ON Semiconductor

PRODUCT BULLETIN # 16682

Generic Copy

Issue Date: 13-Jul-2011

TITLE: NCV4264-2 Datasheet Updates

PROPOSED FIRST SHIP DATE: 13-Oct-2011

AFFECTED CHANGE CATEGORY(S): Datasheet Only

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact your local ON Semiconductor sales office or <Peter.Lanyon@onsemi.com>

NOTIFICATION TYPE:
ON Semiconductor considers this change approved unless specific conditions of acceptance are provided in writing. To do so, contact <quality@onsemi.com>.

DESCRIPTION AND PURPOSE:
Changes made on page 3 in ELECTRICAL CHARACTERISTICS table of the datasheet of NCV4264−2/D. See below highlighted in red the updated values.

ELECTRICAL CHARACTERISTICS (V_{IN} = 13.5 V, T_J = −40°C to +150°C, unless otherwise noted.)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage 5.0 V Version	V_{OUT}	5.0 mA ≤ I_{OUT} ≤ 100 mA (Note 4) 6.0 V ≤ V_{IN} ≤ 28 V	4.900	5.000	5.100	V
Output Voltage 3.3 V Version	V_{OUT}	5.0 mA ≤ I_{OUT} ≤ 100 mA (Note 4) 4.5 V ≤ V_{IN} ≤ 28 V	3.234	3.300	3.366	V
Line Regulation 5.0 V Version	ΔV_{OUT} vs. V_{IN}	I_{OUT} = 5.0 mA 6.0 V ≤ V_{IN} ≤ 28 V	−30	5.0	+30	mV
Line Regulation 3.3 V Version	ΔV_{OUT} vs. V_{IN}	I_{OUT} = 5.0 mA 4.5 V ≤ V_{IN} ≤ 28 V	−30	5.0	+30	mV
Load Regulation	ΔV_{OUT} vs. I_{OUT}	1.0 mA ≤ I_{OUT} ≤ 100 mA (Note 4)	−40	5.0	+40	mV
Dropout Voltage – 5.0 V Version	V_{IN}-V_{OUT}	I_{OUT} = 100 mA (Notes 4 & 5)	–	270	500	mV
Dropout Voltage – 3.3 V Version	V_{IN}-V_{OUT}	I_{OUT} = 100 mA (Notes 4 & 7)	–	–	1.266	V
Quiescent Current	I_q	I_{OUT} = 100 μA T_J = 25°C T_J = −40°C to +85°C T_J = −40°C to 150°C	 – – –	 33 33 33	 55 60 70	μA
Active Ground Current	$I_{G(ON)}$	I_{OUT} = 50 mA (Note 4)	–	1.5	4.0	mA
Power Supply Rejection	PSRR	V_{RIPPLE} = 0.5 V_{P-P}, F = 100 Hz	–	67	–	dB
Output Capacitor for Stability 5.0 V Version	C_{OUT} ESR	I_{OUT} = 0.1 mA to 100 mA (Notes 4)	10 –	– –	– 9.0	μF Ω
Output Capacitor for Stability 3.3 V Version	C_{OUT} ESR	I_{OUT} = 0.1 mA to 100 mA (Notes 4)	22 –	– –	– 16	μF Ω

In addition, the following Vout tests and conditions have been removed:

- Vout at 5.0mA ≤ IOUT ≤ 50mA and 9.0V ≤ VIN ≤ 16V (for both 5.0 V and 3.3 V version)
- Vout at 0 mA ≤ IOUT ≤ 100mA and 5.5V ≤ VIN ≤ 21V for -40°C ≤ TJ ≤ 125°C

The purpose of these changes is to align the datasheet more closely with the device capability. Manufacturing data has shown that the NCV4264−2 is capable of meeting this tighter specification.

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List of affected General Parts:

NCV4264-2ST50T3G
NCV4264-2ST33T3G