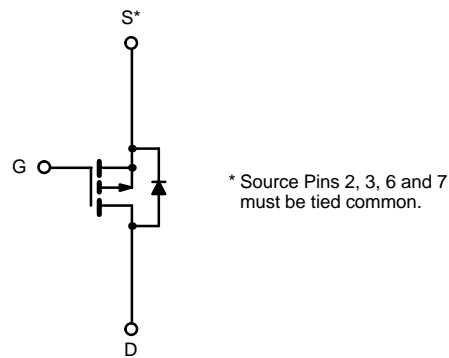
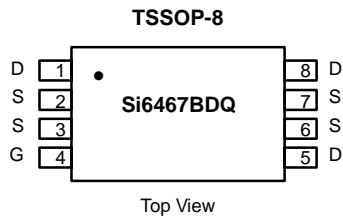




P-Channel 1.8-V (G-S) MOSFET

PRODUCT SUMMARY		
V _{DS} (V)	r _{DS(on)} (Ω)	I _D (A)
-12	0.0125 @ V _{GS} = -4.5 V	-8.0
	0.0155 @ V _{GS} = -2.5 V	-7.0
	0.020 @ V _{GS} = -1.8 V	-6.0

TrenchFET[®]
Power MOSFETS



P-Channel MOSFET

ABSOLUTE MAXIMUM RATINGS (T _A = 25°C UNLESS OTHERWISE NOTED)					
Parameter		Symbol	10 secs	Steady State	Unit
Drain-Source Voltage		V _{DS}	-12		V
Gate-Source Voltage		V _{GS}	±8		
Continuous Drain Current (T _J = 150°C) ^a	T _A = 25°C	I _D	-8.0	-6.8	A
	T _A = 70°C		-6.5	-5.4	
Pulsed Drain Current (10 μs Pulse Width)		I _{DM}	-30		
Continuous Source Current (Diode Conduction) ^a		I _S	-1.35	-0.95	
Maximum Power Dissipation ^a	T _A = 25°C	P _D	1.5	1.05	W
	T _A = 70°C		1.0	0.67	
Operating Junction and Storage Temperature Range		T _J , T _{stg}	-55 to 150		°C

THERMAL RESISTANCE RATINGS					
Parameter		Symbol	Typical	Maximum	Unit
Maximum Junction-to-Ambient ^a	t ≤ 10 sec	R _{thJA}	65	83	°C/W
	Steady State		100	120	
Maximum Junction-to-Foot (Drain)	Steady State	R _{thJF}	43	52	

Notes

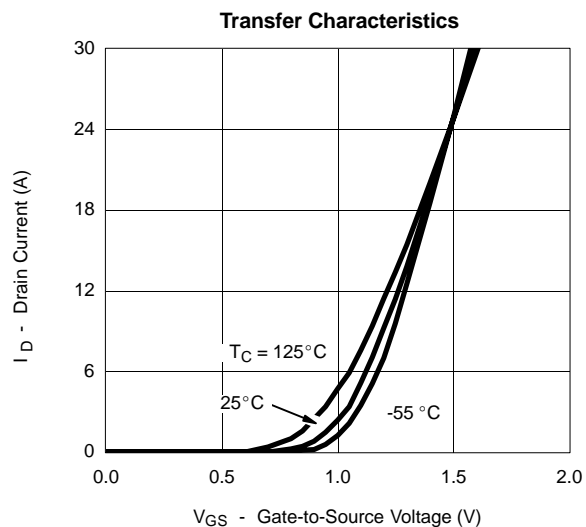
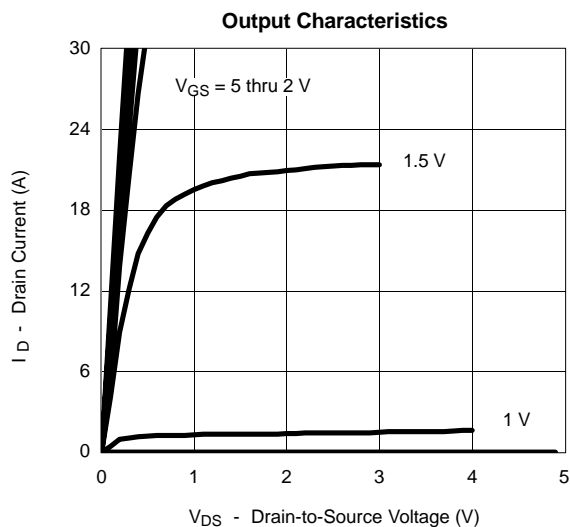
a. Surface Mounted on 1" x 1" FR4 Board.

