

Product Change Notification (PCN)



N° LFPCN240408

Date: April 08th, 2024

Subject: ***PCN for V2 Power Modules Inhouse Assembly Location Transfer***
(Refer to the list of affected parts in page 4)

Dear Valued Customer,

Littelfuse would like to notify you about the transfer of the backend manufacturing of our modules in V2 package to our Outsourced Semiconductor Assembly and Test (OSAT) factory in Laguna, Philippines.

This OSAT facility, a Littelfuse Back End partner since many years, build in mass production V2 products for Littelfuse already. This transfer refers to all our V2 products, which have only been built in our Lampertheim facility so far until now.

Our clear focus being to bring high levels of service to our customers and quality products to support future growth of the power semiconductor business.

Please find enclosed all details related to this PCN.

Important information for your attention and according to JEDEC STANDARD "JESD46":

- Please acknowledge receipt of this PCN. In your acknowledgement, you can grant approval or request additional information.
- Littelfuse will assume the change is acceptable if no acknowledgement is received within 30 days from the date of this PCN. Lack of any additional response within 90 days of PCN issuance further constitutes acceptance of change.

Your prompt reply will help Littelfuse to assure a smooth and well executed transition. Your attention and response to this matter is greatly appreciated.

Thank you very much.

Best Regards,






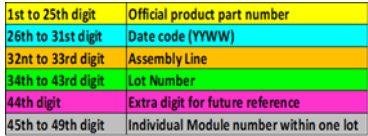


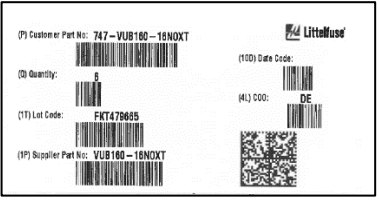
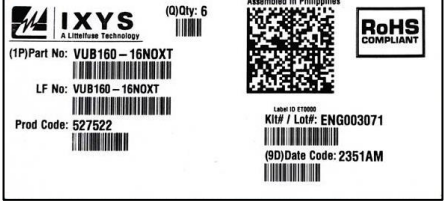
Mirko Vogelmann
Product Manager
Medium Power Modules
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Contact Information:	Contact your local Littelfuse Sales Partner or Mirko Vogelmann
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SUBJECT OF CHANGE:	V2 Bipolar Power Modules OSAT Backend Assembly Location Transfer	
PRODUCTS AFFECTED:	See page 4	
REASON OF CHANGE:	Set the right balance for power modules assembly between internal and outsourced Back End facilities. Extend the V2 packages assembly being built in this facility additionally to other V2 products already built there.	
DESCRIPTION OF CHANGE:	ACTUAL SITE Lampertheim, Germany	TRANSFERRED SITE Laguna, Philippines
■ Marking (on parts)		
• Label marking		
• Company Logo	IXYS Logo 	Littelfuse IXYS Logo 
• UL Logo	NO CHANGE	
• Date code + Site Assy code	YYWWX	YYWWAM
• Catalog Part Number	NO CHANGE	
• 2D Matrix	36 characters 	49 characters 
■ Labelling (on packing)		
• Inner Box		
• Master/Outer Box		
■ Bill of material	NO CHANGE	
■ Electrical characteristics	Electrical characteristics of qualification site matched to current production site	
■ Mechanical characteristics	Mechanical characteristics of qualification site matched to current production site	

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RELIABILITY DATA SUMMARY:

- Qualification done on module part structurally representative to the whole V2 modules package family
- The acceptance defining criteria for type tests of this product family are detailed in: IEC 60747-6 Edition 3.0, clause 7.5.5, table 10

Results:	Test	Description	Conditions	Standard Use	# Lots	Qty /Lot	Result
VUB120-16NO2							
1	HTRB	High Temp. Rev. Bias	1000hr., ≤125°C, 1120V AC	IEC 60749-23	2	5	Passed
2	Humidity	High Temp. High Humidity Bias	1000hr., 85% rH., 85°C	IEC 60749-42	2	5	Passed
3	T/C	Temperature Cycling	100 cycles, -40°C/+150°C	IEC 60749-25	2	5	Passed
4	H3TRB	High Temp. High Humidity Bias	1000hr.,85%rH., 85°C, 100V DC	IEC 60749-5	2	5	Passed
5	HTGB	High Temp. Gate Bias	1000hr., ≤125°C, 16V DC	IEC60749-2	2	5	Passed
6	P/C	Power Cycling	20 000 cycles, ≤ 125°C, dT=80K	IEC 60749-34	2	5	Passed

VUB160-16NOXT

1	HTRB	High Temp. Rev. Bias	1000hr., ≤125°C, 960V DC	IEC 60749-23	2	5	Passed
2	Humidity	High Temp. High Humidity Bias	1000hr., 85% rH., 85°C	IEC 60749-42	2	5	Passed
3	T/C	Temperature Cycling	50 cycles, -40°C/+150°C	IEC 60749-25	2	5	Passed
4	H3TRB	High Temp. High Humidity Bias	1000hr.,85%rH., 85°C, 100V DC	IEC 60749-5	2	5	Passed
5	HTGB	High Temp. Gate Bias	1000hr., ≤125°C, 16V DC	IEC60749-2	2	5	Passed

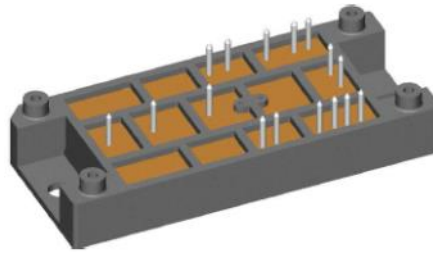
TIME SCHEDULE:

- Parts availability: April 2024 (Week 15 onwards)
- Production ramp-up: April 2024
- Last Shipment: Mid of May (Week 20) from assembly site in Lampertheim
- Last time buy: N/A - Any new orders will be processed through the new assembly site

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V2 package

(pin-out location is non representative to all topologies offered)

ASSESSMENT:

- No influence in terms fit, form and function.
- No part number change.
- Data sheets remain unchanged.
- LF Qualification report available upon request.

LIST OF AFFECTED V2 POWER MODULES (See Note below):

	Littelfuse SAP part number	Package
1	VUB120-16NO1	V2-Pack
2	VUB120-16NO2	V2-Pack
3	VUB120-16NOX	V2-Pack
4	VUB120-16NOXT	V2-Pack
5	VUB160-16NOX	V2-Pack
6	VUB160-16NOXT	V2-Pack
7	VUB160-16T1NOXT	V2-Pack
8	VUB160-16T2NOXT	V2-Pack
9	VVZB120-16IOX	V2-Pack

Customer Information: Forward-looking statements are intended to provide information about our expected future operations. These statements are not promises or guarantees, particularly with respect to any timelines provided in the schedule. All terms of delivery and rights to technical changes are subject to alteration by Littelfuse.