



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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Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

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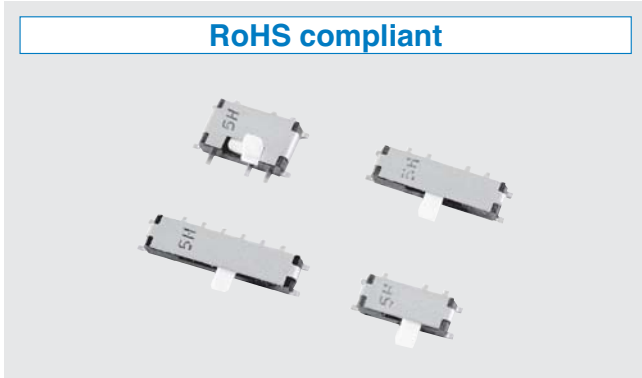
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



LOW-PROFILE SLIDE SWITCHES



RoHS compliant



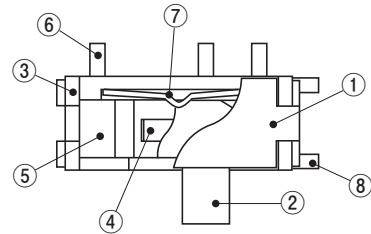
FEATURES

- Low-profile of 1.4 mm
- RoHS compliant

APPLICATIONS

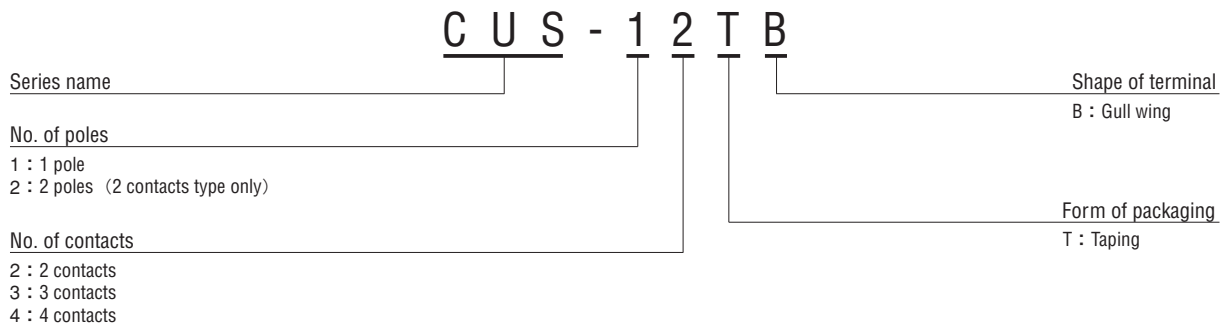
- Mobile stereo · LCD TV · Camcorder

INTERNAL STRUCTURE



Part name	Material	Flammability
① Cover	Nickel silver	—
② Slider	Polyamide	UL94V-0
③ Housing	Liquid crystal polymer	
④ Slider contact	Copper alloy, Gold-plated	—
⑤ Fixed contact		
⑥ Terminal pin	Stainless steel (SUS 301)	—
⑦ Click spring		
⑧ Ground terminal	Nickel silver	—

PART NUMBER DESIGNATION



※ Please refer to the LIST OF PART NUMBERS when placing orders.

CUS

LOW-PROFILE SLIDE SWITCHES

LIST OF PART NUMBERS

Schematic	No. of contacts	Shape of terminal	Form of packaging	Part number	Pieces in package
1	2	B (Gull wing)	Taping	CUS-12TB	2500 pcs./reel
	3			CUS-13TB	
	4			CUS-14TB	
2	CUS-22TB			1400 pcs./reel	

STANDARD SPECIFICATIONS

Operating temp. range	- 20 ~ 70 °C
Storage temp. range	- 40 ~ 85 °C
Sealing	Non washable
Net weight	Approx. 0.08 g (CUS-12) Approx. 0.10 g (CUS-13) Approx. 0.13 g (CUS-14) Approx. 0.11 g (CUS-22)

