Doc No. TT4-EA-12667

Revision. 3

MOS FET

FC6546010R

## **Panasonic**

### FC6546010R

### **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

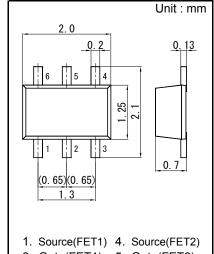
■ Basic Part Number : Dual FK350601 (Individual)

#### ■ Packaging

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

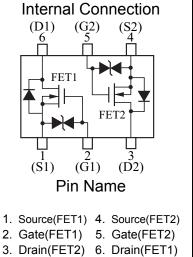
■ Absolute Maximum Ratings Ta = 25 °C

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



- 2. Gate(FET1) 5. Gate(FET2)
- 3. Drain(FET2) 6. Drain(FET1)

Panasonic	SMini6-F3-B
JEITA	SC-113DB
Code	SOT-363



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### ■ Electrical Characteristics Ta = 25 °C ± 3 °C FET1,FET2

,						
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)1	ID = 10 mA, VGS = 2.5 V		8	15	Ω
Diain-source On resistance	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			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			no
rum-on ume	ton	ID = 10 mA		100		ns
Turn-off time *1	toff	VDD = 3 V, VGS = 3 to 0 V		100		ns
rum-on ume	ton	ID = 10 mA				

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

: 2013-08-26

Revised

Established: 2010-07-02

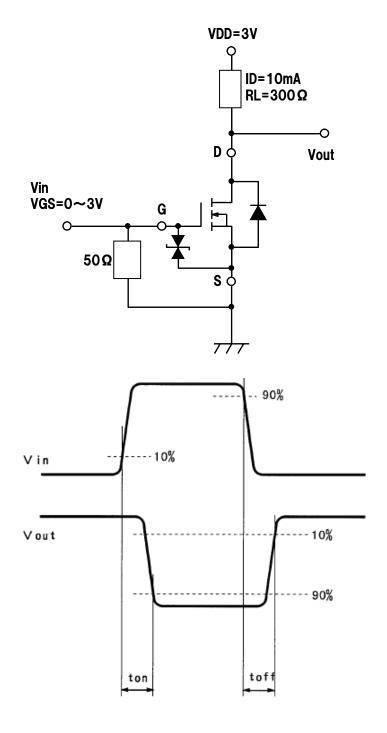
<sup>2. \*1</sup> Turn-on and Turn-off test circuit

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\*1 Turn-on, Turn-off measurement circuit

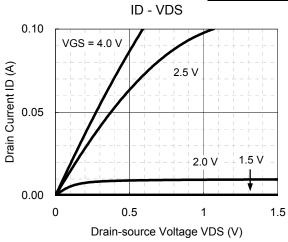


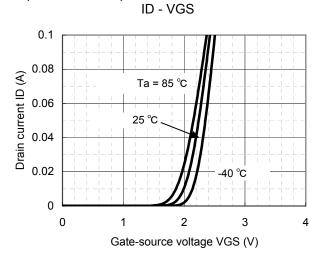
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MOS FET

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### Technical Data (reference)





0.3 (S) 0.25 0.25 0.15 0.15 0.15 0.05 0.05

2

0 L

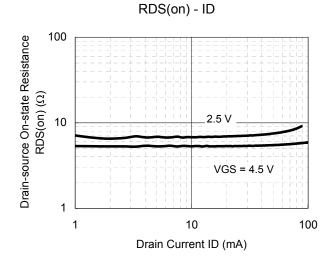
100

Capacitance C (pF)

1

0.1

VDS - VGS

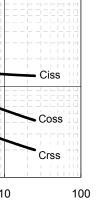


Capacitance - VDS

Drain-source Voltage VDS (V)

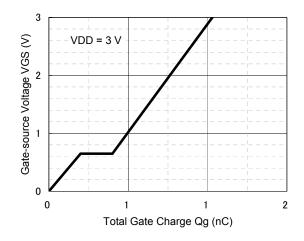
Gate-source Voltage VGS (V)

4



6

Dynamic Input/Output Characteristics

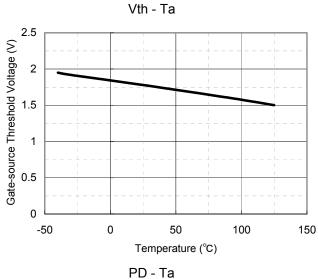


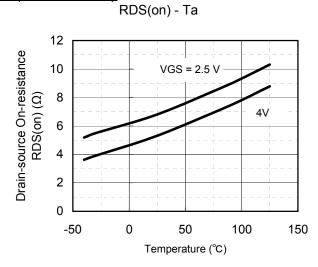
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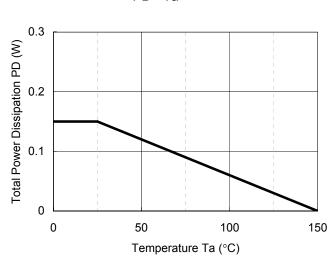
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## Technical Data (reference)







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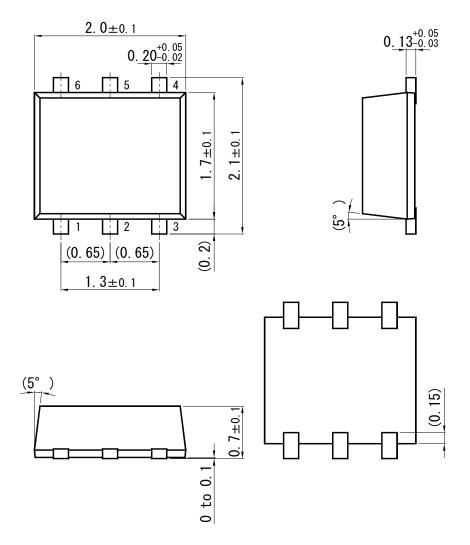
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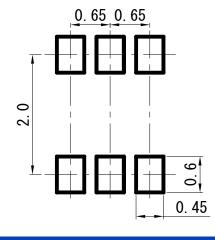
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SMini6-F3-B

Unit: mm



■ Land Pattern (Reference) (Unit : mm)



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