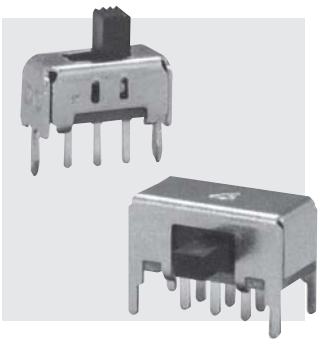
MCS

Sub-miniature Slide Switches

RoHS Compliant



■Common Specifications

●Initial contact resistance

30mΩ max. at 1.5mA 200 μ VAC

●Dilectric strength

AC500V for 1 minute

●Initial insulation resistance

100MΩ min. at 500VDC

●Electical life

10,000 cycles

●Operating temperature range

−10℃～+60℃

■Part Numbering

MCS 1 2 1 D — 1001

Series code

Registration number

Fig.	Number of poles
1	1−pole
2	2−poles
4	4−poles
6	6−poles

Fig.	Number of position
2	2position
3	3position
4	4position

Fig.	Terminal style
1	PC terminal
2	Right angle terminal
3	Surface mount type
4	Solder terminals

Code		Switching function
Odd	D	ON − ON
	E	ON − OFF − ON
	EA	ON − ON − ON
	DD	ON − ON − ON − ON
Even	N	ON − ON
	P	ON − OFF − ON
	PA	ON − ON − ON
	NN	ON − ON − ON − ON

■Soldering Specifications

(1)Manual Soldering
Device ： Soldering iron.
①350℃, Max.; 3 seconds, Max.

(2)When soldering two or more terminals to the common land, use solder resist to solder them independently.

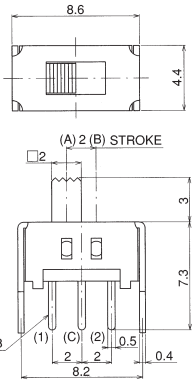
■Flux Cleaning

(1)Solvent : Fluorine or Alcohol type.

MCS

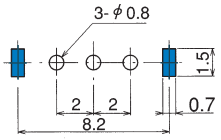
MCS121D-1001

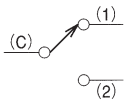
Non-shorting



■PC Hole Layouts

(Top view)

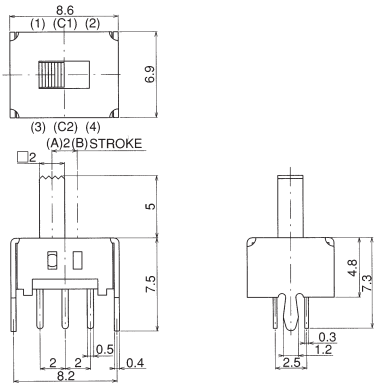


Circuit arrangement		Circuit diagram	No. of terminals
Pos.A	Pos.B		3
ON	ON		
(C) — (1)	(C) — (2)		

●Rating : DC50V 0.3A
●Operating force : 2.45±0.98N

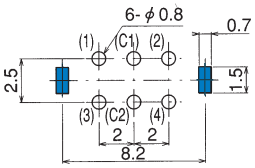
★MCS221N-1006

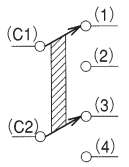
Non-shorting



■PC Hole Layouts

(Top view)

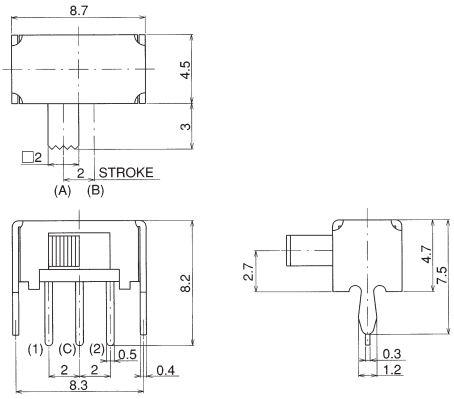


Circuit arrangement		Circuit diagram	No. of terminals
Pos.A	Pos.B		6
ON	ON		
(C1) — (1) (C2) — (3)	(C1) — (2) (C2) — (4)		

