

Control No. PCN-23142

April 25, 2023

PRODUCT/PROCESS CHANGE NOTIFICATION

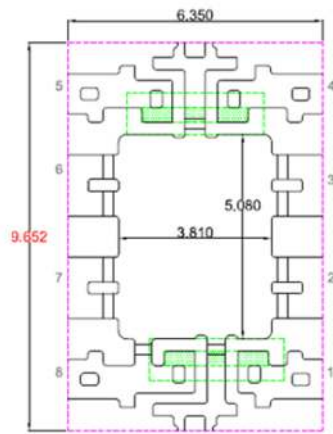
TYPE OF CHANGE: Design Manufacturing For Information Only

This notification is provided in accordance with Power Integrations policy of major change notification. If you have any questions or need further assistance, please contact your regional Power Integrations sales office.

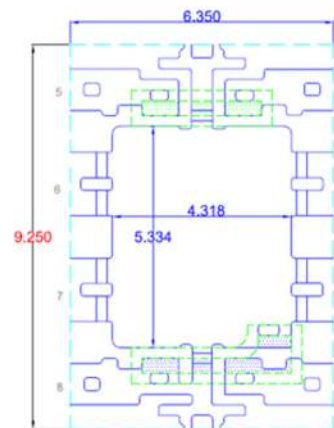
DESCRIPTION OF CHANGE

An existing qualified leadframe supplier, Hua Yang, will be added as an alternative leadframe supplier for 170x210 mil leadframe to be used for the TinySwitch SMD-8 products listed below.

There will be some small dimensional changes to the inner lead features that will not affect fit, functionality or performance of the product. The plastic body length will also change as shown in the figure, but the new dimension is still within our datasheet package drawing tolerances.



Existing Leadframe Design (mm)



New Leadframe Design (mm)

REASON FOR CHANGE

For increased manufacturing capacity and flexibility.

PRODUCTS AFFECTED

TNY253GN, TNY253GN-TL, TNY254GN, TNY254GN-TL, TNY255GN-TL

CONFIDENTIAL

The information in this report contains confidential and proprietary information of Power Integrations and its manufacturing partners. By receiving this report, the customer agrees to use this information for the sole purpose of addressing the issues reviewed in this report and to keep the contents confidential. If it becomes necessary for the customer to disclose this information to a third party, a non-disclosure agreement, which provides reasonable and customary protection for the disclosed information, must be executed.

QUALIFICATION STATUS

Please refer to Appendix 1 for the qualification data.

EFFECT ON CUSTOMER

No adverse impact on manufacturers' applications is expected.

EFFECTIVE DATE

Immediate. Both leadframe versions will be shipped during the transition period.

SAMPLE AVAILABILITY

Not Required



Appendix 1
Reliability Engineering
Qualification Report

Qualification Project: P223604

Project Title: TinySwitch Products Hua Yang SMD-8 170x210 Leadframe Qualification
Summary:

Reliability testing was performed to qualify the Hua Yang 170x210 mil SMD-8 leadframe for assembly of TinySwitch products. Three TNY253GN qualification lots using the Hua Yang 170x210 mil SMD-8 leadframe were subjected to MSL4 + TMCL for qualification with passing results obtained. CSAM, Lead Integrity (Tension & Fatigue), Solderability and Construction Analysis were all completed with passing results. Yield analysis was completed on each product with acceptable results.

Based on these results, the Hua Yang 170x210 SMD-8 leadframe is qualified for use with TinySwitch products (see above Products Affected list).

Reliability Test Descriptions and Conditions

Test Name	Conditions	Reference Specification
TMCL (Temperature Cycle, Air to Air)	-65°C to +150°C, air to air	EIA/JESD22-A104-E
MSL4 Preconditioning	24-hr 150°C Bake + 96-hr 30°C, 60% RH Soak + 3 Passes 260°C Solder Reflow	IPC/JEDEC J-STD-020

TMCL (Temperature Cycling)

Product	Lot #	Leadframe	Test Duration	Failures/Sample Size
TNY253GN	BG349S	Hua Yang 170x210 mil SMD-8	MSL4 + 1000 cycles	0 / 45
TNY253GN	BG349T	Hua Yang 170x210 mil SMD-8	MSL4 + 1000 cycles	0 / 45
TNY253GN	BG349U	Hua Yang 170x210 mil SMD-8	MSL4 + 1000 cycles	0 / 45

Conclusion: Based on passing results, the Hua Yang 170x210 mil SMD-8 leadframe is qualified for use with TinySwitch products (see above Products Affected list).

CONFIDENTIAL

CUSTOMER ACKNOWLEDGEMENT

Power Integrations requests you acknowledge the receipt of the above-mentioned PCN. If no acknowledgment is received within 30 days of this notification, Power Integrations will assume the change is acceptable. Lack of any additional response within 90 days of this notification further constitutes acceptance of the change.

Power Integrations reserves the right to ship either version manufactured after the effective date.

If you have any questions or need further assistance, please contact your regional Power Integrations sales office. Otherwise, please check the box below, acknowledging the receipt of the PCN.

The indicated Product/Process Change Notification was received by the undersigned authority.

Name/Title: _____

Signature: _____ Date: _____

Email Address/Phone#: _____

Company/Location: _____

CUSTOMER COMMENTS

Please email this signed form to pcn@power.com specifying the PCN# in the subject.

CONFIDENTIAL