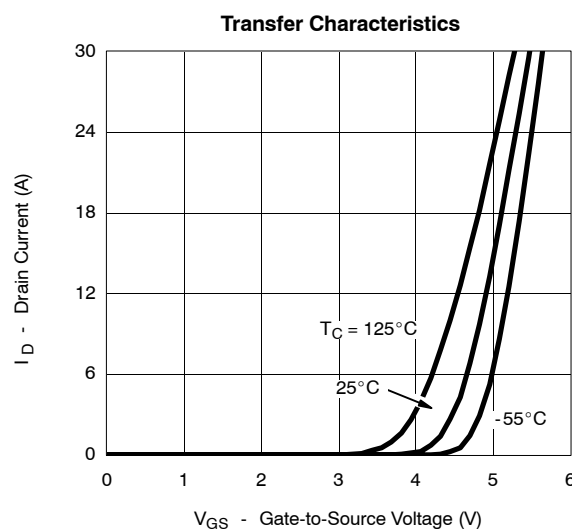
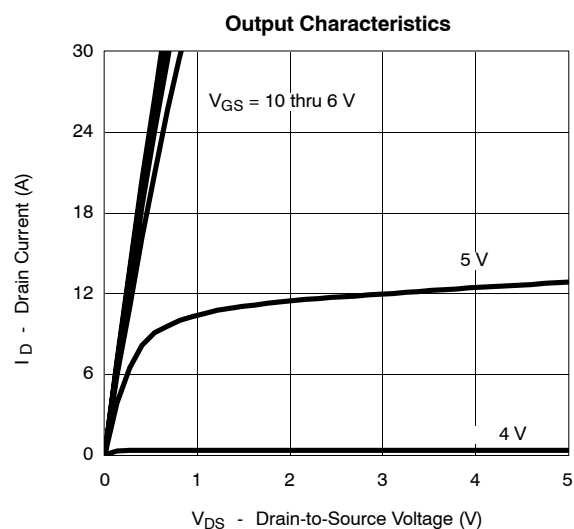


SPECIFICATIONS ($T_J = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Static						
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}$, $I_D = 250\ \mu\text{A}$	2.0			V
Linear Threshold Voltage	V_T			4.4		
Gate-Body Leakage	I_{GSS}	$V_{DS} = 0\ \text{V}$, $V_{GS} = \pm 20\ \text{V}$			± 100	nA
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 80\ \text{V}$, $V_{GS} = 0\ \text{V}$			1	μA
		$V_{DS} = 80\ \text{V}$, $V_{GS} = 0\ \text{V}$, $T_J = 55^\circ\text{C}$			5	
On-State Drain Current ^a	$I_{D(on)}$	$V_{DS} \geq 5\ \text{V}$, $V_{GS} = 10\ \text{V}$	30			A
Drain-Source On-State Resistance ^a	$r_{DS(on)}$	$V_{GS} = 10\ \text{V}$, $I_D = 7.7\ \text{A}$		0.021	0.025	Ω
		$V_{GS} = 6.0\ \text{V}$, $I_D = 6.9\ \text{A}$		0.025	0.031	
Forward Transconductance ^a	g_{fs}	$V_{DS} = 15\ \text{V}$, $I_D = 7.7\ \text{A}$		23		S
Diode Forward Voltage ^a	V_{SD}	$I_S = 2.6\ \text{A}$, $V_{GS} = 0\ \text{V}$		0.75	1.2	V
Dynamic^b						
Total Gate Charge	Q_g	$V_{DS} = 50\ \text{V}$, $V_{GS} = 10\ \text{V}$, $I_D = 7.7\ \text{A}$		29	36	nC
Gate-Source Charge	Q_{gs}			9.9		
Gate-Drain Charge	Q_{gd}			10.3		
Gate Resistance	R_G		0.5	1.2	1.8	Ω
Turn-On Delay Time	$t_{d(on)}$	$V_{DD} = 50\ \text{V}$, $R_L = 50\ \Omega$ $I_D \approx 1.0\ \text{A}$, $V_{GEN} = 10\ \text{V}$, $R_G = 6\ \Omega$		17	26	ns
Rise Time	t_r			13	20	
Turn-Off Delay Time	$t_{d(off)}$			36	54	
Fall Time	t_f			26	40	
Source-Drain Reverse Recovery Time	t_{rr}	$I_F = 2.6\ \text{A}$, $di/dt = 100\ \text{A}/\mu\text{s}$		45	68	

