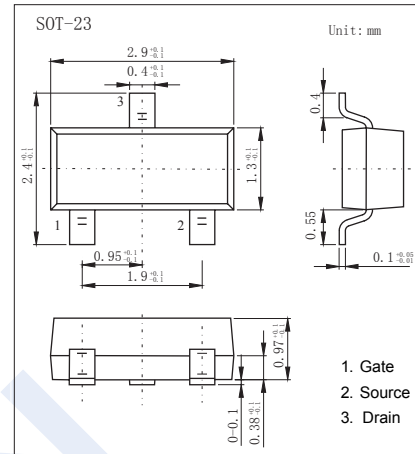
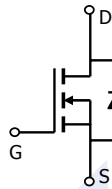


N-Channel MOSFET

SI2324DS-HF (KI2324DS-HF)

■ Features

- $V_{DS} = 100V$
- $I_D = 2.3 A$ ($V_{GS} = 10V$)
- $R_{DS(ON)} < 234m\Omega$ ($V_{GS} = 10V$)
- $R_{DS(ON)} < 267m\Omega$ ($V_{GS} = 6V$)
- $R_{DS(ON)} < 278m\Omega$ ($V_{GS} = 4.5V$)
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish



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

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	100	V
Gate-Source Voltage	V_{GS}	± 20	
Continuous Drain Current $T_J = 150^\circ C$ *1	I_D	$T_A = 25^\circ C$	2.3
		$T_A = 70^\circ C$	1.8
Pulsed Drain Current	I_{DM}	5	A
Power Dissipation	P_D	$T_A = 25^\circ C$	2.5
		$T_A = 70^\circ C$	1.6
Thermal Resistance.Junction- to-Ambient	R_{thJA}	100	$^\circ C/W$
Thermal Resistance.Junction- to-Case	R_{thJC}	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.

N-Channel MOSFET

SI2324DS-HF (KI2324DS-HF)

■ 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	100			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{Ds} =100V, V _{GS} =0V			1	μA
		V _{Ds} =100V, V _{GS} =0V, T _J =55°C			10	
Gate-Body Leakage Current	I _{GSS}	V _{Ds} =0V, V _{GS} =±20V			±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{Ds} =V _{GS} , I _D =250 μA	1.2		2.8	V
Static Drain-Source On-Resistance ^a	R _{DS(on)}	V _{GS} =10V, I _D =1.5A			234	mΩ
		V _{GS} =6V, I _D =1A			267	
		V _{GS} =4.5V, I _D =0.5A			278	
On State Drain Current ^a	I _{D(ON)}	V _{GS} =4.5V, V _{Ds} ≥5V	5			A
Forward Transconductance ^a	g _{FS}	V _{Ds} =20V, I _D =1.5A		2		S
Input Capacitance	C _{iss}	V _{GS} =0V, V _{Ds} =50V, f=1MHz		190		pF
Output Capacitance	C _{oss}			22		
Reverse Transfer Capacitance	C _{rss}			13		
Gate Resistance	R _g	V _{GS} =0V, V _{Ds} =0V, f=1MHz	0.3	1.4	2.8	Ω
Total Gate Charge	Q _g	V _{GS} =4.5V, V _{Ds} =50V, I _D =1.6A		5.2	10.4	nC
Gate Source Charge	Q _{gs}			0.75		
Gate Drain Charge	Q _{gd}			1.4		
Turn-On DelayTime	t _{d(on)}	V _{GS} =4.5V, V _{Ds} =50V, R _L =39Ω, R _{GEN} =1Ω		30	45	ns
Turn-On Rise Time	t _r			26	39	
Turn-Off DelayTime	t _{d(off)}			17	26	
Turn-Off Fall Time	t _f			12	20	
Body Diode Reverse Recovery Time	t _{rr}	I _F = 1.3A, di/dt= 100A/μs		22	33	
Body Diode Reverse Recovery Charge	Q _{rr}	I _F = 1.3A, di/dt= 100A/μs		21	32	nC
Maximum Body-Diode Continuous Current	I _s				2.1	A
Diode Forward Voltage	V _{SD}	I _s =1.3A, V _{GS} =0V		0.8	1.2	V

