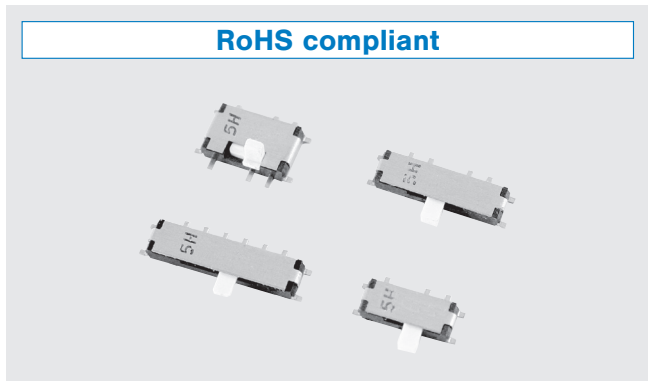




THE DATASHEET OF CUS-12TB



LOW-PROFILE SLIDE SWITCHES

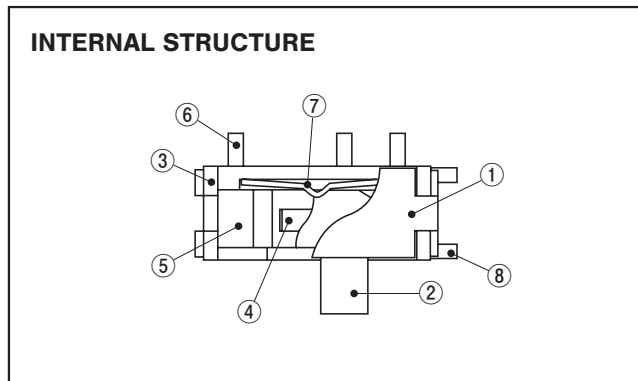


FEATURES

- Low-profile of 1.4 mm
- RoHS compliant
- Resin material is UL Recognized 94V-0

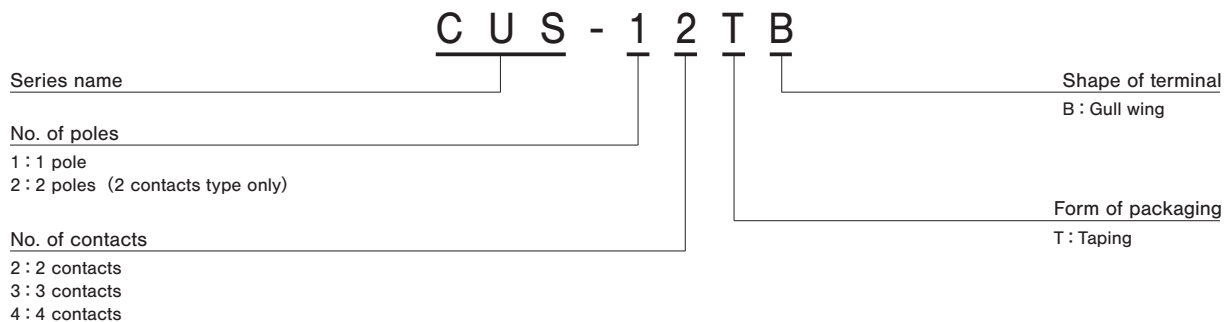
APPLICATIONS

- Mobile stereo · LCD TV · Camcorder



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

PART NUMBER DESIGNATION



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

LIST OF PART NUMBERS

Schematic	No. of contacts	Shape of terminal	Form of packaging	Part number	Packaging quantity
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	DC50 V 100 mA
Non-switching	DC4 V 300 mA
Switching	DC20 mV 1 µA
Minimum	
Contact timing	Non-shorting
Contact resistance	70 mΩ maximum
Insulation resistance	100 MΩ minimum (DC 100 V)
Dielectric strength	AC100 V 60 s

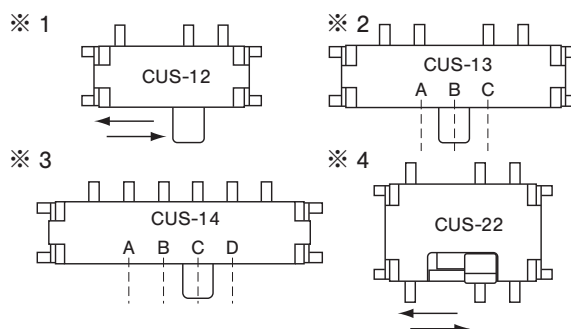
MECHANICAL CHARACTERISTICS

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}	B → A : 2 ± 1.7 N {0.2 ± 0.17 kgf}
		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}		
CUS-22 ^{*4}	D → C : 1.5 ± 1.2 N {0.15 ± 0.12 kgf}	
	C → B : 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



