ON Semiconductor®

Initial Product/Process Change Notification

Document #:IPCN23465X

Issue Date:16 Sep 2020

Title of Change:	Assembly and Test Transfer From AUK Dalian China to JCET Chuzhou China with Case outline change for SOT23FL products
Proposed First Ship date:	05 Mar 2021 or earlier if approved by customer
Contact Information:	Contact your local ON Semiconductor Sales Office or albert.reyes@onsemi.com
PCN Samples Contact:	Contact your local ON Semiconductor Sales Office or <PCN.samples@onsemi.com>. 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.
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 90 days prior to implementation of the change. In case of questions, contact <PCN.Support@onsemi.com>
Marking of Parts/ Traceability of Change:	Traceability will be maintained in the encoded product marking. Product labelling will indicate the location of manufacturing.
Change Category:	Test Change, Assembly Change
Change Sub-Category(s):	Material Change, Manufacturing Site Transfer

Sites Affected:

ON Semiconductor Sites	ON Semiconductor Sites
None	None

Description and Purpose:

	Before Change Description	After Change Description
Lead frame	PMC90 Ag STAMPED	A194 stamped
Die Attach	Exbond 8280C	Henkel DA 84-1
Mold Compound	KCC KTMC1050GR	EDALE ELER 8100HFE
Assembly Site	AUK-Dalian	JCET Chuzhou
Test Site	AUK-Dalian	JCET Chuzhou
case outline	419BD	Image shown below.

As indicated above, this transfer includes a change from the current case outline, or package outline drawing. The images below are provided for convenience and review. These packages have compatible solder landing patterns.

ON Semiconductor®

Initial Product/Process Change Notification

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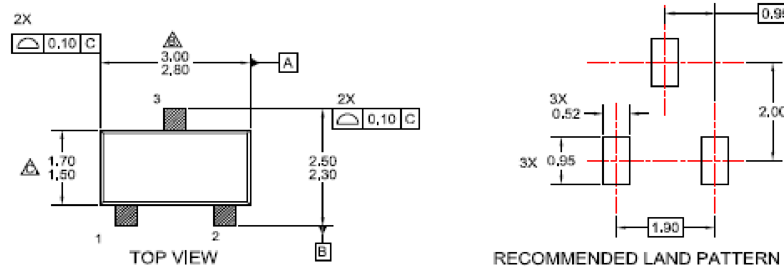
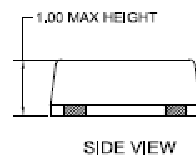
AUK Dalian – Before Change

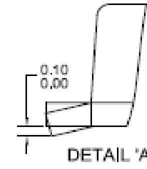
MECHANICAL CASE OUTLINE
PACKAGE DIMENSIONS

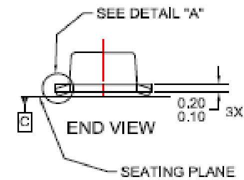
SOT-23FL
CASE 419BD
ISSUE O

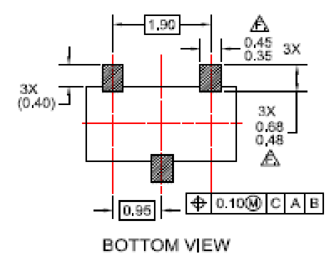
DATE 31 AUG 2016











NOTES:

A. ALL DIMENSIONS ARE IN MILLIMETERS.

B. DIMENSION DOES NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS. MOLD FLASH, PROTRUSIONS OR GATE BURRS SHALL NOT EXCEED 0.15mm PER END.

C. DIMENSION DOES NOT INCLUDE INTERLEAD FLASH OR PROTRUSION. INTERLEAD FLASH OR PROTRUSION SHALL NOT EXCEED 0.15mm PER SIDE.

D. DIMENSIONS B AND C ARE DETERMINED AT THE OUTMOST EXTREMES OF THE PLASTIC BODY EXCLUSIVE OF MOLD FLASH, TIE BAR BURRS, GATE BURRS AND INTERLEAD FLASH, BUT INCLUDING ANY MISMATCH BETWEEN THE TOP AND BOTTOM OF THE PLASTIC BODY.

