

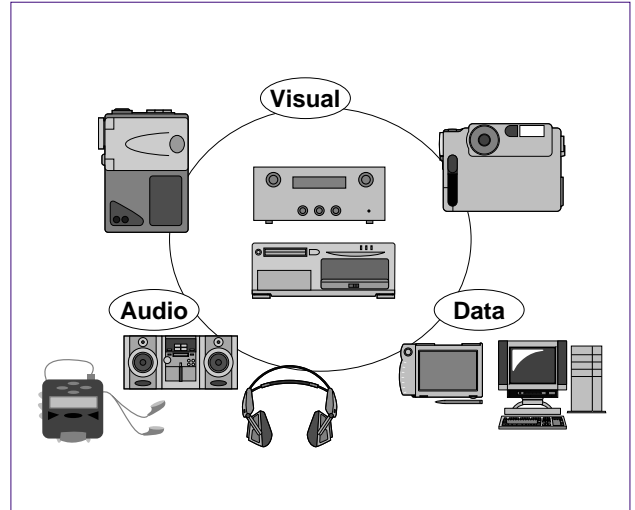
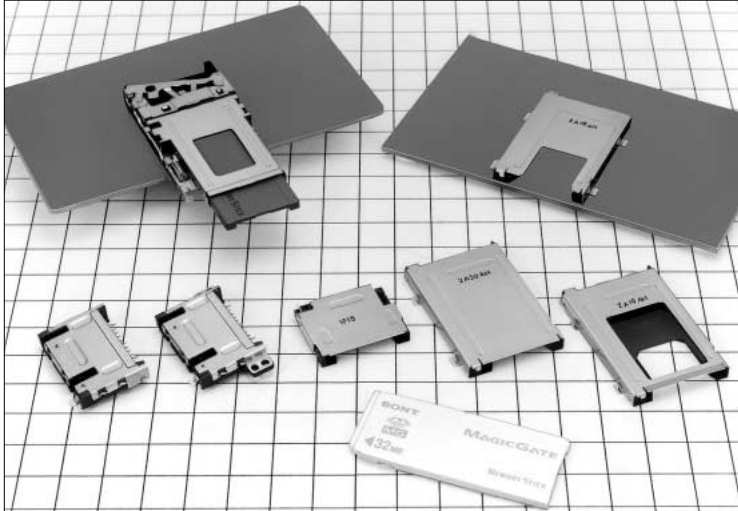
# Memory Stick® Connectors

## CB1 Series

### ■ Outline

Receptacle connectors for use with the new generation of digital media devices requiring "Memory Stick®" type of consumer removable memory card.

Several variations are available: Miniature, Low Profile and with or without ejection mechanism.



### ■ Features

#### <For all the CB1 Series>

##### 1. Indication of incorrect card insertion

The connector will not allow the card to be completely inserted from the wrong end or reversed.

The card will stop about 7mm before complete insertion position, visually indicating incorrect insertion.

##### 2. Protection of the contacts

Incorrect insertion of the card will not damage the contacts. The card can be easily withdrawn and re-inserted correctly.

#### <CB1E Series Low-Profile connector (Push insert/ Push eject) >

##### 1. Low-Profile

With a protrusion above the mounting surface of only 3.5mm the connector is ideally suited for miniature or thin devices.

##### 2. Large ejection distance of 6.2mm allows convenient handling of the card

##### 3. Several variations

The metal cover configuration may be selected, depending on the requirements of specific application:

- Card insertion verification window;
- Side card guides;

#### <CB1D Series Low-Profile (Without card Ejection Function)>

##### 1. 3.55mm protrusion above the mounting surface

##### 2. Provided with the holes for M1.7 screw, if additional hold to the board is required

#### ● Low-Profile connector, Push insert/ Push eject



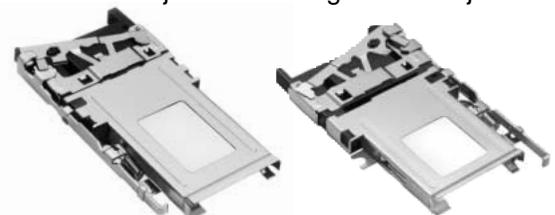
#### ● Low-Profile connector, without card Ejection Function



#### ● Connector, with card Ejection Function

Left button eject

Right button eject



\*Memory Stick is a registered trademark of the Sony Corporation.

## Product Specifications

Rating	Current rating 0.5A	Operating temperature range -20°C to +85°C(Note)	Operating humidity range Relative humidity 96% max. (No condensation)
	Voltage rating 125V AC	Storage temperature range -40°C to +85°C	

Item	Specification	Conditions
1. Insulation resistance	1000 M ohms min.	500 V DC
2. Withstanding voltage	No flashover or insulation breakdown	500 V AC / one minute
3. Contact resistance	100 m ohms max.	100mA DC
4. Vibration	No electrical discontinuity of 1 $\mu$ s or more	Frequency: 10 to 55 Hz, single amplitude of 0.75 mm, 2 hours / 3 axis
5. Humidity	Contact resistance: 40 m ohms max. from initial value Insulation resistance: 100 M ohms min.	96 hours at temperature of 40°C $\pm$ 2°C and humidity of 90% to 95%
6. Temperature cycle	Contact resistance: 40 m ohms max. from initial value Insulation resistance: 100 M ohms min.	Temperature: -55°C $\rightarrow$ +5°C to +35°C $\rightarrow$ +85°C $\rightarrow$ +5°C to +35°C Duration: 30 $\rightarrow$ 5 $\rightarrow$ 30 $\rightarrow$ 5(Minutes) 5 cycles
7. Durability (mating/unmating)	Contact resistance: 40m ohms max. from initial value	12000 cycles at 400 to 600 cycles per hour
8. Resistance to soldering heat	No deformation of components affecting performance.	Reflow: At the recommended temperature profile Manual soldering: 300°C for 3 seconds

Note :Includes temperature rise caused by current flow.

