Product/process change notification

PCN N° 2025-022-A

Dear customer,

Please find attached our Infineon Technologies AG PCN:

Transfer of wafer production, wafer test and pre-assembly location to IFX Kulim, and change of wafer diameter from 150 mm to 200 mm, and implementation of new mould compound for PG-TO252 package, for P-Channel Small Signal and Power MOSFETs

Important information for your attention:

- Please respond to this PCN by indicating your decision on the approval form, sign it and return to your sales partner before **2026-02-02**
- Infineon aligns with the widely recognized JEDEC STANDARD **"JESD46",** which stipulates: **"Lack of acknowledgement of the PCN within 30 days constitutes acceptance of the change."**

Your prompt reply will help Infineon to assure a smooth and well-executed transition. If Infineon does not hear from your side by the due date, we will assume your full acceptance to this proposed change and its implementation.

Your attention and response to this matter is greatly appreciated.

Infineon Technologies AG
Postal address D-81726 München Internet www.infineon.com Headquarters Am Campeon 1-15, D-85579 Neubiberg Phone +49 (0)89 234-0
Chairman of the Supervisory Board Dr. Herbert Diess
Management Board Jochen Hanebeck (CEO), Alexander Gorski, Elke Reichart, Dr. Sven Schneider, Andreas Urschitz
Registered office Neubiberg Commercial register Amtsgericht München HRB 126492

Product/process change notification

PCN N° 2025-022-A

- **Products affected**

Please refer to attached affected product list
PCN_2025-022-A_[*customer-no*].pdf

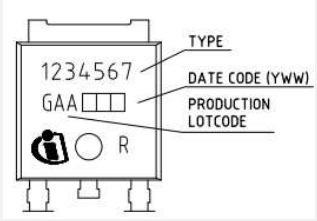
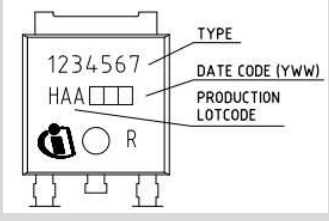
- **Detailed change information**

Subject

Transfer of wafer production, wafer test and pre-assembly location to IFX Kulim, and change of wafer diameter from 150 mm to 200 mm, and implementation of new mould compound for PG-TO252 package, for P-Channel Small Signal and Power MOSFETs

Reason

Wafer production, wafer test and pre-assembly location will be transferred according to the global Infineon production strategy

Description	**Old**	**New**
Wafer production and wafer test location	- Infineon Technologies Austria AG, Villach, Austria	- Infineon Technologies Sdn. Bhd., Kulim, Malaysia
Wafer diameter	- 150 mm	- 200 mm
Pre-assembly location	- Infineon Technologies (Malaysia) Sdn. Bhd., Melaka, Malaysia - Infineon Technologies (Wuxi) Co. Ltd., Wuxi, China Technologies (Wuxi) Co. Ltd., Wuxi, China	- Infineon Technologies Sdn. Bhd., Kulim, Malaysia
Wafer Lotnumber	- VCxxxxxx (Villach)	- PFxxxxxx (Kulim)
Mould compound (PG-TO252)	- MP 8000 (non-halogen free)	- KMC 2110 (halogen free)
Halogen Free Flag (PG-TO252)	- No	- Yes
OPN incl. SP# (PG-TO252)	- xxxBTMA1 (non-halogen free)	- xxxATMA1(halogen free)
Production Lot code Marking on device (PG-TO252)	- GAA YWW (non-halogen free) 	- HAA YWW (halogen free) 

Product/process change notification

PCN N° 2025-022-A

- **Product identification**

  Traceability assured via Wafer lot number printed on Barcode Product Label

  For PG-TO252: Traceability assured on the Barcode Product Label via Wafer lot number, Production Lot Code and SP number and OPN (see 3_cip25022_a) and on marking on device

- **Impact of change**

  NO change on electrical, thermal parameters and reliability as proven via product qualification and characterization.