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 = -450 μA	-0.45		-0.75	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} = -9.6 V, V _{GS} = 0 V			-1	μA
		V _{DS} = -9.6 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	-20			A
Drain-Source On-State Resistance ^a	r _{DS(on)}	V _{GS} = -4.5 V, I _D = -8.0 A		0.010	0.0125	Ω
		V _{GS} = -2.5 V, I _D = -7.0 A		0.0125	0.0155	
		V _{GS} = -1.8 V, I _D = -5.8 A		0.016	0.020	
Forward Transconductance ^a	g _{fs}	V _{DS} = -5 V, I _D = -8.0 A		44		S
Diode Forward Voltage ^a	V _{SD}	I _S = -1.5 A, V _{GS} = 0 V		-0.56	-1.1	V
Dynamic^b						
Total Gate Charge	Q _g	V _{DS} = -6 V, V _{GS} = -4.5 V, I _D = -8.0 A		46	70	nC
Gate-Source Charge	Q _{gs}		5			
Gate-Drain Charge	Q _{gd}		15.5			
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		45	70	ns
Rise Time	t _r			85	130	
Turn-Off Delay Time	t _{d(off)}			220	400	
Fall Time	t _f			155	235	
Source-Drain Reverse Recovery Time	t _{rr}	I _F = -1.5 A, di/dt = 100 A/μs		140	210	

