2SK0665 (2SK665)

Silicon N-Channel MOS FET

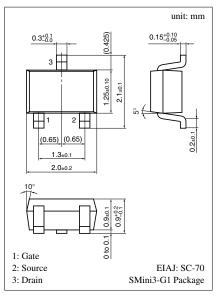
For switching

■ Features

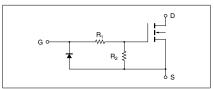
- High-speed switching
- Small drive current owing to high input inpedance
- High electrostatic breakdown voltage

■ Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Ratings	Unit	
Drain to Source voltage	V _{DS}	20	V	
Gate to 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	



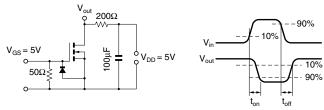
Marking Symbol: 30 Internal Connection



■ Electrical Characteristics (Ta = 25°C)

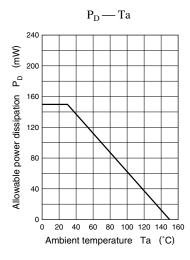
Parameter	Symbol	Conditions	min	typ	max	Unit
Drain to Source cut-off current	I _{DSS}	$V_{DS} = 10V, V_{GS} = 0$			10	μA
Gate to Source leakage current	I _{GSS}	$V_{GS} = 8V, V_{DS} = 0$	40		80	μA
Drain to Source breakdown voltage	V _{DSS}	$I_D = 100 \mu A, V_{GS} = 0$	20			V
Gate threshold voltage	V _{th}	$I_D = 100\mu A, V_{DS} = V_{GS}$	1.5		3.5	V
Drain to Source ON-resistance	R _{DS(on)} *3	$I_D = 20 \text{mA}, V_{GS} = 5 \text{V}$			50	Ω
Forward transfer admittance	Y _{fs}	$I_D = 20 \text{mA}, V_{DS} = 5 \text{V}, f = 1 \text{kHz}$	20			mS
High level output voltage	V _{OH}	$V_{DD} = 5V, V_{GS} = 1V, R_{L} = 200\Omega$	4.5			V
Low level output voltage	V _{SL}	$V_{DD} = 5V, V_{GS} = 5V, R_{L} = 200\Omega$			1	V
Input resistance	$R_1 + R_2^{*1}$		100		200	kΩ
Turn-on time	t _{on} *2	$V_{DD} = 5V$, $V_{GS} = 0$ to $5V$, $R_L = 200\Omega$			1	μs
Turn-off time	t _{off} *2	$V_{DD} = 5V$, $V_{GS} = 5$ to $0V$, $R_L = 200\Omega$			1	μs

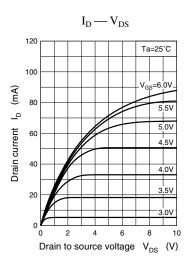
^{*1} Resistance ratio $R_1/R_2 = 1/50$ *2 t_{on} , t_{off} measurement circuit *3 Pulse measurement

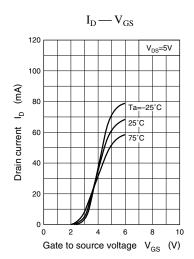


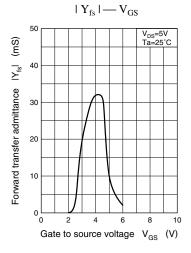
Note) The part number in the parenthesis shows conventional part number.

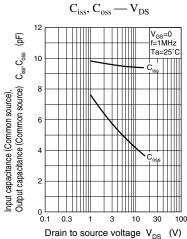
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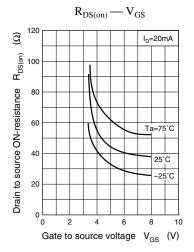


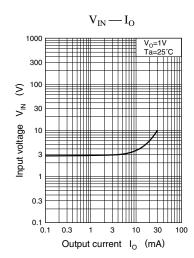












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