

Generic Copy

Issue Date: 24-Jan-2014

<u>TITLE</u>: Initial Notification – Addition of Niigata FAB (Japan) as qualified Wafer Source for Bipolar Power Planar, Bias Resistor Transistor and General Purpose Transistor.

PROPOSED FIRST SHIP DATE: 01-Jul-2014

AFFECTED CHANGE CATEGORY(S): ON Semiconductor Fab Site

#### FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or <chuenwai.yong@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.

#### **DESCRIPTION AND PURPOSE:**

This is the Initial Notification by ON Semiconductor notifying customers of its plan to add Niigata FAB (Japan) as qualified Wafer Source for Bipolar Power Planar, Bias Resistor Transistor and General Purpose Transistor.

The Niigata FAB (N1) facility is an ON Semiconductor owned wafer fab that has been producing products for ON Semiconductor. Several existing technologies within ON Semiconductor's product families are currently sourced from N1. ON Semiconductor Niigata Wafer FAB is an internal factory that is TS16949, ISO-9001 and ISO-14000 certified.

Qualification tests are designed to show that the reliability of the transferred devices will continue to meet or exceed ON Semiconductor standards.

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#### **QUALIFICATION PLAN:**

Estimated Date for Qualification Completion: 1 June 2014 Samples to be available after completion of Qualification

#### **Qualification Vehicles:**

Qualification vehicles have been carefully selected to address all critical variables and interactions of wafer design features, process considerations, mechanical construction and electrical characteristics

#### **BIPOLAR POWER PLANAR:**

MJE5852G MJD340T4G

#### **BIAS RESISTOR TRANSISTOR:**

MUN5230T1G DTA114YET1G DTC115EM3T5G MMUN2214LT1G

#### **GENERAL PURPOSE TRANSISTOR:**

BCX19LT1G MMBT589LT1G

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#### **List of affected General Parts:**

## Affected Device List for Bipolar Power Planar (NPN)

2N5655G	MJB44H11T4G	MJD44H11T5G
2N5657G	MJD340G	MJE15032G
BD159G	MJD340RLG	MJE340G
D44H11G	MJD340T4G	MJE3439G
D44H8G	MJD44H11-1G	MJE344G
D44VH10G	MJD44H11G	MJF44H11G
MJB44H11G	MJD44H11RLG	NJD2873T4G
	MJD44H11T4G	NJW0281G

## Affected Device List for Bipolar Power Planar (PNP)

D45H11G	MJD45H11G	MJF45H11G
D45H8G	MJD45H11RLG	MJL1302AG
D45VH10G	MJD45H11T4G	MJW1302AG
MJB45H11G	MJE15033G	NJL0302DG
MJB45H11T4G	MJE5850G	NJL1302DG
MJD45H11-1G	MJE5851G	NJW0302G
	MJE5852G	NJW1302G

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#### Affected Device List for Bias Resistor Transistor (NPN)

DTC115EM3T5G	MUN2232T1G	MUN5234T1G
MMUN2211LT1G	MUN2233T1G	MUN5236DW1T1G
MMUN2211LT3G	MUN2234T1G	MUN5236T1G
MMUN2212LT1G	MUN2236T1G	MUN5311DW1T1G
MMUN2213LT1G	MUN5211DW1T1G	MUN5311DW1T2G
MMUN2214LT1G	MUN5211T1G	MUN5312DW1T1G
MMUN2230LT1G	MUN5212DW1T1G	MUN5312DW1T2G
MMUN2232LT1G	MUN5212T1G	MUN5313DW1T1G
MMUN2233LT1G	MUN5213DW1T1G	MUN5314DW1T1G
MMUN2234LT1G	MUN5213DW1T3G	MUN5330DW1T1G
MMUN2236LT1G	MUN5213T1G	MUN5332DW1T1G
MUN2211JT1G	MUN5214DW1T1G	MUN5333DW1T1G
MUN2211T1G	MUN5214T1G	MUN5334DW1T1G
MUN2211T3G	MUN5230DW1T1G	NSB1706DMW5T1G
MUN2212T1G	MUN5230T1G	NSB4904DW1T1G
MUN2213T1G	MUN5232DW1T1G	NSTB60BDW1T1G
MUN2214T1G	MUN5232T1G	UMC3NT1G
MUN2214T3G	MUN5233DW1T1G	UMC5NT1G
MUN2230T1G	MUN5233T1G	UMC5NT2G
	MUN5234DW1T1G	

