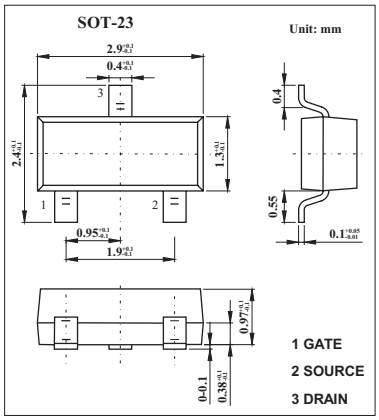
TY Semicondutor®

Product specification

2SK1589



■ Features

- Directly driven by Ics having a 5V power supply.
- Not necessary to consider driving current because of its high input impedance.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	100	V
Gate to source voltage	V_{GSS}	±20	V
Drain current (DC)	I_D	±100	mA
Drain current(pulse) *	I_D	±200	mA
Power dissipation	P_D	2.0	W
Channel temperature	T_{ch}	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

* PW≤ 10ms, duty cycle ≤ 5%

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Drain cut-off current	I_{DSS}	V_{DS}=100V,V_{GS}=0			10	μA
Gate leakage current	I_{GSS}	V_{GS}=±20V,V_{DS}=0			±1.0	μA
Gate to source cutoff voltage	$V_{GS(off)}$	V_{DS}=5V,I_D=1μA	0.8	1.5	1.8	V
Forward transfer admittance	$\|Y_{fs}\|$	V_{DS}=5.0V,I_D=10mA	20	38		ms
Drain to source on-state resistance	$R_{DS(on)}$	V_{GS}=4.0V,I_D=10mA		19	30	Ω
		V_{GS}=10V,I_D=10mA		15	25	Ω
Input capacitance	C_{iss}	V_{DS}=5.0V,V_{GS}=0,f=1MHZ		16		pF
Output capacitance	C_{oss}			12		pF
Reverse transfer capacitance	C_{rss}			3		pF
Turn-on delay time	$t_{d(on)}$	I_D=10mA,$V_{GS(on)}$=5.0V,R_L=500Ω,V_{DD}=5V,R_G=10Ω		17		ns
Rise time	t_r			10		ns
Turn-off delay time	$t_{d(off)}$			68		ns
Fall time	t_f			38		ns

■ Marking

Marking	G17