

Light is OSRAM



01.04.2015

Dear Customer,

please find attached our OSRAM OS PCN:

OS-PCN-2015-006 General Update for OSRAM OSTAR Headlamp Pro Family

Important information for your attention:

Please respond to this PCN by indicating your decision on the approval form, sign it and return to your sales partner before **04.05.2015**.

OSRAM OS aligns with the widely-recognized JEDEC STANDARD "JESD46-B", which stipulates: "Lack of acknowledgement of the PCN within 30 days constitutes acceptance of the change".

Your prompt reply will help OSRAM OS to assure a smooth and well executed transition. If OSRAM OS does not hear from your side by the due date, we will assume your full acceptance to this proposed change and its implementation.

Your prompt reply will help OSRAM OS to assure a smooth and well executed transition. If OSRAM OS does not hear from your side by the due date, we will assume your (if you are a Distributor: and your customer's) full acceptance to this proposed change and its implementation.

Your attention and response to this matter is highly appreciated.

Please direct your inquiry to your local Sales office.

OS-PCN-2015-006

General Update for OSRAM OSTAR Headlamp Pro Family

Subject of change: General Update for OSRAM OSTAR Headlamp Pro Family

Reason of change: In order to ensure the longterm availability several modifications will be introduced:

- new Chip Family based on Si Carrier
- change of Die soldering method from paste-soldering to eutectic soldering in order to achieve a lower thermal resistance
- Silicone Frame will be replaced with a plastic frame to avoid reflections
- Hardness of the GlobTop Material will be improved*
- 2nd Source for the Converter Layer will be introduced.

*The GlobTOP Material will be also introduced for all other OSRAM Ostar Devices.

Description of change For details pls. refer to the attached file
2_cip_OS-PCN-2015-006-A

Product identification: Lasermarking

Time schedule:	Final qualification report	available
	Samples available	available
	Production release	01.05.2015
	Start of delivery	01.06.2015 or earlier if released by customer

Assessment:

- Improved Uf Range implemented in data sheets
- No changes in mechanical and optical parameters

Documentation:

Customer information package:
2_cip_OS-PCN-2015-006-A
Qualification Report:
3_cip_OS-PCN-2015-006-A
4_cip_OS-PCN-2015-006-A

Customer approval form

OS-PCN-2015-006

General Update for OSRAM OSTAR Headlamp Pro Family

Please list product(s) affected in your application(s):

Please check the appropriate box below:

Agreement: We agree with the proposed change and accept start of the shipment upon availability of the new version.

Objections: We have objections:

Information requested: We need the following information:

Samples requested: We need the following samples:

Sender

Company:

OSRAM Opto Semiconductors
GmbH

Head Office:

Leibnizstrasse 4
93055 Regensburg, Germany
Phone +49 941 850-5
Fax +49 941 850-1002
www.osram-os.com

OSRAM
Opto Semiconductors

General update of OSRAM Ostar Headlamp Package Family

Customer Information Package:

- reason of change
- description of change
- time schedule

General update of OSRAM Ostar Headlamp Package Family

reason of change:



In order to ensure the longterm availability several modifications will be introduced:

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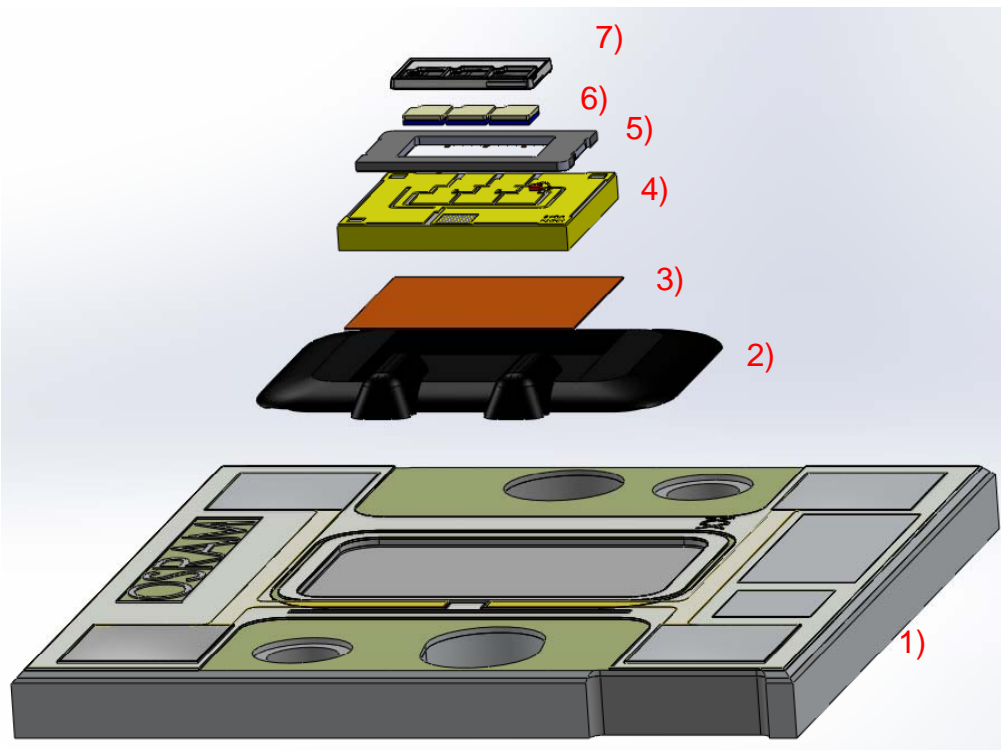
General update of OSRAM Ostar Headlamp Package Family

description of change:

	Current Design	New Design
Chip Technology	UX:3 on Ge	UX:3 on Si
Inspection Method	Ultrasonic	Thermography
Solder Method	paste-soldering	eutectic soldering
Uf Range	2 Chip: 6,05-7,55V 3 Chip: 9,00-11,30V 4 Chip: 11,95-14,95V 5 Chip: 14,90-18,60V	2 Chip: 6,00-7,20V 3 Chip: 8,90-10,70V 4 Chip: 11,80-14,10V 5 Chip: 14,70-17,60V
Converter Layer	Single Source	Dual Source
Picture (Top View)		

General update of OSRAM Ostar Headlamp Package Family

description of change:



ID	Current Design	New Design
1)	MCB	MCB (no change)
2)	GlobTop cover (soft)	GlobTop cover: (harder)*
3)	Ceramics attach glue	Ceramics attach glue (no change)
4)	Ceramics	Ceramics (optimized Layout)
5)	Silicon Frame	Plastic frame
6)	Ge based UX:3 LED Chip	Si based UX:3 LED Chip (Height difference comp. by increased Ceramic thickness)
7)	Encapsulation	Encapsulation (no change)

* applies also to LE UW D1Wx and LE UW U1A5 05

OS-PCN-2015-006-A

CIP

General update of OSRAM Ostar Headlamp Package Family

	UX:3 on Si	Plastic Frame	Harder Globtop	2nd source Layer	Uf range
LE UW U1A2 01	X	X	X	X	X
LE UW U1A3 01	X	X	X	X	X
LE UW U1A4 01	X	X	X	X	X
LE UW U1A5 01	X	X	X	X	X
LE UW U1A5 05	X	X	X	X	X
LE UW D1W1 01			X		
LE UW D1W2 01			X		
LE UW D1W3 01			X		
LE UW D1W3 02			X		
LE UW D1W3 03			X		
LE UW D1W4 01			X		
LE UW D1W5 01			X		

General update of OSRAM Ostar Headlamp Package Family

time schedule:

Final qualification report
Samples available
Production release
Start of delivery

available

available

01.05.2015

01.06.2015

or earlier if released by customer

Light is OSRAM



Qualification Report

150076C1

Subject	Qualification for OSRAM OSTAR Headlamp Pro Family
Date	17.02.2015
Tested device	LE UW U1A2 01; LE UW U1A3 01; LE UW U1A5 01;
Brand (including sub brands)	OSTAR Headlamp
Applies to	LE UW U1A2 01; LE UW U1A3 01; LE UW U1A4 01; LE UW U1A5 01;

Test Performed	Condition	Duration	Sample Size	Failures		
				El.	Opt.	Vis
Temperature & humidity bias (T&HB) <i>JESD22-A101</i>	T _A = 85°C, r.H.= 85%; I _F = 50mA	1000h	3x12 ^{1) 2) 3)}	0	0	-
Temperature & humidity bias (T&HB) <i>JESD22-A101</i>	T _A = 85°C, r.H.= 85%; I _F = 1500mA 30min on / 30min off	1000h	3x12 ^{1) 2) 3)}	0	0	-
Temperature cycle (TC) <i>JESD22-A104</i>	-40°C/+150°C 15min each extreme	1000c	3x12 ^{1) 2) 3)}	0	0	-
Power Temp. Cycling (PTC) <i>JESD22-A105</i>	-40/+125°C I _F = 1200mA ton/off = 5min	1000c	3x12 ^{1) 2) 3)}	0	0	-
Thermal shock (TSK) <i>JESD22-A106</i>	-50°C/+150°C	1000c	3x12 ^{1) 2) 3)}	0	0	-
Pulse life test (PLT) <i>JESD22-A108</i>	T _A = 125°C I _F = 2000mA tp = 200ms DC = 10%	1000h	3x12 ^{1) 2) 3)}	0	0	-
Steady state life test (SSLT) <i>JESD22-A108</i>	T _A = 85°C I _F = 1500mA	1000h	1x12 ³⁾	0	0	-
Steady state life test (SSLT) <i>JESD22-A108</i>	T _A = 100°C I _F = 1500mA	1000h	2x12 ^{1) 2)}	0	0	-
Steady state life test (SSLT) <i>JESD22-A108</i>	T _A = 125°C I _F = 700mA	1000h 1000h	1x6 ¹⁾ 2x12 ^{2) 3)}	0 0	0 0	- -
ESD (HBM) <i>ANSI/ESDA/ JEDEC JS-001</i>	Human body model	8000V	3x12 ^{1) 2) 3)}	0	0	-
ESD (MM) <i>JESD22-A115</i>	Machine model	400V	3x12 ^{1) 2) 3)}	0	0	-

Note: 1) = LE UW U1A2 01; 2) = LE UW U1A3 01; 3 = LE UW U1A5 01

Failure criteria:	for LE UW U1A2 01	
Electrical failures:	Vf (If = 1000mA)	> 7,55 V; ± 10% from initial value
Optical failures:	Iv (If =1000mA)	absolute limit: ± 30% max. and $ \Delta\%_{\max} - \Delta\%_{\min} > 30\%$
Failure criteria:	for LE UW U1A3 01	
Electrical failures:	Vf (If = 1000mA)	> 11,30 V; ± 10% from initial value
Optical failures:	Iv (If = 1000mA)	absolute limit: ± 30% max. and $ \Delta\%_{\max} - \Delta\%_{\min} > 30\%$
Failure criteria:	for LE UW U1A5 01	
Electrical failures:	Vf (If = 1000mA)	> 18,6 V; ± 10% from initial value
Optical failures:	Iv (If = 1000mA)	absolute limit: ± 30% max. and $ \Delta\%_{\max} - \Delta\%_{\min} > 30\%$

Conclusion: The tested devices fulfill the reliability requirements.

Disclaimer

PLEASE CAREFULLY READ THE BELOW TERMS AND CONDITIONS BEFORE USING THE INFORMATION.
IF YOU DO NOT AGREE WITH ANY OF THESE TERMS AND CONDITIONS, DO NOT USE THE INFORMATION.

The Information contained in this Document does not constitute an independent warranty. The committed behavior is described in the Product data sheet and/or further, mutually agreed specifications.

Distribution of part or all of the contents of this Document to any 3rd party in any form without the prior permission of OSRAM Opto Semiconductors GmbH is prohibited except in accordance with applicable mandatory law.

Further explanations:

Data: The Data used in this Document consider the reliability test results under the mentioned driving conditions only.

For Product information on the maximum operating conditions and the OSRAM OS standard qualification profile please refer to the Product data sheet or contact your local sales partner.

Conditions: The conditions for the generation of the Data are as follows:

1. The Data and curves shown in this Document are based on experiments carried out under laboratory conditions on a random sample size of LED/IRED/Laser/Detector with readouts at discrete readout times (where applicable). Thus, the Data above represent a limited number of production lots only and may differ between different assembly lots over time (including chip or package changes). Thus, the behavior of the LED/IRED/Laser/Detector in the final application may differ from the Data. The behavior of the LED/IRED/Laser/Detector at conditions or readout times deviating from those stated above may not be deduced from the Data.

2. If applicable:

a) Extended driving conditions:

The tested driving conditions exceed the maximum limits stated in the Product data sheet. Therefore a reduced lifetime or an accelerated degradation is expected. Failure limits noted in the Document refer to the testing condition according to the OSRAM OS standard Product qualification profile and not to the actual testing condition.

b) Extended testing duration:

The testing duration exceed the OSRAM OS standard qualification profile of the mentioned Product. Failure limits noted in the Document refer to the testing duration according to the OSRAM OS standard Product qualification profile and not to the actual testing duration.

c) Exceeding standard qualification conditions – (Product data sheet limits not affected):

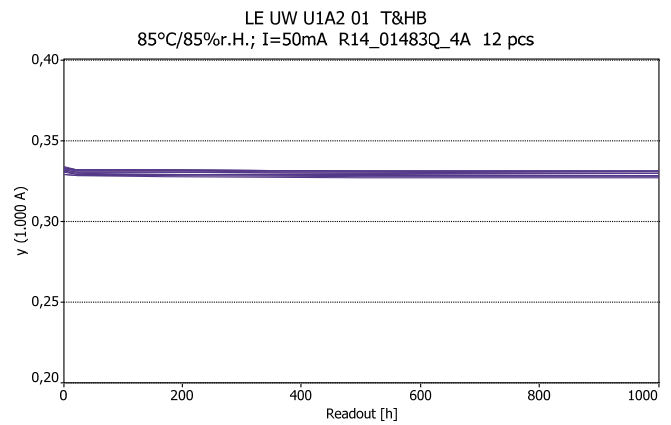
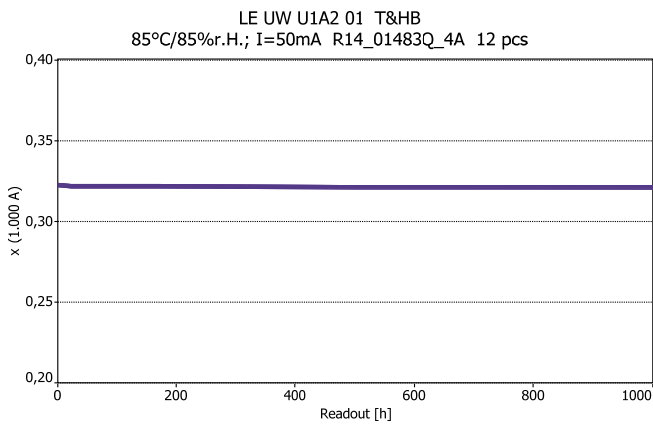
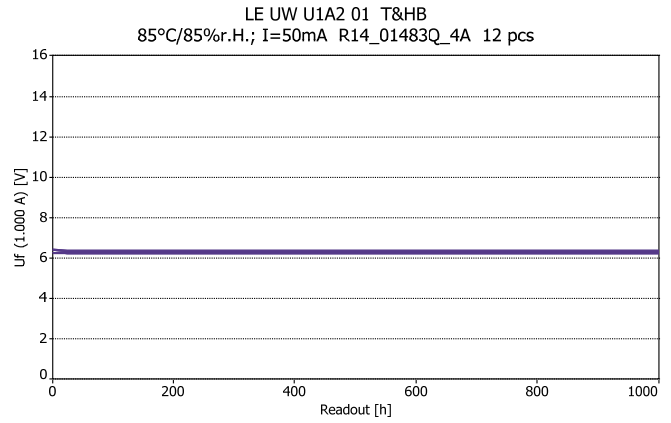
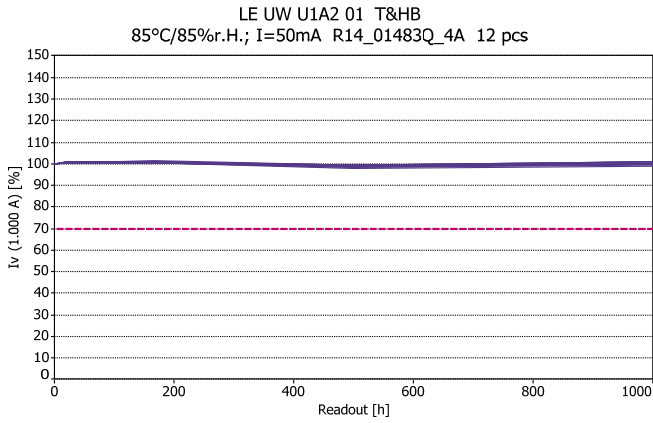
The tested driving conditions exceed the OSRAM OS standard qualification profile of the mentioned Product. Therefore a reduced lifetime or an accelerated degradation is expected. Failure limits noted in the Document refer to the testing condition according to the OSRAM OS standard Product qualification profile and not to the actual testing condition.

3. For long term operation additional failure modes of the chip or package can occur which are not shown in this Document.

4. Possible differences in the thermal management of OSRAM OS and customer's setup may lead to a different aging behavior.

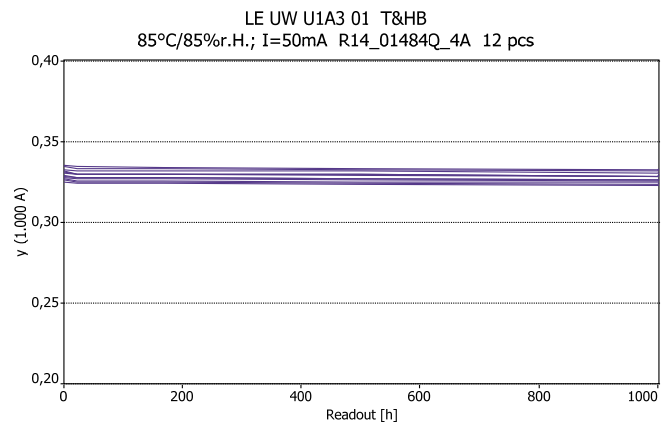
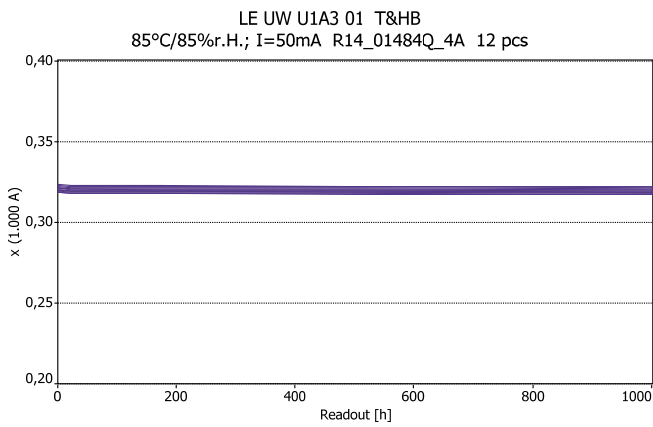
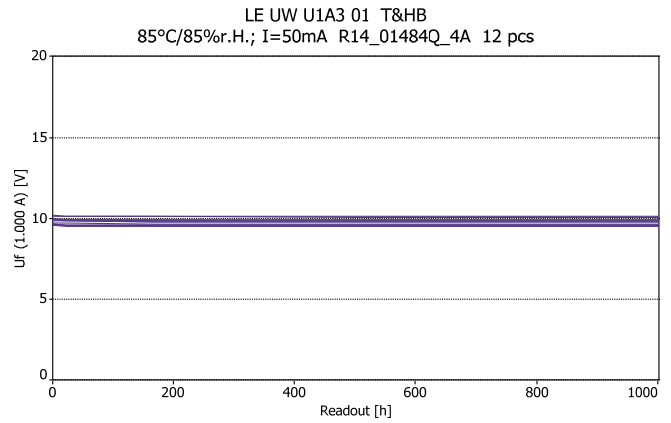
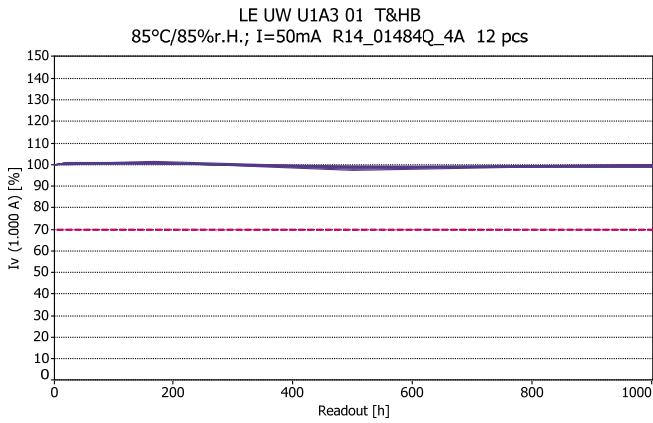
T&HB 85°C/85%r.H.; 50mA

LE UW U1A2 01



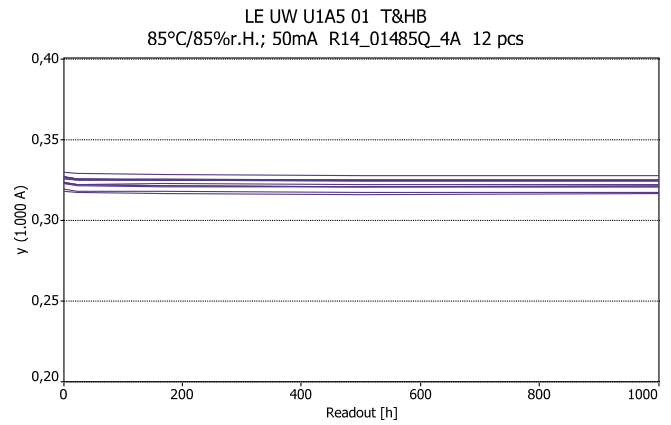
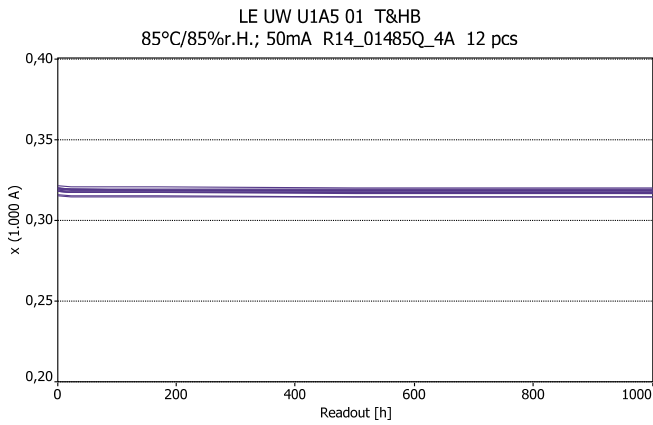
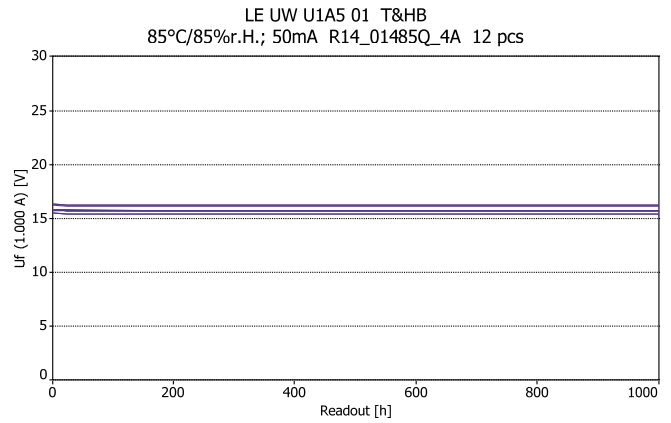
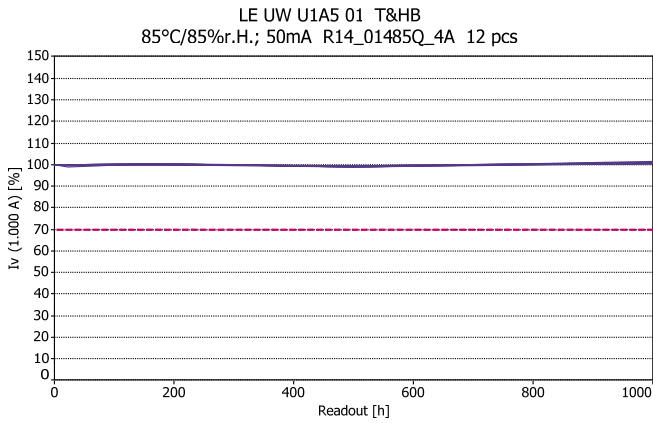
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LE UW U1A3 01



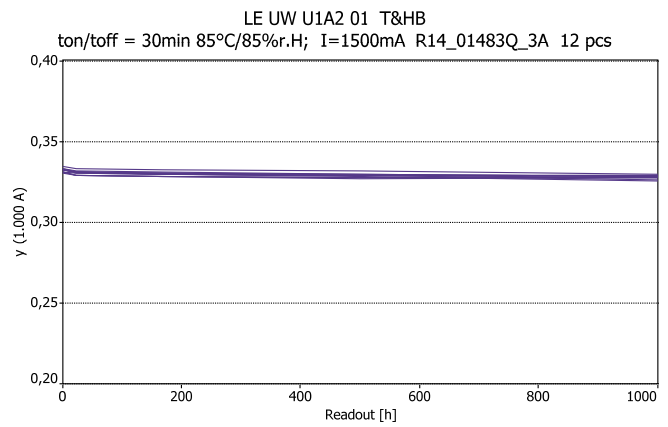
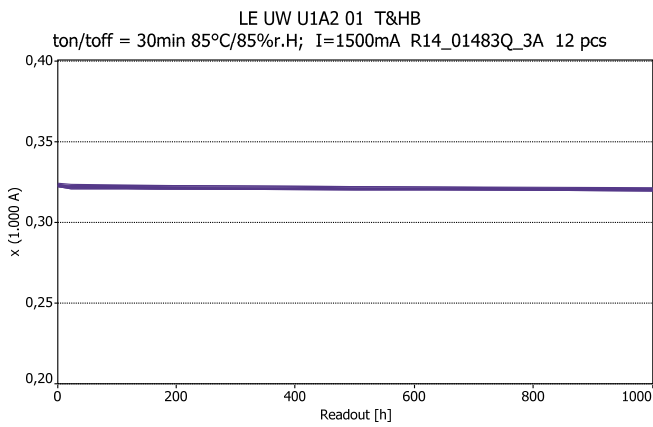
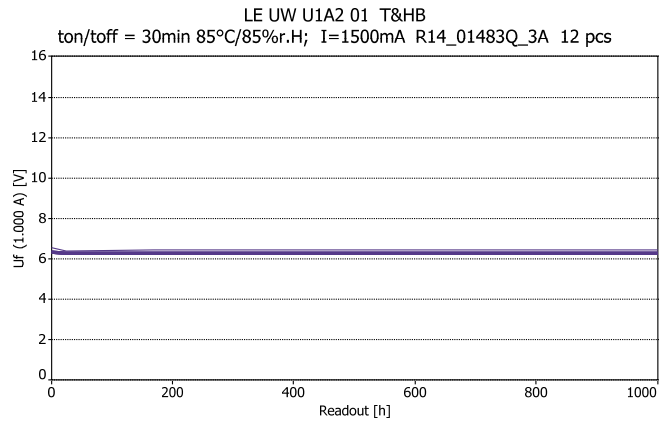
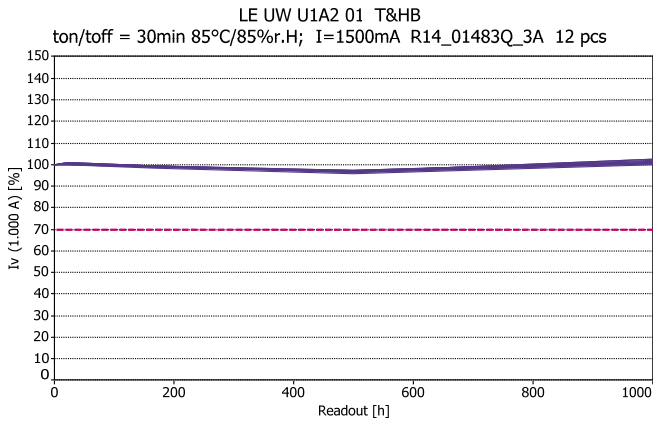
T&HB 85°C/85%r.H.; 50mA

