



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #20774Z

Generic Copy

Issue Date: 04-Mar-2015

TITLE:Henkel Green Compound Qualification for SC88, SC88A, SC70, SC74, SC75, SOD923 packages.

PROPOSED FIRST SHIP DATE: 04-Mar-2016

AFFECTED CHANGE CATEGORY(S): ON Semiconductor Assembly Areas – Molding

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or Alex Zhang <Alex.Zhang@onsemi.com>

SAMPLES:Contact your local ON Semiconductor Sales Office

ADDITIONAL RELIABILITY DATA: Available

Contact your local ON Semiconductor Sales Office or ZZ Cheng <S1016z@onsemi.com>

NOTIFICATION TYPE:

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 1year prior to implementation of the change.

ON Semiconductor will consider this change approved unless specific conditions of acceptance are provided in writing within 30 days of receipt of this notice. To do so, contact<quality@onsemi.com>.

DESCRIPTION AND PURPOSE:

ON Semiconductor is notifying customers of its use of Henkel mold compound for their SC88, SC88A, SC70, SC74, SC75, SOD923 packages. Discrete products built with bipolar transistor, rectifier, zener diode, schottky diode, switching diode, MOSFET, Logic and thyristors platforms are represented by this Process Change Notice.

Reliability Qualification and full electrical characterization over temperature has been performed.

RELIABILITY DATA SUMMARY:

Reliability Test Results:

SBC847BDW1T1G

Test	Condition	Interval	Results
AC	Temp = +121°C; RH =100%, (JA110)	96 Hrs	0/234
TC	Temp = -65°C to +150°C; for 1000 cycles (JA104B)	1000 Cycle	0/234
HTRB	Tj=150C or operating Tj 80% V bias (JA108)	1008 Hrs	0/234



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HAST	Temp = +130°C; RH = 85%, psig ~28 with bias** for 96hr (JA110)	96 Hrs	0/234
IOL	Ta=+25°C, deltaTj=100°C max, 2min on/off for 15000 cyc	15000 Cycle	0/234
HTSL	Ta=150C, or 175C based on datasheet max TA storage	1008 Hrs	0/234
RSH	TS=260C, Tdwell=10 sec. (Jedec B-106)		0/90

SZMSQA6V1W5T2G

Test	Condition	Interval	Results
AC	Temp = +121°C; RH =100%, (JA110)	96 Hrs	0/234
TC	Temp = -65°C to +150°C; for 1000 cycles (JA104B)	1000 Cycle	0/234
HTRB	Tj=150C or operating Tj 80% V bias (JA108)	1008 Hrs	0/234
HAST	Temp = +130°C; RH = 85%, psig ~28 with bias** for 96hr (JA110)	96 Hrs	0/234
IOL	Ta=+25°C, deltaTj=100°C max, 2min on/off for 15000 cyc	15000 Cycle	0/234
HTSL	Ta=150C, or 175C based on datasheet max TA storage	1008 Hrs	0/234
RSH	TS=260C, Tdwell=10 sec. (Jedec B-106)		0/90

NL17SZ32DFT2G

Test	Condition	Interval	Results
AC	Temp = +121°C; RH =100%, (JA110)	96 Hrs	0/234
TC	Temp = -65°C to +150°C; for 1000 cycles (JA104B)	1000 Cycle	0/234
HAST	Temp = +130°C; RH = 85%, psig ~28 with bias** for 96hr (JA110)	96 Hrs	0/234
HTSL	Ta=150C, or 175C based on datasheet max TA storage	1008 Hrs	0/234
HTOL	Tj=125C JA108	1008 Hrs	0/234
RSH	TS=260C, Tdwell=10 sec. (Jedec B-106)		0/90

NL7SZ57DFT2G

Test	Condition	Interval	Results
AC	Temp = +121°C; RH =100%, (JA110)	96 Hrs	0/234
TC	Temp = -65°C to +150°C; for 1000 cycles (JA104B)	750 Cycle	0/234
HAST	Temp = +130°C; RH = 85%, psig ~28 with bias** for 96hr (JA110)	96 Hrs	0/234
HTSL	Ta=150C, or 175C based on datasheet max TA storage	1008 Hrs	0/234
RSH	TS=260C, Tdwell=10 sec. (Jedec B-106)		0/90



