Co.,Ltd

4MChange permission application sheet／Answer sheet Seiko Instruments Inc.

Application sheet		Application NO:	18-L002E	
Product (parts) name:	CPH3225A	Date of application:	Apr.-02-2018	
Product (parts) code:		Section:		
Content of change: Changing the shape of the ceramic package		Superintend Section / Quality assurance Group	Planning Section / Engineering Section	
		approval	charge	approval	charge
1.MAN, 2.MACHINE, 3.METHOD, (4.MATERIAL), 5.Others ( )		18.4.02 水	18.4.02 鈴木(忠)	技術 18.4.02 尾形	小野寺 '18.4.02 学史

Application reason:
Changing package shape by changing production line of ceramic package

Content of application:
Since the material of the package will be discontinued, the production line will be changed by switching to the equivalent item. For this reason, the appearance of the CPH 3225 A is partly changed. (See attached drawings) There is no influence on characteristics. There is no influence on environmental chemical substance regulation such as RoHS, REACH etc. due to package change. (Same contents as current product)

Discrimination method at first delivery
To identify by manufacturing lot-number.

Execution schedule	September 2018	Sample	Available
First Delivery schedule		Quality confirmation data	Available

Answer book	Date of receipt: / Answer Date:	No.: / Charge section:

【Processing route】: Seiko Instruments Inc. → Customer → Seiko Instruments Inc.

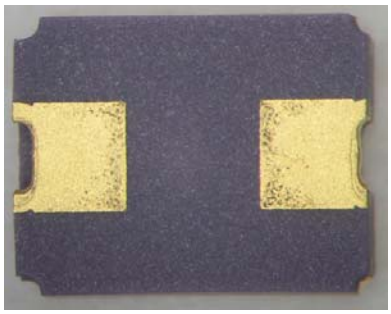
< Additional remark matter(Condition of examination result and demand and approval etc.) >

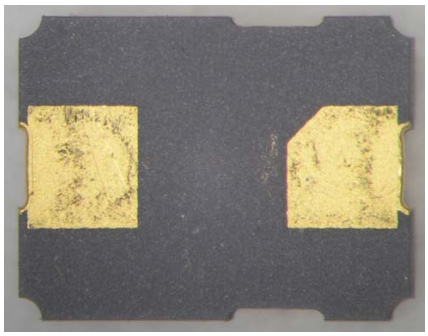
< Notes etc. at deliveries >

	Judgment	Date: / Approval sign
	Permission / **Rejection** (Please circle "Permission or "Rejection")	

Number : 10000690

< Example of shape change of appearance>

Current appearance	
Surface	Buck surface
	

Appearance after changing	
Surface	Buck surface
	

CPH3225A

SII

Reliability Data(Current case/New Case)

13-Mar-2018

1. Charge-Discharge Characteristics
2. Charge-Discharge Cycle Characteristics
3. Charge time Characteristics
4. Discharge current Characteristics
5. Temperature Characteristics
6. Float Charge Characteristics
7. High Temperature High Humidity Storage Characteristics
8. Leak Current

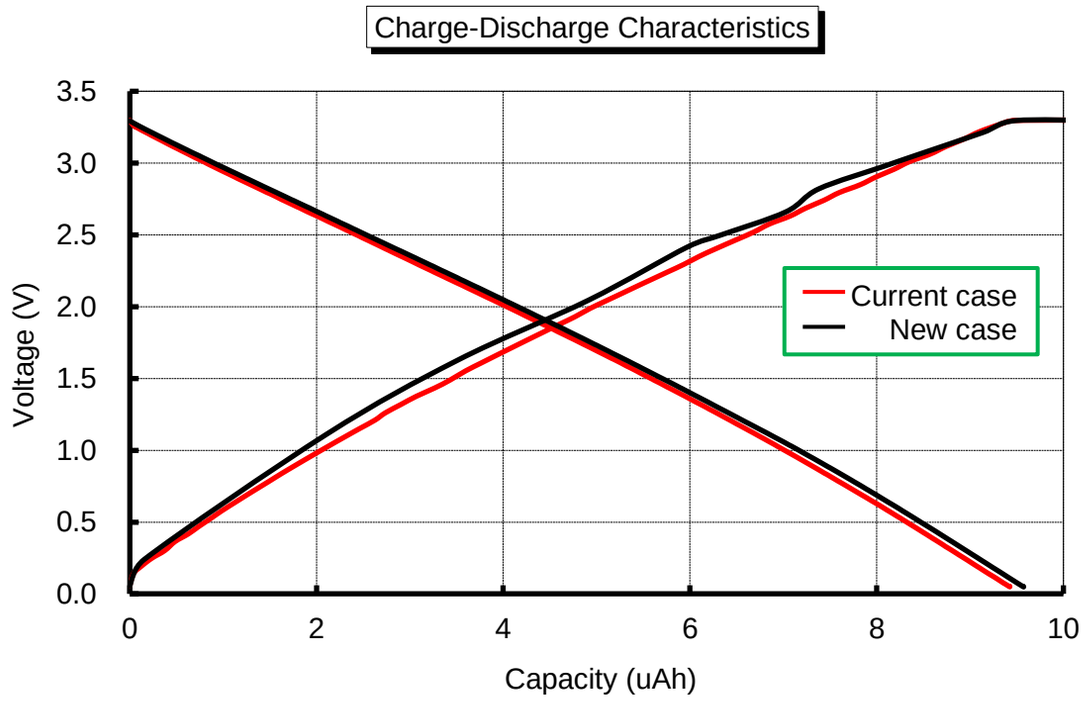
CPH3225A

1.Charge-Discharge Characteristics

13-Mar-2018

[Charge-Discharge Condition]

Charge	CC / CV	3.3V 1mA 120min, RT
Discharge	CC	5uA, cov.=0V



*Data are not guaranteed but reference values.

