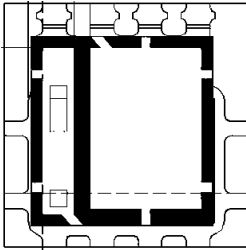
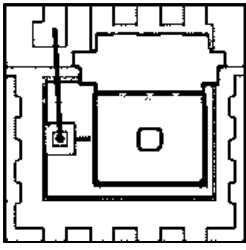
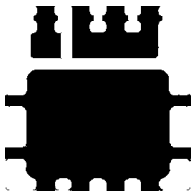
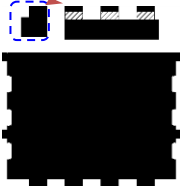
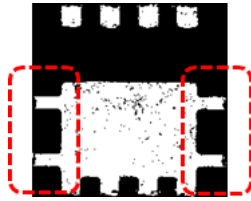
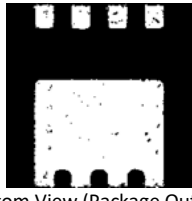




Title of Change:	PQFN_33CLP Large Die Device Metal Clip + Gate Wire Conversion Qualification.	
Proposed First Ship date:	14 Aug 2020 or earlier if approved by customer	
Contact Information:	Contact your local ON Semiconductor Sales Office or Joseph.Mendoza@onsemi.com	
PCN Samples Contact:	Contact your local ON Semiconductor Sales Office or <PCN.samples@onsemi.com>. Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.	
Type of Notification:	This is an Initial Product/Process Change Notification (IPCN) sent to customers. An IPCN is an 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. In case of questions, contact <PCN.Support@onsemi.com>	
Marking of Parts/ Traceability of Change:	Affected products will be identified with date code.	
Change Category:	Assembly Change	
Change Sub-Category(s):	Manufacturing Process Change, Material Change, Datasheet/Product Doc change, Shipping/Packaging/Marking	
Sites Affected:		
ON Semiconductor Sites	External Foundry/Subcon Sites	
ON Semiconductor Cebu, Philippines	None	
Description and Purpose:		
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 style="list-style-type: none"> 1. Change of Clip from Saw Singulated Pre-molded Clip to Punch Singulated Metal Clip, and addition of Wirebond process for Gate wire. 2. Removal of exposed tie bars at bottom part of package, and change in overall package thickness from 0.90-1.05mm to 0.75-0.85mm. 		



Material to be changed	Before Change Description	After Change Description
<p>Clipframe</p>	<p>Pre-molded Clip (0.254mm thick)</p> 	<p>Bare Metal Clip (0.127mm thick) with 2mil Pd coated Cu (PCC) Gate Wire</p> 
<p>Leadframe</p>	<p>Leadframe without plating on Gate leadpost</p> <p>Die Attach Pad Dimensions: 2.667x2.032mm Source Leadpost Pad Dimensions: 1.62x0.47mm Gate Leadpost Pad Dimensions: 0.58x0.47mm</p>  <p>Top View</p>	<p>Leadframe with Spot Ag plating on Gate leadpost for Cu wire bonding purposes</p> <p>Die Attach Pad Dimensions: 2.898x2.261mm Source Leadpost Pad Dimensions: 1.705x0.35mm Gate Leadpost Pad Dimensions: 0.46x0.35mm</p>  <p>Top View</p> <div style="border: 1px solid red; padding: 2px; width: fit-content; margin-left: 100px; color: blue; font-size: small;"> Ag plated Gate leadpost </div>
<p>Package Case Outline</p>	<p>Presence of exposed tie bars at bottom part of package.</p> <p>Case 483AK with Dim A (Package thickness) at 0.90-1.05mm</p>  <p>Bottom View (Package Outline)</p>	<p>No exposed tie bars at bottom part of package.</p> <p>Case 483AW with Dim A (Package thickness) at 0.75-0.85mm</p>  <p>Bottom View (Package Outline)</p>



Qualification Plan:

QV DEVICE NAME: FDMS8321L

RMS: F64417

PACKAGE: PQFN_33CLP

Test	Specification	Condition	Interval
HTGB	JESD22-A108	Tj = Max rate Tj for device, bias = 100% of rated V	1,008 hrs
HTRB	JESD22-A108	Tj = Max rate Tj for device, bias = 80% or 100% of rated V (Not to exceed max rated)	1,008 hrs
HTSL	JESD22-A103	Temp = 150°C	1,008 hrs
HAST	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 80% of rated V or 100V max	192 hrs
TC	JESD22-A104	Temp = -55°C to +150°C	1,000 cyc
UHAST	JESD22-A118	Temp = +130°C, RH = 85%, p = 18.8psig, Unbiased	96 hrs
IOL	MIL STD750, M 1037 AEC Q101	Ta=+25°C, deltaTj=100°C max, 2 min Ton=Toff is pkg dependent	15,000 cyc
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C	-

Estimated date for qualification completion: 29 May 2020

List of Affected Parts:

Note: Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the [PCN Customized Portal](#).

Part Number	Qualification Vehicle
FDMC7572S	FDMC8321L
FDMC610P	FDMC8321L
FDMC7660	FDMC8321L
FDMC8321L	FDMC8321L
FDMC7582	FDMC8321L
FDMC8588	FDMC8321L
FDMC8588A	FDMC8321L
FDMC86248	FDMC8321L
FDMC7570S	FDMC8321L
FDMC7660S	FDMC8321L