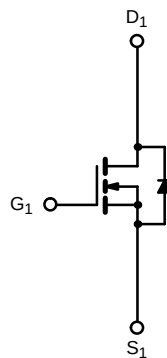
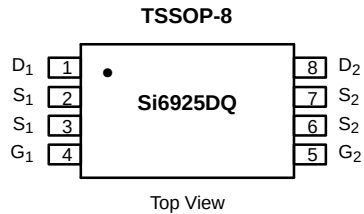




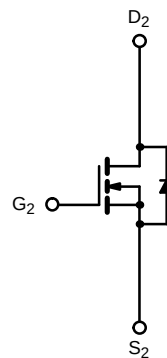
Dual N-Channel 2.5-V (G-S) MOSFET

PRODUCT SUMMARY		
V_{DS} (V)	$r_{DS(on)}$ (Ω)	I_D (A)
20	0.05 @ $V_{GS} = 4.5$ V	± 3.4
	0.06 @ $V_{GS} = 3.0$ V	± 3.1
	0.08 @ $V_{GS} = 2.5$ V	± 2.7

2.5-V Rated



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}	20	V
Gate-Source Voltage	V_{GS}	± 12	
Continuous Drain Current ($T_J = 150^\circ\text{C}$) ^a	$T_A = 25^\circ\text{C}$	I_D	A
	$T_A = 70^\circ\text{C}$	± 3.4	
Pulsed Drain Current (10 μs Pulse Width)	I_{DM}	± 30	
Continuous Source Current (Diode Conduction) ^a	I_S	1.25	W
Maximum Power Dissipation ^a	$T_A = 25^\circ\text{C}$	P_D	
	$T_A = 70^\circ\text{C}$	0.64	
Operating Junction and Storage Temperature Range	T_J, T_{stg}	-55 to 150	$^\circ\text{C}$

THERMAL RESISTANCE RATINGS			
Parameter	Symbol	Limit	Unit
Maximum Junction-to-Ambient ^a	R_{thJA}	125	$^\circ\text{C/W}$

