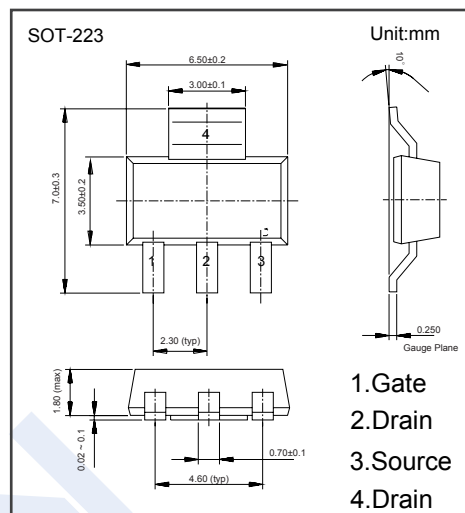
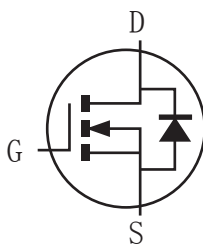


N-Channel MOSFET

ZXMN10A08G (KXMN10A08G)

■ Features

- $V_{DS} (V) = 100V$
- $I_D = 2.9 A$ ($V_{GS} = 10V$)
- $R_{DS(ON)} < 250m\Omega$ ($V_{GS} = 10V$)
- $R_{DS(ON)} < 300m\Omega$ ($V_{GS} = 6V$)



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

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	100	V
Gate-Source Voltage		V_{GS}	± 20	
Continuous Drain Current @ $V_{GS} = 10V$	$T_A = 25^\circ C$ (Note.1)	I_D	2.9	A
	$T_A = 70^\circ C$ (Note.1)		2.3	
	$T_A = 25^\circ C$ (Note.2)		2	
Pulsed Drain Current		I_{DM}	11	
Power Dissipation	$T_A = 25^\circ C$ (Note.2)	P_D	2	W
	$T_A = 25^\circ C$ (Note.1)		3.9	mW/ $^\circ C$
Linear derating factor			16	W
Linear derating factor			31	mW/ $^\circ C$
Thermal Resistance.Junction- to-Ambient	(Note.2)	R_{thJA}	62.5	$^\circ C/W$
	(Note.1)		32	
Junction Temperature		T_J	150	$^\circ C$
Storage Temperature Range		T_{stg}	-55 to 150	

Note.1: For a device surface mounted on FR4 PCB measured at $t \leq 10$ sec.

Note.2: For a device surface mounted on 25mm x 25mm FR4 PCB with high coverage of single sided 1oz
in still air conditions.

N-Channel MOSFET

ZXMN10A08G (KXMN10A08G)

■ 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	100			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =100V, V _{GS} =0V			0.5	μA
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 =3.2A (Note.1)			250	mΩ
		V _{GS} =6V, I _D =2.6A (Note.1)			300	
Forward Transconductance	g _{FS}	V _{DS} =15V, I _D =3.2A (Note.1)		5		S
Input Capacitance	C _{iss}	V _{GS} =0V, V _{DS} =50V, f=1MHz		405		pF
Output Capacitance	C _{oss}			28.2		
Reverse Transfer Capacitance	C _{rss}			14.2		
Total Gate Charge	Q _g	V _{GS} = 5V, V _{DS} = 50V I _D = 1.2A		4.2		nC
Gate Source Charge	Q _{gs}	V _{GS} =10V, V _{DS} =50V, I _D =1.2A		7.7		
Gate Drain Charge	Q _{gd}			1.8		
Turn-On DelayTime	t _{d(on)}	V _{GS} =10V, V _{DS} =30V, I _D =1.2A, R _G =6 Ω		2.1		ns
Turn-On Rise Time	t _r			3.4		
Turn-Off DelayTime	t _{d(off)}			2.2		
Turn-Off Fall Time	t _f			8		
Body Diode Reverse Recovery Time	t _{rr}	I _F = 1.2A, di/dt= 100A/μs, T _j =25°C		3.2		nC
Body Diode Reverse Recovery Charge	Q _{rr}			27		
Maximum Body-Diode Continuous Current	I _S			32		A
Pulsed source current	I _{SM}			5		
Diode Forward Voltage	V _{SD}	I _S =3.2A, V _{GS} =0V, T _j =25°C			11	V

Note.1: Measured under pulsed conditions. Pulse width ≤ 300μs; duty cycle ≤ 2%.

