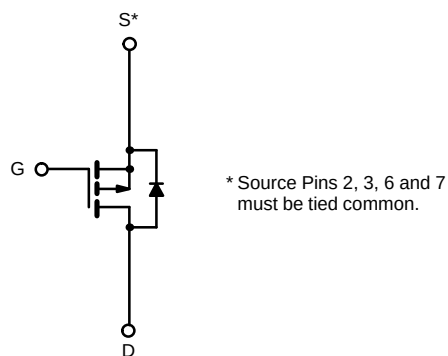
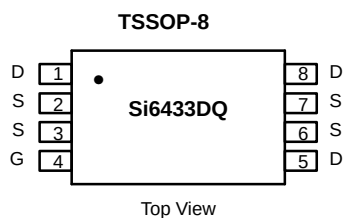


P-Channel 2.5-V (G-S) MOSFET

PRODUCT SUMMARY

V_{DS} (V)	$r_{DS(on)}$ (Ω)	I_D (A)
-12	0.06 @ $V_{GS} = -4.5$ V	± 4.0
	0.09 @ $V_{GS} = -2.5$ V	± 3.0



P-Channel MOSFET

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

Parameter	Symbol	Limit	Unit
Drain-Source Voltage	V_{DS}	-12	V
Gate-Source Voltage	V_{GS}	± 8	
Continuous Drain Current ($T_J = 150^\circ\text{C}$) ^a	I_D	± 4.0	A
		± 3.2	
Pulsed Drain Current	I_{DM}	± 20	
Continuous Source Current (Diode Conduction) ^a	I_S	-1.4	
Maximum Power Dissipation ^a	P_D	1.5	W
		1.0	
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}	83	$^\circ\text{C/W}$

