



<b>Title of Change:</b>	Assembly and Test Transfer from AUK Dalian, China to JCET CHUZHOU, China for TO92 Products, Case Outline 29-11 Change for TO92 Products.
<b>Proposed First Ship date:</b>	03 Apr 2021 or earlier if approved by customer
<b>Contact Information:</b>	Contact your local ON Semiconductor Sales Office or <a href="mailto:Marquita.Jones@onsemi.com">Marquita.Jones@onsemi.com</a>
<b>PCN Samples Contact:</b>	Contact your local ON Semiconductor Sales Office or <a href="mailto:PCN.samples@onsemi.com">PCN.samples@onsemi.com</a> Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.
<b>Type of Notification:</b>	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 90 days prior to implementation of the change. In case of questions, contact <a href="mailto:PCN.Support@onsemi.com">PCN.Support@onsemi.com</a>
<b>Marking of Parts/ Traceability of Change:</b>	Product marked with date code PM (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 <a href="http://www.onsemi.com/pub/Collateral/LABELRM-D.PDF">http://www.onsemi.com/pub/Collateral/LABELRM-D.PDF</a> to see the location of the ASSY LOC.
<b>Change Category:</b>	Test Change, Assembly Change
<b>Change Sub-Category(s):</b>	Material Change, Manufacturing Site Transfer

**Sites Affected:**

ON Semiconductor Sites	External Foundry/Subcon Sites
None	AUK Dalian, China
	JCET, China

**Description and Purpose:**

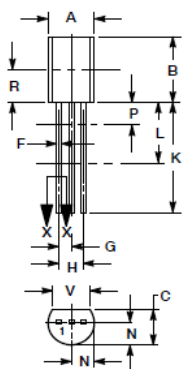
ON Semiconductor would like to inform customers of the intent to transfer assembly and test for the TO92 products listed in this notification from the current site, AUK Dalian, China to JCET CHUZHOU, China. BOM (Bill of Materials) changes are listed below:

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

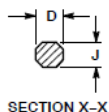
ON Semiconductor would also like to inform customers of the intent to update case outline 29-11 for the TO92 products listed in this notification. The changes are listed below:



Before Change

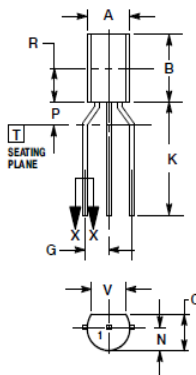


STRAIGHT LEAD

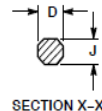


- NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1994.
  2. CONTROLLING DIMENSION: INCHES.
  3. CONTOUR OF PACKAGE BEYOND DIMENSION R IS UNCONTROLLED.
  4. DIMENSION F APPLIES BETWEEN DIMENSIONS P AND L. DIMENSIONS D AND J APPLY BETWEEN DIMENSIONS L AND K. MINIMUM. THE LEAD DIMENSIONS ARE UNCONTROLLED IN DIMENSION P AND BEYOND DIMENSION K. MINIMUM.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.175	0.205	4.44	5.21
B	0.290	0.310	7.37	7.87
C	0.125	0.165	3.18	4.19
D	0.018	0.021	0.46	0.53
F	0.016	0.019	0.41	0.48
G	0.045	0.055	1.15	1.39
H	0.095	0.105	2.42	2.66
J	0.018	0.024	0.46	0.61
K	0.500	---	12.70	---
L	0.250	---	6.35	---
N	0.080	0.105	2.04	2.66
P	---	0.100	---	2.54
R	0.135	---	3.43	---
V	0.135	---	3.43	---



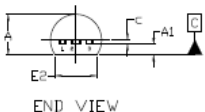
BENT LEAD



- NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
  2. CONTROLLING DIMENSION: INCHES.
  3. CONTOUR OF PACKAGE BEYOND DIMENSION R IS UNCONTROLLED.
  4. DIMENSION F APPLIES BETWEEN DIMENSIONS P AND L. DIMENSIONS D AND J APPLY BETWEEN DIMENSIONS L AND K. MINIMUM. THE LEAD DIMENSIONS ARE UNCONTROLLED IN DIMENSION P AND BEYOND DIMENSION K. MINIMUM.

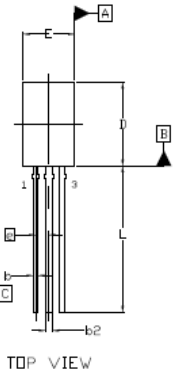
DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.175	0.205	4.44	5.21
B	0.290	0.310	7.37	7.87
C	0.125	0.165	3.18	4.19
D	0.018	0.021	0.46	0.53
G	0.094	0.102	2.40	2.60
J	0.018	0.024	0.46	0.61
K	0.500	---	12.70	---
N	0.080	0.105	2.04	2.66
P	---	0.100	---	2.54
R	0.135	---	3.43	---
V	0.135	---	3.43	---

After Change



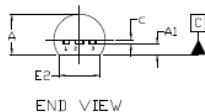
END VIEW

- NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 2009.
  2. CONTROLLING DIMENSION: MILLIMETERS.
  3. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH OR GATE PROTRUSIONS.
  4. DIMENSION b AND b2 DOES NOT INCLUDE DAMBAR PROTRUSION. LEAD WIDTH INCLUDING PROTRUSION SHALL NOT EXCEED 0.20.



