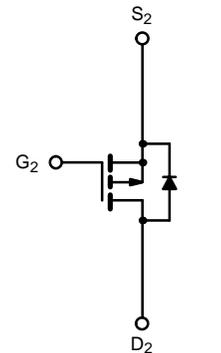
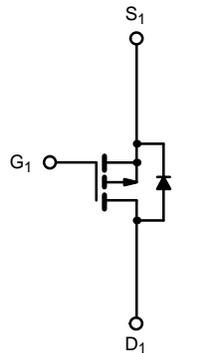
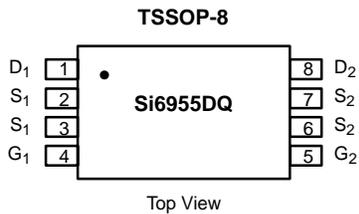




## Dual P-Channel 30-V (D-S) MOSFET

PRODUCT SUMMARY		
V <sub>DS</sub> (V)	R <sub>DS(ON)</sub> (Ω)	I <sub>D</sub> (A)
-30	0.085 @ V <sub>GS</sub> = -10 V	±2.5
	0.19 @ V <sub>GS</sub> = -4.5 V	±1.8



ABSOLUTE MAXIMUM RATINGS (T <sub>A</sub> = 25°C UNLESS OTHERWISE NOTED)			
PARAMETER	SYMBOL	LIMIT	UNIT
Drain-Source Voltage	V <sub>DS</sub>	-30	V
Gate-Source Voltage	V <sub>GS</sub>	±20	
Continuous Drain Current (T <sub>J</sub> = 150°C) <sup>A</sup>	I <sub>D</sub>	T <sub>A</sub> = 25°C	±2.5
		T <sub>A</sub> = 70°C	±2.1
Pulsed Drain Current	I <sub>DM</sub>	±20	A
Continuous Source Current (Diode Conduction) <sup>A</sup>	I <sub>S</sub>	-1.25	
Maximum Power Dissipation <sup>A</sup>	P <sub>D</sub>	T <sub>A</sub> = 25°C	1.0
		T <sub>A</sub> = 70°C	0.64
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	-55 to 150	°C

THERMAL RESISTANCE RATINGS			
PARAMETER	SYMBOL	LIMIT	UNIT
Maximum Junction-to-Ambient <sup>A</sup>	R <sub>thJA</sub>	125	°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 #70180. For SPICE model information via the Worldwide Web: <http://www.siliconix.com/www/product/spice.htm>


