

MTM761100LBF
Silicon P-channel MOSFET
For Switching

■ Features

- Low Drain-source On-state Resistance : RDS(on) typ. = 30 mΩ (VGS = -4.0 V)
 - Low Drive Voltage : 1.8 V Drive
 - Halogen-free / RoHS compliant
(EU RoHS / UL-94 V-0 / MSL : Level 1 compliant)

■ Marking Symbol : 9D

■ Packaging

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

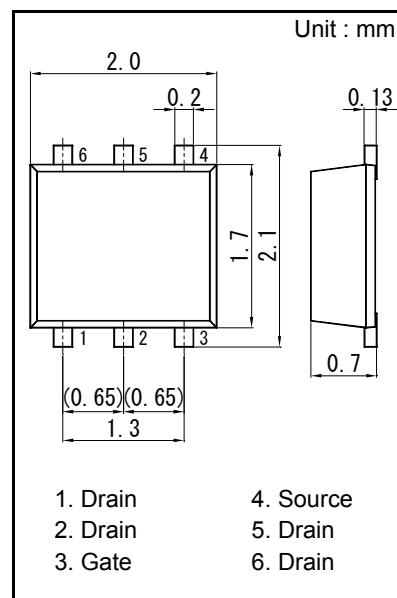
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Drain to Source Voltage	VDS	-12	V
Gate to Source Voltage	VGS	± 8	V
Drain Current	ID	-4.0	A
Drain Current (Pulsed) ^{*1}	IDp	-16	A
Total Power Dissipation ^{*2}	PD	700	mW
Channel Temperature	Tch	150	°C
Operating ambient temperature	Topr	-40 to +85	
Storage Temperature Range	Tstg	-55 to +150	

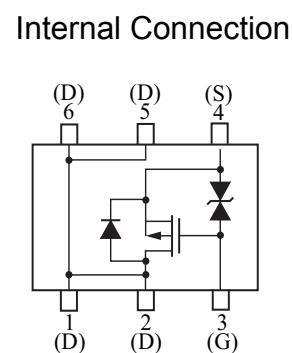
Note: *1 Pulse width $\leq 10 \mu\text{s}$, Duty cycle $\leq 1 \%$

*2 Measuring on ceramic board at 40 mm × 38 mm × 0.1 mm.

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



Panasonic	WSMini6-F1-B
JEITA	SC-113DA
Code	—



Pin Name

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

■ Electrical Characteristics $T_a = 25 \text{ }^{\circ}\text{C} \pm 3 \text{ }^{\circ}\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Drain-source Breakdown Voltage	VDSS	ID = -1 mA, VGS = 0 V	-12			V
Zero Gate Voltage Drain Current	IDSS	VDS = -12 V, VGS = 0 V			-1.0	μA
Gate-source Leakage Current	IGSS	VGS = ± 6.4 V, VDS = 0 V			± 10	μA
Gate-source Threshold Voltage	Vth	ID = -1.0 mA, VDS = -6.0 V	-0.3	-0.65	-1.0	V
Drain-source On-state Resistance ^{*1}	RDS(ON)1	ID = -1 A, VGS = -4.0 V		30	42	$\text{m}\Omega$
	RDS(ON)2	ID = -0.5 A, VGS = -2.5 V		35	55	
	RDS(ON)3	ID = -0.2 A, VGS = -1.8 V		45	75	
Forward transfer admittance ^{*1}	Yfs	ID = -1 A, VDS = -10 V, f = 1 kHz	3.5			S
Input Capacitance	Ciss	VDS = -10 V, VGS = 0 V f = 1 MHz		1200		pF
Output Capacitance	Coss			110		
Reverse Transfer Capacitance	Crss			110		
Turn-on Time ^{*2}	ton	VDD = -6 V, VGS = 0 to -4 V ID = -1 A		30		ns
Turn-off Time ^{*2}	toff	VDD = -6 V, VGS = -4 to 0 V ID = -1 A		300		ns

