



Title of Change:	Change of leadframe plating and die size of the infrared light emitting diode for FOD3120/50 product families and change of UVLO datasheet specification for FOD3150 series only.
Proposed First Ship date:	20 Mar 2020 or earlier if approved by customer
Contact Information:	Contact your local ON Semiconductor Sales Office or < LengKian.See@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.
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or < ChangKit.Mok@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
Marking of Parts/ Traceability of Change:	Date code marking of parts
Change Category:	Assembly Change
Change Sub-Category(s):	Material Change, Datasheet/Product Doc change

Sites Affected:

ON Semiconductor Sites

None

External Foundry/Subcon Sites

External Subcon Site

Description and Purpose:

This notification announces to customers the change of leadframe plating and Infrared Light Emitting Diode die size from 11mil x 11mil to die size 9mil x 9mil for FOD3120/50 families listed on this FPCN.

	Before Change	After Change
Lead frame	Lead frame with Ag plated on both DAP and leadpost.	Lead frame with NiPdAu Plating on both DAP and leadpost.
Infrared Light Emitting Diode	LED size : 11mil x 11mil	LED size : 9mil x 9mil

In addition to the above changes, the datasheet electrical parameters “Under Voltage Lockout Threshold”, “ VUVLO+” and “ VUVLO-” of the FOD3150 series is revised as shown below to align product performance distribution.

Datasheet Electrical Parameters			Before Change			After Change			Units
VUVLO+	Under Voltage Lockout Threshold	$I_F = 10\text{mA}, V_O > 5\text{V}$	11	12.7	13.5	11	12.7	14	V
VUVLO-		$I_F = 10\text{mA}, V_O < 5\text{V}$	9.5	11.2	12.0	9.7	11.2	12.7	V

Purpose:

The identified change will improve the reliability and robustness of the products. This change will have no impact on product quality, reliability, and electrical, visual, or mechanical performance. FOD3120 will remain fully compliant to all published specifications, whereas FOD3150 datasheet “Under Voltage Lockout Threshold” specification will be revised as described in this FPCN. There is no product marking change as a result of this change.



Reliability Data Summary:

QV DEVICE NAME : FOD3125
PACKAGE : 8-Pin DIP White Package

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, Vcc bias	1008 hours	0/77
HTSL	JESD22-A103	Ta= 150°C	1008 hours	0/77
PC	J-STD-020 JESD-A113	MSL 1@260°C	-	0/154
TC+PC	JESD22-A104	Ta= -40°C to +125°C	1000 cycles	0/77
THB+PC	JESD22-A101	Ta=85°C / 85% RH, biased	1008 hours	0/77
RSH	JESD22- B106	Ta = 265C, 10 sec	-	0/10
SD	JSTD002	Ta = 245C, 5 sec	-	0/15

QV DEVICE NAME : FOD3120
PACKAGE : 8-Pin DIP White Package

Test	Specification	Condition	Interval	Result
HTOL	JESD22-A108	Ta=100°C, Vcc bias	504 hours	0/154
HTSL	JESD22-A103	Ta= 150°C	504 hours	0/153
PC	J-STD-020 JESD-A113	MSL 1@260°C	-	0/462
TC+PC	JESD22-A104	Ta= -40°C to +125°C	500 cycles	0/154
THB+PC	JESD22-A101	Ta=85°C / 85% RH, biased	504 hours	0/154
AC+PV	JESD22-A100	Ta=121°C/100% RH, unbiased	96 hours	0/154
RSH	JESD22- B106	Ta = 265C, 10 sec	-	0/20
SD	JSTD002	Ta = 245C, 5 sec	-	0/30

Electrical Characteristics Summary:

Electrical characteristics are not impacted by this change.

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
FOD3120	FOD3120
FOD3120S	FOD3120
FOD3120SD	FOD3120



FOD3120SDV	FOD3120
FOD3120SV	FOD3120
FOD3120TSR2	FOD3120
FOD3120TSR2V	FOD3120
FOD3120TSV	FOD3120
FOD3120TV	FOD3120
FOD3120V	FOD3120
FOD3150	FOD3120
FOD3150A	FOD3120
FOD3150ASD	FOD3120
FOD3150S	FOD3120
FOD3150SD	FOD3120
FOD3150SDV	FOD3120
FOD3150SV	FOD3120
FOD3150TSR2V	FOD3120
FOD3150TSV	FOD3120
FOD3150TV	FOD3120
FOD3150V	FOD3120



Appendix A: Changed Products

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
FOD3150V		FOD3120		
FOD3150TSV		FOD3120		
FOD3150SV		FOD3120		
FOD3150S		FOD3120		
FOD3150TV		FOD3120		
FOD3150		FOD3120		
FOD3120V		FOD3120		
FOD3120TV		FOD3120		
FOD3120TSV		FOD3120		
FOD3120TSR2V		FOD3120		
FOD3120SV		FOD3120		
FOD3120SDV		FOD3120		
FOD3120SD		FOD3120		
FOD3120S		FOD3120		
FOD3120		FOD3120		