



MOS FET
FJ6K01010L

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Silicon P-channel MOS FET

For switching

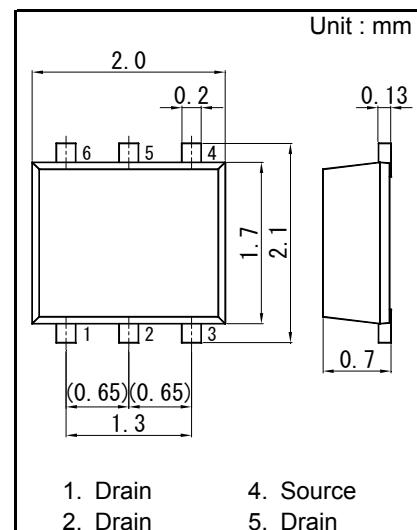
■ Features

- Low drain-source On-state resistance : RDS (on) typ. = 26 mΩ (VGS = -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 : T4

■ Packaging

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



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

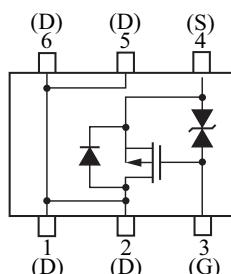
Panasonic	WSMini6-F1-B
JEITA	SC-113DA
Code	—

■ Absolute Maximum Ratings Ta = 25 °C

Parameter	Symbol	Rating	Unit
Drain-source voltage	VDS	-12	V
Gate-source voltage	VGS	±8	V
Drain current	ID	-4.0	A
Pulse drain current	IDp	-20	A
Total power dissipation ¹	PD	700	mW
Channel temperature	Tch	150	°C
Operating ambient temperature	Topr	-40 to + 85	°C
Storage temperature	Tstg	-55 to +150	°C

Note) *1 Measuring on Glass epoxy board (25.4 x 25.4 x 0.8 mm) (See Figure 1)
Absolute maximum rating without heat sink for PD is 150 mW