  NO change in existing product datasheet parameters

  NO change in quality and reliability. Processes are optimized to meet product performance according to already applied Infineon specification

- **Attachments**

PCN_2025-022-A_[*customer-no*].pdf	affected product list
2_cip25022_A	qualification report
3_cip25022_A	OPN & SP list

- **Time schedule**

Final qualification report	available
First samples available	on request
Intended start of delivery	2026-03-31 or earlier based on customer approval

If you have any questions, please do not hesitate to contact your local sales office.

Qualification Test Results
according to AEC Q101 Rev.E

Product family: KSP: -250V, -100V, -60V in packages PG-SOT223-4, PG-SOT89-4, PG-SOT23-3, PG-DSO-8, PG-SC59-3, PG-TO263-3, PG-TO252-3, PG-TO220-3

PCN Title: **PCN No 2025-022-A**
Transfer of wafer production, wafer test and pre-assembly location to IFX Kulim, and change of wafer diameter from 150 mm to 200 mm, and implementation of new mould compound for PG-TO252 package, for P-Channel Small Signal and Power MOSFETs

FE technology: KSP_8, -250V, -100V, -60V, Kulim

BE technology: PG-SOT223-4, PG-SOT89-4, PG-SOT23-3 (Wuxi), China.
PG-DSO-8, PG-SC59-3, PG-TO263-3, PG-TO252-3, PG-TO220-3 (Melaka), Malaysia.

Date: 19.12.2025

Department: PSS QM PS ULV

Provided by:

Reviewed by:

Products covered:	**Basic types:**
BSO613SPV G	G0904R
BSP613P	G0904R
BSR316P	G0875S
BSS192P	G0886S
BSS83P	G0864Y
SPB80P06P G	G0974O
SPD15P10P G	G0925M
SPP80P06P H	G0974M
BSP171P	G0914S
SPD08P06P G	G0914U
SPD09P06PL G	G0914V
SPD15P10PL G	G0925N
SPD18P06P G	G0904M
SPD30P06P G	G0964M
BSS84P	G0894T
BSP315P	G0854S
BSP316P	G0875S
BSP317P	G0836S
BSP322P	G0945S
BSP170P	G0914R
BSR315P	G0854S
BSR92P	G0886S
BSS84PW	G0894T
SPD04P10PL G	G0945N
SPP15P10PL H	G0925N
BSP92P	G0886S

Reason for qualification: Cover all MOSFET P-channel products in PG-SOT223-4, PG-SOT89-4, PG-SOT23-3 assembled at Infineon Technologies (Wuxi) China and PG-DSO-8, PG-SC59-3, PG-TO263-3, PG-TO252-3, PG-TO220-3 assembled at Infineon Technologies (Melaka) Malaysia.