Notes

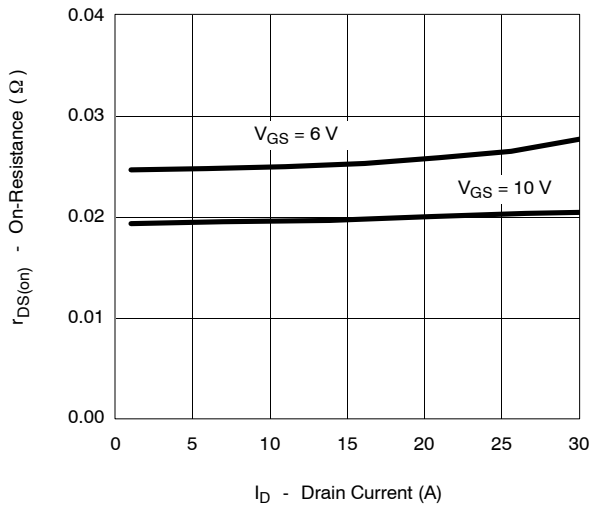
- a. Pulse test; pulse width $\leq 300\ \mu\text{s}$, duty cycle $\leq 2\%$.
b. Guaranteed by design, not subject to production testing.

TYPICAL CHARACTERISTICS (25°C UNLESS NOTED)

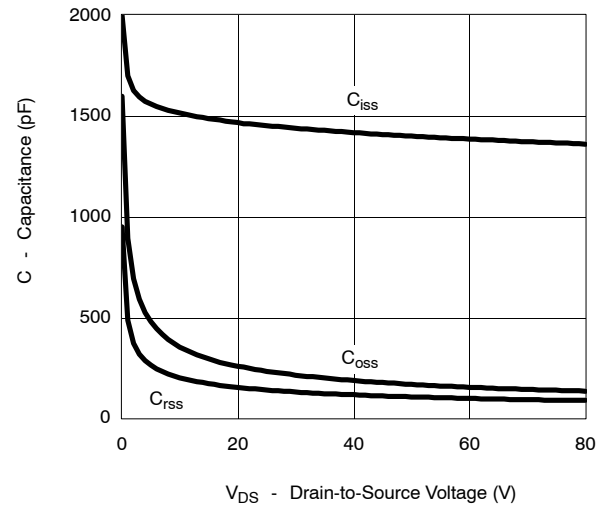


TYPICAL CHARACTERISTICS (25 °C UNLESS NOTED)

