Initial Product/Process Change Notification

Document #:IPCN25251Z
Issue Date:27 Feb 2023

Title of Change:	Transfer of Assembly and Test operations of DPAK products to subcontractor Good-Ark China.
Proposed Changed Material First Ship Date:	01 Jan 2024 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 MohdFariz.Ismail@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.
Additional Reliability Data:	Contact your local onsemi Sales Office or AbdulRasyid.Ruslan@onsemi.com
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 6 months prior to implementation of the change. In case of questions, contact <PCN.Support@onsemi.com>.

Change Category

Category	**Type of Change**
Test Flow	Move of all or part of electrical wafer test and/or final test to a different location/site/subcontractor
Equipment	Change in final test equipment type that uses a different technology, Production from a new equipment/tool which uses the same basic technology (replacement equipment or extension of existing equipment pool) without change of process.
Process - Assembly	Die attach material

Description and Purpose:

This Initial Notification (IPCN) is to announce the plan to transfer Assembly and Test of DPAK products from onsemi Vietnam to subcontractor GoodArk China. The suffix '-GA01' will be added to the end of the part number.

	From	To
Assembly Site	onsemi Vietnam	Good-Ark, China
Die Attach	Pb95Sn5	PB92.5SN5AG2.5

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Reason / Motivation for Change:	Capacity improvement
Anticipated impact on fit, form, function, reliability, product safety or manufacturability:	The device will be qualified and validated based on the same Product Specification. No anticipated impacts.

Sites Affected:

onsemi Sites	**External Foundry/Subcon Sites**
None	Good-Ark, China

Marking of Parts/ Traceability of Change:	Changed material can be identified by assembly plant code.

Reliability Data Summary:

QV DEVICE NAME: NVD6824NLT4G-VF01
RMS: S86746
PACKAGE: DPAK 3L/ 369AA

Test	Specification	Condition	Interval
High Temperature Reverse Bias	JESD22-A108	Ta=175°C, 100% max rated V	1008 hrs
High Temperature Gate Bias	JESD22-A108	Ta=175°C, 100% max rated Vgss	1008 hrs
High Temperature Storage Life	JESD22-A103	Ta= 175°C	1008 hrs
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260 °C	
Intermittent Operating Life	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C, mounted form air to air	1000 cyc
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
Resistance to Solder Heat	JESD22- B106	Ta = 265°C, 10 sec	
Solderability	JSTD002	Ta = 245°C, 5 sec	
Physical Dimension	JESD22-B120		

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
SVD5867NLT4G	SVD5867NLT4G-GA01	NVD6824NLT4G-VF01
NVD6824NLT4G-VF01	NVD6824NLT4G-GA01	NVD6824NLT4G-VF01