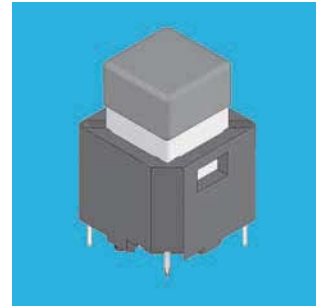


CFPB

NEW

RoHS
Compliance

Features

1. Full Surface illumination by LED
2. Conductive rubber contact for soft and quiet operation
3. Wide varieties of buttons to choose from.

Specifications

Rating	Max.	DC5V 5mA or DC20V 1mA
	Min.	DC5V 1mA
Initial contact resistance	200 Ω Max (20mV 1.5mA 1kHz Max)	
Dielectric strength	250VAC 1 minute	
Initial insulation resistance	100MΩ (100VDC)	
Stroke	1.5mm (□11, 12mm) 1.3mm (□6, 9mm)	
Operating force	1.7±0.5N (□11, 12mm) 173±51gf	
	1.3±0.4N (□6, 9mm) 132±51gf	
Electrical life	500,000 operations at max. rating (□11, 12mm) 300,000 operations at max. rating (□6, 9mm)	
Operating temperature range	-10°C ~ +60°C	
Storage temperature range	-25°C ~ +70°C	

※For the information on LED Drive circuit, see the next page.

Part Numbering

CFPB		1	C	C	1	W	1	W				
Series code & Acuator		Number of poles		Terminal style		LED color	Button color	Button Dimension	Packaging specifications			
Code	Type			Code	Terminal style							
P	Pushbutton			C	P/C							
Fig.	Number of poles	Switching function		Combination			LED color	button color	Fig.	button dimension	Code	packaging spec
1	1 pole	Code	Switching function	1R	1	Non-illuminated	R	Red	1	□11mm	W	Tray
		C	OFF - (ON)	2R	2	Red			2	□12mm		
				1O	1	Non-illuminated	O	Orange	6	□6mm		
				3O	3	Orange	W	White clear	9	□9mm		
				1W	1	Non-illuminated						
				4W	4	Yellow						
				1B	1	Non-illuminated	B	Blue				
				5B	5	Green						
				1G	1	Non-illuminated	G	Green				
				5G	5	Green						
				1Y	1	Non-illuminated	Y	Yellow				
				5Y	5	Green						

Switching Function

Switching function		
Part No.	OFF	(ON)
Connecting terminals	—	1-2
	CFPB-1CC-■■■W	

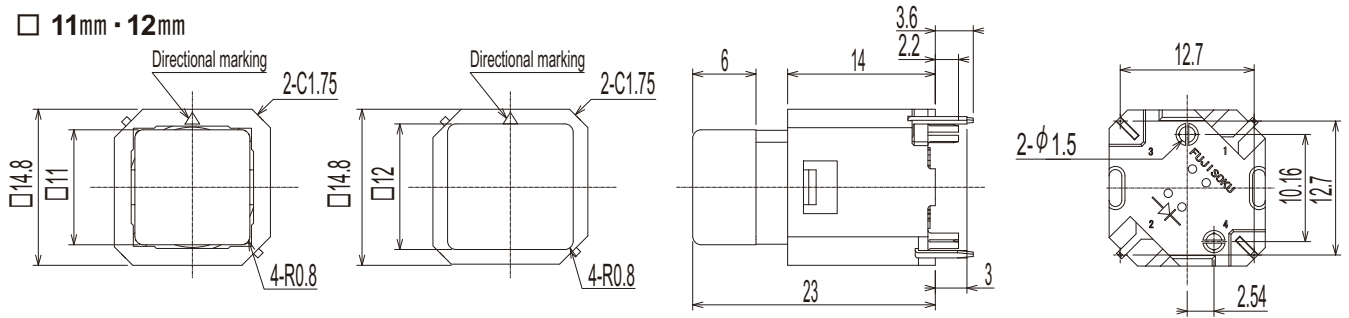
LED Characteristic

Lighting	
Part No.	CFPB-1CC-■■■W
Connecting terminals	3-4

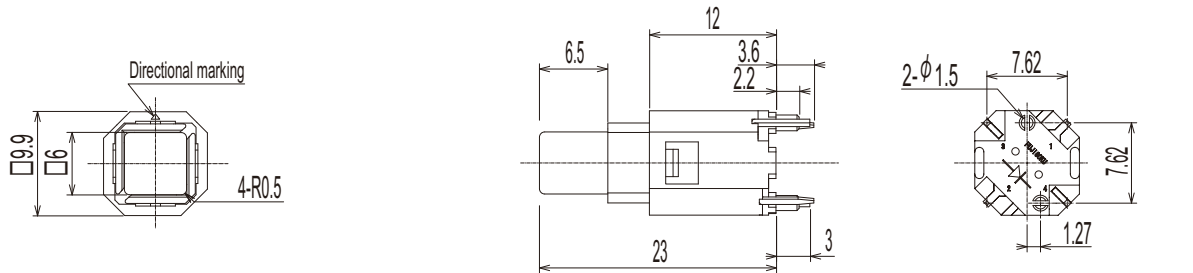
※Exclude Non -illuminated type.