## Affected Device List for Bias Resistor Transistor (PNP)

DTA114YET1G	MUN2113T1G	MUN5114T1G
MMUN2111LT1G	MUN2114T1G	MUN5311DW1T1G
MMUN2111LT3G	MUN5111DW1T1G	MUN5311DW1T2G
MMUN2112LT1G	MUN5111T1G	MUN5312DW1T1G
MMUN2113LT1G	MUN5112DW1T1G	MUN5312DW1T2G
MMUN2113LT3G	MUN5112T1G	MUN5313DW1T1G
MMUN2114LT1G	MUN5113DW1T1G	MUN5314DW1T1G
MMUN2114LT3G	MUN5113T1G	NSB4904DW1T1G
MUN2111T1G	MUN5113T3G	UMC3NT1G
MUN2112T1G	MUN5114DW1T1G	

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### Affected Device List for General Purpose Transistor (NPN)

2N5550G	BC846BWT1G	BCW66GLT1G
2N5550RLRPG	BC847BDW1T1G	BCW66GLT3G
2N5551G	BC847BDW1T3G	BCW72LT1G
2N5551RL1G	BC847BLT1G	BCX19LT1G
2N5551RLRAG	BC847BLT3G	BSS64LT1G
2N5551RLRPG	BC847BPDW1T1G	MMBT489LT1G
2N5551ZL1G	BC847BPDW1T2G	MMBT5550LT1G
BC237BG	BC847BPDW1T3G	MMBT5550LT3G
BC237BRL1G	BC847BWT1G	MMBT5551LT1G
BC337-025G	BC847CDW1T1G	MMBT5551LT3G
BC337-25RL1G	BC847CLT1G	MMBTA05LT1G
BC337-25ZL1G	BC847CLT3G	MMBTA05LT3G
BC337G	BC847CWT1G	MMBTA06LT1G
BC337RL1G	BC847CWT3G	MMBTA06LT3G
BC547CG	BC848BLT1G	MMBTA06WT1G
BC547CZL1G	BC848BLT3G	MPSA05G
BC548CG	BC848BWT1G	MPSA05RLRAG
BC549CG	BC848CDW1T1G	MPSA05RLRMG
BC550CG	BC848CLT1G	MPSA06G
BC817-16LT1G	BC848CPDW1T1G	MPSA06RL1G
BC817-16LT3G	BC848CWT1G	MPSA06RLG
BC817-25LT1G	BC849BLT1G	MPSA06RLRAG
BC817-25LT3G	BC849CLT1G	MPSA06RLRMG
BC817-40LT1G	BC850BLT1G	MPSA06RLRPG
BC817-40LT3G	BC850CLT1G	MPSW05G
BC818-40LT1G	BCW32LT1G	MPSW06G
BC846BDW1T1G	BCW33LT1G	MPSW06RLRAG
BC846BLT1G	BCW33LT3G	MSD602-RT1G
BC846BLT3G	BCW65ALT1G	NSS30101LT1G
BC846BPDW1T1G	BCW65CLT1G	

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### **Affected Device List for General Purpose Transistor (PNP)**

2N5087G	BC846BPDW1T1G	BCX17LT1G
2N5087RLRAG	BC847BPDW1T1G	MMBT5087LT1G
2N5401G	BC847BPDW1T2G	MMBT5087LT3G
2N5401RLRAG	BC847BPDW1T3G	MMBT5401LT1G
BC327-025G	BC856ALT1G	MMBT5401LT3G
BC327-25RL1G	BC856BDW1T1G	MMBT5401WT1G
BC327-25ZL1G	BC856BDW1T3G	MMBT589LT1G
BC327-40ZL1G	BC856BLT1G	MMBTA55LT1G
BC556BG	BC856BLT3G	MMBTA56LT1G
BC557BG	BC856BWT1G	MMBTA56LT3G
BC557BRL1G	BC857ALT1G	MMBTA56WT1G
BC557BZL1G	BC857BDW1T1G	MMBTA70LT1G
BC807-16LT1G	BC857BLT1G	MPS4250G
BC807-16LT3G	BC857BLT3G	MPSA55G
BC807-25LT1G	BC857BWT1G	MPSA55RLRAG
BC807-25LT1G	BC858ALT1G	MPSA56G
BC807-25LT3G	BC858AWT1G	MPSA56RLRAG
BC807-25LT3G	BC858BLT1G	MPSA56RLRMG
BC807-25WT1G	BC858BLT3G	MPSA56RLRPG
BC807-25WT1G	BC858BWT1G	MPSA56ZL1G
BC807-40LT1G	BCW30LT1G	NSM80100MT1G
BC807-40LT3G	BCW68GLT1G	NSS20200LT1G
BC807-40WT1G	BCW68GLT3G	NSS30100LT1G
BC808-25LT1G	BCW70LT1G	NST45010MW6T1G
BC808-25LT1G	BCX17LT1G	NSTB60BDW1T1G