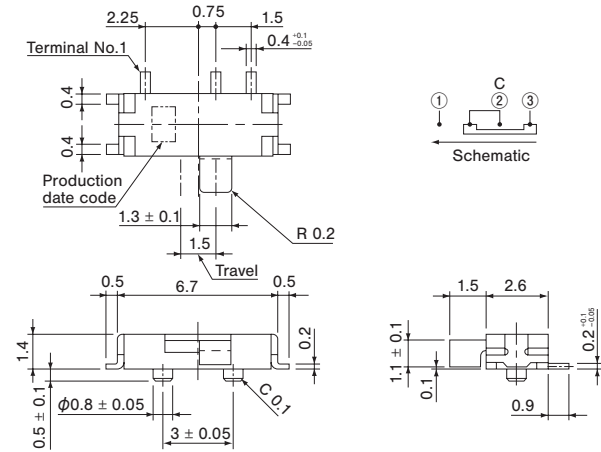
CUS

LOW-PROFILE SLIDE SWITCHES

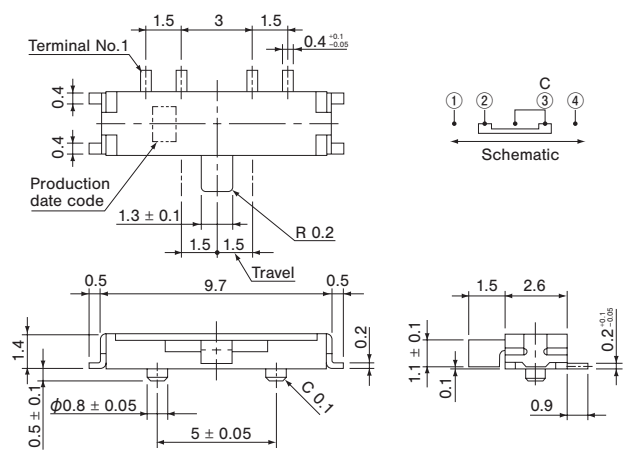
OUTLINE DIMENSIONS

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

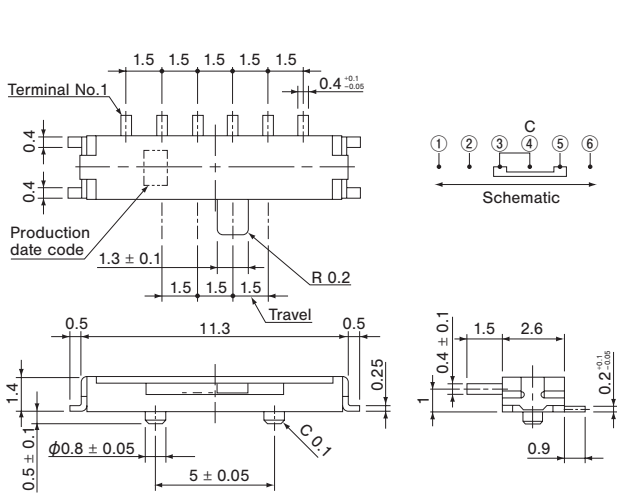
CUS-12B



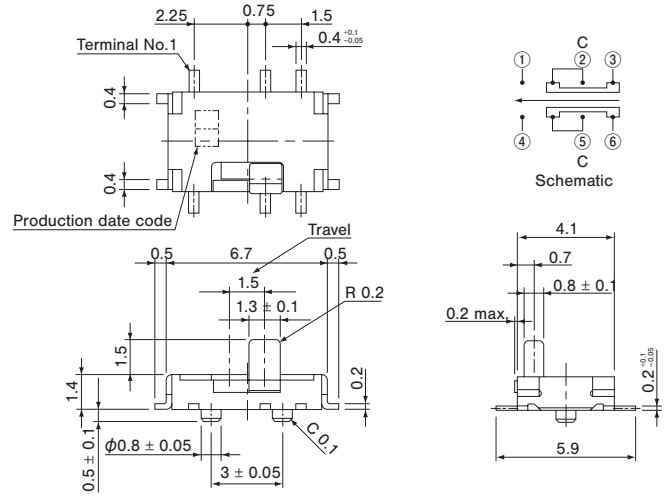
CUS-13B



CUS-14B



CUS-22B



RECOMMENDED P.C.B. PAD OUTLINE DIMENSIONS

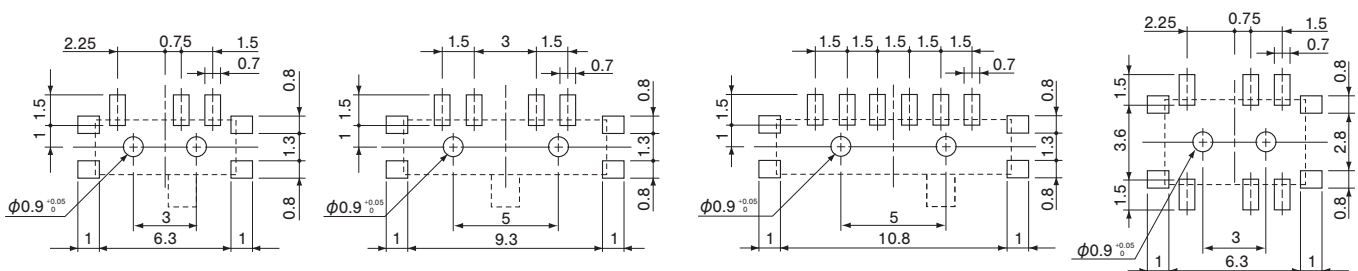
(Unit : mm)

CUS-12B

CUS-13B

CUS-14B

CUS-22B

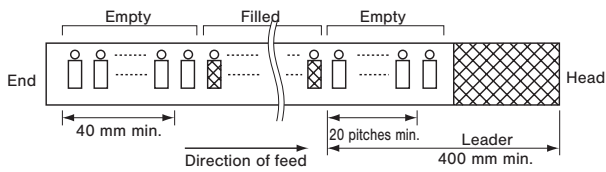


PACKAGING SPECIFICATIONS

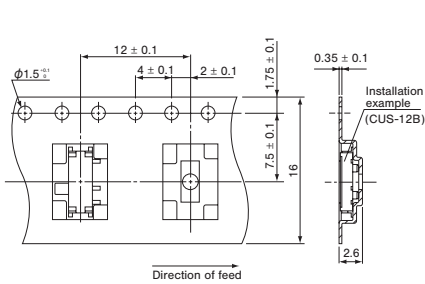
Taping version is packaged in 2500 pcs. per reel (1400 pcs. for CUS-22).