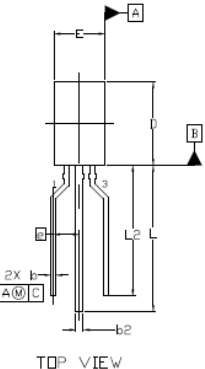
TOP VIEW

DIM	MILLIMETERS		
	MIN.	NDM.	MAX.
A	3.75	3.90	4.05
A1	1.28	1.43	1.58
b	0.38	0.465	0.55
b2	0.62	0.70	0.78
c	0.35	0.40	0.45
D	7.85	8.00	8.15
E	4.75	4.90	5.05
E2	3.90	4.00	4.10
e	127 BSC		
L	13.80	14.00	14.20



END VIEW

- NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 2009.
  2. CONTROLLING DIMENSION: MILLIMETERS.
  3. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH OR GATE PROTRUSIONS.
  4. DIMENSION b AND b2 DOES NOT INCLUDE DAMBAR PROTRUSION. LEAD WIDTH INCLUDING PROTRUSION SHALL NOT EXCEED 0.20.



TOP VIEW

DIM	MILLIMETERS		
	MIN.	NDM.	MAX.
A	3.75	3.90	4.05
A1	1.28	1.43	1.58
b	0.38	0.465	0.55
b2	0.62	0.70	0.78
c	0.35	0.40	0.45
D	7.85	8.00	8.15
E	4.75	4.90	5.05
E2	3.90	4.00	4.10
e	250 BSC		
L	13.80	14.00	14.20
L2	12.30	12.50	12.70

Product marking changes are shown here:

	From	To
Product marking change	Trace Code Assembly Location Line 3: <b>W(LYW)</b> L: Wafer Lot Number YW: Assembly Start Week	Trace Code Assembly Location Line 3: <b>JC(LYW)</b> L: Wafer Lot Number YW: Assembly Start Week

**Qualification Plan:****QV DEVICE NAME: TLV431BLPRAG****RMS : 68561****PACKAGE : TO92**

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs
HTSL	JESD22-A103	Ta= 150°C	1008 hrs
TC	JESD22-A104	Ta= -65°C to +150°C	500 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 = 265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	

**QV DEVICE NAME: NCP431AVLPRAG****RMS : 68562****PACKAGE : TO92**

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs
HTSL	JESD22-A103	Ta= 150°C	1008 hrs
TC	JESD22-A104	Ta= -65°C to +150°C	500 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 = 265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	

**QV DEVICE NAME: LM2931AZ-5.0G****RMS : 68867****PACKAGE : TO92**

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs
HTSL	JESD22-A103	Ta= 150°C	1008 hrs
TC	JESD22-A104	Ta= -65°C to +150°C	500 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 = 265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	



QV DEVICE NAME: LP2950CZ-5.0G

RMS : 69026

PACKAGE : TO92

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs
HTSL	JESD22-A103	Ta= 150°C	1008 hrs
TC	JESD22-A104	Ta= -65°C to +150°C	500 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 = 265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	

Estimated date for qualification completion: **6 December 2020****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](#).

Part Number	Qualification Vehicle
LM317LBZRPB	LM2931AZ-5.0G
LM317LZG	LM2931AZ-5.0G
LM317LZRAG	LM2931AZ-5.0G
LM317LZRPG	LM2931AZ-5.0G
MC78L05ABPG	LM2931AZ-5.0G
MC78L05ABPRAG	LM2931AZ-5.0G
MC78L05ABPREG	LM2931AZ-5.0G
SC431ILPRAG	LM2931AZ-5.0G
TL431ACLPG	LM2931AZ-5.0G
TL431ACLPRPG	LM2931AZ-5.0G
TL431ACLPRAG	LM2931AZ-5.0G
TL431AILPG	LM2931AZ-5.0G
TL431AILPRAG	LM2931AZ-5.0G
TL431AILPRMG	LM2931AZ-5.0G
TL431AILPRPG	LM2931AZ-5.0G
TL431BCLPG	LM2931AZ-5.0G
TL431BCLPRAG	LM2931AZ-5.0G



TL431BCLPRMG	LM2931AZ-5.0G
TL431BILPG	LM2931AZ-5.0G
TL431BILPRAG	LM2931AZ-5.0G
TL431BVLPG	LM2931AZ-5.0G
TL431BVLPRAG	LM2931AZ-5.0G
TL431CLPG	LM2931AZ-5.0G
TL431CLPRAG	LM2931AZ-5.0G
TL431CLPRMG	LM2931AZ-5.0G
TL431CLPRPG	LM2931AZ-5.0G
TL431ILPG	LM2931AZ-5.0G
TL431ILPRAG	LM2931AZ-5.0G
TL431ILPRPG	LM2931AZ-5.0G
TLV431ALPG	TLV431BLPRAG
TLV431ALPRAG	TLV431BLPRAG
TLV431ALPREG	TLV431BLPRAG
TLV431BLPRAG	TLV431BLPRAG
LM2931AZ-5.0G	LM2931AZ-5.0G
LM2931AZ-5.0RAG	LM2931AZ-5.0G
LM2931AZ-5.0RPG	LM2931AZ-5.0G
LM2931Z-5.0G	LM2931AZ-5.0G
LM2931Z-5.0RAG	LM2931AZ-5.0G
LM2931Z-5.0RPG	LM2931AZ-5.0G
LM317LBZG	LM2931AZ-5.0G
LM317LBZRAG	LM2931AZ-5.0G
MC78L05ACPG	LM2931AZ-5.0G
MC78L05ACPRPG	LM2931AZ-5.0G
MC78L05ACPRMG	LM2931AZ-5.0G
MC78L08ABPG	LM2931AZ-5.0G
MC78L08ABPRAG	LM2931AZ-5.0G
MC78L08ACPG	LM2931AZ-5.0G
MC78L08ACPRAG	LM2931AZ-5.0G
MC78L09ACPG	LM2931AZ-5.0G
MC78L12ABPG	LM2931AZ-5.0G
MC78L12ABPRPG	LM2931AZ-5.0G