LE UW U1A5 01



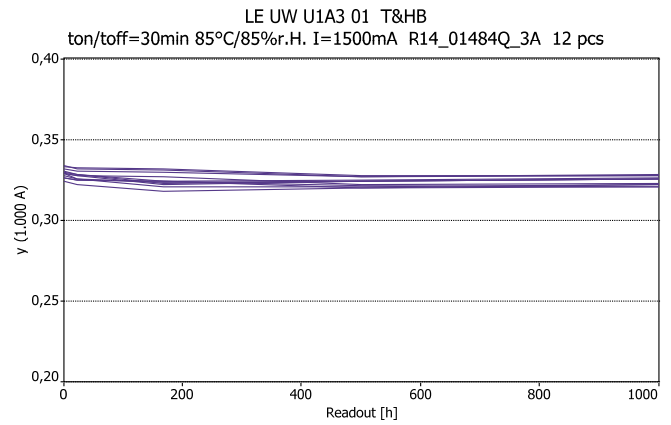
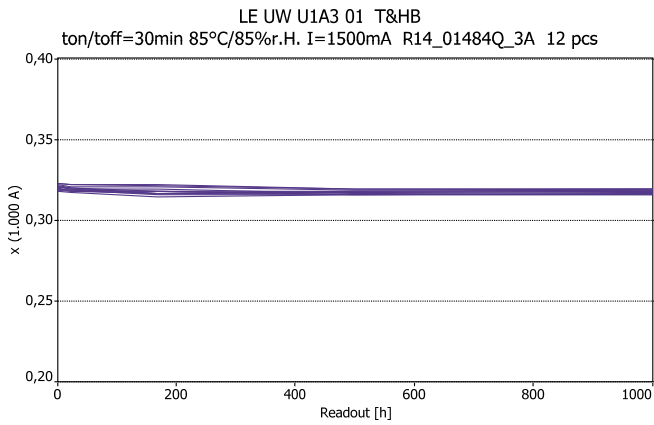
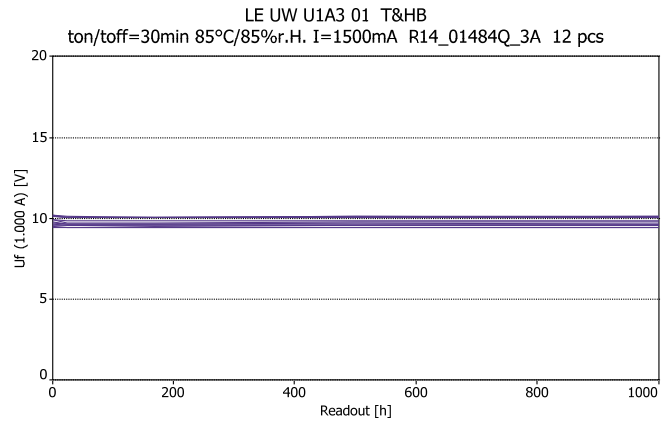
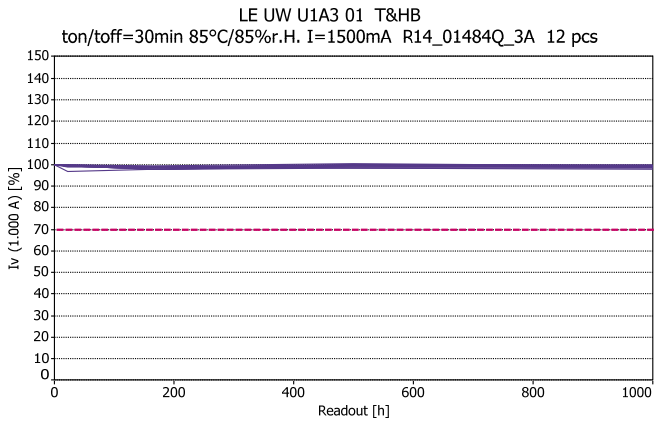
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LE UW U1A2 01



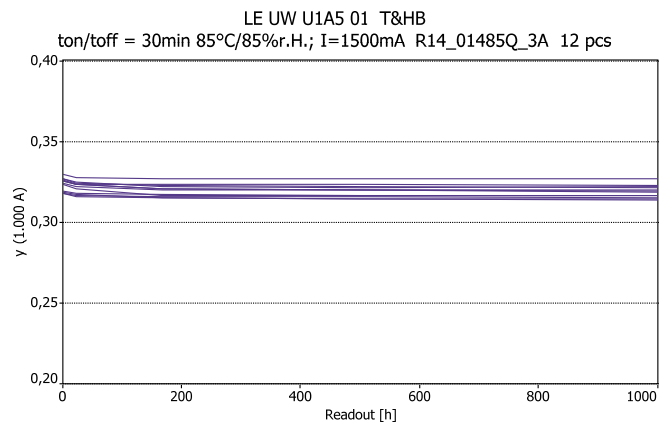
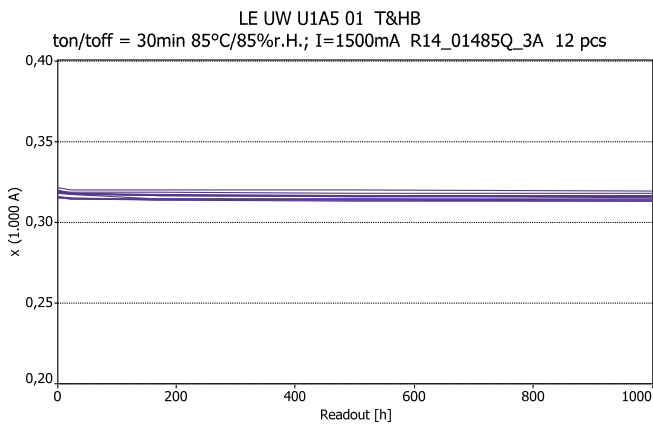
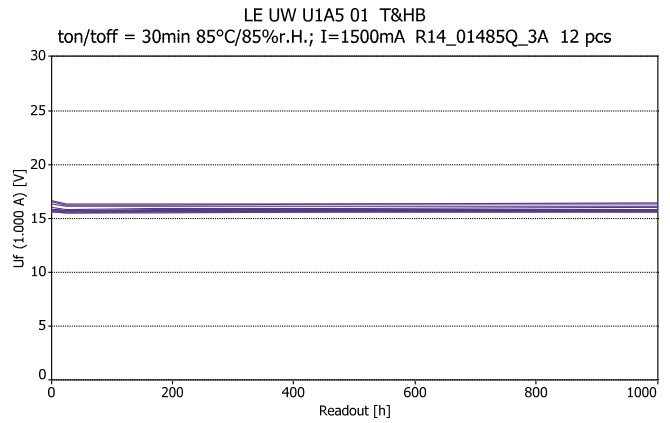
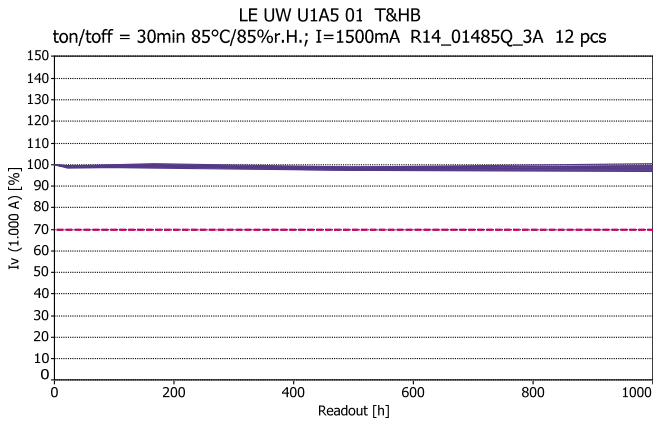
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LE UW U1A3 01



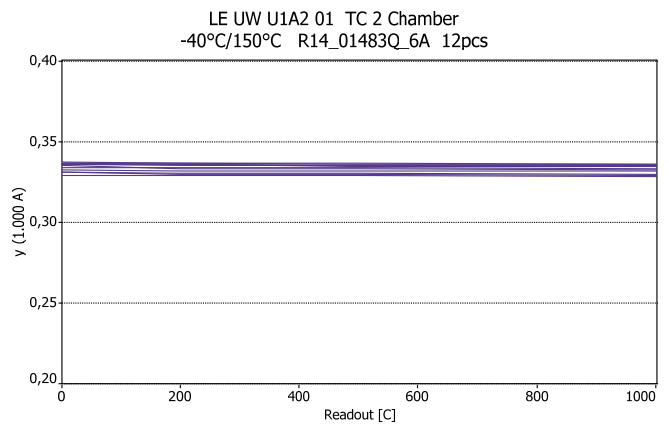
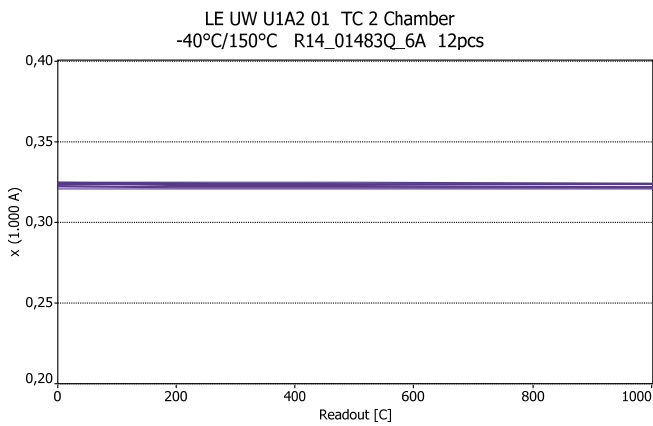
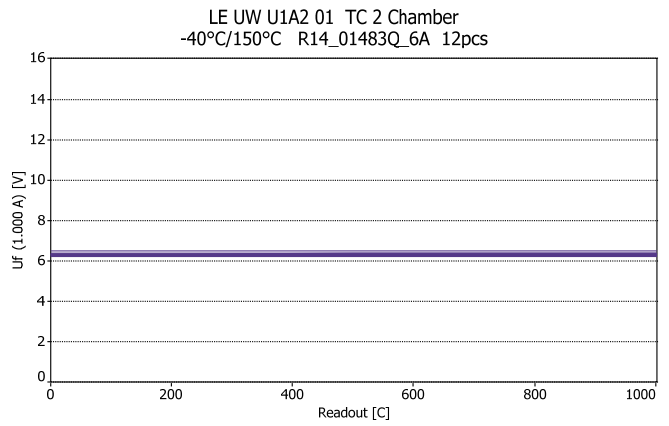
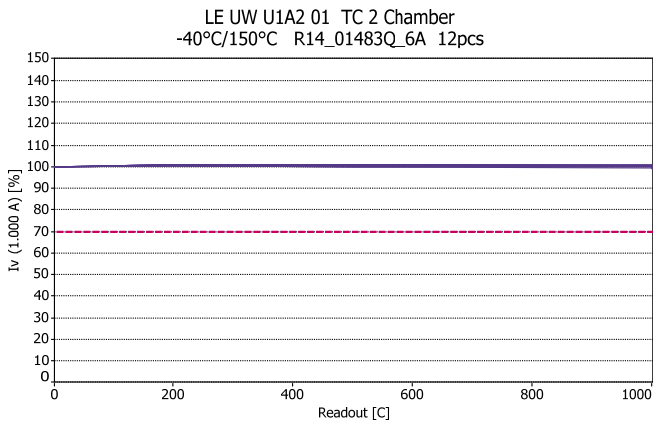
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LE UW U1A5 01



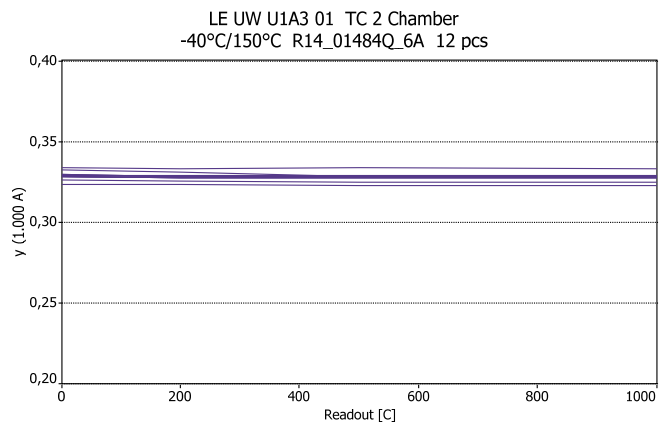
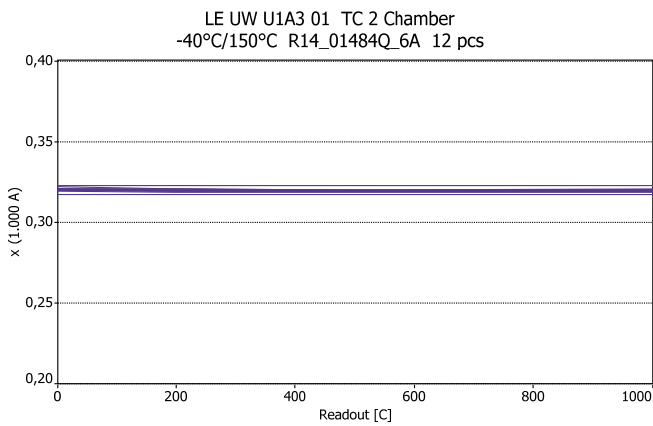
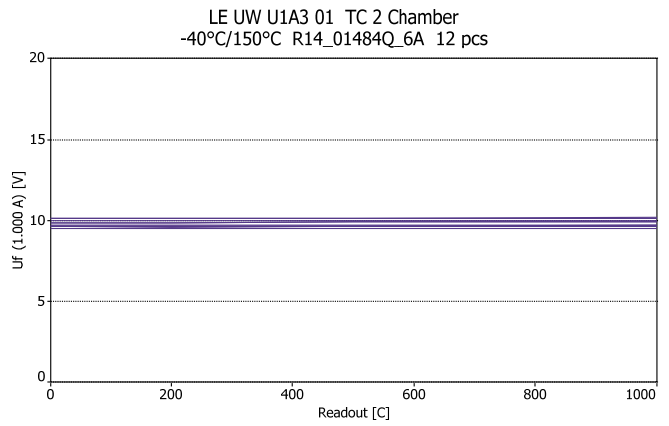
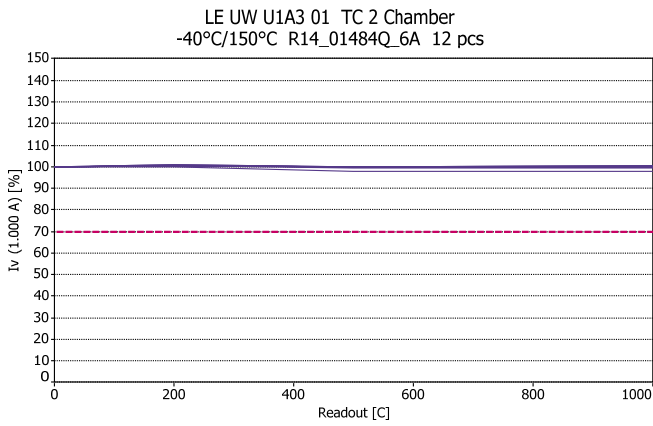
TC 2 Chamber -40/150°C

LE UW U1A2 01



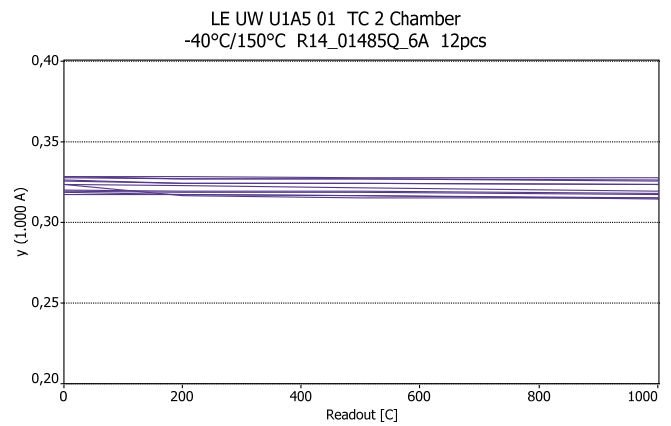
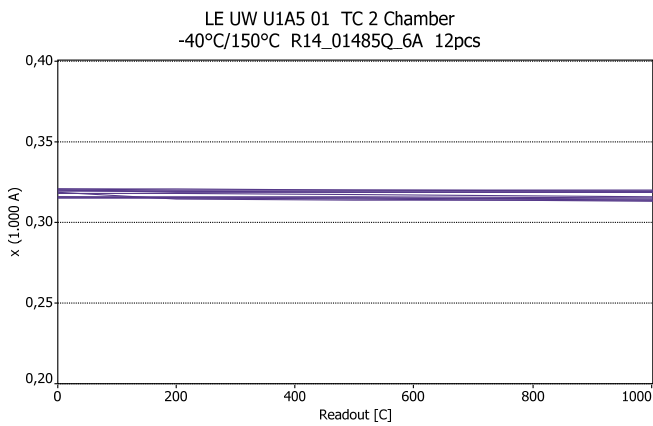
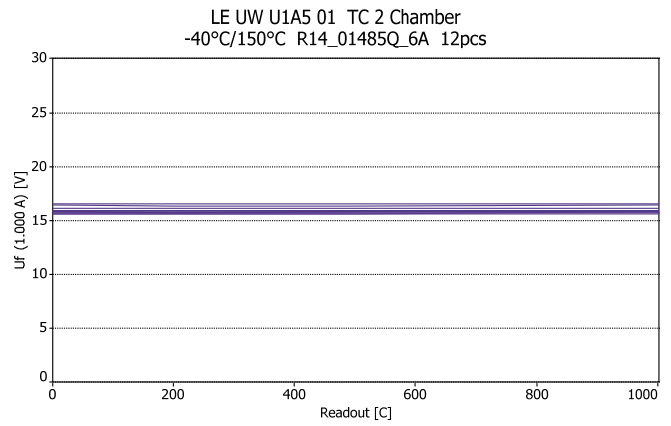
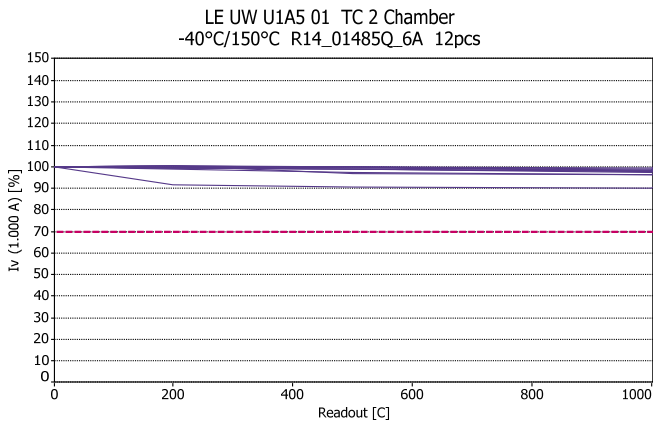
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LE UW U1A3 01



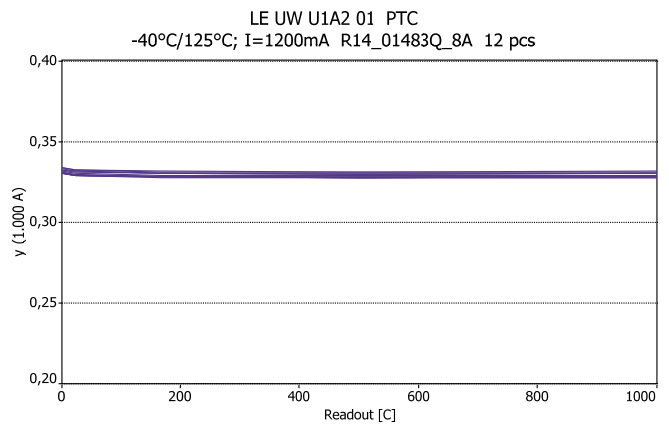
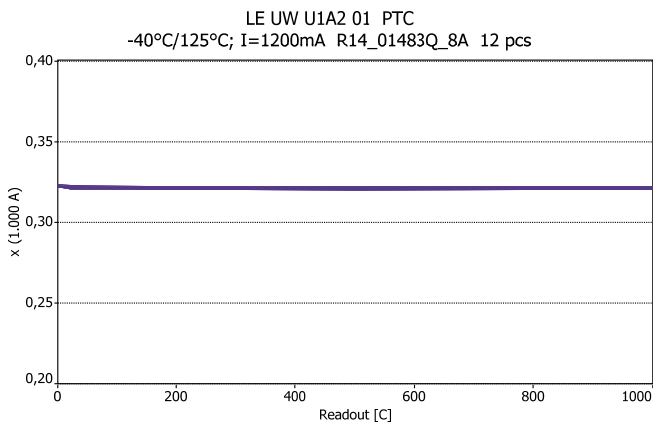
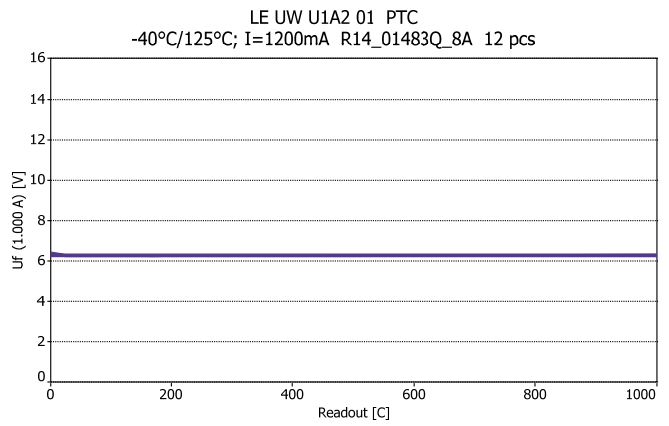
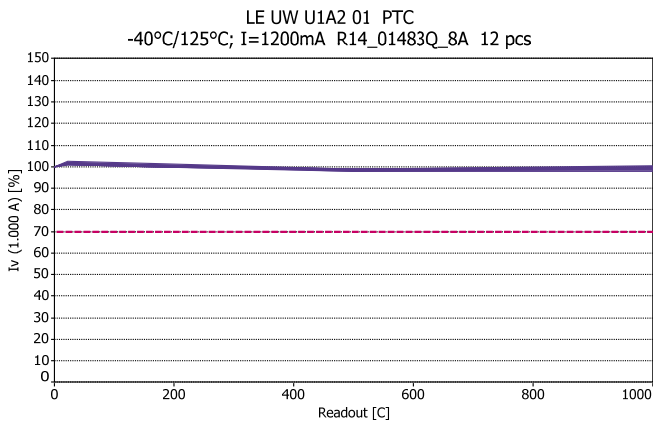
TC 2 Chamber -40/150°C

LE UW U1A5 01



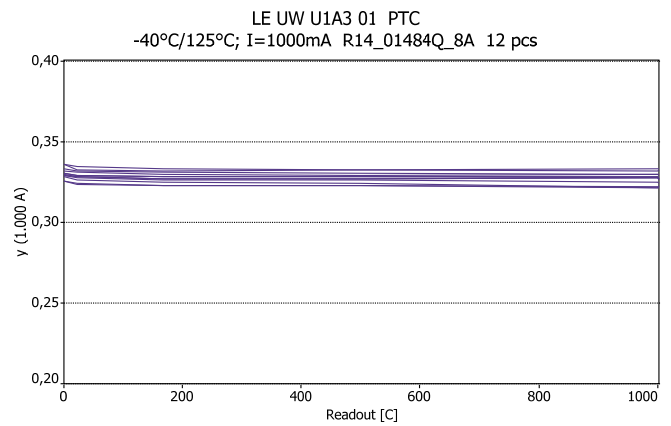
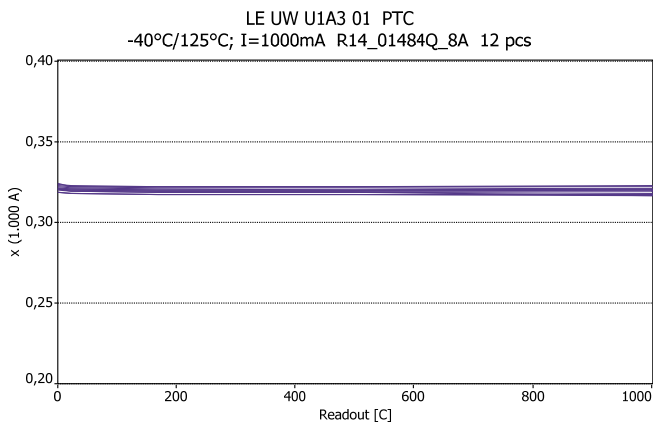
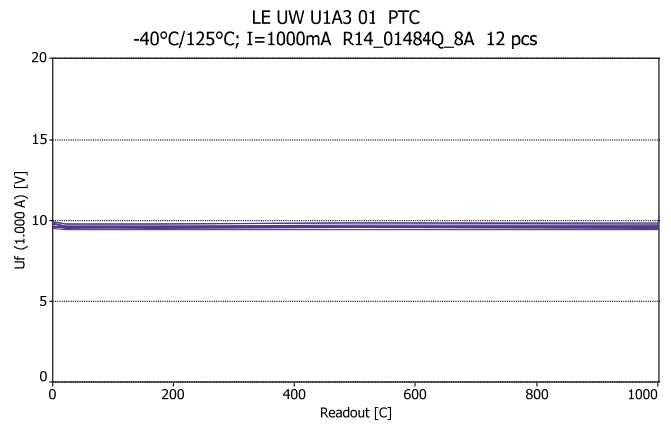
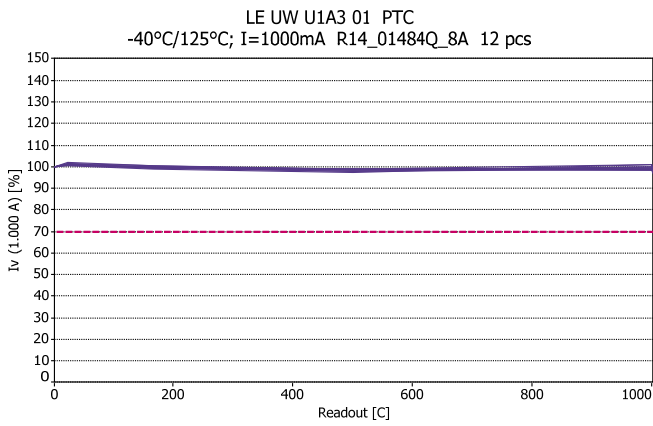
PTC -40/125°C; 1200mA

LE UW U1A2 01



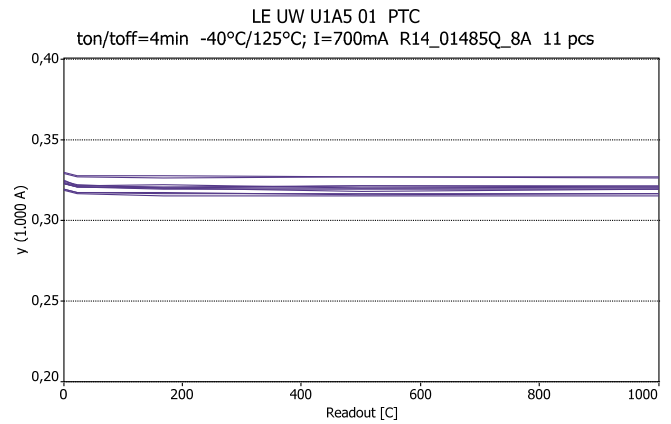
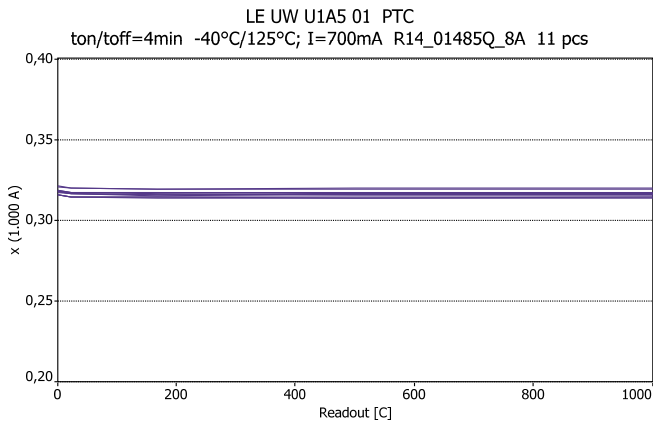
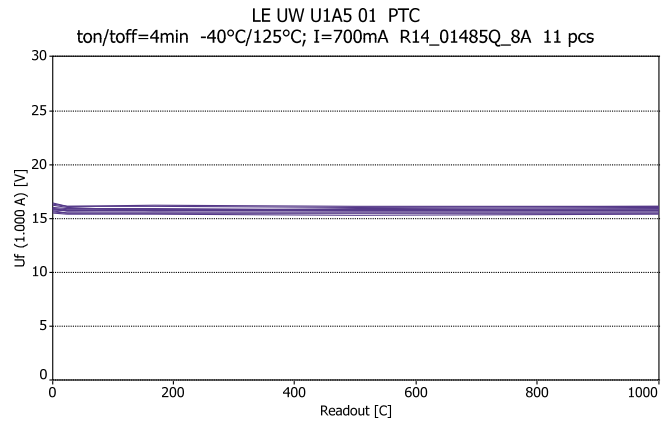
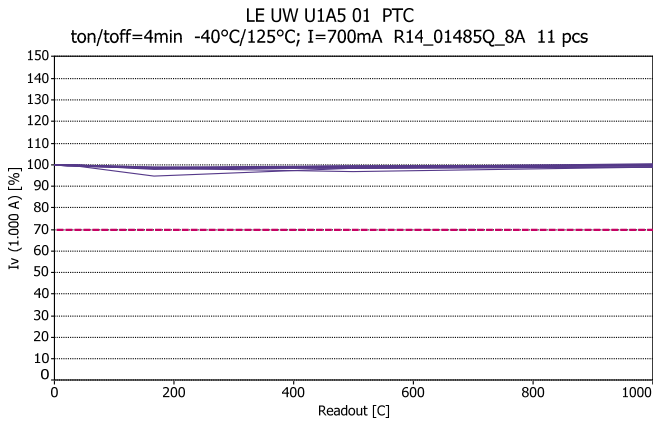
PTC -40/125°C; 1200mA

