ON Semiconductor®

Final Product/Process Change Notification

Document #:FPCN22647XAV
Issue Date:15 Jul 2020

Title of Change:	TO247 ONSZ Package Dual Source in Subcontractor SHEDCL and Mold Compound Change attributed to an End of Life of Samsung SDI EMC
Proposed First Ship date:	22 Oct 2020 or earlier if approved by customer
Contact Information:	Contact your local ON Semiconductor Sales Office or Bokyun.Seo@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.
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or Lake.Wang@onsemi.com
Type of Notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. ON Semiconductor will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact PCN.Support@onsemi.com
Marking of Parts/ Traceability of Change:	Marking of parts no change and traceability of change with Product date code.
Change Category:	Assembly Change
Change Sub-Category(s):	Manufacturing Site Transfer, Material Change

Sites Affected:

ON Semiconductor Sites	**External Foundry/Subcon Sites**
ON Semiconductor Suzhou, China	SHANTOU HUASHAN Electronic Devices Co., Ltd., China

Description and Purpose:

ON Semiconductor wishes to inform our customers of TO247 package dual source in subcontractor SHEDCL & a change in mold compounds used for the devices listed in this PCN. This is the final product change notification (FPCN) of IPCN22647. This change is a result of an End of Life notification received from Samsung for several of their SDI Mold Compounds. Due to the discontinuance of the SDI mold compounds, ON Semiconductor will only have limited supplies of the existing material and in some cases this may not allow for the normal change notification period.

All other aspects of the impacted products (form, fit, function) will remain unchanged.

	Before Change Description	**After Change Description**
Mold compound	SG8200DL/SL7300HFM, Supplier: Samsung SDI EME6600CS, Supplier : SUMITOMO	KTMC1050GFA
Assembly site	ON Suzhou, China	ON Suzhou, China and SHEDCL, China

There is no product marking change as a result of this change.

Reliability Data Summary:

QV DEVICE NAME : FGH40N60SMDF
RMS: U60853
PACKAGE: TO247

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Tj=175°C, 100% max rated V	1,008 hrs	0/77
HTGB	JESD22-A108	Ta = 175°C for 1008 hours, 100% rated Vgs	1,008 hrs	0/77
HTSL	JESD22-A103	Ta = 175°C for 1008 hours	1,008 hrs	0/77
IOL	MIL STD750, M 1037 AEC Q101	Ta=+25°C, delta Tj=100°C max, Ton=Toff is 3.5min	8572Cyc	0/77
TC	JESD22-A104	Ta= -55°C to +150°C	1,000 cyc	0/77
H3TRB	JESD22-A101	85°C, 85% RH, bias = 80% of rated V or 100V max	96 hrs	0/77
UHAST	JESD22-A118B	Temp= +130°C, RH=85% , p = 18.8 psig, unbiased	96hrs	0/77
SD	J STD 002B	Ta=245°C 5 sec dwell	5s	0/45
RSH	JESD22-B106	Ta=265C 10 sec dwell B106	96 hrs	0/30

QV DEVICE NAME : FGH40T120SMD-F155
RMS: V57838/S62642
PACKAGE: TO247

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Tj=175°C, 100% max rated V	1,008 hrs	0/77
HTGB	JESD22-A108	Ta = 175°C for 1008 hours, 100% rated Vgs	1,008 hrs	0/77
HTSL	JESD22-A103	Ta = 175°C for 1008 hours	1,008 hrs	0/77
IOL	MIL STD750, M 1037 AEC Q101	Ta=+25°C, delta Tj=100°C max, Ton=Toff is 3.5min	8572Cyc	0/77
TC	JESD22-A104	Ta= -55°C to +150°C	1,000 cyc	0/77
H3TRB	JESD22-A101	85°C, 85% RH, bias = 80% of rated V or 100V max	96 hrs	0/77
UHAST	JESD22-A118B	Temp= +130°C, RH=85% , p = 18.8 psig, unbiased	96hrs	0/77
SD	J STD 002B	Ta=245°C 5 sec dwell	5s	0/45
RSH	JESD22-B106	Ta=265C 10 sec dwell B106	96 hrs	0/30

