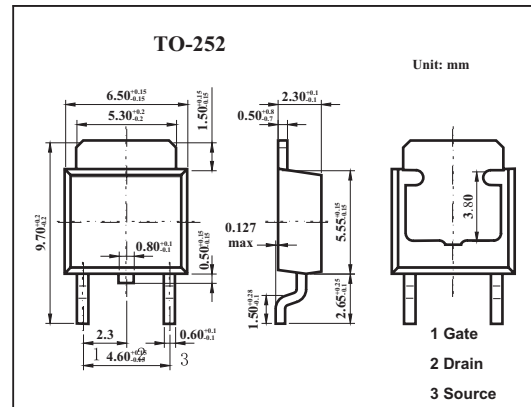


MOS Field Effect Transistor

2SK3635

■ Features

- High voltage: $V_{bss} = 200\text{ V}$
- Gate voltage rating: $\pm 30\text{ V}$
- Low on-state resistance
 $R_{DS(on)} = 0.43\ \Omega\ \text{MAX.}$ ($V_{GS} = 10\text{ V}$, $I_D = 4.0\text{ A}$)
- Low C_{iss} : $C_{iss} = 390\text{ pF TYP.}$
- Built-in gate protection diode



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{bss}	200	V
Gate to source voltage	V_{GSS}	± 30	V
Drain current	I_D	± 8.0	A
	I_{dp}^*	± 24	A
Power dissipation	P_D	$T_c=25^\circ\text{C}$	24
		$T_a=25^\circ\text{C}$	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}	$V_{DS}=200\text{V}, V_{GS}=0$			10	μA	
Gate leakage current	I_{GSS}	$V_{GS}=\pm 30\text{V}, V_{DS}=0$			± 10	μA	
Gate cut off voltage	$V_{GS(off)}$	$V_{DS}=10\text{V}, I_D=1\text{mA}$	2.5	3.5	4.5	V	
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=10\text{V}, I_D=4.0\text{A}$	3.	5		S	
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=10\text{V}, I_D=4.0\text{A}$		0.34	0.43	Ω	
Input capacitance	C_{iss}	$V_{DS}=10\text{V}, V_{GS}=0, f=1\text{MHz}$		390		pF	
Output capacitance	C_{oss}				95		pF
Reverse transfer capacitance	C_{rss}				45		pF
Turn-on delay time	t_{on}	$I_D=4.0\text{A}, V_{GS(on)}=10\text{V}, R_G=0\ \Omega, V_{DD}=100\text{V}$		5		ns	
Rise time	t_r				7		ns
Turn-off delay time	t_{off}				19		ns
Fall time	t_f				6		ns
Total Gate Charge	Q_G		$V_{DD} = 160\text{V}$		12		nC
Gate to Source Charge	Q_{GS}	$V_{GS} = 10\text{ V}$		2		nC	
Gate to Drain Charge	Q_{GD}	$I_D = 8.0\text{A}$		6		nC	