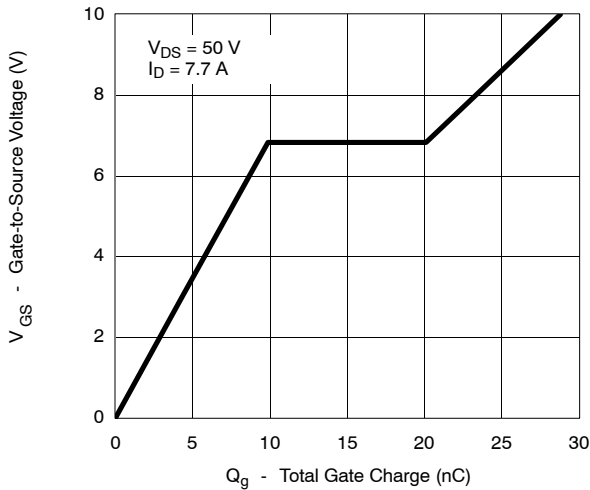
On-Resistance vs. Drain Current



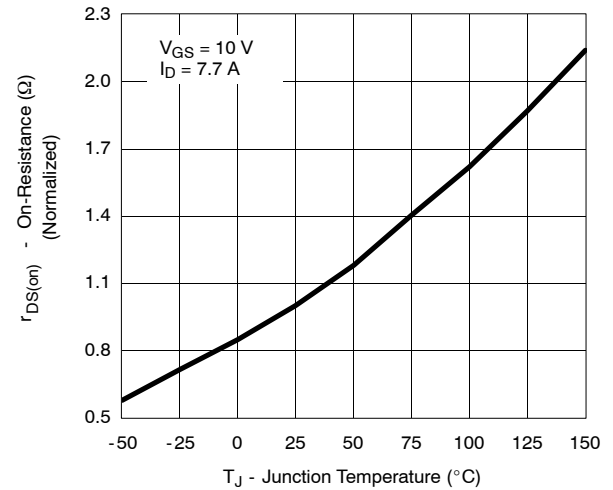
Capacitance



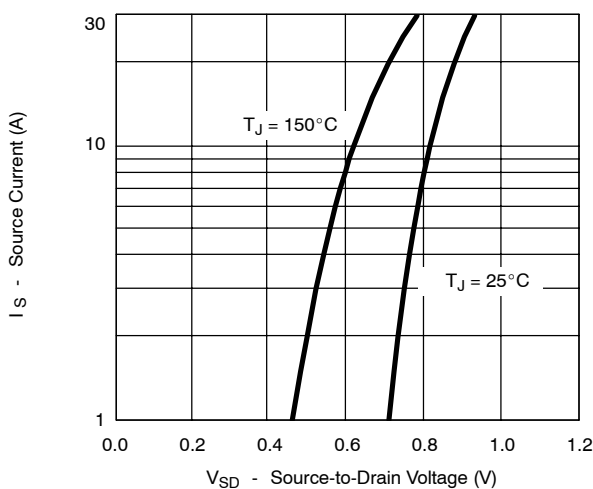
Gate Charge



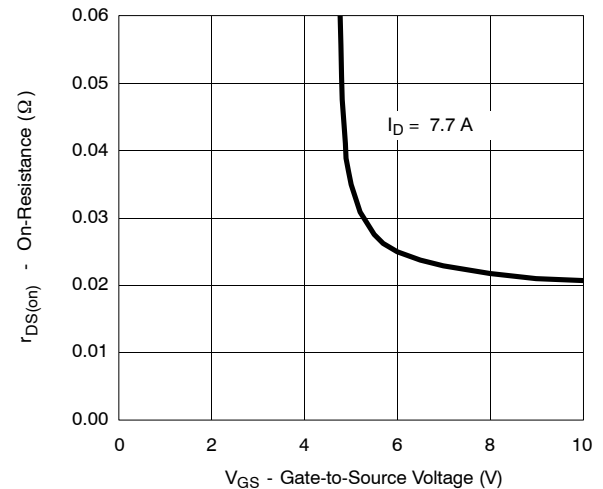
On-Resistance vs. Junction Temperature

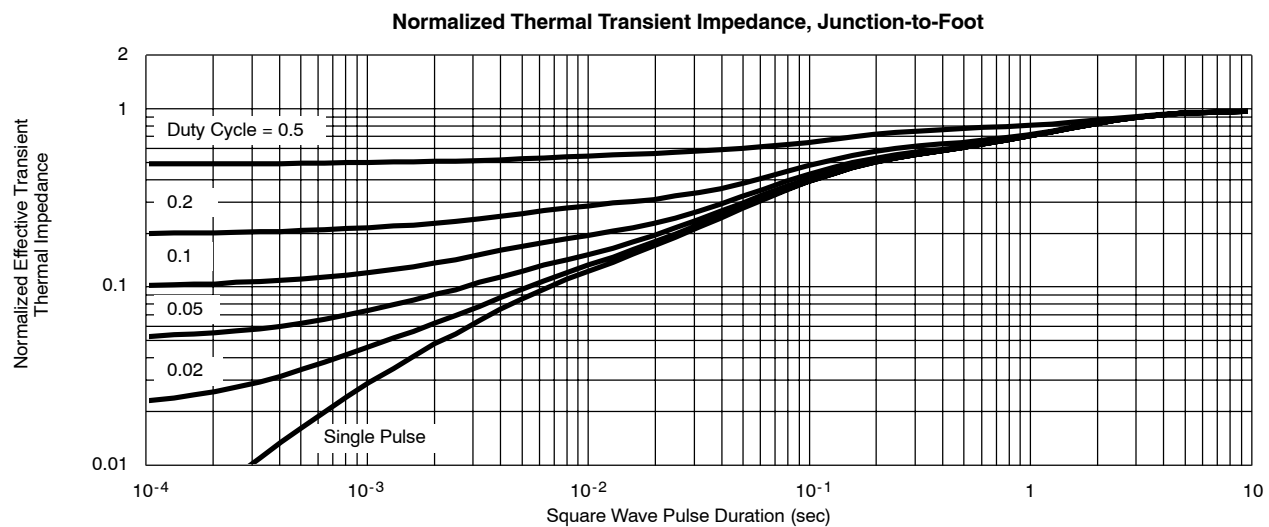
