

ELECTRICAL CHARACTERISTICS

DC Characteristics

Ta = 25°C

PARAMETER	SYMBOL	CONDITIONS	MIN.	TYP.	MAX.	UNITS
Drain Cut-Off Current	I _{dss}	V _{ds} = 20V, V _{gs} = 0V	-	-	10	μA
Gate-Source Leak Current	I _{gss}	V _{gs} = ±8V, V _{ds} = 0V	-	-	±10	μA
Gate-Source Cut-Off Voltage	V _{gs(off)}	I _d = 1mA, V _{ds} = 10V	0.5	-	1.2	V
Drain-Source On-State Resistance *1	R _{ds(on)}	I _d = 0.5A, V _{gs} = 4.5V	-	0.075	0.100	Ω
		I _d = 0.5A, V _{gs} = 2.5V	-	0.10	0.14	Ω
		I _d = 0.1A, V _{gs} = 1.5V	-	0.17	0.25	Ω
Forward Transfer Admittance *1	Y _{fs}	I _d = 0.5A, V _{ds} = 10V	-	4.2	-	S
Body Drain Diode Forward Voltage	V _f	I _f = 1A, V _{gs} = 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	C _{iss}	V _{ds} = 10V, V _{gs} =0V f= 1MHz	-	220	-	pF
Output Capacitance	C _{oss}		-	120	-	pF
Feedback Capacitance	C _{rss}		-	45	-	pF

Switching Characteristics

Ta = 25°C

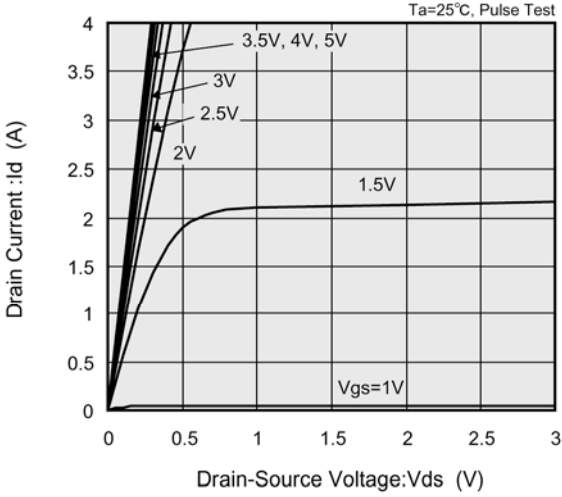
PARAMETER	SYMBOL	CONDITIONS	MIN.	TYP.	MAX.	UNITS
Turn-On Delay Time	t _{d (on)}	V _{gs} = 5V, I _d = 0.5A V _{dd} = 10V	-	10	-	ns
Rise Time	t _r		-	15	-	ns
Turn-Off Delay Time	t _{d (off)}		-	75	-	ns
Fall Time	t _f		-	65	-	ns

Thermal Characteristics

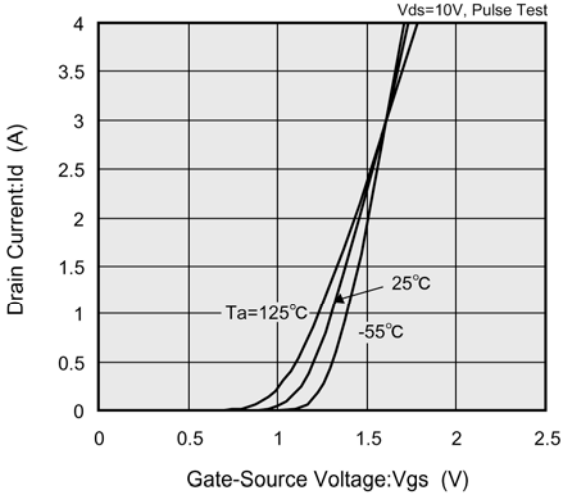
PARAMETER	SYMBOL	CONDITIONS	MIN.	TYP.	MAX.	UNITS
Thermal Resistance (Channel-Ambience)	R _{th (ch-a)}	Implement on a ceramic PCB	-	250	-	°C/W

TYPICAL PERFORMANCE CHARACTERISTICS

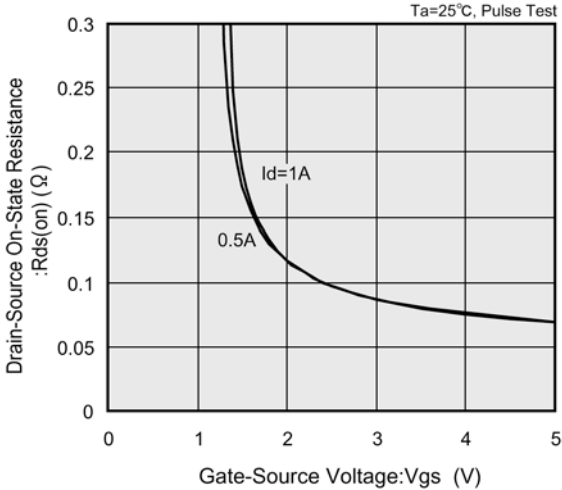
(1) Drain Current vs. Drain-Source Voltage