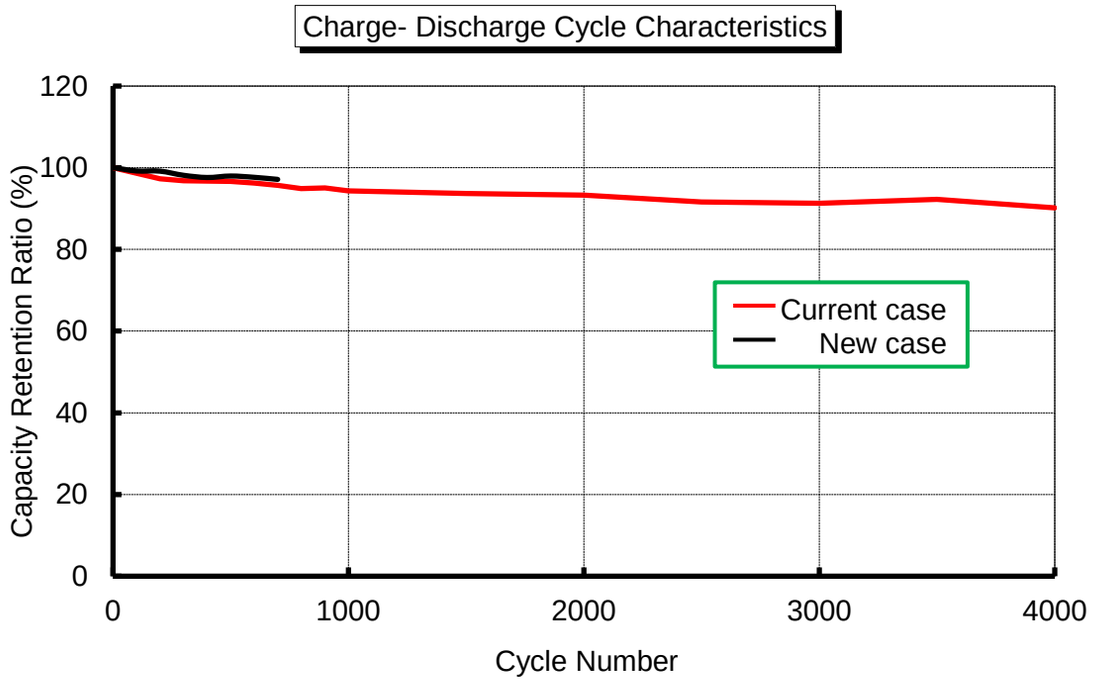
CPH3225A

2.Charge-Discharge Cycle Characteristics

13-Mar-2018

[Charge-Discharge Condition]

Charge	CC / CV	3.3V 1mA 120min, RT
Discharge	CC	5uA, cov.=2.0V



*Data are not guaranteed but reference values.

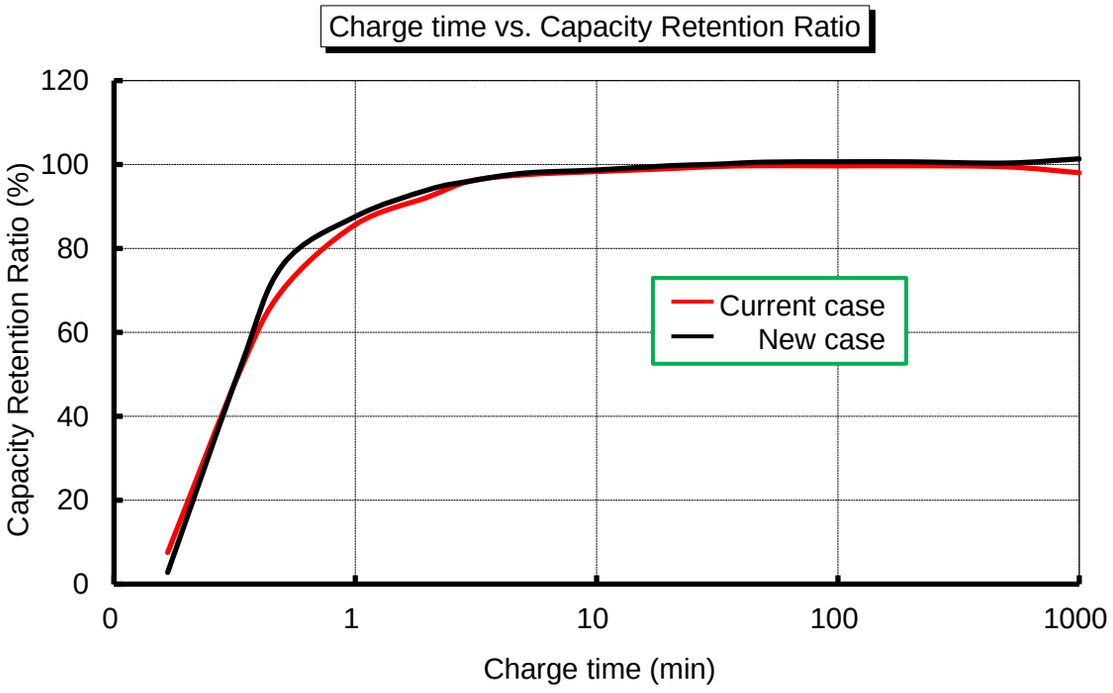
CPH3225A

3.Charge time Characteristics

13-Mar-2018

[Charge-Discharge Condition]

Charge	CC / CV	3.3V, 10mA, *min, RT
Discharge	CC	5uA, cov.=2.0V



*Data are not guaranteed but reference values.