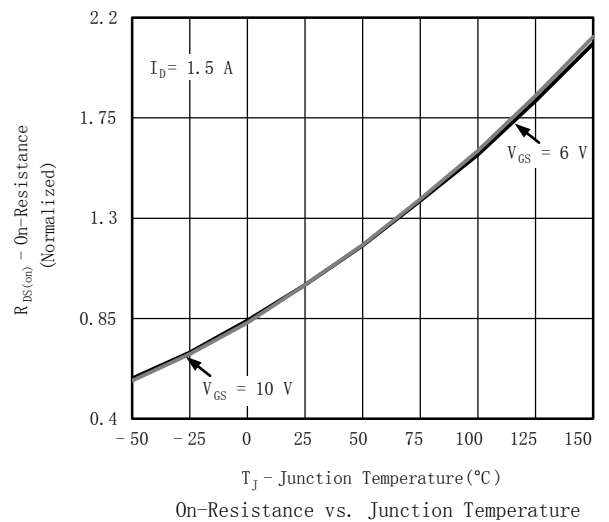
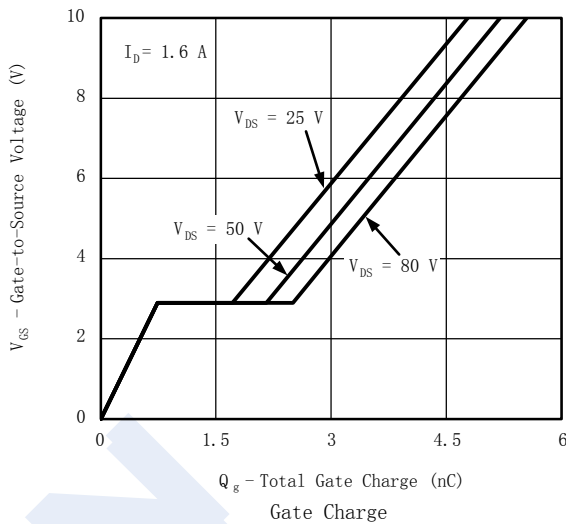
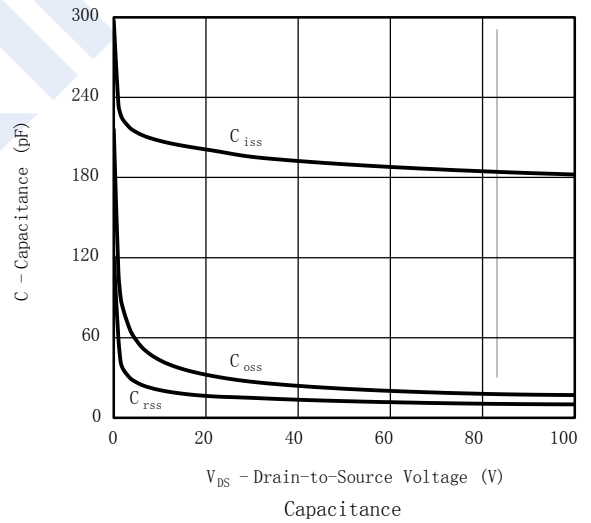
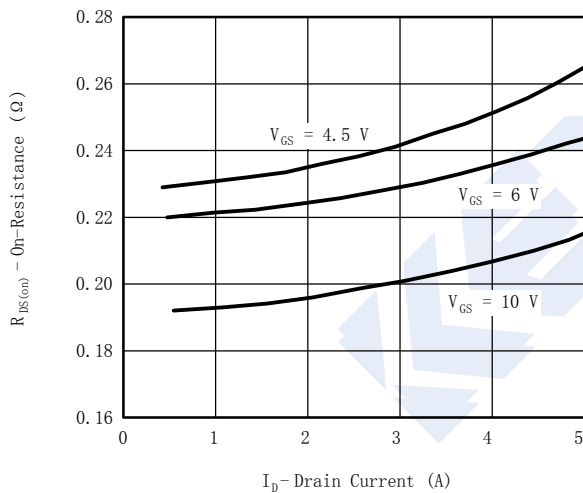
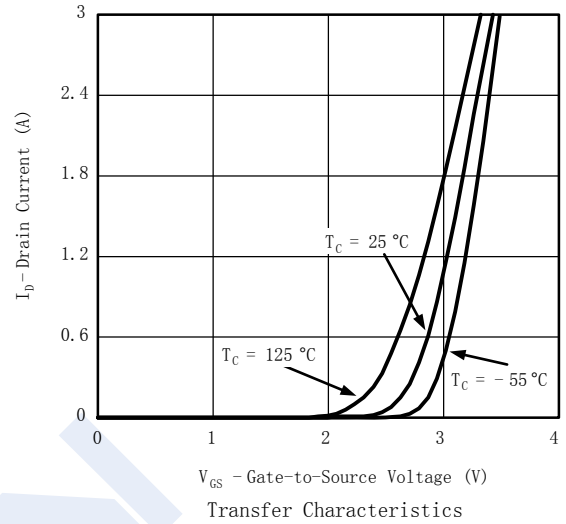
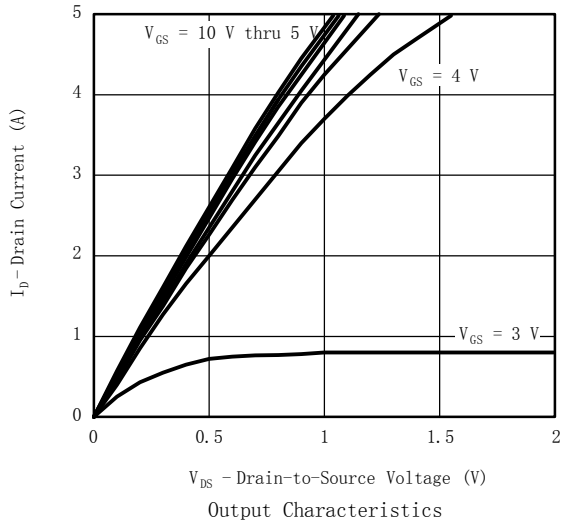
a.Pulse test ; pulse width ≤300 μs,duty cycle≤2%

