

**Maximum Ratings** (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Drain-Source Voltage	V <sub>DSS</sub>	20	V
Gate-Source Voltage	V <sub>GSS</sub>	±10	V
Drain Current Per Element (Note 5)	I <sub>D</sub>	300	mA
Continuous Pulsed (Note 6)		350	

**Thermal Characteristics** (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Total Power Dissipation (Note 5)	P <sub>D</sub>	400	mW
Thermal Resistance, Junction to Ambient	R <sub>θJA</sub>	231	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150	°C

**Electrical Characteristics** (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
<b>OFF CHARACTERISTICS (Per Element) (Note 7)</b>						
Drain-Source Breakdown Voltage	BV <sub>DSS</sub>	20	—	—	V	V <sub>GS</sub> = 0V, I <sub>D</sub> = 100μA
Zero Gate Voltage Drain Current	I <sub>DSS</sub>	—	—	10	μA	V <sub>DS</sub> = 17V, V <sub>GS</sub> = 0V
Gate-Source Leakage	I <sub>GSS</sub>	—	—	±5	μA	V <sub>GS</sub> = ±8V, V <sub>DS</sub> = 0V
<b>ON CHARACTERISTICS (Per Element) (Note 7)</b>						
Gate Threshold Voltage	V <sub>GS(TH)</sub>	0.53	—	0.9	V	V <sub>DS</sub> = V <sub>GS</sub> , I <sub>D</sub> = 100μA
Static Drain-Source On-Resistance	R <sub>DS(ON)</sub>	—	0.35	1.5	Ω	V <sub>GS</sub> = 4V, I <sub>D</sub> = 10mA
		—	0.4	1.7		V <sub>GS</sub> = 2.7V, I <sub>D</sub> = 200mA
		—	0.45	1.7		V <sub>GS</sub> = 2.5V, I <sub>D</sub> = 10mA
		—	0.55	3.5		V <sub>GS</sub> = 1.8V, I <sub>D</sub> = 200mA
		—	0.65	3.5		V <sub>GS</sub> = 1.5V, I <sub>D</sub> = 1mA
Forward Transfer Admittance	Y <sub>fs</sub>	40	—	—	mS	V <sub>DS</sub> = 3V, I <sub>D</sub> = 10mA

- Notes: 5. Device mounted on FR-4 PCB.  
 6. Pulse width ≤10μs, Duty Cycle ≤1%.  
 7. Short duration pulse test used to minimize self-heating effect.

