

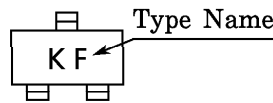
TOSHIBA FIELD EFFECT TRANSISTOR SILICON P CHANNEL MOS TYPE

2SJ168

HIGH SPEED SWITCHING APPLICATIONS
 ANALOG SWITCH APPLICATIONS
 INTERFACE APPLICATIONS

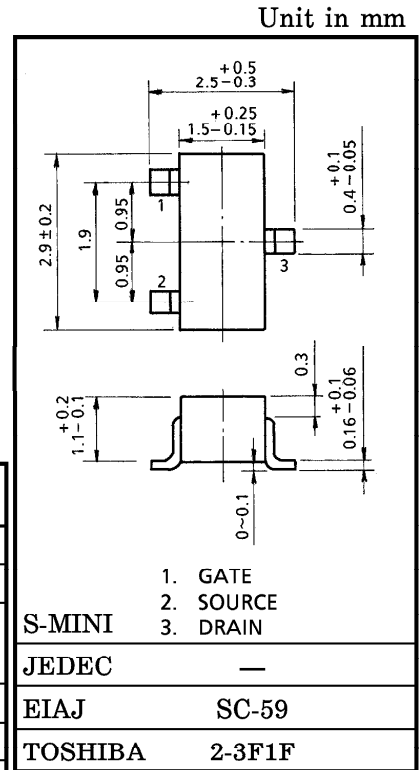
- Excellent Switching Time: $t_{on} = 14ns$ (Typ.)
- High Forward Transfer Admittance
 : $|Y_{fs}| = 100mS$ (Min.) @ $I_D = -50mA$
- Low On Resistance
 : $R_{DS(ON)} = 1.3\Omega$ (Typ.) @ $I_D = -50mA$
- Enhancement-Mode
- Complementary to 2SK1062

Marking



MAXIMUM RATINGS (Ta = 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
	Pulse	I_{DP}	-800
Drain Power Dissipation (Ta = 25°C)	P_D	200	mW
Channel Temperature	T_{ch}	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C



Weight : 0.012g

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

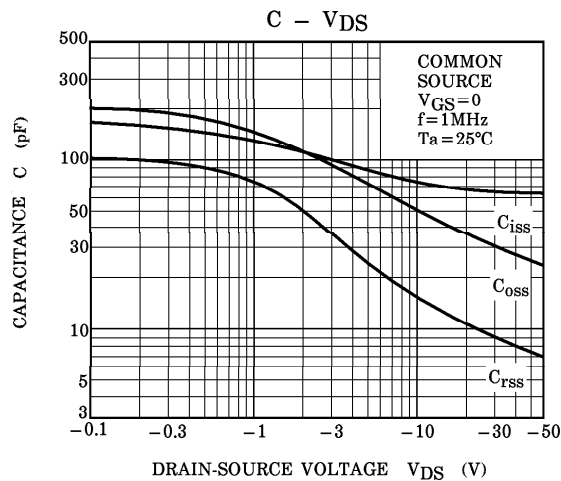
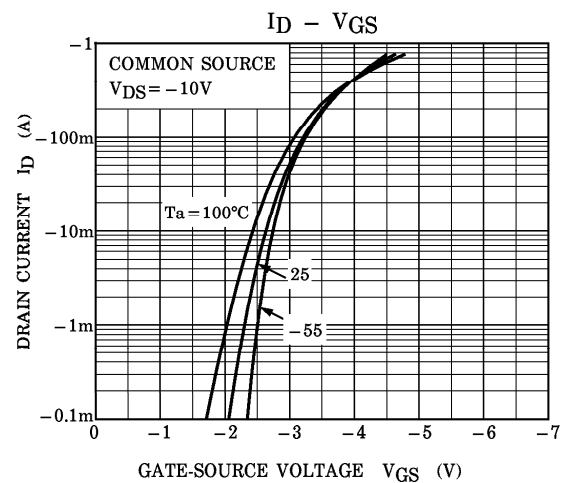
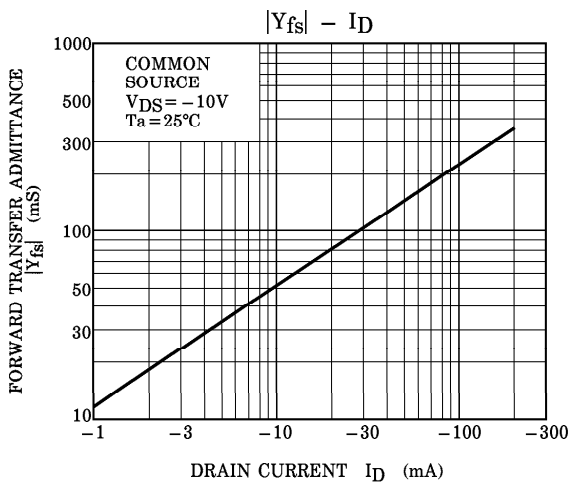
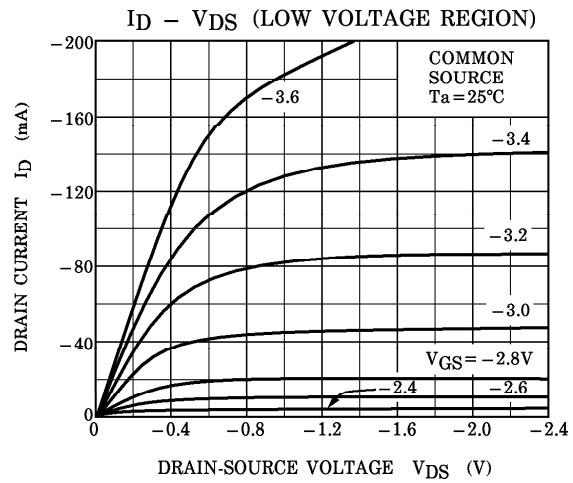
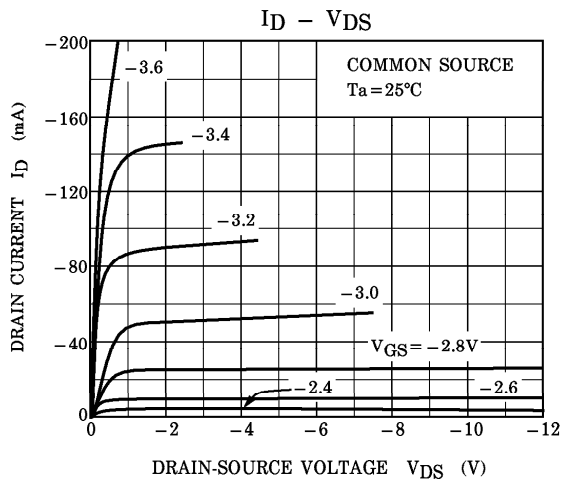
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Gate Leakage Current	I_{GSS}	$V_{GS} = \pm 10V, V_{DS} = 0$	—	—	± 100	nA	
Drain Cut-off Current	I_{DSS}	$V_{DS} = -60V, V_{GS} = 0$	—	—	-10	μA	
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D = -1mA, V_{GS} = 0$	-60	—	—	V	
Gate Threshold Voltage	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	

$I_D = -100mA$
 $V_{IN} : t_r, t_f < 5ns$
 $D.U. \leq 1\%$ ($Z_{out} = 50\Omega$)

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

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