ON Semiconductor®

Final Product/Process Change Notification

Document # : FPCN22165Z
Issue Date: 10 April 2018

Title of Change:	Assembly Process Change for improving quality of NCV70514MW003xR2G QFN Wettable flank package from Electroless plating to Electroplated Step Cut at UTAC (Thailand)
Proposed Changed Material First Ship Date:	10 April 2019
Current Material Last Order Date:	Not applicable
Current Material Last Delivery Date:	30 June 2018 The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory.
Product Category:	Active components – Integrated circuits
Contact information:	Contact your local ON Semiconductor Sales Office or <Bernard.Blanchet@onsemi.com>
Samples:	Contact your local ON Semiconductor Sales Office or <PCN.Samples@onsemi.com>. Sample requests are to be submitted no later than 45 days after publication of this change notification.
Sample Availability Date:	12 March 2018
PPAP Availability Date:	19 March 2018
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <Catherine.Dekeukeleire@onsemi.com>.
Type of Notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 12 months prior to implementation of the change or earlier upon customer approval. ON Semiconductor will consider this proposed change and it's conditions acceptable, unless an inquiry is made in writing within 45 days of delivery of this notice. To do so, contact <PCN.Support@onsemi.com>.
Change Category	**Type of Change**
Process – Assembly	Change of lead and heat slug plating material/plating thickness (external)

Description and Purpose:

NQFP 32	**Before Change Description**	**After Change Description**
Coating thickness	1.5-2.0 micron	4.50 micron
Dry (re)bake for packing	Not applicable	Applicable

Reason / Motivation for Change:	- Change benefits for customer: The electroplate step cut process improves the quality of soldering by forming consistent side fillet to perform AOI (Auto Optical Inspection) and increases the shelf life from 1 to 2 years - Risk for late release for customer: low risk, same BOM on same footprint - Quality improvement "Yes" : Automatic AOI inspection and shelf lifetime improvement.
Anticipated impact on fit, form, function, reliability, product safety or manufacturability	The device has been qualified and validated based on the same Product Specification. The device has successfully passed the qualification tests. Potential impacts can be identified, but due to testing performed by ON Semiconductor in relation to the PCN, associated risks are verified and excluded. No anticipated impacts.
Sites Affected:	ON Semiconductor Sites: None External Foundry/Subcon Sites: UTAC Thailand
Marking of Parts/ Traceability of Change:	Change of ordering part number

Reliability Data Summary:
QV DEVICE NAME 0C514-003
RMS 36062
PACKAGE QFN32 5x5

Test	Specification	Condition	Interval	Results
WBP	Mil-Std-883 Meth 2011	Wire Bond Pull: Cpk>1.67 TC500 Wire Bond Pull		0/15
WBP	Mil-Std-883 Meth 2011	Wire Bond Pull: Cpk>1.67 Fresh units		0/15
TC	JESD22-A104	Ta= -65°C to +175°C	1000 cyc	0/225
PC	J-STD-020 JESD-A113	MSL 3 @ 260 °C		0/240
SD	JSTD002	Ta = 245C, 10 sec		0/ 45
PD	JESD22			0/30

Note : AEC one pager is attached

1. *Download pdf copy of the PCN to your computer*
2. *Open the downloaded pdf copy of the PCN*
3. *Click on the paper clip icon available on the menu provided in the left/bottom portion of the screen to reveal the Attachment field*
4. *Then click on the attached file/s*

Electrical Characteristic Summary:

Electrical characteristics are not impacted.

List of affected Standard Parts:

Current Part Number	New Part Number	Qualification Vehicle
NCV70514MW003R2G	NCV70514MW003BR2G	0C414-003
NCV70514MW003AR2G	NCV70514MW003BR2G	0C414-003

Appendix A: Changed Products

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Product	Customer Part Number	New Part Number	Qualification Vehicle
NCV70514MW003AR2G		NA	0C514-003
NCV70514MW003R2G		NA	0C514-003