## Materials

Part	Material	Finish	Remarks
Insulator	Heat resistant glass reinforced therm oplastic compound	Color: Black	UL94V-0
Contacts	Phosphor bronze	Contact area: Gold plating Termination area: Solder plating	—
Metal hold down	Phosphor bronze	Contact area: Nickel plating Termination area: Solder plating	CB1E Series is without the termination area.
Cover	Stainless steel	—	The CB1E Series has termination area with solder plating.
Eject mechanism components	Stainless steel	—	—

## Ordering information

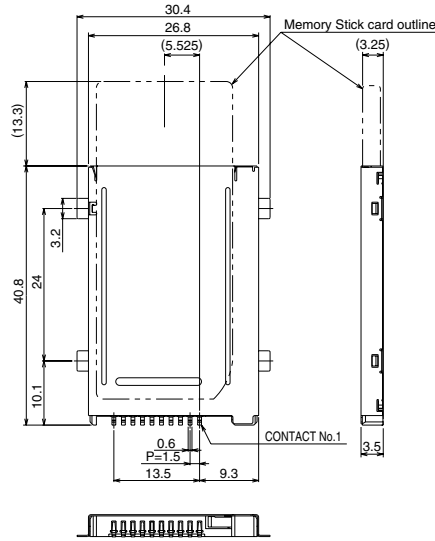
CB
1
E
-
10
S
-
1.5
H
-
PEJC

① Series name : CB	⑥ Contact pitch : 1.5 mm
② Series No. : 1	⑦ Surface mount
③ Ejector type : E } With eject mechanism C } D } Without eject mechanism A }	⑧ Eject mechanism codes: PEJC : Card Push insert/Push eject EJL : Left button eject EJR : Right button eject
④ Number of contacts : 10	
⑤ Connector type S : Receptacle	

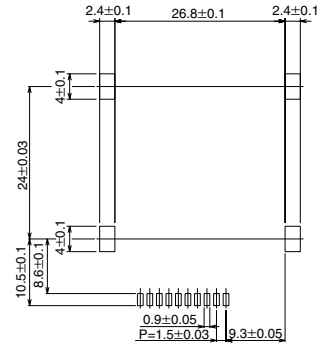
## Low-Profile connector (Card Push insert-Push eject)



Part Number	CL No.
CB1EB-10S-1.5H-PEJC2	689-0026-9



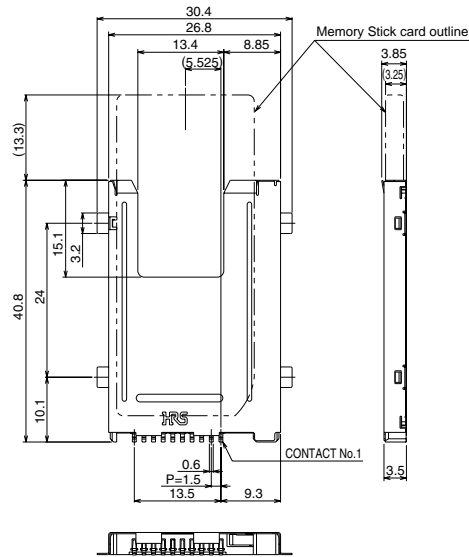
## PCB mounting pattern



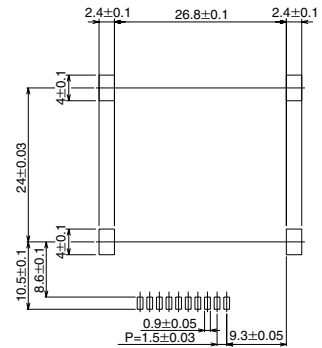
## Low-Profile connector (Card Push insert-Push eject) U-Shaped cut-out



Part Number	CL No.
CB1EBG-10S-1.5H-PEJC2	689-0034-7



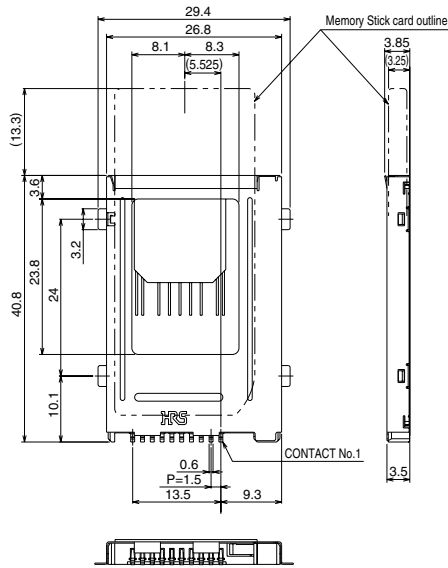
## PCB mounting pattern



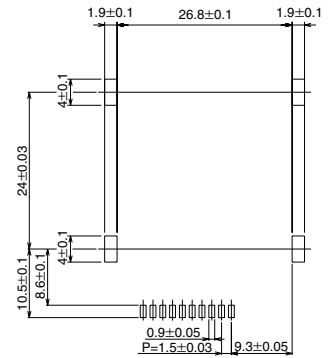
## Low-Profile connector (Card Push insert-Push eject) Square Window



