

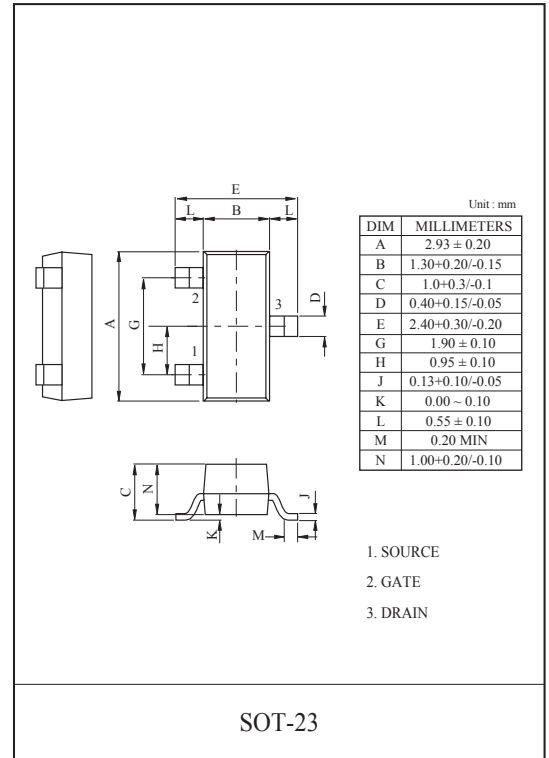
ULTRA-HIGH SPEED SWITCHING APPLICATIONS
ANALOG SWITCH APPLICATIONS

FEATURES

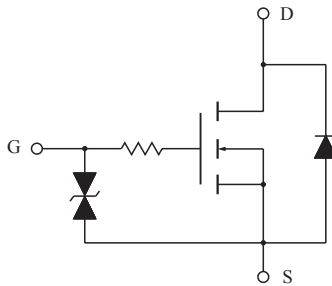
- 2.5 Gate Drive.
- Low Threshold Voltage : $V_{th}=0.5 \sim 1.5V$.
- High Speed.
- Small Package.
- Enhancement-Mode.

MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GSS}	± 20	V
DC Drain Current	I_D	100	mA
Drain Power Dissipation	P_D	200	mW
Channel Temperature	T_{ch}	150	°C
Storage Temperature Range	T_{stg}	-55 ~ 150	°C

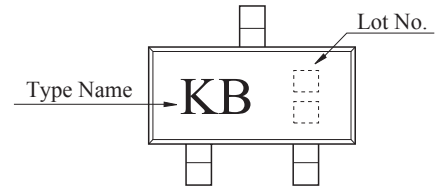


EQUIVALENT CIRCUIT



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

Marking

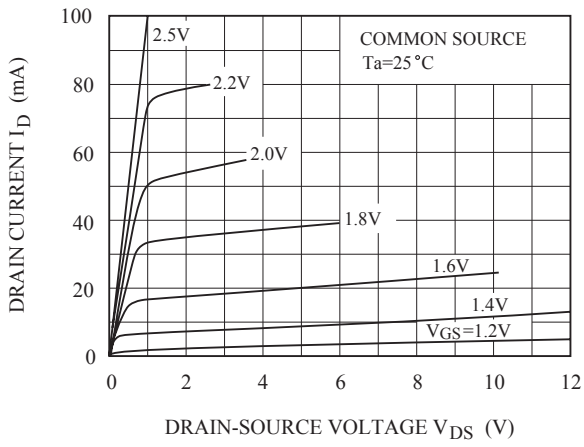


ELECTRICAL CHARACTERISTICS (Ta=25°C)

