

# 0.3 mm Pitch Back-lock FPC Connectors

## FF12 Series





#### OUTLINE

The FF12 series back-lock LIF connector allows for design flexibility by incorporating both an upper contact and a lower contact to interface with a 0.15mm thick FPC at a 0.3mm pitch. The low profile connector has a 0.9mm height, making it one of the smallest board mounted FPC ZIF connectors on the market.

#### **APPLICATIONS**

Mobile Phone, Digital Camera, MP3 Player, Portable PC, PDA and other Portable Device

#### **FEATURE**

- · This connector utilize both an upper and lower contact to allow for all FPC insertion directions.
- Original cam-type back-lock system provides reliable operation and ensures retention from inadvertent upward pulling of the FPC.
- $\cdot$  The FF12 connector has a low height of 0.9mm.
- · Back-lock mechanism ensures retention from inadvertent from upward pulling of the FPC.
- · These ZIF connectors are delivered with the lock lever opened for maximum production efficiency.
- · This connector is available in contact counts ranging from 6 pins to 65 pins.
- · Contacts utilize a nickel barrier to prevent solder wicking.
- The housing and lock lever are made of heat-resistant resin making possible lead-free reflow soldering.
- · FF12 ZIF connectors are delivered in a tape and reel package for automated machine processes.

#### **SPECIFICATIONS**

Rated Voltage	50V AC(r.m.s.)
Rated Current	0.2A / Contact
Dielectric Withstand Voltage	200V AC (r.m.s.) / 1 minute
Insulation Resistance	50 M Ω (min.) at 250V DC
Contact Resistance	50m Ω (max.)



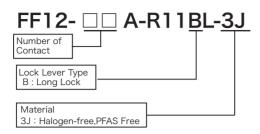
## MATERIAL//FINISH

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

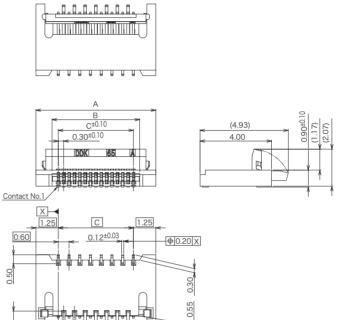
Caution: Regarding the handling this connector, please refer to the attached instruction manual.

Specifications and/or dimensions in this catalog are subject to change without notice. Please varify the latest specifications with our drawings.

## **▶** Long Lock Type



Part Number	Number of	А	В	С	D	
T di t Number	Contact		Ь	Ŭ		
FF12-6A-R11BL-3J	6	4.00	2.20	1.50	2.10	
FF12-8A-R11BL-3J	8	4.60	2.80	2.10	2.70	
FF12-10A-R11BL-3J	10	5.20	3.40	2.70	3.30	
FF12-12A-R11BL-3J	12	5.80	4.00	3.30	3.90	
FF12-13A-R11BL-3J	13	6.10	4.30	3.60	4.20	
FF12-17A-R11BL-3J	17	7.30	5.50	4.80	5.40	
FF12-18A-R11BL-3J	18	7.60	5.80	5.10	5.70	
FF12-21A-R11BL-3J	21	8.50	6.70	6.00	6.60	
FF12-22A-R11BL-3J	22	8.80	7.00	6.30	6.90	
FF12-23A-R11BL-3J	23	9.10	7.30	6.60	7.20	
FF12-25A-R11BL-3J	25	9.70	7.90	7.20	7.80	
FF12-26A-R11BL-3J	26	10.00	8.20	7.50	8.10	
FF12-27A-R11BL-3J	27	10.30	8.50	7.80	8.40	
FF12-31A-R11BL-3J	31	11.50	9.70	9.00	9.60	
FF12-32A-R11BL-3J	32	11.80	10.00	9.30	9.90	
FF12-37A-R11BL-3J	37	13.30	11.50	10.80	11.40	
FF12-40A-R11BL-3J	40	14.20	12.40	11.70	12.30	
FF12-45A-R11BL-3J	45	15.70	13.90	13.20	13.80	
FF12-51A-R11BL-3J	51	17.50	15.70	15.00	15.60	
FF12-55A-R11BL-3J	55	18.70	16.90	16.20	16.80	
FF12-60A-R11BL-3J	60	20.20	18.40	17.70	18.30	
FF12-65A-R11BL-3J	65	21.70	19.90	19.20	19.80	

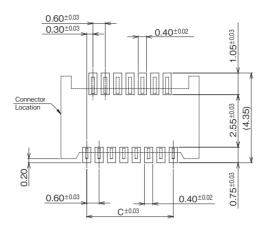


0.30

Specifications and/or dimensions in this catalog are subject to change without notice.
Please varify the latest specifications with our drawings.

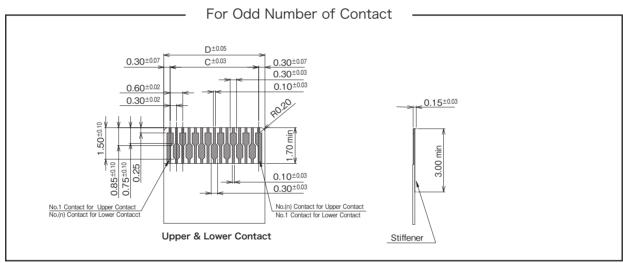
## **▶ FF12 Series Mounting Dimensions**

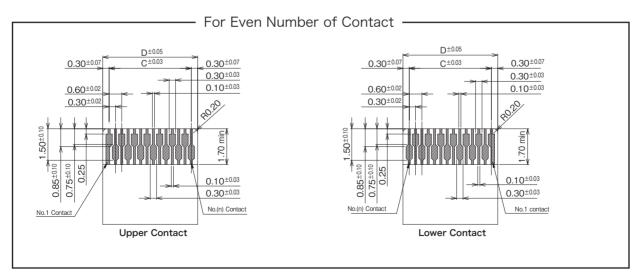
#### **■** PCB Mounting Dimensions



\* Regarding dimension C, please refer to the table on page 2.

