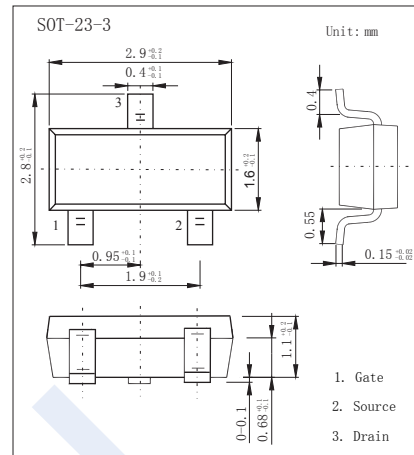
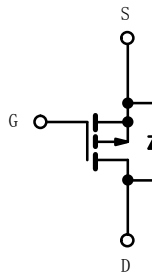
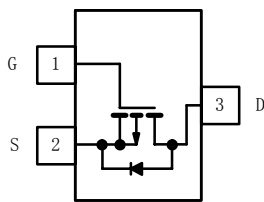


P-Channel Enhancement MOSFET

SI2337DS (KI2337DS)

■ Features

- $V_{DS(V)} = -80V$
- $I_D = -2.2A$ ($V_{GS} = -10V$)
- $R_{DS(ON)} < 270m\Omega$ ($V_{GS} = -10V$)
- $R_{DS(ON)} < 303m\Omega$ ($V_{GS} = -6V$)



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

Parameter	Symbol	5 sec	Steady State	Unit	
Drain-Source Voltage	V_{DS}	-80		V	
Gate-Source Voltage	V_{GS}	± 20			
Continuous Drain Current ($T_J = 150^\circ C$) *1	I_D	$T_a = 25^\circ C$	-2.2	-1.2	A
		$T_a = 70^\circ C$	-1.75	-0.96	
Pulsed Drain Current	I_{DM}	-7			
Avalanche Current	I_{AS}	L=0.1mH	11		
Single-Pulse Avalanche Energy			E_{AS}	6	
Power Dissipation	P_D	$T_a = 25^\circ C$	2.5	0.76	W
		$T_a = 70^\circ C$	1.6	0.48	
Thermal Resistance.Junction- to-Ambient	$t \leq 10$ sec	R_{thJA}	166		$^\circ C/W$
Thermal Resistance.Junction- to-Foot	steady State	R_{thJF}	50		
Junction Temperature	T_J	150		$^\circ C$	
Storage Temperature Range	T_{stg}	-55 to 150			
Soldering Recommendations (Peak Temperature)		260			

*1 Surface Mounted on 1" x 1" FR4 Board.

P-Channel Enhancement MOSFET

SI2337DS (KI2337DS)

■ 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	-80			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-80V, V _{GS} =0V			-1	μA
		V _{DS} =-80V, 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 *1	R _{DS(on)}	V _{GS} =-10V, I _D =-1.2A		216	270	mΩ
		V _{GS} =-6V, I _D =-1.1A		242	303	
On state drain current *1	I _{D(ON)}	V _{GS} =-10V, V _{DS} =-5V	-7			A
Forward Transconductance *1	g _{FS}	V _{DS} =-15V, I _D =-1.2A		4.3		S
Input Capacitance	C _{iss}	V _{GS} =0V, V _{DS} =-40V, f=1MHz		500		pF
Output Capacitance	C _{oss}			40		
Reverse Transfer Capacitance	C _{rss}			25		
Total Gate Charge	Q _g	V _{GS} =-10V, V _{DS} =-40V, I _D =-1.2A		11	17	nC
				7	11	
Gate Source Charge	Q _{gs}	V _{GS} =-6V, V _{DS} =-40V, I _D =-1.2A		2.1		
Gate Drain Charge	Q _{gd}			3.2		
Gate Resistance	R _g	f=1MHz		4.8		Ω
Turn-On DelayTime	t _{d(on)}	V _{GS} =-10V, V _{DS} =-40V, R _L =42 Ω, R _{GEN} =1 Ω I _D =-0.96A		10	15	ns
Turn-On Rise Time	t _r			15	23	
Turn-Off DelayTime	t _{d(off)}			20	30	
Turn-Off Fall Time	t _f			15	23	
Turn-On DelayTime	t _{d(on)}	V _{GS} =-6V, V _{DS} =-40V, R _L =42 Ω, R _{GEN} =1 Ω I _D =-0.96A		15	23	
Turn-On Rise Time	t _r			18	27	
Turn-Off DelayTime	t _{d(off)}			20	30	
Turn-Off Fall Time	t _f			12	18	
Body Diode Reverse Recovery Time	t _{rr}	I _F = 0.63 A, di/dt = 100 A/μs, T _J = 25 °C		30	45	nC
Body Diode Reverse Recovery Charge	Q _{rr}			45	70	
Reverse Recovery Fall Time	t _a			25		ns
Reverse Recovery Rise Time	t _b			5		
Maximum Body-Diode Continuous Current	I _S	T _C = 25 °C			-2.1	A
Pulse Diode Forward Current *1	I _{SM}				-7	
Diode Forward Voltage	V _{SD}	I _S =-0.63A		-0.8	-1.2	V

