

**Panasonic**

MOS FET

MTM761110LBF

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Silicon P-channel MOSFET

For Switching

#### ■ Features

- Low Drain-source On-state Resistance :  $R_{DS(on)}$  typ. = 26 m $\Omega$  ( $V_{GS}$  = -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

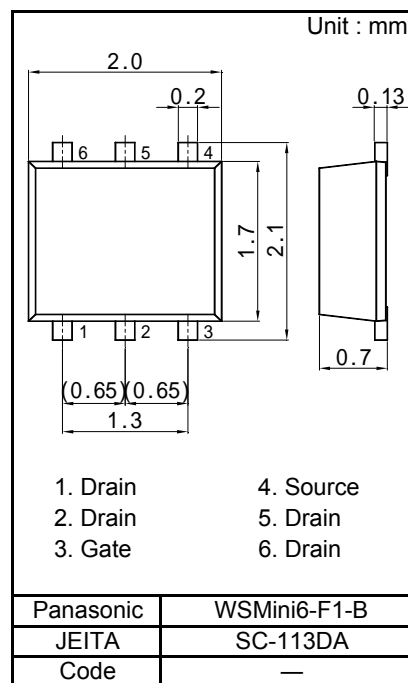
Embossed type (Thermo-compression sealing) : 3 000 pcs / reel (standard)

#### ■ Absolute Maximum Ratings $T_a$ = 25 °C

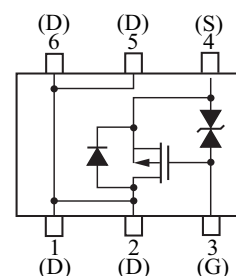
Parameter	Symbol	Rating	Unit
Drain to Source Voltage	$V_{DS}$	-12	V
Gate to Source Voltage	$V_{GS}$	$\pm 8$	V
Drain Current	$I_D$	-4.0	A
Drain Current (Pulsed)	$I_{Dp}$	-20	A
Total Power Dissipation <sup>*1</sup>	PD	700	mW
Channel Temperature	$T_{ch}$	150	°C
Operating ambient temperature	$T_{opr}$	-40 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

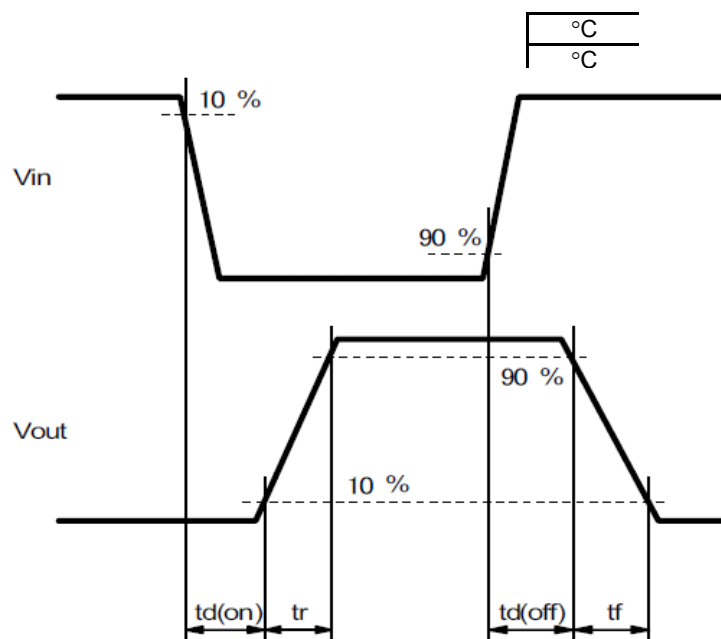
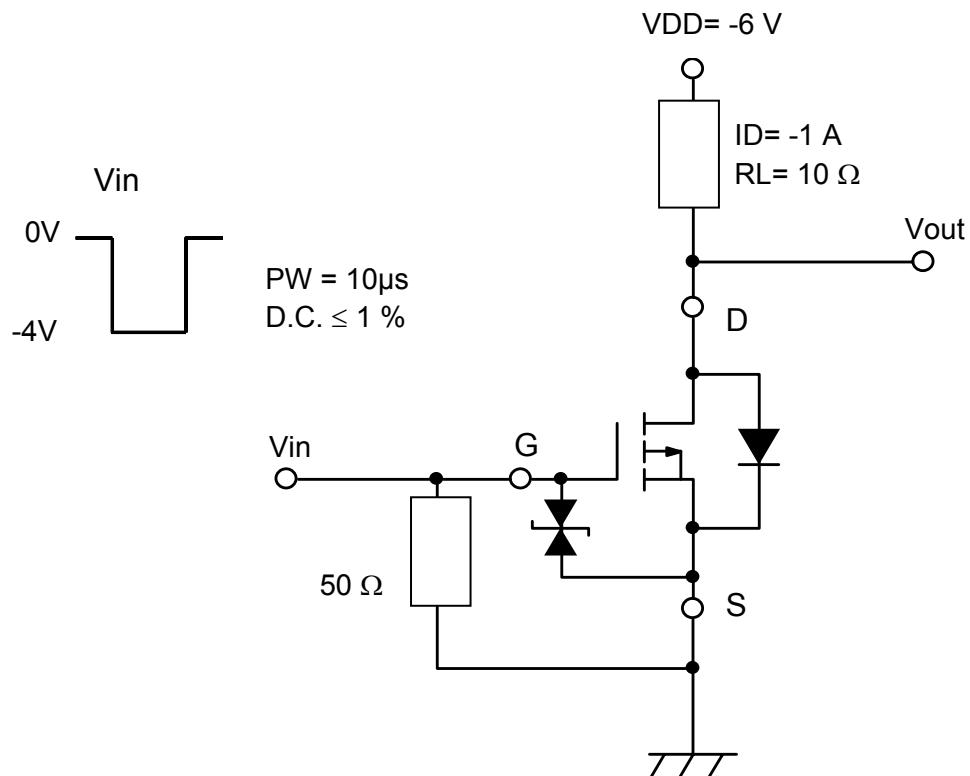
■ Electrical Characteristics Ta = 25 °C ± 3 °C

