



Product Change Notification

CN-202605021F

Issue date: 05 Jun 2026

Effective date: 19 Jun 2026

Dear

productchangenotices@premierfarne ll.com,

Here's your personalized quality information concerning products our customers and partners purchased from Nexperia.

For more details please contact your respective Nexperia CSR/AM.



Extraordinary PCN: Release of additional assembly site ATSN due to exceptional circumstances outside the control of Nexperia B.V.

**Change
Category**

☐ Wafer	☐	☐ Product Marking	☒ Test	☐ Design
Fab	Assembly		Location	
Process	Process	☐ Mechanical	☐ Test	☐ Errata
		Specification	Process	☐ Electrical
☐ Wafer	☐		☐ Test	spec./Test
Fab	Assembly	☐	Equipment	coverage
Materials	Materials	Packing/Shipping/Labeling		

[] Wafer [X]
Fab Assembly
Location Location

Details of this change

The Nexperia owned assembly site ATSN will be released additionally for production with immediate effect. The materials and specifications of the products remain unchanged

SelfQualificationReportCN-202605021F.pdf:

<https://qcm.nexperia.com/Document/DOC-612331/SelfQualificationReportCN-202605021F.pdf>

CN-202605021F_PCN-FORM_PCN.xlsm:

https://qcm.nexperia.com/Document/DOC-612327/CN-202605021F_PCN-FORM_PCN.xlsm

CN-202605021Fproductchangematrix.xlsx:

<https://qcm.nexperia.com/Document/DOC-612328/CN-202605021Fproductchangematrix.xlsx>

CN-202605021F_PCN-Delta-Qualification-Matrix.xlsm:

https://qcm.nexperia.com/Document/DOC-612326/CN-202605021F_PCN-Delta-Qualification-Matrix.xlsm

Why do we implement this change?

Exceptional circumstances outside the control of Nexperia B.V. regarding the test and assembly site ATGD in Dongguan, China are continuing to impact our supply chain. To ensure future supply and minimize disruption, we release the Nexperia B.V. owned assembly site ATSN in Seremban, Malaysia as an additional assembly site with immediate effect.

Impact and Required Action:

- New orders for the affected 12NCs will automatically be considered as acceptance of this PCN.
- If you do not agree with the changes described in this PCN, please let us know immediately and ensure no new orders for the affected products are placed. If we do not receive a response from you within five (5) working days

from the date of this PCN notification, we will assume that you accept the PCN.

- In case of a rejection of the PCN, Nexperia B.V. will reserve the right to cancel all open and confirmed orders related to the affected product(s) and as such a rejection may result in discontinuation of supply. Nexperia B.V. cannot be held liable for non-supply in such cases.

Identification of affected products

The assembly site can be identified on the packing labels (outer box as well as reel-label) and by the vendor code in the product marking.

Management summary

Release of additional assembly site ATSN (Seremban, Malaysia)

Product availability

Production

Planned first shipment: 19 Jun 2026

Existing inventory will be shipped until depleted

Sample information

Please see remarks for sample availability

Impact

No impact to the product's functionality anticipated

Data sheet revision

No impact to existing datasheet

Feedback

Your acknowledgement of this change, conform JEDEC J-STD-046, is expected till 12 Jun 2026. Lack of acknowledgement of the PCN constitutes acceptance of the change.

Additional information

[View Change Notification Online](#)

Remarks

Changes from previous change notifications will be introduced with the implementation of this notification. The affected previous change notifications are: CN-202402020F | Release of Cu wire for SOD123F CN-202404005F | BAS21H Cu-wire + die design change CN-202404010F | BZT52H types Cu-wire + 8 inch wafer diameter CN-202503013FU01 | Introduction of new die size and various other changes for Schottky diodes The list of affected products can be found in the file “CN-202605021F product change matrix.xlsx”. Please note that PCN sample requests for Extraordinary PCNs cannot be supported. There is no dedicated PCN sample step in this expedited process. Samples will become available after mass production start via our eSample Store, please contact your local Nexperia Sales Support Team.

