

No. CANEC2108640304

日期: 2021年06月21日 第1页,共7页

广东仁懋电子有限公司

深圳市宝安区松岗街道潭头社区松岗大道二号厂房三栋一楼

以下测试之样品是由申请者所提供及确认: 肖特基二极管

SGS工作编号: CP21-025937 - GZ

型号: TO-220F

客户参考信息: TO-220 TO-251 TO-252 TO-263 TO-247 TO-3PN TO-3PL SOT-23 SOT23-3L

KPL KBU KBP GBU 可控硅 稳压管 三极管 场效应管

样品接收日期: 2021年05月19日

测试周期: 2021年05月19日 - 2021年05月24日

测试要求: 根据客户要求测试 测试方法: 请参见下一页 测试结果: 请参见下一页

结论: 基于所送样品进行的测试,镉、铅、汞、六价铬、多溴联苯(PBBs)、多溴二苯

醚(PBDEs)、邻苯二甲酸酯(如邻苯二甲酸二丁酯 (DBP)、邻苯二甲酸丁苄酯(BBP)、邻苯二甲酸二(2-乙基己基)酯(DEHP)和邻苯二甲酸二异丁酯(DIBP))的测试结果符合欧盟RoHS指令2011/65/EU附录Ⅱ的修正指令(EU) 2015/863的限值

要求。

通标标准技术服务有限公司广州分公司 授权签名

美色盃

Zm guan关正孟 批准签署人





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction is usues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone; (86-755) 83071443, or email: CND posches/Resea.com

198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663

中国·广州·经济技术开发区科学城科珠路198号

邮编: 510663 t (86-20) 82155555

t (86-20) 82155555

www.sgsgroup.com.cn sgs.china@sgs.com



测试报告 No. CANEC2108640304 日期: 2021年06月21日 第2页,共7页

测试结果:

测试样品描述:

样品编号 SGS样品ID 描述 SN1 CAN21-086403.001 银色金属引脚 SN₂ CAN21-086403.002 带芯片的黑色塑料

备注:

(1) 1 mg/kg = 0.0001%

(2) MDL = 方法检测限

(3) ND = 未检出 (< MDL)

(4) "-" = 未规定

RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863

测试方法: 参考IEC 62321-4:2013+A1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017, IEC 62321-6:2015 和 IEC 62321-8:2017, 采用 ICP-OES, UV-Vis 和 GC-MS 进行分析.

测试项目	限值	<u>单位</u>	<u>MDL</u>	<u>002</u>
镉 (Cd)	100	mg/kg	2	ND
铅 (Pb)	1,000	mg/kg	2	ND
汞 (Hg)	1,000	mg/kg	2	ND
六价铬(Cr(VI))	1,000	mg/kg	8	ND
多溴联苯之和(PBBs)	1,000	mg/kg	-	ND
一溴联苯	-	mg/kg	5	ND
二溴联苯	-	mg/kg	5	ND
三溴联苯	-	mg/kg	5	ND
四溴联苯	-	mg/kg	5	ND
五溴联苯	-	mg/kg	5	ND
六溴联苯	-	mg/kg	5	ND
七溴联苯	-	mg/kg	5	ND
八溴联苯	-	mg/kg	5	ND
九溴联苯	-	mg/kg	5	ND
十溴联苯	-	mg/kg	5	ND
多溴二苯醚之和(PBDEs)	1,000	mg/kg	-	ND
一溴二苯醚	-	mg/kg	5	ND
二溴二苯醚	-	mg/kg	5	ND
三溴二苯醚	-	mg/kg	5	ND
四溴二苯醚	-	mg/kg	5	ND



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction is suses defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone; (86-755) 83071443, or email: CND posches/(@948-250).