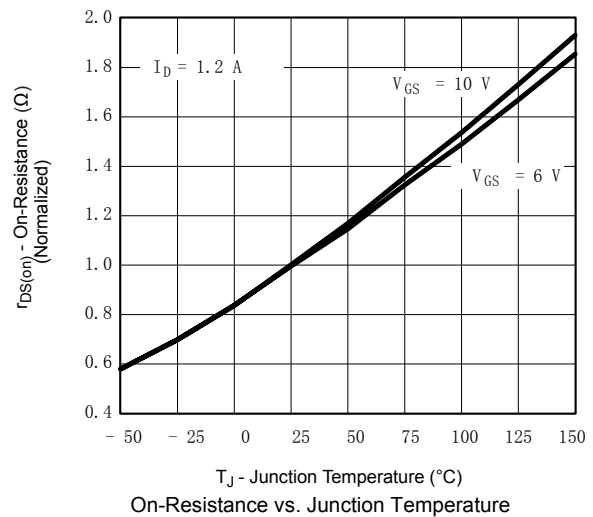
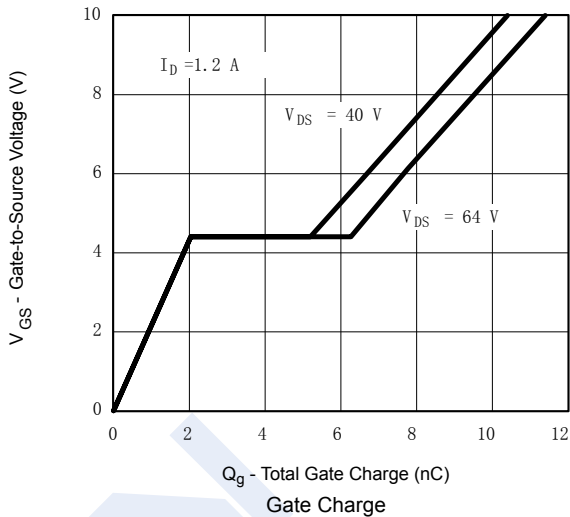
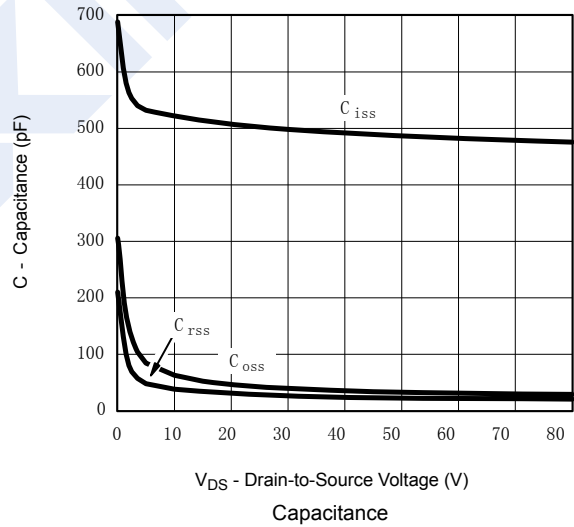
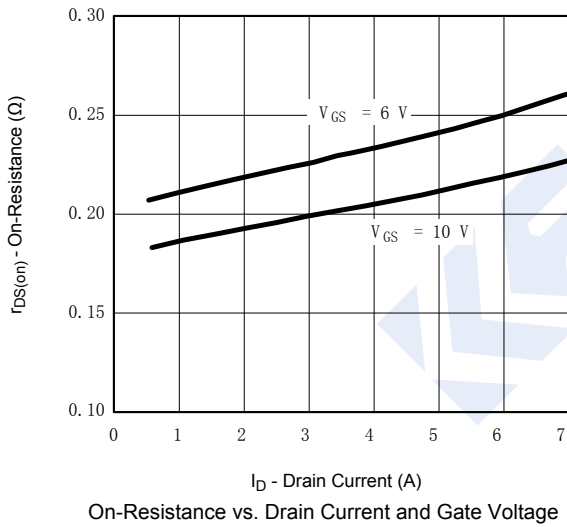