Dimension

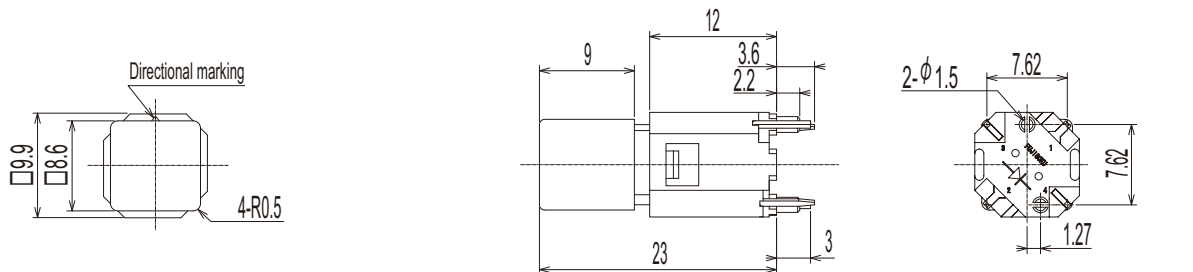
□ 11mm · 12mm



□ 6mm



□ 9mm



Soldering

(1) flow soldering

265°C Max 3 sec Max
(Pre Heat : 80~120°C, 120 sec Max)
flow : one time maximum

(2) Hand soldering

Device : Solder iron
380°C Max, 3 sec Max

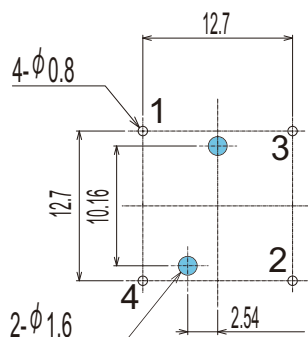
Flux Cleaning

(1) When PC board cleaning is required, brushing on the soldering face shall be provided so that the CFPB is not exposed to the cleaning solution.

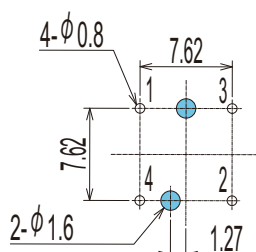
(2) Solvent : Alcohol type

Pad Layouts

□ 11mm · 12mm



□ 6mm · 9mm



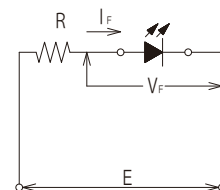
LED Drive Circuit

● Case of static lighting system.

$$R = \frac{E - V_F}{I_F}$$

● Case of dynamic lighting system.

$$R = \frac{E - V_F}{I_{FM}}$$



LED Specifications

Item	Symbol	Absolute Maximum Rating ^{※1}				Unit
		Red	Orange	Green	Yellow	
Power Dissipation	P _d	75	70	70	85	mW
Forward Current	I _F	30	25	25	30	mA
Puls Forward Current ^{※2}	I _{FM}	75	60	60	75	mA
Current Derating (Ta ≤ 25 °C)	ΔI _F	0.40	0.33	0.33	0.40	mA/°C
Reverse Voltage	V _F	4	4	4	4	V

※1. "Absolute Maximum Ratings" are the values that must not exceed under any conditions. Pleas have the necessary safety margin when designing the circuit.

※2. Measurement of I_{FM} is done under the condition of Pulse width ≤ 1ms and Duty ratio ≤ 1/20.

※3. The above ratings are specified when the ambient temperature (Ta) is 25 C.

Table of Part Numbers

□ 6mm

Part No.	LED color	Button color
CFPB-1CC-1W6W	Non-illuminated	White
CFPB-1CC-1R6W	Non-illuminated	Red
☆ CFPB-1CC-1G6W	Non-illuminated	Green
☆ CFPB-1CC-1Y6W	Non-illuminated	Yellow
☆ CFPB-1CC-1B6W	Non-illuminated	Blue
☆ CFPB-1CC-1O6W	Non-illuminated	Orange
CFPB-1CC-2R6W	Red	Red
☆ CFPB-1CC-3O6W	Orange	Orange
CFPB-1CC-4W6W	Yellow	White
☆ CFPB-1CC-5G6W	Green	Green
☆ CFPB-1CC-5Y6W	Green	Yellow
☆ CFPB-1CC-5B6W	Green	Blue

☆ : Semi-standard products.

