



<b>Title of Change:</b>	Qualification of Flat Bottom Dimple Clip for Schottky Rectifier of SMA and SMB Package	
<b>Proposed Changed Material First Ship Date:</b>	23 August 2019	
<b>Current Material Last Order Date:</b>	NA 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.	
<b>Current Material Last Delivery Date:</b>	NA The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory.	
<b>Product Category:</b>	Active components – Discrete components	
<b>Contact information:</b>	Contact your local ON Semiconductor Sales Office or < MohdNazirul.MohdRadzuan@onsemi.com >	
<b>Samples:</b>	Contact your local ON Semiconductor 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.	
<b>Sample Availability Date:</b>	24 September 2018	
<b>PPAP Availability Date:</b>	24 September 2018	
<b>Additional Reliability Data:</b>	Contact your local ON Semiconductor Sales Office or < MohdAzizi.Azman@onsemi.com >.	
<b>Type of Notification:</b>	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 12 months prior to implementation of the change or earlier upon customer approval. ON Semiconductor 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.	
<b>Change Category</b>	<b>Type of Change</b>	
Process – Assembly	Change in leadframe dimensions	
<b>Description and Purpose:</b>		
This Final Product Change Notification (FPCN) is announcing that ON Semiconductor is qualifying Flat Bottom Dimple Clip automotive-qualified OPNs of schottkty rectifiers in SMA and SMB package. These OPNs can be continuously dual-source, either from ON Semiconductor Seremban or ON Semiconductor Vietnam. The orderable part number will remain the same.  Upon the expiration of this FPCN, customer will receive parts with new clip design as per below:		
	<b>Before Change Description</b>	<b>After Change Description</b>
Clip Thickness	12mils	8mils
Clip Bottom Dimple shape	Round bottom dimple shape	Flat bottom dimple shape
There are no product material changes as a result of this change. There is no product marking change as a result of this change		
<b>Reason / Motivation for Change:</b>	-To improve product package robustness. -To ensure continuous product supplies to customer with the new clip design	
<b>Anticipated impact on fit, form, function, reliability, product safety or manufacturability</b>	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 ON Semiconductor in relation to the PCN, associated risks are verified and excluded.  No anticipated impacts.	



<b>Sites Affected:</b>	ON Semiconductor Sites: ON Seremban, Malaysia ON Dong Nai Province, Vietnam	External Foundry/Subcon Sites: None
<b>Marking of Parts/ Traceability of Change:</b>	There will be no change in the device marking scheme. Affected products will be identified with date code. Clean date code will be advised as requested.	

**Reliability Data Summary:**

QV DEVICE NAME: NRVBA130LT3G  
PACKAGE: SMA PB FREE

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=Tj max°C, 100% max rated V	1008 hrs	0/231
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc	0/231
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/231
H3TRB	JESD22-A101	85°C, 85% RH, 80% rated bias	1008 hrs	0/231
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/924
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90
SD	JSTD002	Ta = 245C, 10 sec		0/45

QV DEVICE NAME: NRVBS260T3G  
PACKAGE: SMB 37MIL PB FREE

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=Tj max°C, 100% max rated V	1008 hrs	0/231
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/231
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc	0/231
TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc	0/231
H3TRB	JESD22-A101	85°C, 85% RH, 80% rated bias	1008 hrs	0/231
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/924
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90
SD	JSTD002	Ta = 245C, 10 sec		0/45



QV DEVICE NAME: NRVBS3200T3G

PACKAGE: SMB 37MIL PB FREE

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=Tj max°C, 100% max rated V	1008 hrs	0/231
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/231
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc	0/231
TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc	0/231
H3TRB	JESD22-A101	85°C, 85% RH, 80% rated bias	1008 hrs	0/231
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/924
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90
SD	JSTD002	Ta = 245C, 10 sec		0/45

NOTE: AEC 1 Pager and ZVEI 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/s

#### Electrical Characteristic Summary:

Electrical characteristics are not impacted.



