

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)

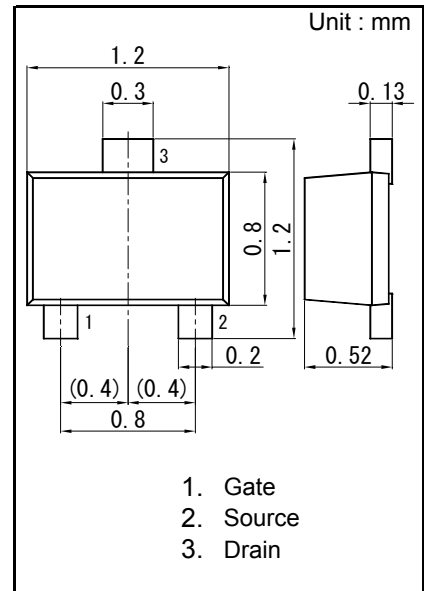
■ Marking Symbol X1

■ Packaging

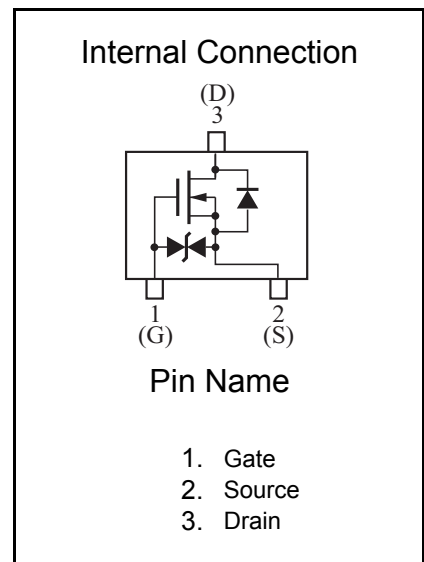
Embossed type (Thermo-compression sealing): 10 000 pcs / reel (standard)

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

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	$^\circ\text{C}$
Operating ambient temperature	Topr	-40 to +85	$^\circ\text{C}$
Storage temperature	Tstg	-55 to +150	$^\circ\text{C}$



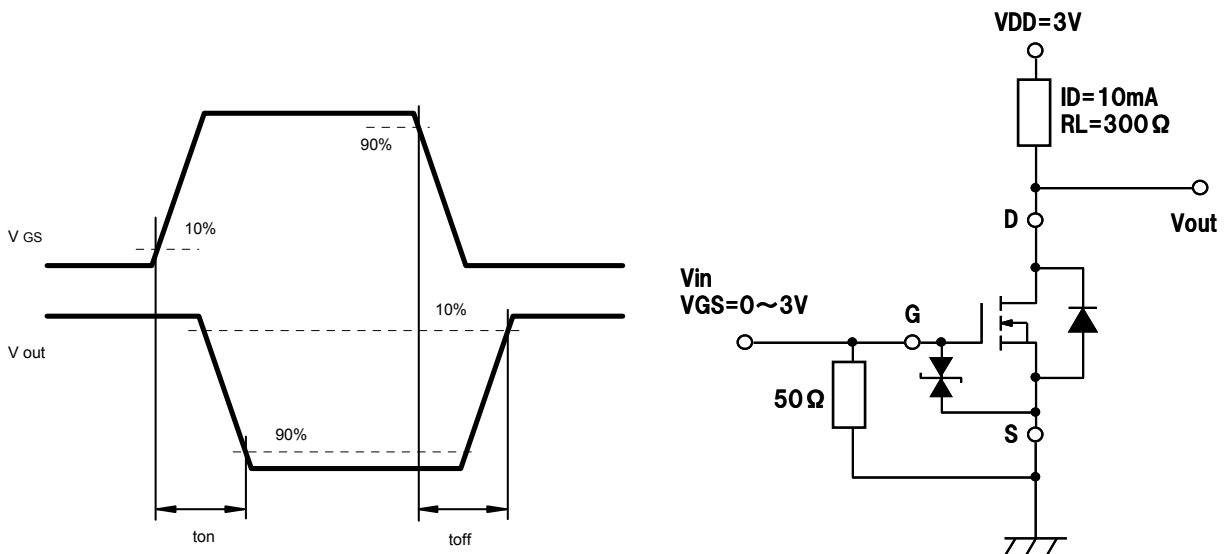
Panasonic	SSSMini3-F2-B
JEITA	SC-105AA
Code	SOT-723

