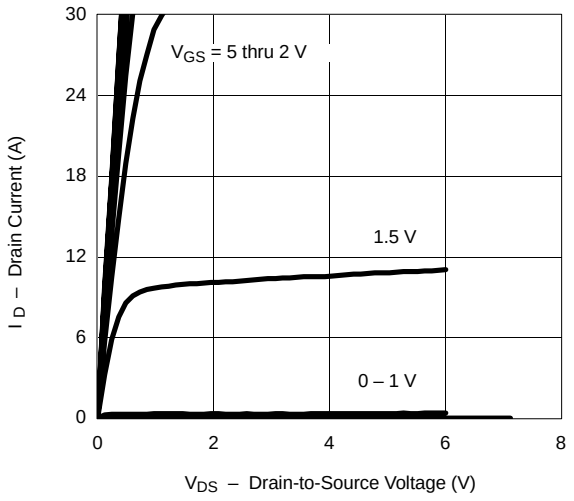
SPECIFICATIONS (T_J = 25°C UNLESS OTHERWISE NOTED)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Static						
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS} = V_{GS}, I_D = –250 μA	–0.45			V
Gate-Body Leakage	I_{GSS}	V_{DS} = 0 V, V_{GS} = ±8 V			±100	nA
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS} = –16 V, V_{GS} = 0 V			–1	μA
		V_{DS} = –16 V, V_{GS} = 0 V, T_J = 70°C			–10	
On-State Drain Current[a]	$I_{D(on)}$	V_{DS} –5 V, V_{GS} = –4.5 V	20			A
Drain-Source On-State Resistance[a]	$r_{DS(on)}$	V_{GS} = –4.5 V, I_D = –7.4 A		0.014	0.017	Ω
		V_{GS} = –2.5 V, I_D = –6.3 A		0.018	0.023	
		V_{GS} = –1.8 V, I_D = –5.5 A		0.024	0.032	Ω
Forward Transconductance[a]	g_{fs}	V_{DS} = –15 V, I_D = –7.4 A		28		S
Diode Forward Voltage[a]	V_{SD}	I_S = –1.3 A, V_{GS} = 0 V		–0.64	–1.1	V
Dynamic[b]						
Total Gate Charge	Q_g	V_{DS} = –10 V, V_{GS} = –5 V, I_D = –7.4 A		30.5	50	nC
Gate-Source Charge	Q_{gs}			5.3		
Gate-Drain Charge	Q_{gd}			3.8		
Turn-On Delay Time	$t_{d(on)}$	V_{DD} = –10 V, R_L = 15 Ω I_D ≅ –1 A, V_{GEN} = –4.5 V, R_G = 6 Ω		30	50	ns
Rise Time	t_r			30	50	
Turn-Off Delay Time	$t_{d(off)}$			110	200	
Fall Time	t_f			65	110	
Source-Drain Reverse Recovery Time	t_{rr}	I_F = –1.3 A, di/dt = 100 A/μs		45	80	

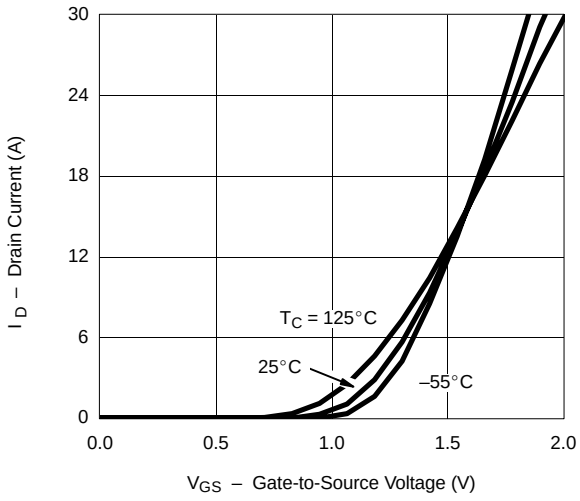
Notes
a Pulse test; pulse width ≤ 300 μs, duty cycle ≤ 2%.
b Guaranteed by design, not subject to production testing.

