

# MICON 5 S, SMT standard, 5 ± 1 N, 1 NO



fields of application

- Measurement-control-regulation
- Mechanical and system engineering
- Automotive
- Electro-medical

special features

- Gold contacts, reliable switching with low currents
- Special tactile feedback
- High packing density due to small form factor (5.1 x 6.4 mm)
- Different operating forces
- Ring and full illumination of the button surface due to plunger
- Variable overall heights due to plunger
- Terminal technology: SMT
- Traceability through product identification in accordance with DIN EN ISO 9001



## description

MICON 5 tactile switches offer extreme switching reliability, with a very small space requirement. They can be arranged individually, in rows or as key blocks. For use beneath overlays, we recommend combining the MICON 5 tactile switches with plungers. Here are the properties at a glance:

- Suitable for the most important soldering techniques
- Soldering bath for THT versions
- Reflow soldering for SMT versions
- Vapor phase soldering for SMT versions
- Manual soldering
- Processing of the SMT design with SMT automatic assembly machines
- IMDS entry
- Packaging in blister tape, spool with 2,100 pieces
- Proposal for stencil printing: 150 µm stencil with 10% pad reduction on area

## technical data

➤ general

|                             |        |
|-----------------------------|--------|
| Operating temperature, min. | -40 °C |
| Operating temperature, max. | 125 °C |
| Storage temperature, min.   | -40 °C |
| Storage temperature, max.   | 90 °C  |
| illuminated                 | No     |
| Soldering                   | Reflow |

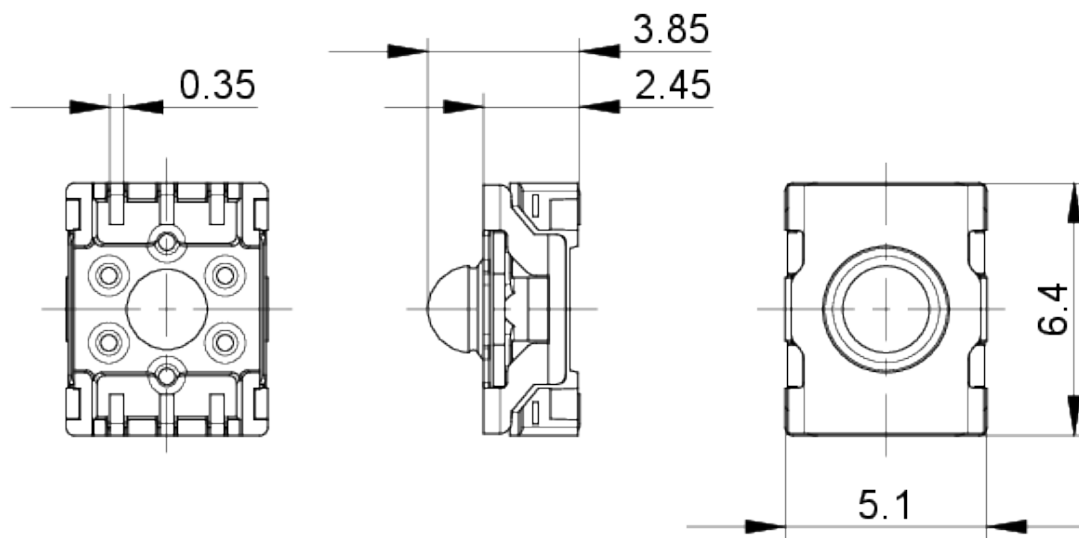
direct links

- [RAFI eCatalog](#)

