

Title of Change:	Bare Copper Clip qualification for Zener SMA/SMB packages - OSV						
Proposed Changed Material First Ship Date:	07 Dec 2023 or earlier if approved by customer						
Current Material Last Order Date:	N/A <i>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.</i>						
Current Material Last Delivery Date:	N/A <i>The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory</i>						
Product Category:	Active components – Discrete components						
Contact information:	Contact your local onsemi Sales Office or TP.Phung@onsemi.com						
PCN Samples Contact:	Contact your local onsemi Sales Office to place sample order. 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:	30 July 2023						
PPAP Availability Date:	29 June 2023						
Additional Reliability Data:	Contact your local onsemi Sales Office or Khoa.Tran2@onsemi.com						
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						
Process - Assembly	Change of lead frame finishing material / area (internal)						
Description and Purpose:							
This Final Product Change Notification (FPCN) is to announce the qualification of Bare Copper Clip for Zener SMA/SMB packages in OSV.							
<table border="1"> <thead> <tr> <th></th><th>From</th><th>To</th></tr> </thead> <tbody> <tr> <td>Clip</td><td>Ni plated copper clip</td><td>Bare copper clip</td></tr> </tbody> </table>			From	To	Clip	Ni plated copper clip	Bare copper clip
	From	To					
Clip	Ni plated copper clip	Bare copper clip					
There is no product marking change as a result of this change.							
Reason / Motivation for Change:	Process/Materials Change						
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	
onsemi Vietnam			None	
Marking of Parts/ Traceability of Change:		Affected parts with this change will be identified by the date code.		
Reliability Data Summary:				
QV DEVICE NAME: SZ1SMA5924BT3G				
RMS: 83412, 85474				
PACKAGE: SMA				
Test	Specification	Condition	Interval	Result
HTSL	JESD22-A103	Ta = 150 °C	1008 hrs	0/231
SSOP	AEC-Q101, Mil-Std-750 M1038 Cond B	Rated IZmax, Tj=150C.	1008 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/924
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, deltaTj = 100°C max, Ton = Toff = 2min	15000 cyc	0/231
TC	JESD22-A104	Ta = -55°C to +150°C	1000 cyc	0/231
H3TRB	JESD22-A101	Ta = 85°C, RH = 85%, bias = 80% of rated V	1008 hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/90
SD	JSTD002	Ta = 245°C, 10 sec		0/45
QV DEVICE NAME: SZ1SMB5924BT3G				
RMS: 84079, 85475				
PACKAGE: SMB				
Test	Specification	Condition	Interval	Result
HTSL	JESD22-A103	Ta = 150 °C	1008 hrs	0/231
SSOP	AEC-Q101, Mil-Std-750 M1038 Cond B	Rated IZmax, Tj=150C.	1008 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/924
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, deltaTj = 100°C max, Ton = Toff = 2min	15000 cyc	0/231
TC	JESD22-A104	Ta = -55°C to +150°C	1000 cyc	0/231
H3TRB	JESD22-A101	Ta = 85°C, RH = 85%, bias = 80% of rated V	1008 hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/90
SD	JSTD002	Ta = 245°C, 10 sec		0/45

QV DEVICE NAME: SZ1SMA5945BT3G

RMS: 86596, 86574

PACKAGE: SMA

Test	Specification	Condition	Interval	Result
HTSL	JESD22-A103	Ta = 150 °C	1008 hrs	0/231
SSOP	AEC-Q101, Mil-Std-750 M1038 Cond B	Rated IZmax, Tj=150C.	1008 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/924
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, deltaTj = 100°C max, Ton = Toff = 2min	15000 cyc	0/231
TC	JESD22-A104	Ta = -55°C to +150°C	1000 cyc	0/231
H3TRB	JESD22-A101	Ta = 85°C, RH = 85%, bias = 80% of rated V	1008 hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/90
SD	JSTD002	Ta = 245°C, 10 sec		0/45

QV DEVICE NAME: SZ1SMB5956BT3G

RMS: 86597, 86575

PACKAGE: SMB

Test	Specification	Condition	Interval	Result
HTSL	JESD22-A103	Ta = 150 °C	1008 hrs	0/231
SSOP	AEC-Q101, Mil-Std-750 M1038 Cond B	Rated IZmax, Tj=150C.	1008 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/924
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, deltaTj = 100°C max, Ton = Toff = 2min	15000 cyc	0/231
TC	JESD22-A104	Ta = -55°C to +150°C	1000 cyc	0/231
H3TRB	JESD22-A101	Ta = 85°C, RH = 85%, bias = 100V	1008 hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/90
SD	JSTD002	Ta = 245°C, 10 sec		0/45

Note AEC-1pager is 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.



Final Product/Process Change Notification

Document #: FPCN25010Z

Issue Date: 01 Jun 2023

Electrical Characteristics Summary:

Electrical characteristics summary available upon request.

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
SZ1SMA5913BT3G	NA	SZ1SMA5924BT3G
SZ1SMA5914BT3G	NA	SZ1SMA5924BT3G
SZ1SMA5915BT3G	NA	SZ1SMA5924BT3G
SZ1SMA5916BT3G	NA	SZ1SMA5924BT3G
SZ1SMA5917BT3G	NA	SZ1SMA5924BT3G
SZ1SMA5919BT3G	NA	SZ1SMA5924BT3G
SZ1SMA5920BT3G	NA	SZ1SMA5924BT3G
SZ1SMA5921BT3G	NA	SZ1SMA5924BT3G
SZ1SMA5922BT3G	NA	SZ1SMA5924BT3G
SZ1SMA5923BT3G	NA	SZ1SMA5924BT3G
SZ1SMA5924BT3G	NA	SZ1SMA5924BT3G
SZ1SMA5925BT3G	NA	SZ1SMA5945BT3G
SZ1SMA5926BT3G	NA	SZ1SMA5945BT3G
S1Z1SMB5919BT3G	NA	SZ1SMB5924BT3G
SZ1SMB5913BT3G	NA	SZ1SMB5924BT3G
SZ1SMB5914BT3G	NA	SZ1SMB5924BT3G
SZ1SMB5915BT3G	NA	SZ1SMB5924BT3G
SZ1SMB5916BT3G	NA	SZ1SMB5924BT3G
SZ1SMB5917BT3G	NA	SZ1SMB5924BT3G
SZ1SMB5918BT3G	NA	SZ1SMB5924BT3G
SZ1SMB5919BT3G	NA	SZ1SMB5924BT3G
SZ1SMB5920BT3G	NA	SZ1SMB5924BT3G
SZ1SMB5921BT3G	NA	SZ1SMB5924BT3G
SZ1SMB5922BT3G	NA	SZ1SMB5924BT3G
SZ1SMB5923BT3G	NA	SZ1SMB5924BT3G
SZ1SMB5925BT3G	NA	SZ1SMB5956BT3G
SZ1SMA5918BT3G	NA	SZ1SMA5924BT3G