

No. CANEC1510941901

Date: 04 Jul 2015

Page 1 of 24

SHENZHEN GOODWORK ELECTRONICS CO., LTD.

ROOM2101-2102 METROPOLITAN HEIGHTS AT CENTURY PLACE, SHENNAN MID ROAD, FUTIAN DISTRICT, SHENZHEN CITY

**CHINA** 

The following sample(s) was/were submitted and identified on behalf of the clients as: RECTIFIER DIODE

SGS Job No. : CP15-036456 - SZ

Model No.: DO-41

Material No.: Please see REMARK

Date of Sample Received: 29 Jun 2015

Testing Period: 29 Jun 2015 - 03 Jul 2015

Test Requested: As requested by client, SVHC screening is performed according to:

(i) Two (2) substances in the Candidate List of Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) on Jun 15, 2015 regarding Regulation (EC) No 1907/2006 concerning the REACH.

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

Summary:

According to the specified scope and analytical techniques, concentrations of tested	PASS
SVHC are ≤ 0.1% (w/w) in the submitted sample.	

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

Echo

Echo Yeung
Approved Signatory



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

198 Kezhu Road,Scientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075113 www.sgsgroup.com.cn 中国・广州・经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075113 e sgs.china@sgs.com



No. CANEC1510941901

Page 2 of 24

Date: 04 Jul 2015

#### Remark:

(1) The chemical analysis of specified SVHC is performed by means of currently available analytical techniques against the following SVHC related documents published by ECHA: http://echa.europa.eu/web/guest/candidate-list-table

These lists are under evaluation by ECHA and may subject to change in the future.

### (2) Concerning article(s):

In accordance with Regulation (EC) No 1907/2006, any EU producer or importer of articles shall notify ECHA, in accordance with paragraph 4 of Article 7, if a substance meets the criteria in Article 57 and is identified in accordance with Article 59(1) of the Regulation, if (a) the substance in the Candidate List is present in those articles in quantities totaling over one tonne per producer or importer per year; and (b) the substance in the Candidate List is present in those articles above a concentration of 0.1% weight by weight (w/w).

Article 33 of Regulation (EC) No 1907/2006 requires supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above 0.1% weight by weight (w/w) shall provide the recipient of the article with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance in the Candidate List.

SGS adopts the interpretation of ECHA for SVHC in article unless indicated otherwise. Detail explanation is available at the following link:

http://webstage.contribute.sgs.net/corpreach/documents/SGS-CTS\_SVHC-paper-EN-11.pdf

#### (3) Concerning material(s):

Test results in this report are based on the tested sample. This report refers to testing result of tested sample submitted as homogenous material(s). In case such material is being used to compose an article, the results indicated in this report may not represent SVHC concentration in such article. If this report refers to testing result of composite material group by equal weight proportion, the material in each composite test group may come from more than one article.

If the sample is a substance or mixture, and it directly exports to EU, client has the obligation to comply with the supply chain communication obligation under Article 31 of Regulation (EC) No. 1907/2006 and the conditions of Authorization of substance of very high concern included in the Annex XIV of the Regulation (EC) No. 1907/2006.

#### (4) Concerning substance and preparation:

If a SVHC is found over 0.1% (w/w) and/or the specific concentration limit which is set in Regulation (EC) No 1272/2008 and No 790/2009, client is suggested to prepare a Safety Data Sheet (SDS) against the SVHC to comply with the supply chain communication obligation under Regulation (EC) No 1907/2006, in which:

- a substance that is classified as hazardous under the CLP Regulation (EC) No 1272/2008.
- a mixture that is classified as dangerous according Dangerous Preparations Directive





No. CANEC1510941901 Date: 04 Jul 2015

Page 3 of 24

1999/45/EC or classified as hazardous under the CLP Regulation (EC) No 1272/2008, when their concentrations are equal to, or greater than, those defined in the Article 3(3) of 1999/45/EC or the lower values given in Part 3 of Annex VI of Regulation (EC) No. 1272/2008; or

- a mixture is not classified as dangerous under Directive 1999/45/EC, but contains either:
- (a) a substance posing human health or environmental hazards in an individual concentration of  $\geq$  1 % by weight for mixtures that are solid or liquids (i.e., non-gaseous mixtures) or  $\geq$  0.2 % by volume for gaseous mixtures; or
- (b) a substance that is PBT, or vPvB in an individual concentration of ≥ 0.1 % by weight for mixtures that are solid or liquids (i.e., non-gaseous mixtures); or
- (c) a substance on the SVHC candidate list (for reasons other than those listed above), in an individual concentration of  $\geq$  0.1 % by weight for non-gaseous mixtures; or
- (d) a substance for which there are Europe-wide workplace exposure limits.
- (5) If a SVHC is found over the reporting limit, client is suggested to identify the component which contains the SVHC and the exact concentration of the SVHC by requesting further quantitative analysis from the laboratory.

#### Test Sample:

#### Sample Description:

Specimen No. SGS Sample ID Description

SN1 CAN15-109419.001 "RECTIFIER DIODE"

#### Test Method:

SGS In-House method- GZTC CHEM-TOP-092-02, Analyzed by GC-MS.





