



Final Product/Process Change Notification
 Document #:FPCN24214X
 Issue Date:18 Nov 2021

Title of Change:	FDP2D9N12C & FDMS4D0N12C Product improvement (BVdss and Vth improvement)	
Proposed First Ship date:	01 Mar 2022 or earlier if approved by customer	
Contact Information:	Contact your local onsemi Sales Office or Yuna.Im@onsemi.com	
PCN Samples Contact:	Contact your local onsemi 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. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.	
Additional Reliability Data:	Contact your local onsemi Sales Office or xiaohu.zhang@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. onsemi 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	
Marking of Parts/ Traceability of Change:	The affected products will be identified with date code.	
Change Category:	Wafer Fab Change	
Change Sub-Category(s):	Manufacturing Process Change	
Sites Affected:		
onsemi Sites	External Foundry/Subcon Sites	
ON Semiconductor Bucheon, Korea	None	
Description and Purpose:		
Fab process unification for PTNG 120V. 2 products have been released in initial stage of product design, so this change is to unify existing products to final production process.		
Fab Process	Before Change Description	After Change Description
CNT Dry Etch	2nd Dry Etch Center Fast etch rate recipe	2nd Dry Etch Edge Fast etch rate recipe
HB Etch	Etch time 105"	Etch time 95"
There are no product material changes as a result of this change.		



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Reliability Data Summary:

QV DEVICE NAME : FDP2D9N12C

RMS: 70794

PACKAGE: TO-220

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs	0/240
HTGB	JESD22-A108	Ta=150°C, 100% max rated Vgss	1008 hrs	0/240
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/240
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off =2 min	15000cyc	0/240
TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc	0/240
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias=96V	96 hrs	0/240
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/240
PC	J-STD-020 JESD-A113	MSL 1 @260°C		
RSH	JESD22- B106	Ta = 265C, 10 sec		0/30
SD	JSTD002	Ta = 245C, 5 sec		0/ 15

Electrical Characteristics Summary:

Electrical characteristics are not impacted.

List of Affected Parts:

Note: Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the [PCN Customized Portal](#).

Part Number	Qualification Vehicle
FDP2D9N12C	FDP2D9N12C
FDMS4D0N12C	FDP2D9N12C

Appendix A: Changed Products

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Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
FDMS4D0N12C		FDP2D9N12C		