

NanoT Series

The Most Compact Tactile Switch



Specifications

| | |
|----------------------------|---------------------------|
| Function | Momentary action |
| Contact Arrangement | 1 make contact = SPST, NO |
| Terminals | SMT / PIP |
| Contact Material | Silver plated |

Electronic Characteristics

| | |
|----------------------------|------------------|
| Max Power | 0.3 VA DC |
| Voltage | 15V |
| Current | 20mA |
| Dielectric Strength | 250Vrms |
| Contact Resistance | 500mΩ Max. |
| Bounce Time | On/Off 10ms Max. |

Description

NanoT is a series of Ultra-miniature, low profile, waterproof tactile switches. Both top and side actuated options with SMT and PIP terminal available. The compact size of top actuated version just 2.1 x 1.65 x 0.55mm, and side actuated version just 2.2 x 1.7 x 1.7mm, make them the smallest tactile solution available in the market for sophisticated applications powered by smart wearables, portable medical devices as well as IoT devices.

Features & Benefits

- Ultra Compact Size
- SMT or PIP versions
- IP67
- Long life cycles
- PFAS free
- Laser welding technology
- PIP edge-mount for side actuated version allow excellent resistance to shear testing

Applications

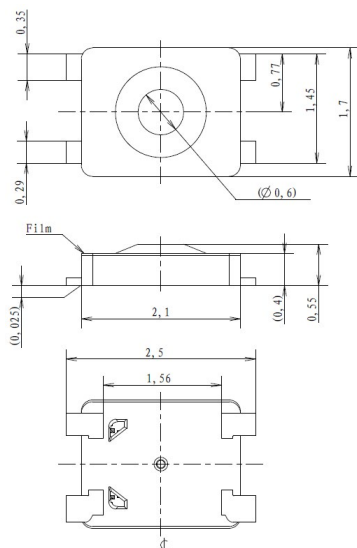
- Hearing Aids
- Headsets
- Sports Watch
- IoT portable device

Environmental Characteristics

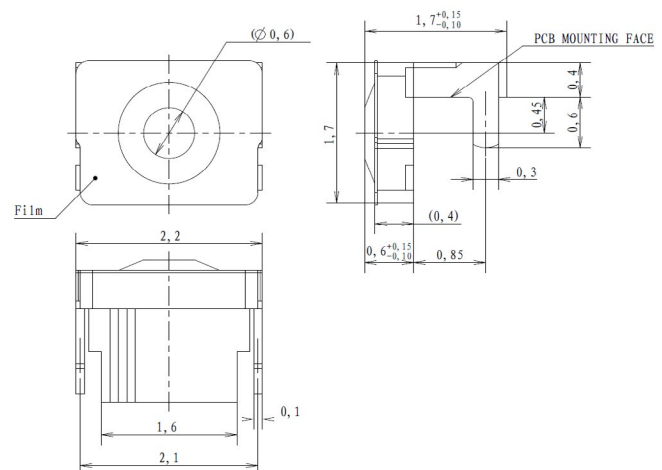
| | |
|------------------------------|-------------|
| Operating Temperature | -40 to 85°C |
| Storage Temperature | -40 to 85°C |

Dimensions (mm)

Top Actuated (AS Version)



Side Actuated (BP Version)



Notes:
General Tolerance: ± 0.1mm

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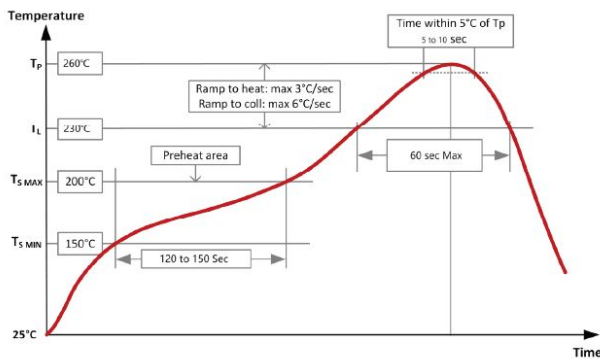
Mechanical Characteristics

| Part Number | Style | Force (gf) | Life Cycles | Travel (mm) |
|--------------|-------------------------------------|-------------|-------------|-------------|
| NanoT 100 AS | Top Actuated with SMT termination | 100 +40/-30 | 200,000 | 0.1 ± 0.05 |
| NanoT 160 AS | Top Actuated with SMT termination | 160 +/- 50 | 300,000 | 0.1 ± 0.05 |
| NanoT 240 AS | Top Actuated with SMT termination | 240 +/- 60 | 200,000 | 0.1 ± 0.05 |
| NanoT 100 BP | Side actuated with PIP* termination | 100 +40/-30 | 200,000 | 0.1 ± 0.05 |
| NanoT 160 BP | Side actuated with PIP* termination | 160 +/- 50 | 300,000 | 0.1 ± 0.05 |
| NanoT 240 BP | Side actuated with PIP* termination | 240 +/- 60 | 200,000 | 0.1 ± 0.05 |

Notes:

1. PIP: Pin in Paste also called Pin Through Paste.

Soldering Profile



| | |
|-------|-------------------------------|
| T_P | Peal package body Temperature |
| T_L | Liquidous Temperature |
| T_S | Preheat/Soak Temperature |