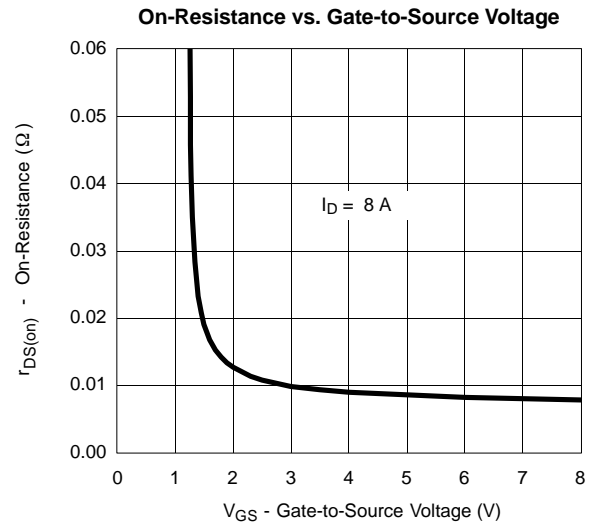
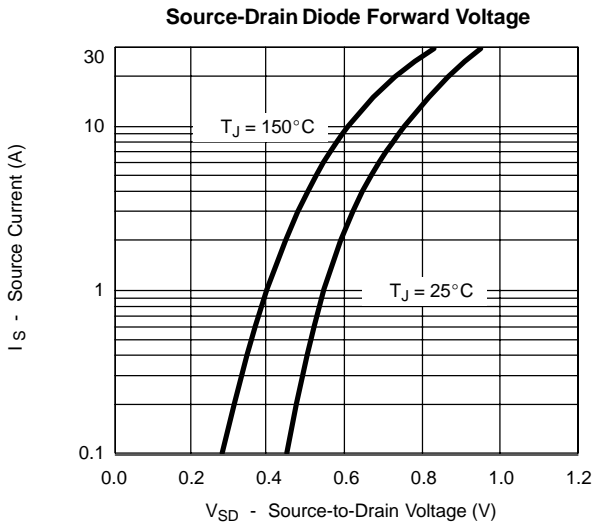
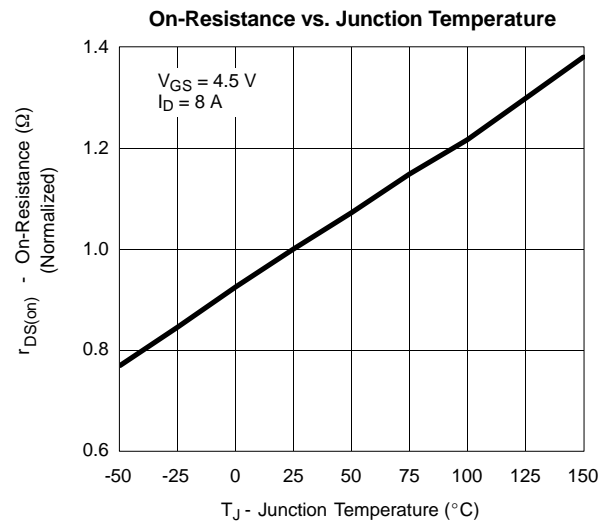
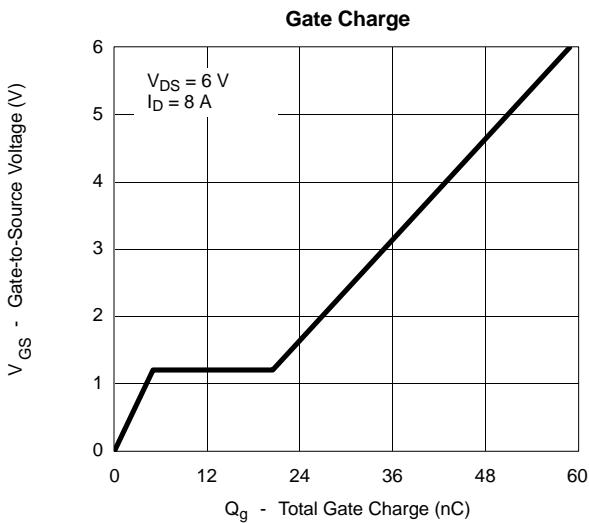
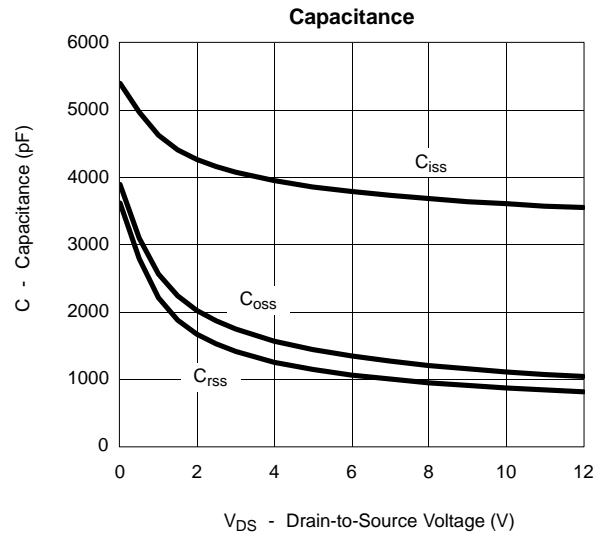
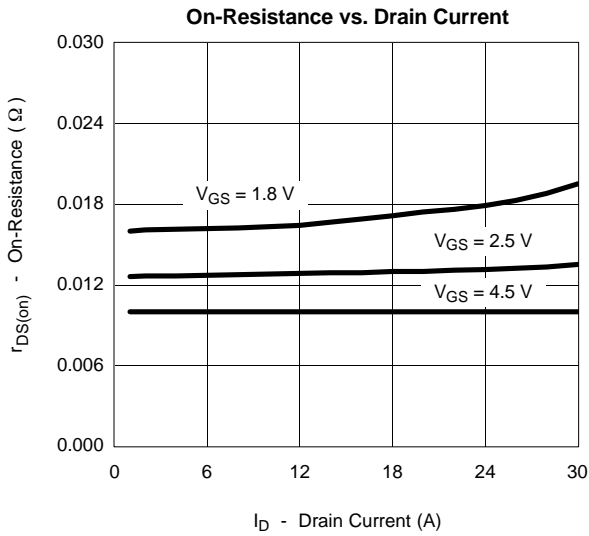
Notes

