Panasonic

FK3906010L

Silicon N-channel MOSFET

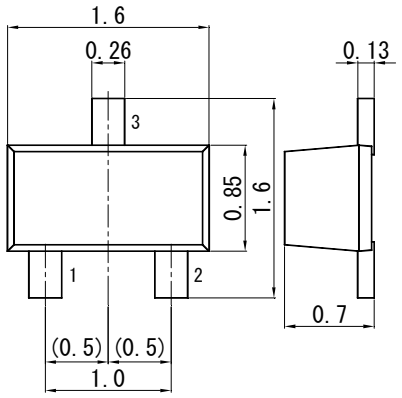
For switching
FK350601 in SSMini3 type package

■ 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

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

Unit : mm



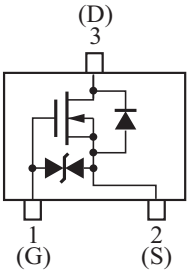
1. Gate
2. Source
3. Drain

Panasonic	SSMini3-F3-B
JEITA	SC-89
Code	SOT-490

■ 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	125	mW
Channel temperature	Tch	150	°C
Operating ambient temperature	Topr	-40 to + 85	°C
Storage temperature	Tstg	-55 to +150	°C

Internal Connection



Pin Name

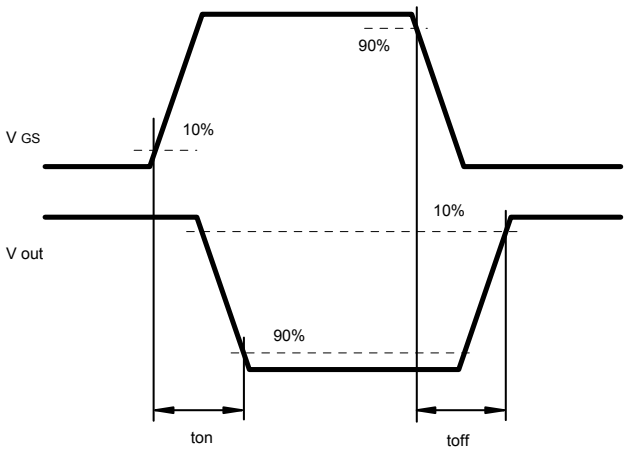
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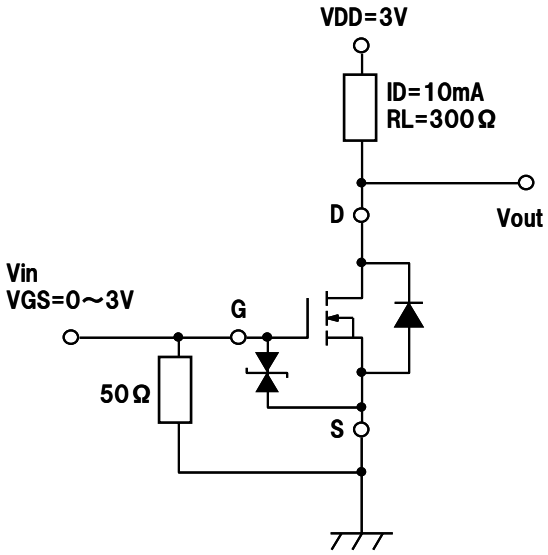
Established : 2010-06-30
Revised : 2013-08-28

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

Parameter	Symbol	Conditions	Min	Typ	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	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	0.9	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	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, ID = 10 mA		100		ns
Turn-off time *1	toff	VDD = 3 V, VGS = 3 to 0 V, ID = 10 mA		100		ns

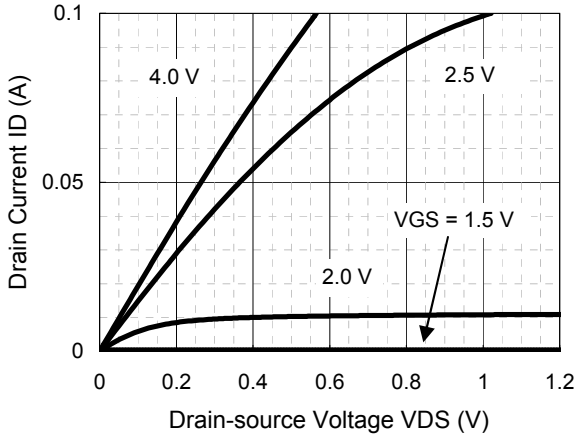
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.
2. *1 Turn-on and Turn-off test circuit



