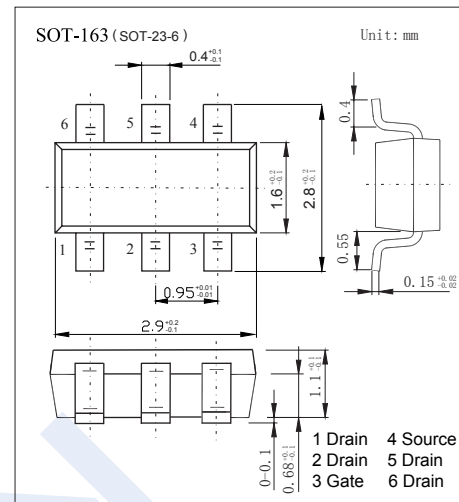
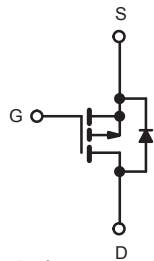


P-Channel MOSFET

SI3475DV-HF (K13475DV-HF)

Features

- $V_{DS} (V) = -200V$
- $I_D = -0.95 A$ ($V_{GS} = -10V$)
- $R_{DS(ON)} < 1.61 \Omega$ ($V_{GS} = -10V$)
- $R_{DS(ON)} < 1.65 \Omega$ ($V_{GS} = -6V$)
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish



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

Parameter	Symbol	Rating	Unit	
Drain-Source Voltage	V_{DS}	-200	V	
Gate-Source Voltage	V_{GS}	± 20		
Continuous Drain Current ($T_J = 150^\circ C$) (Note.1,2)	I_D	$T_c = 25^\circ C$	A	
		$T_c = 70^\circ C$		
		$T_a = 25^\circ C$		
		$T_a = 70^\circ C$		
Pulsed Drain Current	I_{DM}	-3		
Avalanche Current	$L = 0.1 \text{ mH}$	I_{AS}	3	
Single-Pulse Avalanche Energy		E_{AS}	0.45	mJ
Power Dissipation (Note.1,2)	P_D	$T_c = 25^\circ C$	W	
		$T_c = 70^\circ C$		
		$T_a = 25^\circ C$		
		$T_a = 70^\circ C$		
Thermal Resistance.Junction- to-Ambient	$t \leq 5 \text{ sec}$	R_{thJA}	62.5	$^\circ C/W$
Thermal Resistance.Junction- to-Foot	Steady State	R_{thJF}	39	
Junction Temperature		T_J	150	$^\circ C$
Junction Storage Temperature Range		T_{stg}	-55 to 150	

Note.1: Surface Mounted on 1" x 1" FR4 board.

Note.2: $t = 5 \text{ sec}$.

P-Channel MOSFET

SI3475DV-HF (KI3475DV-HF)

