ON Semiconductor®

Final Product/Process Change Notification

Document # : FPCN22075Z
Issue Date: 6 December 2017

Title of Change:	Gold wire to bare copper wire conversion for Zener devices assembled in ON Semiconductor Leshan facility.
Proposed Changed Material First Ship Date:	6 December 2018
Current Material Last Order Date:	4 December 2018 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.
Current Material Last Delivery Date:	4 December 2018 The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory.
Product Category:	Active components – Discrete components
Contact information:	Contact your local ON Semiconductor Sales Office or <Jim.Peng@onsemi.com>
Samples:	Contact your local ON Semiconductor Sales Office to place sample order. Sample requests are to be submitted no later than 45 days after publication of this change notification.
Sample Availability Date:	19 January 2018
PPAP Availability Date:	19 January 2018
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <Rui.Zhang@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:	**Type of Change**
Process – Assembly	Change of wire bonding

Description and Purpose:

Upon the expiration of this PCN, these devices will be built with 0.8mils bare copper wire at the same site. Datasheet specifications and product electrical performance remain unchanged. Reliability qualification and full electrical characterization over temperature has been performed.

Material to be change	Before Change Description	After Change Description
Wire	0.8 mils gold wire	0.8 mils bare copper wire

Reason / Motivation for Change:	**Change benefits for customer**: Copper wire is with higher Thermal conductivity and lower resistivity. **Risk for late release for customer**: Longer lead time due to limited flexibility in terms of manufacturing and capacity planning.

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: ON Leshan, China	External Foundry/Subcon Sites: None
Marking of Parts/ Traceability of Change:	Products assembled with 0.8mils bare copper wire from ON Semiconductor Leshan facility will have a Finish Goods Date Code of WW50, 2018 or later.	

Reliability Data Summary:

Qual Vehicle Device: SZMMBZ5270BLT1G

Test	Specification	Condition	Interval	Results
PC	JESD22-A113	MSL 1 @ 260 °C	Before TC, UHAST, HAST, IOL	0/231
UHAST	JESD22 A118	Ta=130C, 85% RH, no bias, 96 hrs	96 hrs	0/231
TC	JESD22-A104	Ta= - 65°C to +150°C	2000 cyc	0/231
HAST	JESD22 A110	130C/85%RH, 80% rated V or 42V max, 192 hours.	192 hrs	0/231
IOL	MIL-STD-750 (M1037)	Ta=+25°C, delta Tj=100°C, On/off = 2 min	30000 cyc	0/231
HTRB	MIL-STD750-1	Tj= max, V=100% rated V, 1008 Hrs	1008 hrs	0/231
HTSL	JEDS22- A103	Temp.=150°C,no bias,2016hours	2016 hrs	0/231
RSH	JESD22- B106	Ta = 265C, 10 sec	-	0/30
SSOP	MIL STD750, M 1038 AEC Q101	IZ max, TA to rated TJ,	1008hrs	0/231

Note: AEC-1pager is attached.

To access file attachments on pdf copy of PCN, please be guided by the steps below:

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:

Three temperature characterization and ESD performance meet datasheet specification. Detail of electrical characterization result is available upon request.

Electrical characteristics are not impacted.

List of Affected Parts:

Current Part Number	Qualification Vehicle
SZMM5Z4V7ST5G	SZMMBZ5270BLT1G
SZMM5Z5V6T1G	
SZMM5Z5V1T1G	
SZMM5Z5V6ST1G	
SZMM5Z3V3T1G	
SZMM3Z6V2T1G	
SZMM5Z3V0T1G	
SZMM3Z4V3T1G	
SZMM3Z3V6T1G	
SZMM5Z4V7ST1G	
SZMM5Z6V2ST1G	
SZMM5Z6V8ST1G	
SZMM5Z6V8T1G	
SZMM5Z7V5T1G	
SZMM5Z8V2ST1G	
SZMM5Z8V2T1G	

Appendix A: Changed Products

Product	Customer Part Number	New Part Number	Qualification Vehicle
SZMM3Z3V6T1G		NA	SZMMBZ5270BLT1G
SZMM3Z4V3T1G		NA	SZMMBZ5270BLT1G
SZMM3Z6V2T1G		NA	SZMMBZ5270BLT1G
SZMM5Z3V0T1G		NA	SZMMBZ5270BLT1G
SZMM5Z3V3T1G		NA	SZMMBZ5270BLT1G
SZMM5Z4V7ST1G		NA	SZMMBZ5270BLT1G
SZMM5Z4V7ST5G		NA	SZMMBZ5270BLT1G
SZMM5Z5V1T1G		NA	SZMMBZ5270BLT1G
SZMM5Z5V6ST1G		NA	SZMMBZ5270BLT1G
SZMM5Z5V6T1G		NA	SZMMBZ5270BLT1G
SZMM5Z6V2ST1G		NA	SZMMBZ5270BLT1G
SZMM5Z6V8ST1G		NA	SZMMBZ5270BLT1G
SZMM5Z6V8T1G		NA	SZMMBZ5270BLT1G
SZMM5Z7V5T1G		NA	SZMMBZ5270BLT1G
SZMM5Z8V2ST1G		NA	SZMMBZ5270BLT1G
SZMM5Z8V2T1G		NA	SZMMBZ5270BLT1G