



Final Product/Process Change Notification

Document #:FPCN24715ZA

Issue Date:29 Sep 2022

Title of Change:	Replace Gold Wire with bare Copper Wire, and replace Hitachi compound with Hysol compound, for MOSFET Products in onsemi Leshan, China	
Proposed Changed Material First Ship Date:	01 Apr 2023 or earlier if approved by customer	
Current Material Last Order Date:	30 Dec 2022 <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:	31 Mar 2023 <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 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:	10 Oct 2022	
PPAP Availability Date:	30 Dec 2022	
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 mold compound, 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 Hitachi GE-200F to Hysol GR640 HV for mold compound, for their SOT23 and SC88 package Mosfet Products assembled at Leshan site, China.		
Purpose for changing: Copper wire has higher Thermal conductivity and lower Resistivity which indicate better thermal dissipation. And Hysol compound has better fluidity.		
	From	To
Bond Wire	0.8mil Gold wire	0.8mil Bare copper wire
Mold Compound	Hitachi GE-200F	Hysol GR640 HV
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.	



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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.
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Reliability Data Summary:

QV DEVICE NAME: BSS123-G
 RMS#: L83376
 PACKAGE: SOT23

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs	0/231
HTGB	JESD22-A108	Ta=150°C, 100% max rated Vgss	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	30K cyc	0/231
TC	JESD22-A104	Ta= -65°C to +150°C	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	-	
RSH	JESD22- B106	Ta = 265C, 10 sec	-	0/30
SD	JSTD002	Ta = 245C, 5 sec	-	0/30

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
NVTR0202PLT1G	NA	BSS123-G
MVMBF0201NLT1G	NA	BSS123-G

Appendix A: Changed Products**PCN#: FPCN24715ZA**
Issue Date: Sep 29, 2022

DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NVTR0202PLT1G		BSS123-G	NA	
MVMBF0201NLT1G		BSS123-G	NA	