

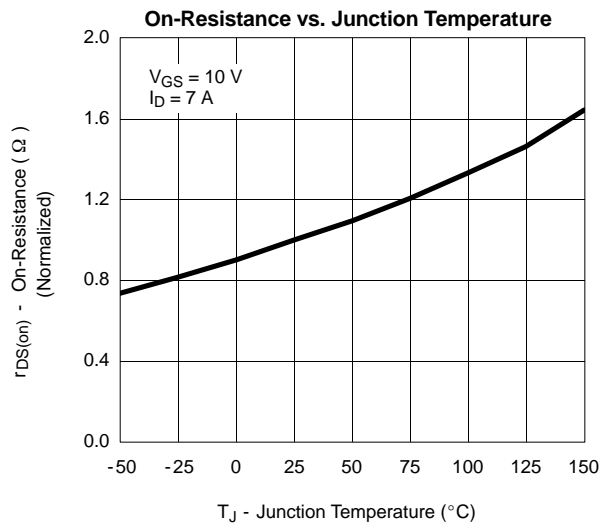
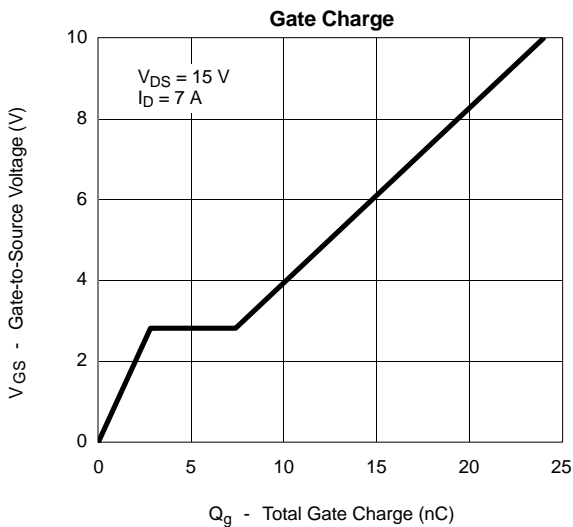
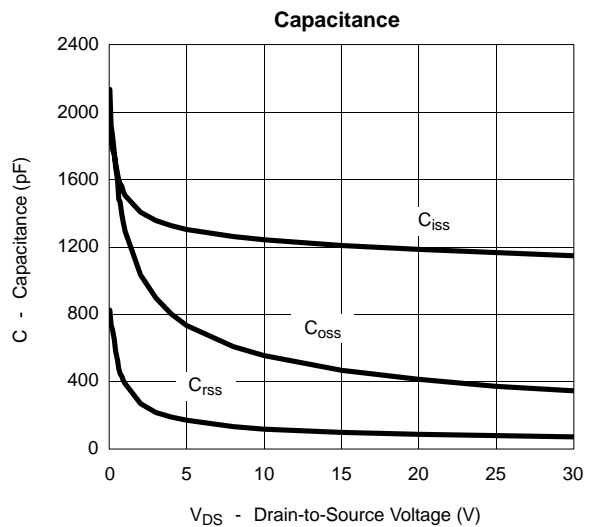
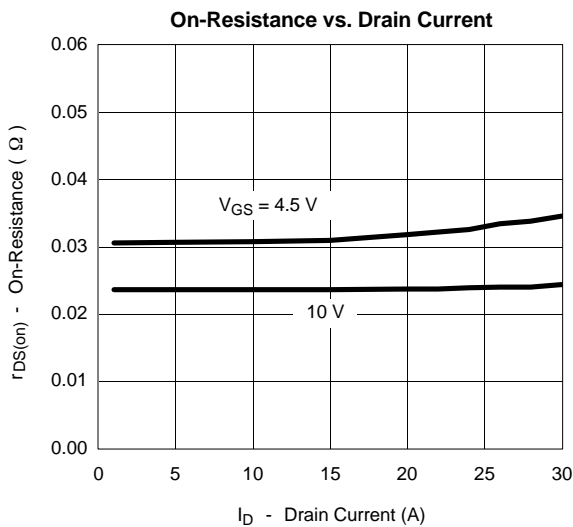
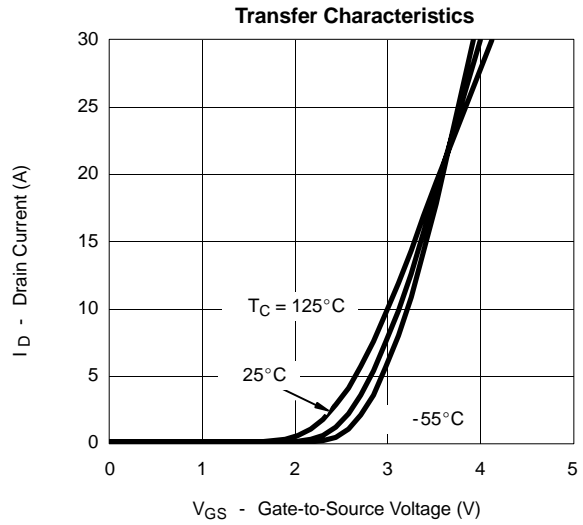
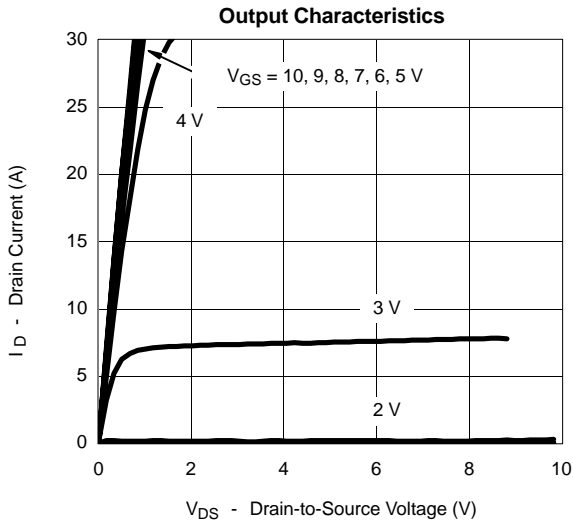
SPECIFICATIONS ($T_J = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)						
Parameter	Symbol	Test Condition	Min	Typ ^a	Max	Unit
Static						
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250\ \mu\text{A}$	1.0			V
Gate-Body Leakage	I_{GSS}	$V_{DS} = 0\ \text{V}, V_{GS} = \pm 20\ \text{V}$			± 100	nA
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 24\ \text{V}, V_{GS} = 0\ \text{V}$			2	μA
		$V_{DS} = 24\ \text{V}, V_{GS} = 0\ \text{V}, T_J = 55^\circ\text{C}$			25	
On-State Drain Current ^b	$I_{D(on)}$	$V_{DS} \geq 5\ \text{V}, V_{GS} = 10\ \text{V}$	30			A
