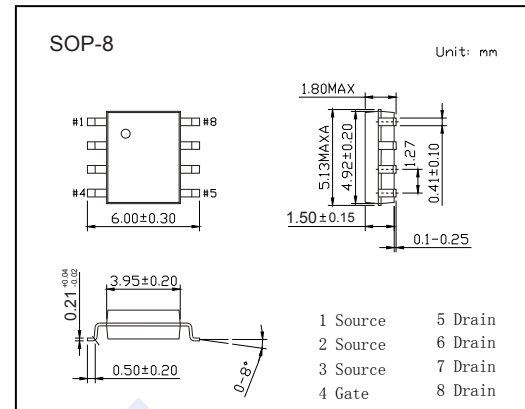
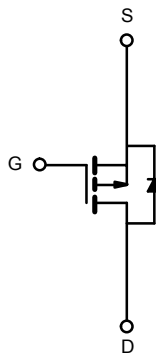


P-Channel MOSFET

SI4463BDY (KI4463BDY)

■ Features

- $V_{DS} = -20V$
- $I_D = -13.7 A$ ($V_{GS} = -10V$)
- $R_{DS(ON)} < 11m\Omega$ ($V_{GS} = -10V$)
- $R_{DS(ON)} < 14m\Omega$ ($V_{GS} = -4.5V$)
- $R_{DS(ON)} < 20m\Omega$ ($V_{GS} = -2.5V$)



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

Parameter	Symbol	10 Secs	Steady State	Unit
Drain-Source Voltage	V_{DS}		-20	V
Gate-Source Voltage	V_{GS}		± 12	
Continuous Drain Current	I_D	$T_a = 25^\circ C$	-13.7	A
		$T_a = 70^\circ C$	-11.1	
Pulsed Drain Current	I_{DM}		-50	
Power Dissipation	P_D	$T_a = 25^\circ C$	3	W
		$T_a = 70^\circ C$	1.9	
Thermal Resistance.Junction- to-Ambient	R_{thJA}	42	84	$^\circ C/W$
Thermal Resistance.Junction- to-Foot	R_{thJF}	-	21	
Junction Temperature	T_J		150	$^\circ C$
Junction Storage Temperature Range	T_{stg}		-55 to 150	

P-Channel MOSFET

SI4463BDY (KI4463BDY)

■ 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	-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 =70°C			-10	
Gate-Body leakage current	I _{GSS}	V _{DS} =0V, V _{GS} =±12V			±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} I _D =-250 μA	-0.6		-1.4	V
Static Drain-Source On-Resistance (Note.1)	R _{DS(on)}	V _{GS} =-10V, I _D =-13.7A			11	mΩ
		V _{GS} =-4.5V, I _D =-12.3A			14	
		V _{GS} =-2.5V, I _D =-5A			20	
On state drain current	I _{D(ON)}	V _{GS} =-5V, V _{DS} =-4.5V (Note.1)	-30			A
Forward Transconductance	g _{FS}	V _{DS} =-10V, I _D =-13.7A (Note.1)		44		S
Gate resistance	R _g	V _{GS} =0V, V _{DS} =0V, f=1MHz		2.7		Ω
Total Gate Charge	Q _g	V _{GS} =-4.5V, V _{DS} =-10V, I _D =-13.7A		37	56	nC
Gate Source Charge	Q _{gs}			8.7		
Gate Drain Charge	Q _{gd}			11		
Turn-On DelayTime	t _{d(on)}	V _{DD} = -10 V, R _L = 10 Ω I _D =-1 A, V _{GEN} = -4.5 V, R _g = 6 Ω			55	ns
Turn-On Rise Time	t _r				90	
Turn-Off DelayTime	t _{d(off)}				170	
Turn-Off Fall Time	t _f				115	
Body Diode Reverse Recovery Time	t _{rr}		I _F =-2.3A, di/dt=100A/μs			
Maximum Body-Diode Continuous Current	I _S				-2.7	A
Diode Forward Voltage	V _{SD}	I _S =-2.7A, V _{GS} =0V (Note.1)			-1.1	V

