



**THE DATASHEET OF
XP152A12C0MR**



ELECTRICAL CHARACTERISTICS

DC Characteristics

Ta = 25°C

PARAMETER	SYMBOL	CONDITIONS	MIN.	TYP.	MAX.	UNITS
Drain Cut-Off Current	Idss	Vds= -20V, Vgs= 0V	-	-	-10	μA
Gate-Source Leak Current	Igss	Vgs= ±12V, Vds= 0V	-	-	±10	μA
Gate-Source Cut-Off Voltage	Vgs(off)	Id= -1mA, Vds= -10V	-0.5	-	-1.2	V
Drain-Source On-State Resistance *1	Rds(on)	Id= -0.4A, Vgs= -4.5V	-	0.23	0.30	Ω
		Id= -0.4A, Vgs= -2.5V	-	0.37	0.50	Ω
Forward Transfer Admittance *1	Yfs	Id= -0.4A, Vds= -10V	-	1.5	-	S
Body Drain Diode Forward Voltage	Vf	If= -0.7A, Vgs= 0V	-	-0.8	-1.1	V

*1 Effective during pulse test.

Dynamic Characteristics

Ta = 25°C

PARAMETER	SYMBOL	CONDITIONS	MIN.	TYP.	MAX.	UNITS
Input Capacitance	Ciss	Vds= -10V, Vgs=0V f= 1MHz	-	180	-	pF
Output Capacitance	Coss		-	120	-	pF
Feedback Capacitance	Crss		-	60	-	pF

Switching Characteristics

Ta = 25°C

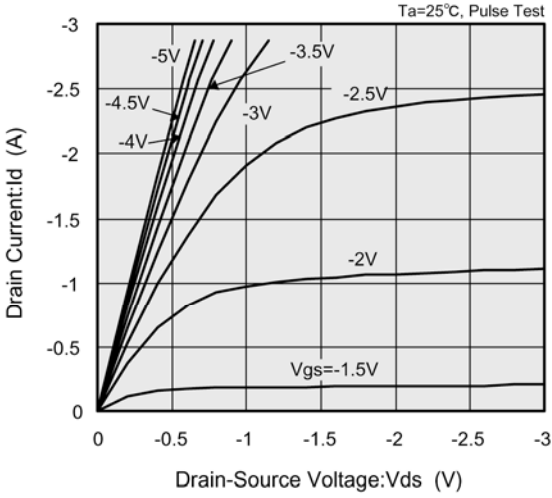
PARAMETER	SYMBOL	CONDITIONS	MIN.	TYP.	MAX.	UNITS
Turn-On Delay Time	td (on)	Vgs= -5V, Id= -0.4A Vdd= -10V	-	5	-	ns
Rise Time	tr		-	20	-	ns
Turn-Off Delay Time	td (off)		-	55	-	ns
Fall Time	tf		-	70	-	ns

Thermal Characteristics

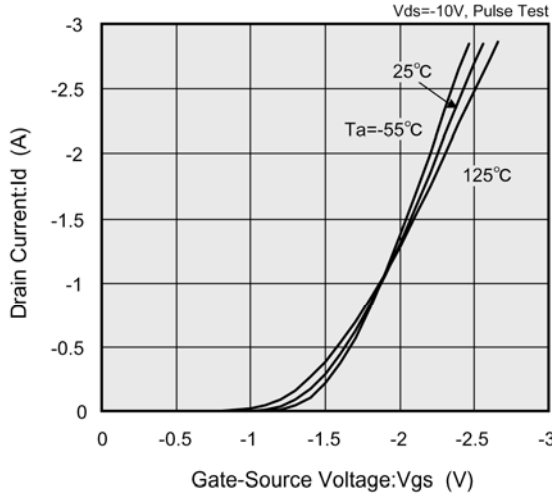
PARAMETER	SYMBOL	CONDITIONS	MIN.	TYP.	MAX.	UNITS
Thermal Resistance (Channel-Ambience)	Rth (ch-a)	Implement on a ceramic PCB	-	250	-	°C/W

TYPICAL PERFORMANCE CHARACTERISTICS

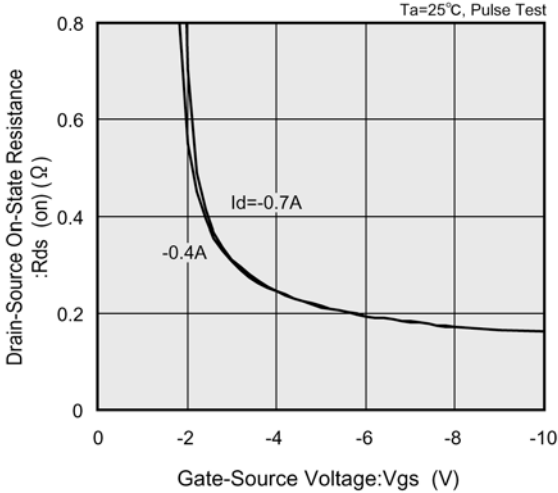
(1) Drain Current vs. Drain-Source Voltage