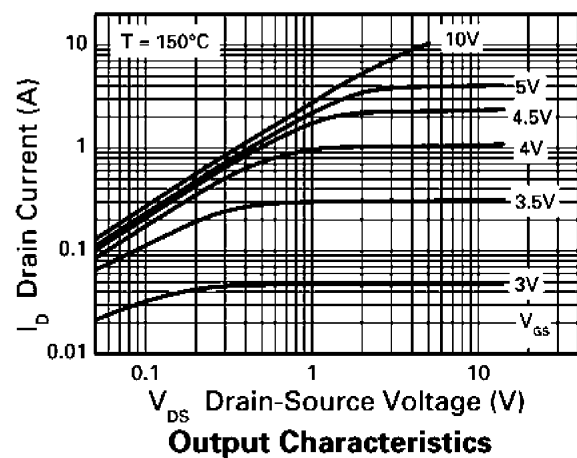
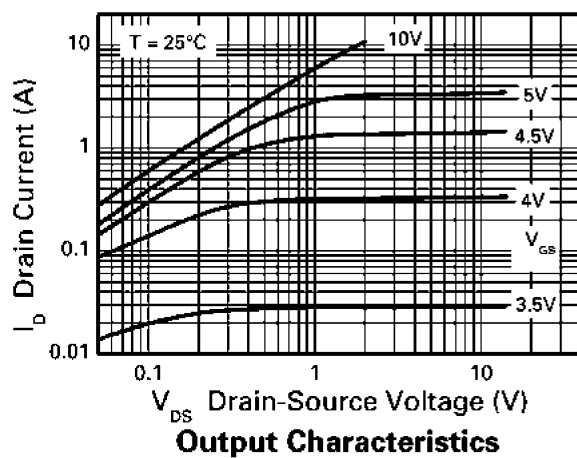
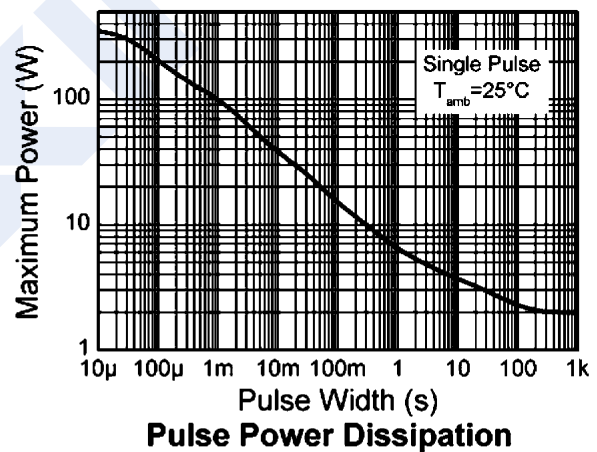
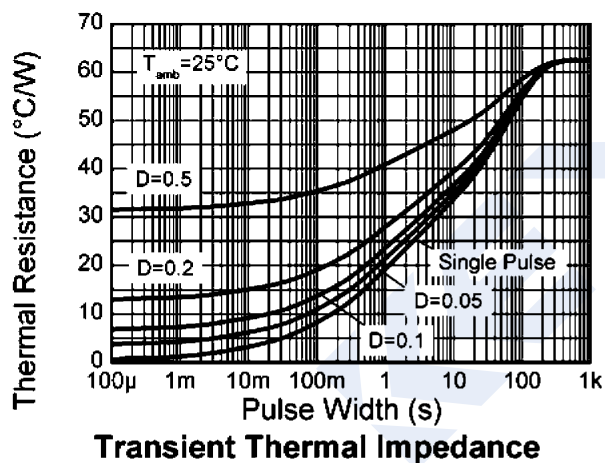
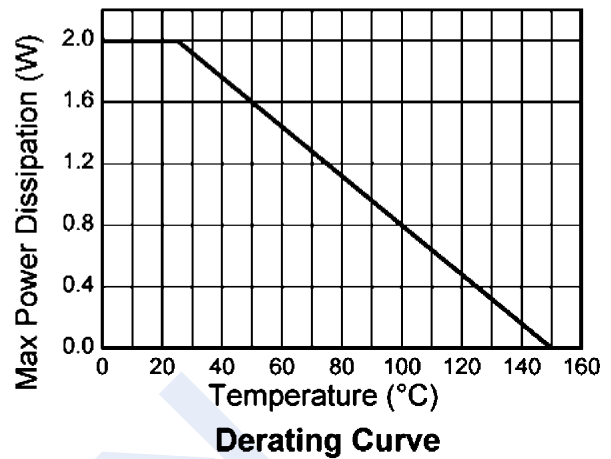
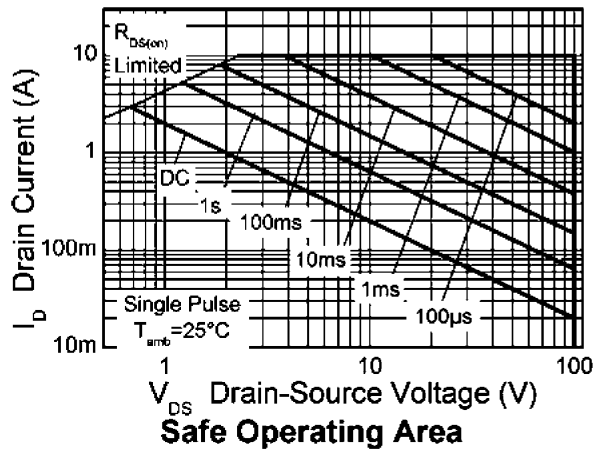
■ Marking

