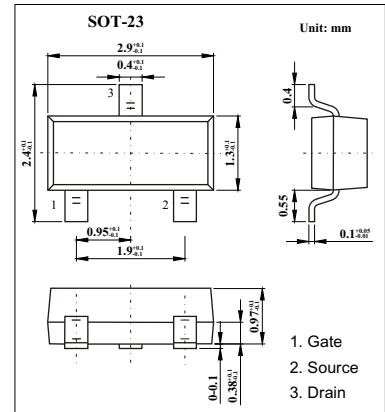
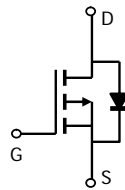


**KI2303DS**

■ Features

- $V_{DS} (V) = -30V$
- $I_D = -1.4 A$
- $R_{DS(ON)} < 200m\Omega$  ( $V_{GS} = -10V$ )
- $R_{DS(ON)} < 380m\Omega$  ( $V_{GS} = -4.5V$ )



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

Parameter	Symbol	5 sec	Steady State	Unit
Drain-Source Voltage	$V_{DS}$	-30		V
Gate-Source Voltage	$V_{GS}$	$\pm 20$		V
Continuous Drain Current $T_A=25^\circ C$ $T_A=70^\circ C$	$I_D$	-1.4 -1.1	-1.3 -1.0	A
Pulsed Drain Current *1	$I_{DM}$	-10		A
Power Dissipation $T_A=25^\circ C$ $T_A=70^\circ C$	$P_D$	0.9 0.57	0.7 0.45	W
Thermal Resistance.Junction-to-Ambient	$R_{thJA}$	175		$^\circ C/W$
Jumction Temperature	$T_j$	150		$^\circ C$
Storage Temperature	$T_{stg}$	-55 to +150		$^\circ C$

\* 1. Pulse width limited by maximum junction temperature.

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test conditons	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	Vbss	V <sub>GS</sub> = 0 V, I <sub>D</sub> = -10 μA	-30			V
Zero Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> = -30 V, V <sub>GS</sub> = 0 V			-1	μA
		V <sub>DS</sub> = -30 V, V <sub>GS</sub> = 0 V, T <sub>J</sub> = 55 °C			-10	
Gate-Body Leakage	I <sub>GSS</sub>	V <sub>DS</sub> = 0 V, V <sub>GS</sub> = ±20 V			±100	nA
Gate Threshold Voltage	V <sub>GS(th)</sub>	V <sub>DS</sub> = V <sub>GS</sub> , I <sub>D</sub> = -250 μA	-1.0		-3.0	V
Drain-Source On-State Resistance *	R <sub>DS(on)</sub>	V <sub>GS</sub> = -10 V, I <sub>D</sub> = -1.7 A			0.2	Ω
		V <sub>GS</sub> = -4.5 V, I <sub>D</sub> = -1.3 A			0.38	
On-State Drain Current	I <sub>D(on)</sub>	V <sub>DS</sub> ≤ -5 V, V <sub>GS</sub> = -10 V	-6			A
Forward Transconductance *	g <sub>fs</sub>	V <sub>DS</sub> = -5 V, I <sub>D</sub> = -1.7 A		2.0		S
Input Capacitance	C <sub>iss</sub>	V <sub>DS</sub> = -15V, V <sub>GS</sub> = 0, f = 1 MHz		180		pF
Output Capacitance	C <sub>oss</sub>			50		
Reverse Transfer Capacitance	C <sub>rss</sub>			35		
Total Gate Charge	Q <sub>g</sub>	V <sub>DS</sub> = -15V, V <sub>GS</sub> = -10 V, I <sub>D</sub> = -1.7 A		4.3	10	nC
Gate-Source Charge	Q <sub>gs</sub>			0.8		
Gate-Drain Charge	Q <sub>gd</sub>			1.3		
Turn-On Time	t <sub>d(on)</sub>	V <sub>DD</sub> = -15V, R <sub>L</sub> = 15 Ω, I <sub>D</sub> = -1A, V <sub>GEN</sub> = -4.5V, R <sub>G</sub> = 6 Ω		55	80	ns
	t <sub>r</sub>			40	60	
Turn-Off Time	t <sub>d(off)</sub>			10	20	
	t <sub>f</sub>			10	20	
Continuous Source Current (diode conduction)	I <sub>s</sub>					
Diode Forward Voltage *	V <sub>SD</sub>	I <sub>s</sub> = -0.75 A, V <sub>GS</sub> = 0 V			-1.2	V

