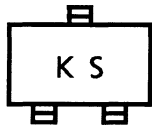


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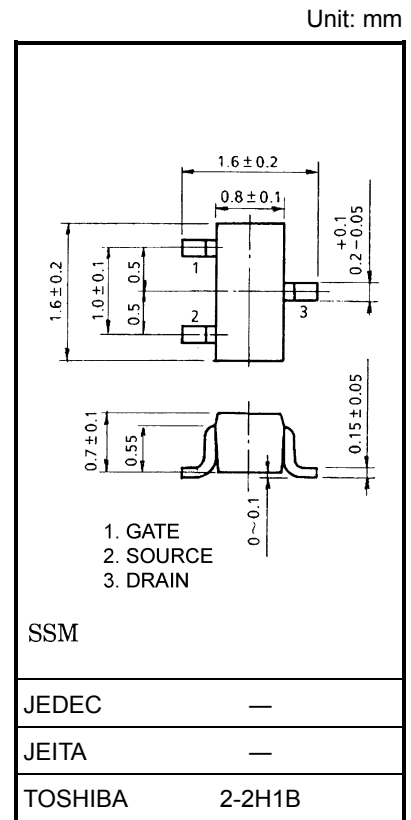
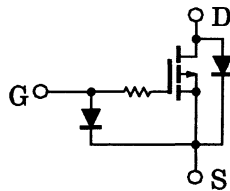
High Speed Switching Applications
 Analog Switch Applications

- Low threshold voltage: $V_{th} = -0.5 \sim -1.5$ V
- High speed
- Small package
- Complementary to 2SK1830

Marking



Equivalent Circuit



SSM

Weight: 2.4 mg (typ.)

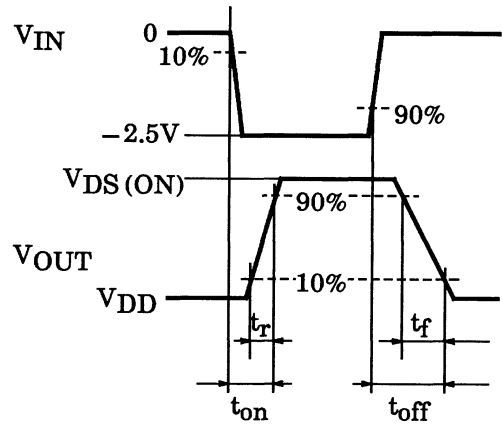
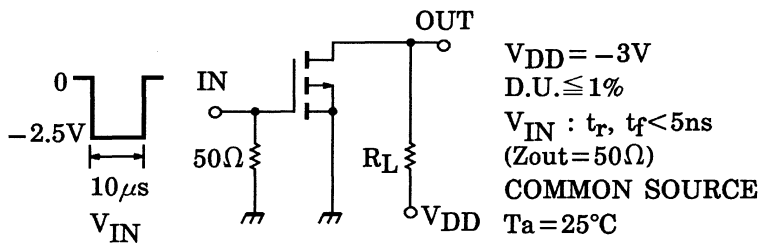
Maximum Ratings (Ta = 25°C)

