



Title of Change:	Capacity expansion of Assembly and Test operations for SF3 DPAK - GEM China as an additional site										
Proposed first ship date:	7 February 2019										
Contact information:	Contact your local ON Semiconductor Sales Office or <lisa.wang@onsemi.com>										
Samples:	Contact your local ON Semiconductor Sales Office or <PCN.samples@onsemi.com> Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change.										
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <Byeongyeop.Lee@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:	Product marked with date code 1901 or later may be built from current factory or from GEM. The trace code marking on Line 1 is of the form ZYWK where Z = Assembly Location, YW is a 3-digit date code and K is traceability code. Product marked with "M" as the assembly location will be from GEM. Additionally on the label of the box and reel, the ASSY LOC: PO will also indicate product assembled in GEM. Please see sample label on Page 2 at the following URL http://www.onsemi.com/pub/Collateral/LABELRM-D.PDF to see the location of the ASSY LOC.										
Change Category:	☐ Wafer Fab Change ☒ Assembly Change ☒ Test Change ☐ Other _____										
Change Sub-Category(s):	☒ Manufacturing Site Addition ☐ Material Change ☐ Datasheet/Product Doc change ☐ Manufacturing Site Transfer ☐ Product specific change ☒ Shipping/Packaging/Marking ☐ Manufacturing Process Change ☐ Other: _____										
Sites Affected:	ON Semiconductor Sites: ON Suzhou, China	External Foundry/Subcon Sites: GEM China									
Description and Purpose: This Final Notification announces to customers ON Semiconductor's plans to expand Assembly and Test operations of former Fairchild DPAK Packaged products to an existing external manufacturing site in GEM china. This is a capacity expansion, and at the end of the FPCN approval cycle, these products may be dual sourced from either GEM, China or from On Semi Suzhou, China. SF3 DPAK will be qualified and released as part of this expansion in GEM (as per table in List of affected parts). GEM is certified with ISO9001:2015 and IATF 16949 and is currently running production for DPAK package. Qualification tests are designed to show that the reliability of the transferred devices will continue to meet or exceed ON Semiconductor standards.											
	<table border="1"> <thead> <tr> <th></th> <th>Before Change Description</th> <th>After Change Description</th> </tr> </thead> <tbody> <tr> <td>LeadFrame</td> <td>DPAK Lead frame with Cu alloy C194 material</td> <td>DPAK Lead frame with TAMAC4/ 12SnOFC-H material</td> </tr> <tr> <td>Assembly Site</td> <td>On Suzhou</td> <td>On Suzhou and GEM China</td> </tr> </tbody> </table>			Before Change Description	After Change Description	LeadFrame	DPAK Lead frame with Cu alloy C194 material	DPAK Lead frame with TAMAC4/ 12SnOFC-H material	Assembly Site	On Suzhou	On Suzhou and GEM China
	Before Change Description	After Change Description									
LeadFrame	DPAK Lead frame with Cu alloy C194 material	DPAK Lead frame with TAMAC4/ 12SnOFC-H material									
Assembly Site	On Suzhou	On Suzhou and GEM China									



For the marking,

1st line: ZYWK: Z = Assembly Location, "M" is GEM; YW is a 3-digit date code and K is traceability code.

2nd and 3rd line: device marking;

- GEM Product : first 9 Characters of the PN will be marked on the 2nd line and remaining characters will be on the 3rd line

FCD260N65S3 for example:

	Suzhou	GEM
Product marking change		

Reliability Data Summary:

QV DEVICE NAME: FCD260N65S3

RMS: 49706

PACKAGE: DPAK

Test	Specification	Condition	Interval	Lot Results
HTRB	JESD22-A108	Tj = 150°C for 1,008 hours, 100% BV	1,008 hrs	0/231
HTGB	JESD22-A108	Ta=150 °C for 1,008 hours, Max Vgs	1,008 hrs	0/231
HTSL	JESD22-A108	Ta = 150°C	1,008 hrs	0/231
IOL (+PC)	JESD22-A122	Delta 100C, 15,000cyc	15,000cyc	0/231
TC (+PC)	JESD22-A104	Ta= -55°C to +150°C	1,000 cyc	0/231
HAST(+PC)	JESD22-A110	T = 130°C, RH = 85%, 96 hours, 80% BV	96 hrs	0/231
UHASt(+PC)	JESD22-A110	T = 130°C, RH = 85%	96 hrs	0/231
RSH	JESD22-B106	260°C Immersion		0/30
SAT	12MSB17722	Compare for Delamination before and after PC		0/15
BPS	MIL- STD883 Method 2011	Per ass'y spec		0/90
BS	AEC-Q101-003	Per ass'y spec		0/90
DSS	MIL-STD883 Method 2019	Per ass'y spec		0/90
ESD	JS001 IEC61000-4	Charge Device (CDM)	CDM 2.0kV	0/9
		Charge Device (HBM)	HBM 2.1kV	0/9
ED		Electrical Distribution		0/45
UIS	AEC Q101-004	Unclamped Inductive Switching		0/15

**Electrical Characteristic Summary:**

The temperature characterization meets datasheet specification. Electrical characteristics are not impacted. Detail of Electrical characterization result is available upon request.

List of Affected Parts:

Part Number	Qualification Vehicle
FCD260N65S3	FCD260N65S3
FCD360N65S3R0	FCD260N65S3
FCD600N65S3R0	FCD260N65S3



Appendix A: Changed Products

Product	Customer Part Number	Qualification Vehicle
FCD260N65S3		FCD260N65S3
FCD360N65S3R0		FCD260N65S3
FCD600N65S3R0		FCD260N65S3