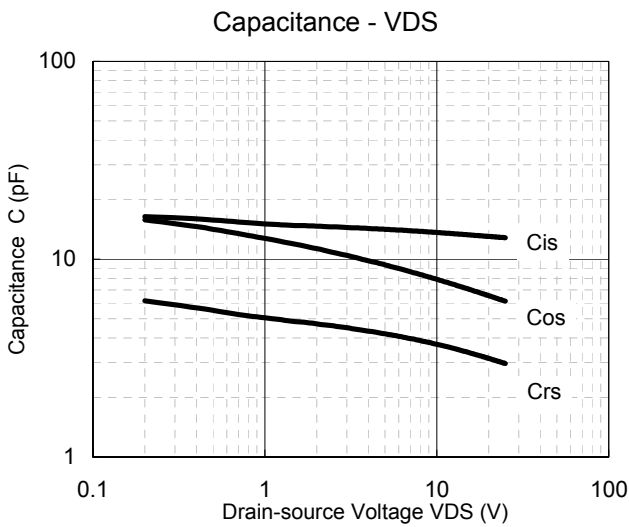
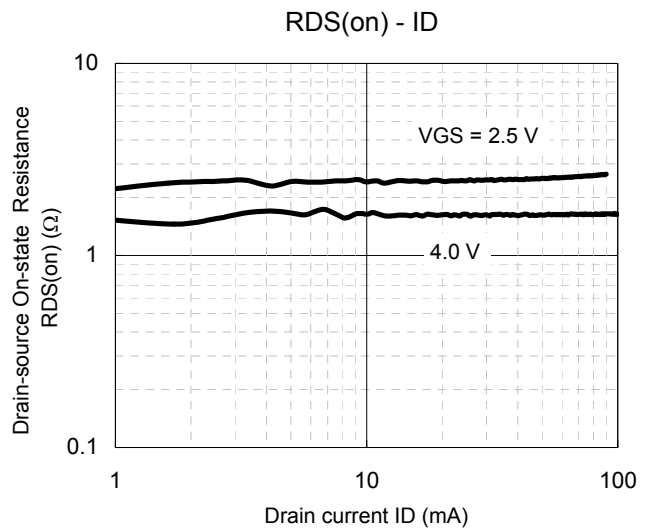
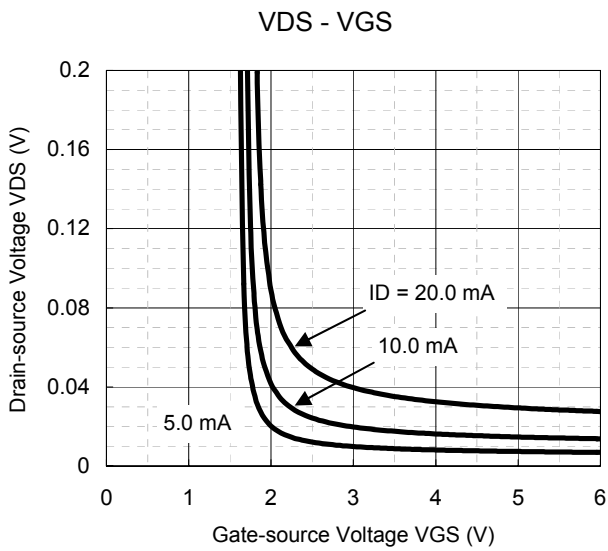
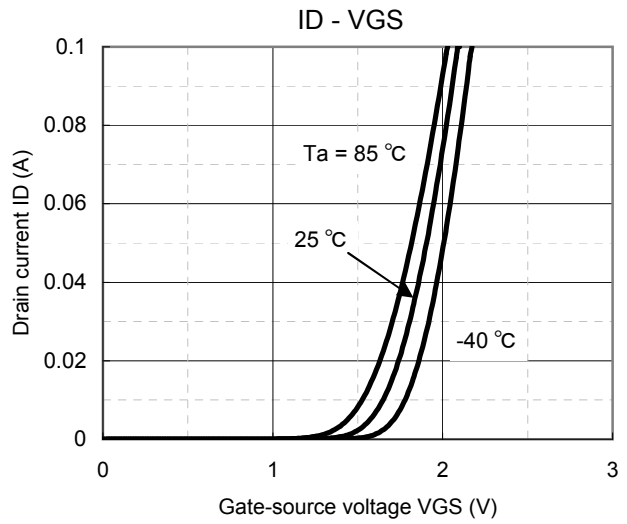
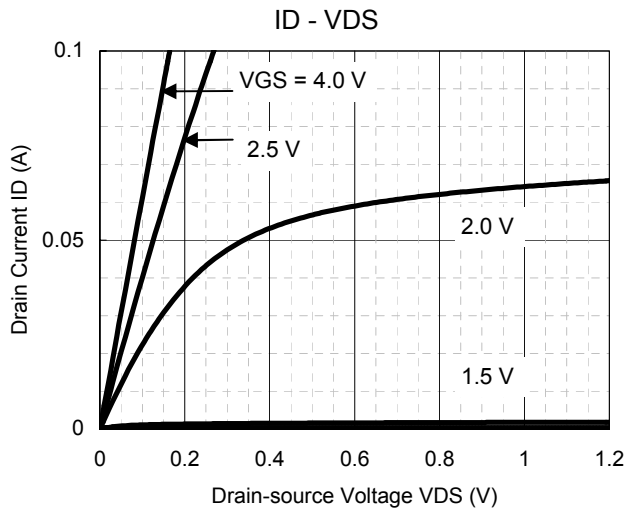