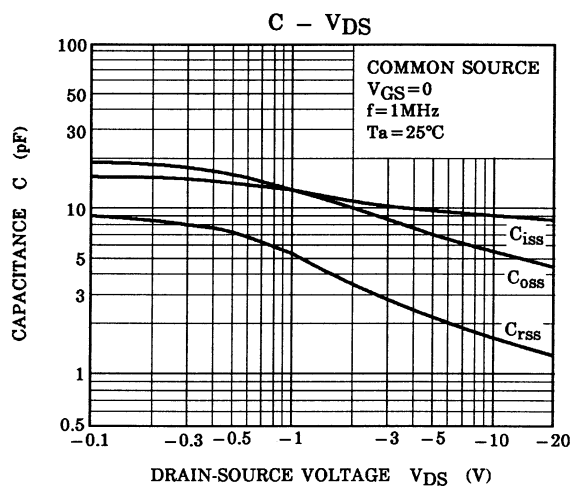
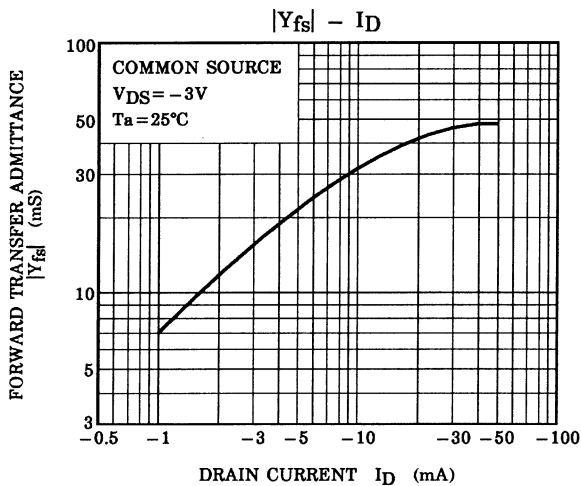
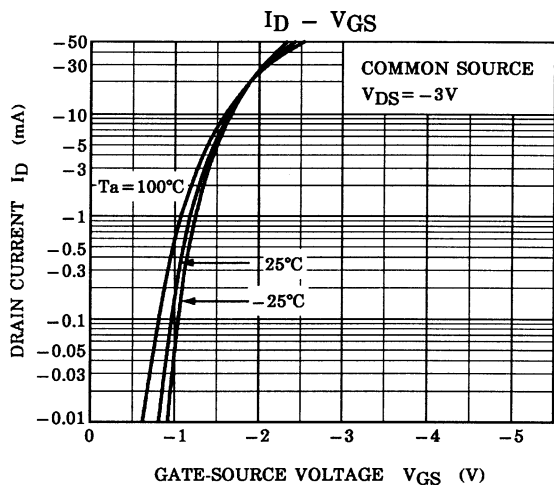
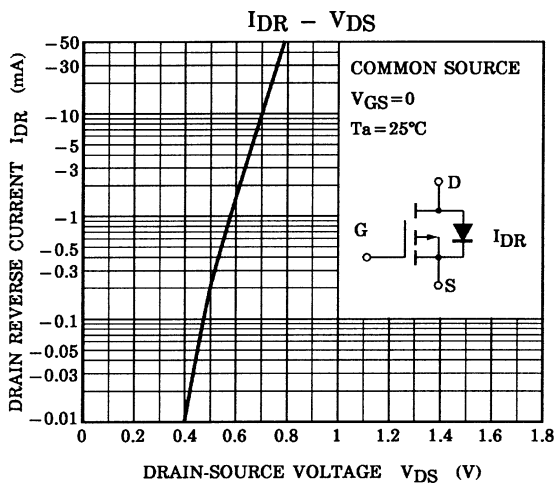
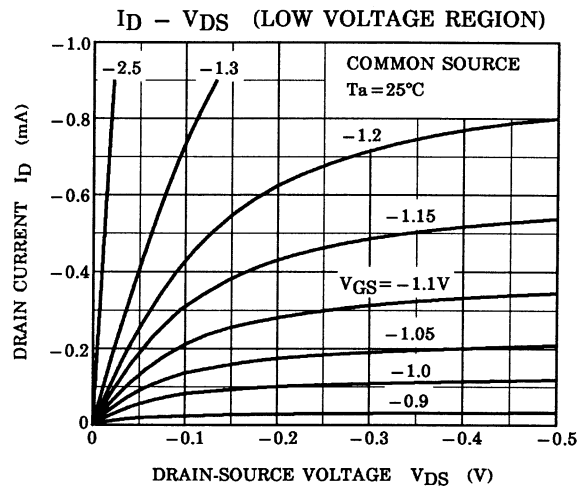
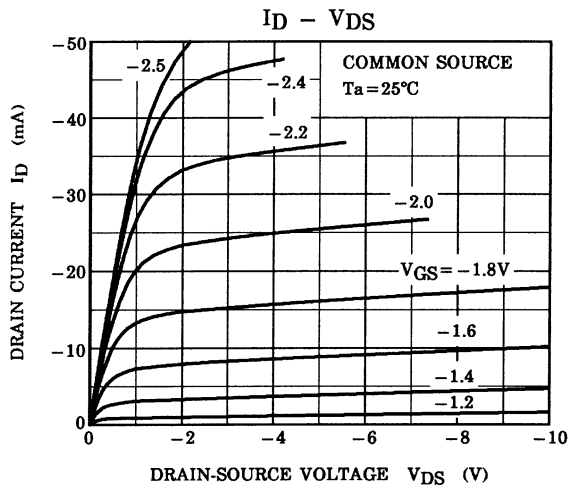
Characteristics	Symbol	Rating	Unit
Drain-source voltage	V_{DS}	-20	V
Gate-source voltage	V_{GSS}	-7	V
DC drain current	I_D	-50	mA
Drain power dissipation	P_D	100	mW
Channel temperature	T_{ch}	150	°C
Storage temperature range	T_{stg}	-55~150	°C