■ Electrical Characteristics Ta = 25°C

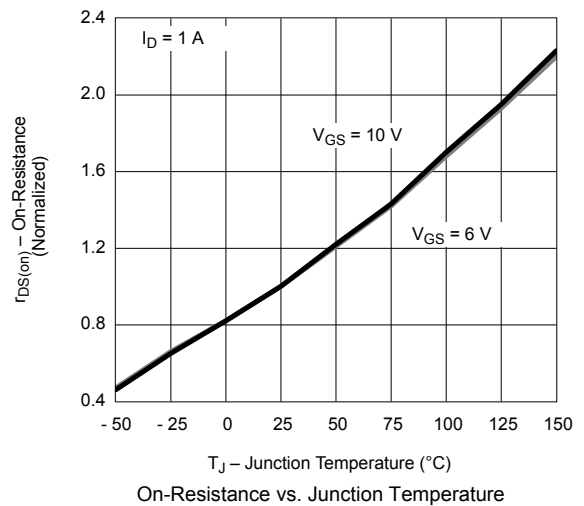
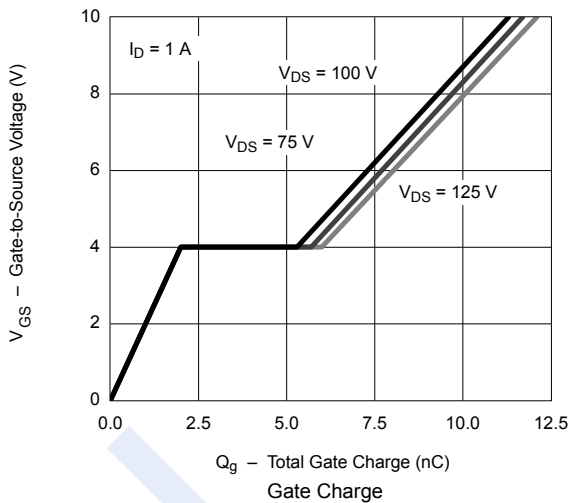
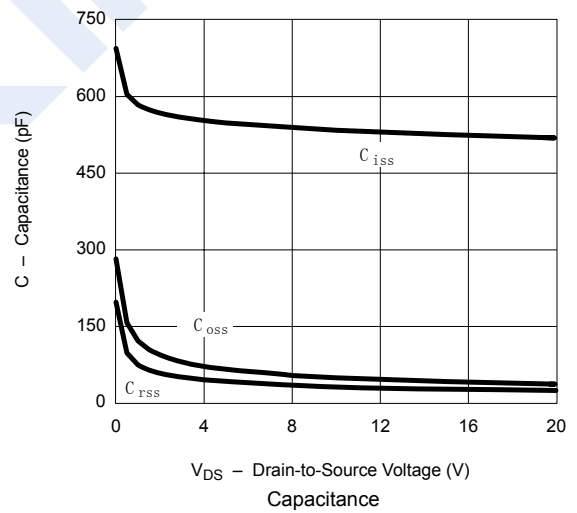
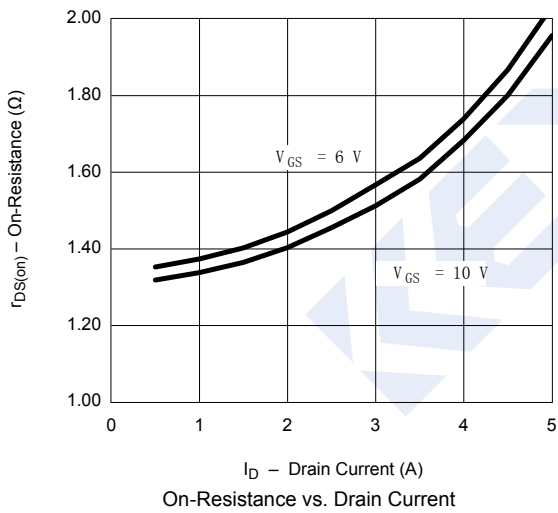
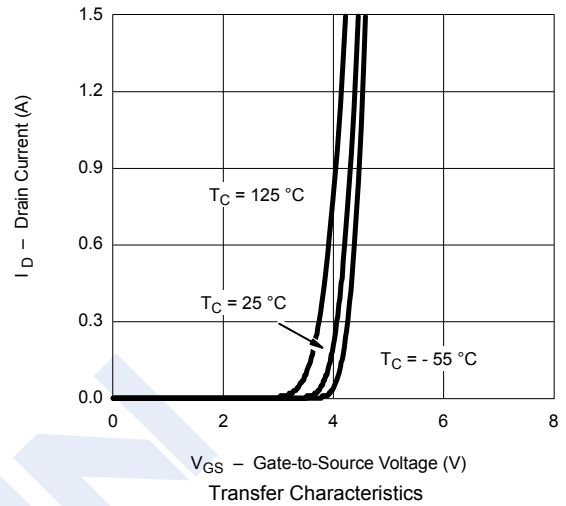
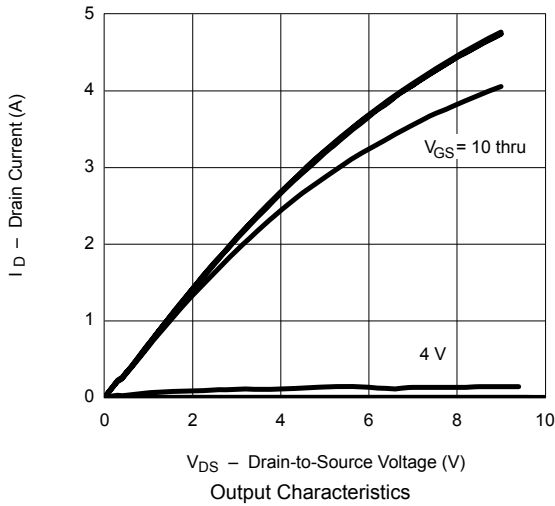
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit	
Drain-Source Breakdown Voltage	V _{DSS}	I _D =-250 μA, V _{GS} =0V	-200			V	
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-200V, V _{GS} =0V			-1	μA	
		V _{DS} =-200V, V _{GS} =0V, T _J =55°C			-10		
Gate-Body leakage current	I _{GSS}	V _{DS} =0V, V _{GS} =±20V			±100	nA	
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} I _D =-250 μA	-2		-4	V	
Static Drain-Source On-Resistance	R _{DS(on)}	V _{GS} =-10V, I _D =-0.9A			1.61	Ω	
		V _{GS} =-6V, I _D =-0.7A			1.65		
On state drain current	I _{D(ON)}	V _{GS} =-10V, V _{DS} ≥-10V	-2			A	
Forward Transconductance	g _{FS}	V _{DS} =-10V, I _D =-0.9A		3.5		S	
Input Capacitance	C _{iss}	V _{GS} =0V, V _{DS} =-50V, f=1MHz		500		pF	
Output Capacitance	C _{oss}			26			
Reverse Transfer Capacitance	C _{rss}			18			
Gate resistance	R _g		f=1MHz		9		14