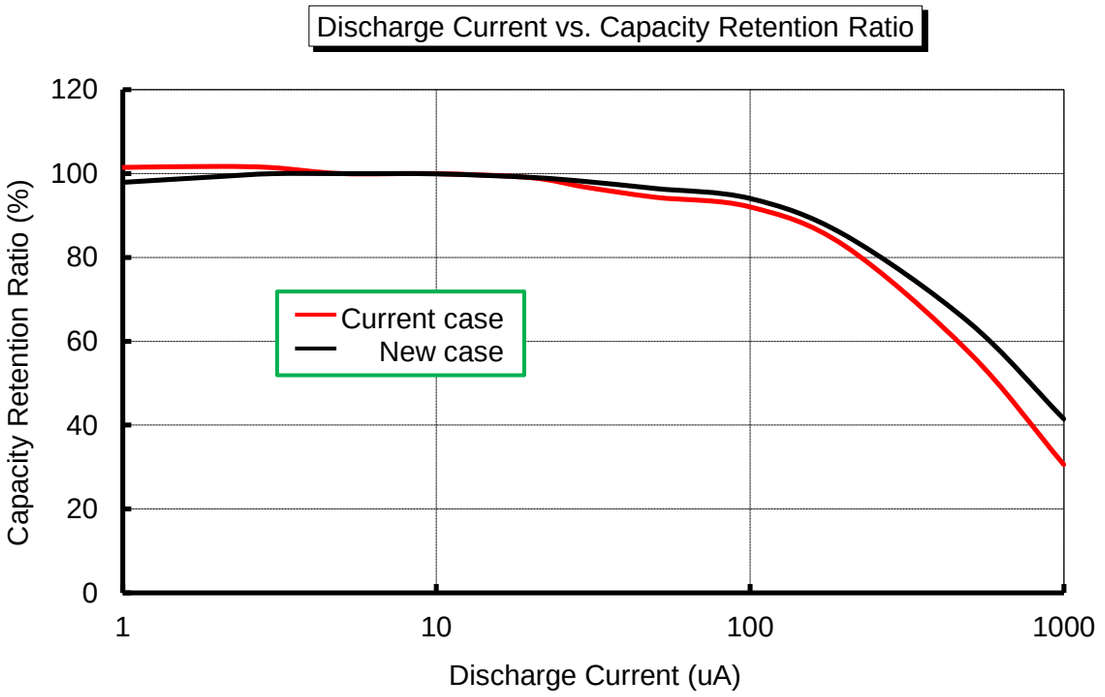
CPH3225A

4.Discharge current Characteristics

13-Mar-2018

[Charge-Discharge Condition]

Charge	CC / CV	3.3V, 10mA, 120min, RT
Discharge	CC	*uA, cov.=2.0V



*Please note the aged deterioration when you use this capacitor by a big current.
*Data are not guaranteed but reference values.

