

FK3303010L

Silicon N-channel MOS FET

For switching

FK350301 in SSSMini3 type package

■ Features

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

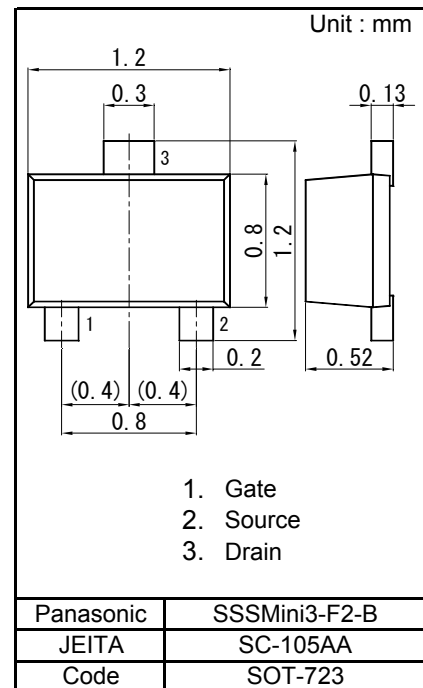
■ Marking Symbol X1

■ Packaging

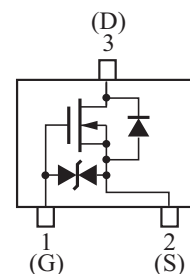
Embossed type (Thermo-compression sealing): 10 000 pcs / reel (standard)

■ Absolute Maximum Ratings Ta = 25 °C

Parameter	Symbol	Rating	Unit
Drain-source voltage	VDSS	30	V
Gate-source voltage	VGSS	±12	V
Drain current	ID	100	mA
Pulse drain current	IDp	200	mA
Total power dissipation	PD	100	mW
Channel temperature	Tch	150	°C
Operating ambient temperature	Topr	-40 to +85	°C
Storage temperature	Tstg	-55 to +150	°C



