



FJ6K01010L

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

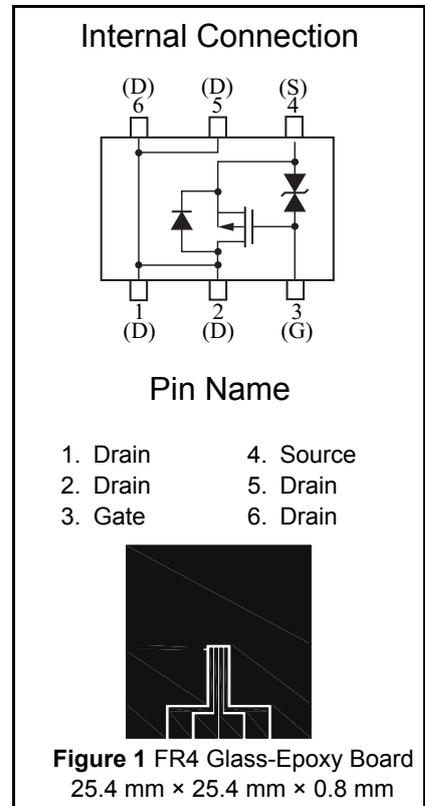
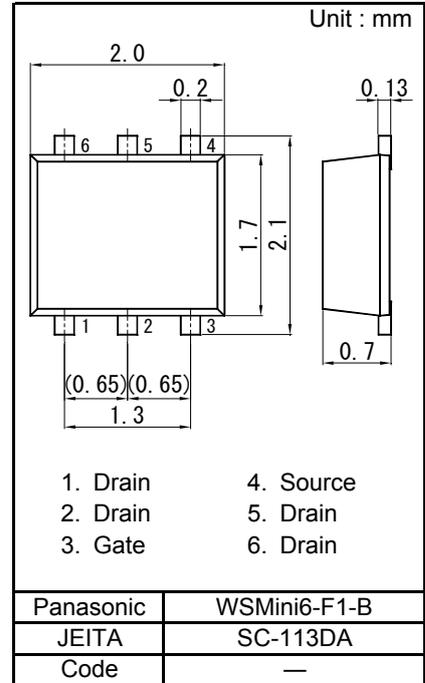
■ Packaging

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

■ 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



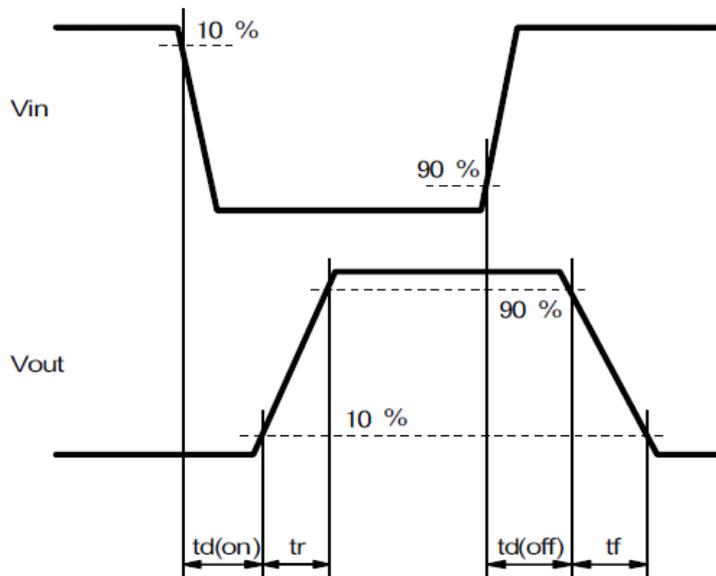
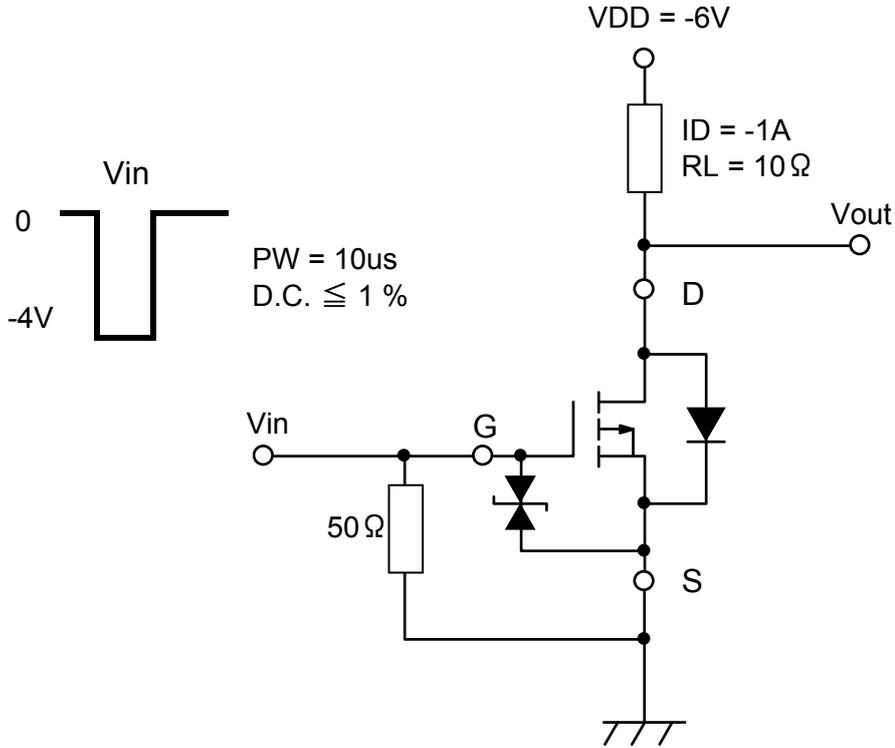
■ Electrical Characteristics Ta = 25 °C ± 3 °C