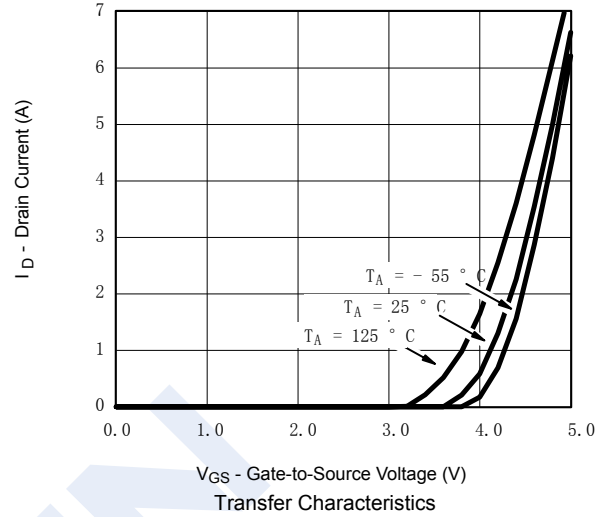
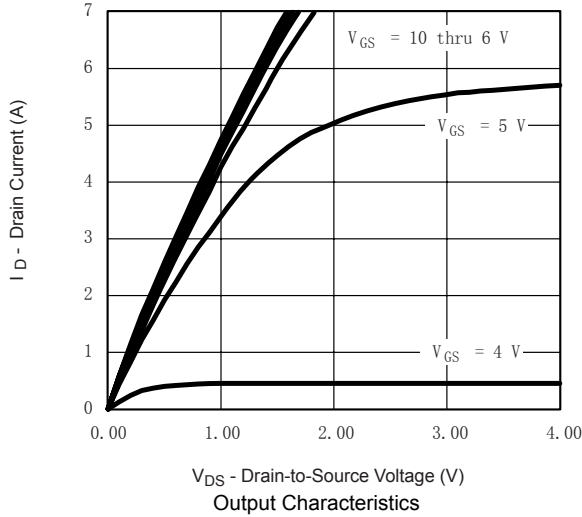
*1Pulse test: PW ≤ 300us duty cycle ≤ 2%.