No. CANEC1510941901

Date: 04 Jul 2015

Page 4 of 24

Test Result: (Substances in the Candidate List of SVHC)

Batch	Substance Name	CAS No.	001 Concentration (%)	RL (%)
-	All tested SVHC in candidate list	-	ND	-

#### Notes:

- 1. The table above only shows detected SVHC, and SVHC that below RL are not reported. Please refer to Appendix for the full list of tested SVHC.
- 2. RL = Reporting Limit. All RL are based on homogenous material ND = Not detected (lower than RL), ND is denoted on the SVHC substance.





No. CANEC1510941901

Date: 04 Jul 2015

Page 5 of 24

### **Appendix**

#### Full list of tested SVHC:

Batch	No.	Substance Name	CAS No.	RL (%)
XIII	1	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate	68515-51-5, 68648-93-1	0.050
XIII	2	5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl) -5-methyl-1,3-dioxane [1], 5-sec-butyl-2- (4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual isomers of [1] and [2] or any combination thereof]	-	0.050





No. CANEC1510941901

Date: 04 Jul 2015

Page 6 of 24

### REMARK

PACKAGE	PART NUMBER
R-1	1S20 1S30 1S40 1S50 1S60 1S80 1S90 1S100 1S150 1S200
	1U1 1U2 1U3 1U4 1U5 1U6 1U7 1U8 1H1 1H2 1H3 1H4 1H5 1H6 1H7
	1H8 1F1 1F2 1F3 1F4 1F5 1F6 1F7 1A1 1A2 1A3 1A4 1A5 1A6 1A7
	1U1 G 1U2G 1U3G 1U4G 1U5G 1U6G 1U7G 1U8G
	1H1G 1H2G 1H3G 1H4G 1H5G 1H6G 1H7G 11H8G
	1F1G 1F2G 1F3G 1F4G 1F5G 1F6G 1F7G
	1A1G 1A2G 1A3G 1A4G 1A5G 1A6G 1A7G
	RB100A
DO-41	1N5817 1N5818 1N5819
	SR120 SR130 SR140 SR150 SR160 SR180 SR190 SR1100 SR1150
	SR1200 SR220 SR230 SR240 SR250 SR260 SR280 SR290 SR2100
	SR2150 SR2200 SF11 SF12 SF13 SF14 SF15 SF16 SF17 SF18
	HER101 HER102 HER103 HER104 HER105 HER106 HER107 HER108
	FR101 FR102 FR103 FR104 FR105 FR106 FR107
	1N4933 1N4934 1N4935 1N4936 1N4937
	1N4942 1N4944 1N4946 1 N4947 1N4948
	1N4728~1N4764
	1N4001 1N4002 1N4003 1N4004 1N4005 1 N4006 1N4007
	SF11G SF12G SF13G SF14G SF15G SF16G SF17G SF18G
	HER101G HER102G HER103G HER104G HER105G HER106G
	HER107G HER108G
	FR101G FR102G FR103G FR104G FR105G FR106G FR107G
	1N4933G 1 N4934G 1N4935G 1 N4936G 1N4937G
	1N4942G 1 N4944G 1N4946G 1 N4947G 1N4948G
	1N4001G 1N4002G 1N4003G 1 N4004G 1N4005G 1N4006G 1N4007G
	R1200 R1500 R1600 R1800 R2000
	R1200F R1500F R1600F R1800F R2000F





No. CANEC1510941901

Date: 04 Jul 2015

Page 7 of 24

A-405	SR120S SR130S SR140S SR150S SR160S SR180S SR190S SR1100S SR1150S SR1200S SF11S SF12S SF13S SF14S SF15S SF16S SF17S SF18S HER101S HER102S HER103S HER104S HER105S HER106S HER107S HER108S RL101F RL102F RL103F RL104F RL105F RL106F RL107F 1N4001S 1N4002S 1N4003S 1N4004S 1N4005S 1N4006S 1N4007S SF11SG SF12SG SF13SG SF14SG SF15SG SF16SG SF17SG SF18SG HER101SG HER102SG HER103SG HER104SG HER105SG HER106SG HER107SG HER1 08SG FR101FG FR102FG FR103FG FR104FG FR105FG FR106FG FR107FG 1N4001SG 1N4002SG 1N4003SG 1N4004SG 1N4005SG 1N4006SG 1N4007SG
DO-15	SR220 SR230 SR240 SR250 SR260 SR280 SR290 SR2100 SR2150 SR2200 SF21 SF22 SF23 SF24 SF25 SF26 SF27 SF28 HER151 HER152 HER153 HER154 HER155 HER156 HER157 HER158 HER201 HER202 HER203 HERZO4 HER205 HER206 HER207 HER208 FR151 FR1 52 FR153 FR154 FR155 FR156 FR157 FR201 FR202 FR203 FR204 FR205 FR206 FR207 1N5391 1N5392 1N5393 1N5395 1N5397 1N5398 1N5399 RL151 RL152 RL153 RL154 RL155 RL156 RL157 RL201 RL202 RL203 RL204 RL205 RL206 RL207 R2500 R3000 R3500 R4000 R2500F R3000F R3500F R4000F SF21 G SF22G SF23G SF24G SF25G SF26G SF27G SF28G HER151G HER152G HER153G HER154G HER155G HER156G HER205G HER206G HER201G HER202G HER203G HER204G HER205G HER206G HER207G HER208G FR151G FR1 52G FR153G FR154G FR155G FR156G FR157G FR201 G FR202G FR203G FR204G FR205G FR206G FR207G 1N5391G 1N5392G 1N5393G 1N5395G 1N5397G 1N5398G 1N5399G RL151G RL152G RL153G RL154G RL155G RL156G RL157G RL201G RL202G RL203G RL204G RL205G RL207G