E. TERMINAL NUMBERS ARE SHOWN FOR REFERENCE ONLY.

F. THESE DIMENSIONS APPLY TO THE FLAT SECTION OF THE LEAD BETWEEN 0.08mm AND 0.15mm FROM THE LEAD TIP.

G. LANDPATTERN RECOMMENDATION PER IPC SOTFL95P240X100-4N (ADAPTED TO 3LD)

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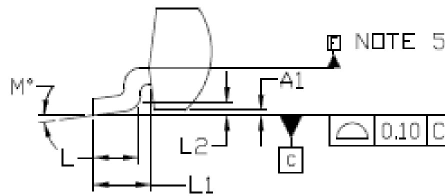
JCET Chuzhou– After Change

PACKAGE OUTLINE DRAWING
98A SUPPORTING DOCUMENTATION

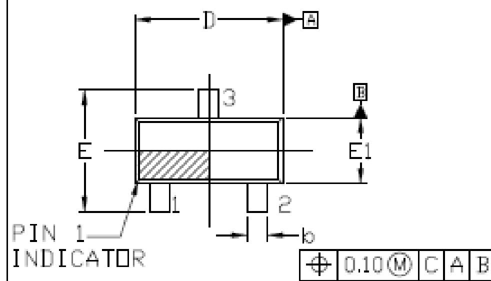
ON Semiconductor®



DETAIL A

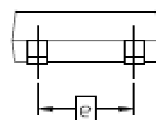
NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 2009.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. DIMENSION b DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE PROTRUSION SHALL BE 0.127 mm IN EXCESS OF MAXIMUM MATERIAL CONDITION.
4. DIMENSIONS D AND E1 DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS. MOLD FLASH, PROTRUSIONS, OR GATE BURRS SHALL NOT EXCEED 0.15 mm PER SIDE. DIMENSIONS D AND E1 ARE DETERMINED AT DATUM F.
5. DATUMS A AND B ARE TO BE DETERMINED AT DATUM F.
6. A1 IS DEFINED AS THE VERTICAL DISTANCE FROM THE SEATING PLANE TO THE LOWEST POINT ON THE PACKAGE BODY.
7. LEAD THICKNESS (c) AND LEAD WIDTH (b) INCLUDE PLATING THICKNESS.

DIM	MILLIMETERS		
	MIN.	NOM.	MAX.
A	—	—	1.15
A1	0.00	—	0.10
A2	0.90	1.00	1.10
b	0.30	—	0.50
c	0.127 REF		
D	2.80	2.90	3.00
E	2.25	2.40	2.55
E1	1.20	1.30	1.40
e	1.90 BSC		
L	0.30	—	---
L1	0.55 REF		
L2	0.25 REF		
M	0°	—	8°

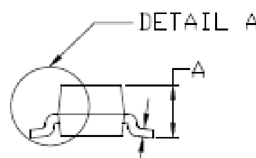


TOP VIEW

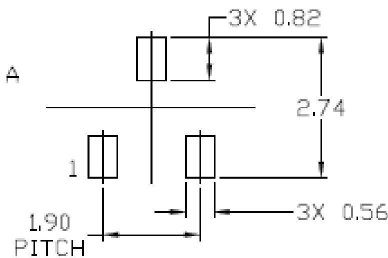
DETAIL A



SIDE VIEW



END VIEW



RECOMMENDED
MOUNTING FOOTPRINT

* For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

Qualification Plan:

QV DEVICE NAME KA431SLMF2TF
RMS: S69084, O69455
PACKAGE: SOT 23L

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
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C	
SAT	JEDEC STD 035	Pre and Post MSL 1	
RSH	JESD22- B106	Ta = 265C, 10 sec	
SD	JSTD002	Ta = 245C, 10 sec	
PD	JESD22-B100	Per POD, case 751EB	
LI	JESD22-B105D	Per 7.3.5 Procedure	
CDPA	MILSTD750 Method 2037	Wire Pull after TC500 cycles	
DPA	AEC Q101	Destructive Physical analysis post TC 1000cycles	