■ Marking

Marking	E7*
---------	-----

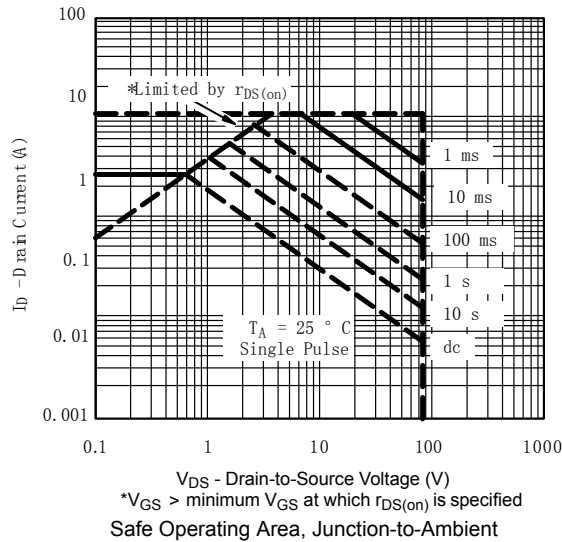
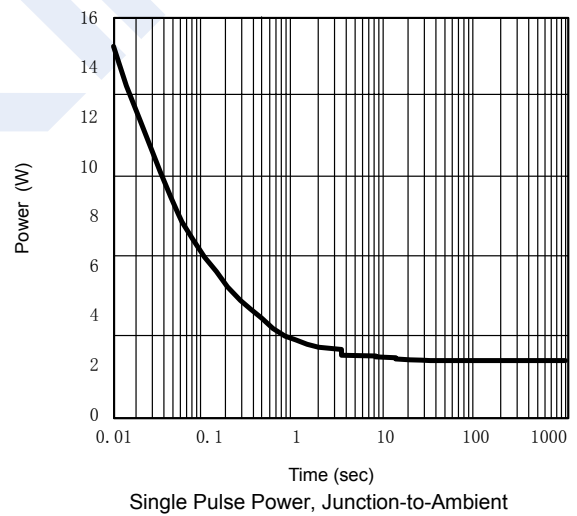
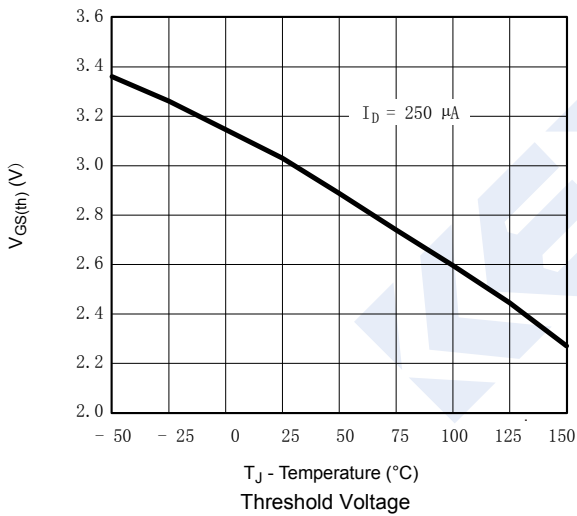
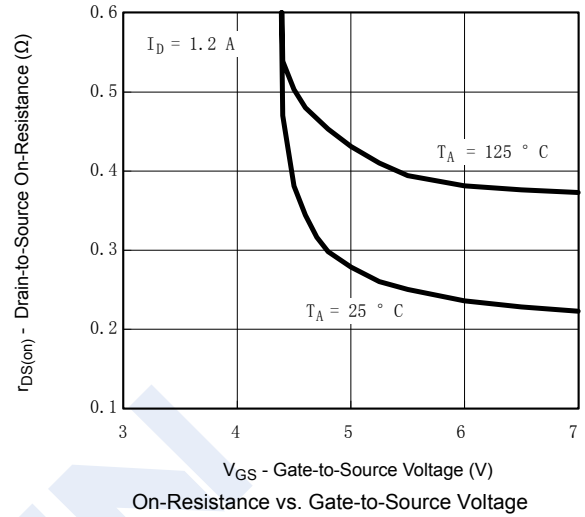
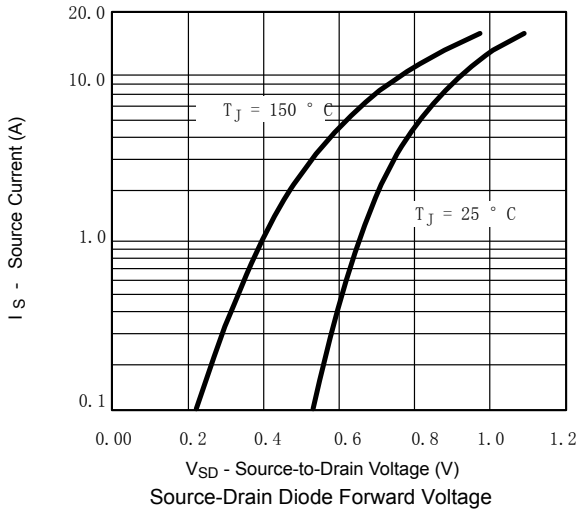
P-Channel Enhancement MOSFET SI2337DS (KI2337DS)

