



Title of Change:	Gold wire to bare copper wire conversion for transistor & diode devices assembled in ON Semiconductor Leshan facility.	
Proposed first ship date:	29 March 2019	
Contact information:	Contact your local ON Semiconductor Sales Office or <Andy.Tao@onsemi.com>	
Samples:	Contact your local ON Semiconductor Sales Office or <PCN.samples@onsemi.com> 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.	
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 90 days prior to implementation of the change. ON Semiconductor 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>	
Change Part Identification:	Products assembled with 0.8 mils bare copper wire from ON Semiconductor Leshan facility will have a Finish Goods Date Code of WW11, 2019 or later.	
Change Category:	<input type="checkbox"/> Wafer Fab Change <input checked="" type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input type="checkbox"/> Other _____	
Change Sub-Category(s):	<input type="checkbox"/> Manufacturing Site Addition <input checked="" type="checkbox"/> Material Change <input type="checkbox"/> Datasheet/Product Doc change <input type="checkbox"/> Manufacturing Site Transfer <input type="checkbox"/> Product specific change <input type="checkbox"/> Shipping/Packaging/Marking <input type="checkbox"/> Manufacturing Process Change <input type="checkbox"/> Other: _____	
Sites Affected:	ON Semiconductor Sites: ON Leshan, China	External Foundry/Subcon Sites: None
Description and Purpose:		
This is the Final Product Notification to announce the plan to qualify 0.8 mils bare copper wire on selected devices. The copper wire is with higher thermal conductivity and lower resistivity which benefits for customer application. This is to unify the wire material in bonding process also. There is no change in the fit, form or functions of the affected OPNs.		
	Before Change Description	After Change Description
Bond Wire	0.8 mils gold wire	0.8 mils bare copper wire



Reliability Data Summary:

QV DEVICE NAME: DAN222M3T5G

PACKAGE: SOT723

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	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	2000 cyc	0/231
H3TRB	JESD22-A101	85°C, 85% RH, 80% rated V or 100V max	2016 hrs	0/231
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	-	0/924
RSH	JESD22- B106	Ta = 265°C, 10 sec	-	0/30
SD	JSTD002	Ta = 245°C, 10 sec	-	0/30

QV DEVICE NAME: MMBTA42LT1G

PACKAGE: SOT23

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	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	2000 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, 80% rated V, or 100V max	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 = 265°C, 10 sec		0/30
SD	JSTD002	Ta = 245°C, 10 sec		0/30



QV DEVICE NAME: SBAS16XV2T1G

PACKAGE: SOD523

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	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	2000 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, 80% rated V, or 100V max	192 hrs	0/231
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	-	0/924
RSH	JESD22- B106	Ta = 265°C, 10 sec	-	0/30
SD	JSTD002	Ta = 245°C, 10 sec	-	0/30

QV DEVICE NAME: NSR0115CQP6T5G

PACKAGE: SOT963

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	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	2000 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, 80% rated V, or 100V max	192 hrs	0/231
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	-	0/924
RSH	JESD22- B106	Ta = 265°C, 10 sec	-	0/30
SD	JSTD002	Ta = 245°C, 10 sec	-	0/30



QV DEVICE NAME: SVMBD770DW1T1G

PACKAGE: SC88

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	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	2000 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, 80% rated V, or 100V max	192 hrs	0/231
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	-	0/924
RSH	JESD22- B106	Ta = 265°C, 10 sec	-	0/30
SD	JSTD002	Ta = 245°C, 10 sec	-	0/30

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:

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
DAN222M3T5G	DAN222M3T5G
MBD330DWT1G	NSVMBD770DW1T1G
MBD770DWT1G	NSVMBD770DW1T1G
RB751S40T1G	SBAS16XV2T1G
RB751S40T5G	SBAS16XV2T1G
NSR0115CQP6T5G	NSR0115CQP6T5G
MSB92WT1G	MMBTA42LT1G
MSB92ASWT1G	MMBTA42LT1G
MSB92AWT1G	MMBTA42LT1G
MMBT6520LT1G	MMBTA42LT1G
MSB92AS1WT1G	MMBTA42LT1G

Japanese translation of the notification starts here.
通知の日本語訳はここから始まります。

Note: The Japanese version is for reference only. In case of any differences between the English and Japanese version, the English version shall control.