MC78L12ACPG	LM2931AZ-5.0G
MC78L12ACPRAG	LM2931AZ-5.0G
MC78L15ABPG	LM2931AZ-5.0G
MC78L15ABPRAG	LM2931AZ-5.0G
MC78L15ACPG	LM2931AZ-5.0G
MC78L15ACPRAG	LM2931AZ-5.0G
MC78L15ACPRPG	LM2931AZ-5.0G
MC78L24ABPG	LM2931AZ-5.0G
MC78L24ACPG	LM2931AZ-5.0G
MC78L24ACPRPG	LM2931AZ-5.0G
LP2950ACZ-3.0RAG	LP2950CZ-5.0G
LP2950ACZ-5.0G	LP2950CZ-5.0G
NCP431ACLPRAG	NCP431AVLPRAG
NCP431AILPRAG	NCP431AVLPRAG
NCP431AVLPRAG	NCP431AVLPRAG
LP2950ACZ-5.0RAG	LP2950CZ-5.0G
LP2950CZ-3.0RAG	LP2950CZ-5.0G
LP2950CZ-5.0G	LP2950CZ-5.0G
LP2950CZ-5.0RAG	LP2950CZ-5.0G
LP2950CZ-5.0RPG	LP2950CZ-5.0G
LP2950ACZ-3.3G	LP2950CZ-5.0G
LP2950ACZ-3.3RAG	LP2950CZ-5.0G
LP2950CZ-3.3G	LP2950CZ-5.0G
LP2950CZ-3.3RAG	LP2950CZ-5.0G
MC79L05ABPG	LP2950CZ-5.0G
MC79L05ABPRAG	LP2950CZ-5.0G
MC79L05ACPG	LP2950CZ-5.0G
MC79L05ACPRAG	LP2950CZ-5.0G
MC79L12ABPG	LP2950CZ-5.0G
MC79L12ABPRAG	LP2950CZ-5.0G
MC79L12ACPG	LP2950CZ-5.0G
MC79L12ACPRAG	LP2950CZ-5.0G
MC79L12ACPRPG	LP2950CZ-5.0G
MC79L15ABPG	LP2950CZ-5.0G



MC79L15ABPRPG	LP2950CZ-5.0G
MC79L15ACPG	LP2950CZ-5.0G
MC79L15ACPRAG	LP2950CZ-5.0G
MC79L15ACPRPG	LP2950CZ-5.0G
LM285Z-1.2G	LP2950CZ-5.0G
LM285Z-1.2RAG	LP2950CZ-5.0G
LM285Z-2.5G	LP2950CZ-5.0G
LM285Z-2.5RAG	LP2950CZ-5.0G
LM285Z-2.5RPG	LP2950CZ-5.0G
LM385BZ-1.2G	LP2950CZ-5.0G
LM385BZ-1.2RAG	LP2950CZ-5.0G
LM385BZ-2.5G	LP2950CZ-5.0G
LM385Z-1.2G	LP2950CZ-5.0G
LM385Z-1.2RAG	LP2950CZ-5.0G
LM385Z-1.2RPG	LP2950CZ-5.0G
LM385Z-2.5G	LP2950CZ-5.0G
LM385Z-2.5RPG	LP2950CZ-5.0G
MC33064P-5G	LP2950CZ-5.0G
MC33064P-5RAG	LP2950CZ-5.0G
MC33064P-5RPG	LP2950CZ-5.0G
MC33164P-3G	LP2950CZ-5.0G
MC33164P-3RAG	LP2950CZ-5.0G
MC33164P-3RPG	LP2950CZ-5.0G
MC33164P-5G	LP2950CZ-5.0G
MC33164P-5RAG	LP2950CZ-5.0G
MC33164P-5RPG	LP2950CZ-5.0G
MC34064P-5G	LP2950CZ-5.0G
MC34064P-5RAG	LP2950CZ-5.0G
MC34064P-5RMG	LP2950CZ-5.0G
MC34064P-5RPG	LP2950CZ-5.0G
MC34164P-3G	LP2950CZ-5.0G
MC34164P-3RPG	LP2950CZ-5.0G
MC34164P-5G	LP2950CZ-5.0G
LM317LZREG	LM2931AZ-5.0G



LM317LZRMG	LM2931AZ-5.0G
LP2950ACZ-3.0G	LP2950CZ-5.0G
LP2950CZ-3.0G	LP2950CZ-5.0G
MC78L05ABPRMG	LM2931AZ-5.0G
MC78L05ACPRAG	LM2931AZ-5.0G
MC78L05ACPREG	LM2931AZ-5.0G
MC78L08ABPRPG	LM2931AZ-5.0G
MC78L08ACPREG	LM2931AZ-5.0G
MC78L08ACPRPG	LM2931AZ-5.0G
MC78L09ABPRAG	LM2931AZ-5.0G
MC78L09ABPRPG	LM2931AZ-5.0G
MC78L12ACPREG	LM2931AZ-5.0G
MC78L12ACPRMG	LM2931AZ-5.0G
MC78L12ACPRPG	LM2931AZ-5.0G
MC78L15ABPRPG	LM2931AZ-5.0G
MC78L18ABPG	LM2931AZ-5.0G
MC78L18ACPG	LM2931AZ-5.0G
MC78L18ACPRAG	LM2931AZ-5.0G
MC78L18ACPRMG	LM2931AZ-5.0G
MC78L18ACPRPG	LM2931AZ-5.0G
MC78L24ACPRAG	LM2931AZ-5.0G
MC79L05ACPRMG	LM2931AZ-5.0G
MC79L05ACPRPG	LM2931AZ-5.0G
MC79L15ACPREG	LM2931AZ-5.0G
MC79L18ABPRPG	LM2931AZ-5.0G
MC79L18ACPG	LM2931AZ-5.0G
MC79L24ABPG	LM2931AZ-5.0G
MC79L24ACPG	LM2931AZ-5.0G
MC79L24ACPRMG	LM2931AZ-5.0G
MC79L24ACPRPG	LM2931AZ-5.0G



