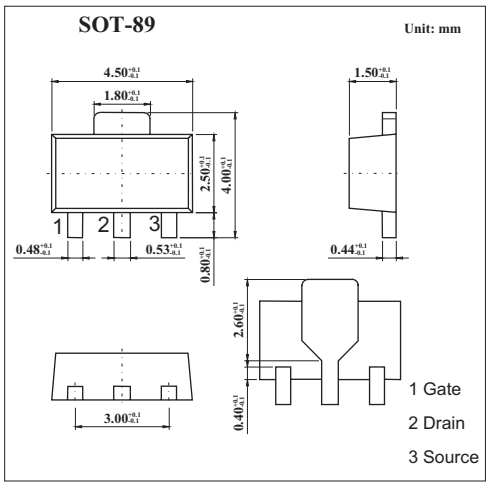
TY Semicondutor®

Product specification

2SK1592



■ Features

- Directly driven by Ics having a 5V power supply.
- Has low on-state resistance.

  $R_{DS(on)}$=2.5Ω MAX.@V_{GS}=4.0V,I_D=0.3A

  $R_{DS(on)}$=2.0Ω MAX.@V_{GS}=10V,I_D=0.3A

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain to source voltage	V_{DSS}	60	V
Gate to source voltage	V_{GSS}	±20	V
Drain current (DC)	I_D	±500	mA
Drain current(pulse) *	I_D	±1.0	A
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}=60V,V_{GS}=0			1.0	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}=10V,I_D=1mA	0.8	1.2	2.0	V
Forward transfer admittance	$\|Y_{fs}\|$	V_{DS}=10V,I_D=0.5A	400	570		ms
Drain to source on-state resistance	$R_{DS(on)}$	V_{GS}=4.0V,I_D=0.3A		1.6	2.5	Ω
		V_{GS}=10V,I_D=0.3A		1.2	2.0	Ω
Input capacitance	C_{iss}	V_{DS}=10V,V_{GS}=0,f=1MHZ		52		pF
Output capacitance	C_{oss}			34		pF
Reverse transfer capacitance	C_{rss}			7		pF
Turn-on delay time	$t_{d(on)}$	I_D=0.3A,$V_{GS(on)}$=4V,R_L=33Ω,V_{DD}=10V,R_G=10Ω		60		ns
Rise time	t_r			150		ns
Turn-off delay time	$t_{d(off)}$			150		ns
Fall time	t_f			100		ns

■ Marking

Marking	NO