



# Series 222D

## 6.2 x 6.2mm 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"	Actuation Force	Packaging	Ground Terminal
222D	M	V	A	A	R	G

Code	Spec.
M	Surface mount gull wing
J	Surface mount J-bend

Code	Spec.
V	Vertical

Code	Spec.
A	2.5mm
B	3.1mm
C	3.5mm

Code	Spec.
A	160 gf, black
B	360 gf, salmon
C	260 gf, brown

Code	Spec.
R	Tape & reel packaging

Code	Spec.
Blank	Without
*G	With

**\*Ground terminal option is not available for**  
 (1) Surface mount gull wing type  
 (2) 3.5mm actuator height  
 (3) 360 gf actuator force)

Notes: Contact CTS for other common features not listed.

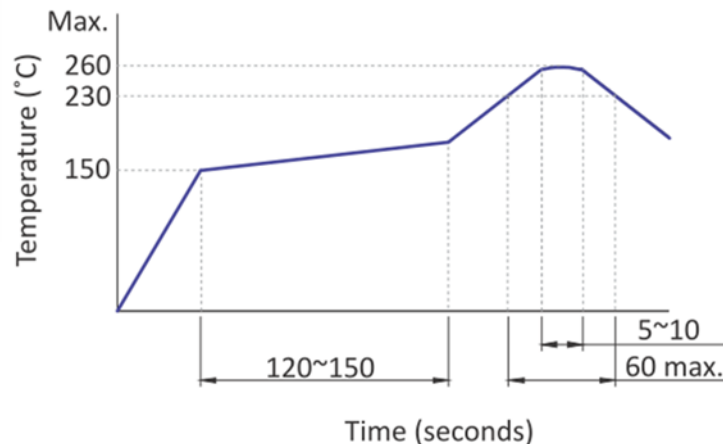
### Electrical Specifications

Parameter	Conditions & Remarks	Min	Max	Unit
Contact Resistance			100	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

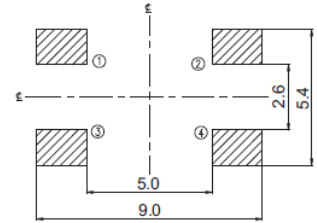
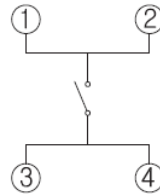
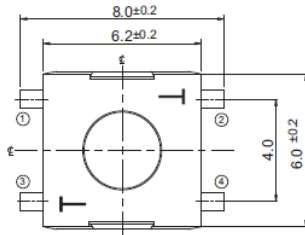
Soldering	Maximum reflow temperature, 260°C for 5 seconds Maximum manual temperature, 350°C for 3 seconds
RoHS	Lead-Free. Fully compliant to RoHS Directive 2011/65/EU
Operating Force	160±50 gf 260±50 gf 360±80 gf
Actuation Life	160 gf: 1,000,000 cycles 260 gf: 500,000 cycles 360 gf: 200,000 cycles
Actuator Strength	3 Kgf maximum
Travel	0.25 <sup>+0.2</sup> <sub>-0.1</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



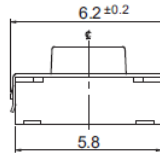
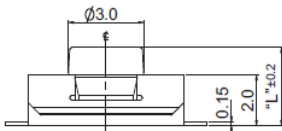
**Mechanical Specifications**

**Figure 1 – 222DM, Surface Mount Gull Wing, Without Ground Terminal**



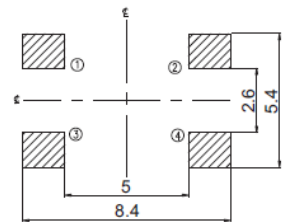
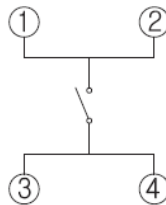
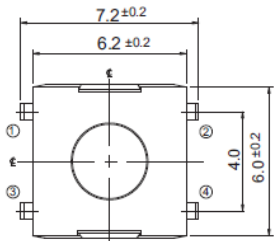
**CIRCUIT DIAGRAM**

**PCB LAYOUT**



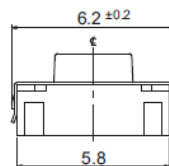
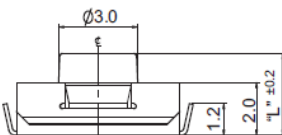
DIMENSION : mm  
STANDARD TOLERANCE :  
.X (1 PLACE) : ±0.10

**Figure 2 – 222DJ, Surface Mount J-Bend Terminal, Without Ground Terminal**



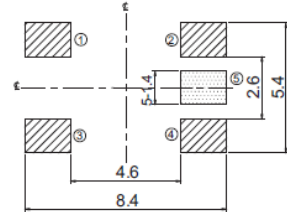
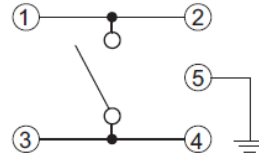
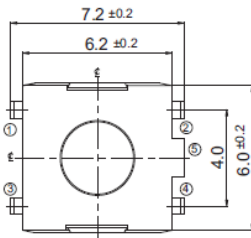
**CIRCUIT DIAGRAM**