■ Marking

Marking	D4* _F
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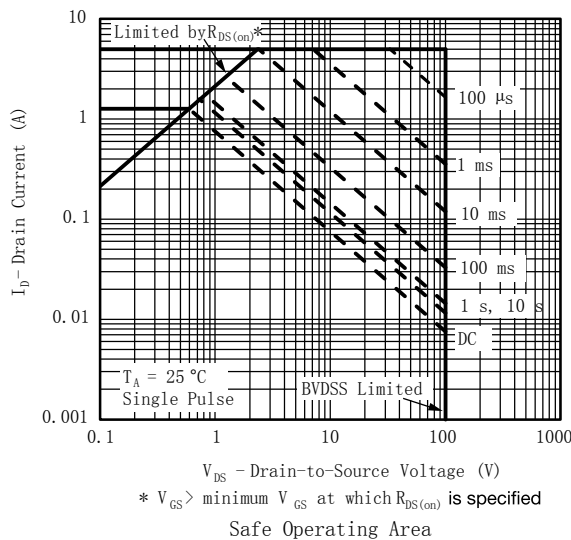
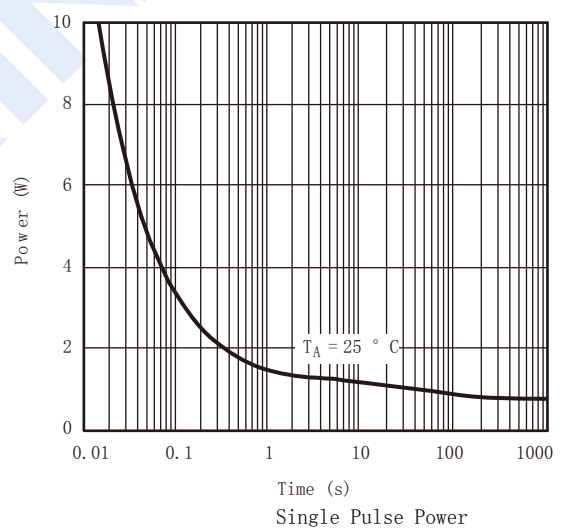
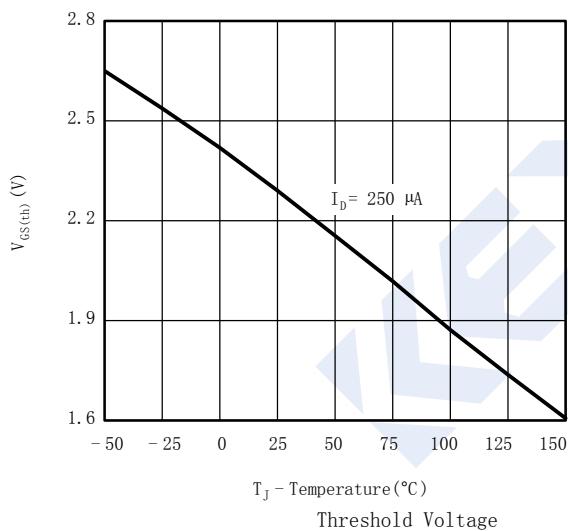
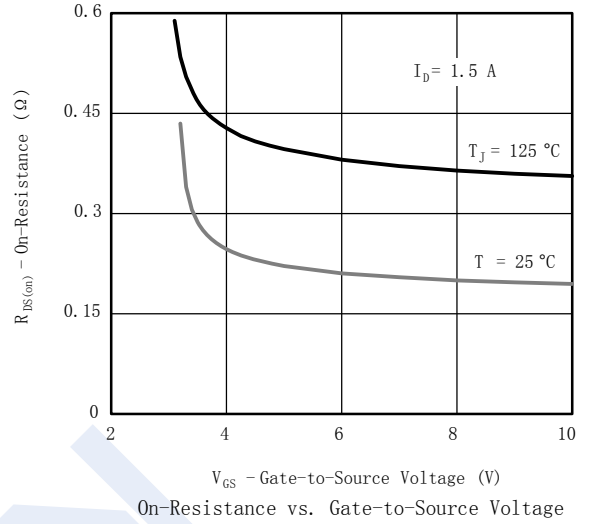
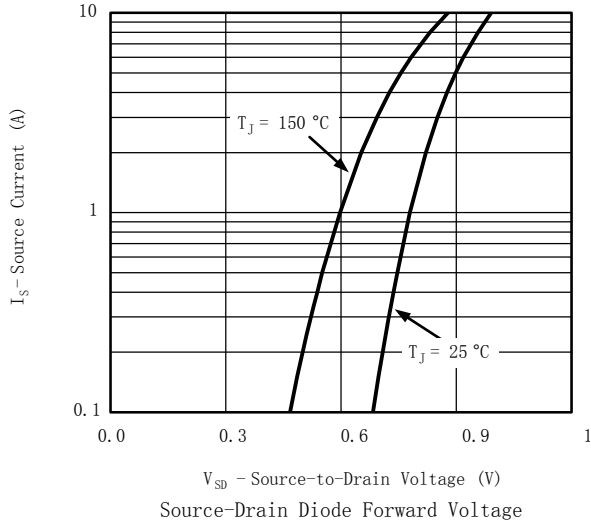
N-Channel MOSFET SI2324DS-HF (KI2324DS-HF)