●Rating : DC50V 0.3A
●Operating force : 2.45±0.98N

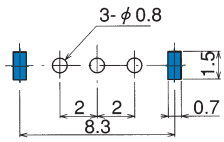
MCS122D-1002

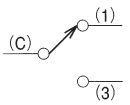
Non-shorting



■PC Hole Layouts

(Top view)



Circuit arrangement		Circuit diagram	No. of terminals
Pos.A	Pos.B		3
ON	ON		
(C) — (1)	(C) — (2)		

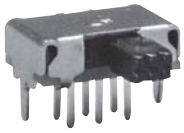
●Rating : DC50V 0.3A
●Operating force : 2.45±0.98N

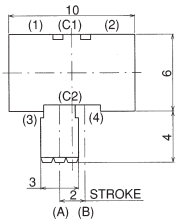
★ : Made to order products.

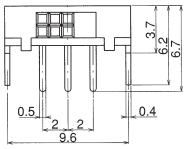
MCS

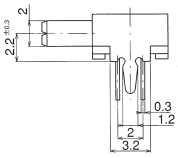
★MCS222N-2004

Non-shorting



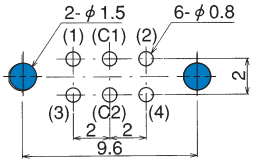


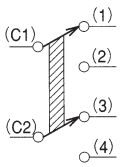




■PC Hole Layouts

(Top view)

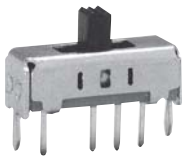


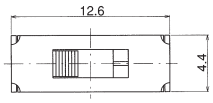
Circuit arrangement		Circuit diagram	No. of terminals
Pos.A	Pos.B		6
ON	ON		
(C1) — (1) (C2) — (3)	(C1) — (2) (C2) — (4)		

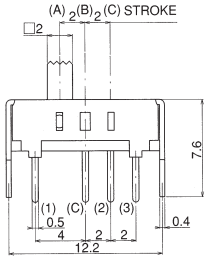
●Rating : DC50V 0.2A
●Operating force : 2.45±0.98N

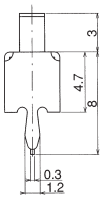
MCS131EA-1004

Shorting



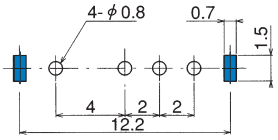


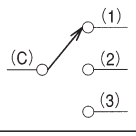




■PC Hole Layouts

(Top view)

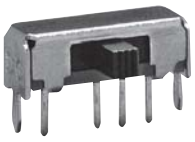


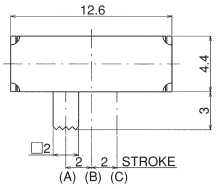
Circuit arrangement			Circuit diagram	No. of terminals
Pos.A	Pos.B	Pos.C		4
ON	ON	ON		
(C) — (1)	(C) — (2)	(C) — (3)		

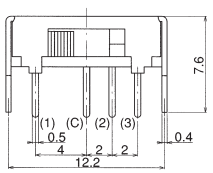
●Rating : DC50V 0.3A
●Operating force : 2.45±0.98N

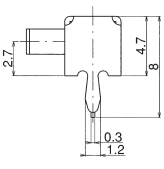
★MCS132EA-1005

Shorting



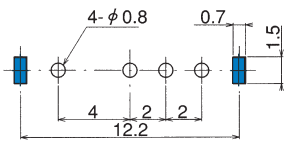


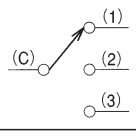




■PC Hole Layouts

(Top view)



Circuit arrangement			Circuit diagram	No. of terminals
Pos.A	Pos.B	Pos.C		4
ON	ON	ON		
(C) — (1)	(C) — (2)	(C) — (3)		

●Rating : DC50V 0.3A
●Operating force :
(A)⇒(B)、(C)⇒(B) 1.96±0.98N
(B)⇒(A)、(B)⇒(C) 2.94±0.98N

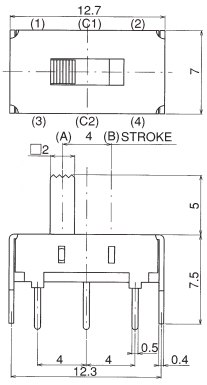
shorting →Page 531.

