

Final Product/Process Change Notification Document #:FPCN24789Z Issue Date:29 Sep 2022

| Title of Change: | Au wire to Cu wire conversion for SC-70 Zener product |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Proposed Changed Material First Ship Date: | 07 Apr 2023 or earlier if approved by customer |
| Current Material Last Order Date: | 31 Jan 2023 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: | 06 Apr 2023 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 <u>Jim.Peng@onsemi.com</u> |
| 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: | 20 Nov 2022 |
| PPAP Availability Date: | 31 Oct 2022 |
| Additional Reliability Data: | Contact your local onsemi Sales Office or <u>c.l.yang@lps.com.cn</u> |
| 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 wire bonding |

Description and Purpose:

onsemi is notifying customer of its conversion from Au wire to bare Cu wire for SC-70 Zener product. Upon the expiration of this PCN, devices will be built with bare Cu wire at the same site. Datasheet specifications and product electrical performance remain unchanged. Reliability qualification and full electrical characterization over temperature were performed for qualification vehicle device. The Cu wire is with higher thermal conductivity and lower resistivity that benefits for customer application. This is to unify the wire material in assembly process to improve productivity also.

There is no change in fit, form or functions of the affected parts.

| | From | То |
|-----------|------------------|-----------------------|
| Bond Wire | 0.8 mils Au wire | 0.8 mils bare Cu wire |

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| 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. | | | | |
| ites Aff | ected: | | | | | |
| onsemi S | lites | | External Foundry/Subcon Site | s | | |
| onsemi Leshan, China | | | None | | | |
| Marking of Parts/ Traceability of Date Cod | | Date Code | ate Code | | | |
| | | lG | | | | |
| Test | Specification | Con | dition | Interval | Result | |
| РС | J STD 020 , JESD22-A113 | MSL 1 @ 260 °C | | Before TC, UHAST, HAST | 0/693 | |
| UHAST | JESD22-A118 | Temp = 130C, RH=85%, ~ 18.8 ps | sig | 96 hrs | 0/231 | |
| тс | JESD22-A104 | Ta= - 65°C to +150°C | | 1000 сус | 0/232 | |
| HAST | JESD22-A110 | 110C/85%RH, ~3 psig, 80% rated | V, or 100V max | 528 hrs | 0/23: | |
| HTRB | JESD22-A108 | | = 100% of rated V for Q 101 Rev D | 2016 hrs | 0/232 | |
| HTSL | JEDS22- A103 | Temp =150°C, no bias | | 2016 hrs | 0/232 | |
| RSH | JESD22- B106 | Ta = 265C, 10 sec | | - | 0/30 | |
| 2. Open the 8. Click on 1 9. Then clic | Id pdf copy of the PCN to your c e downloaded pdf copy of the P the paper clip icon available on k on the attached file. I Characteristics Summa | CN the menu provided in the left/bottom | portion of the screen to reveal the Attac | hment field | | |
| ilectrical ist of Al | characteristics are not impa ffected Parts: y the standard (off the shelf | | nts list. Any custom parts affected l stomized Portal. | by this PCN are shown in the | custome | |
| ilectrical ist of Al | characteristics are not impa ffected Parts: y the standard (off the shelf | i) part numbers are listed in the pa | stomized Portal. | by this PCN are shown in the Qualification Vehicle | | |
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| ilectrical ist of Al | characteristics are not impa ffected Parts: y the standard (off the shelf CN addendum in the PCN en Current Part Number SZNUP3125WTT3G SZNUP2125WTT3G | F) part numbers are listed in the pa nail notification, or on the <u>PCN Cus</u> <u>New Part N</u> NA | Stomized Portal. | Qualification Vehicle SZNUP3125WTT1G SZNUP3125WTT1G | | |