Internal Connection



Pin Name

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

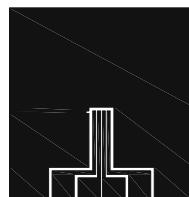


Figure 1 FR4 Glass-Epoxy Board
25.4 mm x 25.4 mm x 0.8 mm

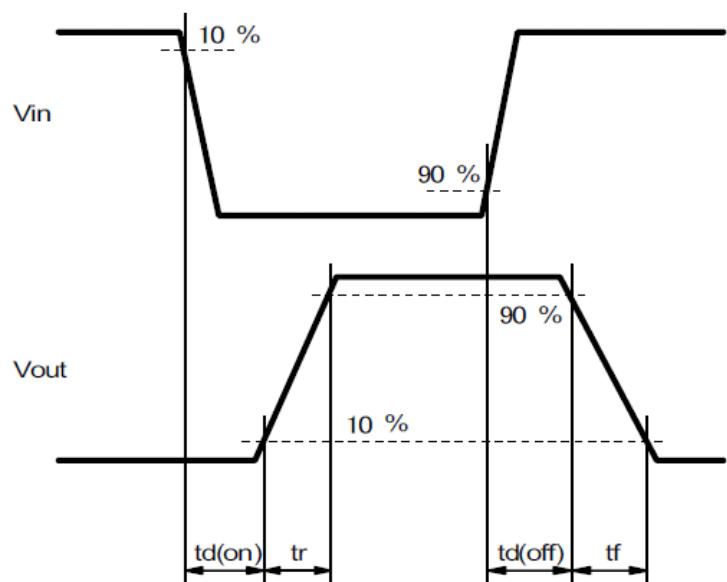
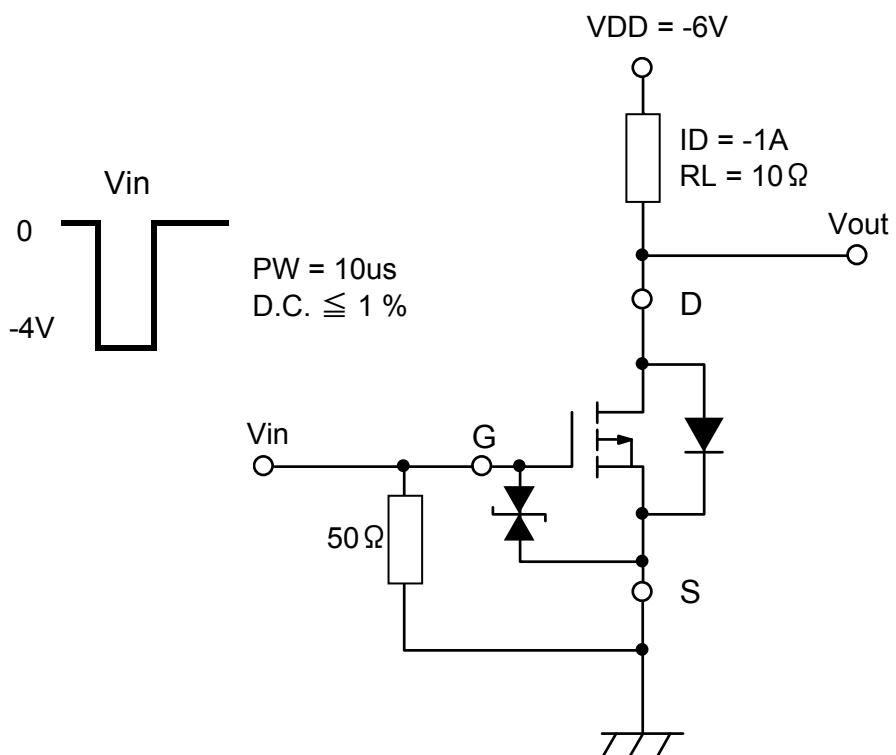
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Drain-source breakdown voltage	VDSS	ID = -1 mA, VGS = 0	-12			V
Drain-source cutoff current	IDSS	VDS = -10 V, VGS = 0			-1.0	μA
Gate-source cutoff current	IGSS	VGS = ± 8 V, VDS = 0			± 10	μA
Gate threshold voltage	V _{th}	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	$\text{m}\Omega$
	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	Y _{fs}	ID = -1.0 A, VDS = -10 V	4.0			S