Estimated date for qualification completion: 27 November 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
KA431SAMF2TF	KA431SLMF2TF
KA431SAMFTF	KA431SLMF2TF
KA431SLMF2TF	KA431SLMF2TF
KA431SLMFTF	KA431SLMF2TF
KA431SMF2TF	KA431SLMF2TF
KA431SMFTF	KA431SLMF2TF
LM431SACMFX	KA431SLMF2TF
LM431SAIMFX	KA431SLMF2TF
LM431SBCMFX	KA431SLMF2TF
LM431SBIMFX	KA431SLMF2TF
LM431SCCMFX	KA431SLMF2TF
LM431SCIMFX	KA431SLMF2TF

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.

ON Semiconductor®

初回製品 / プロセス変更通知

文書番号#：IPCN23465X
発行日：16 Sep 2020

変更件名：	SOT23FL 製品のケースアウトライン変更を伴う組立および検査を AUK 大連（中国）から JCET 滁州（中国）に移管
初回出荷予定日：	05 Mar 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 < Albert.reyes@onsemi.com > 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 <PCN.Samples@onsemi.com> 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、<PCN.Support@onsemi.com> 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：	トレーサビリティは製品表示コードで引き続き維持可能です。製造拠点は製品ラベルによって識別されます。
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：

外部製造工場 / 下請業者拠点：	**外部製造工場 / 下請業者拠点：**
なし	JCET, China

説明および目的：

	変更前の表記	**変更後の表記**
リードフレーム	PMC90 Ag STAMPED	A194 stamped
ダイ接着剤	Exbond 8280C	Henkel DA 84-1
モールド・コンパウンド	KCC KTMC1050GR	EDALE ELER 8100HFE
組立拠点	AUK-Dalian	JCET Chuzhou
検査拠点	AUK-Dalian	JCET Chuzhou
ケースアウトライン	419BD	Image shown below.

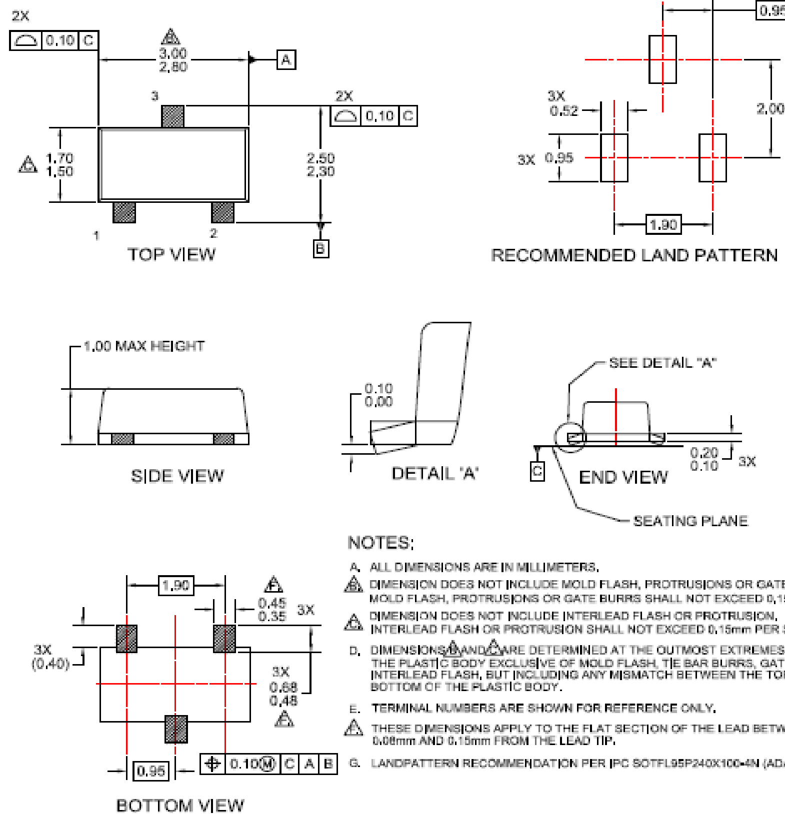
上記のように、本移管には現行のケースアウトライン、またはパッケージ外形図からの変更が含まれます。以下の図を参照してください。これらのパッケージのはんだランドパターンは互換性があります。