Japanese translation of the notification starts here.  
通知の日本語訳はここから始まります。

*Note: The Japanese version is for reference only. In case of any differences between the English and Japanese version, the English version shall control.*

注：日本語版は参照用です。英語版と日本語版の違いがある場合は、英語版が優先されます。



## 初回製品 / プロセス変更通知

文書番号# : IPCN23449X

発行日: 25 Sep 2020

変更件名:	TO92 製品の組立および検査を AUK 大連 (中国) から JCET 滁州 (中国) に移管と TO92 製品のケースアウトライン 29-11 の変更													
初回出荷予定日:	03 Apr 2021 またはお客様からの承認が得られた場合はそれ以前													
連絡先情報:	現地のオン・セミコンダクター営業所または <a href="mailto:Marquita.Jones@onsemi.com">Marquita.Jones@onsemi.com</a> にお問い合わせください。													
サンプル:	現地のオン・セミコンダクター営業所または <a href="mailto:PCN.Samples@onsemi.com">PCN.Samples@onsemi.com</a> にお問い合わせください。 サンプルは、この変更の初回通知、初回 PCN の日付から 30 日以内に要求してください。 サンプル納入時は、依頼日、数量、特別梱包材/ラベル条件によって異なります。													
通知種別:	これは、お客様宛の初回製品 / プロセス変更通知 (IPCN) です。IPCN は、近日中に実施される変更に関する事前通知であり、変更の詳細および影響を受けるデバイスについての一般情報が記載されます。また、暫定的な信頼性認証計画も記載されます。 最終的な認定データおよび特性データは最終製品 / プロセス変更通知 (FPCN) に含まれます。この IPCN は、変更実施から少なくとも 90 日前に発行される最終製品 / プロセス変更通知 (FPCN) に先だって通知されます。ご不明な点がありましたら <a href="mailto:PCN.Support@onsemi.com">PCN.Support@onsemi.com</a> にお問い合わせください。													
部品のマーキング/変更のトレーサビリティ:	日付コードが PM (YW) 以降の製品は、現在の工場または JCET で製造されたこととなります。梱包箱およびリールのラベル上の ASSY LOC: JC は、製品が JCET で組み立てられたことを示します。ASSY LOC の場所を確認するには、 <a href="http://www.onsemi.com/pub/Collateral/LABELRM-D.PDF">http://www.onsemi.com/pub/Collateral/LABELRM-D.PDF</a> の 2 ページ目にあるサンプルラベルを参照してください。													
変更カテゴリ:	検査の変更、組立の変更													
変更サブカテゴリ:	材料の変更、製造拠点の移管													
影響を受ける拠点:														
オン・セミコンダクター拠点:	外部製造工場 / 下請業者拠点:													
なし	AUK 大連 (中国)													
	JCET (中国)													
説明および目的:														
オン・セミコンダクターは、本通知に記載されている TO92 製品の組立および検査拠点を現在の AUK 大連 (中国) から JCET 滁州 (中国) に移管する意向であることをお客様にお知らせいたします。BOM (部品表) の変更は以下に記載した通りです。														
<table border="1"> <thead> <tr> <th>材料</th> <th>変更前の表記</th> <th>変更後の表記</th> </tr> </thead> <tbody> <tr> <td>リードフレーム</td> <td>PMC90-1/2H</td> <td>LF TO92L 3L CuAg スタンプ</td> </tr> <tr> <td>ダイ接着剤</td> <td>ABLE843-001</td> <td>DAD-87</td> </tr> <tr> <td>モールド・コンパウンド</td> <td>EME-E120G</td> <td>EMG200</td> </tr> </tbody> </table>			材料	変更前の表記	変更後の表記	リードフレーム	PMC90-1/2H	LF TO92L 3L CuAg スタンプ	ダイ接着剤	ABLE843-001	DAD-87	モールド・コンパウンド	EME-E120G	EMG200
材料	変更前の表記	変更後の表記												
リードフレーム	PMC90-1/2H	LF TO92L 3L CuAg スタンプ												
ダイ接着剤	ABLE843-001	DAD-87												
モールド・コンパウンド	EME-E120G	EMG200												
オン・セミコンダクターは、本通知に記載されている TO92 製品のケースアウトライン 29-11 を変更する意向があることもお客様にお知らせいたします。変更内容については以下をご覧ください。														



変更前

**STRAIGHT LEAD**

SECTION X-X

NOTES:  
 1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1994.  
 2. CONTROLLING DIMENSION: INCHES.  
 3. CONTOUR OF PACKAGE BEYOND DIMENSION R IS UNCONTROLLED.  
 4. DIMENSION F APPLIES BETWEEN DIMENSIONS P AND L. DIMENSIONS D AND J APPLY BETWEEN DIMENSIONS L AND K MINIMUM. THE LEAD DIMENSIONS ARE UNCONTROLLED IN DIMENSION P AND BEYOND DIMENSION K MINIMUM.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.175	0.205	4.44	5.21
B	0.290	0.310	7.37	7.87
C	0.125	0.165	3.18	4.19
D	0.018	0.021	0.46	0.53
F	0.018	0.019	0.41	0.48
G	0.045	0.055	1.15	1.39
H	0.095	0.105	2.42	2.66
J	0.018	0.024	0.46	0.61
K	0.500	---	12.70	---
L	0.250	---	6.35	---
N	0.080	0.105	2.04	2.66
P	---	0.100	---	2.54
R	0.135	---	3.43	---
V	0.135	---	3.43	---

**BENT LEAD**

SECTION X-X

NOTES:  
 1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.  
 2. CONTROLLING DIMENSION: INCHES.  
 3. CONTOUR OF PACKAGE BEYOND DIMENSION R IS UNCONTROLLED.  
 4. DIMENSION F APPLIES BETWEEN DIMENSIONS P AND L. DIMENSIONS D AND J APPLY BETWEEN DIMENSIONS L AND K MINIMUM. THE LEAD DIMENSIONS ARE UNCONTROLLED IN DIMENSION P AND BEYOND DIMENSION K MINIMUM.

