ON Semiconductor

FINAL PRODUCT/PROCESS CHANGE NOTIFICATION # 20735ZA

Generic Copy

Issue Date: 27-Feb-2015

TITLE: SC82AB Package Leadframe Conversion from Copper-Plated to Silver-Plated

PROPOSED FIRST SHIP DATE: 27-Feb-2016

AFFECTED CHANGE CATEGORY(S): Assembly

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact your local ON Semiconductor Sales Office or <todd.manes@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office

ADDITIONAL RELIABILITY DATA: Available
Contact your local ON Semiconductor Sales Office or <ken.fergus@onsemi.com>

NOTIFICATION TYPE:

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued 12 months 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>.

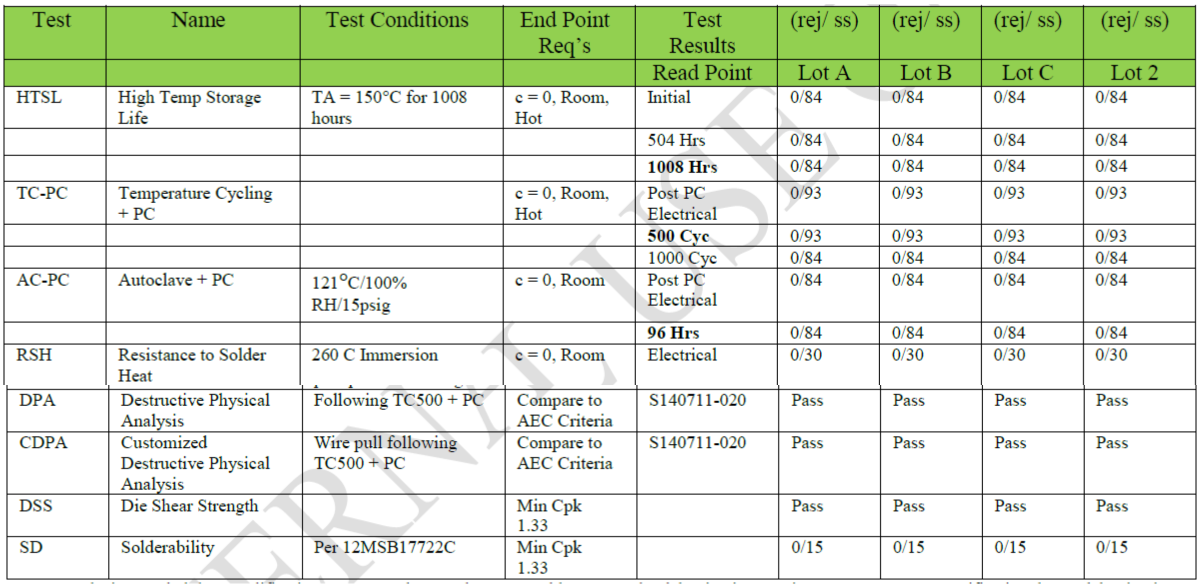
DESCRIPTION AND PURPOSE:

ON Semiconductor announces a change to the leadframe material used for SC82AB packages. The leadframe in use currently is a copper-plated leadframe. Upon expiration of this Final PCN, or with early customer approval, the leadframe material used in this package will be silver plated. This change is being made as part of ON Semiconductor's ongoing continuous quality improvement program. No changes to device electrical design, test or manufacturing flow are being made. No changes to device functionality or performance will occur as a result of this change.

FINAL PRODUCT/PROCESS CHANGE NOTIFICATION # 20735ZA

RELIABILITY DATA SUMMARY:

Reliability Test Results:



Test	Name	Test Conditions	End Point Req's	Test Results	(rej/ ss)	(rej/ ss)	(rej/ ss)	(rej/ ss)
				Read Point	Lot A	Lot B	Lot C	Lot 2
HTSL	High Temp Storage Life	TA = 150°C for 1008 hours	c = 0, Room, Hot	Initial	0/84	0/84	0/84	0/84
				504 Hrs	0/84	0/84	0/84	0/84
				1008 Hrs	0/84	0/84	0/84	0/84
TC-PC	Temperature Cycling + PC		c = 0, Room, Hot	Post PC Electrical	0/93	0/93	0/93	0/93
				500 Cyc	0/93	0/93	0/93	0/93
				1000 Cyc	0/84	0/84	0/84	0/84
AC-PC	Autoclave + PC	121°C/100% RH/15psig	c = 0, Room	Post PC Electrical	0/84	0/84	0/84	0/84
				96 Hrs	0/84	0/84	0/84	0/84
RSH	Resistance to Solder Heat	260 C Immersion	c = 0, Room	Electrical	0/30	0/30	0/30	0/30
DPA	Destructive Physical Analysis	Following TC500 + PC	Compare to AEC Criteria	S140711-020	Pass	Pass	Pass	Pass
CDPA	Customized Destructive Physical Analysis	Wire pull following TC500 + PC	Compare to AEC Criteria	S140711-020	Pass	Pass	Pass	Pass
DSS	Die Shear Strength		Min Cpk 1.33		Pass	Pass	Pass	Pass
SD	Solderability	Per 12MSB17722C	Min Cpk 1.33		0/15	0/15	0/15	0/15

Note that 9 samples were removed from each TC+PC sample following the 500 cycle readout for DPA/CDPA.

ELECTRICAL CHARACTERISTIC SUMMARY:

No changes to electrical characteristics

CHANGED PART IDENTIFICATION:

Parts with date codes of WW 8 2016 or later will contain silver-plated leadframes.

FINAL PRODUCT/PROCESS CHANGE NOTIFICATION # 20735ZA

List of Affected General Parts:

NCV304LSQ30T1G
NCV304LSQ33T1G
NCV305LSQ20T1G
NCV305LSQ23T1G
NCV305LSQ44T1G
NCV562SQ33T1G
NCV563SQ15T1G
NCV563SQ33T1G
NCV662SQ30T1G
NCV663SQ33T1G