ON Semiconductor

Initial Product/Process Change Notification

Document # : IPCN21292X
Issue Date: 6 May 2016

Title of Change:	Qualification of VHVIC (Very High Voltage IC) Technology at AFSM (Aizu Fujitsu Semiconductor Manufacturing) Japan – Phase 1
Proposed first ship date:	22 January 2017
Contact information:	Contact your local ON Semiconductor Sales Office or <Scott.Brow@onsemi.com>
Samples:	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:	Product Marked with a date code after the expiration of the FPCN may be built with both Gresham and AFSM produced die.
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:

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

Description and Purpose:

ON Semiconductor would like to inform our customers about our intent to qualify our Very High Voltage IC (VHVIC) technology at the AFSM (Aizu Fujitsu Semiconductor Manufacturing) FAB in Aizu, Japan. This qualification will enable expanded capacity for this technology.

Once qualification is complete and at the expiration of the FPCN, all products listed here will be dual sourced from its current ON Semiconductor wafer fab in Gresham and AFSM. This is Phase 1 of the qualification and transfer. Subsequent FPCN's will be submitted for additional product releases/qualifications.

Qualification Plan:

QV DEVICE NAME: NCP1236BD65R2G
PACKAGE: SOIC 8 (Less Pin 7)

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta=125°C, 500V	1000 hrs
HTSL	JESD22-A103	Ta= 150°C	1000 hrs
PC-TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs
PC-uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	

QV DEVICE NAME: NCP1396ADR2G
PACKAGE: SOIC-16

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta=125°C, 600V	1000 hrs
HTSL	JESD22-A103	Ta= 150°C	1000 hrs
PC-TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs
PC-uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	

QV DEVICE NAME: NCP1076P065G
PACKAGE: PDIP-8 (Less Pin 7)

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta=125°C, 700V	1000 hrs
HTSL	JESD22-A103	Ta= 150°C	1000 hrs
TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs

QV DEVICE NAME: NCP1399AADR2G
PACKAGE: SOIC-16

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta=125°C, 600V	1000 hrs

QV DEVICE NAME: NCP1615C3DR2G
PACKAGE: SOIC-16 (Less Pin 15)

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta=125°C, 700V	1000 hrs

QV DEVICE NAME: NCP4304ADR2G
PACKAGE: SOIC-8

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta=125°C, 200V	1000 hrs
HTSL	JESD22-A103	Ta= 150°C	1000 hrs
PC-TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs
PC-uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	

QV DEVICE NAME: NCP1380BDR2G
PACKAGE: SOIC-8

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta=125°C, 30V	1000 hrs

Estimated date for qualification completion: 21 October 2016

List of affected Standard Parts:

Part Number	Qualification Vehicle
NCL30000DR2G	NCP1380BDR2G
NCL30002DR2G	NCP1380BDR2G
NCP1076P065G	NCP1076P065G
NCP1076P100G	NCP1076P065G
NCP1076P130G	NCP1076P065G
NCP1076STAT3G	NCP1076P065G
NCP1076STBT3G	NCP1076P065G
NCP1076STCT3G	NCP1076P065G
NCP1077P065G	NCP1076P065G
NCP1077P100G	NCP1076P065G
NCP1077P130G	NCP1076P065G
NCP1077STAT3G	NCP1076P065G
NCP1077STBT3G	NCP1076P065G
NCP1077STCT3G	NCP1076P065G
NCP1234AD100R2G	NCP1236BD65R2G
NCP1234AD65R2G	NCP1236BD65R2G
NCP1234BD100R2G	NCP1236BD65R2G
NCP1234BD65R2G	NCP1236BD65R2G
NCP1236AD100R2G	NCP1236BD65R2G
NCP1236AD65R2G	NCP1236BD65R2G
NCP1236BD100R2G	NCP1236BD65R2G
NCP1236BD65R2G	NCP1236BD65R2G
NCP1246AD065R2G	NCP1236BD65R2G
NCP1246AD100R2G	NCP1236BD65R2G
NCP1246ALD065R2G	NCP1236BD65R2G
NCP1246ALD100R2G	NCP1236BD65R2G
NCP1246BD065R2G	NCP1236BD65R2G
NCP1246BD100R2G	NCP1236BD65R2G
NCP1246BLD065R2G	NCP1236BD65R2G
NCP1246BLD100R2G	NCP1236BD65R2G
NCP1252ADR2G	NCP1380BDR2G
NCP1252APG	NCP1380BDR2G
NCP1252BDR2G	NCP1380BDR2G
NCP1252CDR2G	NCP1380BDR2G
NCP1252DDR2G	NCP1380BDR2G

NCP1252EDR2G	NCP1380BDR2G
NCP1336ADR2G	NCP1236BD65R2G
NCP1336BDR2G	NCP1236BD65R2G
NCP1379DR2G	NCP1380BDR2G
NCP1380ADR2G	NCP1380BDR2G
NCP1380BDR2G	NCP1380BDR2G
NCP1380CDR2G	NCP1380BDR2G
NCP1380DDR2G	NCP1380BDR2G
NCP1396ADR2G	NCP1396ADR2G
NCP1396BDR2G	NCP1396ADR2G
NCP1399AADR2G	NCP1399AADR2G
NCP1399ABDR2G	NCP1399AADR2G
NCP1399ACDR2G	NCP1399AADR2G
NCP1399AFDR2G	NCP1399AADR2G
NCP1399BADR2G	NCP1399AADR2G
NCP1607BDR2G	NCP1380BDR2G
NCP1608BDR2G	NCP1380BDR2G
NCP1615ADR2G	NCP1615C3DR2G
NCP1615C2DR2G	NCP1615C3DR2G
NCP1615C3DR2G	NCP1615C3DR2G
NCP1615C4DR2G	NCP1615C3DR2G
NCP1615C5DR2G	NCP1615C3DR2G
NCP1615CDR2G	NCP1615C3DR2G
NCP1615D2DR2G	NCP1615C3DR2G
NCP1615DDR2G	NCP1615C3DR2G
NCP4304ADR2G	NCP4304ADR2G
NCP4304AMNTWG	NCP4304ADR2G
NCP4304BDR2G	NCP4304ADR2G
NCP4304BMNTWG	NCP4304ADR2G