FK3503010L

Silicon N-channel MOS FET

for switching

FK330301 in SMini3 type package

■ Features

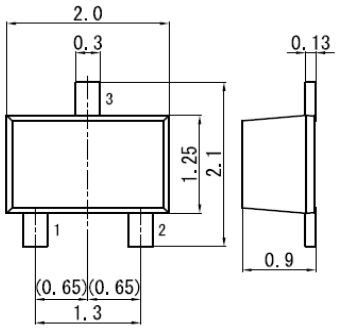
- Low drive voltage: 2.5 V drive
- Halogen-free / RoHS compliant
  (EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)

■ Marking Symbol: X1

■ Packaging

FK3503010L Embossed type (Thermo-compression sealing):
3 000 pcs / reel (standard)

Unit: mm



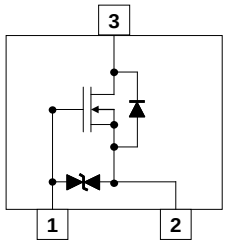
1. Gate
2. Source
3. Drain

Panasonic	SMini3-F2-B
JEITA	SC-85
Code	—

■ Absolute Maximum Ratings Ta = 25 °C

Parameter	Symbol	Rating	Unit
Drain-source Voltage	VDS	30	V
Gate-source Voltage	VGS	±12	V
Drain Current	ID	100	mA
Drain Current (Pulsed)	IDp	200	mA
Total Power Dissipation	PD	150	mW
Channel Temperature	Tch	150	°C
Storage Temperature Range	Tstg	-55 to +150	°C

Internal Connection



Pin Name

1. Gate
2. Source
3. Drain

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-source Breakdown Voltage	VDSS	ID = 1 mA, VGS = 0 V	30			V
Zero Gate Voltage Drain Current	IDSS	VDS = 30 V, VGS = 0 V			1	μA
Gate-source Leakage Current	IGSS	VGS = ±10 V, VDS = 0 V			±10	μA
Gate-source Threshold Voltage	Vth	ID = 1.0 μA, VDS = 3.0 V	0.5	1.0	1.5	V
Drain-source On-state Resistance	RDS(on)1	ID = 10 mA, VGS = 2.5 V		3	6	Ω
	RDS(on)2	ID = 10 mA, VDS = 4.0 V		2	3	
Forward transfer admittance	|Yfs|	ID = 10 mA, VDS = 3.0 V	20	55		mS
Input Capacitance	Ciss	VDS = 3 V, VGS = 0 V, f = 1 MHz		12		pF
Output Capacitance	Coss			7		
Reverse Transfer Capacitance	Crss			3		
Turn-on Time *1	ton	VDD = 3 V, VGS = 0 to 3 V ID = 10 mA		100		ns
Turn-off Time *1	toff	VDD = 3 V, VGS = 3 to 0 V ID = 10 mA		100		

