

## 检测报告

编号: SZXEC25000839502

日期: 2025 年 03 月 24 日

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客户名称: 广东纽航电子科技有限公司  
客户地址: 广东省东莞市东城街道樟村大园路 3 号 1 栋 301 室

样品名称: 半导体元器件  
型号: SOD-323  
客户参考信息: 请见附页  
以上样品及信息由客户提供。

SGS 工作编号: SZP25-012274  
样品接收时间: 2025 年 03 月 18 日  
检测周期: 2025 年 03 月 18 日 ~ 2025 年 03 月 24 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

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倪磊

Andy Ni 倪磊  
批准签署人

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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	A1	SZX25-0008395-0001.C001	“半导体元器件”

## 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	A1
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
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



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检测项目	限值	单位	MDL	A1
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。

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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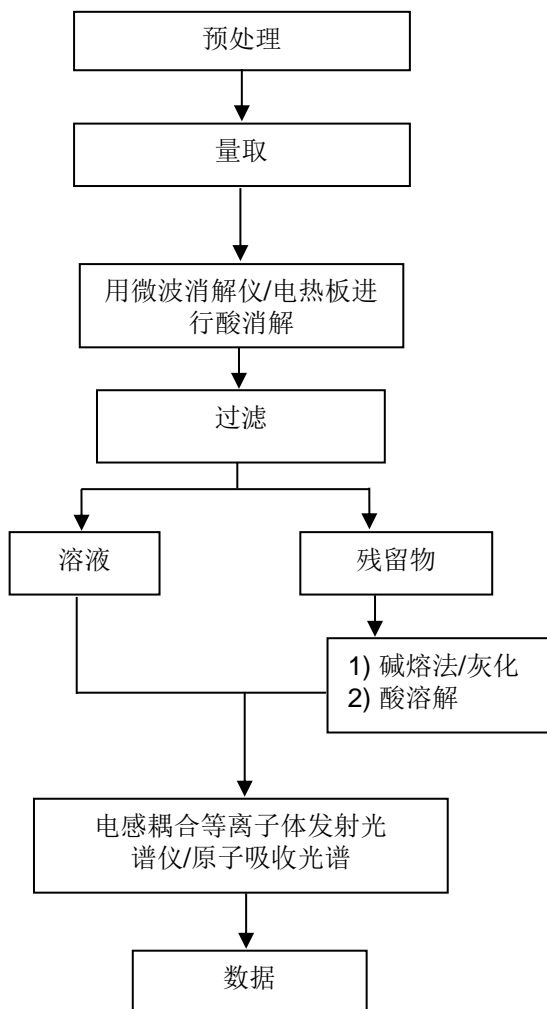
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## 元素检测流程图

样品按照下述流程被完全消解

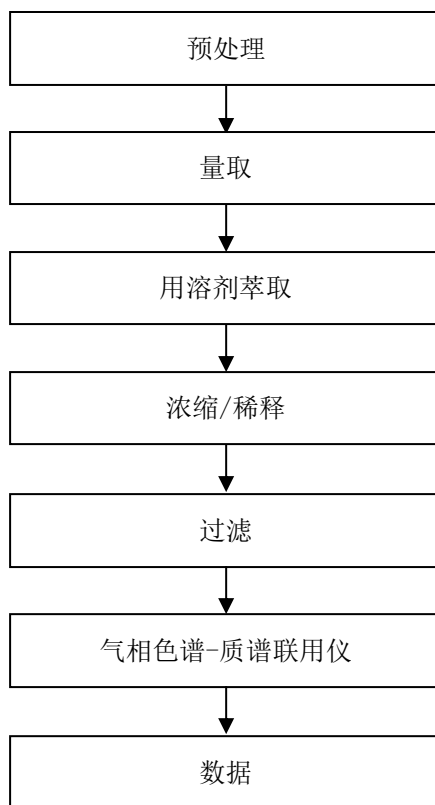


## 六价铬检测流程图





## PBB/PBDE/Phthalates 检测流程图



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附件:

二极管:

R-1, R-6, R-系列, A-405, DO-41, DO-15, DO-27(DO-201AD), DO-35, DO-201AC(SMA),  
DO-201AA(SMB), DO-201AB(SMC), DO-213AA, DO-213AB(LL-41), DO-218AB, DO-系列  
TO-251, TO-251S, TO-252, PTO-252, TO-262, TO-263, TO-220AB, TO-220AC, TO-220C, TO-220C-2L,  
ITO-220AB, ITO-220AC, TO-220F, TO-220F-2L, TO-3P, TO-247, TO-247S, TO-277, TO-277A, TO-277B,  
TO-247, TO-247S, TO-3P, TO-3PS, TO-3PF, TO-264-3L, TO-264PLUS-3L, TO-系列  
TOLL, TOLT1, TOLT2, SOD-923, SOD-723, SOD-523, SOD-323, SOD-123, SOD-123FL, SOD-123HE,  
SOD-323HE, SOD-80(LL-34), SOD882, SOD 系列,  
SMAW, SMAF, SMAFL, SMAFHE, SMBF, SMBFL,  
SMP, SM 系列, 0402, 0603, 0805, 1206, SOT-23, SOT-89, SOT-223, SOT 系列,  
SC-88, SC-89, SC-70, SC 系列, DFN0603, DFN1608, DFN1610, DFN2020, DFN2018,  
DFN 系列, PDFN3\*3, PDFN5\*6, PDFN8\*8, PDFN 系列, AK3 系列

