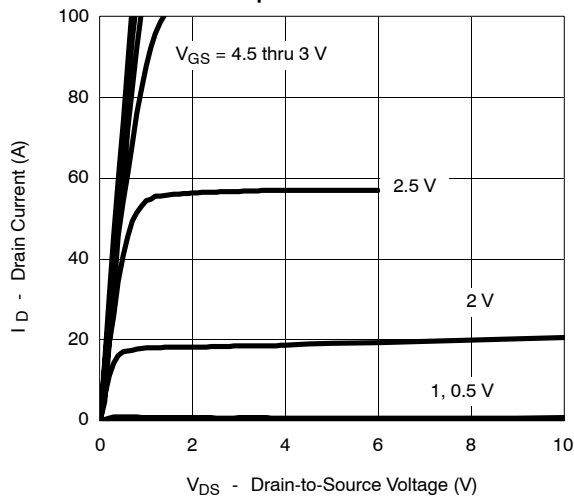
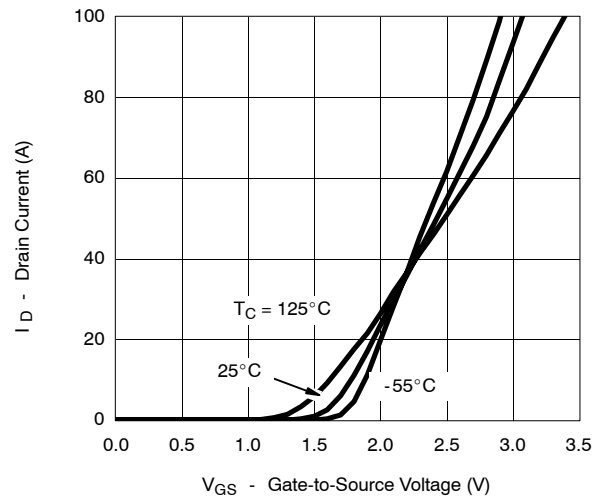
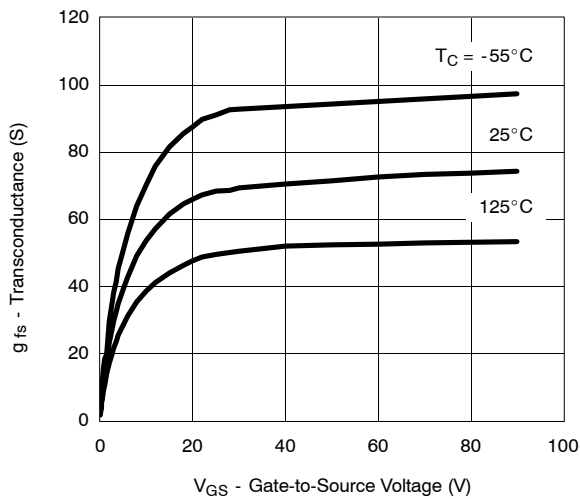
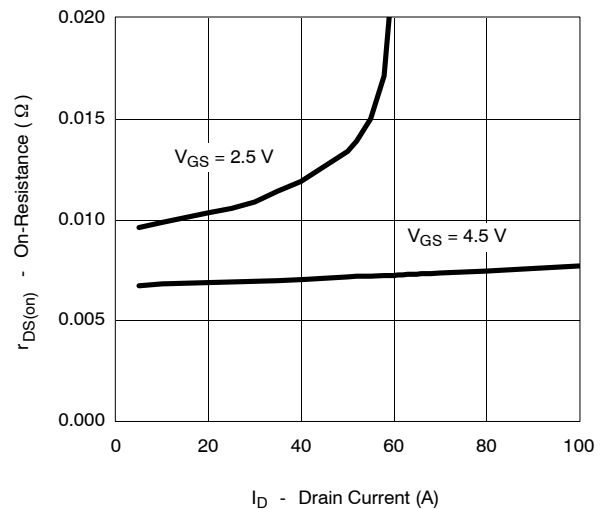
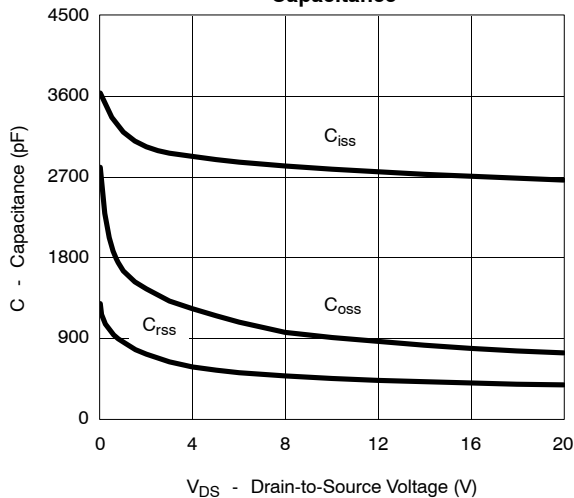
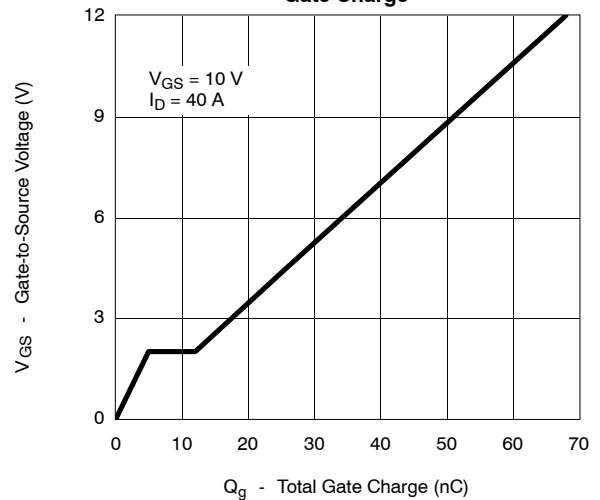
