



# Series 222K

## 6.2 x 6.2mm IP67 Rated Tactile Switch

- Surface mount gull wing and J-bend terminal configurations
- Compatible with IR reflow, and manual soldering
- Variety of operating force & actuator height options
- IP67 protection
- Silicone rubber actuator
- Long life
- Excellent tactile feel



### Ordering Information

| Series                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Terminal Type           | Actuating Direction | Actuator Height "L" | Actuation Force | Packaging |      |       |   |                         |   |                      |      |       |   |          |      |       |   |       |      |       |   |             |   |               |   |               |      |       |   |                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|---------------------|---------------------|-----------------|-----------|------|-------|---|-------------------------|---|----------------------|------|-------|---|----------|------|-------|---|-------|------|-------|---|-------------|---|---------------|---|---------------|------|-------|---|-----------------------|
| 222K                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | M                       | V                   | A                   | A               | R         |      |       |   |                         |   |                      |      |       |   |          |      |       |   |       |      |       |   |             |   |               |   |               |      |       |   |                       |
| <div><div><div>↓</div><table><thead><tr><th>Code</th><th>Spec.</th></tr></thead><tbody><tr><td>M</td><td>Surface mount gull wing</td></tr><tr><td>J</td><td>Surface mount J-bend</td></tr></tbody></table></div><div><div>↓</div><table><thead><tr><th>Code</th><th>Spec.</th></tr></thead><tbody><tr><td>V</td><td>Vertical</td></tr></tbody></table></div><div><div>↓</div><table><thead><tr><th>Code</th><th>Spec.</th></tr></thead><tbody><tr><td>A</td><td>5.2mm</td></tr></tbody></table></div><div><div>↓</div><table><thead><tr><th>Code</th><th>Spec.</th></tr></thead><tbody><tr><td>A</td><td>200 gf, red</td></tr><tr><td>B</td><td>145 gf, white</td></tr><tr><td>C</td><td>360 gf, black</td></tr></tbody></table></div><div><div>↓</div><table><thead><tr><th>Code</th><th>Spec.</th></tr></thead><tbody><tr><td>R</td><td>Tape &amp; reel packaging</td></tr></tbody></table></div></div> |                         |                     |                     |                 |           | Code | Spec. | M | Surface mount gull wing | J | Surface mount J-bend | Code | Spec. | V | Vertical | Code | Spec. | A | 5.2mm | Code | Spec. | A | 200 gf, red | B | 145 gf, white | C | 360 gf, black | Code | Spec. | R | Tape & reel packaging |
| Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Spec.                   |                     |                     |                 |           |      |       |   |                         |   |                      |      |       |   |          |      |       |   |       |      |       |   |             |   |               |   |               |      |       |   |                       |
| M                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Surface mount gull wing |                     |                     |                 |           |      |       |   |                         |   |                      |      |       |   |          |      |       |   |       |      |       |   |             |   |               |   |               |      |       |   |                       |
| J                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Surface mount J-bend    |                     |                     |                 |           |      |       |   |                         |   |                      |      |       |   |          |      |       |   |       |      |       |   |             |   |               |   |               |      |       |   |                       |
| Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Spec.                   |                     |                     |                 |           |      |       |   |                         |   |                      |      |       |   |          |      |       |   |       |      |       |   |             |   |               |   |               |      |       |   |                       |
| V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Vertical                |                     |                     |                 |           |      |       |   |                         |   |                      |      |       |   |          |      |       |   |       |      |       |   |             |   |               |   |               |      |       |   |                       |
| Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Spec.                   |                     |                     |                 |           |      |       |   |                         |   |                      |      |       |   |          |      |       |   |       |      |       |   |             |   |               |   |               |      |       |   |                       |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 5.2mm                   |                     |                     |                 |           |      |       |   |                         |   |                      |      |       |   |          |      |       |   |       |      |       |   |             |   |               |   |               |      |       |   |                       |
| Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Spec.                   |                     |                     |                 |           |      |       |   |                         |   |                      |      |       |   |          |      |       |   |       |      |       |   |             |   |               |   |               |      |       |   |                       |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 200 gf, red             |                     |                     |                 |           |      |       |   |                         |   |                      |      |       |   |          |      |       |   |       |      |       |   |             |   |               |   |               |      |       |   |                       |
| B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 145 gf, white           |                     |                     |                 |           |      |       |   |                         |   |                      |      |       |   |          |      |       |   |       |      |       |   |             |   |               |   |               |      |       |   |                       |
| C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 360 gf, black           |                     |                     |                 |           |      |       |   |                         |   |                      |      |       |   |          |      |       |   |       |      |       |   |             |   |               |   |               |      |       |   |                       |
| Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Spec.                   |                     |                     |                 |           |      |       |   |                         |   |                      |      |       |   |          |      |       |   |       |      |       |   |             |   |               |   |               |      |       |   |                       |
| R                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Tape & reel packaging   |                     |                     |                 |           |      |       |   |                         |   |                      |      |       |   |          |      |       |   |       |      |       |   |             |   |               |   |               |      |       |   |                       |

