

Product Bulletin

Document #: PB22234X Issue Date: 2 April 2018

Title of Change:	KAE-08151 datasheet: Recommend non-use of temperature diode, plus clarification regarding Sampling Plan.		
Effective date:	9 April 2018		
Contact information:	Contact your local ON Semiconductor Sales Office or < <u>John.Frenett@onsemi.com</u> >		
Type of notification:	This Product Bulletin is for notification purposes only. ON Semiconductor will proceed with implementation of this change upon publication of this Product Bulletin.		
Change category:	☐ Wafer Fab Change ☐ Assembly Change	☐ Test Change ☐ Other: <u>Documentation</u>	
Change Sub-Category(s): Manufacturing Site Change/Addition Manufacturing Process Change Product specific change		□ Datasheet/Product Doc change □ Shipping/Packaging/Marking □ Other:	
Sites Affected:	ON Semiconductor Sites: ON Rochester, New York	External Foundry/Subcon Sites: None	

Description and Purpose:

A temperature sensing diode was provided on-chip, intended to serve as a secondary or backup source for die temperature. (The primary source for die temperature is a thermistor.) ON Semiconductor has determined that temperature readings from the diode are unreliable (inaccurate).

The temperature sensing diode will remain on-chip. However, ON Semiconductor will remove text describing the diode from KAE-08151's datasheet. Also, the pinout table which references the temperature sensing diode pin will be updated to show a ground bias for the pin.

To date, there have been no indications of use of the temperature sensing diode by KAE-08151 customers. Customers have been using the thermistor, often in conjunction with a closed loop controller.

Regarding the Sampling Plan column of Table 5 (SPECIFICATIONS), entries for **Photodiode Dark Current (Average)** and **Vertical CCD Dark Current** change from **Die** to **Design**. **Die** would imply that each part produced is tested; in fact, testing was done via characterization associated with product commercialization.

Details:

- 1) Table 3 (PIN DESCRIPTION) has been updated as follows:
 - a. **B1**'s **Label** was TD-; now reads GND.
 - b. **B1**'s **Description** was Temperature Sensor Negative Bias; now reads Ground.
 - c. C1's Label was TD+; now reads GND
 - d. **C1**'s **Description** was Temperature Sensor Positive Bias; now reads Ground.
- 2) Table 5 (SPECIFICATIONS) has been updated:
 - a. Photodiode Dark Current (Average) had Sampling Plan designated as Die; now reads Design
 - b. **Vertical CCD Dark Current** had **Sampling Plan** designated as Die; now reads Design

The change will not impact form, fit, or function of KAE-08151 image sensors. That is, neither the die nor finished assembly are changing.

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List of Affected Standard Parts:	
KAE-08151-ABA-JP-FA	
KAE-08151-ABA-JP-EE	
KAE-08151-ABA-SP-FA	
KAE-08151-ABA-SP-EE	
KAE-08151-ABA-SD-FA	
KAE-08151-ABA-SD-EE	
KAE-08151-FBA-JP-FA	
KAE-08151-FBA-JP-EE	
KAE-08151-FBA-SP-FA	
KAE-08151-FBA-SP-EE	
KAE-08151-FBA-SD-FA	
KAE-08151-FBA-SD-EE	

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Appendix A: Changed Products

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Product	Customer Part Number	
KAE-08151-ABA-JP-FA		
KAE-08151-FBA-JP-FA		