TYPICAL CHARACTERISTICS (25°C UNLESS NOTED)

Output Characteristics

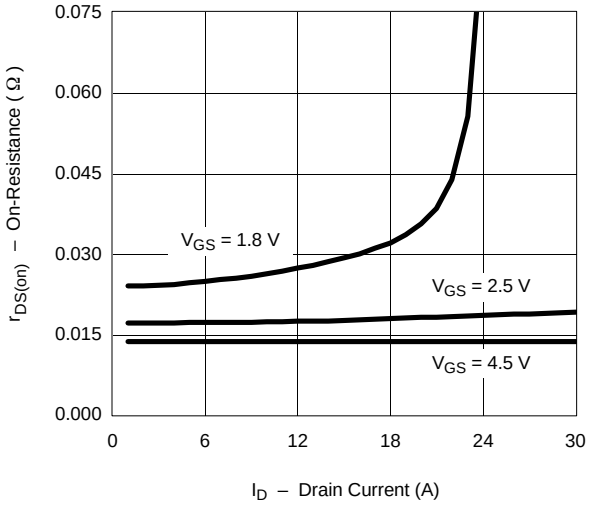


Transfer Characteristics

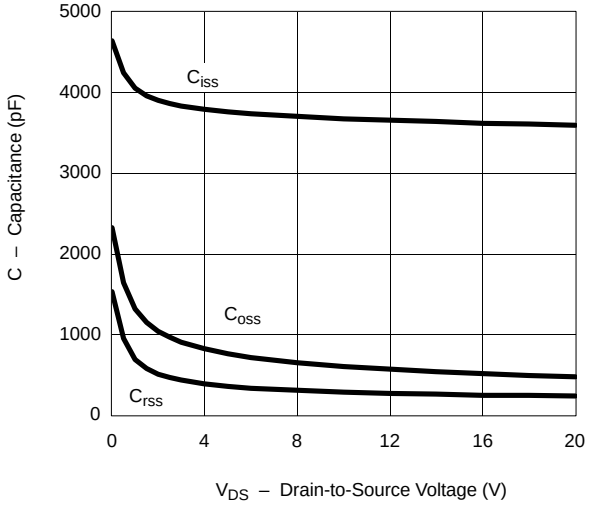


TYPICAL CHARACTERISTICS (25°C UNLESS NOTED)

