



Title of Change:	Qualification of mold compound G700HF and 8 mils Aluminum wire for selected Ultrafast devices in DPAK package.									
Proposed Changed Material First Ship Date:	1 September 2019 <i>or earlier upon customer approval</i>									
Current Material Last Order Date:	01 June 2019 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 August 2019 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 ON Semiconductor Sales Office or <Phuong.Hoang@onsemi.com>									
Samples:	Contact your local ON Semiconductor Sales Office to place sample order. Sample requests are to be submitted no later than 45 days after publication of this change notification.									
Sample Availability Date:	1 June 2018									
PPAP Availability Date:	30 June 2018									
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or < cheanching.sim@onsemi.com >.									
Type of Notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 12 months prior to implementation of the change or earlier upon customer approval. ON Semiconductor 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:	Type of Change									
Process – Assembly	Change of mold compound									
Process – Assembly	Change of wire bonding									
Process – Assembly	Change of product marking									
Description and Purpose:										
<p>This is the Final Notification to announce the plan to qualify mold compound G700HF and 8 mil Aluminum wire on selected ultrafast devices in DPAK package. This change is to improve package robustness, with proven superior product performance.</p> <p>Upon the expiration of this FPCN, these products will be assembled with new Bill of Material.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Piece part</th> <th>Before Change Description</th> <th>After Change Description</th> </tr> </thead> <tbody> <tr> <td>Aluminum wire</td> <td>5 Mils</td> <td>8 mils</td> </tr> <tr> <td>Mold compound</td> <td>GE8000CH4ES</td> <td>G700HF</td> </tr> </tbody> </table> <p>Both NRVUD620CTT4G and SNRVUD620CTT4G will remain the same orderable part number (OPN). The new OPN SRVUD620CTT4G was created for earlier conversion. There is no change in the fit, form or functions of the affected OPNs.</p>		Piece part	Before Change Description	After Change Description	Aluminum wire	5 Mils	8 mils	Mold compound	GE8000CH4ES	G700HF
Piece part	Before Change Description	After Change Description								
Aluminum wire	5 Mils	8 mils								
Mold compound	GE8000CH4ES	G700HF								
Reason / Motivation for Change:	QUALITY IMPROVEMENT – To improve product package robustness.									
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 ON Semiconductor in relation to the PCN, associated risks are verified and excluded. No anticipated impacts.									



Sites Affected:	ON Semiconductor Sites: ON Dong Nai Province, Vietnam	External Foundry/Subcon Sites: None
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Marking of Parts/ Traceability of Change:	New material product will be marking with prefix "S" in line 3 of top side marking. New OPN marking will be S620T3G.
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Reliability Data Summary:

QV DEVICE NAME: NRVUD620CTT4G

PACKAGE: DPAK

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Ta = 150°C, Tj(est) = 175°C, bias = 100% of rated V	1008 hrs	0/252
HTSL	JESD22-A103	Ta = 175°C	1008 hrs	0/252
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, deltaTj = 100°C max, Ton = Toff = 2min	15000 cyc	0/252
TC	JESD22-A104	Ta = -65°C to +150°C	1000 cyc	0/252
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/252
H3TRB	JESD22-A101	Ta = 85°C, RH = 85%, bias = 100V max	1008 hrs	0/252
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/1008
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/90
SD	JSTD002	Ta = 245°C, 10 sec		0/45

Electrical Characteristic Summary:

There are no changes in electrical characteristic; product performance meets data sheet specifications. Characterization data is available upon request.

List of Affected Part:

Current Part Number	New Part Number (for earlier conversion)	Qualification Vehicle
NRVUD620CTT4G SNRVUD620CTT4G	SRVUD620CTT4G	NRVUD620CTT4G