

检测报告

编号: CANEC23017670706

日期: 2024年01月11日

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客户名称: 重庆平伟实业股份有限公司

客户地址: 重庆市梁平区工业园区

样品名称: 半导体器件

型号: TO-263

客户参考信息: 见备注

生产日期: 2023年12月生产

以上样品及信息由客户提供。

SGS 工作编号: CQP23-005925

样品接收时间: 2023年12月28日

检测周期: 2023年12月28日 ~ 2024年01月10日

检测要求: 根据客户要求检测

检测方法: 见后续页。

检测结果: 见后续页。

检测要求	结论
欧盟 RoHS 指令 2011/65/EU 附录 II 的修正指令(EU) 2015/863-铅、汞、镉、六价铬、多溴联苯 (PBB)、多溴二苯醚 (PBDE)、邻苯二甲酸二(2-乙基己基)酯 (DEHP)、邻苯二甲酸丁苄酯 (BBP)、邻苯二甲酸二丁酯 (DBP)和邻苯二甲酸二异丁酯 (DIBP)	符合
欧盟 RoHS 指令 2011/65/EU 附录 II 的修正指令(EU) 2015/863-铅、汞、镉和六价铬	符合

通标标准技术服务有限公司广州分公司
授权签名

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检测结果:

检测部件外观描述:

样品序号	样品编号	SGS 样品 ID	样品描述
SN1	A2	CAN23-0176707-0001.C002	黑色塑料壳
SN2	A3	CAN23-0176707-0001.C003	银色金属脚
SN3	A4	CAN23-0176707-0001.C004	带焊锡的铜色金属

备注:

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL= 方法检测限
- (3) ND = 未检出 (< MDL)
- (4) "-" = 未规定

欧盟 RoHS 指令 2011/65/EU 附录 II 的修正指令(EU) 2015/863-铅、汞、镉、六价铬、多溴联苯 (PBB)、多溴二苯醚 (PBDE)、邻苯二甲酸二(2-乙基己基)酯 (DEHP)、邻苯二甲酸丁苄酯 (BBP)、邻苯二甲酸二丁酯 (DBP)和邻苯二甲酸二异丁酯 (DIBP)

检测方法: 参考 IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017, IEC 62321-6:2015 和 IEC 62321-8:2017, 采用 ICP-OES/AAS, UV-Vis 和 GC-MS 进行分析。

检测项目	限值	单位	MDL	A2
铅 (Pb)	1000	mg/kg	2	ND
汞 (Hg)	1000	mg/kg	2	ND
镉 (Cd)	100	mg/kg	2	ND
六价铬 (Cr(VI))	1000	mg/kg	8	ND
多溴联苯之和 (PBB)	1000	mg/kg	-	ND
一溴联苯 (MonoBB)	-	mg/kg	5	ND
二溴联苯 (DiBB)	-	mg/kg	5	ND
三溴联苯 (TriBB)	-	mg/kg	5	ND
四溴联苯 (TetraBB)	-	mg/kg	5	ND
五溴联苯 (PentaBB)	-	mg/kg	5	ND
六溴联苯 (HexaBB)	-	mg/kg	5	ND
七溴联苯 (HeptaBB)	-	mg/kg	5	ND
八溴联苯 (OctaBB)	-	mg/kg	5	ND
九溴联苯 (NonaBB)	-	mg/kg	5	ND
十溴联苯 (DecaBB)	-	mg/kg	5	ND
多溴二苯醚之和 (PBDE)	1000	mg/kg	-	ND
一溴二苯醚 (MonoBDE)	-	mg/kg	5	ND
二溴二苯醚 (DiBDE)	-	mg/kg	5	ND
三溴二苯醚 (TriBDE)	-	mg/kg	5	ND
四溴二苯醚 (TetraBDE)	-	mg/kg	5	ND
五溴二苯醚 (PentaBDE)	-	mg/kg	5	ND



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检测项目	限值	单位	MDL	A2
六溴二苯醚 (HexaBDE)	-	mg/kg	5	ND
七溴二苯醚 (HeptaBDE)	-	mg/kg	5	ND
八溴二苯醚 (OctaBDE)	-	mg/kg	5	ND
九溴二苯醚 (NonaBDE)	-	mg/kg	5	ND
十溴二苯醚 (DecaBDE)	-	mg/kg	5	ND
邻苯二甲酸二(2-乙基己基)酯 (DEHP)	1000	mg/kg	50	ND
邻苯二甲酸丁苄酯 (BBP)	1000	mg/kg	50	ND
邻苯二甲酸二丁酯 (DBP)	1000	mg/kg	50	ND
邻苯二甲酸二异丁酯 (DIBP)	1000	mg/kg	50	ND

