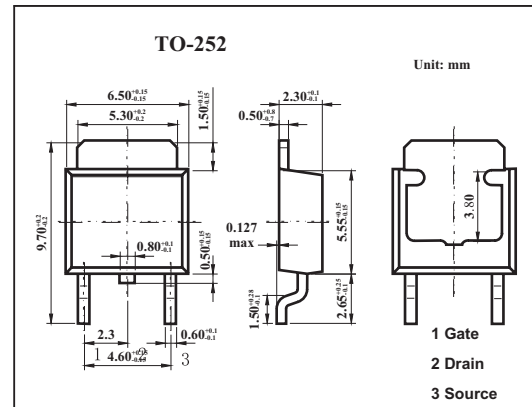


MOS Field Effect Transistor

2SK3634

■ Features

- High voltage: $V_{BSS} = 200\text{ V}$
- Gate voltage rating: $\pm 30\text{ V}$
 $R_{DS(on)} = 0.60\ \Omega\ \text{MAX.}$ ($V_{GS} = 10\text{ V}$, $I_D = 3.0\text{ A}$)
- Low C_{iss} : $C_{iss} = 270\text{ pF TYP.}$ ($V_{DS} = 10\text{ V}$, $V_{GS} = 0\text{ V}$)
- Built-in gate protection diode



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	200	V
Gate to source voltage	V_{GSS}	± 30	V
Drain current	I_D	± 6.0	A
	I_{DP}^*	± 18	A
Power dissipation $T_c=25^\circ\text{C}$ $T_A=25^\circ\text{C}$	P_D	20 1.0	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	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} $	$V_{DS}=10\text{V}, I_D=3.0\text{A}$	2	4		S
Drain to source on-state resistance	$R_{DS(on)}$	$V_{GS}=10\text{V}, I_D=3.0\text{A}$		0.47	0.60	Ω
Input capacitance	C_{iss}	$V_{DS}=10\text{V}, V_{GS}=0, f=1\text{MHz}$		270		pF
Output capacitance	C_{oss}			75		pF
Reverse transfer capacitance	C_{rss}			33		pF
Turn-on delay time	t_{on}	$I_D=3.0\text{A}, V_{GS(on)}=10\text{V}, R_G=0\ \Omega, V_{DD}=100\text{V}$		4		ns
Rise time	t_r			8		ns
Turn-off delay time	t_{off}			14		ns
Fall time	t_f			6		ns
Total Gate Charge	Q_G	$V_{DD} = 160\text{V}$		9		nC
Gate to Source Charge	Q_{GS}	$V_{GS} = 10\text{ V}$		1.5		nC
Gate to Drain Charge	Q_{GD}	$I_D = 6.0\text{A}$		4.5		nC