LE UW U1A3 01



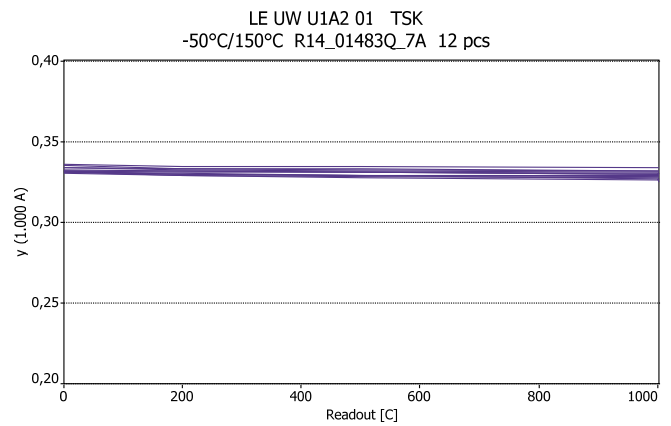
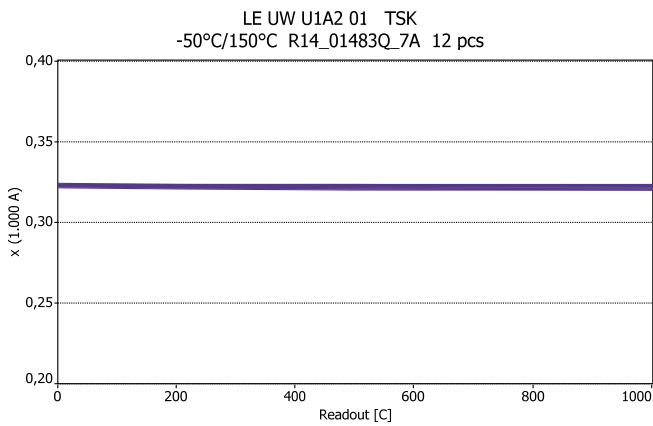
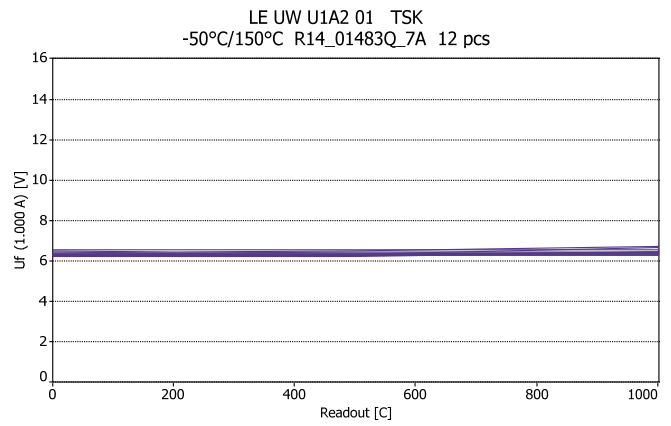
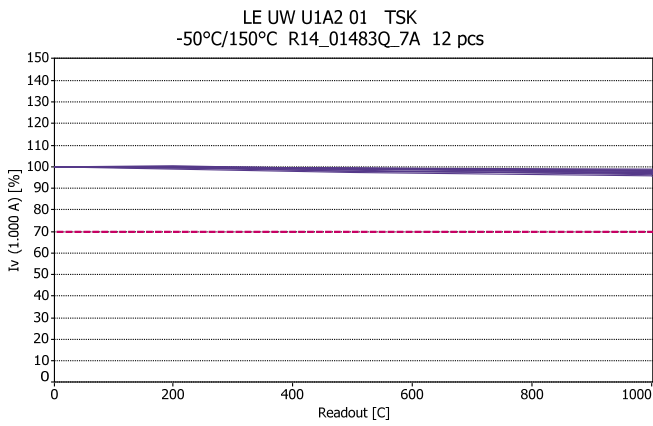
PTC -40/125°C; 1200mA

LE UW U1A5 01



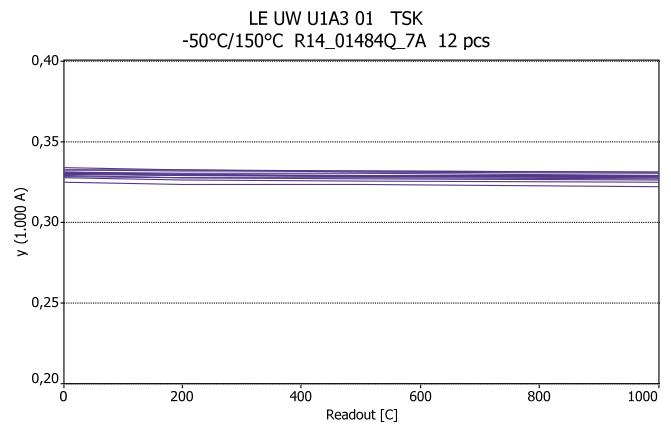
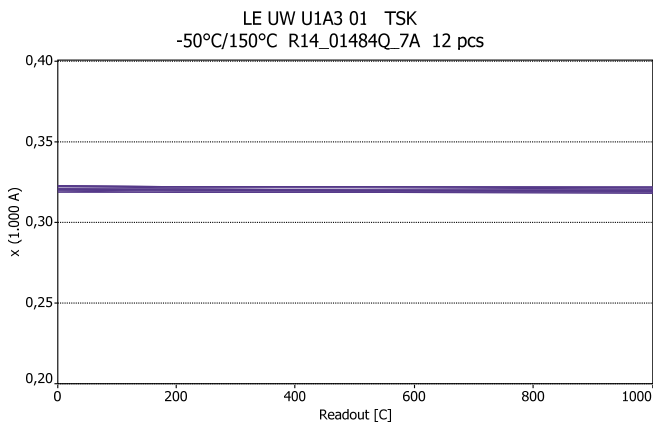
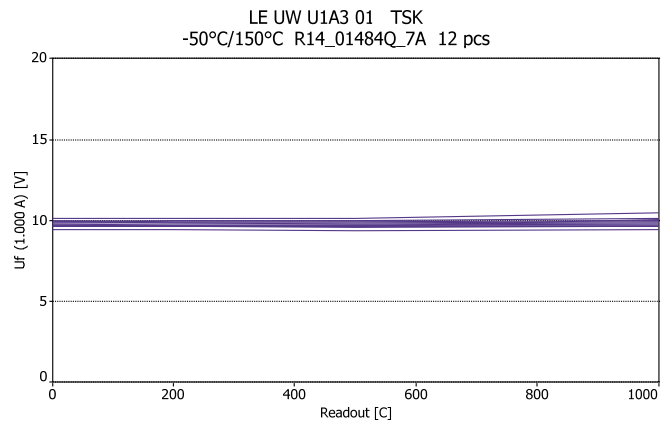
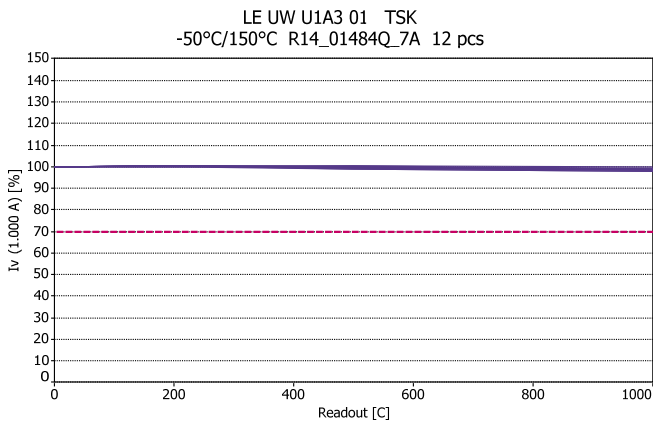
TSK -50/150°C

LE UW U1A2 01



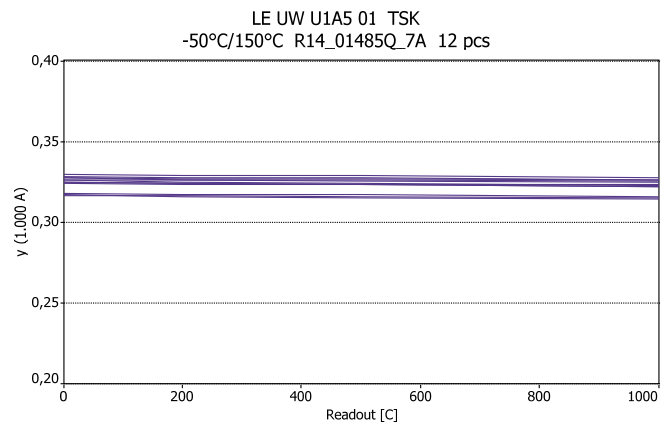
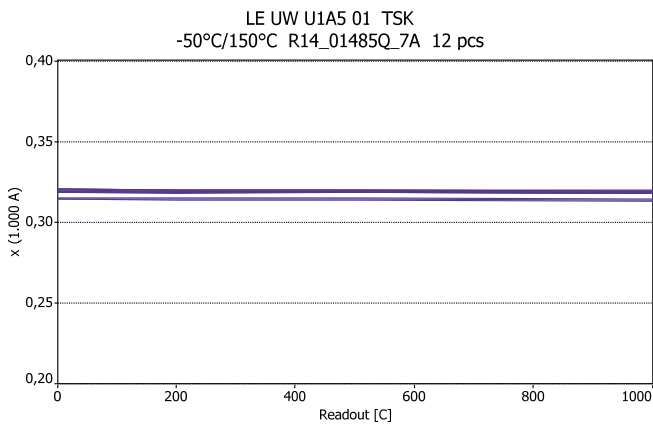
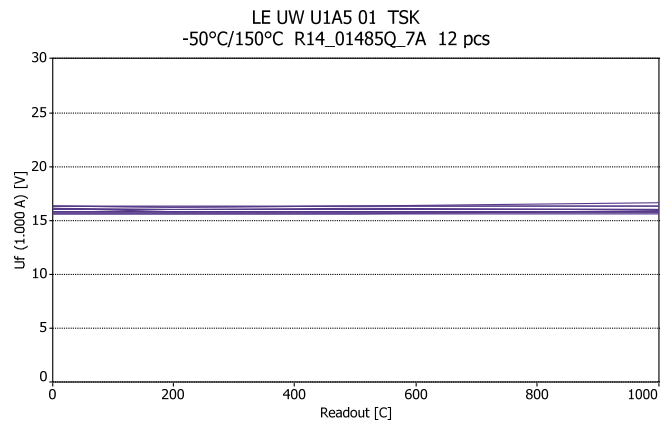
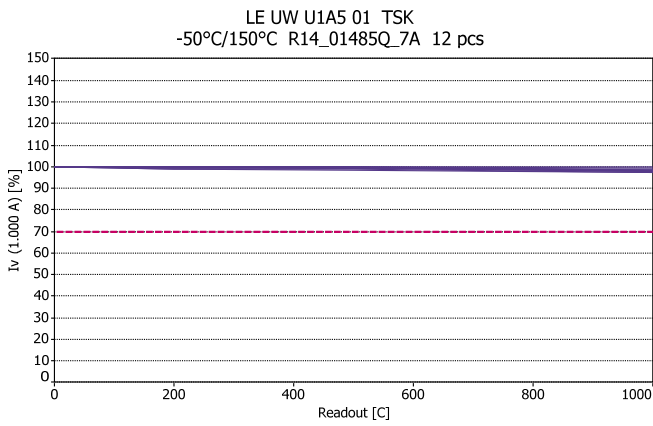
TSK -50/150°C

LE UW U1A3 01



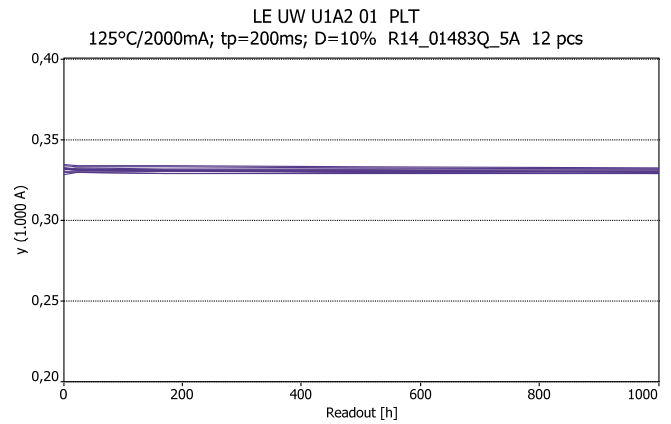
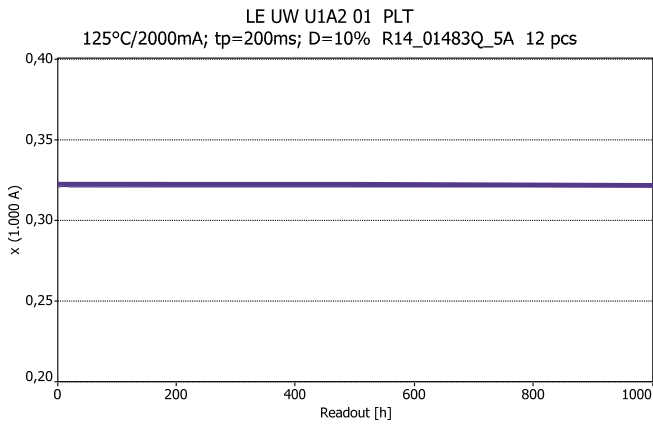
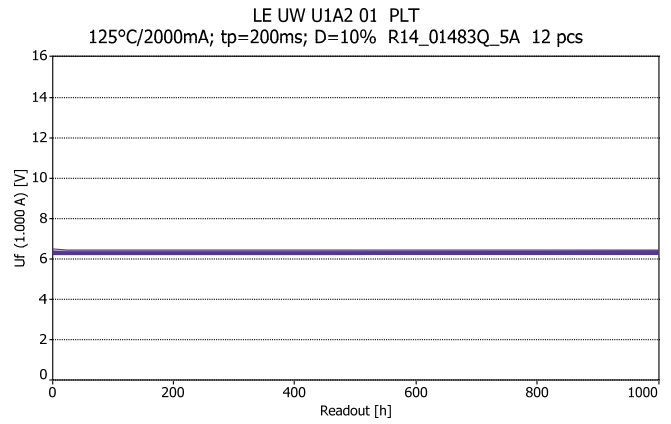
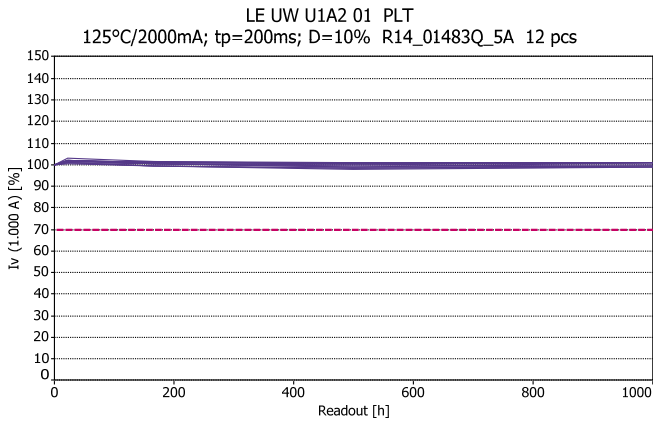
TSK -50/150°C

LE UW U1A5 01



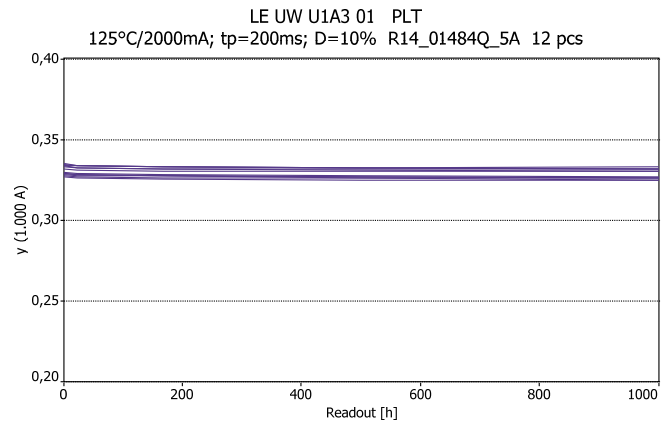
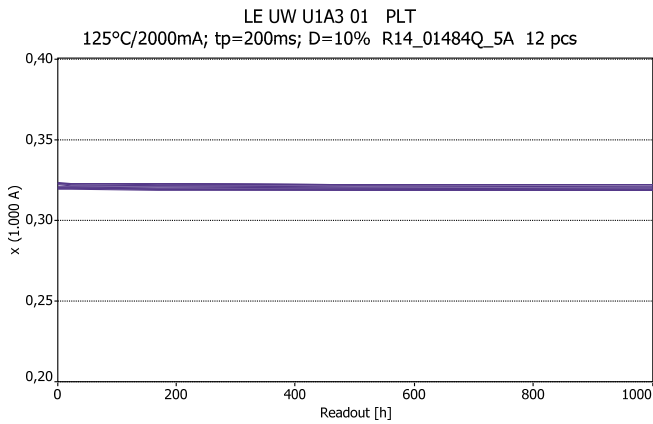
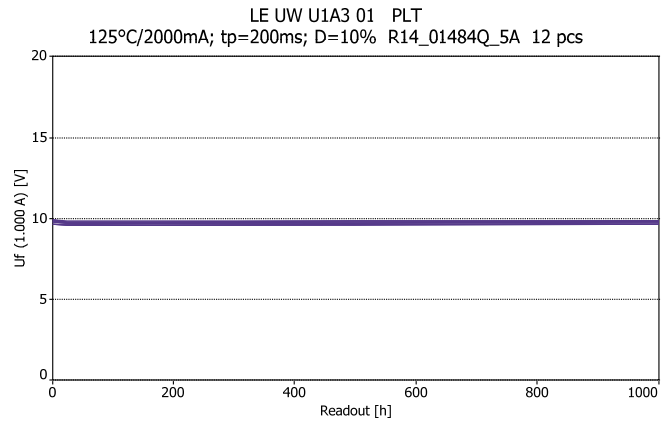
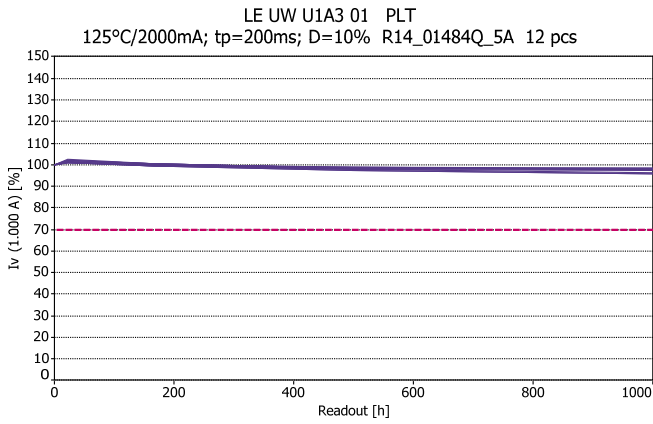
PLT 125°C/2000mA; tp=200ms; D=10%

LE UW U1A2 01



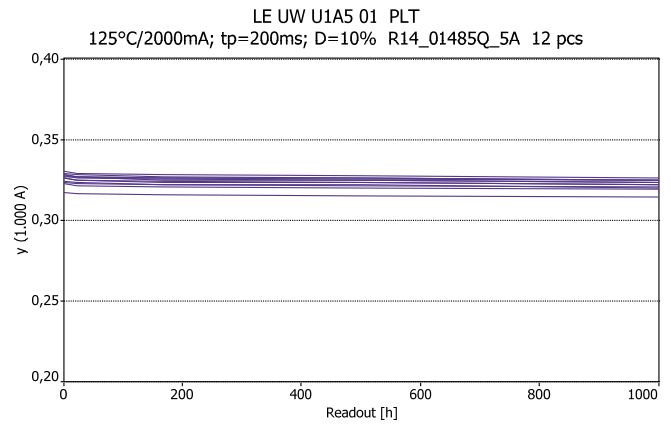
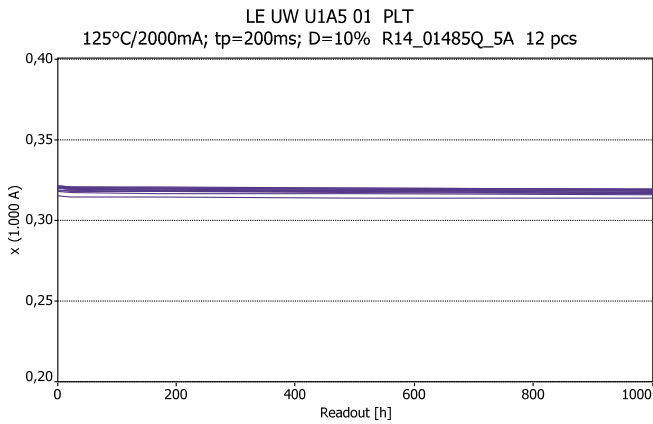
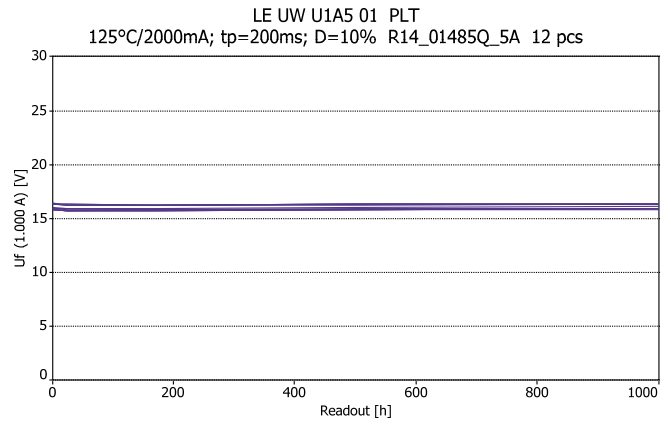
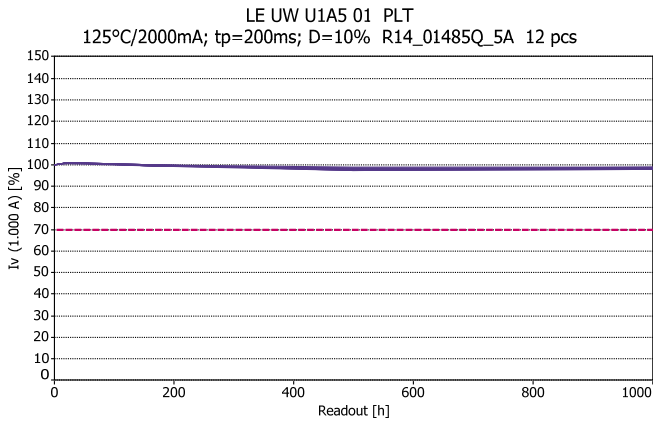
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LE UW U1A3 01



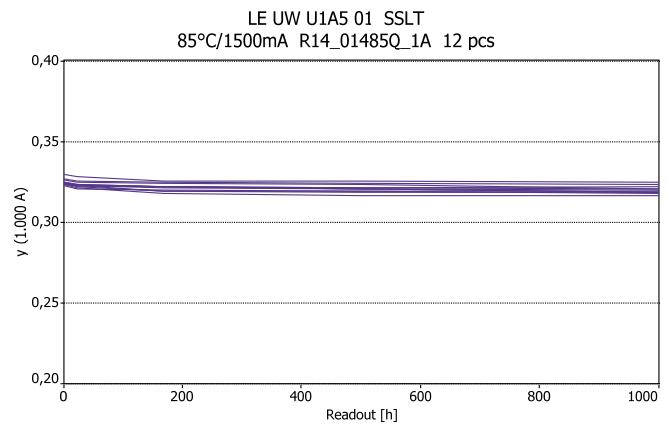
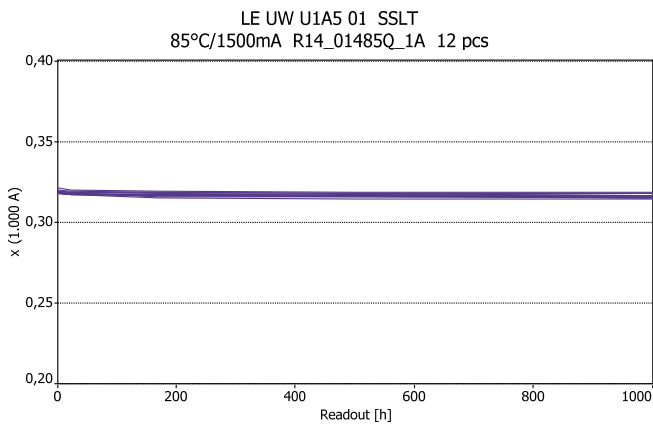
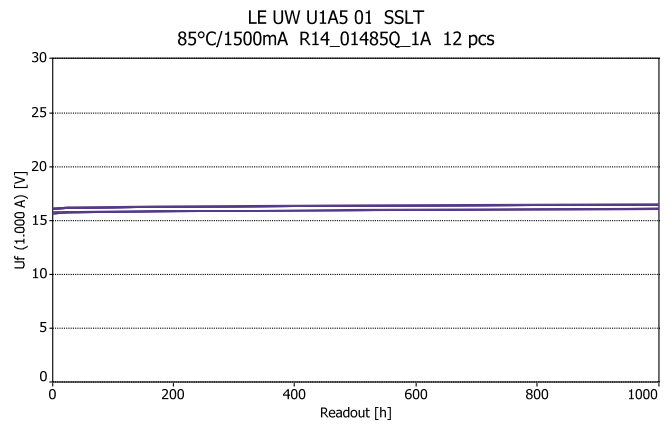
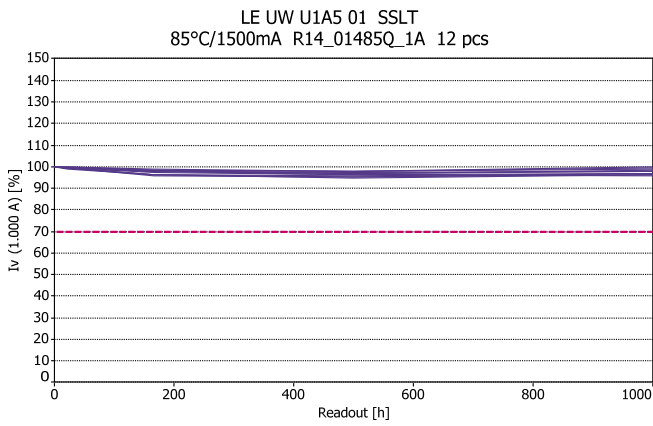
PLT 125°C/2000mA; tp=200ms; D=10%