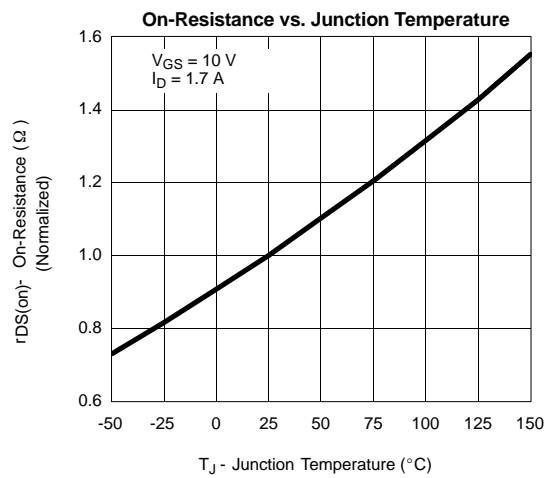
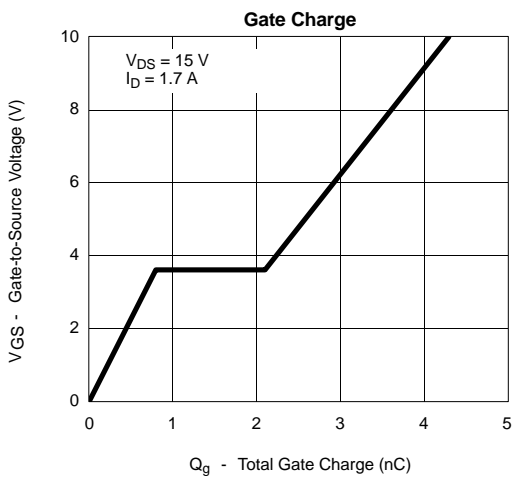
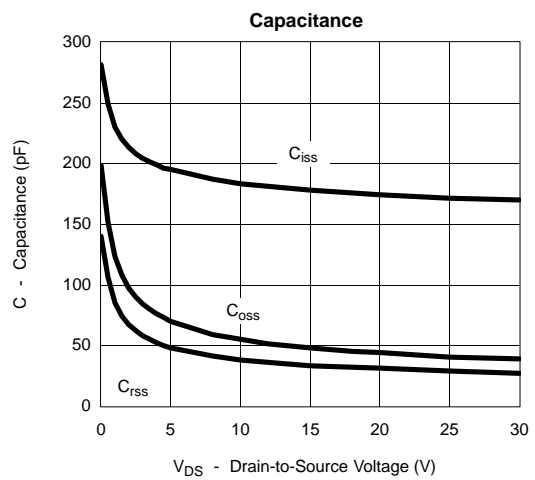
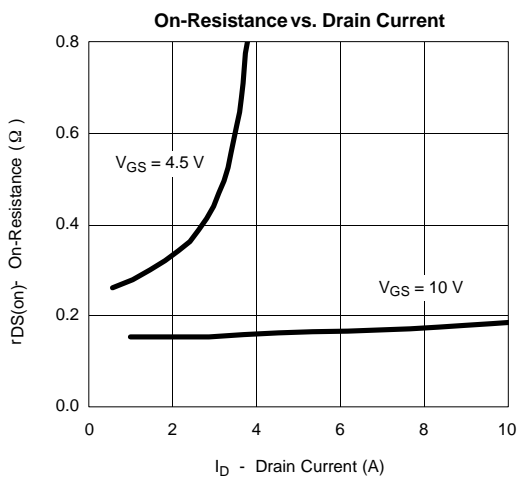
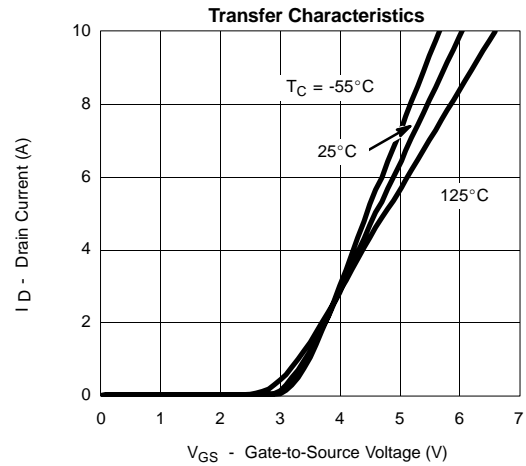
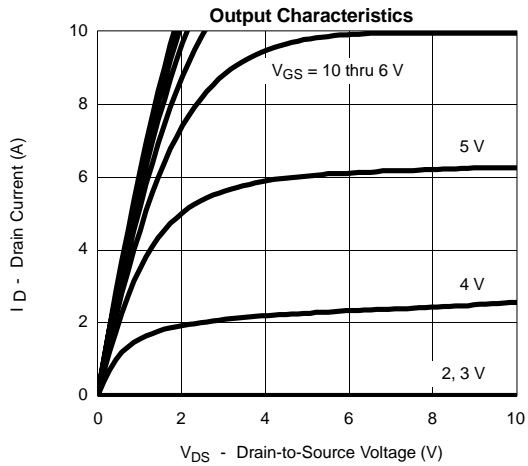
\* Pulse test: PW ≤ 300 μs duty cycle ≤ 2%.

■ Marking

Marking	L3SUB
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■ Typical Characteristics





KI2303DS

