MHS

Hyper-miniature Slide Switches RoHS Compliant





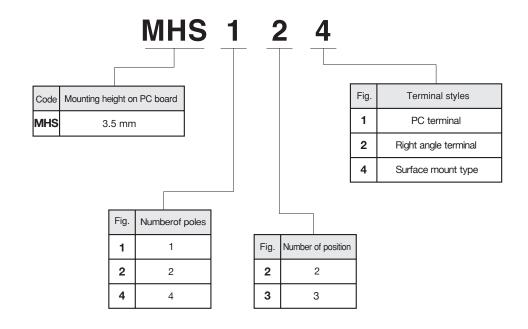
Features -

- 1. Extremely small and low-profile slide switch.
- 2. Available in a wide variety of circuits.

■ Specifications -

Dating	Max.	0.2A 12VDC	(Resistive load)
Rating	Min.	10mA 5VDC	(Resistive load)
Initial contact resistance	500Ω max.		(1.5mA 200µVAC)
Dielectric strength	500VAC 1 mnute		
Insulation resistance	100MΩ min.		(500VDC)
Electrical life	5,000	cycles	
Operating temperature range	-10~	+70°C	
Storage temperature range	−20~+80°C		

■Part Numbering





∕○−(1)

O-(3)

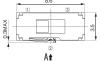
3

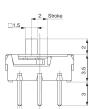
Circuit diagram

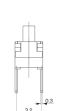
(2)--











●Operating force : 0.49~3.92 N {50~400 gf}

ON

2 - 3

Switching function (Viewed from **A**)

ON

■PC Hole Layouts

PC

(Top view)



Terminal numbers are not shown on the switch.

MHS122

Non-shorting



R/A



₽Α

Terminal numbers are not shown on the switch.

Switching function (Viewed from A)		Circuit diagram	No. of terminals
4	4	<u>(1)</u>	
ON	ON	(2)-O	3
2-3	2-1	O—(3)	

●Operating force : 0.49~3.92 N {50~400 gf}

■PC Hole Layouts

(Top view)

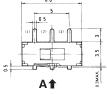
MHS122 -1

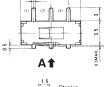


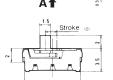


Non-shorting











Switching function (Viewed from A)		Circuit diagram	No. of terminals
		J O-(1)	
ON	ON	(2)-0	3
2-1	2-3	O—(3)	

●Operating force : 0.49~3.92 N {50~400 gf}

■PC Hole Layouts

(Top view)



Terminal numbers are not shown on the switch.



Circuit diagram

(3)—○——(2)

(1)

(4)

No. of terminals

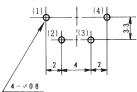
4

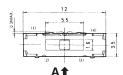


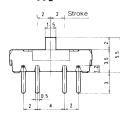


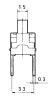


■PC Hole Layouts (Top view)









●Operating force : 0.49~3.92N {50~400 gf}

Switching function (Viewed from **A**)

ON

3 - 2

ON

3-4

ON

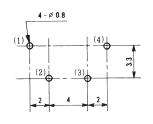
3 - 1

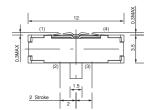
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★MHS132	Non-shorting



R/A

■PC Hole Layouts (Top view)





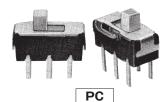
Terminal numbers are not shown on the switch.

Terminal numbers are not shown on the switch.

Switching function (Viewed from A)		Circuit diagram	No. of terminals	
4		4	O—(1)	
ON	ON	ON	(3)—○—(2)	4
3-4	3-2	3-1	O(4)	,

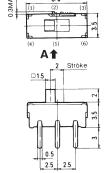
●Operating force : 0.49~3.92 N {50~400 gf}





■PC Hole Layouts (Top view)





Terminal numbers are not shown on the switch.

Switching function (Viewed from A)		Circuit diagram	No. of terminals
4		(2)—(1)	
ON	ON	(3)	6
2-1 5-4	2-3 5-6	(5)—(4)	ر ر

●Operating force : 0.49~3.92 N {50~400 gf}



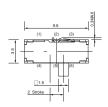


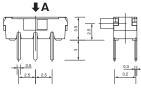




■PC Hole Layouts (Top view)







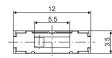
Terminal numbers are not shown on the switch.

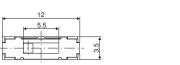
Switching function (Viewed from A)		Circuit diagram		No. of terminals
4		(2)—O	O—(1)	
ON	ON		(3)	6
2-3	2-1	(5)—О	(4)	
5-6	5-4	"	(6)	l)

●Operating force : 0.49~3.92 N {50~400 gf}

MHS231 Non-shorting



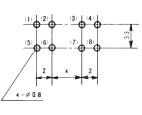


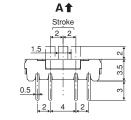


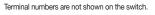


■PC Hole Layouts

(Top view)





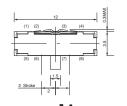


Switching function (Viewed from A)		Circuit diagram		No. of terminals	
		4	(3)—O—	O-(1)	
ON	ON	ON]	O-(4) O-(5)	8
3-1 7-5	3-2 7-6	3-4 7-8	(7)—O—	(5) (6)	

●Operating force : 0.49~3.92 N {50~400 gf}

★MHS232 Non-shorting



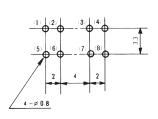


Switching function (Viewed from A)		Circuit	diagram	No. of terminals	
			(3)—O—	O-(1)	
ON	ON	ON		O-(4) O-(5)	8
3-4 7-8	3-2 7-6	3-1 7-5	(7)—O—	O-(8)	

●Operating force : 0.49~3.92 N {50~400 gf}

■PC Hole Layouts

(Top view)



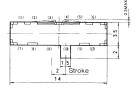
₩A	
	2.1

Terminal numbers are not shown on the switch.







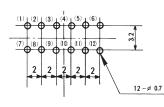


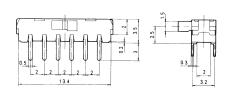
Switching function Circuit diagram (Viewed from A) O---(3) ON ON O--(4) 12 2 - 32 - 1**O**—(7) 5 - 65 - 4-(9) 8 - 98 - 7**O**—(10) 11-10 11-12 (12)

●/Operating force : 1.47~3.92N {150~400 gf}

■PC Hole Layouts

(Top view)





Terminal numbers are not shown on the switch

■ Soldering Specifications

(1)Manual Soldering

Device : Soldering iron

1 380°C, Max.; 3 seconds, Max.

(2)Auto Soldering (MHS121/MSH131/MHS221/MHS231 only)

Device: Jet wave type or dip type 1 275°C, Max.; 6 seconds, Max.

- Pre-heating should be done at temperatures ranging from 80°C to 120°C and within 120 seconds
- (3)When soldering two or more terminals to the common land, use solder resist to solder them independently.

Frequency of switch use

If the switch is not likely to be operated frequently (e.g. two or three operations a year) in the dry circuit area, a sulfide film is likely to be formed on the contacts, resulting in contact failure. If this is the case, gold-plated products are recommended. Please contact your local Nidec Copal Electronics sales representative.

Flux Cleaning -

- (1)Solvent: Fluorine or Alcohol type.
- (2)Not process sealed, 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.

■Packaging Specifications