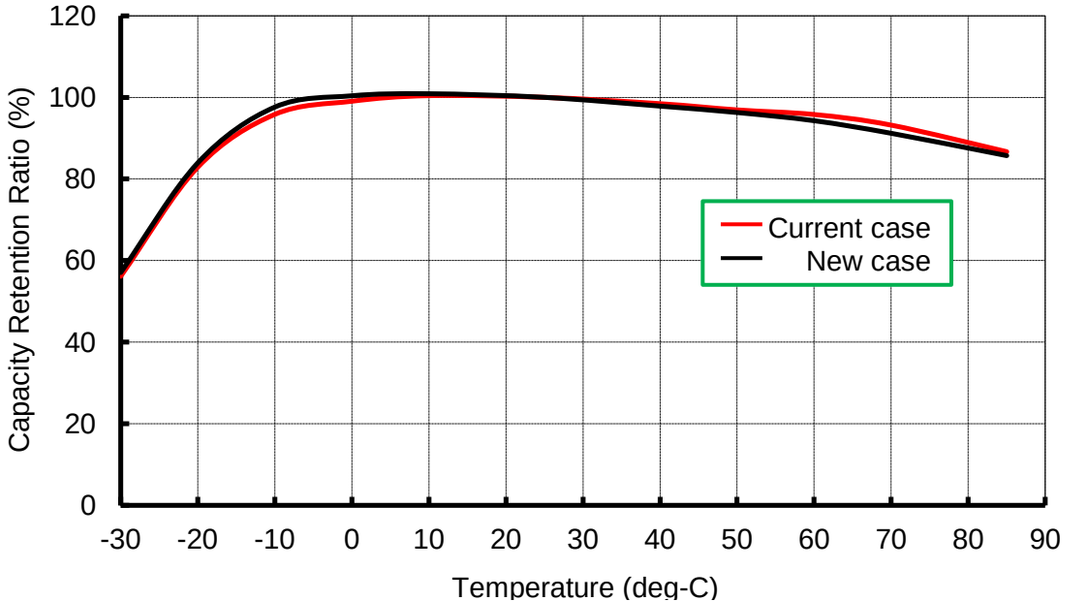
5.Temperature Characteristics

13-Mar-2018

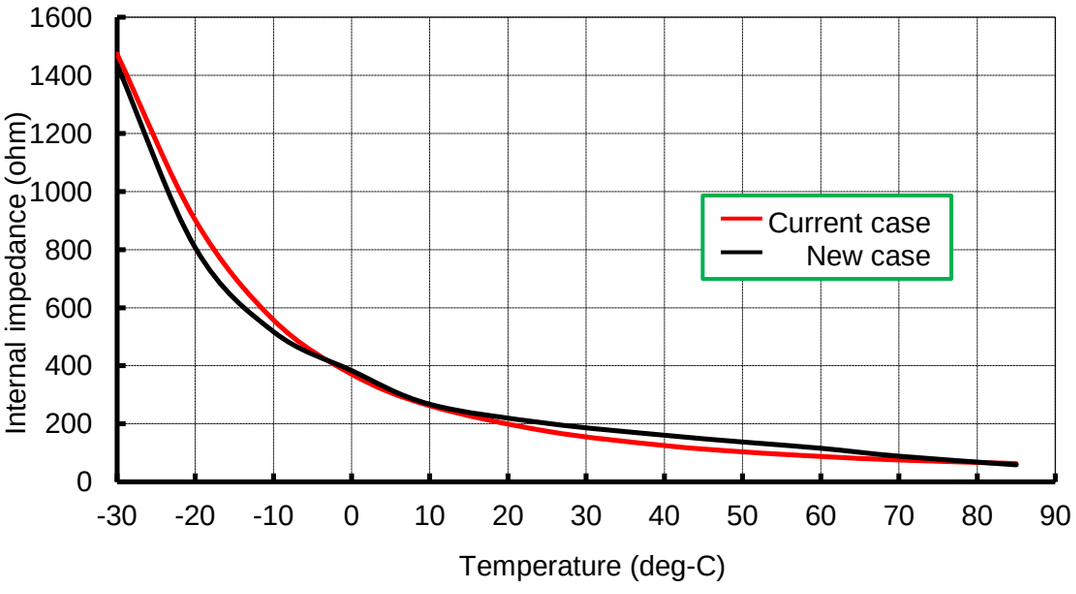
[Charge-Discharge Condition]

Charge	CC / CV	3.3V, 1mA, 120min
Discharge	CC	5uA, cov.=2.0V at each temp.

Temperature vs. Capacity Retention Ratio



Temperature vs. Internal impedance



* Internal impedance measured at 1kHz A.C.

*Data are not guaranteed but reference values.

