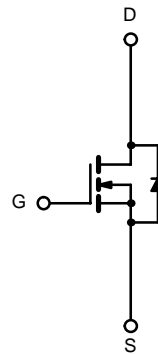
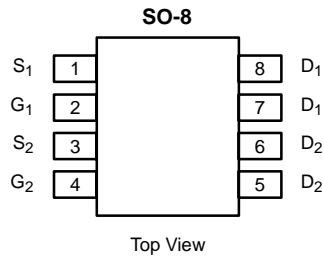




Dual N-Channel 80-V (D-S) MOSFET

PRODUCT SUMMARY		
V _{DS} (V)	R _{DS(ON)} (Ω)	I _D (A)
80	0.075 @ V _{GS} = 10 V	±3.7
	0.095 @ V _{GS} = 6.0 V	±3.2

TrenchFET®
Power MOSFETS



N-Channel MOSFET

ABSOLUTE MAXIMUM RATINGS (T _A = 25°C UNLESS OTHERWISE NOTED)			
PARAMETER	SYMBOL	LIMIT	UNIT
Drain-Source Voltage	V _{DS}	80	V
Gate-Source Voltage	V _{GS}	±20	
Continuous Drain Current (T _J = 150°C) ^A	I _D	T _A = 25°C	±3.7
		T _A = 70°C	±2.9
Pulsed Drain Current	I _{DM}	±30	A
Continuous Source Current (Diode Conduction) ^A	I _S	1.7	
Maximum Power Dissipation ^A	P _D	T _A = 25°C	2.0
		T _A = 70°C	1.3
Operating Junction and Storage Temperature Range	T _J , T _{stg}	-55 to 150	°C

THERMAL RESISTANCE RATINGS			
PARAMETER	SYMBOL	LIMIT	UNIT
Maximum Junction-to-Ambient ^A	R _{thJA}	62.5	°C/W

Notes

A. Surface Mounted on FR4 Board, t ≤ 10 sec.

Updates to this data sheet may be obtained via facsimile by calling Siliconix FaxBack, 1-408-970-5600. Please request FaxBack document #70646.