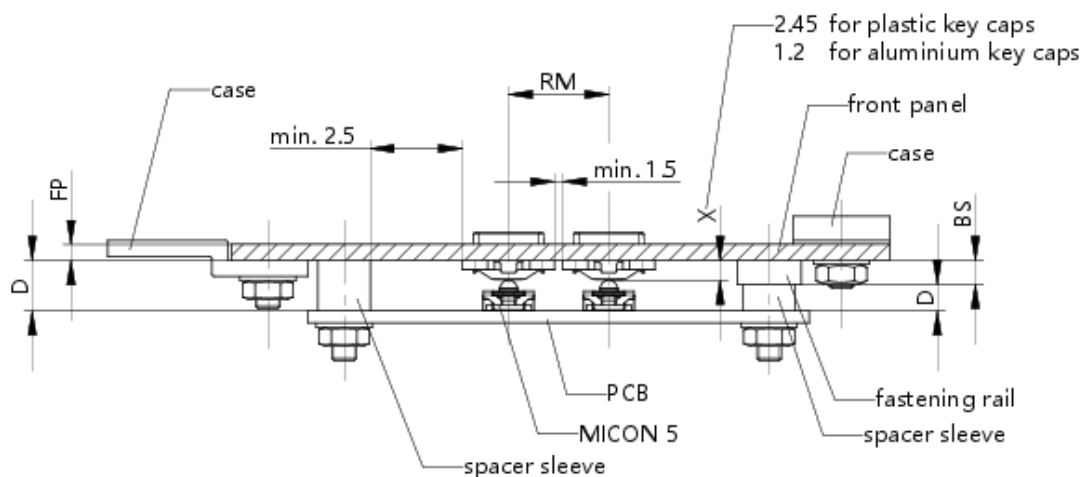
|  |  |
|--|--|
| Solder heat resistance according to standard               | DIN EN 60068-2-58<br>DIN EN 61760-1                    |
| Packaging  | Blister  |
| Packaging unit   | 2,100 pcs.   |
| Operating life   | 1,000,000 cycles                                       |
| B10  | 1,300,000 cycles                                       |
| Degree of protection, front side, according to ISO 20653   | IP67 (IP6K7)   |
| Degree of protection on rear side acc. to ISO 20653        | IP67 (IP6K7)   |
| MSL Moisture Sensitivity Level                             | 1  |
| Shock resistance according to standard IEC 60068-2-27      | 100 g at 6 ms amplitude semi-sinusoidal                |
| oscillation resistance according to standard IEC 60068-2-6 | 5 g at 10...500 Hz                                     |
| MOQ order  | 2,100 pcs.   |
| RoHS compliant   | Yes  |
| REACH compliant  | Yes  |
| <b>&gt; mounting diameters</b>                             |  |
| Outside dimension, length                                  | 6.4 ± 0.1 mm   |
| Outside dimension, width                                   | 5.1 ± 0.1 mm   |
| Installation height  | 3.85 ± 0.1 mm  |
| Grid, min.   | 6 x 7.8 mm   |
| <b>&gt; mechanical data</b>                                |  |
| Actuation function   | momentary contact function                             |
| Operating force, max.                                      | 8 N  |
| Operating force, min.                                      | 5 ± 1 N  |
| Switching travel   | 0.9 ± 0.15 mm  |
| Bounce time at 10 mm/s                                     | <5 ms  |
| Contact function   | 1 NO   |
| Contact system   | Snap-action contact<br>SPST - Single Pole Single Throw |
| Contact material   | Gold   |
| Solderability  | Yes  |
| Terminal on the rear                                       | SMT  |
| <b>&gt; electrical data</b>                                |  |
| Rated voltage, min.  | 0.02 V   |
| Rated voltage, max.  | 35 V   |
| Dielectric strength  | 250 V  |
| Rated current, min.  | 0.00001 A  |
| Rated current, max.  | 0.1 A  |
| Rated power, max.  | 1 W  |