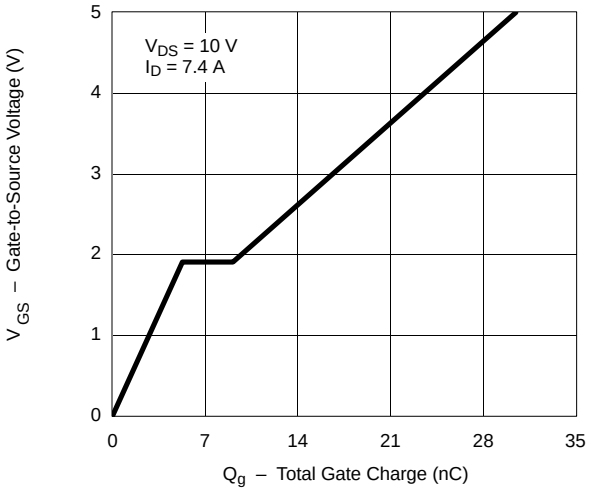
On-Resistance vs. Drain Current



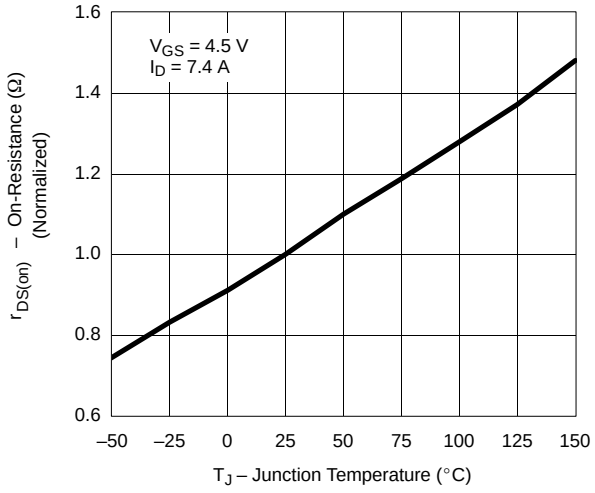
Capacitance



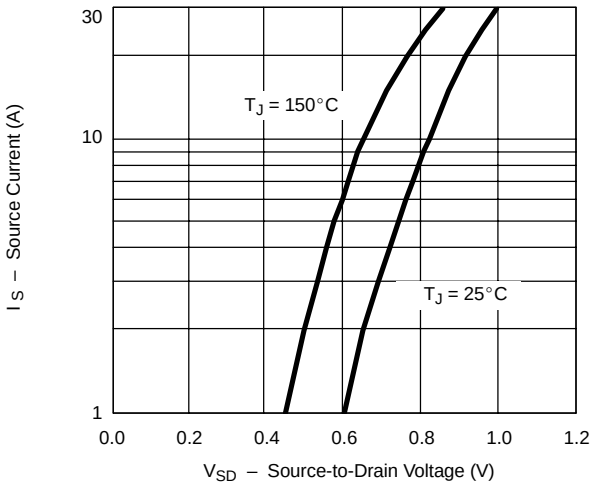
Gate Charge



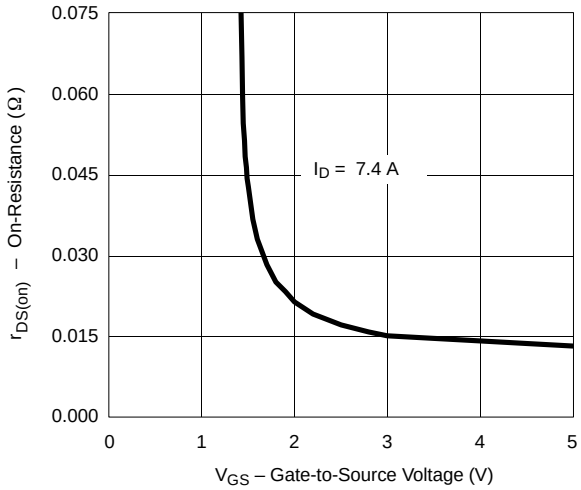
On-Resistance vs. Junction Temperature



Source-Drain Diode Forward Voltage

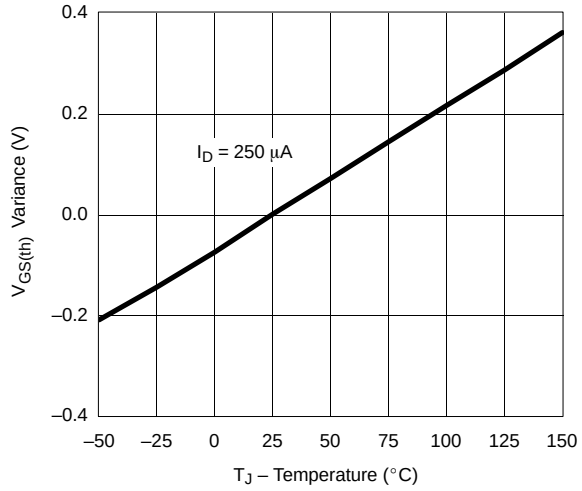


On-Resistance vs. Gate-to-Source Voltage

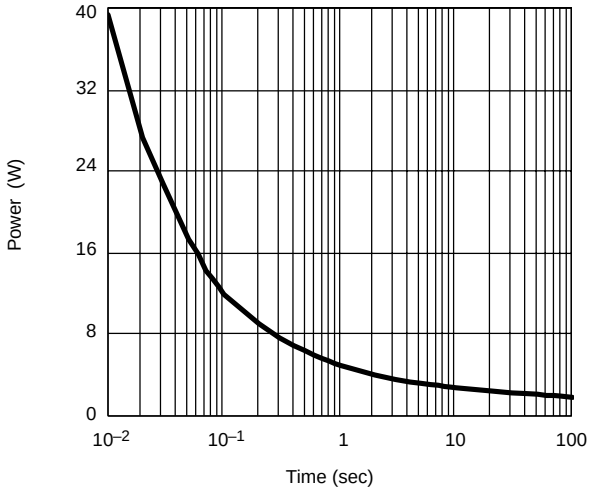


TYPICAL CHARACTERISTICS (25°C UNLESS NOTED)