List of Affected Parts:		
Current Part Number	New Part Number	Qualification Vehicle
NRVBA120ET3G-VF01	NA	NRVBA130LT3G
NRVBA130LT3G	NA	NRVBA130LT3G
NRVBA140T3G-VF01	NA	NRVBA130LT3G
NRVBA160T3G	NA	NRVBA130LT3G
NRVBA320T3G	NA	NRVBA130LT3G
NRVBA320T3G-VF01	NA	NRVBA130LT3G
SBRA401T3G	NA	NRVBA130LT3G
SBRA401T3G-VF01	NA	NRVBA130LT3G
SNRVBA130LT3G	NA	NRVBA130LT3G
NRVBA120ET3G	NA	NRVBA130LT3G
NRVBA130LT3G-VF01	NA	NRVBA130LT3G
NRVBA140T3G	NA	NRVBA130LT3G
NRVBA160T3G-VF01	NA	NRVBA130LT3G
NRVBA1H100T3G	NA	NRVBA130LT3G
NRVBA1H100T3G-VF01	NA	NRVBA130LT3G
SBRA8160T3G	NA	NRVBA130LT3G
SBRA8160T3G-VF01	NA	NRVBA130LT3G
NRVBS130T3G	NA	NRVBS260T3G
NRVBS230LT3G-VF01	NA	NRVBS260T3G
NRVBS130T3G-VF01	NA	NRVBS260T3G
NRVBS2040LT3G	NA	NRVBS260T3G
NRVBS2040LT3G-VF01	NA	NRVBS260T3G
NRVBS230LT3G	NA	NRVBS260T3G
NRVBS240LT3G	NA	NRVBS260T3G
NRVBS240LT3G-VF01	NA	NRVBS260T3G
NRVBS260T3G	NA	NRVBS260T3G
NRVBS260T3G-VF01	NA	NRVBS260T3G
NRVBS360BT3G	NA	NRVBS260T3G
NRVBS360BT3G-VF01	NA	NRVBS260T3G
NRVBS24T3G	NA	NRVBS260T3G
NRVBS24T3G-VF01	NA	NRVBS260T3G
NRVBS26T3G	NA	NRVBS260T3G
NRVBS26T3G-VF01	NA	NRVBS260T3G
SBR5641T3G	NA	NRVBS260T3G
SBR5641T3G-VF01	NA	NRVBS260T3G



SBRS8120T3G	NA	NRVBS260T3G
SBRS8120T3G-VF01	NA	NRVBS260T3G
SBRS8130LT3G	NA	NRVBS260T3G
SBRS8130LT3G-VF01	NA	NRVBS260T3G
SBRS8140T3G	NA	NRVBS260T3G
SBRS8140T3G-VF01	NA	NRVBS260T3G
SNRVBS260T3G	NA	NRVBS260T3G
SNRVBS24T3G	NA	NRVBS260T3G
NBRS2H100T3G	NA	NRVBS3200T3G
NBRS2H100T3G-VF01	NA	NRVBS3200T3G
NRVBS3200T3G	NA	NRVBS3200T3G
NRVBS3200T3G-VF01	NA	NRVBS3200T3G
SBRS81100T3G	NA	NRVBS3200T3G
SBRS81100T3G-VF01	NA	NRVBS3200T3G
SBRS8190T3G	NA	NRVBS3200T3G
SBRS8190T3G-VF01	NA	NRVBS3200T3G
SNBRS2H100T3G	NA	NRVBS3200T3G

**NOTE:**

Please be informed that there are Customer Specific parts impacted by this notice, thus MPN & CPN info will not be reflected in the parts list of this Generic document. Instead please click the link to the addendum copy provided in the email notification to see full list of affected products specific to your company.

