



FC6946010R

Dual N-channel MOS FET

For switching

■ Features

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

■ Marking Symbol : V6

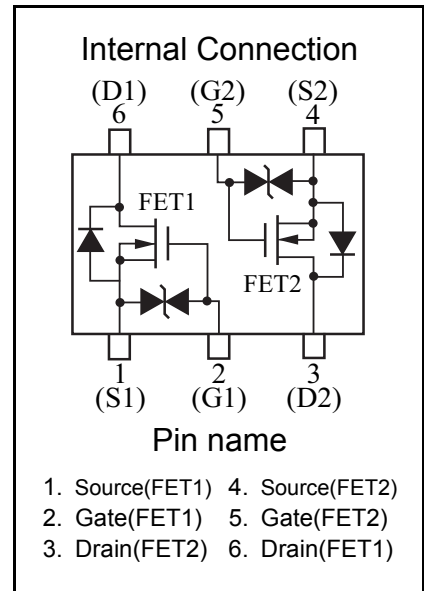
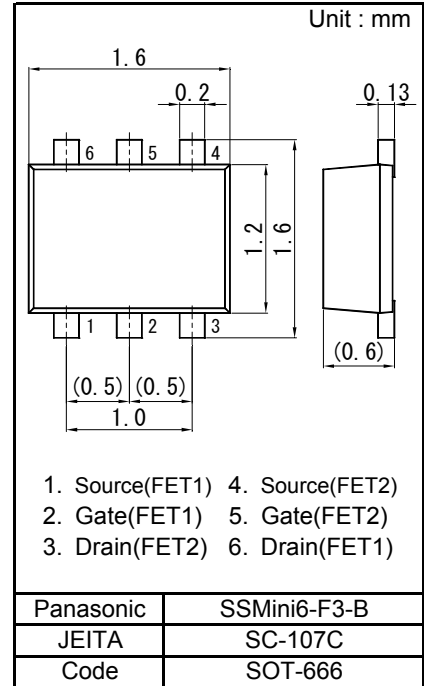
■ Basic Part Number : Dual FK390601 (Individual)

■ Packaging

Embossed type (Thermo-compression sealing): 8 000 pcs / reel (standard)

■ Absolute Maximum Ratings Ta = 25 °C

Parameter		Symbol	Rating	Unit
FET1	Drain-source breakdown voltage	VDSS	60	V
	Gate-source breakdown voltage	VGSS	±12	V
FET2	Drain current	ID	100	mA
	Pulse drain current	IDp	200	mA
Overall	Total power dissipation	PT	125	mW
	Channel temperature	Tch	150	°C
	Operating ambient temperature	Topr	-40 to +85	°C
	Storage temperature	Tstg	-55 to +150	°C



