

TOSHIBA FIELD EFFECT TRANSISTOR SILICON N CHANNEL MOS TYPE

# 2SK2034

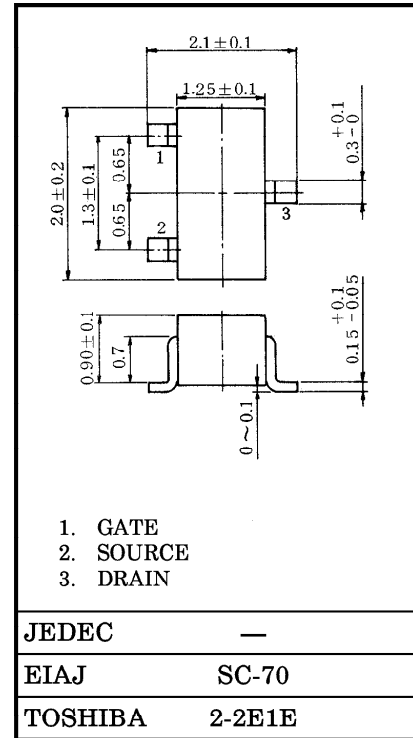
HIGH SPEED SWITCHING APPLICATIONS.  
ANALOG SWITCH APPLICATIONS.

Unit in mm

- High Input Impedance.
- Low Gate Threshold Voltage :  $V_{th}=0.5\sim 1.5V$
- Excellent Switching Times :  $t_{on}=0.16\mu s$  (typ.)  
 $t_{off}=0.15\mu s$  (typ.)
- Small Package.
- Enhancement-Mode

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

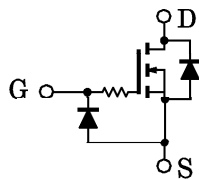
CHARACTERISTIC	SYMBOL	RATING	UNIT
Drain-Source Voltage	$V_{DS}$	20	V
Gate-Source Voltage	$V_{GSS}$	10	V
DC Drain Current	$I_D$	100	mA
Drain Power Dissipation	$P_D$	100	mW
Channel Temperature	$T_{ch}$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55~150	$^\circ C$



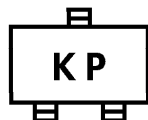
ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )

Weight : 0.006g

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	$I_{GSS}$	$V_{GS}=10V, V_{DS}=0$	—	—	1	$\mu A$
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D=100\mu A, V_{GS}=0$	20	—	—	V
Drain Cut-off Current	$I_{DSS}$	$V_{DS}=20V, V_{GS}=0$	—	—	1	$\mu A$
Gate Threshold Voltage	$V_{th}$	$V_{DS}=3V, I_D=0.1mA$	0.5	—	1.5	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS}=3V, I_D=10mA$	25	50	—	mS
Drain-Source ON Resistance	$R_{DS(ON)}$	$I_D=10mA, V_{GS}=2.5V$	—	8	12	$\Omega$
Input Capacitance	$C_{iss}$	$V_{DS}=3V, V_{GS}=0, f=1MHz$	—	8.5	—	pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS}=3V, V_{GS}=0, f=1MHz$	—	3.3	—	pF
Output Capacitance	$C_{oss}$	$V_{DS}=3V, V_{GS}=0, f=1MHz$	—	9.3	—	pF
Switching Time	Turn-on Time	$V_{DD}=3V, I_D=10mA$ $V_{GS}=0\sim 2.5V$	—	0.16	—	$\mu s$
	Turn-off Time	$V_{DD}=3V, I_D=10mA$ $V_{GS}=0\sim 2.5V$	—	0.15	—	$\mu s$