Contact and support

For all Quality Notification content inquiries, please contact your local Nexperia Sales Support Team.

For specific questions on this notice or the products affected please contact our specialist directly: pcn@nexperia.com

In case of distribution, please contact you distribution partner.

About Nexperia B.V.

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CN-202605021F

Extraordinary PCN: Release of additional assembly site ATSN due to exceptional circumstances outside the control of Nexperia B.V.

Revision: 04 June 2026

Self Qualification Report

Document Information

Information	Content
Author	Andreas Pinkernelle
Supplier	Nexperia
Document Number	CN-202605021F

Revision History

Revision Date	Description
04 June 2026	New document

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1. Introduction

Table 1: Changes announced in PCN CN-202605021F

Current	Change
Assembly and Final Testing at	Assembly and Final Testing at
Nexperia China Ltd. (Nexperia ATGD)	Nexperia China Ltd. (Nexperia ATGD) or Nexperia Malaysia Sdn. Bhd. (Nexperia ATSN)

2. Affected product types

The following changes according to the ZVEI DeQuMa apply to the affected products:

SEM-PA-18: Move all or parts of production to a different assembly site.

SEM-TF-01: Move of all or part of electrical wafer test and/or final test to a different test site.

For the affected product types, please refer to the file "CN-202605021F product change matrix.xlsx".

3. Change details

3.1 Assembly Site

The additional assembly site Nexperia ATSN uses the same processes and materials as the current assembly site Nexperia ATGD.

The Nexperia ATSN assembly site was founded in 1992 and has been assembling discrete semiconductors ever since.

3.2 Final Testing Site

The additional final testing site Nexperia ATSN uses the same test equipment and testing specifications as the current assembly site Nexperia ATGD.

The Nexperia ATSN final testing site was founded in 1992 and has been testing discrete semiconductors ever since.

3.3 Previous Change Notifications

Changes from previous change notifications will be introduced with the implementation of this notification. The affected previous change notifications are:

CN-202402020F | Release of Cu wire for SOD123F

CN-202404005F | BAS21H Cu-wire + die design change

CN-202404010F | BZT52H types Cu-wire + 8 inch wafer diameter

CN-202503013FU01 | Introduction of new die size and various other changes for Schottky diodes

The list of affected products can be found in the file "CN-202605021F product change matrix.xlsx".

4. Reliability test vehicles

Table 2: Qualification leader types and materials used for qualification

Product	Package	Assembly Site	Number of lots	Mold Compound	See results in
BAT46WJ-Q			1		
PMEG3005EJ-Q	SOD323F ¹⁾	Nexperia ATSN	1	Sumitomo EME-E500HK	Table 4 and Table 5
PMEG6010CEJ-Q			1		
BAS16H-Q	SOD123F ²⁾		1		

¹⁾ Structurally similar to SOD123F, see Chapter 4.1

²⁾ Only test C2 (Physical Dimensions)

4.1 Structural similarity

Samples in SOD323F are used as qualification family leader types in accordance with AEC-Q101 rev. E, chapter A1.2.2. The justification of the structural similarity is shown in Table 3.

Table 3: Structural similarity

Attribute for structural similarity of the assembly process according to AEC-Q101 rev. E	SOD123F	SOD323F
		
Leadframe base material	C19400	
Leadframe plating (internal and external to the package)	Ag 4 µm	
Leadframe bonding plating composition and thickness	Sn 7.5 to 18 µm	
External lead plating composition and thickness	Sn 7.5 to 18 µm	
Die attach material/method	Back metal / eutectic	
Wire bond material, wire diameter, and process	Copper, 23 and 50 µm, thermosonic bonding	
Plastic mold compound or other encapsulation material	Sumitomo EME-E500HK	

