

检测报告

编号: SZXEC24002435518

日期: 2024年08月08日

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客户名称: 深圳市鲁光电子科技有限公司
日照鲁光电子科技有限公司
客户地址: 深圳市福田区车公庙泰然九路海松大厦 B 座 1407
山东省日照市经济技术开发区桂林路 166 号

样品名称: 二极管-整流桥
型号: SMA
客户参考信息: SOD-123FL, DO-213AA, DO-213AB, SMA, SMAF, SMAJ, SMB, SMBF, SMC, DO-215AB, DO-218AB, TO-277, TO-251, TO-252, TO-263, TO-220AB, TO-220AC, ITO-220AB, ITO-220AC, TO-247, TO-3P, MBS, MSB, MBF, TBS, ABS, ABF, DB-S, DB-1, D3K, KBP, GBU, GBJ, GBL, GBP, GBPC, GBPC-W, GBPC40, BGPC40-W, RB-15, WOM, RS-1, BR-3, BR-6, BR-8, BR-W, BR-G, BR-GS, BR-GW, BR-L, KBL, KUB, KBJ, KBJ2, KBJ4, KBJ6, KBPC, KBPC-W, HBS, MP, MP-W, SKBL, SKBPC, SGBPC, MB, MT, QL, SQL, MDA/MDC/MDK/MDS/MDQ, MFC/MFQ, UFT/MXY/MXG/MURH/PDSB/SGBJ, AR/ARS, ARL, R-1, A-405, DO-41, DO-15, DO-15B, DO-15L, R-3, DO-27S, DO-27, DO-201AE, DO-201AD, R-6, HVM, HVP, HV, HC, RB15

以上样品及信息由客户提供。

SGS 工作编号: SZP24-033547
样品接收时间: 2024年07月30日
检测周期: 2024年07月30日 ~ 2024年08月06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

通标标准技术服务有限公司深圳分公司
授权签名

倪磊

Andy Ni 倪磊
批准签署人

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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、镉和六价铬	符合

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	A4	SZX24-0024355-0001.C004	黑色本体
SN2	A5	SZX24-0024355-0001.C005	银色金属引脚

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	A4
铅 (Pb)	1000	mg/kg	2	13193 [▲]
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



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检测项目	限值	单位	MDL	A4
四溴二苯醚 (TetraBDE)	-	mg/kg	5	ND
五溴二苯醚 (PentaBDE)	-	mg/kg	5	ND
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	A5
铅 (Pb)	1000	mg/kg	2	6
汞 (Hg)	1000	mg/kg	2	ND
镉 (Cd)	100	mg/kg	2	ND
六价铬 (Cr(VI))▼	-	µg/cm ²	0.10	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。

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, 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>



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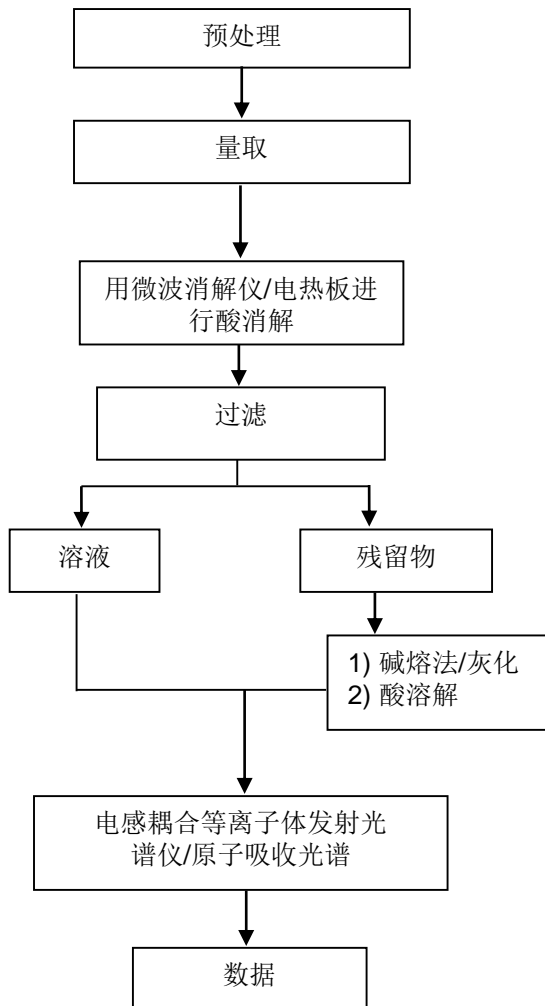
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附件

