



Title of Change:	Qualification of AFSM (Aizu Fujitsu Semiconductor Manufacturing) as an additional Wafer Fab facility for ONC25 Technology.	
Proposed first ship date:	10 April 2019 <i>or earlier upon customer approval.</i>	
Contact information:	Contact your local ON Semiconductor Sales Office or < Jaroslav.Supina@onsemi.com >	
Samples:	Contact your local ON Semiconductor Sales Office or < PCN.samples@onsemi.com >	
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or < Vladislav.Hrachovec@onsemi.com >.	
Type of notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. ON Semiconductor will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact < PCN.Support@onsemi.com >	
Change Part Identification:	Shipments made after work week 13, 2019 may contain die sourced from either AFSM Fab or ON Semiconductor fab in Gresham, Oregon. The product date code will indicate the work week of manufacturing and the product labels will contain the wafer source indicator.	
Change Category:	<input checked="" type="checkbox"/> Wafer Fab Change <input type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input type="checkbox"/> Other _____	
Change Sub-Category(s):	<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input checked="" type="checkbox"/> Manufacturing Site Addition</div> <div style="width: 33%;"><input type="checkbox"/> Material Change</div> <div style="width: 33%;"><input type="checkbox"/> Datasheet/Product Doc change</div> <div style="width: 33%;"><input type="checkbox"/> Manufacturing Site Transfer</div> <div style="width: 33%;"><input type="checkbox"/> Product specific change</div> <div style="width: 33%;"><input type="checkbox"/> Shipping/Packaging/Marking</div> <div style="width: 33%;"><input type="checkbox"/> Manufacturing Process Change</div> <div style="width: 33%;"><input type="checkbox"/> Other: _____</div> </div>	
Sites Affected:	ON Semiconductor Sites: None	External Foundry/Subcon Sites: AFSM (Aizu Fujitsu Semiconductor Manufacturing) Wafer Fab, Aizuwakamatsu, Japan
Description and Purpose:		
<p>The AFSM (Aizu Fujitsu Semiconductor Manufacturing) Wafer Fab located in Aizuwakamatsu, Japan has been qualified to process the ONC25 CMOS process.</p> <p>The exact same process technology has been transferred as is currently running in the ON Semiconductor wafer fab located at Gresham, Oregon, USA. Tool sets are different but the exact same masking layers and steps are being used in the AFSM Fab.</p> <p>This is a capacity expansion to supplement the existing ON Semiconductor wafer fab. The parts being qualified are dual sourced and may be processed at either wafer fab in the future depending on capacity requirements.</p> <p>Additional part families will be announced on future PCNs once qualifications of those parts are completed.</p> <p>This PCN will apply to future Regulator output voltage versions of the part families listed below.</p>		



Reliability Data Summary:

QV DEVICE NAME
NCP170A/BXVxxxT2G

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, 100 % max rated V_{CC}	1008 hrs	0/160
ELFR	JA108	Ta=125°C, 100 % max rated V_{CC}	48 hrs	0/2400
HTSL	JA103	Ta=150°C	1008 hrs	0/240
TC	JESD22-A104	Ta= -65°C to +150°C	500 cycles	0/270
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	264 hrs	0/270
UHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/240
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		PASS
RSH	JESD22-B106	Ta = 265C, 10 sec		0/90
ED	Electrical Distribution	Critical parameters		CPK>1.67, Pass
BPS	MILSTD883 Method 2011	Cond C.		CPK>1.67, Pass
SAT	J-STD-020 JESD-A113			Pass
ESD	CDM JS002		1kV	Pass
ESD	HBM JS001		2kV	Pass
LU	JESD78	Class II	+/-100ma	Pass

QV DEVICE NAME
NCP160/1BFCSxxxT2G,
NCP160/1BFCTxxxT2G,
NCP160/1A/BMXxxxTBG

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, 100 % max rated V_{CC}	1008 hrs	0/336
HTSL	JA103	Ta=150°C	1008 hrs	0/251
TC	JESD22-A104	Ta= -40°C to +150°C	1000 cycles	0/334
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/336
UHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/336
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		Pass
ED	Electrical Distribution	Critical parameters		CPK>1.67, Pass
ESD	HBM JS001		2kV	Pass
LU	JESD78		+/-100mA	Pass

QV DEVICE NAME
NCP59748MN1ADJTBG
NCP59749MN2ADJTBG

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta = 125°C, 100 % max rated Vcc	1008h	0/239
ED	Electrical Distribution	Critical Parameters		Cpk ≥ 1.67
ESD	HBM JS001		2kV	Pass
ESD	CDM JS002		1kV	Pass
LU	JESD78		+/-100mA	Pass

**Electrical Characteristic Summary:**

There are no changes to any electrical parameters. All data sheet specifications remain the same.

List of Affected Parts:

Part Number	Qualification Vehicle
NCP135AMT040TBG NCP135BMT040TBG	NCP170A/BXVxxxT2G NCP160/1BFCSxxxT2G NCP160/1BFCTxxxT2G NCP160/1A/BMXxxxTBG