

Battery Connector

KQ02-Series

No.	제 품 명	Pin 수	용 도	Size (가로*세로*높이)	Top view	Bottom View
1	KQ02X-SA-3R	3	HHP	6.6*5.1*3.6mm		
2	KQ02X-3R-SMD	3	HHP	6.6*5.1*3.6mm		
3	KQ02X1-3R(3.1)	3	HHP	6.6*5.0*3.1mm		
4	KQ02X1-3R	3	HHP	6.6*5.0*2.9mm		
5	KQ02H1-3R	3	HHP	6.6*5.0*2.9mm		
6	KQ02H1-3R(L)	3	HHP	6.6*5.0*2.9mm		
7	KQ02H1-3R(S)	3	HHP	6.6*5.0*2.9mm		
8	KQ02L1-3R	3	HHP	7.6*4.0*2.7mm		
9	KQ02X3-3R	3	HHP	6.6*5.15*2.6mm		
10	KQ02X3-3R(B)	3	HHP	6.6*5.15*2.6mm		
11	KQ02X2-3R	3	HHP	6.6*5.15*2.4mm		
12	KQ02H2-3R	3	HHP	6.6*5.15*2.4mm		
13	KQ02L3-3R	3	HHP	7.6*4.0*2.3mm		
14	KQ02X4-3R	3	HHP	6.6*5.5*2.1mm		
15	KQ02X6-3R	3	HHP	6.6*6.5*2.0mm		
16	KQ02X5-3R	3	HHP	6.6*5.5*1.75mm		
17	KQ02L4-3R(**)	3	HHP	7.6*4.5*1.7mm 7.6*4.5*1.9mm		
18	KQ02L5-4R	4	HHP	10.1*4.5*1.7mm		
19	KQ02L9-4R	4	HHP	10.3*4.5*2.3mm		



Hirose Korea Battery Connector

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KQ02-Series

Title

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3.Individual Informations-----Page 4~22

No.	Product Name	Contacts	Size (width×Lengh×Height)	page
1	KQ02X-SA-3R	3	6.6*5.1*3.6mm	4
2	KQ02X-3R-SMD	3	6.6*5.1*3.6mm	5
3	KQ02X1-3R(3.1)	3	6.6*5.0*3.1mm	6
4	KQ02X1-3R	3	6.6*5.0*2.9mm	7
5	KQ02H1-3R	3	6.6*5.0*2.9mm	8
6	KQ02H1-3R(L)	3	6.6*5.0*2.9mm	9
7	KQ02H1-3R(S)	3	6.6*5.0*2.9mm	10
8	KQ02L1-3R	3	7.6*4.0*2.7mm	11
9	KQ02X3-3R	3	6.6*5.15*2.6mm	12
10	KQ02X3-3R(B)	3	6.6*5.15*2.6mm	13
11	KQ02X2-3R	3	6.6*5.15*2.4mm	14
12	KQ02H2-3R	3	6.6*5.15*2.4mm	15
13	KQ02L3-3R	3	7.6*4.0*2.3mm	16
14	KQ02X4-3R	3	6.6*5.5*2.1mm	17
15	KQ02X6-3R	3	6.6*6.5*2.0mm	18
16	KQ02X5-3R	3	6.6*5.5*1.75mm	19
17	KQ02L4-3R(**)	3	7.6*4.5*1.7mm	20
18	KQ02L5-4R	4	10.1*4.5*1.7mm	21
19	KQ02L9-4R	4	10.3*4.5*2.3mm	22

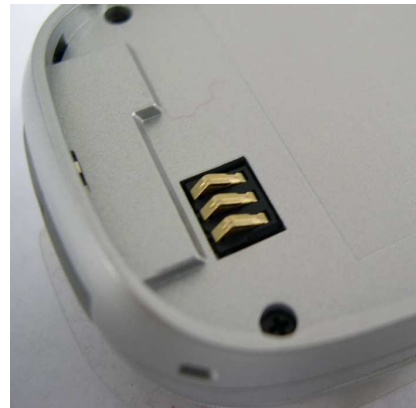
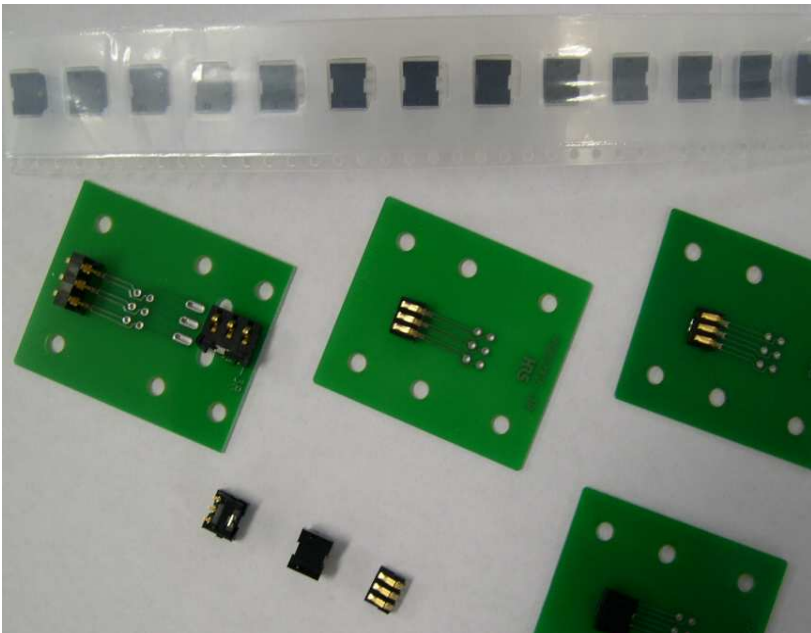
5.Reflow Profile (Conventional)-----Page 23

6.Reflow Profile (Lead-free)-----Page 24

7.Application example-----Page 25

HIROSE Battery Connector

KQ02*/KQ03-Series



Mobile Phone Assembly

■ Features

1. Bellows-type

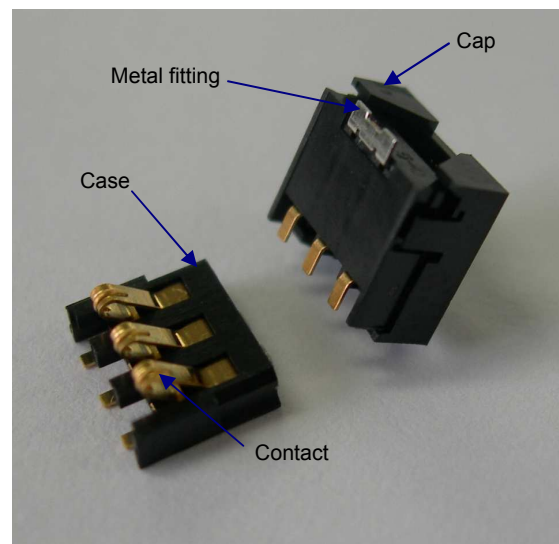
Using a bellows-type contact construction gives the product the dropping shock and torsion resistance required particularly for portable equipments.

2. Small Size

These connector are small size with a height of 1.75mm, length of 6.6mm, and width of 5.5mm.

3. Applications

Mobile phones, PDA, mobile info-communications terminals, and other small portable devices



■ Product Specifications

Rating	Current 3A	Operating temperature range	Storage temperature range
	Voltage AC 100V	- 30℃ ~ + 80℃	- 40℃ ~ + 85℃ (Include package)

Item	Test Method	Condition
1.Insulation Resistance	DC 500V	1000MΩ Min
2.Voltage Proof	AC 500V for 1min	No Flashover or Breakdown
3.Contact Resistance	100mA (DC or 1000Hz)	50mΩ Max
4.Vibration	Frequency 10~55Hz Single Amplitude 0.76mm at 2Hr for 3Direction.	No Electrical Discontinuity of 10μs
5.Humidity	Temperature : 40±2℃ Relative Humidity : 90~95% Duration : 96Hr	Contact Resistance : 100mΩMax
		Insulation Resistance : 10MΩMin
6.Mechanical Operation	Mated 5000 Times	Contact Resistance : 100mΩMax

■ Materials

Part	Material	Finish	Remark
Case	Nylon	Black	UL94V-0
Cap	Nylon / SUS304	Black	UL94HB
Contact	Copper Alloy	Gold plating	-
Metal Fitting	Copper Alloy	Tin plating	-

■ Ordering Information

KQ * - * R - SMD**

①

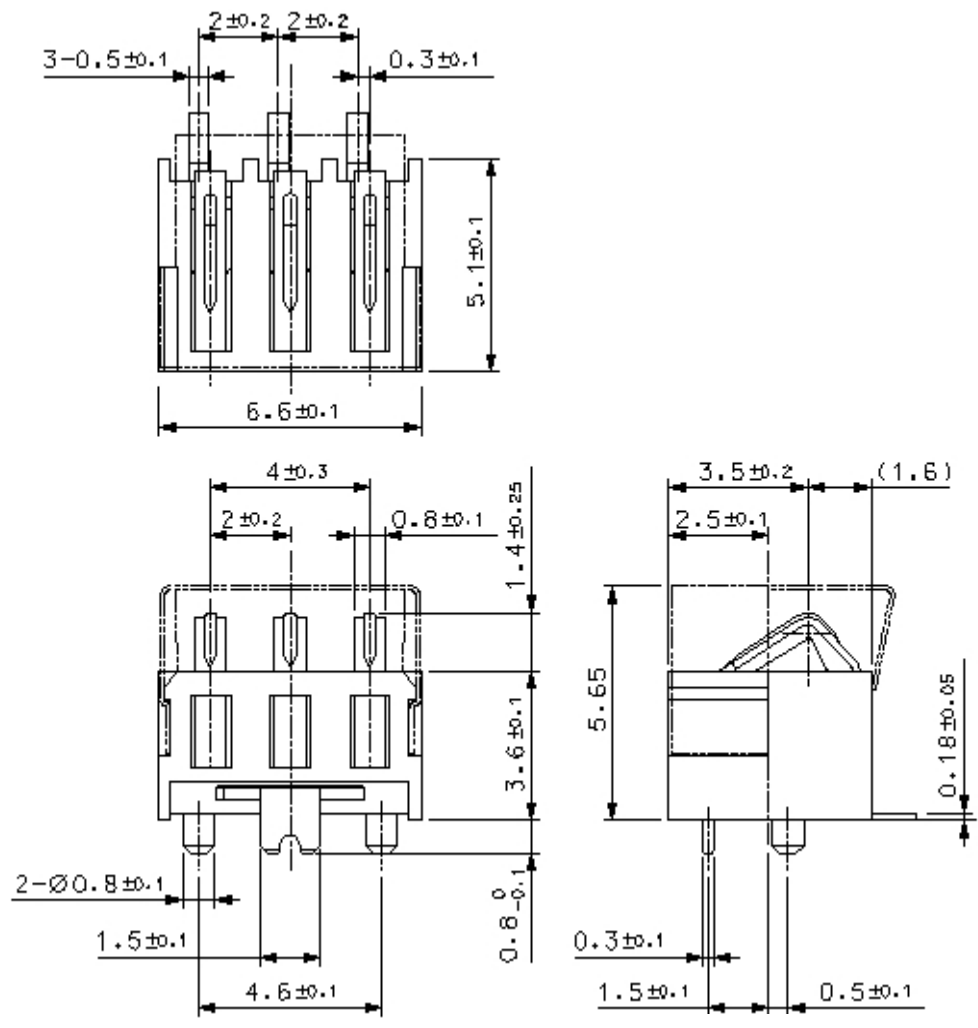
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③

