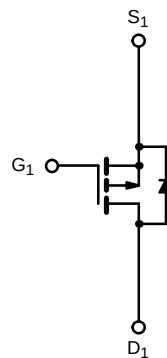
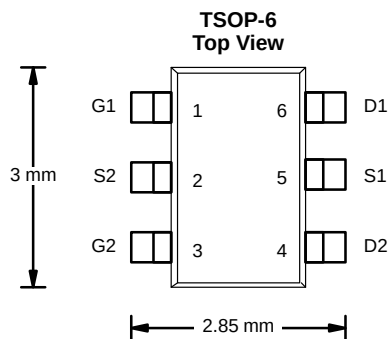




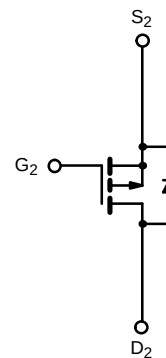
Dual P-Channel 8-V (D-S) MOSFET

PRODUCT SUMMARY

V_{DS} (V)	$r_{DS(on)}$ (Ω)	I_D (A)
-8	0.125 @ $V_{GS} = -4.5$ V	± 2.5
	0.175 @ $V_{GS} = -2.5$ V	± 2.0
	0.265 @ $V_{GS} = -1.8$ V	± 1.7

TrenchFET[®]
Power MOSFETs
1.8-V Rated

P-Channel MOSFET



P-Channel MOSFET

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

Parameter		Symbol	Limit	Unit
Drain-Source Voltage		V_{DS}	-8	V
Gate-Source Voltage		V_{GS}	± 8	
Continuous Drain Current ($T_J = 150^\circ\text{C}$) ^{a, b}	$T_A = 25^\circ\text{C}$	I_D	± 2.5	A
	$T_A = 70^\circ\text{C}$		± 2.0	
Pulsed Drain Current		I_{DM}	± 7	
Continuous Diode Current (Diode Conduction) ^{a, b}		I_S	-1.05	
Maximum Power Dissipation ^{a, b}	$T_A = 25^\circ\text{C}$	P_D	1.15	W
	$T_A = 70^\circ\text{C}$		0.73	
Operating Junction and Storage Temperature Range		T_J, T_{stg}	-55 to 150	$^\circ\text{C}$

THERMAL RESISTANCE RATINGS

Parameter		Symbol	Typical	Maximum	Unit
Maximum Junction-to-Ambient ^a	$t \leq 5$ sec	R_{thJA}	93	110	$^\circ\text{C/W}$
	Steady State		130	150	
Maximum Junction-to-Lead	Steady State	R_{thJL}	75	90	

