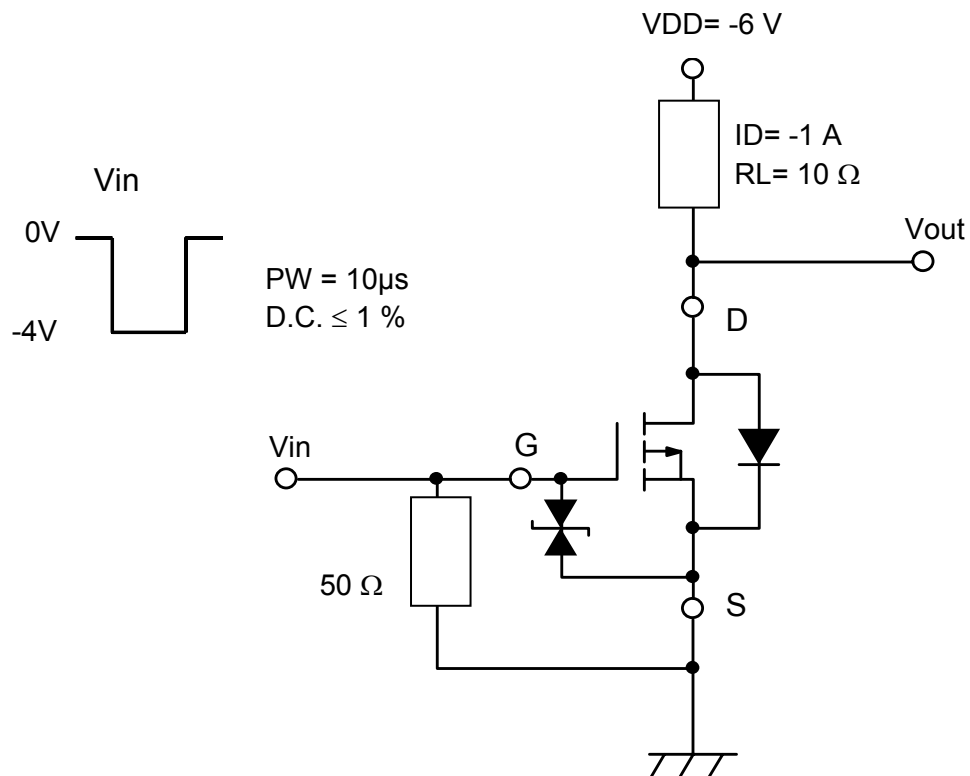
■ Electrical Characteristics Ta = 25 °C ± 3 °C

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Drain-source surrender voltage	VDSS	ID = -1 mA, VGS = 0	-12			V
Drain-source cutoff current	IDSS	VDS = -10 V, VGS = 0			-0.1	μA
Gate-source cutoff current	IGSS	VGS = ±8 V, VDS = 0			±10	μA
Gate threshold voltage	Vth	ID = -1.0 mA, VDS = -6.0 V	-0.3	-0.65	-1.0	V
Drain-source ON resistance	RDS(ON)1	ID = -1.0 A, VGS = -4.5 V		26	34	mΩ
	RDS(ON)2	ID = -0.5 A, VGS = -2.5 V		30	41	
	RDS(ON)3	ID = -0.5 A, VGS = -1.8 V		36	54	
Forward transfer admittance	Yfs	ID = -1.0 A, VDS = -10 V	4.0			S
Short-circuit input capacitance (Common source)	Ciss	VDS = -10 V, VGS = 0, f = 1 MHz		1400		pF
Short-circuit output capacitance (Common source)	Coss			135		
Reverse transfer capacitance (Common source)	Crss			150		
Turn-on delay time ^{*1}	td(on)	VDD = -6 V, VGS = 0 to -4 V		9		ns
Rise time ^{*1}	tr	ID = -1.0 A		11		
Turn-off delay time ^{*1}	td(off)	VDD = -6 V, VGS = -4 to 0 V		270		ns
Fall time ^{*1}	tf	ID = -1.0 A		160		