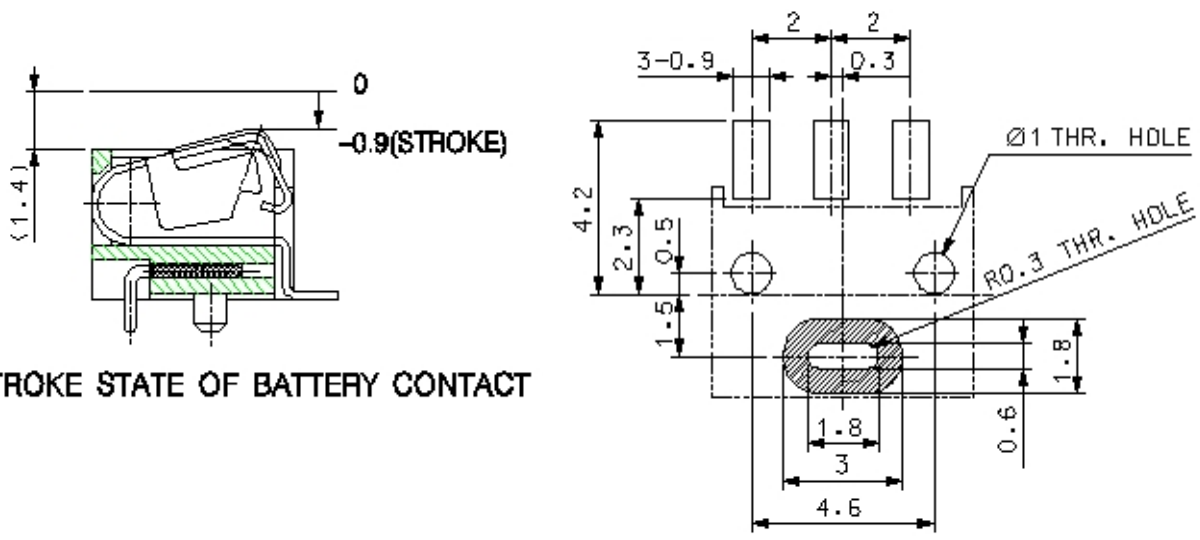
④

①	Series Name	KQ02 : Horizontal Type Battery Connector KQ03 : Vertical Type Battery Connector
②	Mold Height	X, X1, X2, X3, X4, X5, X6, H1, H2
③	Contact number	3pin, 4pin
④	Solder type	Surface direct placement (SMT type)

■ KQ02X-SA-3R

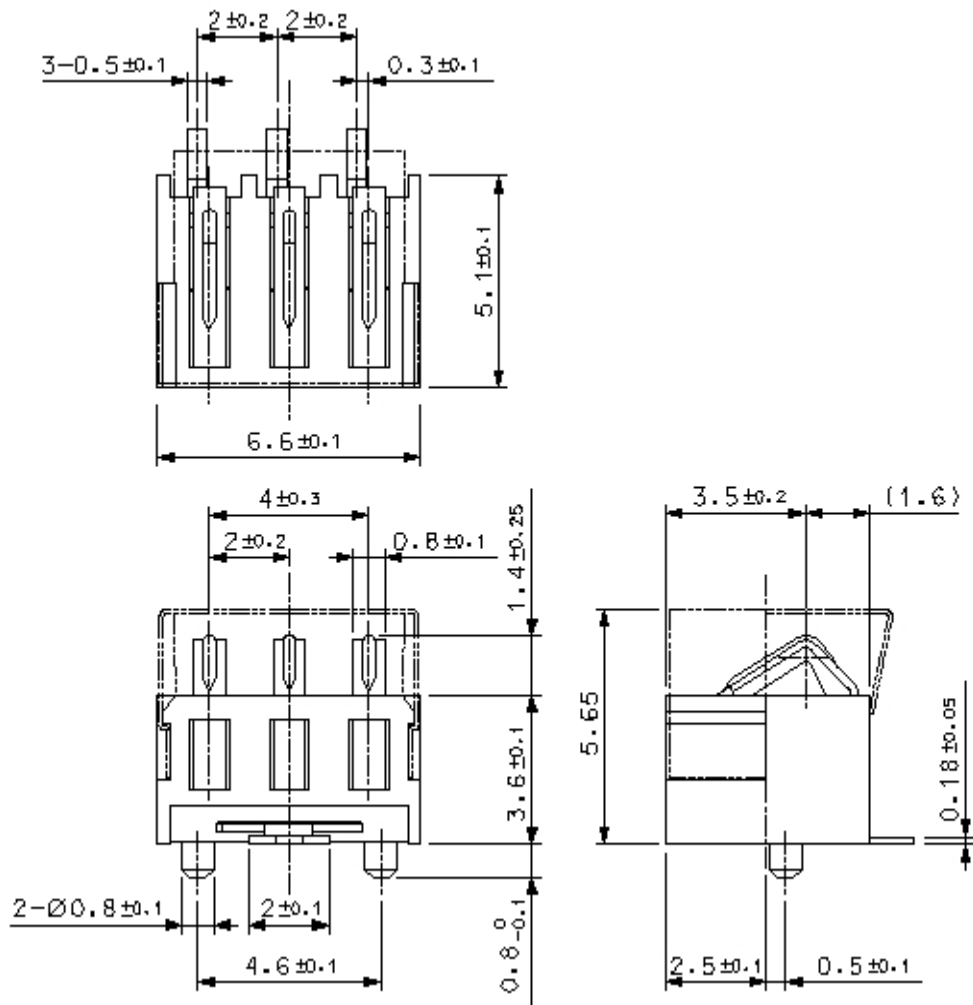


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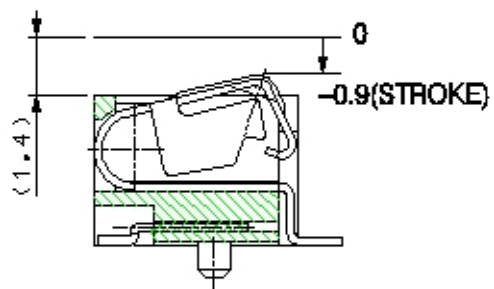


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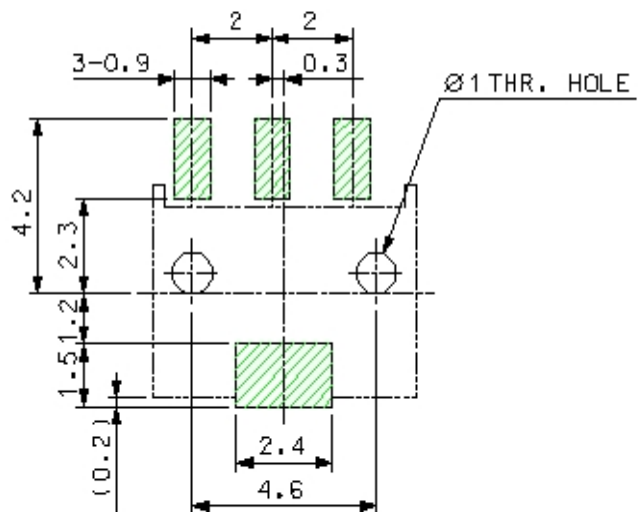
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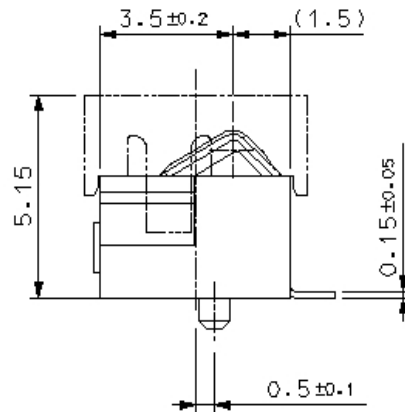
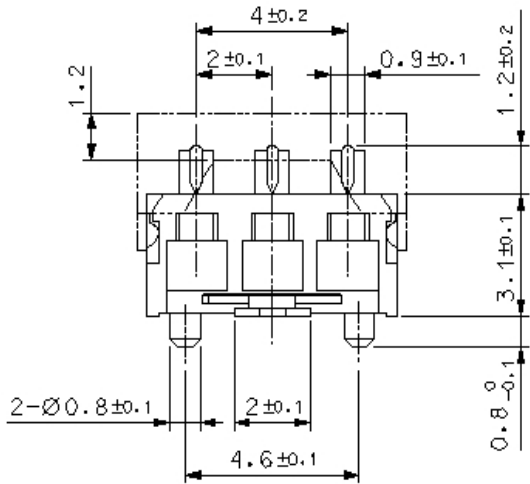
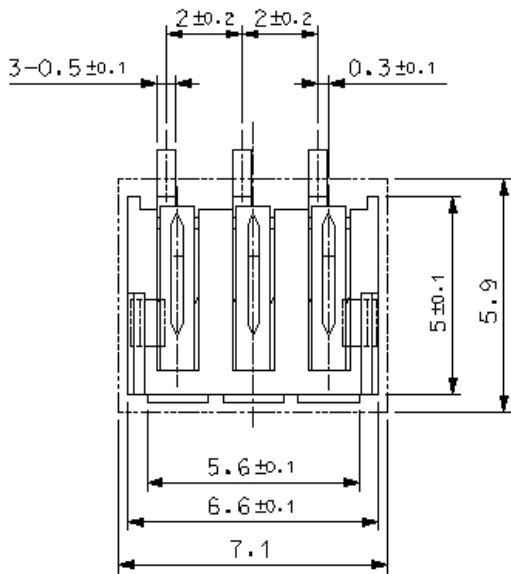


STROKE STATE OF BATTERY CONTACT

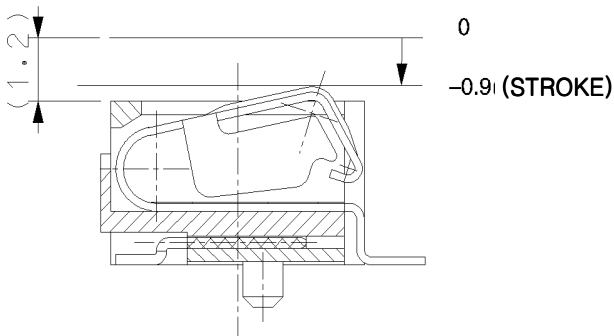
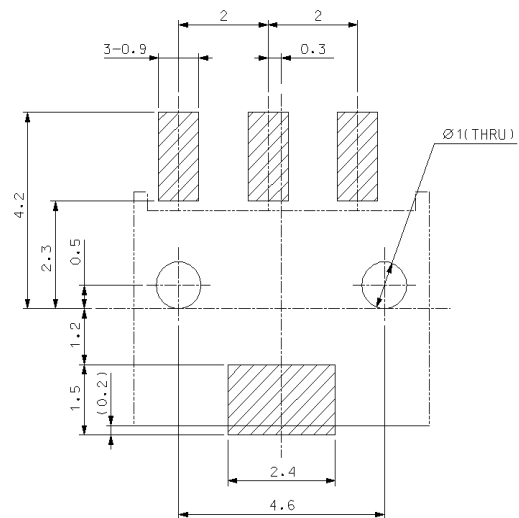


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■ KQ02X1-3R(3.1)