备注:

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

欧盟 RoHS 指令 2011/65/EU 附录 II 的修正指令(EU) 2015/863-铅、汞、镉和六价铬

检测方法: 参考 IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013 和 IEC 62321-7-1:2015, 采用 ICP-OES/AAS 和 UV-Vis 进行分析。

检测项目	限值	单位	MDL	A3	A4
铅 (Pb)	1000	mg/kg	2	ND	8674▲
汞 (Hg)	1000	mg/kg	2	ND	ND
镉 (Cd)	100	mg/kg	2	ND	ND
六价铬 (Cr(VI))▼	-	µg/cm²	0.10	ND	ND

备注:

- (1) 最大允许限值引用自RoHS指令(EU) 2015/863。
- (2) IEC 62321系列等同于 EN 62321系列。
- (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。
- (4) ▲: 根据客户提供的声明, 样品A4中的铅(Pb)被欧盟RoHS指令2011/65/EU豁免, 相应豁免条文(请以英文原文为准) | ANNEX III 7 (a) | : 高熔点型焊料中的铅(即铅含量等于或大于85%的铅基合金焊料)。更多豁免相关信息, 可以从以下链接获取: <https://rohs.sgsonline.com.cn/PDFLinks/zh-cn/RSTS-TP-037%20RoHS%20Exemption%20%28CN%29.pdf> 由于未获知样品的存储条件和生产日期, 样品的六价铬检测结果仅代表检测时样品含六价铬的状态。

