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Client Name: LE SHAN SHARE ELECTRONIC CO, LTD

Client Address: NO.9 NANXIN ROAD, HIGH-TECH ZONE LESHAN CITY, SICHUANP.R CHINA

Sample Name : Plastic seal rectifier

Model No.: D35SB100A

Manufacturer: A. Chip 120mi Leshan Jiayang Technology Development Co., Ltd. b. Frame

XYK-1 Ningbo Xingye Shengtai Group Co., Ltd. c. Solder Paste Pb90Sn8Ag2 Beijing Dabo Great Wall Tin Solder Co., Ltd. d. Epoxy resin EME-1250D3A

Changchun Epoxy (Changshu) Co., Ltd

Client Ref. Info. : See remark

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

SGS Job No. : 10024537 - CQ

Date of Sample Received: 01 Feb 2023

Testing Period: 01 Feb 2023 - 09 Feb 2023

Test Requested: Selected 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).

Result Summary:

Test Requested	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
EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU-	PASS
Lead, Mercury, Cadmium and Hexavalent chromium	





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

Coral Qiu

Coral Qiu

Approved Signatory







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Test Result(s):

Test Part Description:

Specimen No.	SGS Sample ID	Description
SN1	CAN23-011283.001	Silvery metal pin
SN2	CAN23-011283.002	Copper-colored w/ silvery metal w/ solder
SN3	CAN23-011283.003	Black plastic shell w/ chip & beige printing

Remarks:

- (1) 1 mg/kg = 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+A1:2017, IEC 62321-5:2013, IEC 62321-7-2:2017, IEC 62321-6:2015 and IEC 62321-8:2017, analyzed by ICP-OES, UV-Vis and GC-MS.

Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>003</u>
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1000	mg/kg	2	8
Mercury (Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (CrVI)	1000	mg/kg	8	ND
Sum of PBBs	1000	mg/kg	-	ND
Monobromobiphenyl	-	mg/kg	5	ND
Dibromobiphenyl	-	mg/kg	5	ND
Tribromobiphenyl	-	mg/kg	5	ND
Tetrabromobiphenyl	-	mg/kg	5	ND
Pentabromobiphenyl	-	mg/kg	5	ND
Hexabromobiphenyl	-	mg/kg	5	ND
Heptabromobiphenyl	-	mg/kg	5	ND
Octabromobiphenyl	-	mg/kg	5	ND
Nonabromobiphenyl	-	mg/kg	5	ND
Decabromobiphenyl	-	mg/kg	5	ND
Sum of PBDEs	1000	mg/kg	-	ND
Monobromodiphenyl ether	-	mg/kg	5	ND
Dibromodiphenyl ether	-	mg/kg	5	ND



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Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>003</u>	
Tribromodiphenyl ether	-	mg/kg	5	ND	
Tetrabromodiphenyl ether	-	mg/kg	5	ND	
Pentabromodiphenyl ether	-	mg/kg	5	ND	
Hexabromodiphenyl ether	-	mg/kg	5	ND	
Heptabromodiphenyl ether	-	mg/kg	5	ND	
Octabromodiphenyl ether	-	mg/kg	5	ND	
Nonabromodiphenyl ether	-	mg/kg	5	ND	
Decabromodiphenyl ether	-	mg/kg	5	ND	
Dibutyl phthalate (DBP)	1000	mg/kg	50	ND	
Butyl benzyl phthalate (BBP)	1000	mg/kg	50	ND	
Bis (2-ethylhexyl) phthalate (DEHP)	1000	mg/kg	50	ND	
Diisobutyl Phthalates (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.

EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU- Lead, Mercury, Cadmium and Hexavalent chromium

Test Method: With reference to IEC 62321-4:2013+A1:2017, IEC 62321-5:2013, IEC 62321-7-1:2015, analyzed by ICP-OES and UV-Vis.

Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>	<u>002</u>
Cadmium (Cd)	100	mg/kg	2	ND	ND
Lead (Pb)	1000	mg/kg	2	10	26808▲
Mercury (Hg)	1000	mg/kg	2	ND	ND
Hexavalent Chromium (Cr(VI))▼	-	μg/cm²	0.10	ND	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) ▼= a. The sample is positive for CrVI if the CrVI concentration is greater than 0.13 µg/cm². The sample coating is considered to contain CrVI
 - b. The sample is negative for CrVI if CrVI is ND (concentration less than $0.10 \ \mu g/cm^2$). The coating is considered a non-CrVI based coating
 - c. The result between 0.10 μ g/cm² and 0.13 μ g/cm² is considered to be inconclusive unavoidable coating variations may influence the determination



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Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.