5. Qualification reports

5.1 Qualification Results SOD323F

Table 4: Qualification results according to AEC-Q101 Rev. E and AEC-Q006 Rev. A (SOD323F)

Test Group A – Accelerated Environment Stress Tests

#	Stress	Test method	Duration	Tested part(s)	# of lots	Sample Size / lot	# of Fails
A1	PC Pre-conditioning	JEDEC/IPC J-STD-020, JESD22-A-113, TEST before and after PC	acc. to MSL 1	BAT46WJ-Q PMEG3005EJ-Q PMEG6010CEJ-Q	- see notes -		0
	Notes:	All qualification parts prior to tests #A2alt H ³ TRB, #A3 UHAST, #A4 TC/TCHT/TCDT, #A5 IOL/PTC and #C8 RSH.					
A2	HAST Highly Accelerated Stress Test	JEDEC JESD22-A-110 T _A = 130 °C, RH = 85 %, V _R = 80 % of max. rated reverse voltage or limit of chamber	96 hours	N/A	N/A	N/A	N/A
	Notes:	Omitted in lieu of alternative test, see test #A2 alt (H ³ TRB)					
A2 alt	H³TRB High Humidity High Temperature Reverse Bias	JEDEC JESD22-A-101 T _A = 85 °C, RH = 85 %, V _R = 80 % of rated breakdown voltage or limit of chamber	1000 hours	BAT46WJ-Q	1	80	0
				PMEG3005EJ-Q	1	80	0
				PMEG6010CEJ-Q	1	80	0
			2000 hours	BAT46WJ-Q	1	73	0
				PMEG3005EJ-Q	1	73	0
				PMEG6010CEJ-Q	1	73	0
Notes:		Seven samples per lot removed after 1000h for analysis per AEC-Q006 (see Table 5)					
A3	UHAST Unbiased HAST	JEDEC JESD22-A-118 T _A = 130 °C, RH = 85 %	96 hours	BAT46WJ-Q PMEG3005EJ-Q PMEG6010CEJ-Q	1 1 1	80 80 80	0 0 0
	Notes:	-					
A3 alt	AC Autoclave	JEDEC JESD22-A-102 T _A = 121 °C, RH = 100 %, p = 15 psig	96 hours	N/A	N/A	N/A	N/A
	Notes:	Omitted in lieu of alternative test, see test #A3 (UHAST)					
A4	TC Temperature Cycling	JEDEC JESD22-A-104 Appendix 6 T = -65 °C to 150°C	1000 cycles	BAT46WJ-Q	1	80	0
				PMEG3005EJ-Q	1	80	0
				PMEG6010CEJ-Q	1	80	0
			2000 cycles	BAT46WJ-Q	1	73	0
				PMEG3005EJ-Q	1	73	0
				PMEG6010CEJ-Q	1	73	0
Notes:		Seven samples per lot removed after 1000h for analysis per AEC-Q006 (see Table 5)					
A4a	TCHT Temperature Cycling Hot Test	JEDEC JESD22-A-104 Appendix 6	1000 cycles	N/A	N/A	N/A	N/A
	Notes:	TCHT is required for MOSFET parts with internal bond wire sizes 5 mil diameter and less. Reported parts are not MOSFET parts.					

#	Stress	Test method	Duration	Tested part(s)	# of lots	Sample Size / lot	# of Fails
A4a alt	TCDT Delamination Test	JEDEC JESD22-A-104 Appendix 6, J-STD-035	1000 cycles	N/A	N/A	N/A	N/A
	Notes:	TCDT is required for MOSFET parts with internal bond wire sizes 5 mil diameter and less. Reported parts are not MOSFET parts.					
A5	IOL Intermittent Operational Life	MIL-STD-750 Method 1037 T = 25 °C, $\Delta T_j \geq 100$ °C, $t_{on} = t_{off} = 2$ min	2000 hours	BAT46WJ-Q PMEG3005EJ-Q PMEG6010CEJ-Q	1 1 1	80 80 80	0 0 0
	Notes:	-					
A5 alt	PTC Power and Temperature Cycle	JESD22-A-105	1000 hours	N/A	N/A	N/A	N/A
	Notes:	Omitted in lieu of alternative test, see test # A5 (IOL)					