除非另有说明, 参照 ILAC-G8:09/2019, 使用简单接受 (w=0) 的二元判定规则进行符合性判定。

除非另有说明, 此报告结果仅对检测的样品负责。本报告未经本公司书面许可, 不可部分复制。

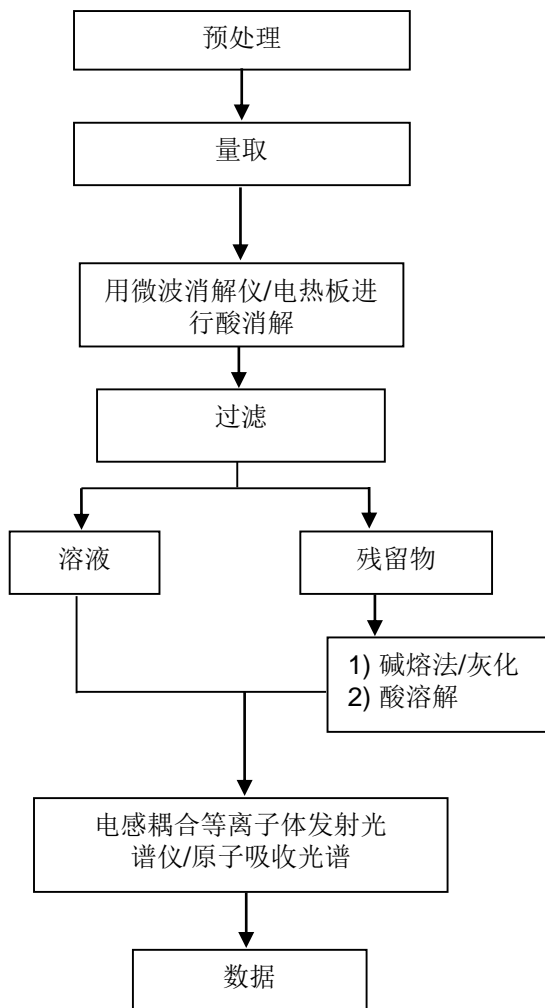
检测报告仅用于客户科研、教学、内部质量控制、产品研发等目的, 仅供内部参考。



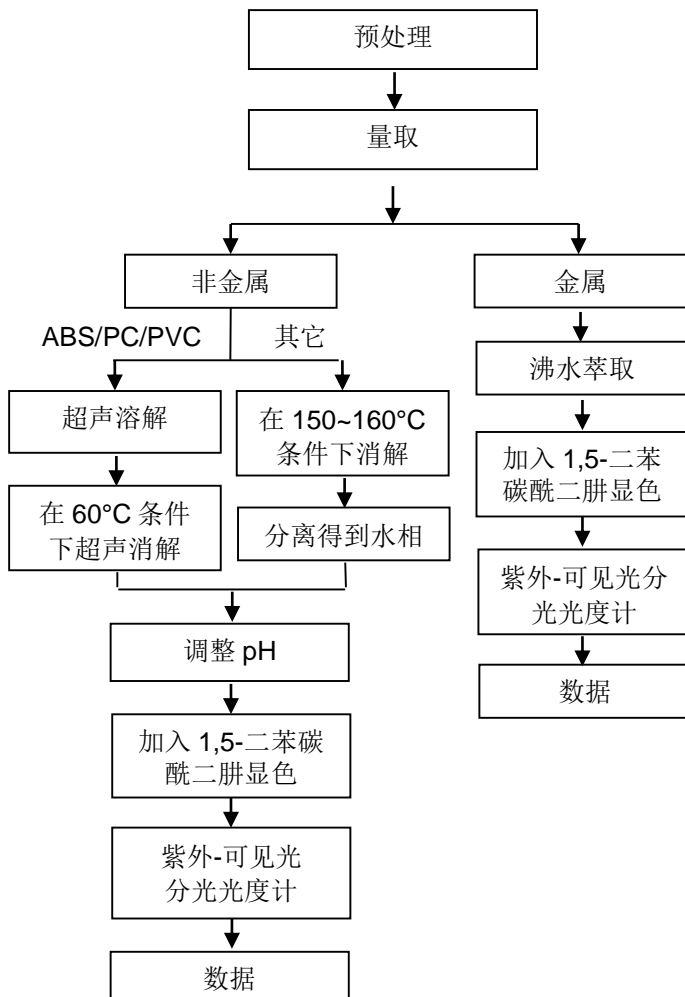
附件

元素检测流程图

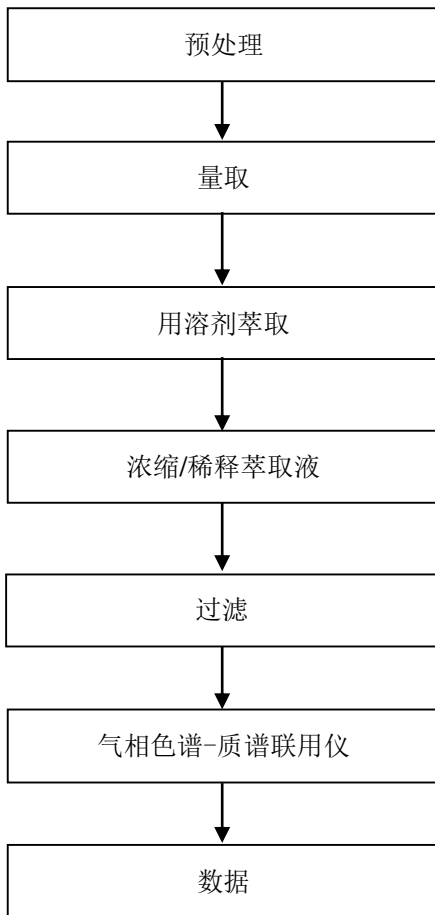
样品按照下述流程被完全消解



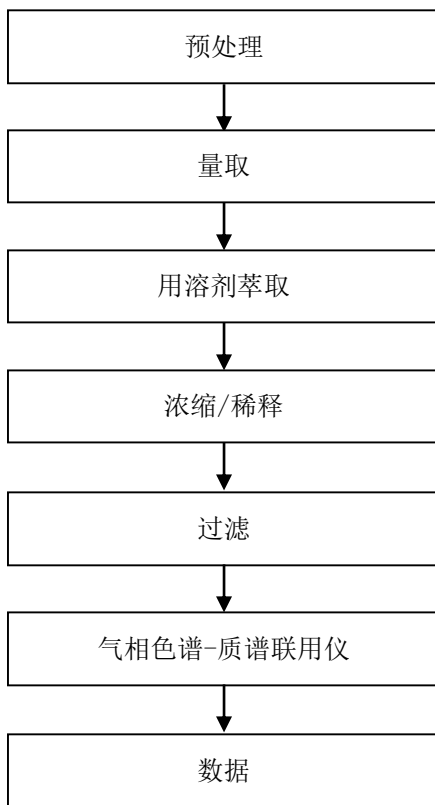
六价铬检测流程图



PBBs/PBDEs 检测流程图



Phthalates 检测流程图



附件:

备注:

Rectifier Bridge、Mosfet、Photovoltaic module, SOD-923, SOD-723, SC-89, SOT-416, SOT-23, SOT-323, SOT-252, SOT-223, A-405, DO-41(DO-204AL), DO-15(DO-204AC), DO-27 (DO-201AD), DO-27 (DO-201AE), HVM, HV, R-1, R-3, R-6, ITO-220AC/AB, TO-220AC/AB, WOB, RB-1, MBS, BR-15, RC-2, BRW, DB, DBS, GBJ, GBL, GBP, GBU, KBPC, KBP, KBU, KBL, MB, MM, RS, SMA(DO-214AC), SMB(DO-214AA), SMC(DO-214AB), SMF, PS-277, PS-277A, PS-277B, SOT-123, SOT-523, SOD-123, SOD-323, SOD-523, TO-92, TO-126, SOD-126, ABS, KBJ, LL-34, DO-35, DO-41, LL-41, SOD-123FL, TBF, TO-251, TO-252, TO-262, TO-263, ABM, MBF, SMBF, D3K, SMFL, TMBF, SOD-123HE, SOP-8, ABF, TO-220CB, TO-220MF, TO-247, DFN, SMFT, TO-220FS, TO-262CB, TO-263CB, SOD-123FT, TO-277, HGBU, HGBJ, RTMBF, TBM, DO-218AB, TO-3P, TOLL-1, TOLL-2, SOT-563、TO-220TF、TO-220NF、TO-220AD、TO-263-7L、TO-263-7H、DFN5×6Clip、DFN1006-2L、DFN1006-3L、DFN2×2-6L、PDFN5×6-8L、SMD-0.1 两脚、SMD-0.5 场效应管、SOT-23-3L、SOT-23-6L、SOT-363、SOT-89-3L、T0-252-2L、T0-258A、TO-247SM、BW88、XND38、TO-3PF、TOLL STOLL



