

检测报告

编号: CANEC24028513006

日期: 2024 年 12 月 27 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: 见附件

生产日期: 2024 年 12 月生产

以上样品及信息由客户提供。

SGS 工作编号: CQP24-013620

样品接收时间: 2024 年 12 月 17 日

检测周期: 2024 年 12 月 17 日 ~ 2024 年 12 月 26 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
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关正孟

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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	CAN24-0285130-0001.C002	黑色塑料壳
SN2	A3	CAN24-0285130-0001.C003	银色金属脚
SN3	A4	CAN24-0285130-0001.C004	带焊锡/芯片的铜色金属

备注:

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL= 方法检出限
- (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 和 IEC 62321-12:2023, 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	25	ND
二溴联苯 (DiBB)	-	mg/kg	25	ND
三溴联苯 (TriBB)	-	mg/kg	25	ND
四溴联苯 (TetraBB)	-	mg/kg	25	ND
五溴联苯 (PentaBB)	-	mg/kg	25	ND
六溴联苯 (HexaBB)	-	mg/kg	25	ND
七溴联苯 (HeptaBB)	-	mg/kg	25	ND
八溴联苯 (OctaBB)	-	mg/kg	25	ND
九溴联苯 (NonaBB)	-	mg/kg	25	ND
十溴联苯 (DecaBB)	-	mg/kg	25	ND
多溴二苯醚之和 (PBDE)	1000	mg/kg	-	ND
一溴二苯醚 (MonoBDE)	-	mg/kg	25	ND
二溴二苯醚 (DiBDE)	-	mg/kg	25	ND
三溴二苯醚 (TriBDE)	-	mg/kg	25	ND
四溴二苯醚 (TetraBDE)	-	mg/kg	25	ND
五溴二苯醚 (PentaBDE)	-	mg/kg	25	ND



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检测项目	限值	单位	MDL	A2
六溴二苯醚 (HexaBDE)	-	mg/kg	25	ND
七溴二苯醚 (HeptaBDE)	-	mg/kg	25	ND
八溴二苯醚 (OctaBDE)	-	mg/kg	25	ND
九溴二苯醚 (NonaBDE)	-	mg/kg	25	ND
十溴二苯醚 (DecaBDE)	-	mg/kg	25	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) 最大允许极限值引用自 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	5	12859▲
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) 最大允许极限值引用自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。

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能代表检测时样品含六价铬的状态。

备注: ▲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(如铅含量等于或大于 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>

