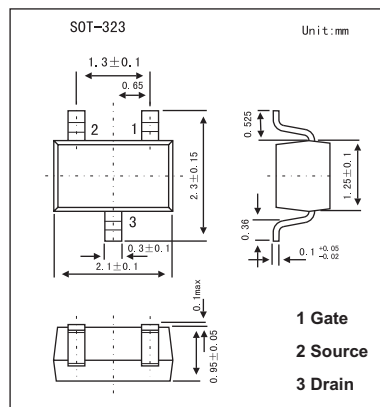
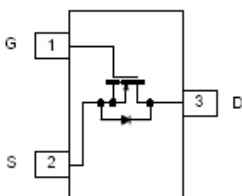


■ Features

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

Parameter	Symbol	5 secs	Steady State	Unit
Drain-source voltage	V_{DS}	30		V
Gate-source voltage	V_{GS}	± 20		V
Continuous drain current ($T_J = 150^\circ\text{C}$)	I_D	$T_A = 25^\circ\text{C}$	0.64	A
		$T_A = 70^\circ\text{C}$	0.51	
Pulsed drain current	I_{DM}	1.5		A
Continuous source current (diode conduction) *	I_S	0.26	0.23	A
Power dissipation *	P_D	$T_A = 25^\circ\text{C}$	0.31	W
		$T_A = 70^\circ\text{C}$	0.20	
Operating junction and storage temperature range	T_J, T_{stg}	-55 to +150		$^\circ\text{C}$

* Surface Mounted on 1" X 1" FR4 Board.

■ Thermal Resistance Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Typical	Maximum	Unit	
Maximum Junction-to-Ambient*	R_{thJA}	$t \leq 5 \text{ sec}$	355	400	$^\circ\text{C/W}$
		Steady State	380		
Maximum Junction-to-Foot (Drain) Steady State	R_{thJF}	285	340		

* Surface Mounted on 1" X 1" FR4 Board.

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Gate threshold voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250 μA	1			V
Gate-body leakage	I _{GSS}	V _{DS} = 0 V, V _{GS} = ±20 V			±100	nA
Zero gate voltage drain current	I _{DSS}	V _{DS} = 24 V, V _{GS} = 0 V			1	μA
		V _{DS} = 24 V, V _{GS} = 0 V, T _J = 70 °C			5	
On-state drain current	I _{D(on)}	V _{DS} = 5 V, V _{GS} = 10 V	1.5			A
Drain-source on-state resistance	r _{DS(on)}	V _{GS} = 10 V, I _D = 0.6 A		0.410	0.480	Ω
		V _{GS} = 4.5V, I _D = 0.2 A		0.600	0.700	
Forward transconductance	g _{fs}	V _{DS} = 15 V, I _D = 0.6 A		0.75		S
Diode forward voltage	V _{SD}	I _S = 0.23 A, V _{GS} = 0 V		0.8	1.2	V
Total gate charge *	Q _g	V _{DS} = 15V, V _{GS} = 10 V, I _D = 0.6A		0.86	1.4	nC
Gate-source charge *	Q _{gs}			0.24		
Gate-drain charge *	Q _{gd}			0.08		
Turn-on time	t _{d(on)}	V _{DD} = 15V, R _L = 30 Ω, I _D = 0.5A, V _{GEN} = 10V, R _G = 6 Ω		5	10	ns
	t _r			8	15	
Turn-off time	t _{d(off)}			8	15	
	t _f			7	15	
Source-Drain Reverse Recovery Time	t _{rr}	I _F = 0.23 A, di/dt = 100 A/μs		15	30	

* Pulse test: PW ≤ 300 μs duty cycle ≤ 2%.

■ Marking

Marking	KA
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