**SPECIFICATIONS (T<sub>J</sub> = 25 °C UNLESS OTHERWISE NOTED)**

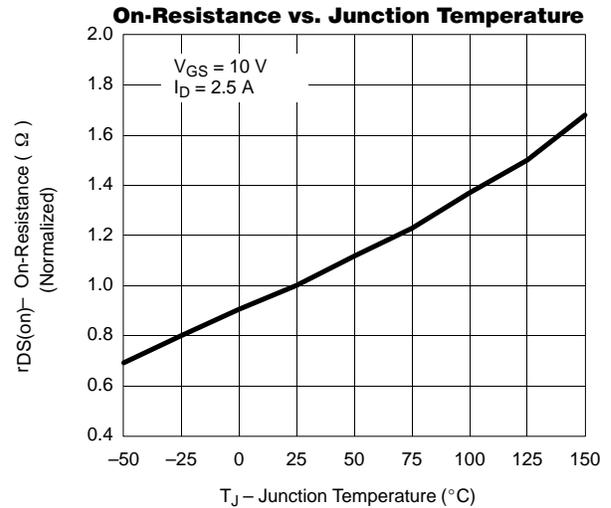
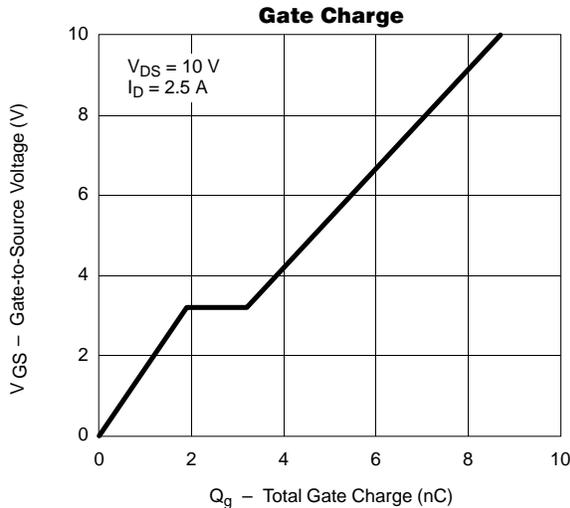
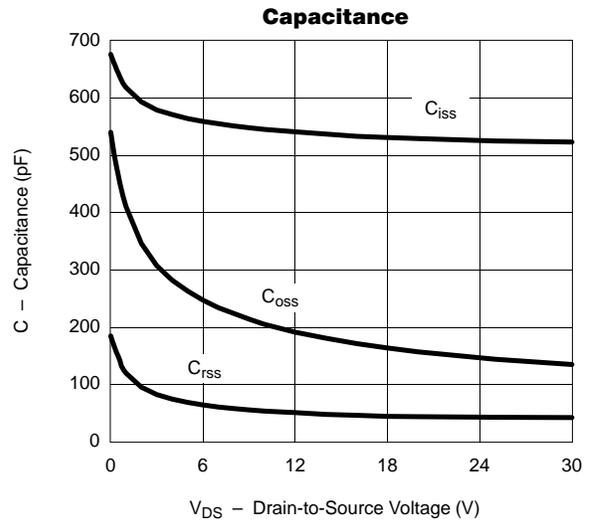
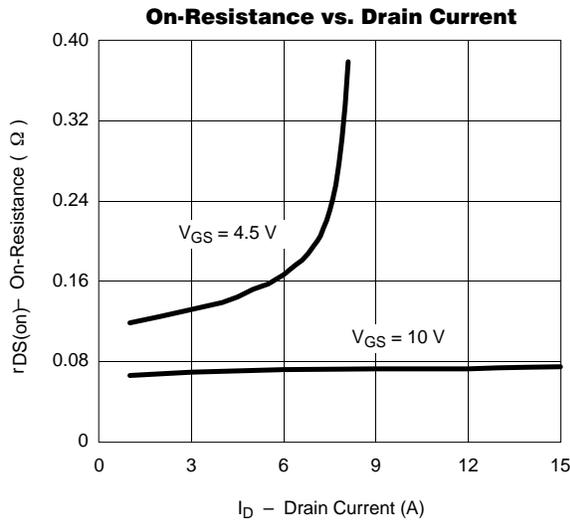
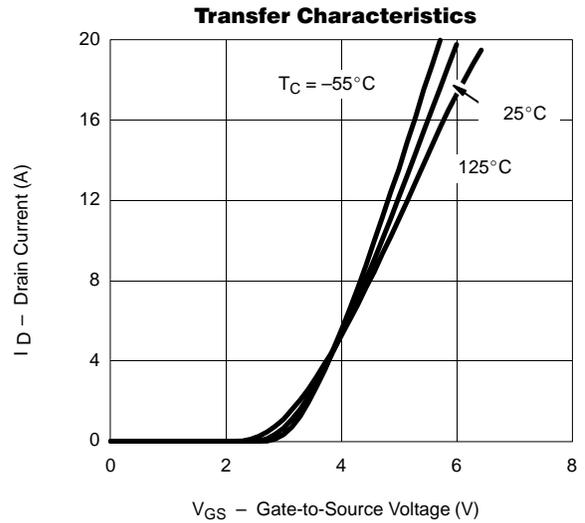
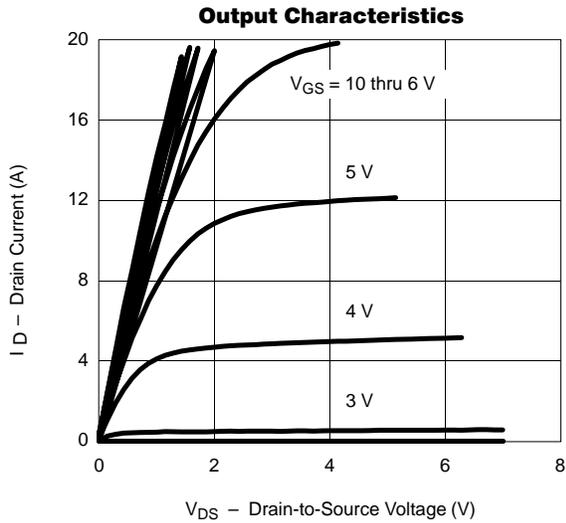
PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
<b>STATIC</b>						
Gate Threshold Voltage	V <sub>GS(th)</sub>	V <sub>DS</sub> = V <sub>GS</sub> , I <sub>D</sub> = -250 μA	-1.0			V
Gate-Body Leakage	I <sub>GSS</sub>	V <sub>DS</sub> = 0 V, V <sub>GS</sub> = ±20 V			±100	nA
Zero Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> = -30 V, V <sub>GS</sub> = 0 V			-1	μA
		V <sub>DS</sub> = -30 V, V <sub>GS</sub> = 0 V, T <sub>J</sub> = 55 °C			-25	
On-State Drain Current <sup>A</sup>	I <sub>D(on)</sub>	V <sub>DS</sub> ≥ -5 V, V <sub>GS</sub> = -10 V	-15			A
Drain-Source On-State Resistance <sup>A</sup>	r <sub>DS(on)</sub>	V <sub>GS</sub> = -10 V, I <sub>D</sub> = -2.5 A		0.066	0.085	Ω
