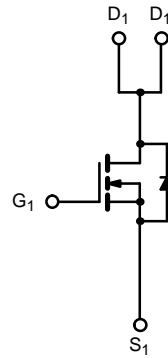
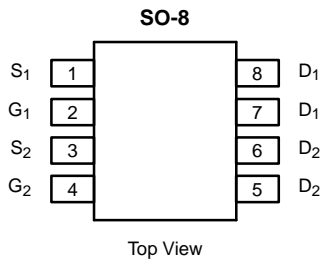




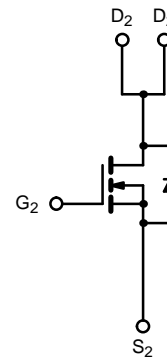
Dual N-Channel 60-V (D-S), 175°C MOSFET

PRODUCT SUMMARY		
V_{DS} (V)	$r_{DS(on)}$ (Ω)	I_D (A)
60	0.080 @ $V_{GS} = 10$ V	± 3.7
	0.100 @ $V_{GS} = 4.5$ V	± 3.4

175°C Rated
Maximum Junction Temperature
TrenchFET®
Power MOSFETS



N-Channel MOSFET



N-Channel MOSFET

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)				
Parameter		Symbol	Limit	Unit
Drain-Source Voltage		V_{DS}	60	V
Gate-Source Voltage		V_{GS}	± 20	
Continuous Drain Current ($T_J = 175^\circ\text{C}$) ^a	$T_A = 25^\circ\text{C}$	I_D	± 3.7	A
	$T_A = 70^\circ\text{C}$		± 3.2	
Pulsed Drain Current		I_{DM}	25	
Continuous Source Current (Diode Conduction) ^a		I_S	2	
Maximum Power Dissipation ^a	$T_A = 25^\circ\text{C}$	P_D	2.4	W
	$T_A = 70^\circ\text{C}$		1.7	
Operating Junction and Storage Temperature Range		T_J, T_{stg}	-55 to 175	$^\circ\text{C}$

THERMAL RESISTANCE RATINGS					
Parameter		Symbol	Typ	Max	Unit
Junction-to-Ambient ^a	$t \leq 10$ sec	R_{thJA}		62.5	$^\circ\text{C/W}$
	Steady State		93		

Notes

a. Surface Mounted on 1" x 1" FR4 Board

For SPICE model information via the Worldwide Web: <http://www.vishay.com/www/product/spice.htm>