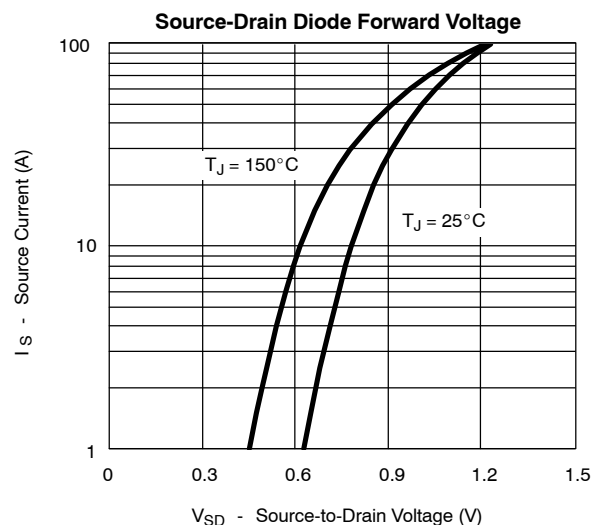
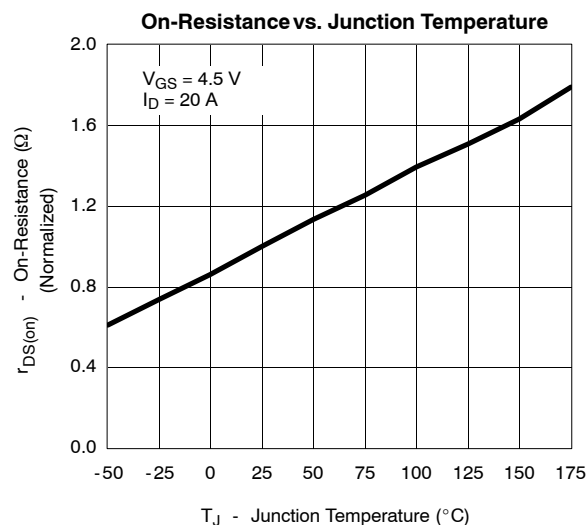
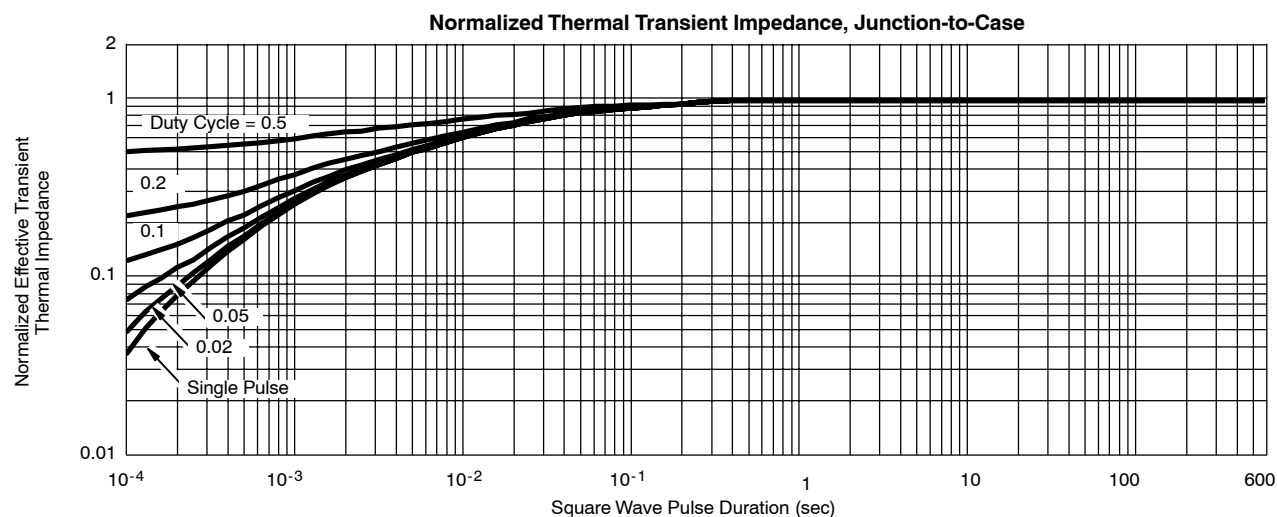
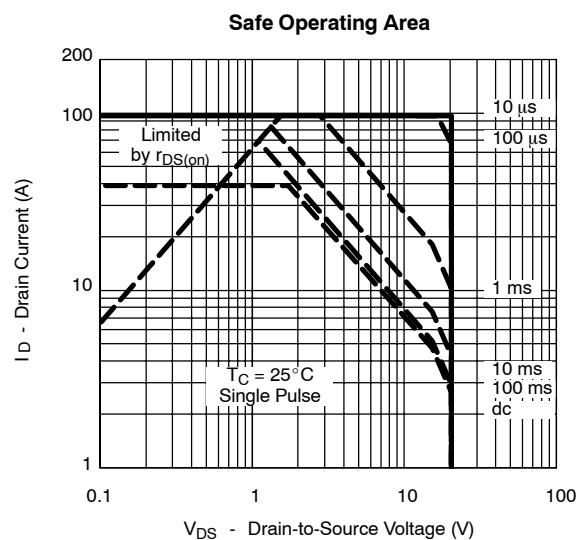
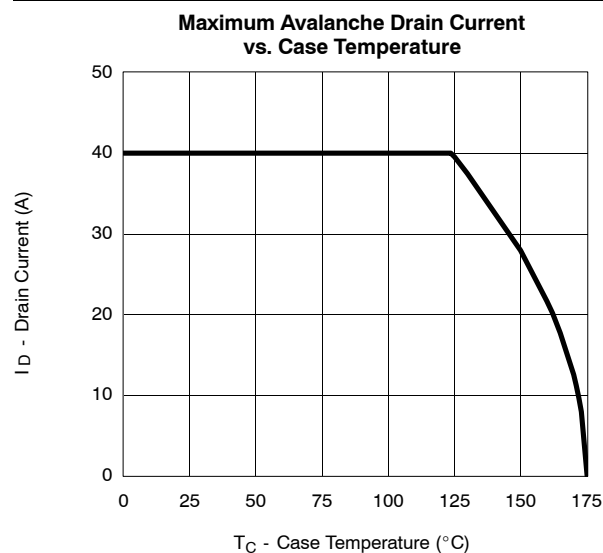


