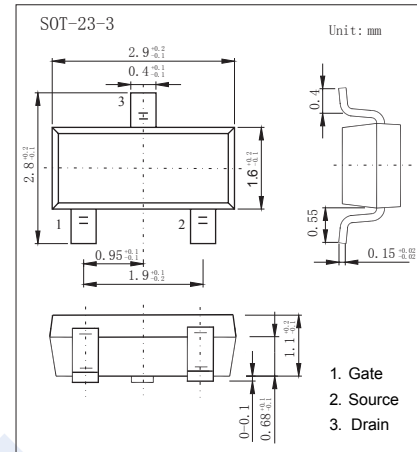
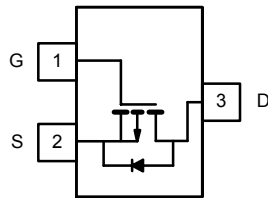


## P-Channel MOSFET

### SI2323DS-HF (KI2323DS-HF)

#### ■ Features

- $V_{DS} (V) = -20V$
- $I_D = -4.7A$  ( $V_{GS} = -4.5V$ )
- $R_{DS(ON)} < 39m\Omega$  ( $V_{GS} = -4.5V$ )
- $R_{DS(ON)} < 52m\Omega$  ( $V_{GS} = -2.5V$ )
- $R_{DS(ON)} < 68m\Omega$  ( $V_{GS} = -1.8V$ )
- 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	5 sec	Steady State	Unit
Drain-Source Voltage	$V_{DS}$	-20		V
Gate-Source Voltage	$V_{GS}$	$\pm 8$		
Continuous Drain Current	$I_D$	$T_a = 25^\circ C$	-4.7	A
		$T_a = 70^\circ C$	-3.8	
Pulsed Drain Current	$I_{DM}$	-20		
Power Dissipation	$P_D$	$T_a = 25^\circ C$	1.25	W
		$T_a = 70^\circ C$	0.8	
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		

## P-Channel MOSFET

### SI2323DS-HF (KI2323DS-HF)

#### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V <sub>DSS</sub>	I <sub>D</sub> =-250 μA, V <sub>GS</sub> =0V	-20			V
Zero Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> =-16V, V <sub>GS</sub> =0V			-1	μA
		V <sub>DS</sub> =-16V, V <sub>GS</sub> =0V, T <sub>J</sub> =55°C			-10	
Gate-Body leakage current	I <sub>GSS</sub>	V <sub>DS</sub> =0V, V <sub>GS</sub> =±8V			±100	nA
Gate Threshold Voltage	V <sub>GS(th)</sub>	V <sub>DS</sub> =V <sub>GS</sub> I <sub>D</sub> =-250 μA	-0.4		-1.0	V
Static Drain-Source On-Resistance	R <sub>DS(on)</sub>	V <sub>GS</sub> =-4.5V, I <sub>D</sub> =-4.7A			39	mΩ
		V <sub>GS</sub> =-2.5V, I <sub>D</sub> =-4.1A			52	
		V <sub>GS</sub> =-1.8V, I <sub>D</sub> =-2A			68	
On state drain current	I <sub>D(ON)</sub>	V <sub>GS</sub> =-4.5V, V <sub>DS</sub> =-5V	-20			A
Forward Transconductance	g <sub>FS</sub>	V <sub>DS</sub> =-5V, I <sub>D</sub> =-4.7A		16		S
Input Capacitance	C <sub>iss</sub>	V <sub>GS</sub> =0V, V <sub>DS</sub> =-10V, f=1MHz *1		1020		pF
Output Capacitance	C <sub>oss</sub>			191		
Reverse Transfer Capacitance	C <sub>rss</sub>			140		
Total Gate Charge	Q <sub>g</sub>	V <sub>GS</sub> =-4.5V, V <sub>DS</sub> =-10V, I <sub>D</sub> =-4.7A *1		12.5	19	nC
Gate Source Charge	Q <sub>gs</sub>			1.7		
Gate Drain Charge	Q <sub>gd</sub>			3.3		
Turn-On DelayTime	t <sub>d(on)</sub>	V <sub>GS</sub> =-4.5V, V <sub>DS</sub> =-10V, R <sub>L</sub> =10Ω, R <sub>GEN</sub> =6Ω  I <sub>D</sub> =-1.0A *1		25	40	ns
Turn-On Rise Time	t <sub>r</sub>			43	65	
Turn-Off DelayTime	t <sub>d(off)</sub>			71	110	
Turn-Off Fall Time	t <sub>f</sub>			48	75	
Maximum Body-Diode Continuous Current	I <sub>S</sub>	5 sec			-1.0	A
		Steady State			-0.6	
Diode Forward Voltage	V <sub>SD</sub>	I <sub>S</sub> =-1.0A, V <sub>GS</sub> =0V		-0.7	-1.2	V