■ Electrical Characteristics Ta = 25 °C ± 3 °C

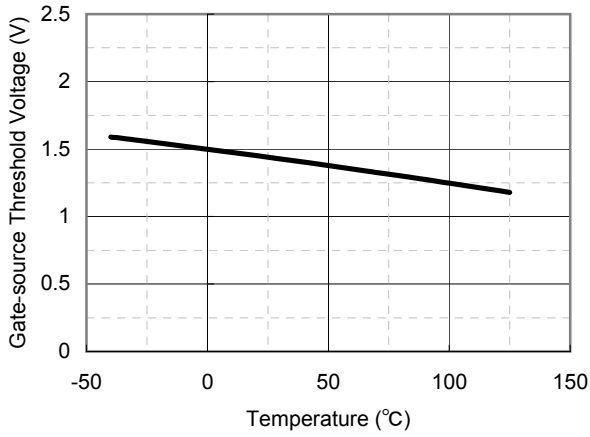
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Drain-source breakdown voltage	V _{DSS}	ID = 1 mA, V _{GS} = 0	30			V
Drain-source cutoff current	I _{DSS}	V _{DS} = 30 V, V _{GS} = 0			1.0	μA
Gate-source cutoff current	I _{GSS}	V _{GS} = ±10 V, V _{DS} = 0			±10	μA
Gate threshold voltage	V _{TH}	ID = 1.0 μA, V _{DS} = 3.0 V	0.5	1.0	1.5	V
Drain-source on-state resistance	R _{DS(on)1}	ID = 10 mA, V _{GS} = 2.5 V		3	6	Ω
	R _{DS(on)2}	ID = 10 mA, V _{GS} = 4.0 V		2	3	Ω
Forward transfer admittance	Y _{fs}	ID = 10 mA, V _{DS} = 3.0 V	20	55		mS
Input capacitance	C _{iss}	V _{DS} = 3 V, V _{GS} = 0, f = 1 MHz		12		pF
Output capacitance	C _{oss}			7		pF
Reverse transfer capacitance	C _{rss}			3		pF
Turn-on time *1	ton	V _{DD} = 3 V, V _{GS} = 0 to 3 V RL = 300 Ω		100		ns
Turn-off time *1	toff	V _{DD} = 3 V, V _{GS} = 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