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A	0.175	0.205	4.44	5.21
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J	0.018	0.024	0.46	0.61
K	0.500	---	12.70	---
L	0.250	---	6.35	---
N	0.080	0.105	2.04	2.66
P	---	0.100	---	2.54
R	0.135	---	3.43	---
V	0.135	---	3.43	---

変更後

END VIEW

TOP VIEW

NOTES:  
 1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 2009.  
 2. CONTROLLING DIMENSION: MILLIMETERS.  
 3. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH OR GATE PROTRUSIONS.  
 4. DIMENSION b AND b2 DOES NOT INCLUDE DAMBAR PROTRUSION. LEAD WIDTH INCLUDING PROTRUSION SHALL NOT EXCEED 0.20.

DIM	MILLIMETERS		
	MIN.	NDM.	MAX.
A	3.75	3.90	4.05
A1	1.28	1.43	1.58
b	0.38	0.465	0.55
b2	0.62	0.70	0.78
c	0.35	0.40	0.45
D	7.85	8.00	8.15
E	4.75	4.90	5.05
E2	3.90	4.00	4.10
e	127 BSC		
L	13.80	14.00	14.20

END VIEW

TOP VIEW

NOTES:  
 1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 2009.  
 2. CONTROLLING DIMENSION: MILLIMETERS.  
 3. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH OR GATE PROTRUSIONS.  
 4. DIMENSION b AND b2 DOES NOT INCLUDE DAMBAR PROTRUSION. LEAD WIDTH INCLUDING PROTRUSION SHALL NOT EXCEED 0.20.

DIM	MILLIMETERS		
	MIN.	NDM.	MAX.
A	3.75	3.90	4.05
A1	1.28	1.43	1.58
b	0.38	0.465	0.55
b2	0.62	0.70	0.78
c	0.35	0.40	0.45
D	7.85	8.00	8.15
E	4.75	4.90	5.05
E2	3.90	4.00	4.10
e	250 BSC		
L	13.80	14.00	14.20
L2	12.30	12.50	12.70

製品マーキングの変更について

	変更前	変更後
製品マーキングの変更	3行目にマークされるトレースコードの組立場所: W(LYW) L: ウェハロット番号 YW: 組立開始週	3行目にマークされるトレースコードの組立場所: JC(LYW) L: ウェハロット番号 YW: 組立開始週



## 認定計画:

デバイス名: TLV431BLPRAG

RMS: 68561

パッケージ: TO92

テスト	規格	条件	間隔
HTOL	JESD22-A108	Ta=125°C、100 % 最大定格 Vcc	1008 時間
HTSL	JESD22-A103	Ta= 150°C	1008 時間
TC	JESD22-A104	Ta= -65°C ~ +150°C	500 サイクル
HAST	JESD22-A110	130°C、85% RH、18.8psig、バイアスあり	96 時間
uHAST	JESD22-A118	130°C、85% RH、18.8psig、バイアスなし	96 時間
RSH	JESD22- B106	Ta = 265C、10 秒	
SD	JSTD002	Ta = 245C、5 秒	

デバイス名: NCP431AVLPRAG

RMS: 68562

パッケージ: TO92

テスト	規格	条件	間隔
HTOL	JESD22-A108	Ta=125°C、100 % 最大定格 Vcc	1008 時間
HTSL	JESD22-A103	Ta= 150°C	1008 時間
TC	JESD22-A104	Ta= -65°C ~ +150°C	500 サイクル
HAST	JESD22-A110	130°C、85% RH、18.8psig、バイアスあり	96 時間
uHAST	JESD22-A118	130°C、85% RH、18.8psig、バイアスなし	96 時間
RSH	JESD22- B106	Ta = 265C、10 秒	
SD	JSTD002	Ta = 245C、5 秒	

デバイス名: LM2931AZ-5.0G

RMS: 68867

パッケージ: TO92

テスト	規格	条件	間隔
HTOL	JESD22-A108	Ta=125°C、100 % 最大定格 Vcc	1008 時間
HTSL	JESD22-A103	Ta= 150°C	1008 時間
TC	JESD22-A104	Ta= -65°C ~ +150°C	500 サイクル
HAST	JESD22-A110	130°C、85% RH、18.8psig、バイアスあり	96 時間
uHAST	JESD22-A118	130°C、85% RH、18.8psig、バイアスなし	96 時間
RSH	JESD22- B106	Ta = 265C、10 秒	
SD	JSTD002	Ta = 245C、5 秒	



デバイス名: LP2950CZ-5.0G

RMS: 69026

パッケージ: T092

テスト	規格	条件	間隔
HTOL	JESD22-A108	Ta=125°C、100 % 最大定格 Vcc	1008 時間
HTSL	JESD22-A103	Ta= 150°C	1008 時間
TC	JESD22-A104	Ta= -65°C ~ +150°C	500 サイクル
HAST	JESD22-A110	130°C、85% RH、18.8psig、バイアスあり	96 時間
uHAST	JESD22-A118	130°C、85% RH、18.8psig、バイアスなし	96 時間
RSH	JESD22- B106	Ta = 265C、10 秒	
SD	JSTD002	Ta = 245C、5 秒	

認定完了予定日 : 6 December 2020

**影響を受ける部品の一覧:**

注: 部品一覧には標準部品番号 (既製品) のみが記載されています。本 PCN の影響を受けるカスタム部品番号は、PCN メールで提供される顧客個別の付録、または PCN カスタマイズポータルに記載されています。