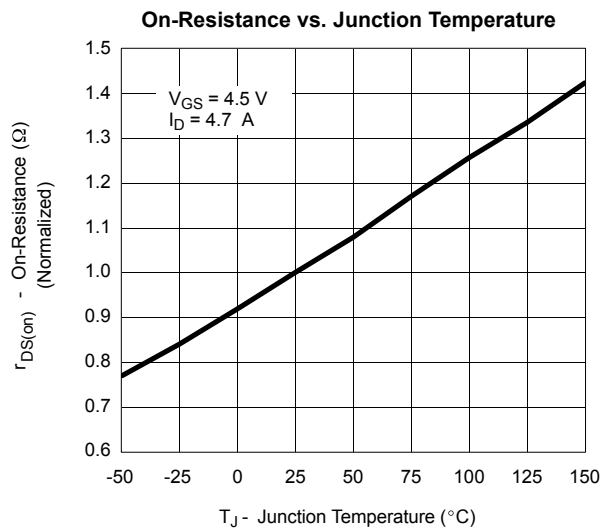
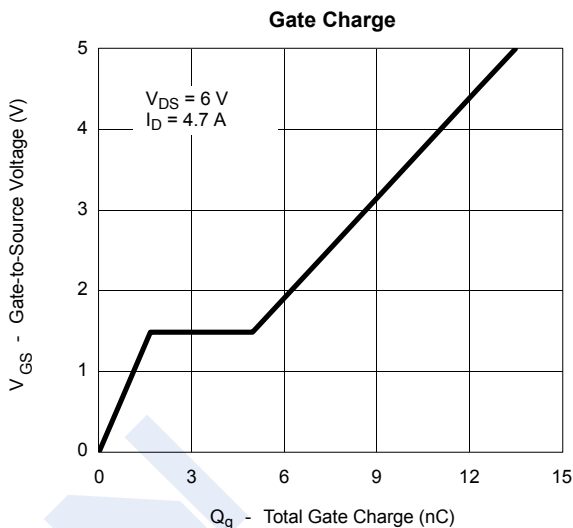
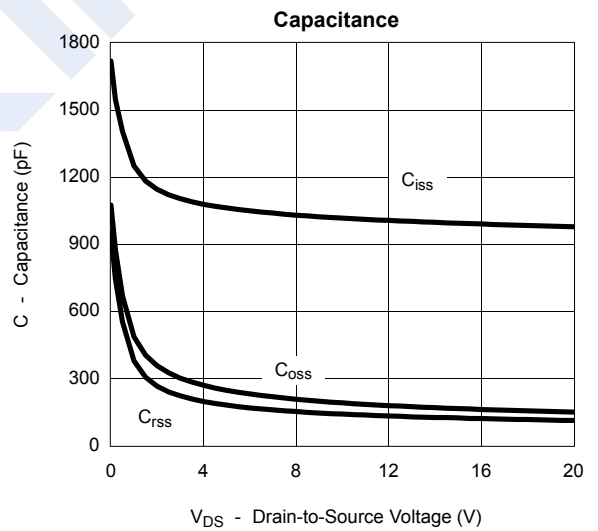
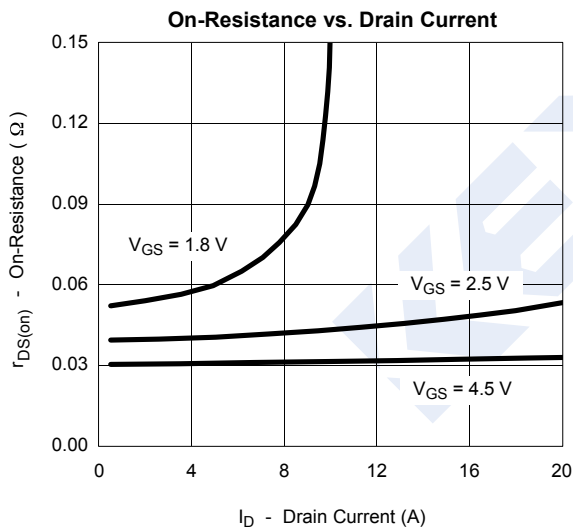