No. CANEC1510941901

Date: 04 Jul 2015

Page 8 of 24

DO-27	SR320 SR330 SR340 SR350 SR360 SR380 SR390 SR3100 SR3150 SR3200
	SR520 SR530 SR540 SR550 SR560 SR580 SR590 SR5100 SR5150 SR5200
	SF31 SF32 SF33 SF34 SF35 SF36 SF37 SF38
	SF51 SF52 SF53 SF54 SF55 SF56 SF57 SF58
	SF61 SF62 SF63 SF64 SF65 SF66 SF67 SF68
	HER301 HER302 HER303 HER304 HERSO5 HER306 HER307 HER308
	HER501 HER502 HER503 HER504 HER505 HER506 HER507 HER508
	FR301 FR302 FR303 FR304 FR305 FR306 FR307 FR309
	1N5400 1N5401 1N5402 1N5404 1N5406 1N5407 1N5408
	SF31G SF32G SF33G SF34G SF35G SF36G SF37G SF38G
	HER301G HER302G HER303G HER304G HER305G HER306G
	HER307G HER308G
	HER501G HER502G HER503G HER504G HER505G HER506G
	HER507G HER508G
	FR301G FR302G FR303G FR304G FR305G FR306G FR307G
	1N5400G 1N5401G 1N5402G 1N5404G 1N5406G 1N5407G 1N5408G
R-3	RL251 RL252 RL253 RL254 RL255 RL256 RL257
	FR251 FR252 FR253 FR254 FR255 FR256 FR257
R-6	HER601 HER602 HER603 HER604 HER605 HER606 HER607
	FR601 FR602 FR603 FR604 FR605 FR606 FR607
	6A05 6A1 6A2 6A4 6A6 6A8 6A10
	8A05 8A1 8A2 8A4 8A6 8A8 8A10
	10A05 10A1 10A2 10A4 10A6 10A8 10A10
	6A05G 6A1G 6A2G 6A4G 6A6G 6A8G 6A10G
TVS PRO	P4KE6.8~ P4KE440A SA5.0 ~ SA180A P6KE6.8~ P6KE440A
	1.5KE6.8~1.5KE440A SMAJ5.0~SMAJ200CA SMBJ5.0~ SMBJ200CA
	SMCJ5.0~ SMCJ200CA 3KP 5KP 10KP





No. CANEC1510941901

Date: 04 Jul 2015

Page 9 of 24

TO-220A	SR820 SR830 SR840 SR845 SR850 SR8 60 SR880 SR8100 SR8150
	SR8200 SR1020 SR1030 SR1040 SR1045 SR1050 SR1060 SR1080 SR10100
	SR1020 SR1030 SR1040 SR1045 SR1050 SR1060 SR1080 SR10100 SR10150 SR10200
	SF81 SF82 SF83 SF84 SF85 SF86 SF87 SF88
	HER801 HER802 HER803 HER804 H5805 HER806 HER807
	FR801 FR802 FR803 FR804 FR805 FR806 FR807
	MBR1020 MBR1030 MBR1040 MBR1045 MBR1050 MBR1060 MBR1080
	MBR10100 MBR10150 MBR10200
	MBR1620 MBR1630 MBR1640 MBR1645 MBR1650 MBR1660 MBR1680
IT0-220A	MBICTO20 MBICTO00 MBICTO40 MBICTO40 MBICTO00 MBICTO00
110 2207	SRF820 SRF830 SRF840 SRF845 SRF850 SRF860 SRF880 SRF8100
	SRF8150 SRF8200
	SRF1020 SRF1030 SRF1040 SRF1045 SRF1050 SRF1060 SRF1080
	SRF10100 SRF10150 SRF1 0200
	SFF81 SFF82 SFF83 SFF84 SFF85 SFF86 SFF87 SFF88
	HERF8O1 HERF802 HERF803 HERF804 HRF805 H§F806 HERF8 07
	FRF801 FRF802 FRF803 FRF804 FRF805 FRF806 FRF807
	MBRF1020 MBRF1030 MBRF1040 MBRF1045 MBRF1050 MBRF1060
	MBRF1080 MBRF10100 MBRF10150 MBRF10200
	MBRF1620 MBRF1630 MBRF1640 MBRF1645 MBRF1650 MBRF1660
	MBRF1680 MBRF16100 MBRF16150 MBRF16200
	MBRF2020 MBRF2030 MBRF2040 MBRF2045 MBRF2050 MBRF2060
	MBRF2080 MBRF20100 MBRF20150 MBRF20200