SPECIFICATIONS (T _J = 25 °C UNLESS OTHERWISE NOTED)						
Parameter	Symbol	Test Condition	Min	Typ ^a	Max	Unit
Static						
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} = 0 V, I _D = 250 μA	20			V
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250 μA	0.6			
Gate-Body Leakage	I _{GSS}	V _{DS} = 0 V, V _{GS} = ± 12 V			± 100	nA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = 20 V, V _{GS} = 0 V			1	μA
		V _{DS} = 20 V, V _{GS} = 0 V, T _J = 125 °C			50	
On-State Drain Current ^b	I _{D(on)}	V _{DS} = 5 V, V _{GS} = 4.5 V	40			A
Drain-Source On-State Resistance ^b	r _{DS(on)}	V _{GS} = 4.5 V, I _D = 20 A		0.0068	0.0085	Ω
		V _{GS} = 4.5 V, I _D = 20 A, T _J = 125 °C		0.0104	0.013	
		V _{GS} = 2.5 V, I _D = 20 A		0.011	0.014	
Forward Transconductance ^b	g _{fs}	V _{DS} = 5 V, I _D = 40 A	20			S
Dynamic ^a						
Input Capacitance	C _{iss}	V _{GS} = 0 V, V _{DS} = 20 V, f = 1 MHz		2660		pF
Output Capacitance	C _{oss}			730		
Reverse Transfer Capacitance	C _{rss}			375		
Total Gate Charge ^c	Q _g	V _{DS} = 10 V, V _{GS} = 4.5 V, I _D = 40 A		26	35	nC
Gate-Source Charge ^c	Q _{gs}			5		
Gate-Drain Charge ^c	Q _{gd}			7		
Gate Resistance	R _g		1		3.7	Ω
Turn-On Delay Time ^c	t _{d(on)}	V _{DD} = 10 V, R _L = 0.25 Ω I _D ≅ 40 A, V _{GEN} = 4.5 V, R _G = 2.5 Ω		20	35	ns
Rise Time ^c	t _r			120	190	
Turn-Off Delay Time ^c	t _{d(off)}			45	70	
Fall Time ^c	t _f			20	35	
Source-Drain Diode Ratings and Characteristic (T _C = 25 °C)						
Pulsed Current	I _{SM}				100	A
Diode Forward Voltage ^b	V _{SD}	I _F = 100 A, V _{GS} = 0 V		1.2	1.5	V
Source-Drain Reverse Recovery Time	t _{rr}	I _F = 40 A, di/dt = 100 A/μs		35	70	ns

Notes

- a. Guaranteed by design, not subject to production testing.
b. Pulse test; pulse width ≤ 300 μs, duty cycle ≤ 2%.
c. Independent of operating temperature.

TYPICAL CHARACTERISTICS (25°C UNLESS NOTED)
Output Characteristics

Transfer Characteristics

Transconductance

On-Resistance vs. Drain Current

Capacitance

Gate Charge


TYPICAL CHARACTERISTICS (25 °C UNLESS NOTED)

THERMAL RATINGS




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