

Product / Process Change Notification



N° LFPCN210916

Date: September 16th, 2021

Subject: Y4 Bipolar power modules - Inhouse Assembly Location Transfer

Dear Customer,

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,





Pascal Ducluzeau
Product Marketing Manager
Medium Power Modules
pducluzeau@littelfuse.com

Contact Information:	Contact your local Littelfuse Sales Partner or Pascal Ducluzeau.
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SUBJECT OF CHANGE:	Y4 Bipolar Power Modules Inhouse Backend Assembly Location Transfer																									
PRODUCTS AFFECTED:	See page 5																									
REASON OF CHANGE:	State-of-the-art power semiconductor assembly capabilities to dramatically improve service levels to customers. Our target is to set this factory as a world class facility with automated, error proof processes to meet the highest quality standards.																									
DESCRIPTION OF CHANGE:	ACTUAL SITE - OSAT	TRANSFERRED SITE - LIPA																								
<ul style="list-style-type: none"> Marking (on parts) 																										
<ul style="list-style-type: none"> Company Logo 	Ixys Logo 	Littelfuse IXYS Logo 																								
<ul style="list-style-type: none"> UL Logo 	NO CHANGE																									
<ul style="list-style-type: none"> Electrical Draw. + pin out 	NO CHANGE																									
<ul style="list-style-type: none"> Date code + Assy code 	NO CHANGE																									
<ul style="list-style-type: none"> Catalog Part Number 	NO CHANGE																									
<ul style="list-style-type: none"> Lot Number 	6 digit = xxxxxx Lot sequential number (000001 – 999999)	8 digit = YYMDDxxx YY= 2 last digit of the year, M = Month (A=Jan, L=Dec), DD = Day, xxx = Lot sequential (001-999) reset to 001 every day																								
<ul style="list-style-type: none"> 2D Matrix 	36 characters <table border="1" data-bbox="619 1249 994 1384"> <tr><td>1st to 19th digit</td><td>Official product part number</td></tr> <tr><td>20th to 23rd digit</td><td>Date Code (YYWW)</td></tr> <tr><td>24th to 25th digit</td><td>Assembly line</td></tr> <tr><td>26th to 31st digit</td><td>Lot number</td></tr> <tr><td>32nd digit</td><td>Split lot / extra digit for future reference</td></tr> <tr><td>33rd to 36th digit</td><td>Individual module number within one lot</td></tr> </table>	1st to 19th digit	Official product part number	20th to 23rd digit	Date Code (YYWW)	24th to 25th digit	Assembly line	26th to 31st digit	Lot number	32nd digit	Split lot / extra digit for future reference	33rd to 36th digit	Individual module number within one lot	49 characters <table border="1" data-bbox="1023 1245 1390 1379"> <tr><td>1st to 25th digit</td><td>Official product part number</td></tr> <tr><td>26th to 31st digit</td><td>Date code (YYWW)</td></tr> <tr><td>32nd to 33rd digit</td><td>Assembly Line</td></tr> <tr><td>34th to 43rd digit</td><td>Lot Number</td></tr> <tr><td>44th digit</td><td>Extra digit for future reference</td></tr> <tr><td>45th to 49th digit</td><td>Individual Module number within one lot</td></tr> </table>	1st to 25th digit	Official product part number	26th to 31st digit	Date code (YYWW)	32nd to 33rd digit	Assembly Line	34th to 43rd digit	Lot Number	44th digit	Extra digit for future reference	45th to 49th digit	Individual Module number within one lot
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<ul style="list-style-type: none"> Labelling (on packing) 																										
<ul style="list-style-type: none"> Inner Box 																										
<ul style="list-style-type: none"> 2D Sequence 	Product Code - Type - Date Code - Lot No. - Qty – Label	Type – Date Code – Lot No. – Qty – Label																								
<ul style="list-style-type: none"> Master/Outer Box 	NO CHANGE																									
<ul style="list-style-type: none"> Bill of material 	Cu tab without slots*	Cu tab with slots*																								
<ul style="list-style-type: none"> Electrical characteristics 	Electrical characteristics of qualification site matched to current production site																									
<ul style="list-style-type: none"> Mechanical characteristics 	Mechanical characteristics of qualification site matched to current production site																									

*Refers to Standard Rectifier and Thyristor modules only - not for Fast diode module types (MEA/MEE/MEK/MEO)

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RELIABILITY DATA SUMMARY:

- Qualification done on modules structurally representative to the whole Y4 Bipolar 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
MCC132-16io1							
1	T/C	Temperature Cycling	100 cycles, -40°C/+150°C	IEC 60749-25	1	10	Passed
2	P/C	Power Cycling	20 000 cycles, dT=80K	IEC 60749-34	1	10	Passed
3	ITSM	Surge Current	Datasheet		1	3	Passed
MCC162-16io1							
1	HTRB	High Temp. Rev. Bias	1000hr., 125°C, 1120 V AC	IEC 60749-23	3	10	Passed
2	T/C	Temperature Cycling	100 cycles, -40°C/+150°C	IEC 60749-25	3	10	Passed
3	Humidity	High Temp. High Humidity Bias	1000hr., 85% rH., 85°C	IEC 60749-42	3	10	Passed
4	P/C	Power Cycling	20 000 cycles, dT=80K	IEC 60749-34	3	10	Passed
5	ITSM	Surge Current	Datasheet		3	3	Passed
MCC200-16io1							
1	HTRB	High Temp. Rev. Bias	1000hr., 125°C, 1120 V AC	IEC 60749-23	3	10	Passed
2	T/C	Temperature Cycling	100 cycles, -40°C/+150°C	IEC 60749-25	3	10	Passed
3	Humidity	High Temp. High Humidity Bias	1000hr., 85% rH., 85°C	IEC 60749-42	3	10	Passed
4	P/C	Power Cycling	20 000 cycles, dT=80K	IEC 60749-34	1	10	Passed
5	ITSM	Surge Current	Datasheet		3	3	Passed
MEE250-12DA							
1	HTRB	High Temp. Rev. Bias	1000hr., 125°C, 840 V DC	IEC 60749-23	3	10	Passed
2	T/C	Temperature Cycling	100 cycles, -40°C/+150°C	IEC 60749-25	3	10	Passed
3	Humidity	High Temp. High Humidity Bias	1000hr., 85% rH., 85°C	IEC 60749-42	2	10	Passed
4	P/C	Power Cycling	10 000 cycles, dT=80K	IEC 60749-34	3	10	Passed
5	ITSM	Surge Current	Datasheet		3	3	Passed

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MEO450-12DA

1	T/C	Temperature Cycling	100 cycles, -40°C/+150°C	IEC 60749-25	1	10	Passed
2	Humidity	High Temp. High Humidity Bias	1000hr., 85% rH., 85°C	IEC 60749-42	1	10	Passed
3	ITSM	Surge Current	Datasheet		1	3	Passed

MEK300-06DA

1	T/C	Temperature Cycling	100 cycles, -40°C/+150°C	IEC 60749-25	1	10	Passed
2	Humidity	High Temp. High Humidity Bias	1000hr., 85% rH., 85°C	IEC 60749-42	1	10	Passed
3	ITSM	Surge Current	Datasheet		1	3	Passed

TIME SCHEDULE:

■ Parts availability:	September 30 th , 2021
■ Production ramp-up	October 18 th , 2021
■ Replacement products:	N/A
■ Last time buy:	N/A



ASSESSMENT:

- No influence in terms fit, form and function.
- No part number change.
- Data sheets remain unchanged.
- LF Qualification report available by Sept 30th

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LIST OF AFFECTED Y4 BIPOLAR MODULES:

1	MCC132-08IO1	31	MCD162-14IO1	61	MDD200-22N1
2	MCC132-12IO1	32	MCD162-16IO1	62	MDMA210P1600YD
3	MCC132-14IO1	33	MCD162-16IO1B	63	MDMA280P1600YD
4	MCC132-14IO1B	34	MCD162-18IO1	64	MEA250-12DA
5	MCC132-16IO1	35	MCD200-14IO1	65	MEA300-06DA
6	MCC132-16IO1B	36	MCD200-16IO1	66	MEE250-12DA
7	MCC132-18IO1	37	MCD200-18IO1	67	MEE300-06DA
8	MCC132-18IO1B	38	MCK200-18IO1	68	MEK250-12DA
9	MCC161-20IO1	39	MCMA260P1600YA	69	MEK300-06DA
10	MCC161-22IO1	40	MCMA260PD1600YB	70	MEK350-02DA
11	MCC162-08IO1	41	MCMA260PD1800YB	71	MEK600-04DA
12	MCC162-12IO1	42	MCNA150P2200YA	72	MEO260-12DA
13	MCC162-14IO1	43	MCNA150PD2200YB	73	MEO450-12DA
14	MCC162-14IO1B	44	MCNA180P2200YA	74	MEO500-06DA
15	MCC162-16IO1	45	MCNA180PD2200YB	75	MEO550-02DA
16	MCC162-16IO1B	46	MCNA220P2200YA		
17	MCC162-18IO1	47	MCNA220PD2200YB		
18	MCC162-18IO1B	48	MDD142-08N1		
19	MCC200-14IO1	49	MDD142-12N1		
20	MCC200-16IO1	50	MDD142-14N1		
21	MCC200-18IO1	51	MDD142-16N1		
22	MCD132-08IO1	52	MDD142-18N1		
23	MCD132-12IO1	53	MDD172-08N1		
24	MCD132-14IO1	54	MDD172-12N1		
25	MCD132-16IO1	55	MDD172-14N1		
26	MCD132-18IO1	56	MDD172-16N1		
27	MCD161-20IO1	57	MDD172-18N1		
28	MCD161-22IO1	58	MDD200-14N1		
29	MCD162-08IO1	59	MDD200-16N1		
30	MCD162-12IO1	60	MDD200-18N1		

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.