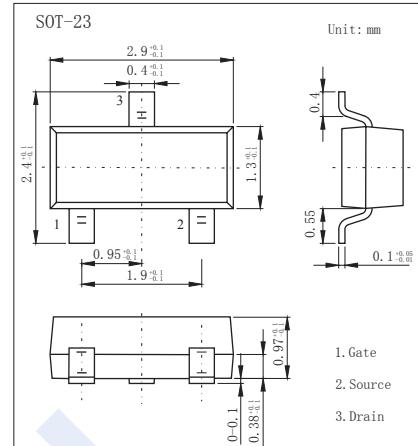
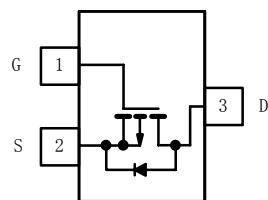


P-Channel MOSFET

SI2325DS-HF (KI2325DS-HF)

■ Features

- V_{DS} (V) = -150V
- I_D = -0.69A (V_{GS} = -10V)
- $R_{DS(ON)} < 1.2 \Omega$ (V_{GS} = -10V)
- $R_{DS(ON)} < 1.3 \Omega$ (V_{GS} = -6V)
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish



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

Parameter	Symbol	5 sec	Steady State	Unit
Drain-Source Voltage	V_{DS}	-150		V
Gate-Source Voltage	V_{GS}			
Continuous Drain Current $T_a = 25^\circ\text{C}$	I_D	-0.69	-0.53	A
$T_a = 70^\circ\text{C}$		-0.55	-0.43	
Pulsed Drain Current	I_{DM}	-1.6		A
Single-Pulse Avalanche Current $L=1.0\text{mH}$	I_{AS}	4.5		
Single-Pulse Avalanche Energy $L=1.0\text{mH}$	E_{AS}	1.01		mJ
Power Dissipation $T_a = 25^\circ\text{C}$	P_D	1.25	0.75	W
$T_a = 70^\circ\text{C}$		0.8	0.48	
Thermal Resistance.Junction- to-Ambient $t \leq 5 \text{ sec}$	R_{thJA}	100		°C/W
Steady State		166		
Thermal Resistance.Junction- to-Foot	R_{thJF}	50		°C
Junction Temperature	T_J	150		
Storage Temperature Range	T_{stg}	-55 to 150		°C

P-Channel MOSFET
SI2325DS-HF (KI2325DS-HF)

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DSS}	$I_D=-250 \mu A, V_{GS}=0V$	-150			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-150V, V_{GS}=0V$			-1	μA
		$V_{DS}=-150V, V_{GS}=0V, T_J=55^\circ C$			-10	
Gate-Body leakage current	I_{GSS}	$V_{DS}=0V, V_{GS}=\pm 20V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=-250 \mu A$	-2.5		-4.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=-10V, I_D=-0.5A$			1.2	Ω
		$V_{GS}=-6V, I_D=-0.5A$			1.3	
On state drain current	$I_D(ON)$	$V_{GS}=-10V, V_{DS}=-15V$	-1.6			A
Forward Transconductance	g_{FS}	$V_{DS}=-15V, I_D=-0.5A$		2.2		S
Gate Resistance	R_g	$f=1.0MHz$		9		Ω
Input Capacitance	C_{iss}	$V_{GS}=0V, V_{DS}=-25V, f=1MHz *1$		340	510	pF
Output Capacitance	C_{oss}			30		
Reverse Transfer Capacitance	C_{rss}			16		
Total Gate Charge	Q_g	$V_{GS}=-10V, V_{DS}=-75V, I_D=-0.5A *1$		7.7	12	nC
Gate Source Charge	Q_{gs}			1.5		
Gate Drain Charge	Q_{gd}			2.5		
Turn-On DelayTime	$t_{d(on)}$	$V_{GS}=-10V, V_{DS}=-75V, R_L=75 \Omega, R_{GEN}=6 \Omega$ $I_D=-1.0A *1$		7	11	ns
Turn-On Rise Time	t_r			11	17	
Turn-Off DelayTime	$t_{d(off)}$			16	25	
Turn-Off Fall Time	t_f			11	17	
Body Diode Reverse Recovery Charge	Q_{rr}	$I_F = 0.5 A, dI/dt = 100 A/s$		90	135	nC
Maximum Body-Diode Continuous Current	I_S	5 sec			-1.0	A
		Steady State			-0.6	
Diode Forward Voltage	V_{SD}	$I_S=-1.0A, V_{GS}=0V$		-0.7	-1.2	V

*1Pulse test: $PW \leq 300\mu s$ duty cycle $\leq 2\%$.

