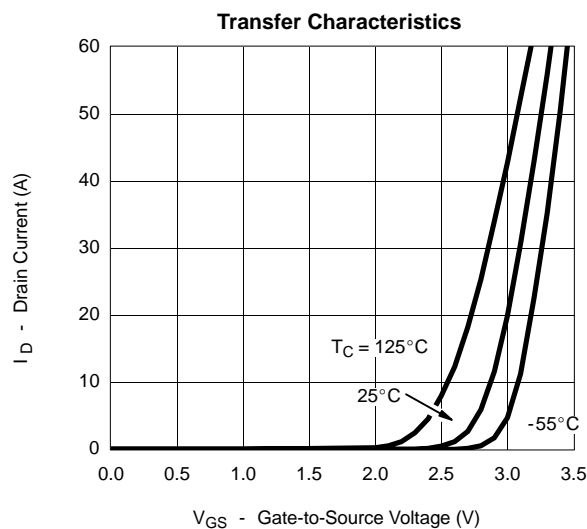
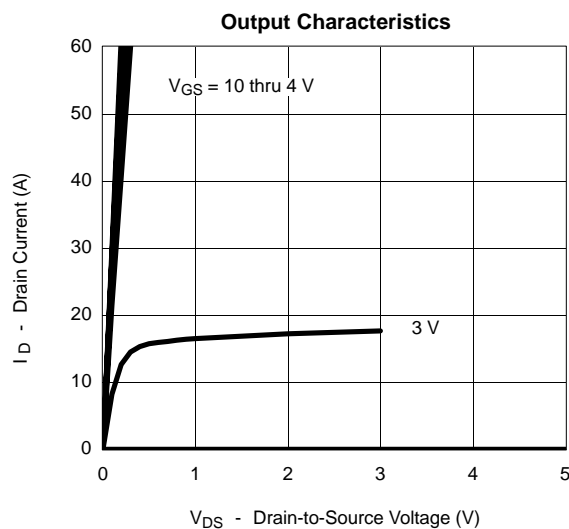


**SPECIFICATIONS ( $T_J = 25^\circ\text{C}$  UNLESS OTHERWISE NOTED)**

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
<b>Static</b>						
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}$ , $I_D = 250\ \mu\text{A}$	1.0	1.95	3.0	V
Gate-Body Leakage	$I_{GSS}$	$V_{DS} = 0\ \text{V}$ , $V_{GS} = \pm 20\ \text{V}$			$\pm 100$	nA
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = 24\ \text{V}$ , $V_{GS} = 0\ \text{V}$			1	$\mu\text{A}$
		$V_{DS} = 24\ \text{V}$ , $V_{GS} = 0\ \text{V}$ , $T_J = 55^\circ\text{C}$			5	
On-State Drain Current <sup>a</sup>	$I_{D(on)}$	$V_{DS} \geq 5\ \text{V}$ , $V_{GS} = 10\ \text{V}$	30			A
Drain-Source On-State Resistance <sup>a</sup>	$r_{DS(on)}$	$V_{GS} = 10\ \text{V}$ , $I_D = 25\ \text{A}$		0.0035	0.0045	$\Omega$
		$V_{GS} = 4.5\ \text{V}$ , $I_D = 19\ \text{A}$		0.0043	0.0055	
Forward Transconductance <sup>a</sup>	$g_{fs}$	$V_{DS} = 15\ \text{V}$ , $I_D = 25\ \text{A}$		95		S
Diode Forward Voltage <sup>a</sup>	$V_{SD}$	$I_S = 2.9\ \text{A}$ , $V_{GS} = 0\ \text{V}$		0.72	1.1	V
<b>Dynamic<sup>b</sup></b>						
Total Gate Charge	$Q_g$	$V_{DS} = 15\ \text{V}$ , $V_{GS} = 4.5\ \text{V}$ , $I_D = 25\ \text{A}$		34	50	nC
Gate-Source Charge	$Q_{gs}$			15		
Gate-Drain Charge	$Q_{gd}$			10		
Gate Resistance	$R_g$		0.5	1.3	2.0	$\Omega$
Turn-On Delay Time	$t_{d(on)}$	$V_{DD} = 15\ \text{V}$ , $R_L = 15\ \Omega$ $I_D \cong 1\ \text{A}$ , $V_{GEN} = 10\ \text{V}$ , $R_G = 6\ \Omega$		21	35	ns
Rise Time	$t_r$			15	25	
Turn-Off Delay Time	$t_{d(off)}$			100	150	
Fall Time	$t_f$			30	45	
Source-Drain Reverse Recovery Time	$t_{rr}$	$I_F = 2.9\ \text{A}$ , $di/dt = 100\ \text{A}/\mu\text{s}$		50	80	

