Light is OSRAM

18.05.2015

Dear Customer,

please find attached our OSRAM OS PCN:

OS-PCN-2015-016-A
Introduction of BBOS wire bond process for MiniMIDLED

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 **23.06.2015**.

OSRAM OS aligns with the widely-recognized JEDEC STANDARD "JESD46-B", which stipulates: "Lack of acknowledgement of the PCN within 30 days constitutes acceptance of the change".

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 full acceptance to this proposed change and its implementation.

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.

Your attention and response to this matter is highly appreciated.

Please direct your inquiry to your local Sales office.

OS-PCN-2015-016-A
Introduction of BBOS wire bond process for MiniMIDLED

Subject of change:	Introduction of BBOS wire bond process for MiniMIDLED	
Affected products	SFH 4441, SFH 4451	
Reason for change:	Harmonization of wire bond methods within the MIDLED product family. Improvement of package robustness against external mechanical force.	
Description of change	Current wire bond process on package side: Ball stitch on ball (BSOB) bonding	New wire bond process on package side: Bump bond on stitch (BBOS) bonding
	For details refer to 2_cip_OS-PCN-2015-016-A	
Product identification:	Date code	
Time schedule:	Final qualification report	CW22 / 2015
	Samples available	available
	Production release	26.05.2015
	Start of delivery	18.08.2015 *) *) or earlier if released by customer
Assessment:	No change in data sheet No change in reliability Wirebond technique known for other high volume products from same production location	
Documentation:	2_cip_OS-PCN-2015-016-A	

Customer approval form

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Introduction of BBOS wire bond process for MiniMIDLED

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

Please check the appropriate box below:

- ○ **Agreement:** We agree with the proposed change and accept start of the shipment upon availability of the new version.
- ○ **Objections:** We have objections:
- ○ **Information requested:** We need the following information:
- ○ **Samples requested:** We need the following samples:

Sender

Company:

Adress / Location:

Signature: **Date:**

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Introduction of BBOS wire bond process for MiniMIDLED
Customer information package

OS QM CQM PS | 18.05.2015

OS-PCN-2015-016-A
Overview

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OS-PCN-2015-016-A
Introduction of BBOS wire bond process for MiniMIDLED

Reason for change

Harmonization of wire bond methods within the MIDLED product family.
Improvement of package robustness against external mechanical force.

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Introduction of BBOS wire bond process for MiniMIDLED

Description of change

Current status	New status
Wire bond process on package: Ball stitch on ball bonding (BSOB) ➔Ball bond is formed on the housing bond pad. ➔Main bond wire is stitch bonded onto the ball.	Wire bond process on package: Bump bond on stitch bonding (BBOS) ➔Main bond wire is stitch bonded to the housing bond pad. ➔Bump bond is bonded over the stitch.
Stitch Main bond wire Ball	Bump bond on stitch Main bond wire

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Reliability test plan

Test plan	Condition	Duration	Sample size
Resistance to soldering heat (RTSH)	Reflow soldering 260°C	3x	3 x 30
Temperature cycle (TC)	-40°C / +85°C 15 min. each extrem	300x	3 x 30

Preconditioning: MSL 2
Device under test: SFH 4451 or SFH 4441

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Time schedule

• Qualification report	CW 22 / 2015
• Samples	available
• Production release	26.05.2015
• Start of delivery	18.08.2015
	or earlier if released by customer

Thank you.

Products Affected by Product Change Notification

Number: *OS-PCN-2015-016-A*
Name: *Introduction of BBOS wire bond process for MiniMIDLED*
Release Date: *5/18/2015*
Response Due Date: *6/27/2015*
Implementation Date: *8/18/2015*

Product	QNumber	QNumber Description	Part Number
SFH 4441	Q65111A4266	SFH 4441	SFH 4441
SFH 4451	Q65111A2583	SFH 4451	SFH 4451
	Q65111A4223	SFH 4451-UV	SFH 4451-UV
	Q65111A6962	SFH 4451-V	SFH 4451-V