ON Semiconductor®

Initial Product/Process Change Notification

Document # : IPCN22136X
Issue Date: 2 March 2018

Title of Change:	Hydrazine elimination and 5-inch Production line closure at ON Semiconductor Niigata Co., Ltd. (OSNC).
Proposed first ship date:	2 March 2019
Contact information:	Contact your local ON Semiconductor Sales Office or <Tetsuya.Fukushima@onsemi.com>
Samples:	Samples should be available after completion of qualification. Contact your local ON Semiconductor Sales Office.
Type of notification:	This is an Initial Product/Process Change Notification (IPCN) sent to customers. IPCNs are issued at least 30 days prior to the issuance of the Final Change Notice (FPCN). An IPCN is an 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. In case of questions, contact <PCN.Support@onsemi.com>.
Change Part Identification:	Date Code
Change category:	☒ Wafer Fab Change ☐ Assembly Change ☐ Test Change ☐ Other _____

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:	ON Semiconductor Sites: ON Niigata, Japan	External Foundry/Subcon Sites: None

Description and Purpose:

This announces the 5-inch production line closure due to the supply risk for 5-inch substrates from our wafer manufacturers as well constraints resulting from the aging of 5-inch production equipment.

Hydrazine was identified as a prohibited chemical in ON Semiconductor as it is considered as a carcinogenic substance and has high risk of fire and explosion.

Relevant products will get transferred to a 6-inch production line that do not use Hydrazine within the same site, ON Semiconductor Niigata Co., Ltd. (OSNC).

Change Point	**Before Change Description**	**After Change Description**
Fab (OSNC)	N1 Fab (Minimum rule=0.8um, Class=100)	N1 Fab (Minimum rule=0.8um, Class=100) AND N2 Fab (Minimum rule=0.25um, Class=10)
Equipment	5inch equipment	6inch equipment (Each function is the same)
Si Sub material	5inch wafer	6inch wafer (No change except wafer diameter)
Wire material	Aluminum (without Anti-reflected Layer)	Aluminum (with Anti-reflected Layer)
Interlayer material	Silicon nitride and Polyimide or Polyimide	Silicon nitride and Silicon oxide or Oxide

Qualification Plan:

QV DEVICE NAME LV5609V-TLM-E
PACKAGE SSOP20 (225mil)

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Tj=150°C, 100 % max rated Vcc	1008 hrs
HTSL	JESD22-A103	Ta= 150°C	1008 hrs
TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc
THB	JESD22-A101	85°C, 85% RH, bias	1008 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig,	96 hrs
PC	J-STD-020 JESD-A113	MSL 3 @ 260 °C	-
HBM	JS001	100pF,1.5kohm	-
CDM	JS002		-

QV DEVICE NAME LV8804FV-TLM-H
PACKAGE SSOP20 (225mil)

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Tj=150°C, 100 % max rated Vcc	1008 hrs
HTSL	JESD22-A103	Ta= 150°C	1008 hrs
TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc
THB	JESD22-A101	85°C, 85% RH, bias	1008 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig,	96 hrs
PC	J-STD-020 JESD-A113	MSL 3 @ 260 °C	-
HBM	JS001	100pF,1.5kohm	-
CDM	JS002		-

List of Affected Standard Parts:

Part Number	Qualification Vehicle
LV5609LP-E	LV5609V-TLM-E
LV5609LP-TE-L-E	LV5609V-TLM-E
LV5609V-TLM-E	LV5609V-TLM-E
LV8804FV-TLM-H	LV8804FV-TLM-H
LV8805SV-TLM-H	LV8804FV-TLM-H

Appendix A: Changed Products

Product	Customer Part Number	Qualification Vehicle
LV5609LP-E		LV5609V-TLM-E
LV5609LP-TE-L-E		LV5609V-TLM-E
LV5609V-TLM-E		LV5609V-TLM-E
LV8804FV-TLM-H		LV8804FV-TLM-H
LV8805SV-TLM-H		LV8804FV-TLM-H