

Light is OSRAM



15.04.2020

Dear Customer,

please find attached our OSRAM OS PCN:

OS-PCN-2020-001-A Introduction of 6” ThinGaN chip for Mid Power devices

Important information for your attention:

Please review the **Customer approval form** at the end of the document and provide your feedback to your OSRAM OS sales partner before **02.06.2020**. *)

Your prompt reply will help OSRAM OS to assure a smooth and well executed transition. If OSRAM OS does not hear from your side by the due date, we will assume your (if you are a Distributor: and your customer’s) full acceptance to this proposed change and its implementation.

OSRAM OS understands the time requirements your organization needs to approve this PCN. However, if you can provide OSRAM OS an estimated date your organization will approve this PCN, OSRAM OS can use this date to plan continued production to secure your order needs during the transition time you require to review and approve this PCN.

Your attention and response to this matter is highly appreciated.

Please direct your inquiries to your local Sales office.

*) OSRAM OS aligns with the widely-recognized JEDEC STANDARD “JESD46-C”, which stipulates:

- “Customers should acknowledge receipt of the PCN within 30 days of delivery of the PCN.”
- “Lack of acknowledgement of the PCN within 30 days constitutes acceptance of the change.”
- “After acknowledgement, lack of additional response within the 90 day period constitutes acceptance of the change. An acceptance or concern response should be submitted to the supplier in a timely fashion, (i.e., customer should not wait to the end of the 90 day review period before responding, if the response is known before that time.)”

OS-PCN-2020-001-A

Introduction of 6” ThinGaN chip for Mid Power devices

Subject of change:	Introduction of 6” ThinGaN chip for Mid Power devices	
Affected products	LB G6SP; LCB G6SP; LW G6CP; LW G6SP; LCW G6SP; LCY G6SP	
Reason for change:	Change of wafer size to 6” based on Si carrier following our UX:3 chip portfolio and 6” ThinGaN for High Power Brands to achieve harmonization within the production	
Description of change	<u>Current status</u> Wafer diameter: 4“ (100mm) Wafer substrate: Germanium Chip height: 190µm Dicing process: laser	<u>New status</u> Wafer diameter: 6“ (150 mm) Wafer substrate: Silicon Chip height: 120µm Dicing process: plasma
	For details please refer to Customer information package 2_cip_OS-PCN-2019-021-A	
Product identification:	Laser marking on device	

Time schedule for PCN material (after implementation of change):	Final qualification report	available
	Sample availability	available
	Intended Start of delivery	01.08.2020 ^{*)} ^{*)} or earlier if released by customer and upon mutual agreement
Time schedule for Pre-PCN material (prior to implementation of change):	Last time order date (LTO)	15.12.2020 ^{**))} ^{**))} expected approval date needs to be available at this time. Lead time and LTO quantity shall be mutually agreed between OSRAM OS and customer.
	Last time delivery date (LTD)	15.07.2021 ^{***))} ^{***))} planned last date for delivery of products of current status
Assessment:	no change in fit, form, function and reliability no change in product data sheet	
Documentation:	2_cip_OS-PCN-2020-001-A 3_cip_OS-PCN-2020-001-A_qual	

Note:

Pre-PCN material: Products of current status, means before implementation of the changes as described in the PCN.

PCN material: Products with implementation of the changes as described in the PCN.

Customer approval form

OS-PCN-2020-001-A

Introduction of 6" ThinGaN chip for Mid Power devices

Please list product(s) affected in your application(s):

Please check the appropriate box below:

- | | |
|--|---|
| <input type="radio"/> Approval:
We agree with the proposed change and accept start of the shipment upon availability of PCN material | <input type="radio"/> Not relevant:
Change is not relevant for products in use. |
|--|---|

Change cannot be accepted:

- We have objections:**

- We request following Information:**

- We request following Samples:**

- Expected approval date:**

- Volume requirements for Pre-PCN material:**

Sender:

Company:

Address / Location:

Signature:

Date:

Please return this approval form to your Sales partner.

