

Final Product/Process Change Notification Document #:FPCN23449Z

Issue Date:28 Sep 2021

Title of Change:	Assembly and Test Transfer from AUK Dalian, China to JCET CHUZHOU, China for TO92 Products, Case Outline from 29-11 to 29-10 Change for TO92 Products.	
Proposed Changed Material First Ship Date:	28 Mar 2022 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 or 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:	Any products with date code after WW17 21 will be source from JCET. 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 – Integrated circuits	
Contact information:	Contact your local onsemi Sales Office or <u>albert.reyes@onsemi.com</u>	
PCN Samples Contact:	Contact your local onsemi Sales Office to place sample order or < PCN.samples@onsemi.com >. 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:	N/A	
PPAP Availability Date:	N/A	
Additional Reliability Data:	Contact your local onsemi Sales Office or <u>Lalan.Ortega@onsemi.com</u>	
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	
Equipment	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	Move of all or part of assembly to a different location/site/subcontractor., Change of mold compound, Die attach material, Change of product marking	

Description and Purpose:

onsemi would like to inform customers of the intent to transfer assembly and test for the TO92 products listed in this notification from the current site, AUK Dalian, China to JCET CHUZHOU, China. BOM (Bill of Materials) and other changes are listed below:

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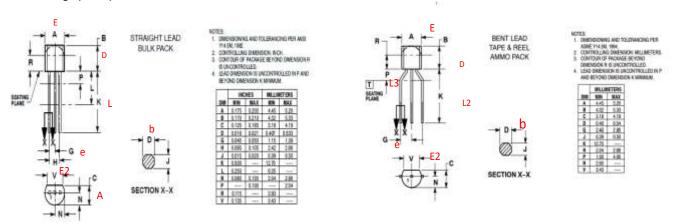
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Components	Before Change Description After Change Description		
LeadFrame	PMC90-1/2H	LF TO92L 3L CuAg STAMPED	
Die Attach	ABLE843-001	DAD-87	
Mold Compound	EME-E120G	EMG200	
Assembly/Test Location	AUK Dalian China	JCET Chuzhou , China	
	29-11	29-10	
Case Outline	(see detailed comparison in table below)	(see detailed comparison in table below)	

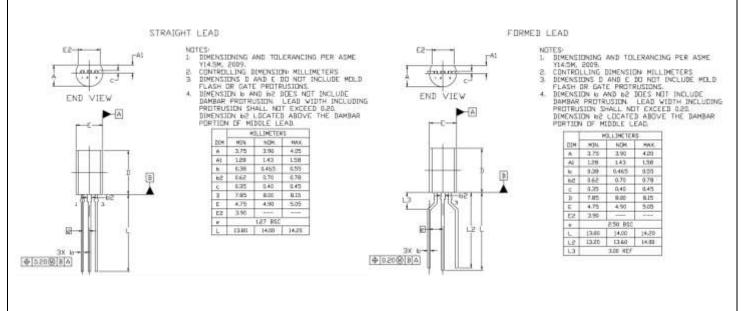
onsemi would also like to inform customers of the intent to update case outline 29-11 for the TO92 products listed in this notification. The changes are listed below:

Before Change (29-11):



Note: Red letters indicates the dimensional changes on the new POD, 29-10. Measurements are shown on the table.

After Change (29-10):



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Product marking changes are shown here:				
	From	То		
Product marking change	Trace Code Assembly Location Line 3: W (LYW) L: Wafer Lot Number YW: Assembly Start Week	Trace Code Assembly Location Line 3: JC(LYW) L: Wafer Lot Number YW: Assembly Start Week Note: No Pb Free Microdot		

Reason / Motivation for Change:	e: Source/Supply/Capacity Changes	
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:

Product marked with date code (YW) or later may be built from current factory or from JCET. On the label of the box and reel, the ASSY LOC: JC will also indicate product assembled in JCET. Please see sample label on Page 2 at the following URL http://www.onsemi.com/pub/Collateral/LABELRM-D.PDF to see the location of the ASSY LOC.

Reliability Data Summary:

QV DEVICE NAME: <u>LM2931AZ-5.0G / NCV2931AZ-5.0G</u>

RMS: <u>\$68867</u>, <u>069661</u> PACKAGE: TO-92

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta = 125°C, 100 % max rated Vcc	2016 hrs	0 / 231
HTSL	JESD22-A103	Ta = 150°C	2016 hrs	0 / 231
TC	JESD22-A104	Ta = -65°C to +150°C	1000 cyc	0 / 231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0 / 231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0 / 231
DPA	AEC Q101 -004	Destructive Physical Analysis Following TC and HAST		0/6
RSH	JESD22-B106	Ta = 265°C, 10 sec		0 /90
SD	JESD22-B102E	Ta = 245°C, 5 sec		0 / 45
PD	JESD22-B100B	Per case outline		0/30
LI	JESD22-B105D	Lead Fatigue (30 leads)		0/30

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
NCV2931AZ-5.0RAG	NA	NCV2931AZ-5.0G

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NCV317LBZG	NA	NCV2931AZ-5.0G	
NCV317LBZRAG	NA	NCV2931AZ-5.0G	
NCV78L05ABPG	NA	NCV2931AZ-5.0G	
NCV78L05ABPRMG	NA	NCV2931AZ-5.0G	
NCV78L05ABPRPG	NA	NCV2931AZ-5.0G	
NCV78L05ABPRAG	NA	NCV2931AZ-5.0G	
NCV78L05ABPREG	NA	NCV2931AZ-5.0G	
NCV78L12ABPG	NA	NCV2931AZ-5.0G	
NCV78L24ABPRPG	NA	NCV2931AZ-5.0G	

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Appendix A: Changed Products

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Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NCV317LBZG		NCV2931AZ-5.0G	NA	
NCV317LBZRAG		NCV2931AZ-5.0G	NA	
NCV78L05ABPRMG		NCV2931AZ-5.0G	NA	
NCV78L05ABPRAG		NCV2931AZ-5.0G	NA	