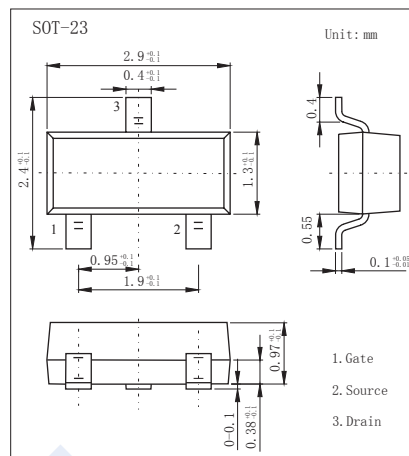
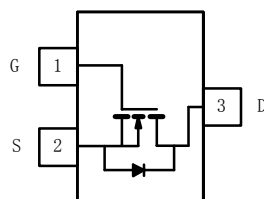


N-Channel Enhancement MOSFET

SI2328DS (K12328DS)

■ Features

- $V_{DS} (V) = 100V$
- $I_D = 1.5 A$ ($V_{GS} = 10V$)
- $R_{DS(ON)} < 250m\Omega$ ($V_{GS} = 4.5V$)

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

Parameter		Symbol	5 sec	Steady State	Unit
Drain-Source Voltage		V _{DS}	100		V
Gate-Source Voltage		V _{GS}	±20		
Continuous Drain Current *1	Ta=25℃	I _D	1.5	1.15	A
	Ta=70℃		1.2	0.92	
Pulsed Drain Current *2		I _{DM}	6		
Avalanche Current *2	L=0.1mH	I _{AS}	6		
Single Avalanche Energy		E _{AS}	1.8		mJ
Power Dissipation *1	Ta=25℃	P _D	1.25	0.73	W
	Ta=70℃		0.8	0.47	
Thermal Resistance.Junction- to-Ambient *1 t≤5 sec Steady State		R _{thJA}	100		℃/W
			170		
Thermal Resistance.Junction-to-Foot		R _{thJF}	55		℃
Junction Temperature		T _J	150		
Storage Temperature Range		T _{stg}	-55 to 150		

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

*2 Pulse width limited by maximum junction temperature

N-Channel Enhancement MOSFET

SI2328DS (KI2328DS)

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V _{DSS}	I _D =1mA, 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, Ta=70°C			75	
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
On-State Drain Current *1	I _{D(on)}	V _{DS} ≥ 15 V, V _{GS} = 10 V	6			A
Static Drain-Source On-Resistance *1	R _{DS(on)}	V _{GS} =10V, I _D =1.5A		195	250	mΩ
Forward Transconductance *1	g _{FS}	V _{DS} =15V, I _D =1.5A		4		S
Gate Resistance	R _g		0.5		2.4	Ω
Total Gate Charge	Q _g	V _{GS} =10V, V _{DS} =50V, I _D =1.5A		3.3	4	nC
Gate Source Charge	Q _{gs}			0.47		
Gate Drain Charge	Q _{gd}			1.45		
Turn-On DelayTime	t _{d(on)}	I _D =0.2A, V _{DS} =50V, V _{GEN} =10V R _L =33Ω, R _G =6Ω		7	11	ns
Turn-On Rise Time	t _r			11	17	
Turn-Off DelayTime	t _{d(off)}			9	15	
Turn-Off Fall Time	t _f			10	15	
Body Diode Reverse Recovery Time	t _{rr}	I _F = 1.5A, dI/dt= 100A/μs		50	100	
Maximum Body-Diode Continuous Current	I _S				1.0	A
Diode Forward Voltage	V _{SD}	I _S =1.0A, V _{GS} =0V		0.8	1.2	V

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

■ Marking

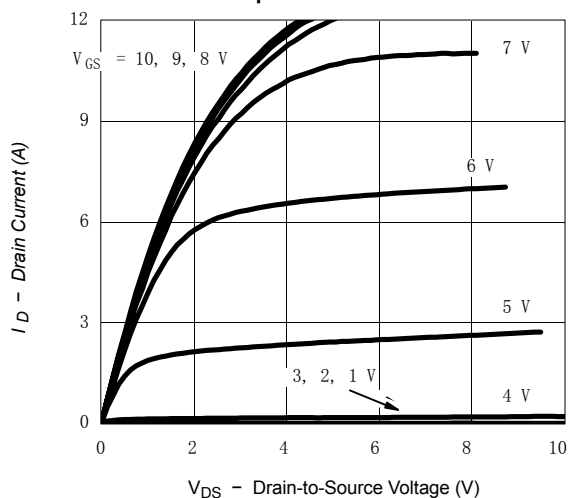
Marking	D8*
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N-Channel Enhancement MOSFET