MARKING

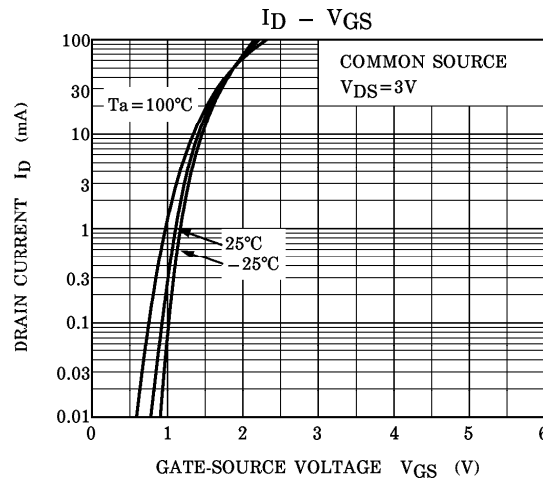
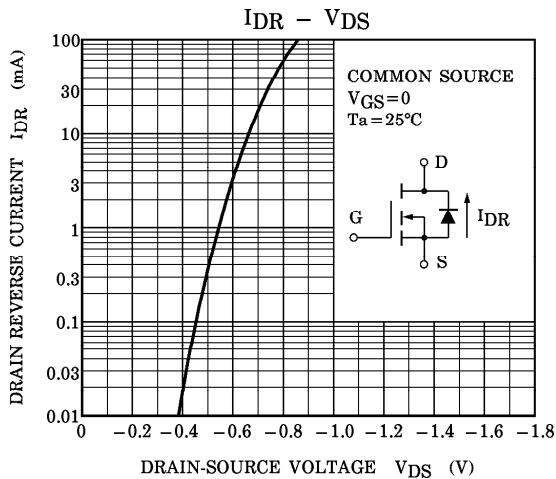
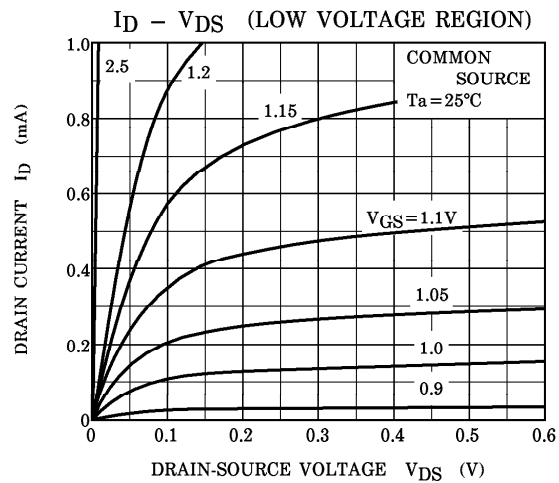
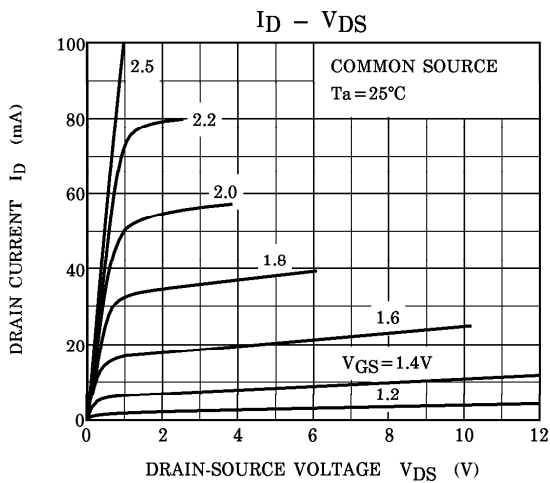
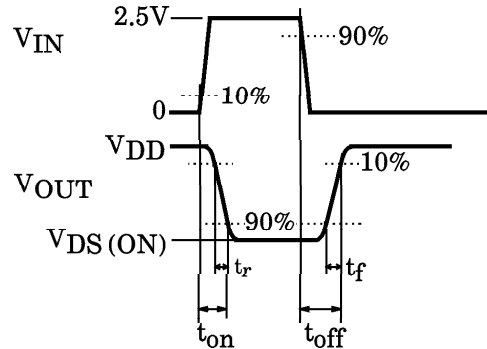
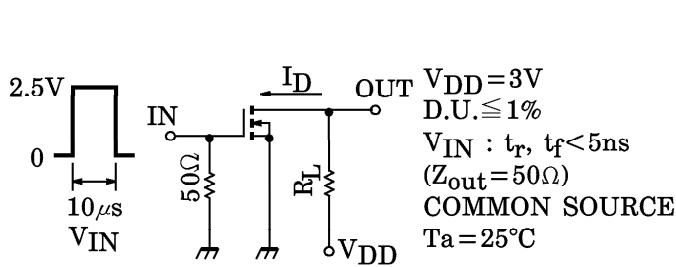


THIS TRANSISTOR ELECTROSTATIC SENSITIVE DEVICE. PLEASE HANDLE WITH CAUTION.

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SWITCHING TIME TEST CIRCUIT



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