Item	Test	IFX Testing Conditions	Product (evaluation no.)	No. of tested devices	No. of failed devices	Remarks
A1	Pre-conditioning (PC)	MSL 1 soak, 3x SD260°C for all other parts MSL 3 soak, 3x SD260°C for BSO613SPV G	all parts / all tests **except** *for the THD device (SPP80P06P H) and parts for PV and ESD*	all parts		
A2 alt	High Humidity High Temperature Reverse Bias (H3TRB)	T: 85°C RH: 85% VDS: 80% VDS max t: 1000h	BSO613SPV G BSP613P BSR316P BSS192P BSS83P SPB80P06P G SPD15P10P G SPP80P06P H	77 77 77 77 77 77 77 77	0 0 0 0 0 0 0 0	
A3	Unbiased HAST (UHAST)	T: 130°C RH: 85 % t: 96h	BSO613SPV G BSP613P BSR316P BSS192P BSS83P SPB80P06P G SPD15P10P G SPP80P06P H	77 77 77 77 77 77 77 77	0 0 0 0 0 0 0 0	
A4	Temperature Cycling (TC)	T min: -55°C T max: +150°C n: 1000 cycles	BSO613SPV G BSP613P BSR316P BSS192P BSS83P SPB80P06P G SPD15P10P G SPP80P06P H	77 77 77 77 77 77 77 77	0 0 0 0 0 0 0 0	
A4a alt	TC Delamination Test (TCDT)	Internal Physical Inspection after TC 1000 cycles		-	-	Delamination and wire bonding is checked after the TC stress test
A5	Intermittent Operational Life (IOL)	Delta T = 100 K n: 15000 cycles	BSO613SPV G BSP613P BSR316P BSS192P BSS83P SPB80P06P G SPD15P10P G SPP80P06P H	77 77 77 77 77 77 77 77	0 0 0 0 0 0 0 0	
B1	High Temperature Reverse Bias (HTRB)	VDS: VDSmax acc to DS T: Tj max t: 1000h	BSO613SPV G BSP613P BSR316P BSS192P BSS83P SPB80P06P G SPD15P10P G SPP80P06P H	77 77 77 77 77 77 77 77	0 0 0 0 0 0 0 0	
B2	High Temperature Gate Bias (HTGB)	VGS: ± VGS acc. to DS T: Tj max t: 1000h	BSO613SPV G BSP613P BSR316P BSS192P BSS83P SPB80P06P G SPD15P10P G SPP80P06P H	77 77 77 77 77 77 77 77	0 0 0 0 0 0 0 0	
C1	Destructive Physical Analysis (D.P.A.)	Internal Physical Inspection Random samples after UHAST, TC.	BSO613SPV G BSP613P BSR316P BSS192P BSS83P SPB80P06P G SPD15P10P G SPP80P06P H	2 2 2 2 2 2 2 2	0 0 0 0 0 0 0 0	2 parts/ lot with 1 part taken out after TC, UHAST. - 1 device after 1000 cycles TC - 1 device after 96h UHAST
C2	Physical Dimension (PD)		Generic data from assembly line	-	-	Regularly done in the assembly line
C3	Wire Bond Pull Strength (WBP)	Internal Physical Inspection Random samples after UHAST, TC, and HTRB	BSO613SPV G BSP613P BSR316P BSS192P BSS83P SPB80P06P G SPD15P10P G SPP80P06P H	15 15 15 15 15 15 15 15	0 0 0 0 0 0 0 0	15 parts/ lot with 5 parts taken out after TC, UHAST, HTRB. - 5 devices after 1000 cycles TC - 5 devices after 96h UHAST - 5 devices after 1000h HTRB

Qualification Test Results
according to AEC Q101 Rev.E

Product family: KSP: -250V, -100V, -60V in packages PG-SOT223-4, PG-SOT89-4, PG-SOT23-3, PG-DSO-8, PG-SC59-3, PG-TO263-3, PG-TO252-3, PG-TO220-3

Date: 19.12.2025

PCN Title: **PCN No 2025-022-A**
Transfer of wafer production, wafer test and pre-assembly location to IFX Kulim, and change of wafer diameter from 150 mm to 200 mm, and implementation of new mould compound for PG-TO252 package, for P-Channel Small Signal and Power MOSFETs

Department: PSS QM PS ULV

FE technology: KSP_8, -250V, -100V, -60V, Kulim

Provided by:

BE technology: PG-SOT223-4, PG-SOT89-4, PG-SOT23-3 (Wuxi), China.
PG-DSO-8, PG-SC59-3, PG-TO263-3, PG-TO252-3, PG-TO220-3 (Melaka), Malaysia.