Input capacitance	C _{iss}	VDS = -10 V, VGS = 0, f = 1 MHz		1 400		pF
Output capacitance	C _{oss}			190		pF
Reverse transfer capacitance	C _{rss}			210		pF
Turn-on delay time ¹	td(on)	VDD = -6 V, VGS = 0 to -4 V ID = -1.0 A		9		ns
Rise time ¹	tr			40		ns
Turn-off delay time ¹	td(off)	VDD = -6 V, VGS = -4 to 0 V ID = -1.0 A		250		ns
Fall time ¹	tf			150		ns

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.

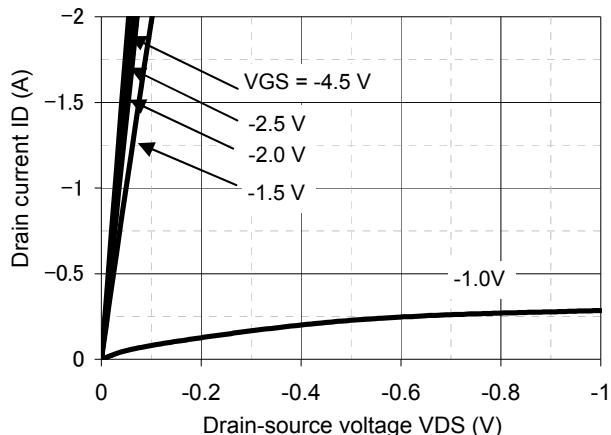
2. *1 Measurement circuit for Turn-on Delay Time/Rise Time/Turn-off Delay Time/Fall Time

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

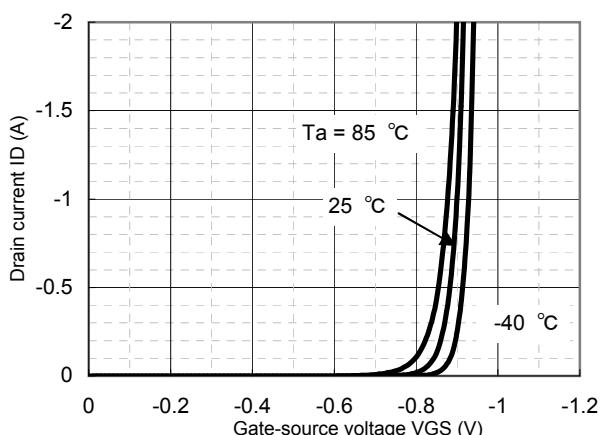


Technical Data (reference)

