Final Product/Process Change Notification

Document #:FPCN22416ZA
Issue Date:29 Nov 2021

Title of Change:	Qualification of mold compound G700HF in D2PAK package in onsemi Seremban Malaysia (SBN)
Proposed Changed Material First Ship Date:	29 May 2022 or earlier if approved by customer
Current Material Last Order Date:	N/A *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:	N/A *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 HasratulAzwan.Darun@onsemi.com
PCN Samples Contact:	Contact your local onsemi Sales Office to place sample order or <PCN.samples@onsemi.com>. 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:	N/A
PPAP Availability Date:	N/A
Additional Reliability Data:	Contact your local onsemi Sales Office or MohdAzizi.Azman@onsemi.com
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 encapsulation/sealing material

Description and Purpose:

To notify customers of the change in mold compound for device NVB25P06T4G and NVB6411ANT4G in D2PAK package from ShowaDenko GE8000CH4ES to Sumitomo G700HF. The change is to improve product package robustness.

	Before Change Description	**After Change Description**
Mold Compound	GE8000CH4ES	G700HF

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 Seremban, Malaysia	None

Marking of Parts/ Traceability of Change:	The affected products will be identified with date code.

Reliability Data Summary:

QV DEVICE NAME: MVB50P03HDLT4G (MOSFET)
RMS : S44541
PACKAGE: D2PAK

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Ta = 150 °C, bias = 100% of rated V	1008 hrs	0/231
HTGB	JESD22-A108	Ta = 150°C, 100% max rated Vgss	1008 hrs	0/231
HTSL	JESD22-A103	Ta = 150 °C	1008 hrs	0/231
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, deltaTj=100°C max, Ton = Toff = 3.5min	8572 cyc	0/231
TC	JESD22-A104	Ta = -55°C to +150°C	1000 cyc	0/231
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/231
H3TRB	JESD22-A101	85°C, 85% RH, bias = 80% of rated V or up to maximum100V	1008 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 245 °C		0/308
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/30
SD	JSTD002	Ta = 245°C, 10 sec		0/15

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 characteristic 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
NVB6411ANT4G	NA	MVB50P03HDLT4G
NVB25P06T4G	NA	MVB50P03HDLT4G