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	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
Input capacitance	Ciss	VDS = -10 V, VGS = 0, f = 1 MHz		1 400		pF
Output capacitance	Coss			190		pF
Reverse transfer capacitance	Crss			210		pF
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		40		ns
Turn-off delay time ^{*1}	td(off)	VDD = -6 V, VGS = -4 to 0 V		250		ns
Fall time ^{*1}	tf	ID = -1.0 A		150		ns

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

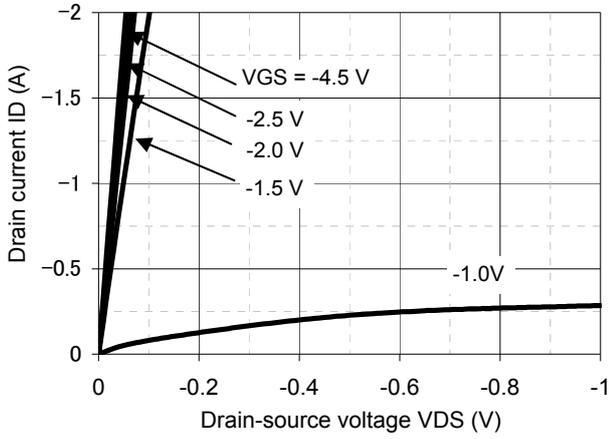
2. *1 Measurement circuit for Turn-on Delay Time/Rise Time/Turn-off Delay Time/Fall Time

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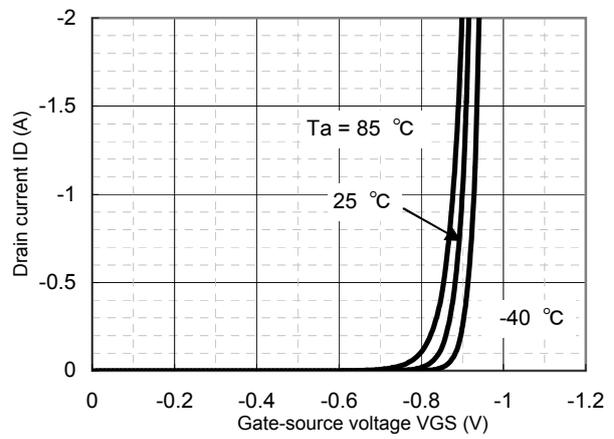


Technical Data (reference)

