

2SK664

Silicon N-Channel MOS

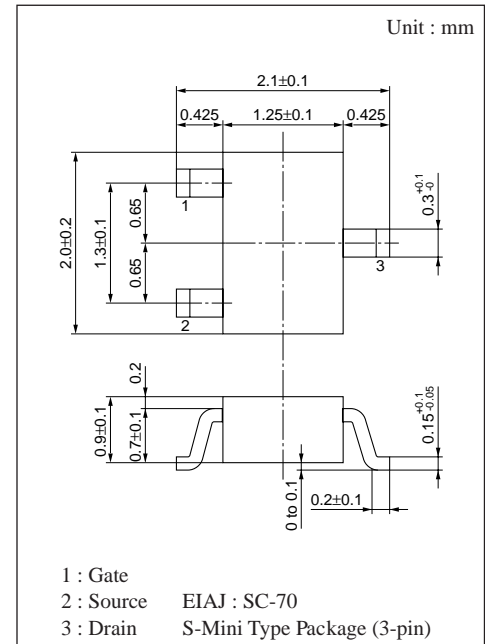
For switching

■ Features

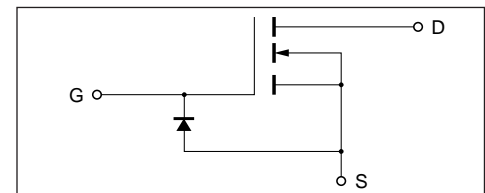
- High-speed switching
- Downsizing of sets by S-mini type package and automatic insertion by taping/magazine packing are available.

■ Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Rating	Unit
Drain-Source breakdown voltage	V _{DS}	50	V
Gate-Source voltage	V _{GSO}	8	V
Drain current	I _D	±100	mA
Max drain current	I _{DP}	±200	mA
Allowable power dissipation	P _D	150	mW
Channel temperature	T _{ch}	150	°C
Storage temperature	T _{stg}	- 55 to +150	°C



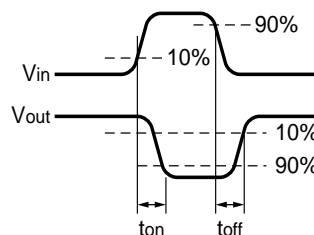
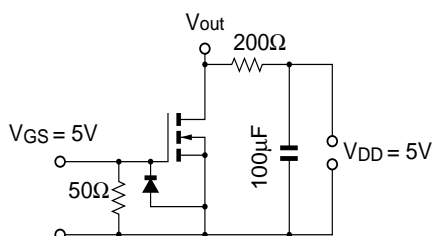
■ Internal Connection



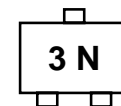
■ Electrical Characteristics (Ta = 25°C)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Drain-Source cut-off current	I _{DSS}	V _{DS} =10V, V _{GS} = 0			10	μA
Gate-Source leakage current	I _{GSS}	V _{GS} = 8V, V _{DS} = 0			50	μA
Drain-Source breakdown voltage	V _{DSS}	I _D =100μA, V _{GS} = 0	50			V
Gate threshold voltage	V _{th}	I _D =100μA, V _{DS} = V _{GS}	1.5		3.5	V
Drain-Source ON-resistance	R _{DS(on)}	I _D = 20mA, V _{GS} = 5V			50	Ω
Forward transadmittance	Y _{fs}	I _D = 20mA, V _{DS} = 5V, f=1kHz	20			mS
Input capacitance	C _{iss}	V _{DS} = 5V, V _{GS} = 0, f=1MHz			15	pF
Output capacitance	C _{oss}				5	pF
Feedback capacitance	C _{rss}				1	pF
Turn-on time	t _{on} *	V _{DD} = 5V, V _{GS} = 0 to 5V, R _L = 200Ω		10		ns
Turn-off time	t _{off} *	V _{DD} = 5V, V _{GS} = 5 to 0V, R _L = 200Ω		20		ns