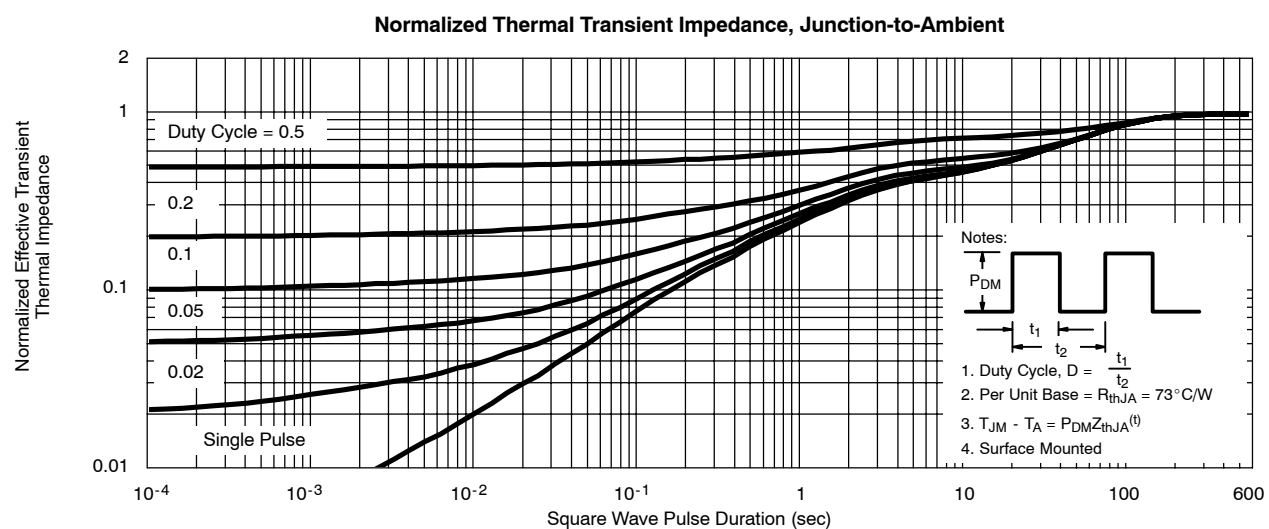
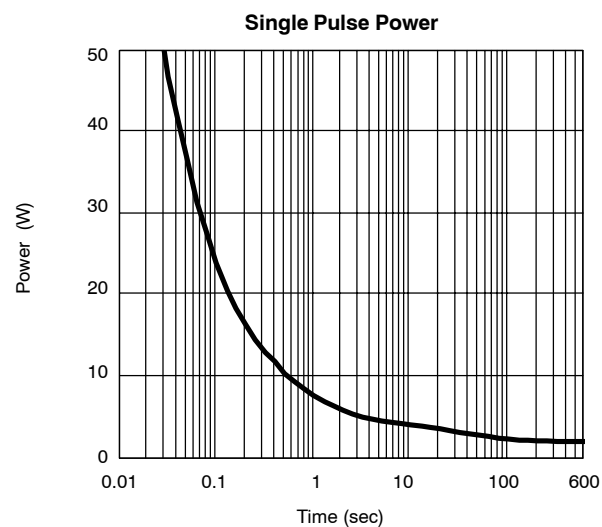
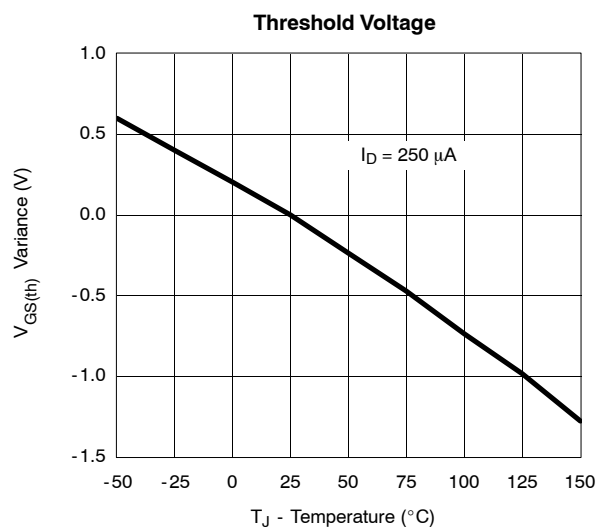


Source-Drain Diode Forward Voltage



On-Resistance vs. Gate-to-Source Voltage



TYPICAL CHARACTERISTICS (25 °C UNLESS NOTED)




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