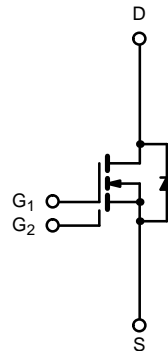
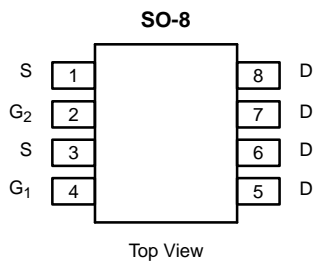


Dual Gate, N-Channel 25-V (D-S) MOSFET

PRODUCT SUMMARY			
	V_{DS} (V)	$r_{DS(on)}$ (Ω)	I_D (A)
Gate 1	25	0.027 @ $V_{GS} = 4.5$ V	± 7.0
		0.038 @ $V_{GS} = 3.0$ V	± 6.0
Gate 2		0.400 @ $V_{GS} = 4.5$ V	± 1.8
		0.570 @ $V_{GS} = 3.0$ V	± 1.5



N-Channel MOSFET

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)					
Parameter	Symbol	Gate 1	Gate 2	Unit	
Drain-Source Voltage	V_{DS}	25		V	
Gate-Source Voltage	V_{GS}	± 12			
Continuous Drain Current ($T_J = 150^\circ\text{C}$) ^a	I_D	$T_A = 25^\circ\text{C}$	± 7.0	± 1.8	A
		$T_A = 70^\circ\text{C}$	± 5.7	± 1.5	
Pulsed Drain Current	I_{DM}	± 40	± 4.0		
Continuous Source Current (Diode Conduction) ^a	I_S	2.1			
Maximum Power Dissipation ^a	P_D	$T_A = 25^\circ\text{C}$	2.5		W
		$T_A = 70^\circ\text{C}$	1.0		
Operating Junction and Storage Temperature Range	T_J, T_{stg}	-55 to 150		$^\circ\text{C}$	

THERMAL RESISTANCE RATINGS			
Parameter	Symbol	Gate 1 or Gate 2	Unit
Maximum Junction-to-Ambient ^a	R_{thJA}	50	$^\circ\text{C/W}$

Notes

a. Surface Mounted on FR4 Board, $t \leq 10$ sec.