QV DEVICE NAME : HGTG11N120CND
RMS: S57839/U62641
PACKAGE: TO247

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Tj=175°C, 100% max rated V	1,008 hrs	0/77
HTGB	JESD22-A108	Ta = 175°C for 1008 hours, 100% rated Vgs	1,008 hrs	0/77
HTSL	JESD22-A103	Ta = 175°C for 1008 hours	1,008 hrs	0/77
IOL	MIL STD750, M 1037 AEC Q101	Ta=+25°C, delta Tj=100°C max, Ton=Toff is 3.5min	8572Cyc	0/77
TC	JESD22-A104	Ta= -55°C to +150°C	1,000 cyc	0/77
H3TRB	JESD22-A101	85°C, 85% RH, bias = 80% of rated V or 100V max	96 hrs	0/77
UHAST	JESD22-A118B	Temp= +130°C, RH=85% , p = 18.8 psig, unbiased	96hrs	0/77
SD	J STD 002B	Ta=245°C 5 sec dwell	5s	0/45
RSH	JESD22-B106	Ta=265C 10 sec dwell B106	96 hrs	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.**

Part Number	Qualification Vehicle
FGH40N60SMDF	FGH40N60SMDF
FGH40N60SMD	FGH40N60SMDF
FGH40T70SHD-F155	FGH40N60SMDF
HGTG30N60A4D	FGH40N60SMDF
FGH40T65SQD-F155	FGH40N60SMDF
FGH40T65UQDF-F155	FGH40N60SMDF
FGH40T65SHD-F155	FGH40N60SMDF
FGH40N65UFDTU	FGH40N60SMDF
FGH20N60UFDTU	FGH40N60SMDF
ISL9K3060G3	FGH40N60SMDF

FGH40N60UFDTU	FGH40N60SMDF
FGH40T100SMD-F155	FGH40N60SMDF
HGTG12N60A4D	FGH40N60SMDF
HGTG20N60B3D	FGH40N60SMDF
FGH80N60FD2TU	FGH40N60SMDF
FGH40T65UPD	FGH40N60SMDF
HGTG12N60C3D	FGH40N60SMDF
FGH40T120SMD-F155	FGH40T120SMD-F155
FGH40T120SMD	FGH40T120SMD-F155
FGH15T120SMD-F155	FGH40T120SMD-F155
FGH25T120SMD-F155	FGH40T120SMD-F155
FGH40T100SMD	FGH40T120SMD-F155
FGH40T65SPD-F155	FGH40T120SMD-F155
FGH12040WD-F155	FGH40T120SMD-F155
HGTG11N120CND	HGTG11N120CND
FGH50T65UPD	HGTG11N120CND
FGH25N120FTDS	HGTG11N120CND
FGH30T65UPDT-F155	HGTG11N120CND
ISL9R18120G2	RURG80100
ISL9K1560G3	RURG80100
ISL9R30120G2	RURG80100
RHRG3060	RURG80100
RURG3020CC	RURG80100
RURG3060CC	RURG80100
RHRG1560CC	RURG80100
RHRG3060CC	RURG80100
RURG1520CC	RURG80100
RURG80100	RURG80100
FFH50US60S	RURG80100
FFH30US30DN	RURG80100
FFH60UP40S	RURG80100
FFH75H60S	RURG80100