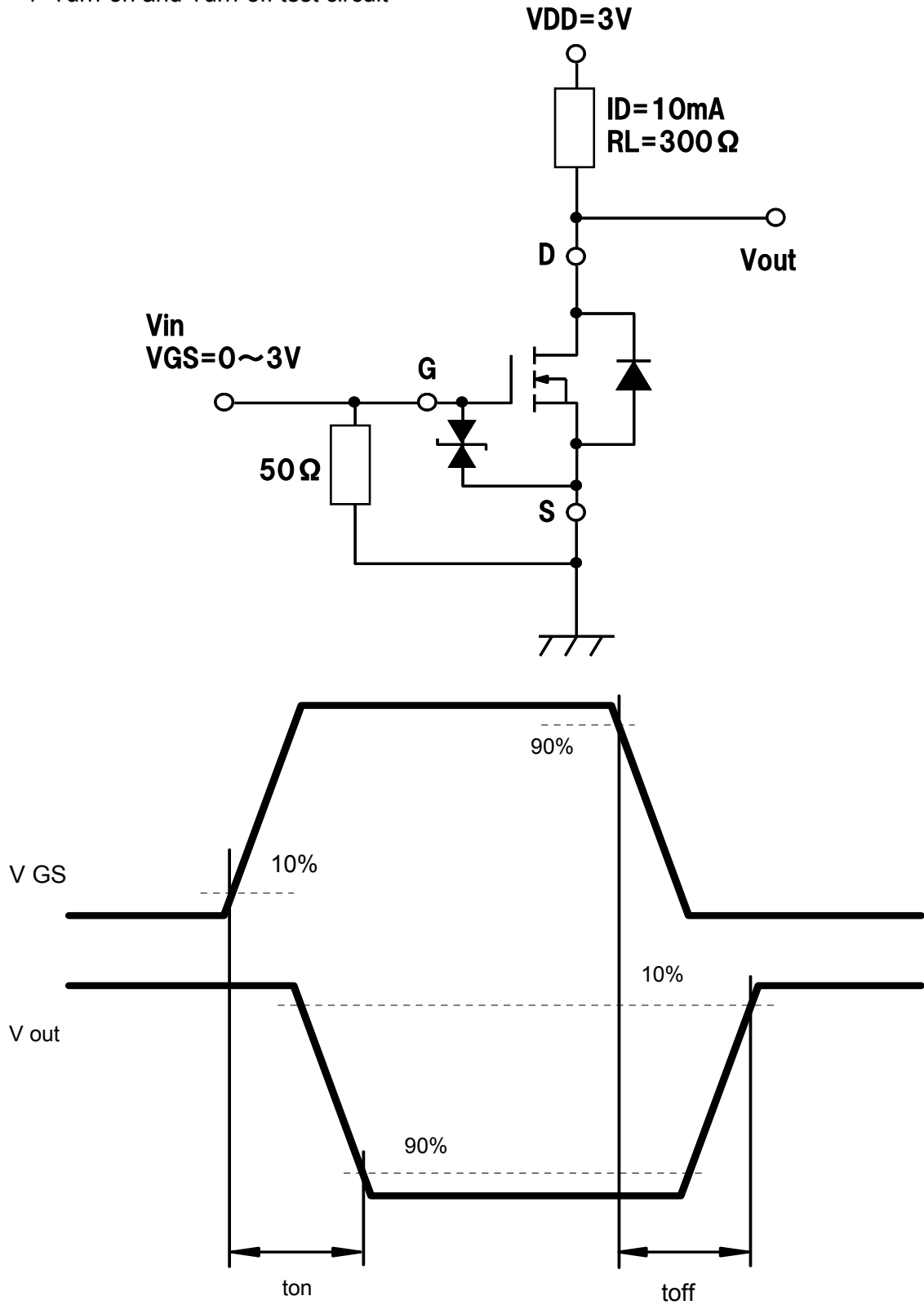
■ Electrical Characteristics Ta = 25 °C ± 3 °C