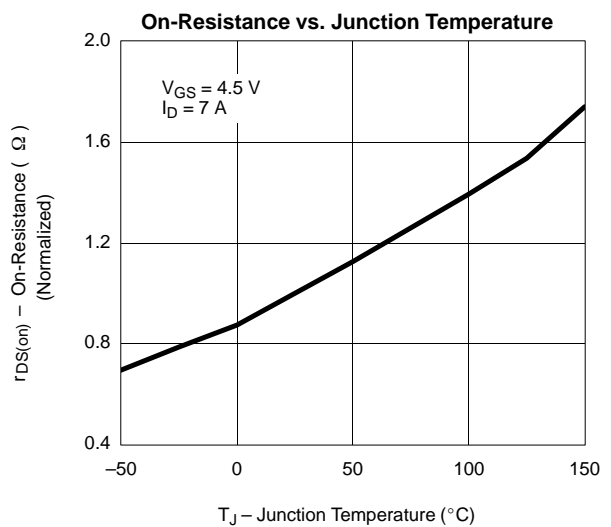
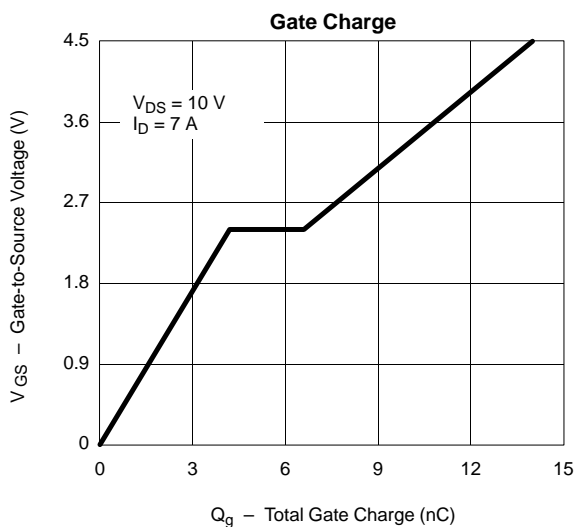
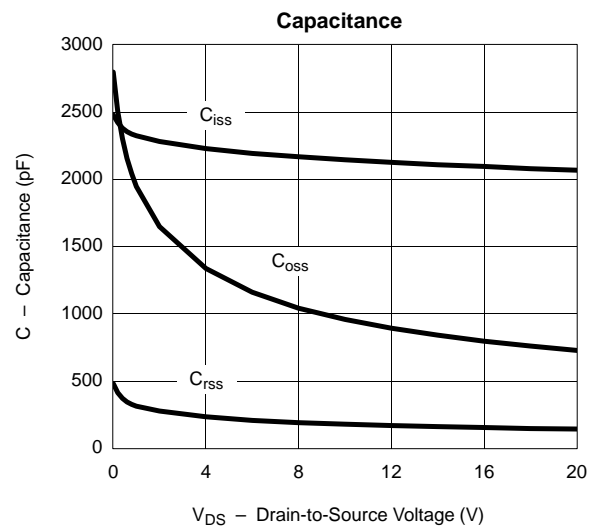
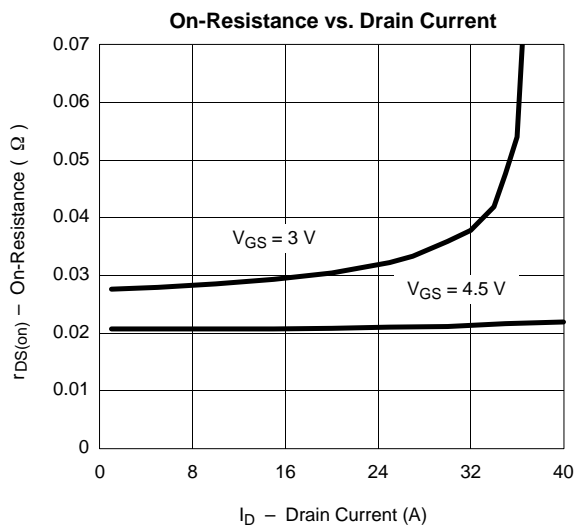
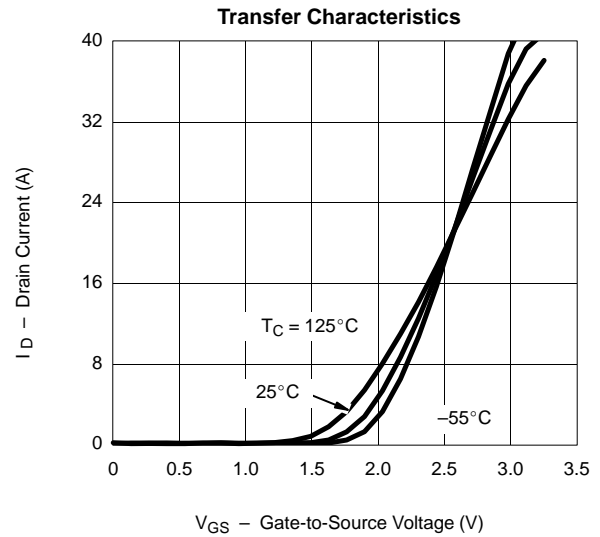
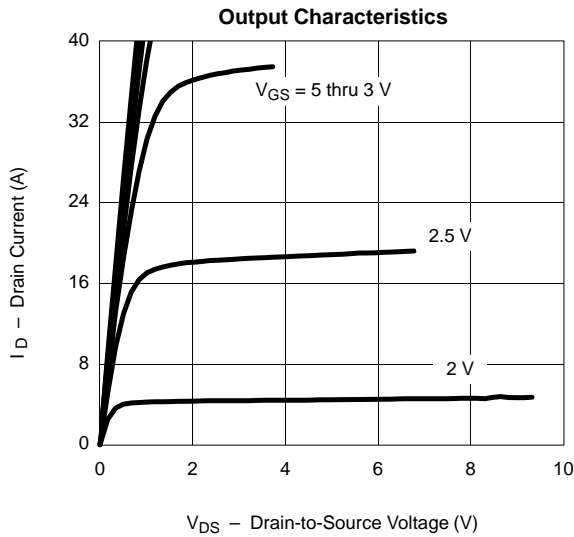
SPECIFICATIONS (T _J = 25 °C UNLESS OTHERWISE NOTED)							
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit	
Static							
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250 μA	0.6			V	
Gate-Body Leakage	I _{GSS}	V _{DS} = 0 V, V _{GS} = ±12 V			±100	nA	
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = 25 V, V _{GS} = 0 V			1	μA	
		V _{DS} = 25 V, V _{GS} = 0 V, T _J = 55 °C			5		
On-State Drain Current ^a	I _{D(on)}	(G ₁ = G ₂) V _{DS} = 5 V, V _{GS} = 4.5 V	40			A	
Drain-Source On-State Resistance ^a	r _{DS1(on)}	(G ₁ = G ₂) V _{GS} = 4.5 V, I _D = 7.0 A		0.021	0.027	Ω	
		(G ₁ = G ₂) V _{GS} = 3.0 V, I _D = 6.0 A		0.028	0.038		