Test Group B – Accelerated Lifetime Simulation Tests

#	Stress	Test method	Duration	Tested part(s)	# of lots	Sample Size / lot	# of Fails
B1	HTRB High Temperature Reverse Bias	MIL-STD-750-1 M1038 Condition A or M1039 Condition A $T_j = 150^\circ\text{C}^*)$, $V_R = 100\%$ of max. breakdown voltage	1000 hours 2000 hours	BAT46WJ-Q PMEG3005EJ-Q PMEG6010CEJ-Q BAT46WJ-Q PMEG3005EJ-Q PMEG6010CEJ-Q	1 1 1 1 1 1	80 80 80 79 79 79	0 0 0 0 0 0
	Notes:	*) The physical limitations of Schottky diodes have to be considered (thermal runaway). One sample per lot removed after 1000h for analysis per AEC-Q006 (see Table 5)					
B1 a	ACBV AC blocking voltage	MIL-STD-750-1 M1040 Test condition A	1000 hours	N/A	N/A	N/A	N/A
	Notes:	ACBV is required for Thyristors only. Reported parts are not Thyristors.					
B1 b	SSOP Steady State Operational	MIL-STD-750-1 M1038 Condition B (Zeners)	1000 hours	N/A	N/A	N/A	N/A
	Notes:	SSOP is required for Voltage Stabilizers (Zeners) only.					
B2	HTGB High Temperature Gate Bias	JEDEC JESD22-A-108	1000 hours	N/A	N/A	N/A	N/A
	HTnGB High Temperature Negative Gate Bias	JEDEC JESD22-A-108	1000 hours	N/A	N/A	N/A	N/A

#	Stress	Test method	Duration	Tested part(s)	# of lots	Sample Size / lot	# of Fails
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Notes: HT(n)GB is required for MOS and IGBT parts only. Reported parts are not MOS or IGBT parts.

Test Group C – Package Assembly Integrity Tests

#	Stress	Test method	Duration	Tested part(s)	# of lots	Sample Size / lot	# of Fails
C1	DPA Destructive Physical Analysis	AEC-Q101-004 Section 4	-	BAT46WJ-Q	1	2+2	0
		2 devices each after H ³ TRB and TC		PMEG3005EJ-Q	1	2+2	0
				PMEG6010CEJ-Q	1	2+2	0
		Notes: -					
C2	PD Physical Dimensions	JEDEC JESD22-B-100	-	BAS16H-Q	1	30	0
		Notes: -					
C3	WBP Wire Bond Pull Strength	MIL-STD-750-2 Method 2037 / AEC-Q006 (Cu-wire)	-	BAT46WJ-Q	1	5	0
				PMEG3005EJ-Q	1	5	0
				PMEG6010CEJ-Q	1	5	0
		Notes: -					
C4	WBS Wire Bond Shear Strength	AEC-Q101-003, JEDEC JESD22-B116	-	BAT46WJ-Q	1	5	0
				PMEG3005EJ-Q	1	5	0
				PMEG6010CEJ-Q	1	5	0
		Notes: -					
C5	DS Die Shear	MIL-STD-750-2 Method 2017	-	BAT46WJ-Q	1	5	0
				PMEG3005EJ-Q	1	5	0
				PMEG6010CEJ-Q	1	5	0
		Notes: -					
C6	TS Terminal Strength	MIL-STD-750-2 Method 2036 evaluate lead integrity of through-hole leaded parts only	-	N/A	N/A	N/A	N/A
		Notes: TS is required for leaded parts only. Reported parts are not leaded parts.					
C7	RTS Resistance to Solvents	JEDEC JESD22-B107 verify marking permanency	-	N/A	N/A	N/A	N/A
		Notes: RTS is not required for laser etched parts or parts with no marking. Reported parts are laser etched parts.					
C8	RSH Resistance to Solder Heat	JEDEC JESD22-A-111	10 s	BAT46WJ-Q	1	30	0
		260 °C ± 5 °C		PMEG3005EJ-Q	1	30	0
				PMEG6010CEJ-Q	1	30	0
		Notes: -					
C9	TR Thermal Resistance	JEDEC JESD24-3, 24-4, 24-6 as appropriate	-	N/A	N/A	N/A	N/A
		Notes: -					

