

TOSHIBA FIELD EFFECT TRANSISTOR SILICON P CHANNEL MOS TYPE

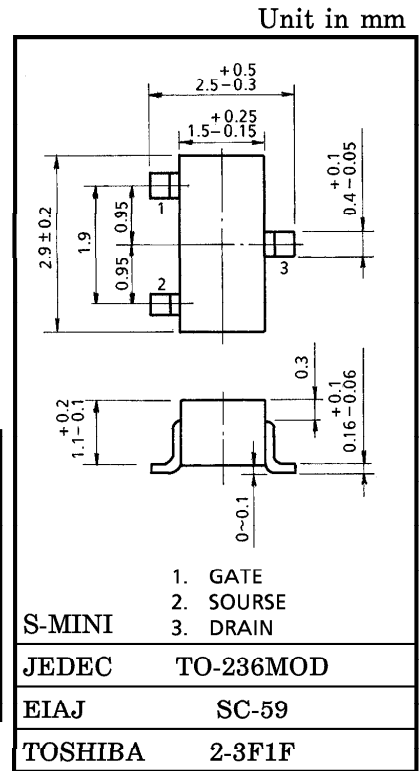
2SJ305

HIGH SPEED SWITCHING APPLICATIONS
ANALOG APPLICATIONS

- High Input Impedance
- Low Gate Threshold Voltage. : $V_{th} = -0.5 \sim -1.5V$
- Excellent Switching Times. : $t_{on} = 0.06\mu s$ (Typ.)
: $t_{off} = 0.15\mu s$ (Typ.)
- Low Drain-Source ON Resistance. : $R_{DS(ON)} = 2.4\Omega$ (Typ.)
- Small Package.
- Complementary to 2SK2009.

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Drain-Source Voltage	V_{DS}	-30	V
Gate-Source Voltage	V_{GSS}	± 20	V
DC Drain Current	I_D	-200	mA
Drain Power Dissipation	P_D	200	mW
Channel Temperature	T_{ch}	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$

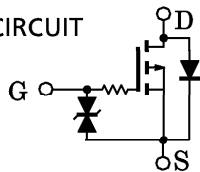


ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

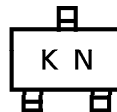
Weight : 0.012g

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	I_{GSS}	$V_{GS} = \pm 10V, V_{DS} = 0$	—	—	± 0.1	μA
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D = -1mA, V_{GS} = 0$	-30	—	—	V
Drain Cut-off Current	I_{DSS}	$V_{DS} = -30V, V_{GS} = 0$	—	—	-10	μA
Gate Threshold Voltage	V_{th}	$V_{DS} = -3V, I_D = -0.1mA$	-0.5	—	-1.5	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = -3V, I_D = -50mA$	100	—	—	mS
Drain-Source ON Resistance	$R_{DS(ON)}$	$I_D = -50mA, V_{GS} = -2.5V$	—	2.4	4	Ω
Input Capacitance	C_{iss}	$V_{DS} = -3V, V_{GS} = 0, f = 1MHz$	—	92	—	pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = -3V, V_{GS} = 0, f = 1MHz$	—	36	—	pF
Output Capacitance	C_{oss}	$V_{DS} = -3V, V_{GS} = 0, f = 1MHz$	—	80	—	pF
Switching Time	Turn-on Time	t_{on} $V_{DD} = -3V, I_D = -10mA$ $V_{GS} = 0 \sim -2.5V$	—	0.06	—	μs
	Turn-off Time	t_{off} $V_{DD} = -3V, I_D = -10mA$ $V_{GS} = 0 \sim -2.5V$	—	0.15	—	