★ : Made to order products.

MCS

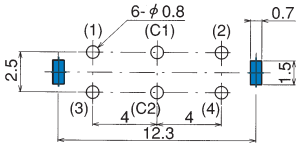
★MCS221N-1008

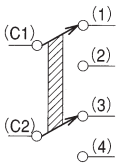
Non-shorting



■PC Hole Layouts

(Top view)

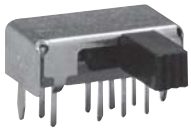


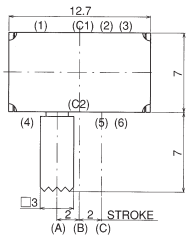
Circuit arrangement		Circuit diagram	No. of terminals
Pos.A	Pos.B		6
ON	ON		
(C1) — (1) (C2) — (3)	(C1) — (2) (C2) — (4)		

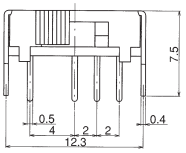
●Rating : DC50V 0.3A
●Operating force : 2.45±0.98N

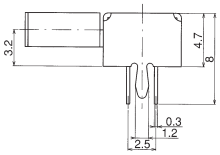
MCS232PA-1012

Shorting



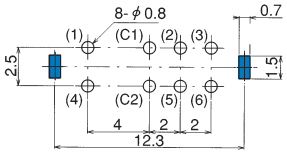


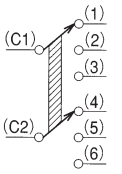




■PC Hole Layouts

(Top view)

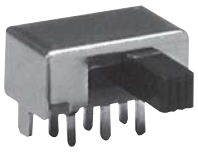


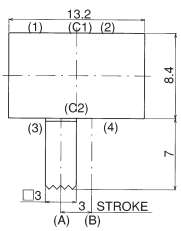
Circuit arrangement			Circuit diagram	No. of terminals
Pos.A	Pos.B	Pos.C		8
ON	ON	ON		
(C1) — (1) (C2) — (4)	(C1) — (2) (C2) — (5)	(C1) — (3) (C2) — (6)		

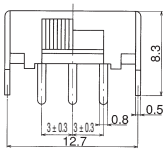
●Rating : DC50V 0.3A
●Operating force :
(A)⇒(B)、(C)⇒(B)1.47±0.49N
(B)⇒(A)、(B)⇒(C)2.94±0.98N

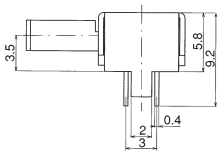
MCS222N-1009

Non-shorting



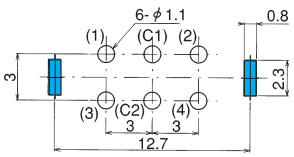


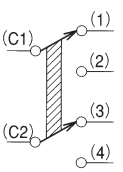




■PC Hole Layouts

(Top view)



Circuit arrangement		Circuit diagram	No. of terminals
Pos.A	Pos.B		6
ON	ON		
(C1) — (1) (C2) — (3)	(C1) — (2) (C2) — (4)		

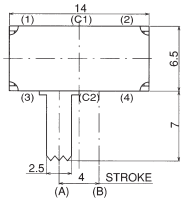
●Rating : DC50V 0.3A
●Operating force : 2.45±0.98N

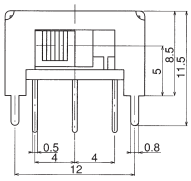
★ : Made to order products.

