

# POWER SWITCHES

## Rocker Switches, JW Series

Pb Free

A Type

### Features

- 3 kinds of terminals are available, terminal for lead wiring, faston and printed circuit board.
- Series consisting of 3 kinds, such as single pole single throw, single pole double throw and double pole single throw as well as LED are also offered.
- All series have the same insertion dimensions.

### Specification

- Contact Resistance : 20mΩ max.
- Insulation Resistance : 300MΩ min.
- Withstanding Voltage : 2000V AC for one minute
- Electrical Life : 10,000cycles
- Storage Temperature Range : -40°C to +70°C
- Operating Temperature Range : -20°C to +60°C

### Minimum Per-purchase Quantity : 900 unities

LED Specification (Ambient Temperature Ta=25°C)			
LED Color	Red	Green	Yellow
Maximum Reverse Voltage (V <sub>R</sub> )	4V	4V	4V
Forward Voltage(V <sub>F</sub> )	(I <sub>F</sub> =10mA)	(I <sub>F</sub> =10mA)	(I <sub>F</sub> =10mA)
	2.1V	2.1V	2.1V
Maximum Operating Current(I <sub>F</sub> )	30mA	40mA	40mA
Recommended Operating Current(I <sub>F</sub> )	10mA	20mA	20mA
Operating Temperature Range	-30°C ~ +85°C		
Current Reduction Ratio for Operation Above	0.5mA/°C	0.67mA/°C	0.67mA/°C

LED Circuit Ballast Resistance

Calculate LED circuit ballast resistance R according to each LEDs specifications for forward voltage V<sub>F</sub> and recommended operating current I<sub>F</sub>, using the formula below.

$$R = \frac{E - V_F}{I_F \text{ (Recommended)}}$$

E=Power supply voltage  
V<sub>F</sub>=Forward voltage  
I<sub>F</sub>=Recommended operating current  
R=Ballast resistance

### Safety Standard Approval No.

Circuit (Cat No.)	UL Rating	CSA Rating	VDE Rating	SEMKO Rating	DEMKO Rating	SEV Rating
SPST SPDT (JA37)	AC125V 5A AC250V 3A	AC125V 5A AC250V 3A	5(2)A/250V~	5(2)A/250V~	5(2)A/250V~	5(2)A/250V~
DPST (JA36)	AC125V 6A AC250V 4A	AC125V 6A AC250V 4A	4(1)A/250V~	4(1)A/250V~	4(1)A/250V~	4(1)A/250V~

Illuminated type approved standard by UL, CSA, DEMKO.

# POWER SWITCHES

## Rocker Switches, JW Series Single Circuit Type

**A Type**

### Shape Dimension

ROCKER SWITCHES

JWZ1120-01□□	JWZ1120-03□□	JWZ1120-09□□	JWZ1220-01□□
(SPST) Lead Wiring	(SPST) Faston Type	(SPST) P.C.Board Type (Right Angle)	(SPDT) Lead Wiring
Hot Stamp  	Hot Stamp  	Hot Stamp  	Hot Stamp  
JWZ1220-03□□	JWZ1220-04□□	JWZ1120-02□□	JWZ1120-04□□
(SPDT) Faston Type	(SPDT) P.C.Board Type (Right Angle)	(SPST) Illuminated Type	(SPST) Illuminated Type

# POWER SWITCHES

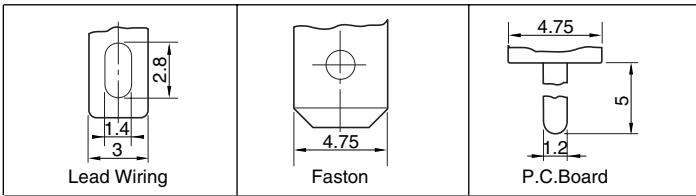
## Rocker Switches, JW Series Single Circuit Type