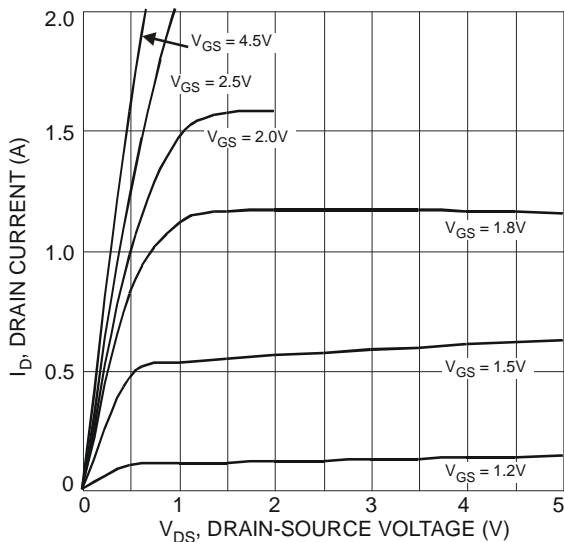


Figure 1 Typical Output Characteristics

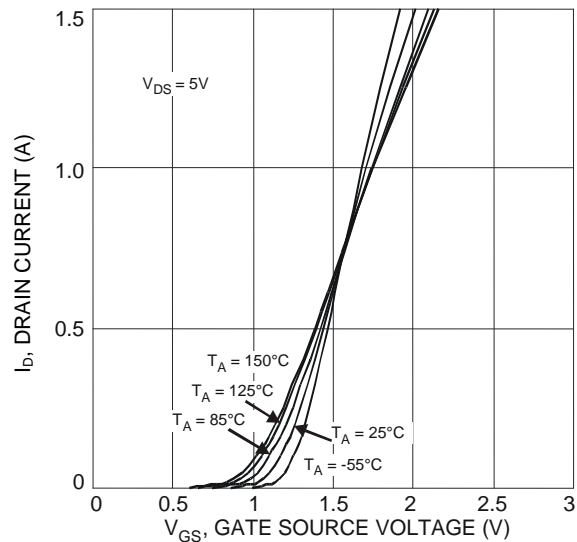
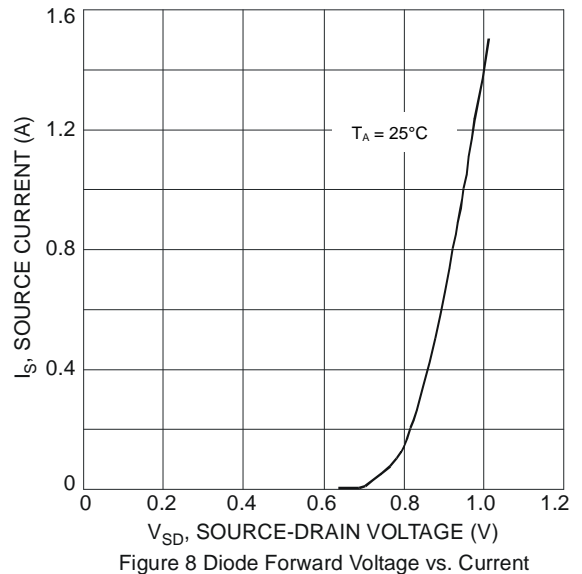
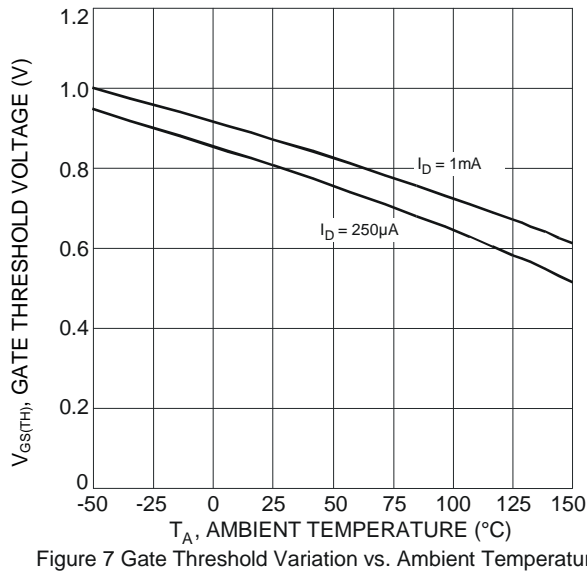
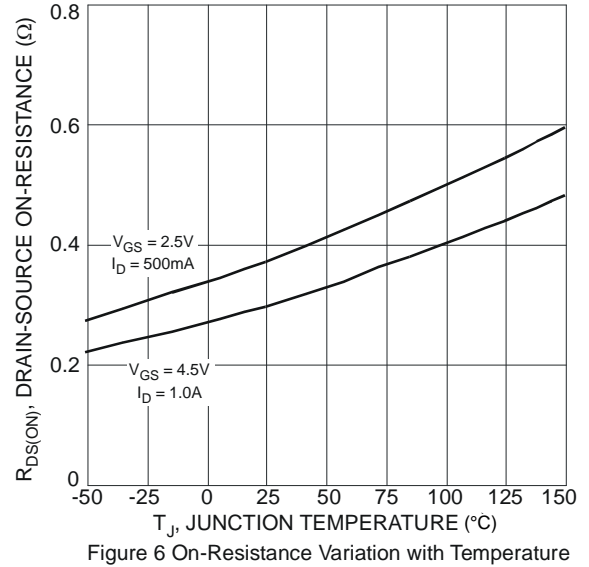
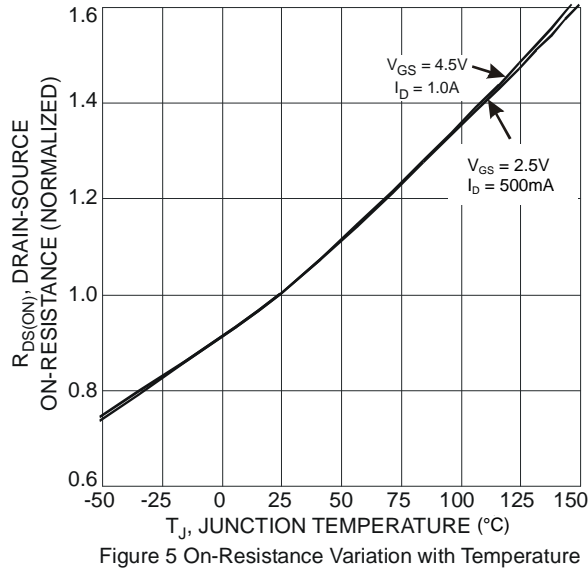
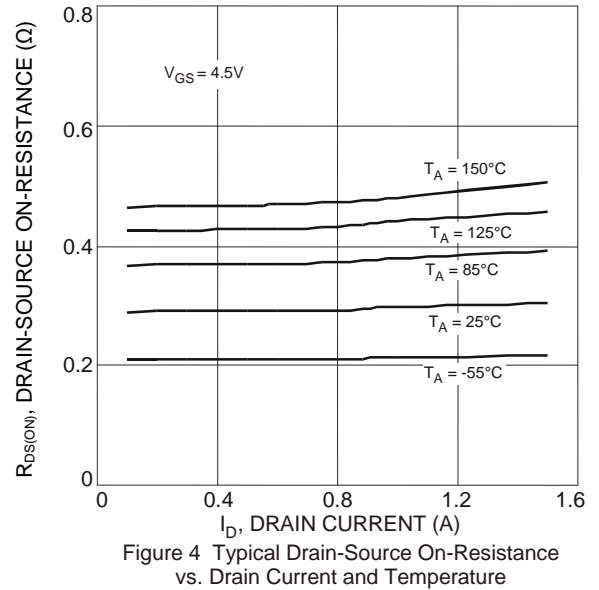
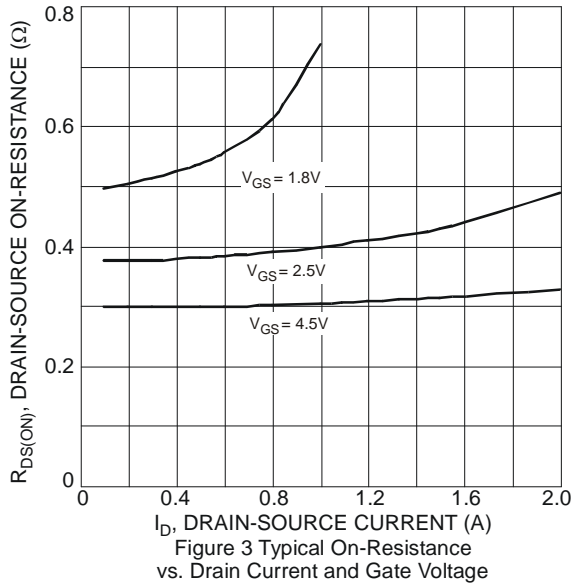
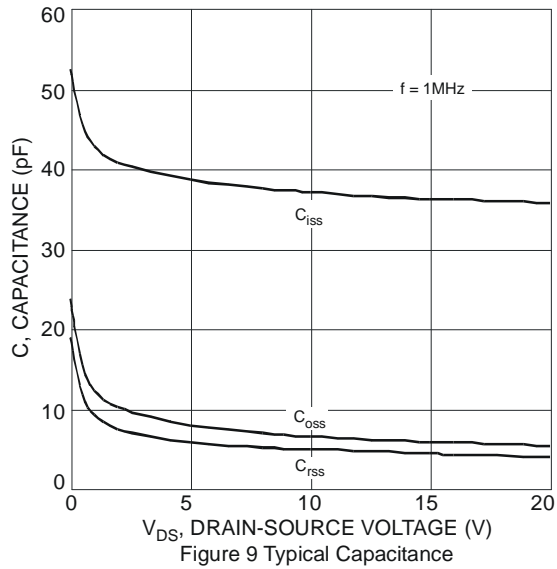