No. CANEC1510941901

Date: 04 Jul 2015

Page 10 of 24

TO-220

SR1020CT SR1030CT SR1040CT SR1045CT SR1050CT SR106OCT

SR1080CT SR10100CT SR10150CT SR10200CT

SR1620CT SR1630CT SR1640CT SR1645C SR1650CT SR166OCT

SR1680CT SR16100CT SR16150CT SR16200CT

SR2020CT SR2030CT SR2040CT SR2045C SR2050CT SR2060T

SR2080CT SR20100CT SR20150CT SR20200CT

SR2520CT SR2530CT SR2540CT SR2545C SR2550CT SR256OCT

SR2580CT SR25100CT SR25150CT SR25200CT

SR3020CT SR3030CT SR3040CT SR3045C SR3050CT SR306OCT

SR3080CT SR30100CT SR30150CT SR30200CT

SF101CT SF102CT SF103CT SF104CT SF105CT SF106CT SF107CT

SF108CT SF121CT SF122CT SF123CT SF124CT SF125CT SF126CT

SF127CT SF128CT SF161CT SF162CT SF163CT SF164CT SF165CT

SF166CT SF167CT SF168CT

HE1601CT HER1602CT HER1603CT HER1604CT HER1605CT

HER1606CT HER1607CT

FR1601CT F1602CT FR1603CT FR1604CT FR1605CT FR1606CT

FR1607CT

MBR1020CT MBR1030CT MBR1040CT MBR1045CT MBR1050CT

MBR1060CT MBR1080CT MBR10100CT MBR10150CT MBR10200CT

MBR1620CT MBR1630CT MBR1640CT MBR1645CT MBR1650CT

MBR1660CT MBR1680CT MBR16100CT MBR16150CT MBR16200CT

MBR2020CT MBR2030CT MBR2040CT MBR2045CT MBR2050CT

MBR2060CT MBR2080CT MBR20100CT MBR20150CT MBR20200CT





No. CANEC1510941901

Date: 04 Jul 2015

Page 11 of 24

ITO-220	SRF1020CT SRF1030CT SRF1040CT SRF1045C SRF1050CT
	SRF1060CT SRF1080CT SRF1 0100CT SRF10150CT SRF10200CT
	SRF1620CT SRF1630CT SRF1640CT SRF1645C SRF1650CT
	SRF1660CT SRF1680CT SRF1 6100 SRF16150CT SRF16200CT
	SRF2020CT SRF2030CT SRF2040CT SRF2045C SRF2050CT
	SRF2060CT SRF2080CT SRF20100CT SRF20150CT SRF20200CT
	SRF2520CT SRF2530CT SRF2540CT SRF2545C SRF2550CT
	SRF2560CT SRF2580CT SRF251 OOCT SRF251 50CT SRF25200CT
	SRF3020CT SRF3030CT SRF3040CT SRF3045C SRF3050CT
	SRF3060CT SRF3080CT SRF30100 SRF30150CT SRF30200CT
	SFF101CT SFF102CT SFF103CT SFF104CT SFF105CT SFF106CT
	SFF107CT SFF108CT SFF121CT SFF122CT SFF123CT SFF124CT
	SFF125CT SFF126CT SFF127CT SFF128CT SFF161CT SFF162CT
	SFF163CT SFF164CT SFF165CT SFF166CT SFF167CT SFF1 68CT
	HERF1601CT HERF1602CT HERF1603CT HERF1604CT HERD1605CT
	HERF1606CT HERF1607CT FRF1601CT FRF1602CT FRF1603CT
	FRF1604CT FRF1605CT FRF1606CT FRF1607CT
	MBRF1020CT MBRF1030CT MBRF1040CT MBRF1045CT
TO-	SR3020PT SR3030PT SR3040PT SR3045PT SR305OPT SR3060PT
247/TO-	SR3080PT SR30100PT SR30150PT SR30200PT
3P	SF301C SF302C SF303C SF304C SF305C SF306C SF307C SF308C
	MBR3020PT MBR3030PT MBR3040PT MBR3045PT MBR3050PT
	MBR3060PT MBR3080PT MBR30100PT MBR30150PT MBR30200PT





No. CANEC1510941901

Date: 04 Jul 2015

Page 12 of 24

SS	SS120 SS130 SS140 SS150 SS160 SS180 SS190 SS1100 SS1150 SS1200 SS220 SS230 SS240 SS250 SS260 SS280 SS290 SS2100 SS2150 SS2200 SSU11 SSU12 SSU13 SSU14 SSU15 SSU16 SSU17 SSU18 SSH101 SSH102 88H103 SSH104 SSH105 SSH106 SSH107 SSH108 SSF101 SSF102SSF103 SSF103 SSF105 SSF106 SSF107 SS4001 SS4002 SS4003 SS4004 SS4005 SS4006 SS4007
DO-	
213AA	LM4001G LM4002G LM4003G LM4004G LM4005G LM4006G LM4007G LM101G LM102G LM103G LM104G LM105G LM106G LM107G LM5817G LM5818G LM5819G
SM- 1/DO- 213AB	SM120 SM130 SM140 SM150 SM160 SM180 SM1100 SMF101 SMF102 SMF103 SMF104SMF105 SMF106 SMF107 SM4001 SM4002 SM4003 SM4004 SM4005 SM4006 SM4007 DL4001 DL4002 DL4003 DL4004 DL4005 DL4006 DL4007 SM4933 SM4934 SM4935 SM4936 SM4937 SMU4001 SMU4002 SMU4003 SMU4004 SMU4005 SMU4006 SMU4007 SM5817 SM5818 SM5819





