

# Test Report

No.: SZXEC23002111101

Date: Sep 06, 2023

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Client Name: PULSETAKE DEVICES LIMITED

Client Address: RM811-812, BD# QIURUI, RD MINKANG, ST MINZHI, LONGHUA, SHENZHEN, PRC, CHINA

Sample Name: Tansient Voltage Suppressor

Model No.: SOD-323

Client Ref. Information: 0201 0402 0603 SOD-923 SOD-523 SOD-323  
 SOD-323F SOD123-FL SOD-882 SOD-123 SOD-723  
 DFN0603 DFN-2L DFN1610 DFN2020 DFN2510  
 DFN-10L DFN1006-2L DFN-6L DFN-18L DFN1.  
 0\*0.6-2L DFN1610-2L DFN1.6\*1.6-6L DFN4.1\*2-  
 10L DFN2020-3L DFN2.6\*2.6-10L DFN1610 QFN16  
 SOT-23 SOT-553 SOT-563 SOT-723 SOT-223  
 SOT-89 SOT23-3L SOT-23-6L SOT-143 SOT-323  
 SOT-523 SOT-353 SOT-363 SOT-563 DO-214AA  
 DO-214AB DO-214AC DO-218AB DO-15 DO-41  
 DO-27 SO-8 SO-14 SO-16 MSOP-10L FBP2D  
 FBP2C FBP3D P600 FBP06D SLP2626P10

The above sample(s) and information were provided by the client.

SGS Job No.: SZP23-017046

Sample Receiving Date: Sep 01, 2023

Testing Period: Sep 01, 2023 ~ Sep 06, 2023

Test Requested: Select test(s) as requested by the client.

Test Method(s): Please refer to next page(s).

Test Result(s): Please refer to next page(s).

Test Requirement	Conclusion
EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)	Pass

Signed for and on behalf of  
 SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Mescal Ye  
 Approved Signatory

scan to see the report



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**Test Result(s):**

Test Part Description:

SN ID	Sample No.	SGS Sample ID	Description
SN1	A1	SZX23-0021111-0001.C001	"Tansient Voltage Suppressor"

Remarks:

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected (< MDL)
- (4) “-” = Not Regulated

**EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)**

Test Method: With reference to IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017, IEC 62321-6:2015 and IEC 62321-8:2017, analysis was performed by ICP-OES, UV-Vis and GC-MS.

Test Item(s)	Limit	Unit(s)	MDL	A1
Cadmium(Cd)	100	mg/kg	2	ND
Lead (Pb)	1000	mg/kg	2	ND
Mercury (Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))	1000	mg/kg	8	ND
Polybromobiphenyl (PBBs)	1000	mg/kg	-	ND
Monobromobiphenyl (MonoBB)	-	mg/kg	5	ND
Dibromobiphenyl (DiBB)	-	mg/kg	5	ND
Tribromobiphenyl (TriBB)	-	mg/kg	5	ND
Tetrabromobiphenyl (TetraBB)	-	mg/kg	5	ND
Pentabromobiphenyl (PentaBB)	-	mg/kg	5	ND
Hexabromobiphenyl (HexaBB)	-	mg/kg	5	ND
Heptabromobiphenyl (HeptaBB)	-	mg/kg	5	ND
Octabromobiphenyl (OctaBB)	-	mg/kg	5	ND
Nonabromobiphenyl (NonaBB)	-	mg/kg	5	ND
Decabromobiphenyl (DecaBB)	-	mg/kg	5	ND
Polybromodiphenyl ether(PBDEs)	1000	mg/kg	-	ND
Monobromodiphenylether (MonoBDE)	-	mg/kg	5	ND
Dibromodiphenylether (DiBDE)	-	mg/kg	5	ND
Tribromodiphenylether (TriBDE)	-	mg/kg	5	ND
Tetrabromodiphenylether (TetraBDE)	-	mg/kg	5	ND
Pentabromodiphenylether (PentaBDE)	-	mg/kg	5	ND
Hexabromodiphenylether (HexaBDE)	-	mg/kg	5	ND
Heptabromodiphenylether (HeptaBDE)	-	mg/kg	5	ND
Octabromodiphenylether (OctaBDE)	-	mg/kg	5	ND
Nonabromodiphenylether (NonaBDE)	-	mg/kg	5	ND
Decabromodiphenylether (DecaBDE)	-	mg/kg	5	ND
Dibutyl Phthalate(DBP)	1000	mg/kg	50	ND
BenzyI Butyl Phthalate(BBP)	1000	mg/kg	50	ND



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Test Item(s)	Limit	Unit(s)	MDL	A1
Bis-(2-ethylhexyl) Phthalate(DEHP)	1000	mg/kg	50	ND
Diisobutyl Phthalate(DIBP)	1000	mg/kg	50	ND

**Notes:**

- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863.
- (2) IEC 62321 series is equivalent to EN 62321 series.
- (3) The restriction of DEHP, BBP, DBP and DIBP shall apply to medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, from 22 July 2021.

Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule ( $w=0$ ) stated in ILAC-G8:09/2019.



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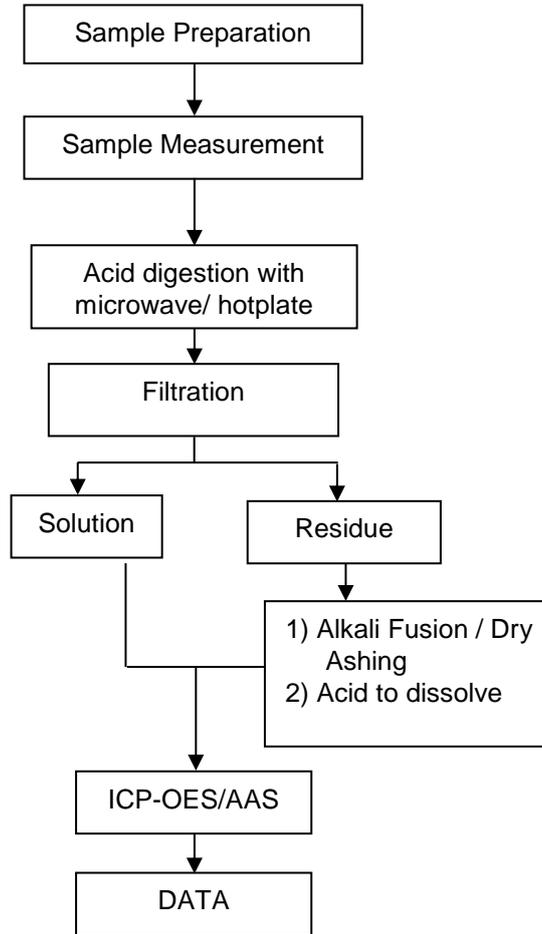
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**Elements Testing Flow Chart**

These samples were dissolved totally by pre-conditioning method according to below flow chart.



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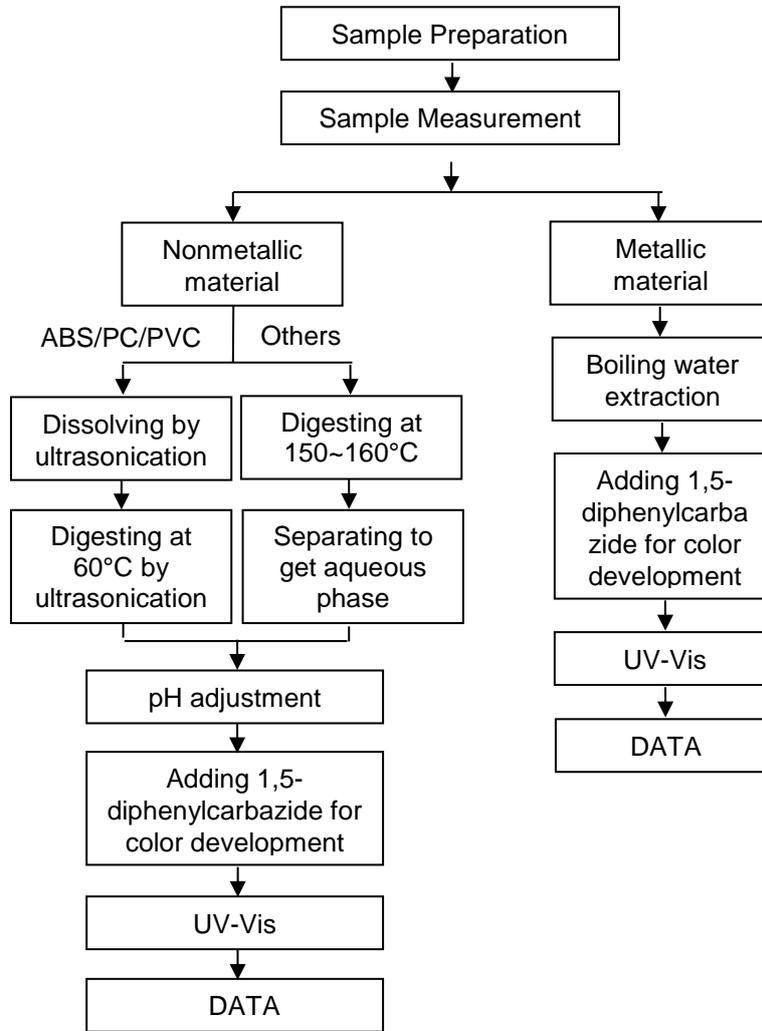
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ATTACHMENTS