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

*1 Pulse test : Pulse width $\leq 300 \mu\text{s}$, Duty cycle $\leq 2 \%$

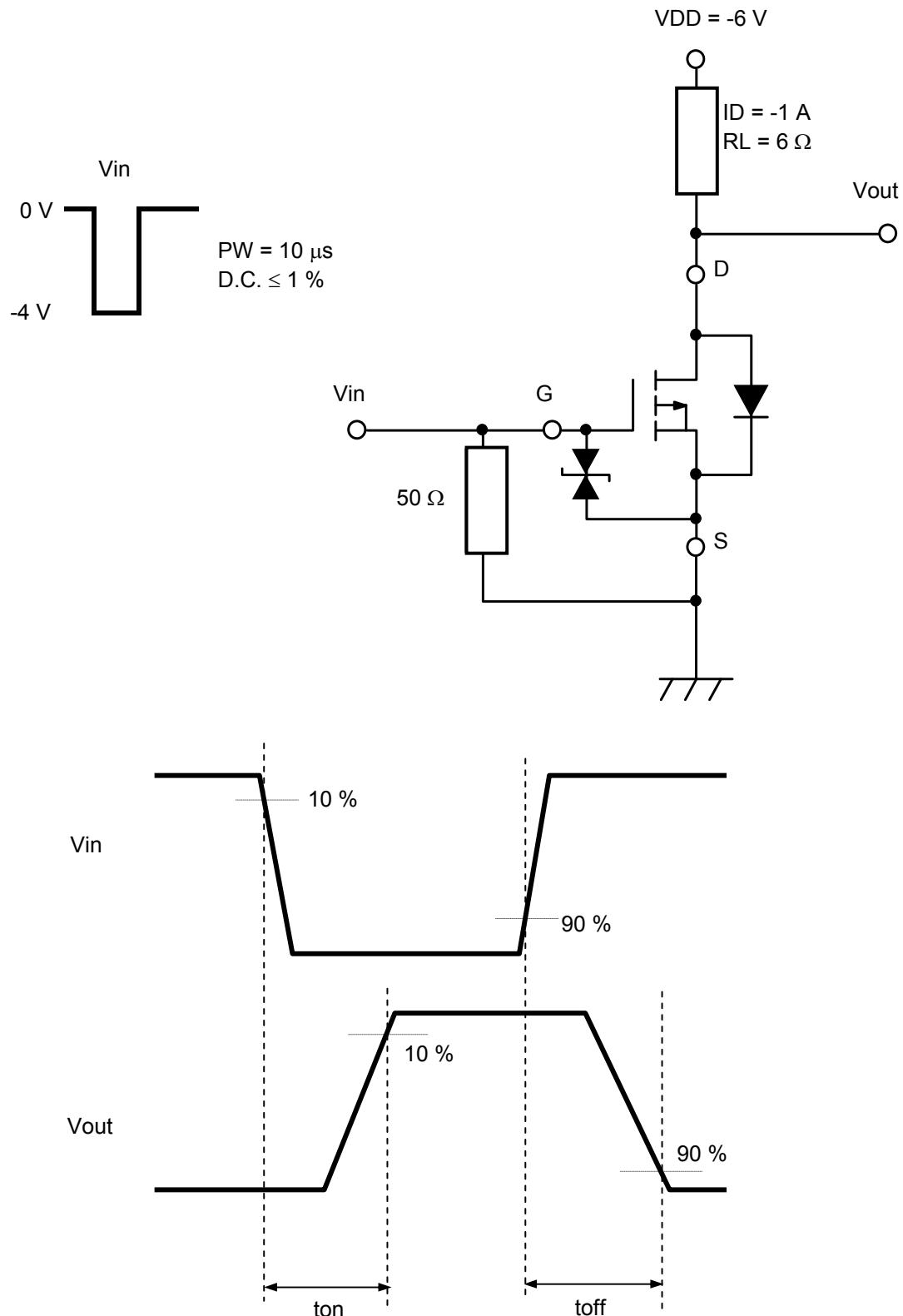
*2 Measurement circuit for Turn-on Time / Turn-off Time

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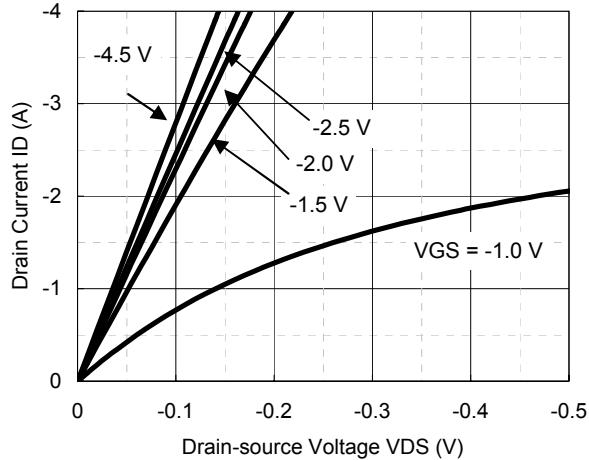
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*2 Measurement circuit for Turn-on Time / Turn-off Time