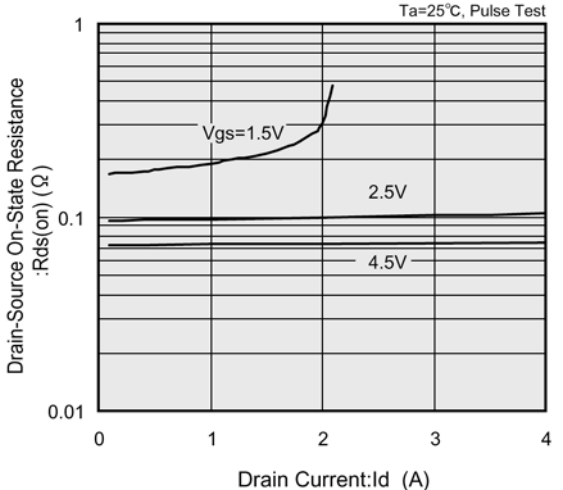
(2) Drain Current vs. Gate-Source Voltage



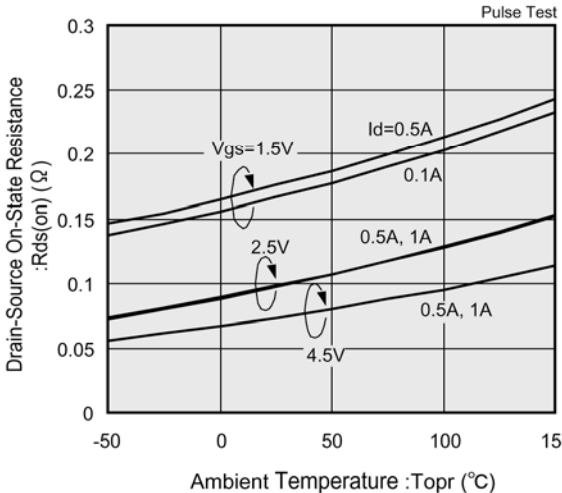
(3) Drain-Source On-State Resistance vs. Gate-Source Voltage



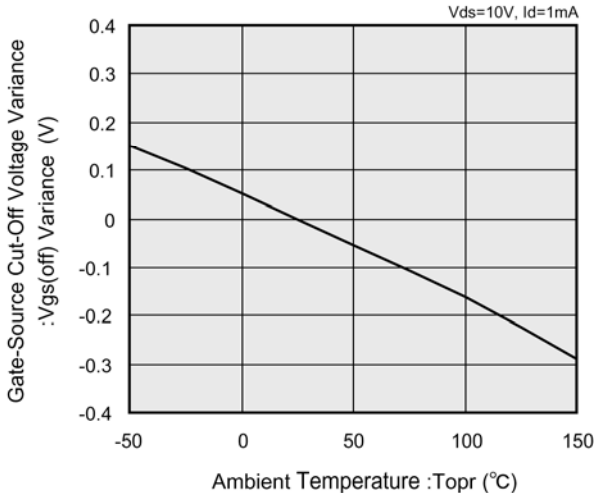
(4) Drain-Source On-State Resistance vs. Drain Current



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

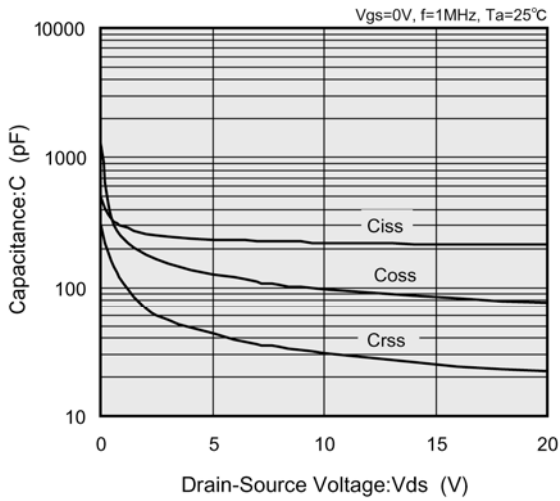


(6) Gate-Source Cut-Off Voltage Variance vs. Ambient Temperature

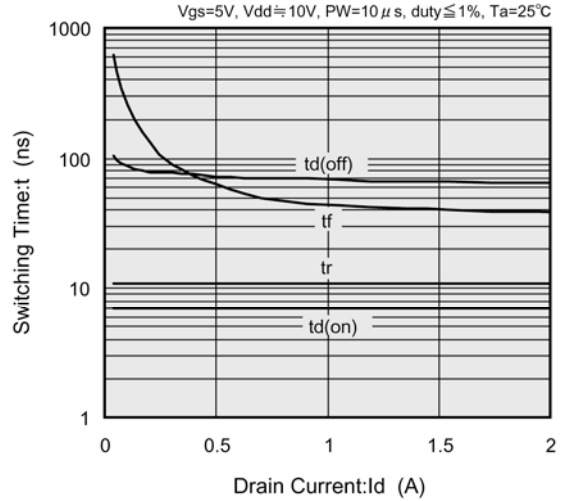


TYPICAL PERFORMANCE CHARACTERISTICS (Continued)