ELECTRICAL CHARACTERISTICS

Contact rating Non-switching Switching Minimum	DC50 V 100 mA DC4 V 300 mA DC20 mV 1 μA
Contact timing	Non-shorting
Contact resistance	70 mΩ maximum
Insulation resistance	100 MΩ minimum (DC 100 V)
Dielectric strength	AC100 V 60 s

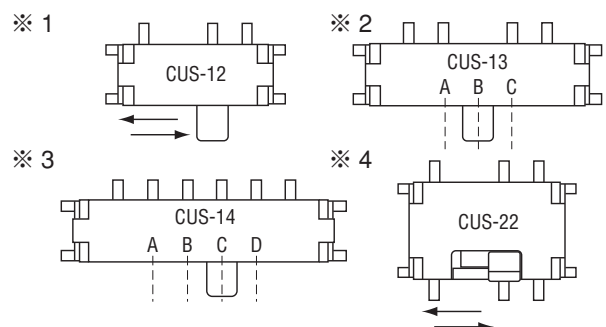
MECHANICAL CHARACTERISTICS

No. of positions	2, 3, 4	
Stroke	1.5 mm	
Operating force	CUS-12 ^{※1}	2 ± 1.7 N {0.2 ± 0.17 kgf}
	CUS-13 ^{※2}	A → B : 1.5 ± 1.2 N {0.15 ± 0.12 kgf}
		B → C : 2 ± 1.7 N {0.2 ± 0.17 kgf}
		C → B : 1.5 ± 1.2 N {0.15 ± 0.12 kgf}
	CUS-14 ^{※3}	A → B : 1.5 ± 1.2 N {0.15 ± 0.12 kgf}
		B → C : 2 ± 1.7 N {0.2 ± 0.17 kgf}
C → D : 2 ± 1.7 N {0.2 ± 0.17 kgf}		
D → C : 1.5 ± 1.2 N {0.15 ± 0.12 kgf}		
CUS-22 ^{※4}	2 ± 1.7 N {0.2 ± 0.17 kgf}	
Stop strength	10 N {1.02 kgf} 15 s	
Solderability	245 ± 3 °C 2 ~ 3 s	
Soldering heat	Reflow peak : 250 ~ 255 °C	
	Manual soldering : 350 ± 10 °C 3 ~ 4 s	
Shear	5 N {0.5 kgf} 10 s	
Substrate bending	Width 90 mm, bend 3 mm, 5 s, 1 time	
Pull-off strength	5 N {0.5 kgf} 10 s	

{ } : Reference only

ENVIRONMENTAL CHARACTERISTICS

Vibration	Amplitude 1.5 mm or Acceleration 98 m/s ² , 10-500-10 Hz, 3 directions for 10 cycles each
Shock	490 m/s ² , 11 ms, 6 directions for 3 times each
Load life	Continuous load 10000 cycles, DC4 ± 0.5 V, 300 ± 10 mA
Humidity	40 °C, Relative humidity 90 ~ 95 %, 240 h, No load
High temp. exposure	85 °C, 96 h, No load
Low temp. exposure	-40 °C, 96 h, No load
Thermal shock	-40 (0.5 h) ~ 85 °C (0.5 h), 5 cycles