LE UW U1A5 01



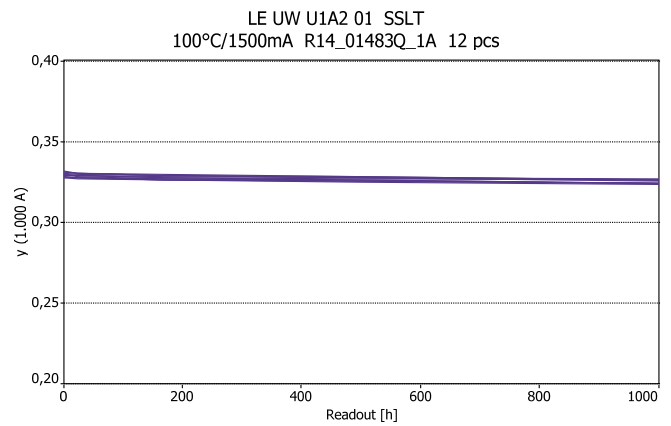
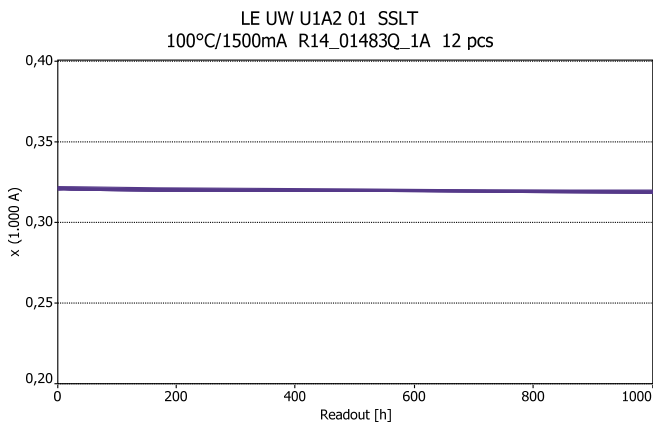
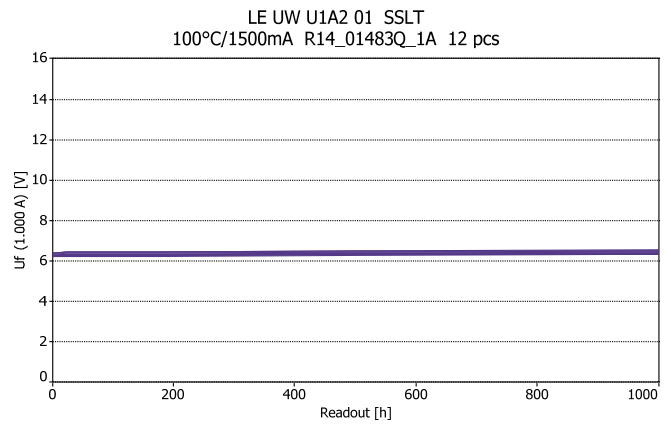
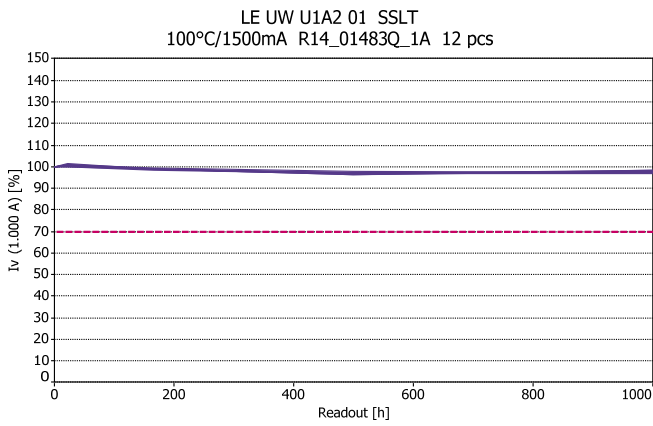
SSLT 85°C/1500mA

LE UW U1A5 01



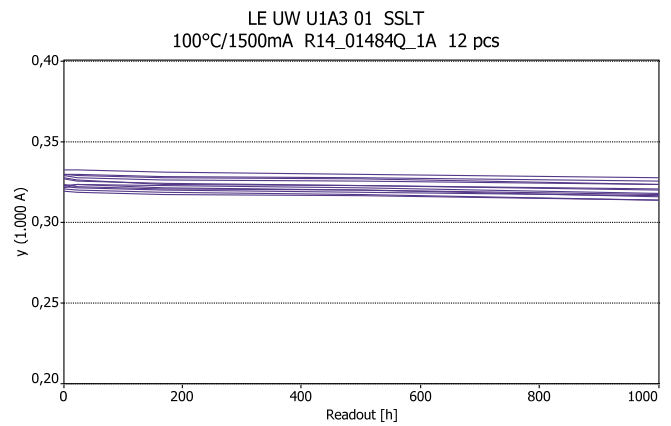
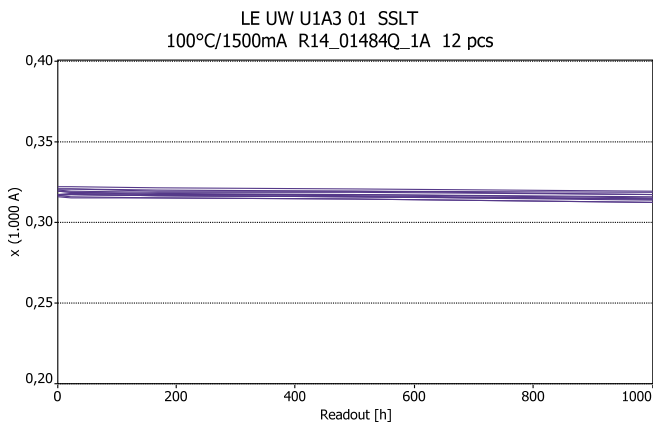
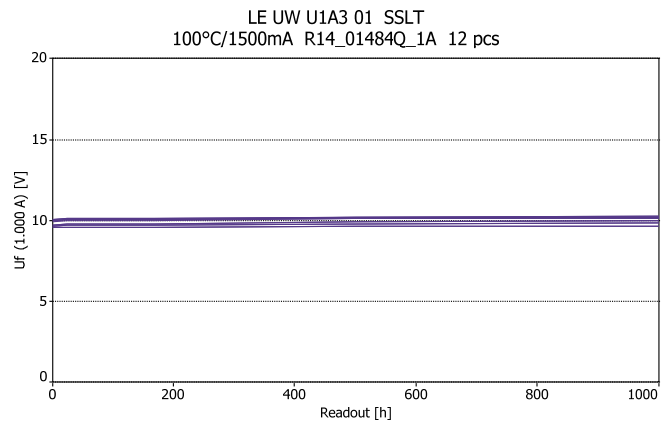
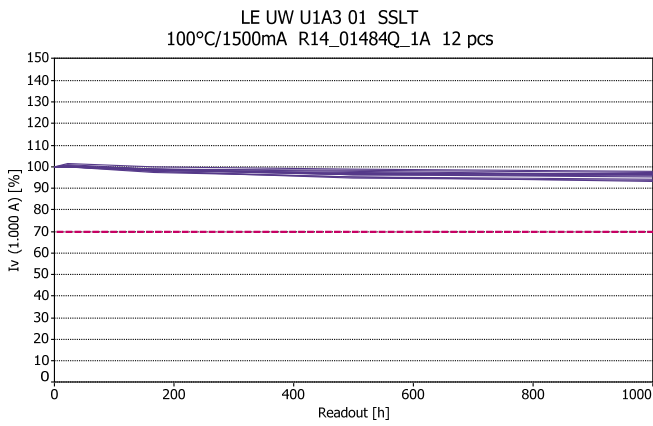
SSLT 100°C/1500mA

LE UW U1A2 01



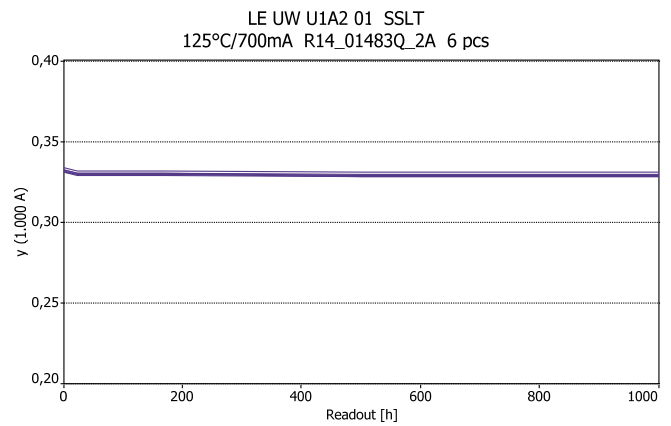
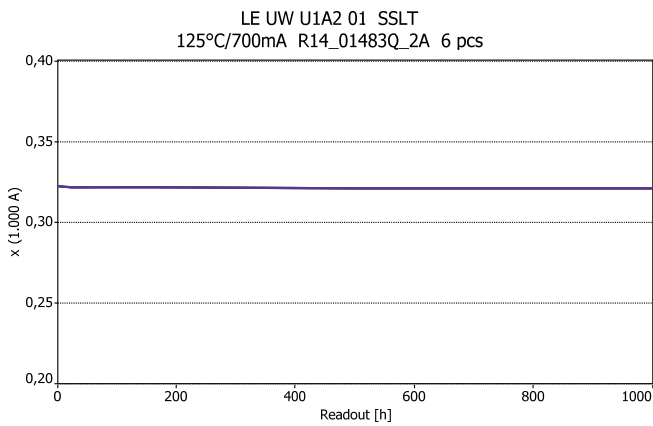
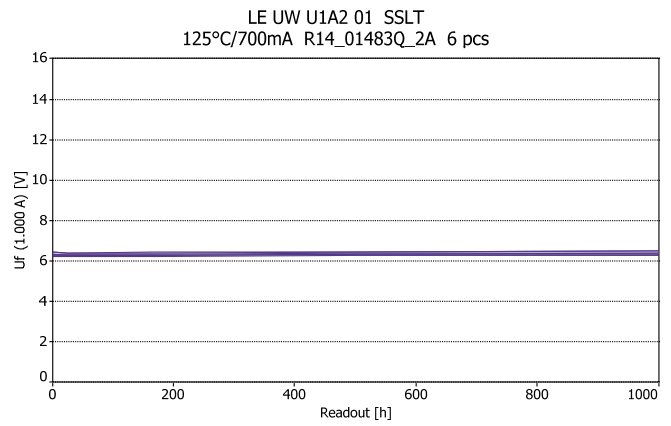
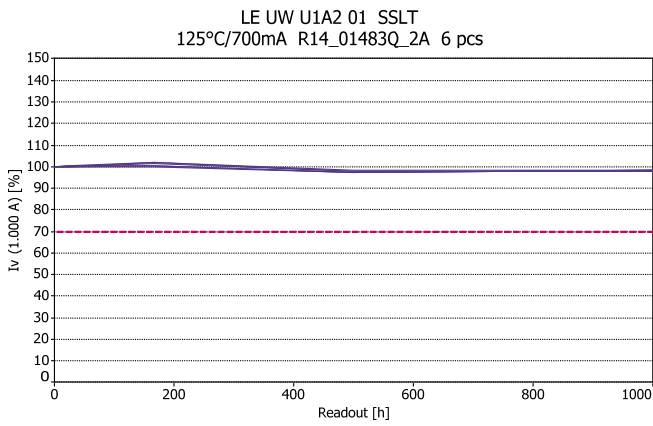
SSLT 100°C/1500mA

LE UW U1A3 01



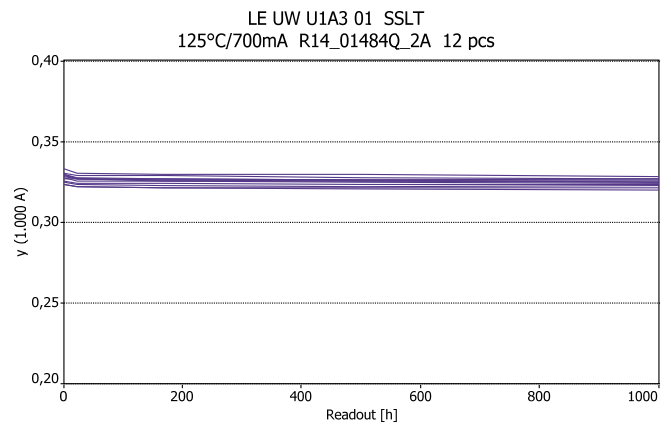
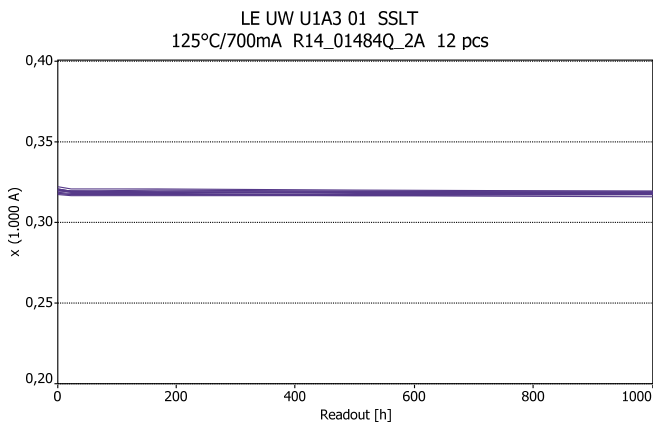
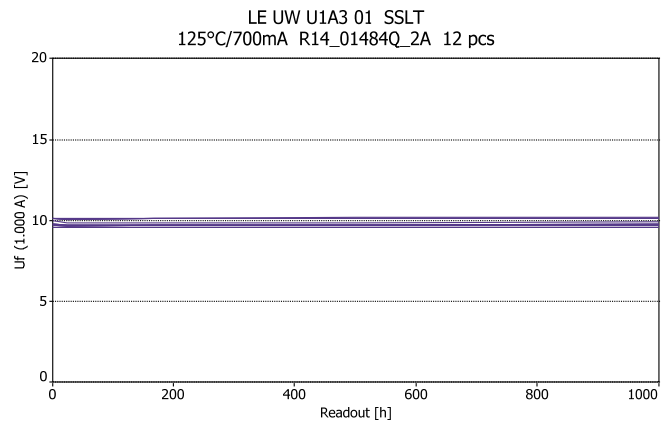
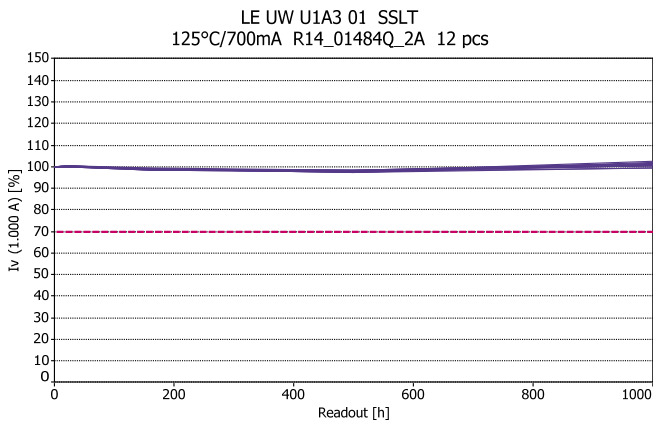
SSLT 125°C/700mA

LE UW U1A2 01



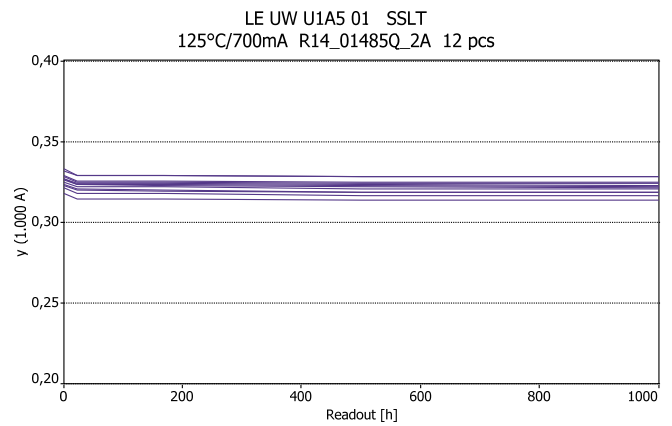
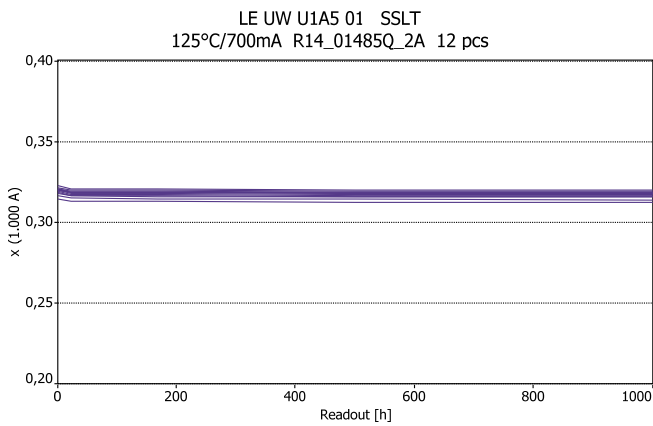
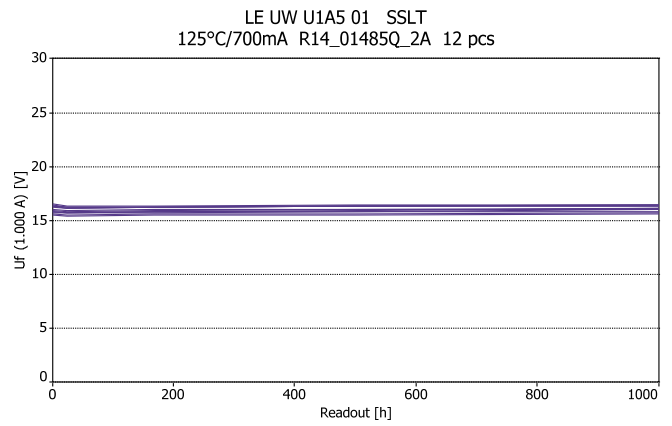
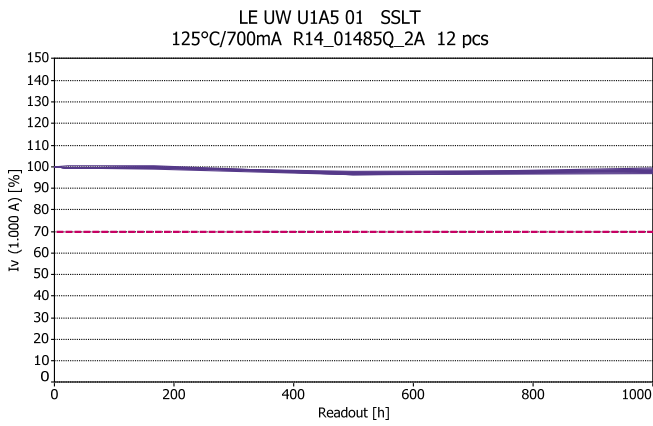
SSLT 125°C/700mA

LE UW U1A3 01



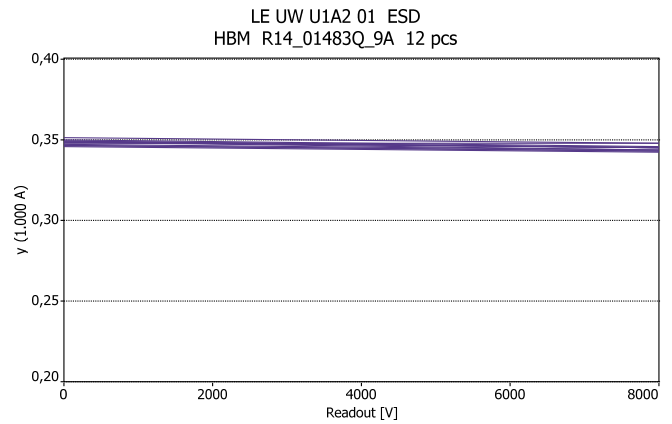
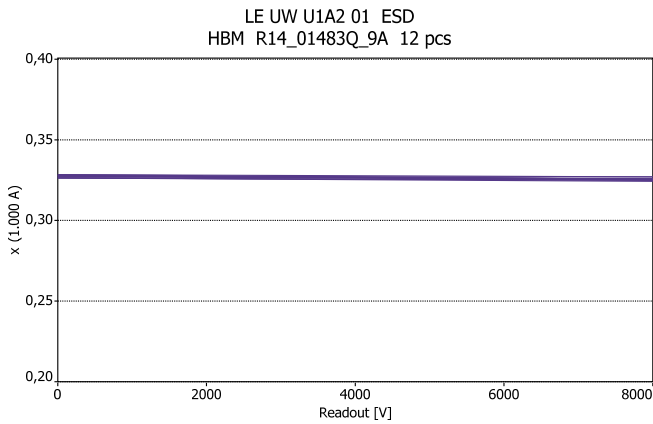
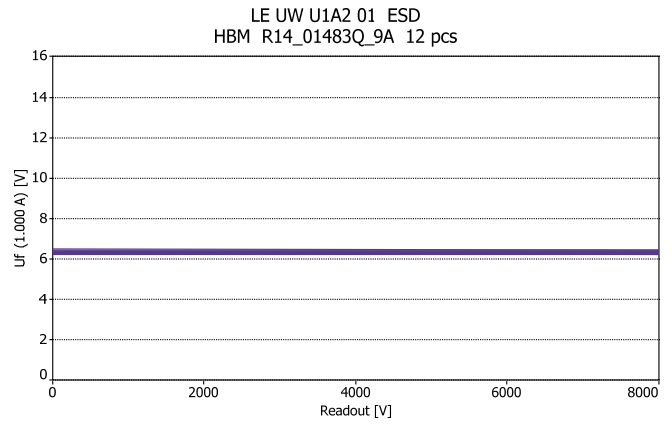
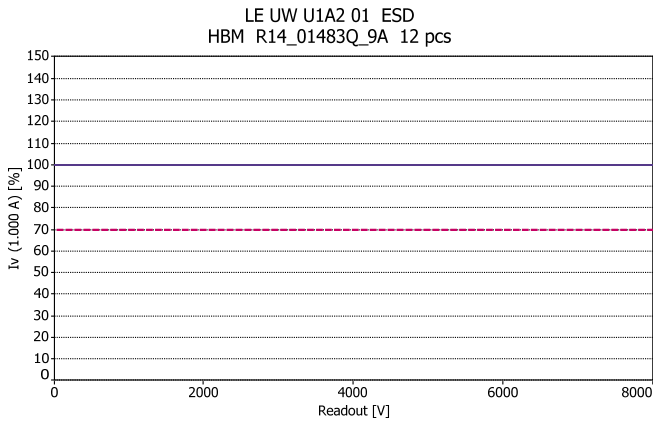
SSLT 125°C/700mA

LE UW U1A5 01



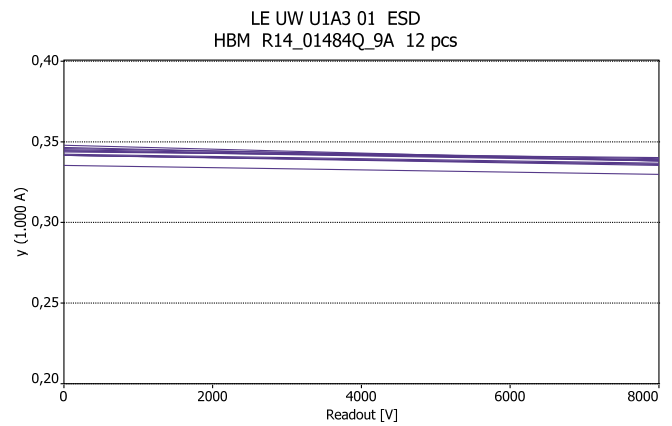
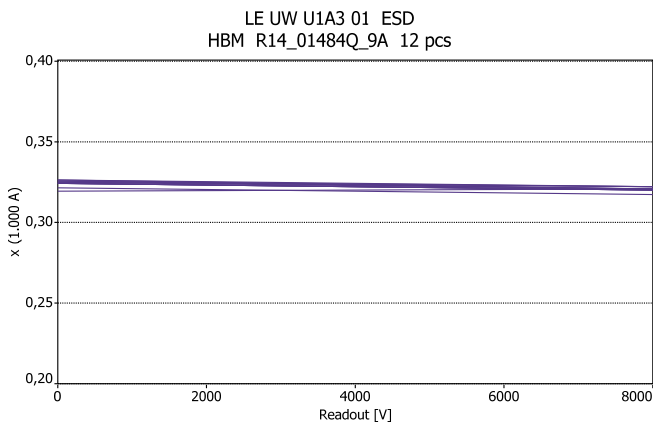
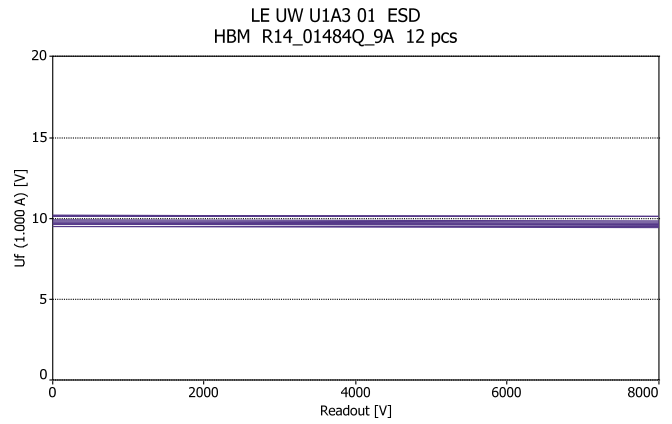
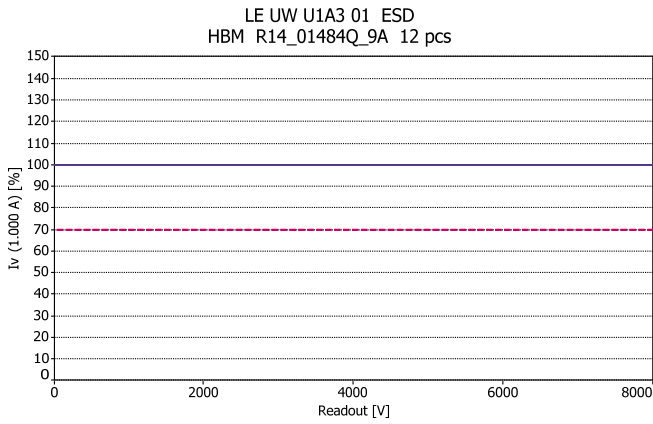
ESD Human body model

LE UW U1A2 01



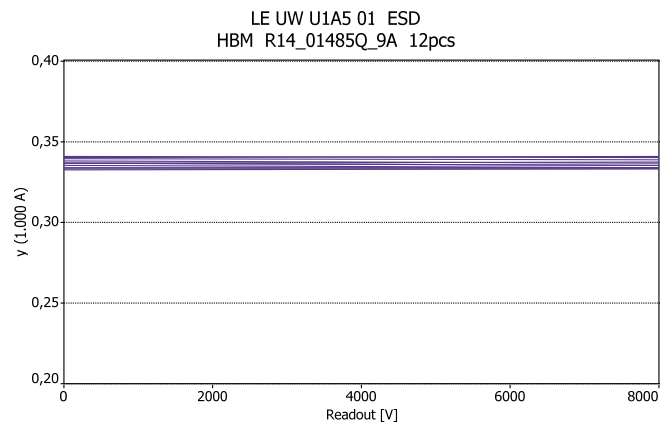
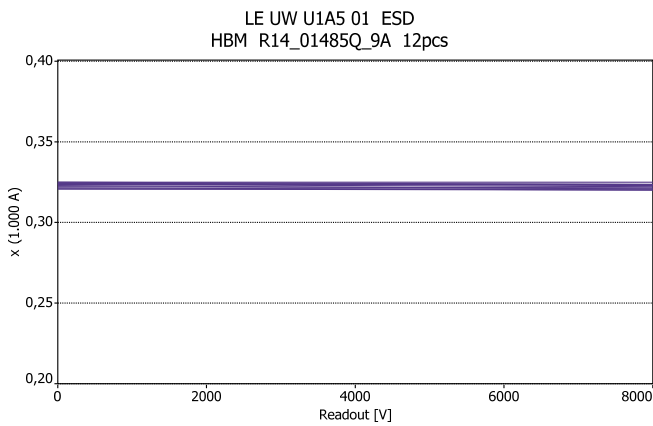
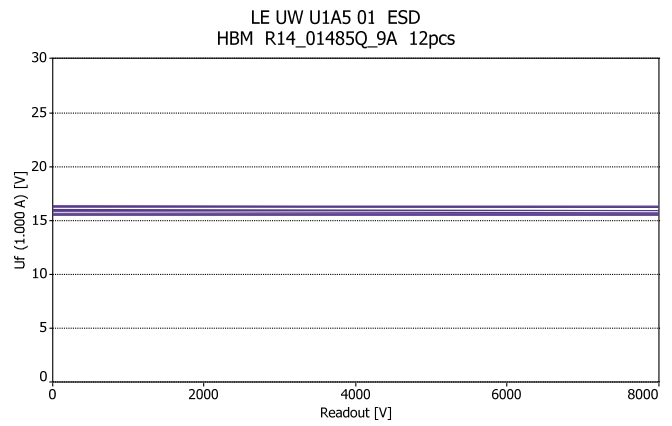
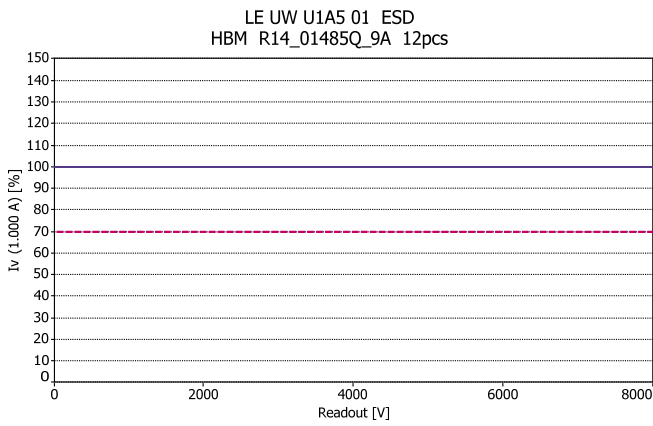
ESD Human body model