#	Stress	Test method	Duration	Tested part(s)	# of lots	Sample Size / lot	# of Fails
C10	SD Solderability	JEDEC J-STD-002	-	BAT46WJ-Q	1	30	0
				PMEG3005EJ-Q	1	30	0
				PMEG6010CEJ-Q	1	30	0
	Notes: -						
C11	WG Whisker Growth Evaluation	according to AEC-Q005		PMEG6010CEJ-Q	1	See note	0
	Notes: Tests and sample size per AEC-Q005						
C12	CA Constant Acceleration	MIL-STD-750-2 Method 2006	-	N/A	N/A	N/A	N/A
	Notes:	CA is required for hermetic packaged parts only. Reported package is not a hermetic package.					
C13	VVF Vibration Variable Frequency	JEDEC JESD22-B-103	-	N/A	N/A	N/A	N/A
	Notes:	VVF is required for hermetic packaged parts only. Reported package is not a hermetic package.					
C14	MS Mechanical Shock	JEDEC JESD22-B-104	-	N/A	N/A	N/A	N/A
	Notes:	MS is required for hermetic packaged parts only. Reported package is not a hermetic package.					
C15	HER Hermeticity	JEDEC JESD22-A-109	-	N/A	N/A	N/A	N/A
	Notes:	HER is required for hermetic packaged parts only. Reported package is not a hermetic package.					

Test Group D – Die Fabrication Reliability Tests

#	Stress	Test method	Duration	Tested part(s)	# of lots	Sample Size / lot	# of Fails
D1	DI Dielectric Integrity	AEC-Q101-004 Section 3	-	N/A	N/A	N/A	N/A
	Notes:	DI is required for Power MOS and IGBT parts only. Reported parts are not Power MOS or IGBT parts.					

Test Group E – Electrical Verification Tests

#	Stress	Test method	Duration	Tested part(s)	# of lots	Sample Size / lot	# of Fail s
E0	EV External Visual	JEDEC JESD22-B101	-	All qualification parts submitting for testing.			0
	Notes: Inspect part construction, marking and workmanship						
E1	TEST Pre- and Post-Stress Electrical Test	According to supplier's standard specification	-	All qualification parts tested per the requirements of the appropriate part specification.			0
	Notes: Test is performed as specified in the applicable stress reference at room temperature.						
E2	PV Parametric Verification	Over part temperature range specified in data sheet.	-	BAT46WJ-Q PMEG3005EJ-Q PMEG6010CEJ-Q	1 1 1	25 25 25	0 0 0
	Notes: -						
E3	ESDH ESD – HBM Characterization	AEC-Q101-001	-	N/A	N/A	N/A	N/A
	Notes: Same die, die attach, wire bond and leadframe is used, therefore there are no changes in ESD performance						
E4	ESDC ESD – CDM Characterization	AEC-Q101-005	-	N/A	N/A	N/A	N/A
	Notes: Small packages are not able to hold enough charge and are therefore exempt of testing according to AEC-Q101-005.						
E5	UIS Unclamped Inductive Switching	AEC-Q101-004 Section 2	-	N/A	N/A	N/A	N/A
	Notes: UIS is required for MOS and IGBT parts only. Reported parts are not MOS or IGBT parts.						
E6	SC Short Circuit Characterization	AEC-Q101-006	-	N/A	N/A	N/A	N/A
	Notes: SC is required for smart power parts only. Reported parts are not smart power parts.						