Total Gate Charge	Q _g	V _{GS} =-10V, V _{DS} =-100V, I _D =-1A		11.7	18	nC	
		V _{GS} =-6V, V _{DS} =-100V, I _D =-1A		7.8	12		
Gate Source Charge	Q _{gs}	V _{GS} =-6V, V _{DS} =-100V, I _D =-1A		2			
Gate Drain Charge	Q _{gd}	V _{GS} =-6V, V _{DS} =-100V, I _D =-1A		3.7			
Turn-On DelayTime	t _{d(on)}	V _{DD} = - 100 V, R _L = 100 Ω I _D = - 1 A, V _{GEN} = - 10 V, R _g = 1 Ω		9	14	ns	
Turn-On Rise Time	t _r			11	18		
Turn-Off DelayTime	t _{d(off)}			28	42		
Turn-Off Fall Time	t _f			12	18		
Turn-On DelayTime	t _{d(on)}		V _{DD} = - 100 V, R _L = 100 Ω I _D = - 1 A, V _{GEN} = - 6 V, R _g = 1 Ω		14		21
Turn-On Rise Time	t _r				29		44
Turn-Off DelayTime	t _{d(off)}				23		35
Turn-Off Fall Time	t _f				14		21
Body Diode Reverse Recovery Time	t _{rr}	I _F =-1.2A, di/dt=100A/μs, T _J = 25°C		84	130	nC	
Body Diode Reverse Recovery Charge	Q _{rr}			235	350		
Reverse Recovery Fall Time	t _a			46			nS
Reverse Recovery Rise Time	t _b			38			
Maximum Body-Diode Continuous Current	I _S		T _C = 25 °C				-0.95
Pulse Diode Forward Current	I _{SM}				-3		
Diode Forward Voltage	V _{SD}	I _S =-1A, V _{GS} =0V			-1.2	V	