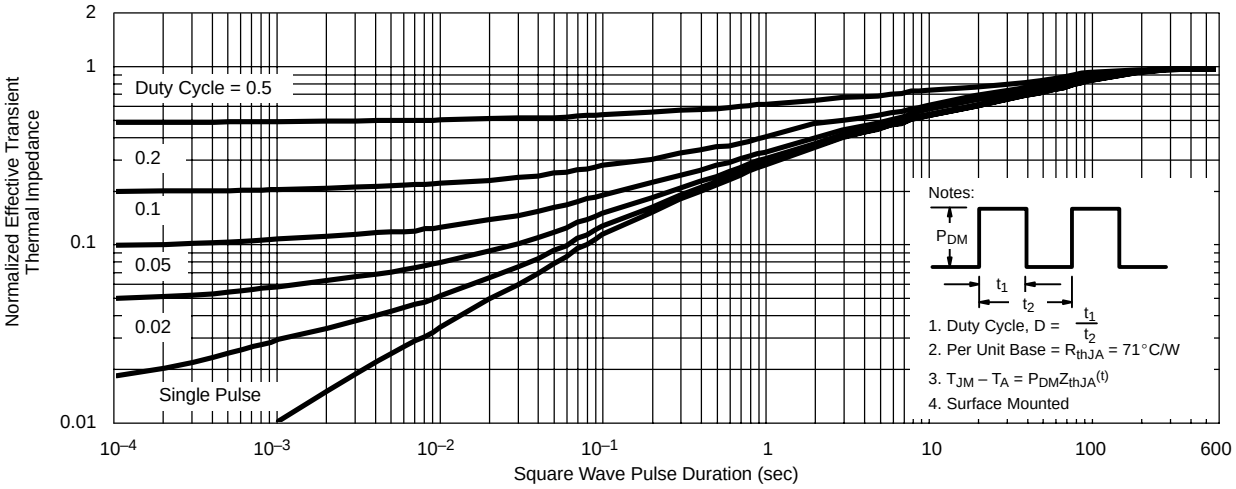
Threshold Voltage



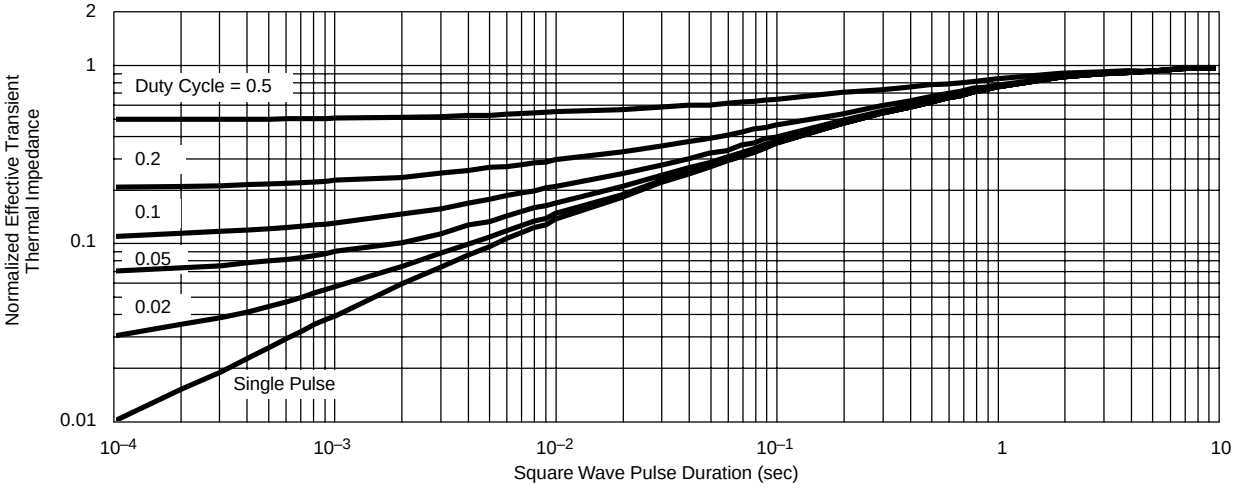
Single Pulse Power, Junction-to-Ambient



Normalized Thermal Transient Impedance, Junction-to-Ambient



Normalized Thermal Transient Impedance, Junction-to-Foot



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