Notes

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

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

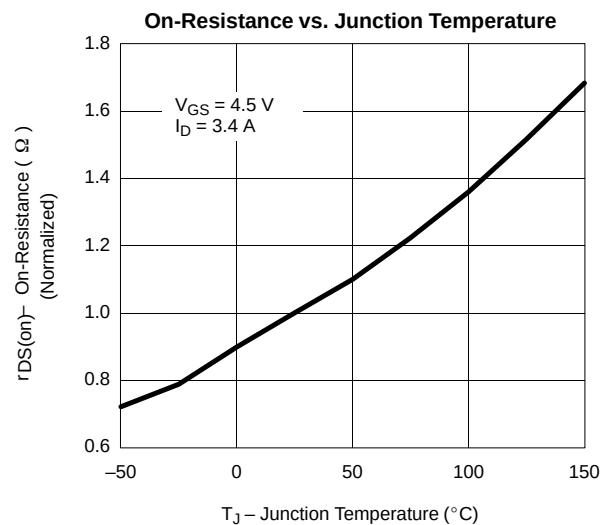
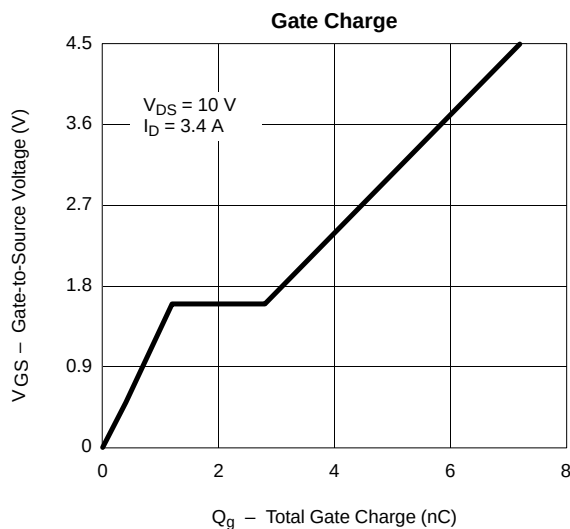
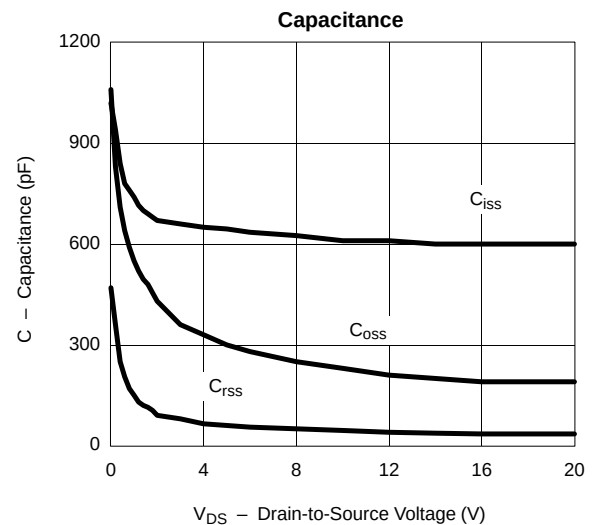
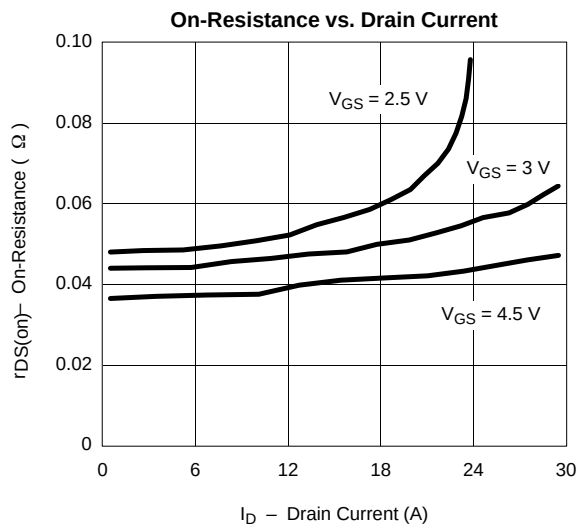
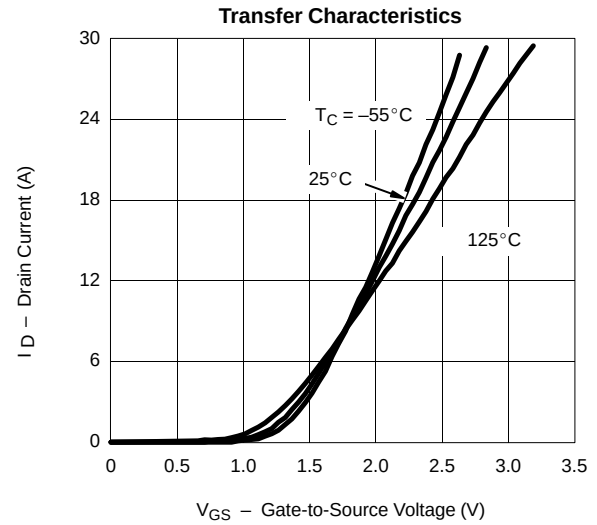
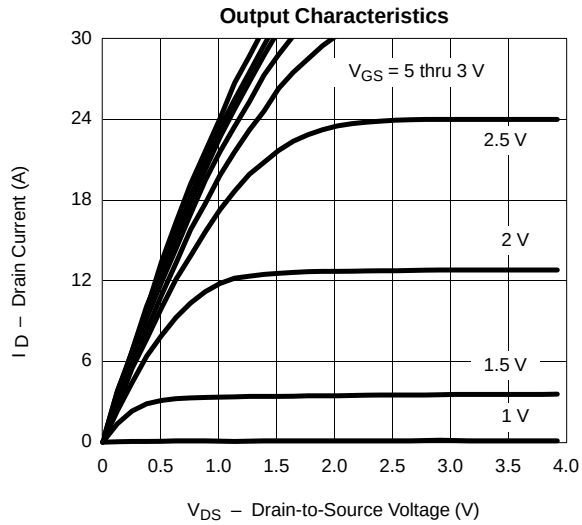
SPECIFICATIONS ($T_J = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)						
Parameter	Symbol	Test Condition	Min	Typ ^a	Max	Unit
Static						
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}$, $I_D = 250\ \mu\text{A}$	0.5			V
Gate-Body Leakage	I_{GSS}	$V_{DS} = 0\ \text{V}$, $V_{GS} = \pm 12\ \text{V}$			± 100	nA
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 20\ \text{V}$, $V_{GS} = 0\ \text{V}$			1	μA
		$V_{DS} = 16\ \text{V}$, $V_{GS} = 0\ \text{V}$, $T_J = 70^\circ\text{C}$			5	
On-State Drain Current ^b	$I_{D(on)}$	$V_{DS} \geq 5\ \text{V}$, $V_{GS} = 4.5\ \text{V}$	10			A
Drain-Source On-State Resistance ^b	$r_{DS(on)}$	$V_{GS} = 4.5\ \text{V}$, $I_D = 3.4\ \text{A}$		0.038	0.05	Ω
		$V_{GS} = 3.0\ \text{V}$, $I_D = 3.1\ \text{A}$		0.044	0.07	
		$V_{GS} = 2.5\ \text{V}$, $I_D = 2.7\ \text{A}$		0.048	0.08	
Forward Transconductance ^b	g_{fs}	$V_{DS} = 10\ \text{V}$, $I_D = 3.4\ \text{A}$		18		S
Diode Forward Voltage ^b	V_{SD}	$I_S = 1.25\ \text{A}$, $V_{GS} = 0\ \text{V}$		0.7	1.2	V
Dynamic^a						
Total Gate Charge	Q_g	$V_{DS} = 6\ \text{V}$, $V_{GS} = 4.5\ \text{V}$, $I_D = 3.4\ \text{A}$		7.5	15	nC
Gate-Source Charge	Q_{gs}			1.2		
Gate-Drain Charge	Q_{gd}			1.8		
Turn-On Delay Time	$t_{d(on)}$	$V_{DD} = 6\ \text{V}$, $R_L = 6\ \Omega$ $I_D \approx 1\ \text{A}$, $V_{GEN} = 4.5\ \text{V}$, $R_G = 6\ \Omega$		10	20	ns
Rise Time	t_r			25	50	
Turn-Off Delay Time	$t_{d(off)}$			40	60	
Fall Time	t_f			10	20	
Source-Drain Reverse Recovery Time	t_{rr}	$I_F = 1.25\ \text{A}$, $di/dt = 100\ \text{A}/\mu\text{s}$		50	90	

Notes

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



TYPICAL CHARACTERISTICS (25°C UNLESS NOTED)



TYPICAL CHARACTERISTICS (25°C UNLESS NOTED)

