Final Product/Process Change Notification

Document #:FPCN25729XD
Issue Date:21 Oct 2024

Title of Change:	Wafer Fab Site Addition of onsemi, Bucheon Korea as alternate fab site for ESD and Surge Protection products
Proposed First Ship date:	28 Jan 2025 or earlier if approved by customer
Contact Information:	Contact your local onsemi Sales Office or norhayati.othman@onsemi.com
PCN Samples Contact:	Contact your local onsemi Sales Office. 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 Nicky.Siu@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:	Changed material can be identified by lot code
Change Category:	Wafer Fab Change
Change Sub-Category(s):	Datasheet/Product Doc change, Manufacturing Site Addition

Sites Affected:

onsemi Sites	**External Foundry/Subcon Sites**
onsemi Bucheon, Korea	None

Description and Purpose:

This Final Product Change Notification (FPCN) is to notify customers of the qualification of onsemi Bucheon, Korea Wafer Fab as an additional wafer fab site for ESD and Surge Protection products.

Upon expiration of this FPCN, affected parts can be sourced from either onsemi Bucheon, Korea or LA Semiconductor wafer fab."

	Before Change Description	**After Change Description**
Manufacturing location for Wafer Fab	LA Semiconductor, Idaho, United States	onsemi Bucheon, Korea, LA Semiconductor, Idaho, United States

The ESD Rating and Clamping Voltage of 1.2/50 µs Waveform for ESDL2012MX4T5G datasheet will be revised as below.

			Before			**After**			
Parameter	**Symbol**	**Conditions**	**Min**	**Typ**	**Max**	**Min**	**Typ**	**Max**	**Unit**
ESD Rating	ESD	IEC 61000−4−2, Contact			16			15	kV
		IEC 61000−4−2, Air			16			15	
Clamping Voltage 1.2/50 µs Waveform	V_C	I_{PP} = 2.1 A, IEC61000−4−5 (1.2/50 µs), R_{eq} = 12 Ω			3.4			3.6	V
		I_{PP} = 3.5 A, IEC61000−4−5 (1.2/50 µs), R_{eq} = 12 Ω			4.1			4.2	

Reliability Data Summary:

QV DEVICE NAME: ESDL2012MX4T5G
RMS: 93678, 98450
PACKAGE: X4DFN

Test	Specification	Condition	Interval	Results
High Temperature Reverse Bias	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs	0/231
High Temperature Storage Life	JESD22-A103	Ta=150°C	1008 hrs	0/231
Preconditioning	J-STD-020 JESD-A113	MSL 1 @260°C, Pre TC, uHAST, HAST for surface mount pkgs only	-	0/693
Temperature Cycling	JESD22-A104	Ta= -40°C to +125°C	1550 cyc	0/231
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/231
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231

Electrical Characteristics Summary:

Limits have been changed per described in the details section for standardization purposes.

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
SESDL2012AMX4T5G	ESDL2012MX4T5G
SESDL2012MX4T5G	ESDL2012MX4T5G
ESDL2012MX4T5G	ESDL2012MX4T5G