



Initial Product/Process Change Notification

Document #: IPCN25065Z

Issue Date: 14 Dec 2022

Title of Change:	Transfer of Assembly and Test operations of D2PAK products to subcontractor Good-Ark China.										
Proposed Changed Material First Ship Date:	01 Aug 2023 or earlier if approved by customer										
Current Material Last Order Date:	NA <i>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.</i>										
Current Material Last Delivery Date:	NA <i>The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory</i>										
Product Category:	Active components – Discrete components										
Contact information:	Contact your local onsemi Sales Office or ChoonHuey.Wang@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 ffxg4t@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	Production from a new equipment/tool which uses a different basic technology or which due to its unique form or function can be expected to influence the integrity of the final product										
Process - Assembly	Move of all or part of assembly to a different location/site/subcontractor., Die attach material										
Description and Purpose: This Initial Notification (IPCN) is to announce the plan to transfer Assembly and Test of D2PAK products from onsemi Seremban, Malaysia to subcontractor GoodArk China. After completion of qualification, the Final PCN will process for issuance to customer.											
<table><tr><th>Item</th><th>From</th><th>To</th></tr><tr><td>Assembly & Final Test Site</td><td>onsemi Seremban, Malaysia</td><td>Good-Ark, China</td></tr><tr><td>Die Attach</td><td>Pb95Sn5</td><td>Pb92.5Sn5Ag2.5</td></tr></table>			Item	From	To	Assembly & Final Test Site	onsemi Seremban, Malaysia	Good-Ark, China	Die Attach	Pb95Sn5	Pb92.5Sn5Ag2.5
Item	From	To									
Assembly & Final Test Site	onsemi Seremban, Malaysia	Good-Ark, China									
Die Attach	Pb95Sn5	Pb92.5Sn5Ag2.5									
Reason / Motivation for Change:	Source/Supply/Capacity Changes Process/Materials Change										
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.										



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Sites Affected:

onsemi Sites

None

External Foundry/Subcon Sites

Good-Ark, China

Marking of Parts/ Traceability of Change:

Products from Good-ark will be marked with site code "g" prior to date code.

Reliability Data Summary:

QV DEVICE NAME: SBRB20200CTT4G (Schottky Rectifier)

PACKAGE: D2PAK

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Ta= 90°C, 100% max rated V	1008 hrs
HTSL	JESD22-A103	Ta= 175°C	1008 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 245 °C, Pre IOL, TC, uHAST, H3TRB	
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 3.5 min	15000 cyc
TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc
H3TRB	JESD22-A101	Ta= 85°C, RH = 85%, bias = 100V max	1008 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
RSH	JESD22- B106	Ta = 265°C, 10 sec	
SD	JSTD002	Ta = 245°C, 5 sec	

QV DEVICE NAME: NRVUB1660CTT4G (Ultrafast Rectifier)

PACKAGE: D2PAK

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Tj= 175°C, 100% max rated V	1008 hrs
HTSL	JESD22-A103	Ta= 175°C	1008 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 245 °C, Pre IOL, TC, uHAST, H3TRB	
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 3.5 min	15000 cyc
TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc
H3TRB	JESD22-A101	Ta= 85°C, RH = 85%, bias = 100V max	1008 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
RSH	JESD22- B106	Ta = 265°C, 10 sec	
SD	JSTD002	Ta = 245°C, 5 sec	

QV DEVICE NAME: NJVMJB45H11T4G (PNP BJT)

PACKAGE: D2PAK

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Ta= 150°C, 100% max rated V	1008 hrs
HTSL	JESD22-A103	Ta= 150°C	1008 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 245 °C, Pre IOL, TC, uHAST, H3TRB	
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 3.5 min	15000 cyc
TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc
H3TRB	JESD22-A101	Ta= 85°C, RH = 85%, bias = 80% of rated V	1008 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
RSH	JESD22- B106	Ta = 265°C, 10 sec	
SD	JSTD002	Ta = 245°C, 5 sec	



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QV DEVICE NAME: NJVMJB41CT4G (NPN BJT)

PACKAGE: D2PAK

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Ta = 150°C, 100% max rated V	1008 hrs
HTSL	JESD22-A103	Ta = 150°C	1008 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 245 °C, Pre IOL, TC, uHAST, H3TRB	
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, delta Tj = 100°C On/off = 3.5 min	15000 cyc
TC	JESD22-A104	Ta = -65°C to +150°C	1000 cyc
H3TRB	JESD22-A101	Ta = 85°C, RH = 85%, bias = 80% of rated V	1008 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
RSH	JESD22- B106	Ta = 265°C, 10 sec	
SD	JSTD002	Ta = 245°C, 5 sec	

QV DEVICE NAME: NJVBUB323ZT4G (Sipos BJT)

PACKAGE: D2PAK

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Ta = 175°C, 100% max rated V	1008 hrs
HTSL	JESD22-A103	Ta = 175°C	1008 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 245 °C, Pre IOL, TC, uHAST, H3TRB	
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, delta Tj = 100°C On/off = 3.5 min	15000 cyc
TC	JESD22-A104	Ta = -65°C to +150°C	1000 cyc
H3TRB	JESD22-A101	Ta = 85°C, RH = 85%, bias = 100V max	1008 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
RSH	JESD22- B106	Ta = 265°C, 10 sec	
SD	JSTD002	Ta = 245°C, 5 sec	

Estimated date for qualification completion: 1 March 2023

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
NJBUB323ZT4G	NA	NJBUB323ZT4G
NJVMJB41CT4G	NA	NJVMJB41CT4G
NJVMJB42CT4G	NA	NJVMJB41CT4G
NJVMJB44H11T4G	NA	NJVMJB45H11T4G
NJVMJB45H11T4G	NA	NJVMJB45H11T4G
NRVUB1620CTRT4G	NA	NRVUB1660CTT4G
NRVUB1660CTT4G	NA	NRVUB1660CTT4G



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NRVBB30H60CTT4G	NA	SBRB20200CTT4G
NRVBB1060T4G	NA	SBRB20200CTT4G
NRVBB40L45CTT4G	NA	SBRB20200CTT4G
NRVBB60H100CTT4G	NA	SBRB20200CTT4G
NRVBB20100CTT4G	NA	SBRB20200CTT4G
NRVBBS20100CTT4G	NA	SBRB20200CTT4G
SBRB20200CTT4G	NA	SBRB20200CTT4G