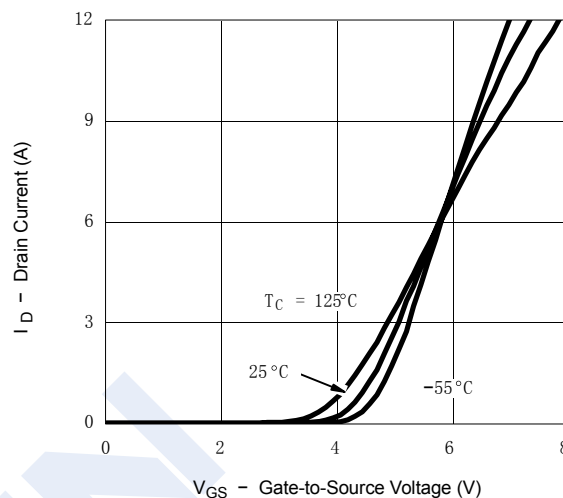
SI2328DS (K12328DS)

■ Typical Characteristics

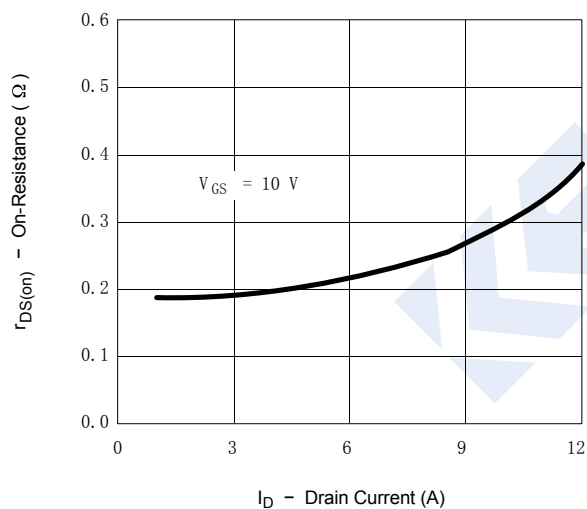
Output Characteristics



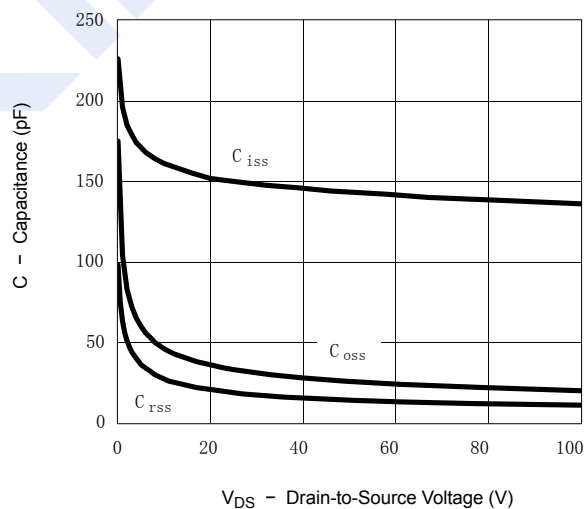
Transfer Characteristics



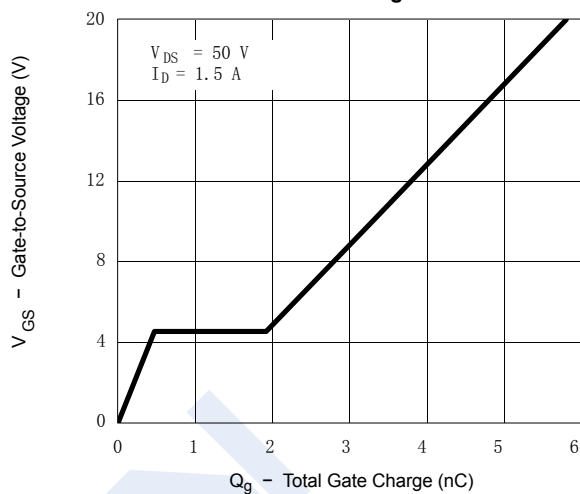
On-Resistance vs. Drain Current



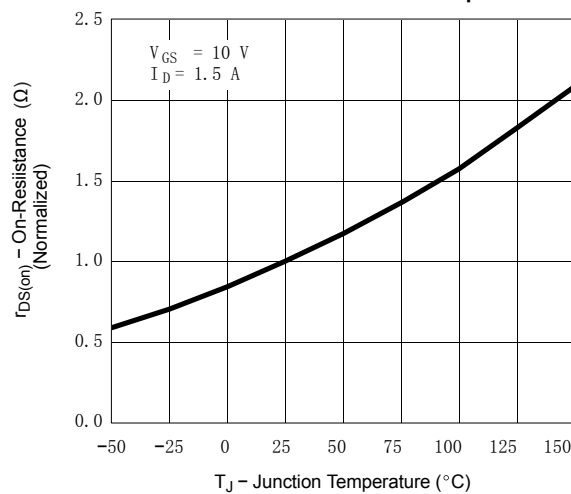
Capacitance



Gate Charge



On-Resistance vs. Junction Temperature