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 <sup>*1</sup>	td(on)	VDD = -6 V, VGS = 0 to -4 V		9		ns
Rise time <sup>*1</sup>	tr	ID = -1.0 A		11		
Turn-off delay time <sup>*1</sup>	td(off)	VDD = -6 V, VGS = -4 to 0 V		270		ns
Fall time <sup>*1</sup>	tf	ID = -1.0 A		160		

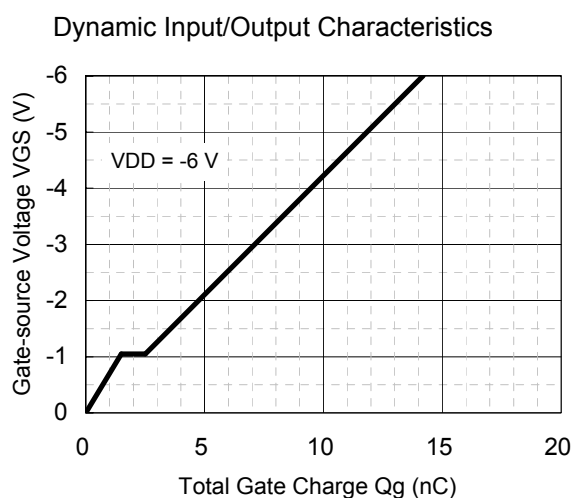
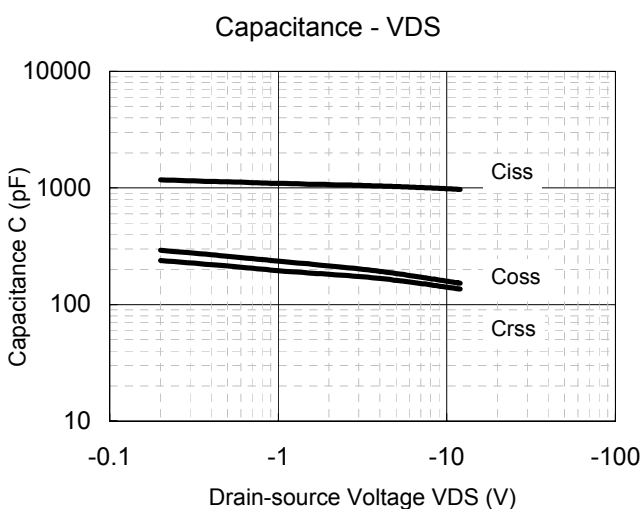
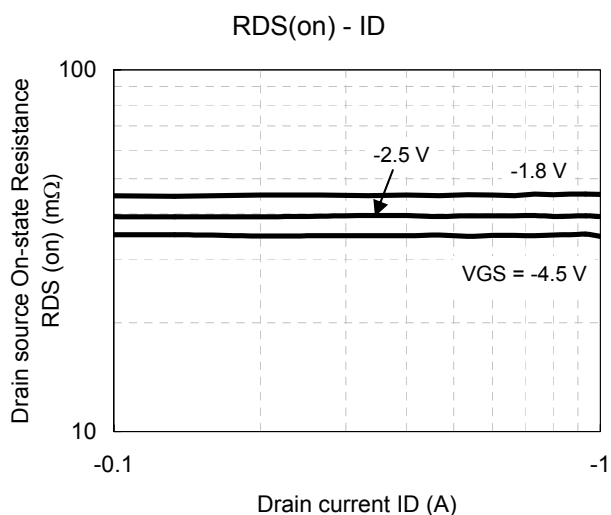
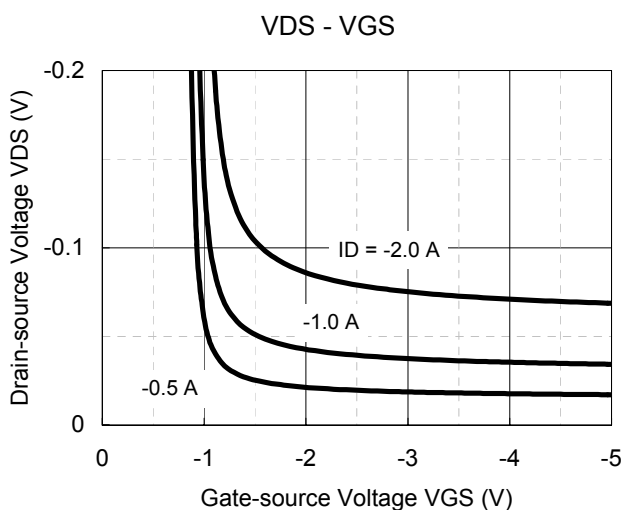
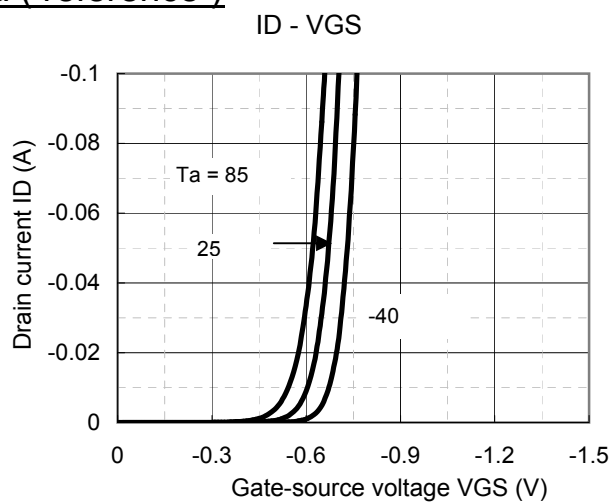
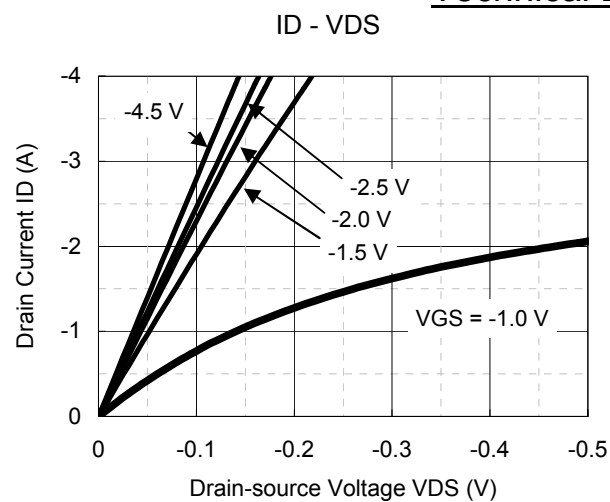
Note : Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.