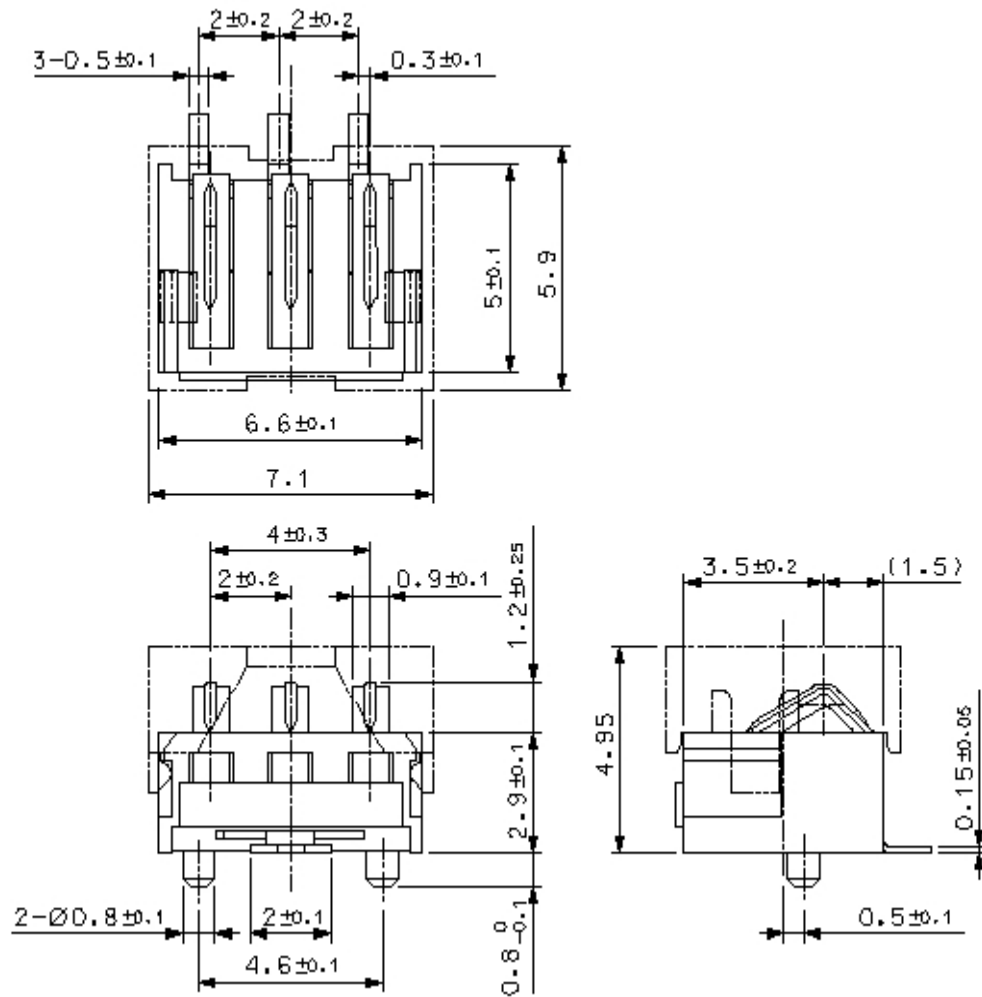
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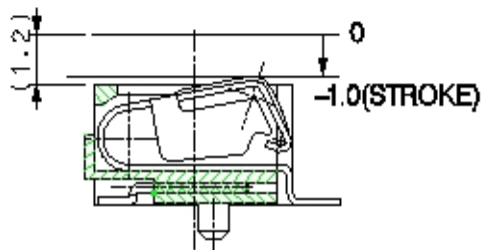
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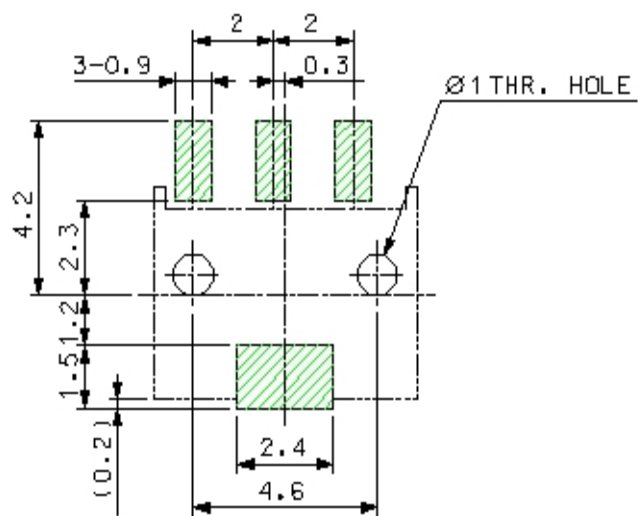
■ **KQ02X1-3R**



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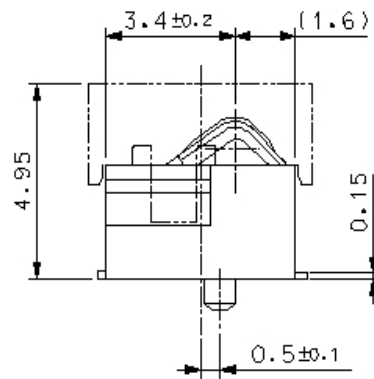
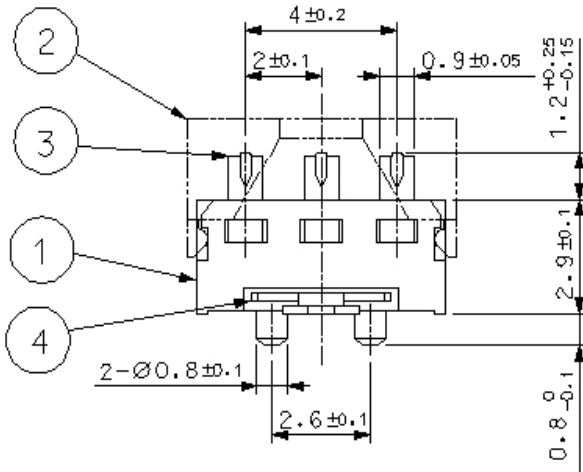
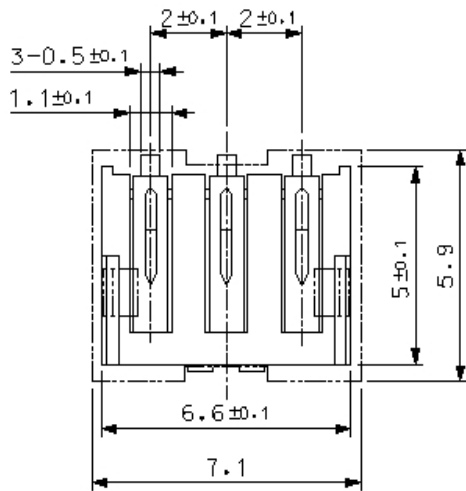


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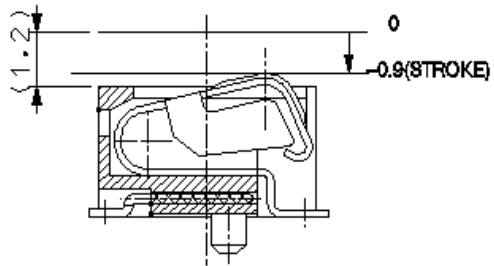


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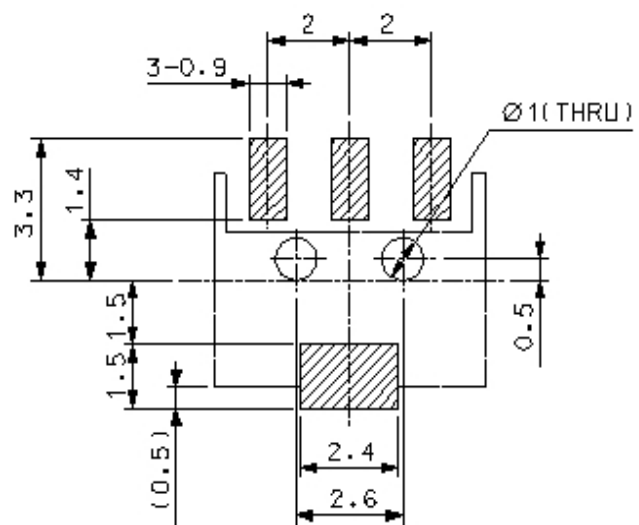
■ KQ02H1-3R



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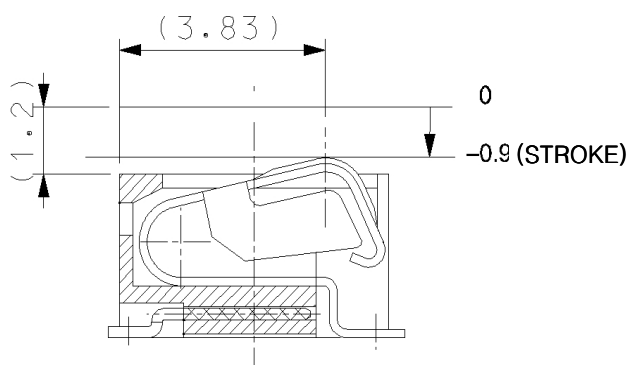
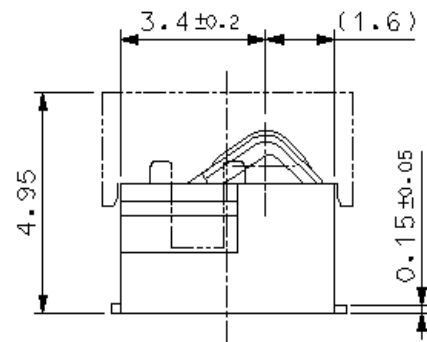
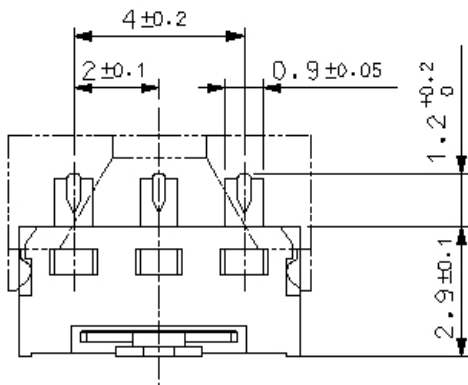
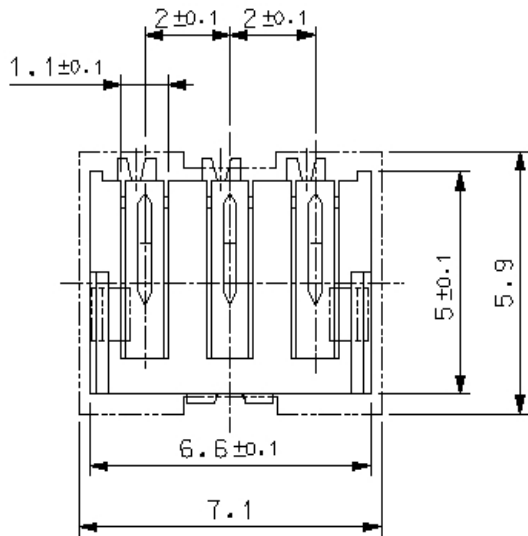


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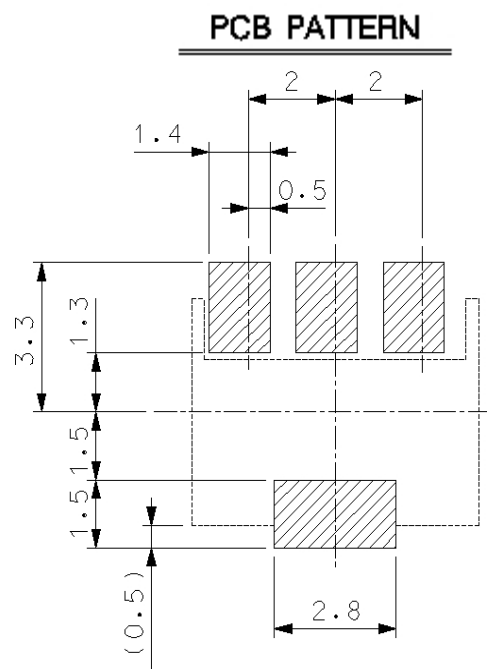


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■ KQ02H1-3R(L)

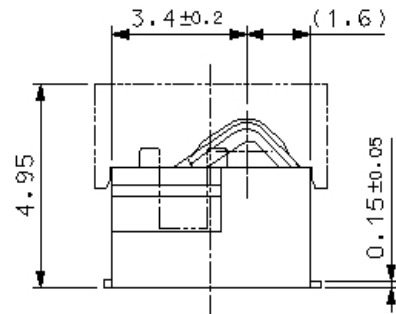
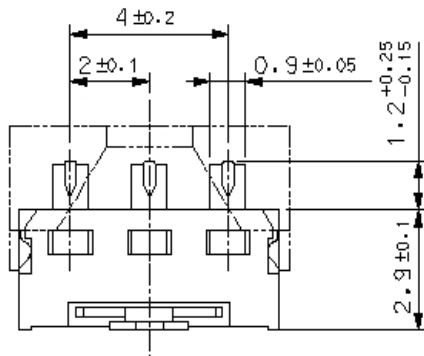
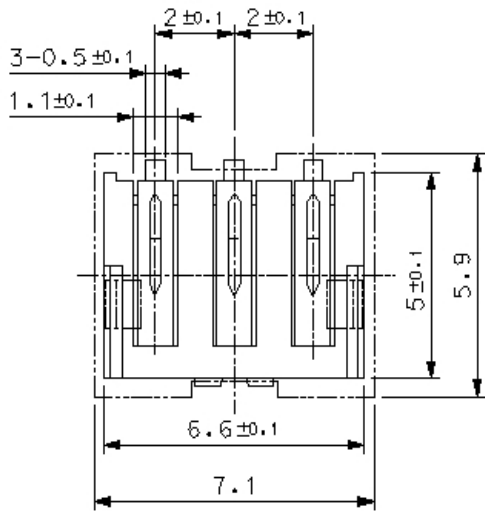


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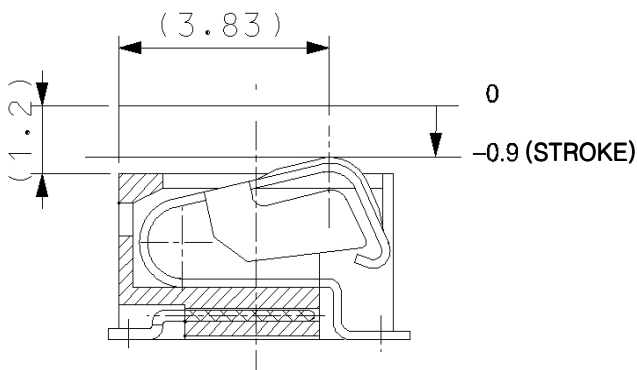