LE UW U1A3 01



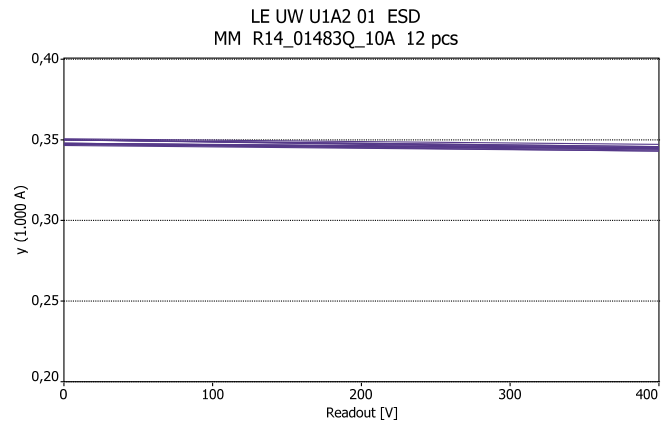
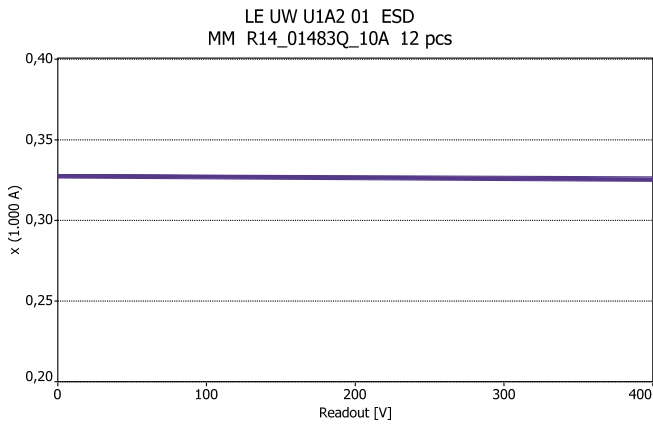
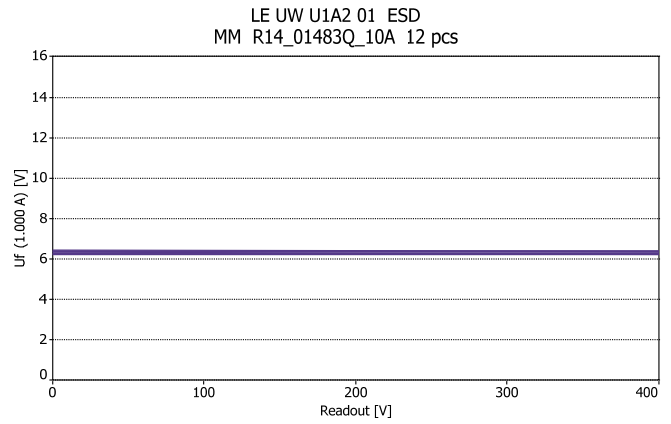
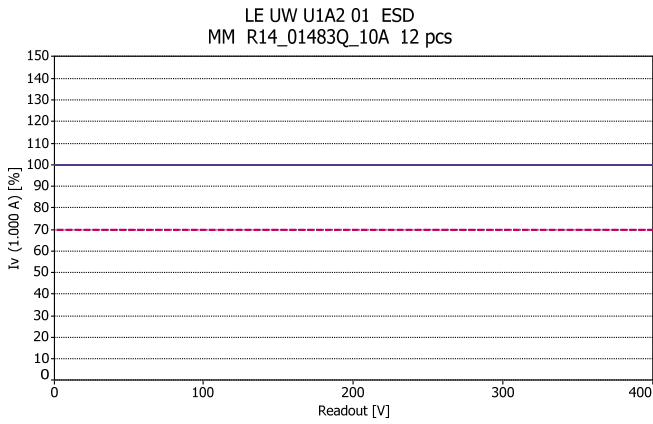
ESD Human body model

LE UW U1A5 01



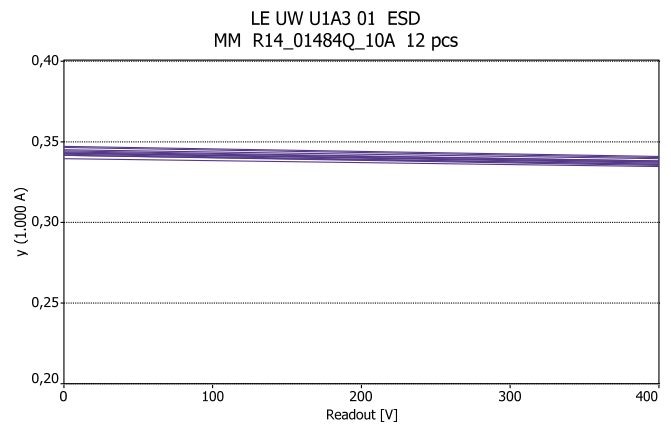
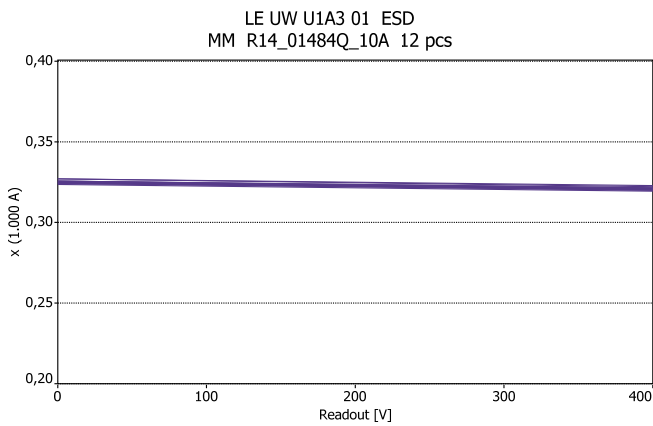
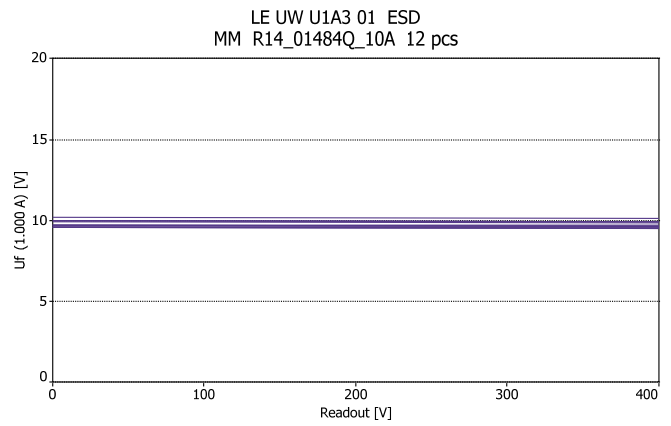
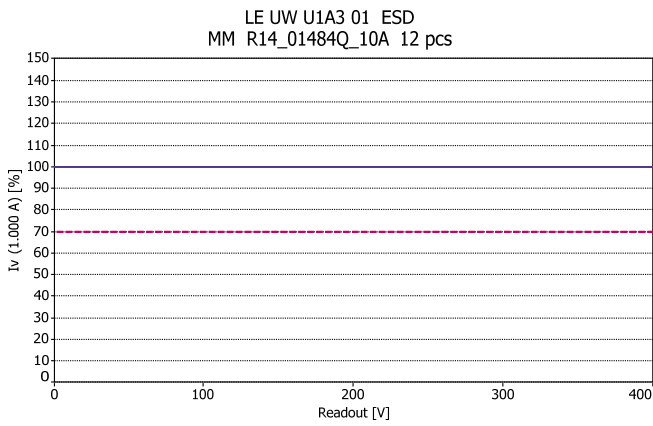
ESD Machine model

LE UW U1A2 01



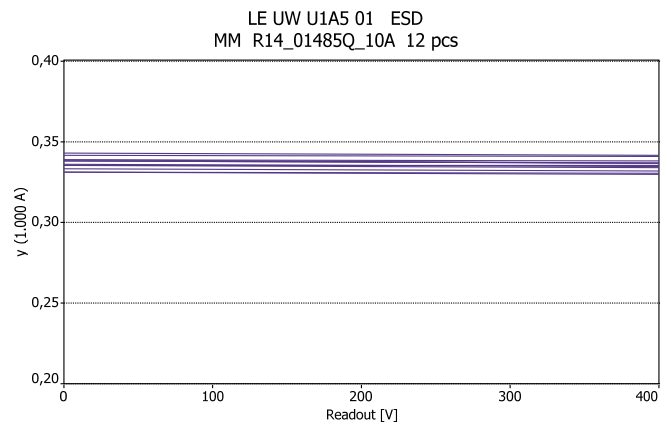
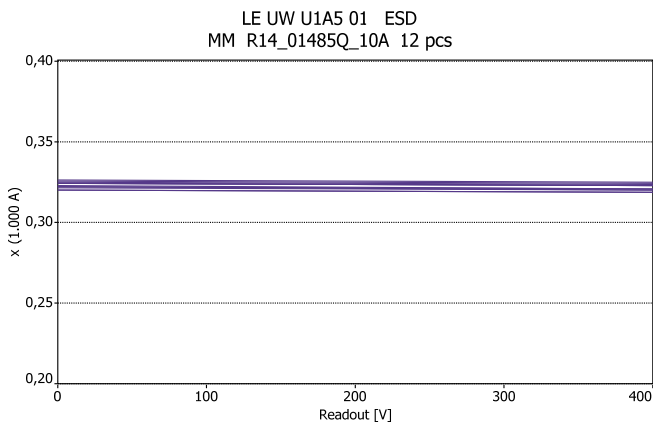
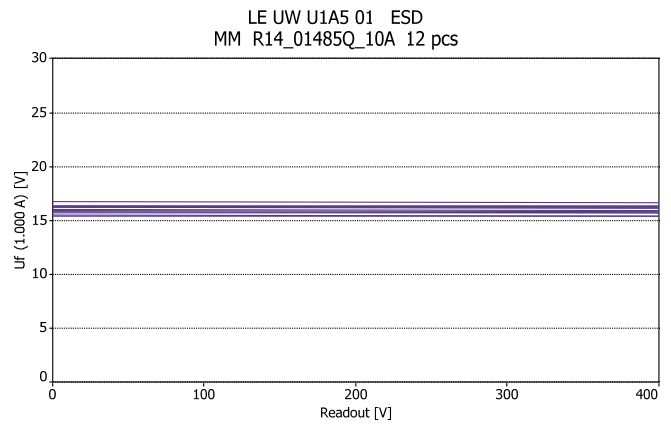
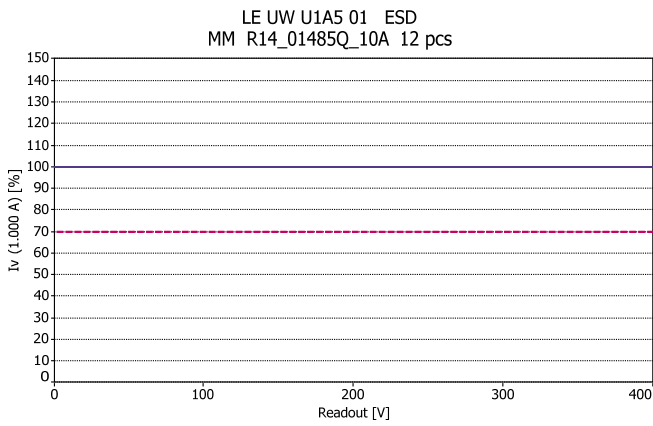
ESD Machine model

LE UW U1A3 01



ESD Machine model

LE UW U1A5 01



END OF DOCUMENT

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OSRAM
Opto Semiconductors

Light is OSRAM

Qualification Report

150075C1

Subject	Qualification of 2nd Source for Ceramic Layer
Date	17.02.2015
Tested device	LUW H9QP
Brand (including sub brands)	OSLON Black Flat
Applies to	KW H2L531.TE KW H3L531.TE KW H4L531.TE KW H5L531.T1 KW H5L531.TE LE UW U1A2 01 LE UW U1A2 04 LE UW U1A3 01 LE UW U1A3 04 LE UW U1A4 01 LE UW U1A4 04 LE UW U1A5 01 LE UW U1A5 04 LE UW U1A5 05 LUW CEUP.CE LUW CEUP.HD LUW H9QP LUW HWQP

Preconditioning according to Jedec Level

Test Performed	Condition	Duration	Sample Size	Failures		
				El.	Opt.	Vis
Resistance to soldering heat (RTSH) <i>JESD22-A113</i>	Reflow soldering 260°C	3x	3x30	0	0	0
Temperature & humidity bias (T&HB) <i>JESD22-A101</i>	T _A = 85°C, r.H.= 85%; I _F = 50mA	1000h	3x30	0	0	-
Temperature & humidity bias (T&HB) <i>JESD22-A101</i>	T _A = 85°C, r.H.= 85%; I _F = 600mA 30min on / 30min off	1000h	3x30	0	0	-
Temperature cycle (TC) <i>JESD22-A104</i>	-40°C/+125°C 15min each extreme	1000c	3x30	0	0	-
Power Temp. Cycling (PTC) <i>JESD22-A105</i>	-40/+125°C I _F = 750mA ton/off = 4min	1000c	3x30	0	0	-
Steady state life test (SSLT) <i>JESD22-A108</i>	T _A = -40°C I _F = 1200mA	1000h	3x30	0	0	-
Steady state life test (SSLT) <i>JESD22-A108</i>	T _A = 100°C I _F = 1200mA	1000h	3x30	0	0	-
Steady state life test (SSLT) <i>JESD22-A108</i>	T _A = 125°C I _F = 750mA	1000h	3x30	0	0	-

Failure criteria:

Electrical failures: Vf (If = 700mA) > 3,75V; ± 10% from initial value

Optical failures: Iv (If = 700mA) absolute limit: ± 30% max. and |Δ%max - Δ%min| > 30%

Visual failures: broken or damaged package or leads

Conclusion: The tested devices fulfill the reliability requirements.

Disclaimer

PLEASE CAREFULLY READ THE BELOW TERMS AND CONDITIONS BEFORE USING THE INFORMATION.
IF YOU DO NOT AGREE WITH ANY OF THESE TERMS AND CONDITIONS, DO NOT USE THE INFORMATION.

The Information contained in this Document does not constitute an independent warranty. The committed behavior is described in the Product data sheet and/or further, mutually agreed specifications.

Distribution of part or all of the contents of this Document to any 3rd party in any form without the prior permission of OSRAM Opto Semiconductors GmbH is prohibited except in accordance with applicable mandatory law.

Further explanations:

Data: The Data used in this Document consider the reliability test results under the mentioned driving conditions only.

For Product information on the maximum operating conditions and the OSRAM OS standard qualification profile please refer to the Product data sheet or contact your local sales partner.

Conditions: The conditions for the generation of the Data are as follows:

1. The Data and curves shown in this Document are based on experiments carried out under laboratory conditions on a random sample size of LED/IRED/Laser/Detector with readouts at discrete readout times (where applicable). Thus, the Data above represent a limited number of production lots only and may differ between different assembly lots over time (including chip or package changes). Thus, the behavior of the LED/IRED/Laser/Detector in the final application may differ from the Data. The behavior of the LED/IRED/Laser/Detector at conditions or readout times deviating from those stated above may not be deduced from the Data.

2. If applicable:

a) Extended driving conditions:

The tested driving conditions exceed the maximum limits stated in the Product data sheet. Therefore a reduced lifetime or an accelerated degradation is expected. Failure limits noted in the Document refer to the testing condition according to the OSRAM OS standard Product qualification profile and not to the actual testing condition.

b) Extended testing duration:

The testing duration exceed the OSRAM OS standard qualification profile of the mentioned Product. Failure limits noted in the Document refer to the testing duration according to the OSRAM OS standard Product qualification profile and not to the actual testing duration.

c) Exceeding standard qualification conditions – (Product data sheet limits not affected):

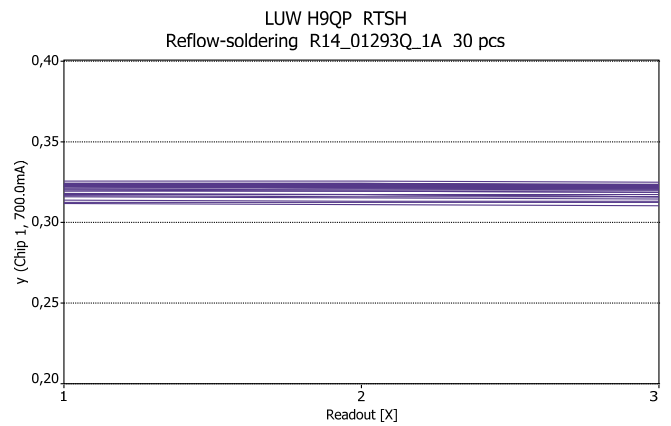
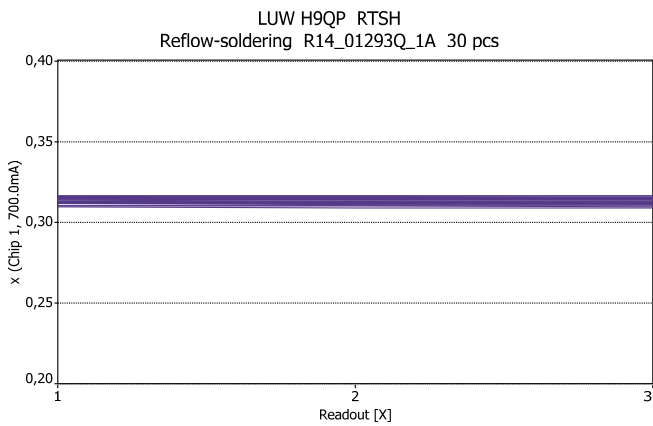
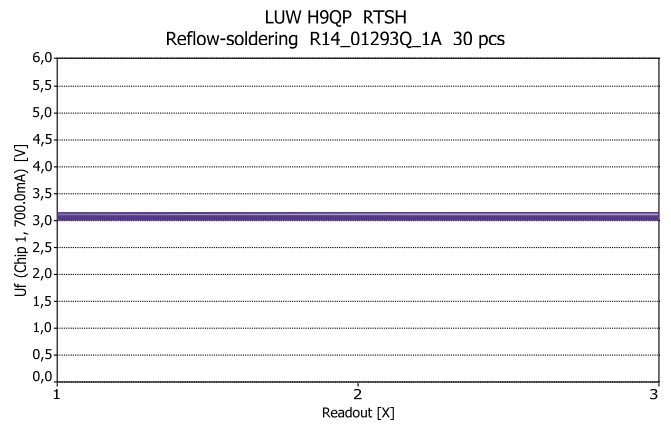
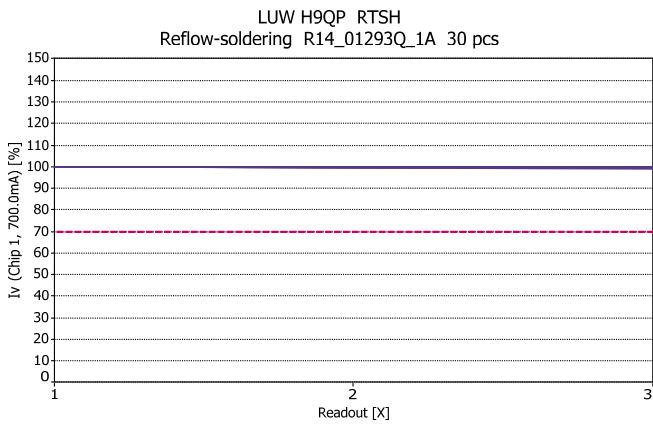
The tested driving conditions exceed the OSRAM OS standard qualification profile of the mentioned Product. Therefore a reduced lifetime or an accelerated degradation is expected. Failure limits noted in the Document refer to the testing condition according to the OSRAM OS standard Product qualification profile and not to the actual testing condition.

3. For long term operation additional failure modes of the chip or package can occur which are not shown in this Document.

4. Possible differences in the thermal management of OSRAM OS and customer's setup may lead to a different aging behavior.

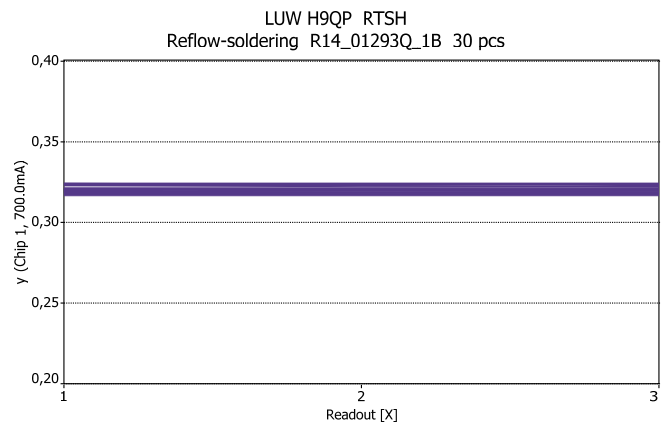
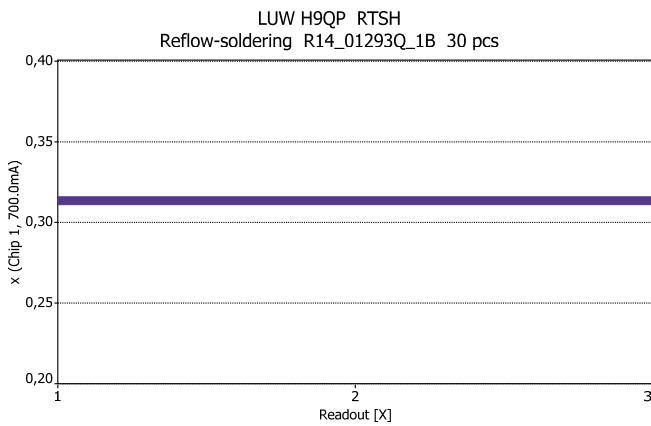
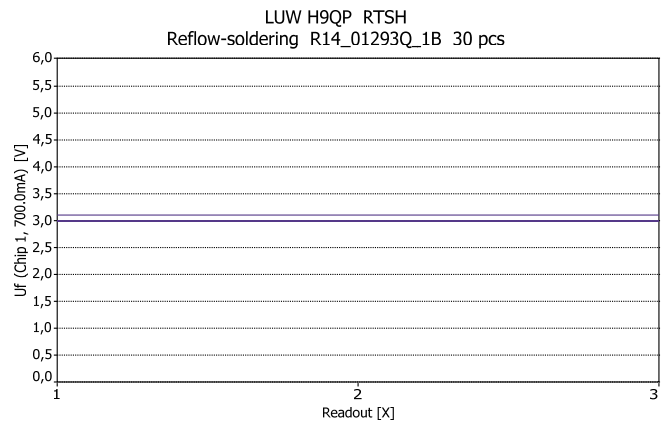
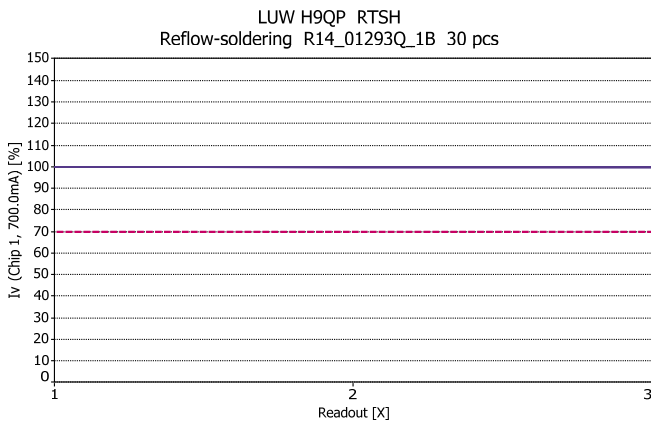
Reflow-soldering

Lot A



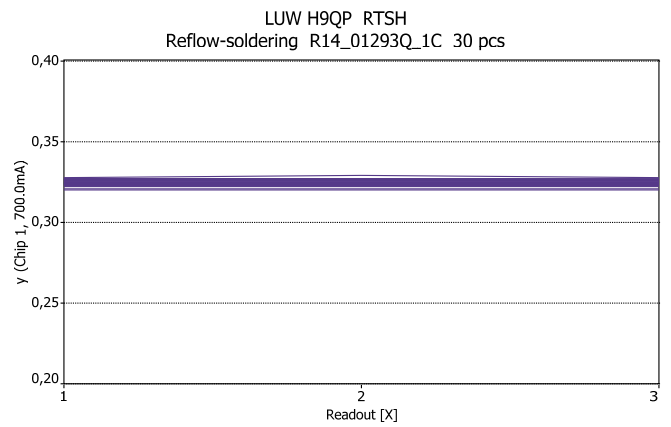
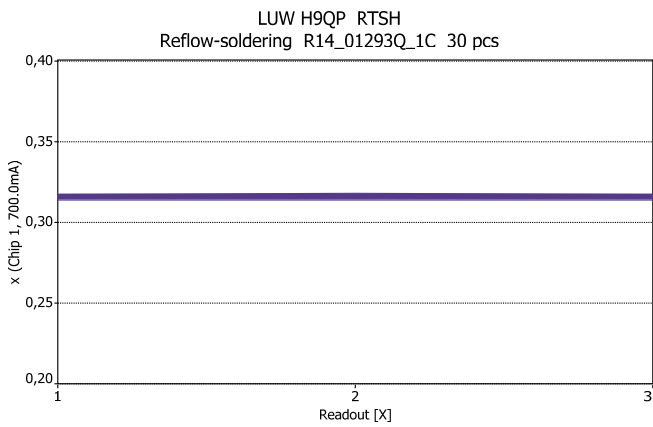
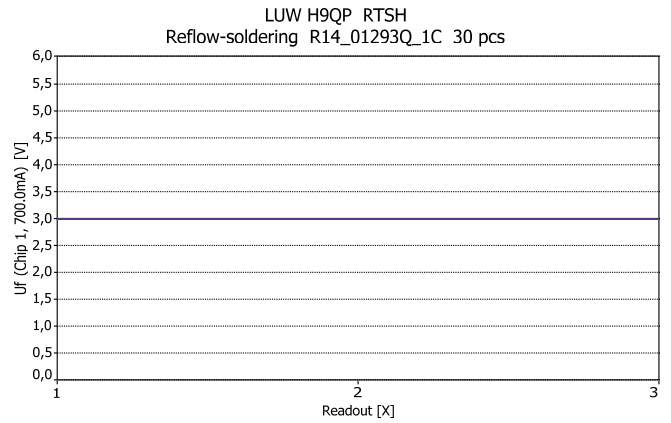
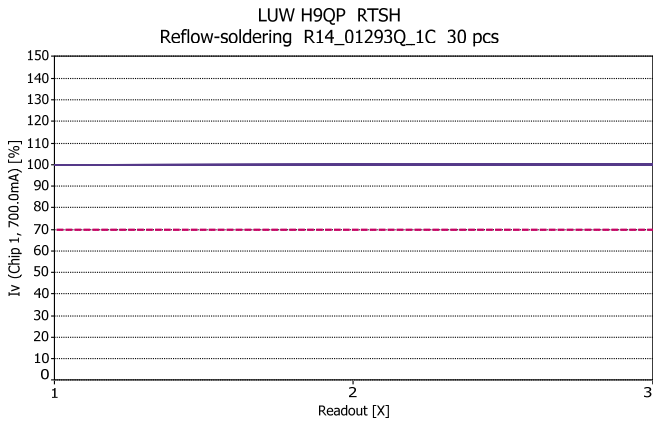
Reflow-soldering