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MJE5852G MJD340T4G

#### **BIAS RESISTOR TRANSISTOR:**

MUN5230T1G DTA114YET1G DTC115EM3T5G MMUN2214LT1G

#### **GENERAL PURPOSE TRANSISTOR:**

BCX19LT1G MMBT589LT1G

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2N5655G	MJB44H11T4G	MJD44H11T5G
2N5657G	MJD340G	MJE15032G
BD159G	MJD340RLG	MJE340G
D44H11G	MJD340T4G	MJE3439G
D44H8G	MJD44H11-1G	MJE344G
D44VH10G	MJD44H11G	MJF44H11G
MJB44H11G	MJD44H11RLG	NJD2873T4G
	MJD44H11T4G	NJW0281G

## Affected Device List for Bipolar Power Planar (PNP)

D45H11G	MJD45H11G	MJF45H11G
D45H8G	MJD45H11RLG	MJL1302AG
D45VH10G	MJD45H11T4G	MJW1302AG
MJB45H11G	MJE15033G	NJL0302DG
MJB45H11T4G	MJE5850G	NJL1302DG
MJD45H11-1G	MJE5851G	NJW0302G
	MJE5852G	NJW1302G

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#### Affected Device List for Bias Resistor Transistor (NPN)

DTC115EM3T5G	MUN2232T1G	MUN5234T1G
MMUN2211LT1G	MUN2233T1G	MUN5236DW1T1G
MMUN2211LT3G	MUN2234T1G	MUN5236T1G
MMUN2212LT1G	MUN2236T1G	MUN5311DW1T1G
MMUN2213LT1G	MUN5211DW1T1G	MUN5311DW1T2G
MMUN2214LT1G	MUN5211T1G	MUN5312DW1T1G
MMUN2230LT1G	MUN5212DW1T1G	MUN5312DW1T2G
MMUN2232LT1G	MUN5212T1G	MUN5313DW1T1G
MMUN2233LT1G	MUN5213DW1T1G	MUN5314DW1T1G
MMUN2234LT1G	MUN5213DW1T3G	MUN5330DW1T1G
MMUN2236LT1G	MUN5213T1G	MUN5332DW1T1G
MUN2211JT1G	MUN5214DW1T1G	MUN5333DW1T1G
MUN2211T1G	MUN5214T1G	MUN5334DW1T1G
MUN2211T3G	MUN5230DW1T1G	NSB1706DMW5T1G
MUN2212T1G	MUN5230T1G	NSB4904DW1T1G
MUN2213T1G	MUN5232DW1T1G	NSTB60BDW1T1G
MUN2214T1G	MUN5232T1G	UMC3NT1G
MUN2214T3G	MUN5233DW1T1G	UMC5NT1G
MUN2230T1G	MUN5233T1G	UMC5NT2G
	MUN5234DW1T1G	

## Affected Device List for Bias Resistor Transistor (PNP)

DTA114YET1G	MUN2113T1G	MUN5114T1G
MMUN2111LT1G	MUN2114T1G	MUN5311DW1T1G
MMUN2111LT3G	MUN5111DW1T1G	MUN5311DW1T2G
MMUN2112LT1G	MUN5111T1G	MUN5312DW1T1G
MMUN2113LT1G	MUN5112DW1T1G	MUN5312DW1T2G
MMUN2113LT3G	MUN5112T1G	MUN5313DW1T1G
MMUN2114LT1G	MUN5113DW1T1G	MUN5314DW1T1G
MMUN2114LT3G	MUN5113T1G	NSB4904DW1T1G
MUN2111T1G	MUN5113T3G	UMC3NT1G
MUN2112T1G	MUN5114DW1T1G	

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### Affected Device List for General Purpose Transistor (NPN)

