

MOS Field Effect Transistor

2SK2415

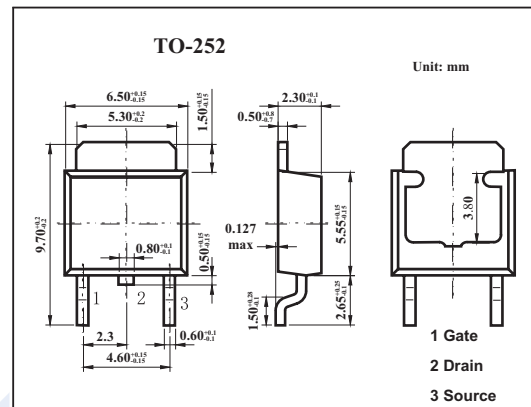
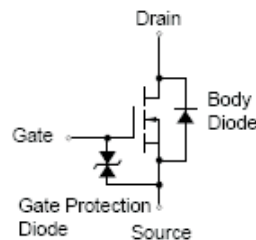
■ Features

● Low On-Resistance

$R_{DS(on)1} = 0.10\ \Omega$ MAX. (@ $V_{GS} = 10\text{ V}$, $I_D = 4.0\text{ A}$)

$R_{DS(on)2} = 0.15\ \Omega$ MAX. (@ $V_{GS} = 4\text{ V}$, $I_D = 4.0\text{ A}$)

● Low C_{iss} $C_{iss} = 570\text{ pF}$ TYP.



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DS}	60	V
Gate to source voltage	V_{GS}	± 20	V
Drain current	I_D	± 8.0	A
	I_{dp}^*	± 32	A
Power dissipation	P_D	20	W
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

* $PW \leq 10\ \mu\text{s}$, Duty Cycle $\leq 1\%$

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Drain cut-off current	I_{DSS}	$V_{DS}=60\text{V}, V_{GS}=0$			10	μA
Gate leakage current	I_{GSS}	$V_{GS}=\pm 20\text{V}, V_{DS}=0$			± 10	μA
Gate to source cutoff voltage	$V_{GS(off)}$	$V_{DS}=10\text{V}, I_D=1\text{mA}$	1.0	1.6	2.0	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=10\text{V}, I_D=4\text{A}$	5.0	8.4		S
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=10\text{V}, I_D=4\text{A}$		0.07	0.10	Ω
		$V_{GS}=4\text{V}, I_D=4\text{A}$		0.10	0.15	Ω
Input capacitance	C_{iss}	$V_{DS}=10\text{V}, V_{GS}=0, f=1\text{MHz}$		570		pF
Output capacitance	C_{oss}			290		pF
Reverse transfer capacitance	C_{rss}			75		pF
Turn-on delay time	t_{on}	$I_D=4\text{A}, V_{GS(on)}=10\text{V}, R_G=10\ \Omega, V_{DD}=30\text{V}$		5		ns
Rise time	t_r			60		ns
Turn-off delay time	t_{off}			75		ns
Fall time	t_f			40		ns