CPH3225A

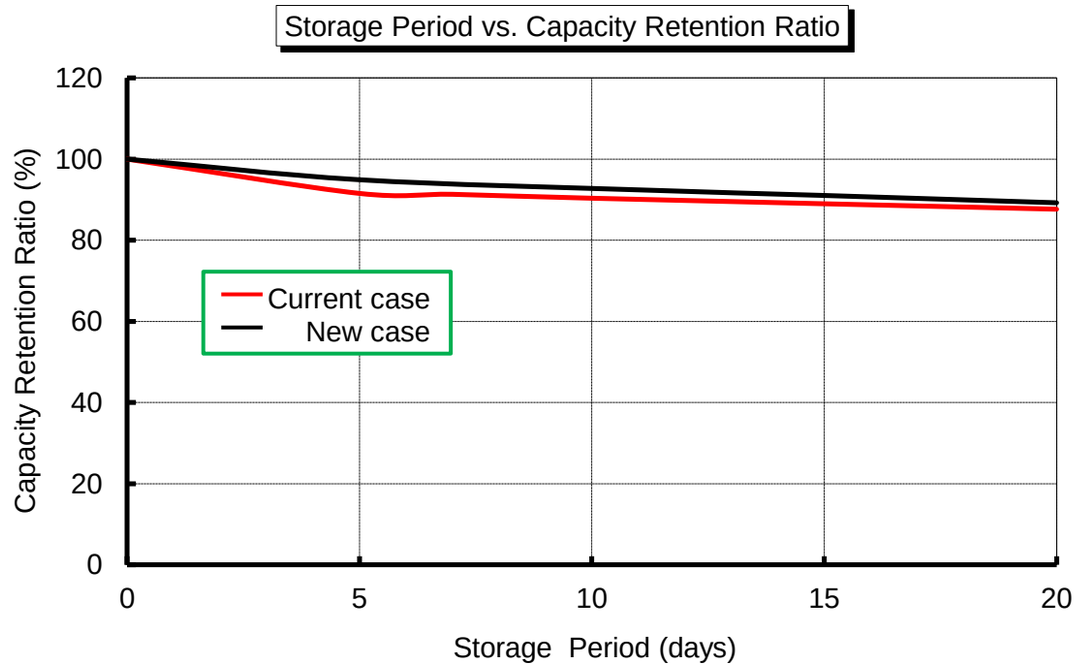
6. Float Charge Characteristics

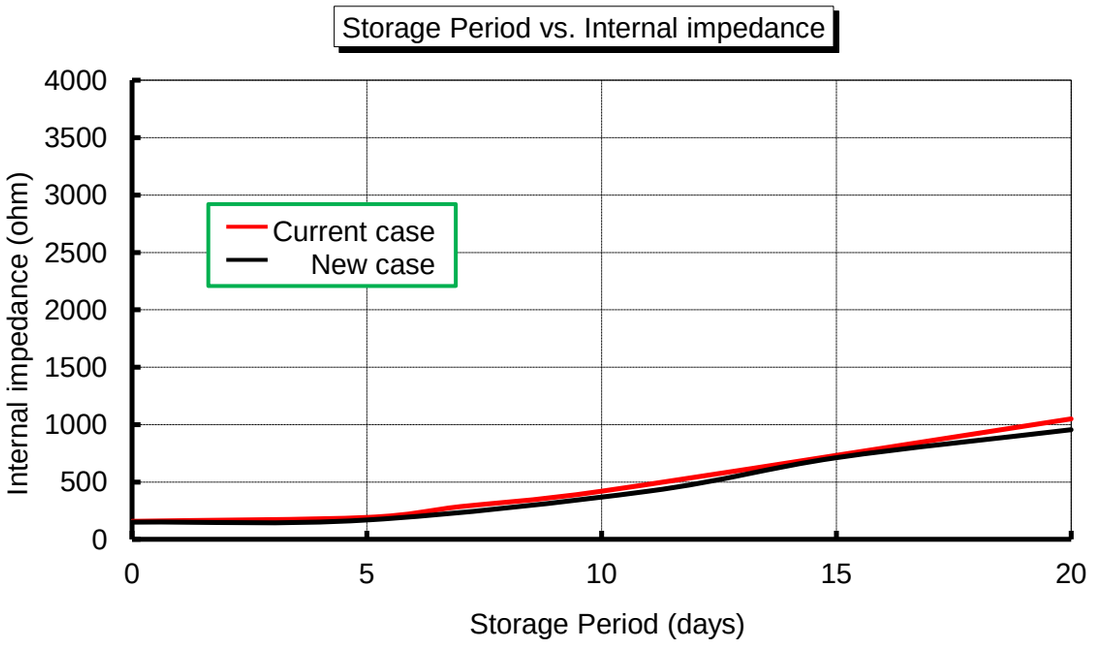
13-Mar-2018

[Storage Condition] 60deg.-C, 3.3V Impressed

[Charge-Discharge Condition]

Charge	CC / CV	3.3V, 1mA, 120min
Discharge	CC	5uA, cov.=2.0V





* Internal impedance measured at 1kHz A.C.

*Data are not guaranteed but reference values.

CPH3225A

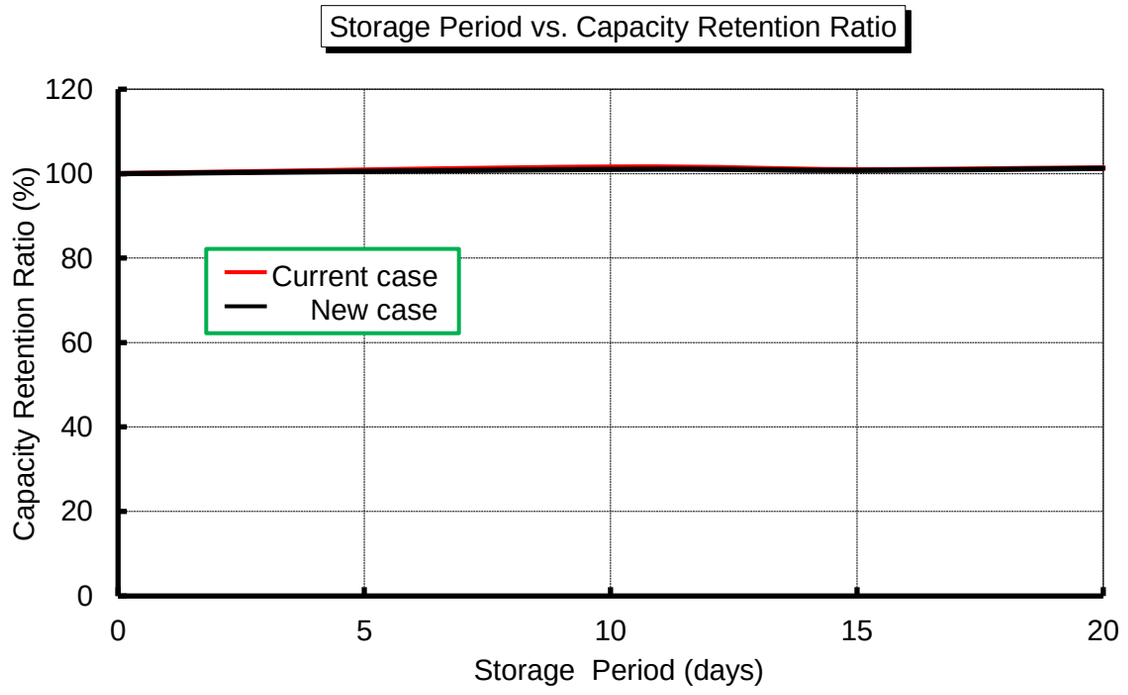
7. High Temperature High Humidity Storage Characteristics