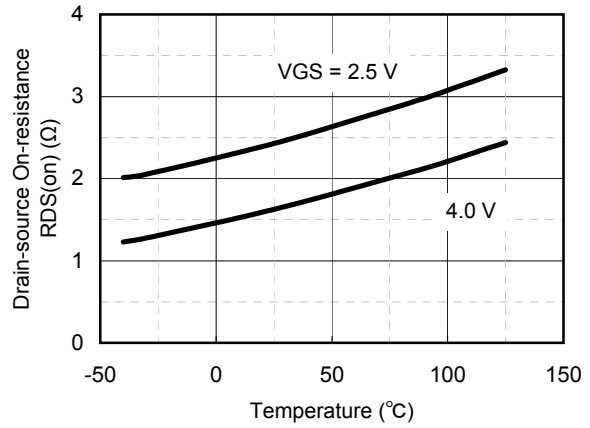




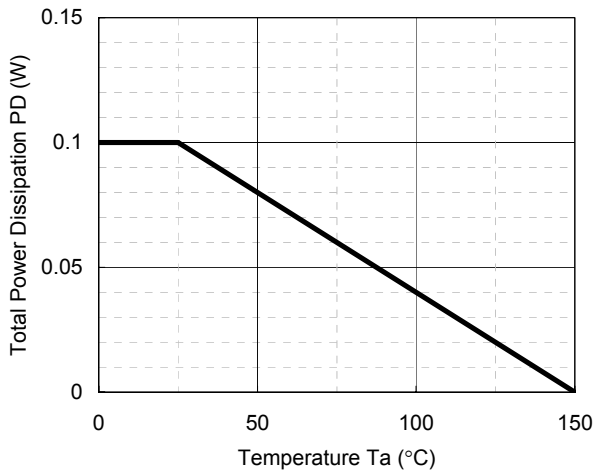
V_{th} - T_a



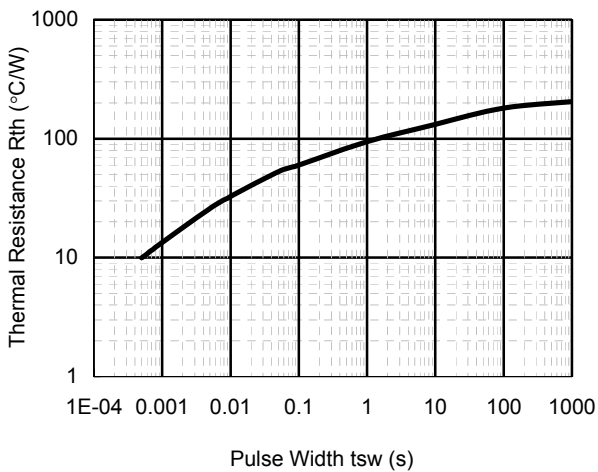
R_{DS(on)} - T_a



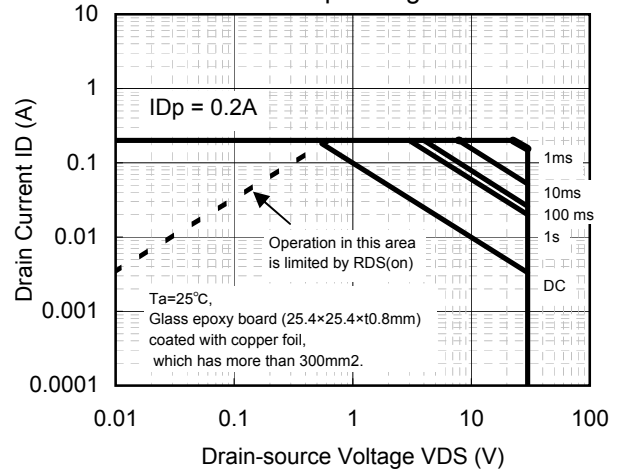
PD - T_a



R_{th} - t_{sw}



Safe Operating Area



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