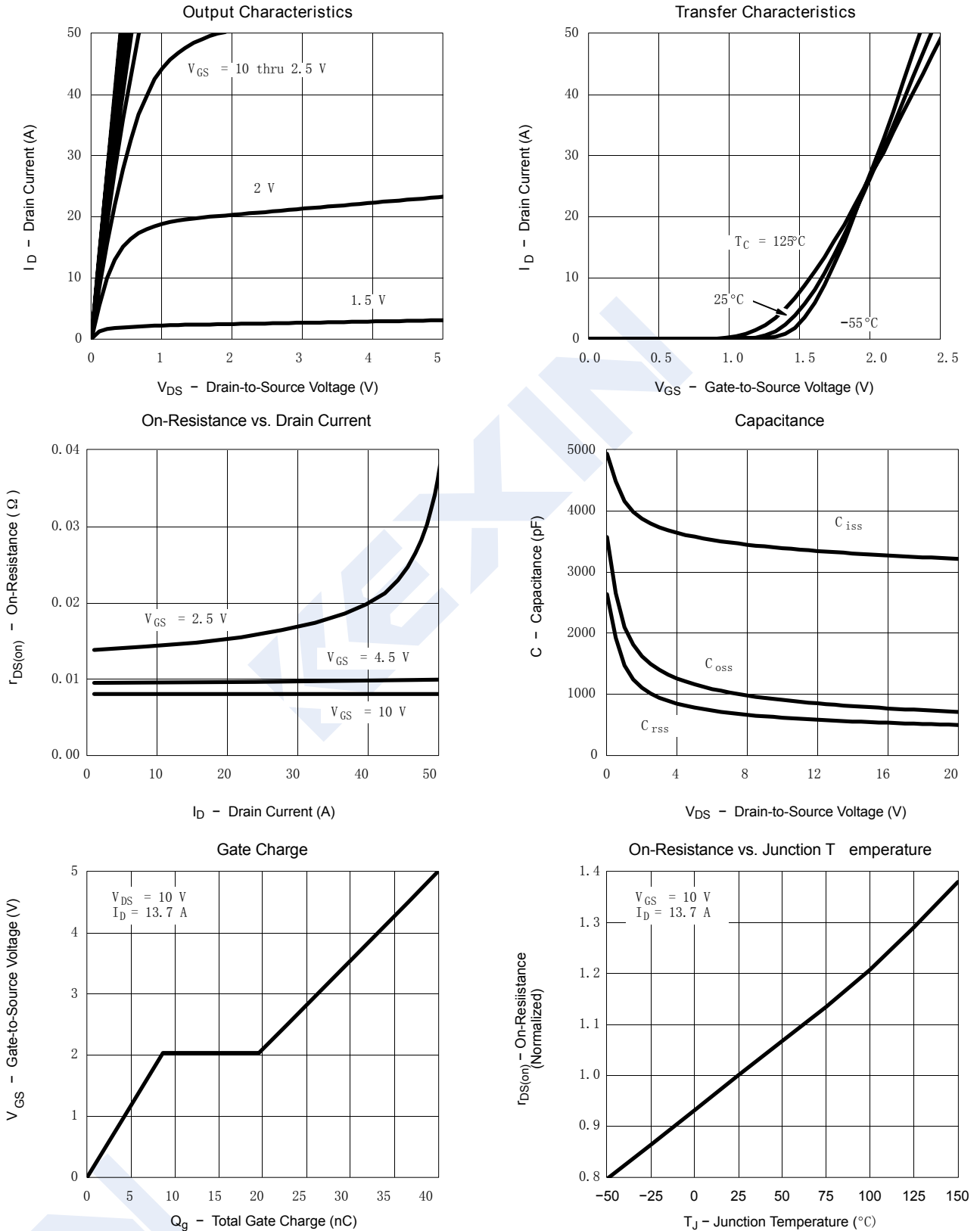
Note.1: Pulse test; pulse width ≤ 300us, duty cycle ≤ 2%.