198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663

t (86-20) 82155555 t (86-20) 82155555

www.sasaroup.com.cn sgs.china@sgs.com



测试报告 No. CANEC2108640304 日期:	2021年06月21日 第3页	页,共7页
-------------------------------------	-----------------	-------

<u>测试项目</u>	<u>限值</u>	<u>单位</u>	<u>MDL</u>	<u>002</u>
四溴二苯醚	-	mg/kg	5	ND
五溴二苯醚	-	mg/kg	5	ND
六溴二苯醚	-	mg/kg	5	ND
七溴二苯醚	-	mg/kg	5	ND
八溴二苯醚	-	mg/kg	5	ND
九溴二苯醚	-	mg/kg	5	ND
十溴二苯醚	-	mg/kg	5	ND
邻苯二甲酸二丁酯 (DBP)	1,000	mg/kg	50	ND
邻苯二甲酸丁苄酯(BBP)	1,000	mg/kg	50	ND
邻苯二甲酸二(2-乙基己基)酯(DEHP)	1,000	mg/kg	50	ND
邻苯二甲酸二异丁酯(DIBP)	1,000	mg/kg	50	ND

备注:

- (1)最大允许极限值引用自RoHS指令(EU) 2015/863。
- (2) IEC 62321系列等同于 EN 62321系列

https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101::::FSP ORG ID,FSP LANG ID:12586 37.25

(3) 2021年7月22号开始, DEHP, BBP, DBP 和 DIBP的限制适用于医疗器械,包括体外医疗器械,监控仪 表,包括工业监测和控制仪器。

RoHS指令2011/65/EU附录II的修正指令(EU) 2015/863

测试方法: 参考IEC 62321-4:2013+A1:2017, IEC62321-5:2013, IEC 62321-7-1:2015, 采用 ICP-OES 和 UV-Vis 进行分析.

<u>测试项目</u>	限值	<u>单位</u>	<u>MDL</u>	<u>001</u>
镉 (Cd)	100	mg/kg	2	ND
铅 (Pb)	1,000	mg/kg	2	13
汞 (Hg)	1,000	mg/kg	2	ND
六价铬(Cr(VI))▼	-	μg/cm²	0.10	ND

备注:

- (1) 最大允许极限值引用自RoHS指令(EU) 2015/863。
- (2) IEC 62321系列等同于 EN 62321系列

https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101::::FSP ORG ID,FSP LANG ID:12586 37.25

- (3) ▼=a. 当六价铬的浓度高于0.13 µg/cm²时,样品为阳性,即含有六价铬;
 - b. 当六价铬的浓度为ND(低于0.10 μg/cm²)时,样品为阴性,即未检测到六价铬;
 - c. 当六价铬的浓度介于0.10 μg/cm²与0.13 μg/cm²之间时,无法直接判定是否检测到六价铬, 因不同个体的样品表面差异可能会影响测定结果;



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, **Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, **Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, *The contact us at telephone: (86-755) 83071443, ***The contact us at telephone in the contact us at telephone

198 Kezhu Road, Scientech Park Guanozhou Economic & Technology Development District, Guanozhou, China 510663 中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663

t (86-20) 82155555

t (86-20) 82155555 www.sasaroup.com.cn sgs.china@sgs.com



No. CANEC2108640304

日期: 2021年06月21日 第4页,共7页

由于未获知样品的存储条件和生产日期,样品的六价铬测试结果仅能代表测试时样品含六价铬的状态。

除非另有说明,此报告结果仅对测试的样品负责。本报告未经本公司书面许可,不可部分复制。检测报告仅用于客户科研、教学、内部质量控制、产品研发等目的,仅供内部参考。



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction susues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document ose not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

**Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443,

邮编: 510663

or email: C.N.Doccheck@sgs.com

198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 www.sgsgroup.com.cn

中国·广州·经济技术开发区科学城科珠路198号

t (86-20) 82155555

sgs.china@sgs.com



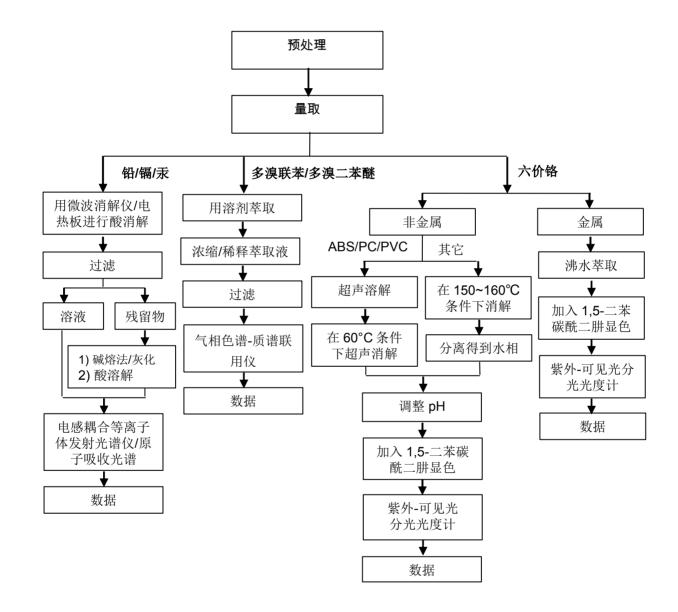
No. CANEC2108640304

日期: 2021年06月21日 第5页,共7页

附件

Pb/Cd/Hg/Cr6+/PBBs/PBDEs 测试流程图

1) 样品按照下述流程被完全消解(六价铬和多溴联苯/多溴二苯醚测试除外)。





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction susues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document ose not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

**Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443,

Attention: To check the authenticity of testing (inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or e-mail: CM_Doccheck @gas.com

1/98 Kezhu Read, Sciented Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 www.sgsgroup.com.cn

Member of the SGS Group (SGS SA)

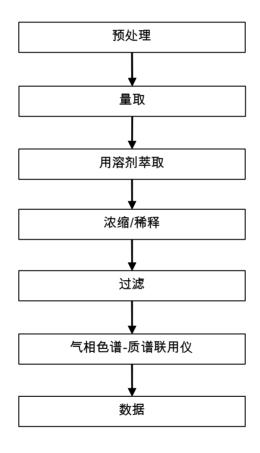


No. CANEC2108640304

日期: 2021年06月21日 第6页,共7页

附件

Phthalates 测试流程图





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction is suses defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone; (86-755) 83071443, or email: CND posches/(@948-250).

Attention: To check the authenticity of testing /inspection report & certificate, please contact us attelephone: (86-755) 83071443, or email: CN_Doccheck@sgs.com

198 Kezhu Road,Sdentech Park Guangzhou Economic& Technology Development District,Guangzhou,China 510663

t (86-20) 82155555

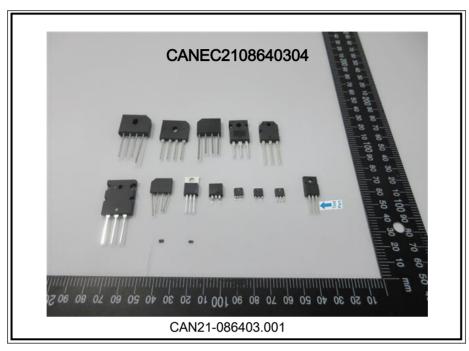
www.sgsgroup.com.cn

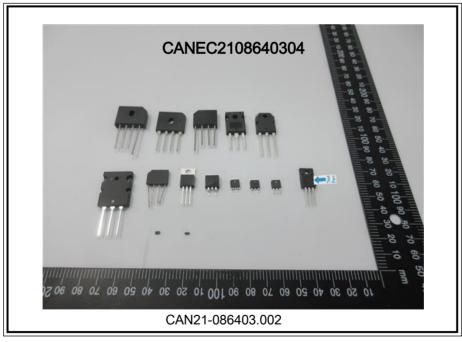


No. CANEC2108640304

日期: 2021年06月21日 第7页,共7页

样品照片:





此照片仅限于随SGS正本报告使用

*** 报告完 ***



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction is sused defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 83071443, or email: CND.Doccheck@esg.com"

邮编: 510663

198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 中国·广州·经济技术开发区科学城科珠路198号

t (86-20) 82155555 t (86-20) 82155555

www.sgsgroup.com.cn sgs.china@sgs.com