□ 11mm

Part No.	LED color	Button color
CFPB-1CC-1W1W	Non-illuminated	White
CFPB-1CC-1R1W	Non-illuminated	Red
☆ CFPB-1CC-1G1W	Non-illuminated	Green
☆ CFPB-1CC-1Y1W	Non-illuminated	Yellow
☆ CFPB-1CC-1B1W	Non-illuminated	Blue
☆ CFPB-1CC-1O1W	Non-illuminated	Orange
CFPB-1CC-2R1W	Red	Red
☆ CFPB-1CC-3O1W	Orange	Orange
CFPB-1CC-4W1W	Yellow	White
☆ CFPB-1CC-5G1W	Green	Green
☆ CFPB-1CC-5Y1W	Green	Yellow
☆ CFPB-1CC-5B1W	Green	Blue

☆ : Semi-standard products.

□ 9mm

Part No.	LED color	Button color
CFPB-1CC-1W9W	Non-illuminated	White
CFPB-1CC-1R9W	Non-illuminated	Red
☆ CFPB-1CC-1G9W	Non-illuminated	Green
☆ CFPB-1CC-1Y9W	Non-illuminated	Yellow
☆ CFPB-1CC-1B9W	Non-illuminated	Blue
☆ CFPB-1CC-1O9W	Non-illuminated	Orange
CFPB-1CC-2R9W	Red	Red
☆ CFPB-1CC-3O9W	Orange	Orange
CFPB-1CC-4W9W	Yellow	White
☆ CFPB-1CC-5G9W	Green	Green
☆ CFPB-1CC-5Y9W	Green	Yellow
☆ CFPB-1CC-5B9W	Green	Blue

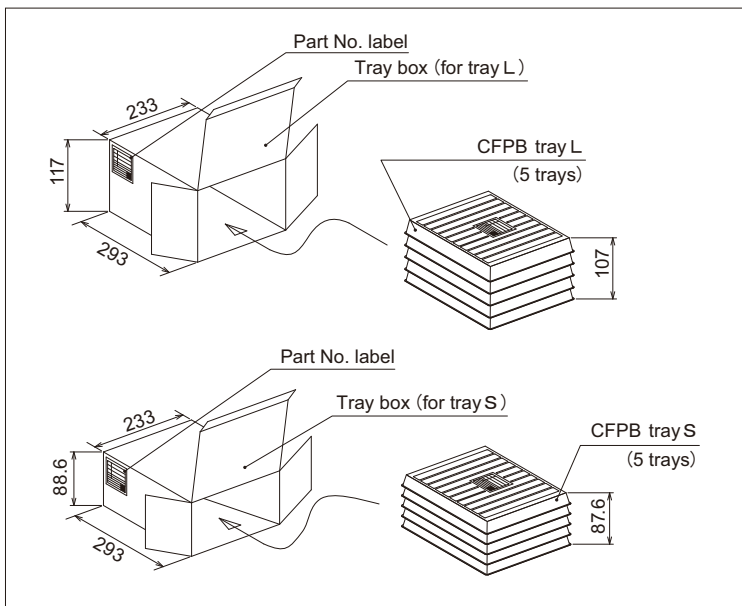
☆ : Semi-standard products.

□ 12mm

Part No.	LED color	Button color
CFPB-1CC-1W2W	Non-illuminated	White
CFPB-1CC-1R2W	Non-illuminated	Red
☆ CFPB-1CC-1G2W	Non-illuminated	Green
☆ CFPB-1CC-1Y2W	Non-illuminated	Yellow
☆ CFPB-1CC-1B2W	Non-illuminated	Blue
☆ CFPB-1CC-1O2W	Non-illuminated	Orange
CFPB-1CC-2R2W	Red	Red
☆ CFPB-1CC-3O2W	Orange	Orange
CFPB-1CC-4W2W	Yellow	White
☆ CFPB-1CC-5G2W	Green	Green
☆ CFPB-1CC-5Y2W	Green	Yellow
☆ CFPB-1CC-5B2W	Green	Blue

☆ : Semi-standard products.

Packaging Specifications



COPAL ELECTRONICS Group
FUJISOKU CORPORATION



※Specifications in this catalog are subject to change without prior notice.