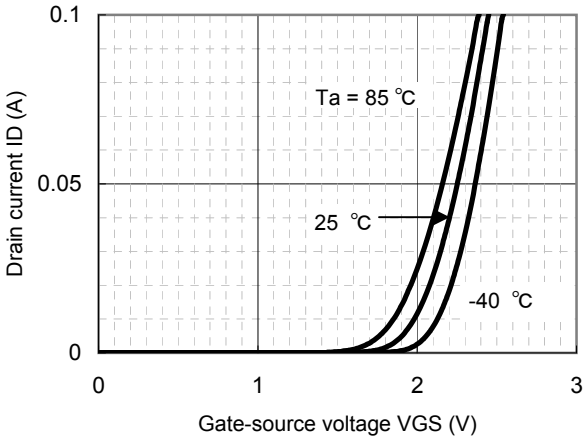


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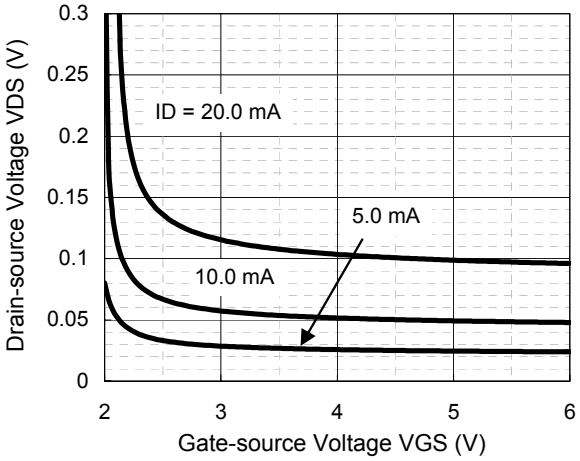
ID - VDS



