

TOSHIBA FIELD EFFECT TRANSISTOR SILICON N CHANNEL MOS TYPE

2SK1062

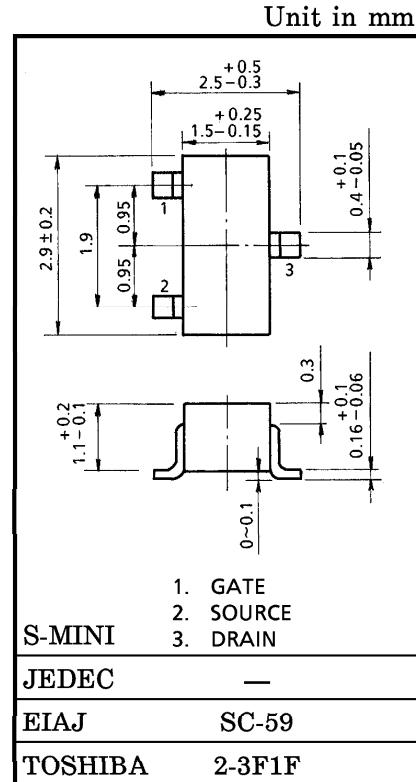
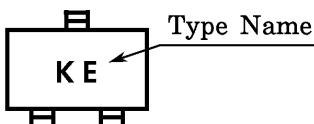
HIGH SPEED SWITCHING APPLICATIONS

ANALOG SWITCHING APPLICATIONS

INTERFACE APPLICATIONS

- Excellent Switching Time : $t_{on} = 14$ ns (Typ.)
- High Forward Transfer Admittance : $|Y_{fs}| = 100$ mS (Min.) @ $I_D = 50$ mA
- Low On Resistance : $R_{DS(ON)} = 0.6$ Ω (Typ.) @ $I_D = 50$ mA
- Enhancement-Mode
- Complementary to 2SJ168.

MARKING

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

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

Weight : 0.012 g

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ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Gate Leakage Current	I_{GSS}	$V_{GS} = \pm 10\text{ V}$, $V_{DS} = 0$	—	—	± 100	nA	
Drain Cut-off Current	I_{DSS}	$V_{DS} = 60\text{ V}$, $V_{GS} = 0$	—	—	10	μA	
Drain-Source Breakdown Voltage	$V_{(\text{BR})\text{DSS}}$	$I_D = 1\text{ mA}$, $V_{GS} = 0$	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	$R_{DS(\text{ON})}$	$I_D = 50\text{ mA}$, $V_{GS} = 10\text{ V}$	—	0.6	1.0	Ω	
Drain-Source ON Voltage	$V_{DS(\text{ON})}$	$I_D = 50\text{ mA}$, $V_{GS} = 10\text{ V}$	—	30	50	mV	
Input Capacitance	C_{iss}	$V_{DS} = 10\text{ V}$, $V_{GS} = 0$, $f = 1\text{ MHz}$	—	55	65	pF	
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = 10\text{ V}$, $V_{GS} = 0$, $f = 1\text{ MHz}$	—	13	18	pF	
Output Capacitance	C_{oss}	$V_{DS} = 10\text{ V}$, $V_{GS} = 0$, $f = 1\text{ MHz}$	—	40	50	pF	
Switching Time	Rise Time	t_r	 $V_{IN} : t_r, t_f < 5\text{ ns}$ $V_{DD} = 30\text{ V}$ $D.U \leq 1\% (Z_{out} = 50\Omega)$	—	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.