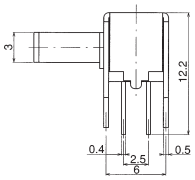
MCS

★MCS222N-1010

Non-shorting

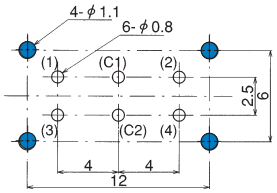


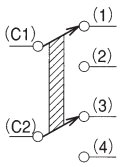




■PC Hole Layouts

(Top view)

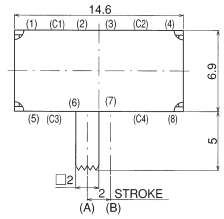


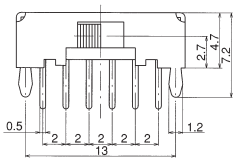
Circuit arrangement		Circuit diagram	No. of terminals
Pos.A	Pos.B		6
ON	ON		
(C1) — (1) (C2) — (3)	(C1) — (2) (C2) — (4)		

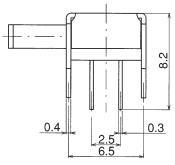
●Rating : DC50V 0.3A
●Operating force : 2.45±0.98N

★MCS422N-1015

Non-shorting

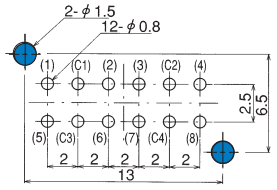


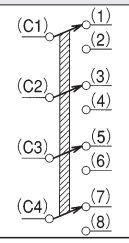




■PC Hole Layouts

(Top view)

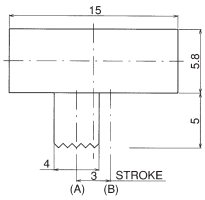


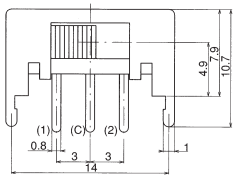
Circuit arrangement		Circuit diagram	No. of terminals
Pos.A	Pos.B		12
ON	ON		
(C1) — (1) (C2) — (3) (C3) — (5) (C4) — (7)	(C1) — (2) (C2) — (4) (C3) — (6) (C4) — (8)		

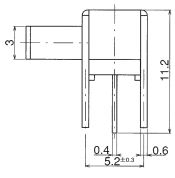
●Rating : DC50V 0.3A
●Operating force : 2.45±0.98N

★MCS122D-2001

Non-shorting

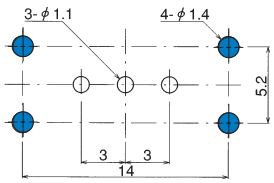


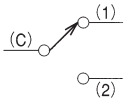




■PC Hole Layouts

(Top view)



Circuit arrangement		Circuit diagram	No. of terminals
Pos.A	Pos.B		3
ON	ON		
(C) — (1)	(C) — (2)		

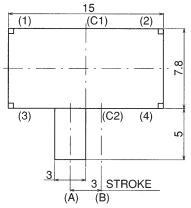
●Rating : DC50V 0.2A
●Operating force : 2.45±1.47N

★ : Made to order products.

MCS

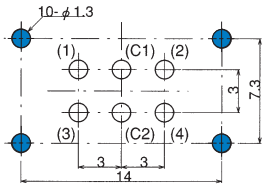
★MCS222N-2002

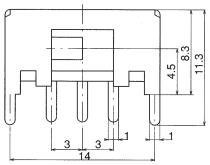
Non-shorting

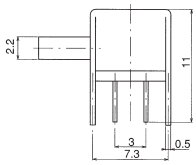


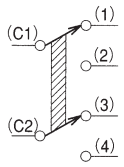
■PC Hole Layouts

(Top view)





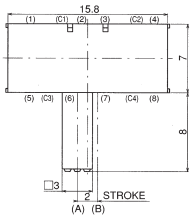


Circuit arrangement		Circuit diagram	No. of terminals
Pos.A	Pos.B		6
ON	ON		
(C1) — (1) (C2) — (3)	(C1) — (2) (C2) — (4)		

●Rating : DC30V 0.2A
●Operating force : 2.45±0.98N

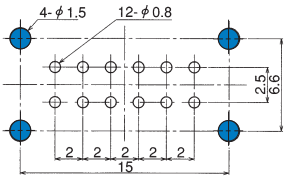
★MCS422N-2009

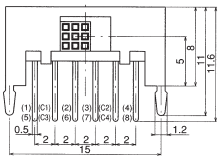
Non-shorting

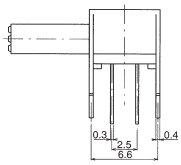


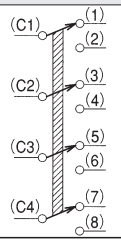
■PC Hole Layouts

(Top view)





