



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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UP04878

Silicon N-channel MOSFET

For switching

■ Features

- Allowing 2.5 V drive
- Incorporating a built-in gate protection-diode
- Reduction of the mounting area and assembly cost by one half

■ Basic Part Number

- 2SK3539 × 2

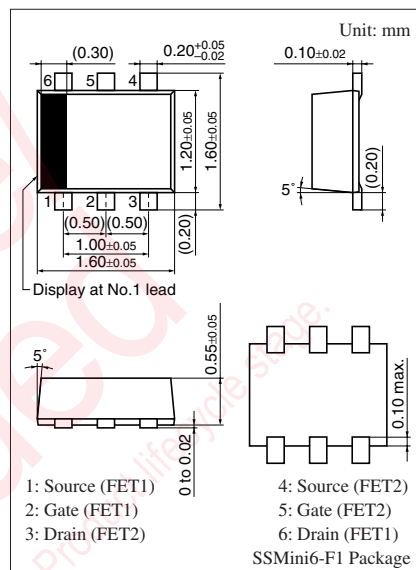
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Drain-source surrender voltage	V_{DSS}	50	V
Gate-source voltage (Drain open)	V_{GSO}	± 7	V
Drain current	I_D	100	mA
Peak drain current	I_{DP}	200	mA
Total power dissipation	P_T	125	mW
Channel temperature	T_{ch}	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

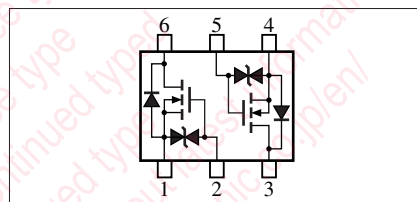
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Drain-source surrender voltage	V_{DSS}	$I_D = 10 \mu\text{A}$, $V_{GS} = 0$	50			V
Drain-source cutoff current	I_{DSS}	$V_{DS} = 50 \text{ V}$, $V_{GS} = 0$			1.0	μA
Gate-source cutoff current	I_{GSS}	$V_{GS} = \pm 7 \text{ V}$, $V_{DS} = 0$			± 5	μA
Gate threshold voltage	V_{th}	$I_D = 1 \mu\text{A}$, $V_{DS} = 3 \text{ V}$	0.9	1.2	1.5	V
Drain-source ON resistance	$R_{DS(on)}$	$I_D = 10 \text{ mA}$, $V_{GS} = 2.5 \text{ V}$		8	15	Ω
		$I_D = 10 \text{ mA}$, $V_{GS} = 4.0 \text{ V}$		6	12	
Forward transfer admittance	$ Y_{fs} $	$I_D = 10 \text{ mA}$, $V_{GS} = 4.0 \text{ V}$	20	60		mS
Short-circuit forward transfer capacitance (Common-source)	C_{iss}	$V_{DS} = 3 \text{ V}$, $V_{GS} = 0 \text{ V}$, $f = 1 \text{ MHz}$		12		pF
Short-circuit output capacitance (Common-source)	C_{oss}			7		pF
Reverse transfer capacitance (Common-source)	C_{rss}			3		pF
Turn-on time	t_{on}	$V_{DD} = 3 \text{ V}$, $V_{GS} = 0 \text{ V}$ to 3 V , $R_L = 470 \Omega$		200		ns
Turn-off time	t_{off}	$V_{DD} = 3 \text{ V}$, $V_{GS} = 3 \text{ V}$ to 0 V , $R_L = 470 \Omega$		200		ns

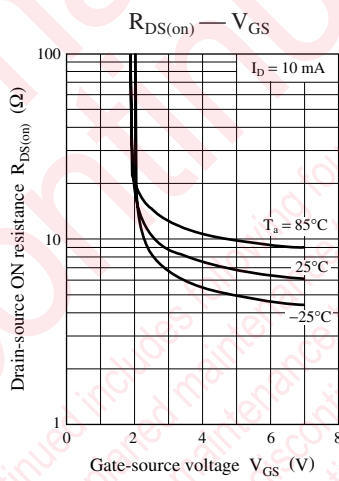
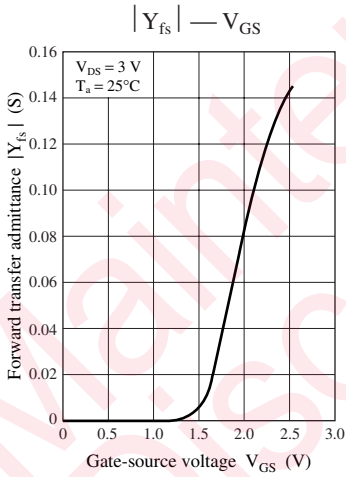
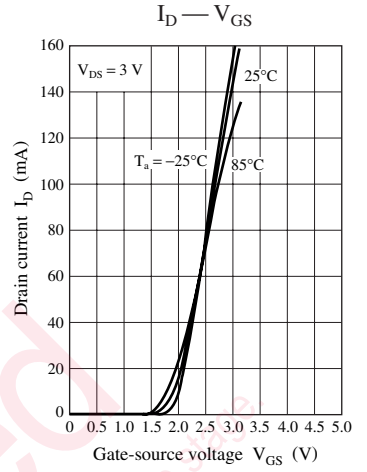
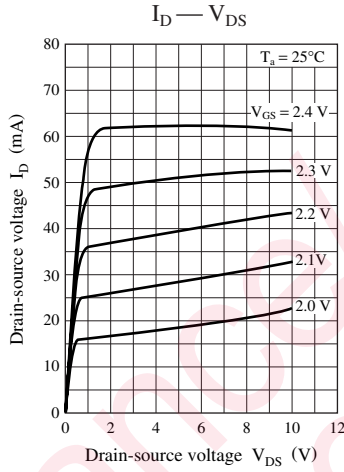
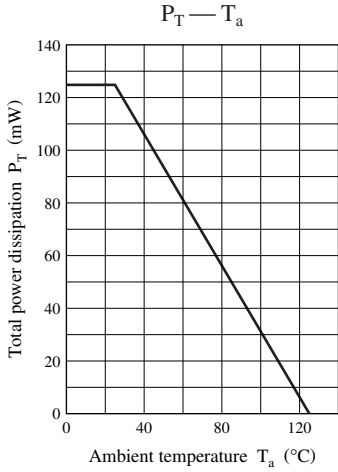
Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.



Marking Symbol: 7Y

Internal Connection





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