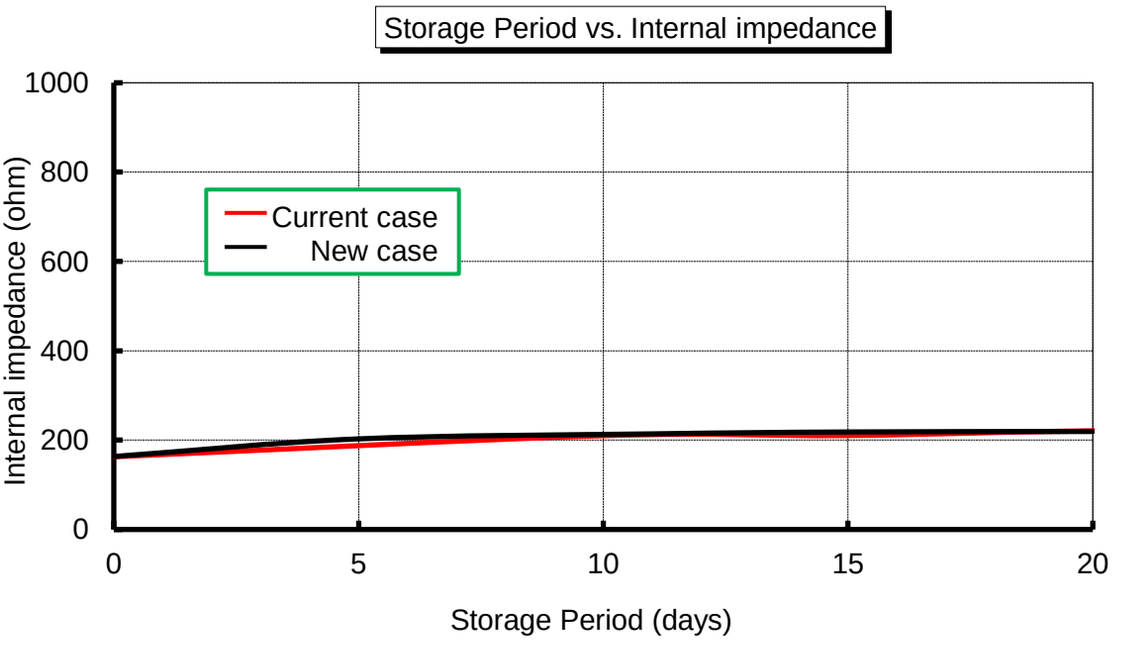
13-Mar-2018

[Storage Condition] 60deg.-C, 90%Rh

[Charge-Discharge Condition]

Charge	CC / CV	3.3V, 1mA, 120min
Discharge	CC	5uA, cov.=2.0V





* Internal impedance measured at 1kHz A.C.

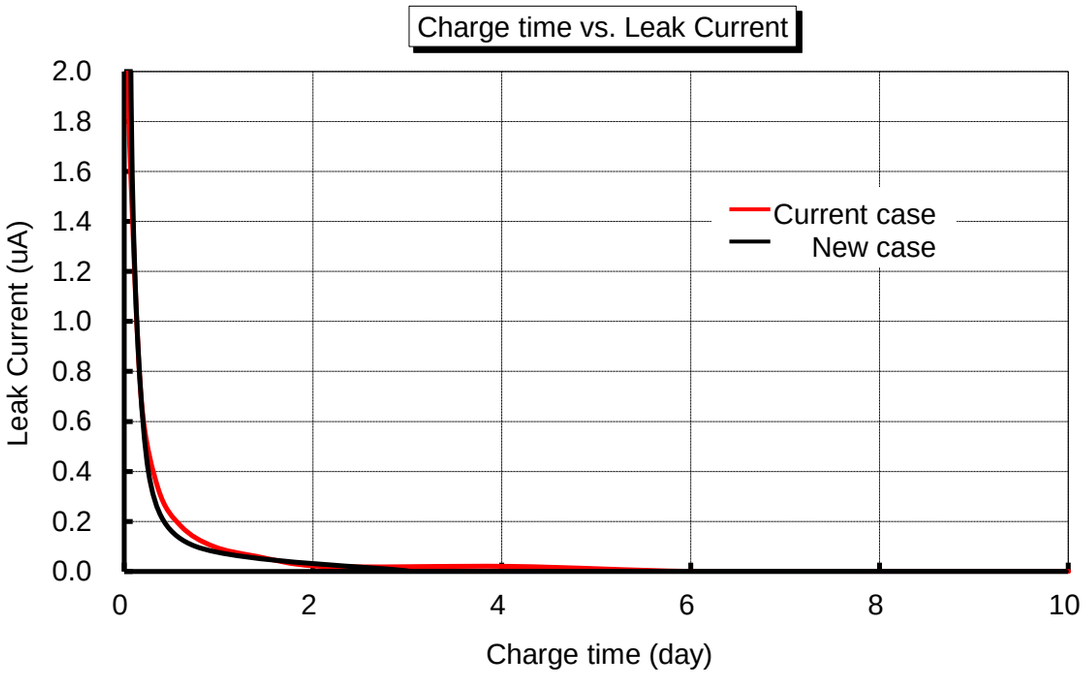
*Data are not guaranteed but reference values.

8.Leak Current

13-Mar-2018

[Charge Condition]

