



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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2SK3318

Silicon N-channel power MOSFET

For switching

■ Features

- Avalanche energy capability guaranteed
- High-speed switching
- Low ON resistance R_{on}
- No secondary breakdown

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

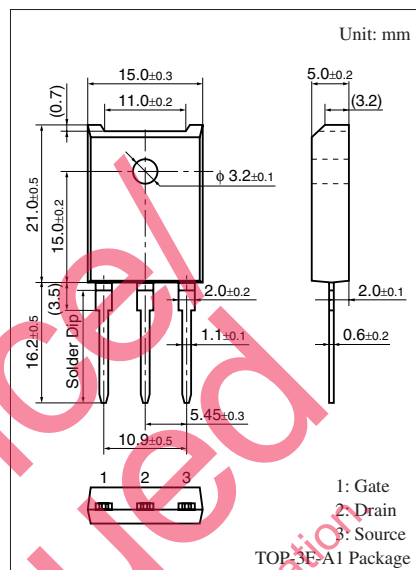
Parameter	Symbol	Rating	Unit
Drain-source surrender voltage	V_{DSS}	600	V
Gate-source surrender voltage	V_{GSS}	± 30	V
Drain current	I_D	± 15	A
Peak drain current	I_{DP}	± 60	A
Avalanche energy capability *	EAS	112.5	mJ
Power dissipation	P_D	100	W
	$T_a = 25^\circ\text{C}$	3	
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

Note) *: $L = 1\text{ mH}$, $I_L = 15\text{ A}$, 1 pulse

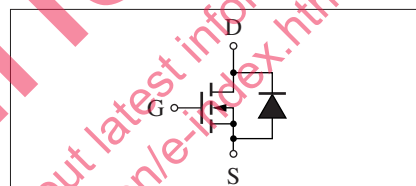
■ Electrical Characteristics $T_C = 25^\circ\text{C} \pm 3^\circ\text{C}$

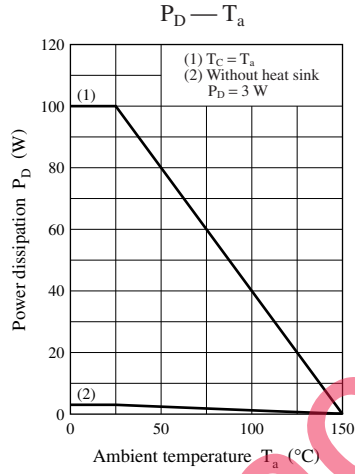
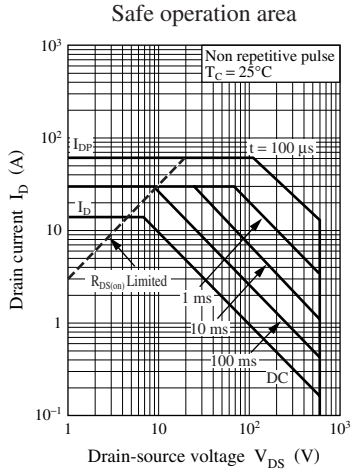
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Gate-drain surrender voltage	V_{DSS}	$I_D = 1\text{ mA}$, $V_{GS} = 0$	600			V
Diode forward voltage	V_{DSF}	$I_{DR} = 15\text{ A}$, $V_{GS} = 0$			-1.5	V
Gate threshold voltage	V_{th}	$V_{DS} = 25\text{ V}$, $I_D = 1\text{ mA}$	2		4	V
Drain-source cutoff current	I_{DSS}	$V_{DS} = 480\text{ V}$, $V_{GS} = 0$			10	μA
Gate-source cutoff current	I_{GSS}	$V_{GS} = \pm 30\text{ V}$, $V_{DS} = 0$			± 1	μA
Drain-source on resistance	$R_{DS(on)}$	$V_{GS} = 10\text{ V}$, $I_D = 7.5\text{ A}$		0.33	0.46	Ω
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 25\text{ V}$, $I_D = 7.5\text{ A}$	6	10		S
Short-circuit forward transfer capacitance (Common-source)	C_{iss}	$V_{DS} = 20\text{ V}$, $V_{GS} = 0$, $f = 1\text{ MHz}$		3500		pF
Short-circuit output capacitance (Common-source)	C_{oss}			340		pF
Reverse transfer capacitance (Common-source)	C_{rss}			50		pF
Turn-on delay time	$t_{d(on)}$	$V_{DD} = 150\text{ V}$, $I_D = 7.5\text{ A}$		40		ns
Rise time	t_r	$R_L = 20\ \Omega$, $V_{GS} = 10\text{ V}$		55		ns
Turn-off delay time	$t_{d(off)}$			310		ns
Fall time	t_f			70		ns
Channel-case heat resistance	$R_{th(ch-c)}$				1.25	$^\circ\text{C/W}$
Channel-atmosphere heat resistance	$R_{th(ch-a)}$				41.7	$^\circ\text{C/W}$

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



Internal Connection





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