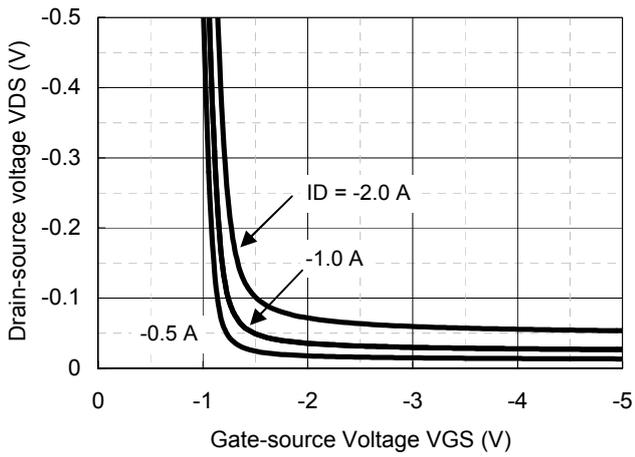
ID - VDS



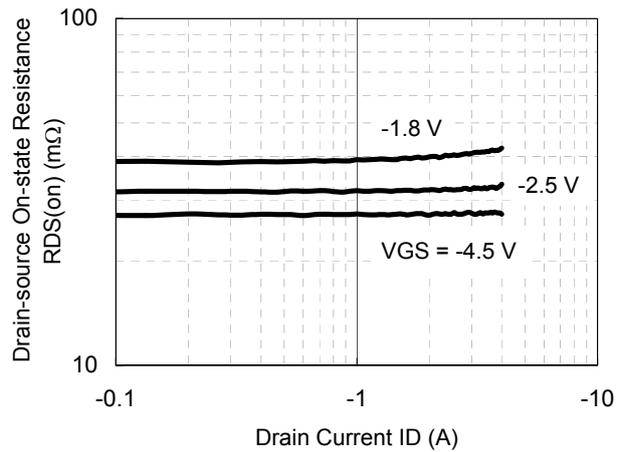
ID - VGS



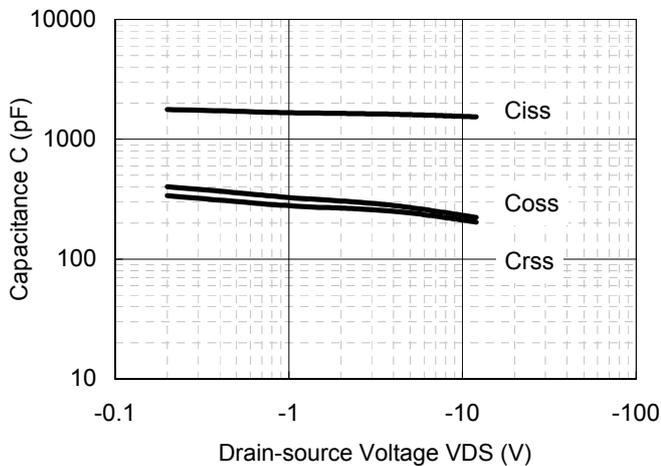
VDS - VGS



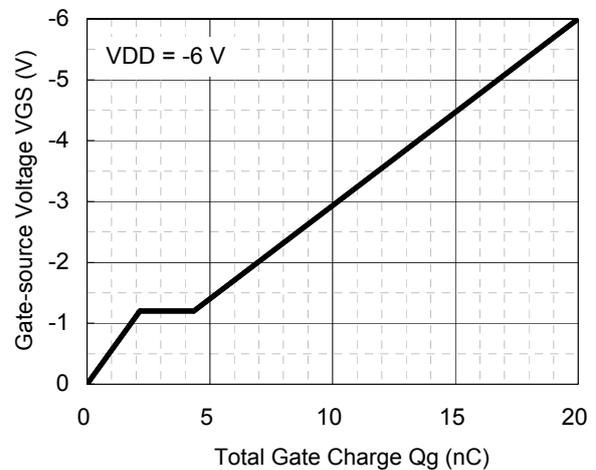
RDS(on) - ID



Capacitance - VDS