元素检测流程图

样品按照下述流程被完全消解



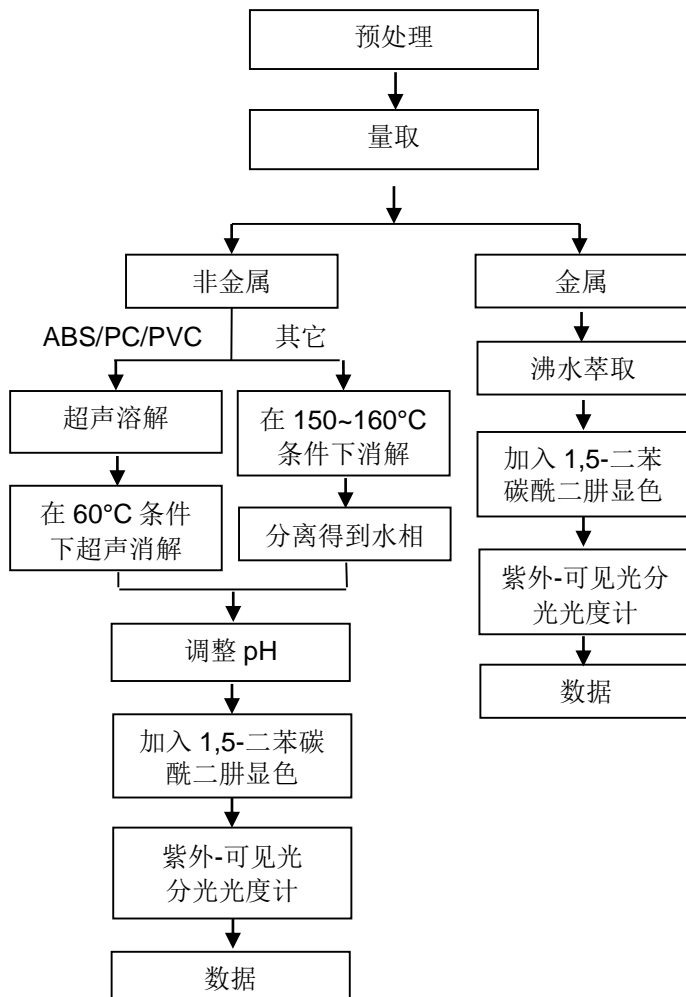
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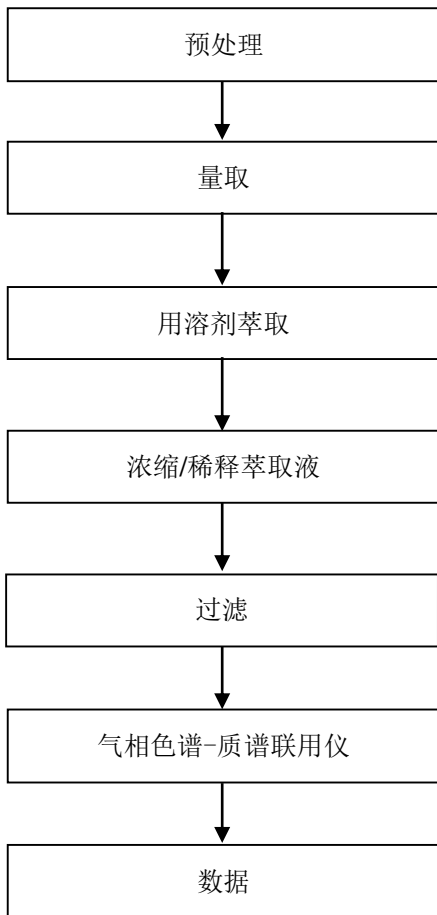
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六价铬检测流程图



PBB/PBDE 检测流程图



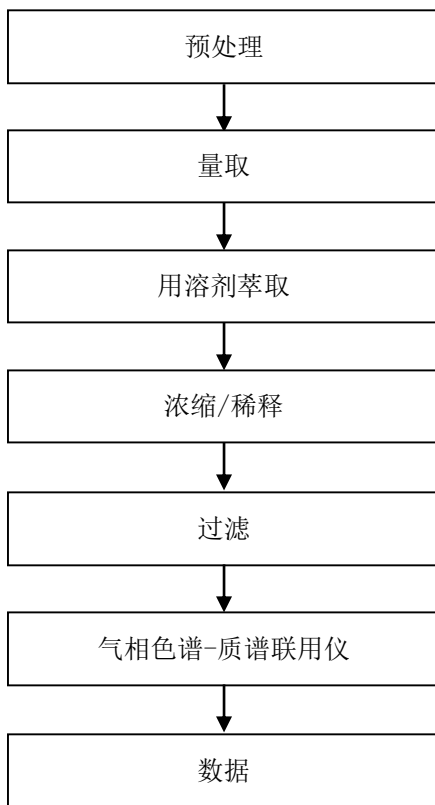
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Phthalates 检测流程图



