

2SK2211

Silicon N-channel MOSFET

For switching circuits

■ Features

- Low ON resistance
- High-speed switching
- Mini type package, allowing downsizing of the sets and automatic insertion through the magazine packing

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

Parameter	Symbol	Rating	Unit
Drain-source surrender voltage	V_{DSS}	30	V
Gate-source surrender voltage	V_{GSS}	± 20	V
Drain current	I_D	1.0	A
Peak drain current	I_{DP}	2.0	A
Power dissipation *	P_D	1.0	W
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

Note) *: PC board: Copper foil of the drain portion should have an area of 1 cm² or more and the board thickness should be 1.7 mm.

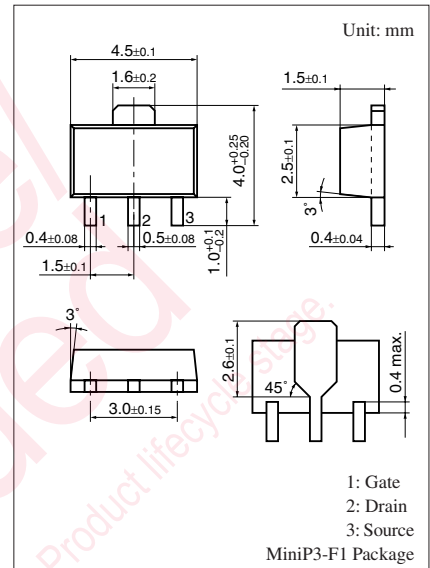
P_C absolute maximum rating without a heat sink: 0.5 W

■ 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}	$I_D = 0.1 \text{ mA}, V_{GS} = 0$	30			V
Gate-source surrender voltage	V_{GSS}	$I_{GS} = 0.1 \text{ mA}, V_{DS} = 0$	± 20			V
Drain-source cutoff current	I_{DSS}	$V_{DS} = 25 \text{ V}, V_{GS} = 0$			10	μA
Gate-source cutoff current	I_{GSS}	$V_{GS} = \pm 15 \text{ V}, V_{DS} = 0$			± 10	μA
Gate threshold voltage	V_{th}	$V_{DS} = 5 \text{ V}, I_D = 1 \text{ mA}$	0.8		2.0	V
Forward transfer admittance *	$ Y_{fs} $	$V_{DS} = 10 \text{ V}, I_D = 0.5 \text{ A}$	0.5			S
Drain-source ON resistance *	$R_{DS(on)1}$	$V_{GS} = 4 \text{ V}, I_D = 0.5 \text{ A}$		0.48	0.75	Ω
	$R_{DS(on)2}$	$V_{GS} = 10 \text{ V}, I_D = 0.5 \text{ A}$		0.35	0.60	
Short-circuit forward transfer capacitance (Common source)	C_{iss}	$V_{DS} = 10 \text{ V}, V_{GS} = 0, f = 1 \text{ MHz}$		87		pF
Short-circuit output capacitance (Common source)	C_{oss}			69		
Reverse transfer capacitance (Common source)	C_{rss}			23		
Turn-on delay time	$t_{d(on)}$	$V_{GS} = 10 \text{ V}, V_{DD} = 10 \text{ V}, I_D = 0.5 \text{ A},$		12		ns
Fall time	t_f	$R_L = 20 \Omega$		160		
Turn-off delay time	$t_{d(off)}$			60		

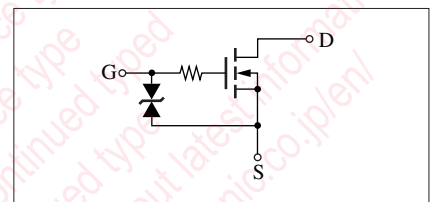
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

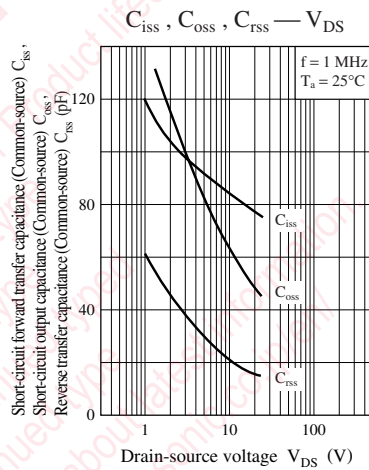
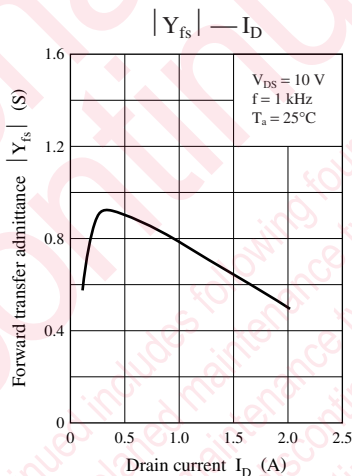
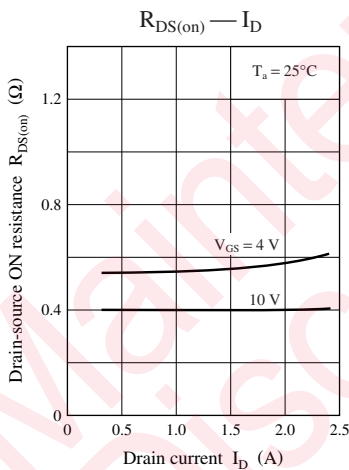
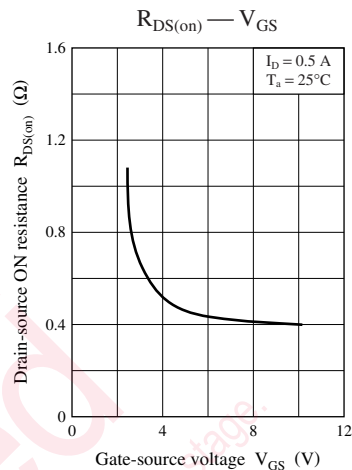
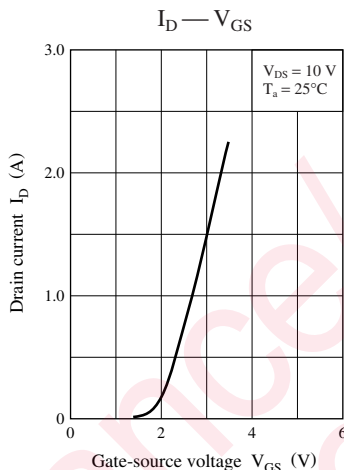
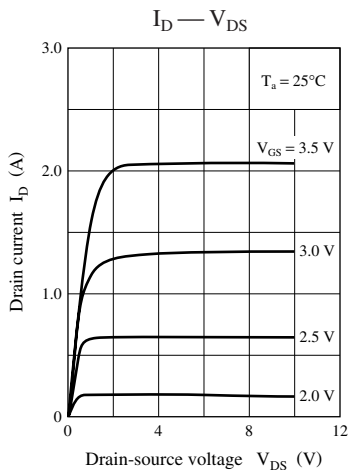
2. *: Pulse measurement



Marking Symbol: 2M

Internal Connection





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