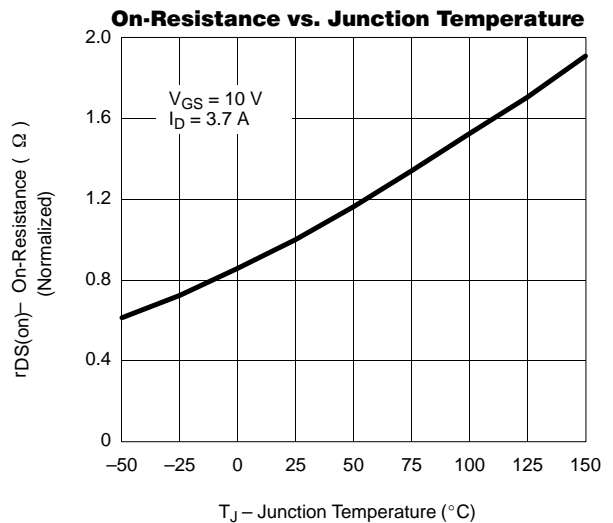
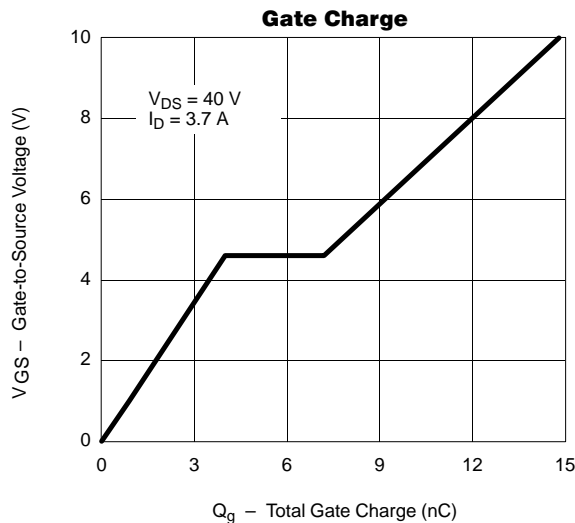
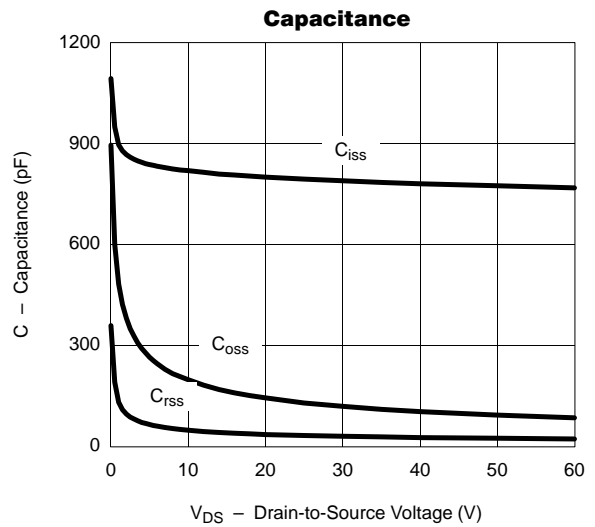
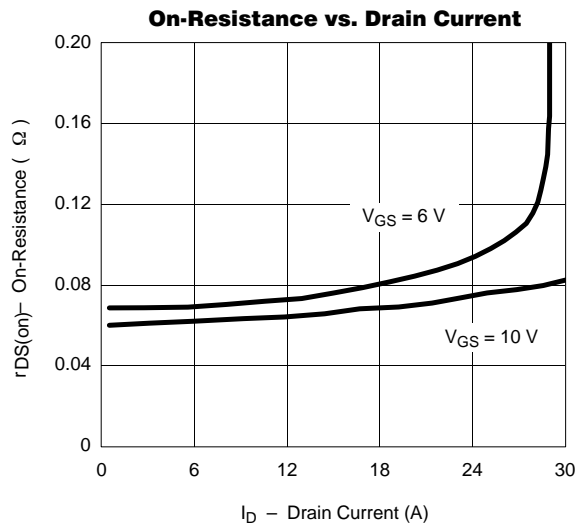
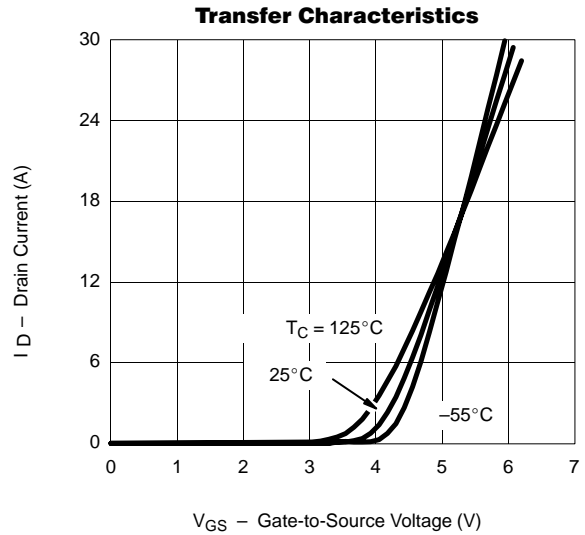
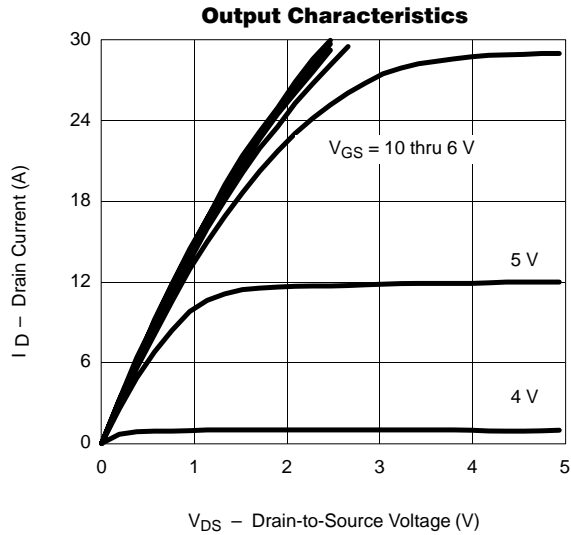
SPECIFICATIONS (T _J = 25°C UNLESS OTHERWISE NOTED)						
PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP ^A	MAX	UNIT
STATIC						
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250 μA	2			V
Gate-Body Leakage	I _{GSS}	V _{DS} = 0 V, V _{GS} = ±20 V			±100	nA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = 80 V, V _{GS} = 0 V			1	μA
		V _{DS} = 80 V, V _{GS} = 0 V, T _J = 55°C			20	
On-State Drain Current ^B	I _{D(on)}	V _{DS} = 5 V, V _{GS} = 10 V	20			A
Drain-Source On-State Resistance ^B	r _{DS(on)}	V _{GS} = 10 V, I _D = 3.7 A		0.062	0.075	Ω
		V _{GS} = 6.0 V, I _D = 3.2 A		0.071	0.095	
Forward Transconductance ^B	g _{fs}	V _{DS} = 15 V, I _D = 3.7 A		12		S
Diode Forward Voltage ^B	V _{SD}	I _S = 1.7 A, V _{GS} = 0 V			1.2	V
DYNAMIC^A						
Total Gate Charge	Q _g	V _{DS} = 40 V, V _{GS} = 10 V, I _D = 3.7 A		15	30	nC
Gate-Source Charge	Q _{gs}			4		
Gate-Drain Charge	Q _{gd}			3.2		
Turn-On Delay Time	t _{d(on)}	V _{DD} = 40 V, R _L = 40 Ω I _D ≅ 1 A, V _{GEN} = 10 V, R _G = 6 Ω		10	20	ns
Rise Time	t _r			10	20	
Turn-Off Delay Time	t _{d(off)}			30	60	
Fall Time	t _f			10	20	
Source-Drain Reverse Recovery Time	t _{rr}	I _F = 1.7 A, di/dt = 100 A/μs		75	110	

Notes

- A. For design aid only; not subject to production testing.
- B. Pulse test; pulse width ≤ 300 μs, duty cycle ≤ 2%.



TYPICAL CHARACTERISTICS (25°C UNLESS OTHERWISE NOTED)





TYPICAL CHARACTERISTICS (25°C UNLESS OTHERWISE NOTED)