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NLSV1T34DFT2G

Test	Condition	Interval	Results
AC	Temp = +121°C; RH =100%, (JA110)	96 Hrs	0/234
TC	Temp = -65°C to +150°C; for 1000 cycles (JA104B)	750 Cycle	0/234
HAST	Temp = +130°C; RH = 85%, psig ~28 with bias** for 96hr (JA110)	96 Hrs	0/234
HTSL	Ta=150C, or 175C based on datasheet max TA storage	1008 Hrs	0/234
HTOL	Tj=125C JA108	1008 Hrs	0/234
RSH	TS=260C, Tdwell=10 sec. (Jedec B-106)		0/90

NTJS3157NT1G

Test	Condition	Interval	Results
AC	Temp = +121°C; RH =100%, (JA110)	96 Hrs	0/234
TC	Temp = -65°C to +150°C; for 1000 cycles (JA104B)	1000 Cycle	0/234
HTRB	Tj=150C or operating Tj 80% V bias (JA108)	1008 Hrs	0/234
HAST	Temp = +130°C; RH = 85%, psig ~28 with bias** for 96hr (JA110)	96 Hrs	0/234
IOL	Ta=+25°C, deltaTj=100°C max, 2min on/off for 15000 cyc	15000 Cycle	0/234
HTSL	Ta=150C, or 175C based on datasheet max TA storage	1008 Hrs	0/234
HTGB	Ta = 150, 100% Vgss	1008 Hrs	0/234
RSH	TS=260C, Tdwell=10 sec. (Jedec B-106)		0/90

MMBZ5270BLT1G

Test	Condition	Interval	Results
AC	Temp = +121°C; RH =100%, (JA110)	96 Hrs	0/252
TC	Temp = -65°C to +150°C; for 1000 cycles (JA104B)	1000 Cycle	0/252
HTRB	Tj=150C or operating Tj 80% V bias (JA108)	1008 Hrs	0/252
HAST	Temp = +130°C; RH = 85%, psig ~28 with bias** for 96hr (JA110)	96 Hrs	0/252
IOL	Ta=+25°C, deltaTj=100°C max, 2min on/off for 15000 cyc	15000 Cycle	0/252
HTSL	Ta=150C, or 175C based on datasheet max TA storage	1008 Hrs	0/252
RSH	TS=260C, Tdwell=10 sec. (Jedec B-106)		0/90



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MMBT6520LT1G

Test	Condition	Interval	Results
AC	Temp = +121°C; RH =100%, (JA110)	96 Hrs	0/252
TC	Temp = -65°C to +150°C; for 1000 cycles (JA104B)	1000 Cycle	0/252
HTRB	Tj=150C or operating Tj 80% V bias (JA108)	1008 Hrs	0/252
HAST	Temp = +130°C; RH = 85%, psig ~28 with bias** for 96hr (JA110)	96 Hrs	0/252
IOL	Ta=+25°C, deltaTj=100°C max, 2min on/off for 15000 cyc	15000 Cycle	0/252
HTSL	Ta=150C, or 175C based on datasheet max TA storage	1008 Hrs	0/252
RSH	TS=260C, Tdwell=10 sec. (Jedec B-106)		0/90

BAT54T1G

Test	Condition	Interval	Results
AC	Temp = +121°C; RH =100%, (JA110)	96 Hrs	0/252
TC	Temp = -65°C to +150°C; for 1000 cycles (JA104B)	1000 Cycle	0/252
HTRB	Tj=150C or operating Tj 80% V bias (JA108)	1008 Hrs	0/252
HAST	Temp = +130°C; RH = 85%, psig ~28 with bias** for 96hr (JA110)	96 Hrs	0/252
IOL	Ta=+25°C, deltaTj=100°C max, 2min on/off for 15000 cyc	15000 Cycle	0/252
HTSL	Ta=150C, or 175C based on datasheet max TA storage	1008 Hrs	0/252
RSH	TS=260C, Tdwell=10 sec. (Jedec B-106)		0/90

