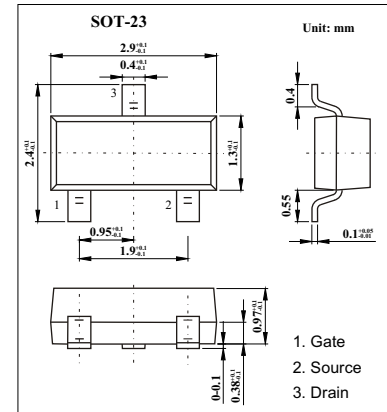
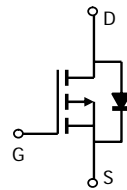


P-Channel Enhancement Mode MOSFET

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}	± 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.

KI2303DS

■ Electrical Characteristics Ta = 25°C

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

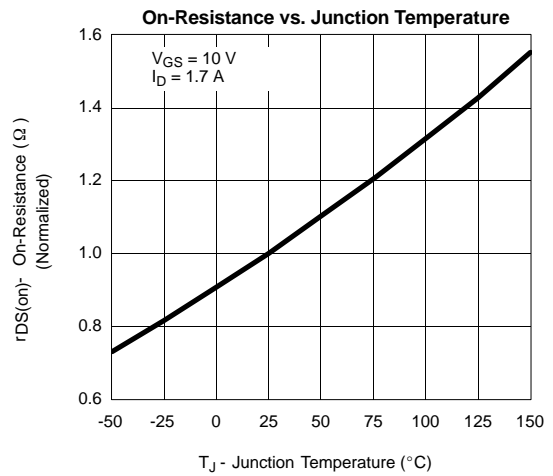
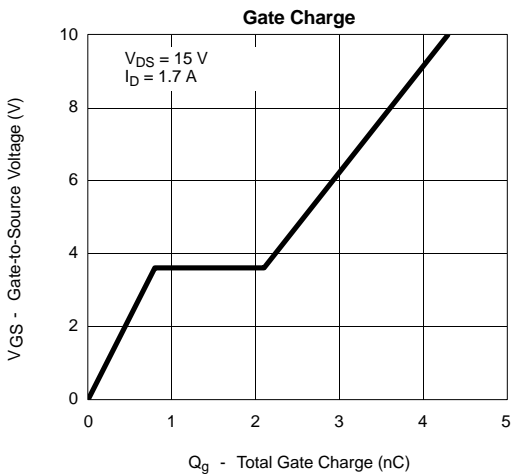
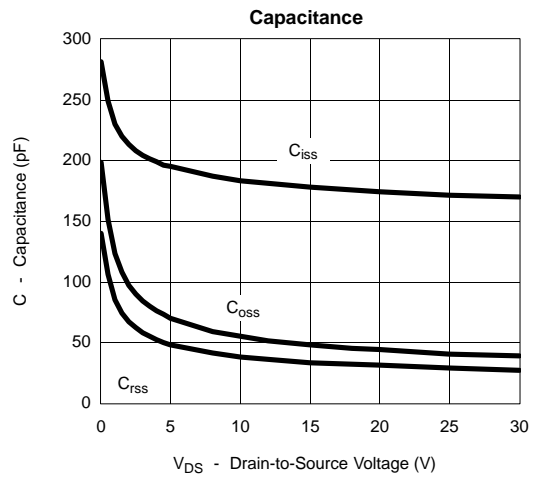
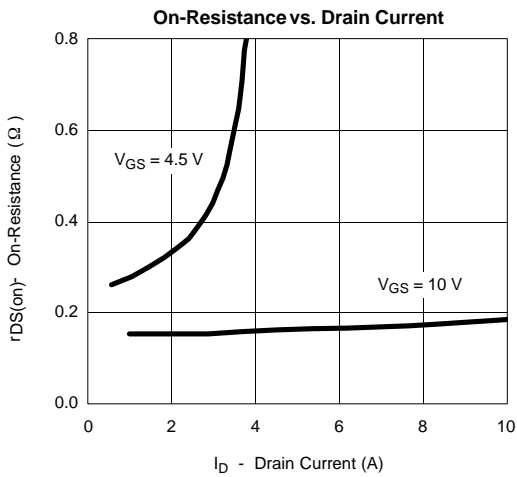
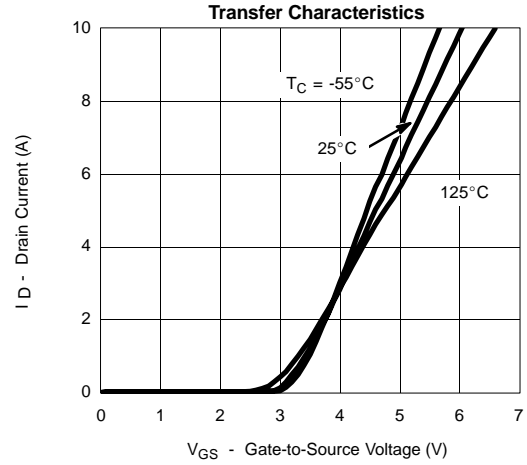
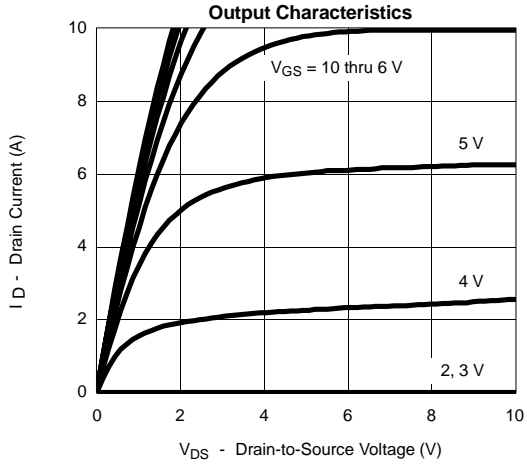
* Pulse test: PW ≤ 300 μs duty cycle ≤ 2%.

