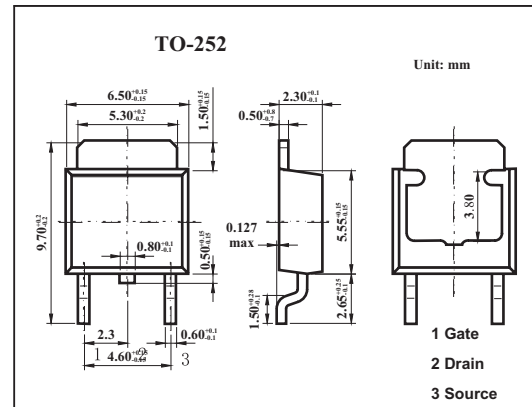


MOS Field Effect Transistor

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	24	W
		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	Test conditions	Min	Typ	Max	Unit
Drain cut-off current	I_{DSS}	$V_{DS}=200\text{ V}, V_{GS}=0$			10	$\mu\text{ A}$
Gate leakage current	I_{GSS}	$V_{GS}=\pm 30\text{ V}, V_{DS}=0$			± 10	$\mu\text{ A}$
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