FET1,FET2

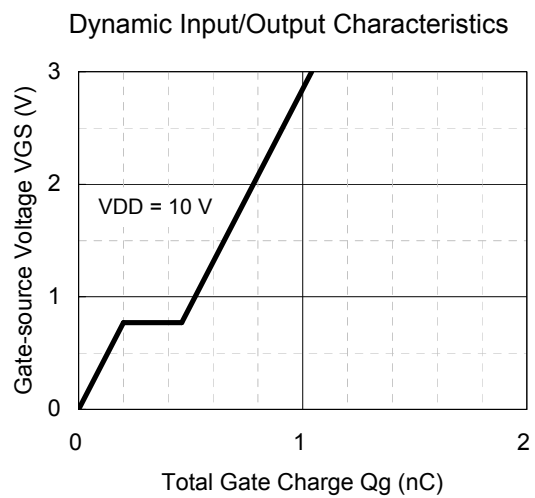
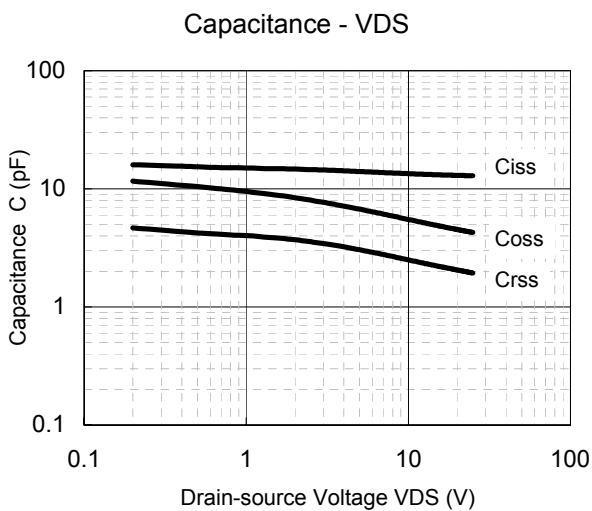
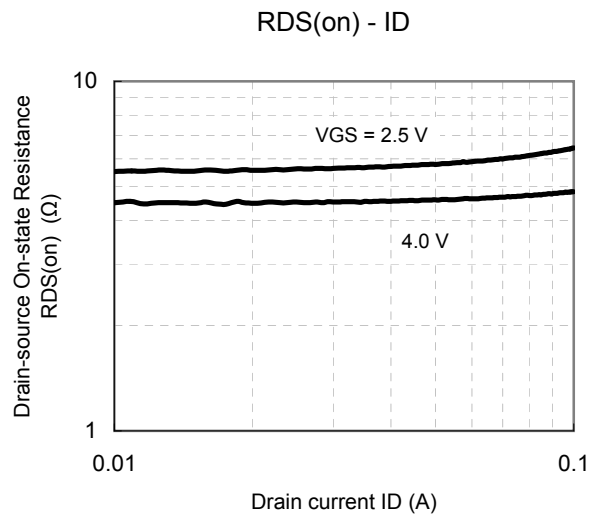
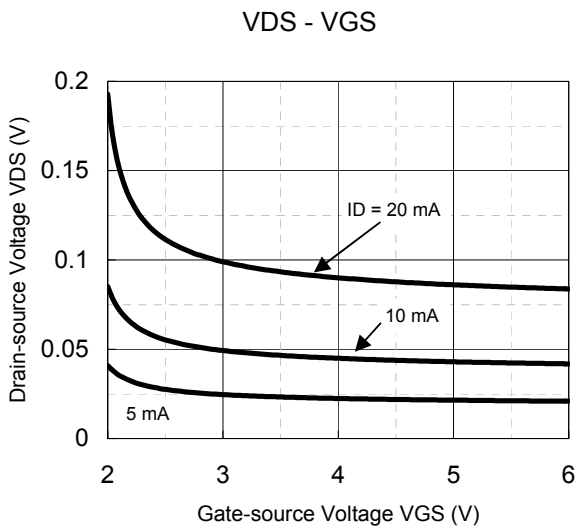
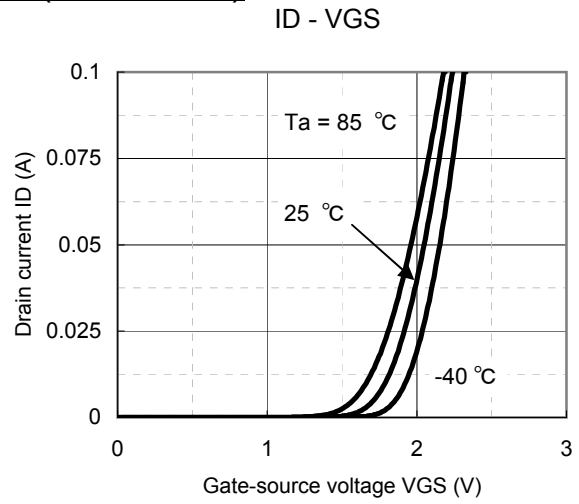
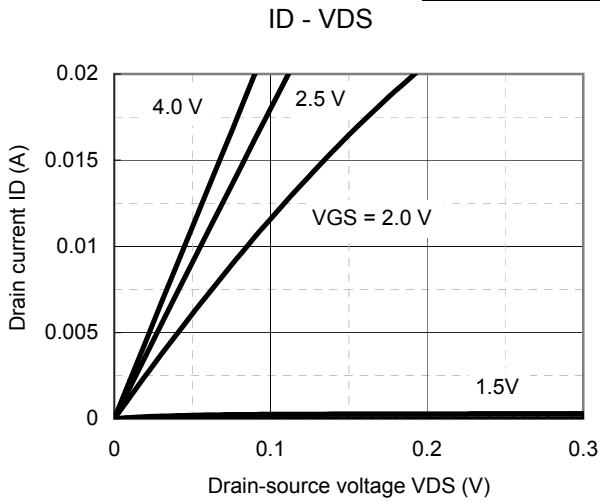
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Drain-source breakdown voltage	VDSS	ID = 1 mA, VGS = 0	60			V