Lot B



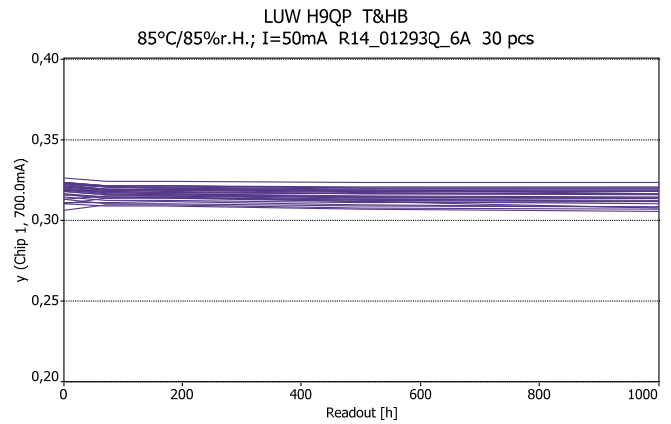
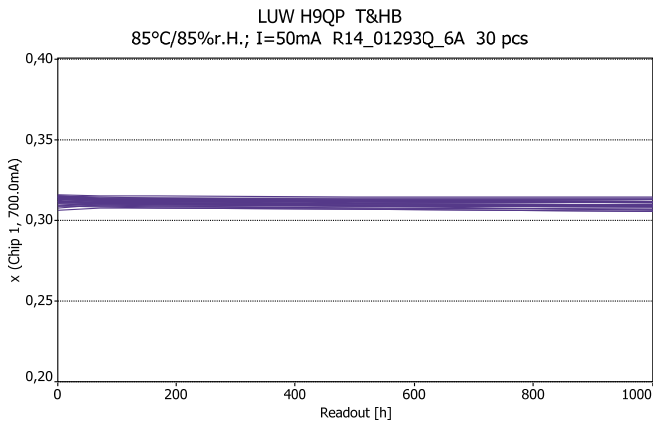
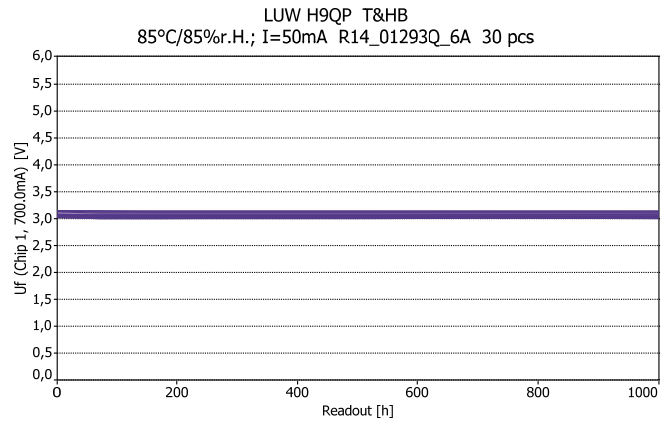
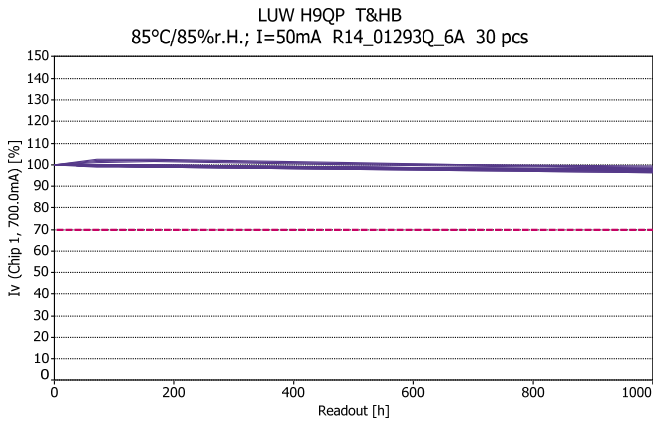
Reflow-soldering

Lot C



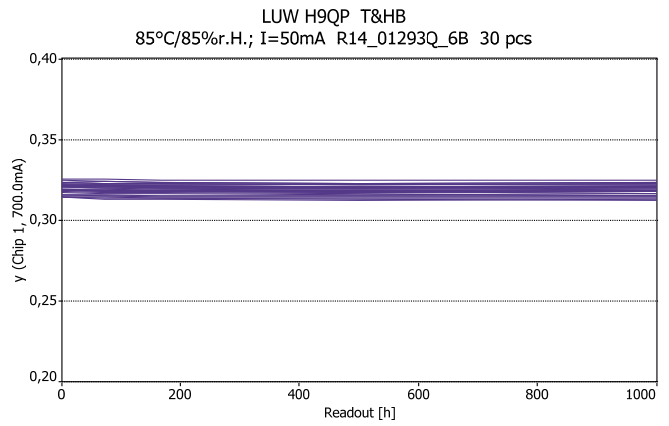
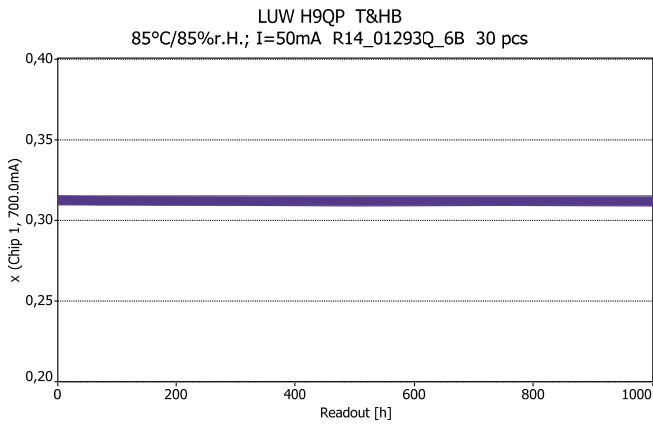
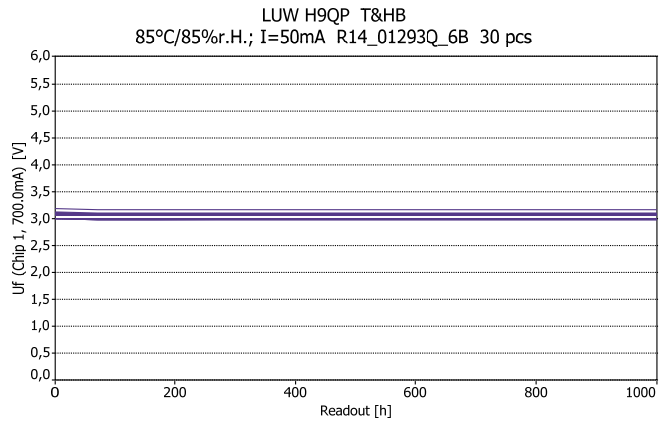
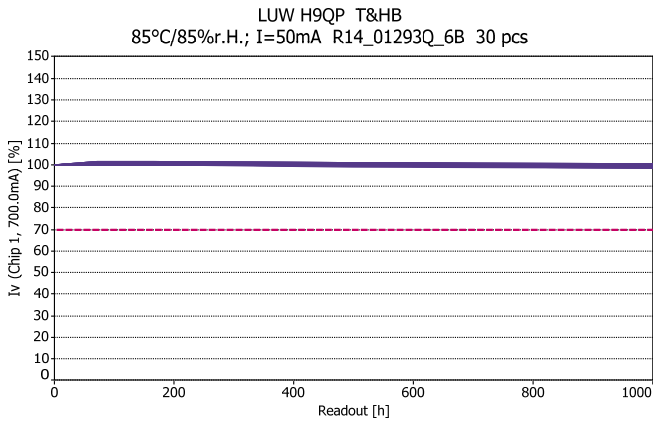
T&HB 85°C/85%Cr.H.; 50mA

Lot A



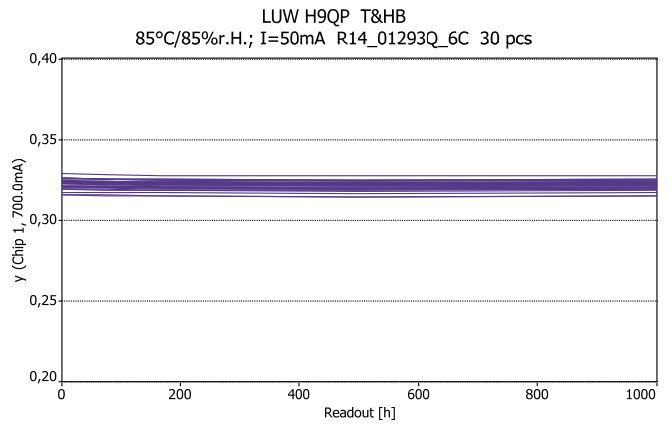
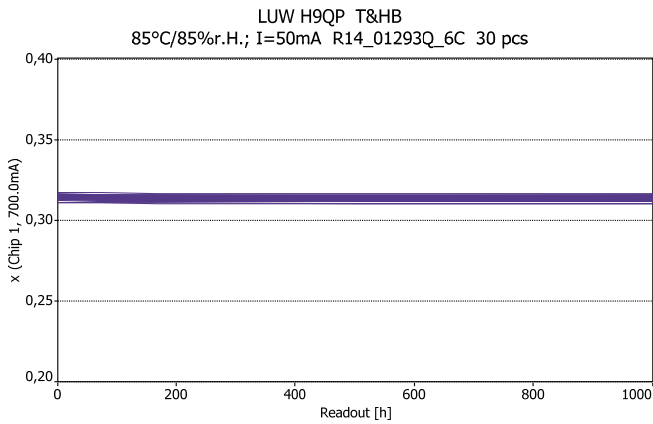
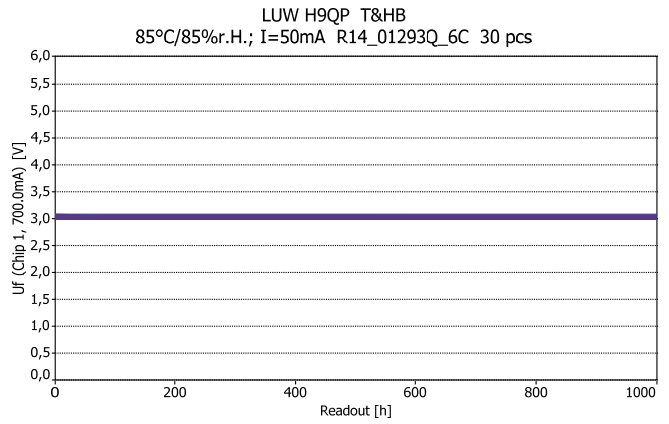
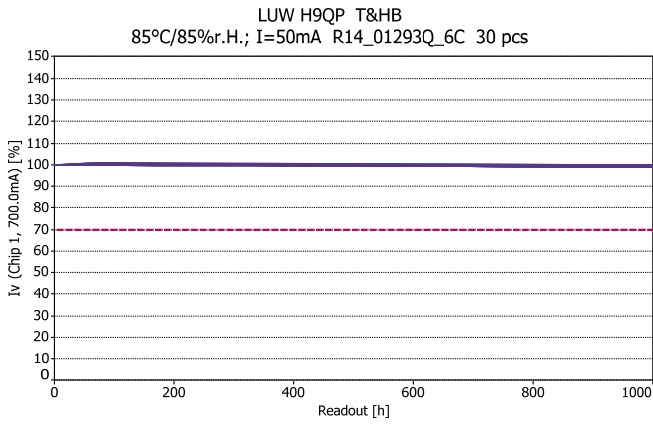
T&HB 85°C/85%Cr.H.; 50mA

Lot B



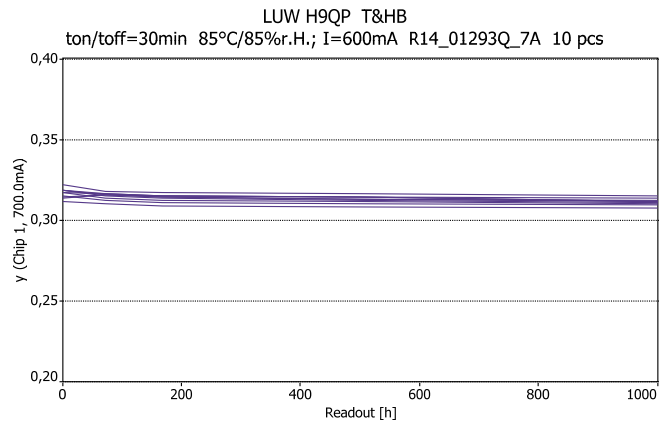
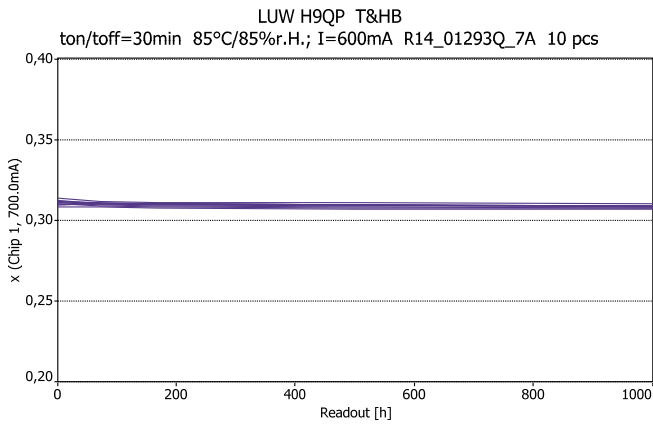
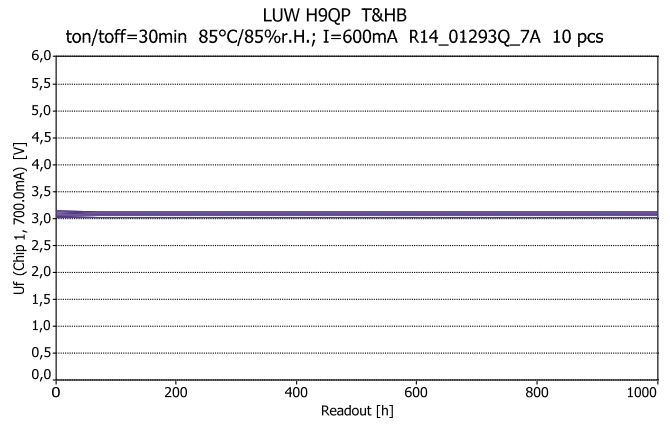
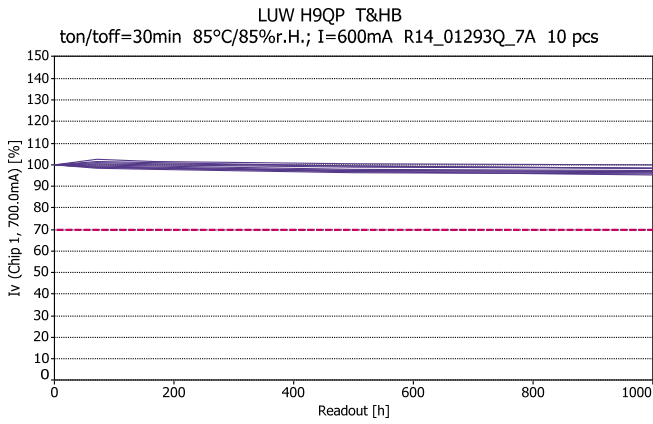
T&HB 85°C/85%Cr.H.; 50mA

Lot C



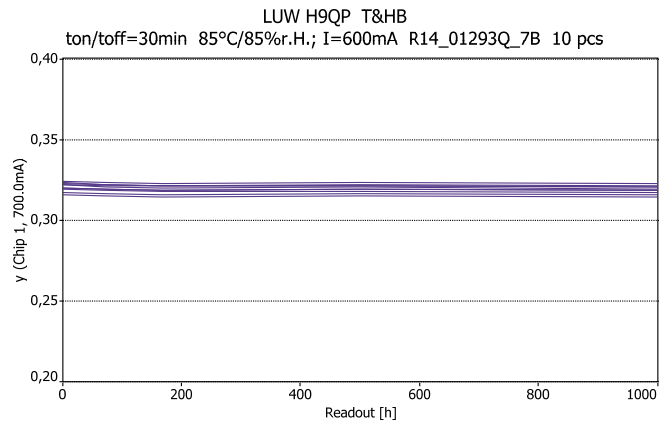
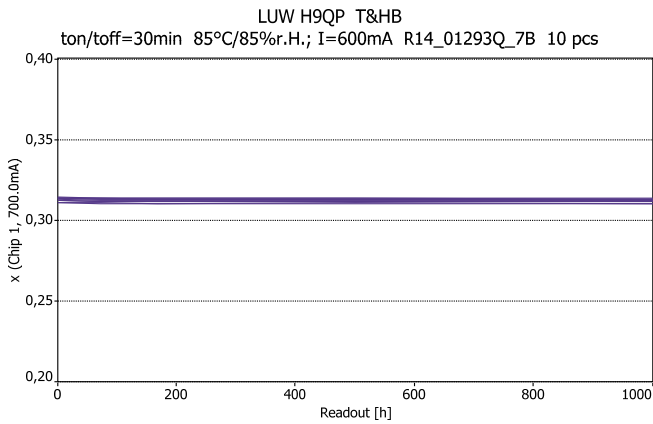
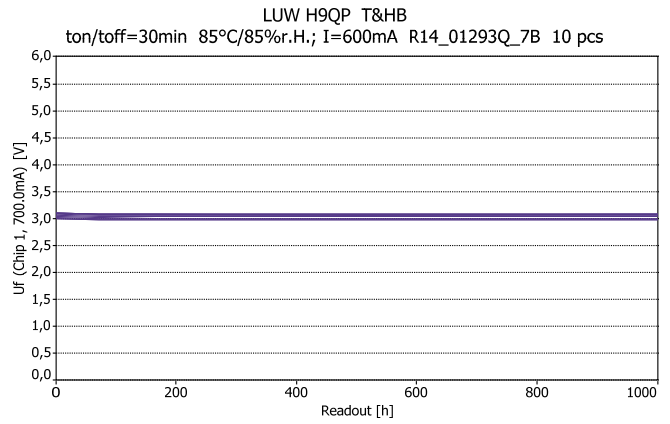
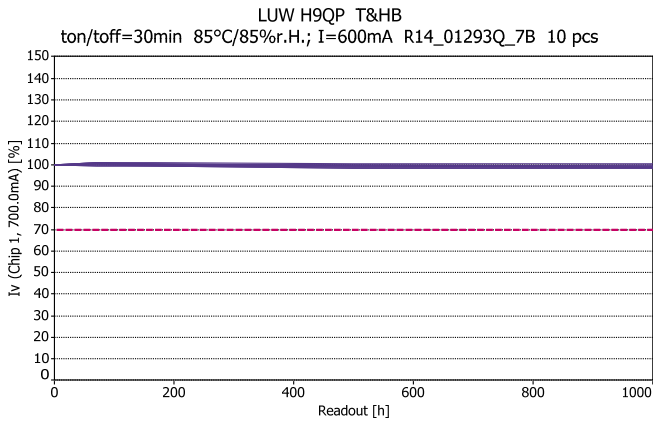
T&HB 85°C/85%Cr.H.; 600mA; 30min on/30min off

Lot A



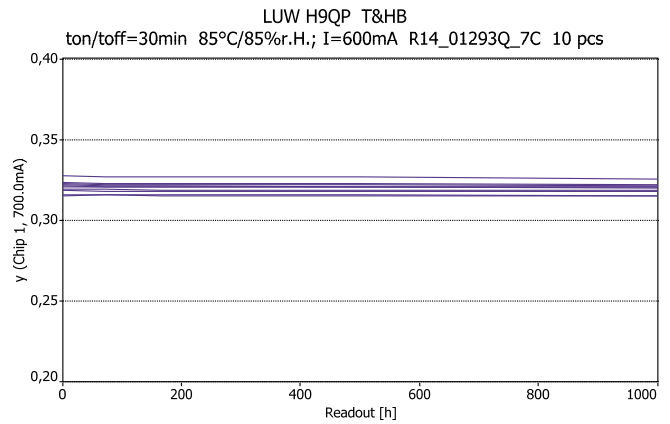
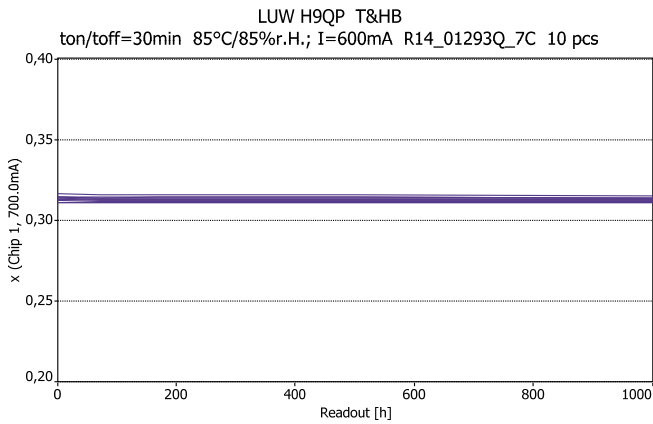
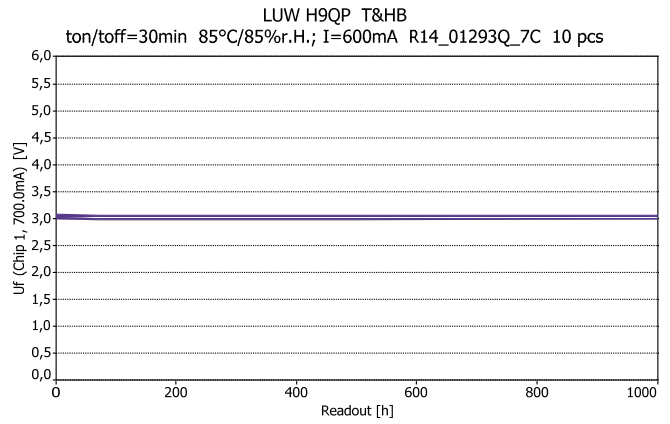
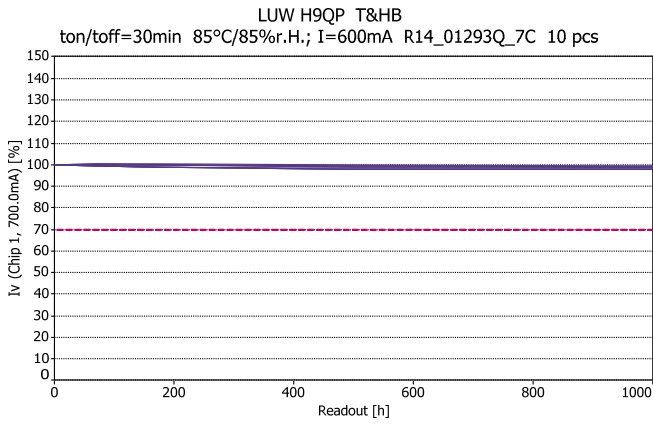
T&HB 85°C/85%Cr.H.; 600mA; 30min on/30min off

Lot B



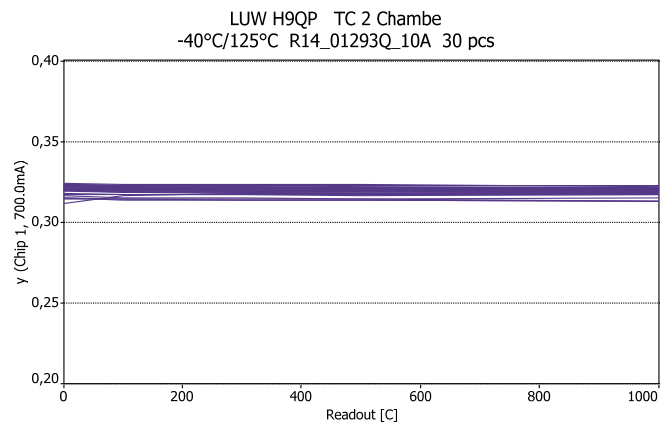
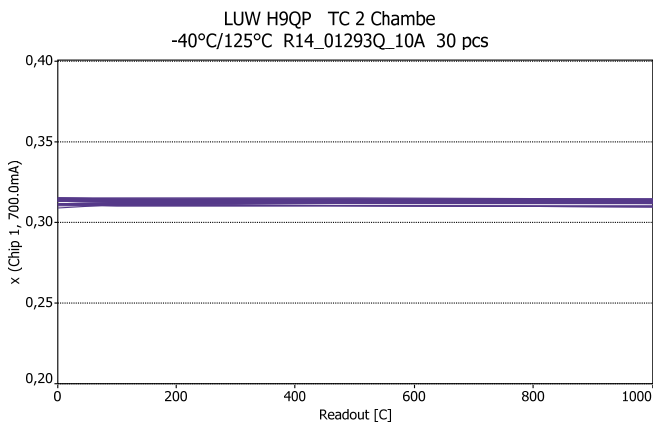
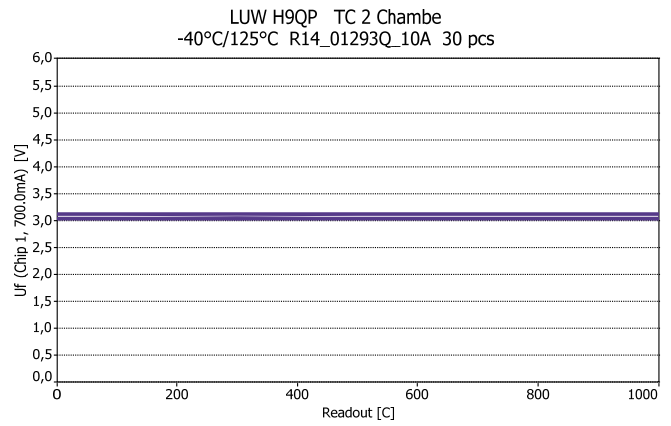
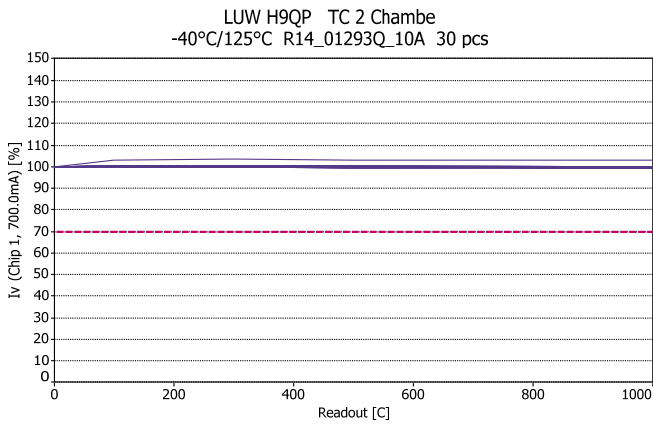
T&HB 85°C/85%Cr.H.; 600mA; 30min on/30min off

Lot C



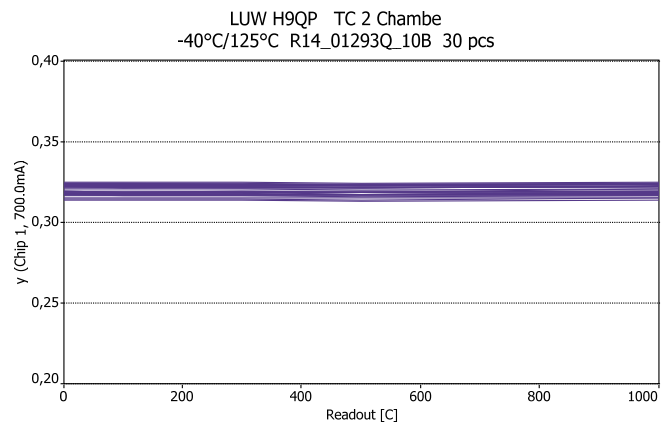
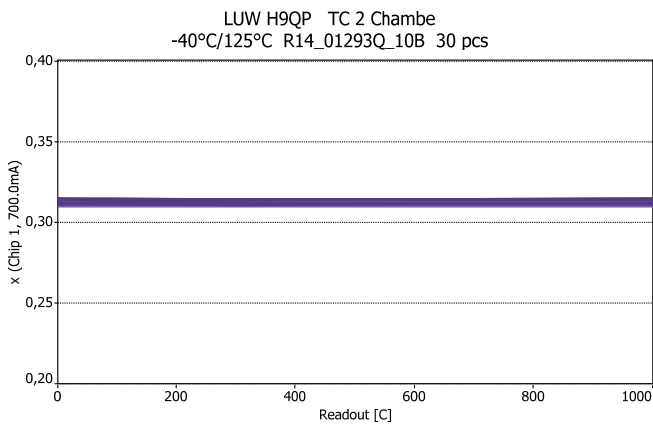
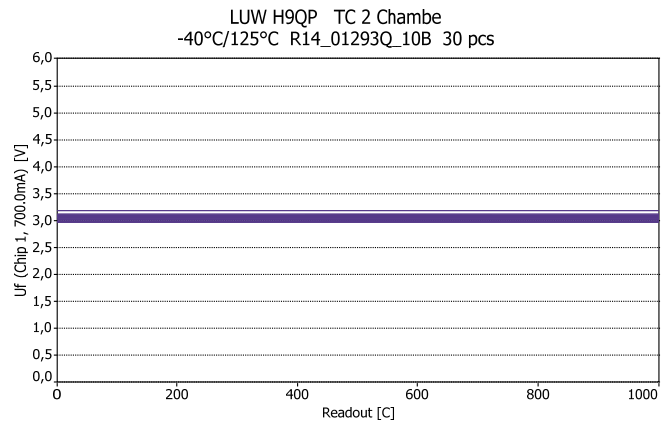
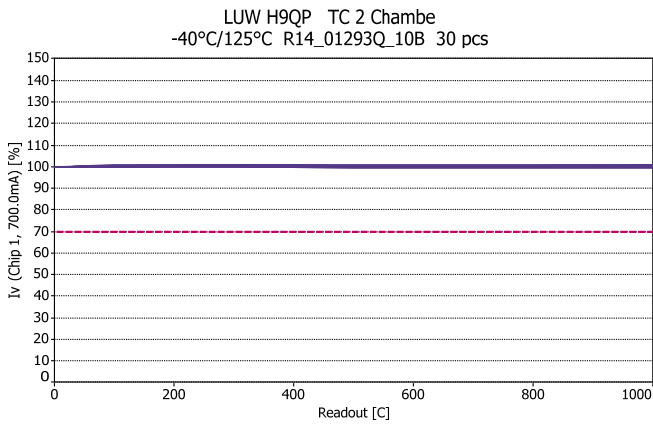
TC 2 Chamber -40/125°C