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CL 6226-0101-7	KQ02H1-3R(L)	3	Emboss Tape	1,000ea/Reel

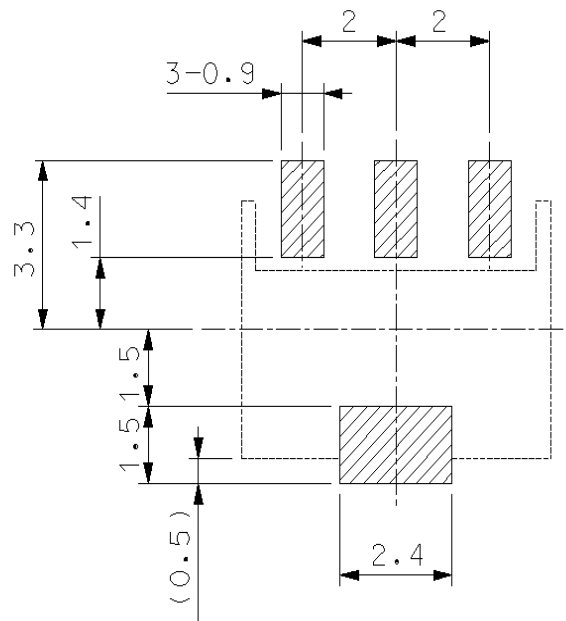
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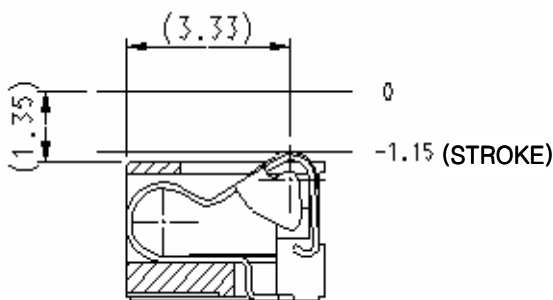
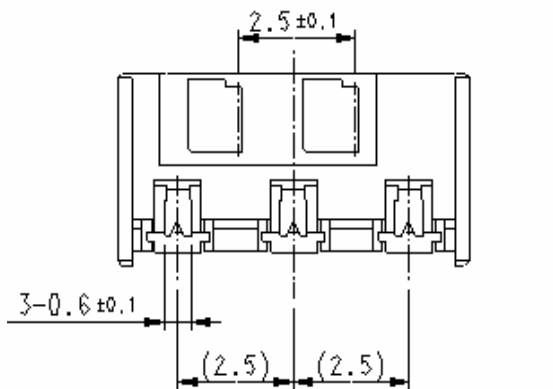
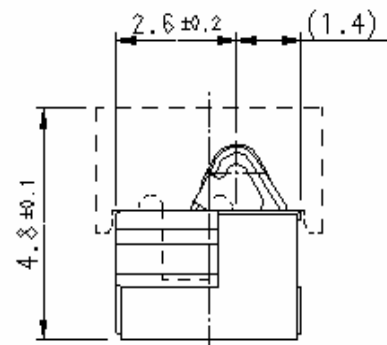
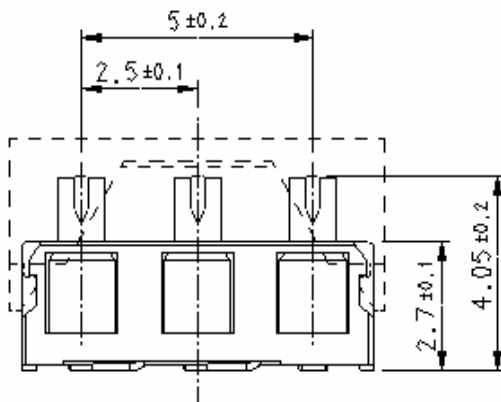
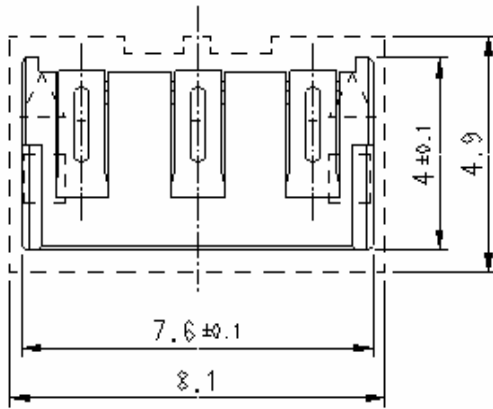


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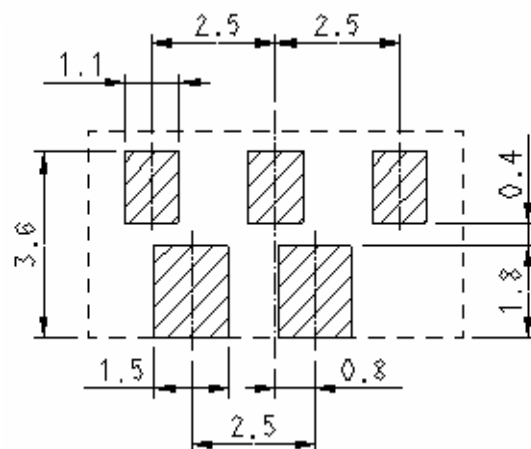
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■ **KQ02L1-3R**



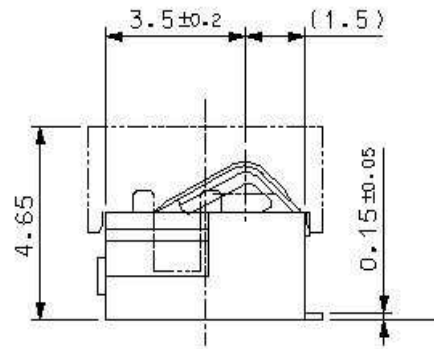
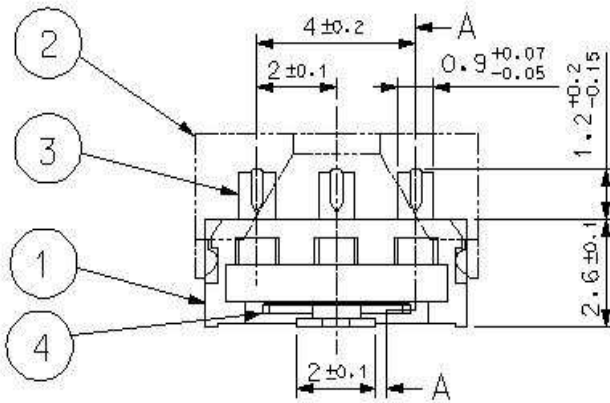
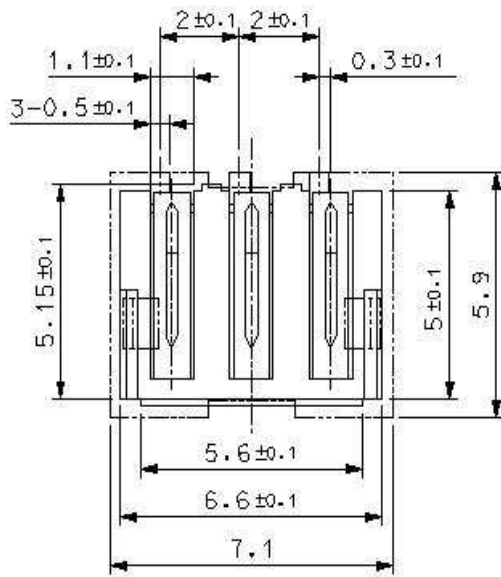
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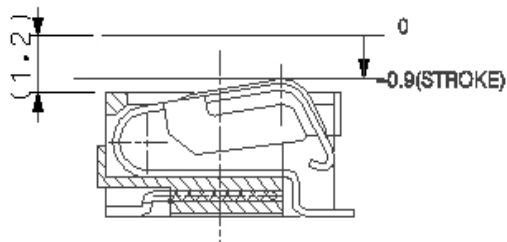


Hirose Part No.	Product Name	Contact	Package	Remark
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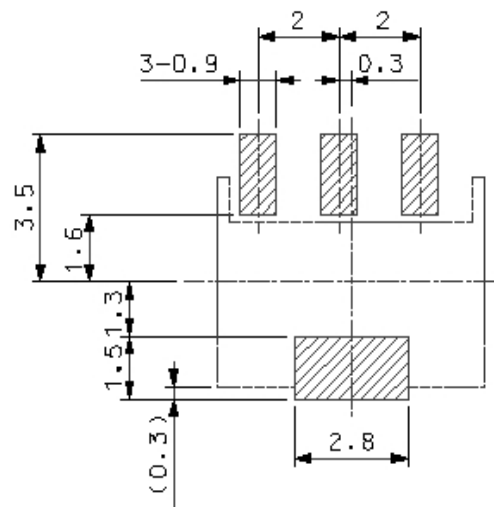
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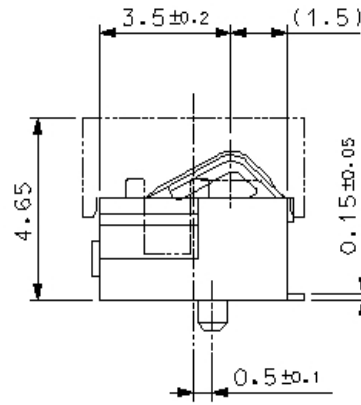
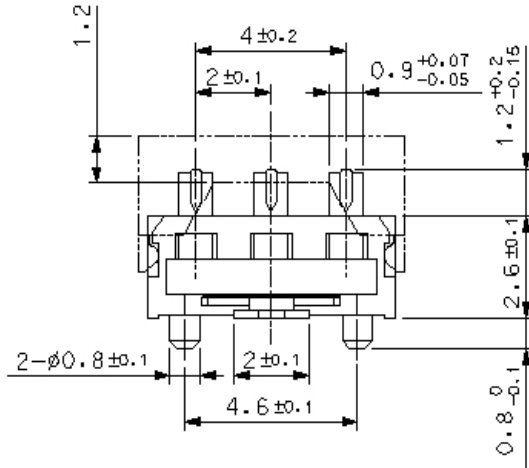
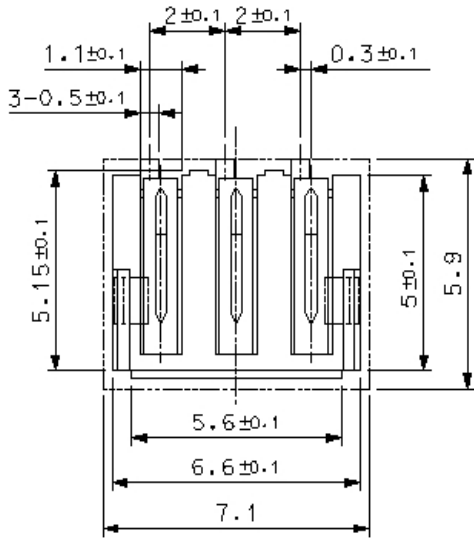


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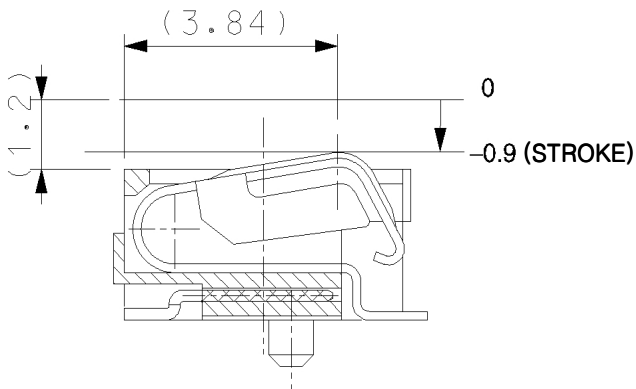
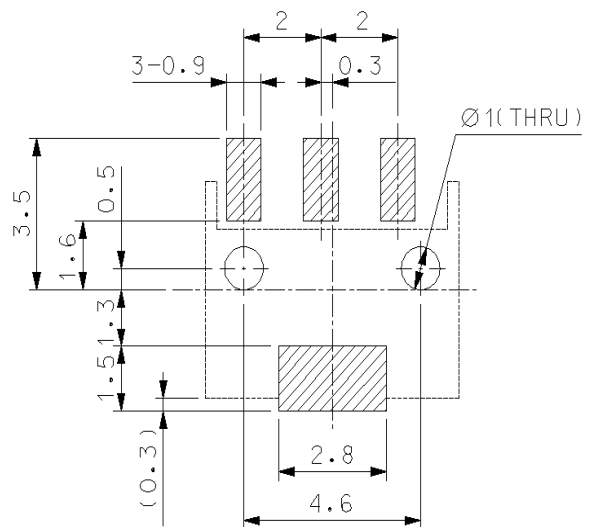