Table 5 Analyses after test (according to Table 3b of AEC-Q006 Rev. A) (SOD323F)

#	Analysis	Qualification Step	Tested part(s)	# of lots	Sample Size / lot	# of Fails
2	CSAM	Before preconditioning (#A1) of parts submitted to H3TRB (#A2 alt), TC (#A4) and IOL (#A5)	BAT46WJ-Q PMEG3005EJ-Q PMEG6010CEJ-Q	1 1 1	15 15 15	0 0 0
4	CSAM	After preconditioning (#A1) of parts submitted to H3TRB (#A2 alt), TC (#A4) and IOL (#A5)	BAT46WJ-Q PMEG3005EJ-Q PMEG6010CEJ-Q	1 1 1	15 15 15	0 0 0
	Notes: Same samples as in CSAM before preconditioning (#2)					

#	Analysis	Qualification Step	Tested part(s)	# of lots	Sample Size / lot	# of Fails
8	CSAM	After 1000h H3TRB (#A2 alt) and HTRB (#B1), after 1000c TC (#A4)	BAT46WJ-Q	1	15	0
			PMEG3005EJ-Q	1	15	0
			PMEG6010CEJ-Q	1	15	0
	Notes: Same samples as in CSAM before preconditioning (#2)					
9a	Ball + Stitch/Wedge pull	After 1000h H3TRB (#A2 alt), after 1000c TC (#A4)	BAT46WJ-Q	1	3	0
			PMEG3005EJ-Q	1	3	0
			PMEG6010CEJ-Q	1	3	0
9b	Ball shear	After 1000h H3TRB (#A2 alt), after 1000c TC (#A4)	BAT46WJ-Q	1	3	0
			PMEG3005EJ-Q	1	3	0
			PMEG6010CEJ-Q	1	3	0
10	Cross Section	After 1000h H3TRB (#A2 alt) and HTRB (#B1), after 1000c TC (#A4)	BAT46WJ-Q	1	1	0
			PMEG3005EJ-Q	1	1	0
			PMEG6010CEJ-Q	1	1	0
13	CSAM	After 2000h H3TRB (#A2 alt) and HTRB (#B1), after 2000c TC (#A4)	BAT46WJ-Q	1	15	0
			PMEG3005EJ-Q	1	15	0
			PMEG6010CEJ-Q	1	15	0
	Notes: Same samples as in CSAM before preconditioning (#2)					
14a	Ball + Stitch/Wedge pull	After 2000h H3TRB (#A2 alt), after 2000c TC (#A4)	BAT46WJ-Q	1	2	0
			PMEG3005EJ-Q	1	2	0
			PMEG6010CEJ-Q	1	2	0
14b	Ball shear	After 2000h H3TRB (#A2 alt), after 2000c TC (#A4)	BAT46WJ-Q	1	2	0
			PMEG3005EJ-Q	1	2	0
			PMEG6010CEJ-Q	1	2	0
15	Cross Section	After 2000h H3TRB (#A2 alt) and HTRB (#B1), after 2000c TC (#A4)	BAT46WJ-Q	1	2	0
			PMEG3005EJ-Q	1	2	0
			PMEG6010CEJ-Q	1	2	0

6. Electrical and thermal performance

6.1 Electrical performance

Full electrical characterization over temperature range has been performed. Electrical parameters remain unchanged (in specification and with the same distribution).

6.2 Thermal performance

Thermal parameters remain unchanged (in specification and with the same distribution).

7. Comparison of visual appearance

There is no change of visual appearance (within specification).

8. Traceability

The assembly site can be identified on the packing labels (outer box as well as reel-label) and by the vendor code in the product marking.

9. Conclusion

The products do not change functionally. Nexperia does not anticipate any impact on fit, form, function, and reliability.

10. Disclaimer

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