Marking	ZXMN 10A08
---------	---------------

N-Channel MOSFET

ZXMN10A08G (KXMN10A08G)

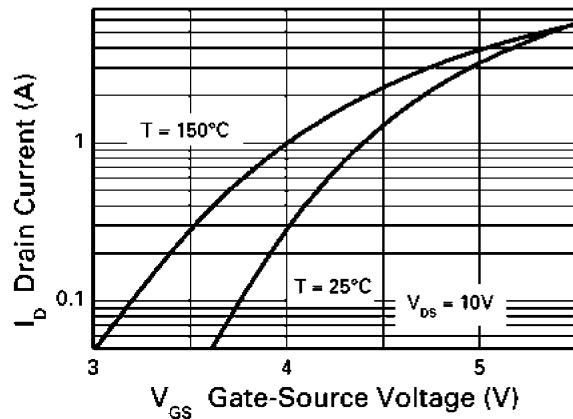
■ Typical Characteristics



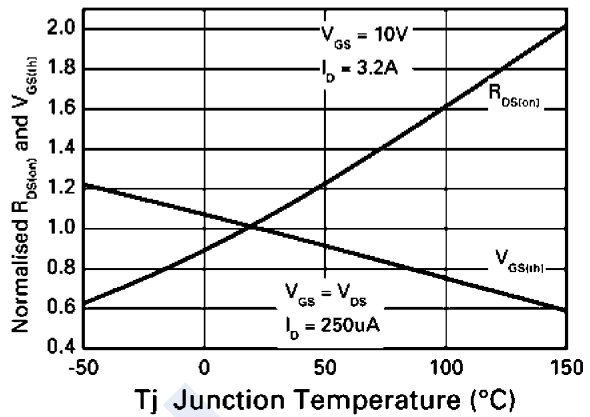
N-Channel MOSFET

ZXMN10A08G (KXMN10A08G)