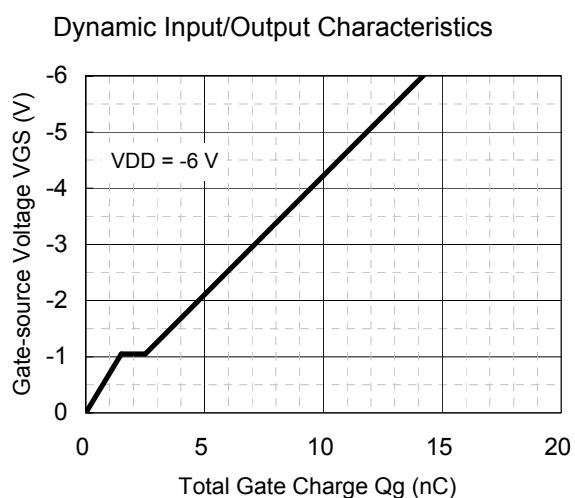
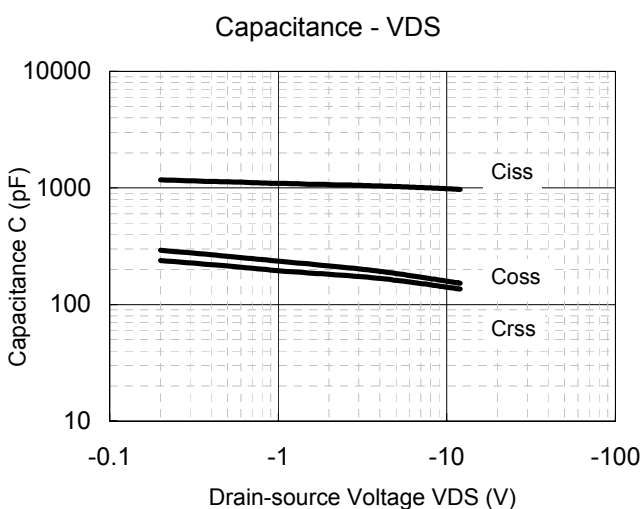
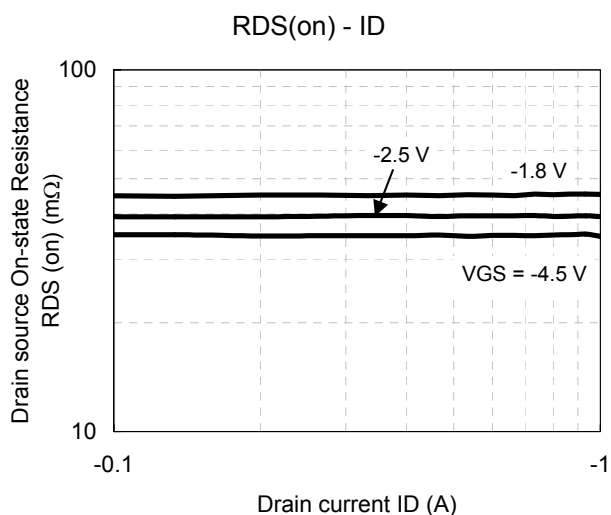
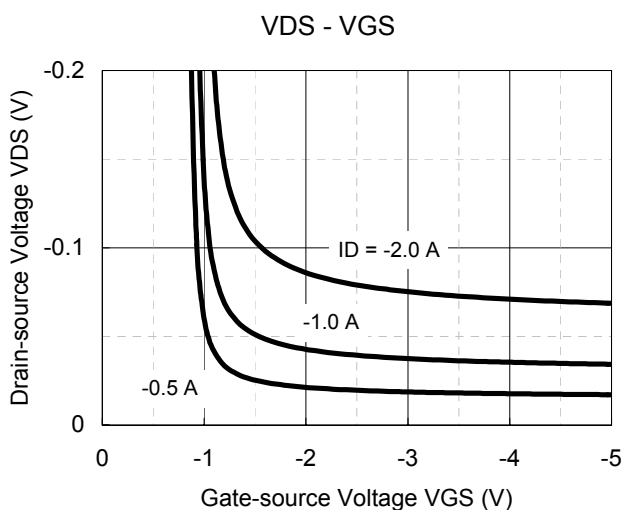