No. CANEC1510941901

Date: 04 Jul 2015

Page 13 of 24

SMA	SM5817A SM5818A SM5819A
	SM120A SM130A SM140A SM150A SM160A SM180A SM190A
	SM1100A SM1150A SM1 200A
	SM220A SM230A SM240A SM250A SIVQ60A SM280A SM290A SM21
	00A SM21 50A SM2200A SM320A SM330A SM340A SM350A SM360A
	SM380A SM390A SM31 00A SM31 50A SM3200A SM520A SM530A
	SM540A SM550A SM560A SM580A SM590A SM51 00A SM51 50A
	SM5200A SMU11A SMU12A SMU13A SMU14A SMU15A SMU16A
	SMU17A SMU18A SMU21A SMU22A SMU23A SMU24A SMU25A
	SMU26A SMU27A SMU28A SMH101A SMH102A SMH103A SMH104A
	SMH105A SMH106A SMH107A SMH108A SMH201A SMH202A
	SMH203A SMH204A SMH205A SMH206A SMH207A SMH208A
	SMF101A SMF102A SMF103A SMF104A SMF105A SMF106A SMF107A
	SM4933A SM4934A SM4935A SM4936A SM4937A
	SM4001A SM4002A SM4003A SM4004A SM4005A SM4006A SM4007A
	M1 M2 M3 M4 M5 M6 M7 S1A S1B S1D S1G S1J S1K S1M
	GS1A GS1B GS1D GS1G GS1J GS1K GS1M
	RS1A RS1B RS1D RS1G RS1J RS1K RS1M
	US1A US1B US1D US1G US1J US1K US1M
	ES1A ES1B ES1D ES1G ES1J ES1K ES1M
	SS12 SS13 SS14 SS15 SS16 SS18 SS110 SS115 SS120
	SS22 SS23 SS24 SS25 SS26 SS28 SS210 SS215 SS220
	SS32 SS33 SS34 SS35 SS36 SS38 SS310 SS315 SS320
	SS52 SS53 SS54 SS55 SS56 SS58 SS510 SS515 SS520
	SK12 SK13 SK14 SK15 SK16 SK18 SK110 SK115 SK120
	SK22 SK23 SK24 SK25 SK26 SK28 SK210 SK215 SK220
	SK32 SK33 SK34 SK35 SK36 SK38 SK310 SK315 SK320
	SK52 SK53 SK54 SK55 SK56 SK58 SK510 SK515 SK520
	S2A S2B S2D S2G S2J S2K S2M
	GS2A GS2B GS2D GS2G GS2J GS2K GS2M
	RS2A RS2B RS2D RS2G RS2J RS2K RS2M
	US2A US2B US2D US2G US2J US2K US2M ES2A ES2J ES2K ES2M
	ES2B ES2D ES2G



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx.">http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx.</a> Attention is drawn to the limitation of ilability indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

198 Kezhu Road,Scientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075113 www.sgsgroup.com.cn 中国・广州・经济技术开发区科学城科珠路198号 邮编: 510663 t (86–20) 82155555 f (86–20) 82075113 e sgs.china@sgs.com



No. CANEC1510941901

Date: 04 Jul 2015

Page 14 of 24

SOD-SM120M SM130M SM140M SM150M SM160M SM180M SM190M 123FL SMU11M SMU12M SMU13M SMU14M SMU15M SMU16M SMU17M SMU18M SMH101M SMH102M SMH103M SMH104M SMH105M SMH106M SMH107M SMH108M SMF101M SMF102M SMF103M SMF104M SMF105M SMF106M SMF107M DSR1A DSR1B DSR1D DSR1G DSR1J DSR1K DSR1M DFR1A DFR1B DFR1D DFR1G DFR1J DFR1K DFR1M RS07A RS07B RS07D RS07G RS07J RS07K RS07M DUF1A DUF1B DUF1D DUF1G DUF1J DUF1K DUF1M DSF1A DSF1B DSF1D DSF1G DSF1J DSF1K DSF1M B5817W B5818W B5819W S1T A1 A2 A3 A4 A5 A6 A7 D1 D2 D3 D4 D5 D6 D7 T1 T2 T3 T4 T5 T6 T7 S1A S1B S1D S1G S1J S1K S1M F1 F2 F3 F4 F5 F6 F7 F1A F1B F1D F1G F1J F1K F1M U1A U1B U1D U1G U1J U1K U1M E1A E1B E1D E1G E1J E1K E1M K2 K3 K4 K12 K13 K14 K15 K16 K18 K10 K22 K23 K24 K25 K26 K28 K210 K32 K33 K34 K35 K36 K38 K310 GP GQ GR SS1020FL SS1030FL SS1040FL SS1060FL SS1080FL SS10100FL SS2020FL SS2030FL SS2040FL SS2060FL SS2080FL SS20100FL SS3020FL SS3030FL SS3040FL SS3060FL SS3080FL SS30100FL SS5020FL SS5030FL SS5040FL SS5060FL SS5080FL SS50100FL





No. CANEC1510941901

Date: 04 Jul 2015

Page 15 of 24

SMB SM2100B SM2150B SM2200B SM5820B SM5821B SM5822B SM320B SM330B SM340B SM350B SM360B SM380B SM390B SM3100B SM3150B SM3200B SM520B SM530B SM540B SM550B SM56OB SM580B SM590B SM5100B SM5150B SM5200B SMU21B SMU22B SMU23B SMU24B SMU25B SMU26B SMU27B SMU31B SMU32B SMU33B SMU34B SMU35B SMU36B SMU37B SMU38B SMH201B SMH202B SMH203B SMH204B SMH205B SMH206B SMH207B SMH208B SMH301B SMH302B SMH303B SMH304B SMH305B SMH306B SMH307B SMH308B SMF201B SMF202B SMF203B SMF204B SMF205B SMF206B SMF207B SMF301B SMF302B SMF303B SMF304B SMF305B SMF306B SMF307B SS22 SS23 SS24 SS25 SS26 SS28 SS210 SS215 SS220 SS32 SS33 SS34 SS35 SS36 SS38 SS310 SS315 SS320 SS52 SS53 SS54 SS55 SS56 SS58 SS510 SS515 SS520 SK22 SK23 SK24 SK25 SK26 SK28 SK210 SK215 SK220 SK32 SK33 SK34 SK35 SK36 SK38 SK310 SK315 SK320 SK52 SK53 SK54 SK55 SK56 SK58 SK510 SK515 SK520 S2A S2B S2D S2G S2J S2K S2M GS2A GS2B GS2D GS2G GS2J GS2K GS2M RS2A RS2B RS2D RS2G RS2J RS2K RS2M US2A US2B US2D US2G US2J US2K US2M ES2A ES2B ES2D ES2G ES2J ES2K ES2M S3A S3B S3D S3G S3J S3K S3M GS3A GS3B GS3D GS3G GS3J GS3K GS3M