## drawings

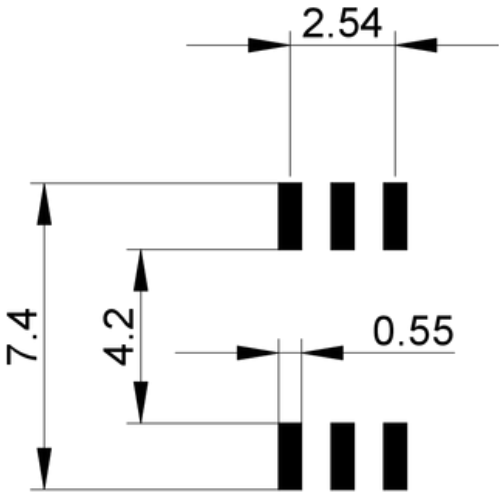
### Dimensioned drawing



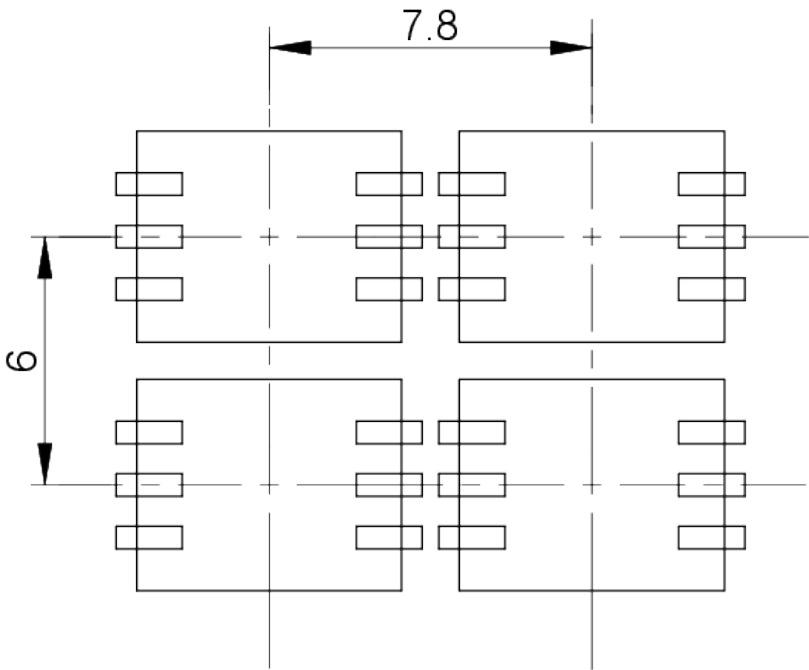
### System drawing



PCB drawing

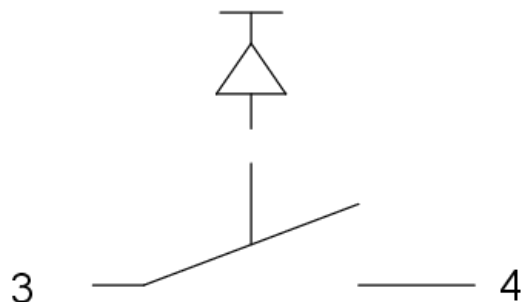
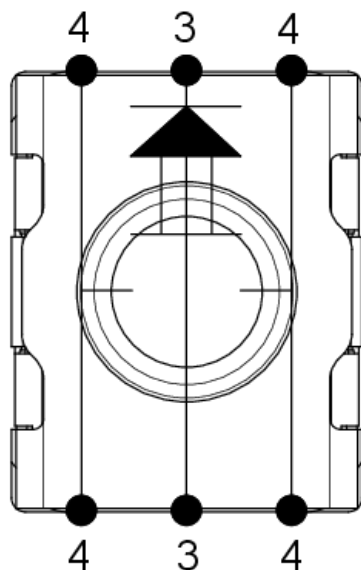


