ON Semiconductor®

Initial Product/Process Change Notification

Document # : IPCN22701X
Issue Date: 12 June 2019

Title of Change:	Mold compound conversion from EME-G750N to EME-G770HCD.M for X2DFN devices assembled in ON Semiconductor, Leshan facility.
Proposed First Ship date:	1 March 2020
Contact Information:	Contact your local ON Semiconductor Sales Office or <Jim.Peng@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. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.
Type of Notification:	This is an Initial Product/Process Change Notification (IPCN) sent to customers. An IPCN is an 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. In case of questions, contact <PCN.Support@onsemi.com>
Change Part Identification:	Products assembled with EME-G700HCD.M mold compound from ON Semiconductor Leshan facility will have a Finish Goods Date Code of Mar, 2020 or later.
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 Leshan, China	External Foundry/Subcon Sites: None

Description and Purpose:

Upon the expiration of this PCN, these devices will be built with new mold compound at the same site. Datasheet specifications and product electrical performance remain unchanged. Reliability qualification and full electrical characterization over temperature will be performed.
The new mold compound is with better flow ability for manufacturability.

Material to be change	Before Change Description	After Change Description
Mold Compound	EME-G750N	EME-G770HCD.M

Qualification Plan:

Qual Vehicle Device: NSPU3051N2T5G
RMS: 53127
Package: X2DFN2

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Tj= max, V=100% rated V	1008 hrs
HTSL	JEDS22- A103	Temp.=150°C,no bias	1008 hrs
PC	JESD22-A113	MSL 1 @ 260 °C	Before H3TRB, TC, UHAST, HAST, AC, IOL
HAST	JESD22 A110	130C/85%RH, 80% rated V or 100V max	192 hrs
TC	JESD22 A104	Ta= - 65°C to +150°C	1000 cyc
UHAST	JESD22 A118	Ta=130C, 85% RH, no bias	96 hrs
IOL	MIL-STD-750	Ta=+25°C, delta Tj=100°C, On/off = 2 min	15000 cycs
RSH	JESD22- B106	Ta = 265C, 10 sec	-

Qual Vehicle Device: SZESD7551MXWT5G
RMS: 55036
Package: X2DFN2

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Tj= max, V=100% rated V	1008 hrs
HTSL	JEDS22- A103	Temp.=150°C,no bias	1008 hrs
PC	JESD22-A113	MSL 1 @ 260 °C	Before H3TRB, TC, UHAST, HAST, AC, IOL
HAST	JESD22 A110	110C/85%RH, 80% rated V or 100V max	528 hrs
TC	JESD22 A104	Ta= - 65°C to +150°C	1000 cyc
UHAST	JESD22 A118	Ta=110C, 85% RH, no bias	264 hrs
IOL	MIL-STD-750	Ta=+25°C, delta Tj=100°C, On/off = 2 min	15000 cycs
RSH	JESD22- B106	Ta = 265C, 10 sec	-

Qual Vehicle Device: NSR0240MXWT5G
RMS: 55037
Package: X2DFN2

Test	Specification	Condition	Interval
PC	JESD22-A113	MSL 1 @ 260 °C	Before HAST
HAST	JESD22 A110	110C/85%RH, 80% rated V or 100V max.	528 hrs
HTRB	JESD22-A108	Tj= max, V=100% rated V, 1008 Hrs	1008hrs

Estimated date for qualification completion: 1 September 2019

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
ESD5581N2T5G	NSPU3051N2T5G
ESD7410N2T5G	
ESDM3051N2T5G	
ESDM3551N2T5G	
ESDU3121MXT5G	
NSR0240MXT5G	NSR0240MXWT5G
NSR0240MXWT5G	
NSR05T304MXT5G	
NSR201MXT5G	
ESD7241N2T5G	SZESD7551MXWT5G
ESD7462N2T5G	
ESD7551N2T5G	
ESD7571N2T5G	
ESD8551N2T5G	