



Final Product/Process Change Notification

Document #:FPCN24888ZB

Issue Date:12 Jun 2024

Title of Change:	The addition of JCET, China as an assembly and test operation for the DPAK package (Case Outline 369C) to provide capacity flexibility		
Proposed Changed Material First Ship Date:	19 Dec 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.		
Sample Availability Date:	08 Jun 2024		
PPAP Availability Date:	30 Jun 2024		
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		
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., 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	onsemi, Seremban, Malaysia	JCET Semiconductor (Suqian) Co.Ltd.
Die Attach	95% Pb 5%Sn	95% Pb 5%Sn	92.5%Pb,5%Sn2.5%Ag
LeadFrame	ICDPAK 3 lead Bare Copper C19210	ICDPAK 3 lead Bare Copper C19210	TO-252-2L(6R)-B Bare Copper PMC90

Reason / Motivation for Change:	Source/Supply/Capacity Changes 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	
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: S92218, S93247, S85511, S87345

PACKAGE: DPAK

Test	Specification	Condition	Interval	Results
High Temperature Operating Life	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs	0/231
High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 hrs	0/231
Low Temperature Storage Life		Ta= -40°C	168 hrs	0/75
Early Life Failure Rate	JESD22-A108	Ta=125°C, 100 % max rated Vcc	48 hrs	0/3200
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260 °C, Pre TC, uHAST, HAST for surface mount pkgs only		0/80
Temperature Cycling	JESD22-A104	Ta= -65°C to +150°C	500 cyc	0/231
Temperature Humidity Bias	JESD22-A110	85°C, 85% RH, bias	1008 hrs	0/231
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
Intermittent Operation Life			15000 cyc	0/231
Resistance to Solder Heat	JESD22- B106	Ta = 265°C, 10 sec Required for through hole devices only		0/90
Solderability	JSTD002	Ta = 245°C, 5 sec		0/45

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



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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
NSV45060JDT4G	#NONE	NSV50150ADT4G
NSV50150ADT4G	#NONE	NSV50150ADT4G
NSV45090JDT4G	#NONE	NSV50150ADT4G