	r _{DS2(on)}	V _{G1S} = 0 V, V _{G2S} = 4.5 V, I _D = 1.8 A		0.265	0.400		
		V _{G1S} = 0 V, V _{G2S} = 3.0 V, I _D = 0.3 A		0.340	0.570		
Forward Transconductance ^a	g _{fs}	V _{DS} = 10 V, I _D = 7.0 A		25		S	
Diode Forward Voltage ^a	V _{SD}	I _S = 2.1 A, V _{GS} = 0 V		0.71	1.1	V	
Dynamic^b							
Total Gate Charge	Q _g	Gate 1 V _{DS} = 10 V, V _{GS(1,2)} = 4.5 V I _D = 7.0 A Gate 2 V _{DS} = 10 V, V _{GS(1)} = 0 V, V _{GS(2)} = 4.5 V, I _D = 1.8 A	Gate 1		14	20	nC
			Gate 2		1.2	2.5	
Gate-Source Charge	Q _{gs}		Gate 1		4.2		
			Gate 2		0.3		
Gate-Drain Charge	Q _{gd}		Gate 1		2.4		
			Gate 2		0.3		
Turn-On Delay Time	t _{d(on)}	V _{DD} = 10 V, R _L = 10 Ω I _D ≅ 1 A, V _{GEN} = 4.5 V, R _G = 6 Ω			23	40	ns
Rise Time	t _r				30	60	
Turn-Off Delay Time	t _{d(off)}				46	90	
Fall Time	t _f				18	30	
Source-Drain Reverse Recovery Time	t _{rr}		I _F = 2.1 A, di/dt = 100 A/μs			60	