Drain-Source On-State Resistance ^b	$r_{DS(on)}$	$V_{GS} = 10\ \text{V}, I_D = 7.0\ \text{A}$		0.024	0.030	Ω
		$V_{GS} = 5\ \text{V}, I_D = 4.0\ \text{A}$		0.030	0.040	
		$V_{GS} = 4.5\ \text{V}, I_D = 3.5\ \text{A}$		0.032	0.050	
Forward Transconductance ^b	g_{fs}	$V_{DS} = 15\ \text{V}, I_D = 7.0\ \text{A}$		15		S
Diode Forward Voltage ^b	V_{SD}	$I_S = 2\ \text{A}, V_{GS} = 0\ \text{V}$		0.72	1.1	V
Dynamic^a						
Total Gate Charge	Q_g	$V_{DS} = 15\ \text{V}, V_{GS} = 10\ \text{V}, I_D = 7\ \text{A}$		24	50	nC
Gate-Source Charge	Q_{gs}			2.8		
Gate-Drain Charge	Q_{gd}			4.6		
Turn-On Delay Time	$t_{d(on)}$	$V_{DD} = 25\ \text{V}, R_L = 25\ \Omega$ $I_D \cong 1\ \text{A}, V_{GEN} = 10\ \text{V}, R_G = 6\ \Omega$		14	30	ns
Rise Time	t_r			10	60	
Turn-Off Delay Time	$t_{d(off)}$			46	150	
Fall Time	t_f			17	140	
Source-Drain Reverse Recovery Time	t_{rr}	$I_F = 2\ \text{A}, di/dt = 100\ \text{A}/\mu\text{s}$		60		

