

TOSHIBA FIELD EFFECT TRANSISTOR SILICON P CHANNEL MOS TYPE

2SJ342

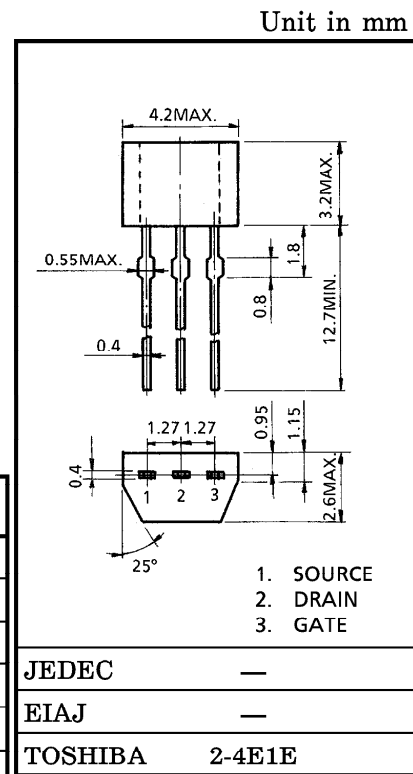
HIGH SPEED SWITCHING APPLICATIONS

ANAROG SWITCH APPLICATIONS

- Low Threshold Voltage : $V_{th} = -0.8 \sim -2.5V$
- High Speed
- Enhancement-Mode
- Small Package
- Complementary to 2SK1825

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Drain-Source Voltage	V_{DS}	-50	V
Gate-Source Voltage	V_{GSS}	-7	V
DC Drain Current	I_D	-50	mA
Drain Power Dissipation	P_D	300	mW
Channel Temperature	T_{ch}	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$



Weight : 0.13g

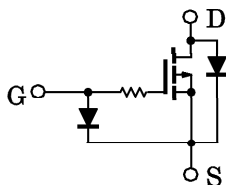
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	I_{GSS}	$V_{GS} = -7V, V_{DS} = 0$	—	—	-1	μA
Drain-Source Breakdown Voltage	$V_{(BR) DSS}$	$I_D = -100\mu A, V_{GS} = 0$	-50	—	—	V
Drain Cut-off Current	I_{DSS}	$V_{DS} = -50V, V_{GS} = 0$	—	—	-1	μA
Gate Threshold Voltage	V_{th}	$V_{DS} = -5V, I_D = -0.1mA$	-0.8	—	-2.5	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = -5V, I_D = -10mA$	15	—	—	mS
Drain-Source ON Resistance	$R_{DS(ON)}$	$I_D = -10mA, V_{GS} = -4V$	—	20	50	Ω
Input Capacitance	C_{iss}	$V_{DS} = -5V, V_{GS} = 0, f = 1MHz$	—	10.5	—	pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = -5V, V_{GS} = 0, f = 1MHz$	—	1.9	—	pF
Output Capacitance	C_{oss}	$V_{DS} = -5V, V_{GS} = 0, f = 1MHz$	—	7.2	—	pF
Switching Time	Turn-on Time	t_{on}	—	0.15	—	μs
	Turn-off Time	t_{off}	—	0.13	—	

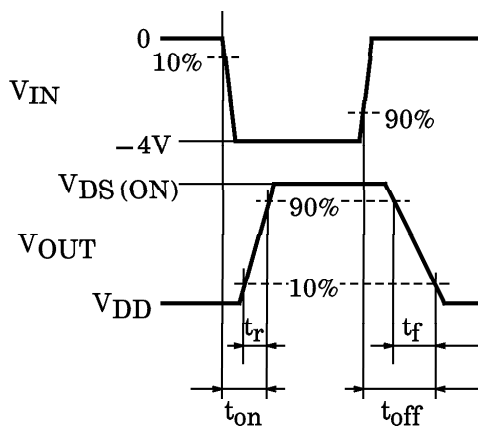
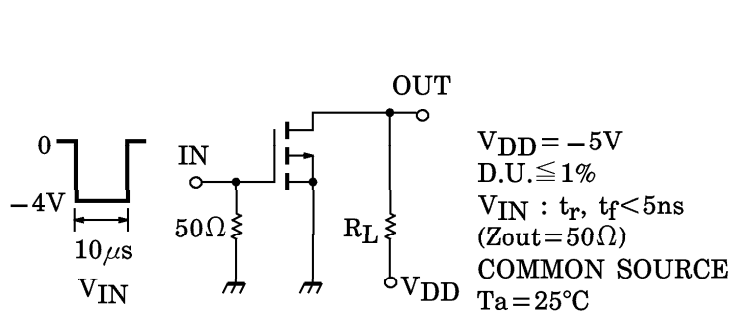
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EQUIVALENT CIRCUIT



SWITCHING TIME TEST CIRCUIT



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