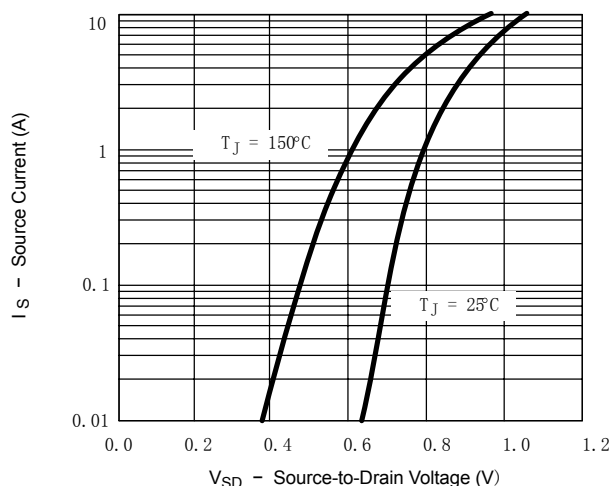


N-Channel Enhancement MOSFET

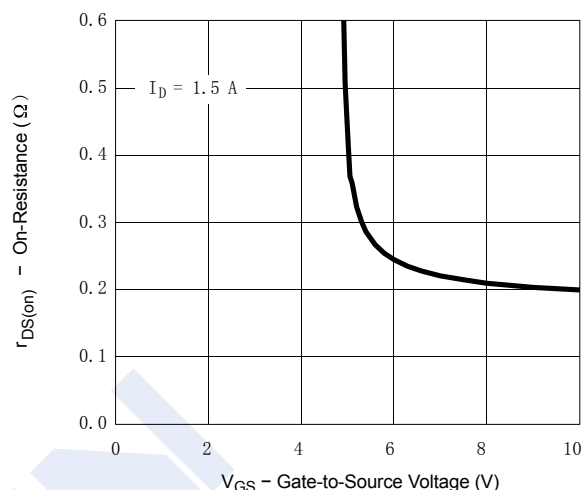
SI2328DS (KI2328DS)

■ Typical Characteristics

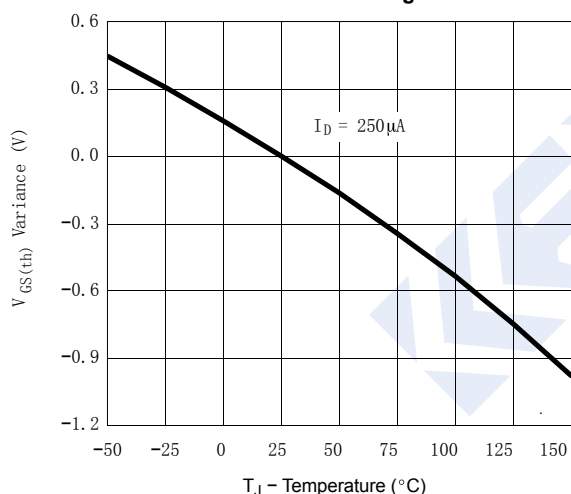
Source-Drain Diode Forward Voltage



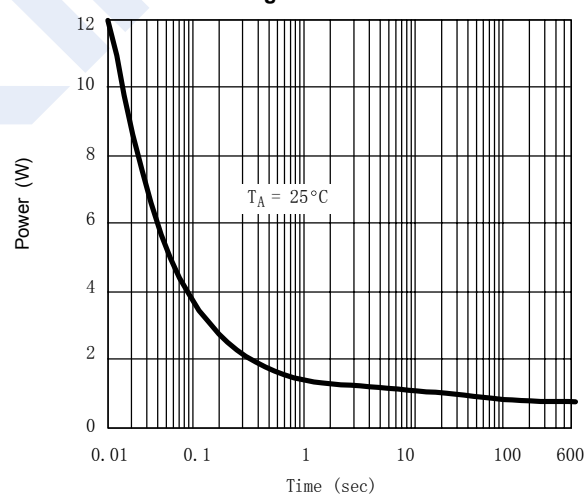
On-Resistance vs. Gate-to-Source Voltage



Threshold Voltage



Single Pulse Power



Normalized Thermal Transient Impedance, Junction-to-Ambient

