

Control No. PCN-19171

June 6, 2019

**PRODUCT/PROCESS CHANGE NOTIFICATION**

**TYPE OF CHANGE:**       Design       Manufacturing       Other

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**

Tong Hsing Electronic Industries, Ltd. will be added as an alternative direct bonded copper (DBC) supplier for the assembly of Qspeed series of products listed in the table below.

There is neither change to the manufacturing sites nor the existing bill of materials other than the DBC.

**REASON FOR CHANGE**

For increased manufacturing capacity and flexibility.

**PRODUCTS AFFECTED**

Product Family	Part Numbers	Package
Qspeed H-Series Diodes	QH03BZ600, QH05BZ600, QH08BZ600, QH12BZ600	TO-263AB
	QH03TZ600, QH05TZ600, QH08TZ600, QH12TZ600	TO-220AC
Qspeed Q-Series Diodes	LQA03TC600, LQA05TC600, LQA08TC600	TO-220AC

**QUALIFICATION STATUS**

Please refer to Appendix 1 for the qualification data.

**EFFECT ON CUSTOMER**

There will be no adverse impact in manufacturers' applications. There is no change to the datasheet.

**EFFECTIVE DATE**

September 6, 2019. This date is subject to change. Products after the effective date may continue to be shipped with the existing and the newly qualified DBC.

**SAMPLE AVAILABILITY**

Samples will be available 8 weeks from the date of request. Please send requests for samples within two weeks after receipt of this notification to the local Power Integrations sales office.

**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.



Appendix 1  
Reliability Engineering  
Qualification Report

Qualification Project: E191806

<b>Project Title: Tong Hsing DBC Qualification for Qspeed Diodes</b>
<b>Qual Summary:</b>  Reliability testing was performed on two Qspeed diode lots for qualification of an alternative DBC from Tong Hsing. TMCL passed on one lot of LQA08TC600, and MSL3 + TMCL passed on one lot of QH12BZ600. Yield analysis and assembly-level testing were completed with acceptable results. Based on these results, the Tong Hsing DBC is qualified and approved for assembly of Qspeed diodes.
Qualification Vehicles: LQA08TC600, QH12BZ600

**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
MSL3 Preconditioning	24-hr 150C bake → 192-hr 30°C, 60% RH soak → 3 passes 260C solder reflow	IPC/JEDEC J-STD-020E

**TMCL (Temperature Cycling)**

Product	Lot #	Package	Test Duration	No. Failures/Sample Size
LQA08TC600	M7T243B	TO-220AC	500 cycles	0/47
QH12BZ600	M7C517B	TO-263AB	MSL3 + 500 cycles	0/47

**Conclusion:** Based on acceptable results, the Tong Hsing DBC is approved for assembly of Qspeed diodes.

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**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**

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Please email this signed form to [pcn@power.com](mailto:pcn@power.com) specifying the PCN# in the subject.

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