Notes

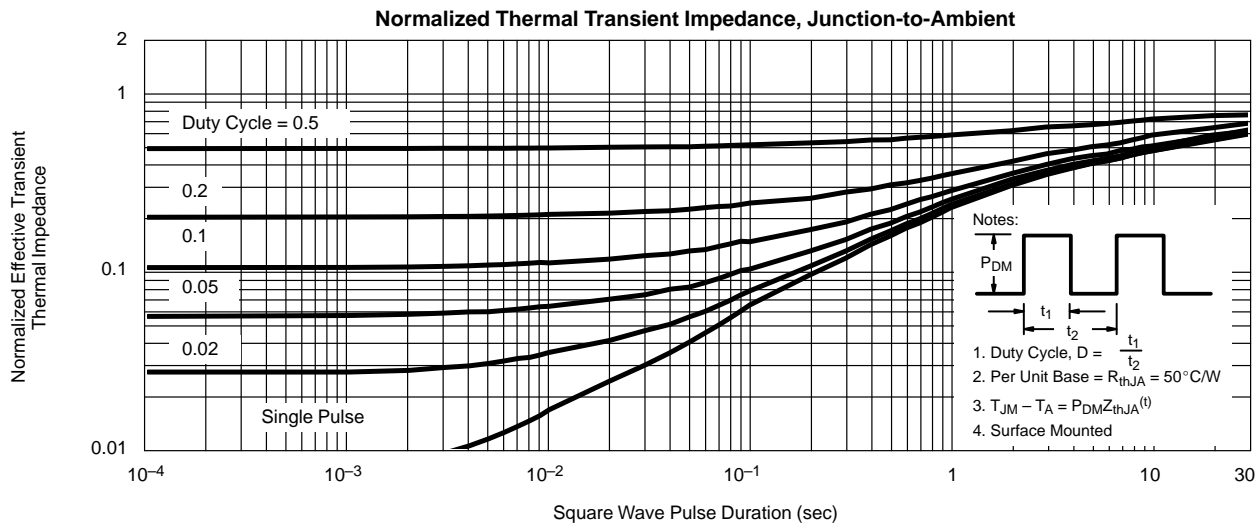
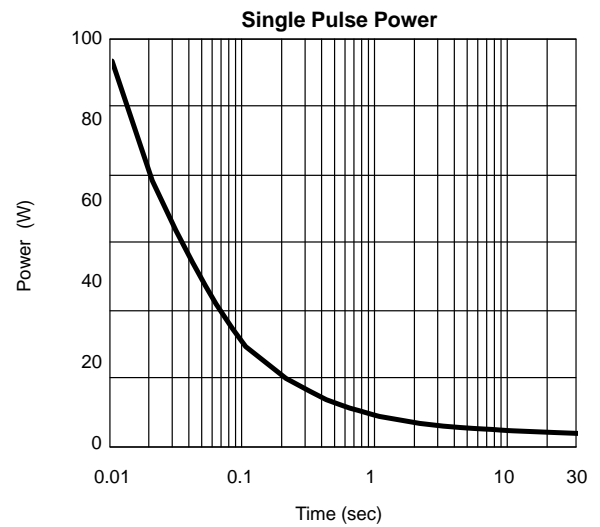
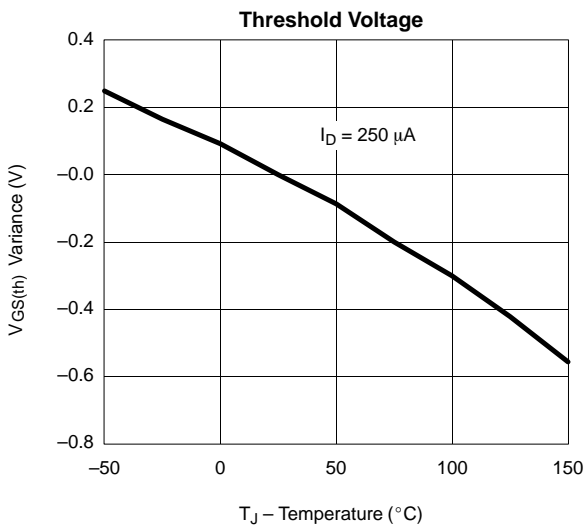
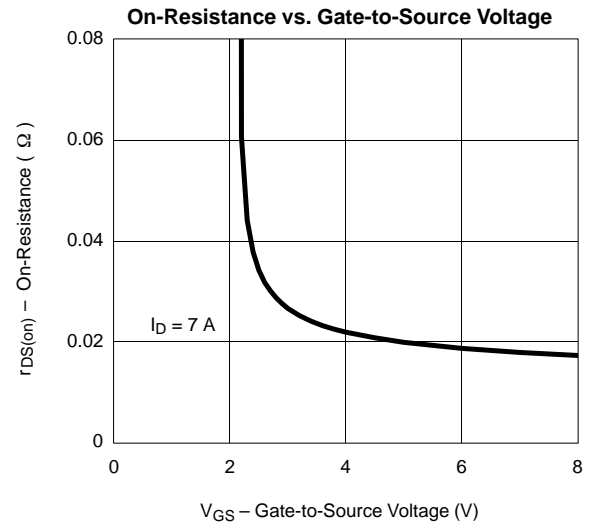
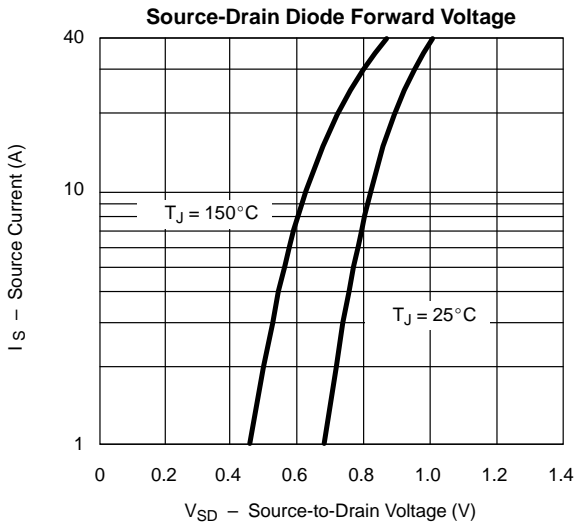
- a. Pulse test; pulse width ≤ 300 μs, duty cycle ≤ 2%.
- b. Guaranteed by design, not subject to production testing.



TYPICAL CHARACTERISTICS (25°C UNLESS NOTED)



TYPICAL CHARACTERISTICS (25°C UNLESS NOTED)





TYPICAL CHARACTERISTICS (25°C UNLESS NOTED)