		V <sub>GS</sub> = -4.5 V, I <sub>D</sub> = -1.8 A		0.125	0.19	
Forward Transconductance <sup>A</sup>	g <sub>fs</sub>	V <sub>DS</sub> = -15 V, I <sub>D</sub> = -2.5 A		5		S
Diode Forward Voltage <sup>A</sup>	V <sub>SD</sub>	I <sub>S</sub> = -1.25 A, V <sub>GS</sub> = 0 V		0.8	-1.2	V
<b>DYNAMIC<sup>B</sup></b>						
Total Gate Charge	Q <sub>g</sub>	V <sub>DS</sub> = -10 V, V <sub>GS</sub> = -10 V, I <sub>D</sub> = -2.5 A		8.7	15	nC
Gate-Source Charge	Q <sub>gs</sub>			1.9		
Gate-Drain Charge	Q <sub>gd</sub>			1.3		
Turn-On Delay Time	t <sub>d(on)</sub>	V <sub>DD</sub> = -10 V, R <sub>L</sub> = 10 Ω I <sub>D</sub> ≅ -1 A, V <sub>GEN</sub> = -10 V, R <sub>G</sub> = 6 Ω		7	15	ns
Rise Time	t <sub>r</sub>			9	18	
Turn-Off Delay Time	t <sub>d(off)</sub>			14	27	
Fall Time	t <sub>f</sub>			8	15	
Source-Drain Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> = -1.25 A, di/dt = 100 A/μs		46	80	

