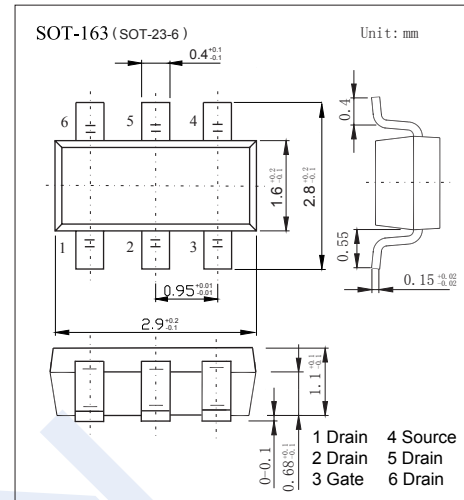
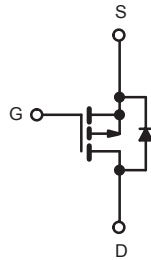


## P-Channel MOSFET

### SI3475DV (KI3475DV)

#### ■ Features

- $V_{DS} (V) = -200V$
- $I_D = -0.95 A (V_{GS} = -10V)$
- $R_{DS(ON)} < 1.61 \Omega (V_{GS} = -10V)$
- $R_{DS(ON)} < 1.65 \Omega (V_{GS} = -6V)$



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

Parameter	Symbol	Rating	Unit	
Drain-Source Voltage	$V_{DS}$	-200	V	
Gate-Source Voltage	$V_{GS}$	$\pm 20$		
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 (KI3475DV)

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