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■ KQ02X3-3R(B)



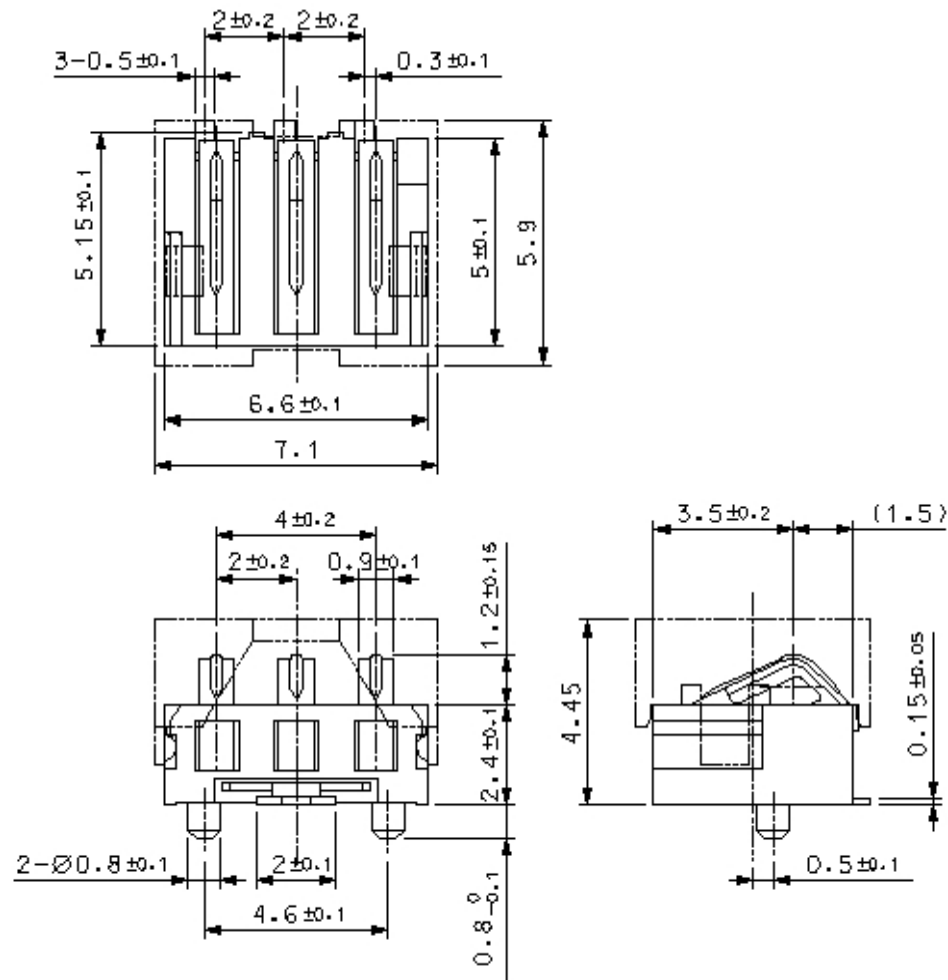
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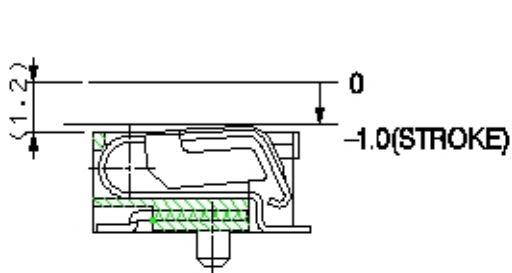
STROKE STATE OF BATTERY CONTACT

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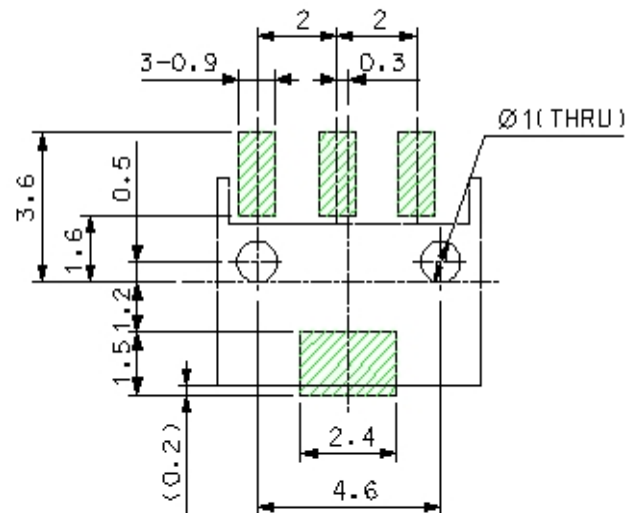
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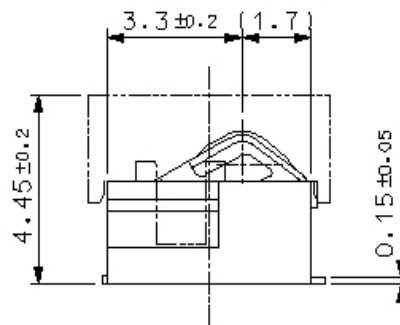
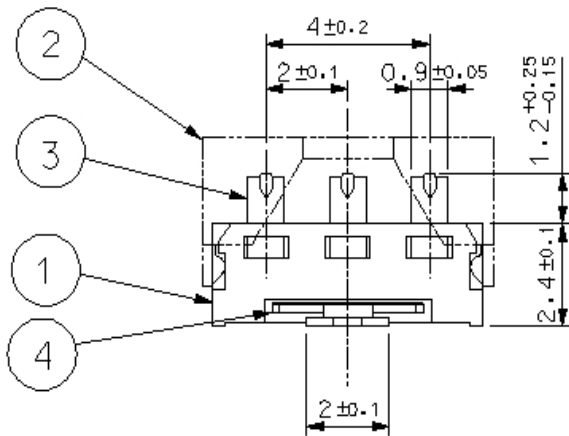
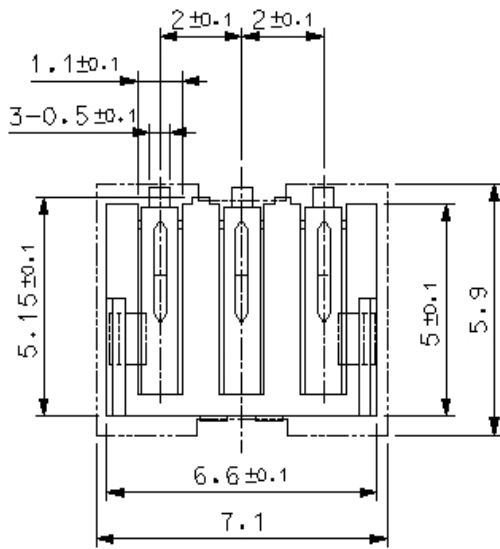


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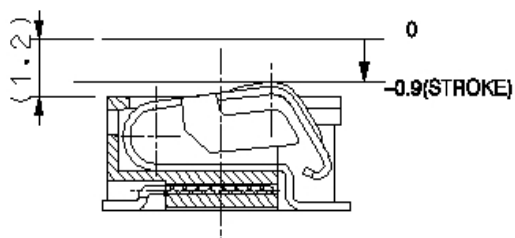


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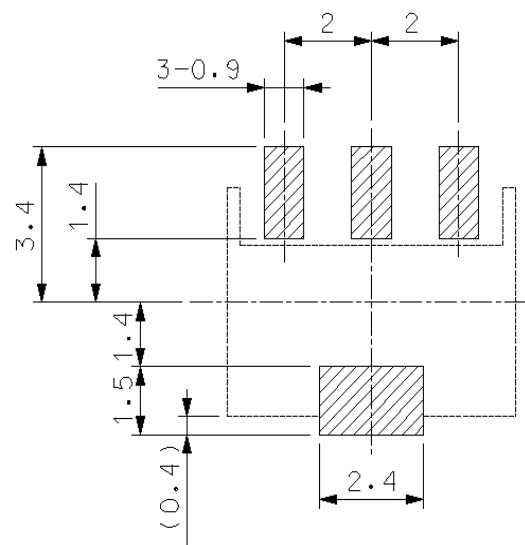
■ KQ02H2-3R



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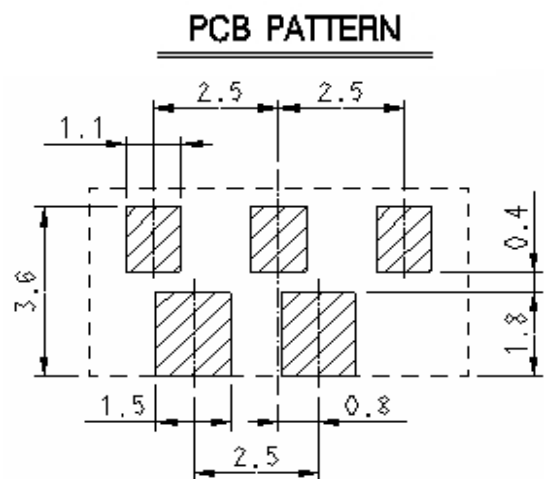
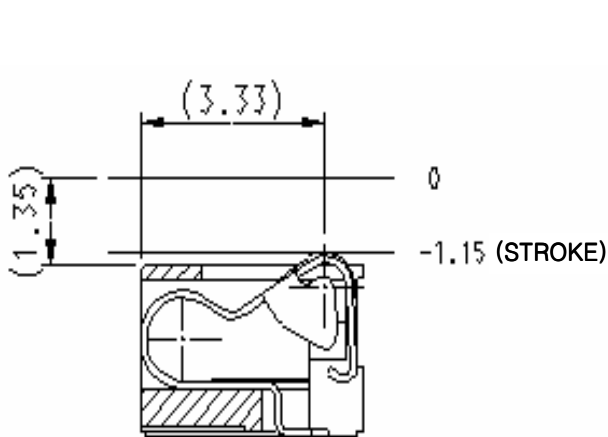
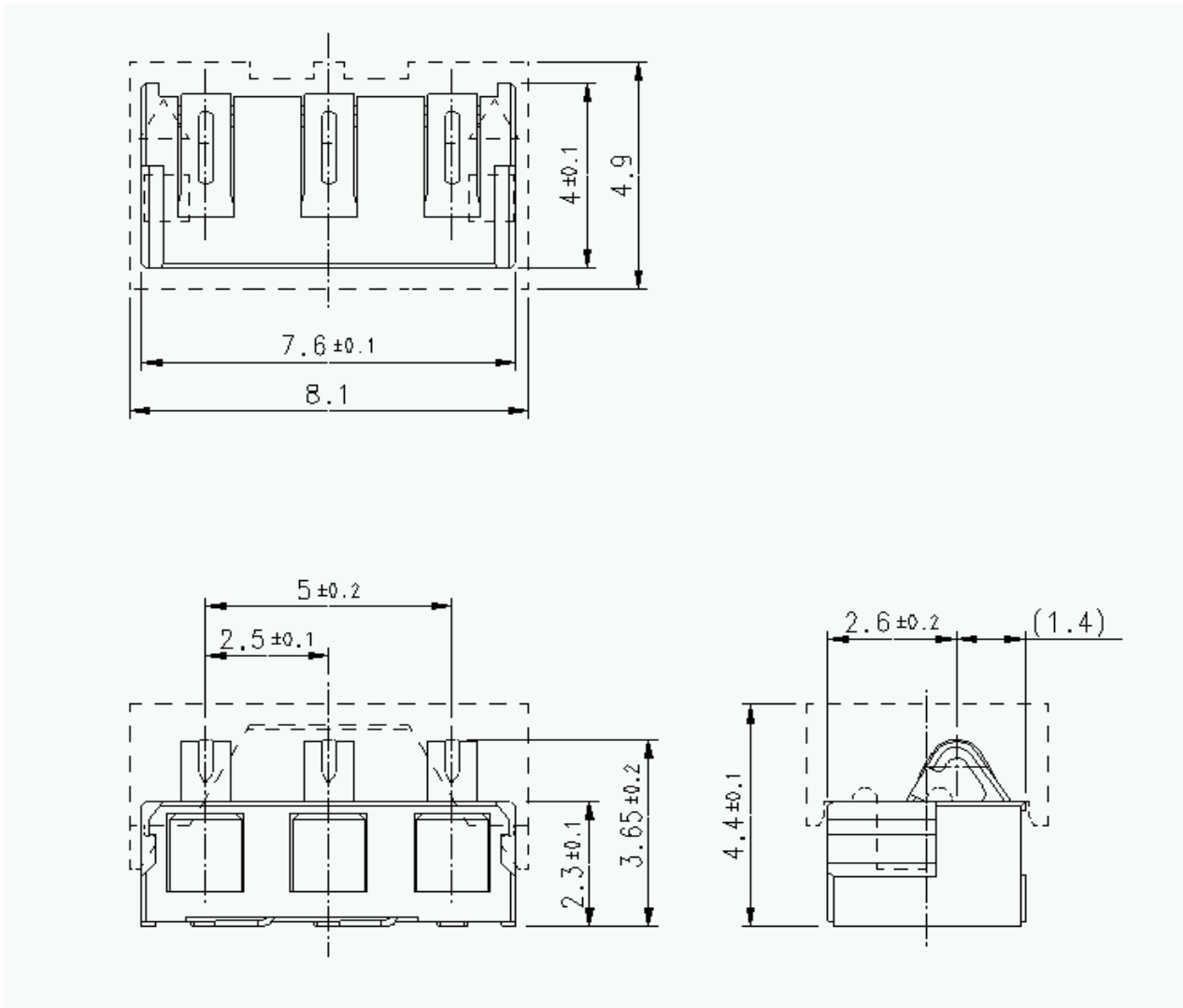


