

# DATA SHEET

**SUNGMUN CODE :** NSI-10S

**DESCRIPTION :** SLIDE SWITCH

## **SUNGMUN ELECTRONICS CO., LTD.**

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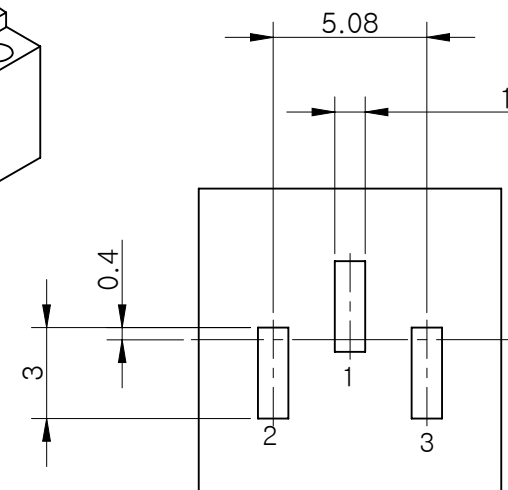
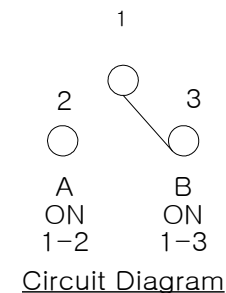
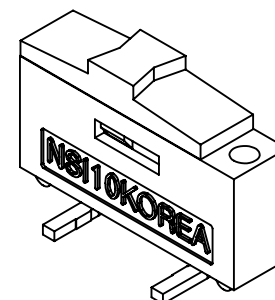
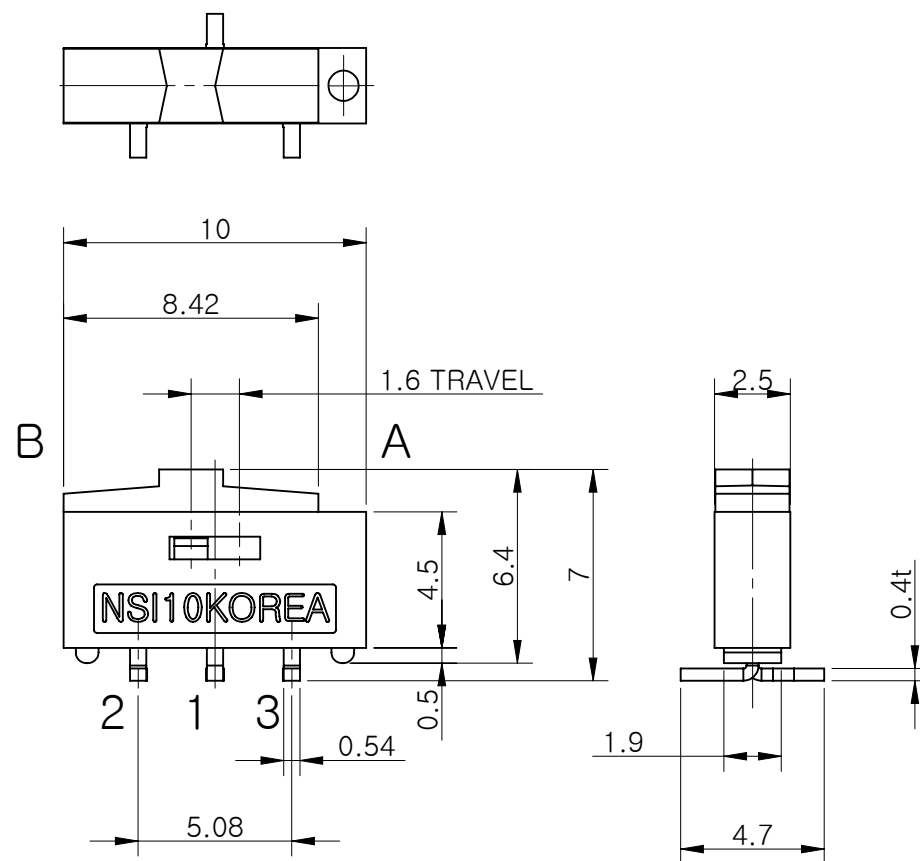


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| MRK. | DATE | REVISION | SIGN |
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# SPECIFICATION

- Rating : 0.5A, DC 12V~0.3A, DC24V
- Contact Resistance : 30mΩ Max
- Travel : 1.6mm
- Operating Force : 250gf±150gf
- Life cycle : 2,000 Cycle(with load)