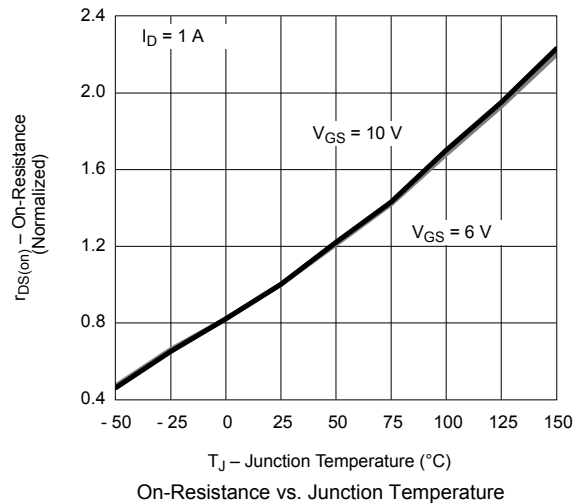
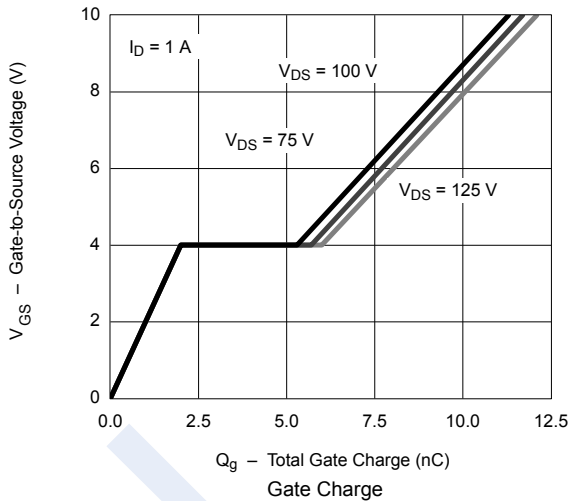
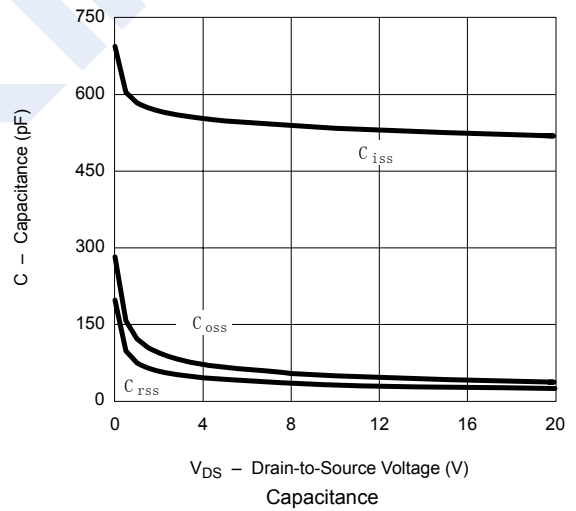
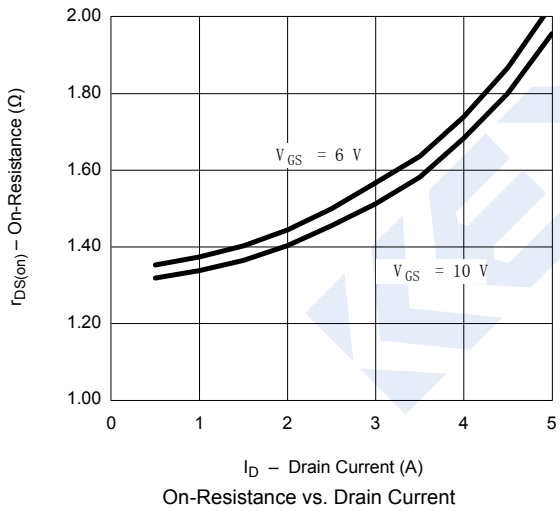
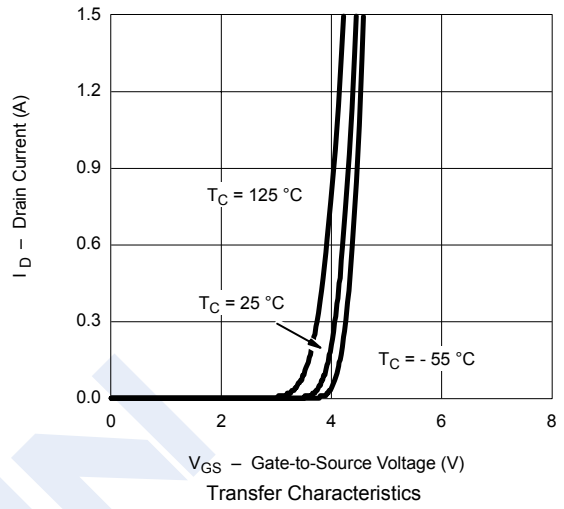
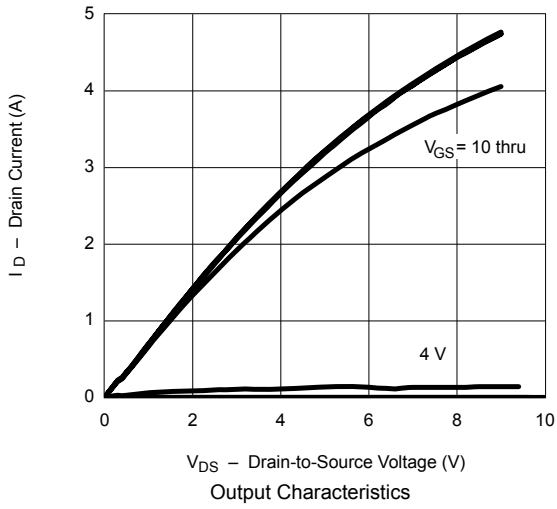
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit	
Drain-Source Breakdown Voltage	V <sub>DSS</sub>	I <sub>D</sub> =-250 μA, V <sub>GS</sub> =0V	-200			V	
Zero Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> =-200V, V <sub>GS</sub> =0V			-1	μA	
		V <sub>DS</sub> =-200V, V <sub>GS</sub> =0V,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

