FK330301

Silicon N-channel MOS FET

For switching circuits

■ Overview

 ${\rm FK330301}$ is N-channel small signal MOS FET employed small size surface mounting package.

■ Features

- \bullet Low drain-source ON resistance: $R_{DS(on)}$ typ. = 2 Ω (V $_{GS}$ = 4.0 V)
- Small size surface mounting package: SSSMini3-F2-B
- Contributes to miniaturization of sets, reduction of component count.
- Eco-friendly Halogen-free package

■ Packaging

Embossed type (Thermo-compression sealing): 10000 pcs / reel (standard)

■ Absolute Maximum Ratings $T_a = 25$ °C

Parameter	Symbol	Rating	Unit
Drain-source surrender voltage	V _{DSS}	30	V
Gate-source surrender voltage	V _{GSS}	±12	V
Drain current	I_D	100	mA
Peak drain current	I_{DP}	200	mA
Power dissipation	P_{D}	100	mW
Channel temperature	T _{ch}	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

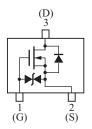
■ Package

• Code

SSSMini3-F2-B

- Pin Name
 - 1: Gate
 - 2: Source
 - 3: Drain
- Marking Symbo: X1

■ Internal Connection



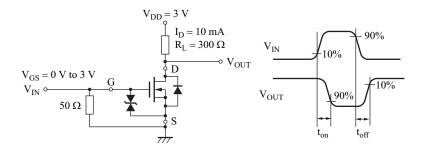
FK330301 Panasonic

■ Electrical Characteristics $T_a = 25$ °C±3°C

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Drain-source surrender voltage	V _{DSS}	$I_D = 1.0 \text{ mA}, V_{GS} = 0$	30			V
Drain-source cutoff current	I _{DSS}	$V_{DS} = 30 \text{ V}, V_{GS} = 0$			1.0	μΑ
Gate-source cutoff current	I_{GSS}	$V_{GS} = \pm 10 \text{ V}, V_{DS} = 0$			±10	μΑ
Gate threshold voltage	V _{TH}	$I_D = 1.0 \mu A, V_{DS} = 3.0 \text{ V}$	0.5	1.0	1.5	V
Drain-source ON resistance	R _{DS(on)}	$I_D = 10 \text{ mA}, V_{GS} = 2.5 \text{ V}$		3	6	Ω
		$I_D = 10 \text{ mA}, V_{GS} = 4.0 \text{ V}$		2	3	Ω
Forward transfer admittance	Y _{fs}	$I_D = 10 \text{ mA}, V_{DS} = 3.0 \text{ V}$	20	55		mS
Short-circuit input capacitance (Common source)	C _{iss}	$V_{DS} = 3 \text{ V}, V_{GS} = 0, f = 1 \text{ MHz}$		12		pF
Short-circuit output capacitance (Common source)	C _{oss}			7		pF
Reverse transfer capacitance (Common source)	C _{rss}			3		pF
Turn-on time *	t _{on}	$V_{DD} = 3 \text{ V}, V_{GS} = 0 \text{ V to } 3 \text{ V},$ $R_L = 300 \Omega$		100		ns
Turn-off time *	t _{off}	$V_{DD} = 3 \text{ V}, V_{GS} = 3 \text{ V to } 0 \text{ V},$ $R_L = 300 \Omega$		100		ns

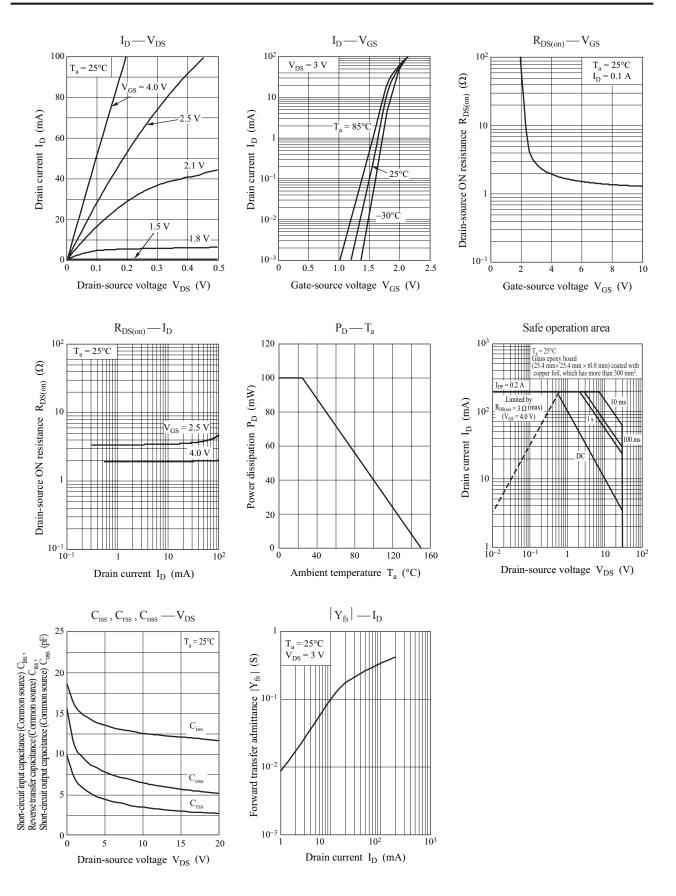
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *: Test circuit



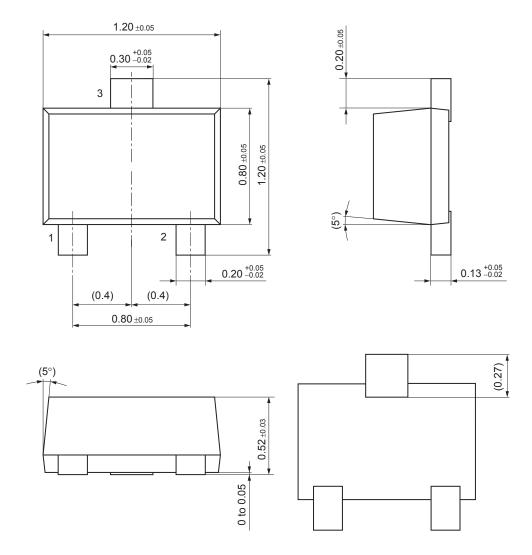
2 Ver. DED

Panasonic FK330301



SSSMini3-F2-B

Unit: mm



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