

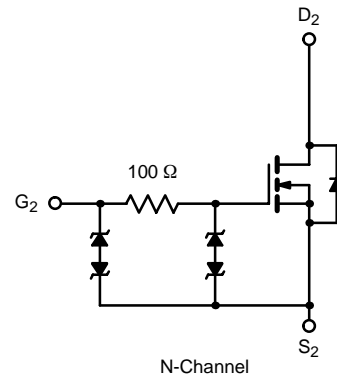
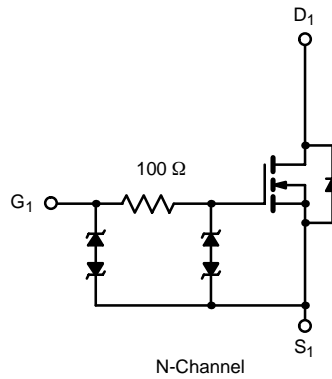
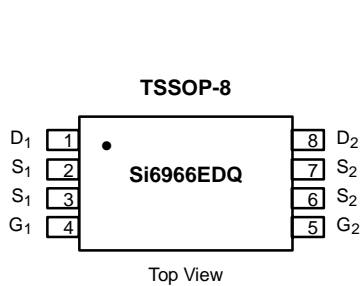


Dual N-Channel 2.5-V (G-S) MOSFET, ESD Protected

PRODUCT SUMMARY		
V_{DS} (V)	$r_{DS(on)}$ (Ω)	I_D (A)
20	0.030 @ $V_{GS} = 4.5$ V	± 5.2
	0.040 @ $V_{GS} = 2.5$ V	± 4.5



**ESD Protected
4000 V**



ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)			
Parameter	Symbol	Limit	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	± 12	
Continuous Drain Current ($T_J = 150^\circ\text{C}$) ^{a, b}	I_D	$T_A = 25^\circ\text{C}$	± 5.2
		$T_A = 70^\circ\text{C}$	± 4.0
Pulsed Drain Current	I_{DM}	± 30	A
Continuous Source Current (Diode Conduction) ^{a, b}	I_S	1.25	
Maximum Power Dissipation ^{a, b}	P_D	$T_A = 25^\circ\text{C}$	1.25
		$T_A = 70^\circ\text{C}$	0.72
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	$t \leq 10$ sec	R_{thJA}		110	$^\circ\text{C/W}$
	Steady State	R_{thJA}	115		

Notes
a. Surface Mounted on FR4 Board.
b. $t = \leq 10$ sec.



