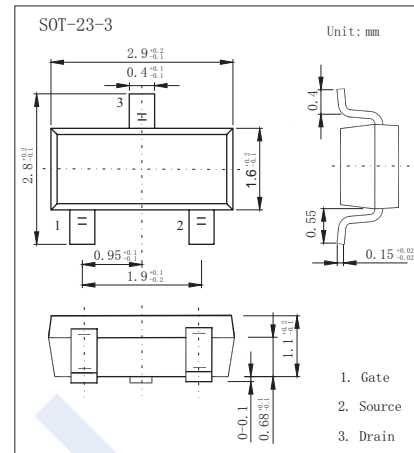
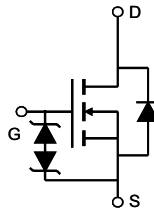


N-Channel Enhancement MOSFET

2SK3012DSE

■ Features

- $V_{DS}=20V$
- $I_D = 6.5A$
- $R_{DS(on)} \leq 22m\Omega @ V_{GS}=4.5V, I_D=6.5A$
- $R_{DS(on)} \leq 30m\Omega @ V_{GS}=2.5V, I_D=5.5A$

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

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	± 10	
Continuous Drain Current	I_D	$T_A=25^\circ C$	6.5
		$T_A=70^\circ C$	4.8
Pulsed Drain Current	I_{DM}	30	A
Power Dissipation	P_D	$T_A=25^\circ C$	1.3
		$T_A=70^\circ C$	0.8
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DSS}	$I_D=250\mu A, V_{GS}=0V$	20			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=20V, V_{GS}=0V$			1	μA
		$V_{DS}=20V, V_{GS}=0V, T_J=55^\circ C$			10	
Gate-Body Leakage Current	I_{GSS}	$V_{DS}=0V, V_{GS}=\pm 10V$			± 10	μA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	0.45		1	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=4.5V, I_D=6.5A$			22	$m\Omega$
		$V_{GS}=2.5V, I_D=5.5A$			30	
Forward Transconductance *1	g_{FS}	$V_{DS}=5V, I_D=6.5A$		6		S
Maximum Body-Diode Continuous Current	I_S				1.6	A
Diode Forward Voltage	V_{SD}	$I_S=1.6A, V_{GS}=0V$		0.76	1.2	V

*1: Pulse test: $PW \leq 300\mu s$ duty cycle $\leq 2\%$

■ Marking

Marking	2310
---------	------