Lot A



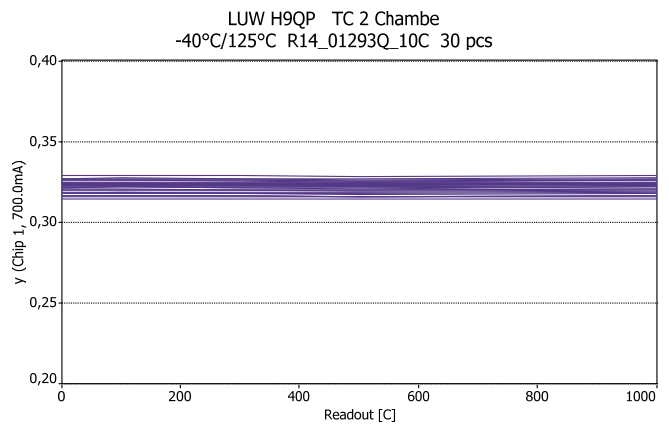
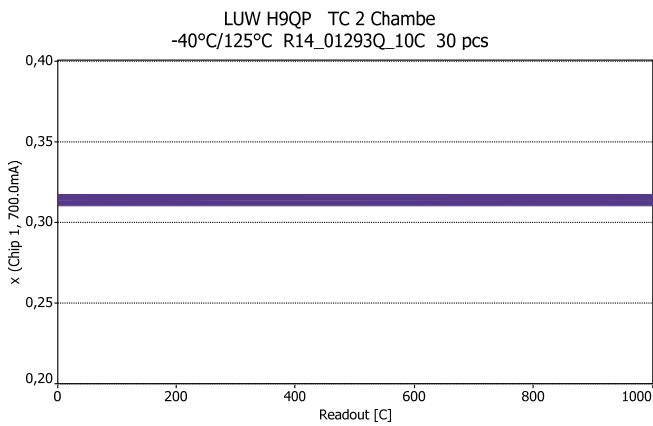
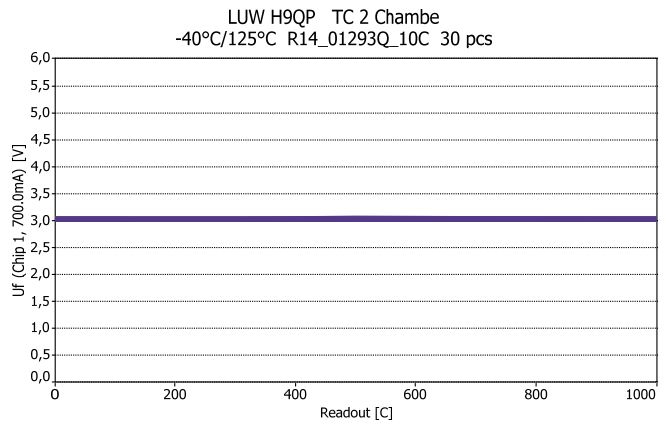
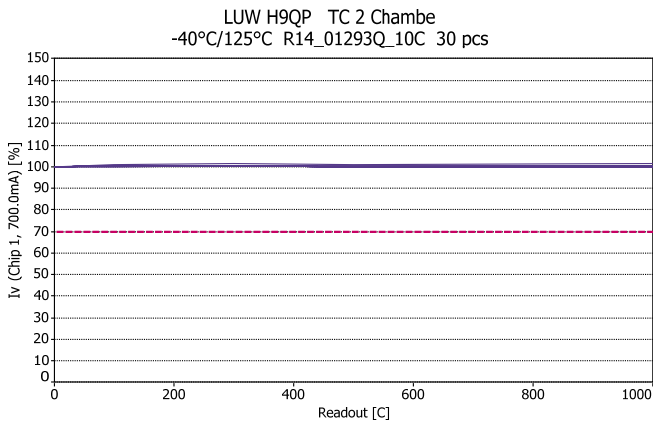
TC 2 Chamber -40/125°C

Lot B



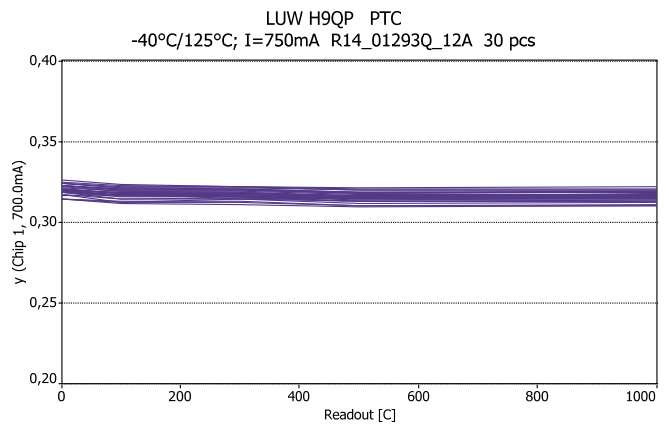
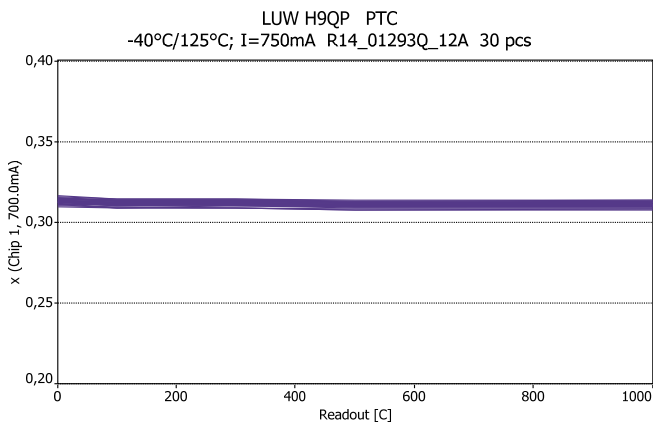
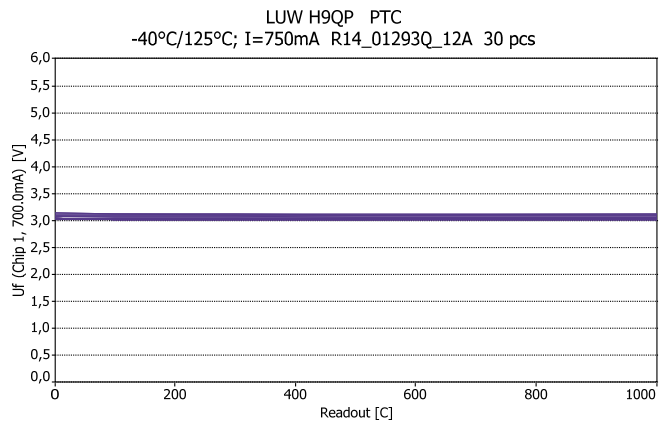
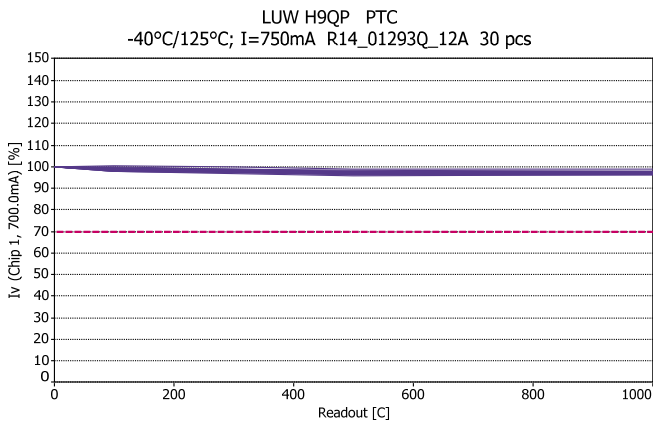
TC 2 Chamber -40/125°C

Lot C



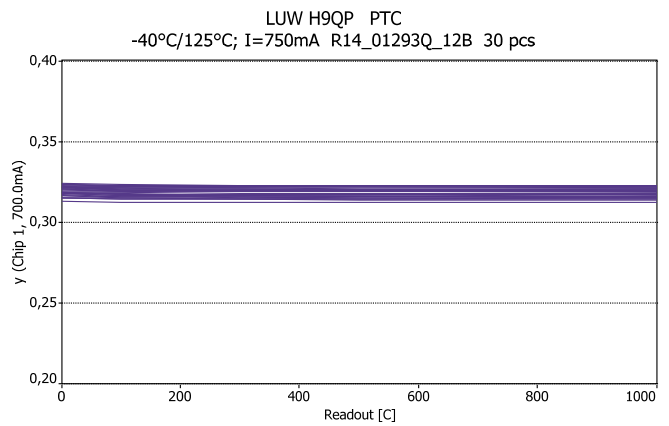
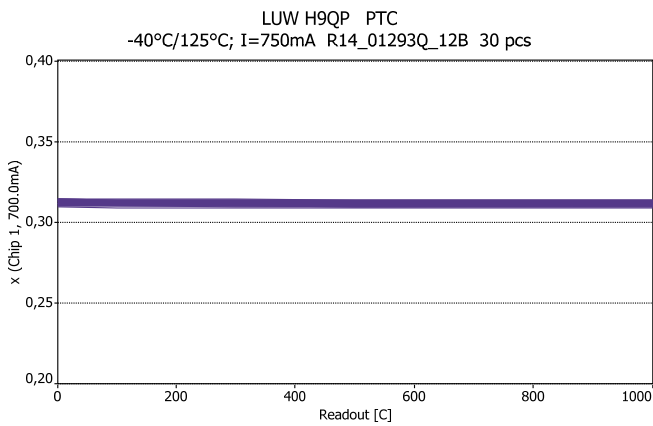
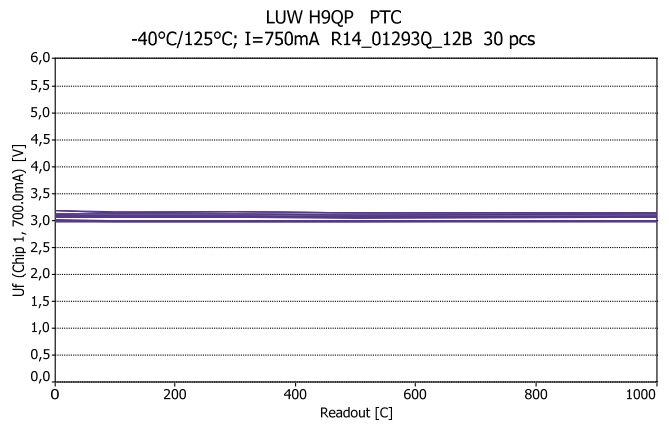
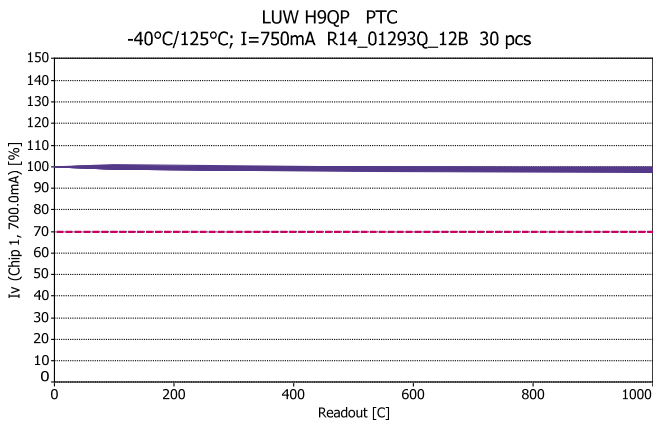
PTC -40/125°C; 750mA

Lot A



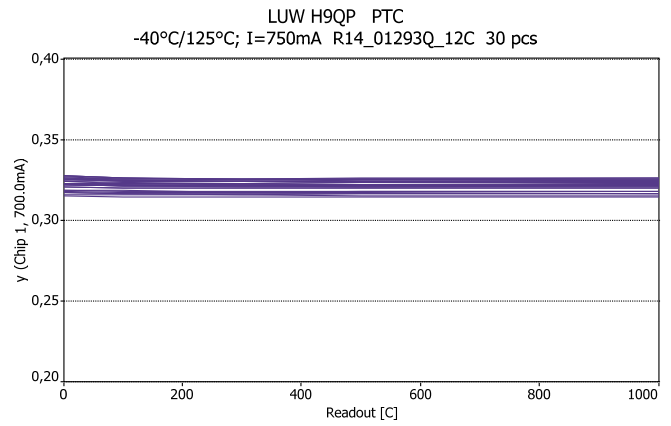
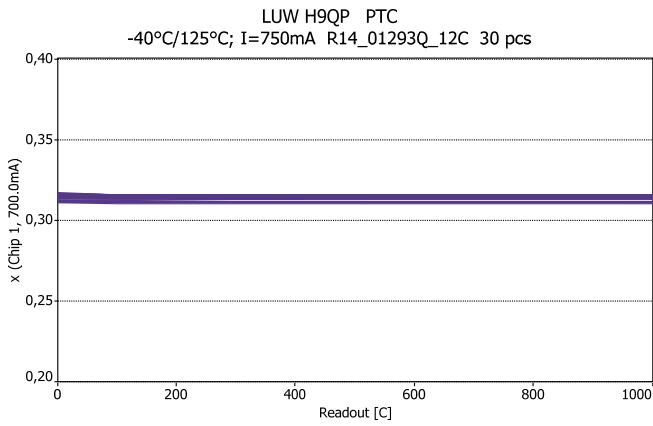
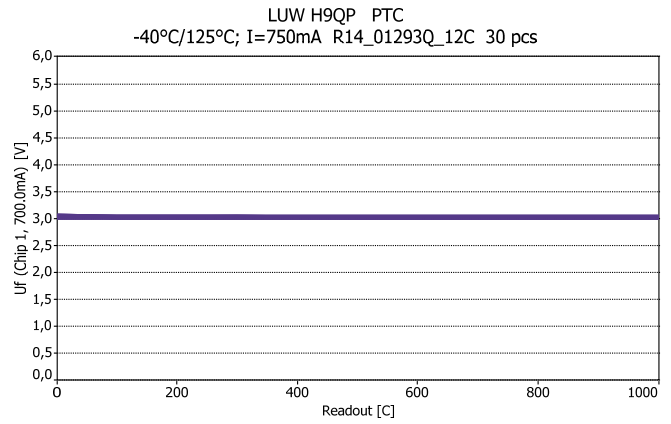
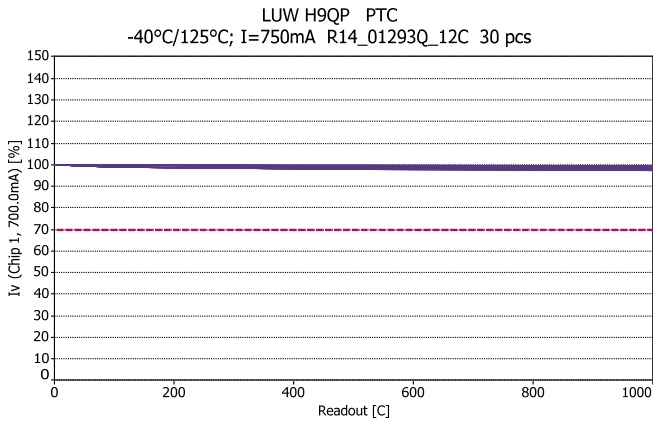
PTC -40/125°C; 750mA

Lot B



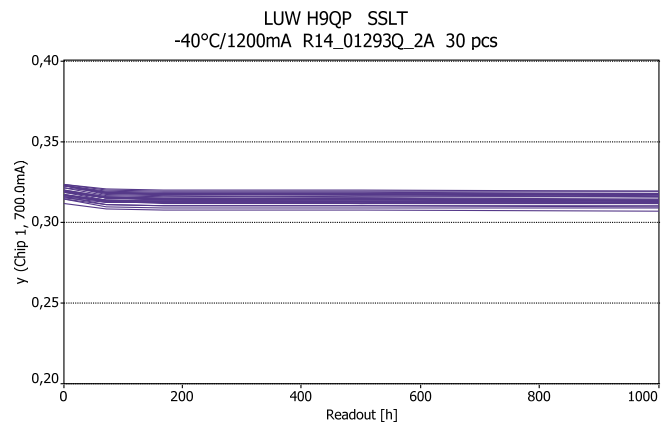
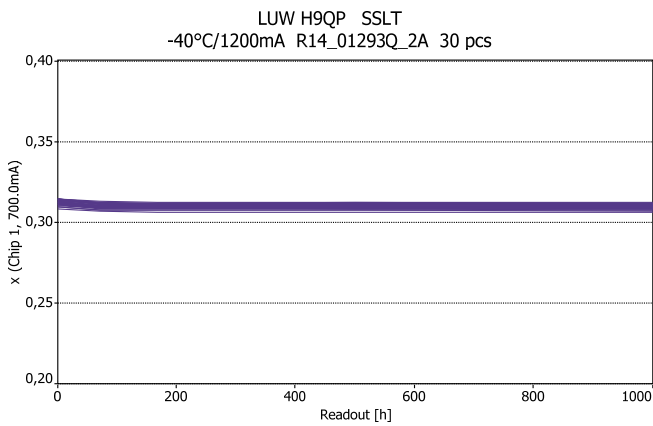
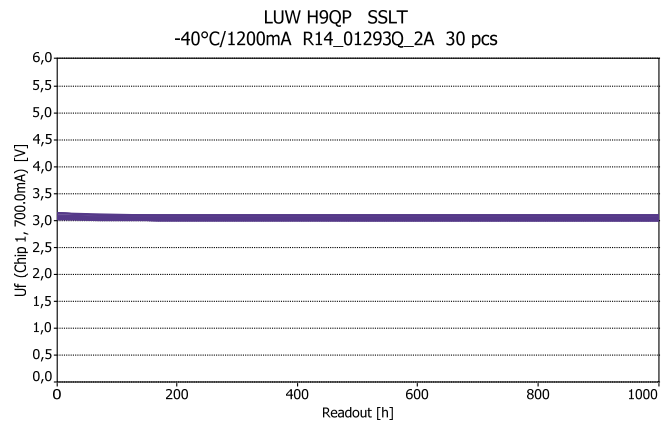
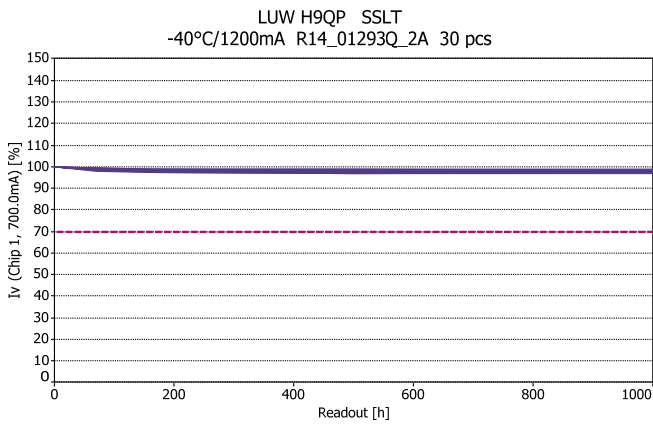
PTC -40/125°C; 750mA

Lot C



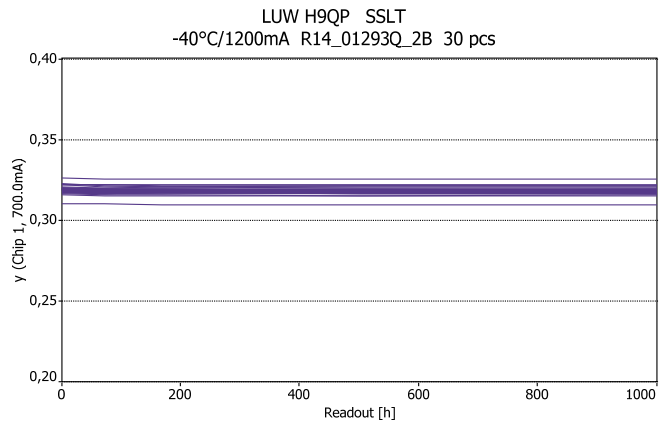
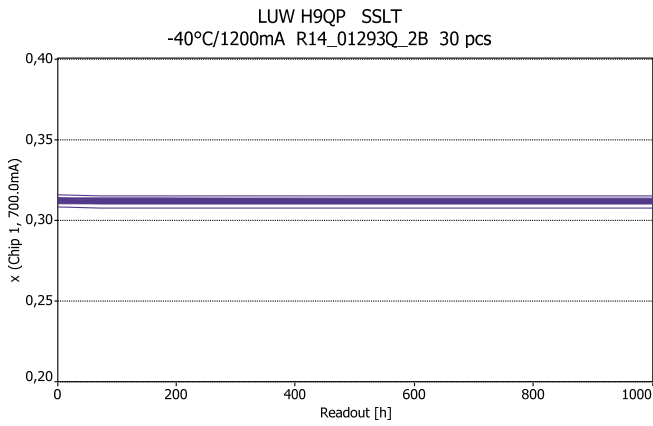
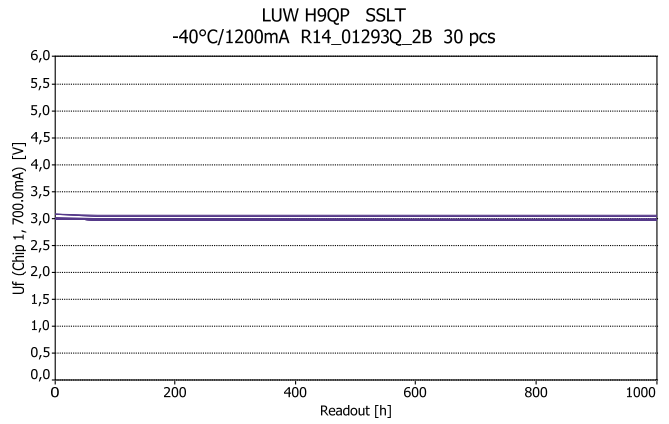
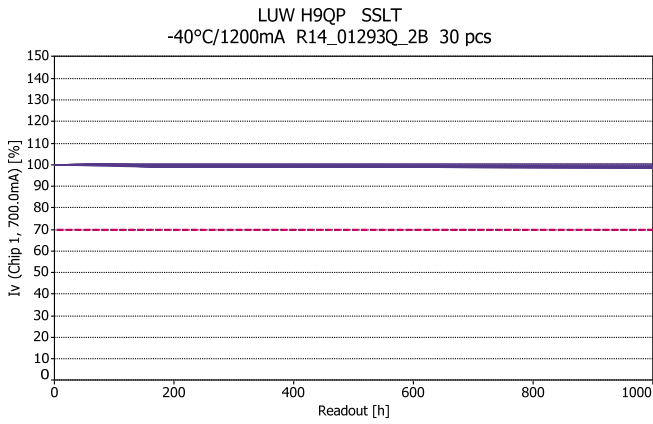
SSLT -40°C/1200mA

Lot A



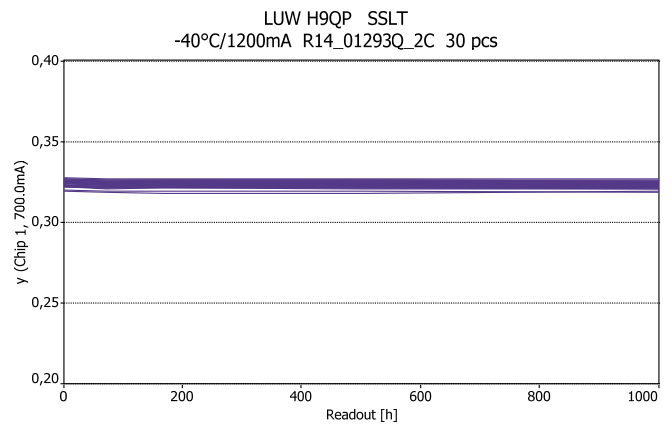
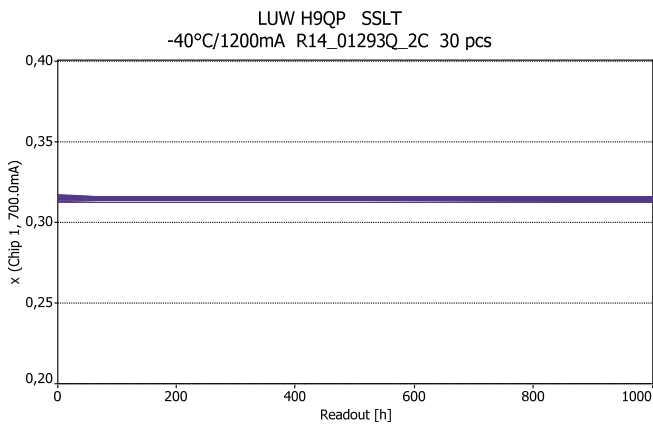
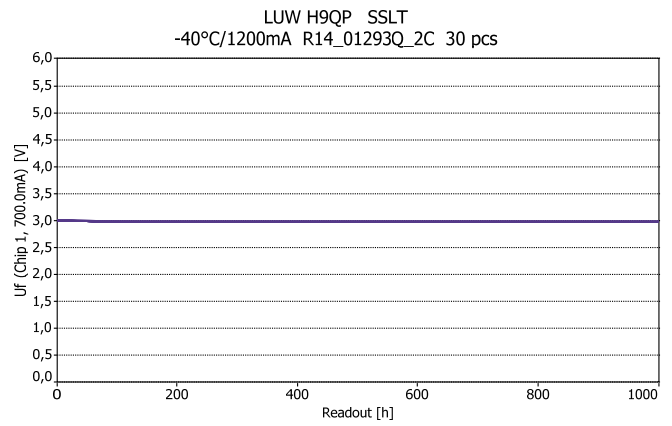
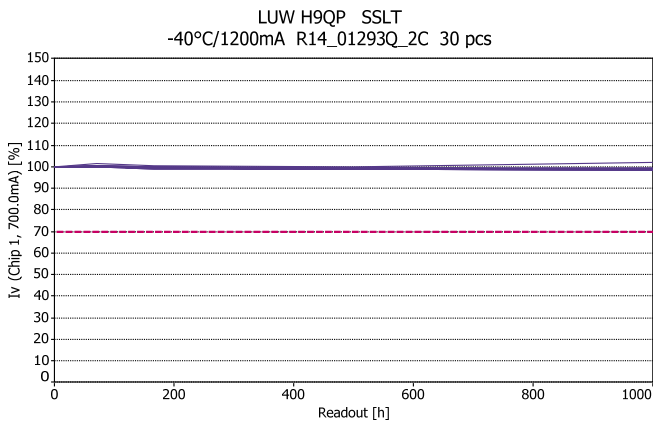
SSLT -40°C/1200mA

Lot B



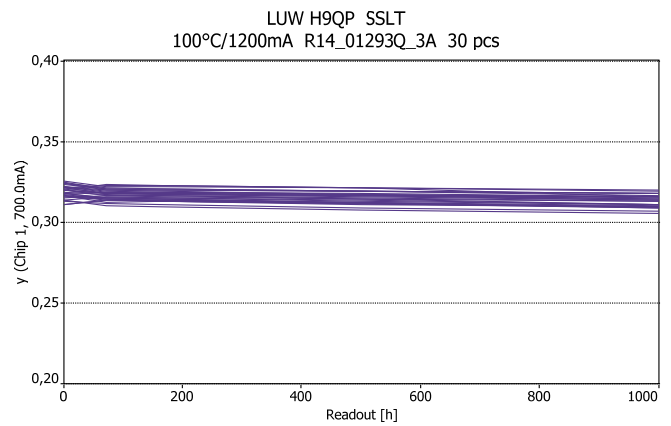
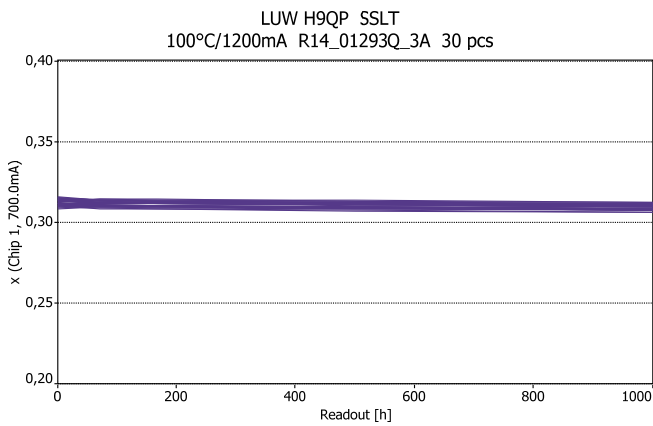
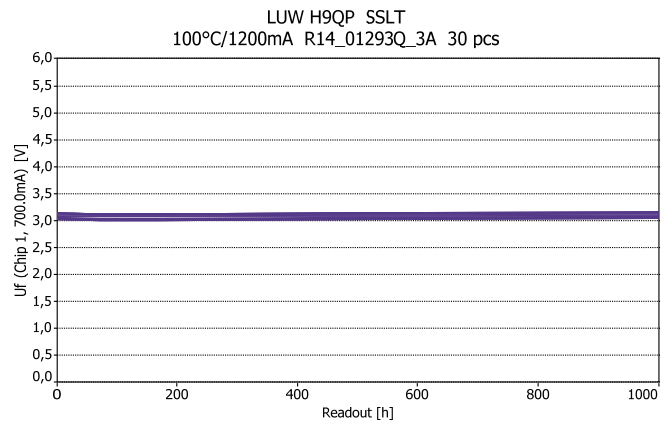
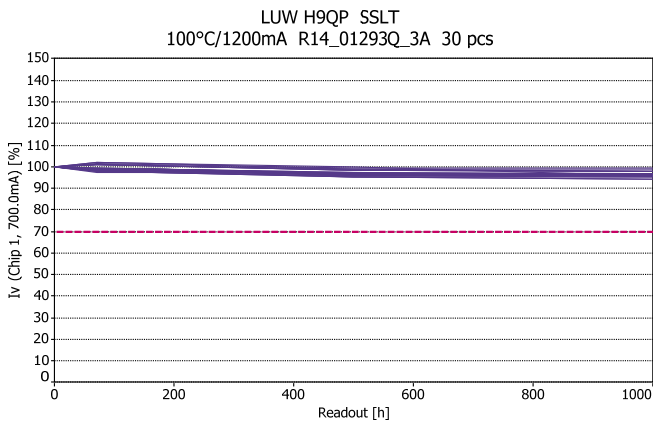
SSLT -40°C/1200mA

