



# Series 223A

## 4.7x3.5mm Compact 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



### Ordering Information

Series	Terminal Type	Actuating Direction	Actuator Height "L"	Actuator Force	Packaging																								
223A	M	V	A	A	R																								
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Notes: Contact CTS for other common features not listed.

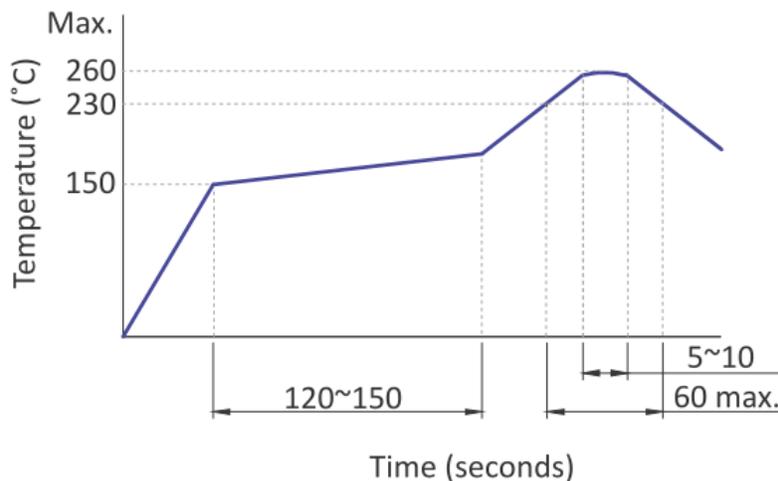
### Electrical Specifications

Parameter	Conditions & Remarks	Min	Max	Unit
Contact Resistance			500	milliohms
Insulation Resistance	Between insulated terminals	100		Megohms
Dielectric Strength	1 minute between adjacent switches		250	VAC
Nonswitching Rating			50 or 12	mA or VDC

### Mechanical and Environmental

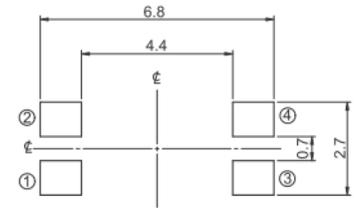
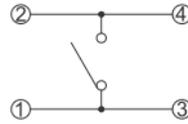
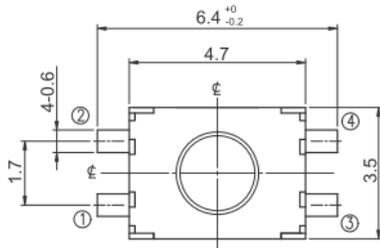
Soldering	Maximum reflow temperature, 260°C for 5 seconds Maximum manual temperature, 350°C for 3 seconds
RoHS	Lead-Free. Fully compliant to RoHS Directive 2011/65/EU
Operating Force	160±50 gf 260±50 gf
Actuation Life	160 gf: 300,000 cycles 260 gf: 100,000 cycles
Actuator Strength	3 Kgf maximum
Travel	0.3 <sup>+0.1</sup> <sub>-0.2</sub> mm
Packaging	Standard tape and reel packaging
Operating Temperature Range	-40°C to +85°C
Storage Temperature Range	-40°C to +85°C

### Soldering Profile



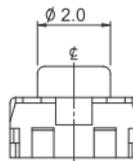
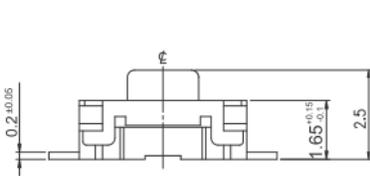
**Mechanical Specifications**

Figure 1 – 223AM..., Surface Mount Gull Wing



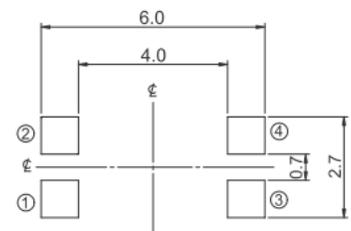
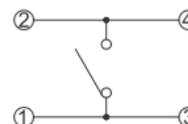
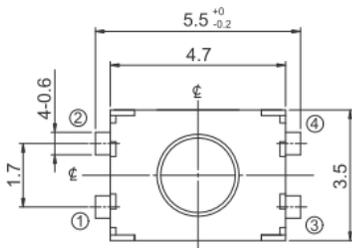
**CIRCUIT DIAGRAM**

**PCB LAYOUT**



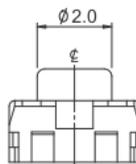
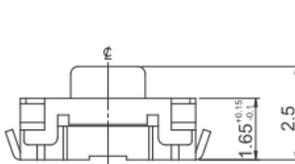
DIMENSION : mm  
STANDARD TOLERANCE :  
.X (1 PLACE) : ±0.1

Figure 2 – 223A..., Surface Mount J Bend Terminal



**CIRCUIT DIAGRAM**

**PCB LAYOUT**



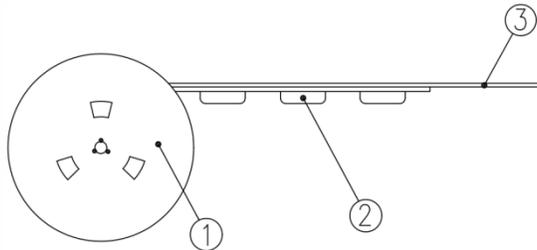
DIMENSION : mm  
STANDARD TOLERANCE :  
.X (1 PLACE) : ±0.1

### Packing: Tape and Reel

#### Surface Mount Gull Wing/J Bend Terminal

The packing specifications :

Structure and materials :



③	COVER TAPE	POLYESTER
②	CARRIER TAPE	POLYSTYRENE
①	REEL	POLYSTYRENE
NO.	PARTS NAME	MATERIALS

1. Packing quantity : 2,500 pcs/reel
2. More than 10 empty pockets should remain at each end of the carrier tape for each reel.
3. Shortage less than 10 pcs a reel is acceptable but no more than 3 consecutive empty pockets are allowed.
4. Stripping strength of cover tape is between 10 gf to 70 gf and stripping angle should be within 165°~180°.
5. The product in the pocket of carrier tape should be placed in a specified correct position.
6. Tape and reel per EIA-481-C
7. Dimensions :