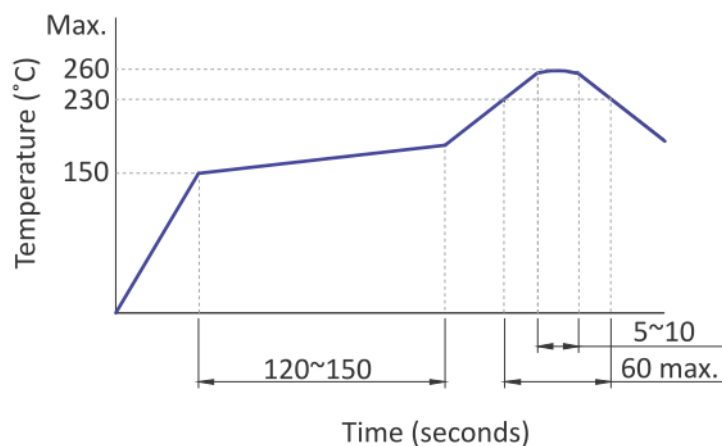
### Electrical Specifications

| Parameter             | Conditions & Remarks              | Min  | Max            | Unit            |
|-----------------------|-----------------------------------|------|----------------|-----------------|
| Contact Resistance    |                                   |      | 100            | milliohms       |
| Insulation Resistance | Between insulated terminals       | 1000 |                | megohms         |
| Dielectric Strength   | 250 VAC between adjacent switches |      | 1              | minute          |
| Nonswitching Rating   |                                   |      | 50<br>or<br>32 | mA<br>or<br>VDC |

### Mechanical and Environmental

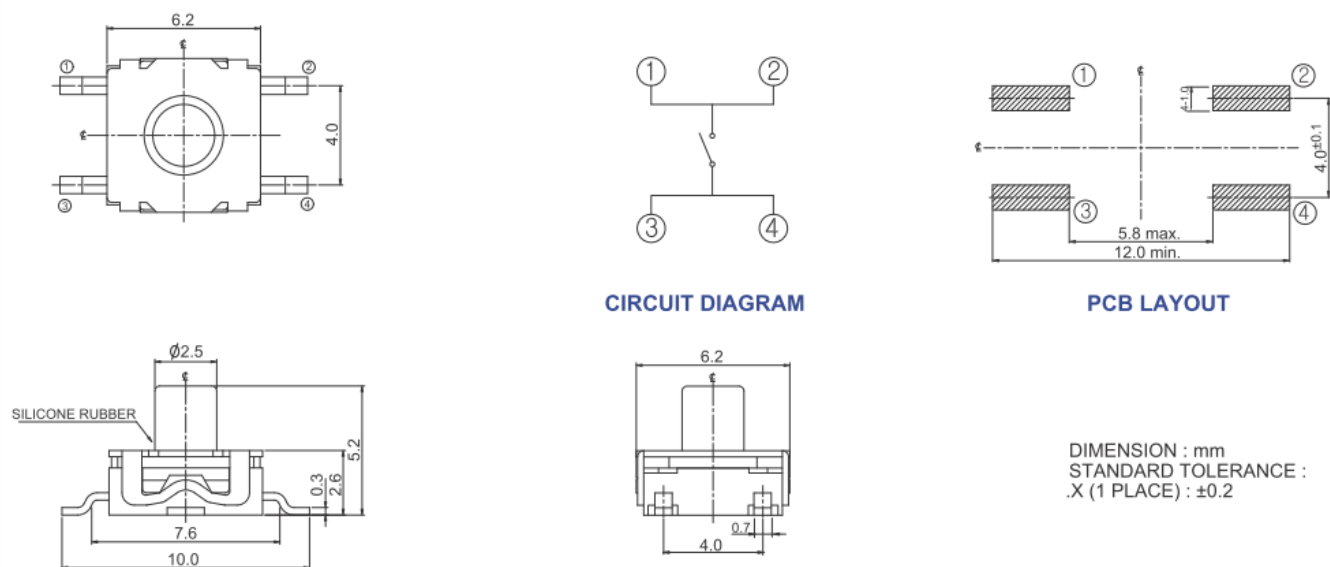
|                             |                                                                                                    |
|-----------------------------|----------------------------------------------------------------------------------------------------|
| Soldering                   | Maximum reflow temperature, 260°C for 5 seconds<br>Maximum manual temperature, 350°C for 3 seconds |
| RoHS                        | Lead-Free. Fully compliant to RoHS Directive 2011/65/EU                                            |
| Operating Force             | 145±50 gf<br>200±50 gf<br>360±90 gf                                                                |
| Actuation Life              | 145 gf: 5,000,000 cycles<br>200 gf: 500,000 cycles<br>360 gf: 300,000 cycles                       |
| Actuator Strength           | 3 Kgf maximum                                                                                      |
| Travel                      | 0.5±0.25mm (145 gf)<br>0.6±0.25mm (200 gf)<br>0.7±0.25mm (360 gf)                                  |
| Packaging                   | Standard tape and reel packaging                                                                   |
| Operating Temperature Range | -40°C to +85°C                                                                                     |
| Storage Temperature Range   | -40°C to +85°C                                                                                     |
| Waterproof Grade            | IP67                                                                                               |

