Doc No. TT4-EA-12624

Revision. 3

MOS FET

FK3506010L

# **Panasonic**

## FK3506010L

Silicon N-channel MOS FET

For switching FK330601 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: CV

Established: 2010-06-07

Revised

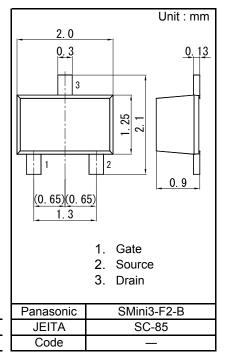
: 2013-07-08

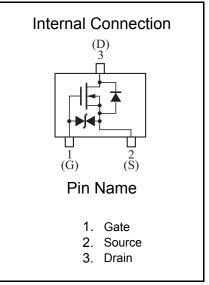
#### ■ Packaging

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

■ Absolute Maximum Ratings Ta = 25 °C

Parameter	Symbol	Rating	Unit	
Drain-source voltage	VDS	60	V	
Gate-source voltage	VGS	±12	V	
Drain current	ID	100	mA	
Pulse drain current	IDp	200	mA	
Total power dissipation	PD	150	mW	
Channel temperature	Tch	150	°C	
Operating ambient temperature	Topr	-40 to +85	°C	
Storage temperature	Tstg	-55 to +150	°C	





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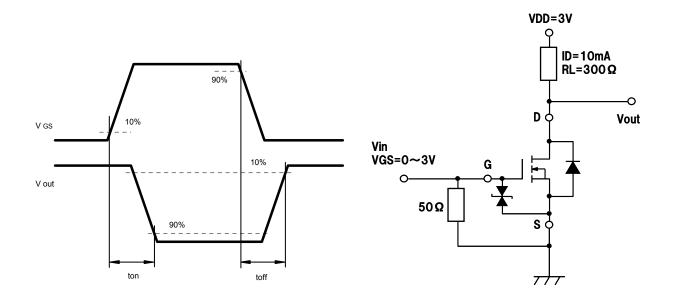
# **Panasonic**

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

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Drain-source breakdown voltage	VDSS	ID = 1 mA, VGS = 0	60			V
Drain-source cutoff current	IDSS	VDS = 60 V, VGS = 0			1.0	μΑ
Gate-source cutoff current	IGSS	VGS = ±10 V, VDS = 0			±10	μΑ
Gate threshold voltage	VTH	ID = 1.0 μA, VDS = 3.0 V	0.9	1.2	1.5	V
Drain-source ON resistance	RDS(on)	ID = 10 mA, VGS = 2.5 V		8	15	Ω
		ID = 10 mA, VGS = 4.0 V		6	12	Ω
Forward transfer admittance	Yfs	ID = 10 mA, VDS = 3.0 V	20	60		mS
Input capacitance	Ciss			12		pF
Output capacitance	Coss	VDS = 3 V, VGS = 0, f = 1 MHz		7		pF
Reverse transfer capacitance	Crss			3		pF
Turn-on time <sup>*1</sup>	ton	VDD = 3 V, VGS = 0 to 3 V,		100		ns
		ID = 10 mA				
Turn-off time *1	toff	VDD = 3 V, VGS = 3 to 0 V,		100		ns
		ID = 10 mA		100		113

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



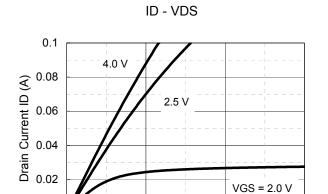
Established: 2010-06-07 Revised

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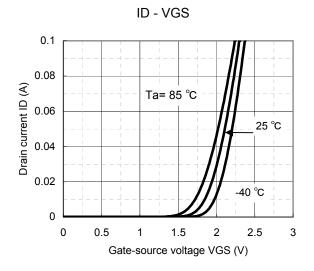