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

*1 See Test circuit

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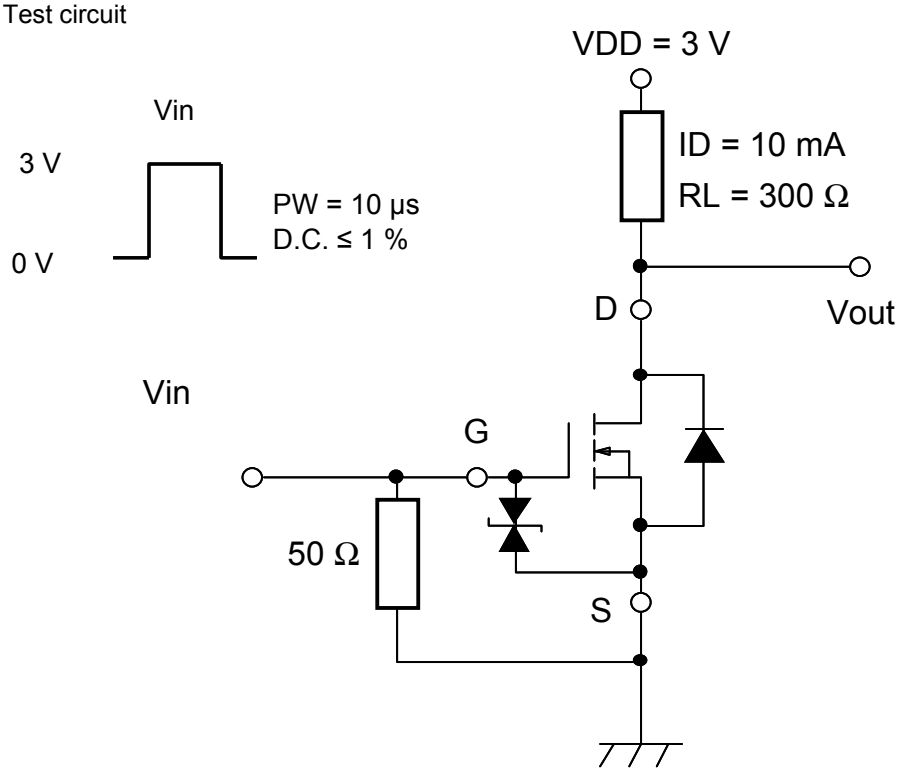
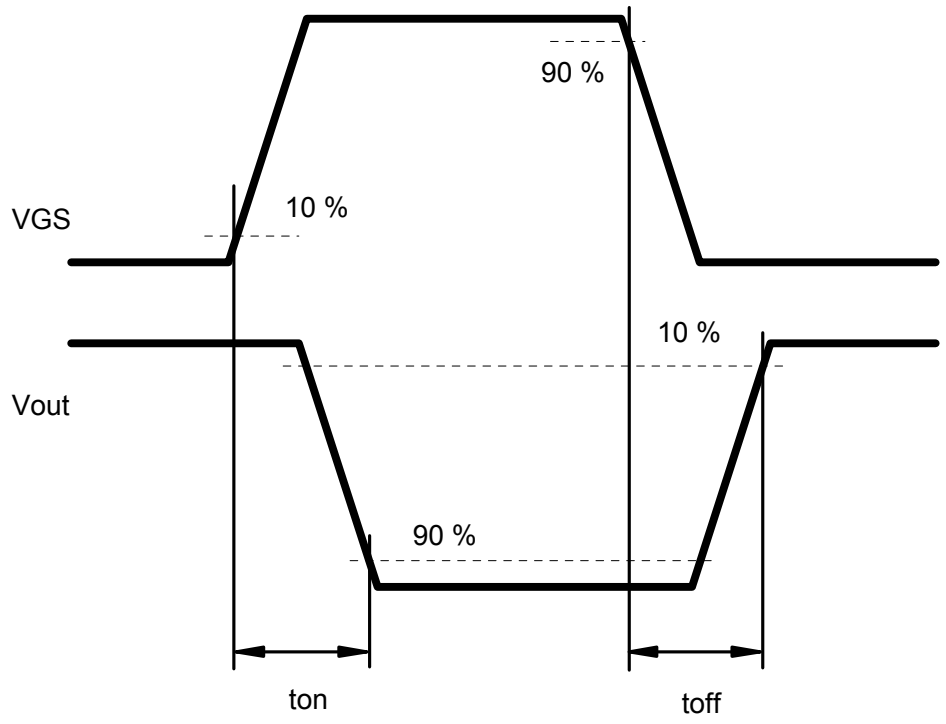
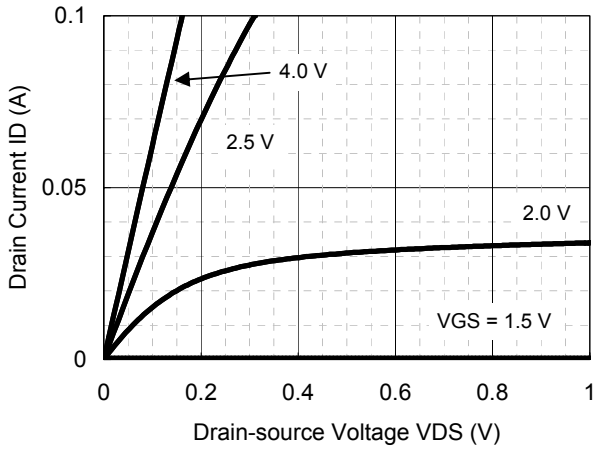
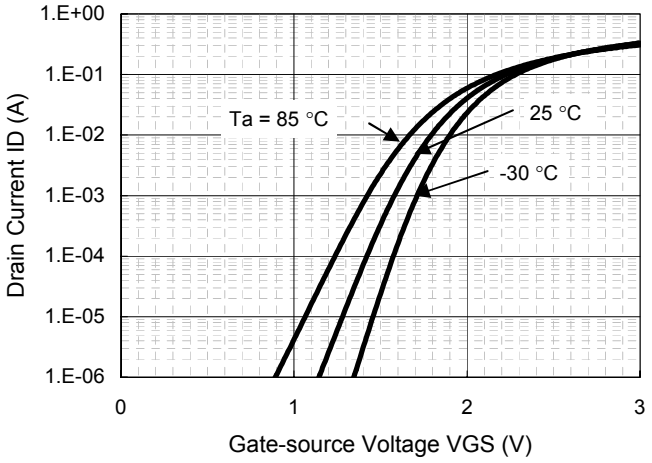


