

ULTRA-HIGH SPEED SWITCHING APPLICATIONS
ANALOG SWITCH APPLICATIONS

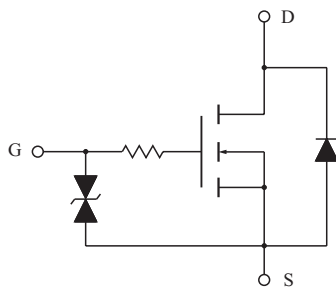
FEATURES

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

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GSS}	± 20	V
DC Drain Current	I_D	200	mA
Drain Power Dissipation	P_D	100	mW
Channel Temperature	T_{ch}	150	°C
Storage Temperature Range	T_{stg}	-55 ~ 150	°C

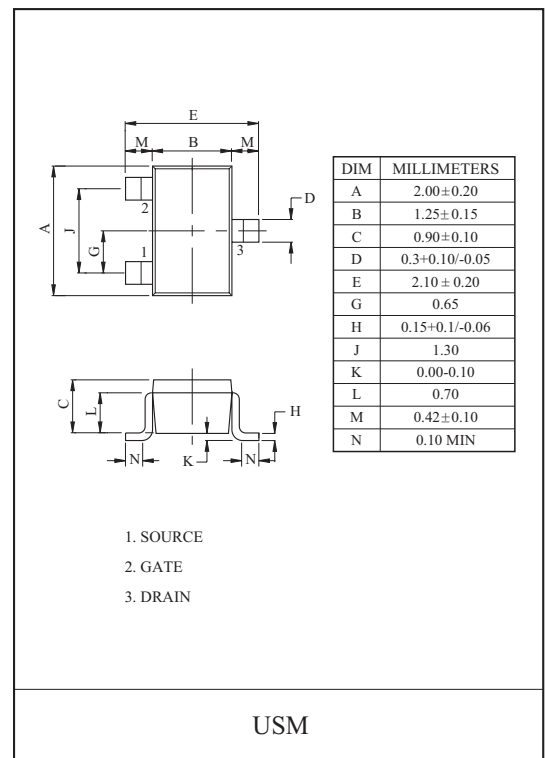
EQUIVALENT CIRCUIT



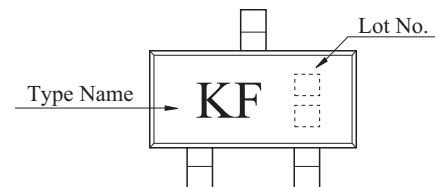
THIS TRANSISTOR IS ELECTROSTATIC SENSITIVE DEVICE.
PLEASE HANDLE WITH CAUTION.

ELECTRICAL CHARACTERISTICS (Ta=25°C)

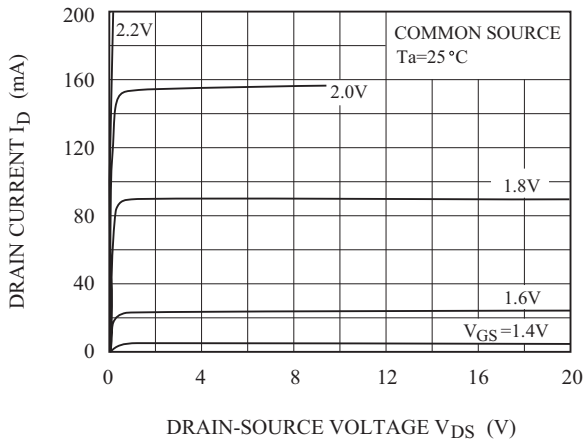
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current		I_{GSS}	$V_{GS}=\pm 16V, V_{DS}=0V$	-	-	± 1	μA
Drain-Source Breakdown Voltage		$V_{(BR)DSS}$	$I_D=100 \mu A, V_{GS}=0V$	60	-	-	V
Drain Cut-off Current		I_{DSS}	$V_{DS}=60V, V_{GS}=0V$	-	-	1	μA
Gate Threshold Voltage		V_{th}	$V_{DS}=10V, I_D=1mA$	0.5	-	1.5	V
Forward Transfer Admittance		$ Y_{fs} $	$V_{DS}=10V, I_D=50mA$	100	-	-	mS
Drain-Source ON Resistance		$R_{DS(ON)}$	$I_D=50mA, V_{GS}=2.5V$	-	1.5	2	Ω
Input Capacitance		C_{iss}	$V_{DS}=10V, V_{GS}=0V, f=1MHz$	-	55	65	pF
Reverse Transfer Capacitance		C_{rss}	$V_{DS}=10V, V_{GS}=0V, f=1MHz$	-	13	18	pF
Output Capacitance		C_{oss}	$V_{DS}=10V, V_{GS}=0V, f=1MHz$	-	40	50	pF
Switching Time	Rise Time	t_r	$V_{IN}: t_r, t_f < 5ns$ D.U. $\leq 1\%$ ($Z_{OUT}=50\Omega$)	-	8	-	nS
	Turn-on Time	t_{on}		-	14	-	
	Fall Time	t_f		-	35	-	
	Turn-off Time	t_{off}		-	75	-	