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Remark 1*:According to the declaration from the client, Lead (Pb) in specimen 002 is exempted by EU RoHS directive 2011/65/EU based on |ANNEX III 7(a)|: Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead).

Remark 2: Results & photo(s) of this report refer to test report CANEC2301128301.

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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Remark:

- D Model D, followed by 10,15,20,25,30,35,50,followed by SB ,followed by 05,06,10,20,40,60,80,100,120,140,160, maybe followed by LV,LL,H,A,D,P,FR
- TD Model TD, followed by 15,20,25,30,35,50, followed by SB, followed by 05,10,20,40,60,80,100,120,140,160,
- GBJ Model GBJ, followed by 10,15,20,25,30,35,50,60 followed by ,02,04,06,08,10,12, 14,16, H,D,G,J,K,M, maybe followed by A,B,C,D,E,F,H,
- KBJ Model KBJ, followed by 4,6,8,10,15,20, 25,35 followed by 02,04,06,08,10,12,14,16, H,D,G,J,K,M,
- SKBJ Model SKBJ, followed by 4,6,8,10,15,20,followed by 02.04,06,08,10,12,14,16, H,D,G,J,K,M,FR
- GBU Model GBU, followed by 4,6,8,10,15,20,25,30 followed by 02.04,06,08,10,12,14,16,D,G,J,K,M,FR maybe followed by H,P,LV
- GBL Model GBL, followed by 2, 4,6,8,10,15,20,25,followed by 00.01,02,04,06,08,10,12,14,16,H,D,G,J,K,M, maybe followed by H
- KBL Model KBL, followed by 2, 4,6,8,10,15,20,25,followed by 00.01,02.04.06,08.10,12,14,16,H,D,G,J,K,M
- SGBL Model SGBL, followed by 2, 3,4,5,6,7,8,9,10,15,20,25,followed by 00,01,02,04,06,08,10,12, 14,16,H,D,G,J,K,M
- KBP Model KBP, followed by 2, 3,4,5,6,,7,8,9,10, followed by 00,01,02,04,06,08,10,12,14,16,H,D,G,J,K,M
- GBP Model GBP, followed by 2, 3,4,5,,6,7,8,9,10,followed by 00.01,02.04.06.08.10.12.14.16.H.D.G.J.K.M
- KBU Model KBU, followed by 2.3,4,5,6,7,8,910,15,followed by 00,01,02,04,06,08,10,12,14,16,H,D,G,J,K,M
- DK Model DK, followed by 1,2,3,4,5,6,7,8,9,10,11,followed by 00,01,02,04,06,08,10,12,14,16
- DKB Model D, followed by 1,2,3,4,5,6,7,8,9,10, followed by KB,followed by 05,10,20,40,60,80,100,120,140,160,
- DBU Model D, followed by 1,2,3,4,5,6,7,8,9,10, followed by BU,followed by 05,10,20,40,60,80,100,120,140,160,
- DSB Model D, followed by 1,2,3,4,5,6,7,8,9,10, followed by SB,,followed by 05,10,20,40,60,80,100,120,140,160,
- RS Model RS, followed by 2,4,10,28, followed by 01,02,03,04,05,06,07,08,10,12,
- MBSK Model MBSK, followed by 10,11,12,13,14,15,16,17,18,19,M , 105,110M, 205M, 21,22,23,24,25,26,27,28,29M, 210M, 105S
- MBLSK Model MBLSK, followed by 11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29 ,maybe followed by 0,5, followed by S
- 2DF Model 2DF, followed by 005,01,02,03,04,05,06,07,08,10,12, maybe followed by M,S
- DF Model DF, followed by 15,20, followed by 01,02,03,04,05,06,07,08,09,10, maybe followed by M,S

 MB Model MB, followed by
- 05.1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29, followed by S.F.
- MSB Model MSB, followed by 2,3,4,5,6,7,8,9,10 ,followed by





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01.02.03.04.05.06.07.08.10.12.13.14.15.16