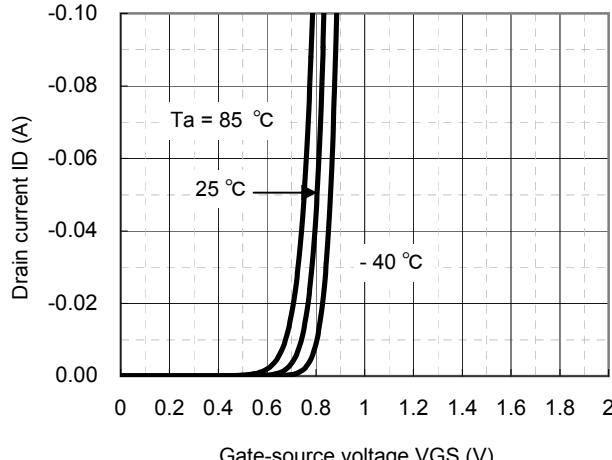


Technical Data (reference)

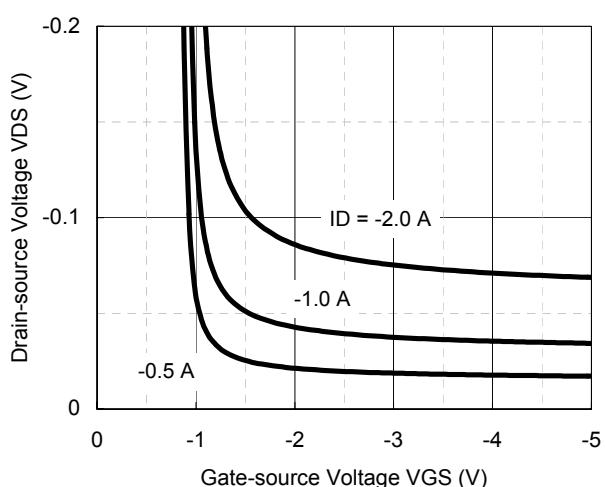
ID - VDS



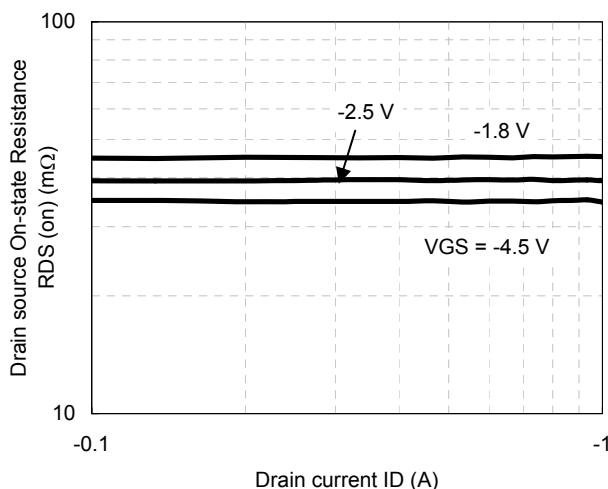
ID - VGS



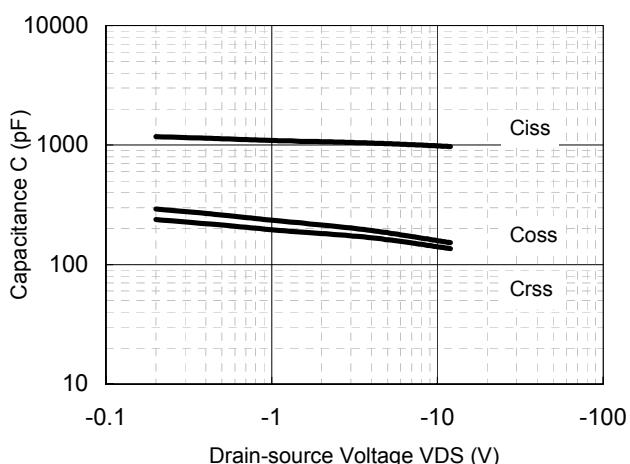
VDS - VGS



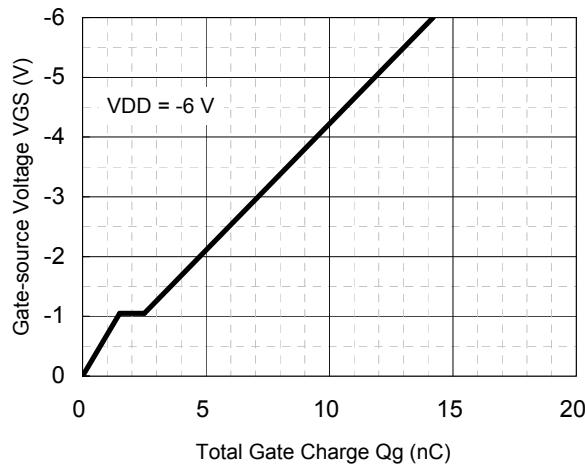