#### ■ Marking

Marking	AI***
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## P-Channel MOSFET SI3475DV (KI3475DV)

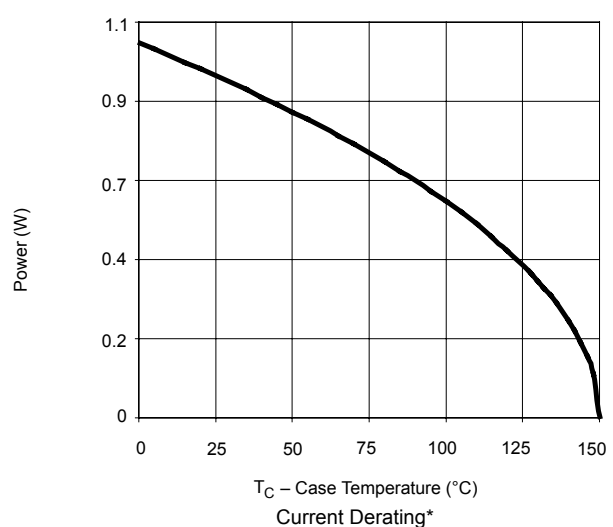
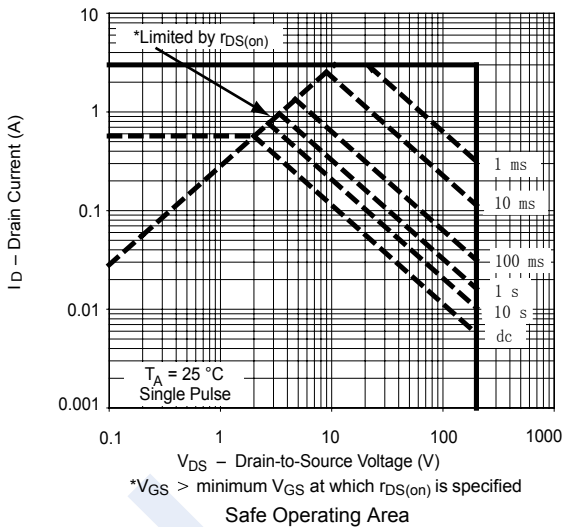
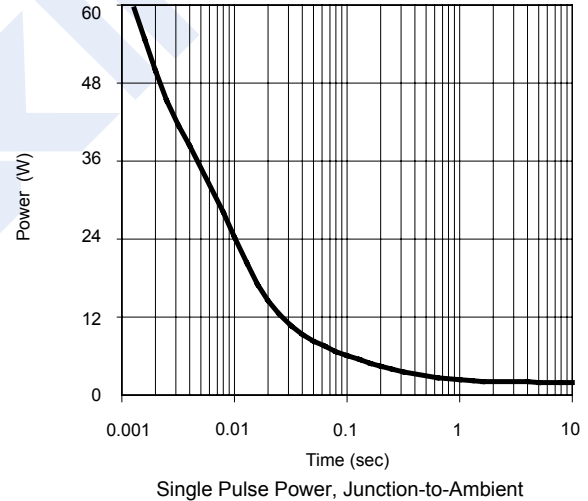
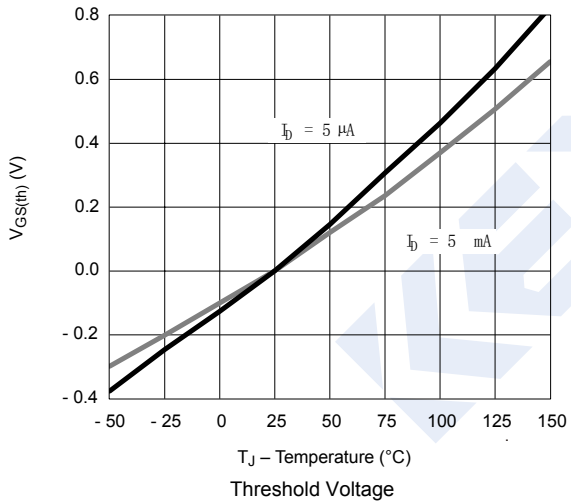
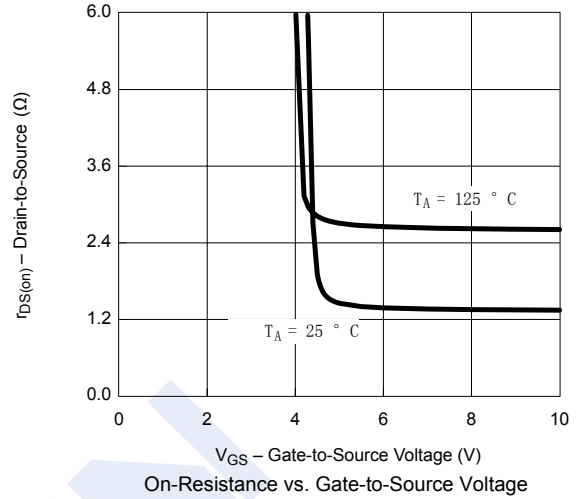
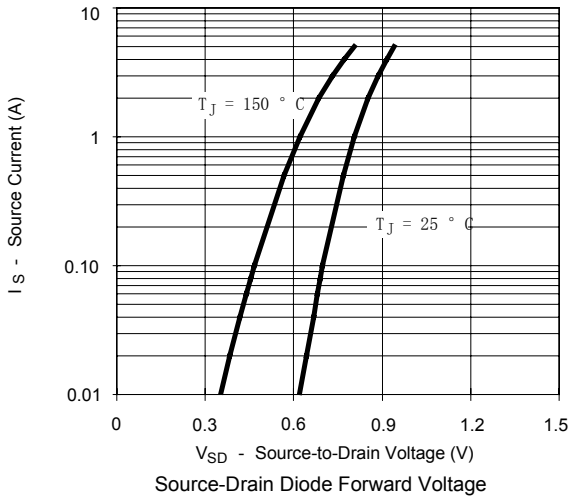
### Typical Characteristics



# P-Channel MOSFET

## SI3475DV (KI3475DV)

■ Typical Characteristics



## P-Channel MOSFET SI3475DV (KI3475DV)

■ Typical Characteristics

