

2SK2772(Tentative)

Silicon N-Channel MOS

For high-speed switching

■ Features

- High-speed switching
- High drain-source voltage (V_{DS})

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

Parameter	Symbol	Rating	Unit
Drain-Source breakdown voltage	V_{DS}	235	V
Gate-Source voltage	V_{GS}	± 30	V
Drain current	I_D	± 4	A
Max drain current	I_{DP}	± 8	A
Allowable power dissipation	P_D	0.75	W
	P_D^*	10	W
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to $+150$	$^\circ\text{C}$

* $T_C = 25^\circ\text{C}$

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

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Drain-Source cut-off current	I_{DSS}	$V_{DS} = 200\text{V}$, $V_{GS} = 0$			0.1	mA
Gate-Source leakage current	I_{GSS}	$V_{GS} = \pm 30\text{V}$, $V_{DS} = 0$			± 1	μA
Drain-Source breakdown voltage	V_{DSS}	$I_D = 1\text{mA}$, $V_{GS} = 0$	235			V
Gate threshold voltage	V_{th}	$V_{DS} = 25\text{V}$, $I_D = 1\text{mA}$	1		5	V
Drain-Source ON-resistance	$R_{DS(on)}$	$V_{GS} = 10\text{V}$, $I_D = 2\text{A}$		1	1.3	Ω
Forward transadmittance	$ Y_{fs} $	$V_{DS} = 25\text{V}$, $I_D = 2\text{A}$, $f = 1\text{kHz}$	0.8	1.6		S
Input capacitance	C_{iss}	$V_{DS} = 20\text{V}$, $V_{GS} = 0$, $f = 1\text{MHz}$		300		pF
Output capacitance	C_{oss}			10		pF
Feedback capacitance	C_{rss}			60		pF
Turn-on time	t_{on}	$V_{GS} = 10\text{V}$, $I_D = 2\text{A}$ $R_L = 200\Omega$, $V_{DD} = 100\text{V}$		30		ns
Fall time	t_f			50		ns
Turn-off time (delay time)	$t_{d(off)}$			20		ns