STROKE STATE OF BATTERY CONTACT



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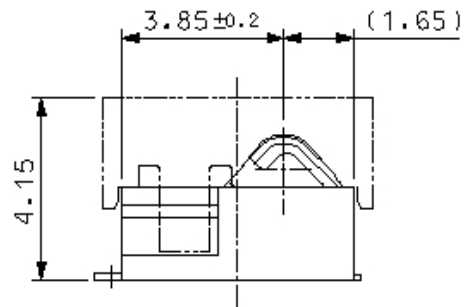
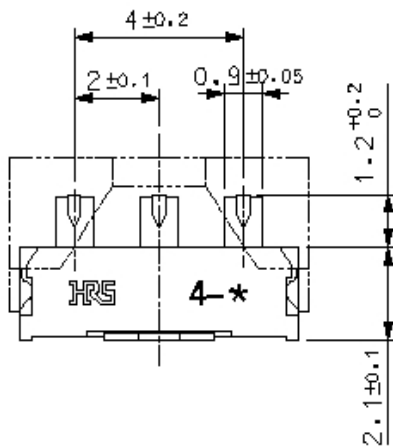
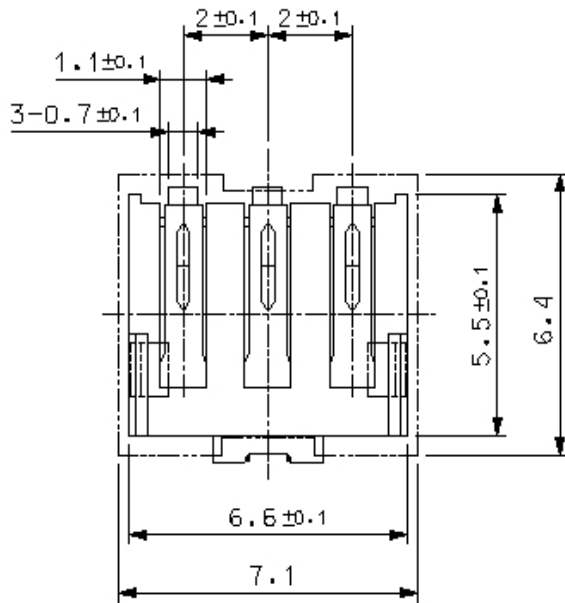
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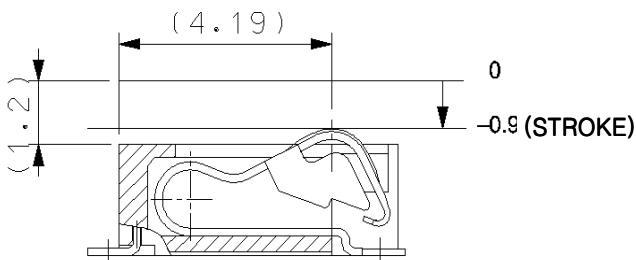
STROKE STATE OF BATTERY CONTACT

Hirose Part No.	Product Name	Contact	Package	Remark
CL 6226-0110-8	KQ02L3-3R	3	Emboss Tape	1,000ea/Reel

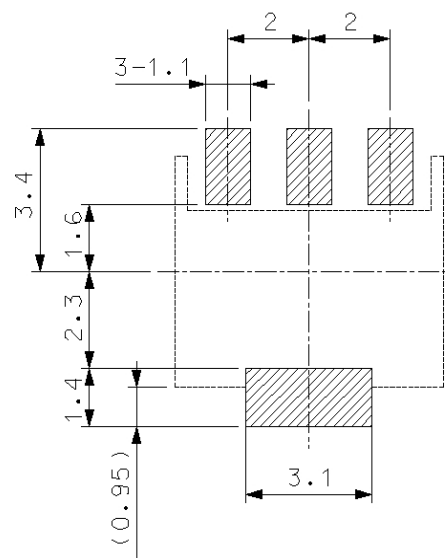
■ **KQ02X4-3R**



PCB PATTERN

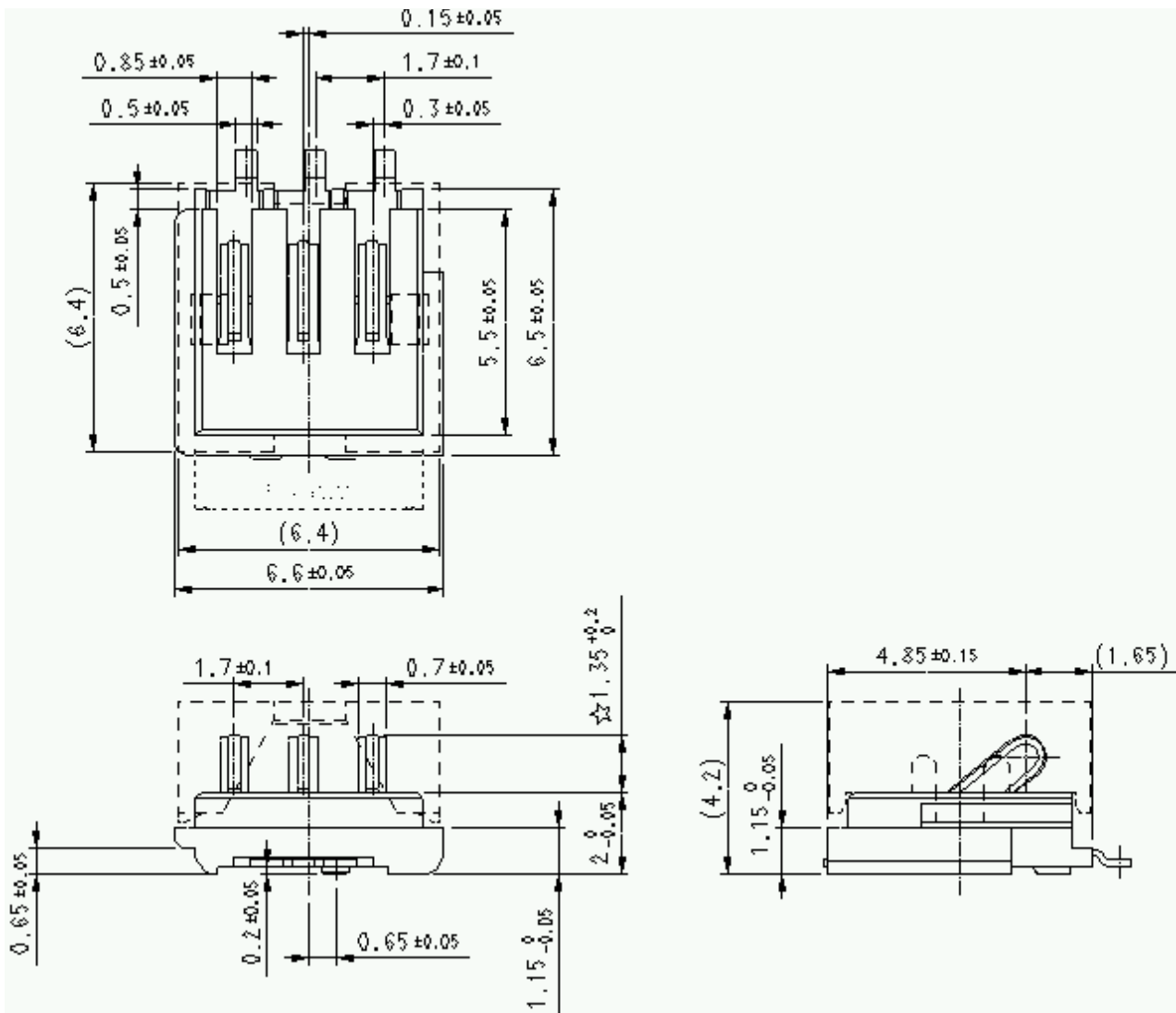


STROKE STATE OF BATTERY CONTACT

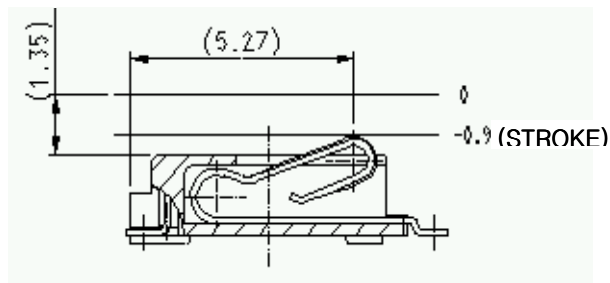


Hirose Part No.	Product Name	Contact	Package	Remark
CL 6226-0093-0	KQ02X4-3R	3	Emboss Tape	1,500ea/Reel

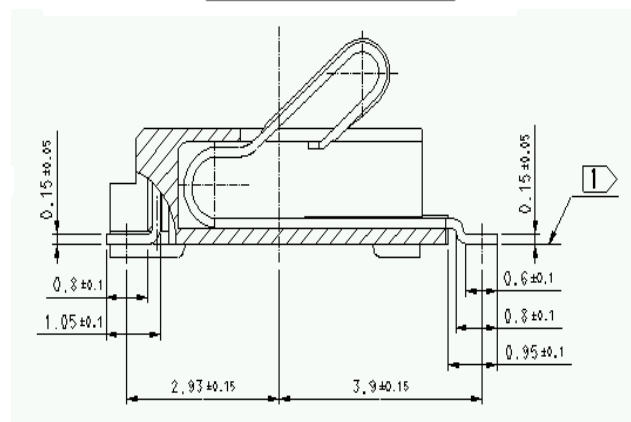
■ KQ02X6-3R



PCB PATTERN

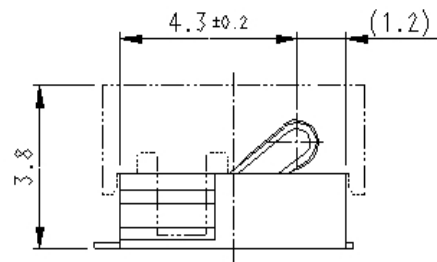
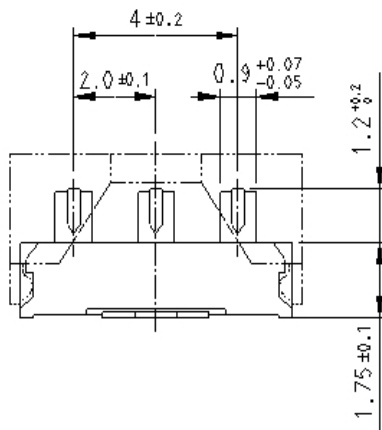
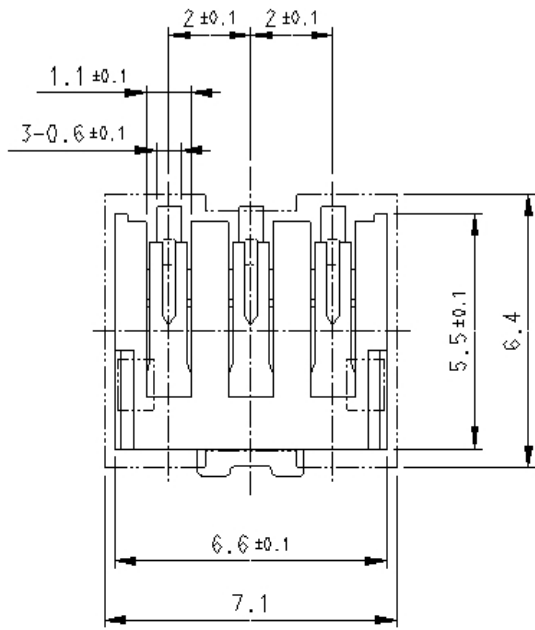