Drain-source cutoff current	IDSS	VDS = 60 V, VGS = 0			1.0	μA
Gate-source cutoff current	IGSS	VGS = ±10 V, VDS = 0			±10	μA
Gate threshold voltage	VTH	ID = 1.0 μA, VDS = 3.0 V	0.9	1.2	1.5	V
Drain-source ON resistance	RDS(on)1	ID = 10 mA, VGS = 2.5 V		8	15	Ω
	RDS(on)2	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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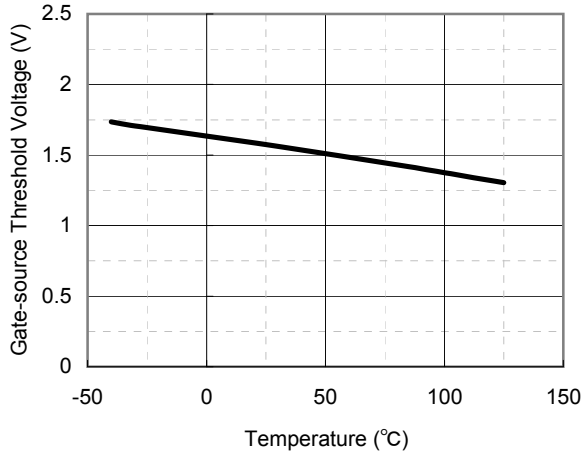