Internal Connection

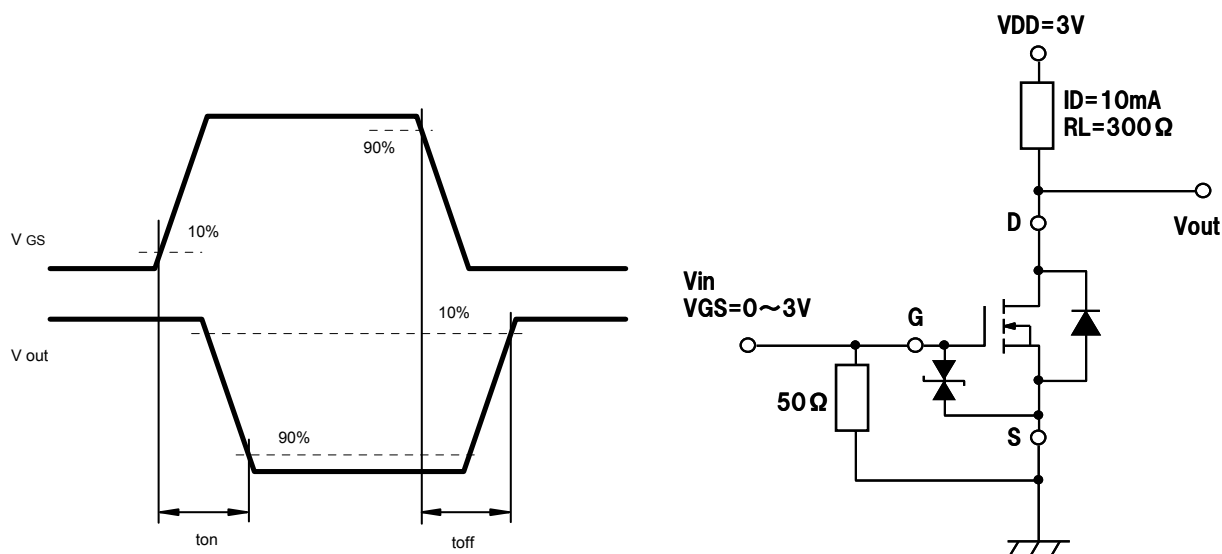


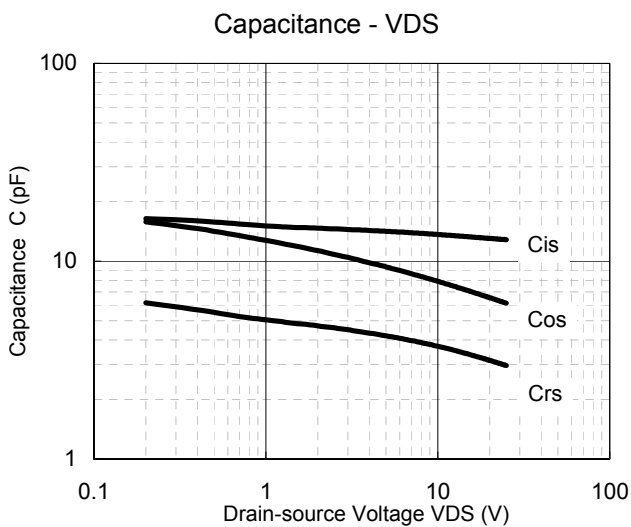
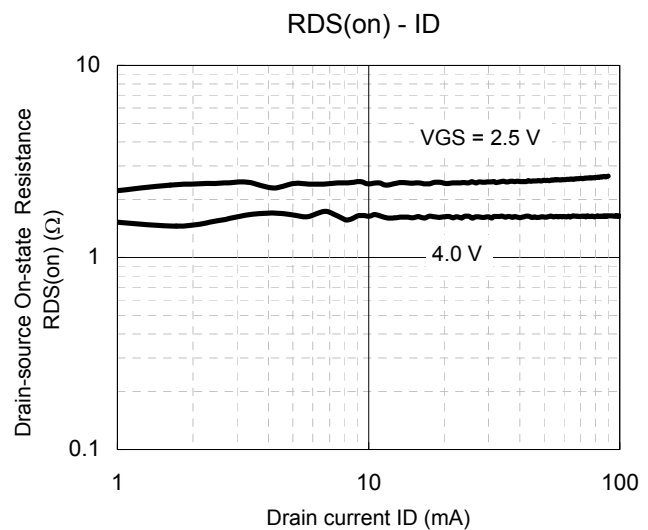
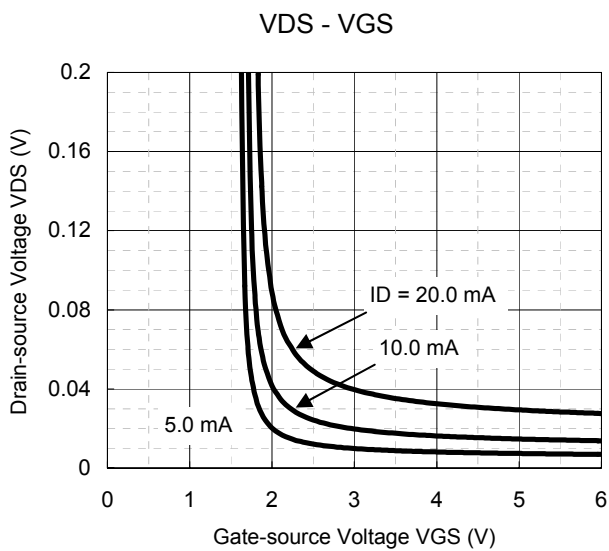
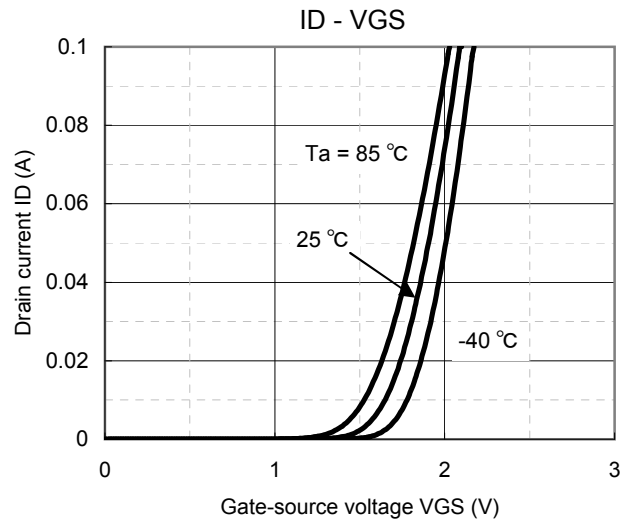
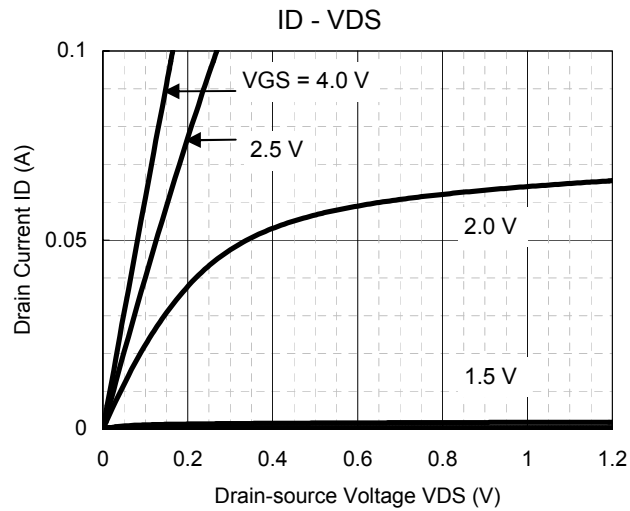
■ Electrical Characteristics $T_a = 25\text{ }^{\circ}\text{C} \pm 3\text{ }^{\circ}\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Drain-source breakdown voltage	VDSS	ID = 1 mA, VGS = 0	30			V
Drain-source cutoff current	IDSS	VDS = 30 V, VGS = 0			1.0	μA
Gate-source cutoff current	IGSS	VGS = ± 10 V, VDS = 0			± 10	μA
Gate 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, VGS = 4.0 V		2	3	Ω
Forward transfer admittance	Yfs	ID = 10 mA, VDS = 3.0 V	20	55		mS
Input capacitance	Ciss	VDS = 3 V, VGS = 0, f = 1 MHz		12		pF
Output capacitance	Coss			7		pF
Reverse transfer capacitance	Crss			3		pF
Turn-on time *1	ton	VDD = 3 V, VGS = 0 to 3 V RL = 300 Ω		100		ns
Turn-off time *1	toff	VDD = 3 V, VGS = 3 to 0 V RL = 300 Ω		100		ns

