

2SK2211

Silicon N-Channel MOS FET

For switching

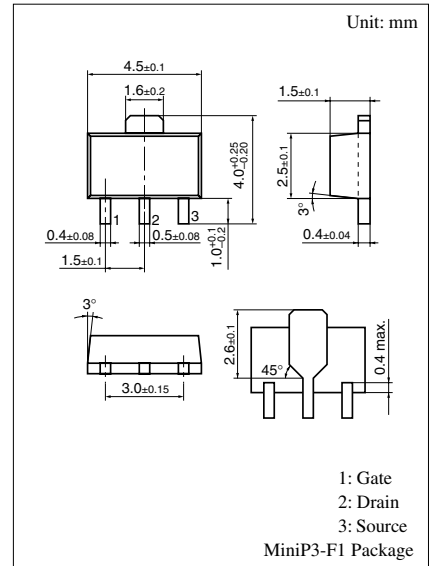
■ Features

- Low ON-resistance $R_{DS(on)}$
- High-speed switching
- Mini-power type package, allowing downsizing of the sets and automatic insertion through the tape/magazine packing.

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

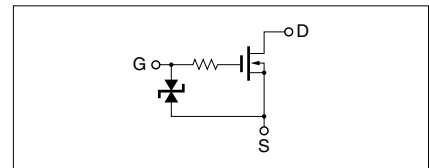
Parameter	Symbol	Ratings	Unit
Drain to Source breakdown voltage	V_{DSS}	30	V
Gate to Source voltage	V_{GSS}	± 20	V
Drain current	I_D	1.0	A
Max drain current	I_{DP}	2.0	A
Allowable power dissipation	P_D^*	1.0	W
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

* PC board: Copper foil of the drain portion should have an area of 1cm^2 or more and the board thickness should be 1.7mm.



Marking Symbol: 2M

Internal Connection

■ Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Conditions	min	typ	max	Unit
Drain to Source cut-off current	I_{DSS}	$V_{DS} = 25\text{V}, V_{GS} = 0$			10	μA
Gate to Source leakage current	I_{GSS}	$V_{GS} = \pm 15\text{V}, V_{DS} = 0$			± 10	μA
Drain to Source breakdown voltage	V_{DSS}	$I_D = 0.1\text{mA}, V_{GS} = 0$	30			V
Gate to Source voltage	V_{GSS}	$I_{GS} = 0.1\text{mA}, V_{DS} = 0$	± 20			V
Gate threshold voltage	V_{th}	$V_{DS} = 5\text{V}, I_D = 1\text{mA}$	0.8		2.0	V
Drain to Source ON-resistance	$R_{DS(on)1}^{*1}$	$V_{GS} = 4\text{V}, I_D = 0.5\text{A}$		0.48	0.75	Ω
	$R_{DS(on)2}^{*1}$	$V_{GS} = 10\text{V}, I_D = 0.5\text{A}$		0.35	0.60	Ω
Forward transfer admittance	$ Y_{fs} ^{*1}$	$V_{DS} = 10\text{V}, I_D = 0.5\text{A}$	0.5			S
Input capacitance (Common Source)	C_{iss}	$V_{DS} = 10\text{V}, V_{GS} = 0, f = 1\text{MHz}$		87		pF
Output capacitance (Common Source)	C_{oss}			69		pF
Reverse transfer capacitance (Common Source)	C_{rss}			23		pF
Turn-on time (delay time)	$t_{d(on)}$	$V_{GS} = 10\text{V}, I_D = 0.5\text{A}$ $V_{DD} = 10\text{V}, R_L = 20\Omega$		12		ns
Fall time	t_f			160		ns
Turn-off time (delay time)	$t_{d(off)}$			60		ns

*1 Pulse measurement

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