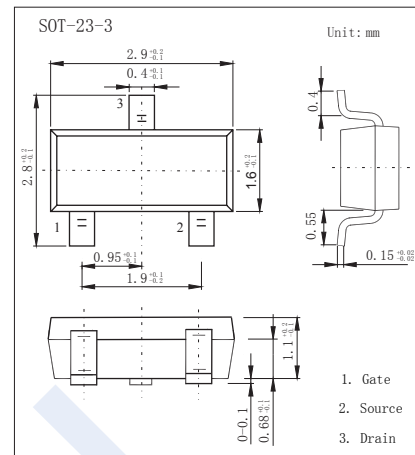
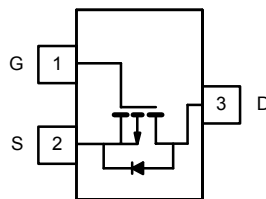


P-Channel Enhancement MOSFET

SI2335DS (K12335DS)

■ Features

- $V_{DS} (V) = -12V$
- $I_D = -4.0A (V_{GS} = -4.5V)$
- $R_{DS(ON)} < 51m\Omega (V_{GS} = -4.5V)$
- $R_{DS(ON)} < 70m\Omega (V_{GS} = -2.5V)$
- $R_{DS(ON)} < 106m\Omega (V_{GS} = -1.8V)$



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

Parameter	Symbol	5 sec	Steady State	Unit	
Drain-Source Voltage	V_{DS}	-12		V	
Gate-Source Voltage	V_{GS}	± 8			
Continuous Drain Current ($T_J = 150^\circ C$) *1	I_D	$T_a = 25^\circ C$	-4.0	-3.2	A
		$T_a = 70^\circ C$	-3.3	-2.6	
Pulsed Drain Current	I_{DM}	-15			
Power Dissipation	P_D	$T_a = 25^\circ C$	1.25	0.75	W
		$T_a = 70^\circ C$	0.8	0.48	
Thermal Resistance.Junction- to-Ambient $t \leq 5$ sec Steady State	R_{thJA}	100		$^\circ C/W$	
		166			
Thermal Resistance.Junction- to-Foot	R_{thJF}	50			
Junction Temperature	T_J	150		$^\circ C$	
Storage Temperature Range	T_{stg}	-55 to 150			

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

P-Channel Enhancement MOSFET

SI2335DS (KI2335DS)

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V _{DSS}	I _D =-250 μA, V _{GS} =0V	-12			V
Zero Gate Voltage Drain Current	I _{DSS}	V _D =-9.6V, V _{GS} =0V			-1	μA
		V _D =-9.6V, V _{GS} =0V, T _J =55°C			-10	
Gate-Body leakage current	I _{GSS}	V _D =0V, V _{GS} =±8V			±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _D =V _{GS} I _D =-250 μA	-0.45		-1.0	V
Static Drain-Source On-Resistance *1	R _{DS(on)}	V _{GS} =-4.5V, I _D =-4.0A		45	51	mΩ
		V _{GS} =-2.5V, I _D =-3.5A		58	70	
		V _{GS} =-1.8V, I _D =-2A		82	106	
On state drain current *1	I _{D(ON)}	V _{GS} =-4.5V, V _D =-5V	-15			A
		V _{GS} =-2.5V, V _D =-5V	-6			
Forward Transconductance *1	g _{FS}	V _D =-5V, I _D =-4.0A		7		S
Input Capacitance	C _{iss}	V _{GS} =0V, V _D =-6V, f=1MHz		1225		pF
Output Capacitance	C _{oss}			260		
Reverse Transfer Capacitance	C _{rss}			130		
Total Gate Charge	Q _g	V _{GS} =-4.5V, V _D =-6V, I _D =-4.0A		9	15	nC
Gate Source Charge	Q _{gs}			1.9		
Gate Drain Charge	Q _{gd}			1.5		
Turn-On DelayTime	t _{d(on)}	V _{GS} =-4.5V, V _D =-6V, R _L =6 Ω, R _{GEN} =6 Ω I _D =-1.0A		13	20	ns
Turn-On Rise Time	t _r			15	25	
Turn-Off DelayTime	t _{d(off)}			50	70	
Turn-Off Fall Time	t _f			19	35	
Maximum Body-Diode Continuous Current	I _S				-1.6	A
Diode Forward Voltage	V _{SD}	I _S =-1.6A, V _{GS} =0V			-1.2	V

*1Pulse test: PW ≤ 300us duty cycle ≤ 2%.