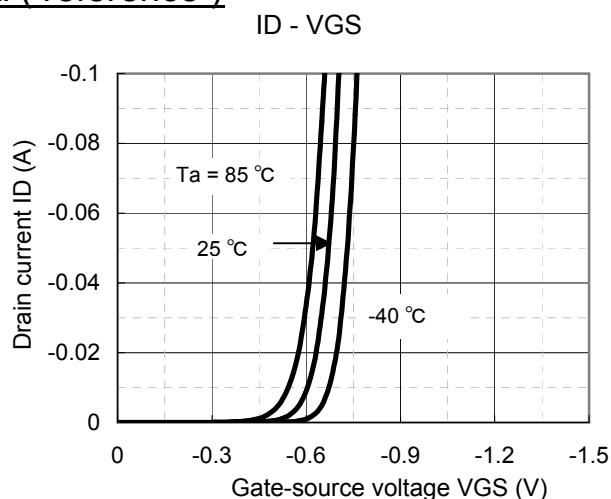
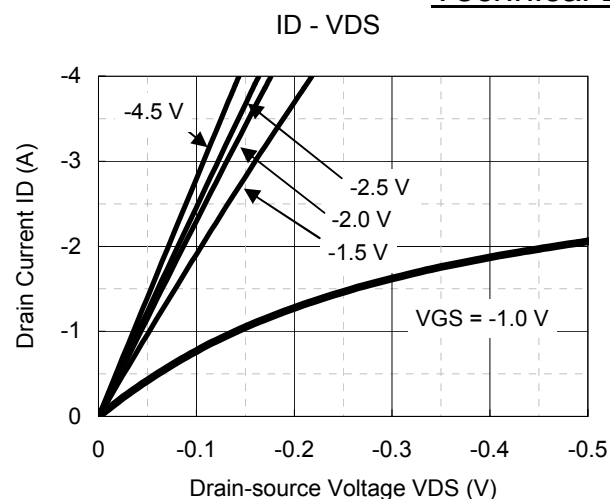
Note : Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.

