



Title of Change:	Capacity Expansion of Assembly and Test operations of former Fairchild SOT23 package to ON Semiconductor Leshan, China
Proposed first ship date:	Dec. 26, 2017
Contact information:	Contact your local ON Semiconductor Sales Office or < jenett.damuag@onsemi.com >
Samples:	Contact your local ON Semiconductor Sales Office
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or < changkit.mok@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:	Customer may receive the parts from ON Semiconductor Leshan, China from month of Nov 2017 onwards once FPCN expire. Parts from ON Semiconductor Leshan, China can be identified through product marking which follow ON Semiconductor marking format
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 checked="" type="checkbox"/> Manufacturing Site Change/Addition <input type="checkbox"/> Manufacturing Process Change <input checked="" type="checkbox"/> Material Change <input type="checkbox"/> Product specific change <input type="checkbox"/> Datasheet/Product Doc change <input checked="" type="checkbox"/> Shipping/Packaging/Marking <input type="checkbox"/> Other
Sites Affected:	<input type="checkbox"/> All site(s) <input type="checkbox"/> Not applicable <input checked="" type="checkbox"/> ON Semiconductor site(s) Select site: CNI - LESHAN
Description and Purpose:	<p>The Final Notification announces to customers of its plans to expand Assembly and Test operations sites of former Fairchild SOT23 package from existing external manufacturing facility to include internal manufacturing site ON Semiconductor Leshan, China.</p> <p>Small Signal Diodes, Small Signal Transistors and MOSFETs will be converted from Gold wire to Copper Wire or Pd Coated Copper wire as part of the process standardization in ON Semiconductor Leshan, China (as per table in List of affected parts).</p> <p>The Leshan internal facility is certified with ISO/TS 16949:2009 and is currently running production for SOT23 package.</p> <p>These products will continue being Pb-free, Halide free and RoHS compliant. Qualification tests are designed to show that the reliability of the transferred devices will continue to meet or exceed ON Semiconductor standards.</p>
Reliability Data Summary:	<p>Device Name: BSR57 Reference: L39705 Package: SOT23-3L (Au Wire)</p>



Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 32V (80% max rated BV)	1008 hours	0/154
HTGB	JESD22-A108	Ta=150°C, 40V (100% rated VGS)	1008 hours	0/154
HTSL	JESD22-A103	Ta= 150°C	1008 hours	0/50
PC	J-STD-020 JESD-A113	MSL 1@260 °C	-	0/200
IOL+PC	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15,000 cycles	0/50
TC+PC	JESD22-A104	Ta= -65°C to +150°C	1000 cycles	0/50
H3TRB + PC	JESD22-A101	Ta=85°C, 85% / 32V bias	1000 hours	0/50
uHAST + PC	JESD22-A118	130°C, 85% RH, 33.3psia, unbiased	96 hours	0/50
RSH	JESD22- B106	Ta = 260C, 10 sec	-	0/60

Device Name:MMBFJ271
Reference: L40260, SZ330
Package: SOT23-3L (Au Wire)

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 24V (80% max rated BV)	1008 hours	0/154
HTGB	JESD22-A108	Ta=150°C, 30V (100% rated VGS)	1008 hours	0/154
HTSL	JESD22-A103	Ta= 150°C	1008 hours	0/50
PC	J-STD-020 JESD-A113	MSL 1@260 °C	-	0/200
IOL+PC	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15,000 cycles	0/50
TC+PC	JESD22-A104	Ta= -65°C to +150°C	1000 cycles	0/50
H3TRB + PC	JESD22-A101	Ta=85°C, 85% / 24V bias	1000 hours	0/50
uHAST + PC	JESD22-A118	130°C, 85% RH, 33.3psia, unbiased	96 hours	0/50
RSH	JESD22- B106	Ta = 260C, 10 sec	-	0/60

Device Name:BCV26
Reference: S39692
Package: SOT23-3L (Au Wire)