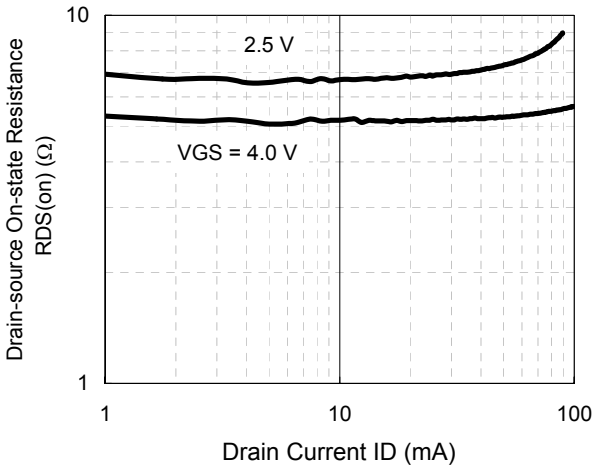
ID - VGS



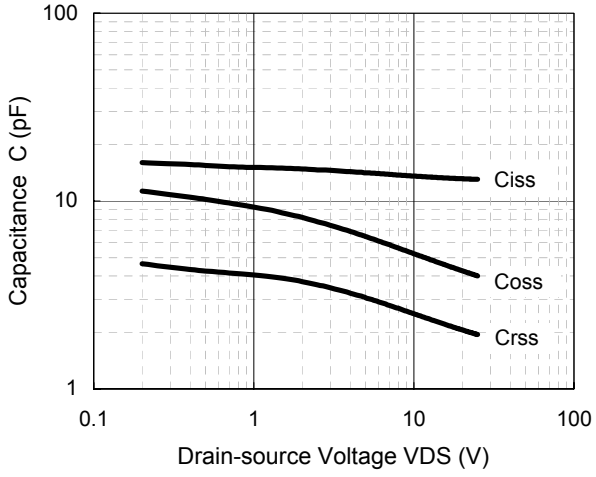
VDS - VGS



RDS(on) - ID

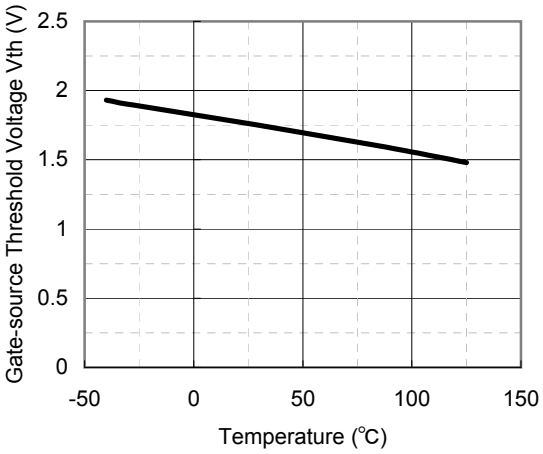


Capacitance - VDS

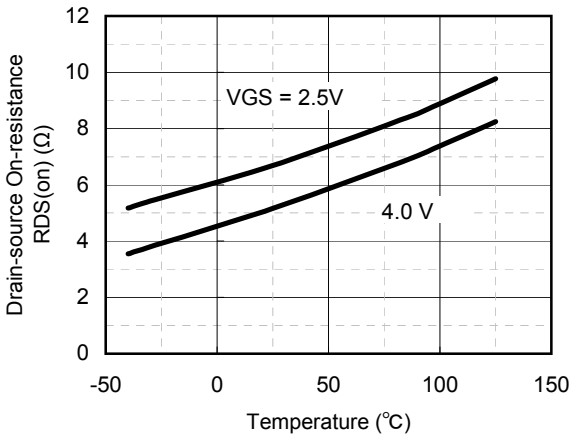


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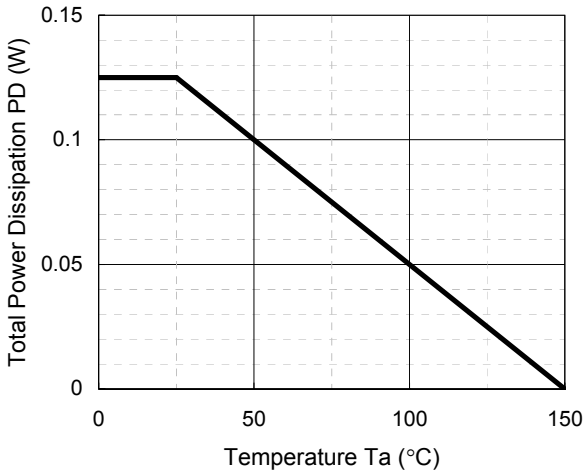
Vth - Ta