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

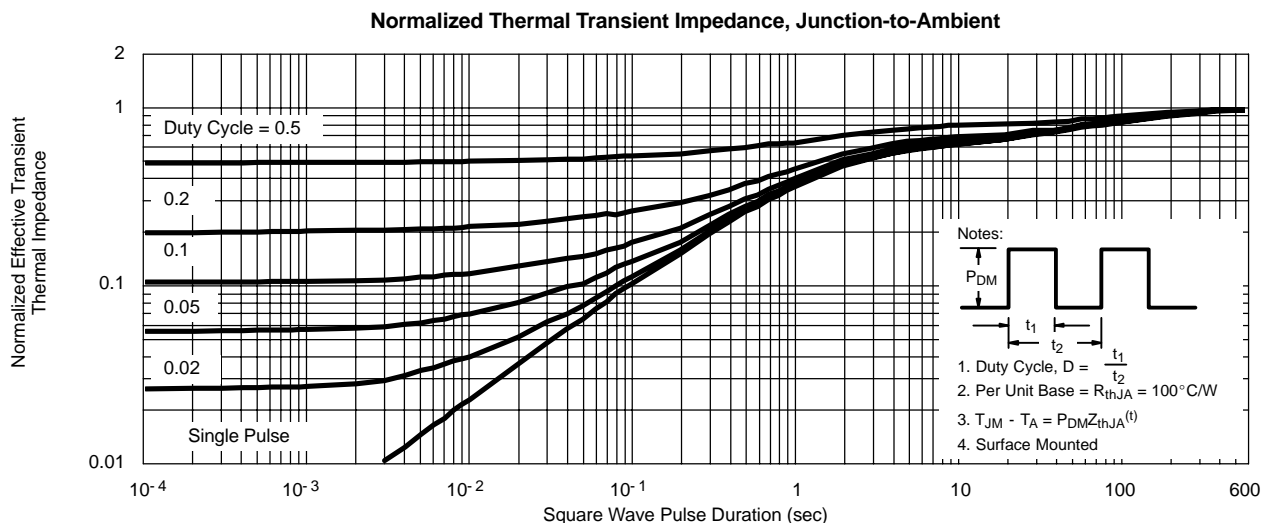
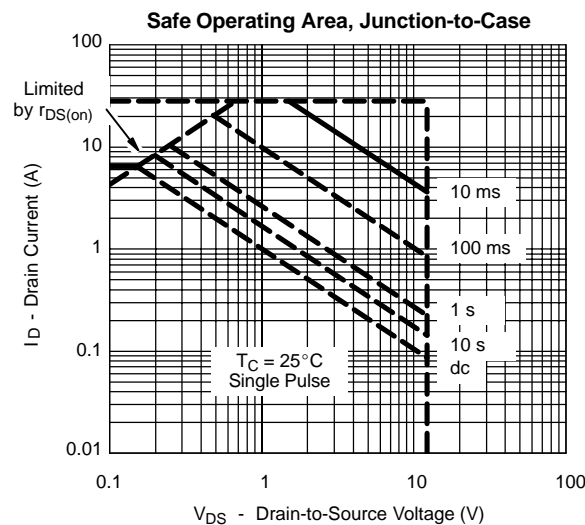
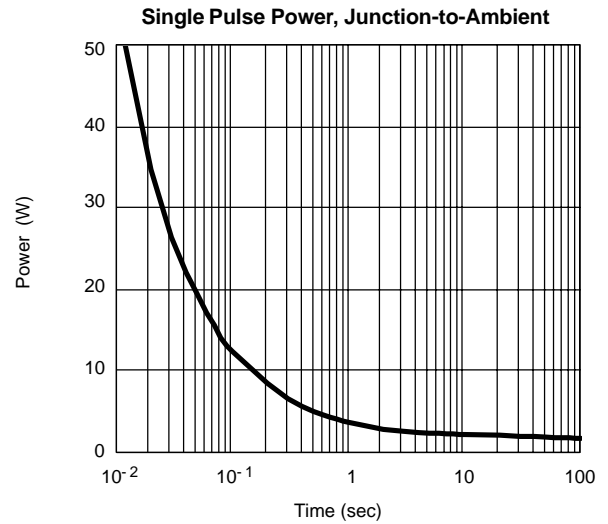
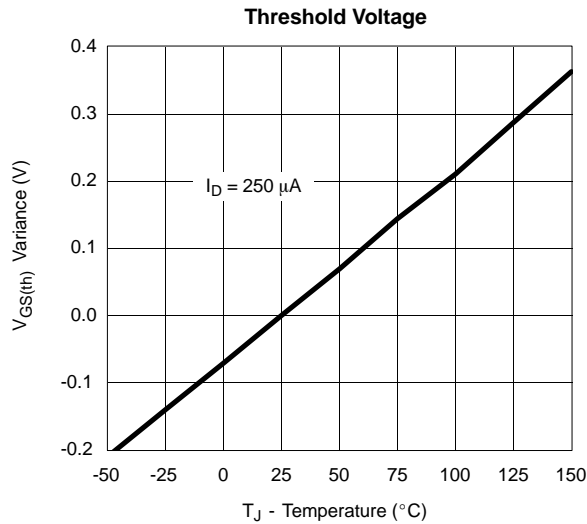
TYPICAL CHARACTERISTICS (25 °C UNLESS NOTED)



TYPICAL CHARACTERISTICS (25 °C UNLESS NOTED)



TYPICAL CHARACTERISTICS (25 °C UNLESS NOTED)





TYPICAL CHARACTERISTICS (25 °C UNLESS NOTED)

