

# **INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION #20730**

Generic Copy

## Issue Date: 13-Jan-2015

<u>TITLE:</u> Back Grind/Back Metal Capacity Expansion at the ON Semiconductor Wafer Fab (CZ4) located in Roznov, Czech Republic.

#### PROPOSED FIRST SHIP DATE: 20-May-2015

AFFECTED CHANGE CATEGORY(S): ON Semi Wafer Fab Site and assembly sites

## FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or following Contact Sales and Marketing and Product Engineers:

IPCN Contact Person by Affected Technology:

IGBT3	Sales / Marketing	Richard White	Richard.White@onsemi.com
	Product Engineering	Marc Fillion	Marc.Fillion@onsemi.com
IGBT4	Sales / Marketing	Richard White	Richard.White@onsemi.com
	Product Engineering	Marc Fillion	Marc.Fillion@onsemi.com

#### **NOTIFICATION TYPE:**

Initial Product/Process Change Notification (IPCN)

First change notification sent to customers. IPCNs are issued at least 120 days prior to implementation of the change. An IPCN is advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan.

The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN).

This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 90 days prior to implementation of the change.

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#### DESCRIPTION AND PURPOSE:

ON Semiconductor is pleased to announce the intent to implement in the third quarter of the year 2015 a back grind & back metal capacity expansion at the CZ4 Wafer Fab at Roznov, Czech Republic. This expansion will supplement the current back grind & back capability ISMF Fab in Seremban, Malaysia.

Upon expiration of the associated Final PCN(s), the back grind & back metal for the affected devices could be processed from either the ISMF or CZ4 wafer fab.

#### **QUALIFICATION PLAN:**

Full qualification testing will be performed on representative devices or family of devices as necessary to ensure compliance to all existing ON Semiconductor reliability requirements. Specific plans and qualification results for each device family will be announced via individual Final PCN's as those qualifications are achieved.

#### Qualification Vehicles:

- NGD8201A
- NGD18N40A

Reliability testing for each qualification vehicle may include the following:

#### Reliability Test:

Test	Test Conditions	Read points	Sample Size
	Scanning Acoustic		
PC-SAT	Tomography	T0 and Post TC	3 lots x 10 units
PC-TC	-55 C to 150 C for 1000 cycles	Test @ 0, 500, 1000	3 lots x 80 units
			2 Units from 1
DPA		Post TC1000	Lot
	130°C/85% RH, 18.8 PSI for		
PC-HAST	96 hrs biased	T96, Test at R	3 lots x 80 units
			2 Units from 1
DPA		Post HAST	Lot
RSH	Loose Units		30 units
	TJ = 150°C for 1000 hrs, 80%		
HTRB	Bias	Test @ 500, 1000	3 lots x 80 units
		Test @ IOL4286,	
IOL	3.5 min On/Off, ΔT > 100 C	IOL8572	3 lots x 80 units
	Parametric Verification, Test		
PV	@ R,H,C	>1.67 Cpk	3 lots x 30 units
ESD	ESD HBM	1/V per Model	10 units
	Unclamped Inductuve		
UIS	Switching	Test at room	5 Units

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## List of affected General Parts:

NGB15N41ACLT4G NGB18N40ACLBT4G NGB8202ANT4G NGB8204ANT4G NGB8206ANSL3G NGB8206ANT4G NGB8206ANTF4G NGB8207ABNT4G NGB8207BNT4G NGB8245NT4G NGD15N41ACLT4G NGD18N40ACLBT4G NGD18N45CLBT4G NGD8201ANT4G NGD8201BNT4G NGD8205ANT4G NGD8209NT4G

## List of affected Customer Specific Parts:

SGB8206ANSL3G SGB8206ANT4G SGB8206ANTF4G SGD8290NT4G