Notes

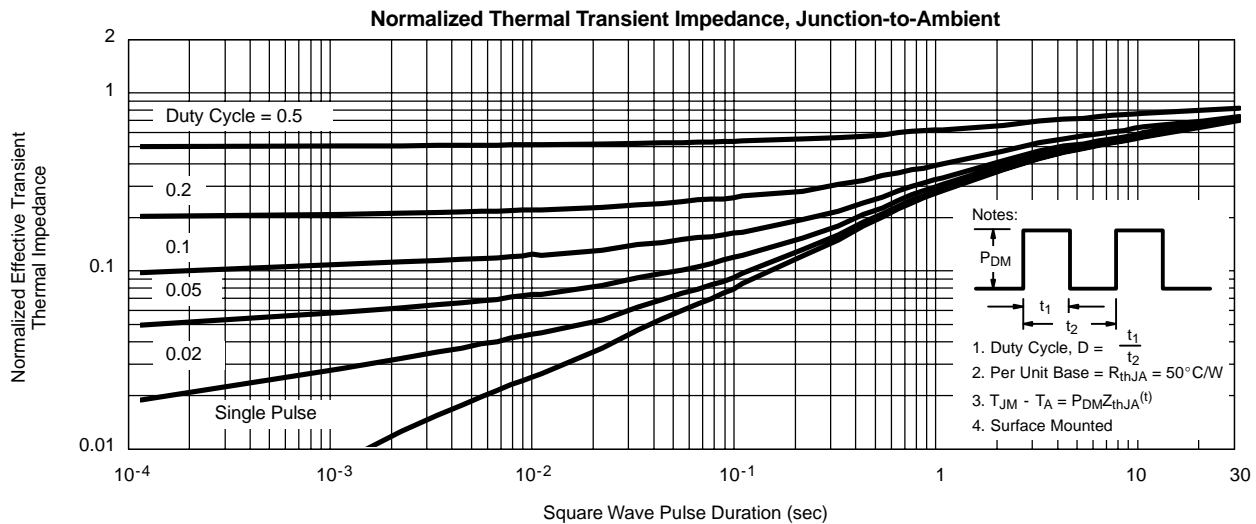
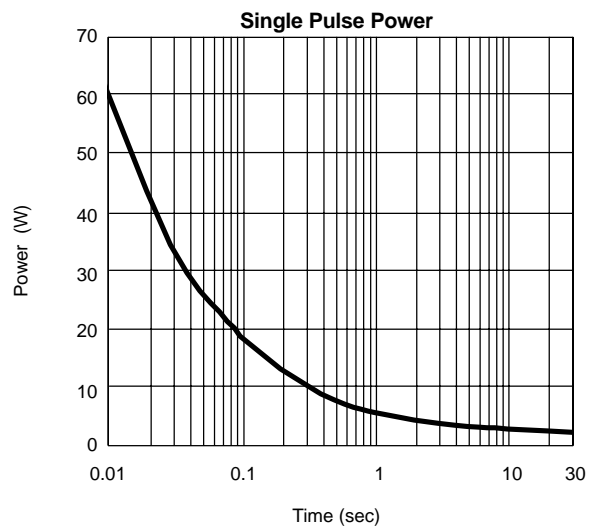
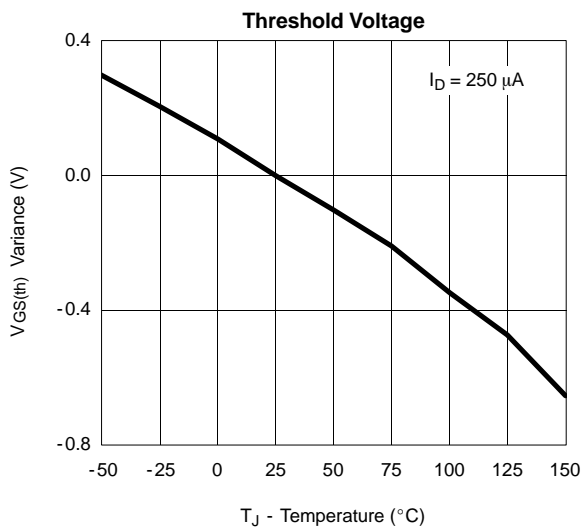
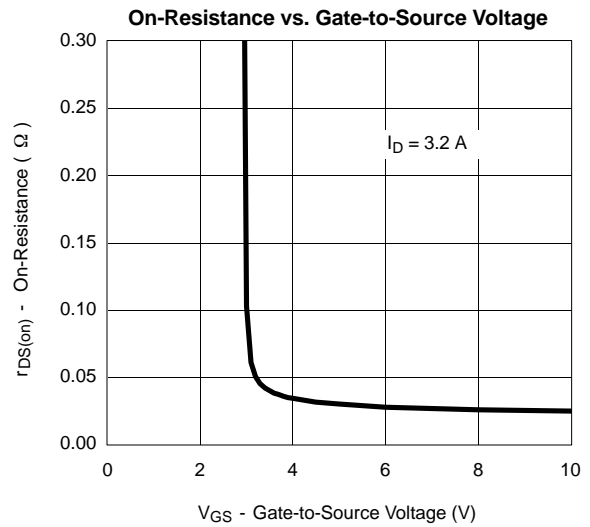
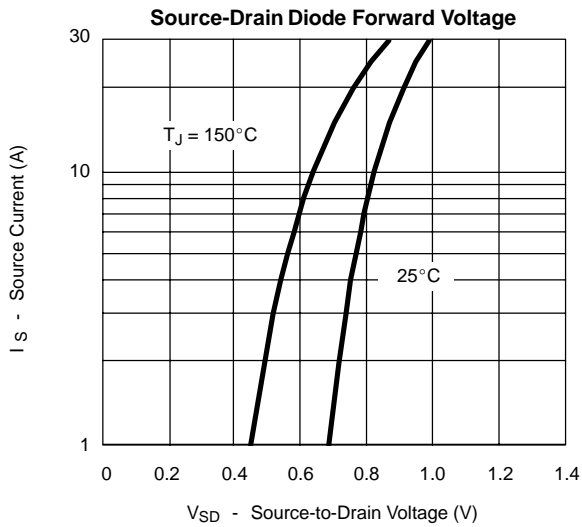
- a. Guaranteed by design, not subject to production testing.
b. Pulse test; pulse width $\leq 300\ \mu\text{s}$, duty cycle $\leq 2\%$.



TYPICAL CHARACTERISTICS (25°C UNLESS NOTED)



TYPICAL CHARACTERISTICS (25 °C UNLESS NOTED)





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