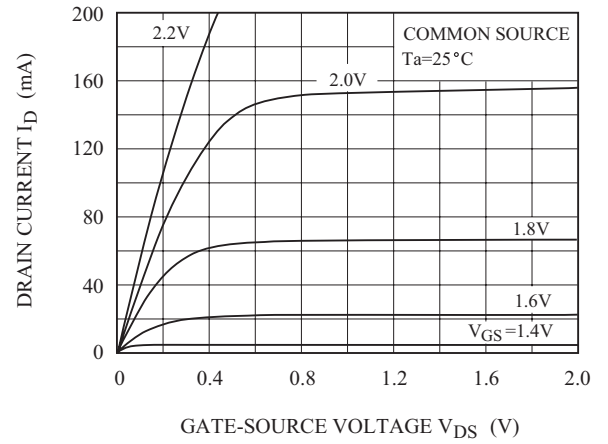
Marking



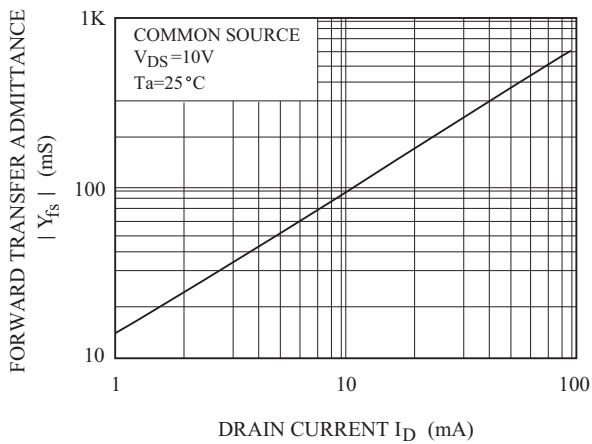
$I_D - V_{DS}$



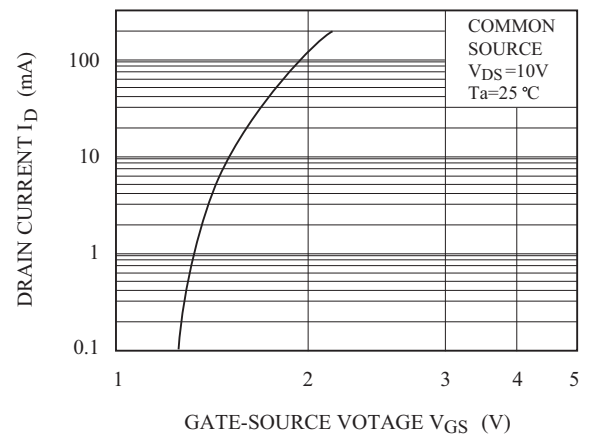
$I_D - V_{DS}$
(LOW VOLTAGE REGION)



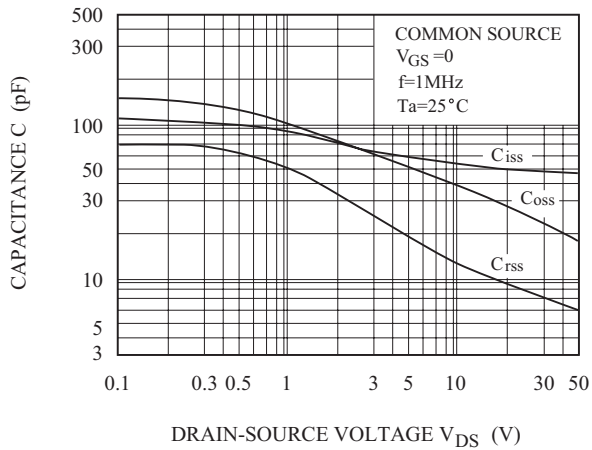
$|Y_{fs}| - I_D$



$I_D - V_{GS}$



$C - V_{DS}$



$V_{DS(ON)} - I_D$

