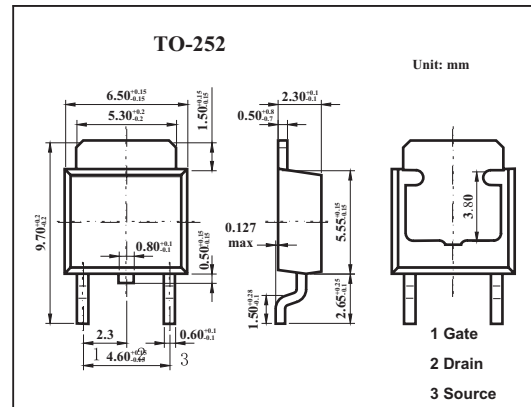


MOS Field Effect Transistor

2SK3483

■ Features

- Super low on-state resistance:
 $R_{DS(on)1} = 52\text{m}\Omega$ MAX. ($V_{GS} = 10\text{V}$, $I_D = 14\text{A}$)
 $R_{DS(on)2} = 59\text{m}\Omega$ MAX. ($V_{GS} = 4.5\text{V}$, $I_D = 14\text{A}$)
- Low C_{iss} : $C_{iss} = 2300\text{pF}$ TYP.



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

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DS}	100	V
Gate to source voltage	V_{GS}	± 20	V
Drain current	I_D	± 28	A
	I_{dp}^*	± 60	A
Power dissipation	P_D	$T_c=25^\circ\text{C}$	40
		$T_A=25^\circ\text{C}$	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	Test conditions	Min	Typ	Max	Unit
Drain cut-off current	I_{DSS}	$V_{DS}=100\text{V}, V_{GS}=0$			10	μA
Gate leakage current	I_{GSS}	$V_{GS}=\pm 20\text{V}, V_{DS}=0$			± 10	μA
Gate cutoff voltage	$V_{GS(off)}$	$V_{DS}=10\text{V}, I_D=1\text{mA}$	1.5	2.0	2.5	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS}=10\text{V}, I_D=14\text{A}$	9.0	18		S
Drain to source on-state resistance	$R_{DS(on)1}$	$V_{GS}=10\text{V}, I_D=14\text{A}$		41	52	$\text{m}\Omega$
	$R_{DS(on)2}$	$V_{GS}=4.5\text{V}, I_D=14\text{A}$		45	59	$\text{m}\Omega$
Input capacitance	C_{iss}	$V_{DS}=10\text{V}, V_{GS}=0, f=1\text{MHz}$		2300		pF
Output capacitance	C_{oss}			230		pF
Reverse transfer capacitance	C_{rss}			120		pF
Turn-on delay time	t_{on}	$I_D=14\text{A}, V_{GS(on)}=10\text{V}, R_G=0\ \Omega, V_{DD}=50\text{V}$		12		ns
Rise time	t_r			9		ns
Turn-off delay time	t_{off}			53		ns
Fall time	t_f			5		ns
Total Gate Charge	Q_G	$I_D=28\text{A}, V_{DD}=80\text{V}, V_{GS}=10\text{V}$		49		nC
Gate to Source Charge	Q_{GS}			7		nC
Gate to Drain Charge	Q_{GD}			13		nC