NST847BF3T5G

Test	Condition	Interval	Results
AC	Temp = +121°C; RH =100%, (JA110)	96 Hrs	0/252
TC	Temp = -65°C to +150°C; for 1000 cycles (JA104B)	1000 Cycle	0/252
HTRB	Tj=150C or operating Tj 80% V bias (JA108)	1008 Hrs	0/252
HAST	Temp = +130°C; RH = 85%, psig ~28 with bias** for 96hr (JA110)	96 Hrs	0/252
IOL	Ta=+25°C, deltaTj=100°C max, 2min on/off for 15000 cyc	15000 Cycle	0/252
HTSL	Ta=150C, or 175C based on datasheet max TA storage	1008 Hrs	0/252
RSH	TS=260C, Tdwell=10 sec. (Jedec B-106)		0/90

NSR0170P2T5G

Test	Condition	Interval	Results
AC	Temp = +121°C; RH =100%, (JA110)	96 Hrs	0/252



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TC	Temp = -65°C to +150°C; for 1000 cycles (JA104B)	1000 Cycle	0/252
HTRB	Tj=150C or operating Tj 80% V bias (JA108)	1008 Hrs	0/252
HAST	Temp = +130°C; RH = 85%, psig ~28 with bias** for 96hr (JA110)	96 Hrs	0/252
IOL	Ta=+25°C, deltaTj=100°C max, 2min on/off for 15000 cyc	15000 Cycle	0/252
HTSL	Ta=150C, or 175C based on datasheet max TA storage	1008 Hrs	0/252
RSH	TS=260C, Tdwell=10 sec. (Jedec B-106)		0/90

NTK3139PT1G

Test	Condition	Interval	Results
AC	Temp = +121°C; RH =100%, (JA110)	96 Hrs	0/252
TC	Temp = -65°C to +150°C; for 1000 cycles (JA104B)	1000 Cycle	0/252
HTRB	Tj=150C or operating Tj 80% V bias (JA108)	1008 Hrs	0/252
HAST	Temp = +130°C; RH = 85%, psig ~28 with bias** for 96hr (JA110)	96 Hrs	0/252
IOL	Ta=+25°C, deltaTj=100°C max, 2min on/off for 15000 cyc	15000 Cycle	0/252
HTSL	Ta=150C, or 175C based on datasheet max TA storage	1008 Hrs	0/252
HTGB	Tj=150C or operating Tj 100% V bias (JA108)	1008 Hrs	0/252
RSH	TS=260C, Tdwell=10 sec. (Jedec B-106)		0/90

NL17SG04P5T5G

Test	Condition	Interval	Results
TC	Temp = -65°C to +150°C; for 1000 cycles (JA104B)	1000 Cycle	0/252
HTRB	Tj=150C or operating Tj 80% V bias (JA108)	1008 Hrs	0/252
H3TRB	Temp = +85°C; RH = 85%, 80% V bias (JA101)	1008 Hrs	0/252
HTSL	Ta=150C, or 175C based on datasheet max TA storage	1008 Hrs	0/252
HTOL	Tj=150C or operating Tj 80% V bias (JA108)	1008 Hrs	0/252
UHAST	Temp = +130°C; RH = 85%, psig ~28 (JA118)	96 Hrs	0/252
RSH	TS=260C, Tdwell=10 sec. (Jedec B-106)		0/90



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ELECTRICAL CHARACTERISTIC SUMMARY:

Datasheet specifications and product electrical performance remain unchanged
 Characterization of each qual vehicle device has been performed to the following requirements:
 Three temperature characterization on 30 units from 3 lots

CHANGED PART IDENTIFICATION:

Products assembled with the Henkel compound from the ON semiconductor facility will have a finish good date code 1610 representing Work Week 10, 2016 or newer.

