

TOSHIBA FIELD EFFECT TRANSISTOR SILICON P CHANNEL MOS TYPE

2 S J 1 4 8

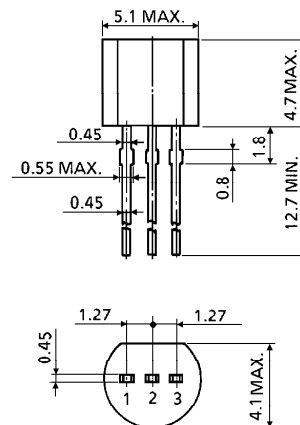
HIGH SPEED SWITCHING APPLICATIONS

ANALOG SWITCH APPLICATIONS

INTERFACE APPLICATIONS

- Excellent Switching Time : $t_{\text{on}} = 14\text{ns (Typ.)}$
- High Forward Transfer Admittance : $|Y_{\text{fs}}| = 100\text{mS (Min.)}$
- Low On Resistance : $R_{\text{DS (ON)}} = 1.3\Omega \text{ (Typ.)}$
- Enhancement-Mode
- Complementary to 2SK982

Unit in mm



1. SOURCE
2. DRAIN
3. GATE

MAXIMUM RATINGS (T_a = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Drain-Source Voltage		V_{DSS}	-60	V
Gate-Source Voltage		V_{GSS}	± 20	V
Drain Current	DC	I_D	-200	mA
	Pulse	I_{DP}	-800	
Drain Power Dissipation (Ta = 25°C)		P_D	400	mW
Channel Temperature		T_{ch}	150	°C
Storage Temperature Range		T_{stg}	-55~150	°C

JEDEC TO-92EIAJ SC-43

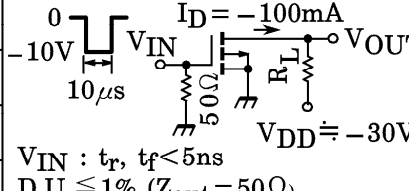
TOSHIBA	2-5F1H
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Weight : 0.21g (Typ.)

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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current		I _{GSS}	V _{GS} = ±10V, V _{DS} = 0	—	—	±100	nA
Drain Cut-off Current		I _{DSS}	V _{DS} = -60V, V _{GS} = 0	—	—	-10	μA
Drain-Source Breakdown Voltage		V _{(BR) DSS}	I _D = -1mA, V _{GS} = 0	-60	—	—	V
Gate Threshold Voltage		V _{th}	V _{DS} = -10V, I _D = -1mA	-2	—	-3.5	V
Forward Transfer Admittance		Y _{fs}	V _{DS} = -10V, I _D = -50mA	100	—	—	mS
Drain-Source ON Resistance		R _{DS(ON)}	I _D = -50mA, V _{GS} = -10V	—	1.3	2.0	Ω
Drain-Source ON Voltage		V _{DS(ON)}	I _D = -50mA, V _{GS} = -10V	—	-65	-100	mV
Input Capacitance		C _{iss}	V _{DS} = -10V, V _{GS} = 0, f = 1MHz	—	73	85	pF
Reverse Transfer Capacitance		C _{rss}	V _{DS} = -10V, V _{GS} = 0, f = 1MHz	—	15	22	pF
Output Capacitance		C _{oss}	V _{DS} = -10V, V _{GS} = 0, f = 1MHz	—	48	60	pF
Switching Time	Rise Time	t _r		—	8	—	ns
	Turn-on Time	t _{on}		—	14	—	
	Fall Time	t _f		—	35	—	
	Turn-off Time	t _{off}		—	100	—	

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