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。



## 最終製品/プロセス変更通知

文書番号:FPCN22417Z

発行日: 23 August 2018

変更の件名:	SMA および SMB パッケージのショットキー整流器に対するフラットボトムディンプルクリップの認定										
変更後の材料の初回出荷予定日:	23 August 2019										
現在の材料の最終注文日:	NA 現在の材料の最終注文日より後の注文は、この PCN に記載されている変更後の新しい材料の注文であるとみなされます。この日付より後の現在 (変更前) の材料の注文は、相互契約に従い、変更前の材料の在庫状況に応じて履行されます。										
現在の材料の最終出荷日:	NA 現在 (変更前) の材料の最終出荷日は、現在の材料の製造および在庫の状況によって変更されることがあります。										
製品カテゴリ:	アクティブなコンポーネント - 個別コンポーネント										
連絡先情報:	現地のオン・セミコンダクター営業所または <MohdNazirul.MohdRadzuan@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に注文するか、または <PCN.samples@onsemi.com> にご連絡ください。サンプルは、この変更通知の発行から 45 日以内に要求してください。										
サンプル提供開始日:	24 September 2018										
PPAP 開始日:	24 September 2018										
その他の信頼性データ:	現地のオン・セミコンダクター営業所または <MohdAzizi.Azman@onsemi.com> にお問い合わせください。										
通知の種類:	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 12 か月前に発行されます (お客様からの承認が得られた場合、変更は前倒しで実施されることがあります)。 オン・セミコンダクターは、この通知の送付から 45 日以内に書面による問い合わせが行われたい限り、この変更希望およびその条件が受諾されたものとみなします。お問い合わせは、PCN.Support@onsemi.com をお願いします。										
変更カテゴリ	<b>変更の種類</b>										
処理 - アセンブリ	リードフレーム寸法の変更										
説明および目的:	<p>本最終製品変更通知 (FPCN) はオン・セミコンダクターが、SMA および SMB パッケージの車載向けショットキー整流器製品においてフラットボトムディンプルクリップを認定することをお知らせします。これらの製品はオン・セミコンダクターセレンバンまたはオン・セミコンダクターベトナムのいずれかから供給されます。発注部品番号は変わりません。</p> <p>本 FPCN の実施後、顧客は以下のような新しいクリップデザインの部品を受け取ります。</p> <table border="1" data-bbox="121 1591 1510 1732"> <thead> <tr> <th></th> <th>変更前の表記</th> <th>変更後の表記</th> </tr> </thead> <tbody> <tr> <td>クリップ厚</td> <td>12 mils</td> <td>8 mils</td> </tr> <tr> <td>クリップボトムディンプル形状</td> <td>円形ボトムディンプル形状</td> <td>フラットボトムディンプル形状</td> </tr> </tbody> </table>			変更前の表記	変更後の表記	クリップ厚	12 mils	8 mils	クリップボトムディンプル形状	円形ボトムディンプル形状	フラットボトムディンプル形状
	変更前の表記	変更後の表記									
クリップ厚	12 mils	8 mils									
クリップボトムディンプル形状	円形ボトムディンプル形状	フラットボトムディンプル形状									
	今回の変更に伴う材質変更はありません。今回の変更に伴う製品表示の変更はありません。										
変更の理由/動機:	<ul style="list-style-type: none"> <li>- 製品パッケージの堅牢性向上のため</li> <li>- 新クリップデザインでの顧客への継続的製品供給を保证するため</li> </ul>										



<b>適合性、形状、機能、信頼性、製品安全性、または製造可能性に関して見込まれる影響</b>	デバイスと同じ製品仕様に基づいて認定および検証されています。デバイスは品質検査に合格しています。潜在的な影響が確認される可能性があります。オン・セミコンダクターが PCN に関して実施する試験により、関連するリスクが検証および排除されます。  見込まれる影響はありません。	
<b>影響を受ける拠点:</b>	オン・セミコンダクター拠点: オン セレンバン (マレーシア) オン ドンナイ省 (ベトナム)	外部ファウンドリまたは下請け業者拠点: なし
<b>部品の表示 / 変更のトレーサビリティ:</b>	今回の変更に伴う捺印変更はありません。変更品はデータコードで識別されます。要求に応じ切り替え時のデータコードを通知します。	

**信頼性データの要約:**

QV 素子名: NRVBA130LT3G  
パッケージ: SMA 鉛フリー

試験	仕様	条件	間隔	結果
HTRB	JESD22-A108	Ta=Tj max°C, 100% max rated V	1008 hrs	0/231
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc	0/231
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/231
H3TRB	JESD22-A101	85°C, 85% RH, 80% rated bias	1008 hrs	0/231
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/924
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90
SD	JSTD002	Ta = 245C, 10 sec		0/45