*1 Measurement circuit for Turn-on Delay Time / Turn-off Delay Time

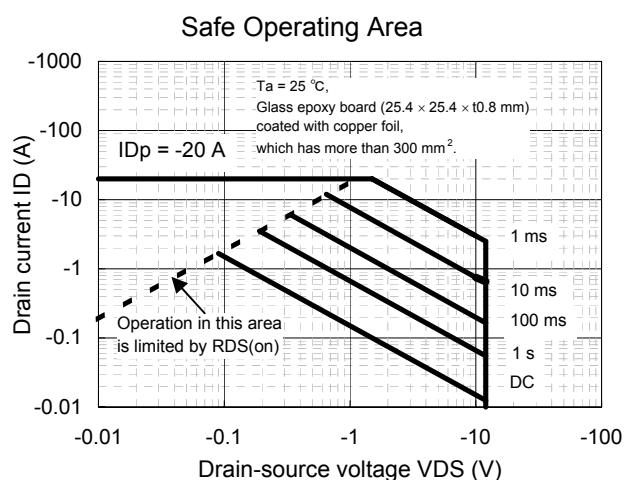
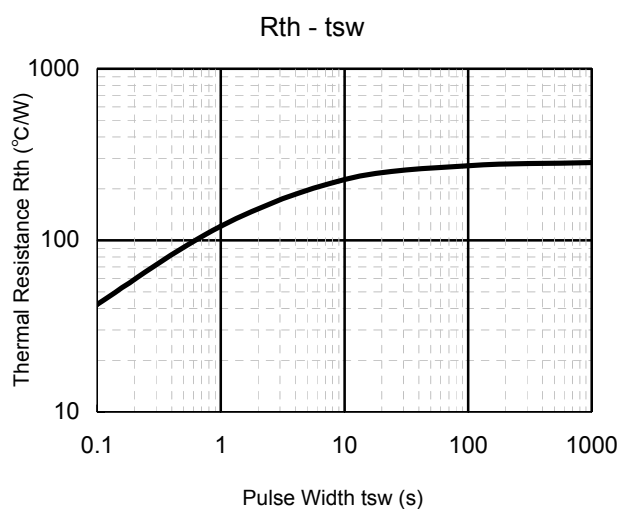
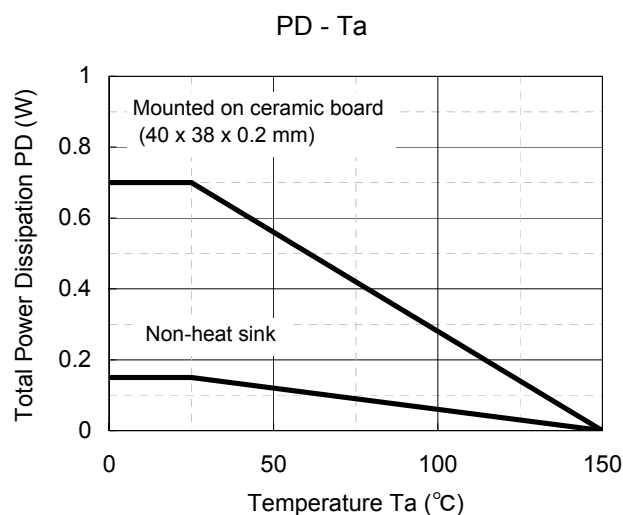
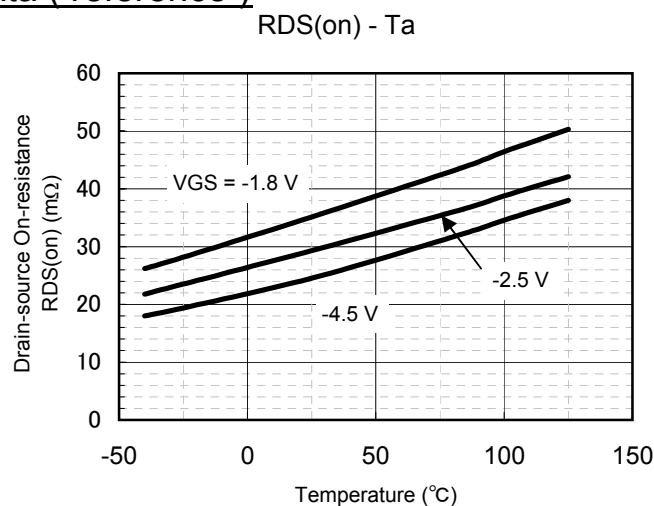
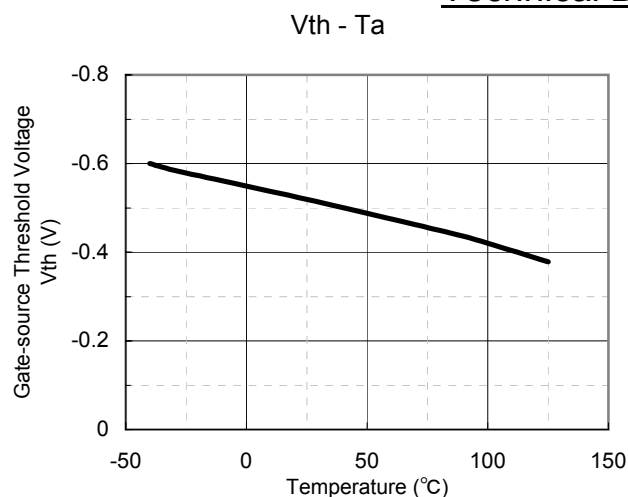
*1 Measurement circuit for Turn-on Delay Time / Turn-off Delay Time



