Final Product/Process Change Notification

Document #:FPCN23819ZC
Issue Date:30 Jun 2022

Title of Change:	Qualify mold compound EME-G770HM type D for XDFN devices assembled in onsemi Leshan, China.
Proposed Changed Material First Ship Date:	01 Jan 2023 or earlier if approved by customer
Current Material Last Order Date:	01 Oct 2022 *Orders received after the Current Material Last Order Date expiration are to be considered as orders for new changed material as described in this PCN. Orders for current (unchanged) material after this date will be per mutual agreement and current material inventory availability*.
Current Material Last Delivery Date:	31 Dec 2022 *The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory*
Product Category:	Active components – Discrete components
Contact information:	Contact your local onsemi Sales Office or Jim.Peng@onsemi.com
PCN Samples Contact:	Contact your local onsemi Sales Office to place sample order. Sample requests are to be submitted no later than 45 days after publication of this change notification. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.
Sample Availability Date:	20 Aug 2022
PPAP Availability Date:	31 Jul 2022
Additional Reliability Data:	Contact your local onsemi Sales Office or c.l.yang@lps.com.cn
Type of Notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. The change will be implemented at 'Proposed Change Material First Ship Date' in compliance to J-STD-46 or ZVEI, or earlier upon customer approval, or per our signed agreements. onsemi will consider this proposed change and it's conditions acceptable, unless an inquiry is made in writing within 45 days of delivery of this notice. To do so, contact PCN.Support@onsemi.com.

Change Category

Category	**Type of Change**
Process - Assembly	Change of mold compound

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 was performed for qualification vehicle device.

Material to be change	Before Change Description	After Change Description
Mold Compound	EME-G7770HCD Version M	EME-G770HM type D

There is no part number and product marking change as a result of this change.

Reason / Motivation for Change:	Process/Materials Change
Anticipated impact on fit, form, function, reliability, product safety or manufacturability:	The device has been qualified and validated based on the same Product Specification. The device has successfully passed the qualification tests. Potential impacts can be identified, but due to testing performed by onsemi in relation to the PCN, associated risks are verified and excluded. No anticipated impacts.

Sites Affected:

onsemi Sites	**External Foundry/Subcon Sites**
onsemi Leshan, China	None

Marking of Parts/ Traceability of Change:	Assembly Date Code

Reliability Data Summary:

Qual Vehicle Device: NSVBAS21MX2WT5G
RMS: 77121
Package: X2DFN

Test	Specification	Condition	Interval	Results
HTRB	MIL-STD-750	Tj= max, V=100% rated V	1008 hrs	0/231
HTSL	JEDS22 A103	Temp.=150°C,no bias	2016 hrs	0/231
PC	JESD22 A113	MSL 1 @ 260 °C	Before TC, UHAST, HAST, IOL	0/924
HAST	JESD22 A110	130C/85%RH, 80% rated V or 100V max	192 hrs	0/231
TC	JESD22 A104	Ta= - 65°C to +150°C	1000 cyc	0/231
UHAST	JESD22 A118	Ta=130C, 85% RH, no bias	96 hrs	0/231
IOL	MIL-STD-750	Ta=+25°C, delta Tj=100°C, On/off = 2 min	30000 cycs	0/231
RSH	JESD22 B106	Ta = 265C, 10 sec	-	0/30

Qual Vehicle Device: SZNZ8F47VMX2WT5G
RMS: 76656 / 79361
Package: X2DFN

Test	Specification	Condition	Interval	Results
HTRB	MIL-STD750-1	Tj= max, V=100% rated V	1008 hrs	0/231
HTSL	JEDS22 A103	Temp.=150°C,no bias	2016 hrs	0/231
SSOP	MIL-STD750-1	Tj= max, V=100% rated IZ max	2016hrs	0/231
PC	JESD22 A113	MSL 1 @ 260 °C	Before H3TRB, TC, UHAST, IOL	0/924
H3TRB	JESD22 A101	Temp = 85C, RH=85%, bias = 80% of rated V or 100V max	2016 hrs	0/231
TC	JESD22 A104	Ta= - 65°C to +150°C	1000 cyc	0/231
UHAST	JESD22 A118	Ta=130C, 85% RH, no bias	96 hrs	0/231
IOL	MIL-STD-750	Ta=+25°C, delta Tj=100°C, On/off = 2 min	30000 cycs	0/231
RSH	JESD22- B106	Ta = 265C, 10 sec	-	0/30

Qual Vehicle Device: SNSR201MXT5G
RMS: 77684
Package: X2DFN

Test	Specification	Condition	Interval	Results
HTRB	MIL-STD750-1	Tj= max, V=100% rated V, 1008 Hrs	1008 hrs	0/231

NOTE: AEC-1pager is attached.
To view attachments:
1. Download pdf copy of the PCN to your computer
2. Open the downloaded pdf copy of the PCN
3. Click on the paper clip icon available on the menu provided in the left/bottom portion of the screen to reveal the Attachment field
4. Then click on the attached file

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****.*

Current Part Number	New Part Number	Qualification Vehicle
NSVDP301MX2WT5G	NA	NSVBAS21MX2WT5G + SNSR201MXT5G
SZESD7551MXWT5G	NA	SZNZ8F47VMX2WT5G
SZESD7410MXWT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F10VMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F10VSMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F11VMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F11VSMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F12VMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F12VSMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F13VMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F13VSMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F15VMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F15VSMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F16VMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F16VSMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F18VMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F18VSMX2WT5G	NA	SZNZ8F47VMX2WT5G

SZNZ8F20VMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F20VSMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F22VMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F22VSMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F24VMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F24VSMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F27VMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F27VSMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F2V4MX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F2V4SMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F2V7MX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F2V7SMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F33VMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F33VSMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F3V0MX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F3V0SMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F3V3MX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F3V3SMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F3V6MX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F3V6SMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F3V9MX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F3V9SMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F47VMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F47VSMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F4V3MX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F4V3SMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F4V7MX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F4V7SMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F5V1MX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F5V1SMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F5V6MX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F5V6SMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F9V1SMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F9V1MX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F8V2SMX2WT5G	NA	SZNZ8F47VMX2WT5G

SZNZ8F8V2MX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F7V5SMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F7V5MX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F6V8SMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F6V8MX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F6V2SMX2WT5G	NA	SZNZ8F47VMX2WT5G
SZNZ8F6V2MX2WT5G	NA	SZNZ8F47VMX2WT5G
NSVR02L40MX2WT5G	NA	NSVBAS21MX2WT5G

Appendix A: Changed Products

PCN#: FPCN23819ZC
Issue Date: Jun 30, 2022

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
SZESD7551MXWT5G		SZNZ8F47VMX2WT5G	NA	