■ Marking

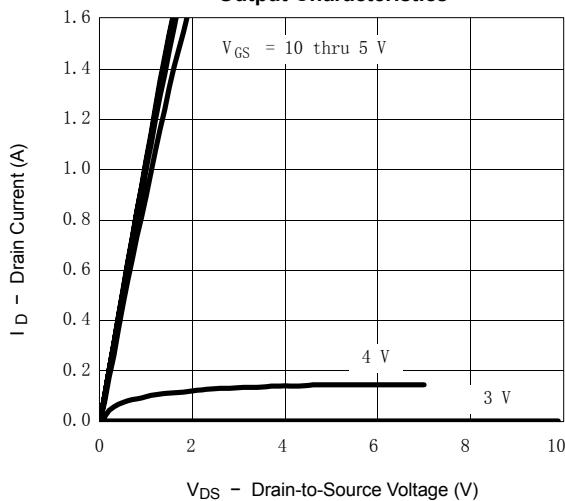
Marking	D5* F
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P-Channel MOSFET

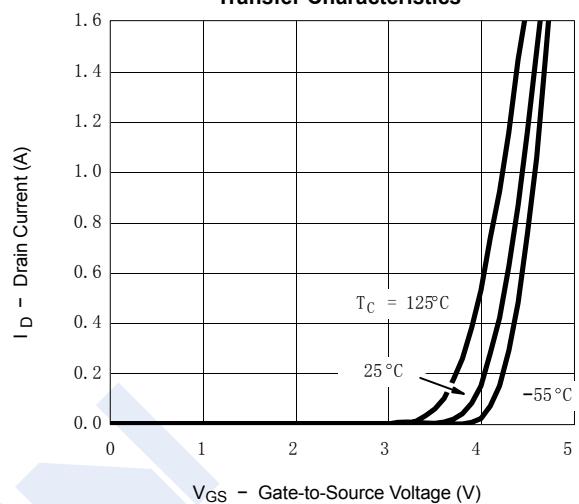
SI2325DS-HF (KI2325DS-HF)