RDS(on) - ID



Capacitance - VDS

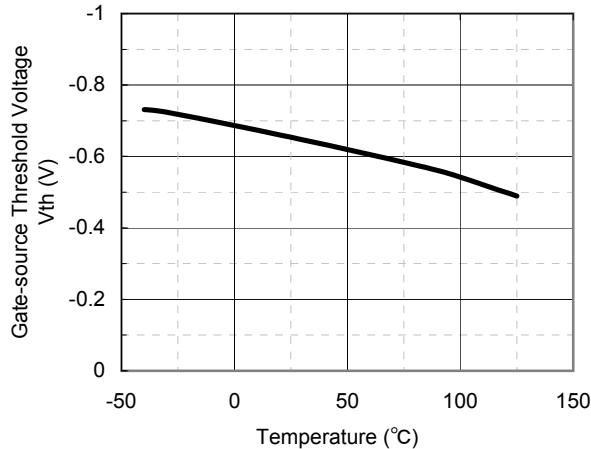


Dynamic Input/Output Characteristics

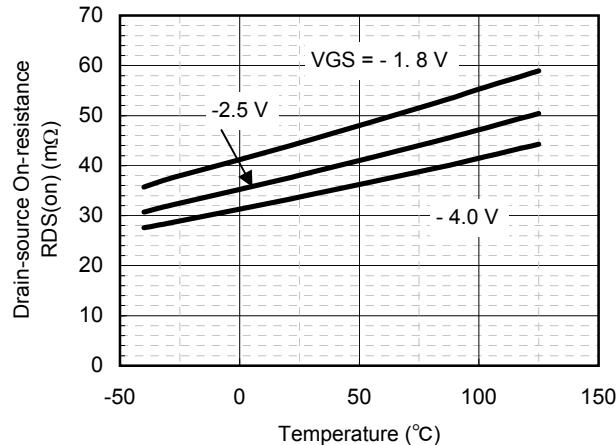


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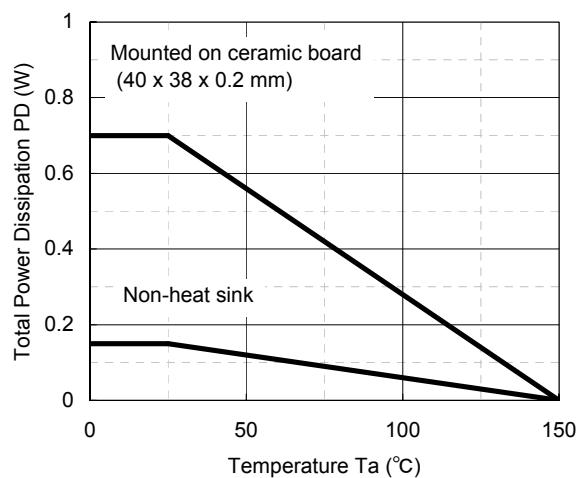
V_{th} - Ta