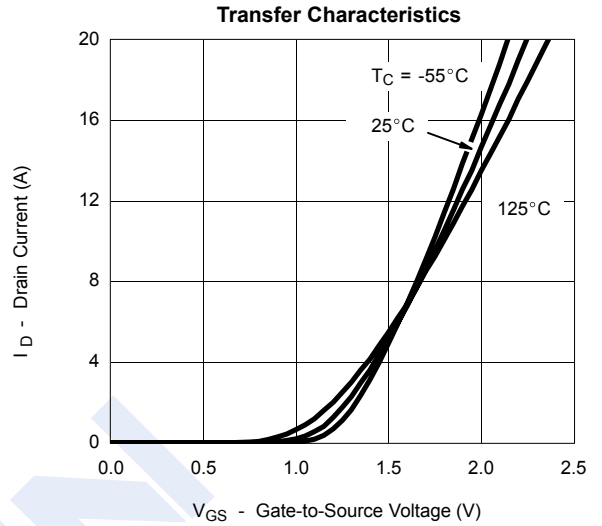
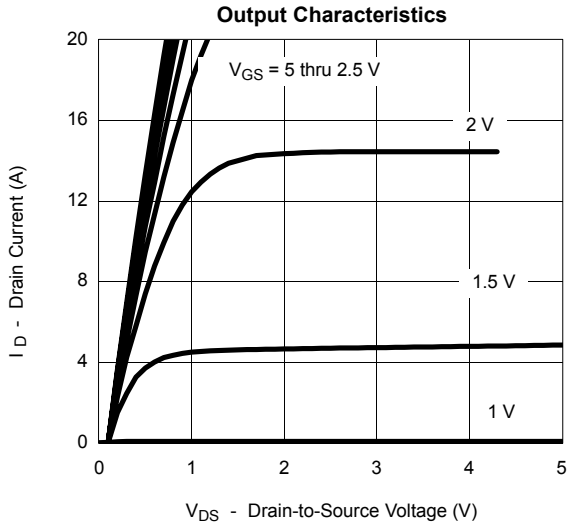
\*1Pulse test: PW ≤ 300us duty cycle ≤ 2%.