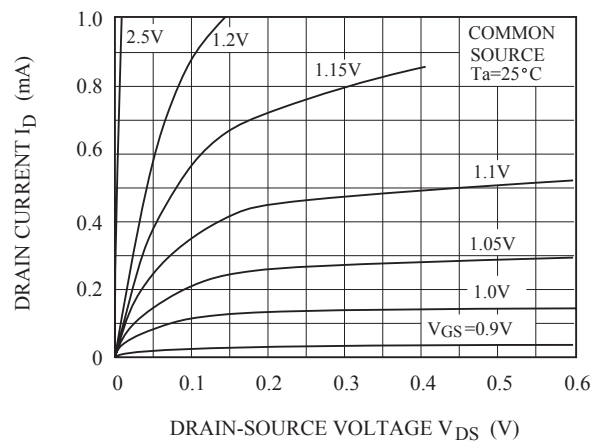
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	I_{GSS}	$V_{GS}=\pm 16V, V_{DS}=0V$	-	-	± 1	μA
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D=100\mu A, V_{GS}=0V$	30	-	-	V
Drain Cut-off Current	I_{DSS}	$V_{DS}=30V, V_{GS}=0V$	-	-	1	μA
Gate Threshold Voltage	V_{th}	$V_{DS}=3V, I_D=0.1mA$	0.5	-	1.5	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS}=3V, I_D=10mA$	25	-	-	mS
Drain-Source ON Resistance	$R_{DS(ON)}$	$I_D=10mA, V_{GS}=2.5V$	-	4	7	Ω
Input Capacitance	C_{iss}	$V_{DS}=3V, V_{GS}=0V, f=1MHz$	-	19	-	pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS}=3V, V_{GS}=0V, f=1MHz$	-	7	-	pF
Output Capacitance	C_{oss}	$V_{DS}=3V, V_{GS}=0V, f=1MHz$	-	17	-	pF
Switching Time	Turn-on Time	$V_{DD}=5V, I_D=10mA, V_{GS}=0 \sim 5V$	-	50	-	nS
	Turn-off Time		-	180	-	nS
Source-Drain Diode Forward Voltage	V_{SD}	$V_{GS}=0V, I_S=100mA$	-	-	1.2	V

KTK5132S

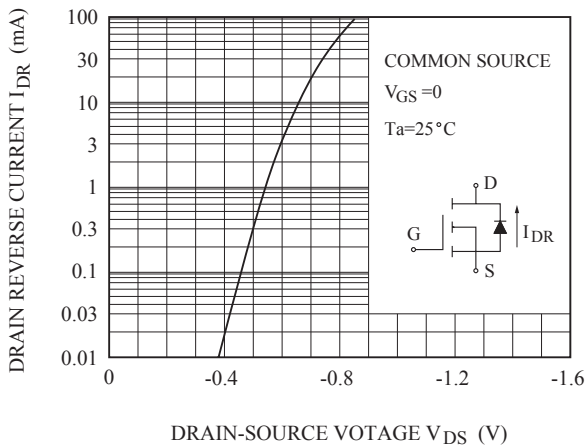
$I_D - V_{DS}$



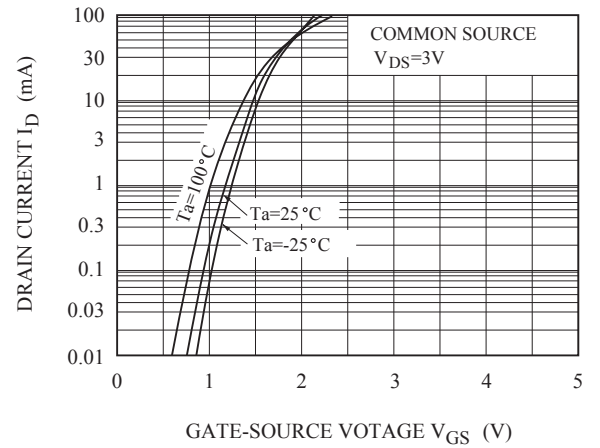
$I_D - V_{DS}$
(LOW VOLTAGE REGION)