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GmbH

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OS-PCN-2020-001-A

**Introduction of 6” ThinGaN chip for
Mid Power devices**

Customer information package

OS QM CQM |

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Introduction of 6" ThinGaN chip for Mid Power devices

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Reason for change

- **Change of wafer size to 6" based on Si carrier following our UX:3 chip portfolio and 6" ThinGaN for High Power Brands to achieve harmonization within the production**
- **no change in fit, form, function and reliability**
- **no change in product data sheet**

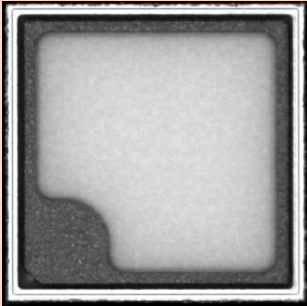
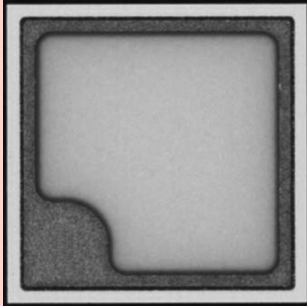
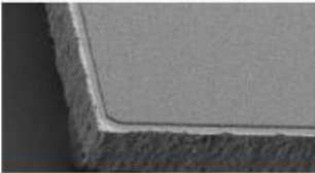
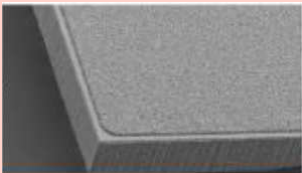


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Introduction of 6" ThinGaN chip for Mid Power devices



Description of change

	Current status	New status
Picture (exemplary)		
Wafer Diameter	100 mm (4")	150 mm (6")
Wafer Substrate	Germanium carrier	Silicon carrier
Height	190µm	120µm
Chip dicing process	Laser dicing 	Plasma dicing 

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Introduction of 6" ThinGaN chip for Mid Power devices



List of affected products

Advanced Power TOPLED
LB G6SP
LCB G6SP
LW G6CP
LW G6SP
LCW G6SP
LCY G6SP

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Introduction of 6" ThinGaN chip for Mid Power devices



PCN Samples

Advanced Power TOPLED
LB G6SP
LCB G6SP
LW G6CP
LW G6SP
LCW G6SP
LCY G6SP

 available

 on request

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Introduction of 6" ThinGaN chip for Mid Power devices



Time schedule

for <u>PCN material</u> (after implementation of change):	Final qualification report	available
	Samples available	available
	Intended Start of delivery	01.08.2020*) *) or earlier if released by customer and upon mutual agreement

for <u>Pre-PCN material</u> (prior to implementation of change):	Last time order date (LTO)	15.12.2020**) **) expected approval date needs to be available at this time. Lead time and LTO quantity shall be mutually agreed between OSRAM OS and customer.
	Last time delivery date (LTD)	15.07.2021***) ***) planned last date for delivery of products of current status

Note:

Pre-PCN material: Products of current status, means before implementation of the changes as described in the PCN.
PCN material: Products with implementation of the changes as described in the PCN.

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Thank you.

Material (Q-no.)	QD
Q65111A8103	LCY G6SP-DAEA-5E-1-140-R18-Z-VEN
Q65110A9043	LW G6SP-EAFA-JKQL-1-140-R18-Z
Q65111A0672	LW G6CP-EBFB-MKNL-1-140-R18-Z-AL
Q65111A0672	LW G6CP-EBFB-MKNL-1-140-R18-Z-AL
Q65111A7141	LW G6CP-EBFB-MKNL-1-140-R33-Z-AL
Q65111A0672	LW G6CP-EBFB-MKNL-1-140-R18-Z-AL
Q65111A0672	LW G6CP-EBFB-MKNL-1-140-R18-Z-AL
Q65110A9043	LW G6SP-EAFA-JKQL-1-140-R18-Z
Q65111A0841	LW G6CP-EBFB-MNL-1-140-R18-Z
Q65111A0340	LCW G6CP-DBEA-6U8X-0-140-R18-Z-JC
Q65110A9043	LW G6SP-EAFA-JKQL-1-140-R18-Z
Q65110A8813	LCY G6SP-CBDB-5E-1-140-R18-Z
Q65111A2452	LW G6CP-EAFA-MKNL-1-140-R18-Z
Q65111A0372	LCY G6SP-DADB-5E-1-140-R18-Z-XX
Q65110A8692	LW G6CP-EBFB-MKNL-1-140-R18-Z-VL
Q65111A3554	LW G6CP-EBFB-MKKN-1-140-R18-Z-VL
Q65111A5805	LCY G6SP-DAEA-5E-1-140-R18-Z-VAR
Q65111A6421	LW G6SP-EAFA-MKNL-1-140-R18-Z-VAR
Q65111A0672	LW G6CP-EBFB-MKNL-1-140-R18-Z-AL
Q65111A2994	LCB G6SP-DBEB-3J4L-0-140-R18-Z-F
Q65111A2994	LCB G6SP-DBEB-3J4L-0-140-R18-Z-F