EQUIVALENT CIRCUIT



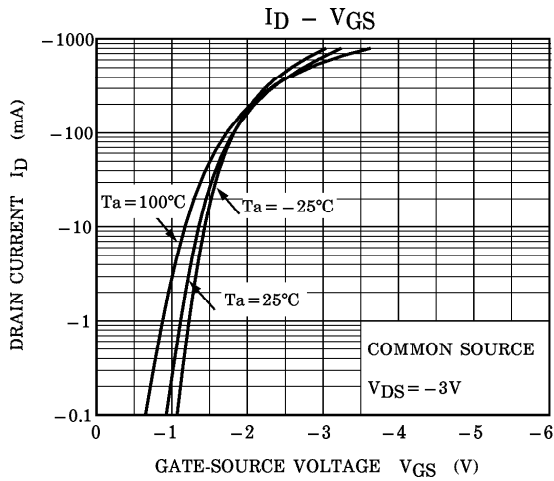
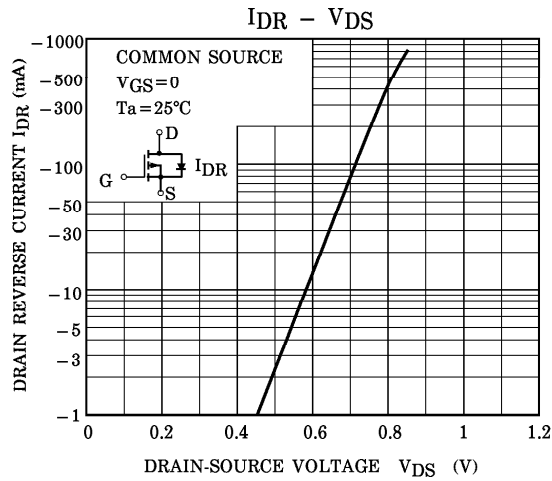
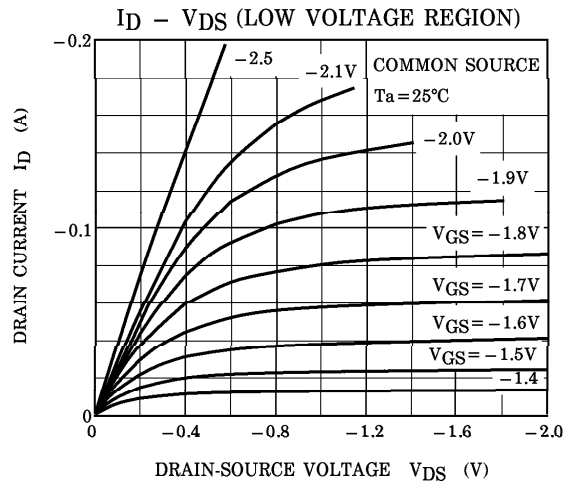
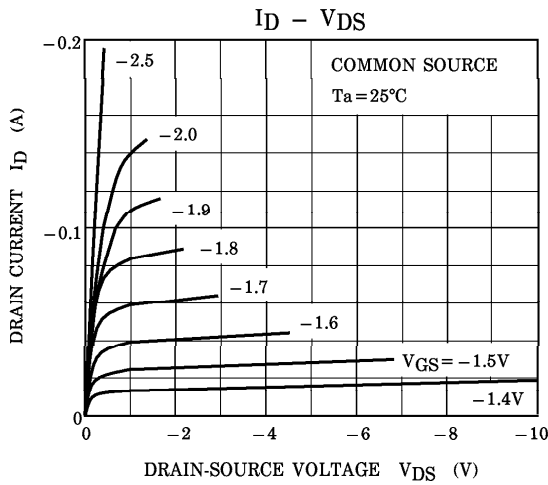
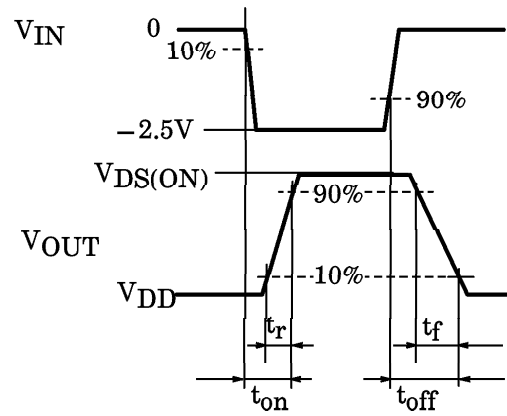
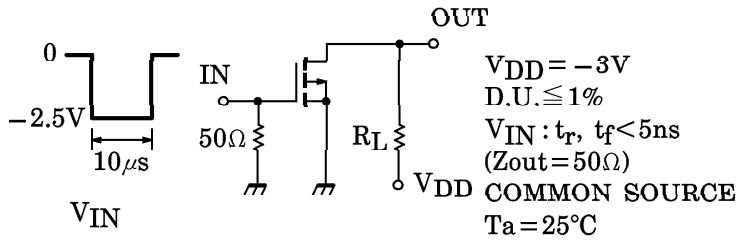
MARKING



THIS TRANSISTOR IS ELECTROSTATIC SENSITIVE DEVICE.
PLEASE HANDLE WITH CAUTION.

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