



Title of Change:	KAE-02150 datasheet: Recommend non-use of temperature diode, plus clarification regarding Sampling Plan	
Effective date:	15 March 2018	
Contact information:	Contact your local ON Semiconductor Sales Office or <John.Frenett@onsemi.com>	
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:	<input type="checkbox"/> Wafer Fab Change <input type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input checked="" type="checkbox"/> Documentation	
Change Sub-Category(s):	[Multiple options might be applicable] <input type="checkbox"/> Manufacturing Site Change/Addition <input type="checkbox"/> Material Change <input checked="" type="checkbox"/> Datasheet/Product Doc change <input type="checkbox"/> Manufacturing Process Change <input type="checkbox"/> Product specific change <input type="checkbox"/> Shipping/Packaging/Marking <input type="checkbox"/> Other: _____	
Sites Affected:	ON Semiconductor Sites: ON Rochester, New York	External Foundry/Subcon Sites: None
Description and Purpose:		
<p>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).</p> <p>The temperature sensing diode will remain on-chip. However, ON Semiconductor will remove text describing the diode from KAE-02150's datasheet. Also, the pinout table which references the temperature sensing diode pin will be updated to show a ground bias for the pin.</p> <p>To date, there have been no indications of use of the temperature sensing diode by KAE-02150 customers. Customers have been using the thermistor, often in conjunction with a closed loop controller.</p> <p>Regarding the Sampling Plan column of Table 7 (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.</p> <p>Another change to Table 7 (SPECIFICATIONS), also involving Photodiode Dark Current (Average), is a change in the maximum value. The former value of 70 was a mistaken carryover. The new value of 3 is closely linked to demonstrated manufacturing capability.</p> <p>Details:</p> <ol style="list-style-type: none"> 1) Table 4 (PIN DESCRIPTION) has been updated as follows: <ol style="list-style-type: none"> a. H01's Label was TD; now reads GND. b. H01's Description was Temperature Diode Sensor; now reads Ground. 2) Table 5 (PGA WITH INTEGRATED TEC PIN DESCRIPTION) includes the following changes: <ol style="list-style-type: none"> a. H01's Label was N/C; now reads GND b. H01's Description was No Connection; now reads Ground. 3) Table 7 (SPECIFICATIONS) has been updated: <ol style="list-style-type: none"> a. Photodiode Dark Current (Average) was 70 e/p/s; now reads 3 e/p/s b. Photodiode Dark Current (Average) had Sampling Plan designated as Die; now reads Design c. Vertical CCD Dark Current had Sampling Plan designated as Die; now reads Design <p>The change will not impact form, fit, or function of KAE-02150 image sensors. That is, neither the die nor finished assembly are changing.</p>		



List of Affected Standard Parts:

KAE-02150-ABB-JP-FA
KAE-02150-ABB-JP-EE
KAE-02150-FBB-JP-FA
KAE-02150-FBB-JP-EE
KAE-02150-ABB-SP-FA
KAE-02150-ABB-SP-EE
KAE-02150-FBB-SP-FA
KAE-02150-FBB-SP-EE
KAE-02150-ABB-SD-FA
KAE-02150-ABB-SD-EE
KAE-02150-FBB-SD-FA
KAE-02150-FBB-SD-EE



Appendix A: Changed Products

Product	Customer Part Number
KAE-02150-ABB-JP-FA	
KAE-02150-FBB-JP-FA	