

Title of Change:	PQFN_33CLP Metal Clip with Cu Gate Wire Conversion			
Proposed first ship date:	10 August 2018 or earlier upon customer approval			
Contact information:	Contact your local ON Semiconductor Sales Office or <joseph.mendoza@onsemi.com></joseph.mendoza@onsemi.com>			
Samples:	Contact your local ON Semiconductor Sales Office or <pcn.samples@onsemmi.com></pcn.samples@onsemmi.com>			
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <karenmae.taping@onsemi.com></karenmae.taping@onsemi.com>			
Type of notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. ON Semiconductor will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact <pcn.support@onsemi.com>.</pcn.support@onsemi.com>			
Change Part Identification:	Affected products will be identified with date code			
Change category:	Wafer Fab Change 🗹 Assembly Change	Test Change Dther		
Change Sub-Category(s): Manufacturing Site Change Manufacturing Process Cha	e/Addition Material Change	<ul> <li>Datasheet/Product Doc change</li> <li>Shipping/Packaging/Marking</li> <li>Other:</li> </ul>		
Sites Affected:	ON Semiconductor Sites: ON Cebu, Philippines	External Foundry/Subcon Sites: None		
<ul> <li>Description and Purpose:</li> <li>Conversion of PQFN_33CLP from using Pre-Molded Clip to Metal Clip with Cu Gate wire to improve Gate leadpost interconnection. The conversion will entail the following assembly process and package dimension changes: <ol> <li>Addition of Process steps, i.e., Die Top Print prior Clip bond, Flux Clean prior Wirebond, Wirebond for Gate wire, and Plasma Clean prior Mold.</li> <li>Change in Clip bonding process technology from Pick and Place of Saw Singulated Pre-molded Clip to Pick and Place of Punch Singulated Metal Clip.</li> <li>Removal of exposed tie bars at bottom part of package.</li> </ol> </li> </ul>				



Final Product/Process Change Notification Document # : FPCN22253X Issue Date: 3 May 2018

Material to be changed Before Change Description		After Change Description		
	Both Gate and Source pads have TiNiAg STM	Only Source pad has TiNiAg STM. No TiNiAg STM on Gate pad for Cu wire bonding purposes		
Die Solderable Top Metal (STM)				
	<b>Notes:</b> 1. "R" on die item name means both Gate and Source pads have TiNiAg STM.	Notes: 1. Blue lines are for polyimide opening. 2. Red lines are for TiNiAg STM outline with 15um overlap on Pl. 3. "M" on die item name means no TiNiAg STM on Gate pad.		
Leadframe	Leadframe without plating on Gate leadpost	Leadframe with Spot Ag plating on Gate leadpost for Cu wire bonding purposes		
	Die Attach Pad Dimensions: 2.667x2.032mm Source Leadpost Pad Dimensions: 1.62x0.47mm Gate Leadpost Pad Dimensions: 0.58x0.47mm	Die Attach Pad Dimensions: 2.898x2.261mm Source Leadpost Pad Dimensions: 1.705x0.35mm Gate Leadpost Pad Dimensions: 0.46x0.35mm		
		Ag plated Gate leadpost		
	Top View Bottom View (Package Outline)	Top View Bottom View (Package Outline)		



## **Reliability Data Summary:**

## QV DEVICE NAME: FDMC7570S RMS: F43951 PACKAGE: POEN 33CLP

Test	Specification	Condition	Interval	Lot A	Lot B	Lot C
IOL-PC (M1 AEC-	MIL-STD-750 (M1037)	Ta=+25°C, delta Tj=100°C On/off = 2 min	Post PC Electrical	0/80	0/80	0/80
			7,500 cyc	0/80	0/80	0/80
	AEC-Q101		15,000 cyc	0/80	0/80	0/80
TC-PC JESD22-A104		Temp = -65°C to +150°C	Post PC Electrical	0/80	0/80	0/80
	JESD22-A104		100 cyc	0/80	0/80	0/80
			500 cyc	0/80	0/80	0/80
			1,000 cyc	0/77	0/77	0/77
HAST-PC JESD22-A1		.10 Temp = +130°C, RH = 85%, p = 18.8psig, bias	Post PC Electrical	0/80	0/80	0/80
	JESDZZ-ATTU		96 hrs	0/80	0/80	0/80
UHAST-PC	JESD22-A118	Temp = +130°C, RH = 85%,	Post PC Electrical	0/80	0/80	0/80
		p = 18.8psig, unbiased	96 hrs	0/80	0/80	0/80

## **Electrical Characteristic Summary:**

Electrical characteristics are not impacted.

## List of Affected Standard Parts:

Part Number	Qualification Vehicle	
FDMC7570S	FDMC7570S	
FDMC7660S		