■ Marking

Marking	4463B KC****
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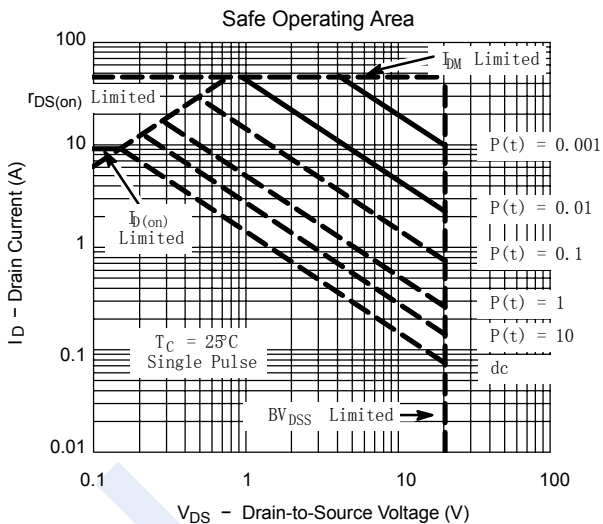
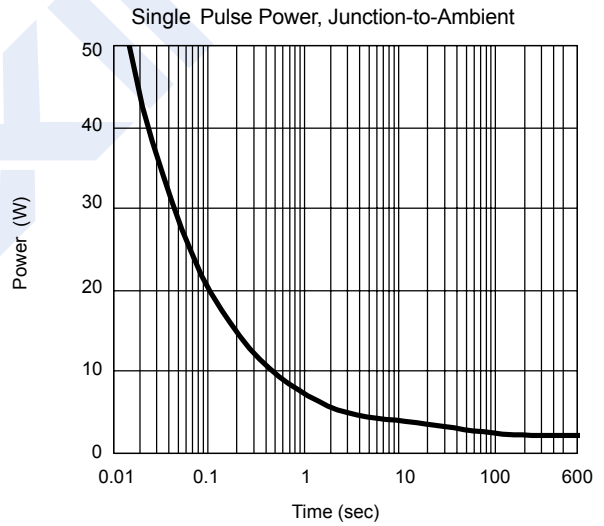
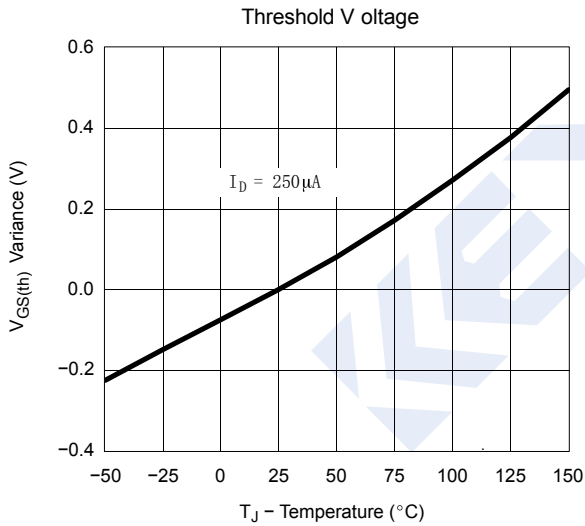
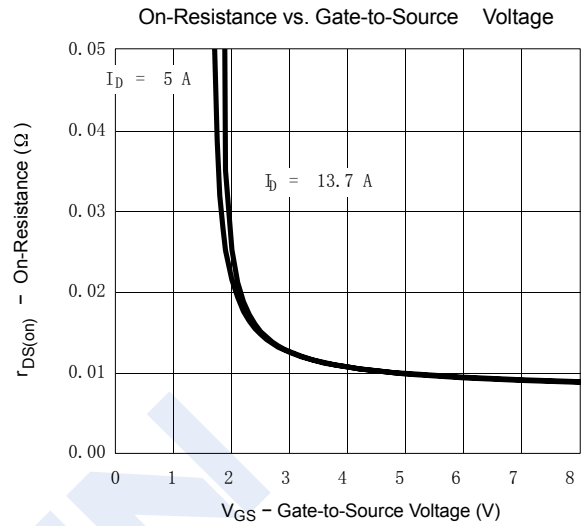
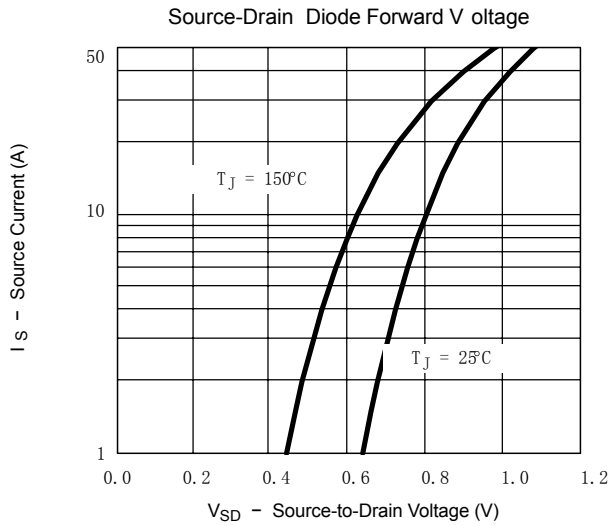
P-Channel MOSFET SI4463BDY (KI4463BDY)

■ Typical Characteristics



P-Channel MOSFET SI4463BDY (KI4463BDY)

■ Typical Characteristics



P-Channel MOSFET SI4463BDY (KI4463BDY)

■ Typical Characteristics