STROKE STATE OF BATTERY CONTACT

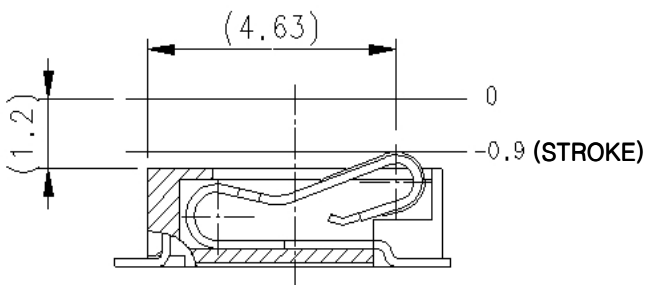
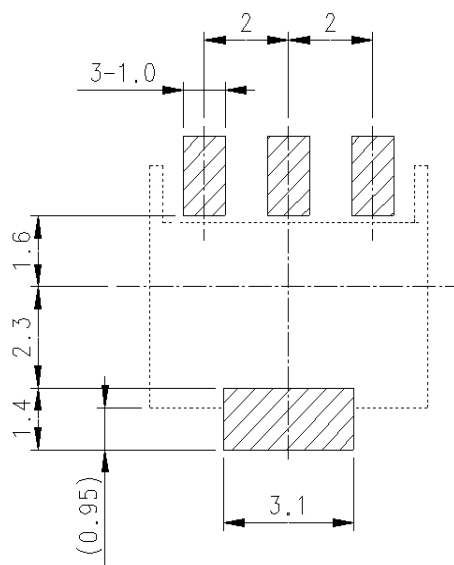


Hirose Part No.	Product Name	Contact	Package	Remark
CL 6226-0109-9	KQ02X6-3R	3	Emboss Tape	1,500ea/Reel

■ KQ02X5-3R



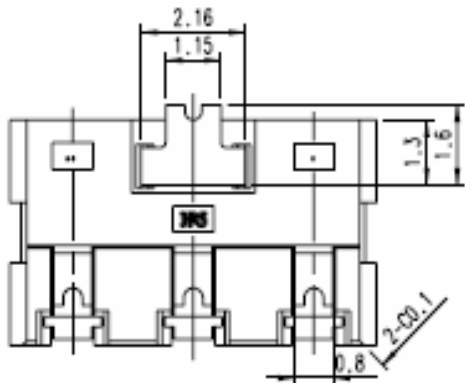
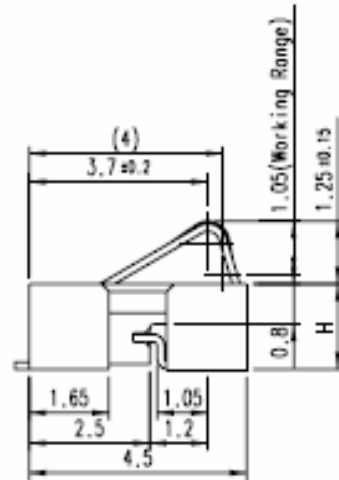
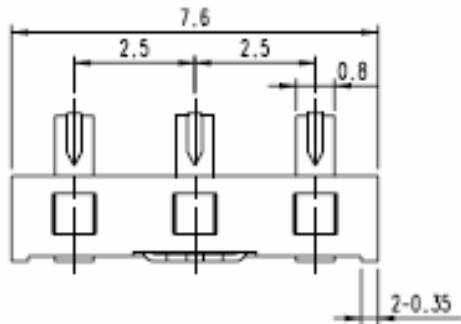
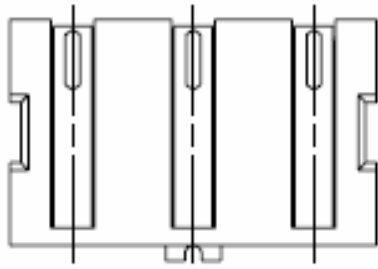
PCB PATTERN



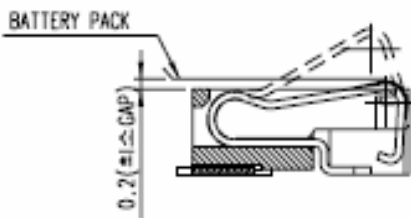
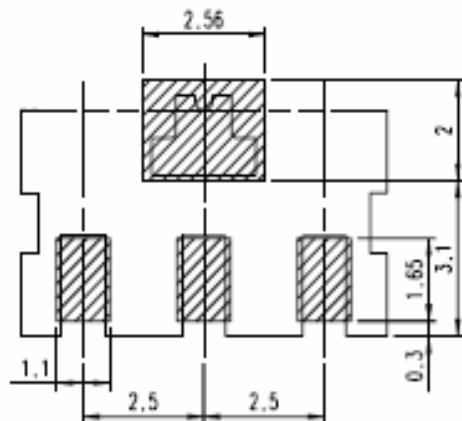
STROKE STATE OF BATTERY CONTACT

Hirose Part No.	Product Name	Contact	Package	Remark
CL 6226-0100-4	KQ02X5-3R	3	Emboss Tape	1,500ea/Reel

■ KQ02L4-3R(**)



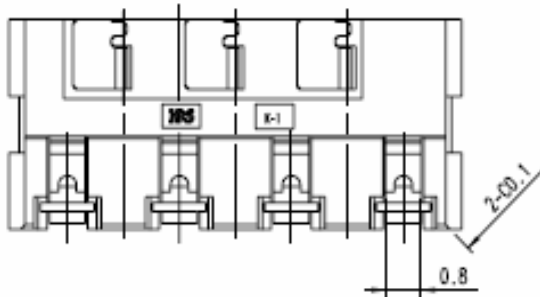
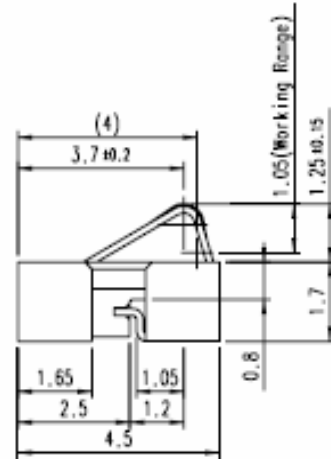
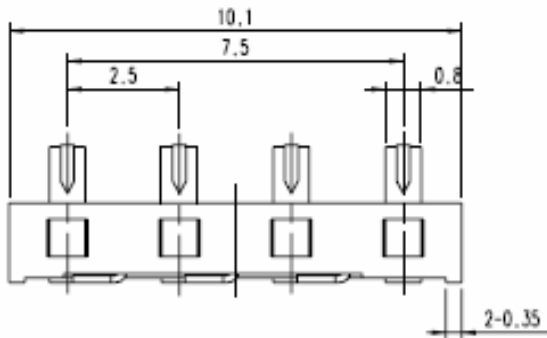
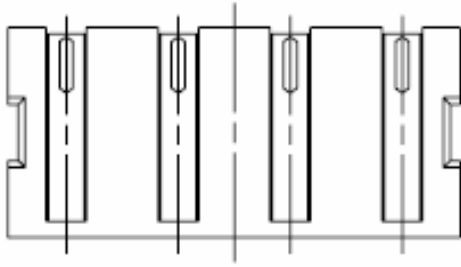
PCB PATTERN LAYOUT
(GENERAL TOLERANCE: ±0.05)



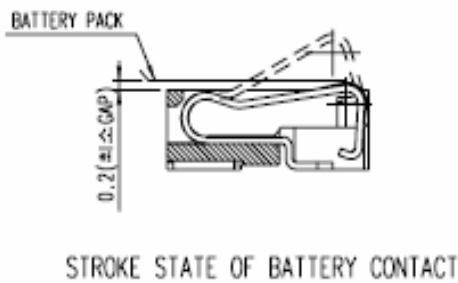
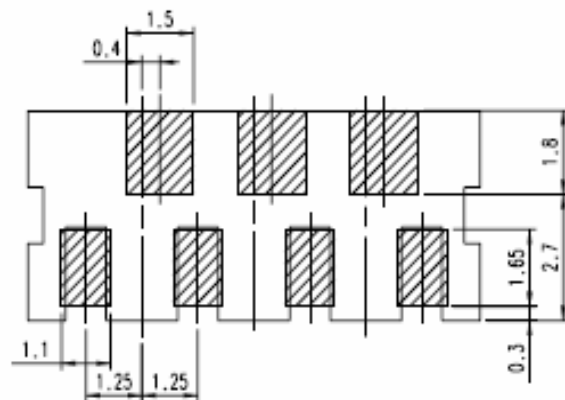
STROKE STATE OF BATTERY CONTACT

Hirose Part No.	Product Name	Contact	Package	Remark
CL 6226-0123-0	KQ02L4-3R(17)	3	Emboss Tape	1,500ea/Reel
CL 6226-0124-2	KQ02L4-3R(19)	3	Emboss Tape	1,500ea/Reel

■ KQ02L5-4R

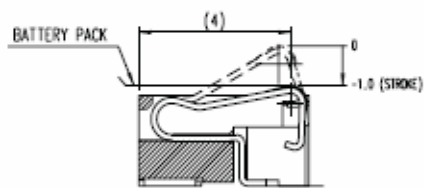
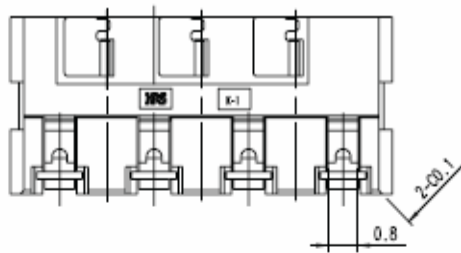
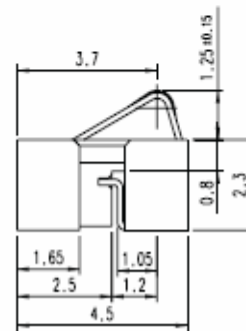
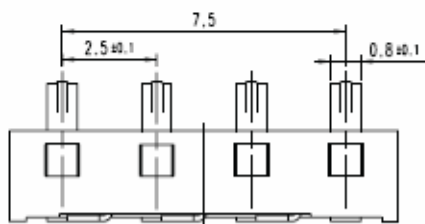
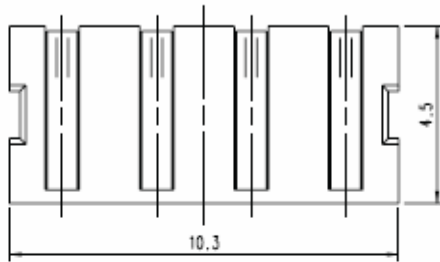


PCB PATTERN LAYOUT
(GENERAL TOLERANCE: ±0.05)

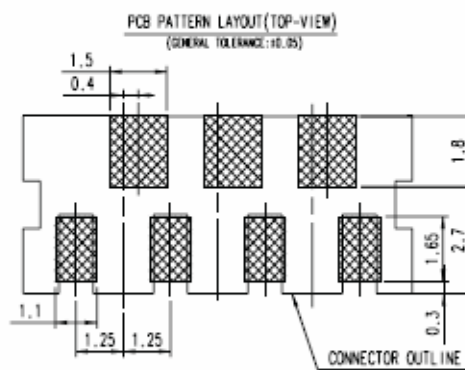


Hirose Part No.	Product Name	Contact	Package	Remark
CL 6226-0141-1	KQ02L5-4R	4	Emboss Tape	1,500ea/Reel