桥式整流器:

SM-1, MBF, MBFS, MBS, MBSS, MBM, ABS, ABF, AKB, TMBF, HBS, LDB-S, DB-1, DB-S, RS, RB,  
KBL, KBU, KBP, TBP, TBP-1, KBPC, GBP, GBPC, GBU, GBL, SGBJ, GBJ, KBJ, KBJL, BR, WOL,  
WOM, WOG, D3K, HV, GH, BCT, PSD, LD, SBL, BU, IBS, WOB, WOBM

二极管模块、整流模块、桥式整流模块:

MDC 系列, QL 系列, SQL 系列, MDS 系列, MDA 系列, MDK 系列, MDQ 系列, XQ 系列, KPBC 系列

光伏模块:

09E, QC3Q, Z8X, TS306X, JA005, 09ES

MOS 管、IGBT、碳化硅、氮化镓、单向可控硅、双向可控硅、三极管:

DIP25, DIP24, DIP24F, DIP 系列模块/DIP Series module

TO-92, TO-251, TO-251S, TO-252, TO-252-4L, PTO-252, TO-126, TO-220A, TO-220B, TO-220AB,  
TO-220C, ITO-220AB, TO-220F, TO-220FJ, TO-263, TO-263-5L, TO-263-6L, TO-263-7L, TO-262, TO-3P,  
TO-3PF, TO-247, TO-247S, TO-247L, TO-247H, TO-247-4L, TO-247Plus-3L, TO-247Plus-4L, TO-264-3L,  
TO-264PLUS-3L, TO 系列, TOLL, TOLT1, TOLT2, SOT-23, SOT-23-3L, SOT-89, SOT-223, SOT-143,  
SOT 系列, SOP-89, SOP-8, SOP 系列, DFN3\*3, DFN5\*6, DFN8\*8, DFN2020, DFN3030, DFN 系列  
PDFN3\*3, PDFN3\*3-D, PDFN5\*6, PDFN5\*6-D, LFPK5\*6, PDFN8\*8, PDFN 系列, QFN3\*3, QFN 系列

集成电路:

SOT-23-5/6, SOP-8/14/16/18/20/24/28/30/36/48, SOT 系列, SSOP-8/14/16/18/20/24/28/36/48,

SSOP 系列, MSOP-10/14 MSOP 系列, TSSOP-14/20/28, TSSOP 系列,



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DIP-8/14/16/20/24/28/36/48, DIP 系列, QFN16/20/24/28/32/40/48/64, QFN 系列

DFN6/8/10/20, DFN 系列, LQPF32/44/48/52/64/100, LQPF 系列, SOP-8L, SOP 系列, SOP 系列+

低压差调整器、三端精密稳压器、电压调整器:

SOT-23, SOT-89, SOT-223, SOT 系列, TO-252, TO-220, TO-263, TO-263-5L, TO 系列



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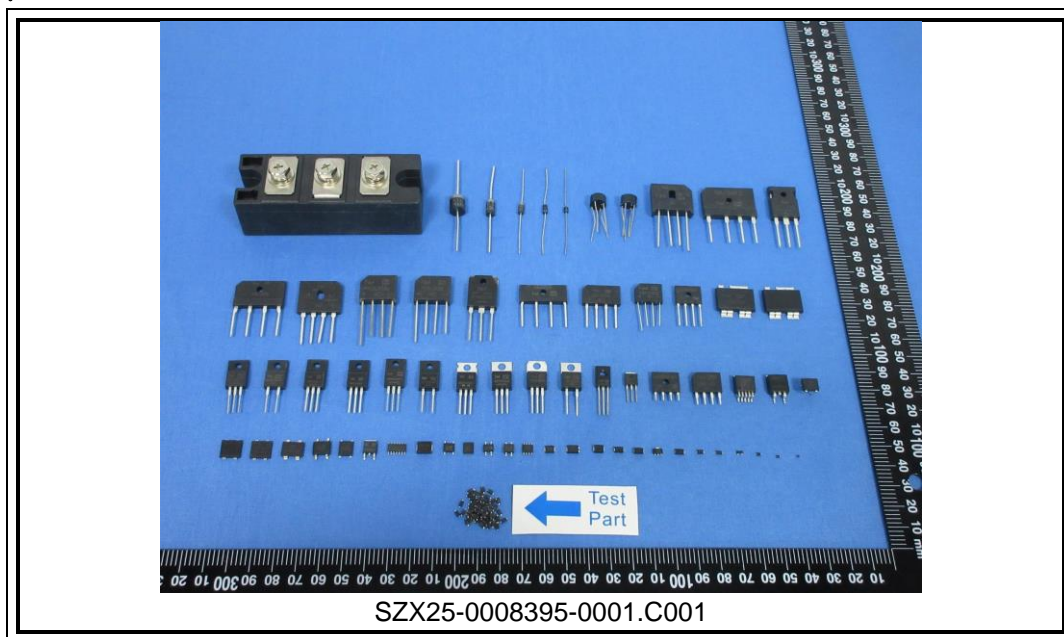
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