

TOSHIBA FIELD EFFECT TRANSISTOR SILICON N CHANNEL MOS TYPE

2SK982

HIGH SPEED SWITCHING APPLICATIONS

ANALOG SWITCH APPLICATIONS

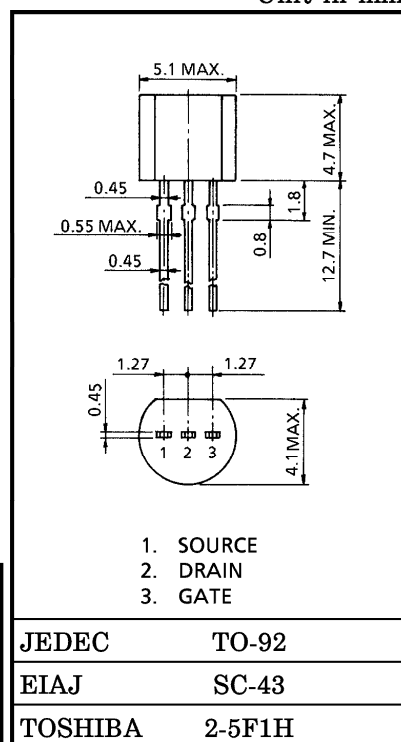
INTERFACE APPLICATIONS

Unit in mm

- Excellent Switching Times : $t_{on} = 14 \text{ ns}$ (Typ.)
- High Forward Transfer Admittance
: $|Y_{fs}| = 100 \text{ mS}$ (Min.) @ $I_D = 50 \text{ mA}$
- Low On Resistance
: $R_{DS(ON)} = 0.6 \Omega$ (Typ.) @ $I_D = 50 \text{ mA}$
- Enhancement-Mode
- Complementary to 2SJ148

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	400	mW
Channel Temperature		T_{ch}	150	$^\circ\text{C}$
Storage Temperature Range		T_{stg}	$-55 \sim 150$	$^\circ\text{C}$



JEDEC TO-92

EIAJ SC-43

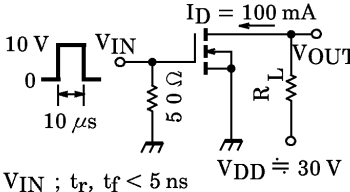
TOSHIBA 2-5F1H

Weight : 0.21 g

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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current		I_{GSS}	$V_{GS} = \pm 10 \text{ V}, V_{DS} = 0$	—	—	± 100	nA
Drain Cut-off Current		I_{DSS}	$V_{DS} = 60 \text{ V}, V_{GS} = 0$	—	—	10	μA
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	Ω
Drain-Source ON Voltage		$V_{DS(ON)}$	$I_D = 50 \text{ mA}, V_{GS} = 10 \text{ V}$	—	30	50	mV
Input Capacitance		C_{iss}	$V_{DS} = 10 \text{ V}, V_{GS} = 0,$ $f = 1 \text{ MHz}$	—	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}; $t_r, t_f < 5 \text{ ns}$ $D.U \leq 1\%$ ($Z_{out} = 50 \Omega$)	—	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.