RS3A RS3B RS3D RS3G RS3J RS3K RS3M





No. CANEC1510941901

Date: 04 Jul 2015

Page 16 of 24

SMC	SM31O0C SM3150C SM3200C
	SM520C SM53OC SM540C SM550C SM560C SM580C SM590C
	SM51O0C SM5150C SM5200C
	SMU31C SMU32C SMU33C SMU34C SMU35C SMU36C SMU37C
	SMU38C
	SMU51C SMU52C SMU53C SMU54C SMU55C SMU56C SMU57C
	SMU58C
	SMH301C SMH302C SMH303C SMH304C SMH305C SMH306C
	SMH307C SMH308C
	SMF301C SMF302C SMF303C SMF304C SMF305C SMF306C
	SMF307C
	S3A S3B S3D S36 S3J S3K S3M
	S5A S5B S5D S56 S5J S5K S5M
	GS3A GS3B GS3D GS3G GS3J GS3K GS3M
	GS5A GS5B GS5D GS5G GS5J GS5K GS5M
	RS3A RS3B RS3D RS3G RS3J RS3K RS3M
	RS5A RS5B RS5D RS5G RS5J RS5K RS5M
	US3A US3B US3D US3G US3J US3K US3M
	US5A US5B US5D US5G US5J US5K US5M
	ES3A ES3B ES3D ES3G ES3J ES3K ES3M
	ES5A ES5B ES5D ES5G ES5J ES5K ES5M
	SS32 SS33 SS34 SS35 SS36 SS38 SS310 SS315 SS320
	SS52 SS53 SS54 SS55 SS56 SS58 SS510 SS515 SS520
	SK32 SK33 SK34 SK35 SK36 SK38 SK310 SK315 SK320
MDS	MD1S MD2S MD3SS MD4S MD5S MD6S MD7S
	MB1S MB2S MB4S MB5S MB6S MB8S MB10S
DB-1	DB101 DB102 DB103 DB104 DB105 DB106 DB107
	DB151 DB152 DB153 DB154 DB155 DB156 DB157
	DB201 DB202 DB203 DB204 DB205 DB206 DB207



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx.">http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx.</a> Attention is drawn to the limitation of ilability indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

or email: CN.Doccheck@sgs.com

198 Kezhu Road, Scientech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86–20) 82155555 f (86–20) 82075113 www.sgsgroup.com.cn

中国·广州·经济技术开发区科学城科珠路198号

邮编: 510663 t (86-20) 82155555 f (86-20) 82075113 e sgs.china@sgs.com



No. CANEC1510941901

Date: 04 Jul 2015

Page 17 of 24

DD 40	
DB-1S	DB101S DB102S DB103S DB104S DB105S DB106S DB107S
	DB151S DB152S DB153S DB154S DB155S DB156S DB157S
	DB201S DB202S DB203S DB204S DB205S DB206S DB207S
DFS	DF005S DF01S DF02S DF04S DF06S DF08S DF10S
RS-1	RS101 RS102 RS103 RS104 RS105 RS106 RS107
RB-15	RB151 RB152 RB153 RB154 RB155 RB156 RB157
WOM	W005M W01M W02M W04M W06M W08M W10M
	W005 W01 W02 W04 W06 W08 W10
WOL	2W005 2W01 2W02 2W04 2W06 2W08 2W10
WOM-S	W005S W01S W02S W04S W06S W08S W10S
RS-2	RS201 RS202 RS203 RS204 RS205 RS206 RS207
KBP	KBP2005 KBP201 KBP202 KBP204 KBP206 KBP208 KBP210
	KBP201 KBP202 KBP203 KBP204 KBP205 KBP206 KBP207
	KBP3005 KBP301 KBP302 KBP304 KBP306 KBP308 KBP310
	KBP301 KBP302 KBP303 KBP304 KBP305 KBP306 KBP307
RS-2M	RS201M RS202M RS203M RS204M RS205M RS206M RS207M
BR-3	BR305 BR31 BR32 BR34 BR36 BR38 BR310
RS-4L	RS401L RS402L RS403L RS404L RS405L RS406L RS407L
KBL	KBL401 KBL402 KBL403 KBL404 KBL405 KBL406 KBL407
	KBL005 KBL01 KBL02 KBL04 KBL06 KBL08 KBL10
	KBL6005 KBL601 KBL602 KBL604 KBL606 KBL608 KBL610