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

2. *1 Turn-on and Turn-off test circuit

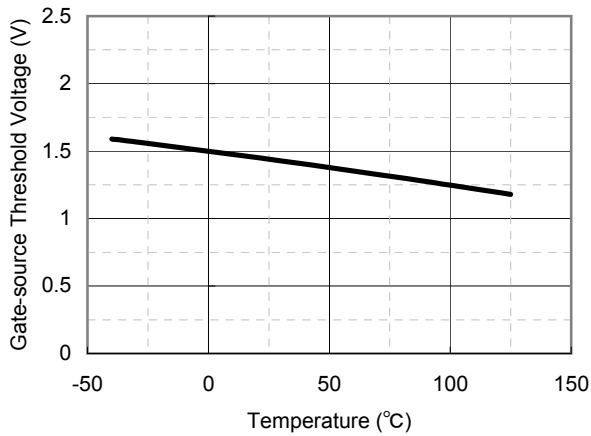




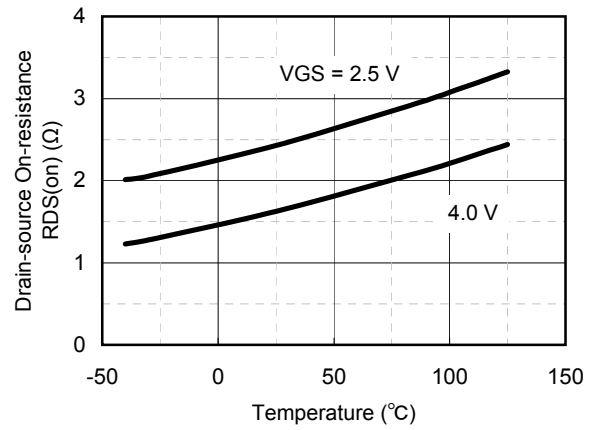
Panasonic

MOS FET
FK3303010L

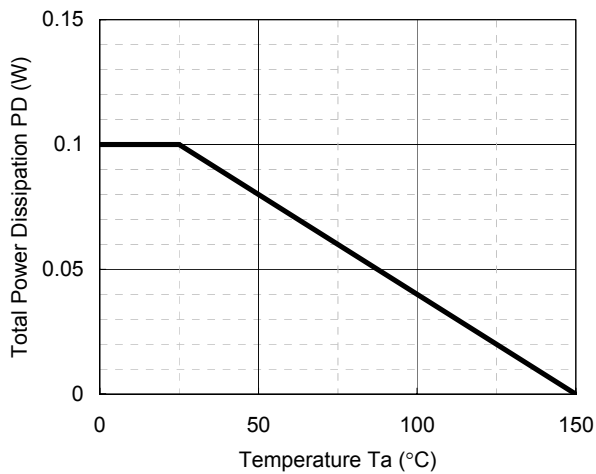
V_{th} - T_a



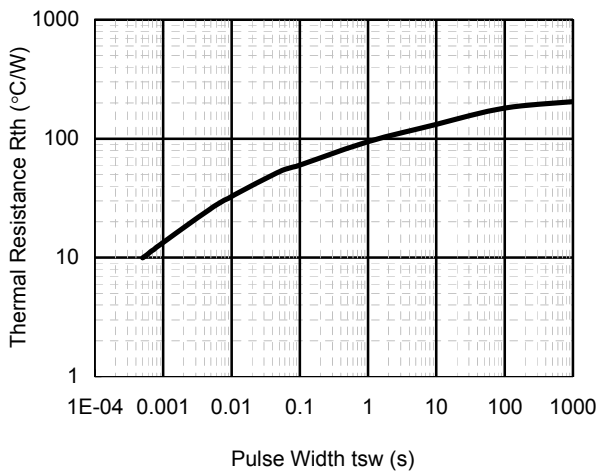