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®

最終製品 / プロセス変更通知

文書番号#：FPCN22647XAV
発行日:15 Jul 2020

変更件名:	TO247 ONSZ パッケージの外注工場 SHEDCL とのデュアルソース化、および Samsung SDI EMC の生産終了に伴うモールドコンパウンドの変更
初回出荷予定日:	22 Oct 2020 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 Bokyun.Seo@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。
追加の信頼性データ:	お客さまの地域のオン・セミコンダクター営業所または Lake.Wang@onsemi.com にお問い合わせください。
通知種別:	これは、お客様宛の最終製品 / プロセス変更通知（FPCN）です。FPCN は、変更実施の 90 日前に発行されます。 オン・セミコンダクターは、この通知の送付から 30 日以内に書面による問い合わせがない限り、この変更が承諾されたものとみなします。 お問い合わせは、<PCN.Support@onsemi.com> 宛てにお願いします。
変更部品の識別:	製品のマーキングに変更はありません。製品の日付コードで変更の追跡が可能です。

変更カテゴリ:アセンブリの変更

変更サブカテゴリ:製造拠点の移転, 材料の変更

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**:
ON Semiconductor Suzhou, China	SHANTOU HUASHAN Electronic Devices Co., Ltd., China

説明および目的:

オン・セミコンダクターは、TO247 パッケージの外注工場 SHEDCL とのデュアルソース化と本 PCN に記載されている製品に使用されるモールドコンパウンドの変更をお客様にお知らせいたします。これは、IPCN22647の最終製品変更通知（FPCN）です。この変更は、SDIモールドコンパウンドのいくつかについてSamsungから受けた生産終了の通知によるものです。SDIモールドコンパウンドの廃止によって、オン・セミコンダクターでは既存の材料の供給が限定されるようになるため、場合によっては、このことによって通常の変更通知期間が不可能になる場合があります。

対象となる製品の他の特徴(形状、適合性、機能)には変更はありません。

プロセス	変更前の表記	変更後の表記
モールド・コンパウンド	SG8200DL/SL7300HFM, Supplier: Samsung SDI EME6600CS, Supplier : SUMITOMO	KTMC1050GFA
組立拠点	ON Suzhou, China	ON Suzhou, China and SHEDCL, China

今回の変更に伴う製品マーキングの変更はありません。

信頼性データの要約:

デバイス名: FGH40N60SMDF
RMS: U60853
パッケージ:TO247

テスト	仕様	条件	間隔	結果
HTRB	JESD22-A108	Tj=175°C, 100% max rated V	1,008 hrs	0/77
HTGB	JESD22-A108	Ta = 175°C for 1008 hours, 100% rated Vgs	1,008 hrs	0/77
HTSL	JESD22-A103	Ta = 175°C for 1008 hours	1,008 hrs	0/77
IOL	MIL STD750, M 1037 AEC Q101	Ta=+25°C, delta Tj=100°C max, Ton=Toff is 3.5min	8572Cyc	0/77
TC	JESD22-A104	Ta= -55°C to +150°C	1,000 cyc	0/77
H3TRB	JESD22-A101	85°C, 85% RH, bias = 80% of rated V or 100V max	96 hrs	0/77
UHAST	JESD22-A118B	Temp= +130°C, RH=85% , p = 18.8 psig, unbiased	96hrs	0/77
SD	J STD 002B	Ta=245°C 5 sec dwell	5s	0/45
RSH	JESD22-B106	Ta=265C 10 sec dwell B106	96 hrs	0/30

デバイス名: FGH40T120SMD-F155
RMS: V57838/S62642
パッケージ:TO247

テスト	仕様	条件	間隔	結果
HTRB	JESD22-A108	Tj=175°C, 100% max rated V	1,008 hrs	0/77
HTGB	JESD22-A108	Ta = 175°C for 1008 hours, 100% rated Vgs	1,008 hrs	0/77
HTSL	JESD22-A103	Ta = 175°C for 1008 hours	1,008 hrs	0/77
IOL	MIL STD750, M 1037 AEC Q101	Ta=+25°C, delta Tj=100°C max, Ton=Toff is 3.5min	8572Cyc	0/77
TC	JESD22-A104	Ta= -55°C to +150°C	1,000 cyc	0/77
H3TRB	JESD22-A101	85°C, 85% RH, bias = 80% of rated V or 100V max	96 hrs	0/77
UHAST	JESD22-A118B	Temp= +130°C, RH=85% , p = 18.8 psig, unbiased	96hrs	0/77
SD	J STD 002B	Ta=245°C 5 sec dwell	5s	0/45
RSH	JESD22-B106	Ta=265C 10 sec dwell B106	96 hrs	0/30