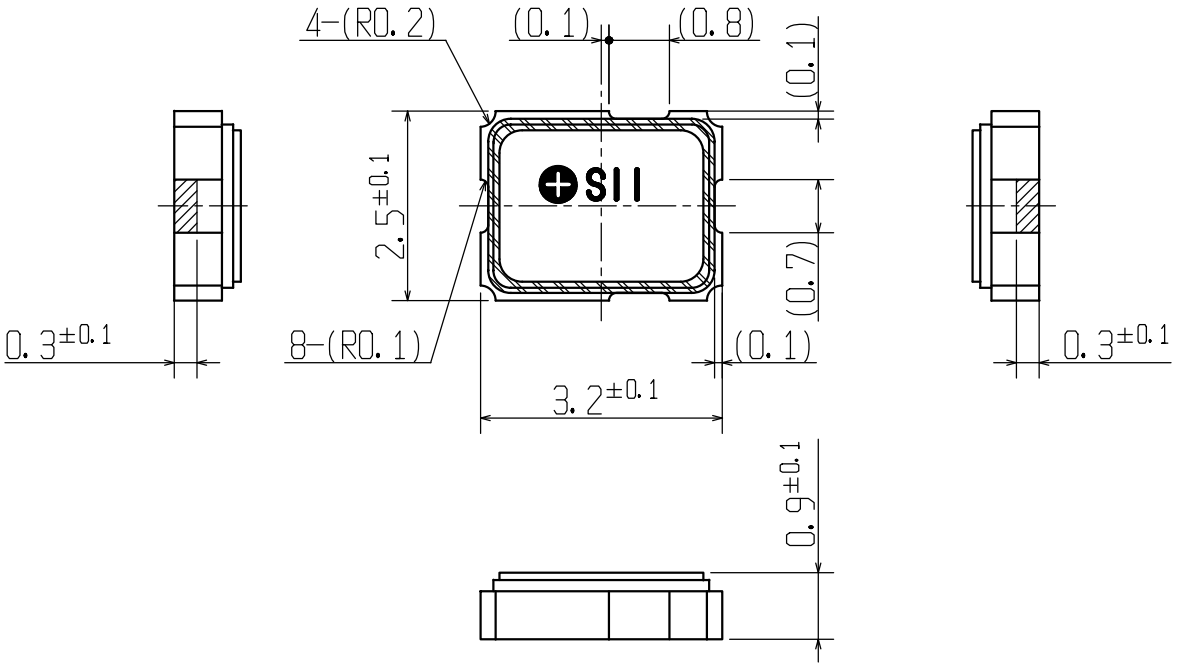
Charge	CV	3.3V RT

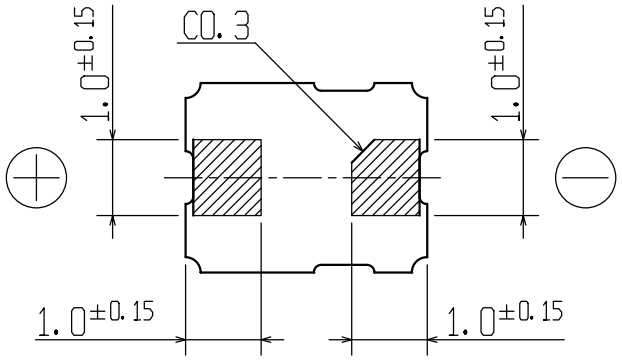


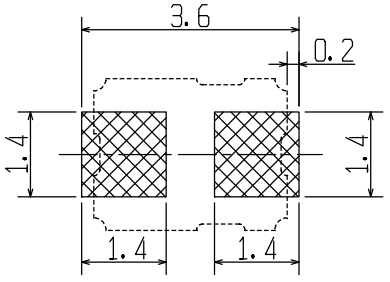
*Data are not guaranteed but reference values.

<Notes> 1, The upper surface of the capacitor is made of the metal.
And it is connected with the negative terminal.
2, The plating specification of the pad is as follows.
Groundwork plating : Ni plating(1.3～8.8μm)
Surface plating : Au plating(0.3～1.0μm)

<注意> 1, ｷｬﾊﾟｼﾀの上面は全て金属で出来ており、負極端子に接続されています。
2, ﾊﾟｯﾄﾞ部のﾒｯｷ仕様は以下の通り。
下地ﾒｯｷ : Niﾒｯｷ(1.3～8.8μm)
表面ﾒｯｷ : Auﾒｯｷ(0.3～1.0μm)







Recommended land pattern
(Scale=4:1, Tolerance=±0.05)
推奨ﾗﾝﾄﾞﾊﾟﾀｰﾝ(尺度=4:1, 公差=±0.05)

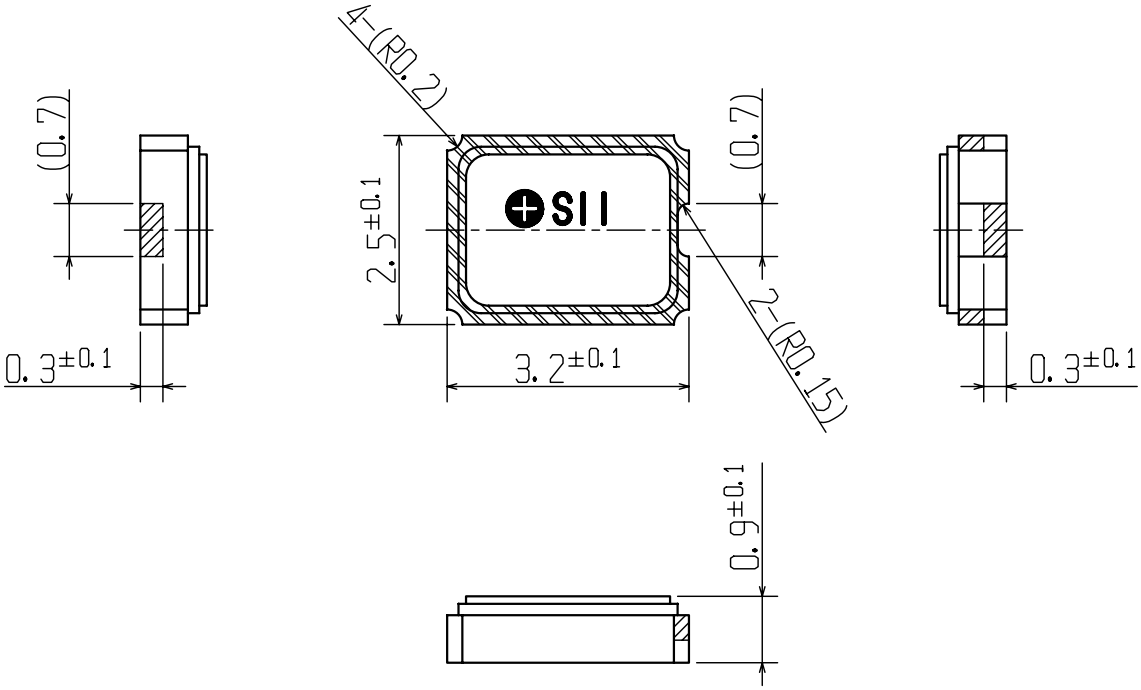
Tolerances of linear dimensions 長さ寸法公差	
Dimension 寸法	Tolerance 公差
0 - 3	±0.20
3 - 6	±0.20
6 - 30	±0.50
Tolerances of angular dimensions 角度寸法公差	
±2°	