### Specification and Product Line-up

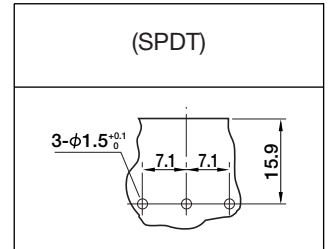
Part No.	Circuit	Rating	Operating Force	Terminal				Illuminated Type (LED)	
				Lead Wiring	Faston #187(to.5)	Printed Circuit Board			
						Straight	Right Angle		
JWZ1120-01□□	SPST	AC125V 5A AC250V 3A 5(2)/250V~	4.0±2.0N	○				/	
JWZ1120-03□□					○				
JWZ1120-09□□							○		
JWZ1220-01□□	SPDT				○				
JWZ1220-03□□					○				
JWZ1220-04□□							○		
JWZ1120-02□□	SPST (Illuminated)			○			○		
JWZ1120-04□□				○			○		

**ROCKER SWITCHES**

### Terminal (t=0.5)



### Printed Circuit Board Dimension



### Variation

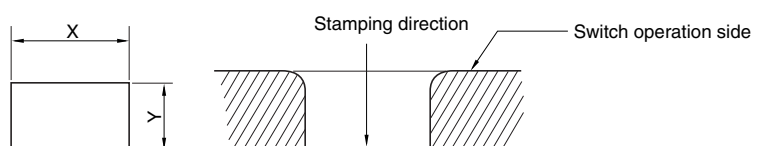
#### Single Circuit Type

Part No.	Suffix □□	Color			Indication	LED Color
		Case	Knob	Hot Stamp		
JWZ1120-01□□ JWZ1120-03□□ JWZ1120-09□□	01	Black	Black	Red	(One Side)	/
	02	Black	Black	White	(Both Side)	
	03	Black	Orange	White	(Both Side)	
	04	Beige	Beige	Black	(Both Side)	
	05	Black	Black	White	(Upper Side)	
JWZ1220-01□□ JWZ1220-03□□ JWZ1220-04□□	01 02 03	Black Black Beige	Black Orange Beige	- - -	Without Indication	
JWZ1120-02□□ JWZ1120-04□□	01 02 03	Black Black Black	Black Black Black	- - -	Without Indication	Red Yellow Green

### Size of Mounting Hole

Thickness of mounting board	X	Y
0.75 ~ 1.25	19.2 <sup>+0.1</sup> <sub>0</sub>	12.9 <sup>+0.1</sup> <sub>0</sub>
1.25 ~ 2.00	19.4 <sup>+0.1</sup> <sub>0</sub>	12.9 <sup>+0.1</sup> <sub>0</sub>

Refer to the following drawing for a mounting hole.



### Precaution when mounting a switch

Switch design is on the basis of mounting on a SPCC (steel) panel. If use of soft materials such as plastic panels in place of standard SPCC panels is planned, decision should be made after verification of usability, particularly mounting strength for an extended period of time, under actual application conditions.

# POWER SWITCHES

## Rocker Switches, JW Series Double Circuit Type

# A Type

ROCKER SWITCHES

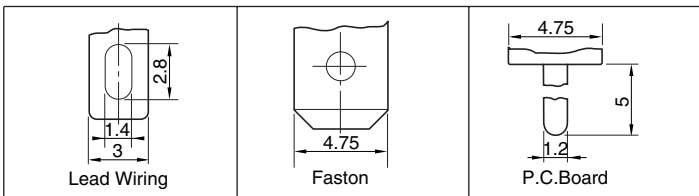
### Shape Dimension

JWA2110-□□□□	JWA2120-□□□□	JWA2130-□□□□	JWA2140-□□□□
(DPST) Lead Wiring	(DPST) Faston Type	(DPST) P.C.Board Type(Straight)	(DPST) P.C.Board Type(Right Angle)
<p>Hot Stamp</p>	<p>Hot Stamp</p>	<p>Hot Stamp</p>	<p>Hot Stamp</p>