■ KQ02L9-4R



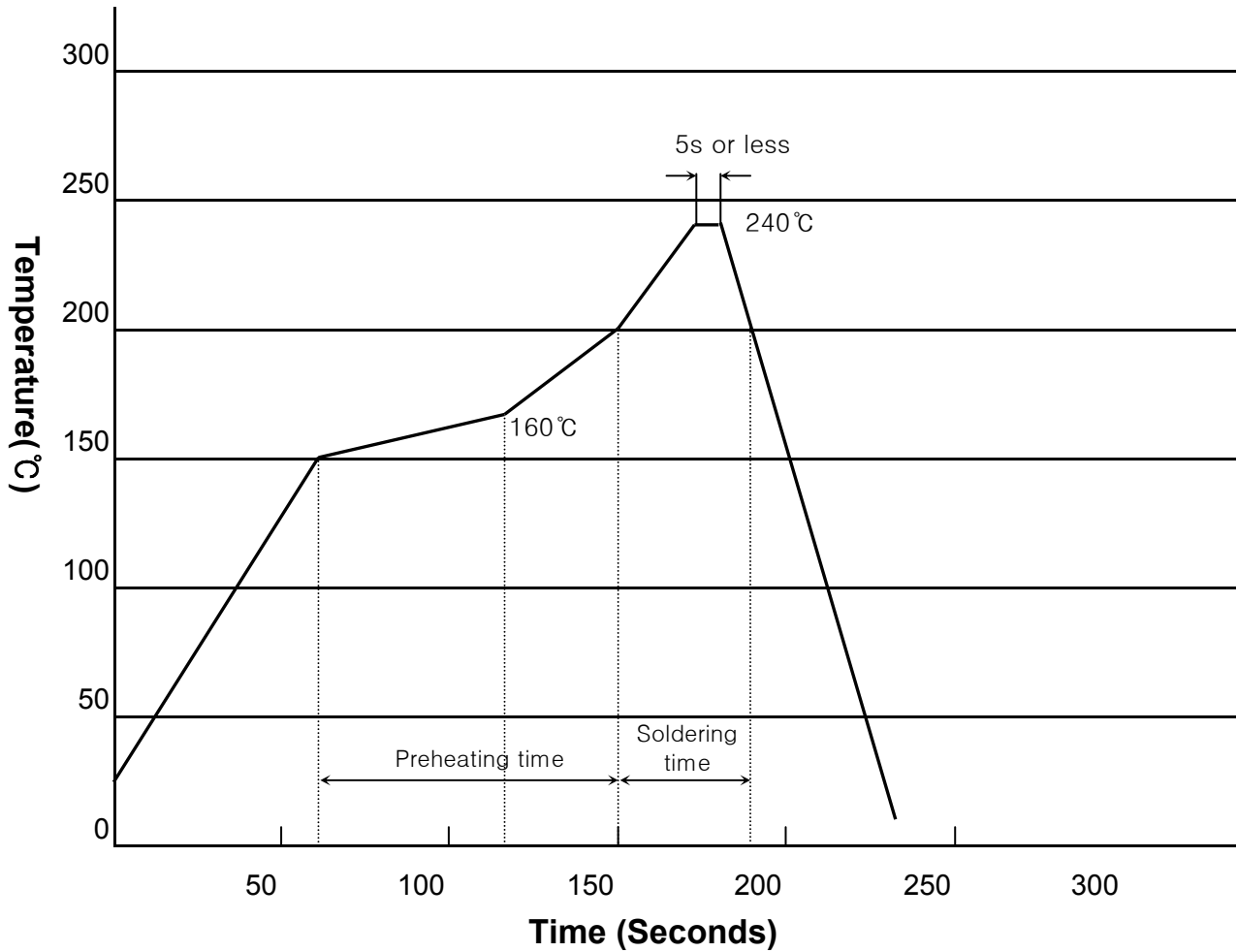
STROKE STATE OF BATTERY CONTACT



Hirose Part No.	Product Name	Contact	Package	Remark
CL 6226-0180-3	KQ02L9-4R	4	Emboss Tape	1,500ea/Reel

■ Reflow Profile

Using Conventional Solder Paste



Recommended Application Conditions

Reflow System: IR reflow

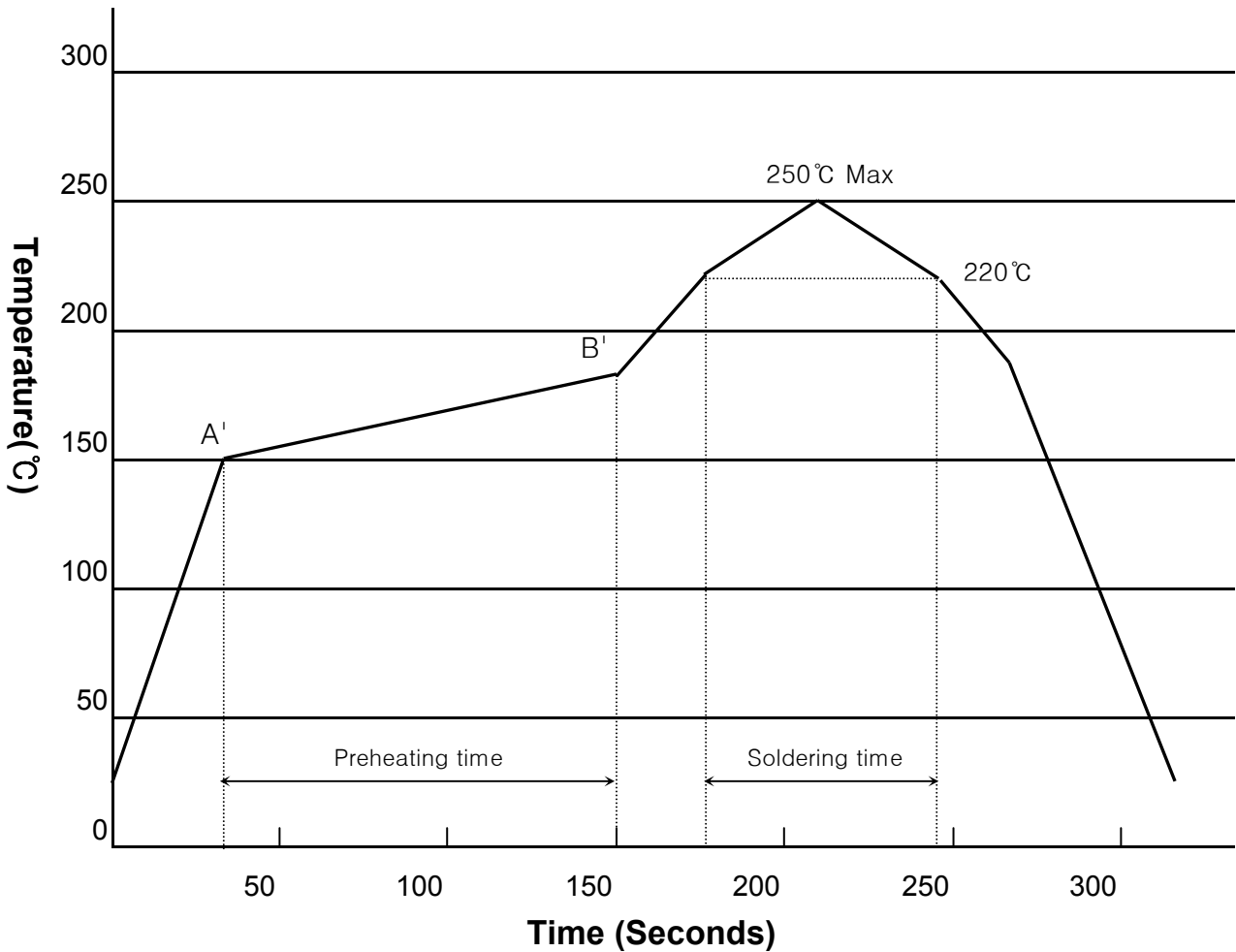
Solder: Cream type 63 Sn / 37 Pb

Flux content 11%wt

Metal mask thickness: 0.12mm

■ Reflow Profile

Using Lead-free Solder Paste



Recommended Application Conditions

Reflow System: IR reflow

Solder: Cream type Sn / 3 Ag / 0.5 Cu

Flux content 11%wt

Metal mask thickness: 0.12mm

Preheating time: 150°C~190°C, 90±30seconds

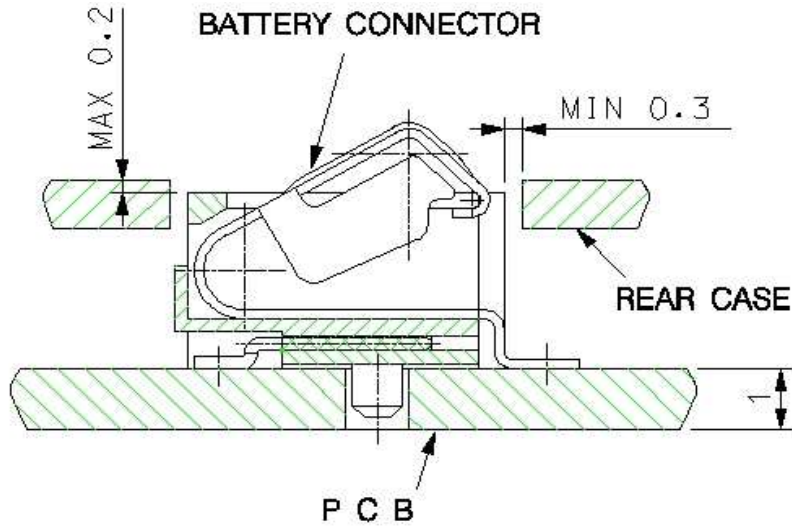
A'=150°C~170°C, B'=170°C~190°C

Soldering time: 250°C Max

220°C Min, 30~60 seconds

Application example of battery connector

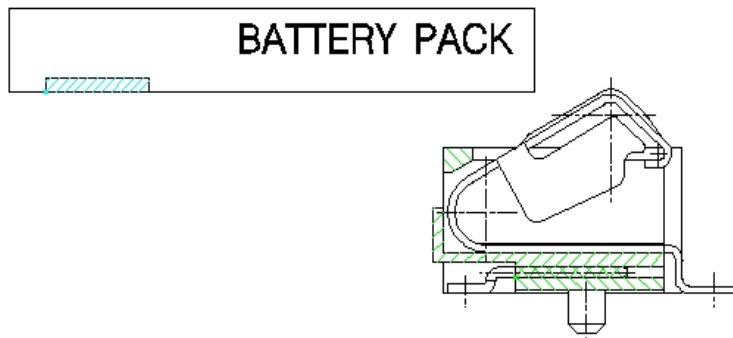
1. Appliance design



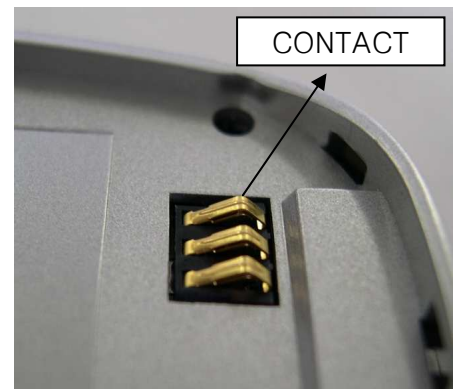
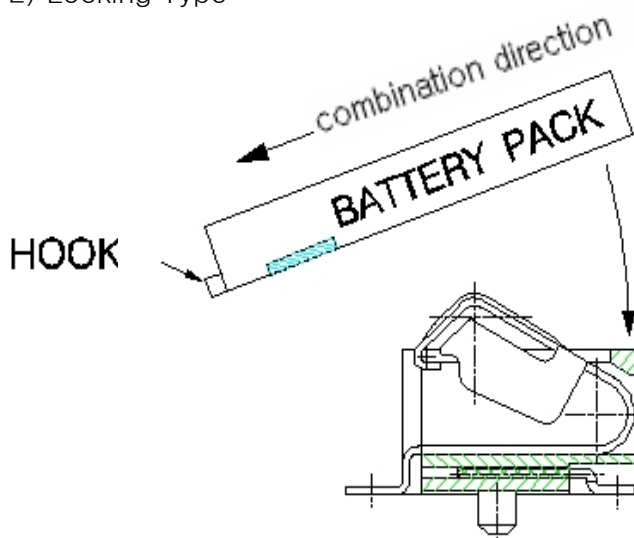
2. Recommended mounting method

1) Sliding Type

combination



2) Locking Type



Application example