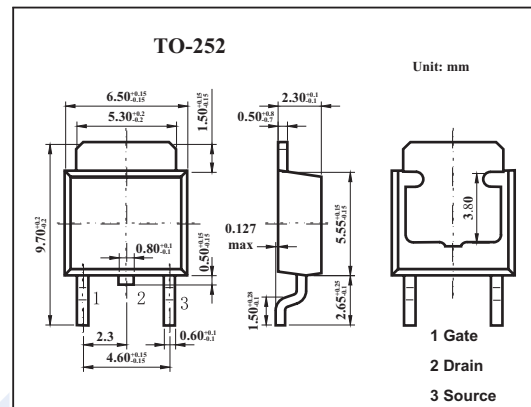


MOS Field Effect Transistor

2SK3224

■ Features

- Low On-State Resistance
 $R_{DS(on)1} = 40 \text{ m}\Omega \text{ MAX. (} V_{GS} = 10 \text{ V, } I_D = 10 \text{ A)}$
 $R_{DS(on)2} = 60 \text{ m}\Omega \text{ MAX. (} V_{GS} = 4.0 \text{ V, } I_D = 10 \text{ A)}$
- Low C_{iss} : $C_{iss} = 790 \text{ pF TYP.}$
- Built-in Gate Protection Diode



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	60	V
Gate to source voltage	$V_{GSS(AC)}$	± 20	V
	$V_{GSS(DC)}$	+20, -10	V
Drain current	I_D	± 20	A
	I_{DP}^*	± 70	A
Power dissipation	P_D	$T_c=25^\circ\text{C}$	25
		$T_A=25^\circ\text{C}$	1.0
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	Testconditions	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 cut off voltage	$V_{GS(off)}$	$V_{DS}=10\text{V}, I_D=1\text{mA}$	1.0	1.5	2.0	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=10\text{V}, I_D=10\text{A}$	8.0	15		S
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=10\text{V}, I_D=10\text{A}$		24	40	$\text{m}\Omega$
		$V_{GS}=4\text{V}, I_D=10\text{A}$		33	60	$\text{m}\Omega$
Input capacitance	C_{iss}	$V_{DS}=10\text{V}, V_{GS}=0, f=1\text{MHz}$		790		pF
Output capacitance	C_{oss}			240		pF
Reverse transfer capacitance	C_{rss}			100		pF
Turn-on delay time	t_{on}				19	
Rise time	t_r	$I_D=10\text{A}, V_{GS(on)}=10\text{V}, R_G=10\Omega, V_{DD}=30\text{V}$		165		ns
Turn-off delay time	t_{off}			62		ns
Fall time	t_f			71		ns