ON Semiconductor

Final Product/Process Change Notification

Document # : FPCN21138XA
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Title of Change:	NCP1339 Datasheet Update
Proposed first ship date:	9 March 2016
Contact information:	Contact your local ON Semiconductor Sales Office or <Marquita.Jones@onsemi.com >
Samples:	Contact your local ON Semiconductor Sales Office
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <Marquita.Jones@onsemi.com >
Type of notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. ON Semiconductor will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact <PCN.Support@onsemi.com>.
Change category:	☐ Wafer Fab Change ☐ Assembly Change ☐ Test Change ☒ Other Datasheet Change

Change Sub-Category(s):

☐ Manufacturing Site Change/Addition
☐ Manufacturing Process Change
☐ Material Change
☐ Product specific change
☒ Datasheet/Product Doc change
☐ Shipping/Packaging/Marking
☐ Other: _____

Sites Affected:

☐ All site(s) ☒ not applicable ☐ ON Semiconductor site(s) : ☐ External Foundry/Subcon site(s)

Description and Purpose:

Based on the results of additional characterization data, we are widening the limits for the following parameters: Vcc (hys), ICC1, Ijit, Vfault (OVP), and (VCCOVP). This specification change is not the result of a design or manufacturing process change. The new specification reflects a guard banded limit to the new comprehensive distribution, enabling ON Semiconductor to maintain its high quality standards.

Electrical Characteristic Summary:

Current Datasheet

STARTUP AND SUPPLY CIRCUITS

Supply Voltage	dV/dt = 0.1 V/ms					V
Startup Threshold	V_{CC} increasing	$V_{CC(on)}$	14.0	15.0	16.0	
Minimum Operating Voltage	V_{CC} decreasing	$V_{CC(off)}$	8.0	9.0	10.0	
Operating Hysteresis	$V_{CC(on)} - V_{CC(off)}$	$V_{CC(HYS)}$	5.8	–	–	
Transition from I_{start1} to I_{start2}	V_{CC} increasing, I_{HV} = 650 µA	$V_{CC(inhibit)}$	0.55	1.00	1.20	
Supply Current						mA
Before Startup, Fault or Latch	$V_{CC} = V_{CC(on)} - 0.5$ V	I_{CC1}	0.05	0.10	0.50	
Flyback in Skip	V_{FB} = 0.35 V	I_{CC2}	0.2	0.68	1.0	
switching at 70 kHz	C_{DRV} open	I_{CC3}	1.0	1.6	3.0	
V_{CC} Overvoltage Protection Threshold		$V_{CC(OVP)}$	27	28	29	V

JITTERING

Amplitude of the CS Source Current	CS Pin Being Grounded	I_{jit}	90	100	110	µA

FAULT PROTECTION

Overvoltage Protection (OVP) Threshold	V_{Fault} increasing	$V_{Fault(OVP)}$	2.79	3.00	3.21	V

New Datasheet

STARTUP AND SUPPLY CIRCUITS

Supply Voltage Startup Threshold Minimum Operating Voltage Operating Hysteresis Transition from I_{start1} to I_{start2}	dV/dt = 0.1 V/ms V_{CC} Increasing V_{CC} Decreasing $V_{CC(on)} - V_{CC(off)}$ V_{CC} Increasing, I_{HV} = 650 µA	 $V_{CC(on)}$ $V_{CC(off)}$ $V_{CC(HYS)}$ $V_{CC(inhibit)}$	 14.0 8.0 5.6 0.55	 15.0 9.0 – 1.00	 16.0 10.0 – 1.20	V
Supply Current Before Startup, Fault or Latch Flyback in Skip switching at 70 kHz	$V_{CC} = V_{CC(on)} - 0.5$ V V_{FB} = 0.35 V C_{DRV} open	 I_{CC1} I_{CC2} I_{CC3}	 0.05 0.2 1.0	 0.10 0.68 1.6	 0.54 1.0 3.0	mA
V_{CC} Overvoltage Protection Threshold		$V_{CC(OVP)}$	27	28	29.5	V

JITTERING

Amplitude of the CS Source Current	CS Pin Being Grounded	I_{jit}	85	100	110	µA

FAULT PROTECTION

Overvoltage Protection (OVP) Threshold	V_{Fault} increasing	$V_{Fault(OVP)}$	2.79	3.00	3.23	V

List of Affected Standard Parts:

Part Number	Qualification Vehicle
NCP1339CDR2G	NCP1339EDR2G, NCP1339IDR2G, NCP1339JDR2G
NCP1339DDR2G	NCP1339EDR2G, NCP1339IDR2G, NCP1339JDR2G
NCP1339EDR2G	NCP1339EDR2G, NCP1339IDR2G, NCP1339JDR2G
NCP1339FDR2G	NCP1339EDR2G, NCP1339IDR2G, NCP1339JDR2G
NCP1339GDR2G	NCP1339EDR2G, NCP1339IDR2G, NCP1339JDR2G
NCP1339HDR2G	NCP1339EDR2G, NCP1339IDR2G, NCP1339JDR2G