

XN01872 (XN1872)

Silicon n-channel enhancement MOSFET

For switching

■ Features

- Two elements incorporated into one package
(Source-coupled FETs)
- Reduction of the mounting area and assembly cost by one half

■ Basic Part Number

- 2SK0621 (2SK621) × 2

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Drain-source surrender voltage	V_{DSS}	50	V
Gate-source voltage (Drain open)	V_{GSO}	8	V
Drain current	I_D	100	mA
Peak drain current	I_{DP}	200	mA
Total power dissipation	P_T	300	mW
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

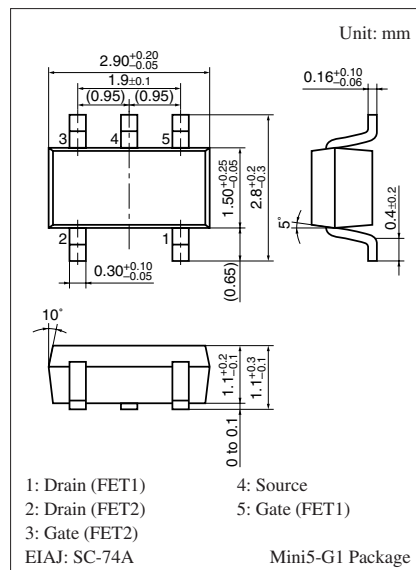
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Drain-source surrender voltage	V_{DSS}	$I_D = 100 \mu\text{A}$, $V_{GS} = 0$	50			V
Drain-source cutoff current	I_{DSS}	$V_{DS} = 10 \text{ V}$, $V_{GS} = 0$			10	μA
Gate-source cutoff current	I_{GSS}	$V_{GS} = 8 \text{ V}$, $V_{DS} = 0$	40		80	μA
Gate threshold voltage	V_{th}	$I_D = 100 \mu\text{A}$, $V_{DS} = V_{GS}$	1.5		3.5	V
Drain-source ON resistance	$R_{DS(on)}$	$I_D = 20 \text{ mA}$, $V_{GS} = 5 \text{ V}$			50	Ω
Forward transfer admittance	$ Y_{fs} $	$I_D = 20 \text{ mA}$, $V_{DS} = 5 \text{ V}$, $f = 1 \text{ kHz}$	20	30		mS
Output voltage high-level	V_{OH}	$V_{DS} = 5 \text{ V}$, $V_{GS} = 1 \text{ V}$, $R_L = 200 \Omega$	4.5			V
Output voltage low-level	V_{OL}	$V_{DS} = 5 \text{ V}$, $V_{GS} = 5 \text{ V}$, $R_L = 200 \Omega$			1.0	V
Input resistance *1	$R_1 + R_2$		100		200	k Ω
Turn-on time *2	t_{on}	$V_{DD} = 5 \text{ V}$, $V_{GS} = 0 \text{ V to } 5 \text{ V}$, $R_L = 200 \Omega$			1.0	μs
Turn-off time *2	t_{off}	$V_{DD} = 5 \text{ V}$, $V_{GS} = 5 \text{ V to } 0 \text{ V}$, $R_L = 200 \Omega$			1.0	μs
Short-circuit forward transfer capacitance (Common-source)	C_{iss}	$V_{DS} = 5 \text{ V}$, $V_{GS} = 0$, $f = 1 \text{ MHz}$		9	15	pF