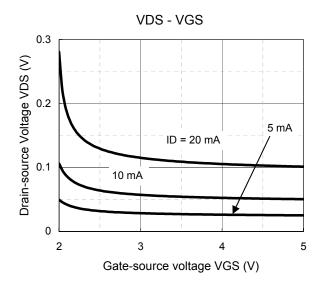
0.5

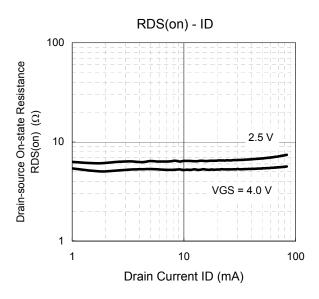
Drain-source Voltage VDS (V)

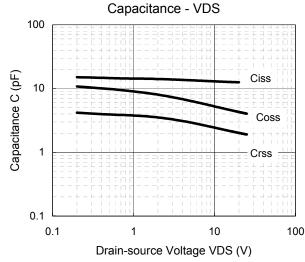
VGS = 2.0 V

1.5







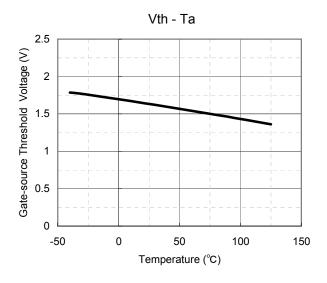


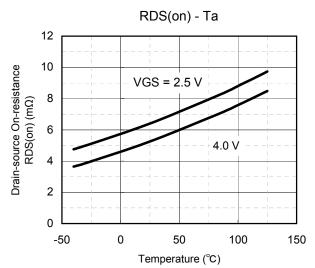
Established: 2010-06-07 Revised: 2013-07-08

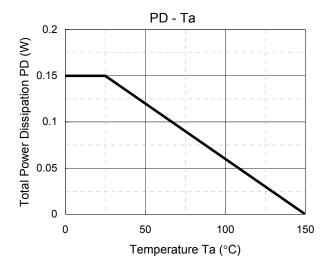
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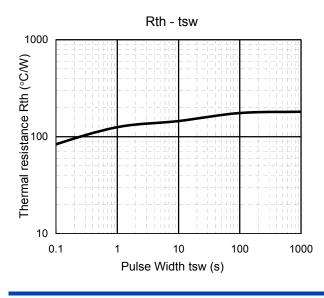
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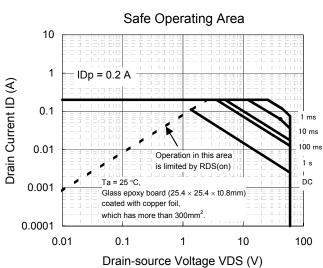
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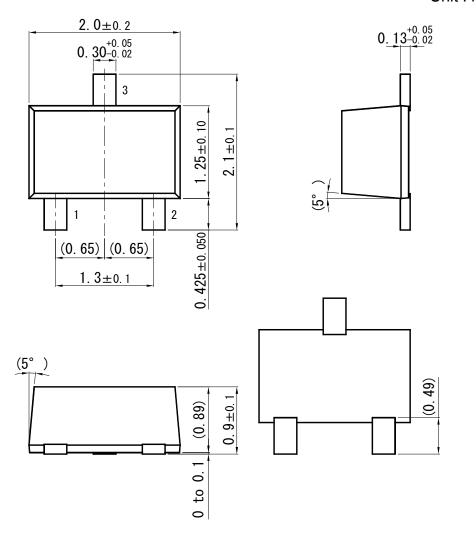
Established: 2010-06-07 Revised: 2013-07-08

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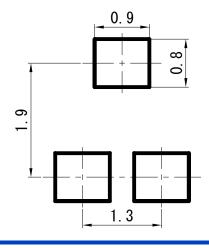
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# **Panasonic** SMini3-F2-B

Unit: mm



#### ■ Land Pattern (Reference) (Unit: mm)



Established: 2010-06-07 Revised: 2013-07-08

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