#### ■ Recommended FPC Dimensions





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

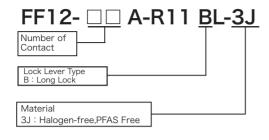
<sup>©</sup> Specifications and/or dimensions in this catalog are subject to change without notice. Please varify the latest specifications with our drawings.

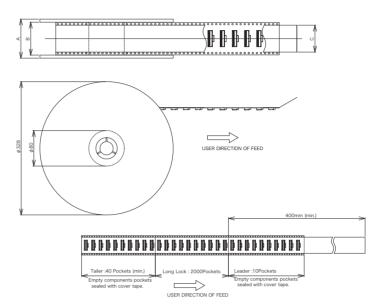
FF12 Serie

eries Unit : mm

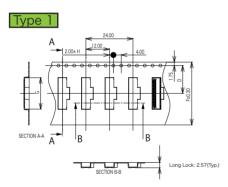
## **▶** Package Specifications

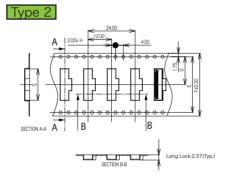
#### ■ Reel Dimensions





#### ■ Emboss Tape Dimensions



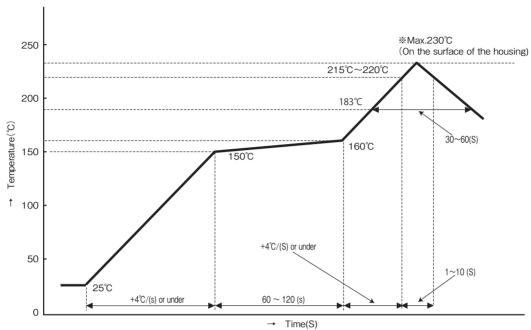


Part Number	Number of Contact	А	В	С	D	Е	F	G	Н	Emboss Type	Package Quantity
FF12-6A-R11BL-3J	6	30.4	4 24.4	21.5	11.5		24.0	4.3	0.1	Type 1	2000pcs. / Reel
FF12-8A-R11BL-3J	8							4.9			
FF12-10A-R11BL-3J	10							5.5			
FF12-12A-R11BL-3J	12							6.1			
FF12-13A-R11BL-3J	13							6.4			
FF12-17A-R11BL-3J	17							7.6			
FF12-18A-R11BL-3J	18							7.9			
FF12-21A-R11BL-3J	21							8.8			
FF12-22A-R11BL-3J	22							9.1			
FF12-23A-R11BL-3J	23							9.4			
FF12-25A-R11BL-3J	25							10.0			
FF12-26A-R11BL-3J	26							10.3			
FF12-27A-R11BL-3J	27							10.6			
FF12-31A-R11BL-3J	31		32.4	26.5	14.2	28.4	32.0	11.8		Type 2	
FF12-32A-R11BL-3J	32	38.4						12.1			
FF12-37A-R11BL-3J	37							13.6			
FF12-40A-R11BL-3J	40							14.5			
FF12-45A-R11BL-3J	45							16.0			
FF12-51A-R11BL-3J	51							17.8			
FF12-55A-R11BL-3J	55	50.4		38.5	20.2	40.4	44.0	19.0			
FF12-60A-R11BL-3J	60		44.4					20.5	0.15		
FF12-65A-R11BL-3J	65							22.0			

Specifications and/or dimensions in this catalog are subject to change without notice.
Please varify the latest specifications with our drawings.

### Recommended Reflow Temperature Profiles

#### **■** for Leaded Solder Paste



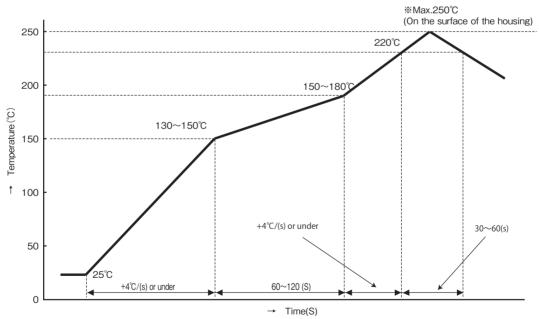
Temperature measurement psrt: Terminal lead part. But the temperature on the surface of housing is 230°C(max.)

Metal Mask: 0.1~0.12mm

Recommended Solder Paste: Senju Metal Industry Co.,Ltd. Sparkle Paste P/N: OZ63-221CM5-42-10

Reflow Cycle: 2 times

#### ■ for Lead Free Solder Paste



 $Temperature\ measurment\ part: Terminal\ lead\ part.\ But\ the\ temperature\ on\ the\ surface\ of\ husing\ is\ 250^{\circ}C (max.)$ 

Metal Mask: 0.1~0.12mm

Recommended Solder Paste: Senju Metal Industry Co., Ltd. Eco Solder Paste P/N:M705-GRN360-K2-V

Reflow Cycle: 2 times

#### Caution

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

© Specifications and/or dimensions in this catalog are subject to change without notice. Please varify the latest specifications with our drawings.