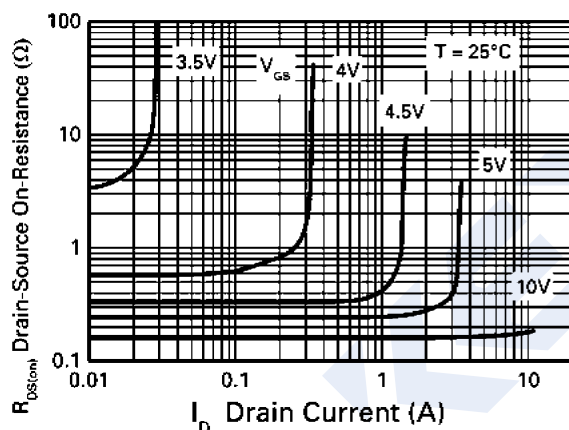
■ Typical Characteristics



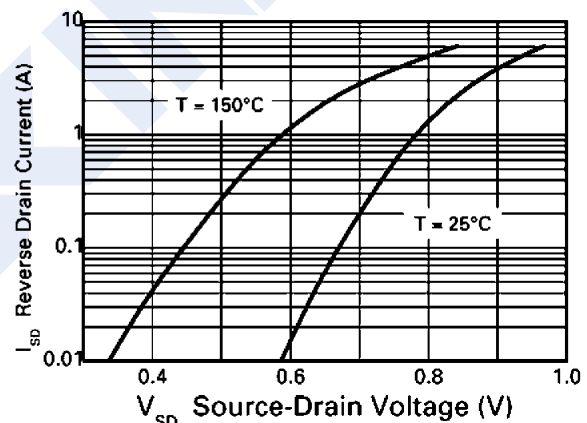
Typical Transfer Characteristics



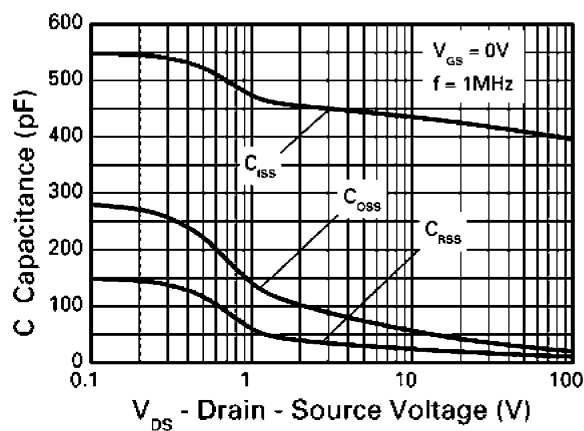
Normalised Curves v Temperature



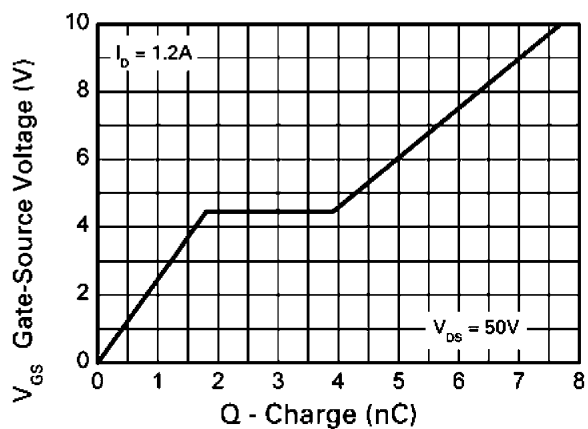
On-Resistance v Drain Current



Source-Drain Diode Forward Voltage



Capacitance v Drain-Source Voltage

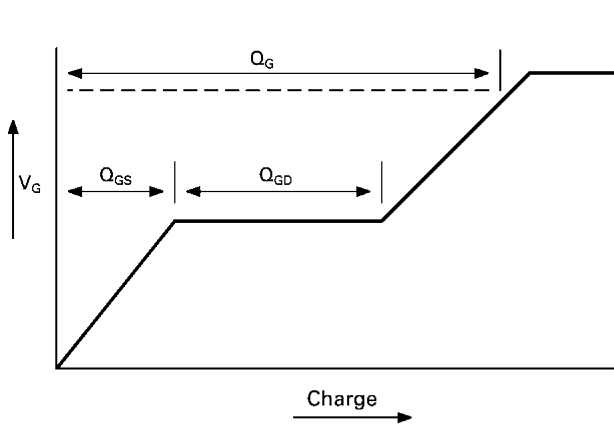


Gate-Source Voltage v Gate Charge

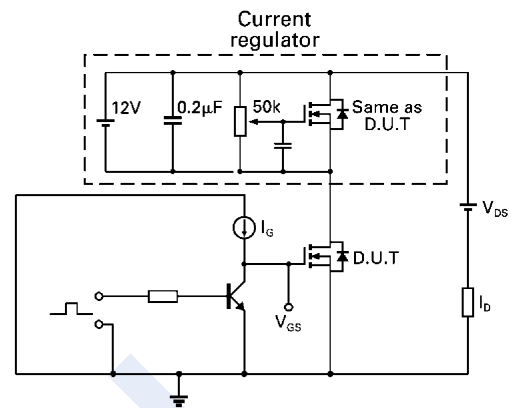
N-Channel MOSFET

ZXMN10A08G (KXMN10A08G)

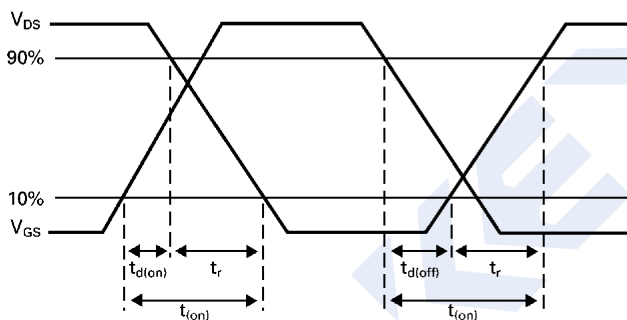
■ Typical Characteristics



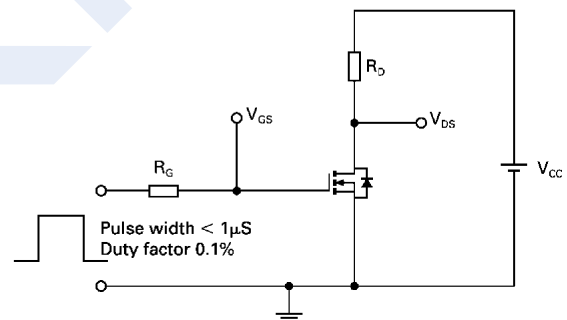
Basic gate charge waveform



Gate charge test circuit



Switching time waveforms



Switching time test circuit