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>

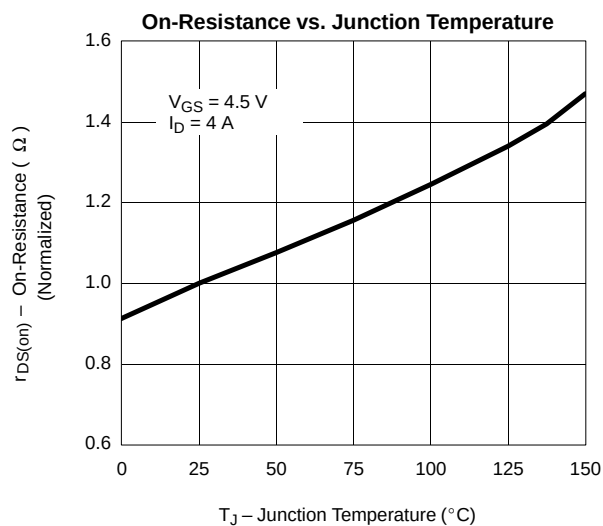
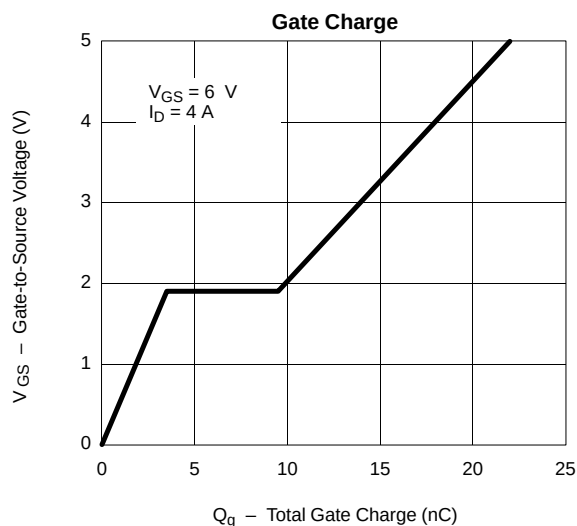
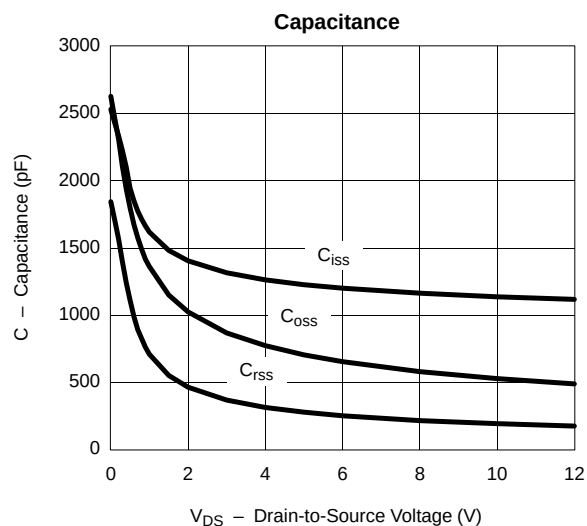
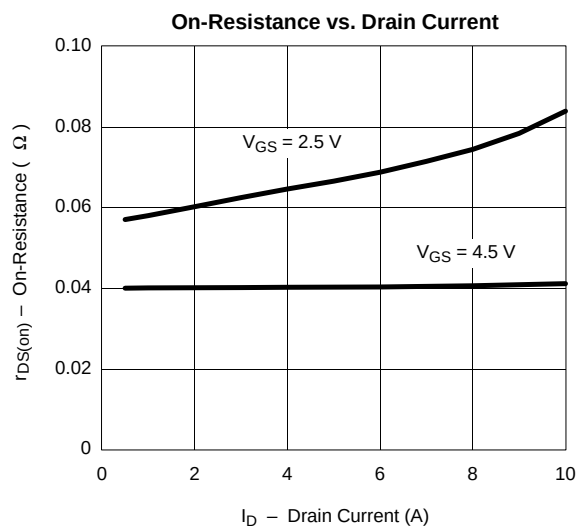
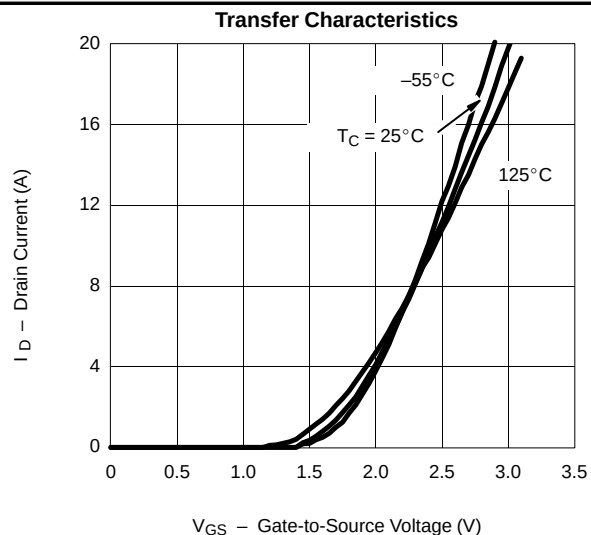
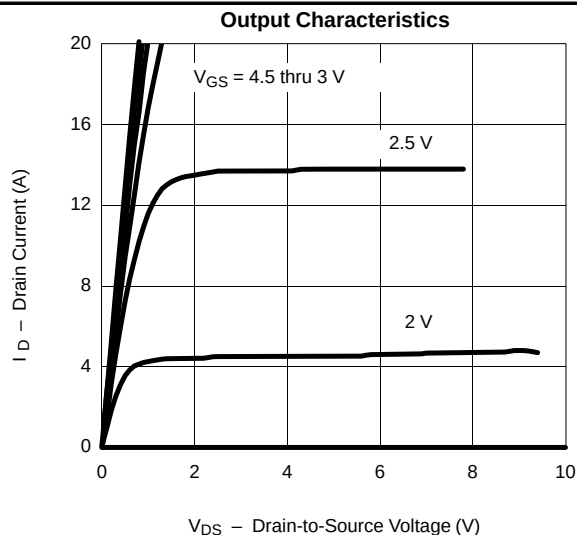
SPECIFICATIONS (T_J = 25 °C UNLESS OTHERWISE NOTED)						
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Static						
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250 μA	−0.6			V
Gate-Body Leakage	I _{GSS}	V _{DS} = 0 V, V _{GS} = ±8 V			±100	nA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = −12 V, V _{GS} = 0 V			−1	μA
		V _{DS} = −12 V, V _{GS} = 0 V, T _J = 70 °C			−25	
On-State Drain Current ^a	I _{D(on)}	V _{DS} = −5 V, V _{GS} = −4.5 V	−10			A
		V _{DS} = −5 V, V _{GS} = −2.5 V	−4			
Drain-Source On-State Resistance ^a	r _{DS(on)}	V _{GS} = −4.5 V, I _D = 4.0 A		0.040	0.06	Ω
		V _{GS} = −2.5 V, I _D = 2.0 A		0.060	0.09	
Forward Transconductance ^a	g _{fs}	V _{DS} = −9 V, I _D = −4.0 A		13		S
Diode Forward Voltage ^a	V _{SD}	I _S = −1.4 A, V _{GS} = 0 V		−0.8	−1.2	V
Dynamic^b						
Total Gate Charge	Q _g	V _{DS} = −6 V, V _{GS} = −4.5 V, I _D = −4.0 A		20	40	nC
Gate-Source Charge	Q _{gs}			3.5		
Gate-Drain Charge	Q _{gd}			6.0		
Turn-On Delay Time	t _{d(on)}	V _{DD} = −6 V, R _L = 6 Ω I _D ≅ −1 A, V _{GEN} = −4.5 V, R _G = 6 Ω		26	60	ns
Rise Time	t _r			47	100	
Turn-Off Delay Time	t _{d(off)}			87	180	
Fall Time	t _f			47	100	
Source-Drain Reverse Recovery Time	t _{rr}	I _F = −1.4 A, di/dt = 100 A/μs		70	100	

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)