## P.C.B DIMENSION

|                                                                                       |                     |          |                                                                                       |       |              |                     |         |        |     |
|---------------------------------------------------------------------------------------|---------------------|----------|---------------------------------------------------------------------------------------|-------|--------------|---------------------|---------|--------|-----|
| 01                                                                                    | SLIDE SWITCH NSI-10 |          | 재질 <지정안함>                                                                             |       |              |                     | 1       | -      |     |
| NO.                                                                                   | DESCRIPTION         |          | MATERIAL                                                                              |       | COLOR/FINISH |                     | Q.TY    | VENDOR |     |
| DRAW/DESIGNED                                                                         | CHECKED             | APPROVED |  | G.TOL | TITLE        | SLIDE SWITCH NSI-10 |         |        |     |
|  |                     |          |                                                                                       | ±0.1  |              |                     |         |        |     |
|                                                                                       |                     |          |                                                                                       | UNIT  | SCALE        | MODEL               | NSI-10S |        |     |
| 2017-01-24                                                                            |                     |          | mm                                                                                    | 4:1   |              |                     |         |        |     |
| SUNGmun ELECTRONICS CO.,LTD                                                           |                     |          |                                                                                       | SIZE  | DRAW NO.     | NSI0-1000S-01       |         |        | 1/1 |
|                                                                                       |                     |          |                                                                                       | A4    |              |                     |         |        |     |

## 1. Electrical Characteristics :

- 1.1 Rating : AC, DC 12V 0.5A~24V 0.3A (Minimum current: 1mA)
- 1.2 Contact Resistance : Max 30 mΩ
- 1.3 Insulation Resistance : Min 10,000 MΩ at DC 500V
- 1.4 Withstanding Voltage : 1min at AC 500V

## 2. Mechanical Characteristics :

- 2.1 Operating Force : 250gf ± 150gf
- 2.2 Travel : 1.6mm
- 2.3 Insulator :
  - 2.3.1 Case : Glass Fiber resin
  - 2.3.2 Slide : Glass Fiber resin
- 2.4 Terminal : Nickel, Gold Plate

## 3. Life Test :

- 3.1 Test Condition : Operations at a rate of 15-20 cycles in 1 minute
  - 3.1.1 With load : 2,000 cycles
  - 3.1.2 Without load : 10,000 cycles
- 3.2 Operating Force : With +40%, -40% of Initial Value
- 3.3 Contact Resistance : Max 200mΩ

## 4. Environmental Characteristics :

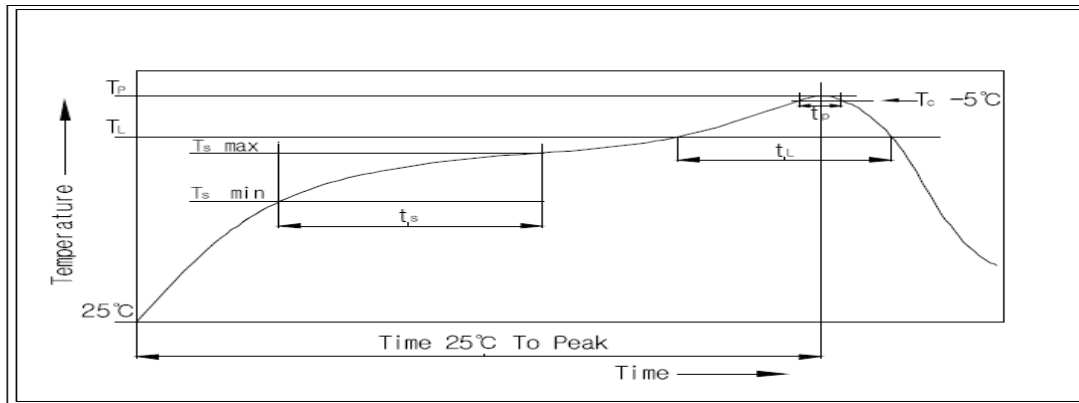
- 4.1 Operating Temperature : -40°C to +85°C
- 4.2 Storage Temperature : -40°C to +85°C
- 4.3 Humidity Test :
  - 4.3.1 Test Conditions : Measured 1hour after exposure to ambient  
After 96hours exposure at 40±2°C, 90-95% R.H
  - 4.3.2 Insulation Resistance : Min 100MΩ, at DC 500V
  - 4.3.3 Withstanding Voltage : 1min at AC 250V

## 5. Solder Conditions :

5.1 Hand Solder : 3~4 sec. at 350°C (Dipping type)

5.2 Wave Solder : 5 sec. at 260°C (Dipping type)

5.3 Reflow Solder (SMD type)



### 5.3.1 Condition for Soldering

| Profile Feature                                | Pb-Free Assembly |
|------------------------------------------------|------------------|
| Average Ramp-UP Rate(Ts max to TP)             | 3°C/second max   |
| Preheat                                        |                  |
| - Temperature Min(Ts min)                      | 150°C            |
| - Temperature Max(Ts max)                      | 200°C            |
| - Time (ts min to ts max)                      | 60-180seconds    |
| Time maintained above:                         |                  |
| - Temperature (TL)                             | 217°C            |
| - Time (tL)                                    | 60-150seconds    |
| Peak/Classification Temperature(TP)            | 260°C +0°C/ -5°C |
| Time within 5°C of actual Peak Temperature(TP) | 5~10 seconds     |
| Ramp-Down Rate                                 | 6°C/sec max      |
| Time 25°C to Peak Temperature                  | 8 minutes max    |