注：日本語版は参照用です。英語版と日本語版の違いがある場合は、英語版が優先されます。



信頼性データの要約:

QV 素子名: DAN222M3T5G

パッケージ: SOT723

テスト	仕様	条件	間隔	結果
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	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	2000 cyc	0/231
H3TRB	JESD22-A101	85°C, 85% RH, 80% rated V or 100V max	2016 hrs	0/231
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	-	0/924
RSH	JESD22- B106	Ta = 265°C, 10 sec	-	0/30
SD	JSTD002	Ta = 245°C, 10 sec	-	0/30

QV 素子名: MMBTA42LT1G

パッケージ: SOT23

テスト	仕様	条件	間隔	結果
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	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	2000 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, 80% rated V, or 100V max	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 = 265°C, 10 sec		0/30
SD	JSTD002	Ta = 245°C, 10 sec		0/30



QV 素子名 : SBAS16XV2T1G

パッケージ : SOD523

テスト	仕様	条件	間隔	結果
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	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	2000 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, 80% rated V, or 100V max	192 hrs	0/231
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	-	0/924
RSH	JESD22- B106	Ta = 265°C, 10 sec	-	0/30
SD	JSTD002	Ta = 245°C, 10 sec	-	0/30

QV 素子名 : NSR0115CQP6T5G

パッケージ : SOT963

テスト	仕様	条件	間隔	結果
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	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	2000 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, 80% rated V, or 100V max	192 hrs	0/231
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	-	0/924
RSH	JESD22- B106	Ta = 265°C, 10 sec	-	0/30
SD	JSTD002	Ta = 245°C, 10 sec	-	0/30



QV 素子名: SVMBD770DW1T1G

パッケージ: SC88

テスト	仕様	条件	間隔	結果
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	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	2000 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, 80% rated V, or 100V max	192 hrs	0/231
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	-	0/924
RSH	JESD22- B106	Ta = 265°C, 10 sec	-	0/30
SD	JSTD002	Ta = 245°C, 10 sec	-	0/30

電気特性の要約:

3点での温度評価およびESD試験結果はデータシートの仕様を満たしています。電気的特性評価結果の詳細は、ご要求により提供いたします。

電気的特性への影響はありません。

影響を受ける部品一覧:

注: 部品一覧には標準部品番号(既製品)のみが記載されています。本 PCN の影響を受けるカスタム部品番号は、PCN メールで提供される顧客個別の付録、または [PCN カスタマイズポータル](#) に記載されています。

部品番号	認定試験用ピークル
DAN222M3T5G	DAN222M3T5G
MBD330DWT1G	NSVMBD770DW1T1G
MBD770DWT1G	NSVMBD770DW1T1G
RB751S40T1G	SBAS16XV2T1G
RB751S40T5G	SBAS16XV2T1G
NSR0115CQP6T5G	NSR0115CQP6T5G
MSB92WT1G	MMBTA42LT1G
MSB92ASWT1G	MMBTA42LT1G
MSB92AWT1G	MMBTA42LT1G
MMBT6520LT1G	MMBTA42LT1G
MSB92AS1WT1G	MMBTA42LT1G

Appendix A: Changed Products

Product	Customer Part Number	Qualification Vehicle
DAN222M3T5G		DAN222M3T5G
MBD330DWT1G		NSVMBD770DW1T1G
MBD770DWT1G		NSVMBD770DW1T1G
MMBT6520LT1G		MMBTA42LT1G
MSB92AS1WT1G		MMBTA42LT1G
MSB92ASWT1G		MMBTA42LT1G
MSB92AWT1G		MMBTA42LT1G
MSB92WT1G		MMBTA42LT1G
NSR0115CQP6T5G		NSR0115CQP6T5G
RB751S40T1G		SBAS16XV2T1G
RB751S40T5G		SBAS16XV2T1G