2SK0615 (2SK615)

Silicon N-Channel MOS FET

For switching

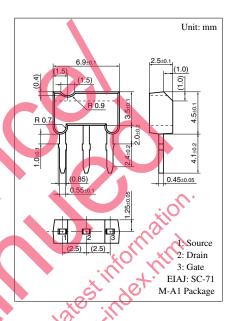
■ Features

- Low ON-resistance
- High-speed switching
- Allowing to be driven directly by CMOS and TTL
- M type package, allowing easy automatic and manual insertion as well as stand-alone fixing to the printed circuit board.

■ Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Ratings	Unit	
Drain to Source voltage	V _{DS}	80	V	
Gate to Source voltage	V _{GSO}	20	V	
Drain current	I_{D}	±0.5	A	
Max drain current	I_{DP}	±1	A	
Allowable power dissipation	P _D *	1	W	
Channel temperature	T _{ch}	150	°C	
Storage temperature	T _{stg}	-55 to +150	°C	

^{*} PC board: Copper foil of the drain portion should have a area of 1cm² or more and the board thickness should be 1.7mm.

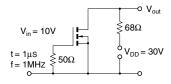


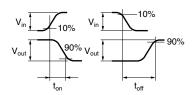
■ Electrical Characteristics (Ta = 25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Drain to Source cut-off current	I _{DSS}	$V_{DS} = 60V, V_{GS} = 0$			10	μΑ
Gate to Source leakage current	I _{GSS}	$V_{GS} = 20V, V_{DS} = 0$			0.1	μΑ
Drain to Source breakdown voltage	V _{DSS}	$I_{DS} = 100 \mu A$, $V_{GS} = 0$	80			V
Gate threshold voltage	V _{th}	$I_D = 1 \text{mA}, V_{DS} = V_{GS}$	1.5		3.5	V
Drain to Source ON-resistance	R _{DS(on)} *1	$I_D = 0.5A, V_{GS} = 10V$		2	4	Ω
Forward transfer admittance	Y _{fs}	$I_D = 0.2A$, $V_{DS} = 15V$, $f = 1kHz$		300		mS
Input capacitance (Common Source)	C _{iss}			45		pF
Output capacitance (Common Source)	Cos .	$V_{DS} = 10V, V_{GS} = 0, f = 1MHz$		30		pF
Reverse transfer capacitance (Common Source)	* 155			8		pF
Turn-on time	t _{on} *1, 2			15		ns
Turn-off time	t _{off} *1, 2			20		ns

^{*1} Pulse measurement

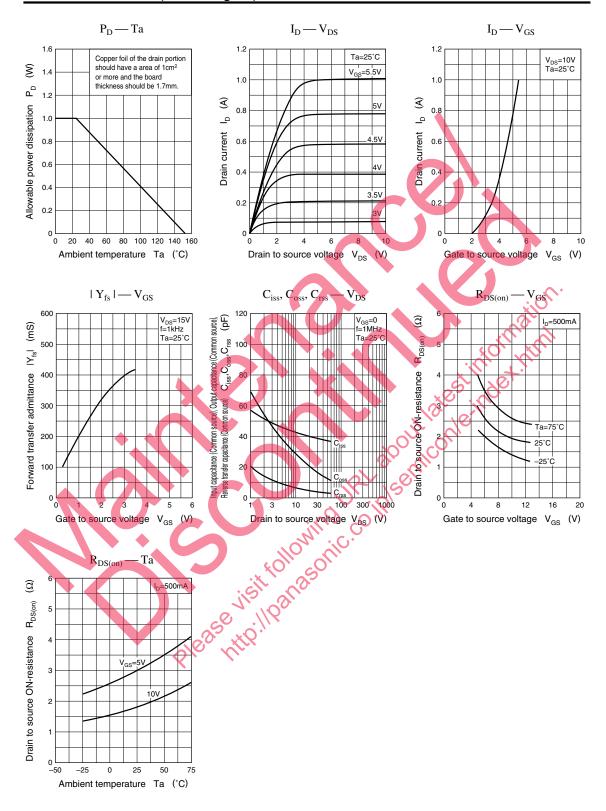
^{*2} t_{on}, t_{off} measurement circuit





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

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