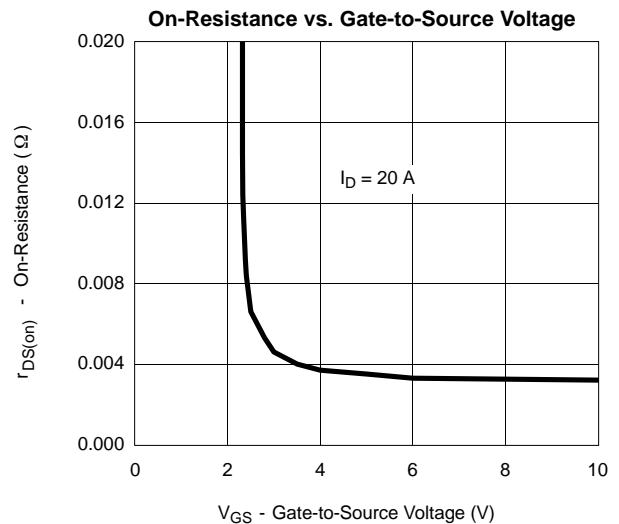
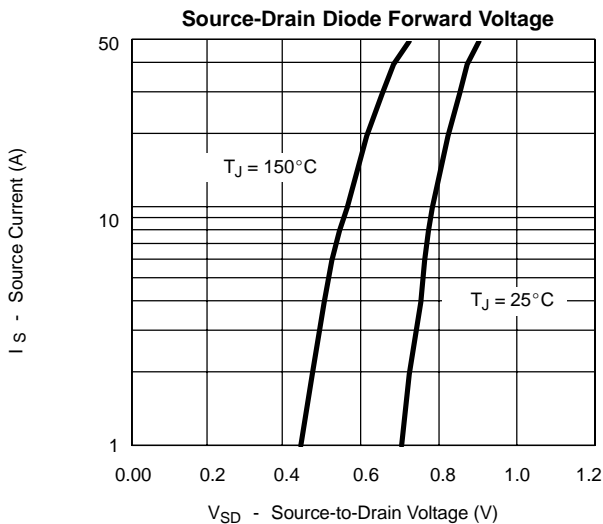
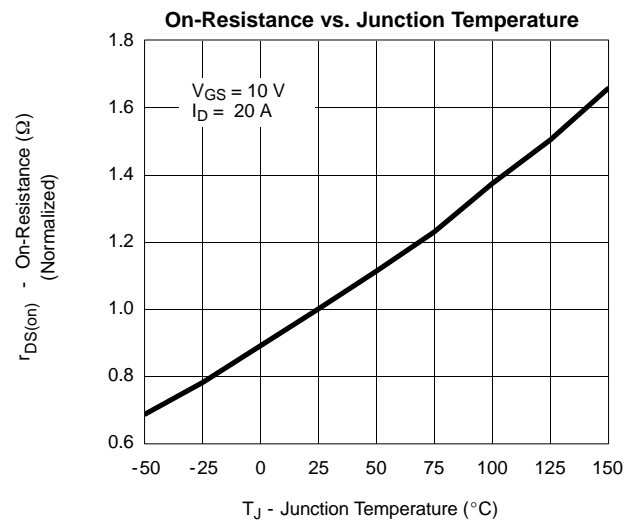
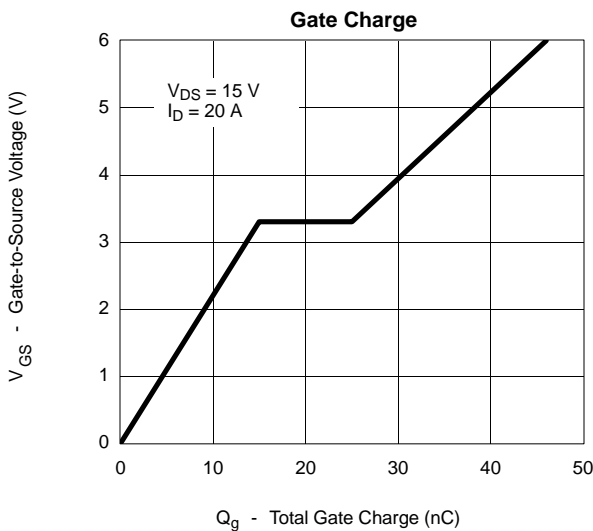
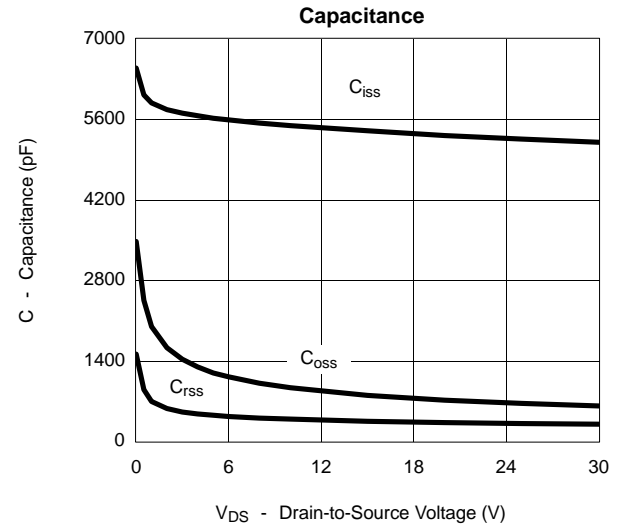
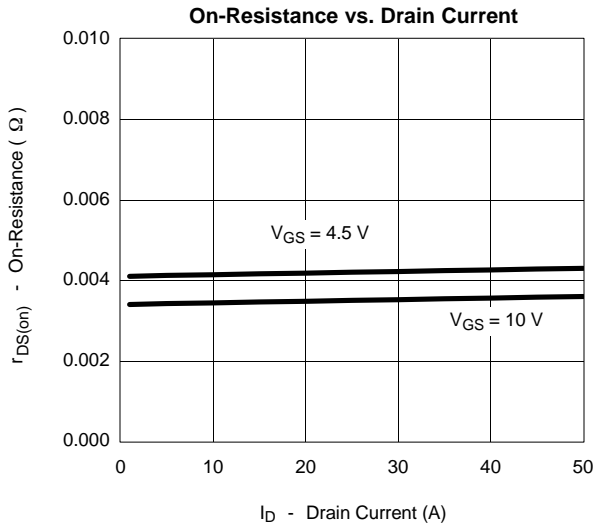
## Notes