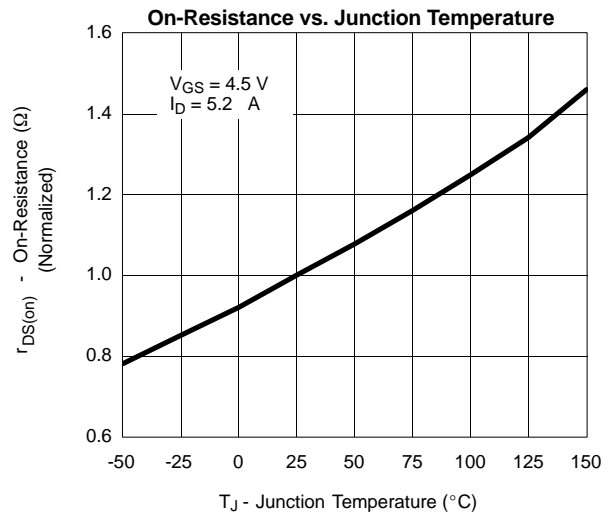
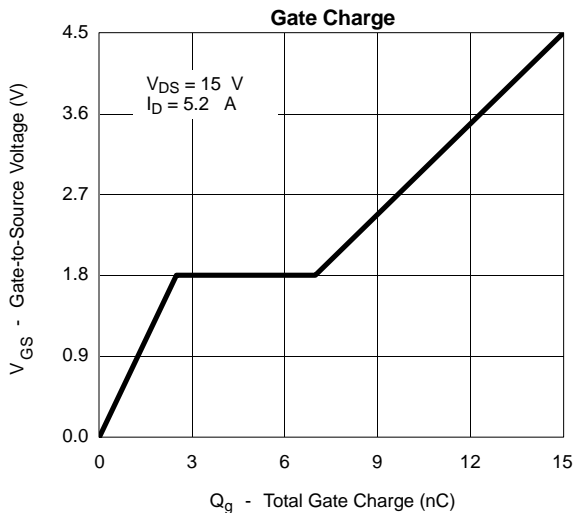
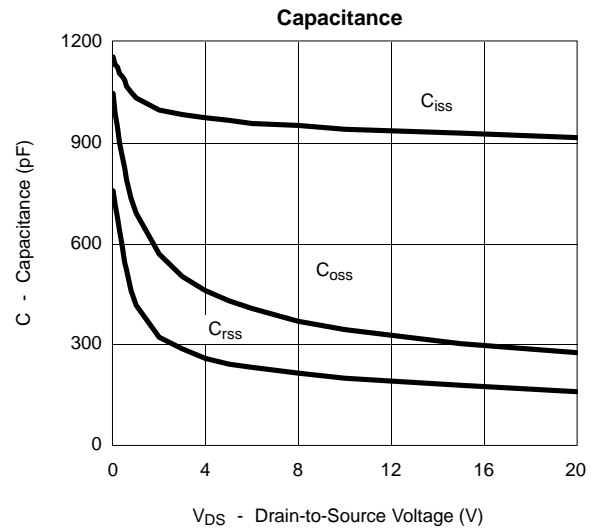
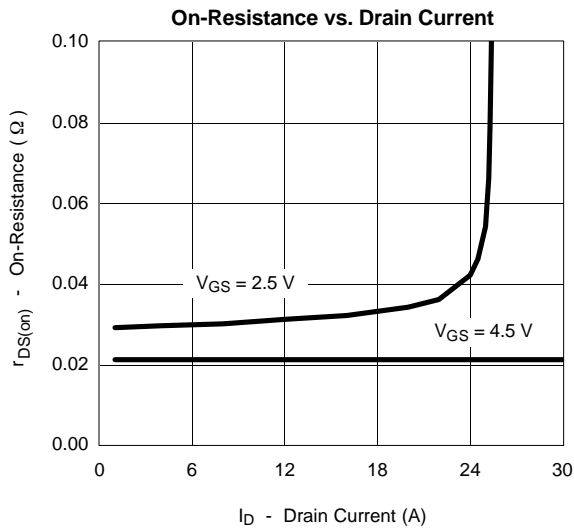
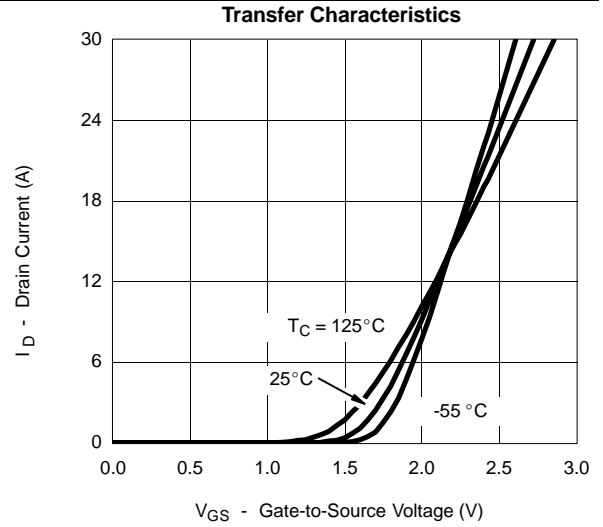
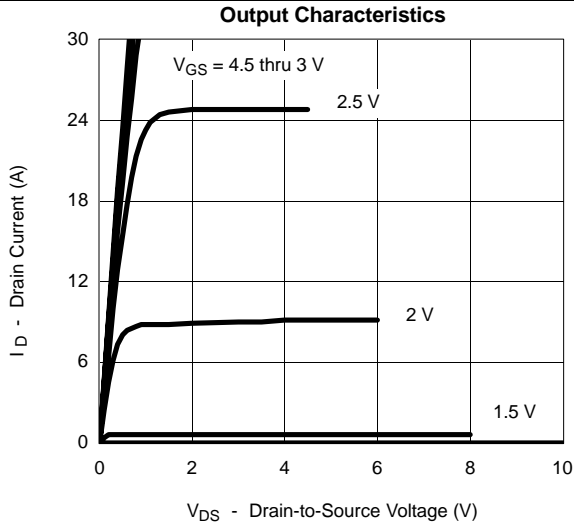
SPECIFICATIONS (T_J = 25 °C UNLESS OTHERWISE NOTED)

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} = ±4.5 V			± 100	nA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = +20 V, V _{GS} = 0 V			1	μA
		V _{DS} = 20 V, V _{GS} = 0 V, T _J = 55°C			25	
On-State Drain Current ^a	I _{D(on)}	V _{DS} ≥ 5 V, V _{GS} = 4.5 V	30			A
Drain-Source On-State Resistance ^a	r _{DS(on)}	V _{GS} = 4.5 V, I _D = 5.2 A		0.021	0.030	Ω
		V _{GS} = 2.5 V, I _D = 4.5 A		0.028	0.040	
Forward Transconductance ^a	g _{fs}	V _{DS} = 10 V, I _D = 5.2 A		20		S
Diode Forward Voltage ^a	V _{SD}	I _S = 1.25 A, V _{GS} = 0 V		0.65	1.2	V
Dynamic^b						
Total Gate Charge	Q _g	V _{DS} = 15 V, V _{GS} = 4.5V, I _D = 5.2 A		15	25	nC
Gate-Source Charge	Q _{gs}			2.5		
Gate-Drain Charge	Q _{gd}			4.5		
Turn-On Delay Time	t _{d(on)}	V _{DD} = 10 V, R _L = 10 Ω I _D ≅ 1 A, V _{GEN} = 4.5 V, R _G = 6 Ω		100	200	ns
Rise Time	t _r			130	250	
Turn-Off Delay Time	t _{d(off)}			420	800	
Fall Time	t _f			220	450	
Source-Drain Reverse Recovery Time	t _{rr}	I _F = 1.25 A, di/dt = 100 A/μs		210	500	

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)





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