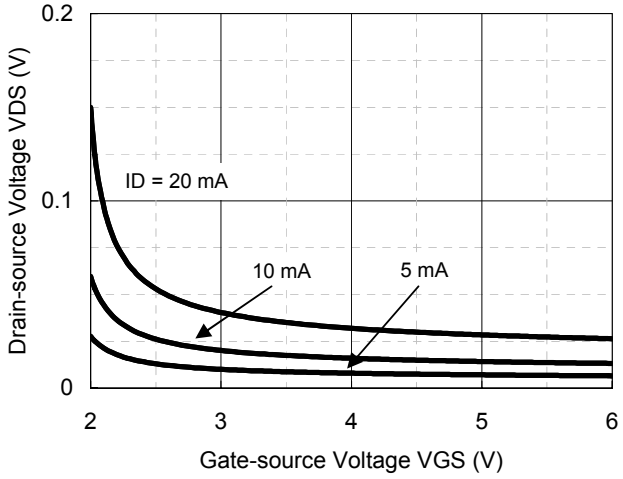




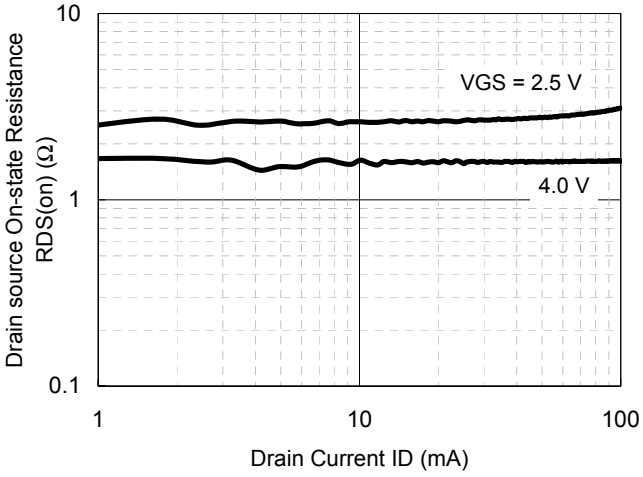
ID - VDS



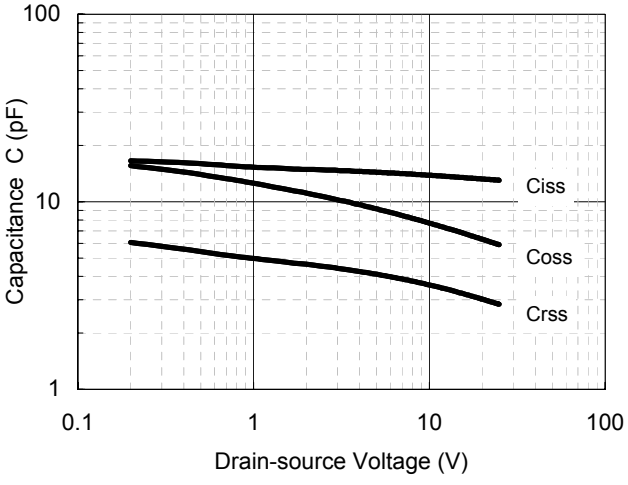
ID - VGS



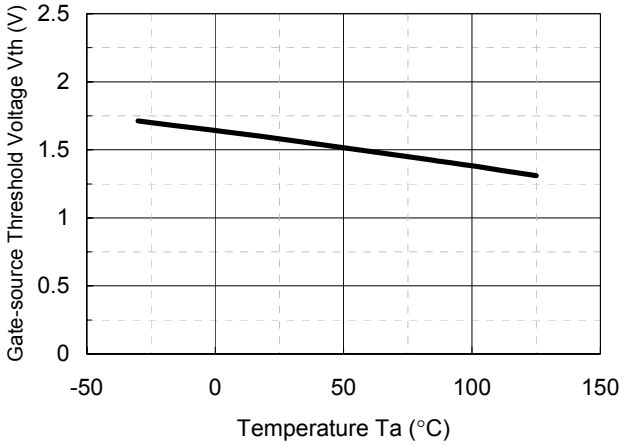
VDS - VGS