No. CANEC1510941901

Date: 04 Jul 2015

Page 18 of 24

KBJ	KBJ401 KBJ402 KBJ403 KBJ404 KBJ405 KBJ406 KBJ407
	KBJ601 KBJ602 KBJ603 KBJ604 KBJ605 KBJ606 KBJ607
	KBJ801 KBJ802 KBJ803 KBJ804 KBJ805 KBJ806 KBJ807
	KBJ1001 KBJ1002 KBJ1003 KBJ1004 KBJ1005 KBJ1006 KBJ1007
	KBJ1501 KBJ1502 KBJ1503 KBJ1504 KBJ1505 KBJ1506 KBJ1507
	KBJ2001 KBJ2002 KBJ2003 KBJ2004 KBJ2005 KBJ2006 KBJ2007
KBU	KBU401 KBU402 KBU403 KBU404 KBU405 KBU406 KBU407
	KBU601 KBU602 KBU603 KBU604 KBU605 KBU606 KBU607
	KBU801 KBU802 KBU803 KBU804 KBU805 KBU806 KBU807
	KBU1001 KBU1002 KBU1003 KBU1004 KBU1005 KBU1006 KBU1007
	RS801 RS802 RS803 RS804 RS805 RS806 RS807
GBU	GBU401 GBU402 GBU403 GBU404 GBU405 GBU406 GBU407
	GBU601 GBU602 GBU603 GBU604 GBU605 GBU606 GBU607
	GBU801 GBU802 GBU803 GBU804 GBU805 GBU806 GBU807
	GBU1001 GBU1002 GBU1003 GBU1004 GBU1005 GBU1006 GBU1007
	GBU1501 GBU1502 GBU1503 GBU1504 GBU1505 GBU1506 GBU1507
GBL	GBL201 GBL202 GB203 GBL204 GBL205 GBL206 GBL207
	GBL401 GBL402 GBL403 GBL404 GBL405 GBL406 GBL407
GBJ	GBJ601 GBJ602 GBJ603 GBJ604 GBJ605 GBJ606 GBJ607
	GBJ801 GBJ802 GBJ803 GBJ804 GBJ805 GBJ806 GBJ807
	GBJ1001 GBJ1002 GBJ1003 GBJ1004 GBJ1005 GBJ1006 GBJ1007
	GBJ1501 GBJ1502 GBJ1503 GBJ1504 GBJ1505 GBJ1506 GBJ1 507
	GBJ2001 GBJ2002 GBJ2003 GBJ2004 GBJ2005 GBJ2006 GBJ2007
	GBJ2501 GBJ2502 GBJ2503 GBJ2504 GBJ2505 GBJ2506 GBJ2507





No. CANEC1510941901

Date: 04 Jul 2015

Page 19 of 24

KBPC	KBPC6005 KBPC601 KBPC602 KBPC604 KBPC606 KBPC608 KBPC610
	KBPC8005 KBPC801 KBPC802 KBPC804 KBPC806 KBPC808 KBPC810
	KBPC1005 KBPC1001 KBPC1002 KBPC1004 KBPC1006 KBPC1008 KBPC1010
	KBPC1505 KBPC1501 KBPC1502 KBPC1504 KBPC1506 KBPC1508 KBPC1510
	KBPC2005 KBPC2001 KBPC2002 KBPC2004 KBPC2006 KBPC2008 KBPC2010
	KBPC2505 KBPC2501 KBPC2502 KBPC2504 KBPC2506 KBPC2508
BR-6	BR605 BR61 BR62 BR64 BR66 BR68 BR610
BR-8	BR805 BR81 BR82 BR84 BR86 B R88 BR810
BR-10	BR1005 BR101 BR102 BR104 BR106 BR108 BR1010
MB	MB1505 MB151 MB152 MB154 MB156 MB158 MB1510
	MB2505 MB251 M8252 MB254 MB256 MB258 MB2510
	MB3505 MB351 MB352 MB354 MB356 MB358 MB3510
MB-W	MB1505W MB151W MB152W MB154W MB156W MB158W MB1510W
	MB2505W MB251W MB252W MB254W MB256W MB258W MB2510W
	MB3505W MB351W MB352W MB354W MB356W MB358W MB3510W
MP	MP1505 MP151 MP152 MP154 MP156 MP158 MP1510
	MP2505 MP251 MP252 MP254 MP256 MP258 MP2510
	MP3505 MP351 MP352 MP354 MP356 MP358 MP3510
MP-W	MP1505W MP151W MP152W MP154W MP156W MP158W MP1510W
	MP2505W MP251W MP252W MP254W MP256W MP258W MP2510W
	MP3505W MP351W MP352W MP354W MP356W MP358W MP3510W
AR	AR2505 AR251 AR252 AR254 AR256 AR258 AR2510
	AR3505 AR351 AR352 AR354 AR356 AR358 AR3510





No. CANEC1510941901

Date: 04 Jul 2015

Page 20 of 24

SOD323	SM5819WS
	SB20100L
	SB15150L SB15200L SB2020L SB2040L SB2045L SB2060L SB2080L
	SB1580LSB15100L SB15120L
	SB10150L SB10200L SB1520L SB1540L SB1545L SB1560L
TO-277	SB1020L SB1040L SB1045L SB1060L SB1080L SB10100L SB10120L
ABF	DBS05 DBS1 DBS2 DBS4 DBS6 DBS8 DBS10
LBS	LB05S LB1S LB2S LB4S LB6S LB8S LB10S
MBM	MB05M MB1M MB2M MB4M MB6M MB8M MB10M
	MBF12 MBF13 MBF14 MBF15 MBF16 MBF18 MBF110
MBF	MB05F MB1F MB2F MB4F MB6F MB8F MB10F
ADS	AD1S AD2S AD3S AD4S AD5S AD6S AD7S
	TB05S TB1S TB2S TB4S TB6S TB8S TB10S
	TB1S TS2S TB3S TB4S TB5S TB6S TB7S
	ABS05 ABS1 ABS2 ABS4 ABS6 ABS8 ABS10
ABS	AB1S AB2S AB3S AB4S AB5S AB6S AB7S