Part Number	CL No.
CB1EBH-10S-1.5H-PEJC2	689-0035-0

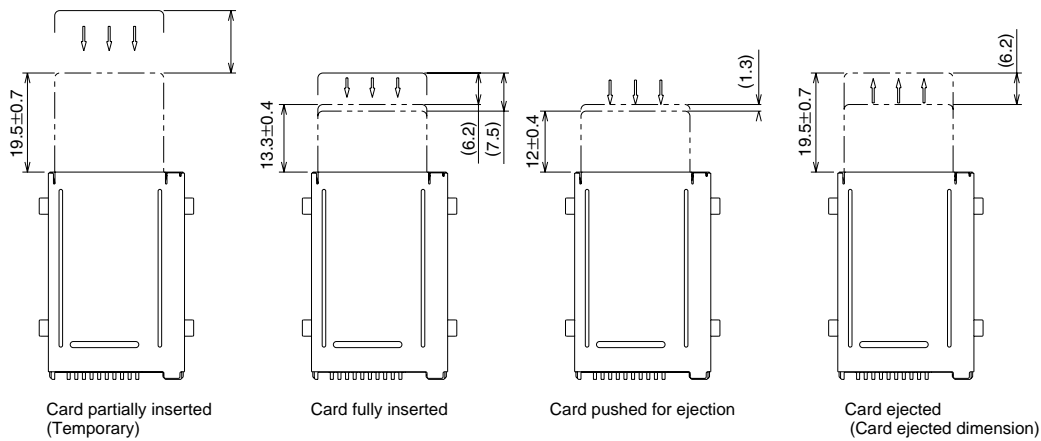


## PCB mounting pattern



## Card insertion/withdrawal dimensions

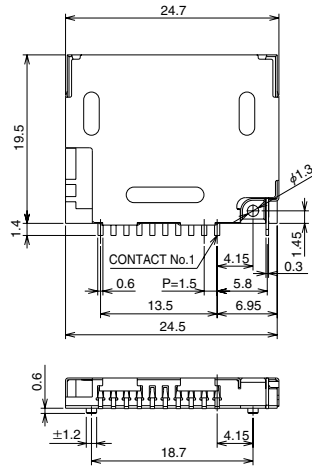
All CB1E Series connectors



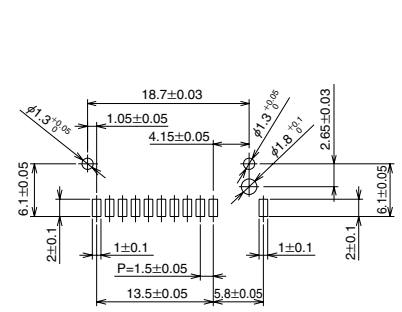
## Low-Profile - Without Card Ejection



Part Number	CL No.
CB1D-10S-1.5H	689-0021-5

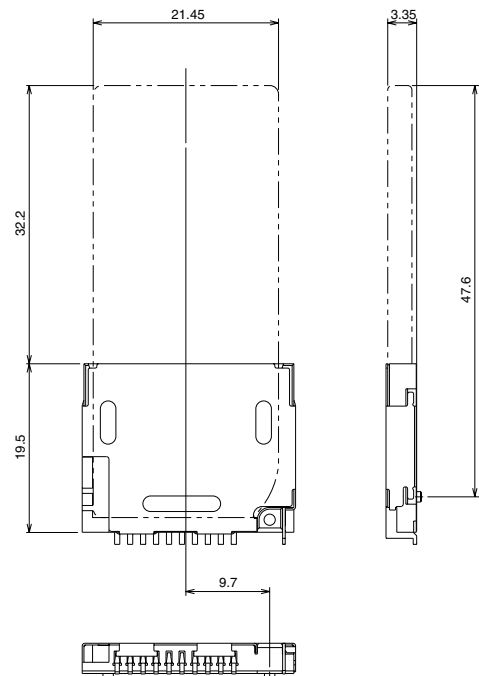
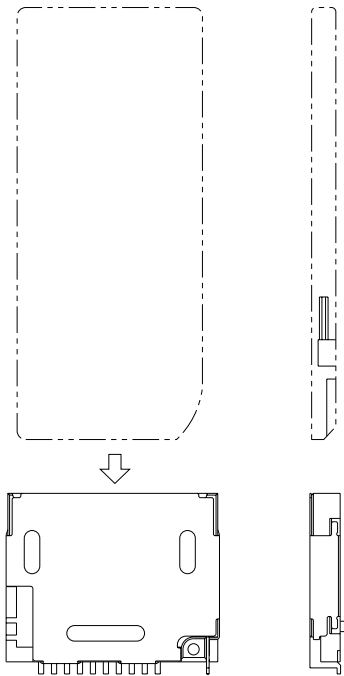


## PCB mounting pattern

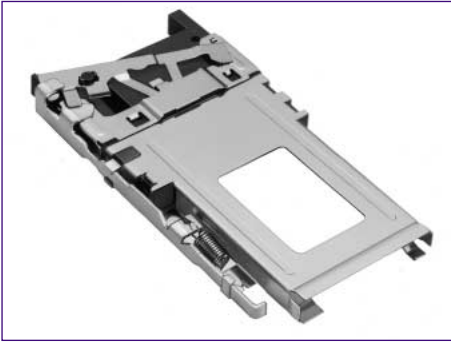


## Memory Stick card insertion direction

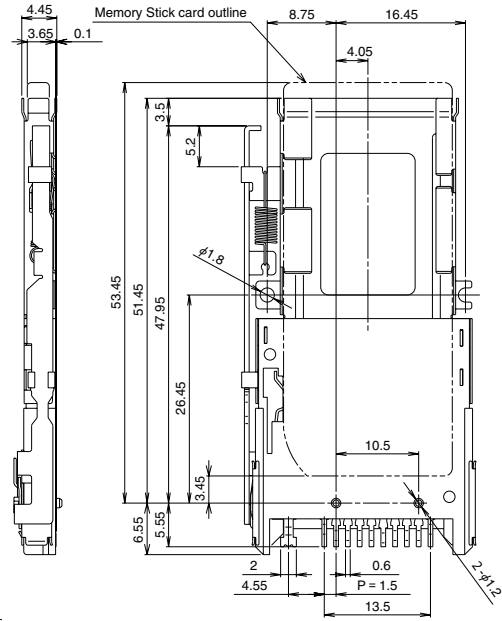
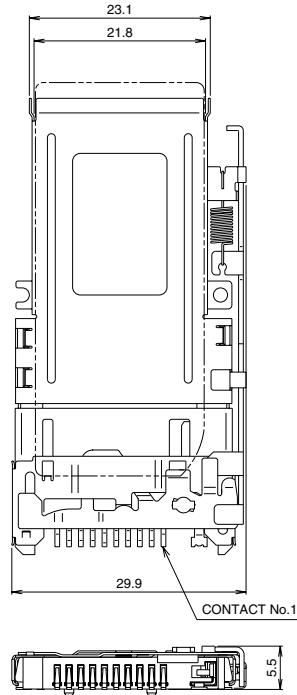
## Memory Stick fully inserted dimensions



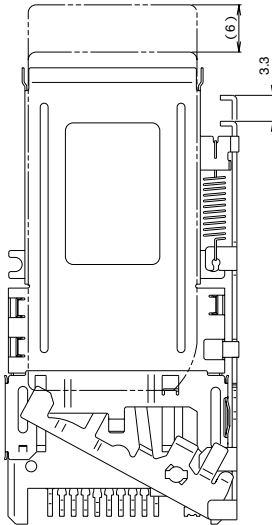
## Left Ejection



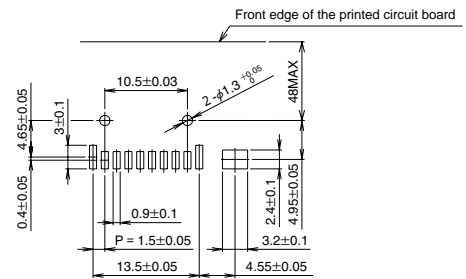
Part Number	CL No.
CB1C-10S-1.5H-EJL(59)	689-0006-1-59



## When Card is Ejected



## PCB mounting pattern

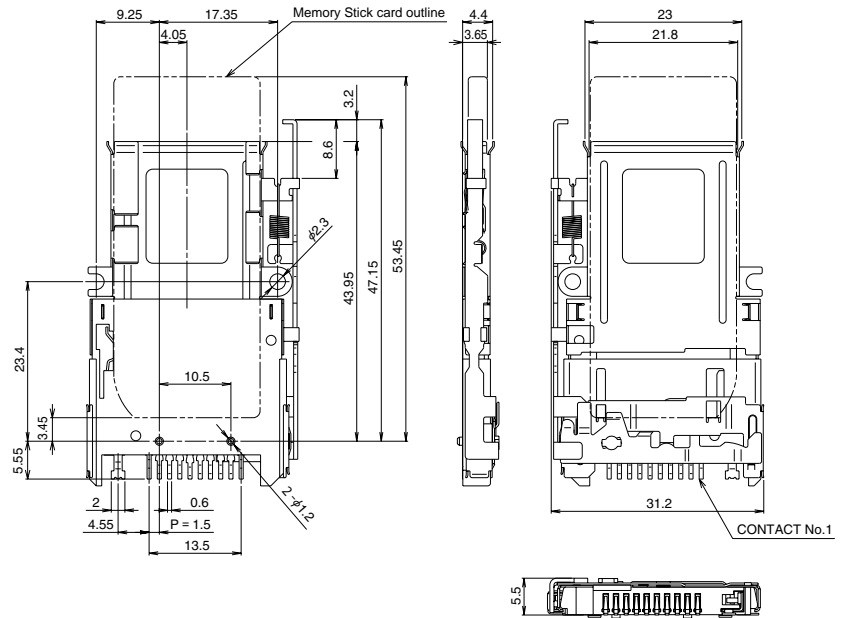


## Right Ejection

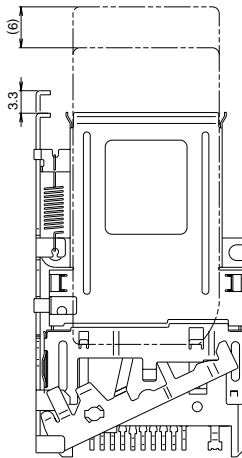


Part Number	CL No.
CB1C-10S-1.5H-EJR(59)	689-0007-4-59

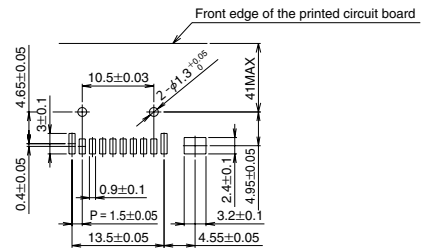
## PCB mounting pattern



## When Card is Ejected



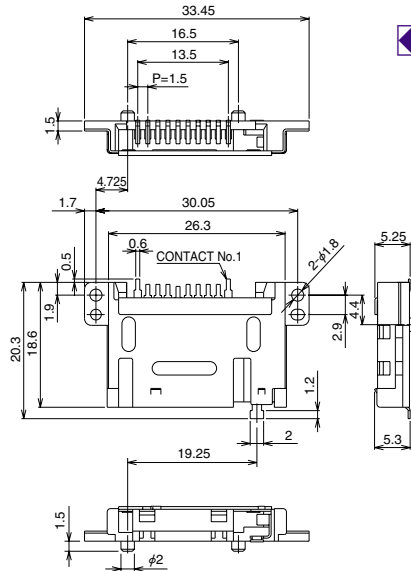
## PCB mounting pattern



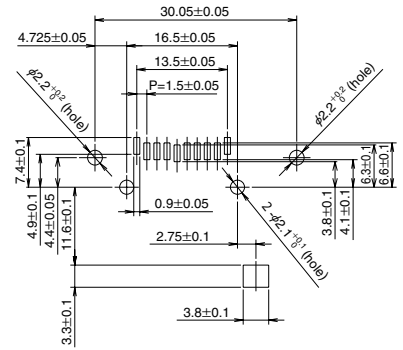
## ■With Flange for Screw attachment



Part Number	CL No.
CB1A-10S-1.5H(57)	689-0001-8-57



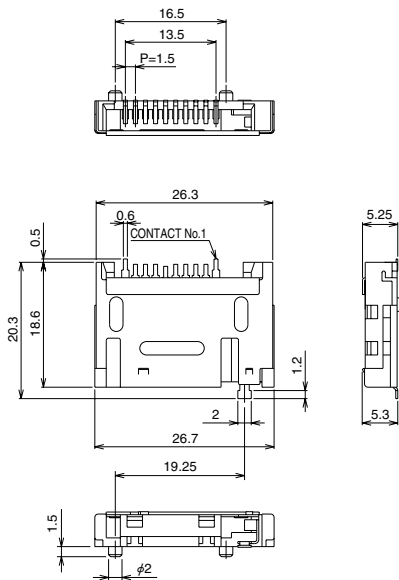
## ◆PCB mounting pattern



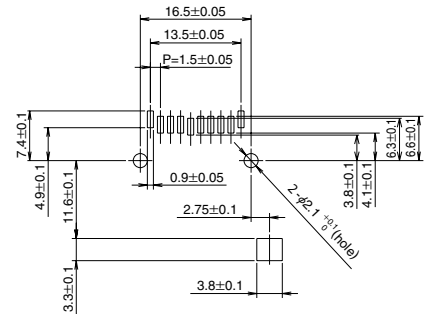
## ■Without Flange



Part Number	CL No.
CB1AA-10S-1.5H(57)	689-0002-0-57

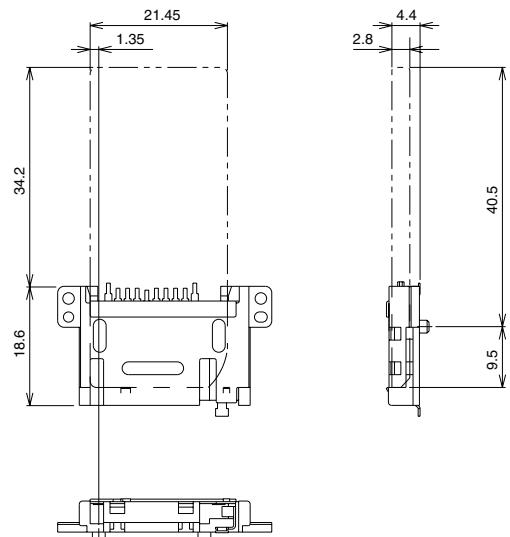
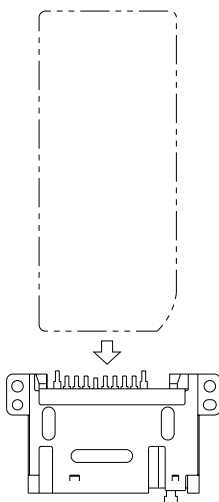


## ◆PCB mounting pattern



## ◆Memory Stick card insertion direction

## ◆Memory Stick fully inserted dimensions

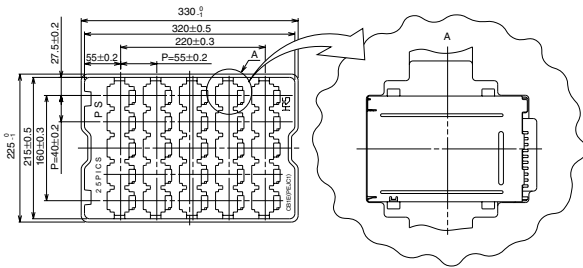




## ■Packaging specification (Tray Packaging)

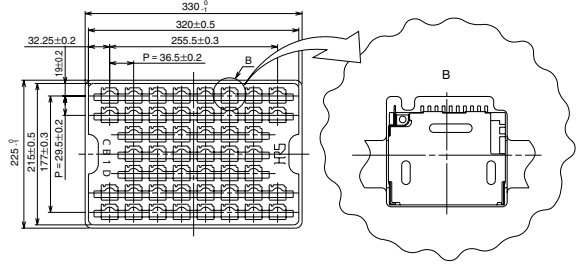
### ●Part Number:

CB1EB-10S-1.5H-PEJC2 (1 tray: 25 pieces)  
 CB1EBG-10S-1.5H-PEJC2 (1 tray: 25 pieces)  
 CB1EBH-10S-1.5H-PEJC2 (1 tray: 25 pieces)



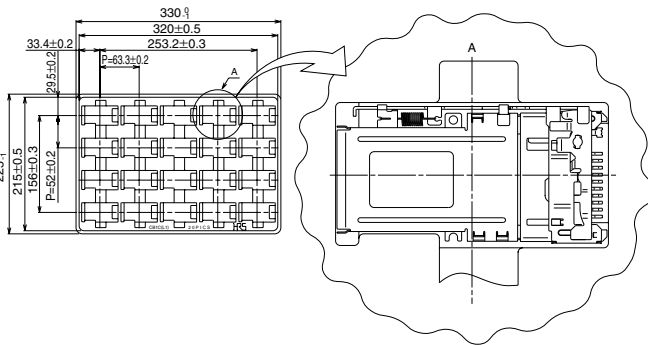
### ●Part Number:

CB1D-10S-1.5H (1 tray: 50 pieces)



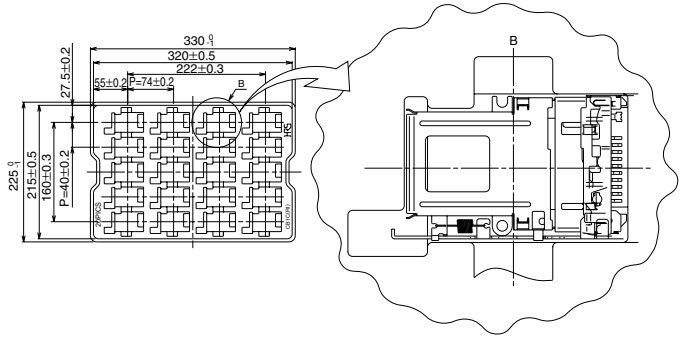
### ●Part Number:

CB1C-10S-1.5H-EJL (59) (1 tray: 20 pieces)



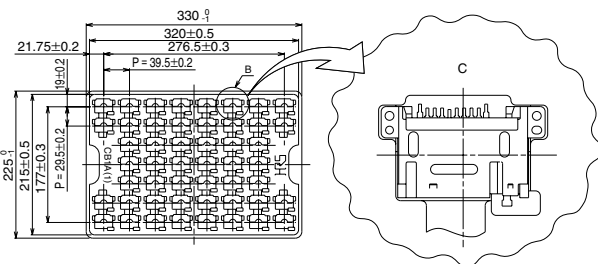
### ●Part Number:

CB1C-10S-1.5H-EJR (50) (1 tray: 20 pieces)



### ●Part Number:

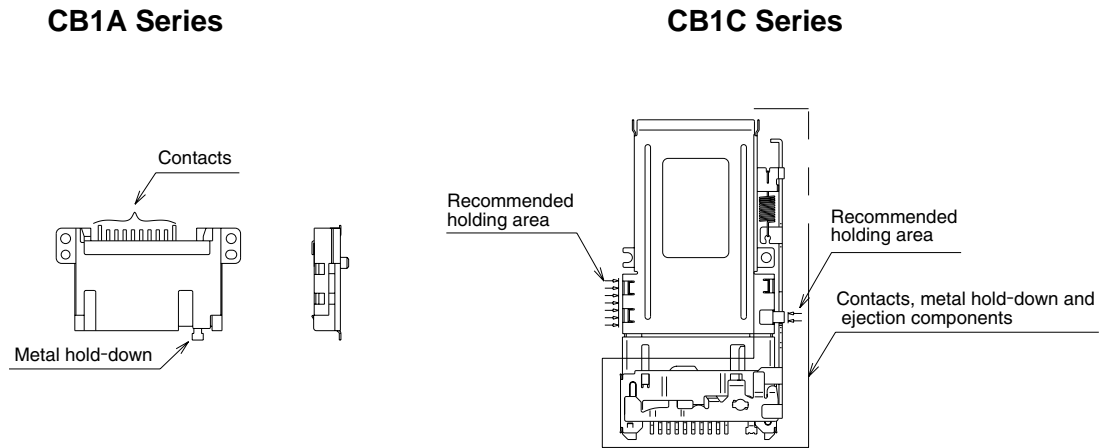
CB1A-10S-1.5H (57) (1 tray: 50 pieces)  
 CB1AA-10S-1.5H (57) (1 tray: 50 pieces)



## ◆ Usage Precautions

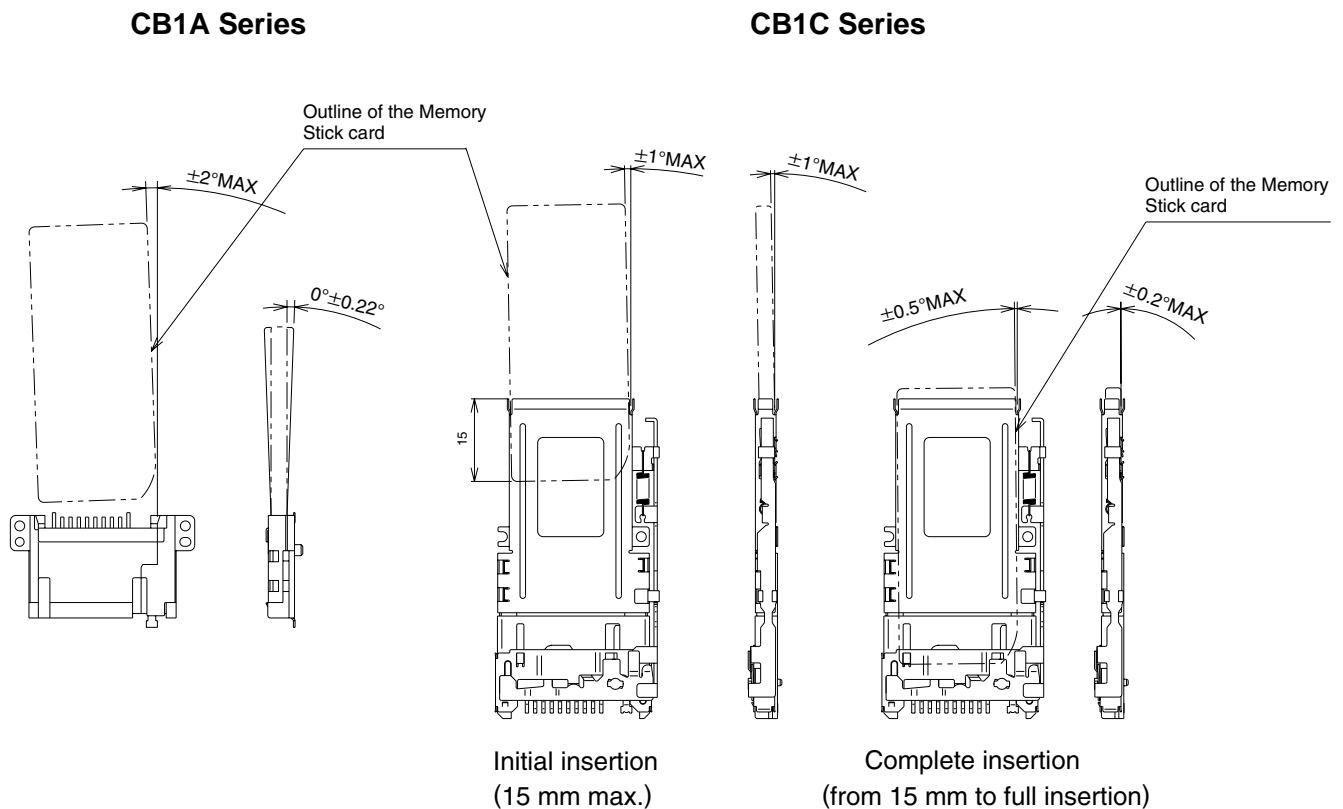
1. Care should be taken to correctly insert/withdraw the Memory Stick® card. Following correct insertion/withdrawal procedures will prevent device or connector damage.

When handling the CB1C series connectors, hold it in the areas indicated by the arrows, as illustrated below.

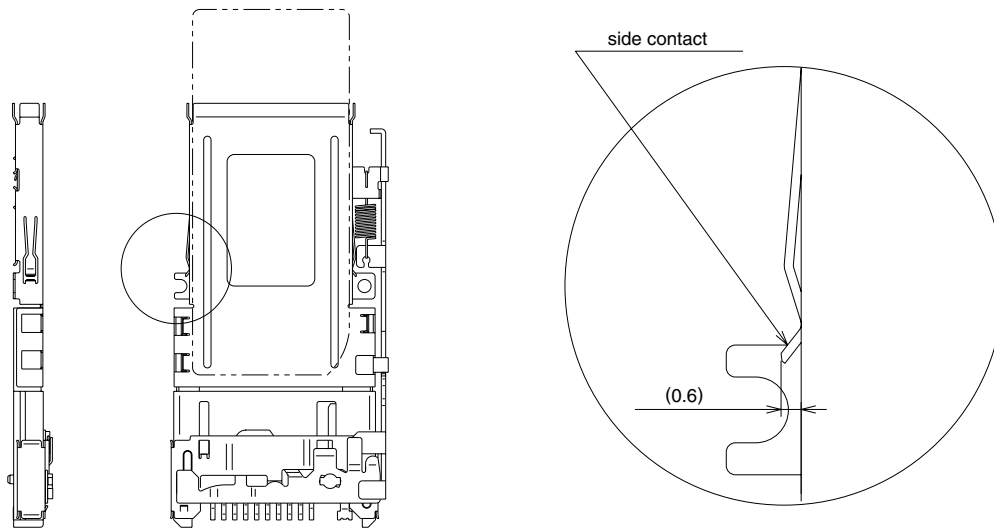


2. Follow the recommended insertion angles, as illustrated below.

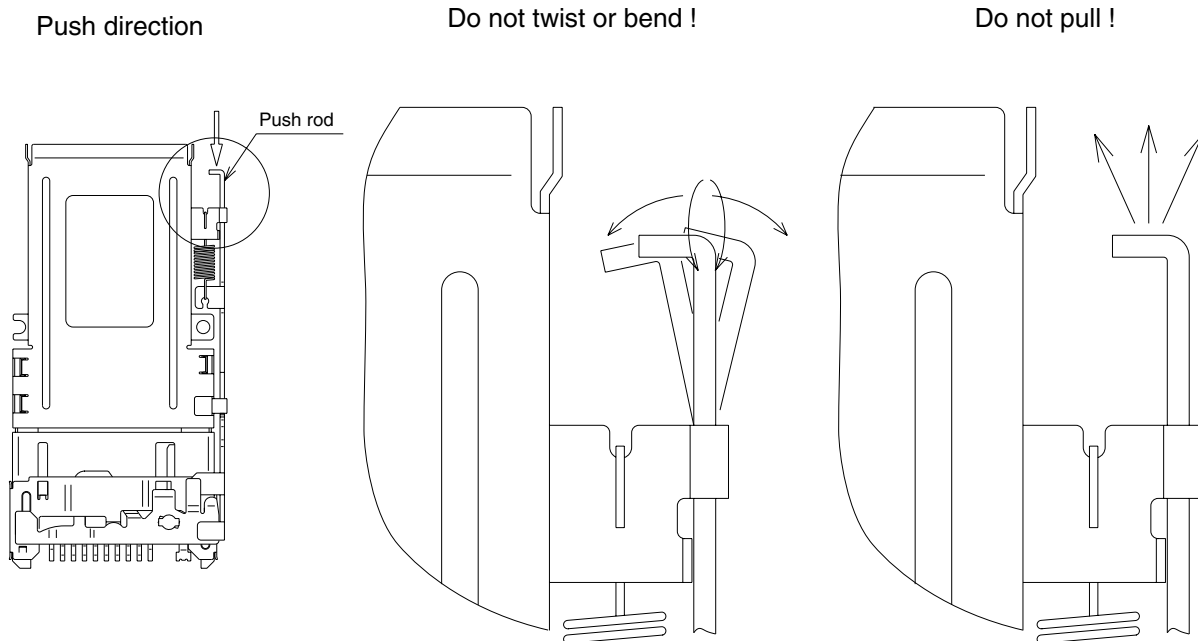
<Memory Stick Allowable Insertion Angles>



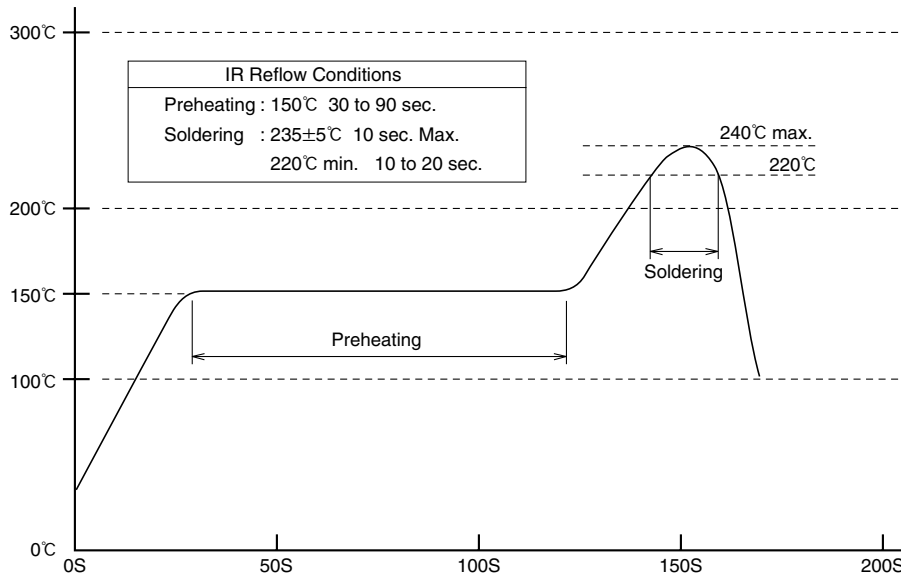
3. When inserting or withdrawing cards from the CB1C Series, the side contacts on both sides will protrude outward by 0.6 mm. Care should be taken that they will not be restricted or touch other components.



4. Application of an excessive external force to the push rod may prevent the ejection or insertion of the card. Do not apply any load in a direction other than the push direction.



## ■ Recommended Temperature Profile



### <Recommended Conditions>

Reflow system : IR reflow

Solder : Paste type 63 Sn/37 Pb (Flux content 9 wt%)

Test board : Glass epoxy 60mm x 100mm x 1.6 mm

Metal mask thickness : 0.15 mm

Recommended temperature.

The temperature may be slightly changed according to the solder paste type and volume used.