**PCB LAYOUT**



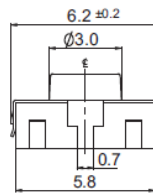
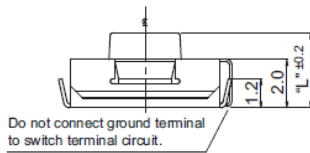
DIMENSION : mm  
STANDARD TOLERANCE :  
.X (1 PLACE) : ±0.10

**Figure 3 – 222DJ...G, Surface Mount J Bend Terminal, With Ground Terminal**



**CIRCUIT DIAGRAM**

**PCB LAYOUT**



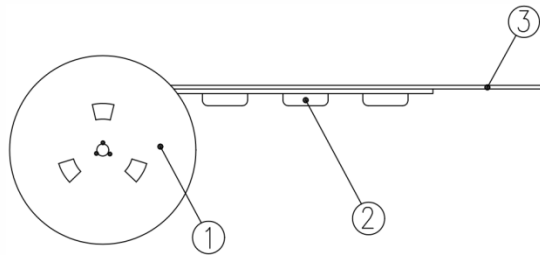
DIMENSION : mm  
STANDARD TOLERANCE :  
.X (1 PLACE) : ±0.10

**Packing: Tape and Reel**

Surface Mount Gull Wing/J-Bend, Without Ground Terminal

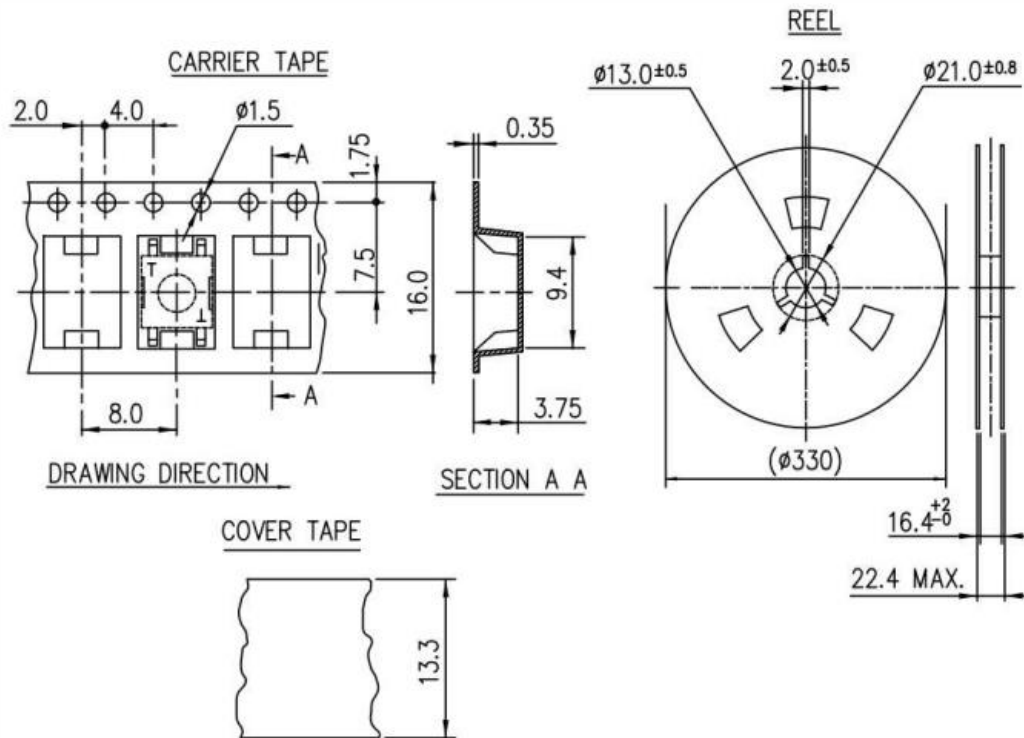
The packing specifications:

Structure and materials:



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

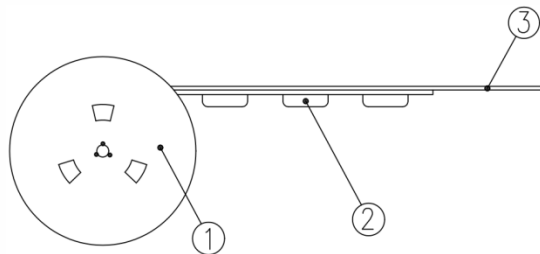
1. Packing quantity: 2,000 pcs/reel
2. More than 10 empty pockets should remain at each end of the carrier tape for each reel.
3. Shortage of less than 10 pcs a reel is acceptable but no more than 3 consecutive empty pockets are allowed.
4. Stripping strength of cover tape is between 10 gf to 70 gf and 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.
7. Dimensions:



### Surface Mount J-Bend, With Ground Terminal

The packing specifications:

Structure and materials:



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

1. Packing quantity: 2,200 pcs/reel
2. More than 10 empty pockets should remain at each end of the carrier tape for each reel.
3. Shortage of 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.
7. Dimensions:

