

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# EIGHT SWITCH SERIES

#### 8 Switch Series Selection Table Part No. Name Number of poles Switching function Terminal style Actuator shape Page **8H** Lever · Rocker 1 . 2 339 S/D P/C Lever · Rocker 8HD 1 . 2 341 (Dust Proof) S/D P/C **8M** 1 . 2 . 3 . 4 343 Small Lever Rocker ON ON ON - OFF - ON S/D (ON) - OFF - (ON)ON - OFF - (ON)Small Lever · Rocker ON (ON) N-V81 . 2 345 PC P/C **8Q** Large Lever · Rocker 1 . 2 . 3 . 4 347 S/D Large Lever · Rocker 8V-Q 1 . 2 349

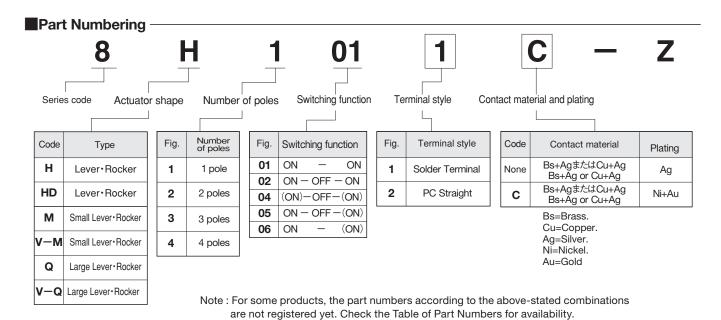
●P/C: Show PC terminal.

Note: For overseas standards, see page 627.

#### 8 switch series

#### ■ 8 Switch Series Common Specifications

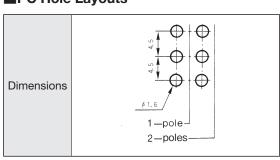
Contact specs.		Silver	Gold plated			
Rating	Max.	AC125V 6A AC250V 3A DC30V 4A	DC20V 25mA			
Initial contact resistance		10mΩ Max. (DC2~4V 1A)	20m $\Omega$ Max. (AC200 $\mu$ V 1.5mA)			
Initial dielectric strength		AC1500V min				
Initial insulation	resistance	1000M Ω Min.				
F1	Altternate type	50,000 cycles				
Electrical life	Momentary type	25,000 cycles				
Operating temperature range		−30~+85°C				
Strage temperature range		-40~+85°C				



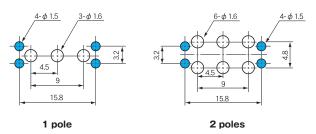
#### ■Terminal Styles

Terminal style	Solder Terminal (Style : 1)	PC Straight (Style : <b>2</b> )
Dimensions	t = 0.8	t =0.8

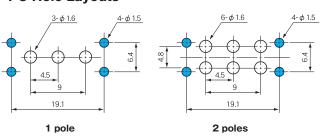
#### ■PC Hole Layouts



### **PC Hole Layouts**



#### **PC Hole Layouts**



(ON): Momentary.

# **8M**



**RoHS Compliant** 

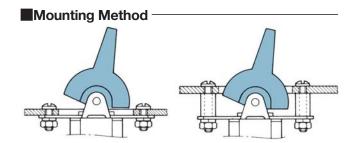
## **Small Lever & Rocker Switches**

UL CSA



#### Features -

The **8M** Small Lever & Rocker Switch is similar to the **8A** type except that 8M type has a mounting plate. Levers and rockers are available in four matted colors that give a sober atmosphere. Choose the suitable one for the panel design. For the mounting method, see the following figure.



#### ■ Standard Accessories

«Supplied separately»

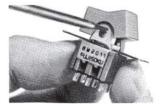
Part name	Lever	Rocker	Lever	Rocker		
T dit name						
Dimensions	2.5 Matte finish  88.4 9.3	13.4 Matte finish	2.4 Matte finish	Matte finish		
	polycarbonate resin	polycarbonate resin	polycarbonate resin	polycarbonate resin		
White	140000050427	140000480509	140000050929	140000481531		
Red	140000050428	140000480510	14000050930	140000481532		
Black	140000050429	140000480511	140000050931	140000481533		
Gray	140000050450	140000480522	14000050932	140000481534		
Panel Cut-Out Dimensions	2 \$2.4	23.8	65.5	23.8		

Specify either one of Lever or Rocker in part number when placing an order.

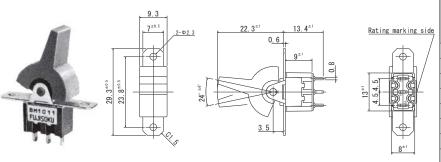
#### ■Mounting the Lever & Rocker -

Press the selvage part of the lever/rocker with a screwdriver to fix it.

Some products in the Table of UL and CSA-Approved Products are not registered yet. Before placing the order, check with our Sales Department.



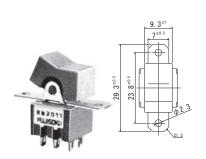




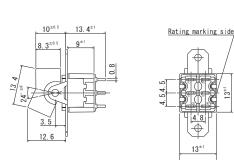
Switching function Viewed from rating marking side Part No. 8M1011-Z ON ON ▲8M1011C-Z ★8M1021-Z ON OFF ON ▲8M1021C-Z ★8M1041-Z (ON) OFF (ON) ▲8M1051-Z ON OFF (ON) ★8M1061-Z ON (ON) Connecting terminals 2-3 2-1

#### **DPDT**

(Mount with Lever)



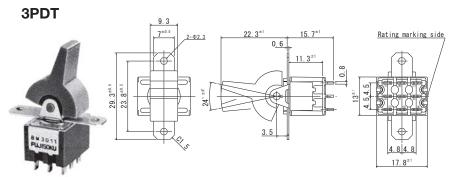




Terminal numbers are not shown on the bottom of the switch.