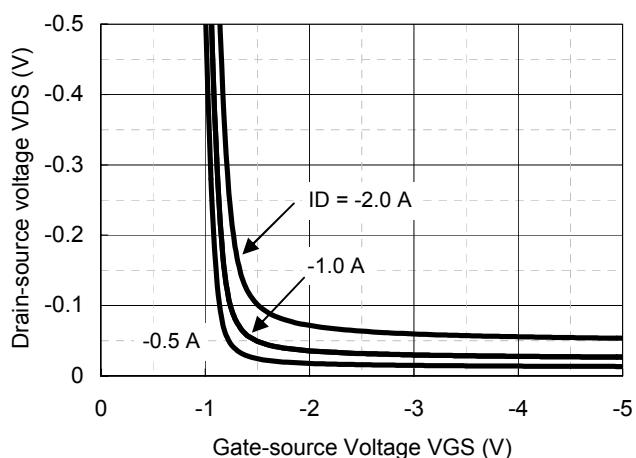
ID - VDS



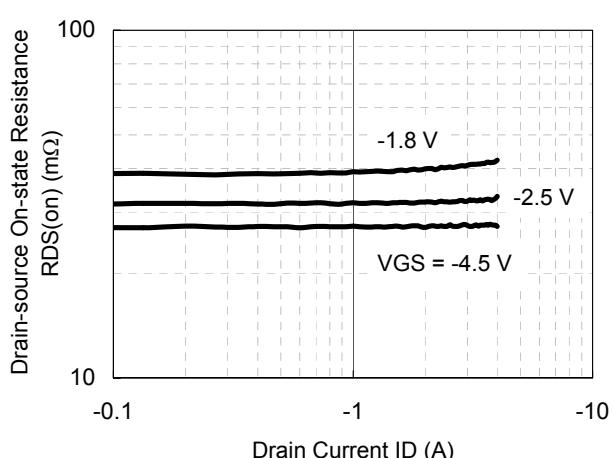
ID - VGS



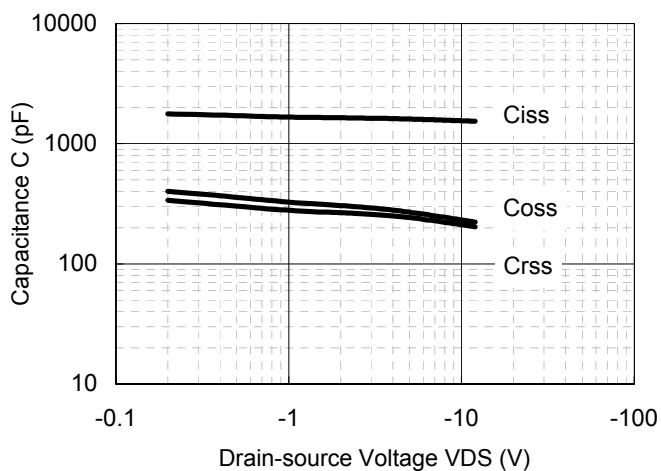
VDS - VGS



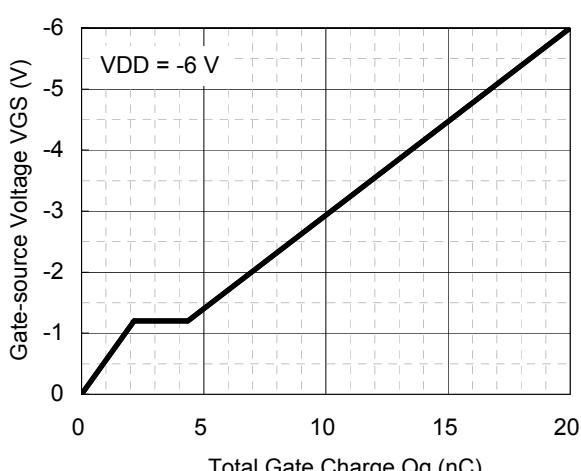
RDS(on) - ID



Capacitance - VDS

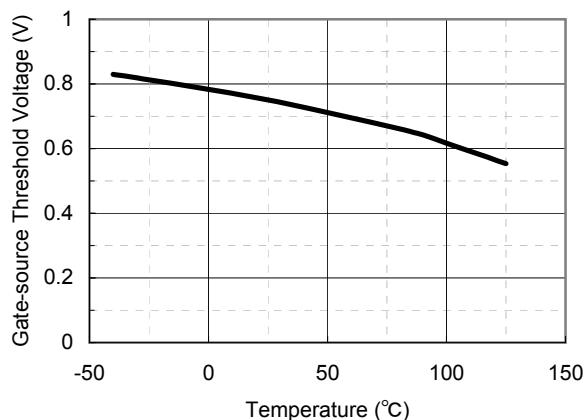


Dynamic Input/Output Characteristics

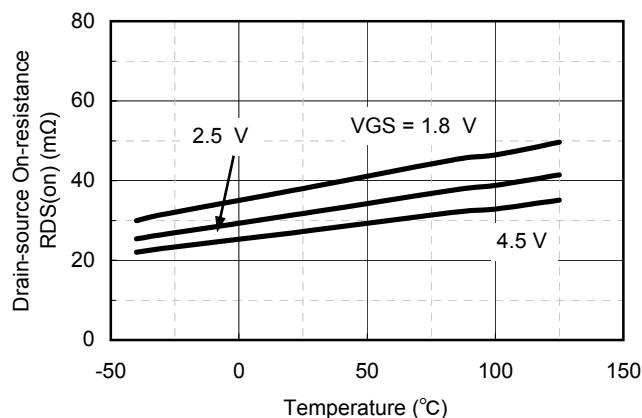


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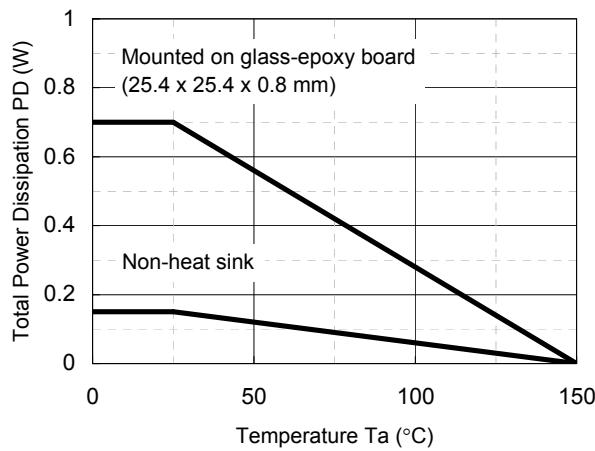
Vth - Ta