QV 素子名: NRVBS260T3G  
パッケージ: SMB 37MIL 鉛フリー

試験	仕様	条件	間隔	結果
HTRB	JESD22-A108	Ta=Tj max°C, 100% max rated V	1008 hrs	0/231
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/231
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc	0/231
TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc	0/231
H3TRB	JESD22-A101	85°C, 85% RH, 80% rated bias	1008 hrs	0/231
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/924
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90
SD	JSTD002	Ta = 245C, 10 sec		0/45





QV 素子名: NRVBS3200T3G

パッケージ: SMB 37MIL 鉛フリー

試験	仕様	条件	間隔	結果
HTRB	JESD22-A108	Ta=Tj max°C, 100% max rated V	1008 hrs	0/231
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/231
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc	0/231
TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc	0/231
H3TRB	JESD22-A101	85°C, 85% RH, 80% rated bias	1008 hrs	0/231
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PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/924
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90
SD	JSTD002	Ta = 245C, 10 sec		0/45

注: AEC 1 ページャーおよび ZVEI を添付しています。添付文書を見るには、

1. ご使用のコンピューターにPDF版のPCNをダウンロードします。
2. ダウンロードしたPDF版のPCNを開きます。
3. 画面の左側/下部にあるメニューでペーパークリップアイコンをクリックして、添付ファイルフィールドを表示します。
4. 添付ファイルをクリックします。

#### 電気特性の要約:

電気特性への影響はありません。



## 影響を受ける部品の一覧:

現在の部品番号	新部品番号	品質試験用ピークル
NRVBA120ET3G-VF01	NA	NRVBA130LT3G
NRVBA130LT3G	NA	NRVBA130LT3G
NRVBA140T3G-VF01	NA	NRVBA130LT3G
NRVBA160T3G	NA	NRVBA130LT3G
NRVBA320T3G	NA	NRVBA130LT3G
NRVBA320T3G-VF01	NA	NRVBA130LT3G
SBRA401T3G	NA	NRVBA130LT3G
SBRA401T3G-VF01	NA	NRVBA130LT3G
SNRVBA130LT3G	NA	NRVBA130LT3G
NRVBA120ET3G	NA	NRVBA130LT3G
NRVBA130LT3G-VF01	NA	NRVBA130LT3G
NRVBA140T3G	NA	NRVBA130LT3G
NRVBA160T3G-VF01	NA	NRVBA130LT3G
NRVBA1H100T3G	NA	NRVBA130LT3G
NRVBA1H100T3G-VF01	NA	NRVBA130LT3G
SBRA8160T3G	NA	NRVBA130LT3G
SBRA8160T3G-VF01	NA	NRVBA130LT3G
NRVBS130T3G	NA	NRVBS260T3G
NRVBS230LT3G-VF01	NA	NRVBS260T3G
NRVBS130T3G-VF01	NA	NRVBS260T3G
NRVBS2040LT3G	NA	NRVBS260T3G
NRVBS2040LT3G-VF01	NA	NRVBS260T3G
NRVBS230LT3G	NA	NRVBS260T3G
NRVBS240LT3G	NA	NRVBS260T3G
NRVBS240LT3G-VF01	NA	NRVBS260T3G
NRVBS260T3G	NA	NRVBS260T3G
NRVBS260T3G-VF01	NA	NRVBS260T3G
NRVBS360BT3G	NA	NRVBS260T3G
NRVBS360BT3G-VF01	NA	NRVBS260T3G
NRVBS24T3G	NA	NRVBS260T3G
NRVBS24T3G-VF01	NA	NRVBS260T3G
NRVBS26T3G	NA	NRVBS260T3G
NRVBS26T3G-VF01	NA	NRVBS260T3G
SBRS5641T3G	NA	NRVBS260T3G