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

2. *1: Resistance ratio $R_1/R_2 = 1/50$

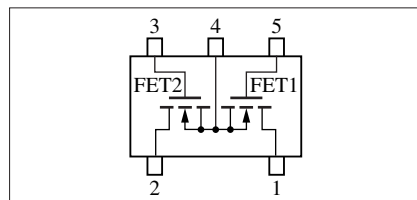
*2: Pulse measurement

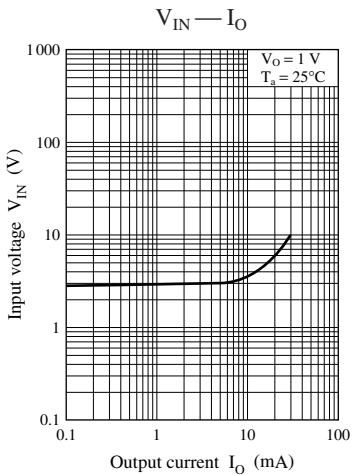
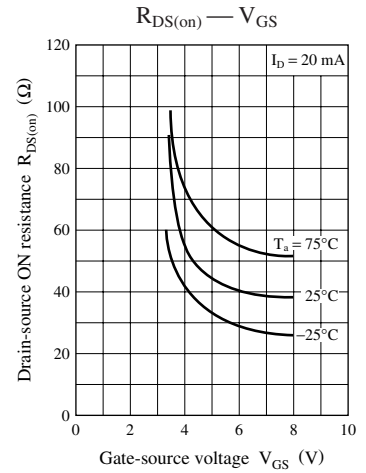
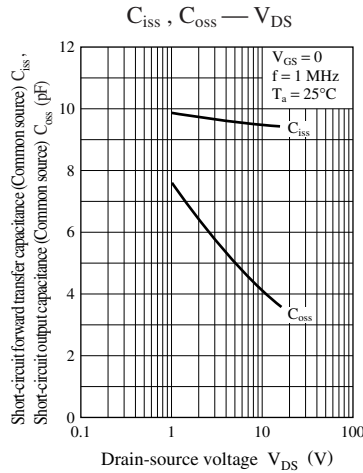
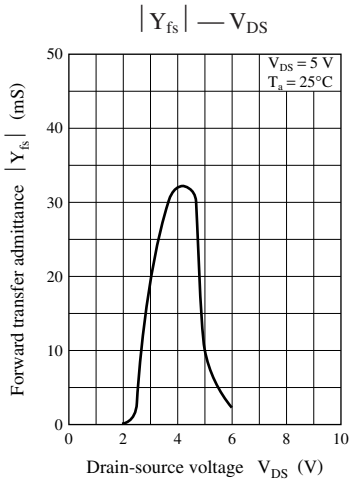
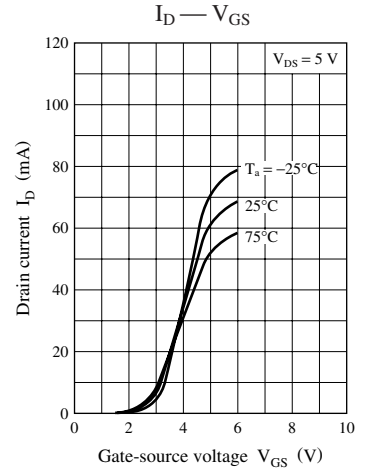
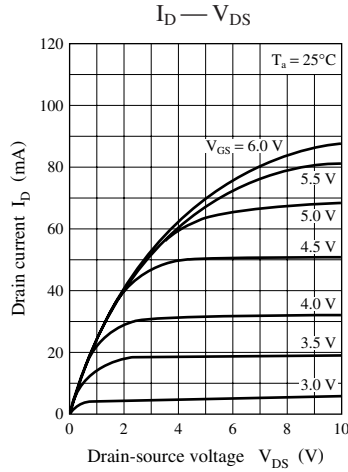
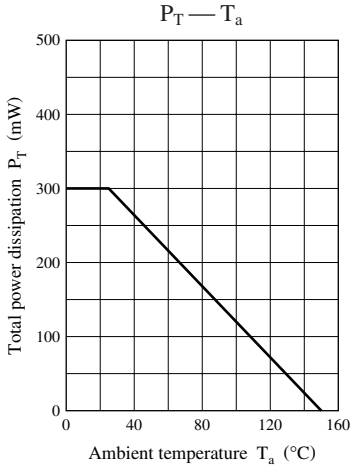
Note) The part number in the parenthesis shows conventional part number.



Marking Symbol: 5U

Internal Connection





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