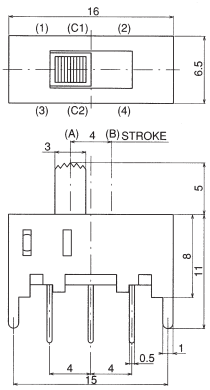


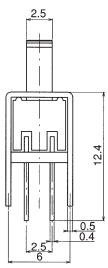
Circuit arrangement		Circuit diagram	No. of terminals
Pos.A	Pos.B		12
ON	ON		
(C1) — (1) (C2) — (3) (C3) — (5) (C4) — (7)	(C1) — (2) (C2) — (4) (C3) — (6) (C4) — (8)		

●Rating : DC30V 0.2A
●Operating force : 1.96±0.98N

★MCS221N-1007

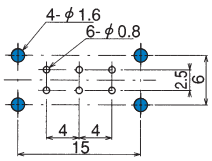
Non-shorting

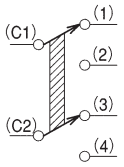




■PC Hole Layouts

(Top view)



Circuit arrangement		Circuit diagram	No. of terminals
Pos.A	Pos.B		6
ON	ON		
(C1) — (1) (C2) — (3)	(C1) — (2) (C2) — (4)		

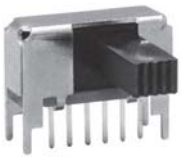
●Rating : DC50V 0.3A
●Operating force : 2.45±0.98N

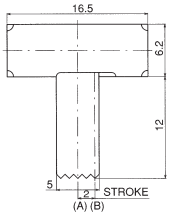
★ : Made to order products.

MCS

★MCS222N-2003

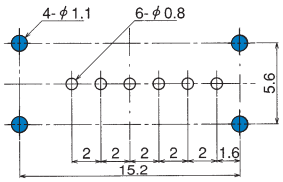
Non-shorting

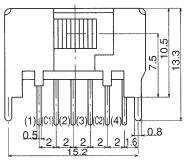


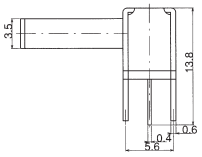


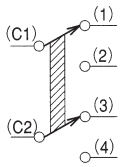
■PC Hole Layouts

(Top view)





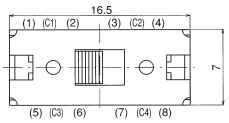


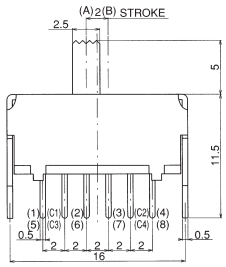
Circuit arrangement		Circuit diagram	No. of terminals
Pos.A	Pos.B		6
ON	ON		
(C1) — (1) (C2) — (3)	(C1) — (2) (C2) — (4)		

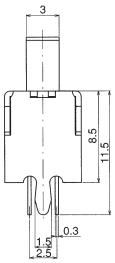
●Rating : DC30V 0.2A
●Operating force : 1.96±0.98N

MCS421N-1014

Non-shorting

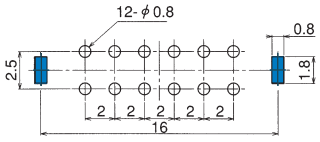


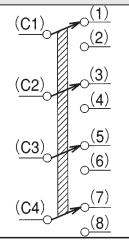




■PC Hole Layouts

(Top view)

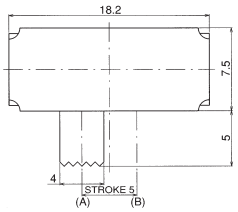


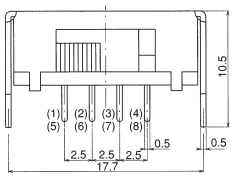
Circuit arrangement		Circuit diagram	No. of terminals
Pos.A	Pos.B		12
ON	ON		
(C1) — (1) (C2) — (3) (C3) — (5) (C4) — (7)	(C1) — (2) (C2) — (4) (C3) — (6) (C4) — (8)		

