



Title of Change:	Au to Cu wire conversion for Zener Diode assembled in TSOP6 and SC88 package in ON Semiconductor Seremban facility.	
Proposed Changed Material First Ship Date:	28 Dec 2021 or earlier if approved by customer	
Current Material Last Order Date:	04 Jun 2021 <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:	27 Dec 2021 <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 ON Semiconductor Sales Office or JianHao.See@onsemi.com	
PCN Samples Contact:	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. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.	
Sample Availability Date:	01 Jan 2021	
PPAP Availability Date:	01 Feb 2021	
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or MohdAzizi.Azman@onsemi.com	
Type of Notification:	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 .	
Change Category		
Category	Type of Change	
Process - Assembly	Change of direct material supplier, Change of lead frame finishing material / area (internal), Change of wire bonding	
Description and Purpose:		
<p>Upon the expiration of this PCN, these devices will be built with copper wire at the same site for TSOP6 and SC88 package design. For SC88 package, device will be build with SC88 Ag stripe leadframe. Other BOM remain unchanged.</p> <p>Datasheet specifications and product electrical performance remain unchanged.</p> <p>Reliability qualification and full electrical characterization over temperature has been completed.</p> <p>The copper wire is with higher thermal conductivity and lower resistivity which benefits for customer application.</p>		
	Before Change Description	After Change Description
Bond Wire	TSOP 6 Package 1.3 mils Tanaka Gold Wire	TSOP 6 Package 1.3 mils Heraeus Bare Cu Wire
	TSOP 6 Package 0.8 mils Tanaka Gold Wire	TSOP 6 Package 0.8 mils Tanaka Bare Cu Wire
	SC88 Package 0.8 mils Tanaka Gold Wire	SC88 Package 0.8 mils Tanaka Bare Cu Wire
Leadframe	SC88 Cu plated leadframe	SC88 Ag stripe leadframe

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 ON Semiconductor in relation to the PCN, associated risks are verified and excluded. No anticipated impacts.			
Sites Affected:				
ON Semiconductor Sites			External Foundry/Subcon Sites	
ON Semiconductor Seremban, Malaysia			None	
Marking of Parts/ Traceability of Change:	Parts assembled with Cu Wire will have a Date Code of WW01,2022 or later			
Reliability Data Summary:				
QV DEVICE NAME : SZTVS4201MR6T1G (1.3mil wire)				
RMS: S63633				
PACKAGE: TSOP6 EPOXY				
Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs	0/231
HTSL	JESD22-A103	Ta=150°C	2016 hrs	0/231
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	30000 cyc	0/231
TC	JESD22-A104	Ta= -55°C to +150°C, mount on board	1000 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, 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, 5 sec		0/45
QV DEVICE NAME : SZSMS24CT1G (0.8mil wire)				
RMS: S63650				
PACKAGE: TSOP6 EPOXY				
Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs	0/231
HTSL	JESD22-A103	Ta=150°C	2016 hrs	0/231
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	30000 cyc	0/231
TC	JESD22-A104	Ta= -55°C to +150°C, mount on board	1000 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/924
RSH	JESD22- B106	Ta = 265C, 10 sec		0/231
SD	JSTD002	Ta = 245C, 5 sec		0/231



QV DEVICE NAME : SZSMF12CT1G (0.8mil wire & SC88 Ag strip leadframe)

RMS: S66441

PACKAGE: SC-88 6 EPOXY

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs	0/231
HTSL	JESD22-A103	Ta=150°C	2016 hrs	0/231
TC	JESD22-A104	Ta= -55°C to +150°C, mount on board	1000 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/693
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90
SD	JSTD002	Ta = 245C, 5 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.

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](#).

Current Part Number	New Part Number	Qualification Vehicle
SZTVS4201MR6T1G	SZTVS4201MR6T1G	SZTVS4201MR6T1G
SZNSP4201MR6T1G	SZNSP4201MR6T1G	SZTVS4201MR6T1G
SZSMF12CT1G	SZSMF12CT1G	SZSMF12CT1G
SZSMF05CT1G	SZSMF05CT1G	SZSMF12CT1G
SZSMF05CT2G	SZSMF05CT2G	SZSMF12CT1G
SZSMS24CT1G	SZSMS24CT1G	SZSMS24CT1G



Appendix A: Changed Products

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
SZTVS4201MR6T1G		SZTVS4201MR6T1G	SZTVS4201MR6T1G	
SZSMF12CT1G		SZSMF12CT1G	SZSMF12CT1G	