部品番号	認定試験用ピークル
LM317LBZRP	LM2931AZ-5.0G
LM317LZG	LM2931AZ-5.0G
LM317LZRAG	LM2931AZ-5.0G
LM317LZRP	LM2931AZ-5.0G
MC78L05ABPG	LM2931AZ-5.0G
MC78L05ABPRAG	LM2931AZ-5.0G
MC78L05ABPREG	LM2931AZ-5.0G
SC431ILPRAG	LM2931AZ-5.0G
TL431ACLPG	LM2931AZ-5.0G
TL431ACLPRPG	LM2931AZ-5.0G
TL431ACLPRAG	LM2931AZ-5.0G
TL431AILPG	LM2931AZ-5.0G
TL431AILPRAG	LM2931AZ-5.0G
TL431AILPRMG	LM2931AZ-5.0G
TL431AILPRPG	LM2931AZ-5.0G
TL431BCLPG	LM2931AZ-5.0G



TL431BCLPRAG	LM2931AZ-5.0G
TL431BCLPRMG	LM2931AZ-5.0G
TL431BILPG	LM2931AZ-5.0G
TL431BILPRAG	LM2931AZ-5.0G
TL431BVLPG	LM2931AZ-5.0G
TL431BVLPRAG	LM2931AZ-5.0G
TL431CLPG	LM2931AZ-5.0G
TL431CLPRAG	LM2931AZ-5.0G
TL431CLPRMG	LM2931AZ-5.0G
TL431CLPRPG	LM2931AZ-5.0G
TL431ILPG	LM2931AZ-5.0G
TL431ILPRAG	LM2931AZ-5.0G
TL431ILPRPG	LM2931AZ-5.0G
TLV431ALPG	TLV431BLPRAG
TLV431ALPRAG	TLV431BLPRAG
TLV431ALPREG	TLV431BLPRAG
TLV431BLPRAG	TLV431BLPRAG
LM2931AZ-5.0G	LM2931AZ-5.0G
LM2931AZ-5.0RAG	LM2931AZ-5.0G
LM2931AZ-5.0RPG	LM2931AZ-5.0G
LM2931Z-5.0G	LM2931AZ-5.0G
LM2931Z-5.0RAG	LM2931AZ-5.0G
LM2931Z-5.0RPG	LM2931AZ-5.0G
LM317LBZG	LM2931AZ-5.0G
LM317LBZRAG	LM2931AZ-5.0G
MC78L05ACPG	LM2931AZ-5.0G
MC78L05ACPRPG	LM2931AZ-5.0G
MC78L05ACPRMG	LM2931AZ-5.0G
MC78L08ABPG	LM2931AZ-5.0G
MC78L08ABPRAG	LM2931AZ-5.0G
MC78L08ACPG	LM2931AZ-5.0G
MC78L08ACPRAG	LM2931AZ-5.0G
MC78L09ACPG	LM2931AZ-5.0G
MC78L12ABPG	LM2931AZ-5.0G
MC78L12ABPRPG	LM2931AZ-5.0G



MC78L12ACPG	LM2931AZ-5.0G
MC78L12ACPRAG	LM2931AZ-5.0G
MC78L15ABPG	LM2931AZ-5.0G
MC78L15ABPRAG	LM2931AZ-5.0G
MC78L15ACPG	LM2931AZ-5.0G
MC78L15ACPRAG	LM2931AZ-5.0G
MC78L15ACPRPG	LM2931AZ-5.0G
MC78L24ABPG	LM2931AZ-5.0G
MC78L24ACPG	LM2931AZ-5.0G
MC78L24ACPRPG	LM2931AZ-5.0G
LP2950ACZ-3.0RAG	LP2950CZ-5.0G
LP2950ACZ-5.0G	LP2950CZ-5.0G
NCP431ACLPRAG	NCP431AVLPRAG
NCP431AILPRAG	NCP431AVLPRAG
NCP431AVLPRAG	NCP431AVLPRAG
LP2950ACZ-5.0RAG	LP2950CZ-5.0G
LP2950CZ-3.0RAG	LP2950CZ-5.0G
LP2950CZ-5.0G	LP2950CZ-5.0G
LP2950CZ-5.0RAG	LP2950CZ-5.0G
LP2950CZ-5.0RPG	LP2950CZ-5.0G
LP2950ACZ-3.3G	LP2950CZ-5.0G
LP2950ACZ-3.3RAG	LP2950CZ-5.0G
LP2950CZ-3.3G	LP2950CZ-5.0G
LP2950CZ-3.3RAG	LP2950CZ-5.0G
MC79L05ABPG	LP2950CZ-5.0G
MC79L05ABPRAG	LP2950CZ-5.0G
MC79L05ACPG	LP2950CZ-5.0G
MC79L05ACPRAG	LP2950CZ-5.0G
MC79L12ABPG	LP2950CZ-5.0G
MC79L12ABPRAG	LP2950CZ-5.0G
MC79L12ACPG	LP2950CZ-5.0G
MC79L12ACPRAG	LP2950CZ-5.0G
MC79L12ACPRPG	LP2950CZ-5.0G
MC79L15ABPG	LP2950CZ-5.0G
MC79L15ABPRPG	LP2950CZ-5.0G