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。

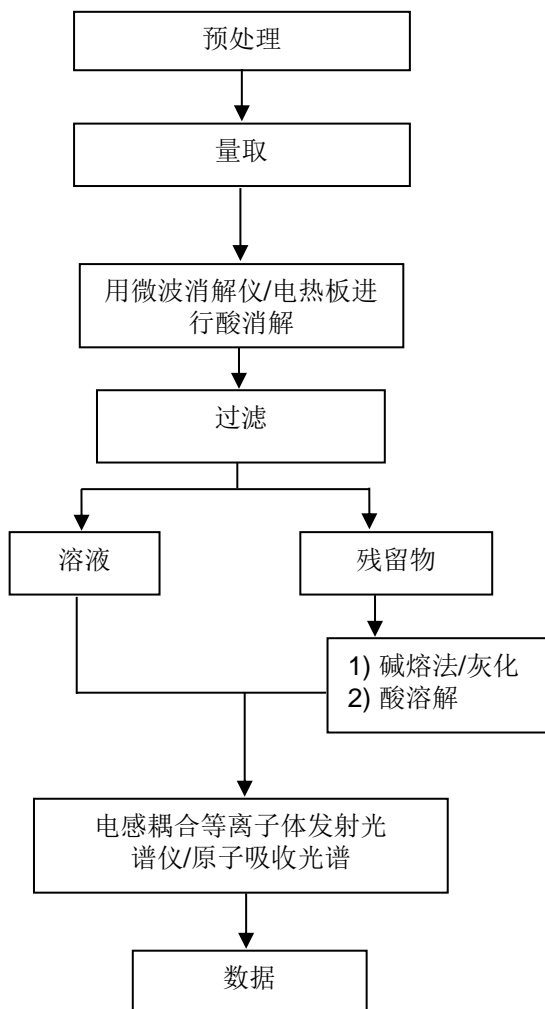


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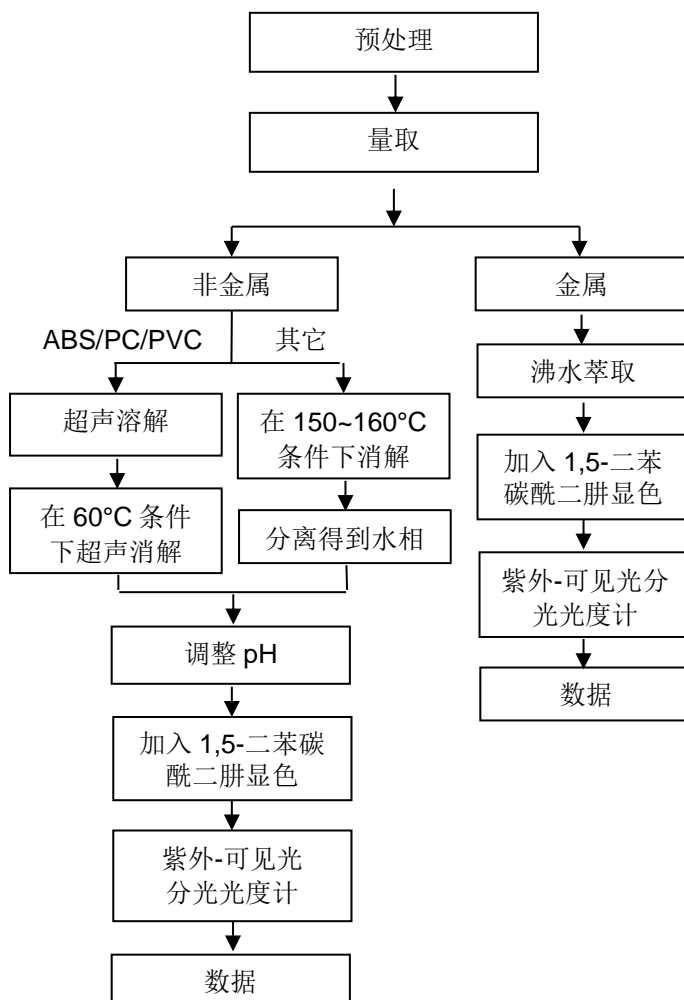
附件

元素检测流程图

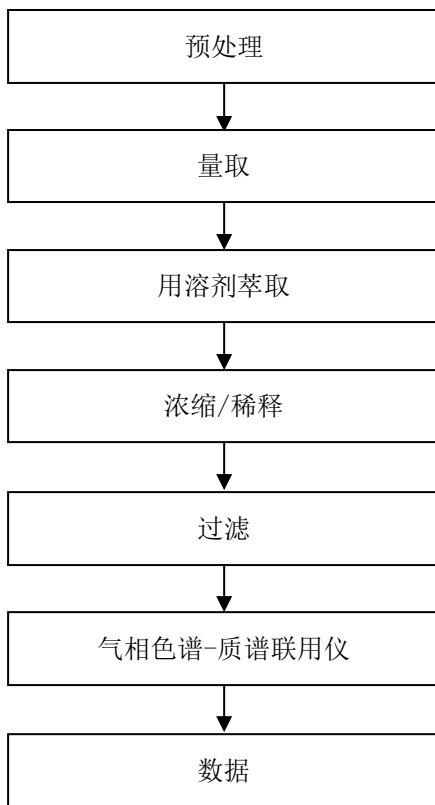
样品按照下述流程被完全消解



六价铬检测流程图



PBB/PBDE/Phthalates 检测流程图



检测报告

编号: CANEC24028513006

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附件:

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, 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, TO-252-2L, TO-258A, TO-247SM, BW88, XND38, TO-3PF, TOLL, STOLL, KBJL, GBJL, TCOP10, TO-227, TOLT, QDPAK, TO-220DF-3L, TO-220AD-2L, SOP-32, TO-220AB-3L, TO-220AC (TO-220AB-2L), TO-220CB-3L, ITO-220AB (TO-220F-3L), ITO-220AC (TO-220F-2L), TO-251-3L, TO-252-2L, TO-263-2L, TO-262-3L, TO-220MF-3L, TO-251K-3L, TO-220SF, TO-263CB-2L, TO-220NF-3L, TO-220TF-3L, TO-247-2L, TO-247-3L, TO-247-4L, DFN5*6, TO-263FB-3L, TO-220MF-2L, TO-263AD-2L, TO-263-5L, TO-220DF, PDFN3*3-C, TO-220FCB-3L, TO-220RB-3L, TO-220DF, TO-220SD, TO-251K, TO-263FB, TO-220AD



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