■ Typical Characteristics

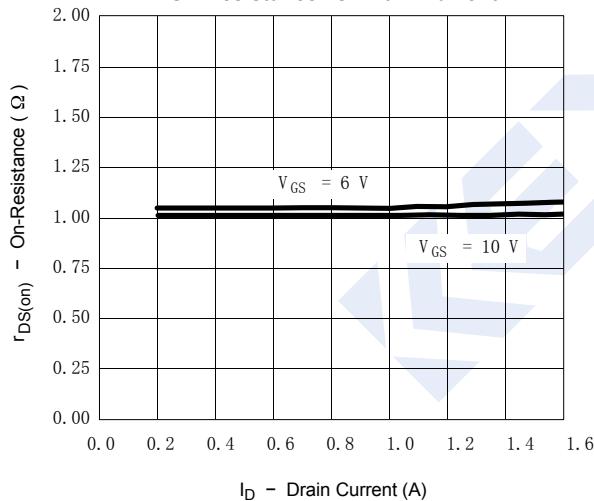
Output Characteristics



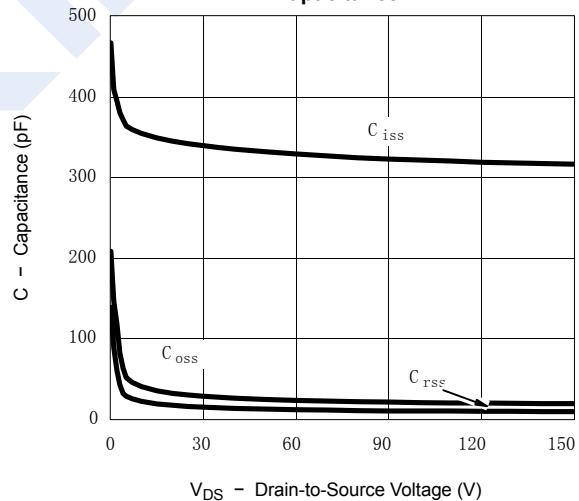
Transfer Characteristics



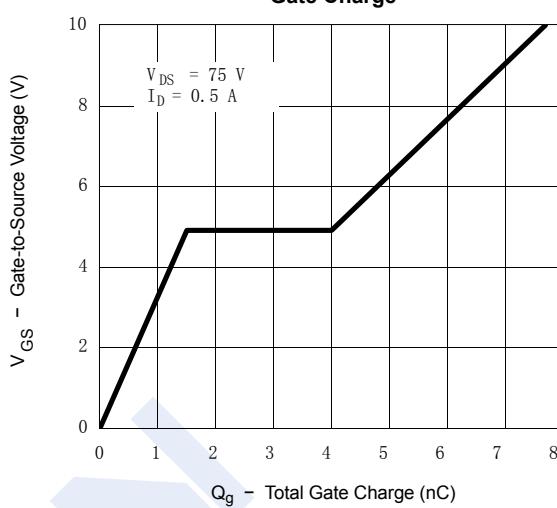
On-Resistance vs. Drain Current



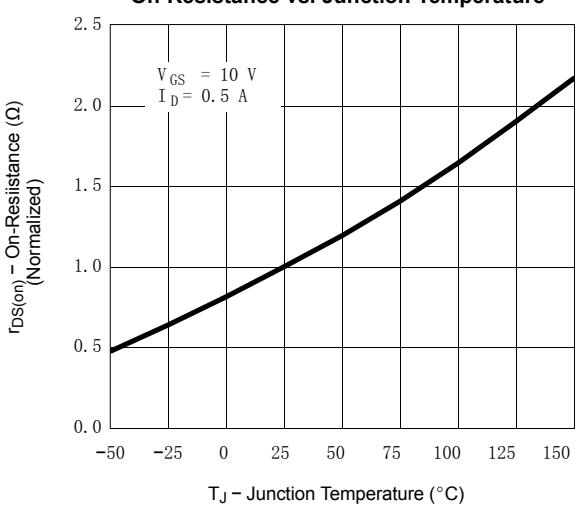
Capacitance



Gate Charge



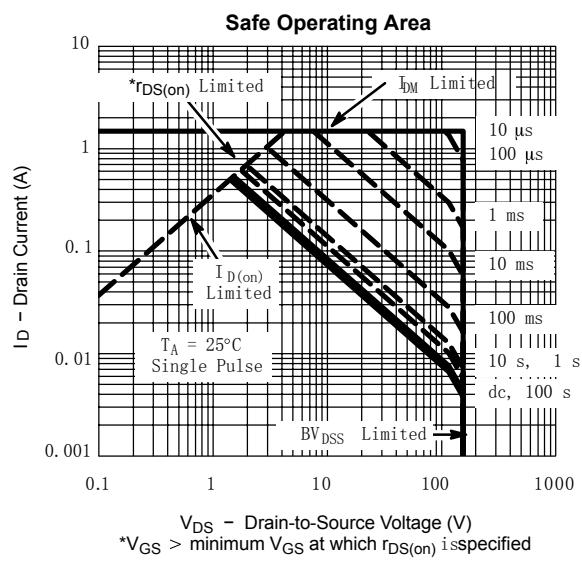
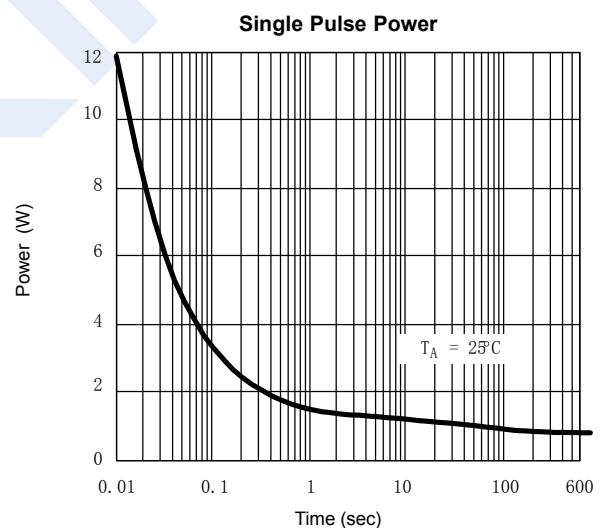