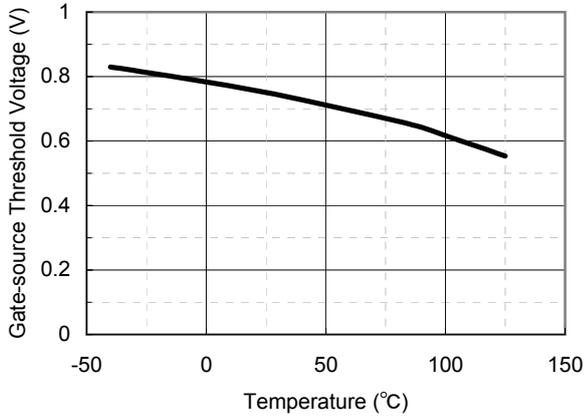


Dynamic Input/Output Characteristics

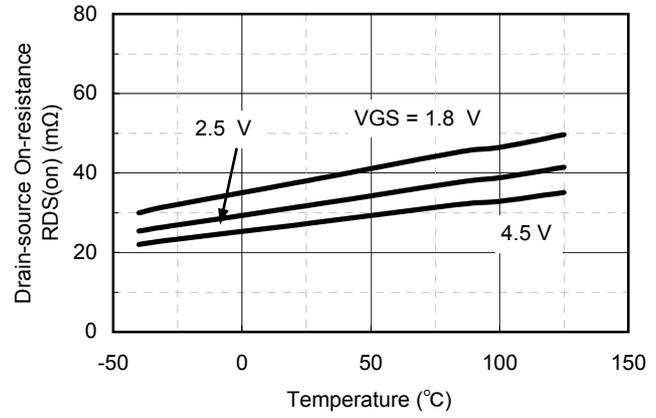


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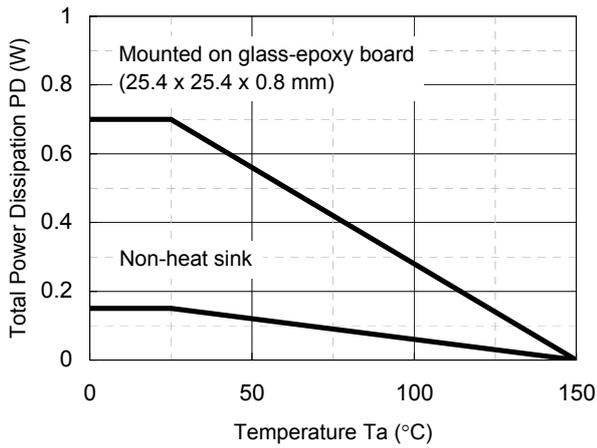
V_{th} - T_a



