Final Product/Process Change Notification

Document #:FPCN24715XA
Issue Date:15 Mar 2023

Title of Change:	Replace Gold Wire with bare Copper Wire for MOSFET Products in onsemi Leshan, China
Proposed First Ship date:	22 Jun 2023 or earlier if approved by customer
Contact Information:	Contact your local onsemi Sales Office or York.Yu@onsemi.com
PCN Samples Contact:	Contact your local onsemi Sales Office. Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.
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. FPCNs are issued 90 days prior to implementation of the change. onsemi will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact PCN.Support@onsemi.com
Marking of Parts/ Traceability of Change:	Traceability will be maintained by date code.
Change Category:	Assembly Change
Change Sub-Category(s):	Material Change

Sites Affected:

onsemi Sites	**External Foundry/Subcon Sites**
onsemi Leshan, China	None

Description and Purpose:

onsemi is notifying customers to replace 0.8mil or 1.0mil Gold wire with 0.8mil bare Copper Wire, 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.

	From	To
Bond Wire	0.8mil or 1.0mil Gold wire	0.8mil bare copper wire

Reliability Data Summary:

QV DEVICE NAME: 2N7002DW, BSS123-G
RMS#: L83426, L83376
PACKAGE: SC88 & 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

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****.*

Part Number	Qualification Vehicle
BSS84	BSS123-G
NDS0610-G	BSS123-G
NDS0605	BSS123-G
FDV305N	BSS123-G
FDG6304P	2N7002DW
FDG6306P	2N7002DW
FDG6316P	2N7002DW
FDG6335N	2N7002DW
FDG6332C	2N7002DW
FDG6322C	2N7002DW
FDG6321C	2N7002DW
FDG6317NZ	2N7002DW

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Appendix A: Changed Products

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DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
BSS84		BSS123-G	NA	
NDS0605		BSS123-G	NA	
FDV305N		BSS123-G	NA	
FDG6304P		2N7002DW	NA	
FDG6306P		2N7002DW	NA	
FDG6316P		2N7002DW	NA	
FDG6335N		2N7002DW	NA	
FDG6332C		2N7002DW	NA	
FDG6322C		2N7002DW	NA	
FDG6321C		2N7002DW	NA	
FDG6317NZ		2N7002DW	NA	
NDS0610-G		BSS123-G	NA	