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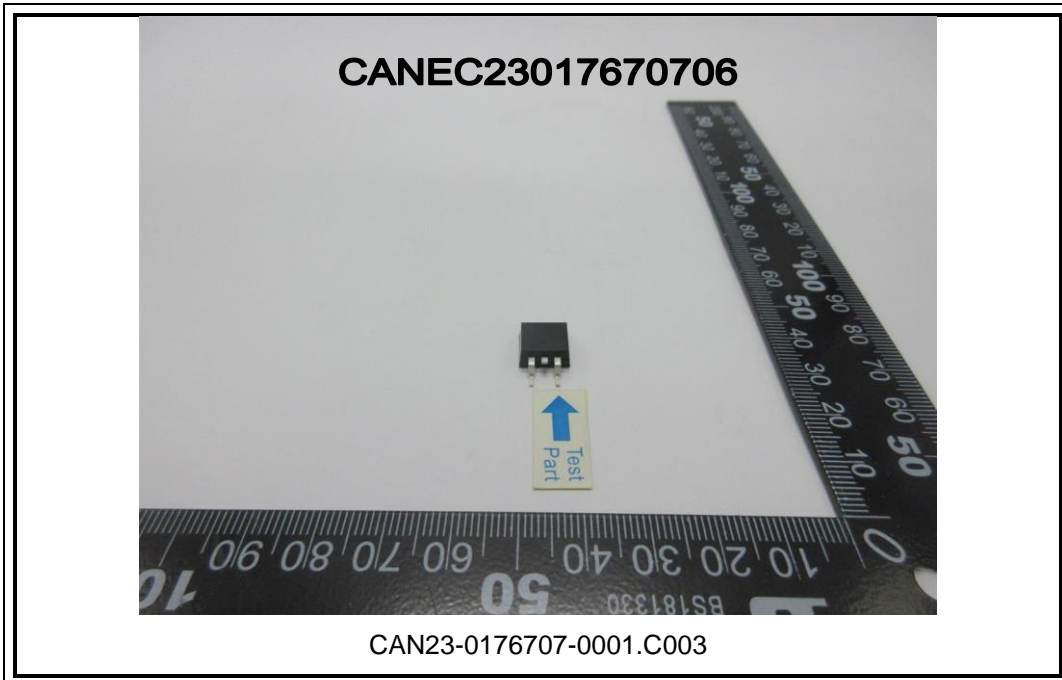
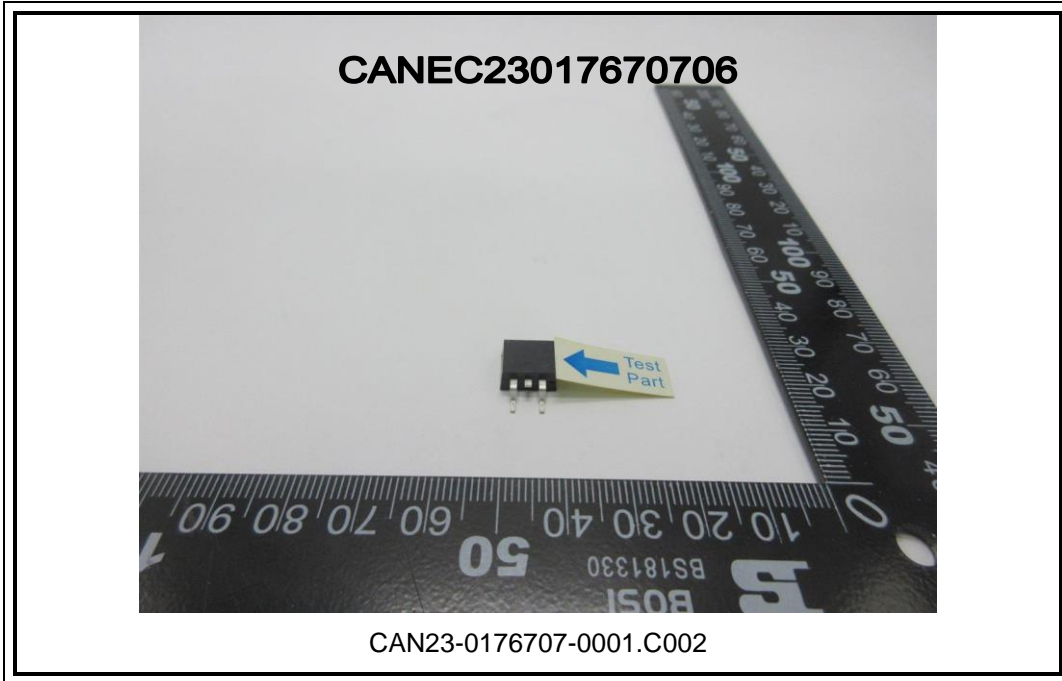
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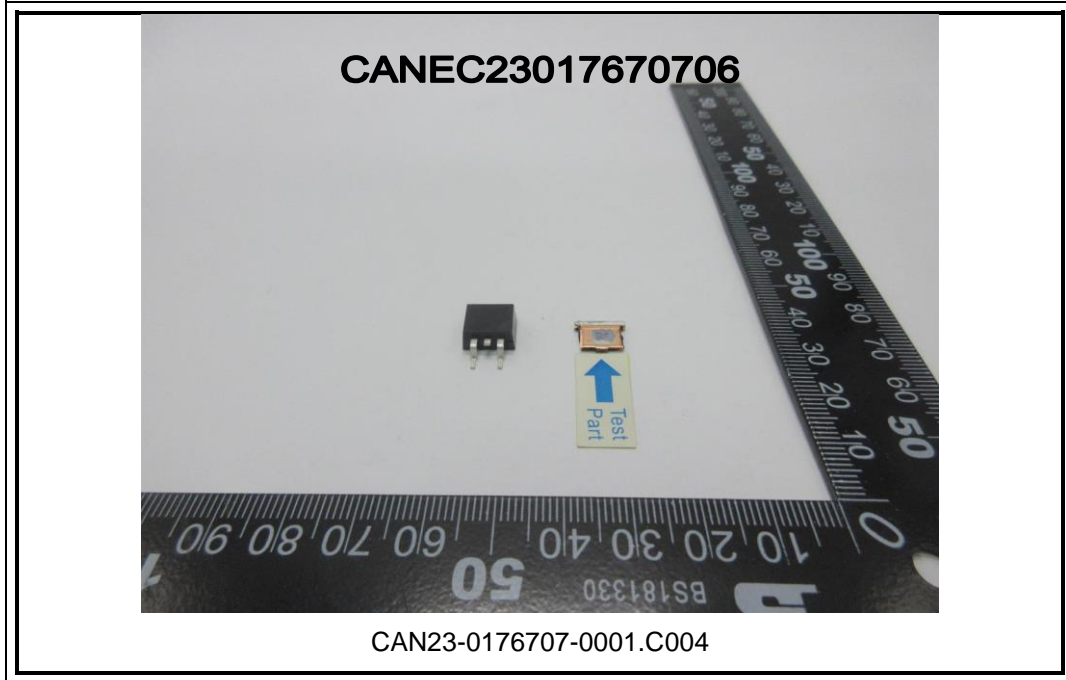


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