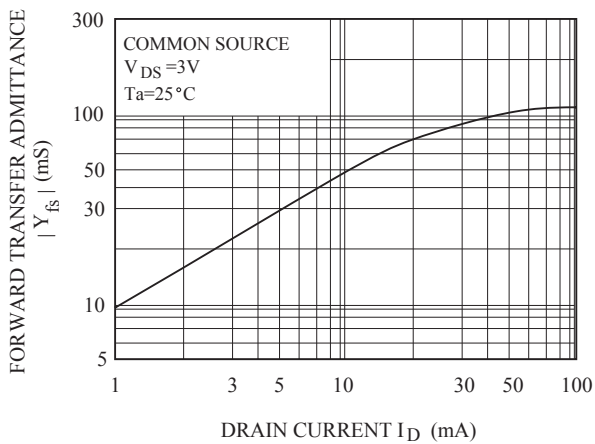
$I_{DR} - V_{DS}$



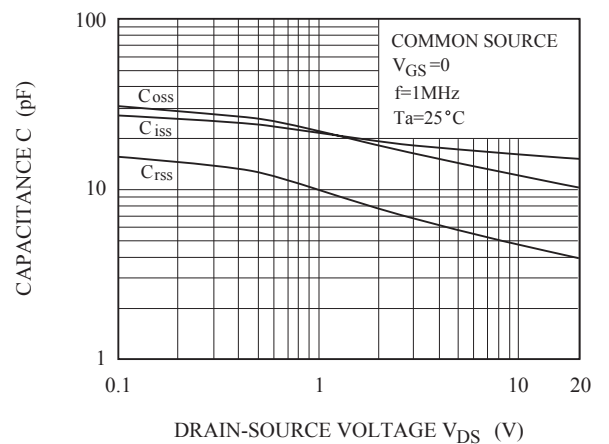
$I_D - V_{GS}$



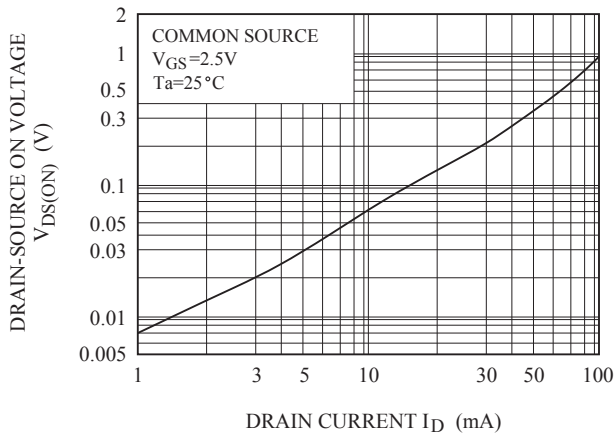
$|Y_{fs}| - I_D$



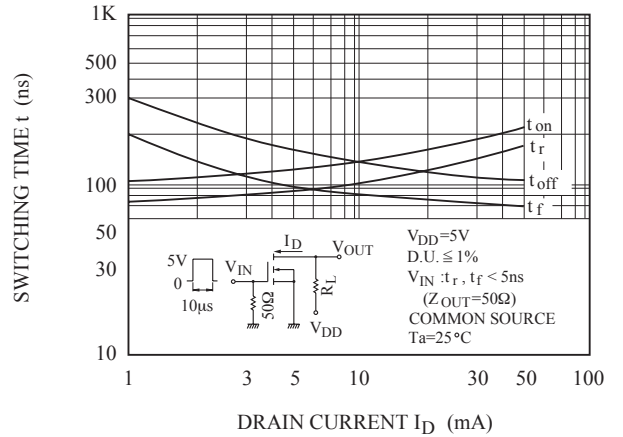
$C - V_{DS}$



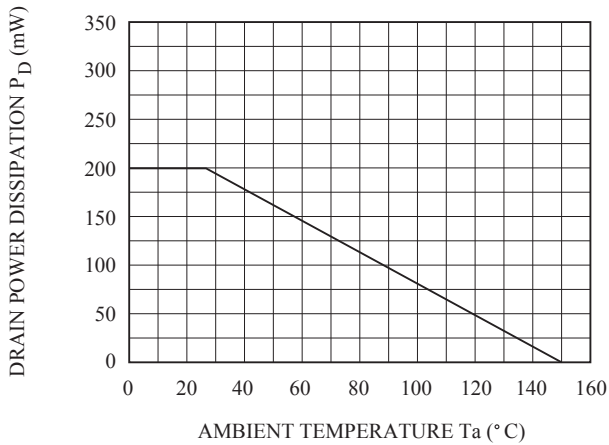
$V_{DS(ON)} - I_D$



$t - I_D$



$P_D - T_a$



SWITCHING TIME TEST CIRCUIT