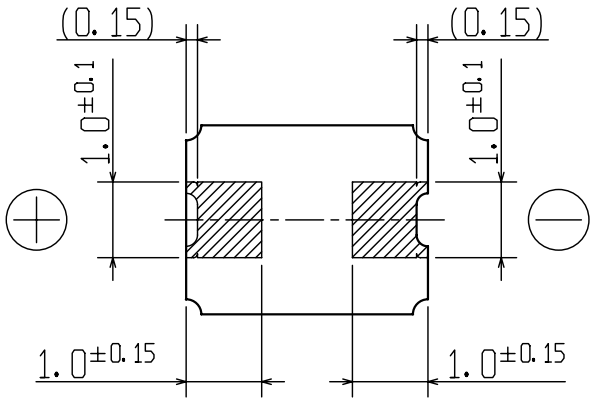
			File No. ﾌｧｲﾙ番号	3048CPH1-3225A-1	
			Material 材料		
			Process 処理	▨: Au-Ni-W film Au-Ni-W 膜 ▧: Au-Ni film Au-Ni 膜	
			Date 日付	Mar. 8, 2018	
E18A-003	Mar. 8, 2018	設定	Name 名称	Capacitor drawing キャパシタ図面	
History履歴	Date 日付	Reason 理由			
Approved 承認	Checked 検査	Drawn 製図	Scale 尺度	10:1	Cal. No. 製品番号 CPH3225A
尾形	佐藤	小野寺	Unit 単位	1=1mm	
			Rev. 改訂	1	Drw. No. 図面番号 3048 CPH1

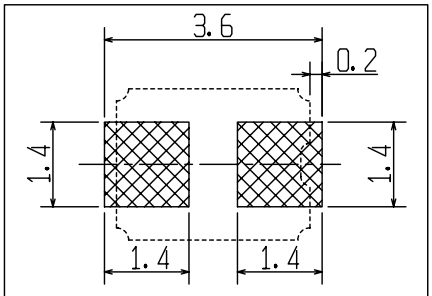
Seiko Instruments Inc. Micro-Energy Division

<Notes> 1, The upper surface of the capacitor is made of the metal.
And it is connected with the negative terminal.
2, The plating specification of the pad is as follows.
Groundwork plating : Ni plating(1.0～6.0μm)
Surface plating : Au plating(0.15～0.5μm)

<注意> 1, ｷｬﾊﾟｼﾀの上面は全て金属で出来ており、負極端子に接続されています。
2, ﾊﾟｯﾄﾞ部のﾒｯｷ仕様は以下の通り。
下地ﾒｯｷ : Niﾒｯｷ(1.0～6.0μm)
表面ﾒｯｷ : Auﾒｯｷ(0.15～0.5μm)







Recommended land pattern
(Scale=4:1, Tolerance=±0.05)
推奨ﾗﾝﾄﾞﾊﾟﾀｰﾝ(尺度=4:1, 公差=±0.05)

Tolerances of linear dimensions 長さ寸法公差	
Dimension 寸法	Tolerance 公差
0 - 3	±0.20
3 - 6	±0.20
6 - 30	±0.50
Tolerances of angular dimensions 角度寸法公差	
±2°	

			File No. ﾌｧｲﾙ番号	3048CPH0-3225A-4
			Material 材料	
E11B-004	Jan. 11, 2011	ﾒｯｷ厚み寸法変更	Process 処理	▨:Au-Ni-W film Au-Ni-W 膜 ▧:Au-Ni film Au-Ni 膜
E11B-001	Jan. 05, 2011	注記2を追加		
E09B-028	Oct. 01, 2009	ﾌﾟﾗｽﾏｰｸ位置変更	Date 日付	Mar. 05, 2009
E09A-005	Mar. 05, 2009	設定	Name 名称	Capacitor drawing ｷｬﾊﾟｼﾀ図面
History履歴	Date 日付	Reason 理由		

Approved 承認	Checked 検査	Drawn 製図	Scale 尺度	10:1	Cal. No. 製品番号	CPH3225A
篠田		尾形	Unit 単位	1=1mm		
			Rev. 改訂	4	Drw. No. 図面番号	CPH 3225A

Seiko Instruments Inc. Micro-Energy Division