MC79L15ACPG	LP2950CZ-5.0G
MC79L15ACPRAG	LP2950CZ-5.0G
MC79L15ACPRPG	LP2950CZ-5.0G
LM285Z-1.2G	LP2950CZ-5.0G
LM285Z-1.2RAG	LP2950CZ-5.0G
LM285Z-2.5G	LP2950CZ-5.0G
LM285Z-2.5RAG	LP2950CZ-5.0G
LM285Z-2.5RPG	LP2950CZ-5.0G
LM385BZ-1.2G	LP2950CZ-5.0G
LM385BZ-1.2RAG	LP2950CZ-5.0G
LM385BZ-2.5G	LP2950CZ-5.0G
LM385Z-1.2G	LP2950CZ-5.0G
LM385Z-1.2RAG	LP2950CZ-5.0G
LM385Z-1.2RPG	LP2950CZ-5.0G
LM385Z-2.5G	LP2950CZ-5.0G
LM385Z-2.5RPG	LP2950CZ-5.0G
MC33064P-5G	LP2950CZ-5.0G
MC33064P-5RAG	LP2950CZ-5.0G
MC33064P-5RPG	LP2950CZ-5.0G
MC33164P-3G	LP2950CZ-5.0G
MC33164P-3RAG	LP2950CZ-5.0G
MC33164P-3RPG	LP2950CZ-5.0G
MC33164P-5G	LP2950CZ-5.0G
MC33164P-5RAG	LP2950CZ-5.0G
MC33164P-5RPG	LP2950CZ-5.0G
MC34064P-5G	LP2950CZ-5.0G
MC34064P-5RAG	LP2950CZ-5.0G
MC34064P-5RMG	LP2950CZ-5.0G
MC34064P-5RPG	LP2950CZ-5.0G
MC34164P-3G	LP2950CZ-5.0G
MC34164P-3RPG	LP2950CZ-5.0G
MC34164P-5G	LP2950CZ-5.0G
LM317LZREG	LM2931AZ-5.0G
LM317LZRMG	LM2931AZ-5.0G
LP2950ACZ-3.0G	LP2950CZ-5.0G





LP2950CZ-3.0G	LP2950CZ-5.0G
MC78L05ABPRMG	LM2931AZ-5.0G
MC78L05ACPRAG	LM2931AZ-5.0G
MC78L05ACPREG	LM2931AZ-5.0G
MC78L08ABPRPG	LM2931AZ-5.0G
MC78L08ACPREG	LM2931AZ-5.0G
MC78L08ACPRPG	LM2931AZ-5.0G
MC78L09ABPRAG	LM2931AZ-5.0G
MC78L09ABPRPG	LM2931AZ-5.0G
MC78L12ACPREG	LM2931AZ-5.0G
MC78L12ACPRMG	LM2931AZ-5.0G
MC78L12ACPRPG	LM2931AZ-5.0G
MC78L15ABPRPG	LM2931AZ-5.0G
MC78L18ABPG	LM2931AZ-5.0G
MC78L18ACPG	LM2931AZ-5.0G
MC78L18ACPRAG	LM2931AZ-5.0G
MC78L18ACPRMG	LM2931AZ-5.0G
MC78L18ACPRPG	LM2931AZ-5.0G
MC78L24ACPRAG	LM2931AZ-5.0G
MC79L05ACPRMG	LM2931AZ-5.0G
MC79L05ACPRPG	LM2931AZ-5.0G
MC79L15ACPREG	LM2931AZ-5.0G
MC79L18ABPRPG	LM2931AZ-5.0G
MC79L18ACPG	LM2931AZ-5.0G
MC79L24ABPG	LM2931AZ-5.0G
MC79L24ACPG	LM2931AZ-5.0G
MC79L24ACPRMG	LM2931AZ-5.0G
MC79L24ACPRPG	LM2931AZ-5.0G



## Appendix A: Changed Products

D

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
LM317LBZRP		LM2931AZ-5.0G	NA	
LM317LZG		LM2931AZ-5.0G	NA	
LM317LZRAG		LM2931AZ-5.0G	NA	
LM317LZRP		LM2931AZ-5.0G	NA	
MC78L05ABPG		LM2931AZ-5.0G	NA	
MC78L05ABPRAG		LM2931AZ-5.0G	NA	
MC78L05ABPREG		LM2931AZ-5.0G	NA	
TL431ACLP		LM2931AZ-5.0G	NA	
TL431ACLP		LM2931AZ-5.0G	NA	
TL431AILP		LM2931AZ-5.0G	NA	
TL431AILP		LM2931AZ-5.0G	NA	
TL431AILPRM		LM2931AZ-5.0G	NA	
TL431AILPRP		LM2931AZ-5.0G	NA	
TL431BCLP		LM2931AZ-5.0G	NA	
TL431BCLP		LM2931AZ-5.0G	NA	
TL431BCLPRM		LM2931AZ-5.0G	NA	
TL431BILP		LM2931AZ-5.0G	NA	
TL431BILP		LM2931AZ-5.0G	NA	
TL431BVL		LM2931AZ-5.0G	NA	
TL431BVL		LM2931AZ-5.0G	NA	
TL431CLP		LM2931AZ-5.0G	NA	
TL431CLP		LM2931AZ-5.0G	NA	
TL431CLPR		LM2931AZ-5.0G	NA	
TL431ILP		LM2931AZ-5.0G	NA	
TL431ILP		LM2931AZ-5.0G	NA	
TLV431ALP		TLV431BLP	NA	
TLV431ALP		TLV431BLP	NA	
TLV431BLP		TLV431BLP	NA	
LM2931AZ-5.0G		LM2931AZ-5.0G	NA	
LM2931AZ-5.0RAG		LM2931AZ-5.0G	NA	
LM2931AZ-5.0RPG		LM2931AZ-5.0G	NA	
LM2931Z-5.0G		LM2931AZ-5.0G	NA	
LM2931Z-5.0RAG		LM2931AZ-5.0G	NA	
LM317LBZG		LM2931AZ-5.0G	NA	
LM2931Z-5.0RPG		LM2931AZ-5.0G	NA	
MC78L05ACPG		LM2931AZ-5.0G	NA	
LM317LBZRP		LM2931AZ-5.0G	NA	
MC78L05ACPRP		LM2931AZ-5.0G	NA	
MC78L08ABPG		LM2931AZ-5.0G	NA	
MC78L05ACPRM		LM2931AZ-5.0G	NA	
MC78L09ACPG		LM2931AZ-5.0G	NA	
MC78L08ACPG		LM2931AZ-5.0G	NA	