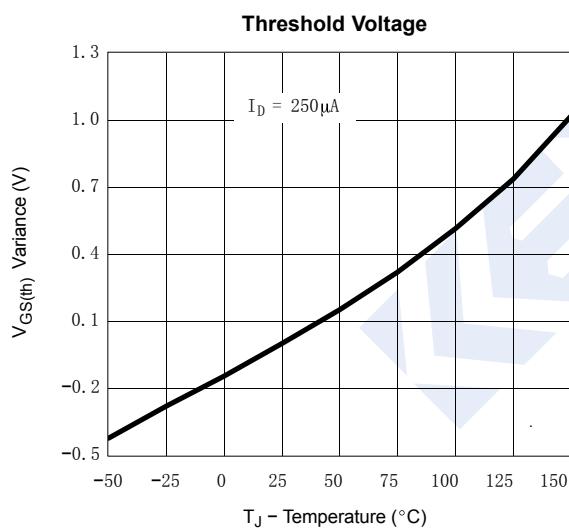
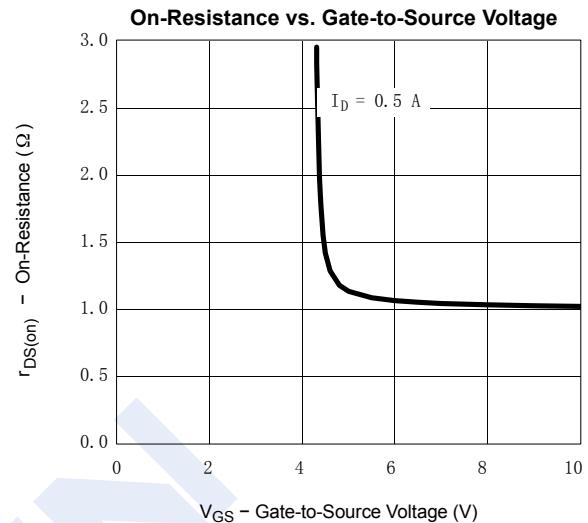
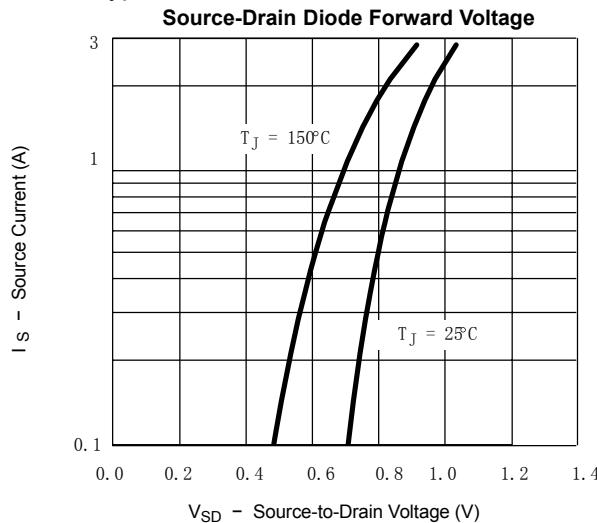
On-Resistance vs. Junction Temperature



P-Channel MOSFET

SI2325DS-HF (KI2325DS-HF)

■ Typical Characteristics



* $V_{GS} >$ minimum V_{GS} at which $r_{DS(on)}$ is specified

P-Channel MOSFET
SI2325DS-HF (KI2325DS-HF)

■ Typical Characteristics