Lot C



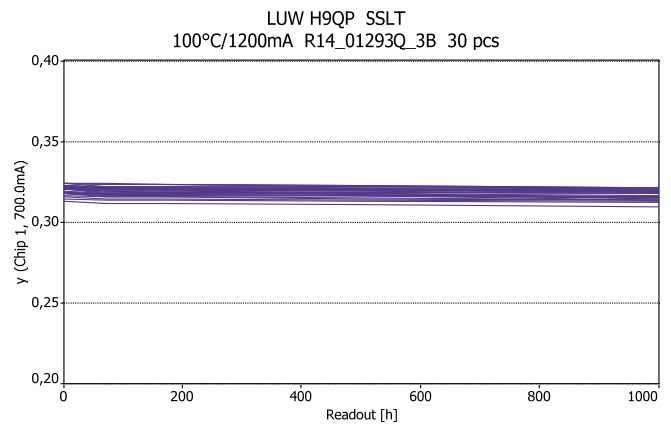
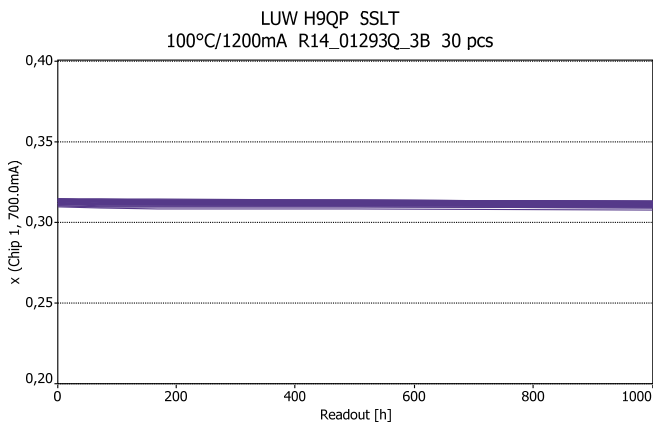
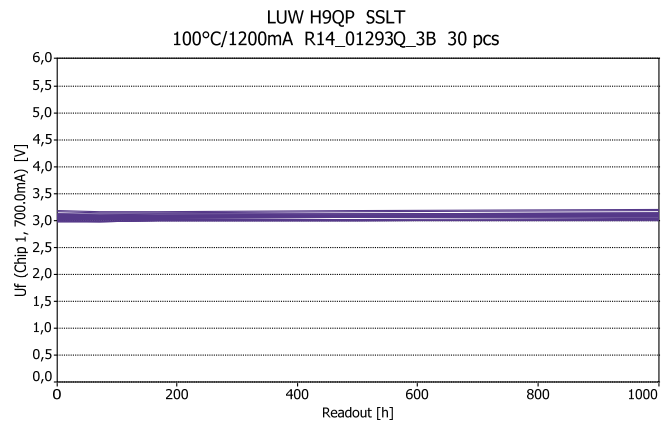
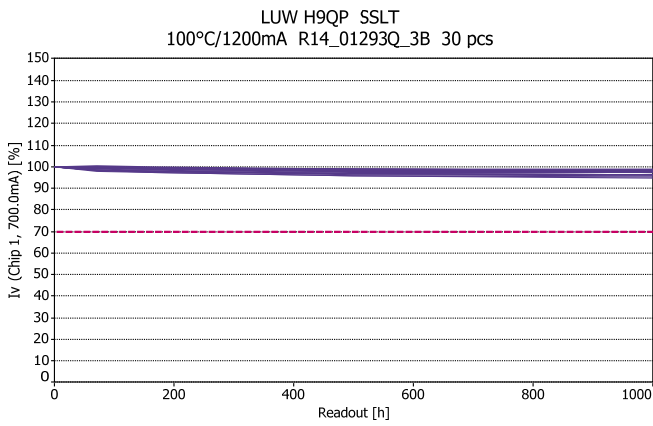
SSLT 100°C/1200mA

Lot A



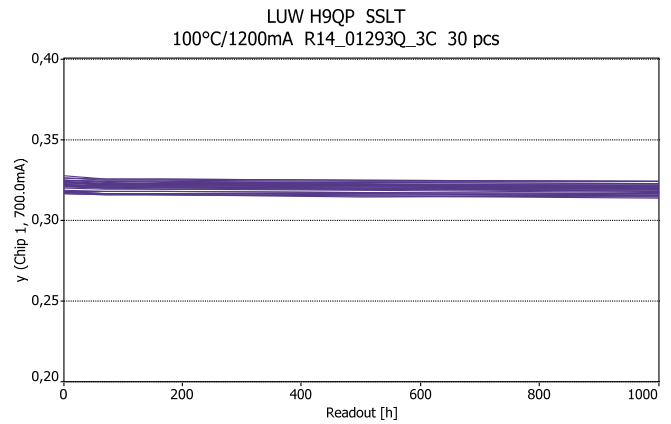
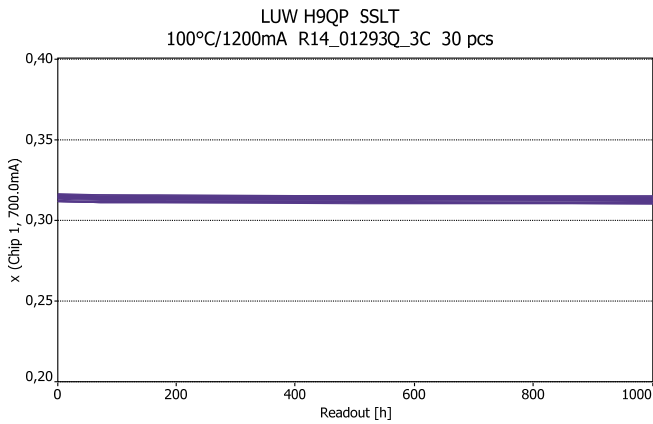
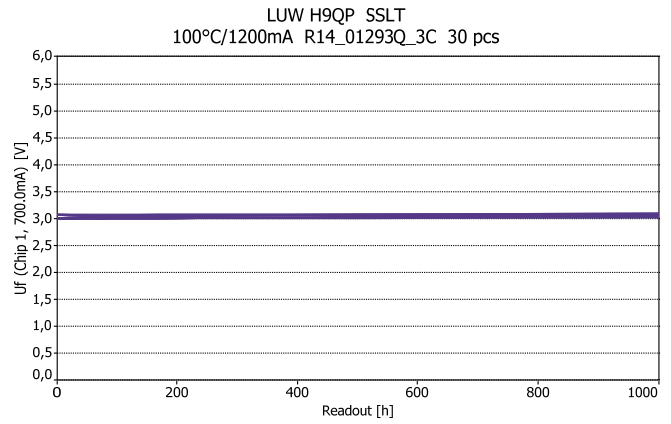
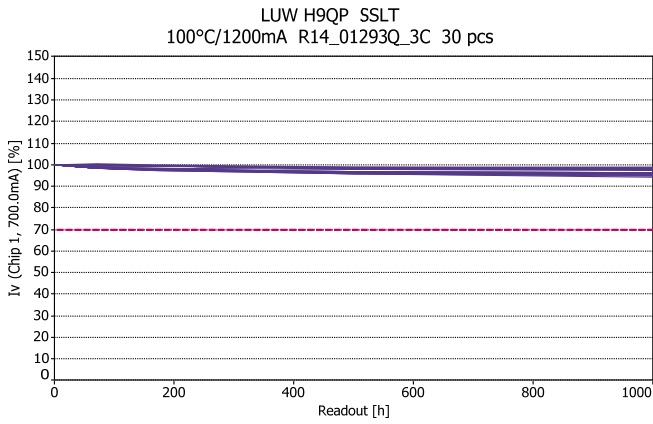
SSLT 100°C/1200mA

Lot B



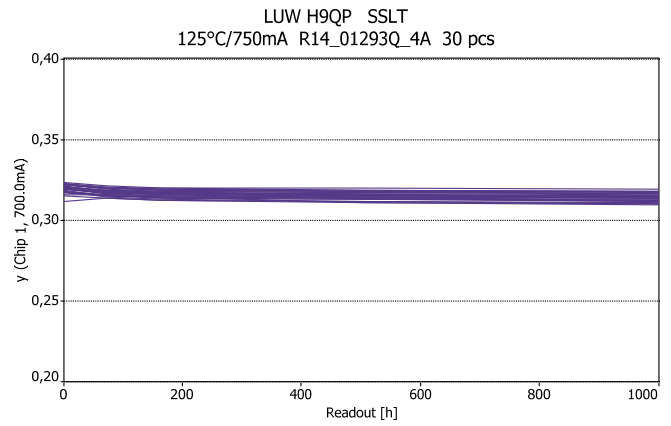
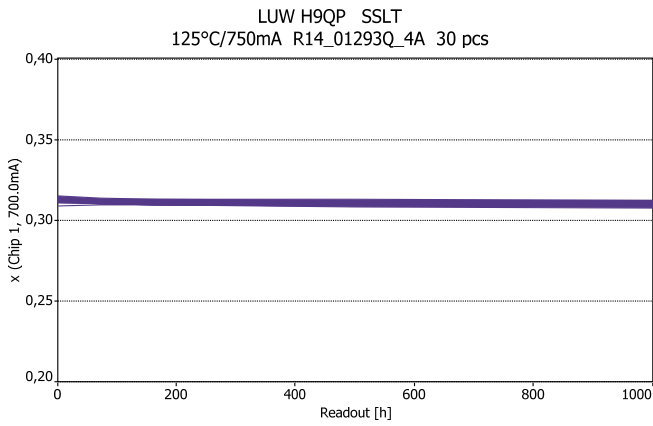
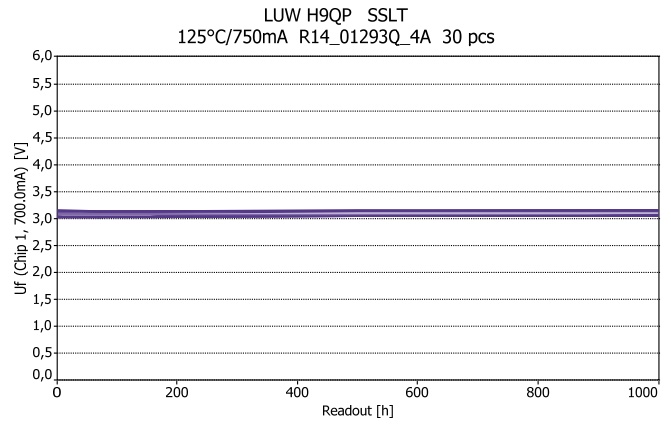
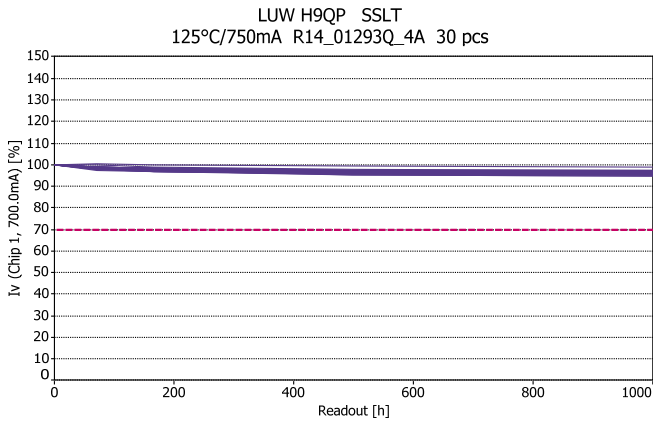
SSLT 100°C/1200mA

Lot C



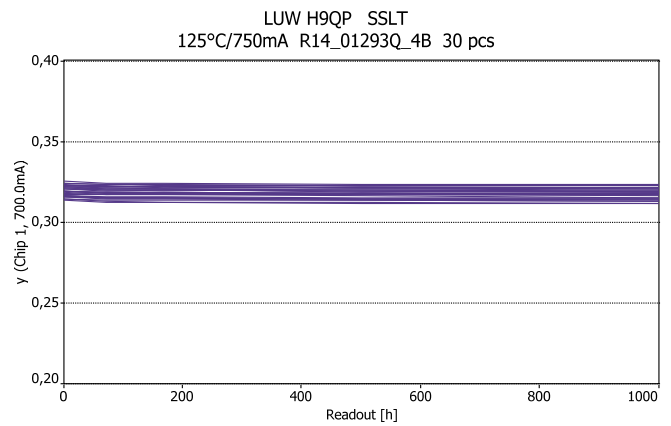
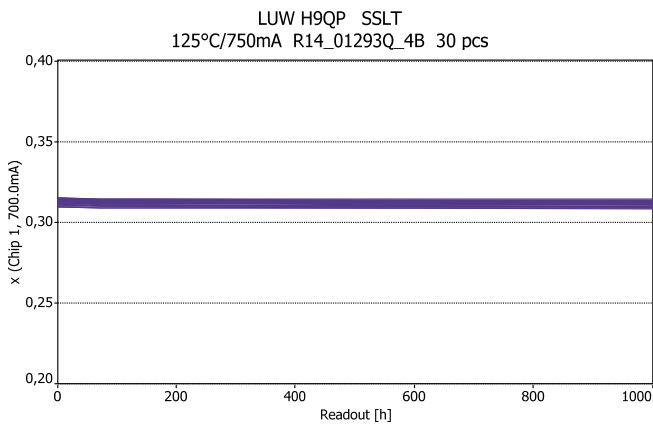
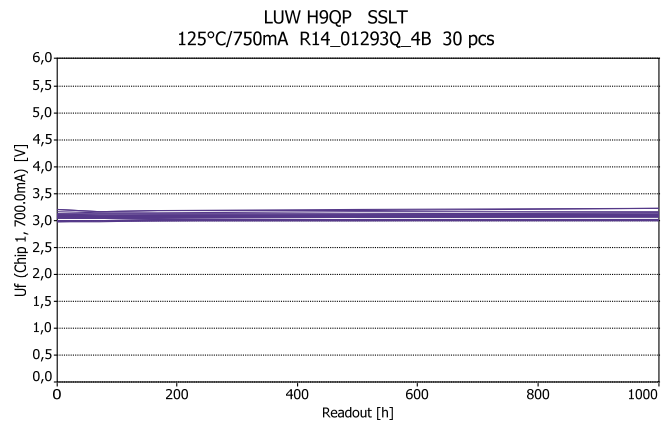
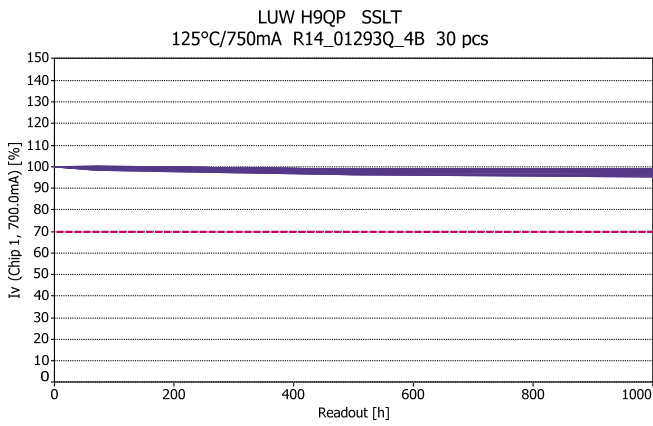
SSLT 125°C/750mA

Lot A



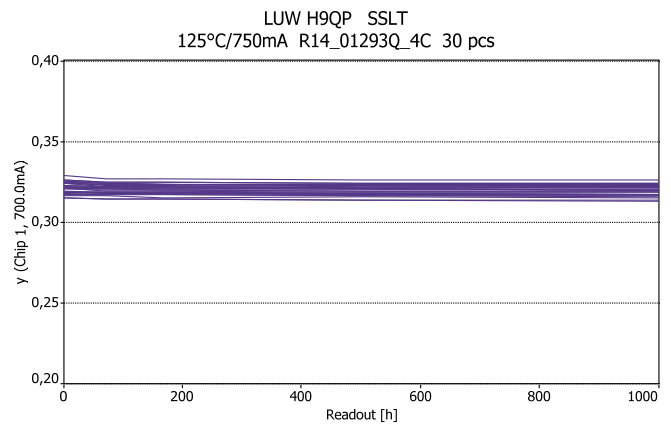
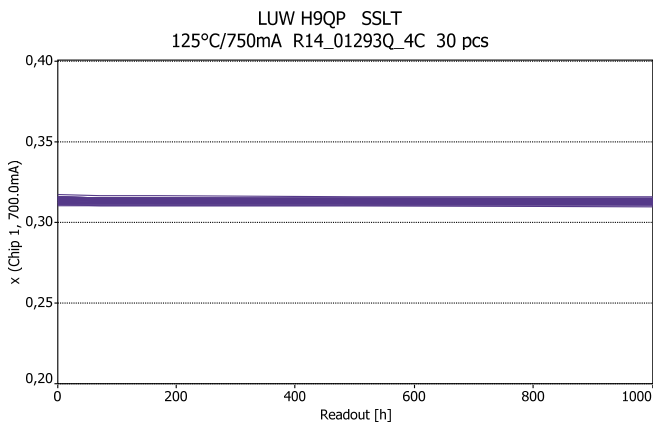
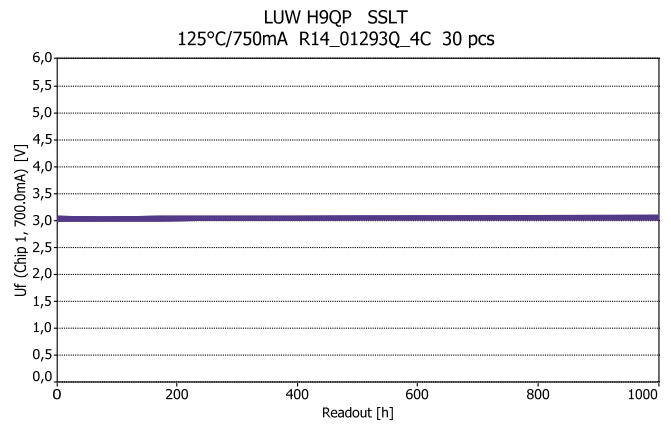
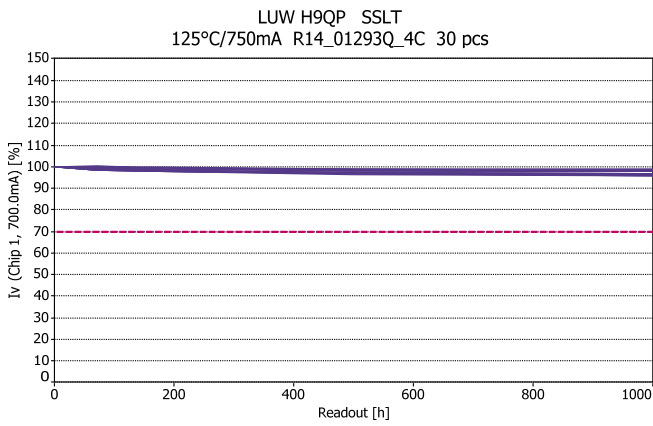
SSLT 125°C/750mA

Lot B



SSLT 125°C/750mA

Lot C



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Products Affected by Product Change Notification

Number: OS-PCN-2015-006-A

Name: General Update for OSRAM OSTAR Headlamp Pro Family

Release Date: 4/1/2015

Response Due Date: 5/4/2015

Implementation Date: 6/1/2015

<i>Product</i>	<i>QNumber</i>	<i>QNumber Description</i>	<i>Part Number</i>
LE UW D1W1 01	Q65110A8566	LE UW D1W1 01-7L5M-IM-T10-HE	LE UW D1W1 01-7L5M-IM-T10-HE
	Q65110A8591	LE UW D1W1 01-5L6M-GMKM-T01	LE UW D1W1 01-5L6M-GMKM-T01
LE UW D1W2 01	Q65110A8567	LE UW D1W2 01-5N7N-IM-T10-HE	LE UW D1W2 01-5N7N-IM-HE
	Q65110A8590	LE UW D1W2 01-7M7N-GMKM-T01	LE UW D1W2 01-7M7N-GMKM-T01
	Q65110A9400	LE UW D1W2 01-5N7N-IM-T10-ZKW	LE UW D1W2 01-5N7N-IM-T10-ZKW
	Q65110A9709	LE UW D1W2 01-5N5P-KM-T10-VAR	LE UW D1W2 01-5N5P-KM-VAR
	Q65111A0849	LE UW D1W2 01-5P-IM-T10-HE	LE UW D1W2 01-5P-IM-HE
	Q65111A0995	LE UW D1W2 01-8M8N-JM-T10-XX	LE UW D1W2 01-8M8N-JM-XX
	Q65111A4119	LE UW D1W2 01-5N6N-JM-T01-XX	LE UW D1W2 01-5N6N-JM-XX
LE UW D1W3 01	Q65110A8588	LE UW D1W3 01-7N7P-GMKM-T01	LE UW D1W3 01-7N7P-GMKM-T01
	Q65111A0570	LE UW D1W3 01-5P8P-IM-T10-HE	LE UW D1W3 01-5P8P-IM-HE
	Q65111A1793	LE UW D1W3 01-5P7P-JM-T10-VAR	LE UW D1W3 01-5P7P-JM-VAR
	Q65111A2001	LE UW D1W3 01-5P8P-IM-T10-ZKW	LE UW D1W3 01-5P8P-IM-T10-ZKW
LE UW D1W3 02	Q65110A8572	LE UW D1W3 02-N57P-I3-T01-HE	LE UW D1W3 02-N57P-I3-T01-HE
LE UW D1W3 03	Q65110A9342	LE UW D1W3 03-N58P-GM-T05-AL	LE UW D1W3 03-N58P-GM-T05-0-AL
	Q65111A0690	LE UW D1W3 03-N58P-HMIM-T05-V-AL	LE UW D1W3 03-N58P-HMIM-V-AL
	Q65111A1836	LE UW D1W3 03-N46P-HM-T05-VL	LE UW D1W3 03-N46P-HM-VL
LE UW D1W4 01	Q65110A8565	LE UW D1W4 01-7P5Q-IM-T10-HE	LE UW D1W4 01-7P5Q-IM-T10-HE
	Q65110A8593	LE UW D1W4 01-5P6Q-GMKM-T01	LE UW D1W4 01-5P6Q-GMKM-T01
	Q65111A0471	LE UW D1W4 01-8P8Q-IM-T10-ZKW	LE UW D1W4 01-8P8Q-IM-T10-ZKW
	Q65111A0669	LE UW D1W4 01-7P6Q-JM-T10-VAR	LE UW D1W4 01-7P6Q-JM-VAR
	Q65111A1452	LE UW D1W4 01-8P7Q-IM-T10-HE	LE UW D1W4 01-8P7Q-IM-HE
LE UW D1W5 01	Q65110A8589	LE UW D1W5 01-7P8Q-GMKM-T01	LE UW D1W5 01-7P8Q-GMKM-T01
	Q65111A0123	LE UW D1W5 01-5Q6R-IM-T10-ZKW	LE UW D1W5 01-5Q6R-IM-T10-ZKW
	Q65111A0218	LE UW D1W5 01-5Q8Q-IM-T10-XX	LE UW D1W5 01-5Q8Q-IM-XX
	Q65111A0729	LE UW D1W5 01-6Q6R-IM-T10-ZKW	LE UW D1W5 01-6Q6R-IM-T10-ZKW
	Q65111A5868	LE UW D1W5 01-6Q6R-IM-T10-XX	LE UW D1W5 01-6Q6R-IM-T10-XX
LE UW U1A2 01	Q65111A2089	LE UW U1A2 01-5P8P-ebvF68ebzB68-T01	LE UW U1A2 01-5P8P-ebvF68ebzB68
	Q65111A2763	LE UW U1A2 01-6P5Q-ebxD68-T10-HE	LE UW U1A2 01-6P5Q-ebxD68-HE
	Q65111A3135	LE UW U1A2 01-6P-ebxD68-T10-AL	LE UW U1A2 01-6P-ebxD68-AL
	Q65111A4246	LE UW U1A2 01-7P-ebxD68-T10-AL	LE UW U1A2 01-7P-ebxD68-L-AL
	Q65111A5102	LE UW U1A2 01-6P7P-ebxD68-T10-HE	LE UW U1A2 01-6P7P-ebxD68-HE
	Q65111A5407	LE UW U1A2 01-5P8P-ebxD68-T10	LE UW U1A2 01-5P8P-ebxD68
	Q65111A6323	LE UW U1A2 01-7P6Q-ebxD68-T10-HE	LE UW U1A2 01-7P6Q-ebxD68-HE
	Q65111A2088	LE UW U1A2 01-7P6Q-ebxD68-T10-HE	LE UW U1A2 01-7P6Q-ebxD68-HE
LE UW U1A3 01	Q65111A2088	LE UW U1A3 01-8P8Q-ebvF68ebzB68-T01	LE UW U1A3 01-8P8Q-ebvF68ebzB68
	Q65111A2511	LE UW U1A3 01-5Q7Q-ebxD68-T10-HE	LE UW U1A3 01-5Q7Q-ebxD68-HE
	Q65111A3021	LE UW U1A3 01-6Q7Q-ebxD68-T10-HE	LE UW U1A3 01-6Q7Q-ebxD68-HE
	Q65111A3134	LE UW U1A3 01-6Q-ebxD68-T10-AL	LE UW U1A3 01-6Q-ebxD68-AL
	Q65111A4111	LE UW U1A3 01-5Q8Q-ebxD68-T10	LE UW U1A3 01-5Q8Q-ebxD68-T10
LE UW U1A4 01	Q65111A2087	LE UW U1A4 01-7Q6R-ebvF68ebzB68-T01	LE UW U1A4 01-7Q6R-ebvF68ebzB68

<i>Product</i>	<i>QNumber</i>	<i>QNumber Description</i>	<i>Part Number</i>
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	Q65111A4110	LE UW U1A4 01-8Q6R-ebxD68-T10	LE UW U1A4 01-8Q6R-ebxD68-T10
	Q65111A5101	LE UW U1A4 01-5R7R-ebxD68-T10-HE	LE UW U1A4 01-5R7R-ebxD68-HE
	Q65111A5406	LE UW U1A4 01-7Q6R-ebxD68-T10	LE UW U1A4 01-7Q6R-ebxD68
	Q65111A5612	LE UW U1A4 01-5R-ebxD68-T10-AL	LE UW U1A4 01-5R-ebxD68-AL
	Q65111A6620	LE UW U1A4 01-5R6R-ebxD68-T10-XX	LE UW U1A4 01-5R6R-ebxD68-T10-XX
	Q65111A6689	LE UW U1A4 01-5R8R-EBXD68-T10-XX	LE UW U1A4 01-5R8R-EBXD68-T10-XX
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	Q65111A4245	LE UW U1A5 01-7R-ebxD68-T10-AL	LE UW U1A5 01-7R-ebxD68-AL
	Q65111A4470	LE UW U1A5 01-6R5S-ebxD68ebzB68-T10	LE UW U1A5 01-6R5S-ebxD68ebzB68-T10
	Q65111A4592	LE UW U1A5 01-6R7R-ebzB68-T10-XX	LE UW U1A5 01-6R7R-ebzB68-T10-XX
	Q65111A5100	LE UW U1A5 01-R78R-ebxD68-T10-HE	LE UW U1A5 01-R78R-ebxD68-HE
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