



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.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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2SK1374

Silicon N-channel MOSFET

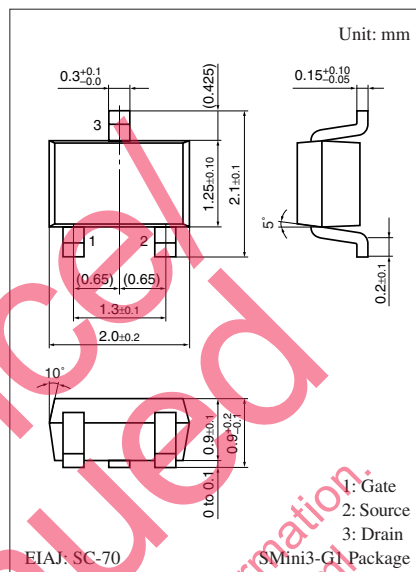
For switching circuits

■ Features

- High-speed switching
- Wide frequency band
- Incorporating a built-in gate protection-diode
- Allowing 2.5 V drive

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Drain-source voltage	V_{DS}	50	V
Gate-source voltage (Drain open)	V_{GSO}	10	V
Drain current	I_D	50	mA
Peak drain current	I_{DP}	100	mA
Power dissipation	P_D	150	mW
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$



Marking Symbol: 4V

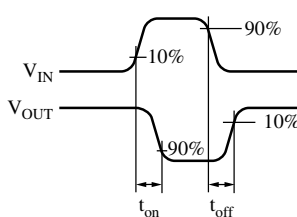
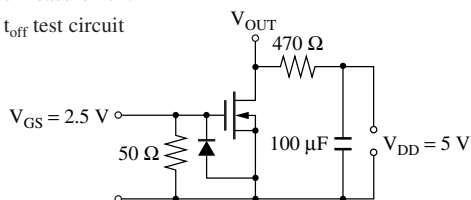
■ Electrical Characteristics $T_a = 25^\circ\text{C}$

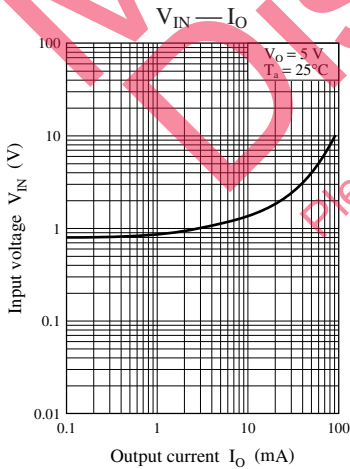
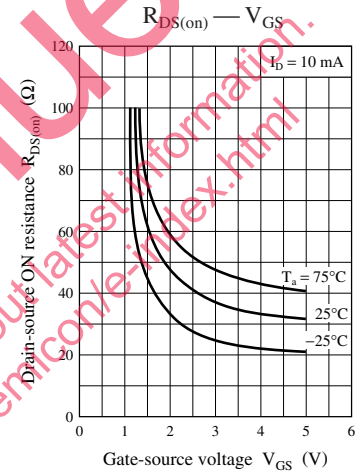
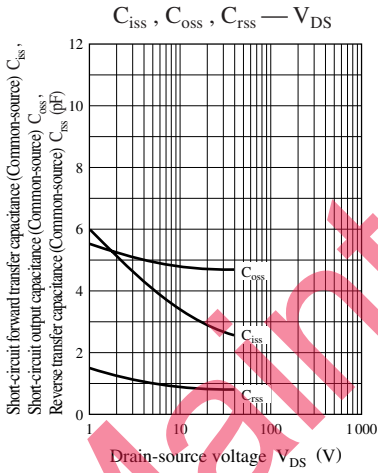
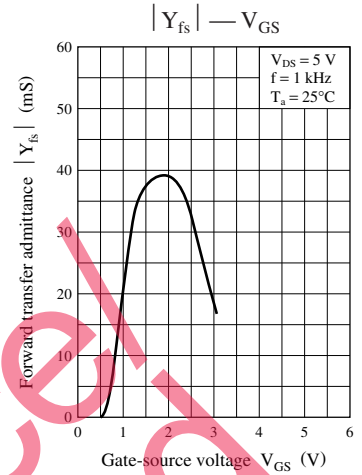
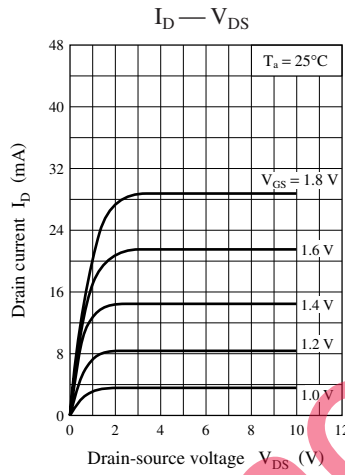
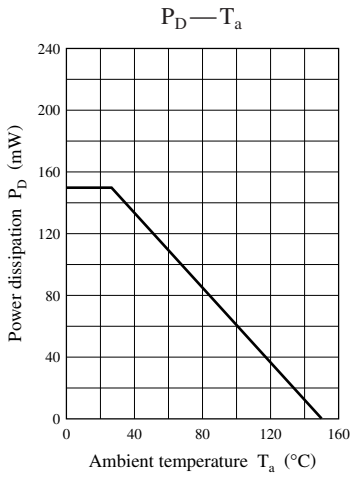
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Drain-source surrender voltage	V_{DSS}	$I_D = 10 \mu\text{A}, V_{GS} = 0$	50	100		V
Drain-source cutoff current	I_{DSS}	$V_{DS} = 20 \text{V}, V_{GS} = 0$			1.0	μA
Gate-source cutoff current	I_{GSS}	$V_{GS} = 10 \text{V}, V_{DS} = 0$			1.0	μA
Gate threshold voltage	V_{th}	$I_D = 100 \mu\text{A}, V_{DS} = 5 \text{V}$	0.5	0.8	1.1	V
Forward transfer admittance	$ Y_{fs} $	$I_D = 10 \text{mA}, V_{DS} = 5 \text{V}, f = 1 \text{kHz}$	20	39		mS
Drain-source ON resistance	$R_{DS(on)}$	$I_D = 10 \text{mA}, V_{GS} = 2.5 \text{V}$		27	50	Ω
Short-circuit forward transfer capacitance (Common source)	C_{iss}	$V_{DS} = 5 \text{V}, V_{GS} = 0, f = 1 \text{MHz}$		4.5		pF
Short-circuit output capacitance (Common source)	C_{oss}			4.1		pF
Reverse transfer capacitance (Common source)	C_{rss}			1.2		pF
Turn-on time *1, 2	t_{on}	$V_{DD} = 5 \text{V}, R_L = 470 \Omega, V_{GS} = 0 \text{V to } 2.5 \text{V}$		0.2		μs
Turn-off time *1, 2	t_{off}	$V_{DD} = 5 \text{V}, R_L = 470 \Omega, V_{GS} = 2.5 \text{V to } 0 \text{V}$		0.2		μs

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *1: Pulse measurement

*2: t_{on}, t_{off} test circuit





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