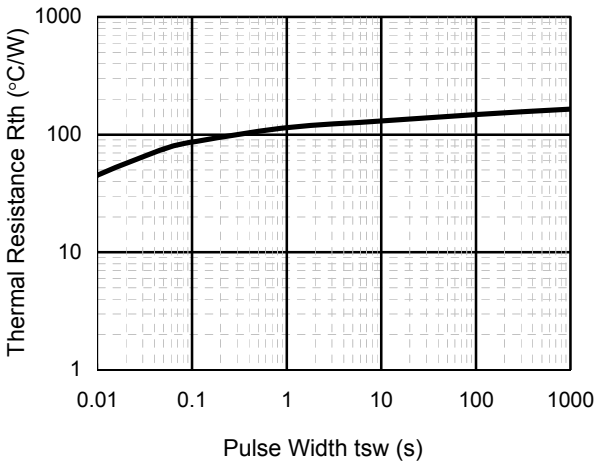
RDS(on) - Ta



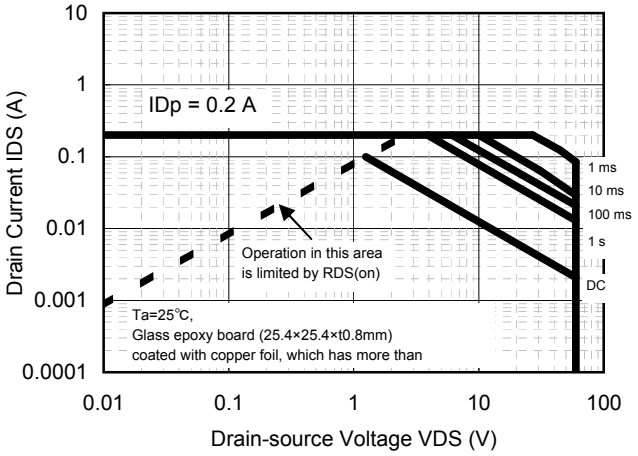
PD - Ta



Rth -tsw



Safe Operating Area

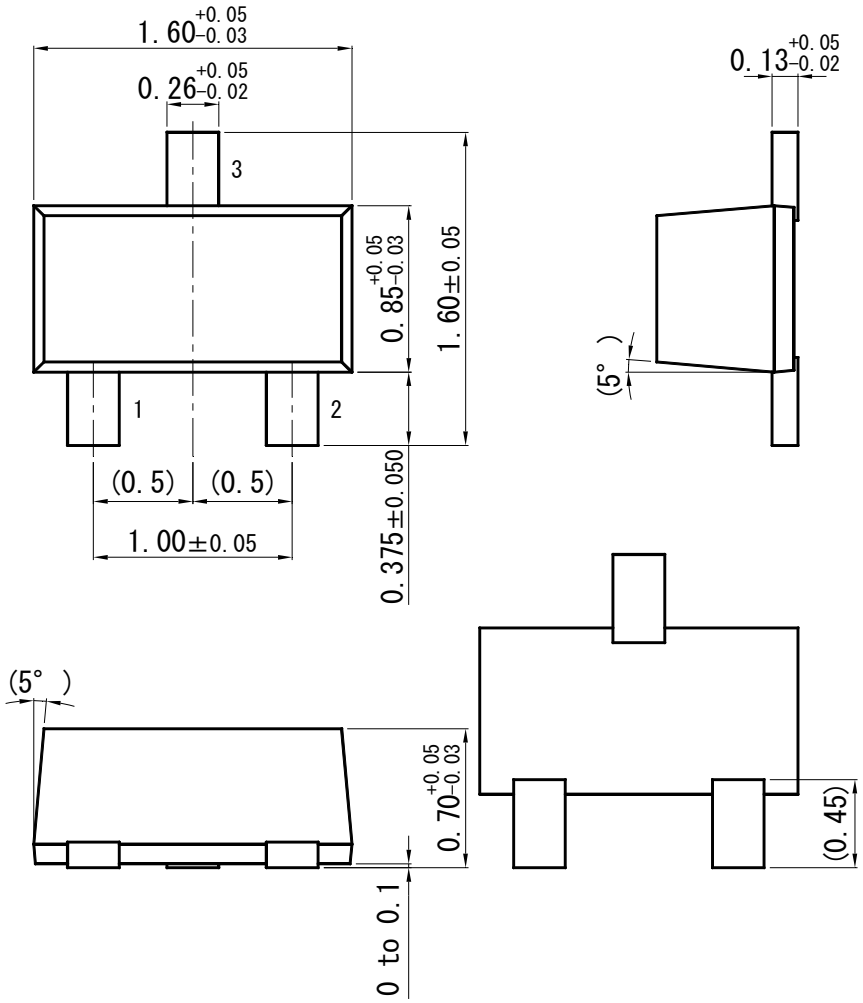


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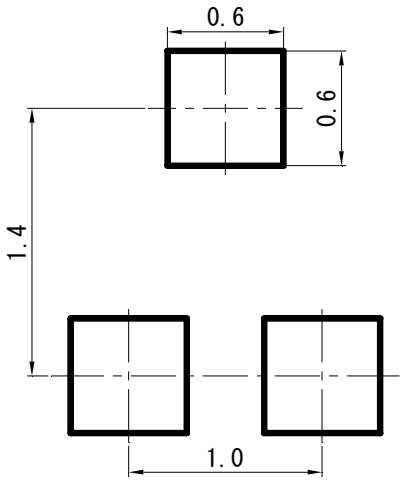
Panasonic

SSMini3-F3-B

Unit : mm



■ Land Pattern (Reference) (Unit : mm)



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