No. CANEC1510941901

Date: 04 Jul 2015

Page 21 of 24

SMAF

M1F M2F M3F M4F M5F M6F M7F

S1AF S1BF S1DF S1GF S1JF S1KF S1MF

GS1AF GS1BF GS1DF GS1GF GS1JF GS1KF GS1MF

RS1AF RS1BF RS1DF RS1GF RS1JF RS1KF RS1MF

US1AF US1BF US1DF US1GF US1JF US1KF US1MF

ES1AF ES1BF ES1DF ES1GF ES1JF ES1KF ES1MF

SS12F SS13F SS14F SS15F SS16F SS18F SS110F SS115F SS120F

SS22F SS23F SS24F SS25F SS26F SS28F SS210F SS215F SS220F

SS32F SS33F SS34F SS35F SS36F SS38F SS310F SS315F SS320F

SS52F SS53F SS54F SS55F SS56F SS58F SS510F SS515F SS520F

SK12F SK13F SK14F SK15F SK16F SK18F SK110F SK115F SK120F

SK22F SK23F SK24F SK25F SK26F SK28F SK210F SK215F SK220F

SK32F SK33F SK34F SK35F SK36F SK38F SK310F SK315F SK320F

SK52F SK53F SK54F SK55F SK56F SK58F SK510F SK515F SK520F

S2AF S2BF S2DF S2GF S2JF S2KF S2MF

GS2AF GS2BF GS2DF GS2GF GS2JF GS2KF GS2MF

RS2AF RS2BF RS2DF RS2GF RS2JF RS2KF RS2MF

US2AF US2BF US2DF US2GF US2JF US2KF US2MF

ES2AF ES2BF ES2DF ES2GF ES2JF ES2KF ES2MF





No. CANEC1510941901

Date: 04 Jul 2015

Page 22 of 24

ONADE	
SMBF	SS22F SS23F SS24F SS25F SS26F SS28F SS210F SS215F SS220F
	SS32F SS33F SS34F SS35F SS36F SS38F SS310F SS315F SS320F
	SS52F SS53F SS54F SS55F SS56F SS58F SS510F SS515F SS520F
	SK22F SK23F SK24F SK25F SK26F SK28F SK210F SK215F SK220F
	SK32F SK33F SK34F SK35F SK36F SK38F SK310F SK315F SK320F
	SK52F SK53F SK54F SK55F SK56F SK58F SK510F SK515F SK520F
	S2AF S2BF S2DF S2GF S2JF S2KF S2MF
	GS2AF GS2BF GS2DF GS2GF GS2JF GS2KF GS2MF
	RS2AF RS2BF RS2DF RS2GF RS2JF RS2KF RS2MF
	US2AF US2BF US2DF US2GF US2JF US2KF US2MF
	ES2AF ES2BF ES2DF ES2GF ES2JF ES2KF ES2MF
	S3AF S3BF S3DF S3GF S3JF S3KF S3MF
	GS3AF GS3BF GS3DF GS3GF GS3JF GS3KF GS3MF
	RS3AF RS3BF RS3DF RS3GF RS3JF RS3KF RS3MF
	US3AF US3BF US3DF US3GF US3JF US3KF US3MF
	ES3AF ES3BF ES3DF ES3GF ES3JF ES3KF ES3MF
LL-34	LL4148
SOD-123	1N4148W





No. CANEC1510941901

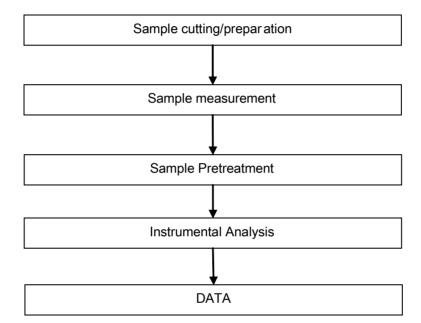
Date: 04 Jul 2015

Page 23 of 24

### **ATTACHMENTS**

### **SVHC Testing Flow Chart**

- 1) Name of the person who made testing: Martin He / Alison Zhang
- 2) Name of the person in charge of testing: Cutey Yu





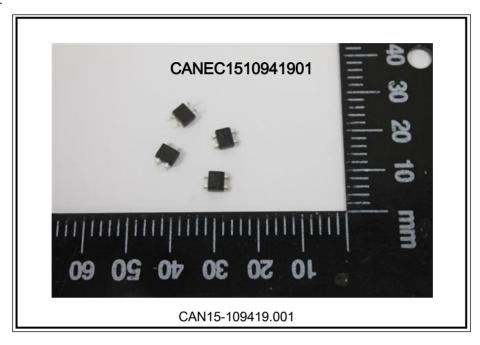


Sample photo:

No. CANEC1510941901

Date: 04 Jul 2015

Page 24 of 24



SGS authenticate the photo on original report only

\*\*\* End of Report \*\*\*