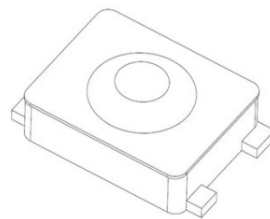
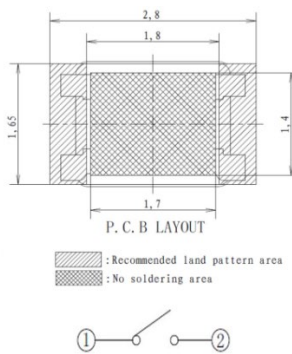
Soldering This component is suited to the following methods:
 Cleaning according to typical washing processes
 Lead free reflow soldering process in accordance with 61760-1

Recommendation:

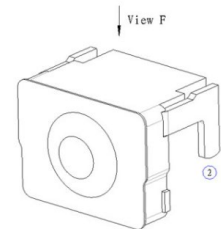
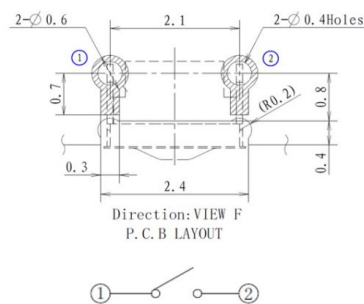
Number of reflow pass: 2 cycles
 The thickness of solder paste on the PCB board is $0.08 \pm 0.01\text{mm}$

Pad Layout Dimensions (mm)

AS Version



BP Version



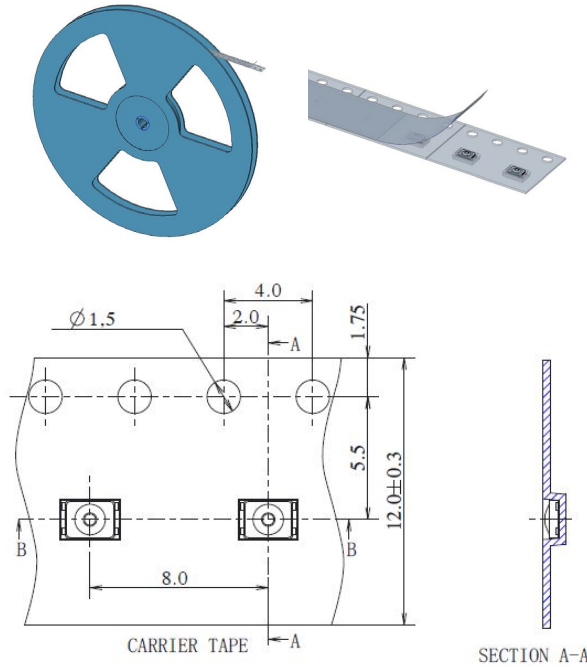
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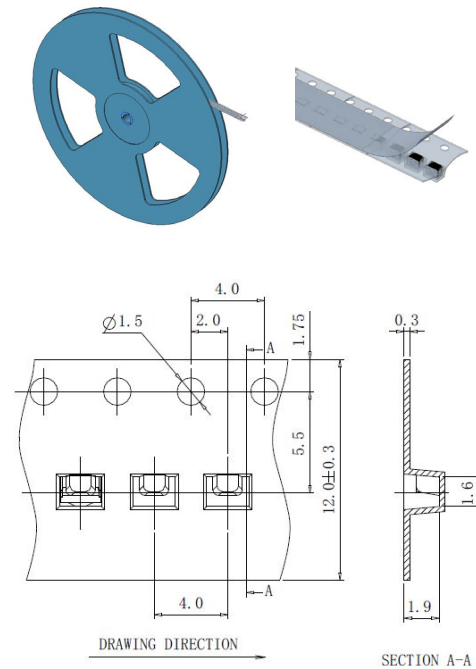


Packaging Dimensions (mm)

AS Version



BP Version

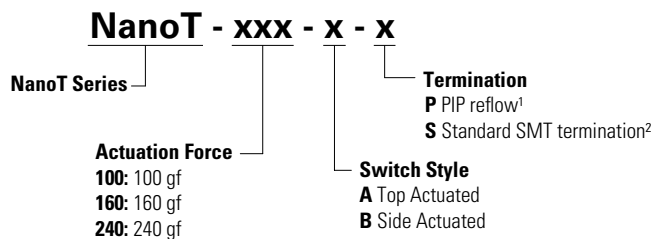


Packaging Details

| Series | AS | BP |
|------------------------------|---------------------------------------|---------------------------------------|
| Type | Tape & Reel | Tape & Reel |
| Number of parts in packaging | 8000 | 7500 |
| Other information | EIS 481 | EIS 481 |
| Transport Conditions | According to specification NF H00-060 | According to specification NF H00-060 |

Ordering Number

Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select desired option from each category. For any part number different from those listed below, please consult your local representative.



Notes:
 1. P termination for side version only
 2. S termination for top version only

Liability Limitation

This datasheet does not provide enough information for applications that require a certain level of quality or safety such as automotive, medical systems, or safety equipment. Please contact customer service for the contractual specification package.

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