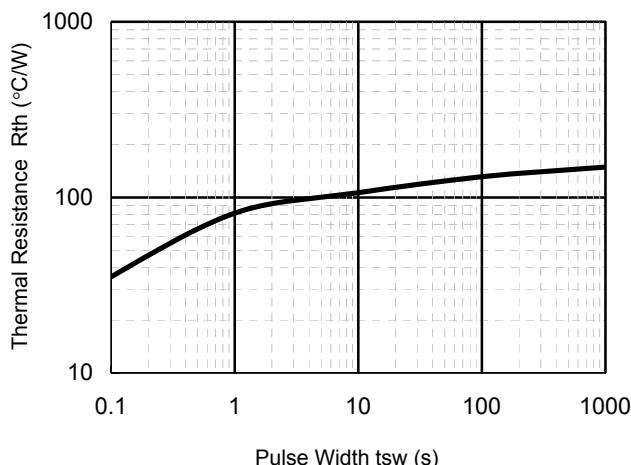
RDS(on) - Ta



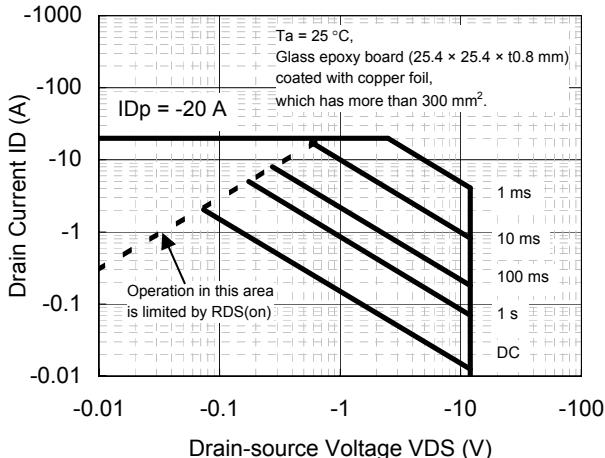
PD - Ta



Rth - tsw

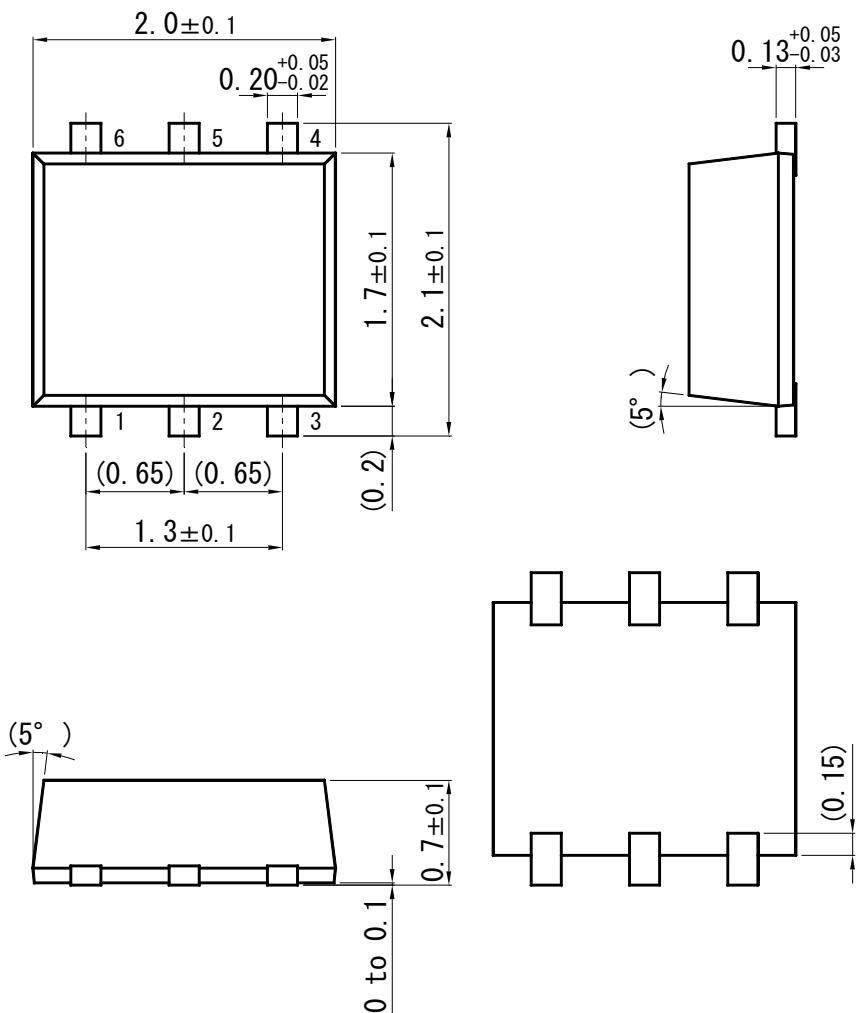


Safe Operating Area

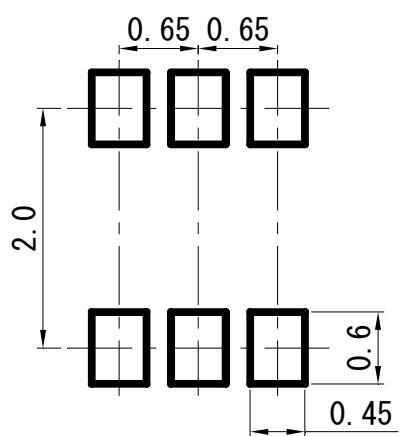


WSMini6-F1-B

Unit : mm



■ Land Pattern (Reference) (Unit : mm)



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