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.

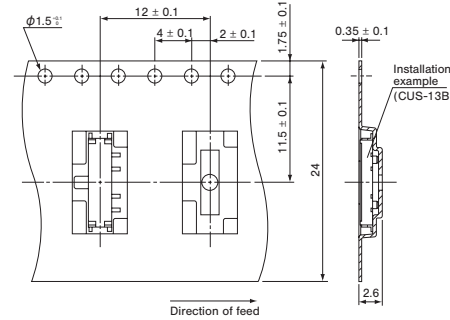
Embossed tape dimensions



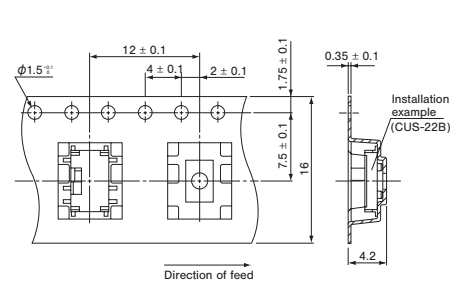
CUS-12TB



CUS-13TB, CUS-14TB

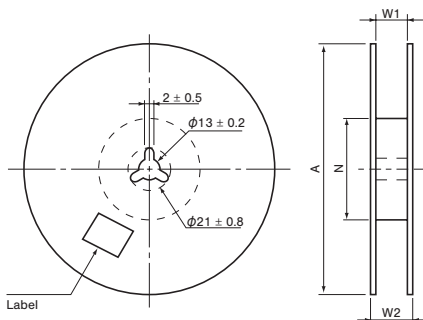


CUS-22TB



Reel dimensions

(Unit: mm)





Reel shape and dimensions

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

Looking for pricing, stock, or lifecycle information?

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-  [Nidec Copal Electronics Information](#)

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-  Obsolete Management
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