ON Semiconductor®

最終製品 / プロセス変更通知

文書番号#：FPCN22647XAV
発行日:15 Jul 2020

デバイス名: HGTG11N120CND
RMS: S57839/U62641
パッケージ:TO247

テスト	仕様	条件	間隔	結果
HTRB	JESD22-A108	Tj=175°C, 100% max rated V	1,008 hrs	0/77
HTGB	JESD22-A108	Ta = 175°C for 1008 hours, 100% rated Vgs	1,008 hrs	0/77
HTSL	JESD22-A103	Ta = 175°C for 1008 hours	1,008 hrs	0/77
IOL	MIL STD750, M 1037 AEC Q101	Ta=+25°C, delta Tj=100°C max, Ton=Toff is 3.5min	8572Cyc	0/77
TC	JESD22-A104	Ta= -55°C to +150°C	1,000 cyc	0/77
H3TRB	JESD22-A101	85°C, 85% RH, bias = 80% of rated V or 100V max	96 hrs	0/77
UHAST	JESD22-A118B	Temp= +130°C, RH=85% , p = 18.8 psig, unbiased	96hrs	0/77
SD	J STD 002B	Ta=245°C 5 sec dwell	5s	0/45
RSH	JESD22-B106	Ta=265C 10 sec dwell B106	96 hrs	0/30

電気的特性の要約:

電気的特性に影響はありません。

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
FGH40N60SMDF	FGH40N60SMDF
FGH40N60SMD	FGH40N60SMDF
FGH40T70SHD-F155	FGH40N60SMDF
HGTG30N60A4D	FGH40N60SMDF
FGH40T65SQD-F155	FGH40N60SMDF
FGH40T65UQDF-F155	FGH40N60SMDF
FGH40T65SHD-F155	FGH40N60SMDF
FGH40N65UFDTU	FGH40N60SMDF
FGH20N60UFDTU	FGH40N60SMDF
ISL9K3060G3	FGH40N60SMDF
FGH40N60UFDTU	FGH40N60SMDF
FGH40T100SMD-F155	FGH40N60SMDF
HGTG12N60A4D	FGH40N60SMDF

HGTG20N60B3D	FGH40N60SMDF
FGH80N60FD2TU	FGH40N60SMDF
FGH40T65UPD	FGH40N60SMDF
HGTG12N60C3D	FGH40N60SMDF
FGH40T120SMD-F155	FGH40T120SMD-F155
FGH40T120SMD	FGH40T120SMD-F155
FGH15T120SMD-F155	FGH40T120SMD-F155
FGH25T120SMD-F155	FGH40T120SMD-F155
FGH40T100SMD	FGH40T120SMD-F155
FGH40T65SPD-F155	FGH40T120SMD-F155
FGH12040WD-F155	FGH40T120SMD-F155
HGTG11N120CND	HGTG11N120CND
FGH50T65UPD	HGTG11N120CND
FGH25N120FTDS	HGTG11N120CND
FGH30T65UPDT-F155	HGTG11N120CND
ISL9R18120G2	RURG80100
ISL9K1560G3	RURG80100
ISL9R30120G2	RURG80100
RHRG3060	RURG80100
RURG3020CC	RURG80100
RURG3060CC	RURG80100
RHRG1560CC	RURG80100
RHRG3060CC	RURG80100
RURG1520CC	RURG80100
RURG80100	RURG80100
FFH50US60S	RURG80100
FFH30US30DN	RURG80100
FFH60UP40S	RURG80100
FFH75H60S	RURG80100