Notes

- a. Surface Mounted on FR4 Board.
b. $t \leq 5$ sec

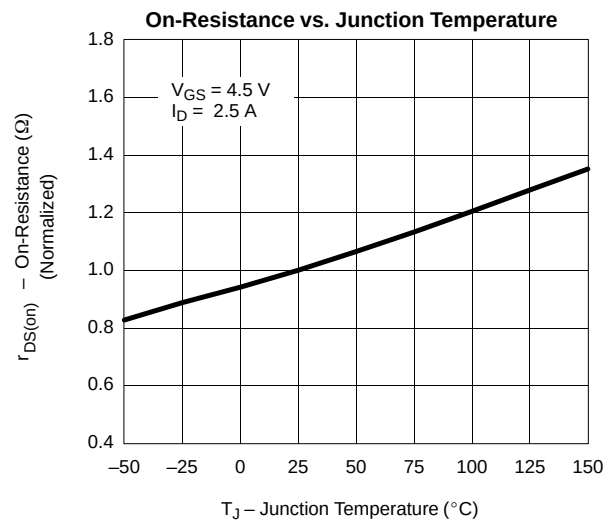
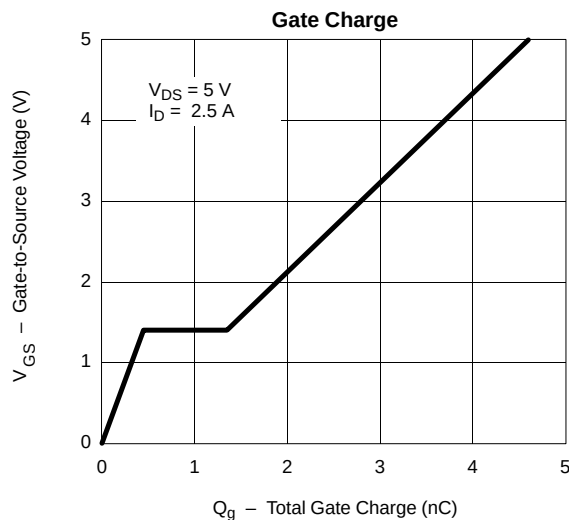
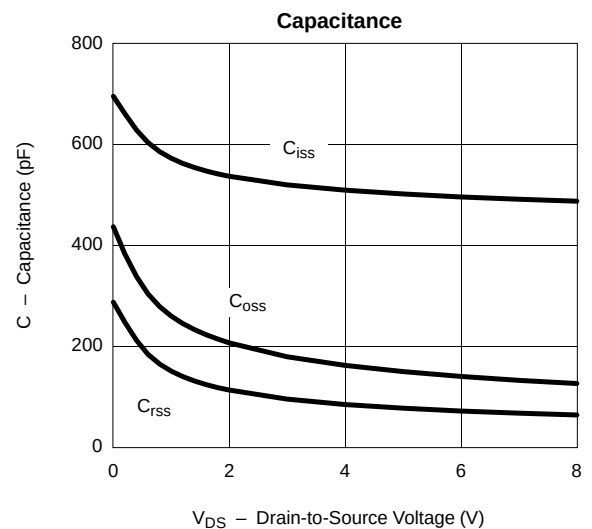
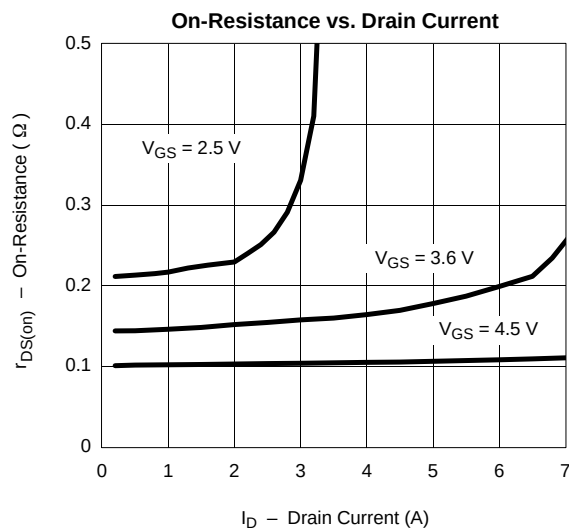
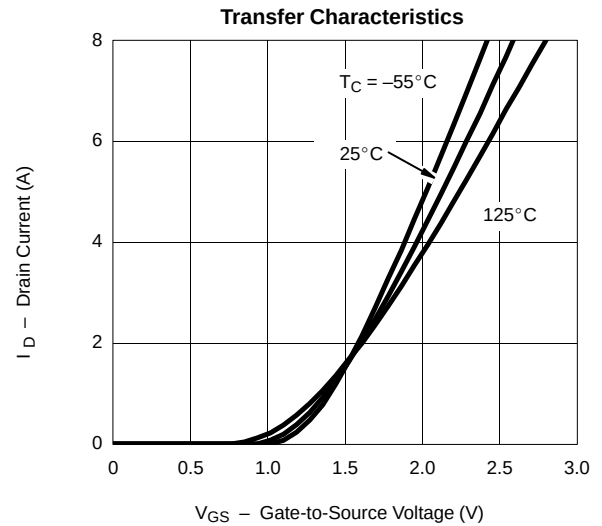
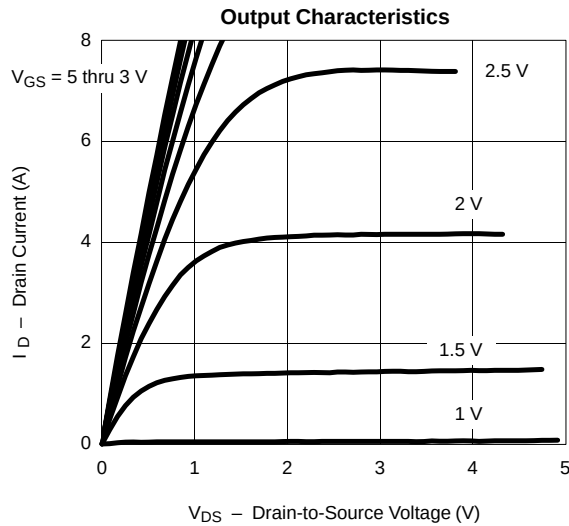
**SPECIFICATIONS ($T_J = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)**