Hexavalent Chromium (Cr(VI)) Testing Flow Chart



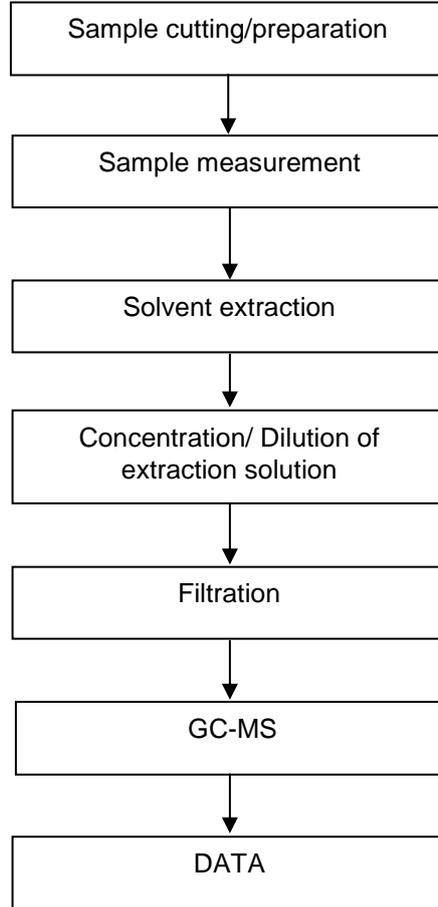
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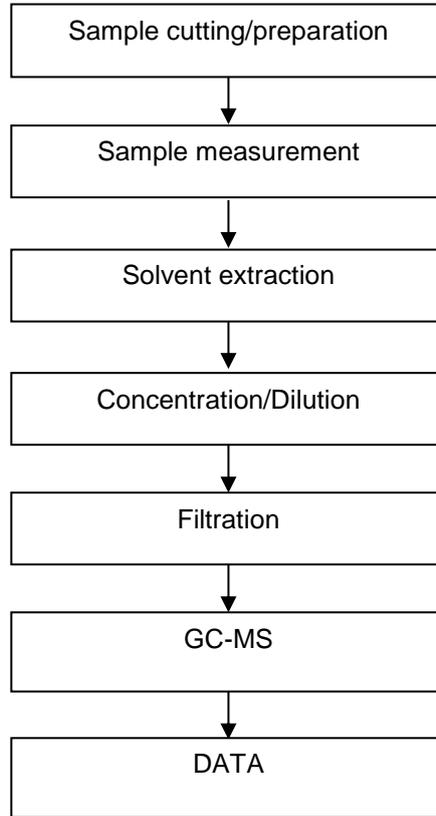
### PBBs/PBDEs Testing Flow Chart



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### Phthalates Testing Flow Chart



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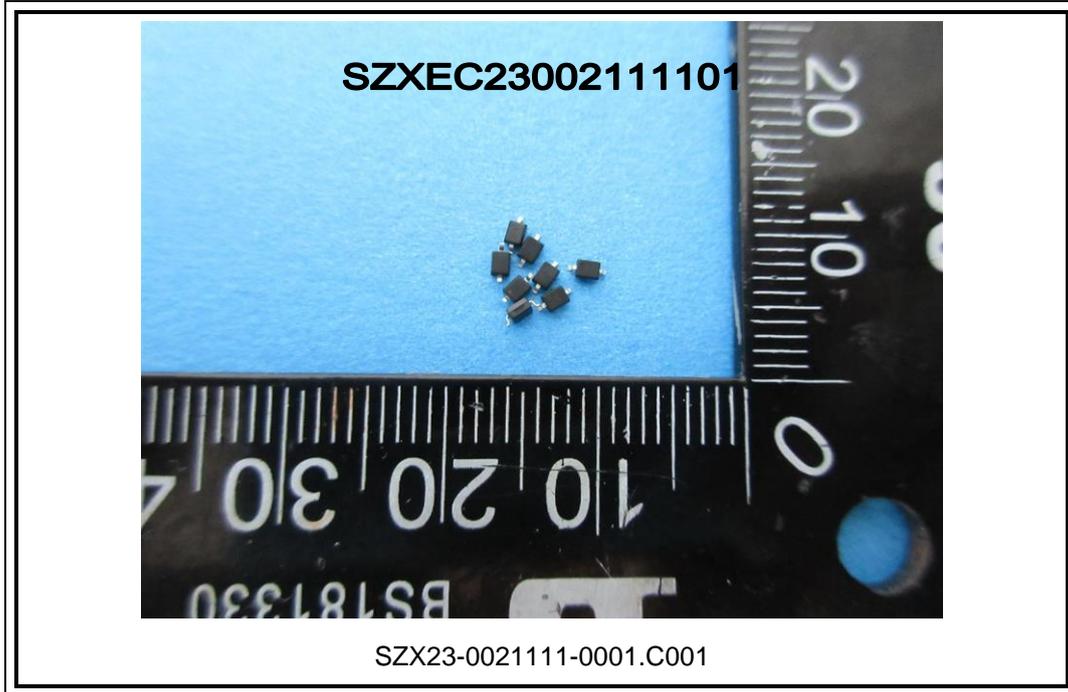
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### Sample Photo:



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