Reviewed by:

C4	Wire Bond Shear Strength (WBS)	Internal Physical Inspection Random samples after UHAST, TC, and HTRB	BSO613SPV G BSP613P BSR316P BSS192P BSS83P SPB80P06P G SPD15P10P G SPP80P06P H	15 15 15 15 15 15 15 15	0 0 0 0 0 0 0 0	15 parts/ lot with 5 parts taken out after TC, UHAST, HTRB. - 5 devices after 1000 cycles TC - 5 devices after 96h UHAST - 5 devices after 1000h HTRB
C5	Die Shear (DS)	-	-	-	-	n.a. Silicon is breaking before the die can be sheared off
C6	Terminal Strength (TS)	-	-	-	-	Not required for SMD packages
C7	Resistance to Solvents (RTS)	-	-	-	-	Not required for laser marking
C8	Resistance to Solder Heat (RSH)	-	-	-	-	Products are not designed for wave soldering
C9	Thermal Resistance (TR)	-	-	-	-	Covered by the dVSD test executed in BE production
C10	Solderability (SD)	-	Generic data from assembly line	-	-	Regularly done in the assembly line
C11	Whisker Growth Evaluation (WG)	-	Generic data from assembly line	-	-	Regularly done in the assembly line
C12	Constant Acceleration (CA)	-	-	-	-	Not required for non-hermetic packages
C13	Vibration Variable Frequency (VVF)	-	-	-	-	Not required for non-hermetic packages
C14	Mechanical Shock (MS)	-	-	-	-	Not required for non-hermetic packages
C15	Hermeticity (HER)	-	-	-	-	Not required for non-hermetic packages
D1	Dielectric Integrity (DI)	-	60V device (2lots LL / 2lots NL) 100V device (2lots LL/2lots NL) 250V device (2lots LL)	>50 >50 >50	0 0 0	Gate oxide reliability qualification on wafer level, including assessment of lifetime and defect density pass. 100% IGSS stress test performed at production test --> screening of extrinsic fails
E0	External Visual (EV)	-	-	-	-	EV is part of qualification procedure at incoming and post every stress test
E1	Pre- and Post-Stress Electrical Test (TEST)	-	-	-	-	TEST is part of qualification procedure
E2	Parametric Verification (PV)	at 25 °C and Tj, Tstg acc. DS	BSO613SPV G BSP613P BSR316P BSS192P BSS83P SPB80P06P G SPD15P10P G SPP80P06P H BSP171P SPD08P06P G SPD09P06PL G SPD15P10PL G SPD18P06P G SPD30P06P G BSS84P BSP315P BSP316P BSP317P BSP322P BSP170P BSR315P BSR92P BSS84PW SPD04P10PL G SPP15P10PL H BSP92P	30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
E3	ESD HBM Characterization (ESDH)	Ta = 25°C	BSO613SPV G BSP613P BSR316P BSS192P BSS83P SPB80P06P G SPD15P10P G SPP80P06P H BSP171P SPD08P06P G SPD09P06PL G SPD15P10PL G SPD18P06P G SPD30P06P G BSS84P BSP315P BSP316P BSP317P BSP322P BSP170P BSR315P BSR92P BSS84PW SPD04P10PL G SPP15P10PL H BSP92P	H1C / > 1000 to < 2000V H1C / > 1000 to < 2000V H0 / <= 250V H0 / <= 250V H0 / <= 250V H3A / > 4000V to < 8000V H1C / > 1000 to < 2000V H3A / > 4000V to < 8000V H1B / > 500 to < 1000V H1B / > 500V to < 1000V H1B / > 500V to < 1000V H1C / > 1000V to < 2000V H1C / > 1000V to < 2000V H2 / > 2000V to < 4000V H0 / < 250V H1A / > 250V to < 500V H1A / > 250V to < 500V H1B / > 500V to < 1000V H1B / > 500V to < 1000V H1B / > 500V to < 1000V H1B / > 500V to < 1000V H1A / > 250V to < 500V H0 / <= 250V H1A / > 250V to < 500V H2 / > 2000V to < 4000V H1A / > 250V to < 500V	-	Classification acc. to AEC Q101-001 rev.A