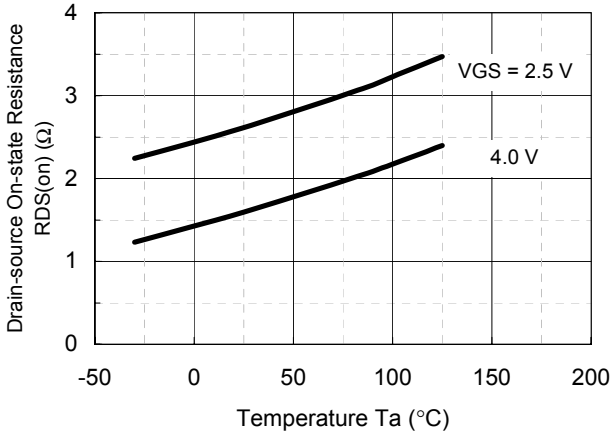
RDS(on) - ID



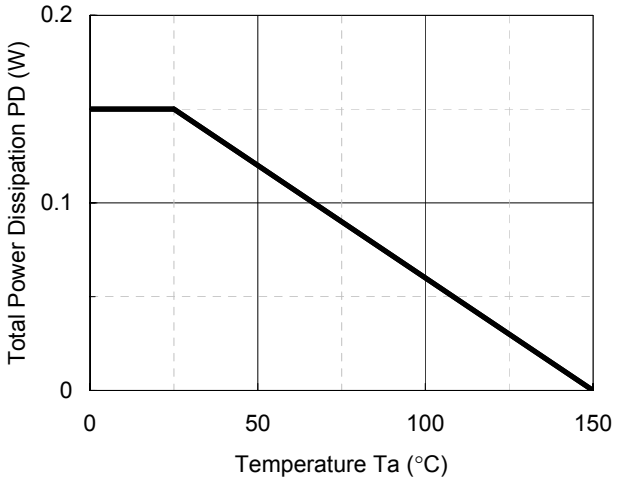
Capacitance - VDS



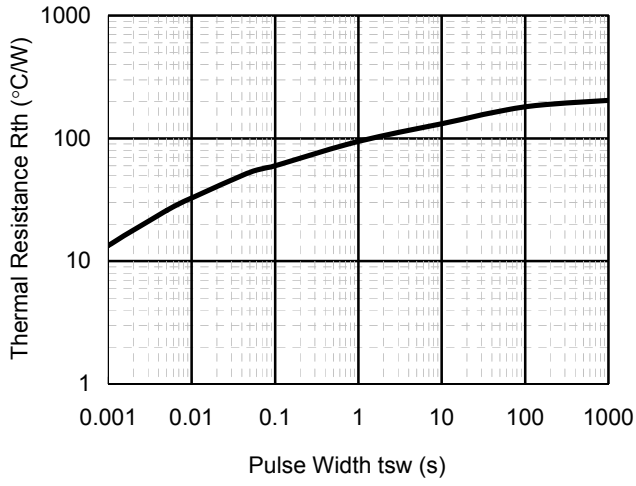
Vth - Ta



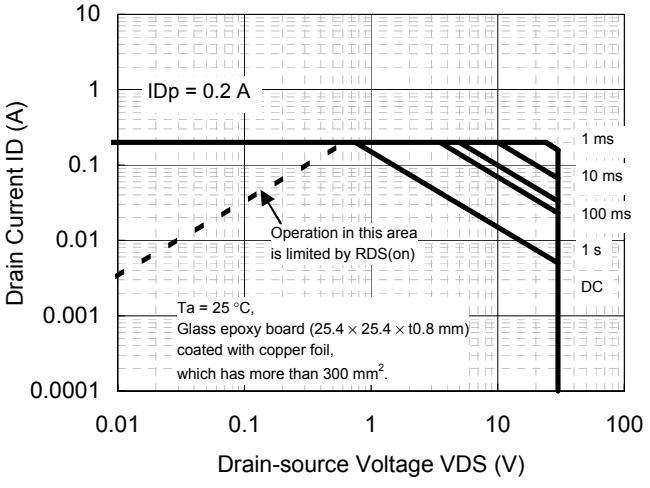
RDS(on) - Ta



PD - Ta