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Switching function	Viewed from rating marking side							
Part No.	10	4	1					
8M2011−Z ▲8M2011C−Z	ON	_	ON					
★8M2021-Z ▲8M2021C-Z	ON	OFF	ON					
★8M2041-Z	(ON)	OFF	(ON)					
★8M2051-Z	ON	OFF	(ON)					
▲8M2061-Z	ON	_	(ON) 2-1 5-4					
Connecting terminals	2-3 5-6	_						

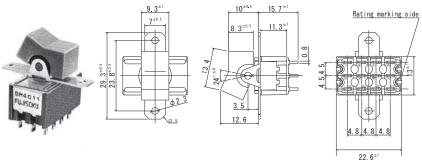


Switching function	Viewed from rating marking side								
Part No.	70	4.	-1						
☆8M3011-Z	ON	_	ON						
★8M3021-Z	ON	OFF	ON						
Connecting terminals	2-3 5-6 8-9	_	2-1 5-4 8-7						

(Mount with Lever)

Terminal numbers are not shown on the bottom of the switch.

#### **4PDT**



Part No.	72	4	44		
☆8M4011-Z	ON	_	ON		
★8M4021-Z	ON	OFF	ON		
Connecting	2-3 5-6		2-3 5-4		
terminals	8-9 11-12		8-7 11-10		

Viewed from rating marking side

(Mount with Rocker)

Terminal numbers are not shown on the bottom of the switch.

★: Made to order products.

Switching function

(ON): Momentary.

☆: Semi-standard products. ▲: Inquiry products.

### ■ Handling Precautions (EIGHT switch series)

#### 1. Soldering Specifications -

(1) Soldering Specifications
Device: Soldering iron
①420°C, Max.; 3 sec., Max.

(2) Auto Soldering

 $2275^{\circ}$ C  $\pm$  10°C, Max.; 5 seconds, Max.

Note that the above-stated soldering conditions should be applied to the PC terminal type only.

#### 2. Flux Cleaning

(1) For the solvent, use the fluorine- or alcohol-based solvent. Solvent: Fluorine or Alcohol type

(2) Since the 8 Switch Series switches are not waterproof-structured, if the PC board is to be cleaned, clean the soldering surface of substrate with a brush so that the switch is not exposed to the cleaning solution.

#### 3. Mounting

- Do not bend the terminals before mounting the switch on the PC board.
- After mounting the switch, do not place the device in such a way that the device weight will be applied on the knob of the switch.
- To fix the PC terminal type, solder it on the PC board after fixing the switch body on the panel with the screw.

# **UL and CSA listed**

(Lever·Rocker Type Only)

#### 8 Switch Series

Dalas	Switching function		<b>9</b> \() (File No.E43275)					(File No.LR38341)							
Poles			8H	8HD	8M	8V-M	8Q	8V-Q	8H	8HD	8M	8V-M	8Q	8V-Q	
	101	ON -	ON	0	0	0	0	$\circ$	0	$\circ$	0	0	0	0	0
	102	ON — OFF —	ON	0	0	0	0	$\circ$	0	$\circ$	0	0	0	$\circ$	0
1-pole	104	(ON) — OFF —	(ON)	0	0	0	0	$\circ$	0	$\circ$	0	0	0	$\bigcirc$	0
	105	ON — OFF —	(ON)	0	0	0	0	$\circ$	0	$\circ$	0	0	0	$\circ$	0
	106	ON -	(ON)	0	0	0	0	0	0	0	0	0	0	0	0
	201	ON -	ON	0	0	0	0	$\circ$	0	$\circ$	0	0	0	0	0
	202	ON — OFF —	ON	0	0	0	0	$\bigcirc$	0	$\bigcirc$	0	0	0	$\bigcirc$	0
2-poles	204	(ON) — OFF —	(ON)	0	0	0	0	$\circ$	0	$\circ$	0	0	0	$\circ$	0
	205	ON — OFF —	(ON)	0	0	0	0	$\bigcirc$	0	$\circ$	0	0	0	$\bigcirc$	0
	206	ON -	(ON)	0	0	0	0	$\circ$	0	$\circ$	0	0	0	$\bigcirc$	0
2 polos	301	ON -	ON	0	0	0	0	$\circ$	0	$\circ$	0	0	0	0	0
3-poles	302	ON — OFF —	ON	0	0	0	0	$\circ$	0	$\circ$	0	0	0	$\circ$	0
4	401	ON —	ON	0	0	0	0	0	0	0	0	0	0	0	0
4-poles	401	ON — OFF —	ON	0	0	0	0	0	0	0	0	0	0	0	0

- (1) ☐ shows the terminal type of ☐ : Solder terminal; ② : PC terminal.
- (2) Some products in the Table of UL and CSA Listed are not registered yet. Before placing the order, check with our Sales Department.
- (3) For the registered products, refer to Table of Part Numbers of respective Series products.
- (4) When the UL and CSA approved products are required, specify "UL /CSA approved Product" when placing the order. The products will be delivered with the UL or CSA marking.