Qualification Test Results
according to AEC Q101 Rev.E

Infineon Automotive Quality

Product family: KSP: -250V, -100V, -60V in packages PG-SOT223-4, PG-SOT89-4, PG-SOT23-3, PG-DSO-8, PG-SC59-3, PG-TO263-3, PG-TO252-3, PG-TO220-3

PCN Title: **PCN No 2025-022-A**
Transfer of wafer production, wafer test and pre-assembly location to IFX Kulim, and change of wafer diameter from 150 mm to 200 mm, and implementation of new mould compound for PG-TO252 package, for P-Channel Small Signal and Power MOSFETs

FE technology: KSP_8, -250V, -100V, -60V, Kulim

BE technology: PG-SOT223-4, PG-SOT89-4, PG-SOT23-3 (Wuxi), China.
PG-DSO-8, PG-SC59-3, PG-TO263-3, PG-TO252-3, PG-TO220-3 (Melaka), Malaysia.

Date: 19.12.2025

Department: PSS QM PS ULV

Provided by:

Reviewed by:

E4	ESD CDM Characterization (ESDC)	Ta = 25°C	BSO613SPV G BSP613P BSR316P BSS192P BSS83P SPB80P06P G SPD15P10P G SPP80P06P H BSP171P SPD08P06P G SPD09P06PL G SPD15P10PL G SPD18P06P G SPD30P06P G BSS84P BSP315P BSP316P BSP317P BSP322P BSP170P BSR315P BSR92P BSS84PW SPD04P10PL G SPP15P10PL H BSP92P	C3 / >= 1000 V C3 / >= 1000 V	-	Classification acc. to AEC Q101-005 rev.A
E5	Unclamped Inductive Switching (UIS)	-	-	-	-	Covered by the avalanche test executed in BE production
E6	Short Circuit Characterization (SC)	-	-	-	-	Not required for MOSFETs

PCN N° 2025-022-A

Transfer of wafer production, wafer test and pre-assembly location to IFX Kulim, and change of wafer diameter from 150 mm to 200 mm, and implementation of new mould compound for PG-TO252 package, for P-Channel Small Signal and Power MOSFETs

Sales name	Old SP number	New SP number	Old OPN	New OPN	Old Mould Compound	New Mould Compound	Old Halogen Free flag	New Halogen Free flag	Package
SPD04P10PL G	SP000212231	SP006027674	SPD04P10PLGBTMA1	SPD04P10PLGATMA1	MC_MP 8000 CH4	MC_KMC 2110 G-7S	N	Y	PG-TO252-3
SPD08P06P G	SP000450534	SP006027652	SPD08P06PGBTMA1	SPD08P06PGATMA1	MC_MP 8000 CH4	MC_KMC 2110 G-7S	N	Y	PG-TO252-3
SPD09P06PL G	SP000443928	SP006027654	SPD09P06PLGBTMA1	SPD09P06PLGATMA1	MC_MP 8000 CH4	MC_KMC 2110 G-7S	N	Y	PG-TO252-3
SPD15P10P G	SP000212233	SP006027675	SPD15P10PGBTMA1	SPD15P10PGATMA1	MC_MP 8000 CH4	MC_KMC 2110 G-7S	N	Y	PG-TO252-3
SPD15P10PL G	SP000317393	SP006027676	SPD15P10PLGBTMA1	SPD15P10PLGATMA1	MC_MP 8000 CH4	MC_KMC 2110 G-7S	N	Y	PG-TO252-3
SPD18P06P G	SP000443926	SP006027656	SPD18P06PGBTMA1	SPD18P06PGATMA1	MC_MP 8000 CH4	MC_KMC 2110 G-7S	N	Y	PG-TO252-3
SPD30P06P G	SP000441776	SP006027657	SPD30P06PGBTMA1	SPD30P06PGATMA1	MC_MP 8000 CH4	MC_KMC 2110 G-7S	N	Y	PG-TO252-3