## Appendix A: Changed Products

D

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
MC78L12ABPG		LM2931AZ-5.0G	NA	
MC78L12ACPG		LM2931AZ-5.0G	NA	
MC78L12ABPRPG		LM2931AZ-5.0G	NA	
MC78L12ACPRAG		LM2931AZ-5.0G	NA	
MC78L15ACPG		LM2931AZ-5.0G	NA	
MC78L15ABPG		LM2931AZ-5.0G	NA	
MC78L15ACPRPG		LM2931AZ-5.0G	NA	
MC78L15ACPRAG		LM2931AZ-5.0G	NA	
MC78L24ACPG		LM2931AZ-5.0G	NA	
MC78L24ABPG		LM2931AZ-5.0G	NA	
MC78L24ACPRPG		LM2931AZ-5.0G	NA	
LP2950ACZ-5.0G		LP2950CZ-5.0G	NA	
NCP431AILPRAG		NCP431AVLPRAG	NA	
NCP431AVLPRAG		NCP431AVLPRAG	NA	
LP2950ACZ-5.0RAG		LP2950CZ-5.0G	NA	
LP2950CZ-3.0RAG		LP2950CZ-5.0G	NA	
NCP431ACLPRAG		NCP431AVLPRAG	NA	
LP2950CZ-5.0G		LP2950CZ-5.0G	NA	
LP2950CZ-5.0RPG		LP2950CZ-5.0G	NA	
LP2950CZ-5.0RAG		LP2950CZ-5.0G	NA	
LP2950ACZ-3.3G		LP2950CZ-5.0G	NA	
LP2950ACZ-3.3RAG		LP2950CZ-5.0G	NA	
LP2950CZ-3.3RAG		LP2950CZ-5.0G	NA	
LP2950CZ-3.3G		LP2950CZ-5.0G	NA	
MC79L05ABPRAG		LP2950CZ-5.0G	NA	
MC79L05ABPG		LP2950CZ-5.0G	NA	
MC79L05ACPRAG		LP2950CZ-5.0G	NA	
MC79L05ACPG		LP2950CZ-5.0G	NA	
MC79L12ABPRAG		LP2950CZ-5.0G	NA	
MC79L12ABPG		LP2950CZ-5.0G	NA	
MC79L12ACPRAG		LP2950CZ-5.0G	NA	
MC79L12ACPG		LP2950CZ-5.0G	NA	
MC79L15ABPRPG		LP2950CZ-5.0G	NA	
MC79L12ACPRPG		LP2950CZ-5.0G	NA	
MC79L15ACPG		LP2950CZ-5.0G	NA	
MC79L15ACPRAG		LP2950CZ-5.0G	NA	
MC79L15ABPG		LP2950CZ-5.0G	NA	
LM285Z-1.2G		LP2950CZ-5.0G	NA	
LM285Z-2.5G		LP2950CZ-5.0G	NA	
LM285Z-1.2RAG		LP2950CZ-5.0G	NA	
LM285Z-2.5RPG		LP2950CZ-5.0G	NA	
LM285Z-2.5RAG		LP2950CZ-5.0G	NA	



## Appendix A: Changed Products

D

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
LM385BZ-1.2G		LP2950CZ-5.0G	NA	
LM385BZ-2.5G		LP2950CZ-5.0G	NA	
LM385BZ-1.2RAG		LP2950CZ-5.0G	NA	
LM385Z-1.2RPG		LP2950CZ-5.0G	NA	
LM385Z-1.2G		LP2950CZ-5.0G	NA	
LM385Z-2.5G		LP2950CZ-5.0G	NA	
MC33064P-5G		LP2950CZ-5.0G	NA	
MC33064P-5RAG		LP2950CZ-5.0G	NA	
MC33164P-3RAG		LP2950CZ-5.0G	NA	
MC33064P-5RPG		LP2950CZ-5.0G	NA	
MC33164P-3RPG		LP2950CZ-5.0G	NA	
MC33164P-3G		LP2950CZ-5.0G	NA	
MC33164P-5RAG		LP2950CZ-5.0G	NA	
MC33164P-5G		LP2950CZ-5.0G	NA	
MC34064P-5G		LP2950CZ-5.0G	NA	
MC33164P-5RPG		LP2950CZ-5.0G	NA	
MC34064P-5RAG		LP2950CZ-5.0G	NA	
MC34164P-3G		LP2950CZ-5.0G	NA	
MC34064P-5RMG		LP2950CZ-5.0G	NA	
MC34064P-5RPG		LP2950CZ-5.0G	NA	
LP2950ACZ-3.0G		LP2950CZ-5.0G	NA	
MC34164P-3RPG		LP2950CZ-5.0G	NA	
MC34164P-5G		LP2950CZ-5.0G	NA	
LP2950CZ-3.0G		LP2950CZ-5.0G	NA	
MC78L05ACPRAG		LM2931AZ-5.0G	NA	
MC78L05ABPRMG		LM2931AZ-5.0G	NA	
MC78L05ACPREG		LM2931AZ-5.0G	NA	
MC78L09ABPRAG		LM2931AZ-5.0G	NA	
MC78L08ACPREG		LM2931AZ-5.0G	NA	
MC78L12ACPRPG		LM2931AZ-5.0G	NA	
MC78L09ABPRPG		LM2931AZ-5.0G	NA	
MC78L18ACPG		LM2931AZ-5.0G	NA	
MC78L18ABPG		LM2931AZ-5.0G	NA	
MC79L05ACPRMG		LM2931AZ-5.0G	NA	
MC78L18ACPRAG		LM2931AZ-5.0G	NA	
MC79L05ACPRPG		LM2931AZ-5.0G	NA	
MC79L18ACPG		LM2931AZ-5.0G	NA	
MC79L15ACPREG		LM2931AZ-5.0G	NA	
MC79L24ABPG		LM2931AZ-5.0G	NA	
MC79L24ACPG		LM2931AZ-5.0G	NA	