

2SK2211

Silicon N-Channel MOS FET

For switching

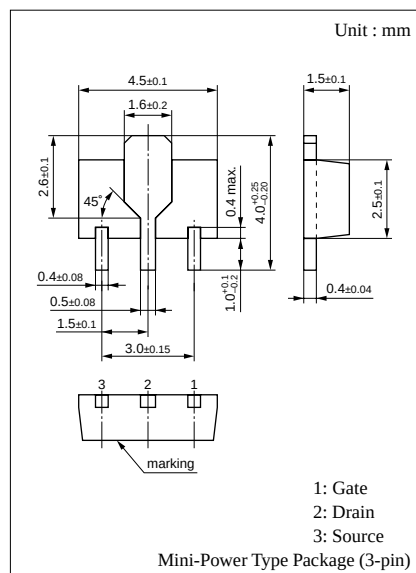
■ Features

- 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 $T_a = 25^\circ\text{C}$

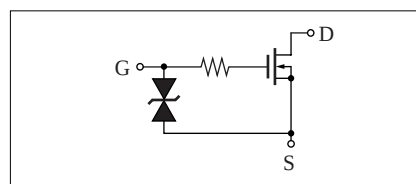
Parameter	Symbol	Ratings	Unit
Drain to Source voltage	V_{DS}	30	V
Gate to Source voltage	V_{GSO}	± 20	V
Drain current	I_D	± 1	A
Max drain current	I_{PD}	± 2	A
Allowable power dissipation *	P_D	1	W
Channel temperature	P_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to $+150$	$^\circ\text{C}$

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



Marking Symbol: 2M

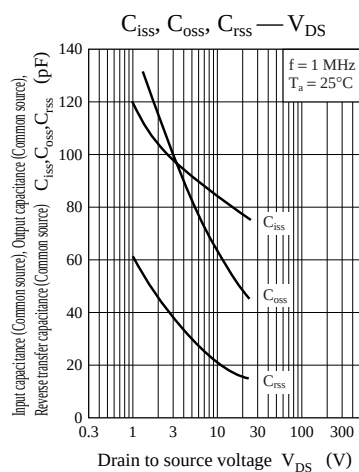
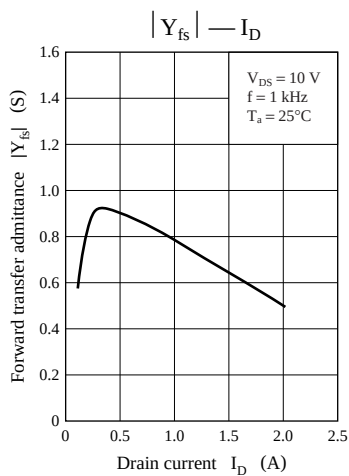
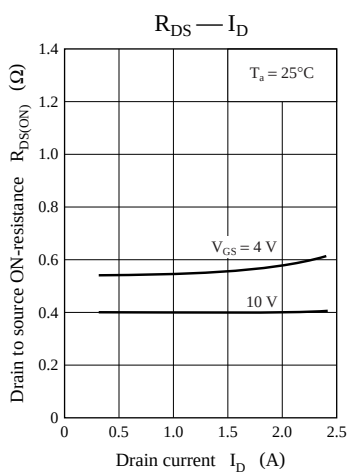
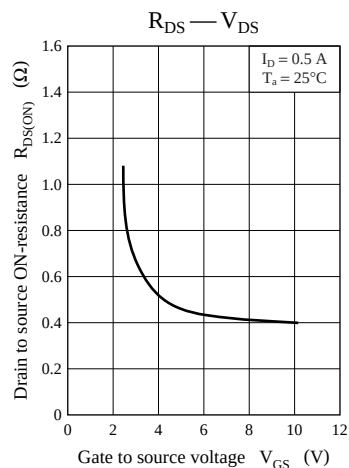
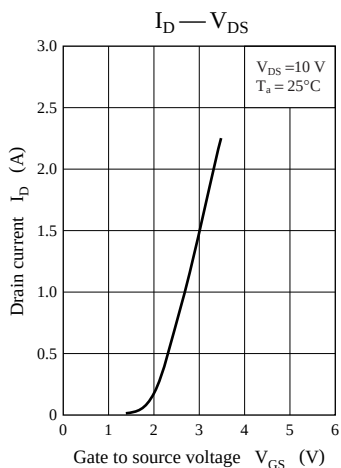
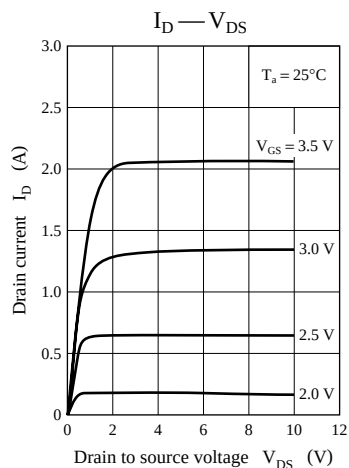
Internal Connection



■ 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	V
Drain to 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	0.6	Ω
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 10\text{ V}, I_D = 0.5\text{ A}$	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	t_{ON}	$V_{GS} = 10\text{ V}, I_D = 0.5\text{ A}, V_{DD} = 10\text{ V}$ $R_L = 10\text{ }\Omega$		12		ns
Fall time	t_f			160		ns
Turn-off time (delay time)	t_{OFF}			60		ns

Note) *: Pulse measurement



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