2N5550G	BC846BWT1G	BCW66GLT1G
2N5550RLRPG	BC847BDW1T1G	BCW66GLT3G
2N5551G	BC847BDW1T3G	BCW72LT1G
2N5551RL1G	BC847BLT1G	BCX19LT1G
2N5551RLRAG	BC847BLT3G	BSS64LT1G
2N5551RLRPG	BC847BPDW1T1G	MMBT489LT1G
2N5551ZL1G	BC847BPDW1T2G	MMBT5550LT1G
BC237BG	BC847BPDW1T3G	MMBT5550LT3G
BC237BRL1G	BC847BWT1G	MMBT5551LT1G
BC337-025G	BC847CDW1T1G	MMBT5551LT3G
BC337-25RL1G	BC847CLT1G	MMBTA05LT1G
BC337-25ZL1G	BC847CLT3G	MMBTA05LT3G
BC337G	BC847CWT1G	MMBTA06LT1G
BC337RL1G	BC847CWT3G	MMBTA06LT3G
BC547CG	BC848BLT1G	MMBTA06WT1G
BC547CZL1G	BC848BLT3G	MPSA05G
BC548CG	BC848BWT1G	MPSA05RLRAG
BC549CG	BC848CDW1T1G	MPSA05RLRMG
BC550CG	BC848CLT1G	MPSA06G
BC817-16LT1G	BC848CPDW1T1G	MPSA06RL1G
BC817-16LT3G	BC848CWT1G	MPSA06RLG
BC817-25LT1G	BC849BLT1G	MPSA06RLRAG
BC817-25LT3G	BC849CLT1G	MPSA06RLRMG
BC817-40LT1G	BC850BLT1G	MPSA06RLRPG
BC817-40LT3G	BC850CLT1G	MPSW05G
BC818-40LT1G	BCW32LT1G	MPSW06G
BC846BDW1T1G	BCW33LT1G	MPSW06RLRAG
BC846BLT1G	BCW33LT3G	MSD602-RT1G
BC846BLT3G	BCW65ALT1G	NSS30101LT1G
BC846BPDW1T1G	BCW65CLT1G	

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### **Affected Device List for General Purpose Transistor (PNP)**

2N5087G	BC846BPDW1T1G	BCX17LT1G
2N5087RLRAG	BC847BPDW1T1G	MMBT5087LT1G
2N5401G	BC847BPDW1T2G	MMBT5087LT3G
2N5401RLRAG	BC847BPDW1T3G	MMBT5401LT1G
BC327-025G	BC856ALT1G	MMBT5401LT3G
BC327-25RL1G	BC856BDW1T1G	MMBT5401WT1G
BC327-25ZL1G	BC856BDW1T3G	MMBT589LT1G
BC327-40ZL1G	BC856BLT1G	MMBTA55LT1G
BC556BG	BC856BLT3G	MMBTA56LT1G
BC557BG	BC856BWT1G	MMBTA56LT3G
BC557BRL1G	BC857ALT1G	MMBTA56WT1G
BC557BZL1G	BC857BDW1T1G	MMBTA70LT1G
BC807-16LT1G	BC857BLT1G	MPS4250G
BC807-16LT3G	BC857BLT3G	MPSA55G
BC807-25LT1G	BC857BWT1G	MPSA55RLRAG
BC807-25LT1G	BC858ALT1G	MPSA56G
BC807-25LT3G	BC858AWT1G	MPSA56RLRAG
BC807-25LT3G	BC858BLT1G	MPSA56RLRMG
BC807-25WT1G	BC858BLT3G	MPSA56RLRPG
BC807-25WT1G	BC858BWT1G	MPSA56ZL1G
BC807-40LT1G	BCW30LT1G	NSM80100MT1G
BC807-40LT3G	BCW68GLT1G	NSS20200LT1G
BC807-40WT1G	BCW68GLT3G	NSS30100LT1G
BC808-25LT1G	BCW70LT1G	NST45010MW6T1G
BC808-25LT1G	BCX17LT1G	NSTB60BDW1T1G

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If no Customer Part Number is on file, the CPN Part Number is marked "CPN Unassigned".

MPN	CPN	Company Name	Company Code	Division Name	Division Code
BC817-40LT1G	CPN Unassigned	ALSTOM	UC	ALSTOM TRANSPORT	TAOOZ
BC807-40LT1G	CPN Unassigned	ALSTOM	UC	ALSTOM TRANSPORT	TAOOZ
2N5550G	CPN Unassigned	ALSTOM	UC	ALSTOM TRANSPORT	TAOOZ
2N5401G	CPN Unassigned	ALSTOM	UC	ALSTOM TRANSPORT	TAOOZ
MJD340T4G	CPN Unassigned	ALSTOM	UC	ALSTOM TRANSPORT	TAOOZ