■ Marking

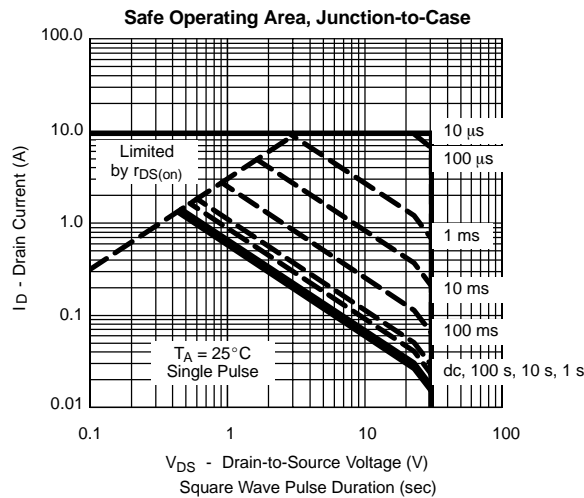
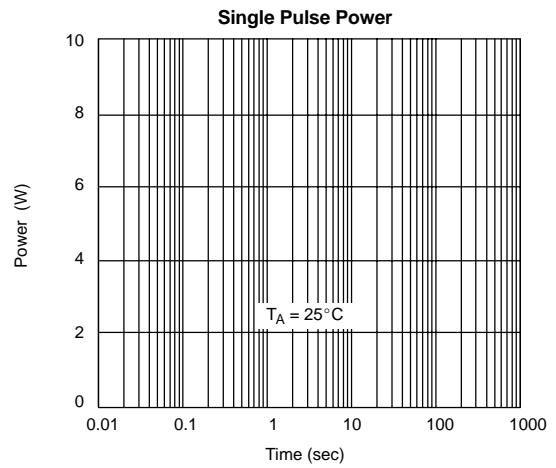
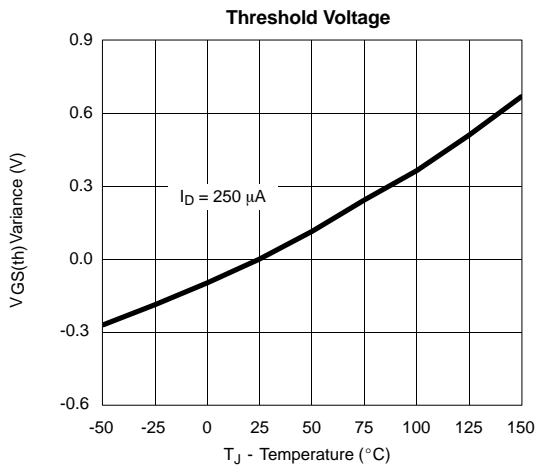
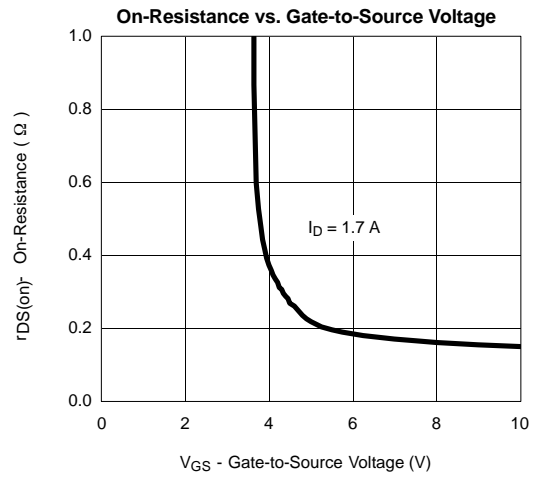
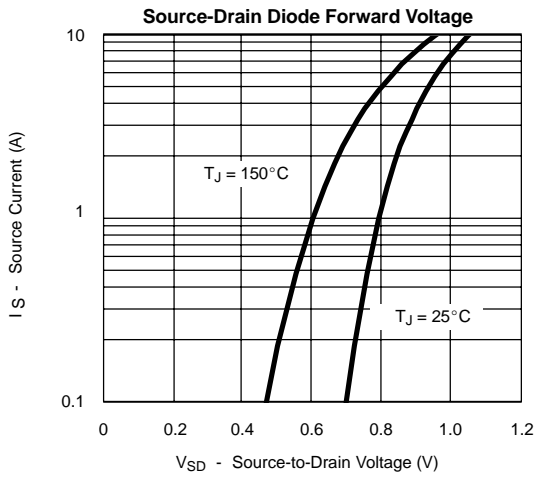
Marking	L3SUB
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KI2303DS

Typical Characteristics



KI2303DS



KI2303DS