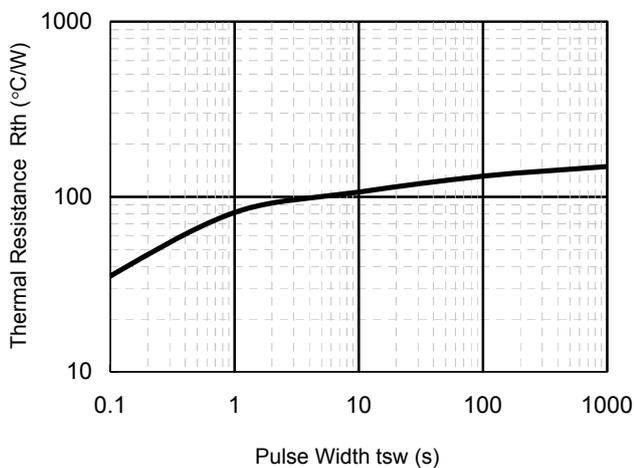
R_{DS(on)} - T_a



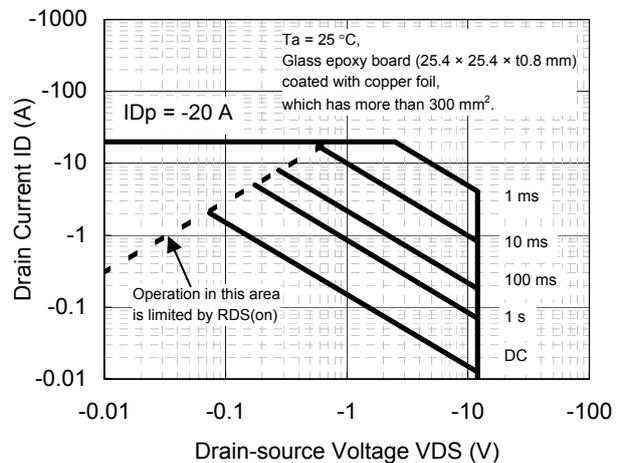
PD - T_a



R_{th} - t_{sw}

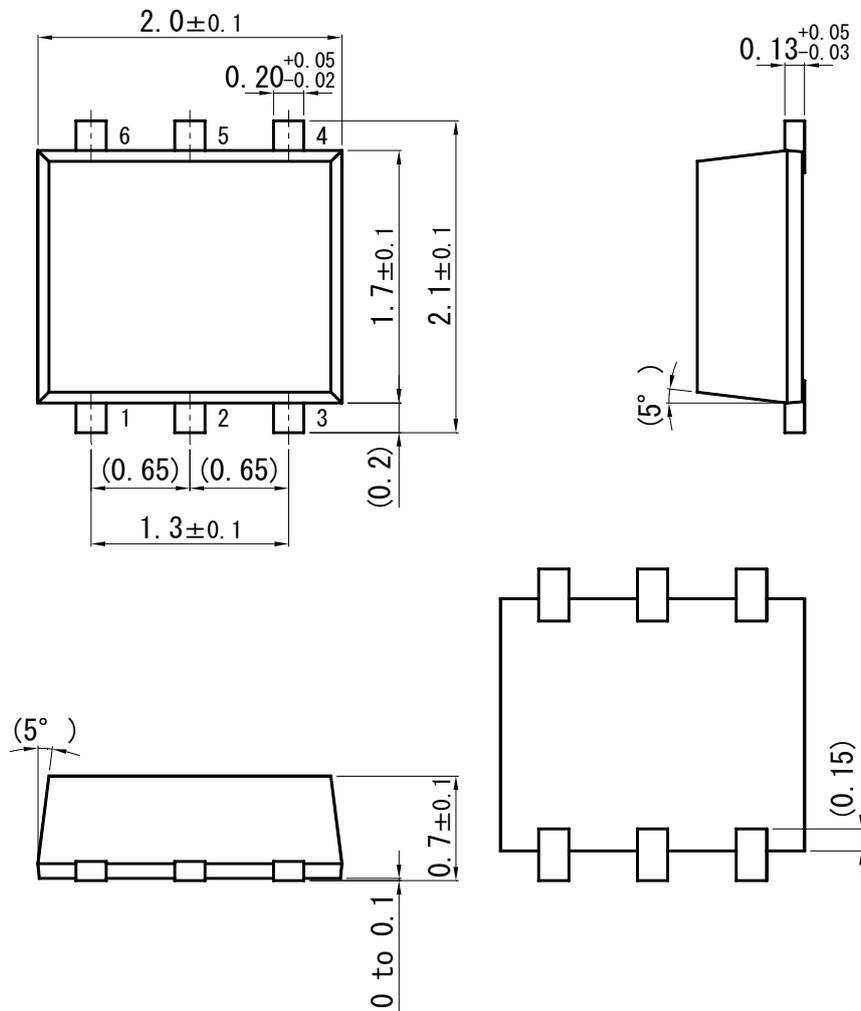


Safe Operating Area

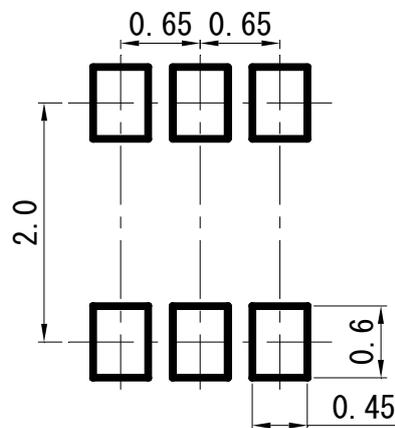


WSMini6-F1-B

Unit : mm



■ Land Pattern (Reference) (Unit : mm)



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