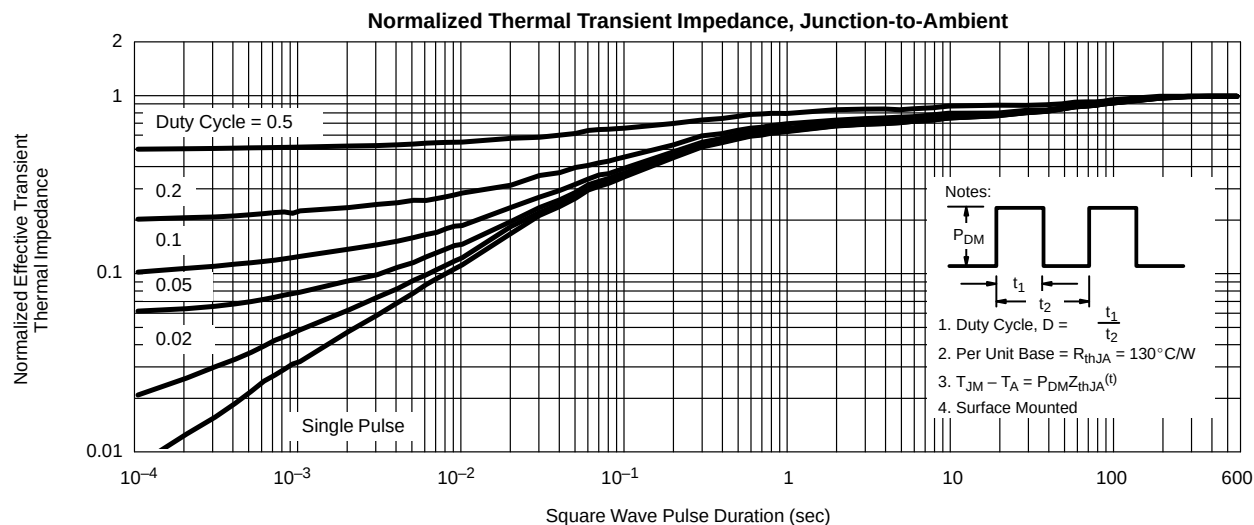
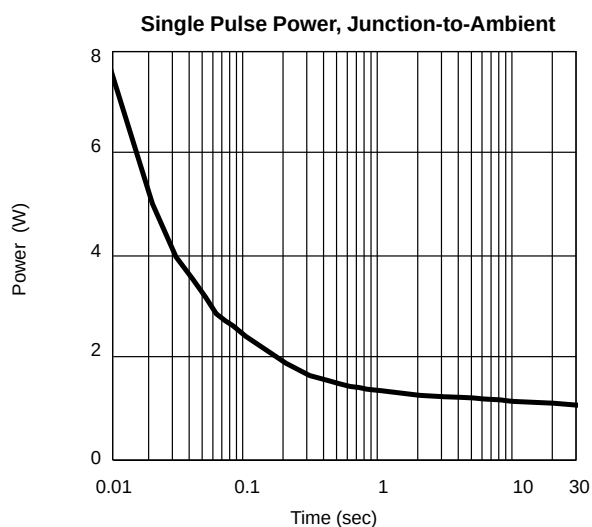
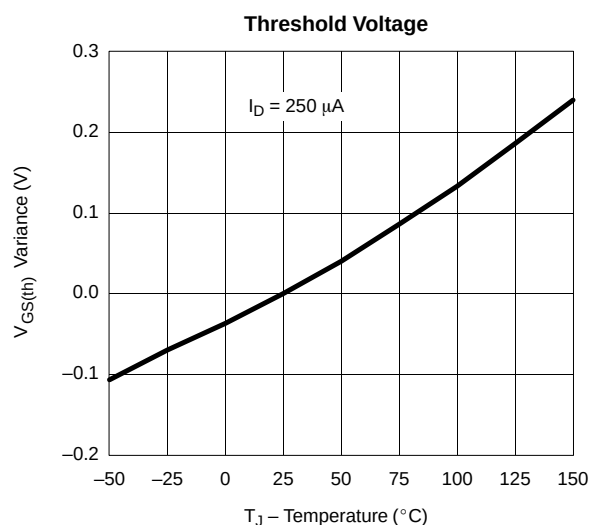
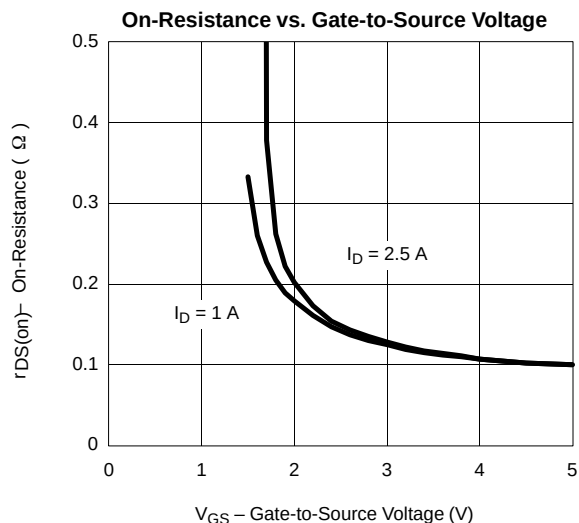
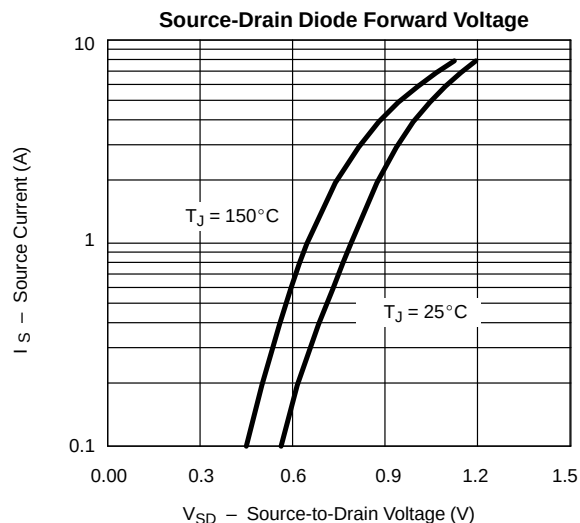
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Static						
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = -250\ \mu\text{A}$	-0.45			V
Gate-Body Leakage	I_{GSS}	$V_{DS} = 0\ \text{V}, V_{GS} = \pm 8\ \text{V}$			± 100	nA
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -6.4\ \text{V}, V_{GS} = 0\ \text{V}$			-1	μA
		$V_{DS} = -6.4\ \text{V}, V_{GS} = 0\ \text{V}, T_J = 55^\circ\text{C}$			-5	
On-State Drain Current ^a	$I_{D(on)}$	$V_{DS} = \leq -5\ \text{V}, V_{GS} = -4.5\ \text{V}$	-5			A
Drain-Source On-State Resistance ^a	$r_{DS(on)}$	$V_{GS} = -4.5\ \text{V}, I_D = -2.5\ \text{A}$		0.103	0.125	Ω
		$V_{GS} = -2.5\ \text{V}, I_D = -2.0\ \text{A}$		0.146	0.175	