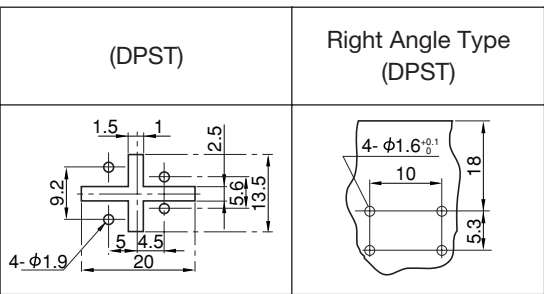
### JWA2150-□□□□

(DPST)  
P.C.Board Type (Inverted Right Angle)

### Terminal (t=0.8)



### Printed Circuit Board Dimension



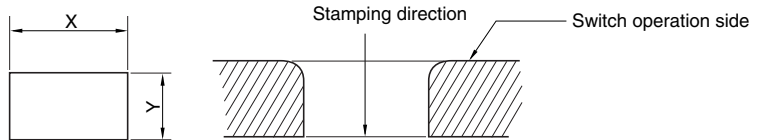
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Switch design is on the basis of mounting on a SPCC (steel) panel. If use of soft materials such as plastic panels in place of standard SPCC panels is planned, decision should be made after verification of usability, particularly mounting strength for an extended period of time, under actual application conditions.

### Size of Mounting Hole

Thickness of mounting board	X	Y
0.75 ~ 1.25	19.2 <sup>+0.1</sup> <sub>0</sub>	12.9 <sup>+0.1</sup> <sub>0</sub>
1.25 ~ 2.00	19.4 <sup>+0.1</sup> <sub>0</sub>	12.9 <sup>+0.1</sup> <sub>0</sub>

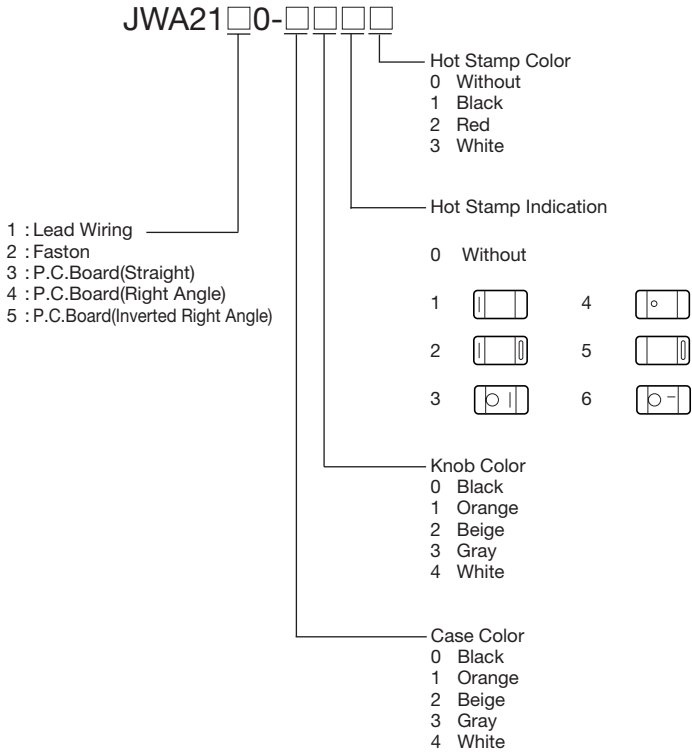
Refer to the following drawing for a mounting hole.



# POWER SWITCHES

## Rocker Switches, JW Series Double Circuit Type

### Variation



### Product List

Part No.	Circuit	Rating	Operating Force	Terminal				
				Lead Wiring	Faston #187(t0.8)	Printed Circuit Board		
						Straight	Right Angle	Inverted Right Angle
JWA2110-□□□□	DPST	AC125V 6A AC250V 4A 4(1)/250V~	5.0±2.5N	○				
JWA2120-□□□□					○			
JWA2130-□□□□						○		
JWA2140-□□□□							○	
JWA2150-□□□□								○