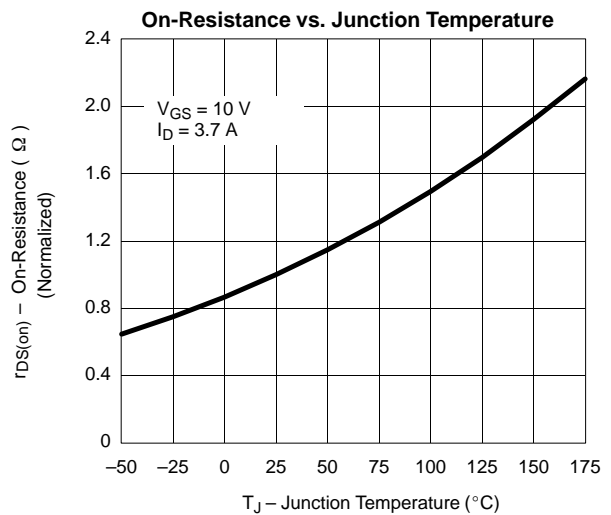
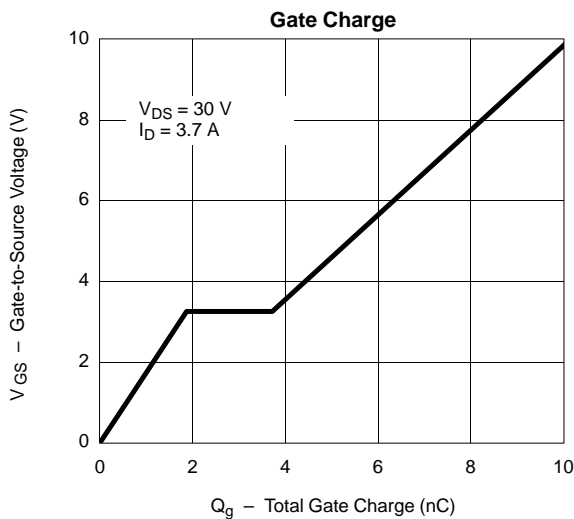
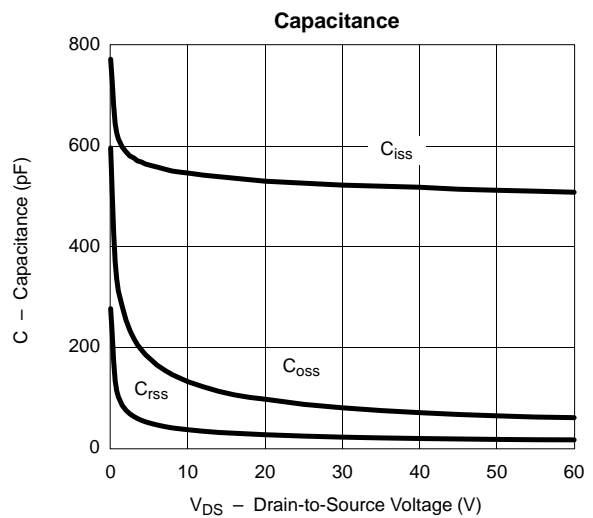
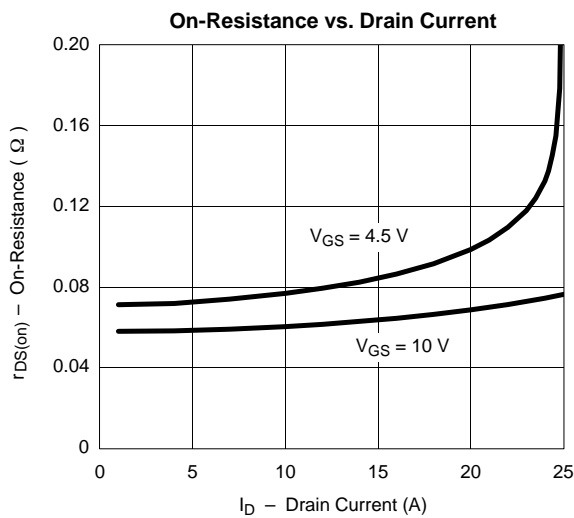
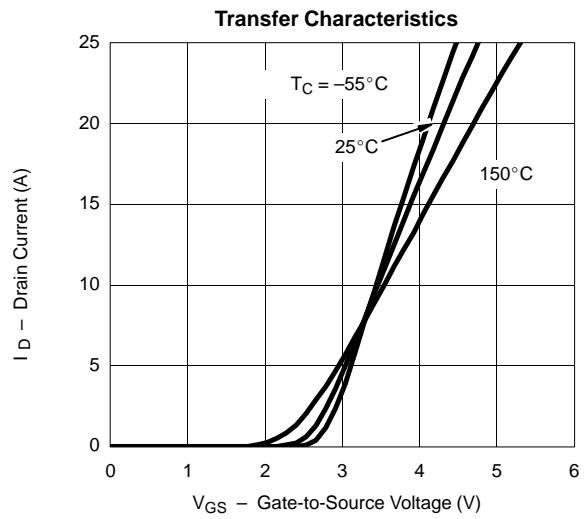
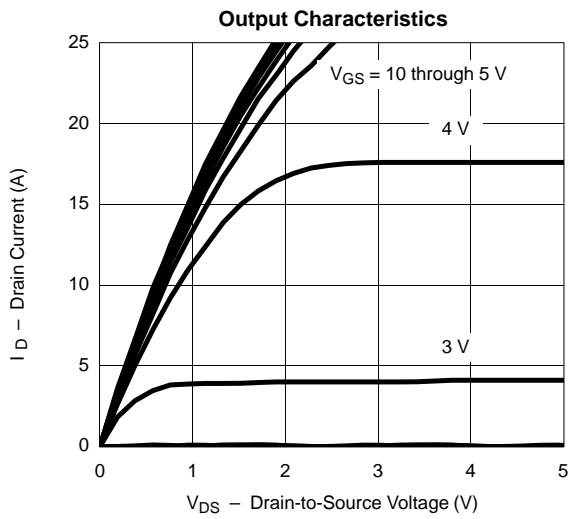
SPECIFICATIONS (T_J = 25 °C UNLESS OTHERWISE NOTED)						
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Static						
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250 μA	1.0			V
Gate-Body Leakage	I _{GSS}	V _{DS} = 0 V, V _{GS} = ±20 V			±100	nA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = 60 V, V _{GS} = 0 V			1	μA
		V _{DS} = 60 V, V _{GS} = 0 V, T _J = 55 °C			10	
On-State Drain Current ^a	I _{D(on)}	V _{DS} ≥ 5 V, V _{GS} = 10 V	20			A
Drain-Source On-State Resistance ^a	r _{DS(on)}	V _{GS} = 10 V, I _D = 3.7 A		0.06	0.080	Ω
		V _{GS} = 4.5 V, I _D = 3.4 A		0.075	0.100	
Forward Transconductance ^a	g _{fs}	V _{DS} = 15 V, I _D = 3.7 A		11		S
Diode Forward Voltage ^a	V _{SD}	I _S = 2.0 A, V _{GS} = 0 V			1.2	V
Dynamic^b						
Total Gate Charge	Q _g	V _{DS} = 30 V, V _{GS} = 10 V, I _D = 3.7 A		11	20	nC
Gate-Source Charge	Q _{gs}			2		
Gate-Drain Charge	Q _{gd}			2		
Turn-On Delay Time	t _{d(on)}	V _{DD} = 30 V, R _L = 30 Ω I _D ≅ 1 A, V _{GEN} = 10 V, R _G = 6 Ω		9	20	ns
Rise Time	t _r			10	20	
Turn-Off Delay Time	t _{d(off)}			21	40	
Fall Time	t _f			8	20	
Source-Drain Reverse Recovery Time	t _{rr}	I _F = 2.0 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)



TYPICAL CHARACTERISTICS (25°C UNLESS NOTED)

