



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16755Generic Copy

Issue Date: 04-Nov-2011**TITLE:** SSOP 14L and 16L - Add ON Semiconductor Philippines as Assembly Site/Change Marking to ON Format**PROPOSED FIRST SHIP DATE:** 04-Feb-2012**AFFECTED CHANGE CATEGORY(S):** Assembly Mfg (Automotive and Industrial BU)**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**Contact your local ON Semiconductor Sales Office or John Blas <John.blas@onsemi.com> or Lea Bonita <Lea.Bonita@onsemi.com>**SAMPLES:** Contact your local ON Semiconductor Sales Office Zuzana Dovicicova <Zuzana.Dovicicova@onsemi.com>**ADDITIONAL RELIABILITY DATA:** AvailableContact your local ON Semiconductor Sales Office or Phine Guevarra <Phine.Guevarra@onsemi.com>**NOTIFICATION TYPE:**

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 90 days 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:**

Addition of ON Semiconductor Philippines (OSPI) as an alternate source Assembly site for SSOP 14L & 16L packages. Current qualified assembly sites include Amkor-Philippines & Unisem B. OSPI is already a qualified source of SSOP 14L and 16L packages for other ON Semiconductor devices and is TS16949 certified.

OSPI will be using its standard halogen free Bill of Materials and process flow. Package electrical, thermal and reliability performance in OSPI will be equivalent or better to the current subcontract assembly sites. There is no impact to part form, fit, or function. OSPI has successfully completed reliability testing per AEC Q-100 standards at Moisture Sensitivity Level equal to Amkor-Philippines and Unisem B.

As a consequence of the assembly site transfer, the marking format will change to align with ON's standard marking for SSOP packages.

- Items to be Standardized
 - Traceability Format - Date Code, Location Code and Lot Info
 - Pb Free Indicator – from JEDEC ecat (e1 –e7) to either 'G' or 'dot'
 - ON Semiconductor Logo (except for devices with special customer logo)



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- Number of lines and characters per line
- No bottom part marking – All device markings at the bottom of the package will be moved to the top. The special xxxx bottom marking (intended to improve board adhesion) on specific devices will be eliminated. All surface mount packages at OSPI passed glue-ability testing without the need for special bottom marking.

RELIABILITY DATA SUMMARY:

Reliability Test Results:

REL Stress	Test Sequence	OHIST-002		
		WE035212ACT	WE035212BCT	WE035212CCT
Early Life Failure Rate (ELFR)	Burn-in, 48H at 150C	0/800	0/800	0/800
High Temperature Operating Life Test (HTOL)	Burn-in, 1000H at 150C	0/77	0/77	0/77
	Burn-in, 1000H at 170C	0/77	0/77	0/77
High Temperature Storage Life Test (HTSL)	Bake, 1000H at 150C	0/77	0/77	0/77
	Bake, 1000H at 190C	0/77	0/77	0/77
Moisture Resistance Test (MRT)	Pre-MRT SAT	0/924	0/924	0/924
	Moisture Precond MSL2, 260C	0/924	0/924	0/924
	Reflow peak temp	0/924	0/924	0/924
	Post-MRT	0/924	0/924	0/924
Temperature Cycling Test (TC)	Temp Cyc., 500x at -65C/150C	0/77	0/77	0/77
	Post-TC SAT	0/77	0/77	0/77
	Post-TC Bond Pull Test	0/5	0/5	0/5
	Temp cyc., 2000x at -65C/175C	0/77	0/77	0/77
	Post-TC SAT	0/77	0/77	0/77
	Post-TC Bond Pull Test	0/5	0/5	0/5
Unbiased-HAST (UHAST)	UHAST, 96H at 130C/85% RH	0/77	0/77	0/77
	Post-UHAST SAT	0/77	0/77	0/77
Biased-HAST (HAST)	HAST, 96H at 130C/85% RH	0/77	0/77	0/77
	Post-HAST SAT	0/77	0/77	0/77
Internal Inspection	X-ray	0/15	0/15	0/15
	SAT	0/15	0/15	0/15
	Internal Visual Inspection	0/10	0/10	0/10
	Bond Pull Test	0/5	0/5	0/5
	Bond Shear Test	0/5	0/5	0/5
External Inspection	Visual Inspection	0/ALL	0/ALL	0/ALL
	Physical Dimension Inspection	0/15	0/15	0/15
	Solderability Test	0/15	0/15	0/15

ELECTRICAL CHARACTERISTIC SUMMARY:

There were no changes in device electrical performance or specifications. Summary data for qualification vehicle/s are available. Please contact your local ON Semiconductor Sales Office or John Blas <John.blas@onsemi.com> or Lea Bonita<Lea.Bonita@onsemi.com>

CHANGED PART IDENTIFICATION:

Products assembled in ON Semiconductor Philippines can be identified with the first character "P" of the trace code marking.

List of affected General Parts:

FS7140-02G-XTD
FS7140-02G-XTP