List of affected General Parts:

NVTJD4105CT1G	NSVMUN5214DW1T3G	SBC847CWT3G	SMUN5235DW1T1G
STS4173PT1G	NSVMUN5215DW1T1G	SBC856BDW1T1G	SMUN5235DW1T3G
2V7002WT1G	NSVMUN5236T1G	SBC856BDW1T3G	SMUN5235T1G
MC74VHC1G125DFT1G	NSVMUN5237T1G	SBC856BWT1G	SMUN5237DW1T1G
NLV17SG08DFT2G	NSVMUN5312DW1T2G	SBC857BDW1T1G	SMUN5311DW1T1G
NLV17SG14DFT2G	NSVMUN5312DW1T3G	SBC857BWT1G	SMUN5311DW1T2G
NLV17SGU04DFT2G	NSVMUN5314DW1T3G	SBC857CDW1T1G	SMUN5311DW1T3G
NLV27WZ04DFT1G	NSVMUN5316DW1T1G	SDTA114YET1G	SMUN5312DW1T1G
NLV27WZ04DFT2G	NSVMUN5331DW1T1G	SDTC114EET1G	SMUN5313DW1T1G
NLV27WZ06DFT2G	NSVMUN5332DW1T1G	SDTC114YET1G	SMUN5313DW1T3G
NLV27WZ07DFT2G	NSVMUN5333DW1T1G	SDTC124EET1G	SMUN5314DW1T1G
NLV27WZ14DFT2G	NSVMUN5334DW1T1G	SDTC144EET1G	SMUN5315DW1T1G
NLV27WZ16DFT2G	NSVR0170P2T5G	SESD9L3.3ST5G	SMUN5330DW1T1G
NLV27WZ17DFT2G	NSVR0230P2T5G	SESD9L5.0ST5G	SMUN5335DW1T1G
NLV27WZU04DFT2G	NSVR0340P2T5G	SESD9X5.0JT5G	SMUN5335DW1T2G
NLV74HC1G00DFT1G	NSVR0530P2T5G	SGNST45010MW6T1G	SNZF220DFT1G
NLVAS4599DFT2G	NSVR0620P2T5G	SHN1B01FDW1T1G	SSVBC846BPDW1T1G
NLVASB3157DFT2G	NSVT45010MW6T1G	SHN2D02FUTW1T1G	SSVMUN5312DW1T2G
NLVSV1T34DFT2G	NSVT45010MW6T3G	SM1MA142WAT1G	SZCM1213A-04SO
NSVB1706DMW5T1G	NSVT45011MW6T3G	SM1MA142WKT1G	SZDF3A6.8FUT1G
NSVBAS16TT1G	NSVTB60BDW1T1G	SMBT2001T1G	SZDF6A6.8FUT1G
NSVBAS16WT3G	NSVUMC2NT1G	SMBT3904DW1T1G	SZESD7002WTT1G
NSVBAS21TMR6T1G	NSVUMC3NT1G	SMBT3906DW1T1G	SZESD7361P2T5G
NSVBAT54SWT1G	NSVUMC5NT1G	SMBT3946DW1T1G	SZESD7951ST5G
NSVBAT54WT1G	NSVUMC5NT2G	SMMBD330T1G	SZESD8351P2T5G
NSVBAV70TT1G	NVA4001NT1G	SMMBD770T1G	SZESD9B3.3ST5G
NSVBAV70TT3G	NVA4153NT1G	SMMBT2222AWT1G	SZESD9C3.3ST5G
NSVBC847BDW1T2G	NVF2201NT1G	SMMBT3904TT1G	SZESD9C5.0ST5G
NSVBC847BTT1G	NVJD4401NT1G	SMMBT3904WT1G	SZESD9L3.3ST5G
SBC847CWT1G	NVJD5121NT1G	SMMBT3906WT1G	SZESD9R3.3ST5G



