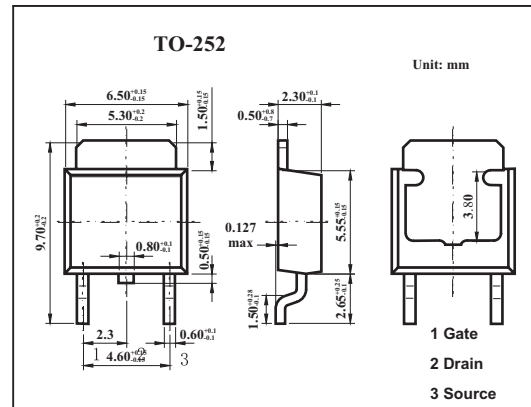


## MOS Field Effect Transistor

### 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	$V_{GS}$	$\pm 20$	V	
Drain current	$I_D$	$\pm 28$	A	
	$I_{dp}^*$	$\pm 60$	A	
Power dissipation	$P_D$	$T_c=25^\circ\text{C}$	40	W
		$T_A=25^\circ\text{C}$	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	$\mu\text{A}$
Gate leakage current	$I_{GSS}$	$V_{GS}=\pm 20\text{V}, V_{DS}=0$			$\pm 10$	$\mu\text{A}$
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