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

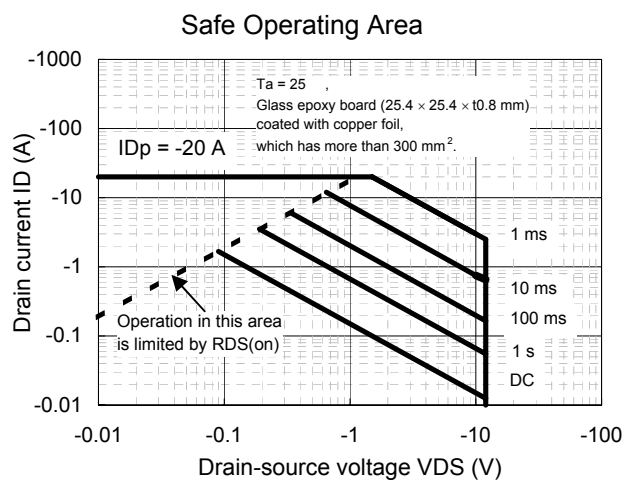
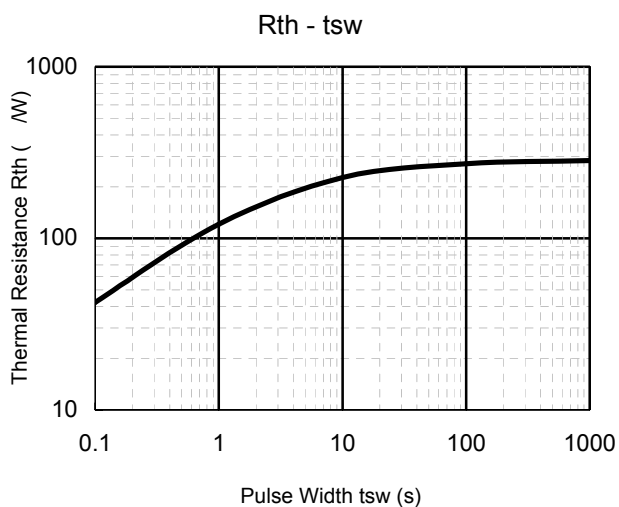
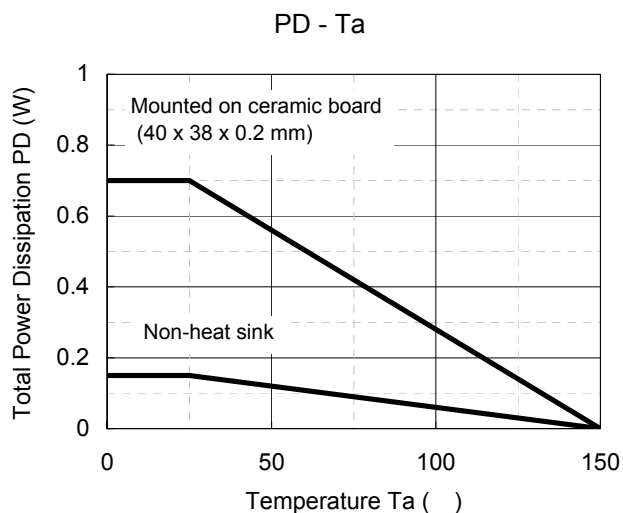
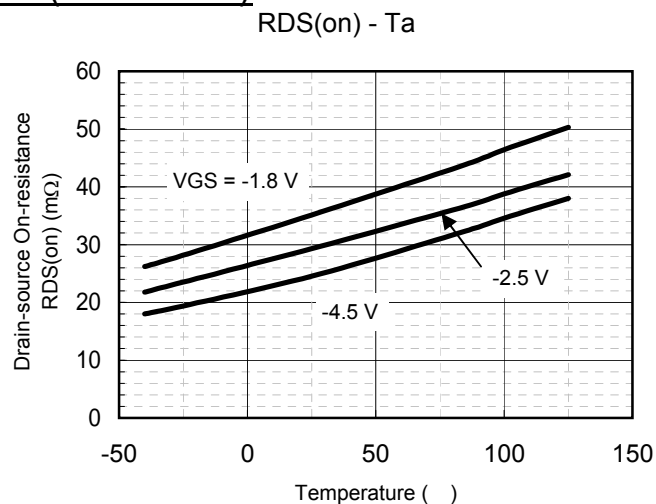
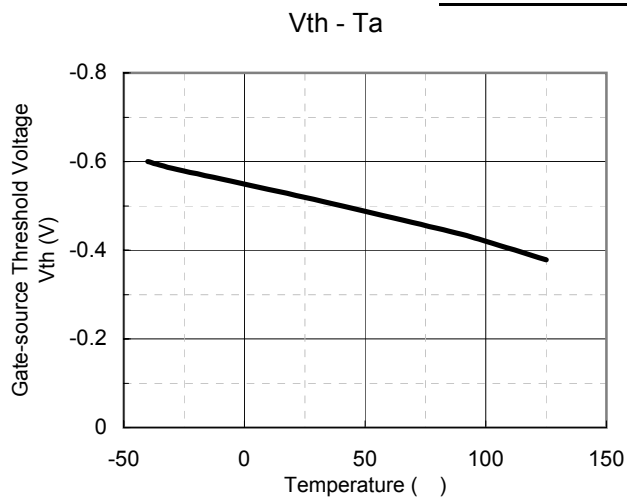
\*1 Measurement circuit for Turn-on Delay Time / Turn-off Delay Time