### Soldering Profile

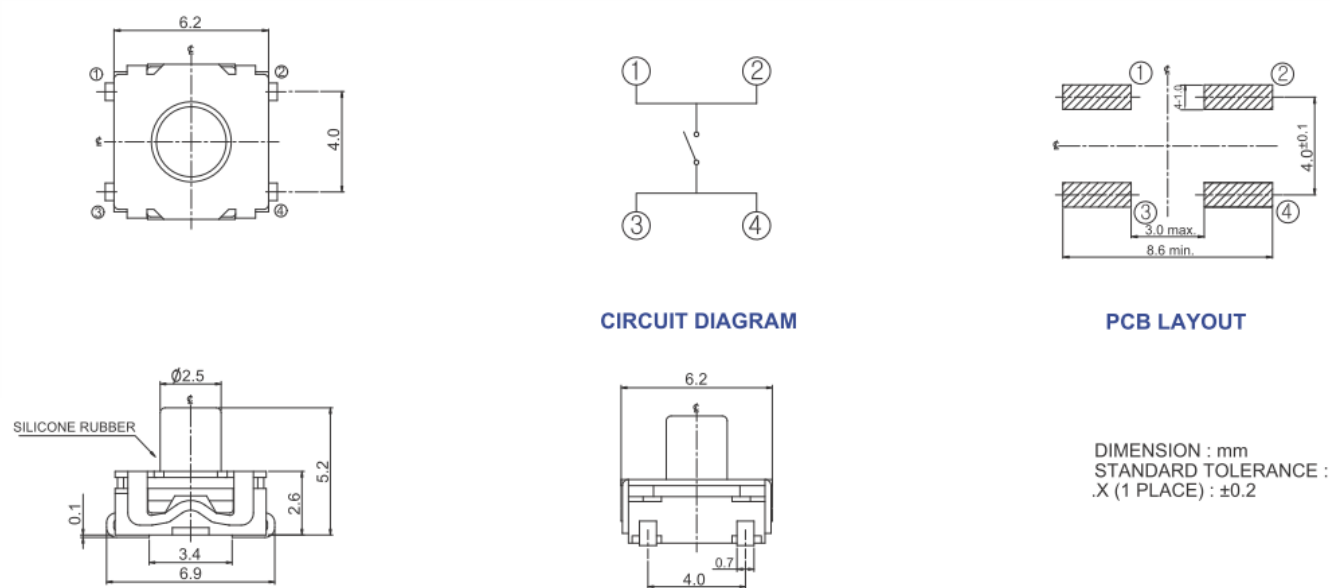


### Mechanical Specifications

**Figure 1 – 222KMA, Surface Mount Gull Wing, Actuator Height 5.2mm**



**Figure 2 – 222KJA, Surface Mount J-Bend Terminal, Actuator Height 5.2mm**

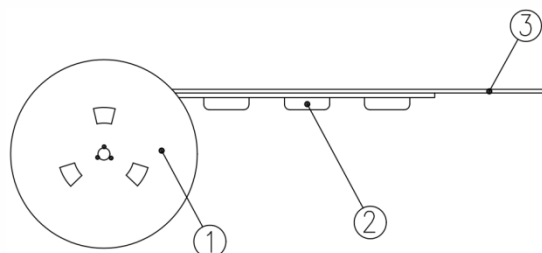


## Packing: Tape and Reel

Surface Mount Gull Wing/J-Bend, Actuator Height 5.2mm

The packing specifications:

1. Structure and materials:



| No | PART NAME    | MATERIAL    |
|----|--------------|-------------|
| ①  | REEL         | POLYSTYRENE |
| ②  | CARRIER TAPE | POLYSTYRENE |
| ③  | COVER TAPE   | POLYESTER   |

2. Packing quantity: 1,000 pcs/reel
3. More than 10 empty pockets should remain at each end of the carrier tape for each reel.
4. Shortage of less than 10 pcs a reel is acceptable but no more than 3 consecutive empty pockets are allowed.
5. Stripping strength of cover tape is between 10 gf to 130 gf and stripping angle should be within 165°~180°.
6. The product in the pocket of carrier tape should be placed in a specified correct position.
7. Tape and reel per EIA-481.
8. Dimensions:

