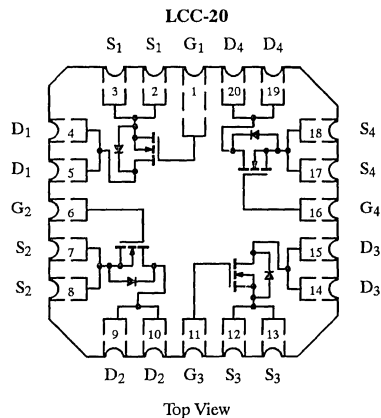


Quad N-Channel Enhancement-Mode MOSFET

Product Summary

V _{DS} (V)	r _{DS(on)} (Ω)	I _D (A)
20	0.1 @ V _{GS} = 10 V	5
	0.2 @ V _{GS} = 4.5 V	1



Absolute Maximum Ratings (T_A = 25°C Unless Otherwise Noted)

Parameter		Symbol	Limit	Unit
Drain-Source Voltage		V _{DS}	20	V
Gate-Source Voltage		V _{GS}	±20	
Continuous Drain Current ^a	T _A = 25°C	I _D	5	A
	T _A = 100°C		3	
Pulsed Drain Current ^a		I _{DM}	14	
Continuous Source Current (Diode Conduction)		I _S	3	
Maximum Power Dissipation	T _A = 25°C	P _D	3	W
	T _A = 100°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-Case	R _{thJC}	40	°C/W

Notes:

a. Drain current limited by package construction.

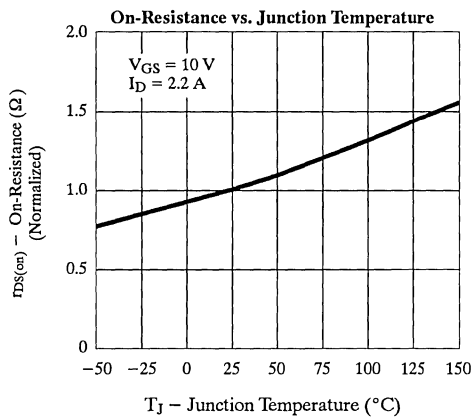
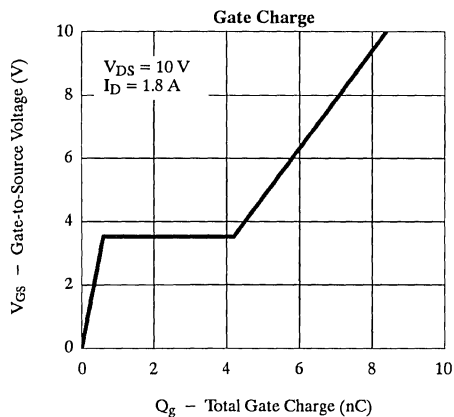
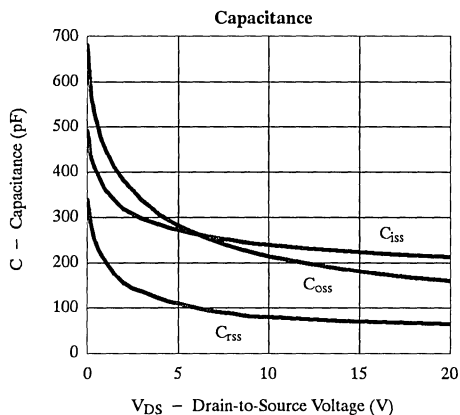
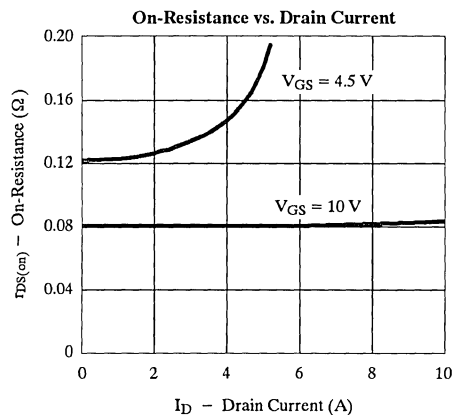
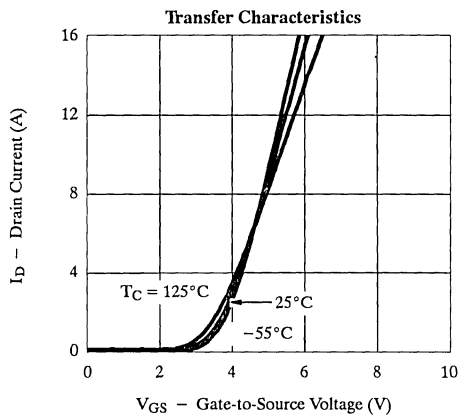
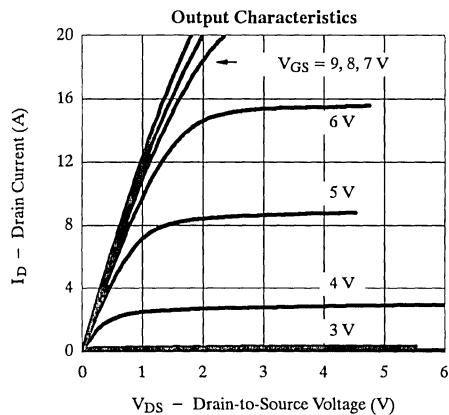
Specifications ($T_J = 25^\circ\text{C}$ Unless Otherwise Noted)

Parameter	Symbol	Test Condition	Min	Max	Unit
Static					
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} = 0 V, I _D = 250 μA	20		V
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250 μA	1	3.5	
Gate-Body Leakage	I _{GSS}	V _{DS} = 0 V, V _{GS} = ± 20 V		± 100	nA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = 16 V, V _{GS} = 0 V		10	μA
		V _{DS} = 16 V, V _{GS} = 0 V, T _J = 125°C		25	
On-State Drain Current ^b	I _{D(on)}	V _{DS} = 10 V, V _{GS} = 10 V	7		A
Drain-Source On-State Resistance ^b	r _{DS(on)}	V _{GS} = 10 V, I _D = 3 A		0.1	Ω
		V _{GS} = 4.5 V, I _D = 1 A		0.2	
Forward Transconductance ^b	g _{fs}	V _{DS} = 15 V, I _D = 3 A	2		S
Dynamic					
Input Capacitance ^a	C _{iss}	V _{GS} = 0 V, V _{DS} = 16 V, f = 1 MHz		500	nC
Output Capacitance ^a	C _{oss}			300	
Reverse Transfer Capacitance ^a	C _{rss}			125	
Total Gate Charge ^{a, c}	Q _g	V _{DS} = 10 V, V _{GS} = 10 V, I _D = 5 A		30	
Gate-Source Charge ^{a, c}	Q _{gs}			5	
Gate-Drain Charge ^{a, c}	Q _{gd}			8	
Turn-On Delay Time ^c	t _{d(on)}	V _{DD} = 10 V, R _L = 2 Ω I _D = 3 A, V _{GEN} = 10 V, R _G = 6 Ω		30	ns
Rise Time ^c	t _r			35	
Turn-Off Delay Time ^c	t _{d(off)}			70	
Fall Time ^c	t _f			30	
Source-Drain Diode (T _C = 25°C)					
Pulsed Current	I _{SM}			3	A
Diode Forward Voltage ^b	V _{SD}	I _F = 3 A, V _{GS} = 0 V		1.6	V
Reverse Recovery Time	t _{rr}	I _F = 3 A, di/dt = 100 A/μs		100	ns

Notes:

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

Typical Characteristics (25°C Unless Otherwise Noted)



Typical Characteristics (25°C Unless Otherwise Noted)