PCB drawing



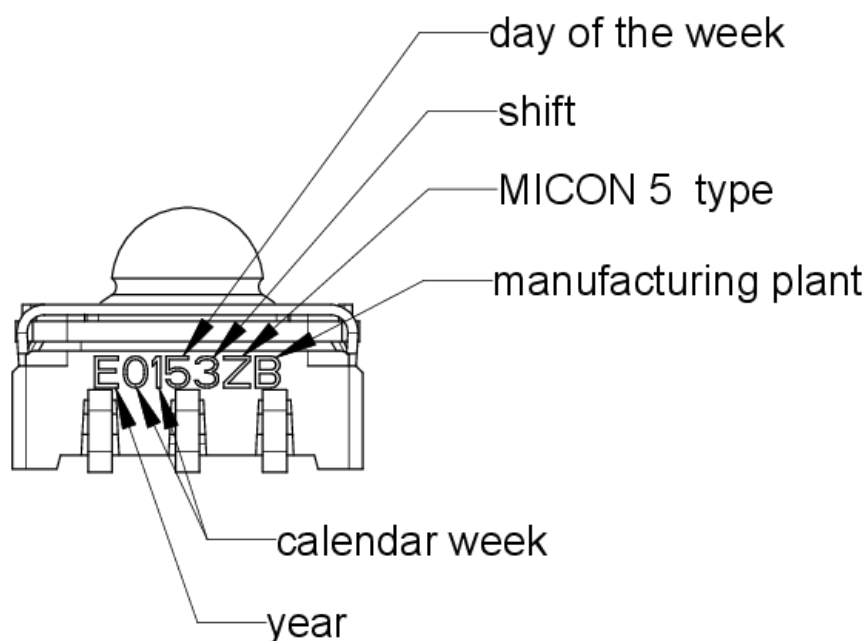
MICON 5 SMT

## Schematic diagram

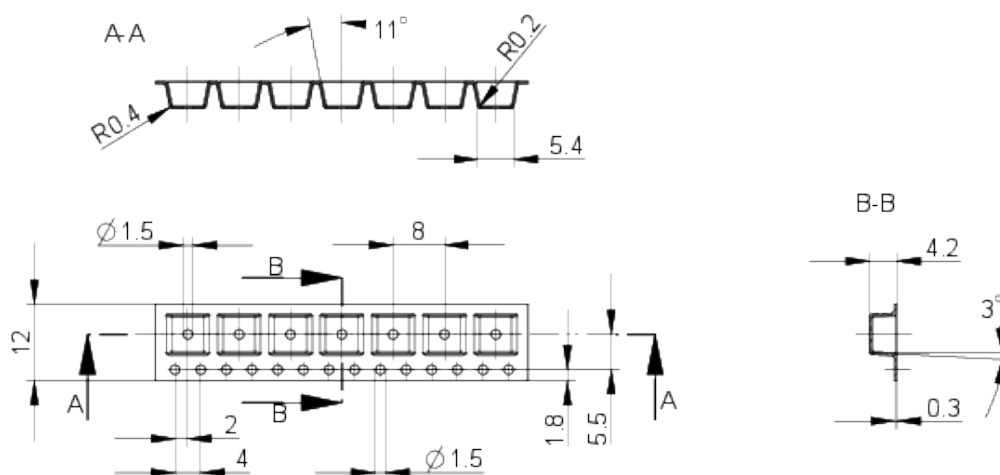


Circuit symbol according  
to IEC 617

## Product labeling drawing



Packaging drawing

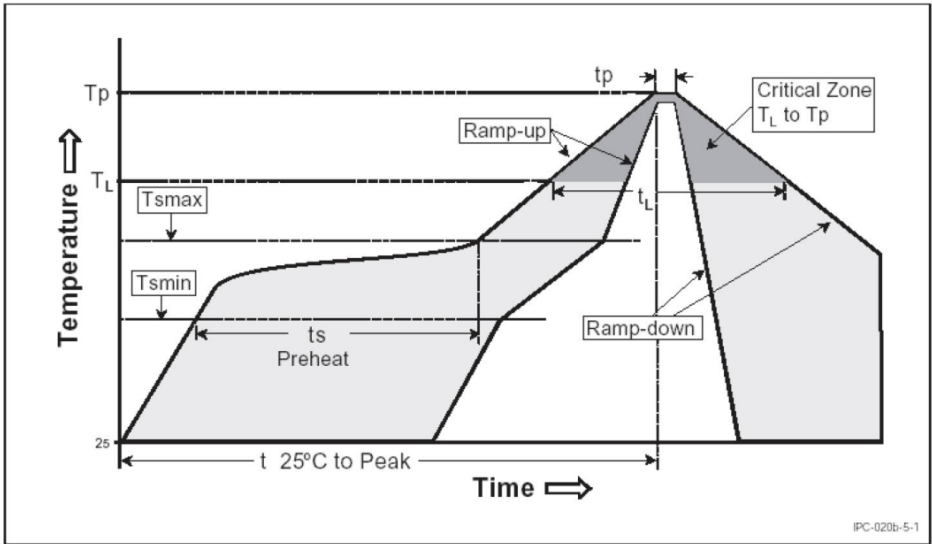


mounting

RAFI soldering profile for ROHS compliant  
reflow components



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| Parameter   | RAFI values         |
|---|---------------------|
| Gradient (T <sub>L</sub> to T <sub>P</sub> )              | max. 3°C / s        |
| <b>Preheating zone</b>                                    |                     |
| Minimum temperature (T <sub>smin</sub> )                  | 150°C               |
| Maximum temperature (T <sub>smax</sub> )                  | 200°C               |
| Time (from min. to max.) (ts)                             | 60 - 120 s          |
| Gradient (T <sub>smax</sub> to T <sub>L</sub> )           | max. 3°C / s        |
| Time over melting temperature (T <sub>L</sub> ) time (tl) | 217°C<br>60 – 150 s |
| Peak temperature (T <sub>P</sub> )                        | max. 260°C (+0°C)   |
| Time within peak temperature – 5°C (tp)                   | 20-40 s             |
| Gradient ramp down  | max. 6°C / s        |
| Time difference from 25°C to peak temperature             | max. 8 minutes      |

The reflow soldering profile is based on the definition of Jedec J-STD-020D.

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