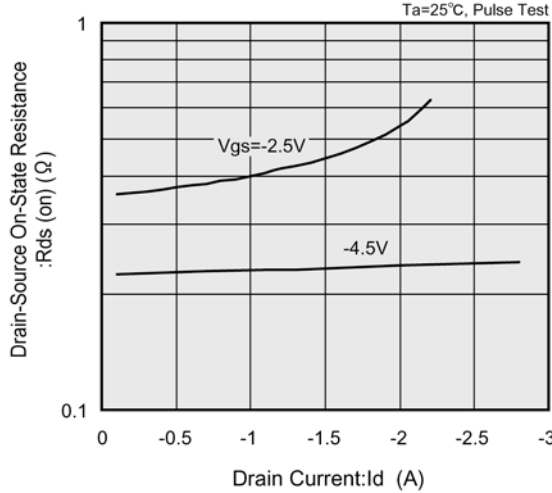
(2) Drain Current vs. Gate-Source Voltage



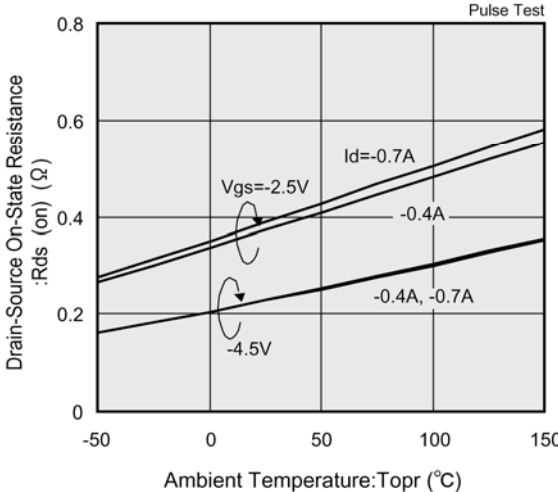
(3) Drain-Source On-State Resistance vs. Gate-Source Voltage



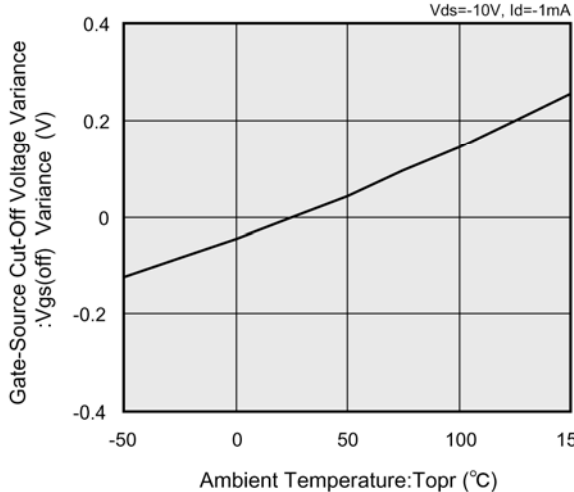
(4) Drain-Source On-State Resistance vs. Drain Current



(5) Drain-Source On-State Resistance vs. Ambient Temperature

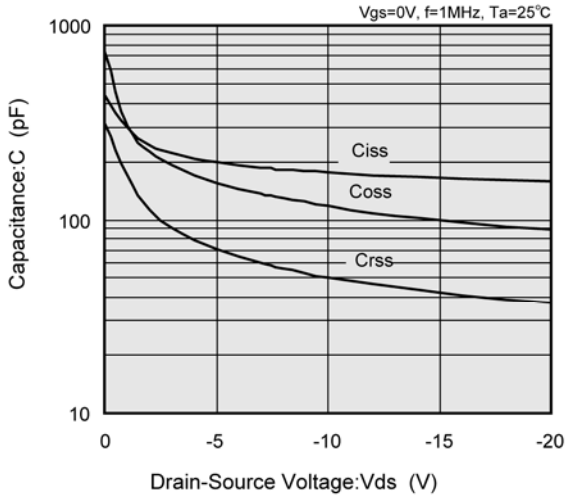


(6) Gate Source Cut-Off Voltage Variance vs. Ambient Temperature

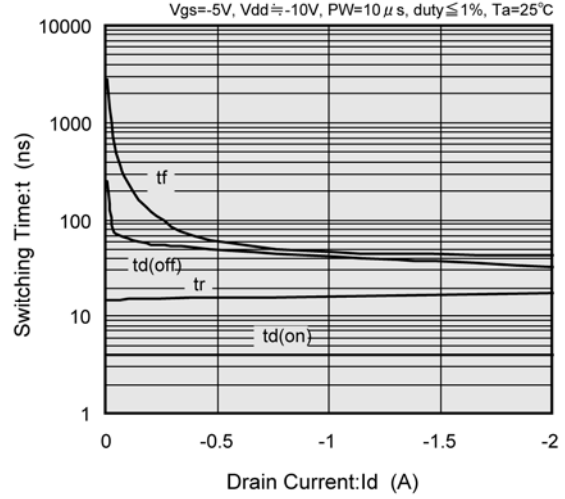


TYPICAL PERFORMANCE CHARACTERISTICS (Continued)