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, -24V (80% max rated BV)	1008 hours	0/77
HTSL	JESD22-A103	Ta= 150°C	1008 hours	0/77
PC	J-STD-020 JESD-A113	MSL 1@260 °C	-	0/100
IOL+PC	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15,000 cycles	0/25
TC+PC	JESD22-A104	Ta= -65°C to +150°C	1000 cycles	0/25
H3TRB + PC	JESD22-A101	Ta=85°C, 85% / -24V bias	1000 hours	0/25
uHAST	JESD22-A118	130°C, 85% RH, 33.3psia, unbiased	96 hours	0/25
RSH	JESD22- B106	Ta = 260C, 10 sec	-	0/30

Device Name:FJV92MTF
Reference: S39707
Package: SOT23-3L (Au Wire)

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, -300V (80% max rated BV)	1008 hours	0/77
HTSL	JESD22-A103	Ta= 150°C	1008 hours	0/77
PC	J-STD-020 JESD-A113	MSL 1@260 °C	-	0/100
IOL+PC	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15,000 cycles	0/25
TC+PC	JESD22-A104	Ta= -65°C to +150°C	1000 cycles	0/25
H3TRB + PC	JESD22-A101	Ta=85°C, 85% / -100V bias	1000 hours	0/25
uHAST + PC	JESD22-A118	130°C, 85% RH, 33.3psia, unbiased	96 hours	0/25
RSH	JESD22- B106	Ta = 260C, 10 sec	-	0/30

Device Name:FJV42MTF
Reference:L40873
Package: SOT23-3L (Au Wire)



Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 300V (80% max rated BV)	1008 hours	0/77
HTSL	JESD22-A103	Ta= 150°C	1008 hours	0/25
PC	J-STD-020 JESD-A113	MSL 1@260 °C	-	0/100
IOL+PC	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15,000 cycles	0/25
TC+PC	JESD22-A104	Ta= -65°C to +150°C	1000 cycles	0/25
H3TRB + PC	JESD22-A101	Ta=85°C, 85% / 100V bias	1000 hours	0/25
uHAST + PC	JESD22-A118	130°C, 85% RH, 33.3psia, unbiased	96 hours	0/25
RSH	JESD22- B106	Ta = 260C, 10 sec	-	0/30

Device Name:BAV23S

Reference:SZ344, L39725 L40873

Package: SOT23-3L (Cu Wire)

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 200V (80% max rated BV)	1008 hours	0/77
HTSL	JESD22-A103	Ta= 150°C	1008 hours	0/77
PC	J-STD-020 JESD-A113	MSL 1@260 °C	-	0/100
IOL+PC	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15,000 cycles	0/25
TC+PC	JESD22-A104	Ta= -65°C to +150°C	1000 cycles	0/25
H3TRB + PC	JESD22-A101	Ta=85°C, 85% / 100V bias	1000 hours	0/25
uHAST + PC	JESD22-A118	130°C, 85% RH, 33.3psia, unbiased	96 hours	0/25
RSH	JESD22- B106	Ta = 260C, 10 sec	-	0/30

Note: Please refer to reliability report for the other qualification vehicle.

Electrical Characteristic Summary:

The temperature characterization and ESD performance meet datasheet specification. Detail of Electrical characterization result is available upon request.

Qualification Plan:

Refer to Rel Data Summary.



List of Affected Part(s):