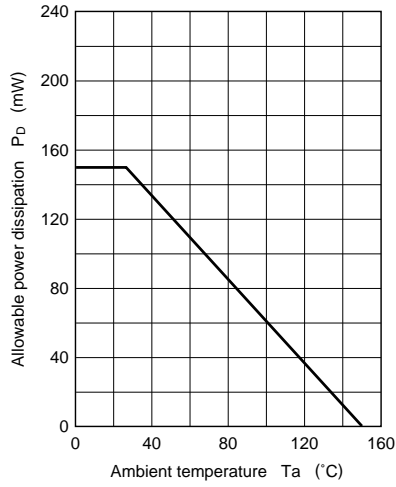
* t_{on}, t_{off} measurement circuit



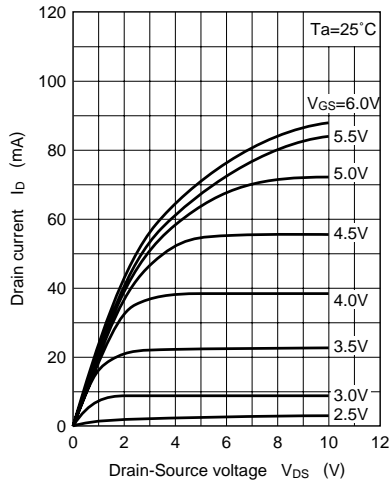
■ Marking



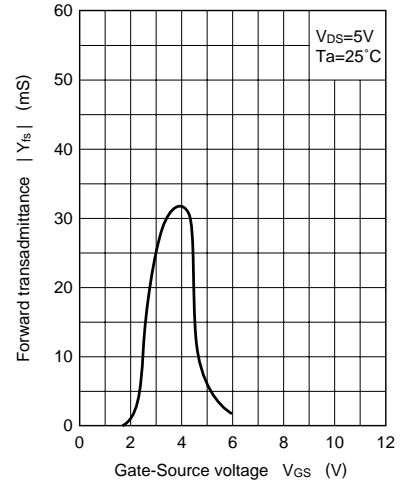
$P_D - T_a$



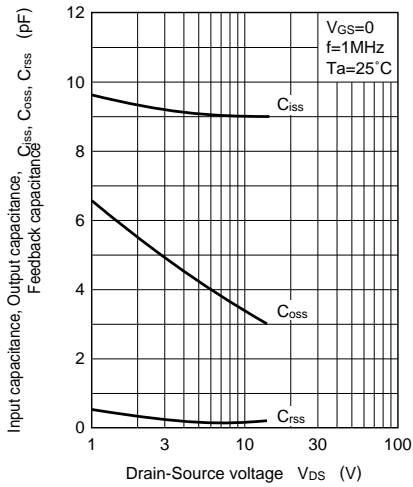
$I_D - V_{DS}$



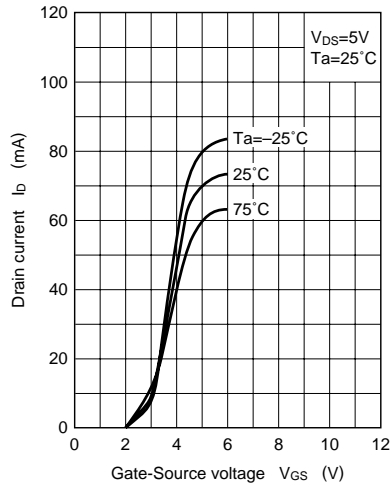
$|Y_{fs}| - V_{GS}$



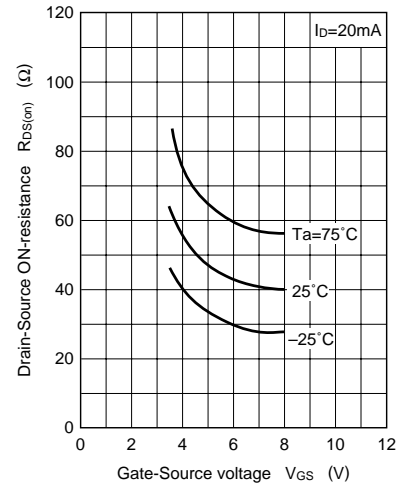
$C_{iss}, C_{oss}, C_{rss} - V_{DS}$



$I_D - V_{GS}$



$R_{DS(on)} - V_{GS}$



$V_{IN} - I_O$