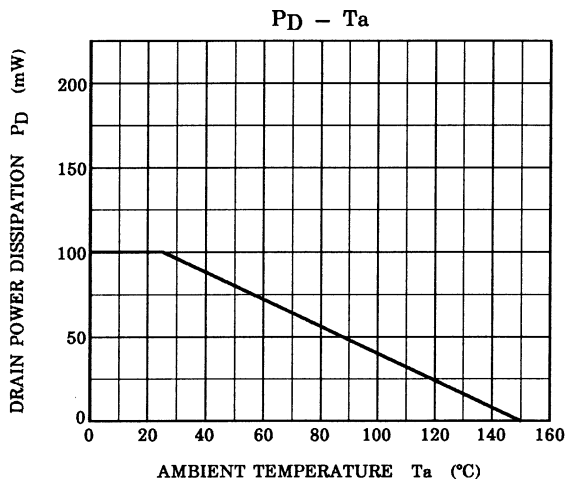
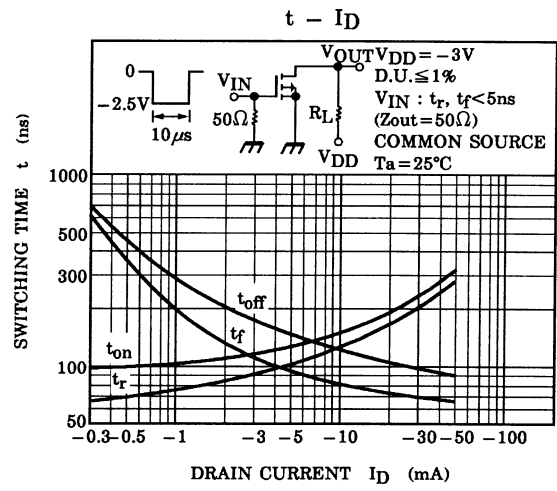
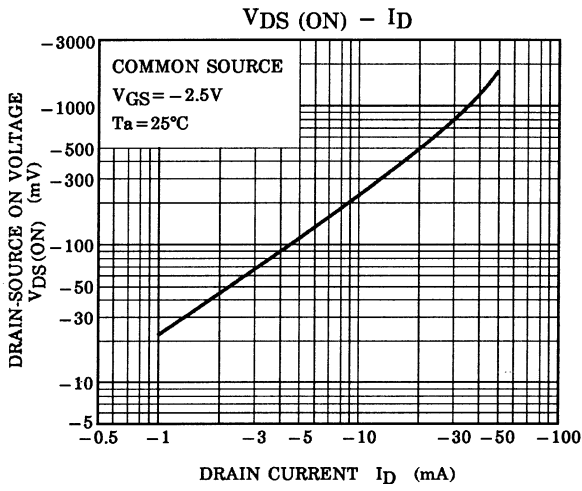
Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Gate leakage current	I_{GSS}	$V_{GS} = -7$ V, $V_{DS} = 0$	—	—	-1	μ A
Drain-source breakdown voltage	$V_{(BR)DSS}$	$I_D = -100$ μ A, $V_{GS} = 0$	-20	—	—	V
Drain cut-off current	I_{DSS}	$V_{DS} = -20$ V, $V_{GS} = 0$	—	—	-1	μ A
Gate threshold voltage	V_{th}	$V_{DS} = -3$ V, $I_D = -0.1$ mA	-0.5	—	-1.5	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = -3$ V, $I_D = -10$ mA	15	—	—	mS
Drain-source ON resistance	$R_{DS(ON)}$	$I_D = -10$ mA, $V_{GS} = -2.5$ V	—	20	40	Ω
Input capacitance	C_{iss}	$V_{DS} = -3$ V, $V_{GS} = 0$, $f = 1$ MHz	—	10.4	—	pF
Reverse transfer capacitance	C_{rss}	$V_{DS} = -3$ V, $V_{GS} = 0$, $f = 1$ MHz	—	2.8	—	pF
Output capacitance	C_{oss}	$V_{DS} = -3$ V, $V_{GS} = 0$, $f = 1$ MHz	—	8.4	—	pF
Switching time	Turn-on time	$V_{DD} = -3$ V, $I_D = -10$ mA, $V_{GS} = 0 \sim -2.5$ V	—	0.15	—	μ s
	Turn-off time	$V_{DD} = -3$ V, $I_D = -10$ mA, $V_{GS} = 0 \sim -2.5$ V	—	0.13	—	

Switching Time Test Circuit







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