3GBJ Model 3GBJ, followed by15,20,25,30,35,45,50, followed by 06,08,10,12,14,16, maybe followed by A R

<u>SGBJ Model SGBJ, followed by 06,10,15,20,25,30,35,45,50,followed by 02.04,06,08,10,12,14,16,maybe followed by H,D,G,J,K,M, maybe followed by B</u>

P4KE Model P4KE, foll owed

6.8,7.5,8.2,9.1,10,11,12,13,15,16,18,20,22,24,27,30,33,36,39,43,47,51,56,62,68,75,82,91,100,110,

120,130,150,160,170,180,200,220,250,300,350,400,440, maybe followed by A

P6KE Model P6KE, followed by

6.8,7.5,8.2,9.1,10,11,12,13,15,16,18,20,22,24,27,30,33,36,39,43,47,51,56,62,68,75,82,91,100,110,

120,130,150,160,170,180,200,220,250,300,350,400,440, maybe followed by A

PSM Model P, followed by, 4,6, followed by

 $\underline{6.8.7.5.8.2.9.1.10.11.12.13.14.15.16.17.18.19.20.21.22.23.24.25.26.27.28.29.30.31.32.33.}$

34.35.36.37.38.39.40.41.42.43.44..45.46.47.48.49.50

SGBU Model SGBU, followed by 2,4,6,8, followed by 02,04,06,08,10,12, H,D,G,J,K,M

SGBL Model SGBL, followed b y2,4,6,8, followed by 02,04,06,08,10,12, H,D,G,J,K,M

ABS Model ABS, followed by 2,3,4,5,6,7,10 followed by 02,04,06,08,10,12, S,H,D,G,J,K,M

ABSK Model ABSK, followed by 2,4,6,8,10,12,14,18,20,22,24,26,28,110,210, followed by S

DB Model DB,followed by

101,102,103,104,105,106,107,108,109,110,151,152,153,154,155,156,157,201,202,203,204,205,206,207,

307, 405,406,407 maybe followed by S

MBS Model MBS, followed by 05,1,2,3,4,5,6,7,8,9,10, followed by 02,04,06,08,10,12, followed by M,F,S

EPS Model 10,15.20,25,30,40,50,60,70,75,80,90, followed by EPS, followed by

06,08,10,12,14,16,18,20,30,40,50,60,80,100,120, followed by A,H,A2,C,C2,D,Z,DH,LH, maybe followed by F

FD Model FD, followed by 1,2,3,4,5,6,7,8,9, 10, followed by A,B,D,E,G,J,M,A, followed by A,B,C

RD Model RD, followed by 1,2,3,4,5, 6,7,8,9,10, followed by A,B,D,E,G,J,M,A, followed by A,B,C

TDD Model TDD, followed by 25,30,35,45,50,followed by -, followed by 02,04,06,08,10,12,14,16,18,20,22

<u>SF Model SF, followed by 1,1.5,2,2.5,3,3.5,4,4.5,5,6,7,8,9,10,11,12,13,14,15,16,18,20,22,25,30,35,40, followed by H</u>

FSHV Model FSHV followed by 10,20,30,40,50,60,70,80,90,100,110,120, followed by N

IH15D/G/J/K/M, IH20D/G/J/K/M, IH25D/G/J/K/M,

BYX131/132/133/134/135/136/137/138/139/1310/1311/1312/1313/1314/1315/1316/1318/1320/1322/1325 /1330/1335/1340 P

SFA1/2/3/4/5/6/7/8/9/10/11/12 H

SMAJ(5.0/6.0/6.5/6.8/7.0/7.5/8.5/9.0/10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30/31/32/33/34/35/36/37/38/39/40/41/42/43/44//45/46/47/48(7A)

SMBJ(5.0/6.0/6.5/6.8/7.0/7.5/8.5/9.0/10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30/31/32/33/34/35/36/37/38/39/40/41/42/43/44//45/46/47/48(/A)

SMA Model S, followed by 1, 2, 3, 4, 5, followed by MA



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SMB Model S, followed by 1, 2, 3, 4, 5, followed by MB

SMC Model S, followed by 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, followed by MC

SMCJ(5.0/6.0/6.5/6.8/7.0/7.5/8.5/9.0/10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/