#### ■ Marking

Marking	D3* <sub>F</sub>
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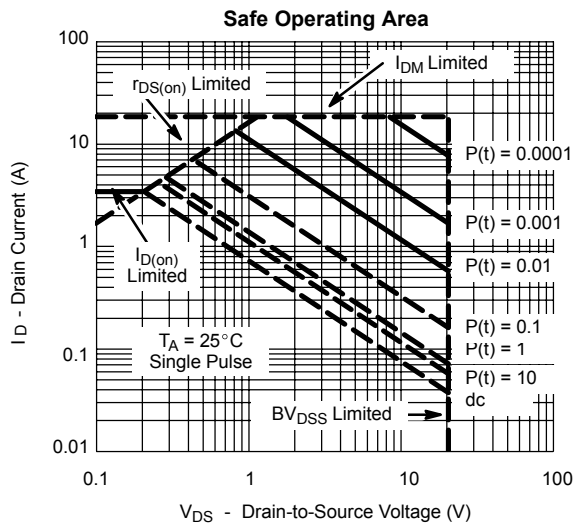
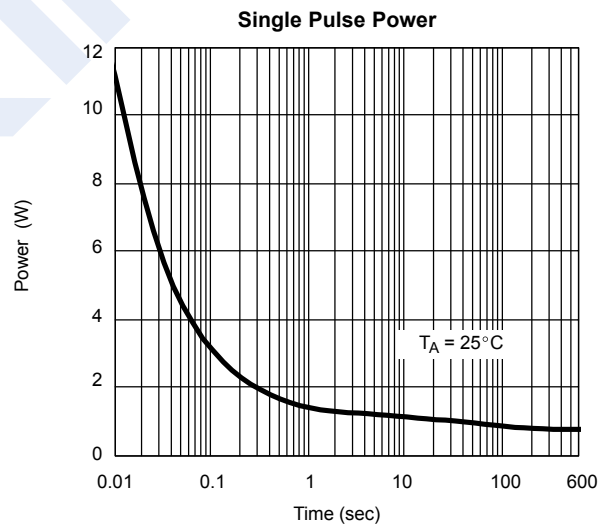
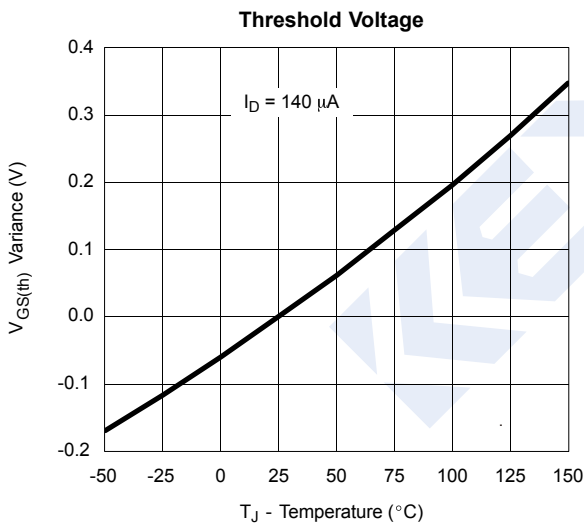
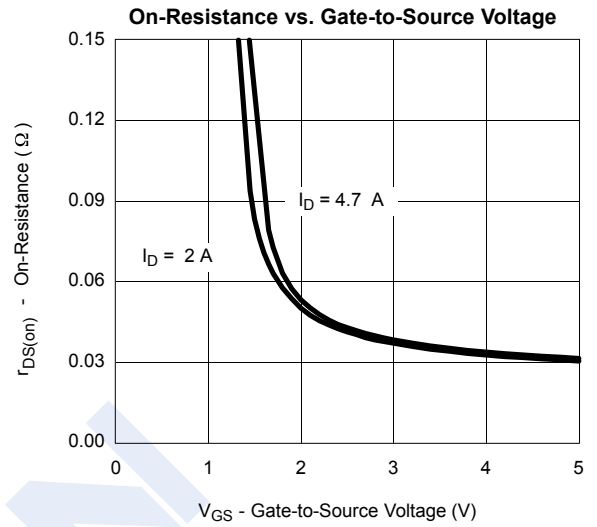
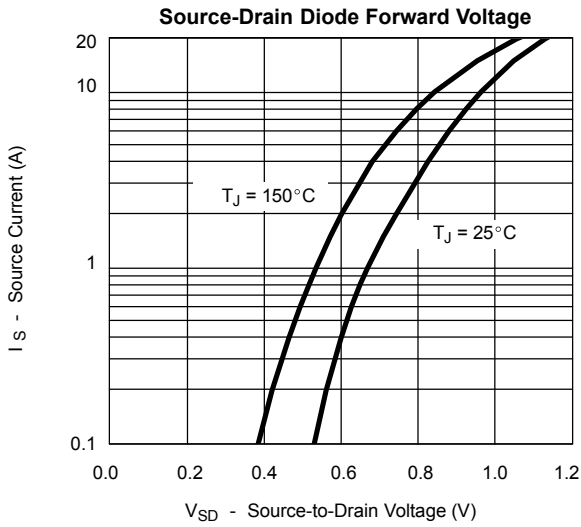
## P-Channel MOSFET SI2323DS-HF (KI2323DS-HF)

### Typical Characteristics



## P-Channel MOSFET SI2323DS-HF (KI2323DS-HF)

■ Typical Characteristics



## P-Channel MOSFET

### SI2323DS-HF (KI2323DS-HF)

#### ■ Typical Characteristics