## Notes

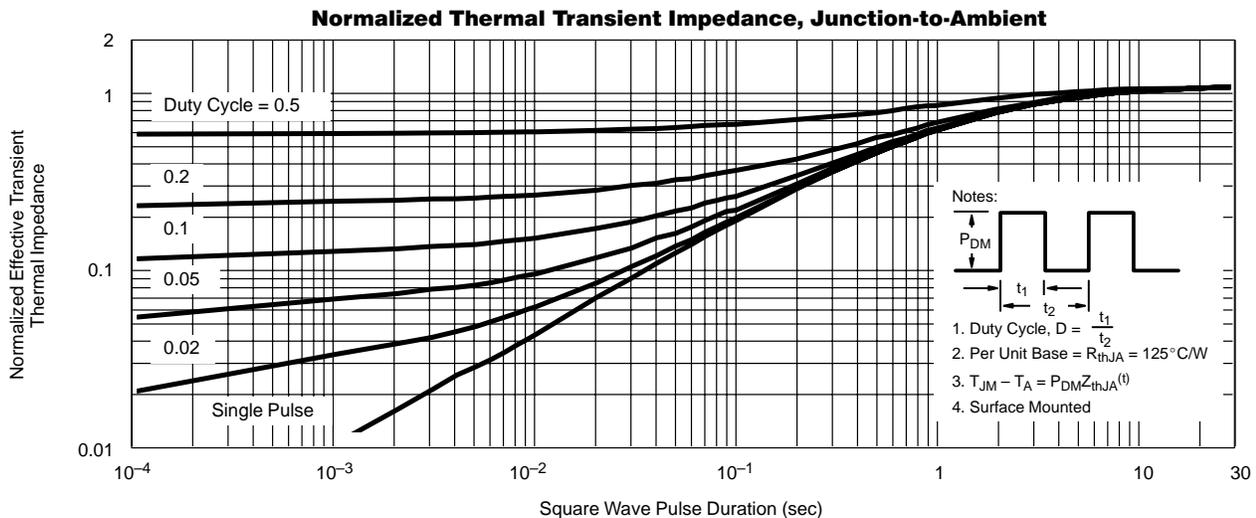
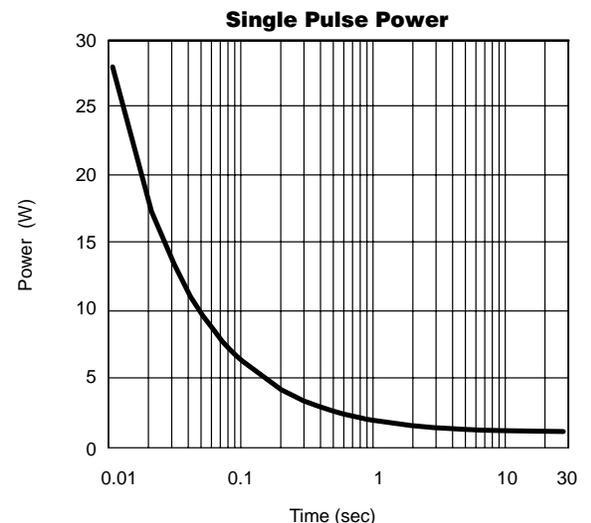
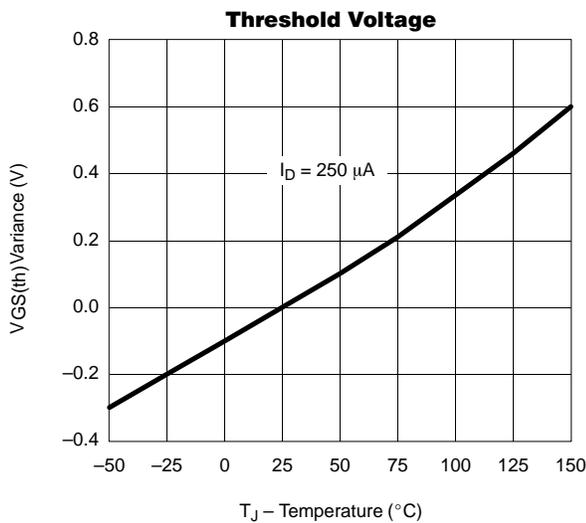
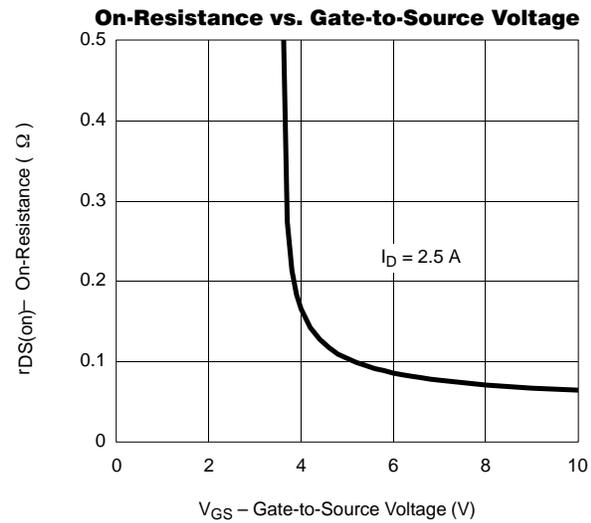
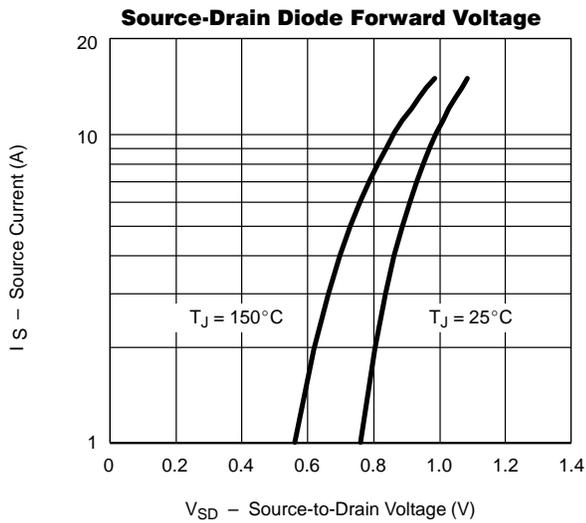
- A. Pulse test; pulse width ≤ 300 μs, duty cycle ≤ 2%.  
 B. Guaranteed by design, not subject to production testing.



**TYPICAL CHARACTERISTICS (25°C UNLESS OTHERWISE NOTED)**



### TYPICAL CHARACTERISTICS (25°C UNLESS OTHERWISE NOTED)





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