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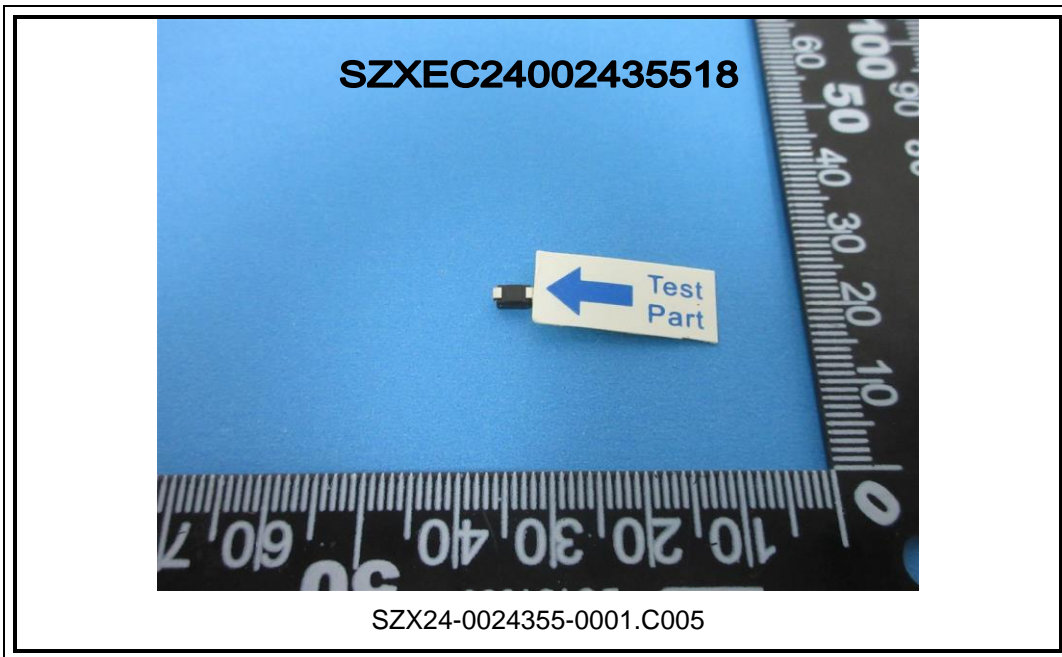
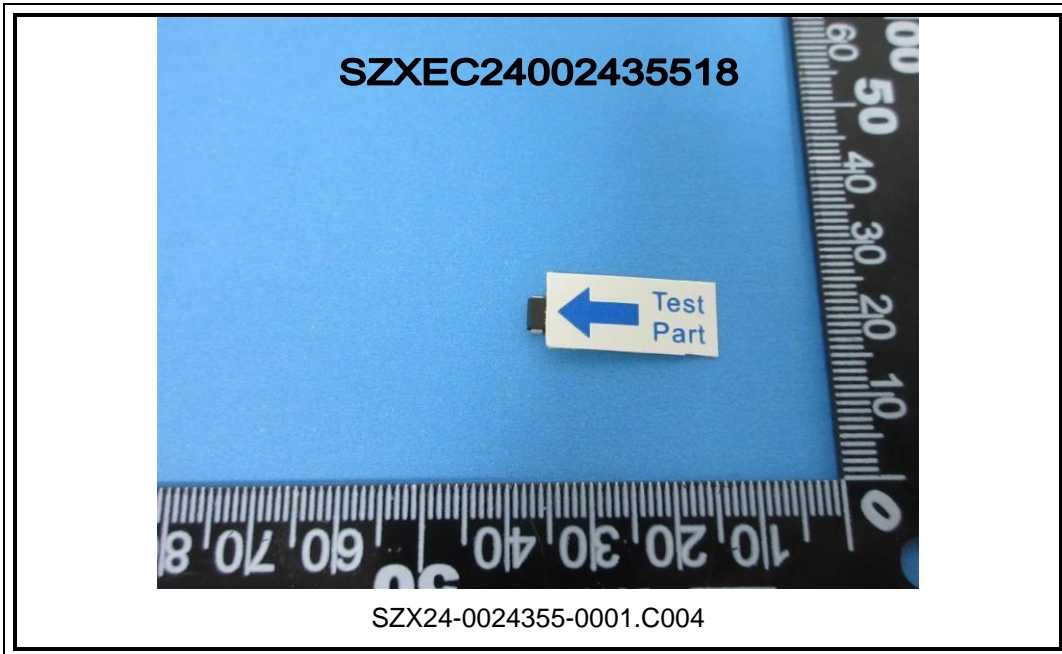
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Room 101-901, Plant 4 & Room 101, Plant 2 & Room 101, Plant 3 & Room 301-501, Plant 3, Jianghao (Banian) Industrial Plant Area, No. 430, Jihua Road, Banian Community, Banian Street, Longgang District, Shenzhen, Guangdong, China 518129 www.sgs.com
中国·广东·深圳市龙岗区坂田街道坂田社区吉华路430号江源(坂田)工业厂区厂房4号101-901、2号101、3号101-501 邮编:518129 t:(86-755) 25328888 sgs.china@sgs.com