## 最終製品/プロセス変更通知

文書番号:FPCN22417Z

発行日: 23 August 2018

SBRS5641T3G-VF01	NA	NRVBS260T3G
SBRS8120T3G	NA	NRVBS260T3G
SBRS8120T3G-VF01	NA	NRVBS260T3G
SBRS8130LT3G	NA	NRVBS260T3G
SBRS8130LT3G-VF01	NA	NRVBS260T3G
SBRS8140T3G	NA	NRVBS260T3G
SBRS8140T3G-VF01	NA	NRVBS260T3G
SNRVBS260T3G	NA	NRVBS260T3G
SNRVBS24T3G	NA	NRVBS260T3G
NBRS2H100T3G	NA	NRVBS3200T3G
NBRS2H100T3G-VF01	NA	NRVBS3200T3G
NRVBS3200T3G	NA	NRVBS3200T3G
NRVBS3200T3G-VF01	NA	NRVBS3200T3G
SBRS81100T3G	NA	NRVBS3200T3G
SBRS81100T3G-VF01	NA	NRVBS3200T3G
SBRS8190T3G	NA	NRVBS3200T3G
SBRS8190T3G-VF01	NA	NRVBS3200T3G
SNBRS2H100T3G	NA	NRVBS3200T3G

## 注:

本通知により影響を受ける顧客特定部品があり、よってMPNおよびCPN情報は本一般文書の部品リストに反映していないことにご留意ください。代わりに、特に御社に影響する製品の全リストを見るためには電子メール通知で提供される補遺コピーへのリンクをクリックしてください。

**Appendix A: Changed Products**

Product	Customer Part Number	New Part Number	Qualification Vehicle
NBRS2H100T3G		NA	NRVBS3200T3G
NBRS2H100T3G-VF01		NA	NRVBS3200T3G
NRVBA120ET3G		NA	NRVBA130LT3G
NRVBA120ET3G-VF01		NA	NRVBA130LT3G
NRVBA130LT3G		NA	NRVBA130LT3G
NRVBA130LT3G-VF01		NA	NRVBA130LT3G
NRVBA140T3G		NA	NRVBA130LT3G
NRVBA140T3G-VF01		NA	NRVBA130LT3G
NRVBA160T3G		NA	NRVBA130LT3G
NRVBA160T3G-VF01		NA	NRVBA130LT3G
NRVBA1H100T3G		NA	NRVBA130LT3G
NRVBA1H100T3G-VF01		NA	NRVBA130LT3G
NRVBA320T3G		NA	NRVBA130LT3G
NRVBA320T3G-VF01		NA	NRVBA130LT3G
NRVBS2040LT3G		NA	NRVBS260T3G
NRVBS230LT3G		NA	NRVBS260T3G
NRVBS230LT3G-VF01		NA	NRVBS260T3G
NRVBS240LT3G		NA	NRVBS260T3G
NRVBS240LT3G-VF01		NA	NRVBS260T3G
NRVBS260T3G		NA	NRVBS260T3G
NRVBS260T3G-VF01		NA	NRVBS260T3G
NRVBS3200T3G		NA	NRVBS3200T3G
NRVBS3200T3G-VF01		NA	NRVBS3200T3G
NRVBS360BT3G		NA	NRVBS260T3G
NRVBS360BT3G-VF01		NA	NRVBS260T3G
NRVBS24T3G		NA	NRVBS260T3G
NRVBS24T3G-VF01		NA	NRVBS260T3G
NRVBS26T3G		NA	NRVBS260T3G
NRVBS26T3G-VF01		NA	NRVBS260T3G
SBRA401T3G		NA	NRVBA130LT3G
SBRA401T3G-VF01		NA	NRVBA130LT3G
SBRA8160T3G		NA	NRVBA130LT3G
SBRS5641T3G		NA	NRVBS260T3G
SBRS5654T3G		NA	NRVBS260T3G
SBRS81100T3G		NA	NRVBS3200T3G
SBRS8120T3G		NA	NRVBS260T3G
SBRS8130LT3G		NA	NRVBS260T3G
SBRS8140T3G		NA	NRVBS260T3G
SBRS8140T3G-VF01		NA	NRVBS260T3G
SBRS8190T3G		NA	NRVBS3200T3G