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NSVBC848BWT1G	NVJS4151PT1G	SMMBTA06WT1G	SZESD9X12ST5G
NSVBC848CDW1T1G	NVJS4405NT1G	SMMBTA06WT3G	SZESD9X3.3ST5G
NSVBC857BTT1G	NVS4001NT1G	SMMBTA56WT1G	SZESD9X5.0ST5G
NSVBC857CWT1G	NVS4409NT1G	SMMBTA56WT3G	SZESDR0502BT1G
NSVBC858AWT1G	NVTA7002NT1G	SMSD1819A-RT1G	SZHBL5006P2T5G
NSVBT2222ADW1T1G	NVTJD4001NT1G	SMUN5111DW1T1G	SZMMBZ27VCWT1G
NSVDAN222T1G	NVTJD4001NT2G	SMUN5111T1G	SZMMQA5V6T1G
NSVDAP222T1G	NVTJD4401NT1G	SMUN5112DW1T1G	SZMMQA6V2T1G
NSVDTA114EET1G	NVTS4409NT1G	SMUN5112T1G	SZMMQA6V8T1G
NSVDTA143ZET1G	S2SA1774G	SMUN5113DW1T1G	SZMSQA6V1W5T2G
NSVDTA144EET1G	S2SC4617G	SMUN5113T1G	SZNCP3712ASNT1G
NSVDTC123JET1G	SBAS16WT1G	SMUN5114DW1T1G	SZNCP3712ASNT3G
NSVDTC143ZET1G	SBAS21DW5T1G	SMUN5114T1G	SZNSQA6V8AW5T2G
NSVDTC144WET1G	SBAS21DW5T3G	SMUN5114T3G	SZNUD3105DMT1G
NSVM1MA141WAT1G	SBAT54AWT1G	SMUN5115DW1T1G	SZNUD3112DMT1G
NSVMBD54DWT1G	SBAT54CTT1G	SMUN5115T1G	SZNUD3124DMT1G
NSVMBD770DW1T1G	SBAT54CWT1G	SMUN5116DW1T1G	SZNUD3160DMT1G
NSVMBT3904DW1T3G	SBAV70WT1G	SMUN5131DW1T1G	SZNUP2301MW6T1G
NSVMMBD352WT1G	SBAV99RWT1G	SMUN5133T1G	SZNUP4114UCLW1T2G
NSVMMBD717LT1G	SBAV99WT1G	SMUN5211DW1T1G	SZNUP4301MR6T1G
NSVMMBT2222ATT1G	SBAW56TT1G	SMUN5211T1G	SZNUP4304MR6T1G
NSVMMBT2907AWT1G	SBAW56WT1G	SMUN5211T3G	SZTZ9F15VT5G
NSVMMBT3906TT1G	SBC807-25WT1G	SMUN5212T1G	SZTZ9F20VT5G
NSVMMBT4401WT1G	SBC807-40WT1G	SMUN5213DW1T1G	SZTZ9F2V4T5G
NSVMSB1218A-RT1G	SBC846BDW1T1G	SMUN5213T1G	SZTZ9F2V7ST5G
NSVMSD42WT1G	SBC846BPDW1T1G	SMUN5214DW1T1G	SZTZ9F3V0T5G
NSVMUN5111DW1T3G	SBC846BPDW1T2G	SMUN5214T1G	SZTZ9F4V3ST5G
NSVMUN5113DW1T3G	SBC846BWT1G	SMUN5215T1G	SZTZ9F4V7ST5G
NSVMUN5116T1G	SBC847AWT1G	SMUN5216DW1T1G	SZTZ9F5V1T5G
NSVMUN5131T1G	SBC847BDW1T1G	SMUN5230DW1T1G	SZTZ9F5V6ST5G
NSVMUN5132T1G	SBC847BDW1T3G	SMUN5231DW1T1G	SZTZ9F6V2ST5G
NSVMUN5133DW1T1G	SBC847BPDW1T1G	SMUN5232DW1T1G	SZTZ9F6V2T5G
NSVMUN5137DW1T1G	SBC847BPDW1T3G	SMUN5232T1G	SZSMF05T2G
NSVMUN5211DW1T3G	SBC847BWT1G	SMUN5233DW1T1G	SZSMS05T1G
NSVMUN5212DW1T1G	SBC847CDW1T1G	SMUN5233T1G	SZTZ9F3V9T5G
NSVMUN5213DW1T3G			