



Title of Change:	Datasheet update for EFC2J004NUZTDG		
Effective date:	14 April 2017		
Contact information:	Contact your local ON Semiconductor Sales Office or Osamu Akaki <Osamu.Akaki@onsemi.com>		
Type of notification:	ON Semiconductor will consider this change accepted.		
Change category:	<input type="checkbox"/> Wafer Fab Change <input type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input checked="" type="checkbox"/> Other <u>Datasheet</u>		
Change Sub-Category(s):		<input checked="" type="checkbox"/> Datasheet/Product Doc change <input type="checkbox"/> Shipping/Packaging/Marking <input type="checkbox"/> Other: _____	
<input type="checkbox"/> Manufacturing Site Change/Addition <input type="checkbox"/> Material Change <input type="checkbox"/> Manufacturing Process Change <input type="checkbox"/> Product specific change			
Sites Affected:			
<input type="checkbox"/> All site(s) <input checked="" type="checkbox"/> not applicable <input type="checkbox"/> ON Semiconductor site(s) : <input type="checkbox"/> External Foundry/Subcon site			

Description and Purpose:

This PB is being issued to announce the updates done to the Datasheet of EFC2J004NUZTDG:

- RSS(on) spec with board
- Source current based on RSS(on)
- Switching time by gate resistance 10kOhm

CURRENT**ELECTRICAL CHARACTERISTICS** at Ta = 25°C (Note 3)

Parameter	Symbol	Conditions	Value			Unit
			min	typ	max	
Source to Source Breakdown Voltage	V(BR)SSS	IS = 1 mA, VGS = 0 V Test Circuit 1	12			V
Zero-Gate Voltage Source Current	ISSS	VSS = 10 V, VGS = 0 V Test Circuit 1			1	μA
Gate to Source Leakage Current	IGSS	VGS = ±8 V, VSS = 0 V Test Circuit 2			±1	μA
Gate Threshold Voltage	VGS(th)	VSS = 6 V, IS = 1 mA Test Circuit 3	0.4		1.3	V
Static Source to Source On-State Resistance	RSS(on)	IS = 5 A, VGS = 4.5 V Test Circuit 4	3.1	4.5	5.9	mΩ
		IS = 5 A, VGS = 3.8 V Test Circuit 4	3.5	5.0	6.5	mΩ
		IS = 5 A, VGS = 3.1 V Test Circuit 4	4.0	5.8	8.2	mΩ
		IS = 5 A, VGS = 2.5 V Test Circuit 4	5.2	7.5	11.0	mΩ
Turn-ON Delay Time	td(on)	VSS = 6 V, VGS = 4.5 V, IS = 3 A Test Circuit 5		180		ns
Rise Time	tr			300		ns
Turn-OFF Delay Time	td(off)			1,700		ns
Fall Time	tf			660		ns
Total Gate Charge	Qg	VSS = 6 V, VGS = 4.5 V, IS = 15 A Test Circuit 6		36		nC
Forward Source to Source Voltage	VF(S-S)	IS=3A, VGS=0V Test Circuit 7		0.76		V

Note 3 : Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.



UPDATED

ELECTRICAL CHARACTERISTICS at Ta = 25°C (Notes 3, 4)

Parameter	Symbol	Conditions	Value			Unit
			min	typ	max	
Source to Source Breakdown Voltage	V(BR)SSS	IS = 1 mA, VGS = 0 V Test Circuit 1	12			V
Zero-Gate Voltage Source Current	ISSS	VSS = 10 V, VGS = 0 V Test Circuit 1			1	μA
Gate to Source Leakage Current	IGSS	VGS = ±8 V, VSS = 0 V Test Circuit 2			±1	μA
Gate Threshold Voltage	VGS(th)	VSS = 6 V, IS = 1 mA Test Circuit 3	0.4		1.3	V
Static Source to Source On-State Resistance (Note 4)	RSS(on)	IS = 5 A, VGS = 4.5 V Test Circuit 4	3.7	5.4	7.1	mΩ
		IS = 5 A, VGS = 3.8 V Test Circuit 4	4.1	5.9	7.7	mΩ
		IS = 5 A, VGS = 3.1 V Test Circuit 4	4.6	6.7	9.5	mΩ
		IS = 5 A, VGS = 2.5 V Test Circuit 4	5.8	8.4	12.4	mΩ
Turn-ON Delay Time	td(on)	VSS = 5 V, VGS = 3.8 V, IS = 5 A Rg = 10 kΩ Test Circuit 5		15		μs
Rise Time	tr			35		μs
Turn-OFF Delay Time	td(off)			100		μs
Fall Time	tf			75		μs
Total Gate Charge	Qg	VSS = 6 V, VGS = 4.5 V, IS = 14 A Test Circuit 6		36		nC
Forward Source to Source Voltage	VF(S-S)	IS = 3 A, VGS = 0 V Test Circuit 7		0.76		V

Note 3 : Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted.
Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

Note 4 : Mounted on ON Semiconductor board.

The change will not impact form, fit, or function of product.

List of affected Standard Parts:

EFC2J004NUZTDG