Technical Data (reference)

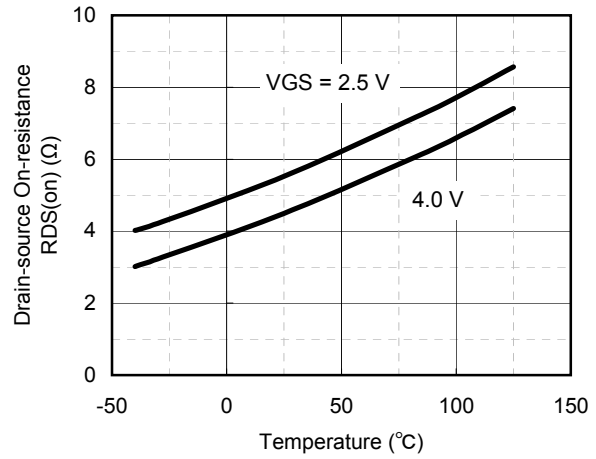


Technical Data (reference)

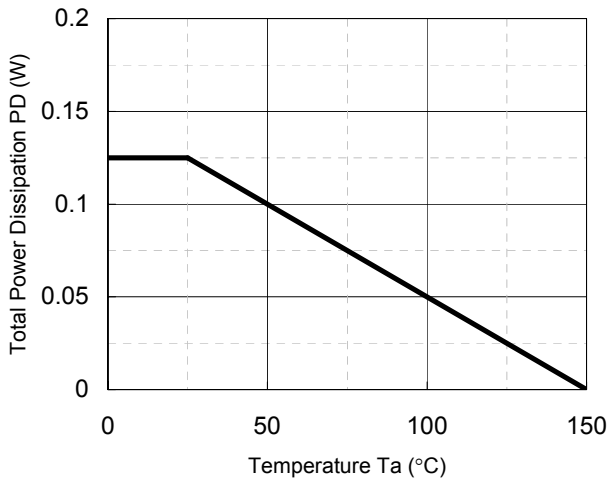
Vth - Ta



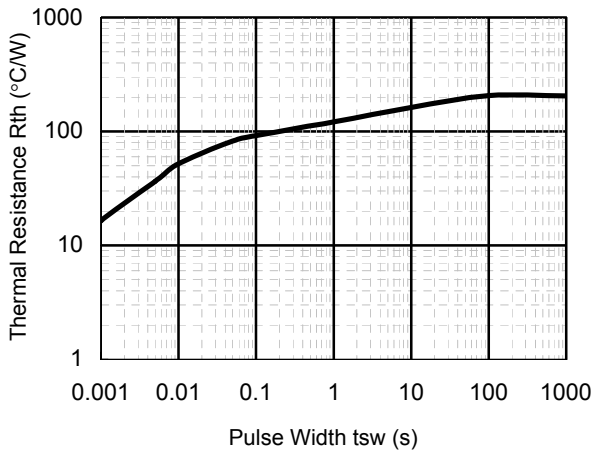
RDS(on) - Ta



PD - Ta

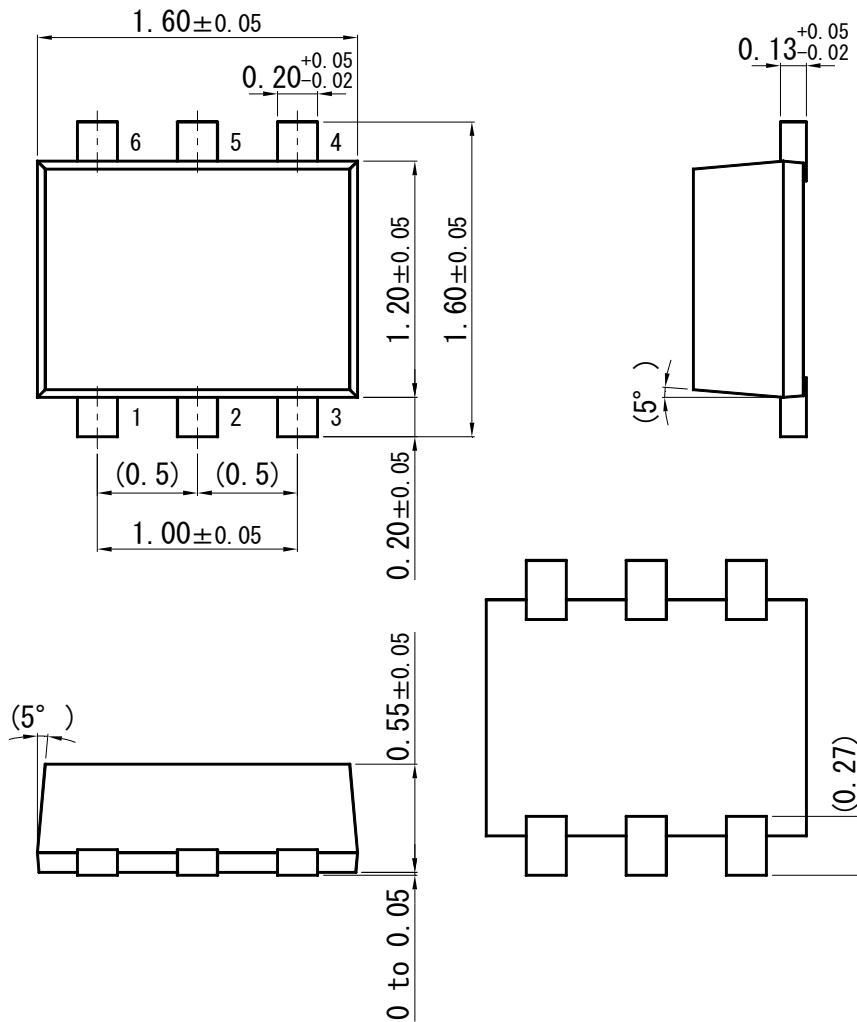


Rth - tsw

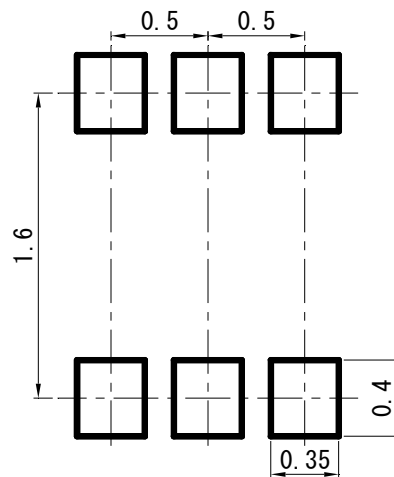


SSMini6-F3-B

Unit: mm



■ Land Pattern (Reference) (Unit : mm)



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