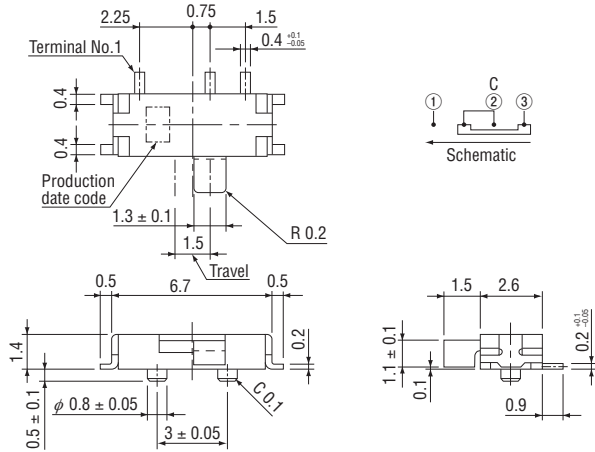
CUS

LOW-PROFILE SLIDE SWITCHES

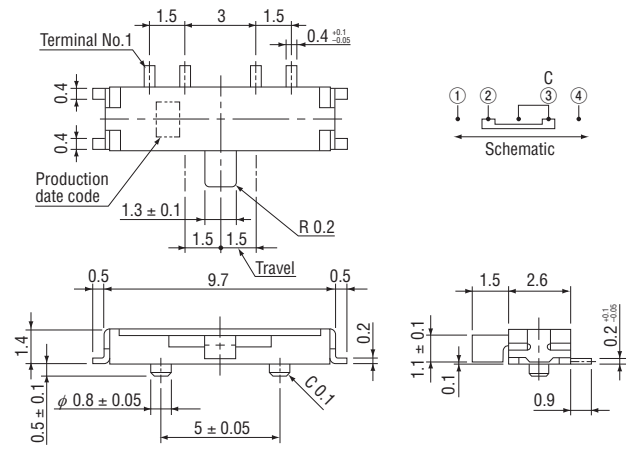
OUTLINE DIMENSIONS

Unless otherwise specified, tolerance : ± 0.2 (Unit : mm)

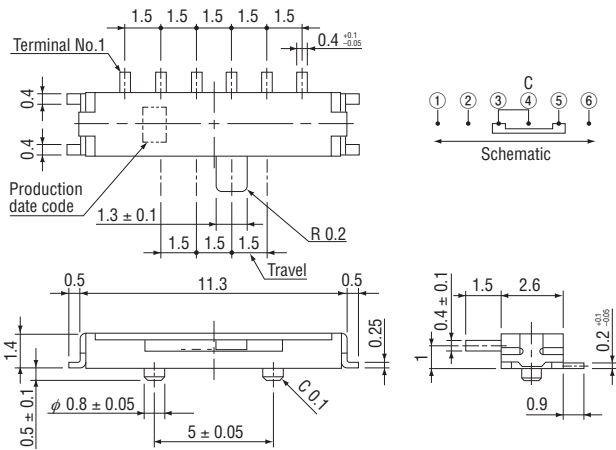
● CUS-12B



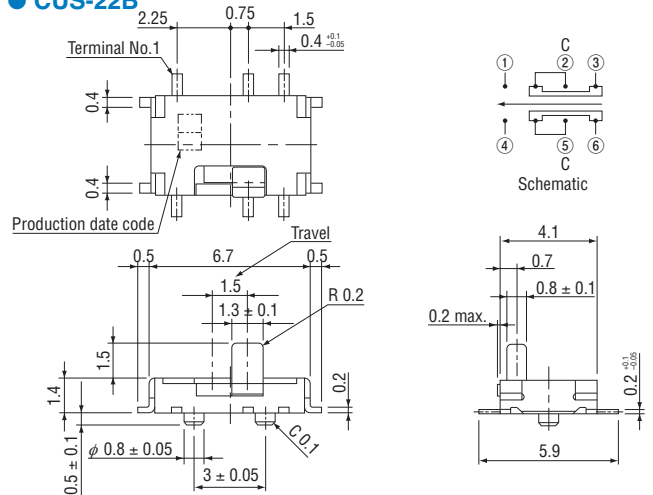
● CUS-13B



● CUS-14B



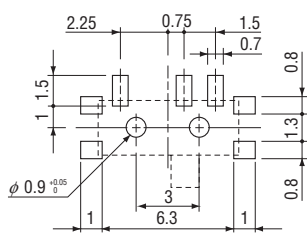
● CUS-22B



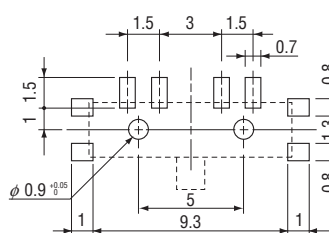
RECOMMENDED P.C.B. PAD OUTLINE DIMENSIONS