Technical Data (reference)

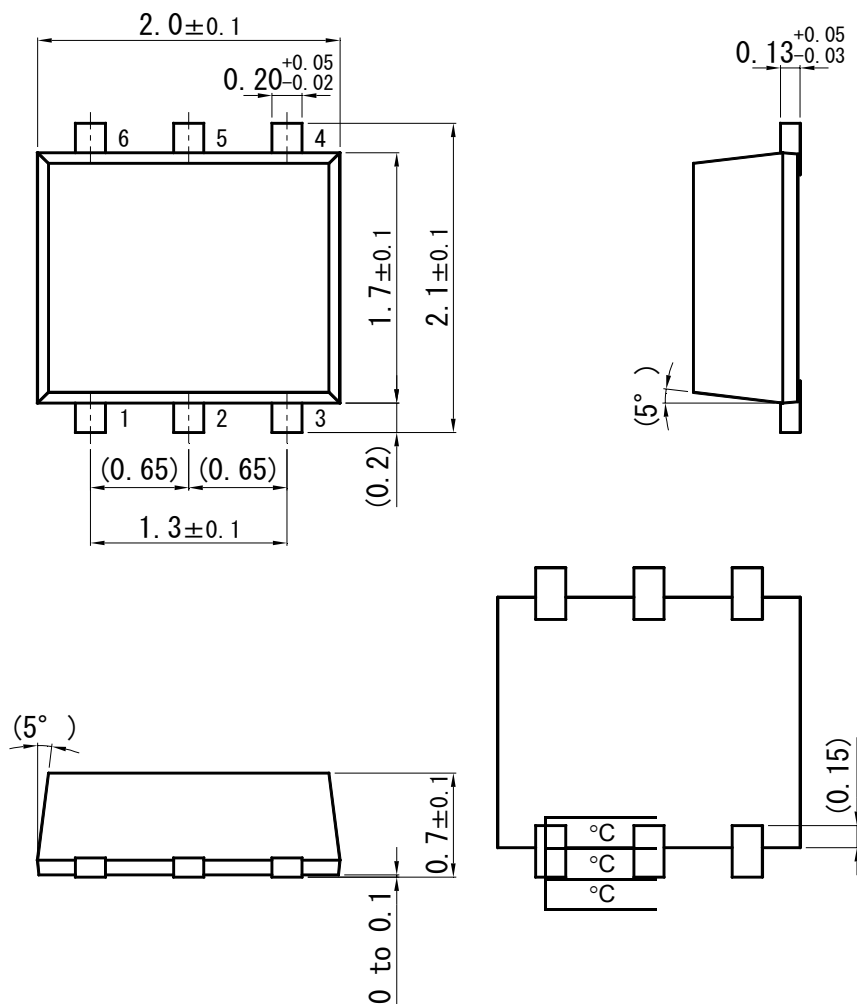


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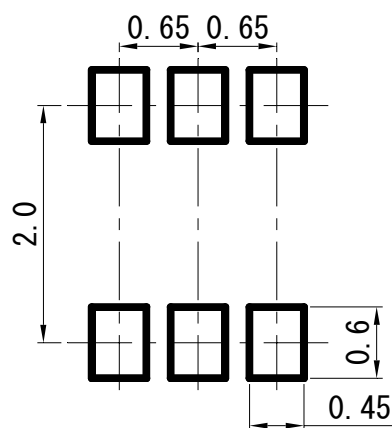


WSMini6-F1-B

Unit : mm



■ Land Pattern (Reference) (Unit : mm)



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