

TOSHIBA FIELD EFFECT TRANSISTOR SILICON N CHANNEL MOS TYPE

## 2SK1061

HIGH SPEED SWITCHING APPLICATIONS

ANALOG SWITCH APPLICATIONS

INTERFACE APPLICATIONS

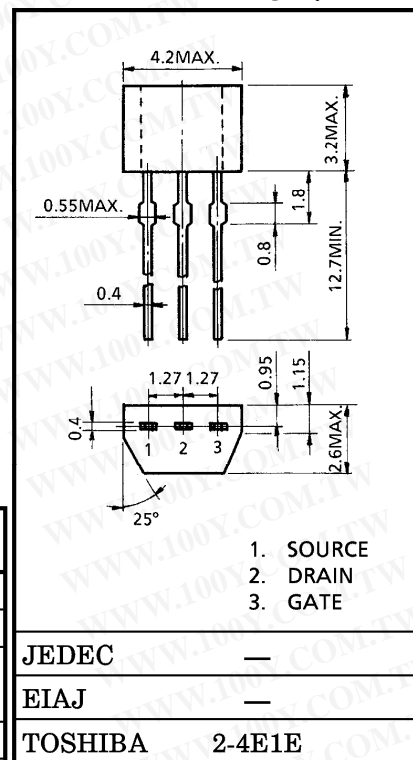
- Excellent Switching Times :  $t_{on} = 14 \text{ ns (Typ.)}$
- High Forward Transfer Admittance :  $|Y_{fs}| = 100 \text{ mS (Min.)}$
- Low On Resistance :  $R_{DS(ON)} = 0.6 \Omega \text{ (Typ.)}$
- Enhancement-Mode
- Complementary to 2SJ167

MAXIMUM RATINGS ( $T_a = 25^\circ\text{C}$ )

勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-54151736  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Drain-Source Voltage	$V_{DS}$	60	V
Gate-Source Voltage	$V_{GSS}$	$\pm 20$	V
Drain Current	DC	$I_D$	200
	Pulse	$I_{DP}$	800
Drain Power Dissipation ( $T_a = 25^\circ\text{C}$ )	$P_D$	300	mW
Channel Temperature	$T_{ch}$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	$-55 \sim 150$	$^\circ\text{C}$

Unit in mm



Weight : 0.13 g

### ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current		$I_{GSS}$	$V_{GS} = \pm 10\text{ V}, V_{DS} = 0$	—	—	$\pm 100$	nA
Drain Cut-off Current		$I_{DSS}$	$V_{DS} = 60\text{ V}, V_{GS} = 0$	—	—	10	$\mu\text{A}$
Drain-Source Breakdown Voltage		$V_{(BR) DSS}$	$I_D = 1\text{ mA}, V_{GS} = 0$	60	—	—	V
Gate Threshold Voltage		$V_{th}$	$V_{DS} = 10\text{ V}, I_D = 1\text{ mA}$	2	—	3.5	V
Forward Transfer Admittance		$ Y_{fs} $	$V_{DS} = 10\text{ V}, I_D = 50\text{ mA}$	100	—	—	mS
Drain-Source ON Resistance		$R_{DS(ON)}$	$I_D = 50\text{ mA}, V_{GS} = 10\text{ V}$	—	0.6	1.0	$\Omega$
Drain-Source ON Voltage		$V_{DS(ON)}$	$I_D = 50\text{ mA}, V_{GS} = 10\text{ V}$	—	30	50	mV
Input Capacitance		$C_{iss}$	$V_{DS} = 10\text{ V}, V_{GS} = 0\text{ V},$ $f = 1\text{ MHz}$	—	55	65	pF
Reverse Transfer Capacitance		$C_{rss}$		—	13	18	
Output Capacitance		$C_{oss}$		—	40	50	
Switching Time	Rise Time	$t_r$	<p>D.U. <math>\leq 1\%</math>  <math>V_{IN} : t_r, t_f &lt; 5\text{ ns}</math>  <math>(Z_{out} = 50\ \Omega)</math></p>	—	8	—	ns
	Turn-on Time	$t_{on}$		—	14	—	
	Fall Time	$t_f$		—	35	—	
	Turn-off Time	$t_{off}$		—	75	—	

This transistor is the electrostatic sensitive device. Please handle with caution.