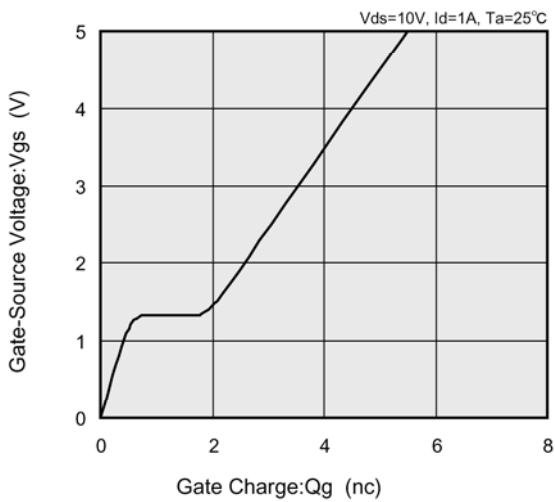
(7) Capacitance vs. Drain-Source Voltage



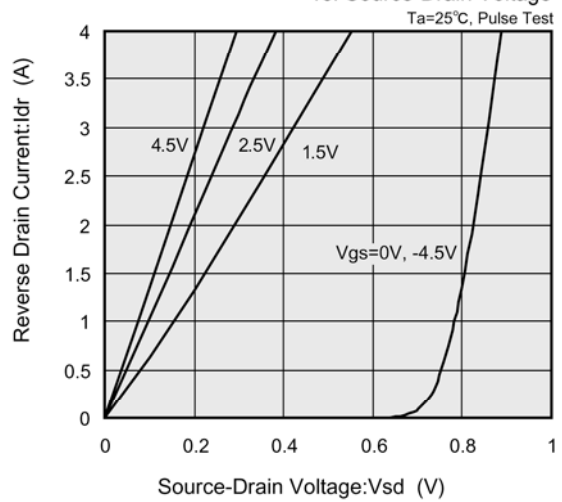
(8) Switching Time vs. Drain Current



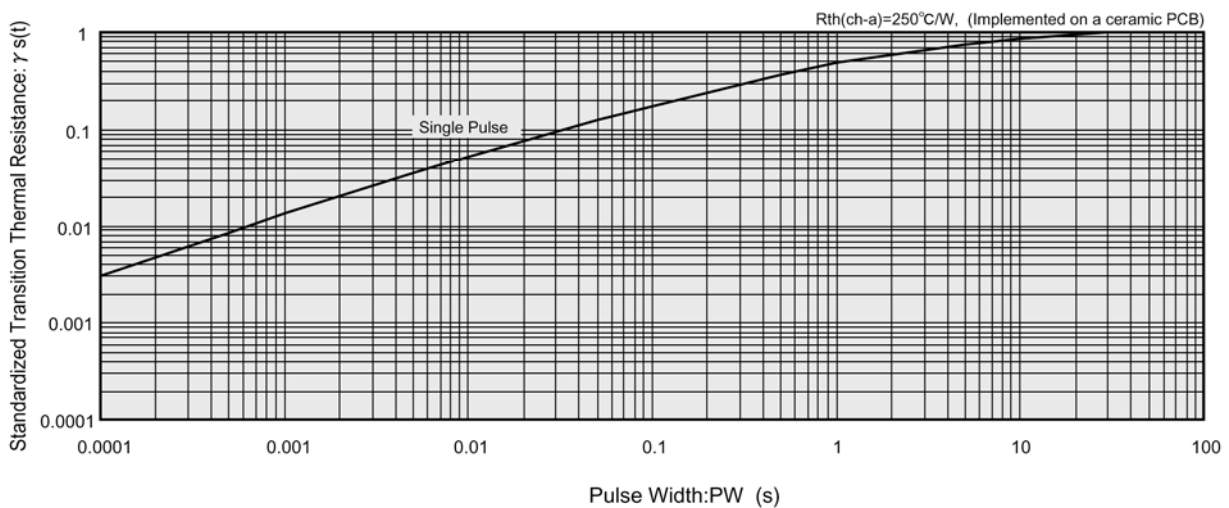
(9) Gate-Source Voltage vs. Gate Charge



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



(11) Standardized transition Thermal Resistance vs. Pulse Width



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