ON Semiconductor



Final Product/Process Change Notification Document # : FPCN20927ZC Issue Date: 4 September 2015

Title of Change:	Packing Method Change due to MSL Classification for SSOP 36 EP devices using micro pre-plated leadframes. (MSL 2 to MSL 3)					
Proposed first ship date:	4 September 2016 or earlier upon customer approval					
Contact information:	Contact your local ON Semiconductor Sales Office or <u>Ryan.Trinidad@onsemi.com</u> or <u>Dennis.Remolacio@onsemi.com</u>					
Samples:	Contact your local ON Semiconductor Sales Office					
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <u>Ryan.Trinidad@onsemi.com</u> or <u>Dennis.Remolacio@onsemi.com</u>					
Type of notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 12 months prior to implementation of the change or earlier upon customer approval. 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 <pcn.support@onsemi.com>.</pcn.support@onsemi.com>					
Change Part Identification:	There will be no change to part nomenclature or ordering code. Product implementation will be controlled by date code and material will not ship prior to the PCN effectivity date provided, unless early customer acceptance is provided.					
Change category:	□ Wafer Fab Change					
Change Sub-Category(s): Datasheet/Product Doc change Manufacturing Site Change/Addition Material Change Product specific change Other: 						
Sites Affected: All site(s) Inot applicable ON Semiconductor site(s) : Inot applicable ON Carmona, Philippines						
Description and Purpose:						
ON Semiconductor is notifying of the intent to change the packaging of SSOP 36-EP devices from MSL 2 to MSL 3. This change will affect all SSOP 36-EP devices that are using leadframe part number N42423E711 and N42423E712 (uPPF leadframe type) which are susceptible to lead discoloration due to tarnishing effect of the leadframe with a silver layer. This will in effect limit the MET (manufacturing exposure time) at customer side from 1 year to 7 days and needed to inspect the units once the 7 days limit is exceeded. There are no changes to product design, electrical specifications, or physical dimensions as a result of this notification. Full reliability information has been completed and all products will continue to meet or exceed ON Semiconductor reliability standards.						
Reliability Data Summary:						
Staging evaluation was conducted in order to identify the impact of environment on lead discoloration for uPPF product. Results shows discoloration on units after 2 weeks (Final test cycle time: 7 days) and it is highly recommended to bag the units and limit the manufacturing exposure time at customer.						



	SSOP36 EVALUATION (STAGE @ Trim and Form)						
	Evaluation Done after Trim and Form Process (Temp: 18~27 degC, RH: 35~55%)						
		BENDING (w/ forming process)		NO BEND (w/out forming Process)			
	EXPOSURE TIME	Solderability Test	Visual Inspection	Solderability Test	Visual Inspection		
	No Staging (Control)	PASS	No Discolor	PASS	No Discolor		
	4 days	PASS	No Discolor	PASS	No Discolor		
	7 days	PASS	No Discolor	0/10	No Discolor		
	2 weeks	FAIL - 4/10	With discoloration	FAIL - 3/10	With discoloration		
	Extra High - 1 month	FAIL - 1/10	With discoloration	FAIL - 6/10	With discoloration		
	Note: Final Test cyle time is 7 days.						
Electrical Characteristic Summary: There are no changes in electrical performance. Datasheet specifications are not affected by this change.							
ist of affected	d Standard Parts:						
CV7471DQ5R2 CV70522DQ00 CV70627DQ00 CV7462DQ0R2 CV7608DQR20 CV78663DQ08	94R2G 91R2G 2G G						
CV78663DQ0R2G CV78763DQ0R2G							