(Unit : mm)

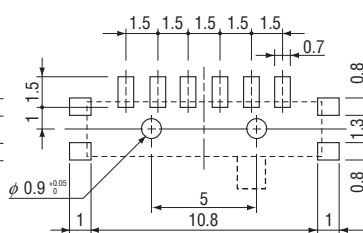
● CUS-12B



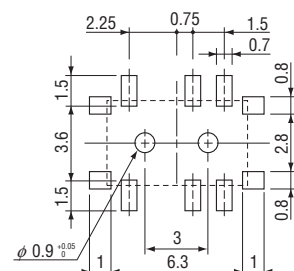
● CUS-13B



● CUS-14B



● CUS-22B



CUS

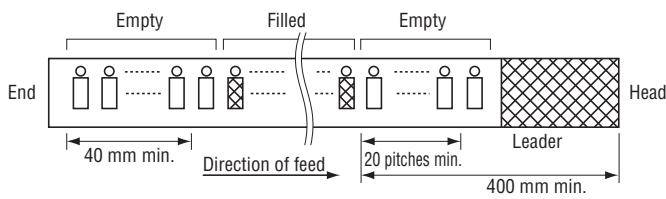
LOW-PROFILE SLIDE SWITCHES

PACKAGING SPECIFICATIONS

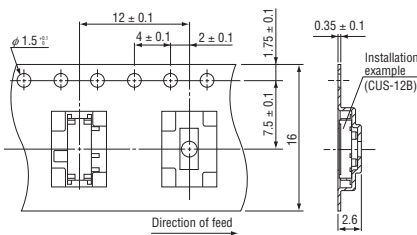
Taping version is packaged in 2500 pcs. per reel (1400 pcs. for CUS-22).

Taping version is boxed with 1 reel (2500 pcs. or 1400 pcs.).
 Maximum number of consecutive missing pieces = 2. Leader length and reel dimension are shown in the diagrams below.

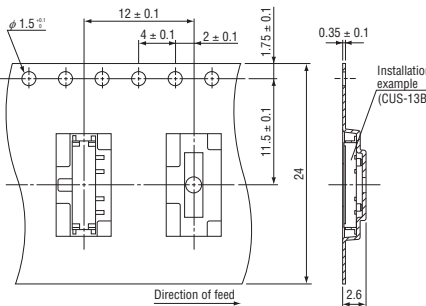
Embossed tape dimensions



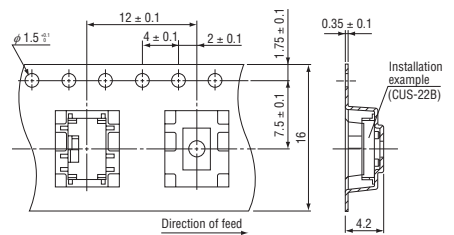
● CUS-12TB



● CUS-13TB, CUS-14TB

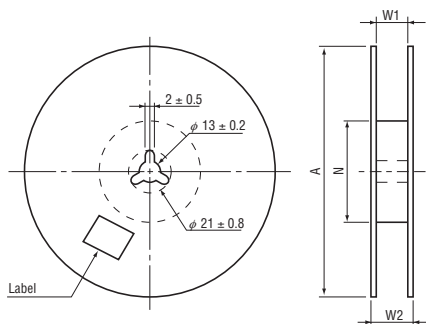


● CUS-22TB



● Reel dimensions

(Unit: mm)



Part number	A	W ₁	W ₂	N
12TB, 22TB	$\varnothing 330 \pm 2$	17.4 ± 1	21.4 ± 1	$\varnothing 80 \pm 1$
13TB, 14TB	$\varnothing 330 \pm 2$	25.4 ± 1	29.4 ± 1	$\varnothing 80 \pm 1$