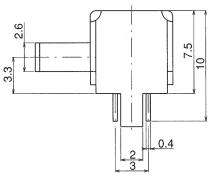
●Rating : DC50V 0.3A
●Operating force : 2.45±0.98N

★MCS222N-2005

Non-shorting

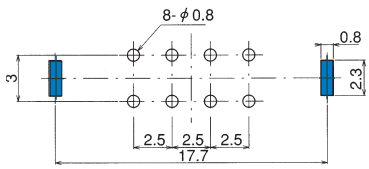


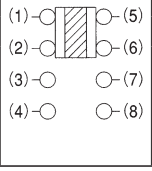




■PC Hole Layouts

(Top view)



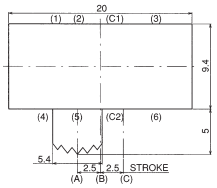
Circuit arrangement		Circuit diagram	No. of terminals
Pos.A	Pos.B		8
ON	ON		
(1) — (2) (5) — (6)	(3) — (4) (7) — (8)		

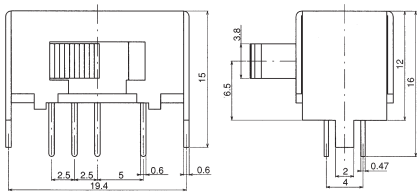
●Rating : DC30V 0.3A
●Operating force : 1.96±0.98N

★ : Made to order products.

★MCS232PA-1013

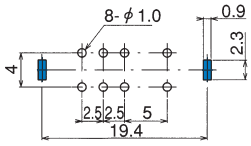
Shorting

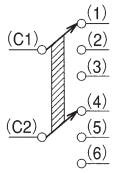




■PC Hole Layouts

(Top view)

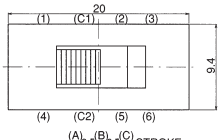


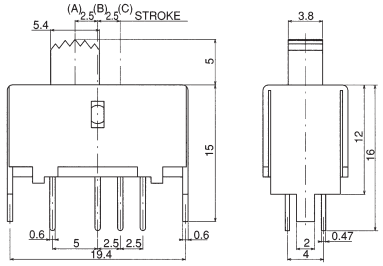
Circuit arrangement			Circuit diagram	No. of terminals
Pos.A	Pos.B	Pos.C		8
ON	ON	ON		
(C1) — (1) (C2) — (4)	(C1) — (2) (C2) — (5)	(C1) — (3) (C2) — (6)		

●Rating : DC50V 0.3A
●Operating force :
(A)⇒(B)、(C)⇒(B) 1.96±0.78N
(B)⇒(A)、(B)⇒(C) 2.94±0.98N

★MCS231PA-1011

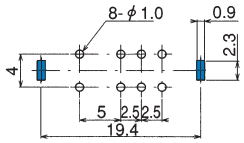
Shorting

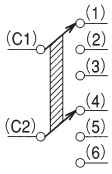




■PC Hole Layouts

(Top view)



Circuit arrangement			Circuit diagram	No. of terminals
Pos.A	Pos.B	Pos.C		8
ON	ON	ON		
(C1) — (1) (C2) — (4)	(C1) — (2) (C2) — (5)	(C1) — (3) (C2) — (6)		

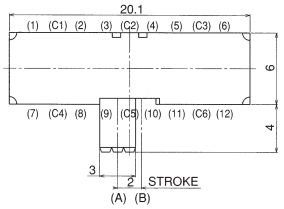
●Rating : DC50V 0.3A
●Operating force :
(A)⇒(B)、(C)⇒(B) 1.96±0.78N
(B)⇒(A)、(B)⇒(C) 2.94±0.98N

★ : Made to order products.