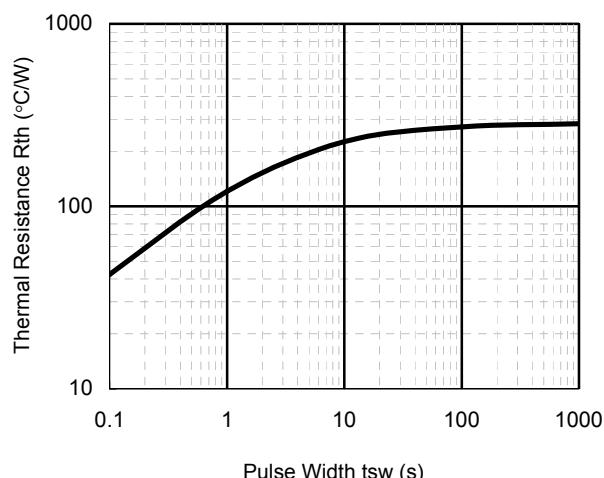
RDS(on) - Ta



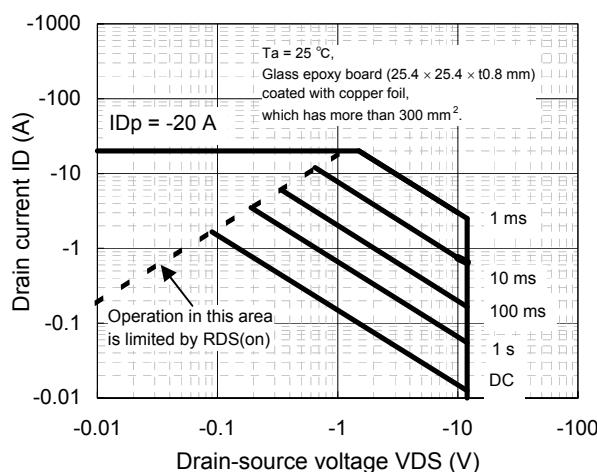
PD - Ta



R_{th} - tsw



Safe Operating Area



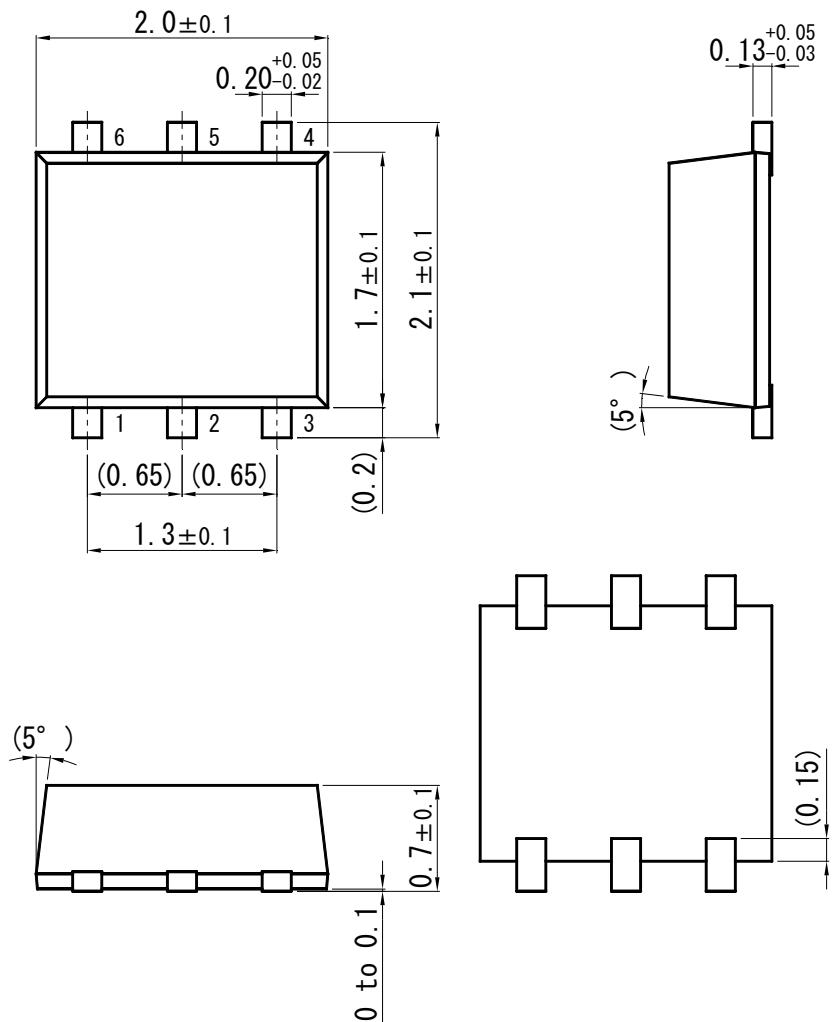
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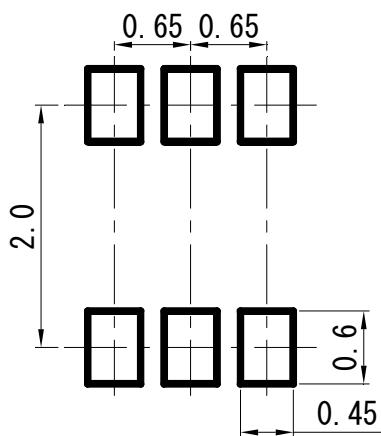
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WSMini6-F1-B

Unit : mm



■ Land Pattern (Reference) (Unit : mm)



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