Final Product/Process Change Notification

Document #:FPCN25258ZA
Issue Date:27 Jul 2023

Title of Change:	Replace Gold Wire with bare Copper Wire and change Lead frame inner plating from silver plated to Copper plated, for Products in onsemi Leshan, China
Proposed Changed Material First Ship Date:	05 Feb 2024 or earlier if approved by customer
Current Material Last Order Date:	N/A *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:	N/A *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 onsemi Sales Office or York.Yu@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:	18 Aug 2023
PPAP Availability Date:	31 Oct 2023
Additional Reliability Data:	Contact your local onsemi Sales Office or c.l.yang@lps.com.cn
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), Change of wire bonding

Description and Purpose:

onsemi is notifying customers to replace 0.8mil Gold wire with 0.8mil bare Copper Wire, and replace lead frame inner plating material from Silver to Copper, for SC74 package Products assembled at Leshan site, China.

Purpose for changing: Lead frame changing is to unify mass production BOM (Bill Of Material) and copper wire has higher Thermal conductivity and lower Resistivity which indicate better thermal dissipation.

	From	To
LeadFrame	Silver inner plated Lead frame	Copper inner plated Lead frame
Bond Wire	0.8mil Gold wire	0.8mil Bare Copper wire

Reason / Motivation for Change:	Process/Material 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 Leshan, China	None

Marking of Parts/ Traceability of Change:	Traceability will be maintained by date code.

Reliability Data Summary:

QV DEVICE NAME: SZNUD3160DMT1G
RMS#: L89850
PACKAGE: SC74

Test	Specification	Condition	Interval	Results
High Temperature Reverse Bias	JESD22-A108	Ta=150°C, 100% max rated V	2016 hrs	0/231
High Temperature Gate Bias	JESD22-A108	Ta=150°C, 100% max rated Vgss	2016 hrs	0/231
High Temperature Storage Life	JESD22-A103	Ta= 150	2016 hrs	0/231
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260 °C, Pre IOL, TC, uHAST, HAST for surface mount pkgs only		0/924
Intermittent Operating Life	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	30000 cyc	0/231
Temperature Cycling	JESD22-A104	Ta= -65°C to +150°C	1000 cyc	0/231
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs	0/231
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
Resistance to Solder Heat	JESD22- B106	Ta = 265°C, 10 sec Required for through hole devices only		0/30
Solderability	JSTD002	Ta = 245°C, 5 sec		0/ 30

Refer to the attached AEC1 Pager for more details.

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, detail data summary can be provided upon customer requirement.

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
SZNUD3160DMT1G	NA	SZNUD3160DMT1G
SZNUD3124DMT1G	NA	SZNUD3160DMT1G