MCS

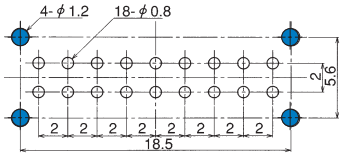
★MCS622N-2011

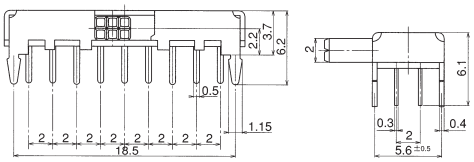
Non-shorting

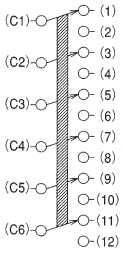


■PC Hole Layouts

(Top view)



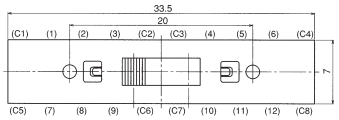


Circuit arrangement		Circuit diagram	No. of terminals
Pos.A	Pos.B		
ON	ON		
(C1) — (1) (C2) — (3) (C3) — (5) (C4) — (7) (C5) — (9) (C6) — (11)	(C1) — (2) (C2) — (4) (C3) — (6) (C4) — (7) (C5) — (10) (C6) — (12)		18

●Rating : DC30V 0.3A
●Operating force : 2.45±0.98N

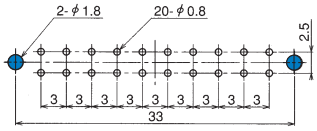
★MCS431PA-2010

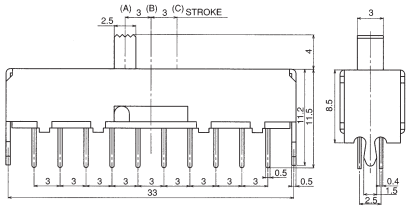
Non-shorting

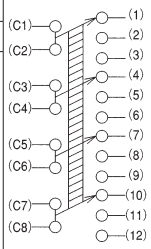


■PC Hole Layouts

(Top view)



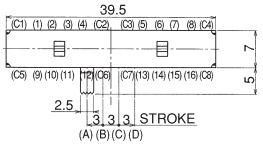


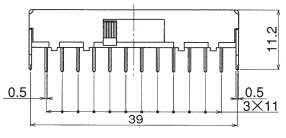
Circuit arrangement			Circuit diagram	No. of terminals
Pos.A	Pos.B	Pos.C		
ON	ON	ON		
(C1) (C2) — (1)	(C1) (C2) — (2)	(C1) (C2) — (3)		20
(C3) (C4) — (4)	(C3) (C4) — (5)	(C3) (C4) — (6)		
(C5) (C6) — (7)	(C5) (C6) — (8)	(C5) (C6) — (9)		
(C7) (C8) — (10)	(C7) (C8) — (11)	(C7) (C8) — (12)		

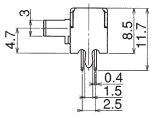
●Rating : DC30V 0.3A
●Operating force :
(A)⇒(B)、(C)⇒(B) 1.76±0.78N
(B)⇒(A)、(B)⇒(C) 2.25±0.98N

★MCS442NN-1016

Non-shorting

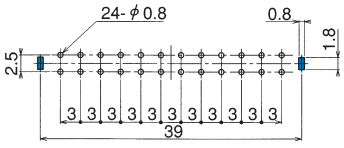


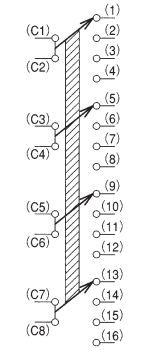




■PC Hole Layouts

(Top view)



Circuit arrangement				Circuit diagram	No. of terminals
Pos.A	Pos.B	Pos.C	Pos.C		
ON	ON	ON	ON		
(C1) (C2) — (1)	(C1) (C2) — (2)	(C1) (C2) — (3)	(C1) (C2) — (4)		24
(C3) (C4) — (5)	(C3) (C4) — (6)	(C3) (C4) — (7)	(C3) (C4) — (8)		
(C5) (C6) — (9)	(C5) (C6) — (10)	(C5) (C6) — (11)	(C5) (C6) — (12)		
(C7) (C8) — (13)	(C7) (C8) — (14)	(C7) (C8) — (15)	(C7) (C8) — (16)		

●Rating : DC50V 0.3A
●Operating force : 3.92±0.98N

★ : Made to order products.