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

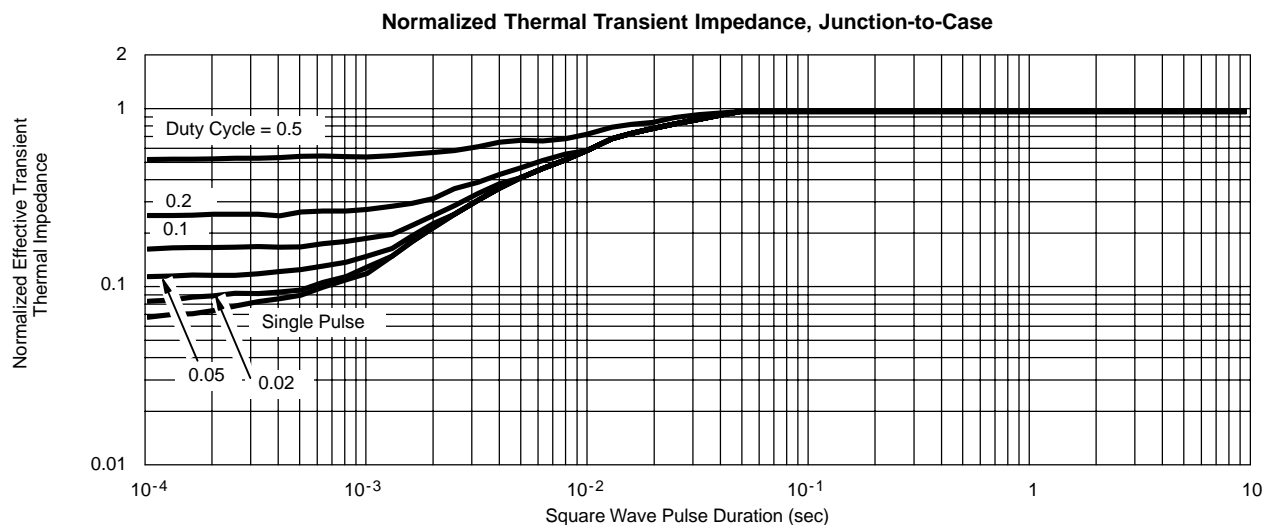
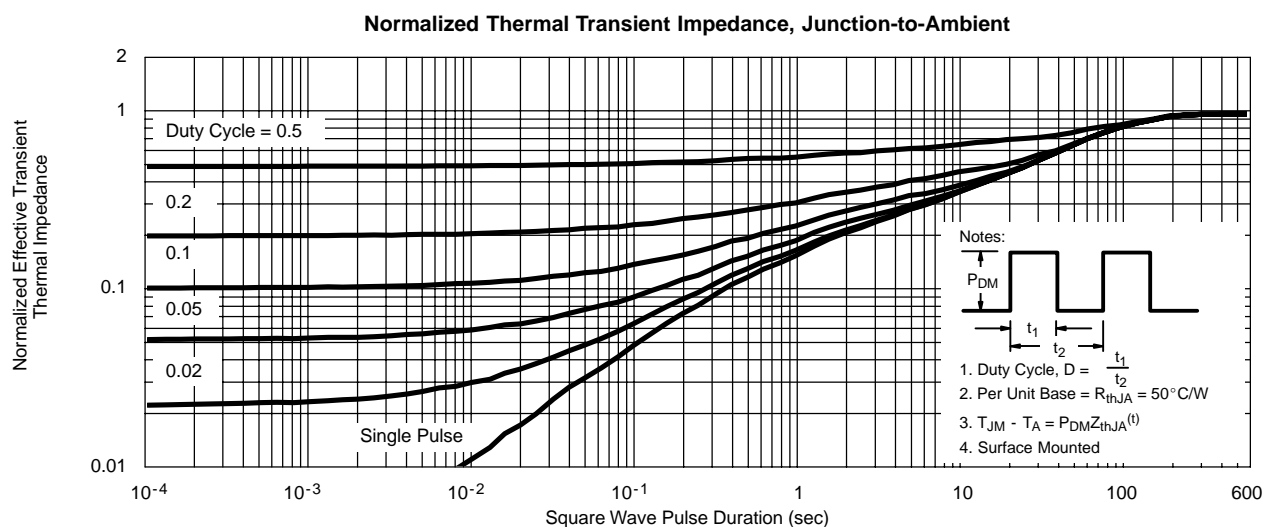
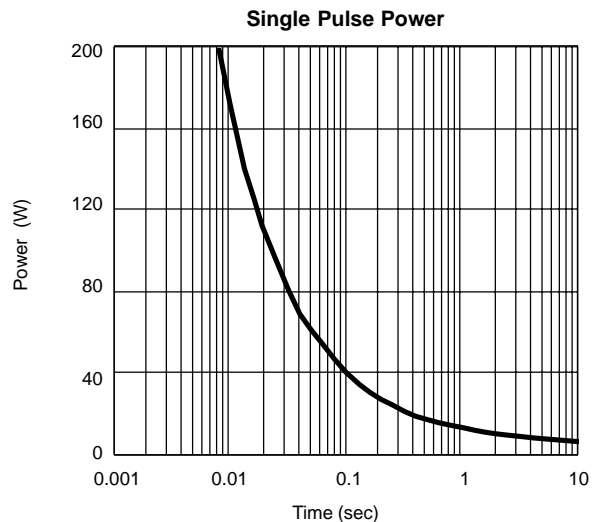
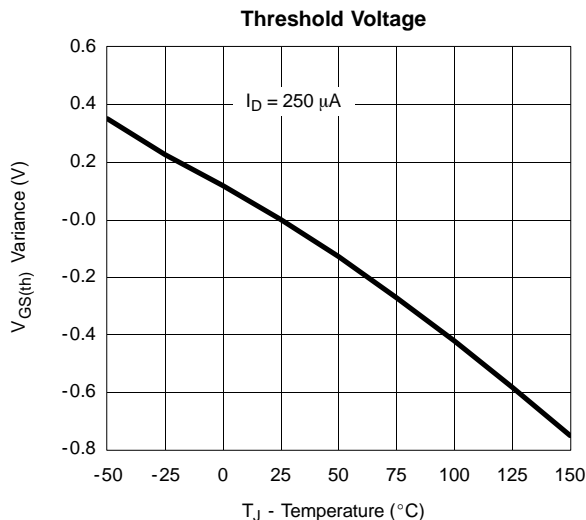
**TYPICAL CHARACTERISTICS ( $25^\circ\text{C}$  UNLESS NOTED)**



**TYPICAL CHARACTERISTICS (25°C UNLESS NOTED)**



**TYPICAL CHARACTERISTICS (25°C UNLESS NOTED)**





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