R_{DS(on)} - T_a



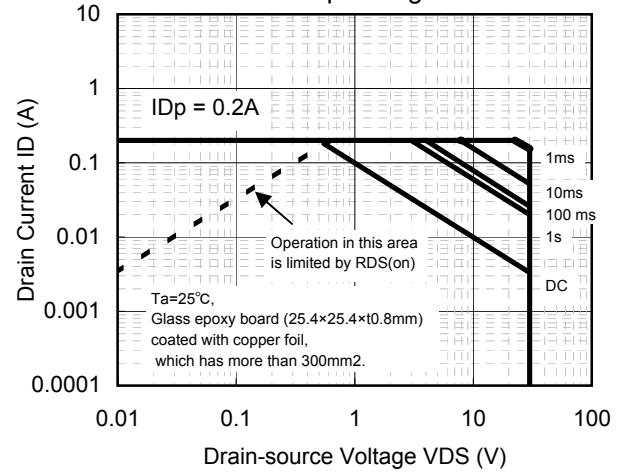
P_D - T_a



R_{th} - t_{sw}

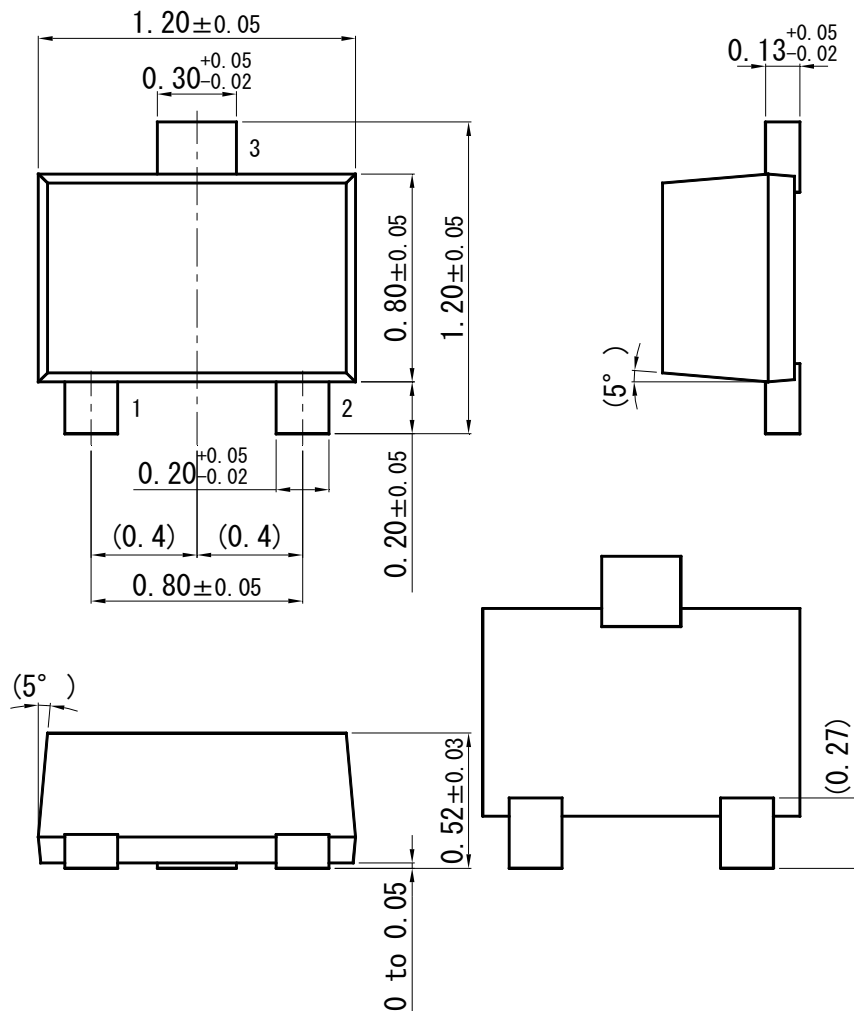


Safe Operating Area

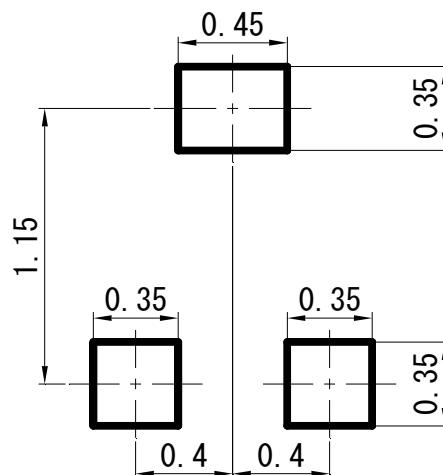


SSSMini3-F2-B

Unit : mm



■ Land Pattern (Reference) (Unit: mm)



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