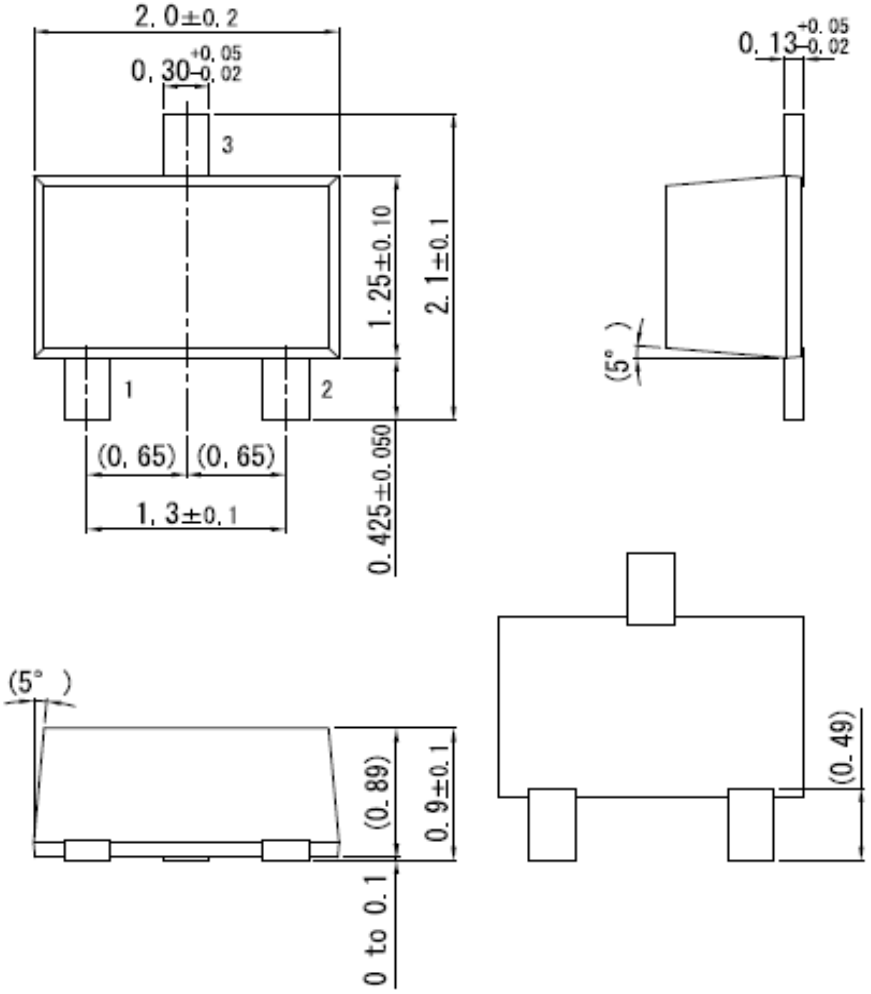
Rth -tsw



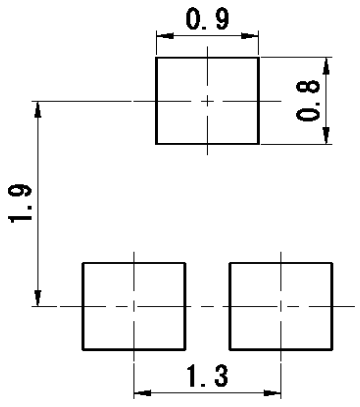
Safe Operating Area

SMini3-F2-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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