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Initial Product/Process Change Notification Document #: IPCN25368X Issue Date: 18 May 2023

Title of Change:	Qualification of Fab Location Transfer to Vanguard International Semiconductor Corporation (VIS)				
Proposed First Ship date:	30 Jan 2024 or earlier if approved by customer				
Contact Information:	Contact your local onsemi Sales Office or <u>Ahmad.Sarwari@onsemi.com</u>				
PCN Samples Contact:	Contact your local onsemi Sales Office. 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 < <u>PCN.Support@onsemi.com</u> >				
Marking of Parts/ Traceability of Change:	The affected products will be identified with date code.				
Change Category:	Wafer Fab Change				
Change Sub-Category(s):	Manufacturing Site Transfer				
Sites Affected:	·				
onsemi Sites		External Foundry/Subcon Sites			
None		Vanguard Internation	International Semiconductor, Taiwan		
Description and Purpose:					
This initial notification announces that onse Vanguard International Semiconductor Corp	mi is qualifying Vanguard w oration (VIS).	afer fabrication locati	on for the purpose of wafe	r fab location transfer to	
	From To				
Fab Site	Diodes Incorporated (Diodes)		Vanguard International S	Semiconductor (VIS)	
There is no product marking change as a result of this change.					
Qualification Plan:					
QV DEVICE NAME - FPF1320UCX RMS - 87986 PACKAGE - WI CSP-6					
Test	Specification		Condition	Interval	
Early Life Failure Rate	AECQ100-008	TA=125C,	100% max rated vcc	48 hrs	
High Temperature Operating Life	JESD22-A108	Ta=125°C,	100 % max rated Vcc	1008 hrs	
High Temperature Storage Life	JESD22-A103		Ta= 150°C	1008 hrs	
Preconditioning	J-STD-020 JESD-A113	M	SL 1 @ 260C		
Temperature Cycling	JESD22-A104	Ta= -	40°C to +125°C	850 cyc	

JESD22-B120

Physical Dimensions

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Test	Specification	Condition	Interval
High Temperature Operating Life	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs
High Temperature Storage Life	JESD22-A103	Ta= 150°C 1008 hr	
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260C	
Temperature Cycling	JESD22-A104	Ta= -65°C to +150°C 500 cy	
Solderability	J STD 002B	Ta=245C 10 sec dwell B102	
Physical Dimensions	JESD22-B120		
DEVICE NAME: FXMA2102L8X S: S88603 :KAGE: UQFN8 1.6x1.6, 0.5P			
DEVICE NAME: FXMA2102L8X S: S88603 KAGE: UQFN8 1.6x1.6, 0.5P Test	Specification	Condition	Interval
DEVICE NAME: FXMA2102L8X S: S88603 FKAGE: UQFN8 1.6x1.6, 0.5P Test Earlier Life Failure Rate	Specification JESD22-A108	Condition Ta=125°C, 100 % max rated Vcc	Interval 48 hours
DEVICE NAME: FXMA2102L8X 5: S88603 :KAGE: UQFN8 1.6x1.6, 0.5P Test Earlier Life Failure Rate High Temperature Operating Life	SpecificationJESD22-A108JESD22-A108	Condition Ta=125°C, 100 % max rated Vcc Ta=125°C, 100 % max rated Vcc	Interval 48 hours 1008 hours
DEVICE NAME: FXMA2102L8X S: S88603 S:KAGE: UQFN8 1.6x1.6, 0.5P Test Earlier Life Failure Rate High Temperature Operating Life High Temperature Storage Life	SpecificationJESD22-A108JESD22-A108JESD22-A103	ConditionTa=125°C, 100 % max rated VccTa=125°C, 100 % max rated VccTa= 150°C	Interval 48 hours 1008 hours 1008 hours
DEVICE NAME: FXMA2102L8X S: S88603 :KAGE: UQFN8 1.6x1.6, 0.5P Test Earlier Life Failure Rate High Temperature Operating Life High Temperature Storage Life Preconditioning	SpecificationJESD22-A108JESD22-A108JESD22-A103J-STD-020 JESD-A113	Condition Ta=125°C, 100 % max rated Vcc Ta=125°C, 100 % max rated Vcc Ta= 150°C MSL 1 @ 260°C	Interval 48 hours 1008 hours 1008 hours -
DEVICE NAME: FXMA2102L8X 5: S88603 KAGE: UQFN8 1.6x1.6, 0.5P Test Earlier Life Failure Rate High Temperature Operating Life High Temperature Storage Life Preconditioning Temperature Cycling	SpecificationJESD22-A108JESD22-A108JESD22-A103J-STD-020 JESD-A113JESD22-A104	Condition Ta=125°C, 100 % max rated Vcc Ta=125°C, 100 % max rated Vcc Ta=150°C MSL 1 @ 260°C Ta= -65°C to +150°C	Interval 48 hours 1008 hours 1008 hours - 500 cycles
DEVICE NAME: FXMA2102L8X S: S88603 KAGE: UQFN8 1.6x1.6, 0.5P Test Earlier Life Failure Rate High Temperature Operating Life High Temperature Storage Life Preconditioning Temperature Cycling Highly Accelerated Stress Test	SpecificationJESD22-A108JESD22-A108JESD22-A103J-STD-020 JESD-A113JESD22-A104JESD22-A104	Condition Ta=125°C, 100 % max rated Vcc Ta=125°C, 100 % max rated Vcc Ta=150°C MSL 1 @ 260°C Ta= -65°C to +150°C 130°C, 85% RH, 18.8psig, bias	Interval 48 hours 1008 hours 1008 hours - 500 cycles 96 hours

QV DEVICE NAME: FXMA108BQX RMS : S88604 PACKAGE: WQFN20 4.5x2.5, 0.5P

Condition Interval **Specification** Test JESD22-A108 Ta=125°C, 100 % max rated Vcc 1008 hours High Temperature Operating Life Ta= 150°C 1008 hours High Temperature Storage Life JESD22-A103 Preconditioning J-STD-020 JESD-A113 MSL 1 @ 260°C Ta= -65°C to +150°C **Temperature Cycling** JESD22-A104 500 cycles Highly Accelerated Stress Test JESD22-A110 130°C, 85% RH, 18.8psig, bias 96 hours Unbiased Highly Accelerated Stress Test JESD22-A118 130°C, 85% RH, 18.8psig, unbiased 96 hours

Estimated date for qualification completion: 29 September 2023



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
FXMA2102UMX	FXMA2102L8X
FXMAR2102UMX	FXMA2102L8X
FXMAR2102L8X	FXMA2102L8X
FXMAR2102UMX-F106	FXMA2102L8X
FXMAR2104UMX	FXMA108BQX, FXMA2102L8X
FXMA2102L8X	FXMA2102L8X
FXMA108BQX	FXMA108BQX, FXMA2102L8X
FSA5157L6X	FSA5157L6X
FPF1320UCX	FPF1320UCX