

## 产品 Product DECN 通知 Notice

Date: 2023. 01. 03

|  | Date: <u>2023. 01. 03</u>            |  |  |
|--|--------------------------------------|--|--|
| NO.:                                   | Model NO.:                           |  |  |
|  | 涉及槟城所有 <b>功率 TVS 系列</b>              |  |  |
|  | All Bencent TVS series part numbers: |  |  |
| PCN-202301001                          | BV-SMAJxxseries/BV-SMBJxxseries      |  |  |
|  | BV-SMCJxx series /BV-SMDJxx series   |  |  |
|  | BV-5SMDJxx series /BV-1.5KExx series |  |  |
|  | /BV-1KSMBxxseries/BV-5KPxxseries     |  |  |
|  | /BV-6KPxx series /BV-8KPxx series    |  |  |
|  | /BV-15KPxx series /BV-P4KExx series  |  |  |
|  | /BV-P6KExx series /BV-SMBTxx series  |  |  |
|  | /BV-SMCTxx series                    |  |  |
|  | 生效日期Effective date:                  |  |  |
| , , , , , , , , , , , , , , , , , , ,  | 2023年01月03日 January 03, 2023         |  |  |
| 所有客户 All customers                     | 执行日期Execution date:                  |  |  |
| /// I // | 2023年04月04日 April 04, 2023           |  |  |
| 变更前 Before change                      | 变更后 After change                     |  |  |
| 1. 原材料芯片的生产工艺为光刻刻蚀工艺                   | 1. 原材料芯片的生产工艺激光刻蚀工艺                  |  |  |
| Wafer production technology was        | Wafer production technology is laser |  |  |
| photoetching                           | etching                              |  |  |
| 2. 原材料芯片外观                             | 2. 原材料芯片外观,无明显差异.                    |  |  |
| Wafer appearance                       | Wafer appearance no obvious change   |  |  |
|  |                                      |  |  |

## 变更原因 Reason of change:

在半导体行业被国外制裁的大背景下,为了降低国外光刻胶及光刻机被限制而带来的潜在 交付风险,槟城参考其他行业激光技术开发了激光刻蚀工艺来替代传统光刻刻蚀工艺,实现图 形的转移技术。经过近2年的研发技术积累及工艺储备,现已开发出一条成熟的激光光刻替代



光刻机光刻技术路线,该路线不但避免了传统光刻过程中产生的缺陷,而且大幅缩短了工艺周期。

激光刻蚀工艺产品已通过严格的可靠性测试验证,目前该技术已成功量产并准备全面推广,按照我司工艺变更要求,现跟贵司提出变更申请。

In order to reduce the potential delivery risks caused by the restriction of foreign photoresist and lithography machines in the background of the semiconductor industry being subject to foreign sanctions, Bencent developed the laser etching process to replace the traditional photoetching process refer to laser technology from other industries and realize the transfer technology of graphics. After nearly 2 years of research and development technology accumulation and process reservation, a mature laser etching technology to replace lithography machines technology has been developed, which not only avoids the defects in the traditional photoetching process, but also greatly reduces the process lead time.

The laser etching process products have passed strict reliability testing and verification. Now the technology has been successfully mass produced and is ready for comprehensive promotion. In accordance with our process change requirements, we are now applying for change with your company.

## 变更说明 Clarifications of change:

此次我司产品变更内容:

槟城生产的 TVS 产品的原材料芯片生产工艺变更,芯片工艺由原来的光刻刻蚀工艺变更为激光刻蚀工艺;

此次变更不涉及产品外观,尺寸,结构,性能,环保属性,可靠性变更,仅原材料芯片的生产过程工艺变更,此次变更切换过后,我们生产的产品可能存在同时采用激光刻蚀工艺生产的芯片和光刻刻蚀工艺生产的芯片同时进行生产,我司保证该两种生产工艺生产的产品其产品外观,尺寸,结构,性能,环保属性,可靠性均符合原有规格书要求。如果贵司需要我司准备样品给贵司进行验证,我司可以免费提供一定数量的样品给贵司进行验证。

## Contents of the change:

The wafer process of TVS products produced in Bencent has been changed from photoetching to laser etching;

This change does not involve changes in product appearance, size, structure, performance, environmental protection properties and reliability, but only changes in the production process and technology of raw material wafer. After this change, wafer produced by laser etching and wafer produced by photoetching may be produced simultaneously in our products. Our company guarantees that the appearance, size, structure, performance, environmental protection properties and reliability of the products produced by the two production processes meet the requirements of the original specifications. If you need our company to prepare samples for your verification, we can provide a certain number of samples for your verification free of charge.



| 客户回签意见 Custom                | er opinion:                 |                       |                            |  |
|------------------------------|-----------------------------|-----------------------|----------------------------|--|
| 客户代表签名 Customer signature:   |                             |                       |                            |  |
| 备注 Notes:                    |                             |                       |                            |  |
| 品质 Quality:<br>刘永 Martin Liu | 研发 R&D:<br>孙江涛 Jiangtao Sun | 营销 Sales:<br>李明 David | 批准 Approve:<br>罗强 Cary Luo |  |

表单编号: QR-COP-27-5-BO