Part Number	Qualification Vehicle
2N7002	2N7002, NDS0610, BSS123L, 2N7002L, 2N7002K, FDV302P
2N7002K	2N7002, NDS0610, BSS123L, 2N7002L, 2N7002K, FDV302P
2N7002L	2N7002, NDS0610, BSS123L, 2N7002L, 2N7002K, FDV302P
BAR43	BAV23S, MMBD1404A
BAR43C	BAV23S, MMBD1404A
BAR43S	BAV23S, MMBD1404A
BAS29	BAV23S, MMBD1404A
BAV23S	BAV23S, MMBD1404A
BAW74	BAV23S, MMBD1404A
BC846CMTF	BCV26
BC856CMTF	BCV26
BCV26	BCV26
BCV27	BCV26
BCV71	BCV26
BCV72	BCV26
BCW71	BCV26
BCW89	BCV26
BCX70J	BCV26
BCX70K	BCV26
BSR57	BSR57, MMBFJ271
BSR58	BSR57, MMBFJ271
BSS123	2N7002, NDS0610, BSS123L, 2N7002L, 2N7002K, FDV302P
BSS123L	2N7002, NDS0610, BSS123L, 2N7002L, 2N7002K, FDV302P
BSS138	2N7002, NDS0610, BSS123L, 2N7002L, 2N7002K, FDV302P
BSS138K	2N7002, NDS0610, BSS123L, 2N7002L, 2N7002K, FDV302P
BSS138L	2N7002, NDS0610, BSS123L, 2N7002L, 2N7002K, FDV302P
FDV301N	2N7002, NDS0610, BSS123L, 2N7002L, 2N7002K, FDV302P
FDV302P	2N7002, NDS0610, BSS123L, 2N7002L, 2N7002K, FDV302P
FDV303N	2N7002, NDS0610, BSS123L, 2N7002L, 2N7002K, FDV302P
FDV304P	2N7002, NDS0610, BSS123L, 2N7002L, 2N7002K, FDV302P
FJV1845FMTF	FJV42MTF, FJV92MTF
FJV1845PMTF	FJV42MTF, FJV92MTF
FJV42MTF	FJV42MTF, FJV92MTF
FJV92MTF	FJV92MTF, FJV42MTF
FLLD261	BAV23S, MMBD1404A
KSA1298YMTF	BCV26



KSC1623LMTF	BCV26
KSC1623YMTF	BCV26
KSC2223YMTF	BCV26, , FJV42MTF, FJV92MFT
KSC3265YMTF	BCV26



List of Affected Part(s):

Part Number	Qualification Vehicle
KST05MTF	BCV26
KST10MTF	BCV26, FJV42MTF, FJV92MFT
MMBD1201	BAV23S, MMBD1404A
MMBD1203	BAV23S, MMBD1404A
MMBD1204	MMBD1404A, , MMBD1404A
MMBD1205	BAV23S, MMBD1404A
MMBD1403	BAV23S, MMBD1404A
MMBD1403A	BAV23S, MMBD1404A
MMBD1404	BAV23S, MMBD1404A
MMBD1404A	BAV23S, MMBD1404A
MMBD1501A	BAV23S, MMBD1404A
MMBD1503A	BAV23S, MMBD1404A
MMBD1504A	MMBD1404A, MMBD1404A
MMBD1505A	BAV23S, MMBD1404A
MMBD1703A	BAV23S, MMBD1404A
MMBD1705A	BAV23S, MMBD1404A
MMBD4148	BAV23S, MMBD1404A
MMBD4148CA	BAV23S, MMBD1404A
MMBD4148CC	BAV23S, MMBD1404A
MMBD4148SE	BAV23S, MMBD1404A
MMBF170	2N7002, NDS0610, BSS123L, 2N7002L, 2N7002K, FDV302P
MMBF4117	BSR57, MMBFJ271
MMBF4118	BSR57, MMBFJ271
MMBF4391	BSR57, MMBFJ271
MMBF4393	BSR57, MMBFJ271
MMBF4416	BSR57, MMBFJ271
MMBF5103	BSR57, MMBFJ271
MMBF5457	BSR57, MMBFJ271
MMBF5460	BSR57, MMBFJ271
MMBF5484	BSR57, MMBFJ271
MMBF5485	BSR57, MMBFJ271
MMBF5486	BSR57, MMBFJ271
MMBFJ111	BSR57, MMBFJ271
MMBFJ112	BSR57, MMBFJ271
MMBFJ175	BSR57, MMBFJ271
MMBFJ176	BSR57, MMBFJ271
MMBFJ177	BSR57, MMBFJ271
MMBFJ202	BSR57, MMBFJ271
MMBFJ211	BSR57, MMBFJ271
MMBFJ270	BSR57, MMBFJ271



List of Affected Part(s):

Part Number	Qualification Vehicle
MMBFJ271	BSR57, MMBFJ271
MMBFJ309	BSR57, MMBFJ271
MMBFJ310	BSR57, MMBFJ271
MMBT100	BCV26
MMBT5179	BCV26, , FJV42MTF, FJV92MFT
MMBT5771	BCV26
MMBT5962	BCV26, , FJV42MTF, FJV92MFT
MMBTH81	BCV26, , FJV42MTF, FJV92MFT
NDS0610	2N7002, NDS0610, BSS123L, 2N7002L, 2N7002K, FDV302P
NDS7002A	2N7002, NDS0610, BSS123L, 2N7002L, 2N7002K, FDV302P



Appendix A: Changed Products

D

PCN Number : P783AAB

C

Product	Customer Part Number	BBB	Drawing
2N7002	2N7002NTR-ND	Y	N
2N7002K		Y	N
2N7002L		Y	N
BAR43		Y	N
BAR43C		Y	N
BAR43S		Y	N
BAS29		Y	N
BAV23S		Y	N
BC846CMTF		Y	N
BC856CMTF		Y	N
BCV26		Y	N
BCV27		Y	N
BCV71		Y	N
BCV72		Y	N
BCW71		Y	N
BCW89		Y	N
BCX70J		Y	N
BCX70K		Y	N
BSR57		Y	N
BSR58		Y	N
BSS123		Y	N
BSS123L		Y	N
BSS138	BSS138TR-ND	Y	N
BSS138K		Y	N
BSS138L		Y	N
FDV301N		Y	N
FDV302P		Y	N
FDV303N		Y	N
FDV304P		Y	N
FJV1845FMTF		Y	N
FJV1845PMTF		Y	N
FJV42MTF		Y	N
FLLD261		Y	N
KSA1298YMTF		Y	N
KSC1623LMTF		Y	N
KSC3265YMTF		Y	N
KST05MTF		Y	N
MMBD1201		Y	N
MMBD1203		Y	N
MMBD1204		Y	N



MMBD1205		Y	N
MMBD1403		Y	N
MMBD1403A		Y	N
MMBD1404A		Y	N
MMBD1501A		Y	N
MMBD1503A		Y	N
MMBD1504A		Y	N
MMBD1505A		Y	N
MMBD4148		Y	N
MMBD4148CA		Y	N
MMBD4148CC		Y	N
MMBD4148SE		Y	N
MMBF170		Y	N
MMBF4117		Y	N
MMBF4393		Y	N
MMBF4416		Y	N
MMBF5103		Y	N
MMBF5457		Y	N
MMBF5460		Y	N
MMBF5484		Y	N
MMBF5485		Y	N
MMBF5486		Y	N
MMBFJ111		Y	N
MMBFJ112		Y	N
MMBFJ175		Y	N
MMBFJ176		Y	N
MMBFJ177		Y	N
MMBFJ202		Y	N
MMBFJ211		Y	N
MMBFJ270		Y	N
MMBFJ271		Y	N
MMBFJ309		Y	N
MMBFJ310		Y	N
MMBT100		Y	N
MMBT5179		Y	N
MMBT5771		Y	N
MMBT5962		Y	N
MMBTH81		Y	N
NDS0610		Y	N
NDS7002A	NDS7002ATR-ND	Y	N



Appendix A: Changed Products

D

PCN Number : P783AAB

C

Product	Customer Part Number	BBB	Drawing
2N7002L		Y	N
BAW74		Y	N
BSS123L		Y	N
BSS138L		Y	N
FJV42MTF		Y	N
KSC2223YMTF		Y	N
KST05MTF		Y	N
MMBF4118		Y	N
MMBFJ211		Y	N