ON Semiconductor

INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION #20776

Generic Copy

Issue Date: 18-Feb-2015

TITLE: Initial Notification of ASE-SH Qualification for Assembly of the 32, 48 and 100 Lead LQFP packages.

PROPOSED FIRST SHIP DATE: 17-Oct-2015

AFFECTED CHANGE CATEGORY(S): ON Semiconductor Assembly

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact your local ON Semiconductor Sales Office

NOTIFICATION TYPE:

Initial Product/Process Change Notification (IPCN)

First change notification sent to customers. IPCNs are issued at least 120 days prior to implementation of the change. An IPCN is advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan.

The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN).

This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 90 days prior to implementation of the change.

DESCRIPTION AND PURPOSE:

This is an Initial Product Change Notice to make customers aware that ASE-SH, located in Shanghai, China is being qualified as a supplemental assembly source for ON Semiconductor's 32, 48 and 100pin LQFP packages. The devices listed on this IPCN have historically been assembled at the Unisem located in Batam, Indonesia.

Device parameters will continue to meet all Datasheet specifications, and reliability will meet or exceed ON Semiconductor established standards. Upon expiration of the FINAL PCN, the affected devices may be processed at either location depending on capacity requirements.

ON Semiconductor

INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION #20776

QUALIFICATION PLAN:

The 62274-001, NCV7517BFTR2G, NB3V8312CFAR2G and MC100EP809FAG products will be chosen as the qualification vehicles for this qualification. All reliability testing is expected to be completed by 19-Jun-2015.

Reliability Test	Specification	Comment
Moisture Preconditioning (PC)	J-STD-020 & JESD22-A113	Moisture Soak (MSL = 2) Solder Reflow (3x @ 260°C)
Delamination check (SAT)	J-STD-020	Acoustic Microscopy
HAST Unbiased (UHST)	JESD22-A118	110°C/ 85%RH for 264 hrs
Preconditioning Temperature Cycling (TC)	JESD22-A104	-55°C to 125°C for 100 cycles
Temperature Cycling (TC)	JESD22-A104	-65°C to 150°C for 500 cycles
HAST Biased (HST)	JESD22- A110	130°C to 85°C for 96 hrs
High Temperature Storage (HTS)	JESD22-A103	150°C for 1000 hrs
High Temperature Operating Life (HTOL)	JESD22-A108	125°C for 408 hrs
Early Life Failure Rate ; Burn-in (ELFR)	AEC-Q100-008	Ta = 125°C for 48 hrs
Wire Bond Shear (WBS)	AEC-Q100-001	
Wire Bond Pull Strength (WBP)	MIL- STD883 Method 2011	
Solderability (SD)	JESD22-B102	
Physical Dimensions (PD)	JESD22-B102& JESD22-B108	

ON Semiconductor

INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION #20776

List of Affected General Parts:

M100LVEP111FATWG	MC100EP451FAG	MC10EP446FAG
MC100EP016AFAG	MC100EP451FAR2G	MC10EP446FAR2G
MC100EP016AFAR2G	MC100EP809FAG	MC10EP451FAG
MC100EP101FAG	MC100EP809FAR2G	MC10EP451FAR2G
MC100EP101FAR2G	MC100EPT622FAG	NB3L83948CFAG
MC100EP105FAG	MC100EPT622FAR2G	NB3L83948CFAR2G
MC100EP105FAR2G	MC100LVE164FAG	NB3V8312CFAG
MC100EP116FAG	MC100LVE164FAR2G	NB3V8312CFAR2G
MC100EP116FAR2G	MC100LVEP111FAG	NB4L6254FAG
MC100EP131FAG	MC100LVEP111FARG	NB4L6254FAR2G
MC100EP131FAR2G	MC100LVEP210FAG	NB4L858MFAG
MC100EP142FAG	MC100LVEP210FARG	NB4L858MFAR2G
MC100EP142FAR2G	MC10EP016FAG	NBC12429AFAG
MC100EP195BFAG	MC10EP016FAR2G	NBC12429AFAR2G
MC100EP195BFAR2G	MC10EP101FAG	NBC12429FAG
MC100EP195FAG	MC10EP101FAR2G	NBC12429FAR2G
MC100EP195FAR2G	MC10EP105FAG	NBC12430AFAG
MC100EP196BFAG	MC10EP105FAR2G	NBC12430AFAR2G
MC100EP196BFAR2G	MC10EP116FAG	NBC12430FAG
MC100EP196FAG	MC10EP116FAR2G	NBC12430FAR2G
MC100EP196FAR2G	MC10EP131FAG	NBC12439AFAG
MC100EP210SFAG	MC10EP131FAR2G	NBC12439AFAR2G
MC100EP210SFAR2G	MC10EP142FAG	NBC12439FAG
MC100EP210SFATWG	MC10EP142FAR2G	NBC12439FAR2G
MC100EP445FAG	MC10EP195FAG	
MC100EP445FAR2G	MC10EP195FAR2G	
MC100EP446FAG	MC10EP445FAG	
MC100EP446FAR2G	MC10EP445FAR2G	