■ Typical Characteristics



N-Channel MOSFET SI2324DS-HF (KI2324DS-HF)

■ Typical Characteristics

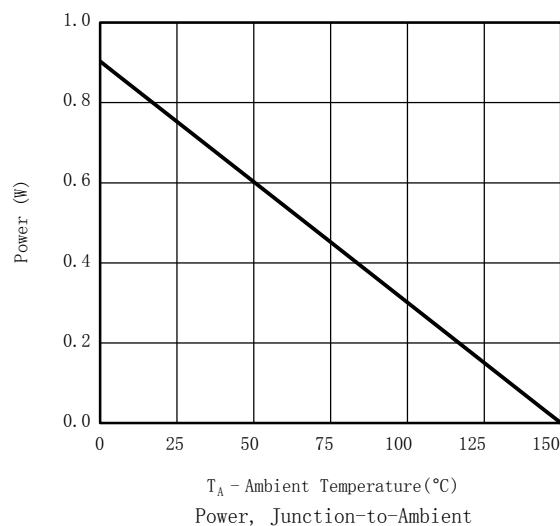
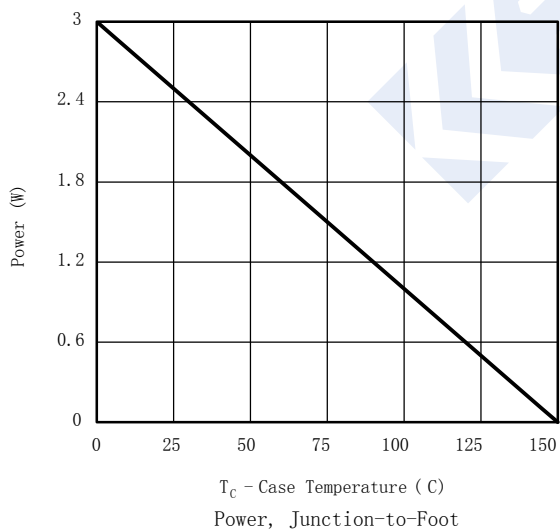
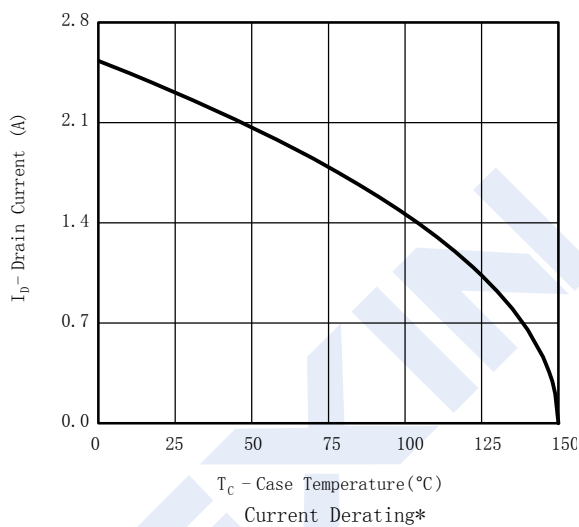


* $V_{GS} >$ minimum V_{GS} at which $R_{DS(on)}$ is specified
Safe Operating Area

N-Channel MOSFET

SI2324DS-HF (KI2324DS-HF)

■ Typical Characteristics



N-Channel MOSFET

SI2324DS-HF (KI2324DS-HF)

■ Typical Characteristics

