



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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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_{GS}	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

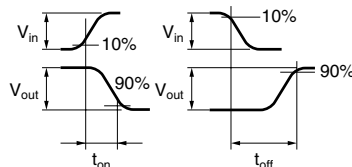
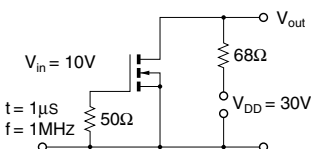
* PC board: Copper foil of the drain portion should have an area of 1cm² or more and the board thickness should be 1.7mm.

■ Electrical Characteristics (Ta = 25°C)

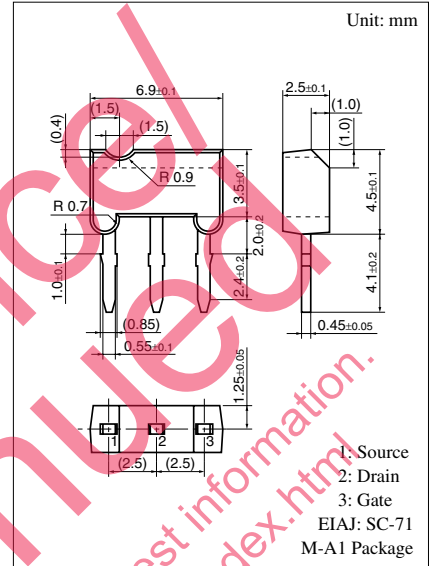
Parameter	Symbol	Conditions	min	typ	max	Unit
Drain to Source cut-off current	I_{DSS}	$V_{DS} = 60V, V_{GS} = 0$			10	μA
Gate to Source leakage current	I_{GSS}	$V_{GS} = 20V, V_{DS} = 0$			0.1	μA
Drain to Source breakdown voltage	V_{DSS}	$I_D = 100\mu A, V_{GS} = 0$	80			V
Gate threshold voltage	V_{th}	$I_D = 1mA, V_{DS} = V_{GS}$	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)	C_{oss}	$V_{DS} = 10V, V_{GS} = 0, f = 1MHz$		30		pF
Reverse transfer capacitance (Common Source)	C_{rss}			8		pF
Turn-on time	$t_{on}^{*1, 2}$			15		ns
Turn-off time	$t_{off}^{*1, 2}$			20		ns

*1 Pulse measurement

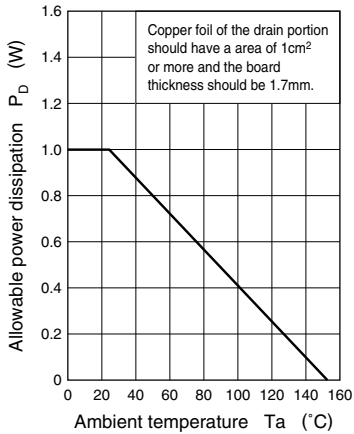
*2 t_{on}, t_{off} measurement circuit



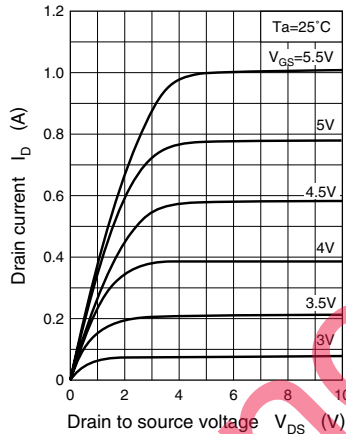
Note) The part number in the parenthesis shows conventional part number.



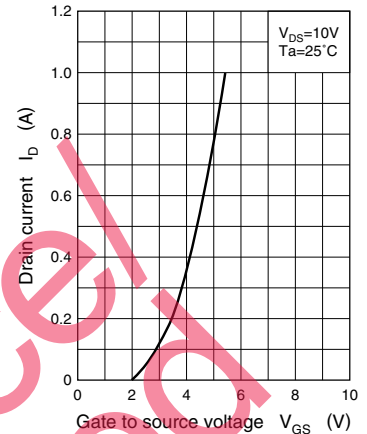
$P_D - T_a$



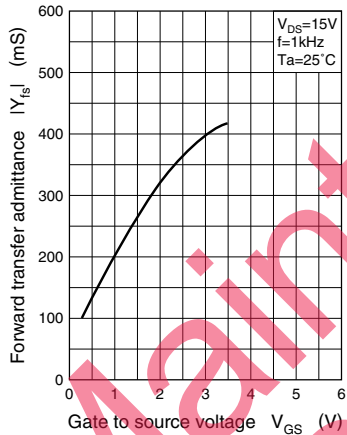
$I_D - V_{DS}$



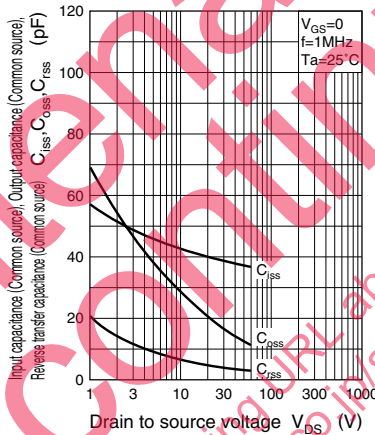
$I_D - V_{GS}$



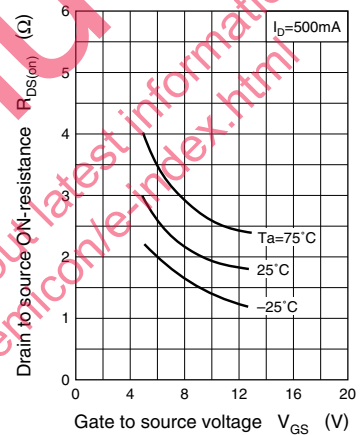
$|Y_{fs}| - V_{GS}$



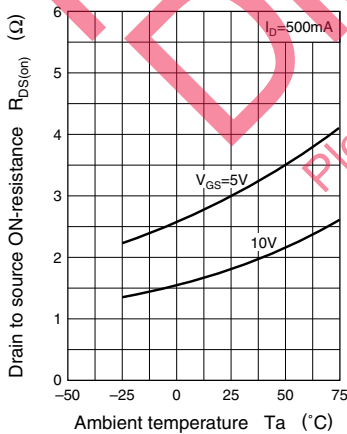
$C_{iss}, C_{oss}, C_{rss} - V_{DS}$



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



$R_{DS(on)} - T_a$



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