		$V_{GS} = -1.8\ \text{V}, I_D = -1\ \text{A}$		0.205	0.265	
Forward Transconductance ^a	g_{fs}	$V_{DS} = -4.5\ \text{V}, I_D = -2.5\ \text{A}$		5.3		S
Diode Forward Voltage ^a	V_{SD}	$I_S = -1.05\ \text{A}, V_{GS} = 0\ \text{V}$		-0.79	-1.1	V
Dynamic^b						
Total Gate Charge	Q_g	$V_{DS} = -5\ \text{V}, V_{GS} = -4.5\ \text{V}, I_D = -2.5\ \text{A}$		4.2	6	nC
Gate-Source Charge	Q_{gs}			0.45		
Gate-Drain Charge	Q_{gd}			0.90		
Turn-On Delay Time	$t_{d(on)}$	$V_{DD} = -5\ \text{V}, R_L = 5\ \Omega$ $I_D \approx -1\ \text{A}, V_{GEN} = -4.5\ \text{V}, R_G = 6\ \Omega$		10	15	ns
Rise Time	t_r			47	70	
Turn-Off Delay Time	$t_{d(off)}$			28	45	
Fall Time	t_f			34	50	
Source-Drain Reverse Recovery Time	t_{rr}	$I_F = -1.05\ \text{A}, di/dt = 100\ \text{A}/\mu\text{s}$		20	40	ns

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°C UNLESS NOTED)**

TYPICAL CHARACTERISTICS (25°C UNLESS NOTED)




TYPICAL CHARACTERISTICS (25°C UNLESS NOTED)