25/26/27/28/29/30/31/32/33/34/35/36/37/38/39/40/41/42/43/44//45/46/47/48(/A)

P4KE(50/51/350/400/440(/A) P6KE(50/51/350/400/440/(/A) P4SMA (50/51/

350/400/440(/A) P6SMB(50/51/350/400/440(/A)

SMAJ(50/51/350/400/440(/A) SMBJ (50/51/350/400/440(/A) SMCJ (50/51/350

/400/440(/A) M3QL35A100/120/160 M3QL50A100/120/160

SKBJ402/404/406/408/410/412/414/416, GBU4J/6J/8J/10J15J/20J/25J,





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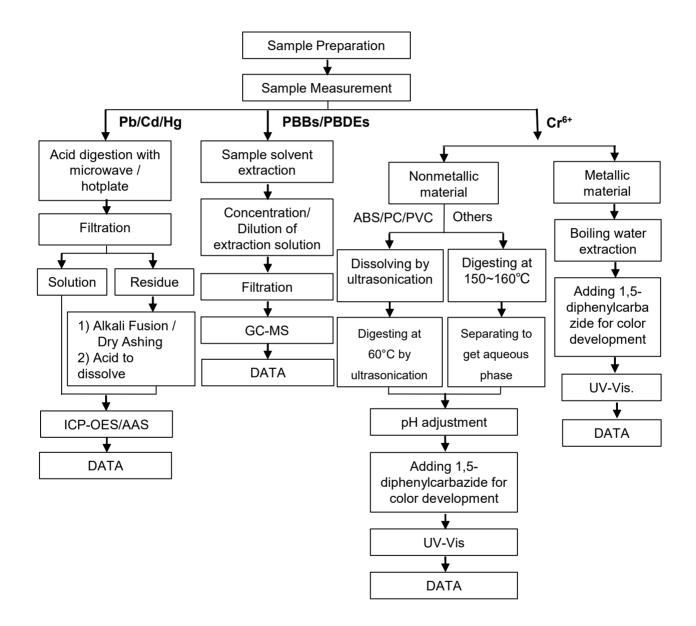
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ATTACHMENTS

Pb/Cd/Hg/Cr6+/PBBs/PBDEs Testing Flow Chart

1) These samples were dissolved totally by pre -conditioning method according to below flow chart. (Cr⁶⁺ and PBBs/PBDEs test method excluded).







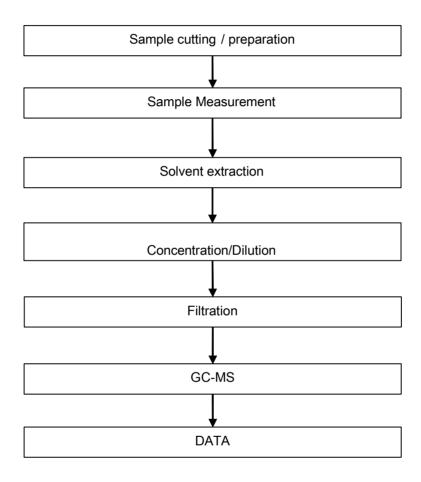
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ATTACHMENTS

Phthalates Testing Flow Chart





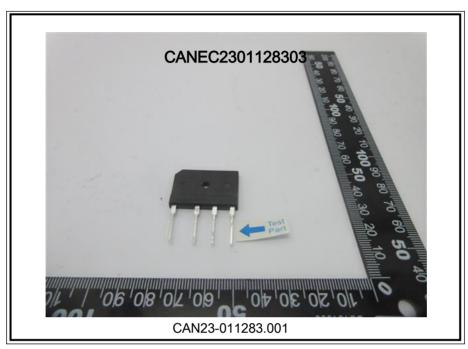


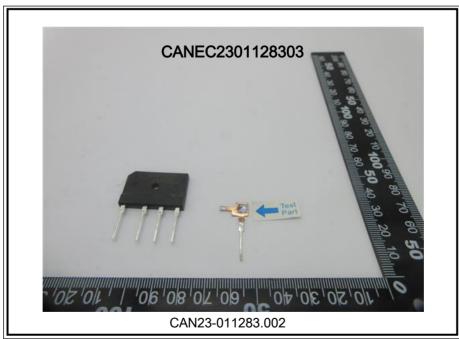
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Sample photo:









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