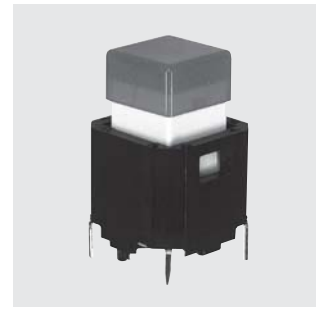


CFPB



RoHS Compliant

Illuminated Pushbutton Switches



Features

1. Full Surface Illumination by LED.
2. Conductive Rubber Contact For Soft and Quiet Operation
3. Available in Four Sizes
6mm sq., 9mm sq., 11mm sq., 12mm sq.

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	
Insulation Resistance	100MΩ (100VDC)	
Travel	1.5mm (11/12mm sq.) 1.3mm (6/9mm sq.)	
Operating Force	1.7±0.5N (11/12mm sq)	
	1.3 +0.6/-0.4N (6/9mm sq.)	
Electrical Life	500,000 operations at maxrating (11/12mm sq.)	
	300,000 operations at max. rating (6/9mm sq.)	
Operating Temperature Range	-10°C~+60°C	
Storage Temperature Range	-25°C~+70°C	

※Information on LED drive circuit are shown on the next page.

Part Numbering

CFPB - 1 C C - 1 W 1 W

Series Code & Actuator

Code	Type
P	Pushbutton

Number of Poles

1

Terminal Style

Code	Terminal Style
C	Straight

LED Color

1

Button Color

W

Button Dimension

1

Packaging Specifications

W

Fig.	Number of Poles	Switching Function		Combination	LED Color	Button Color		Fig.	Button Dimension	Code	Packaging Specifications	
		Code	Switching Function									
1	1 pole	C	OFF - (ON)	1R	1	Non-illuminated	R	Red	1	□11mm sq.	W	Tray
				2R	2	Red			2	□12mm sq.		
				10	1	Non-illuminated	O	Orange				
				30	3	Orange						
				1W	1	Non-illuminated	W	White clear				
				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

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

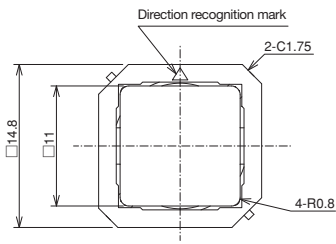
LED Characteristics

Part No.	LED Characteristics
CFPB-1CC-■■■■W	
Connecting Terminals	3-4

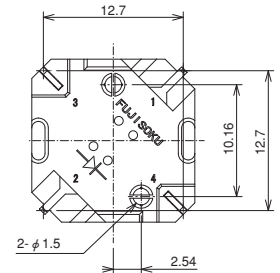
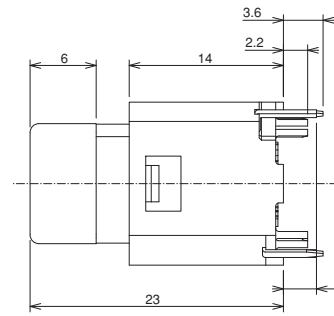
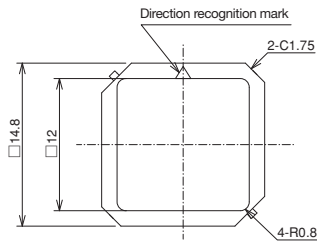
※Exclude Non - illuminated type.

Dimension

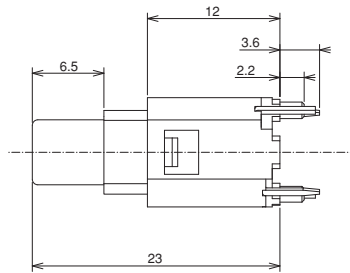
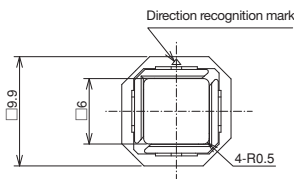
11mm Sq.



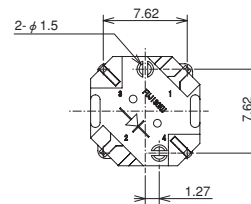
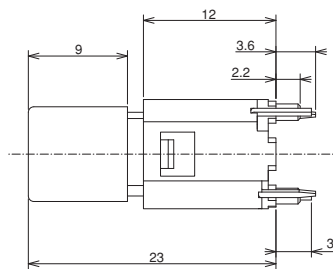
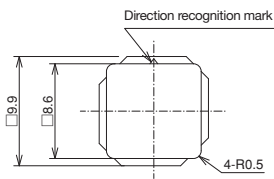
12mm Sq.



6mm Sq.

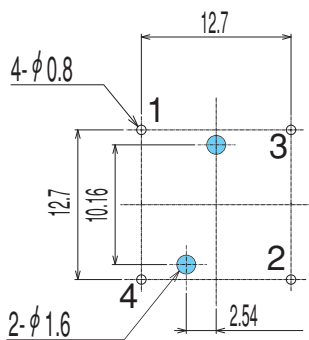


9mm Sq.

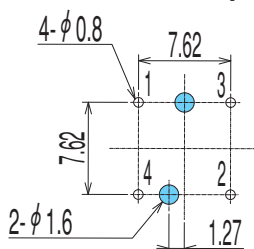


Pad Layouts

11mm/12mm Sq.



6mm/9mm Sq.



Soldering Specifications

- (1) flow soldering
 - 260°C max., 3 ~ 5 sec. max. (total 10 sec. max)
 - Pre Heating: 80 ~ 120°C , 120 sec. max.
 - No. of flows: 1 time max.
- (2) Manual soldering
 - Device : Solder iron
 - 380°C Max, 3 sec Max

Flux Cleaning

- (1) The CFPB series are not washable. To wash the PC board, clean the soldering surface of the PC board with a brush so that the switch is not exposed to the cleaning solution.
- (2) Solvent : Alcohol type

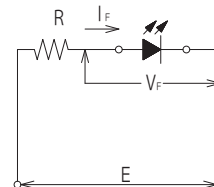
LED Drive circuit

- Case of static lighting system.

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

- Case of dynamic lighting system,

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



CFPB

LED Specification

Item	Symbol	Absolute Maximum Rating ^{※1}				Code
		Red	Orange	Green	Yellow	
Power Dissipation	P _d	75	70	70	85	mW
Forward Current	I _F	30	25	25	30	mA
Forward Voltage	V _F	2.8	2.8	2.8	2.8	V
Puls Forward Current ^{※2}	I _{FRM}	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 _R	4	4	4	4	V

- ※1. "Absolute Maximum Rating" is the limit value that must not be exceeded even momentarily. Be sure to consider the safety margin for designing the circuit.
 ※2. Measurement conditions of I_{FRM}
 Pulse width ≤ 1 ms; Duty ratio ≤ 1/20.
 ※3. The above ratings are specified at ambient temperature Ta = 25°C.

Table of Part Numbers

□ 6mm Sq.

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

□ 9mm Sq.

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

□ 11mm Sq.

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

□ 12mm Sq.

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

Packaging Specifications