■ Typical Characteristics



P-Channel Enhancement MOSFET SI2337DS (KI2337DS)

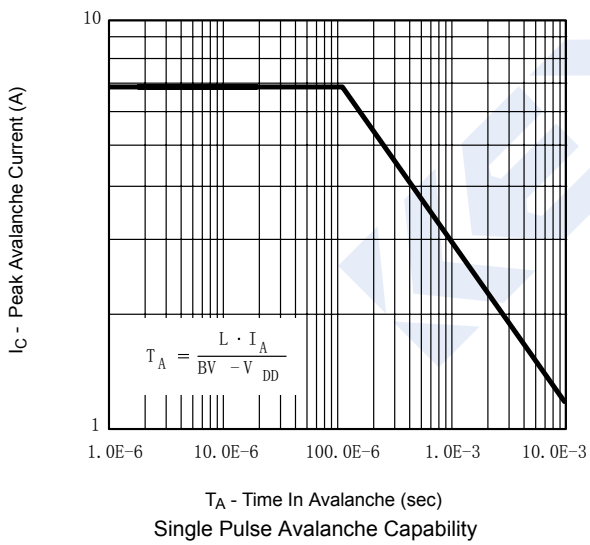
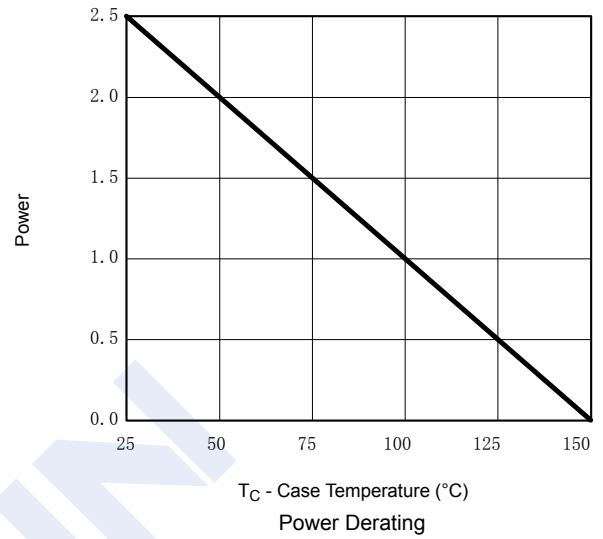
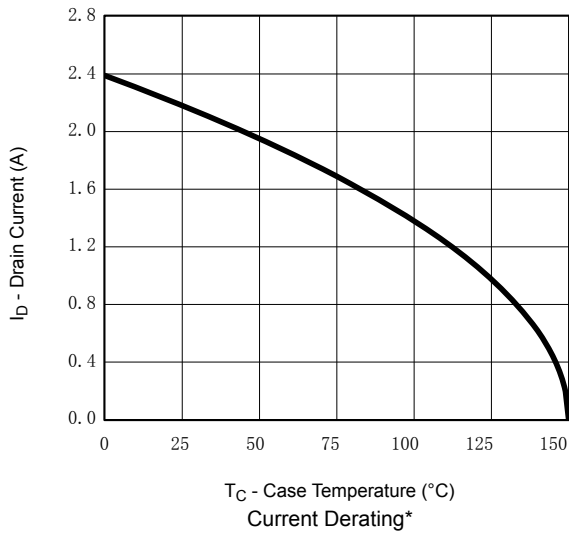
■ Typical Characteristics



P-Channel Enhancement MOSFET

SI2337DS (KI2337DS)

■ Typical Characteristics



P-Channel Enhancement MOSFET SI2337DS (KI2337DS)

■ Typical Characteristics

