

0.5mmPitch FPC Connectors FF14 Series

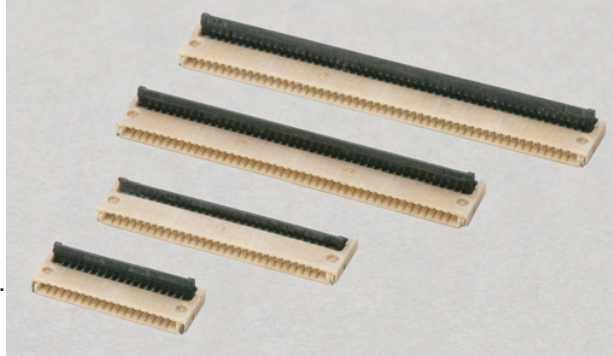


RoHS Compliant

Description

0.5 mm pitch FPC connectors. These are low-profile connectors with the height of only 0.9 mm.

The area that a connector occupies on a board is the smallest in the industry.



Application

Mobile Phones, Digital Cameras, PDA, Notebook Computers, Other Hand held Devices

Features

1. Both of upper and lower contact in one connector.
2. Space saving design with 0.9mm high and miniaturized the connector occupies.
3. Rotation back slider with cam
Reliable electrical connection and easy FPC insertion.
4. Low insertion force
Protects to be shifted after FPC insertion.
5. Available to space saving slider or easy operation slider.

Specifications

- Rated voltage : 50V AC(r.m.s.)
- Rated current : 0.5A / Contact
- Dielectric withstanding voltage : 200V AC(r.m.s.) for 1 minute
- Insulation resistance : 100M Ω min. at 500V DC
- Contact resistance : 50m Ω max.

Material / Finish

Contact : Copper Alloy / Flash Gold over Nickel Plating
Housing : LCP resin (UL94V-0) / Ivory
Slider : PPS resin (UL94V-0) / Black

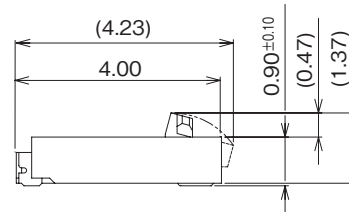
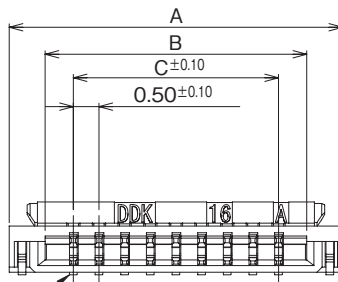
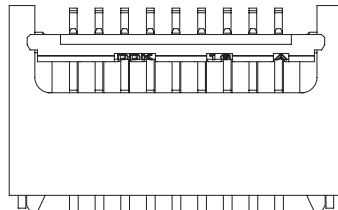
Unit:mm

FF14-□□□-R1□A

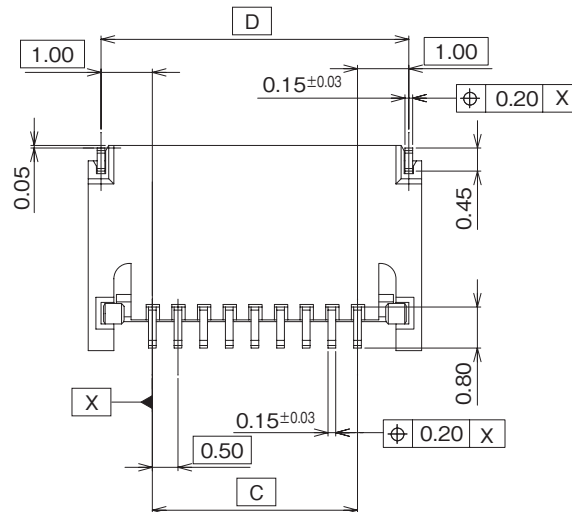
Number of contact

FPC/FFC Thickness
 A : 0.20 ± 0.03
 C : 0.12 ± 0.03

Contact Finish
 1 : Gold over Nickel plating



Contact No.1



P / N	Number of contact	A	B	C	D	E
FF14-10□-R1□A	10	7.00	5.60	4.50	6.50	5.50
FF14-14□-R1□A	14	9.00	7.10	6.50	8.50	7.50
FF14-17□-R1□A	17	10.50	9.10	8.00	10.00	9.00
FF14-18□-R1□A	18	11.00	9.60	8.50	10.50	9.50
FF14-24□-R1□A	24	14.00	12.60	11.50	13.50	12.50
FF14-26□-R1□A	26	15.00	13.60	12.50	14.50	13.50
FF14-27□-R1□A	27	15.50	14.10	13.00	15.00	14.00
FF14-30□-R1□A	30	17.00	15.60	14.50	16.50	15.50
FF14-32□-R1□A	32	18.00	16.60	15.50	17.50	16.50

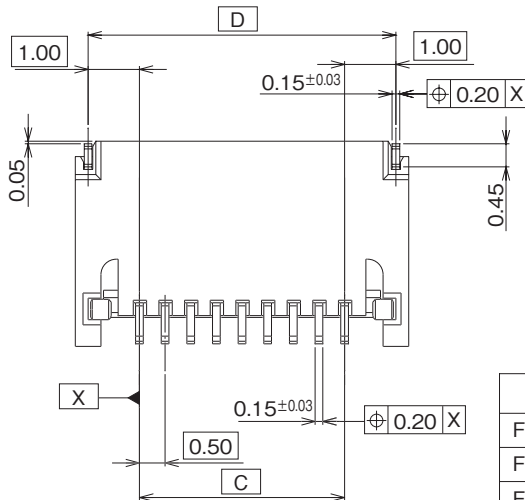
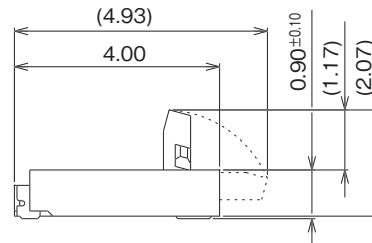
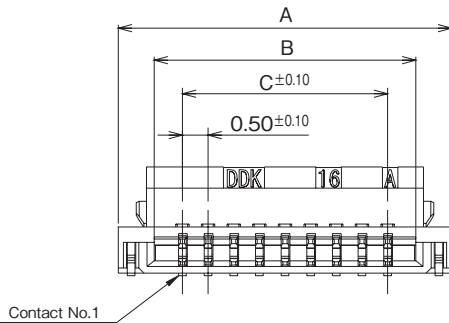
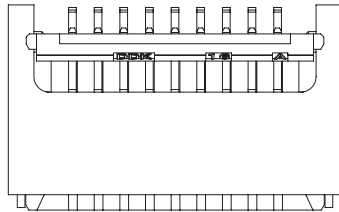
Unit:mm

FF14--R1B

Number of contact

FPC/FFC Thickness
A : 0.20 ± 0.03
C : 0.12 ± 0.03

Contact Finish
1 : Gold over Nickel plating

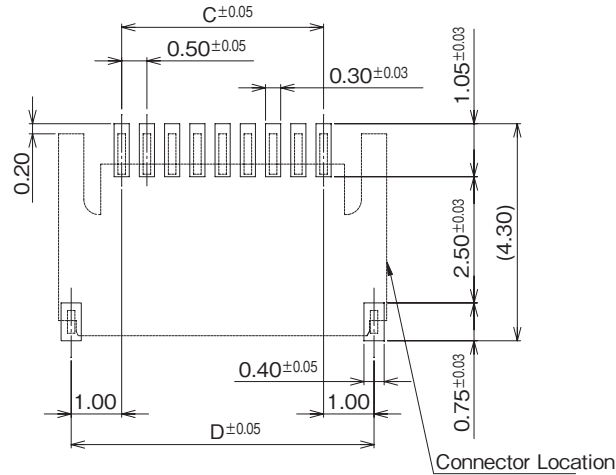


P / N	Number of contact	A	B	C	D	E
FF14- 8 <input type="text"/> -R1 <input type="text"/> B	8	6.00	4.60	3.50	5.50	4.50
FF14-10 <input type="text"/> -R1 <input type="text"/> B	10	7.00	5.60	4.50	6.50	5.50
FF14-12 <input type="text"/> -R1 <input type="text"/> B	12	8.00	6.60	5.50	7.50	6.50
FF14-14 <input type="text"/> -R1 <input type="text"/> B	14	9.00	7.60	6.50	8.50	7.50
FF14-16 <input type="text"/> -R1 <input type="text"/> B	16	10.00	8.60	7.50	9.50	8.50
FF14-18 <input type="text"/> -R1 <input type="text"/> B	18	11.00	9.60	8.50	10.50	9.50
FF14-20 <input type="text"/> -R1 <input type="text"/> B	20	12.00	10.60	9.50	11.50	10.50
FF14-22 <input type="text"/> -R1 <input type="text"/> B	22	13.00	11.60	10.50	12.50	11.50
FF14-24 <input type="text"/> -R1 <input type="text"/> B	24	14.00	12.60	11.50	13.50	12.50
FF14-27 <input type="text"/> -R1 <input type="text"/> B	27	15.50	14.10	13.00	15.00	14.00
FF14-32 <input type="text"/> -R1 <input type="text"/> B	32	18.00	16.60	15.50	17.50	16.50
FF14-34 <input type="text"/> -R1 <input type="text"/> B	34	19.00	17.60	16.50	18.50	17.50
FF14-40 <input type="text"/> -R1 <input type="text"/> B	40	22.00	20.60	19.50	21.50	20.50
FF14-50 <input type="text"/> -R1 <input type="text"/> B	50	27.00	25.60	24.50	26.50	25.50

■ PCB Mounting Dimensions

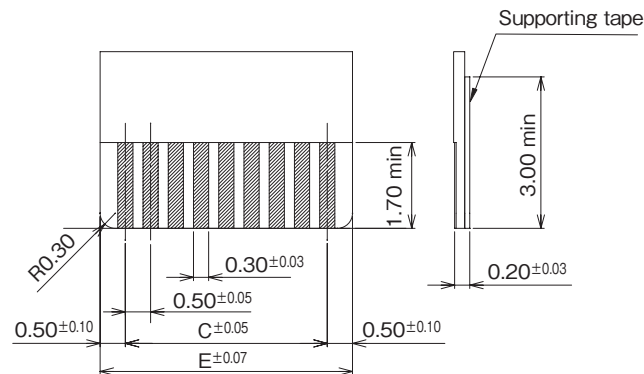
Unit:mm

FF14-□□□-R1□□

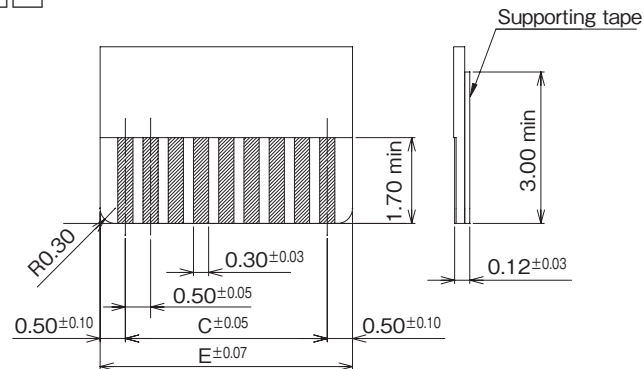


■ FPC Dimensions

FF14-□□A-R1□□

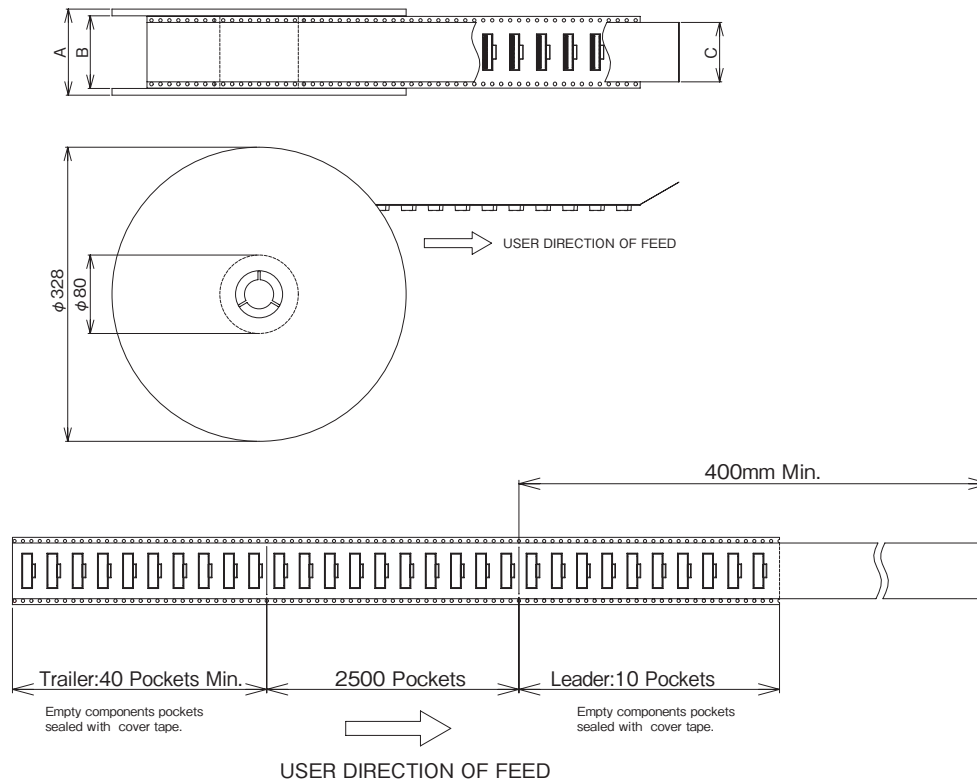


FF14-□□C-R1□□



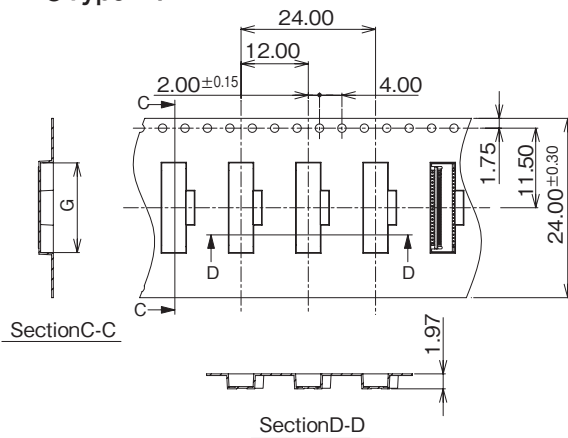
■ Reel Dimensions

Unit:mm

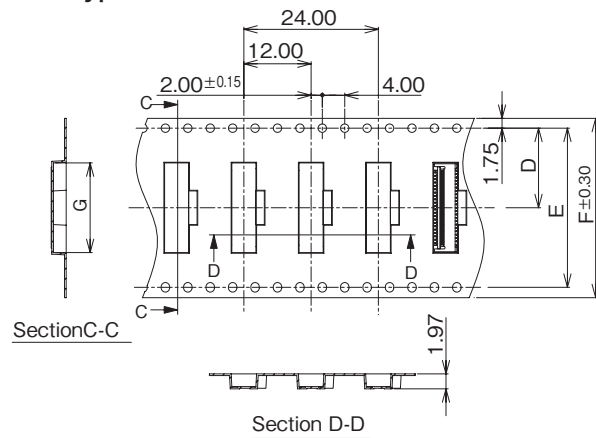


■ Emboss-Tape Dimensions

● Type-1



● Type-2

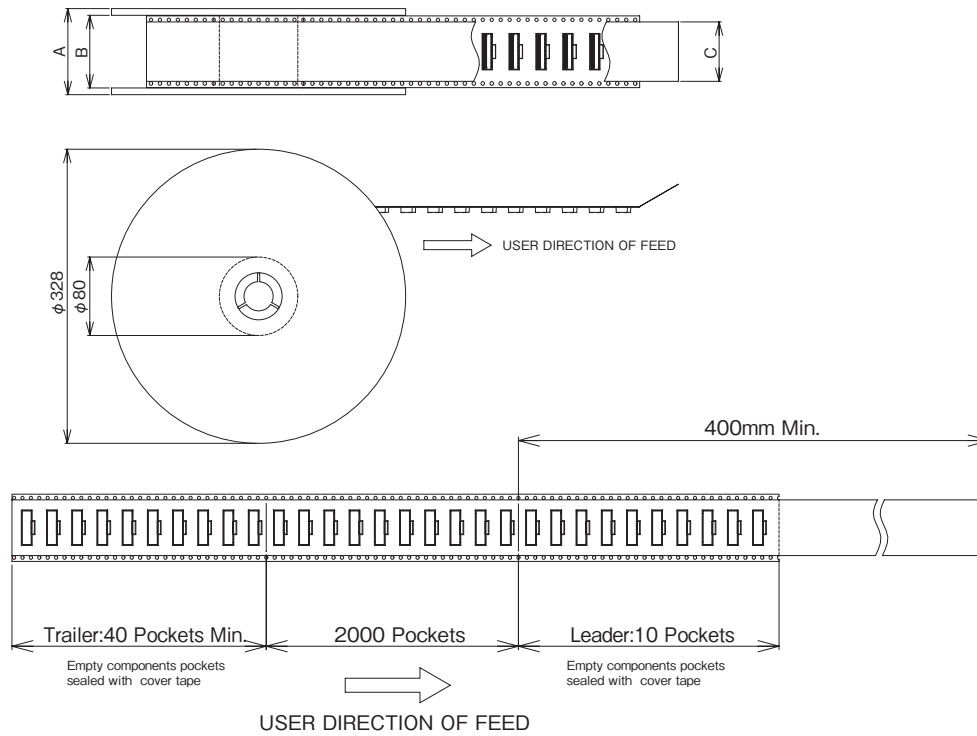


P / N	Number of contact	A	B	C	D	E	F	G	Used Emboss-Type
FF14-10□-R1□A	10	30.4	24.4	21.5	—	—	—	7.30	Type-1
FF14-14□-R1□A	14							9.30	
FF14-17□-R1□A	17							10.8	
FF14-18□-R1□A	18							11.3	
FF14-24□-R1□A	24	38.4	32.4	26.5	14.2	28.4	32.0	14.3	Type-2
FF14-26□-R1□A	26							15.3	
FF14-27□-R1□A	27							15.8	
FF14-30□-R1□A	30							17.3	
FF14-32□-R1□A	32							18.3	

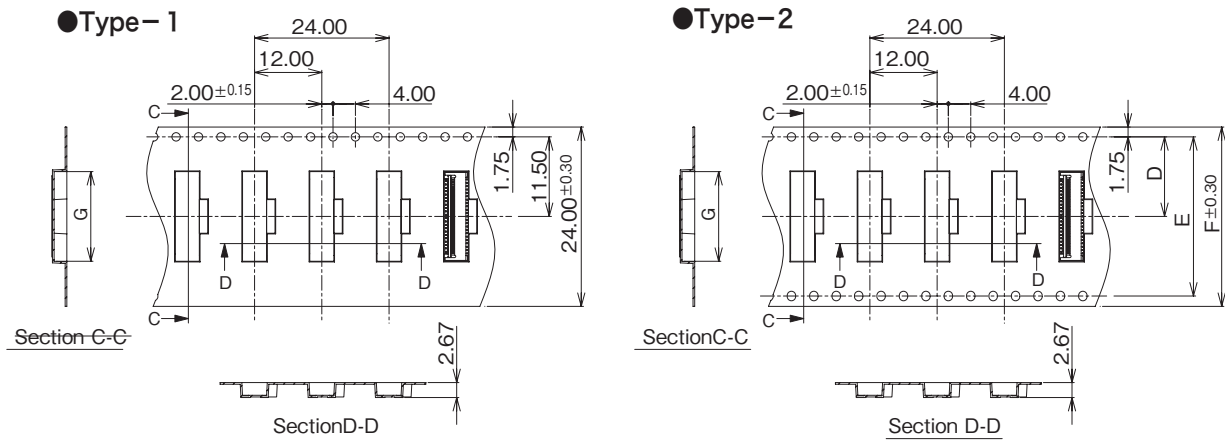
■ Packing Quantity : 2,500pcs / Reel

Unit:mm

■Reel Dimensions



■Emboss-Tape Dimensions

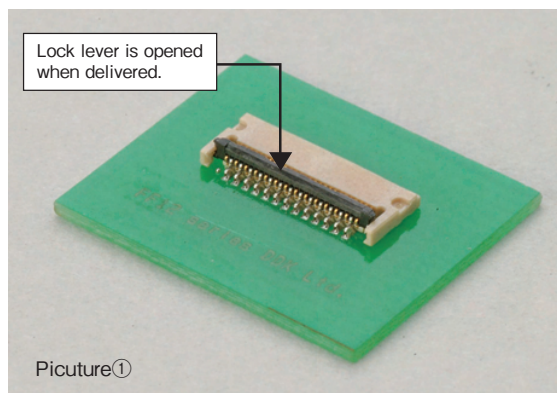


P / N	Number of contact	A	B	C	D	E	F	G	Used Emboss-Type
FF14- 8□-R1□B	8	30.4	24.4	21.5	—	—	—	6.3	Type-1
FF14-10□-R1□B	10							7.3	
FF14-12□-R1□B	12							8.3	
FF14-14□-R1□B	14							9.3	
FF14-16□-R1□B	16							10.3	
FF14-18□-R1□B	18	38.4	32.4	26.5	14.2	28.4	32.0	11.3	Type-2
FF14-20□-R1□B	20							12.3	
FF14-22□-R1□B	22							13.3	
FF14-24□-R1□B	24							14.3	
FF14-27□-R1□B	27							15.8	
FF14-32□-R1□B	32	50.4	44.4	38.5	20.2	40.4	44.0	18.3	
FF14-34□-R1□B	34							19.3	
FF14-40□-R1□B	40							22.3	
FF14-50□-R1□B	50							27.3	

■Packing Quantity : 2,000pcs/Reel

1. Connector mounting method

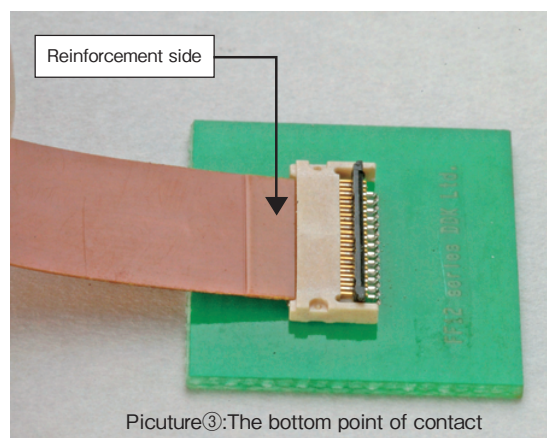
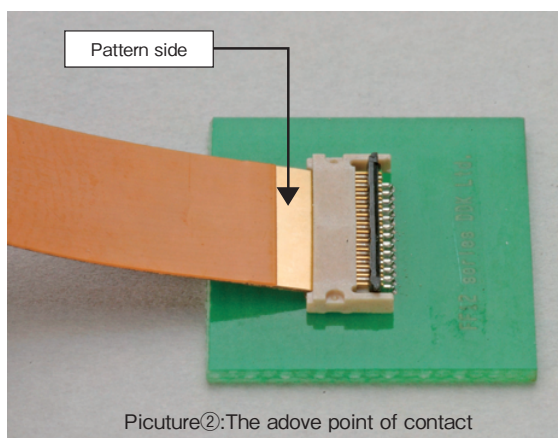
Since free of lock delivered, you need not operate the lock before inserting FPC.
(Refer to picture: ①)



2. FPC insert method

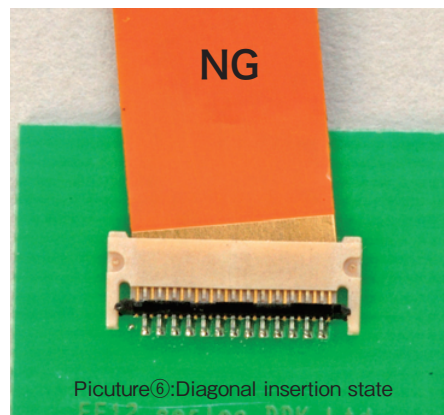
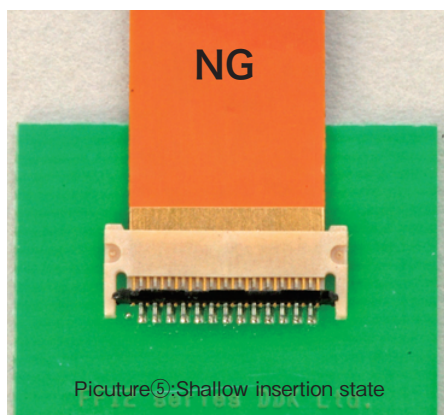
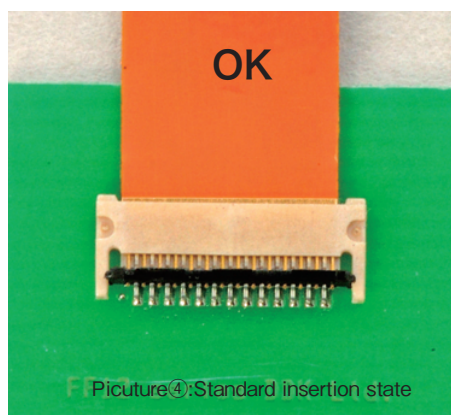
When the upper contact is used, insert the conductor to face up.
When the lower contact is used, insert the reinforcement side to face up.
Above point of contact: Refer to picture②
Bottom point of contact: Refer to picture③

Please insert FPC straight in the connector.
Some power is necessary for insertion because of the adoption of FPC temporary maintenance mechanism.
Please confirm whether FPC can be firmly inserted in the interior.



3-1. FPC confirm method (For the above point of contact)

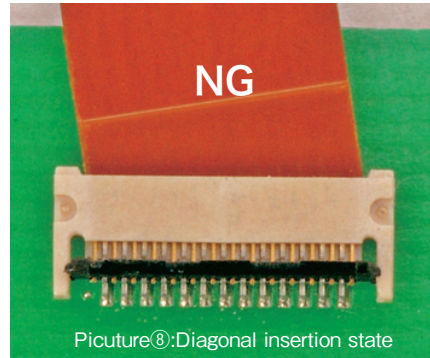
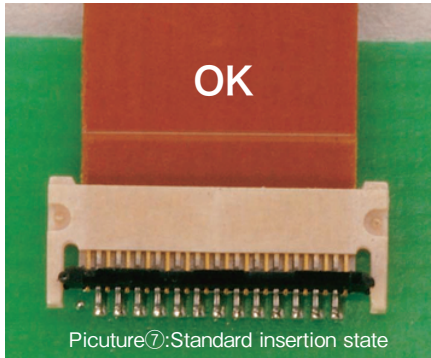
Diagonal insertion and shallow insertion can be prevented by the thing to compare straight lines of the wall on the housing with the FPC pattern borderline. (Refer to picture: ④, ⑤, ⑥)



3-2. FPC confirm method (For the bottom point of contact)

Diagonal insertion and shallow insertion can be prevented by the thing to compare straight lines of the wall on the housing with the FPC pattern borderline. (Refer to picture: ⑦, ⑧)

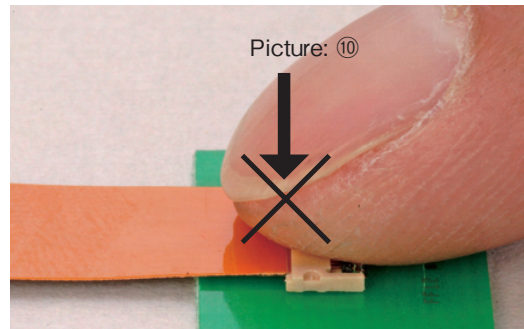
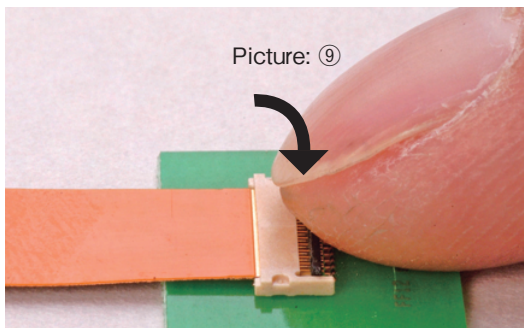
You can confirm the insetion status of FPC if marking the same line as FPC pattern borderline on the reinforcement face. (Refer to: 3-1)



4. Lock method

Please depress the lock lever like the rotation. (Picture: ⑨)

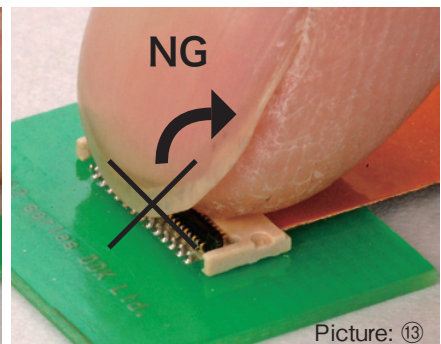
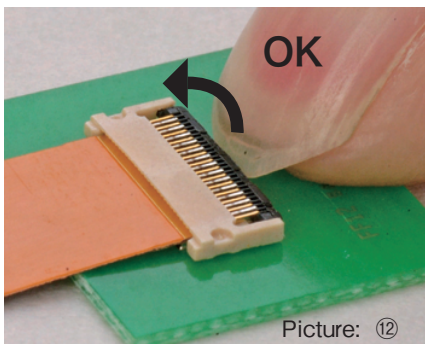
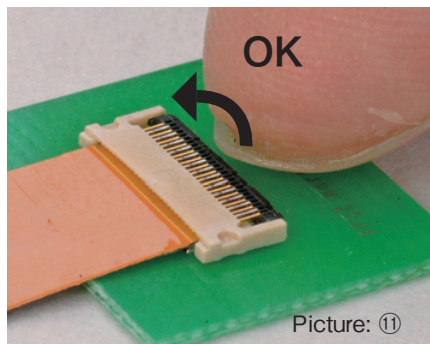
In that case, be careful please not to put extra power on the Housing. (Picture: ⑩)



5. FPC extraction method

Please leap up the lock lever to the direction of arrow. (Picture: ⑪ , ⑫)

In that case, be careful please not to put extra power on the Housing. (Picture: ⑬)

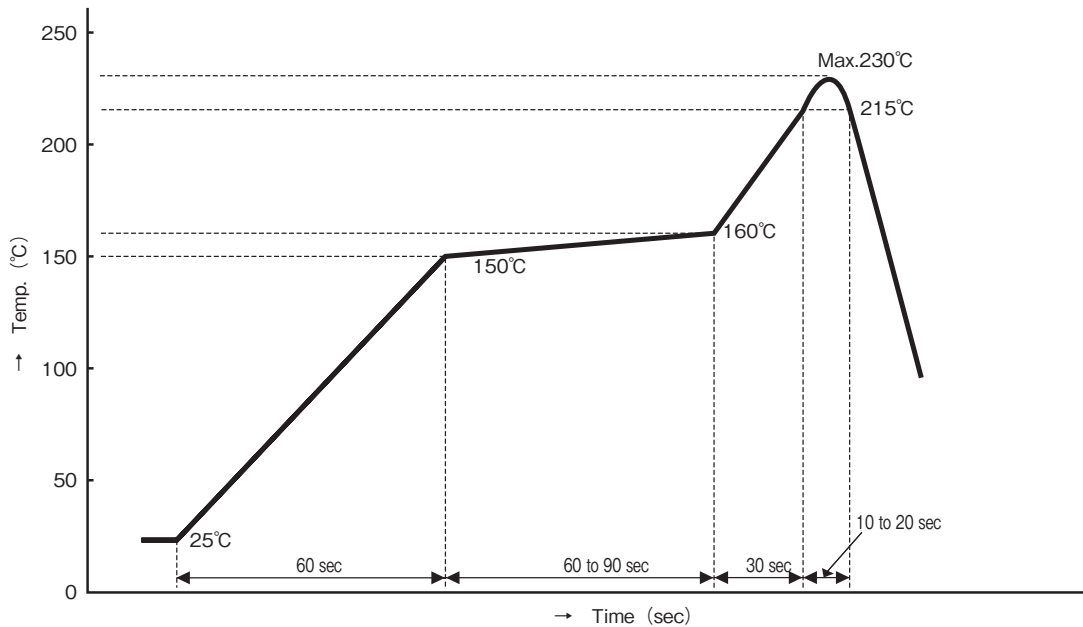


Recommended Temperature Profiles



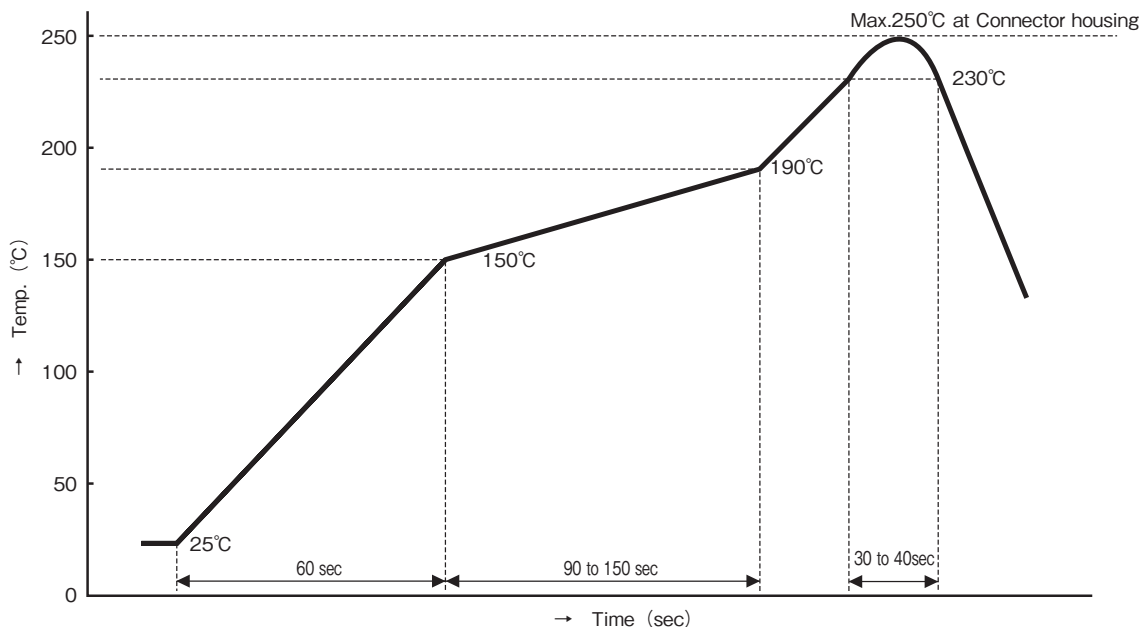
RoHS Compliant

■ For Sn-Pb plating



1. Temperature measurement position : Connector terminals.
2. Solder paste : Sn63/Pb37
3. This temperature profile is reference and may change by type and amount of solder, flux, etc. Therefore, this is not to guarantee soldering.

■ For lead-free solder plating



1. Temperature measurement position : Connector terminals.
However, the temperature on the surface of the housing is 250°C max.
2. Solder paste : Sn96.5/Ag3.0/Cu0.5
3. This temperature profile is reference and may change by type and amount of solder, flux, etc. Therefore, this is not to guarantee soldering.