



Initial Product/Process Change Notification

Document #: IPCN24888ZA

Issue Date: 10 Oct 2023

Title of Change:	DPAK Case outline 369C - Assembly and Test Qualification to JCET Semiconductor (Suqian) Co.Ltd., China for Capacity Expansion	
Proposed Changed Material First Ship Date:	30 Aug 2024 or earlier if approved by customer	
Current Material Last Order Date:	N/A <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:	N/A <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 Nor'Ain.Lotepi@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 MohdAzizi.Azman@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	
Process - Assembly	Move of all or part of assembly to a different location/site/subcontractor., Change of mold compound, Die attach material, Change of lead frame finishing material / area (internal)	
Description and Purpose:		
This Final Notification announces to customers the qualification of new assembly and final test site of DPAK package (Case Outline 369C) products to JCET Semiconductor (Suqian) Co.Ltd., China for capacity expansion.		
	Before Change	After Change
Assembly & Final Test Site	onsemi Seremban, Malaysia	JCET Semiconductor (Suqian) Co.Ltd.
LeadFrame	LF DPAK SINGLE GAUGE	Single Gauge, Ni plating
Die Attach	Pb95Sn5	92.5%Pb, 2.5%Sn, 5%Ag
Mold Compound	G700HF	CEL-9240HF10



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

Reliability Data Summary:

QV DEVICE NAME: NSV50150ADT4G

RMS: 85511

PACKAGE: DPAK

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs
ELFR	JESD22-A108	Ta=125°C, 100 % max rated Vcc	48 hrs
HTSL	JESD22-A103	Ta= 150°C	1008 hrs
LTSL	JESD22-A119	Ta= -40°C	168 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	
TC	JESD22-A104	Ta= -65°C to +150°C, mount on board	500 cyc
PTC	JESD22-A105	Temp = -40°C to +125°C, mount on board	1000 cyc
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
RSH	JESD22- B106	Ta = 265°C, 10 sec Required for through hole devices only	
SD	JSTD002	Ta = 245°C, 5 sec	

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
NSV50150ADT4G	NA	NSV50150ADT4G
NSV45090JDT4G	NA	NSV50150ADT4G
NSV45060JDT4G	NA	NSV50150ADT4G



Appendix A: Changed Products

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DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NSV50150ADT4G		NSV50150ADT4G	NA	
NSV45090JDT4G		NSV50150ADT4G	NA	
NSV45060JDT4G		NSV50150ADT4G	NA	