AUK Dalian – Before Change

MECHANICAL CASE OUTLINE
PACKAGE DIMENSIONS

SOT−23FL
CASE 419BD
ISSUE O

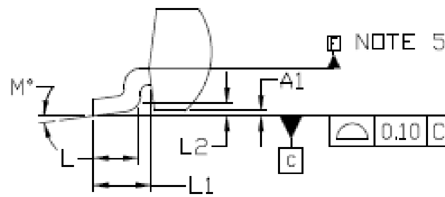
DATE 31 AUG 2016



JCET Chuzhou– After Change

PACKAGE OUTLINE DRAWING
98A SUPPORTING DOCUMENTATION

ON Semiconductor®



DETAIL A

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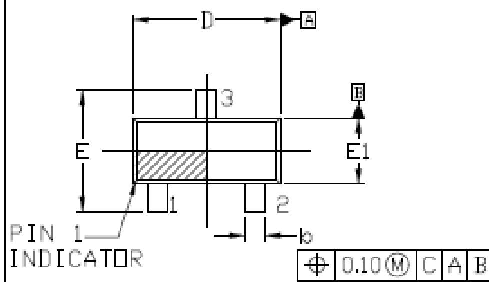
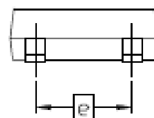
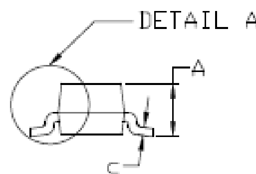
A2	0.90	1.00	1.10
b	0.30	—	0.50
c	0.127 REF		
D	2.80	2.90	3.00
E	2.25	2.40	2.55
E1	1.20	1.30	1.40
e	1.90 BSC		
L	0.30	—	---
L1	0.55 REF		
L2	0.25 REF		
M	0°	—	8°



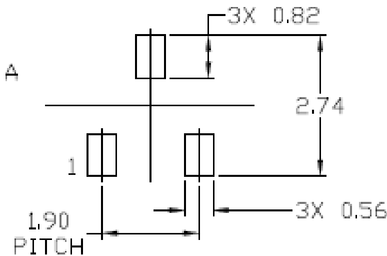
TOP VIEW



SIDE VIEW



END VIEW



RECOMMENDED
MOUNTING FOOTPRINT

* For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

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定計画：

デバイス名：KA431SLMF2TF

RMS: S69084, O69455

パッケージ：SOT 23L

テスト	規格	条件	間隔
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
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C	
SAT	JEDEC STD 035	Pre and Post MSL 1	
RSH	JESD22- B106	Ta = 265C, 10 sec	
SD	JSTD002	Ta = 245C, 10 sec	
PD	JESD22-B100	Per POD, case 751EB	
LI	JESD22-B105D	Per 7.3.5 Procedure	
CDPA	MILSTD750 Method 2037	Wire Pull after TC500 cycles	
DPA	AEC Q101	Destructive Physical analysis post TC 1000cycles	

認定完了予定日 : 27 November 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	認定試験用ビークル
KA431SAMF2TF	KA431SLMF2TF
KA431SAMFTF	KA431SLMF2TF
KA431SLMF2TF	KA431SLMF2TF
KA431SLMFTF	KA431SLMF2TF
KA431SMF2TF	KA431SLMF2TF
KA431SMFTF	KA431SLMF2TF
LM431SACMFX	KA431SLMF2TF
LM431SAIMFX	KA431SLMF2TF
LM431SBCMFX	KA431SLMF2TF
LM431SBIMFX	KA431SLMF2TF
LM431SCCMFX	KA431SLMF2TF
LM431SCIMFX	KA431SLMF2TF