■ Marking

Marking	AI*** F
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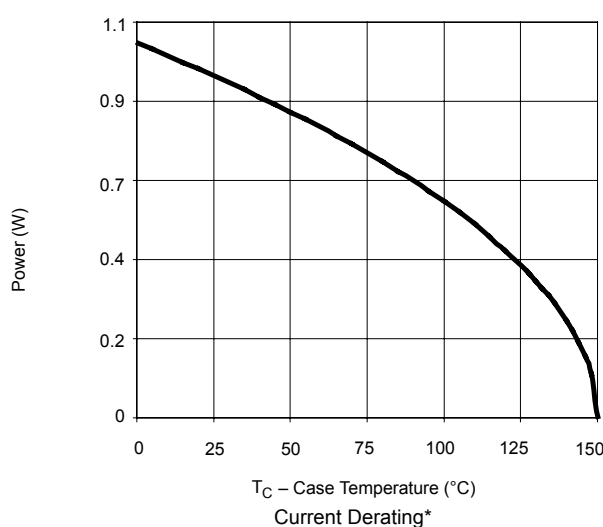
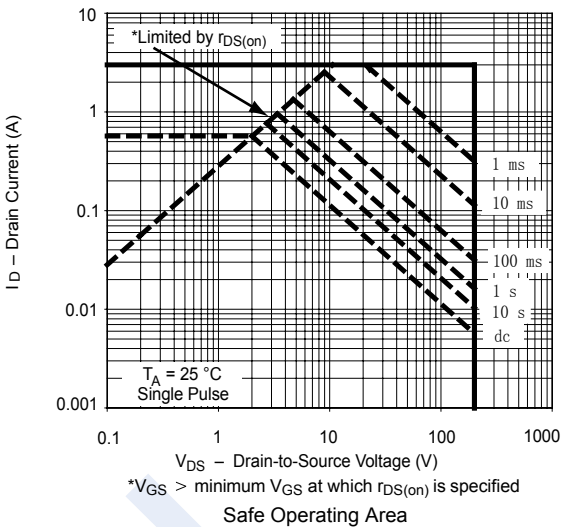
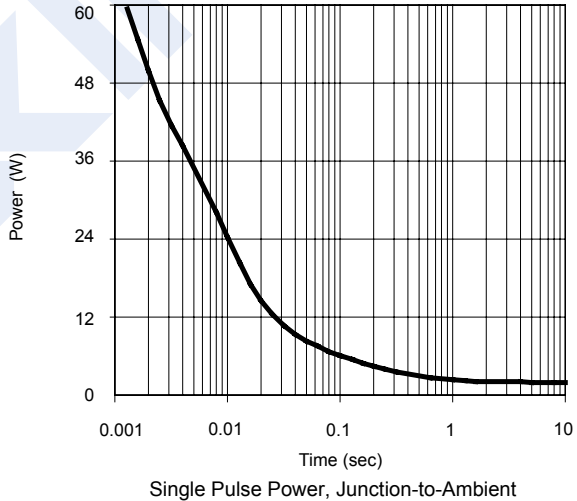
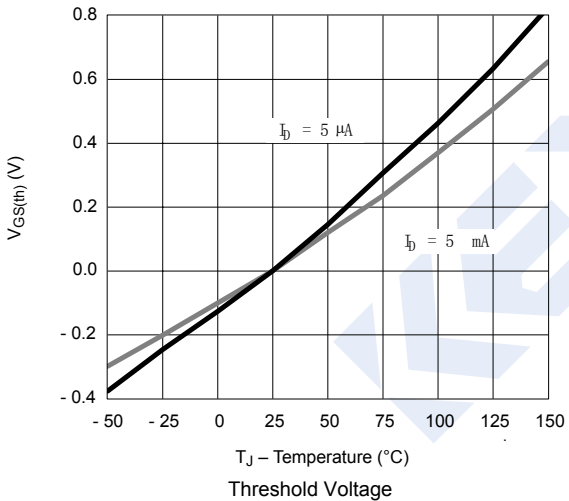
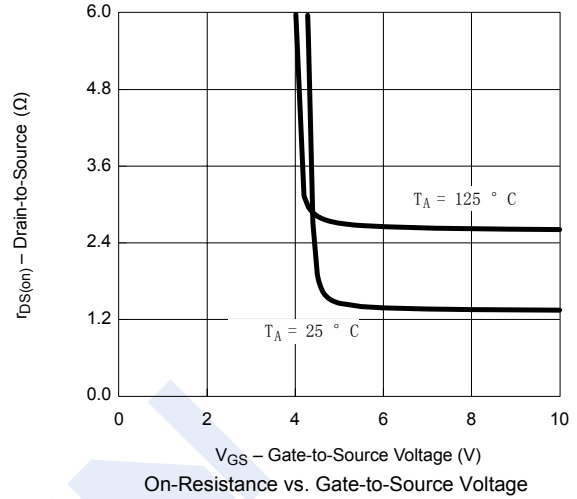
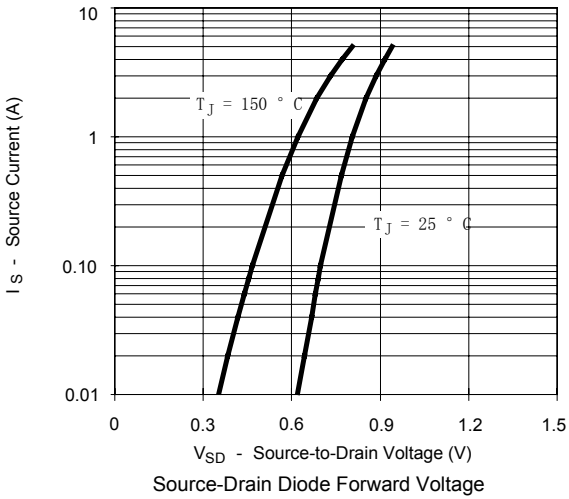
P-Channel MOSFET SI3475DV-HF (KI3475DV-HF)

■ Typical Characteristics



P-Channel MOSFET SI3475DV-HF (KI3475DV-HF)

■ Typical Characteristics



P-Channel MOSFET SI3475DV-HF (KI3475DV-HF)

■ Typical Characteristics