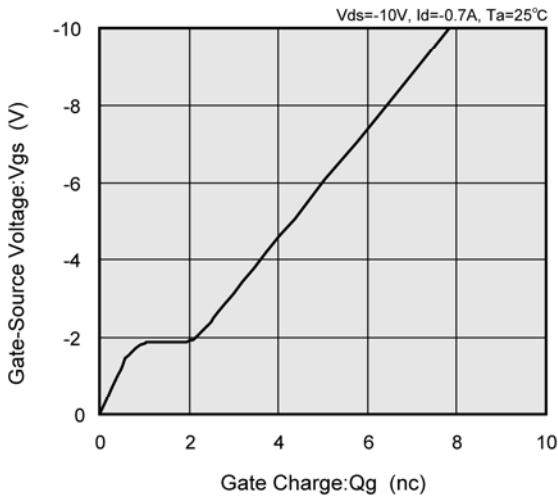
(7) Capacitance vs. Drain-Source Voltage



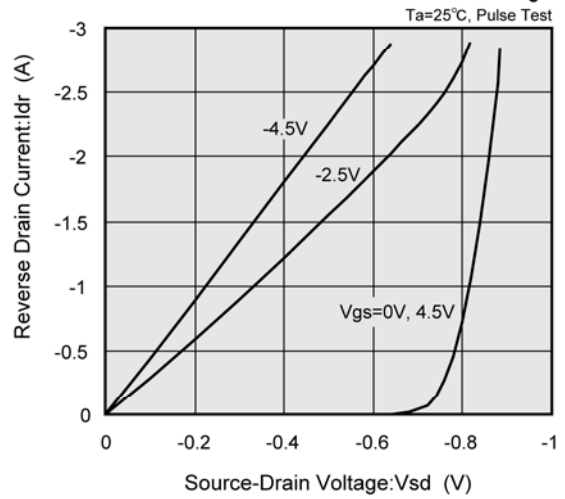
(8) Switching Time vs. Drain Current



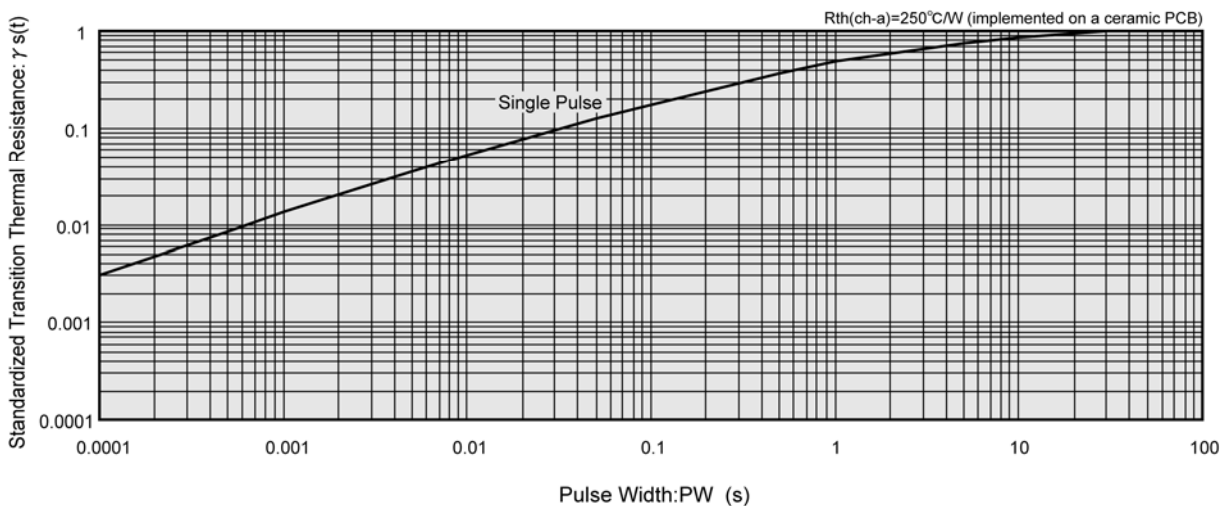
(9) Gate-Source Voltage vs. Gate Charge



(10) Reverse Drain Current vs. Source-Drain Voltage



(11) Standardized Transition Thermal Resistance vs. Pulse Width



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