Cree, Inc. Product Change Notification

PCN-PW070: Qualification of Expanded 150mm Wafer Manufacturing Facility for Packaged SiC Schottky Diode Products

Change

Please note: This revision is an update to the original version of PCN-PW070, previously issued on August 10, 2018

Cree has completed the qualification of SiC Schottky diodes manufactured on 150mm wafers at its expanded semiconductor manufacturing facility located in Durham, NC.

Change Description

Cree SiC Schottky diodes are currently manufactured on 150mm diameter wafers at Cree's fabrication facility in Research Triangle Park, North Carolina, USA. The production line is being expanded to include additional manufacturing capability at Cree's fabrication facility in Durham, North Carolina, USA. This manufacturing line expansion will increase production capacity and ensure Cree's continued ability to provide diodes to our customers within our standard delivery times.

Part Description

Refer to Table 1 for a full list of discrete part numbers that may be subjected to this expansion plan but will ultimately be determined based on need.

Impact of Change

For all part numbers in Table 1, the impact of the change is wafer production facility only. There is no change to form, fit, function, or reliability of the diode. It should be noted that the additional Durham manufacturing facility is a Class 100 (ISO 5) cleanroom certified to ISO9001 and IATF16949:2016 standards and has been a fully-functional Cree-owned semiconductor manufacturing facility in operation for more than 20 years.

This change impacts the wafer production line only; no changes are being made to the backend assembly processes, and therefore the diode package is not impacted. Products manufactured in the Durham facility will have identical specifications and part numbers to those manufactured today. Customers may continue to place orders using the same part numbers.

Note that Cree will not mix source wafer types within individual builds of packaged discrete devices. Each packaged device date code will only be sourced from either the existing manufacturing line or the expanded manufacturing line. Note that device shipments to distributors and customers may contain a mix of date codes, and therefore these shipments may also contain a mix of date codes sourced from the different production lines. Traceability to manufacturing line will be maintained by Cree.

Reason for Change

The reason for this change is to increase production capacity and to ensure Cree's ability to provide diodes to our customers within our standard delivery times.

Reason for Notification

The purpose of this notification is to provide advanced notice to our customers who may need to perform their own qualification or verification, thereby enabling them to prepare for the change in advance and minimize disruption to their manufacturing lines.

If you have any concerns or questions, please notify your local sales representative.

Qualification Plan

All parts have been qualified to all tests listed in the existing qualification reports for each respective part number. All tests have been performed to parameters that meet or exceed the test parameters listed in the existing qualification report.

The results of the qualification testing will be summarized and provided in a separate qualification report.

Implementation Date

- January 2019 Cree will begin sampling of qualified samples of packaged Schottky diodes which customers can use for evaluation purposes
- Beginning of March 2019, Cree will begin to ramp production at the new expanded semiconductor manufacturing facility.

Please respond to this PCN by indicating your approval on the included approval form at the end of this PCN, sign it and return to your local sales representative. If you have any concerns or questions, please notify your local sales representative. In accordance with JEDEC Standard JESD46D, lack of acknowledgement of the PCN within 30 days constitutes acceptance of the change.

Contact

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 email at CreePower_sales@cree.com .

PCN Originator:
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Title: Product Marketing Manager, SiC Schottky Diodes
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#PCN-PW070

Table 1: Cree Packaged Schottky Diode Part Numbers Included in the Production Line Expansion

CSD01060A	C3D08060A	C4D08120E
CSD01060E	C3D08060F	C4D08120E-TR
CSD01060E-TR	C3D08060G	C4D10120A
C3D02060A	C3D08060G-TR	C4D10120D
C3D02060E	C3D08065A	C4D10120E
C3D02060E-TR	C3D08065E	C4D10120E-TR
C3D02060F	C3D08065E-TR	C4D10120H
C3D02065E	C3D08065I	C4D15120A
C3D02065E-TR	C3D10060A	C4D15120D
C3D03060A	C3D10060G	C4D15120H
C3D03060E	C3D10060G-TR	C4D20120A
C3D03060E-TR	C3D10065A	C4D20120D
C3D03060F	C3D10065E	C4D20120H
C3D03065E	C3D10065E-TR	C4D30120D
C3D04060A	C3D10065I	C4D40120D
C3D04060E	C3D12065A	
C3D04060E-TR	C3D16060D	
C3D04060F	C3D16065A	
C3D04065A	C3D16065D	
C3D04065E	C3D20060D	
C3D06060A	C3D20065D	
C3D06060F	C4D02120A	
C3D06060G	C4D02120E	
C3D06060G-TR	C4D02120E-TR	
C3D06065A	C4D05120A	
C3D06065E	C4D05120E	
C3D06065E-TR	C4D05120E-TR	
C3D06065I	C4D08120A	

PCN-PW070 CUSTOMER APPROVAL FORM
Qualification of Expanded 150mm Wafer Manufacturing Facility for All Packaged SiC Schottky Diode Products

Please check the appropriate boxes below:

☐ We agree with this proposed change and its schedule

☐ We need more information:

Sender:

Company: Name:
Address/Location: Email:

Primary Telephone: Fax:
Signature: Date:

Please return to your Sales Representative

Company: Cree Name:
Address/Location: Email:

Primary Telephone: Fax: