

# 0.5mm Pitch Back-lock FPC Connectors

## FF14 Series



### OUTLINE

The FF14 FPC connector utilizes a back-lock mechanism with 0.5mm pitch.

This ultra-low profile ZIF connector has a height of only 0.9mm.

The FF14 connector series offers flexibility in FPC design as it mates with 0.20mm thick or 0.12mm thick FPC, plus this ZIF connector has both upper contacts and lower contacts allowing for options to utilize low cost single sided FPC across multiple designs interface scenarios.

### APPLICATIONS

Mobile Phone, Digital Camera, MP3 Player, Portable PC, PDA, other Portable Devices

### FEATURE

- Both upper and lower contacts are active which allows for FPC insertion and design options.
- Original cam-type back-lock system provides reliable operation and ensures retention from inadvertent upward pulling of the FPC.
- FF14 ZIF connectors are rated to 0.5A per pin.
- Available pin counts for this low profile connector are 4, 8, 10, 12, 14, 16, 17, 18, 19, 20, 21, 22, 24, 26, 28, 30, 32, 34, 40, 50.
- Connectors are delivered in the unlocked state for maximum production efficiency.
- FF14 connectors are delivered in embossed tape and reel for automated manufacturing processes.
- The housing and lock lever are made of heat resistant resin in support of lead-free reflow soldering.

### SPECIFICATIONS

Rated Voltage	50V AC (r.m.s.)
Rated Current	0.5A / contact
Dielectric Withstand Voltage	200V AC (r.m.s.) / 1 minute
Insulation Resistance	100 M $\Omega$ (min.) at 500V DC
Contact Resistance	50m $\Omega$ (max.)

### MATERIAL/FINISH



Contact	Copper Alloy / Au(Flash) over Nickel Plating
Housing	LCP Resin (UL94V-0) / Ivory
Lock Lever	PPS Resin (UL94V-0) / Black

**Caution :** Regarding the handling this connector, please refer to the attached instruction manual.

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# ▶ Long Lock Type

## FF14-□□□-R11BL-3J

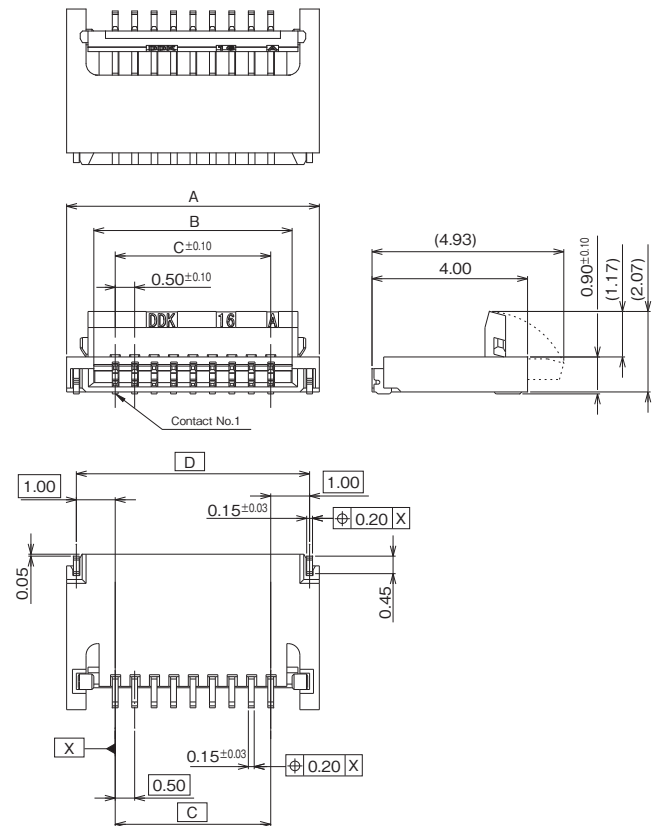
Number of Contact

 Applicable FPC Thickness  
 A :  $0.20 \pm 0.03$   
 C :  $0.12 \pm 0.03$ 

 Lock Lever Type  
 B: long Lock Type

 Material  
 3J : Halogen-free, PFAS Free

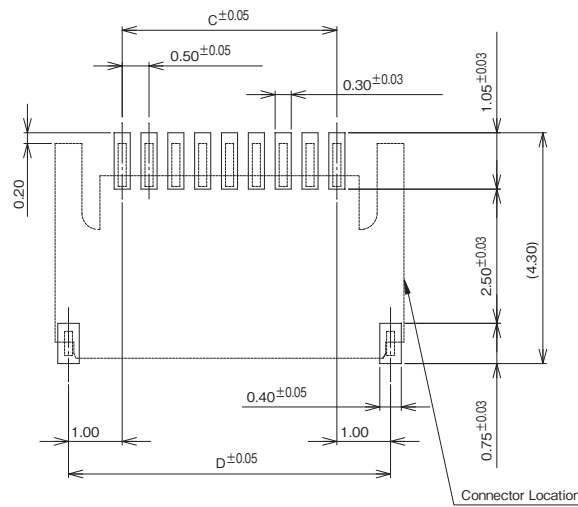
Part Number	Number of Contact	A	B	C	D	E
FF14-4 □ -R11BL-3J	4	4.00	2.60	1.50	3.50	2.50
FF14-8 □ -R11BL-3J	8	6.00	4.60	3.50	5.50	4.50
FF14-10 □ -R11BL-3J	10	7.00	5.60	4.50	6.50	5.50
FF14-12 □ -R11BL-3J	12	8.00	6.60	5.50	7.50	6.50
FF14-14 □ -R11BL-3J	14	9.00	7.60	6.50	8.50	7.50
FF14-16 □ -R11BL-3J	16	10.00	8.60	7.50	9.50	8.50
FF14-18 □ -R11BL-3J	18	11.00	9.60	8.50	10.50	9.50
FF14-19 □ -R11BL-3J	19	11.50	10.10	9.00	11.00	10.00
FF14-20 □ -R11BL-3J	20	12.00	10.60	9.50	11.50	10.50
FF14-21 □ -R11BL-3J	21	12.50	11.10	10.00	12.00	11.00
FF14-22 □ -R11BL-3J	22	13.00	11.60	10.50	12.50	11.50
FF14-24 □ -R11BL-3J	24	14.00	12.60	11.50	13.50	12.50
FF14-26 □ -R11BL-3J	26	15.00	13.60	12.50	14.50	13.50
FF14-28 □ -R11BL-3J	28	16.00	14.60	13.50	15.50	14.50
FF14-30 □ -R11BL-3J	30	17.00	15.60	14.50	16.50	15.50
FF14-32 □ -R11BL-3J	32	18.00	16.60	15.50	17.50	16.50
FF14-34 □ -R11BL-3J	34	19.00	17.60	16.50	18.50	17.50
FF14-40 □ -R11BL-3J	40	22.00	20.60	19.50	21.50	20.50
FF14-50 □ -R11BL-3J	50	27.00	25.60	24.50	26.50	25.50



## FF14 Mounting Dimensions

### ■ FPC Mounting Dimensions

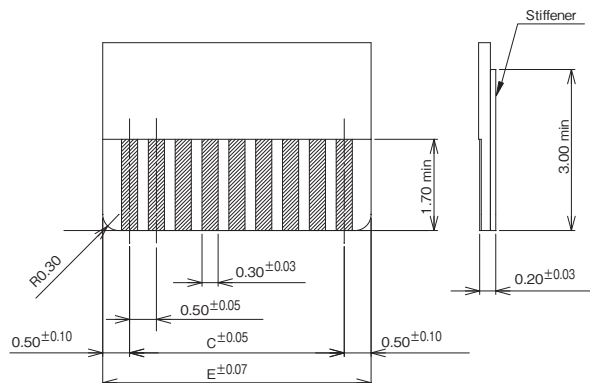
#### FF14 - □□□ - R11BL-3J



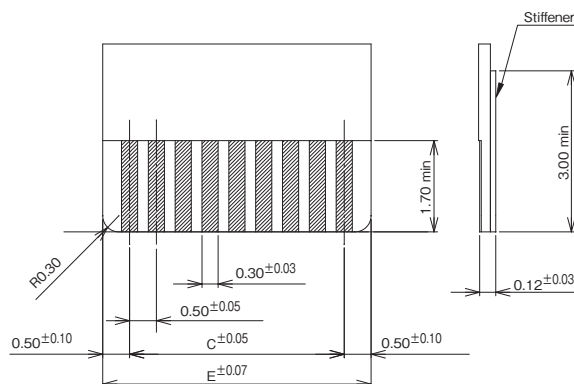
※ Regarding dimensions C and D, please refer to the table on page 2.

### ■ Recommended FPC Dimensions

#### FF14 - □□ A- R11BL-3J



#### FF14 - □□ C- R11BL-3J



※ Regarding dimensions C and E, please refer to the table on page 2.

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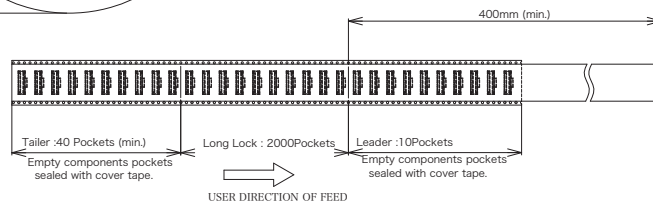
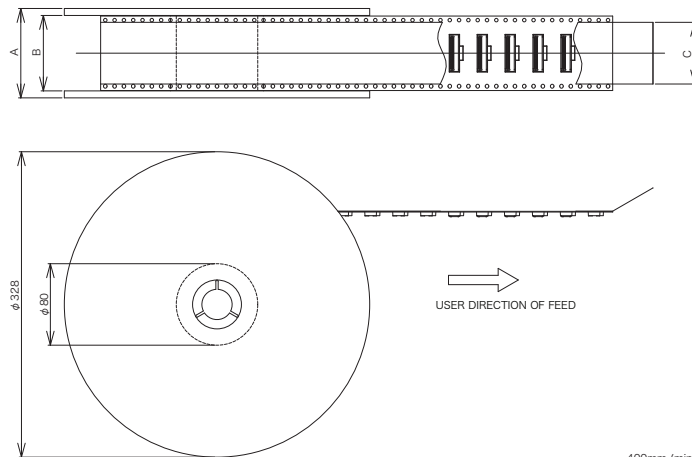
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## Package Specifications

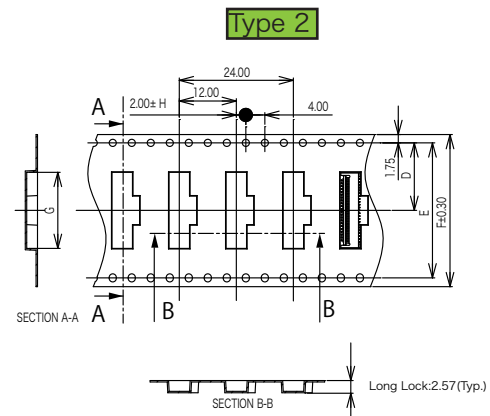
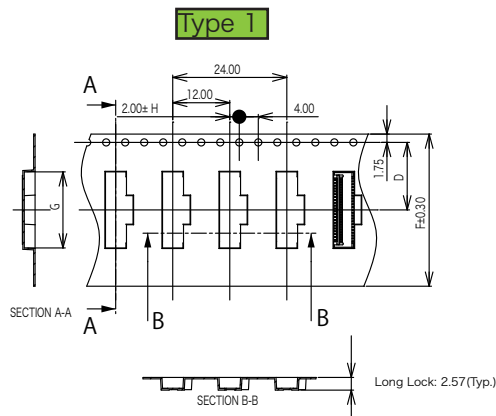
### Reel Dimensions

FF14 - □□ - R11BL-3J

Number of Contact	
Applicable FPC Thickness	
A : 0.20±0.03	
C : 0.12±0.03	
Lock Lever Type	
B : Long Lock	
Material	
3J : Halogen-free, PFAS Free	



### Emboss Tape Dimensions



Part Number	Number of Contact	A	B	C	D	E	F	G	H	Emboss Type	Package Quantity
FF14-4 □ -R11BL-3J	4	30.4	24.4	21.5	—	—	—	4.3	0.10	Type 1	Long Lock: 2000pcs./Reel
FF14-8 □ -R11BL-3J	8							6.3			
FF14-10 □ -R11BL-3J	10							7.3			
FF14-12 □ -R11BL-3J	12							8.3			
FF14-14 □ -R11BL-3J	14							9.3			
FF14-16 □ -R11BL-3J	16							10.3			
FF14-18 □ -R11BL-3J	18							11.3			
FF14-19 □ -R11BL-3J	19	38.4	32.4	26.5	14.2	28.4	32.0	11.8		Type 2	
FF14-20 □ -R11BL-3J	20							12.3			
FF14-21 □ -R11BL-3J	21							12.8			
FF14-22 □ -R11BL-3J	22							13.3			
FF14-24 □ -R11BL-3J	24							14.3			
FF14-26 □ -R11BL-3J	26							15.3			
FF14-27 □ -R11BL-3J	27							15.8			
FF14-28 □ -R11BL-3J	28							16.3			
FF14-30 □ -R11BL-3J	30	50.4	44.4	38.5	20.2	40.4	44.0	17.3			
FF14-32 □ -R11BL-3J	32							18.3			
FF14-34 □ -R11BL-3J	34							19.3			
FF14-40 □ -R11BL-3J	40							22.3			
FF14-50 □ -R11BL-3J	50							27.3			

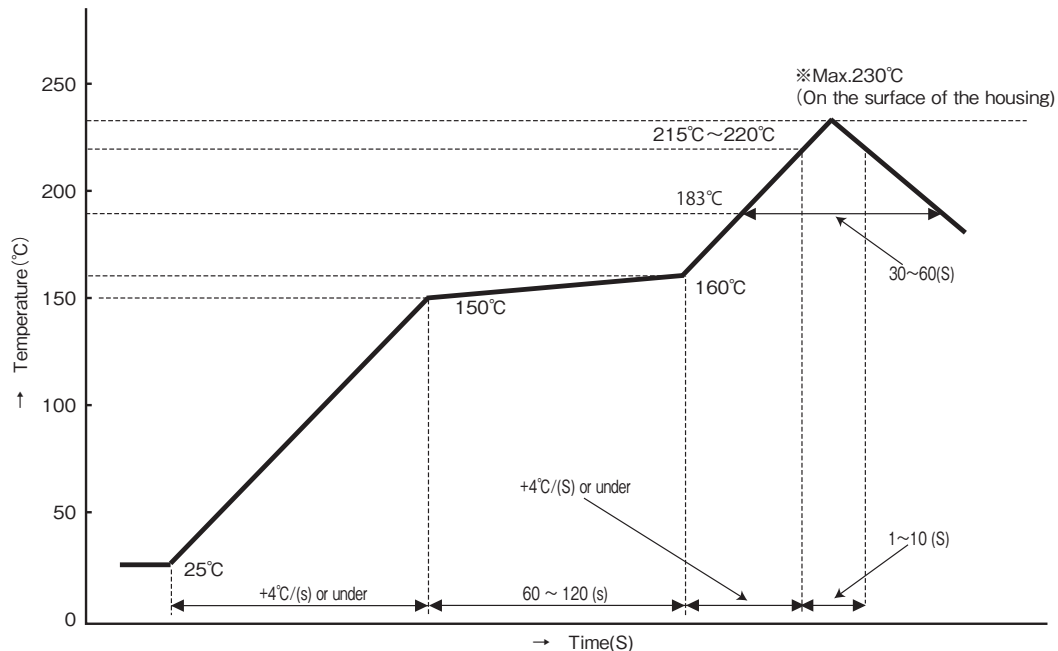
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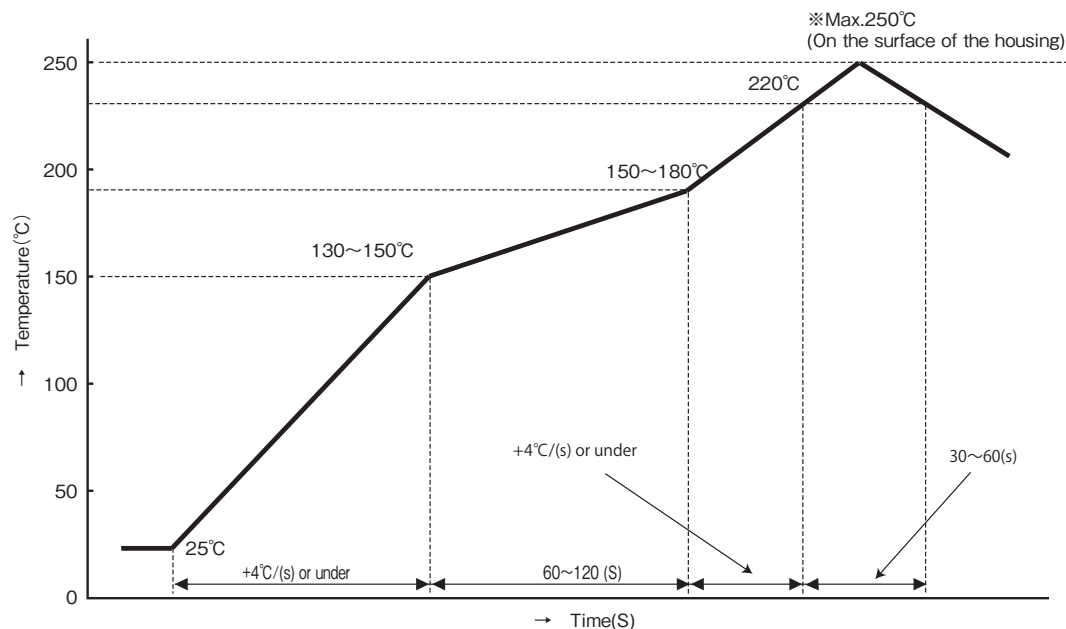
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## ▶ Recommended Reflow Temperature Profiles

### ■ for Leaded Solder Paste



### ■ for Lead Free Solder Paste



## Caution

This reflow temperature profile is for your reference. It might be changed the temperature condition depend on the solder paste, volumne and flax.

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