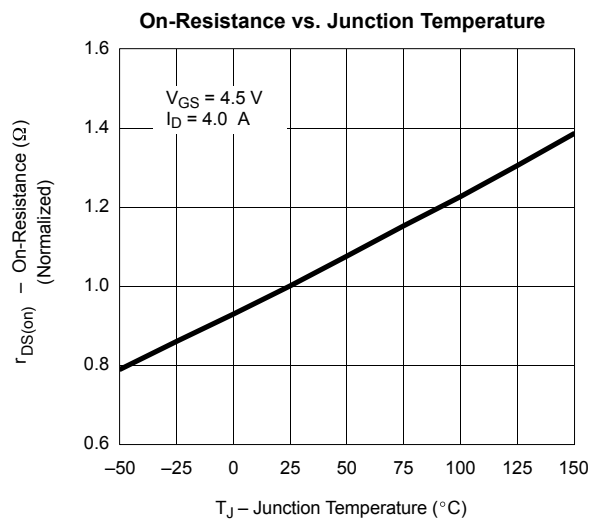
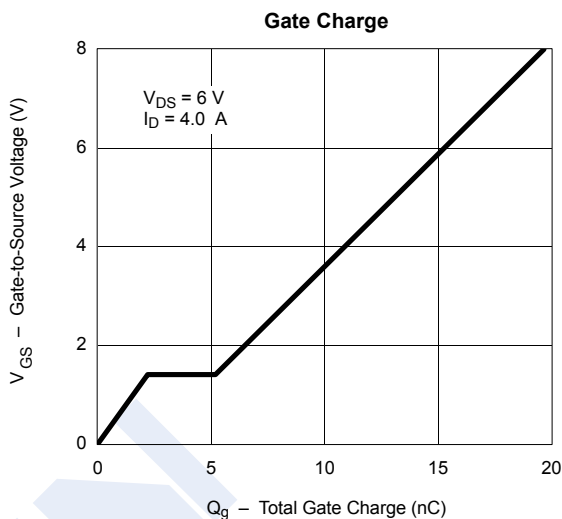
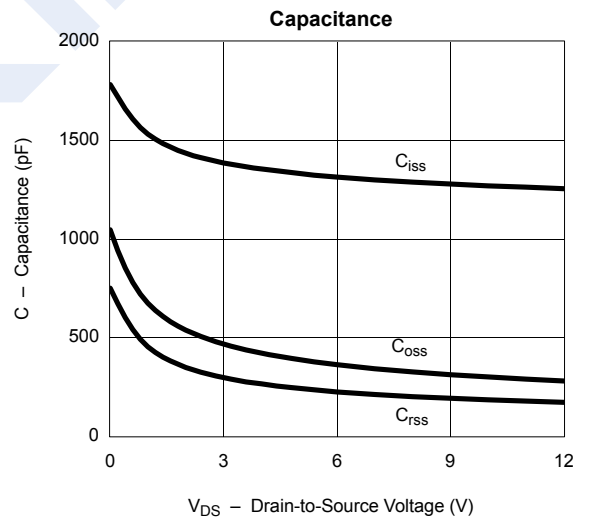
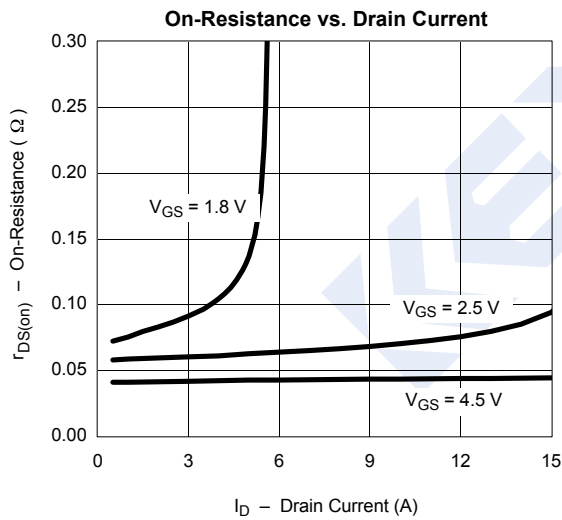
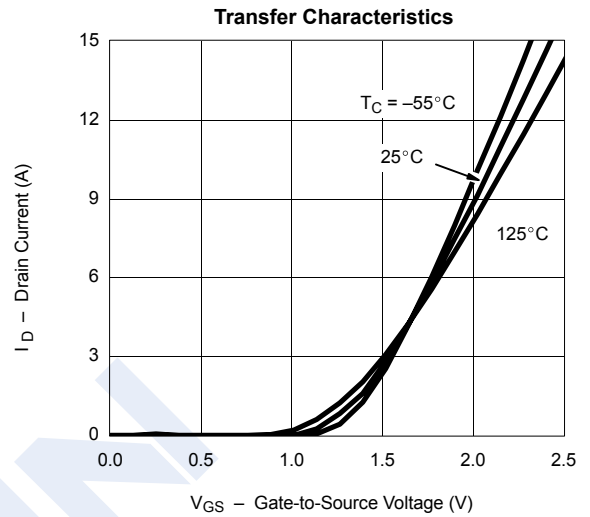
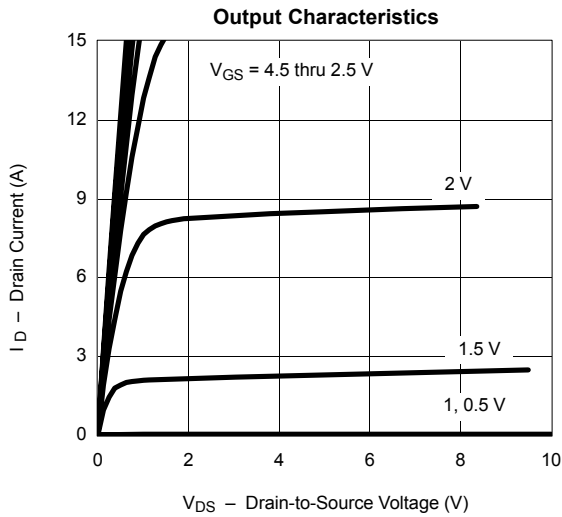
■ Marking

Marking	E5*
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P-Channel Enhancement MOSFET

SI2335DS (KI2335DS)

■ Typical Characteristics



P-Channel Enhancement MOSFET

SI2335DS (KI2335DS)

Typical Characteristics