Figure 2 Typical Transfer Characteristics

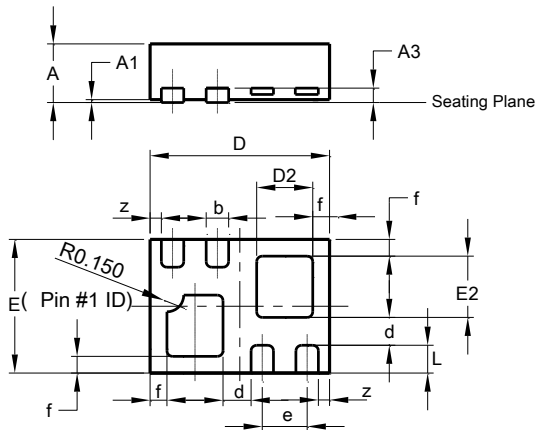




## Package Outline Dimensions

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

### X2-DFN1310-6

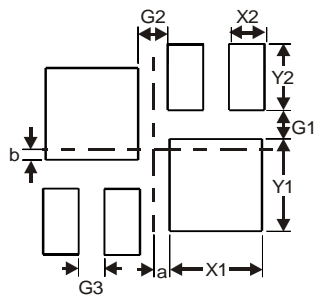


X2-DFN1310-6			
Dim	Min	Max	Typ
A	-	0.40	-
A1	0	0.05	0.02
A3	-	-	0.13
b	0.10	0.20	0.15
D	1.25	1.38	1.30
d	-	-	0.25
D2	0.30	0.50	0.40
E	0.95	1.075	1.00
e	-	-	0.35
E2	0.30	0.50	0.40
f	-	-	0.10
L	0.20	0.30	0.25
Z	-	-	0.05
All Dimensions in mm			

## Suggested Pad Layout

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

### X2-DFN1310-6



Dimensions	Value (in mm)
G1	0.16
G2	0.17
G3	0.15
X1	0.52
X2	0.20
Y1	0.52
Y2	0.375
a	0.09
b	0.06

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