# Technical Data ( reference )

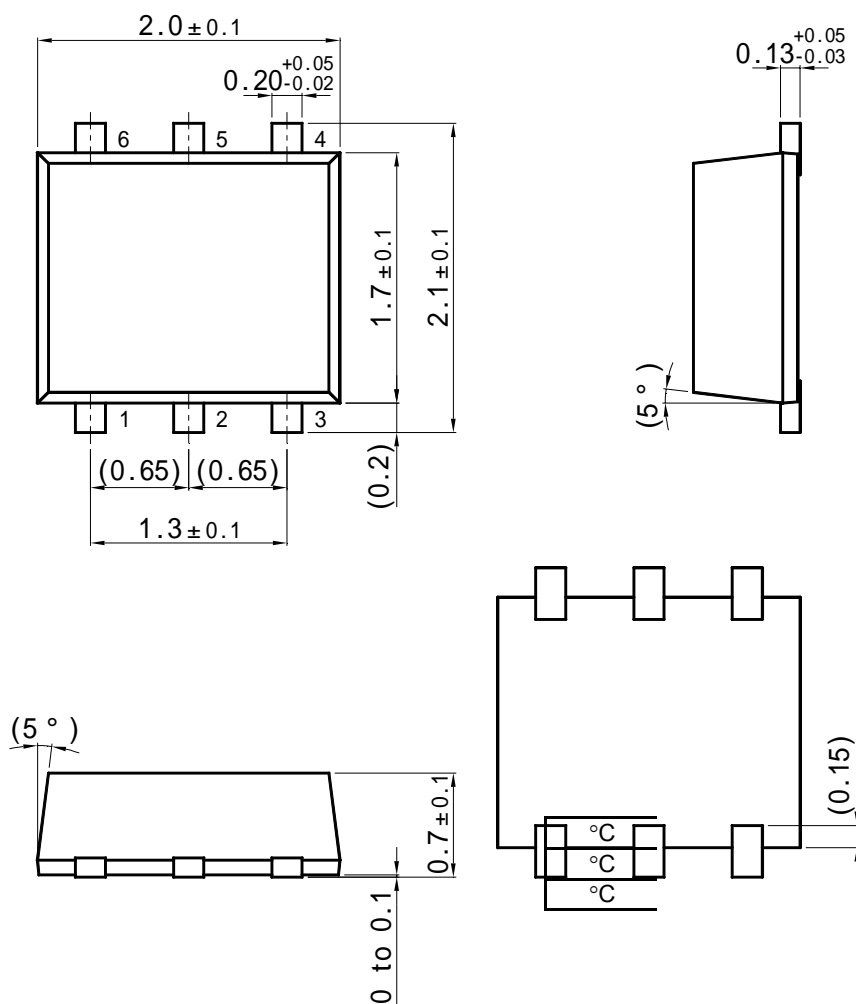


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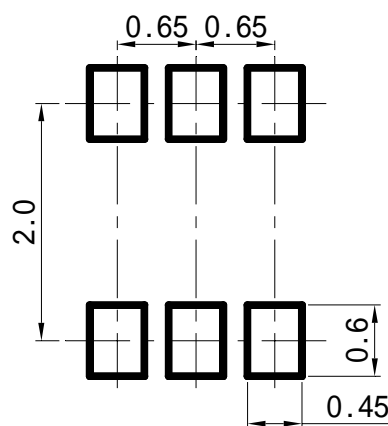


WSMini6-F1-B

Unit : mm



■ Land Pattern (Reference) (Unit : mm)



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