

Cree, Inc. Customer Notification

PCN-PW057: High Voltage Leakage Current Adjustment in Industry Standard Modules

Change Description: In the course of high volume manufacture, Cree has observed that the actual distribution of the high voltage leakage current (I_{DSS}) parameter value has extended to include values fractionally greater than the max I_{DSS} listed.. After confirming that the reliability has not been affected with the higher leakage, Cree is now updating the datasheet to accurately reflect the true distribution. In addition, the symbol has been changed from $V_{(BR)DSS}$ to V_{DSS} to accurately reflect that the voltage is measured at a rated blocking condition (V_{DSS}) rather than at the breakdown condition ($V_{(BR)DSS}$)

Part Description: Affected module part numbers are:

Part Number	Old Max I_{DSS}	New Max I_{DSS}	New Datasheet
CAS300M17BM2	1.0 mA	2.0 mA	Rev A
CAS300M12BM2	1.0 mA	2.0 mA	Rev A
CAS120M12BM2	0.3 mA	0.72 mA	Rev A
CCS050M12CM2	0.1 mA	0.25 mA	Rev C
CCS020M12CM2	0.1 mA	0.15 mA	Rev A

Impact of Change: The new max I_{DSS} specifications do not introduce any change to the use of the parts in user applications. The true breakdown voltage has not changed and the increased leakage does not introduce any new wear-out mechanism to limit life. At typical use conditions which is at <90% of the V_{DSmax} , the increase in leakage current is minimal and the impact on losses is negligible.

Reason for Change: The original datasheet specifications were based on the module parameters obtained at time of release and have consequently found to be fractionally erroneous to that of values akin to high volume manufacture. In addition, the symbol $V_{(BR)DSS}$ was changed because the breakdown voltage occurs at a much larger value than the rated blocking voltage. Hence, it became important to distinguish between the two parameters to aid user understanding

Effective Implementation Date: This change is effective immediately. All affected modules' datasheets will be updated during the month of December 2016. Any questions or requests for additional information should be directed to your sales representative or by contacting Cree, Inc. directly at 919-287-7888 or via creepower_sales@cree.com

PCN Originator: Das, M.

Title: Product Marketing Manager, Power and RF

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