



Series 222E

5.0 x 5.0mm 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
- With ground terminal



Ordering Information

Series	Terminal Type	Actuating Direction	Actuator Height	Actuator Force	Packaging
222E	M1	V	A	A	R

Code	Spec.
M1	Surface mount gull wing, square top
J1	Surface mount J bend, square top

Code	Spec.
V	Vertical

Code	Spec.
A	1.5mm, not available for surface mount J bend round top

Code	Spec.
A	160 gf, black actuator
B	260 gf, white actuator

Code	Spec.
R	Tape & reel packaging

Notes: Contact CTS for other common features not listed.

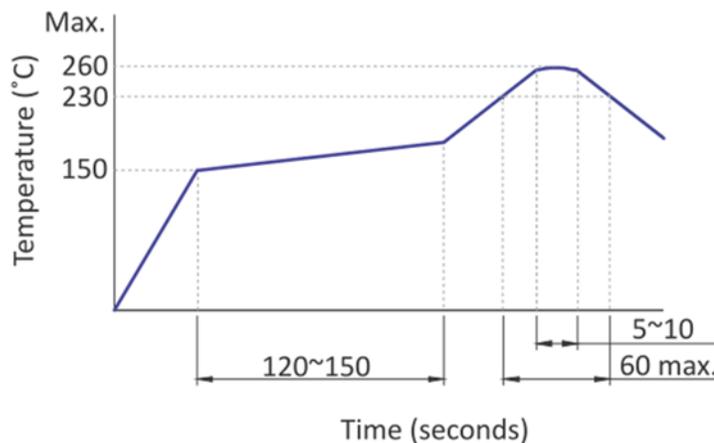
Electrical Specifications

Parameter	Conditions & Remarks	Min	Max	Unit
Contact Resistance			50	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

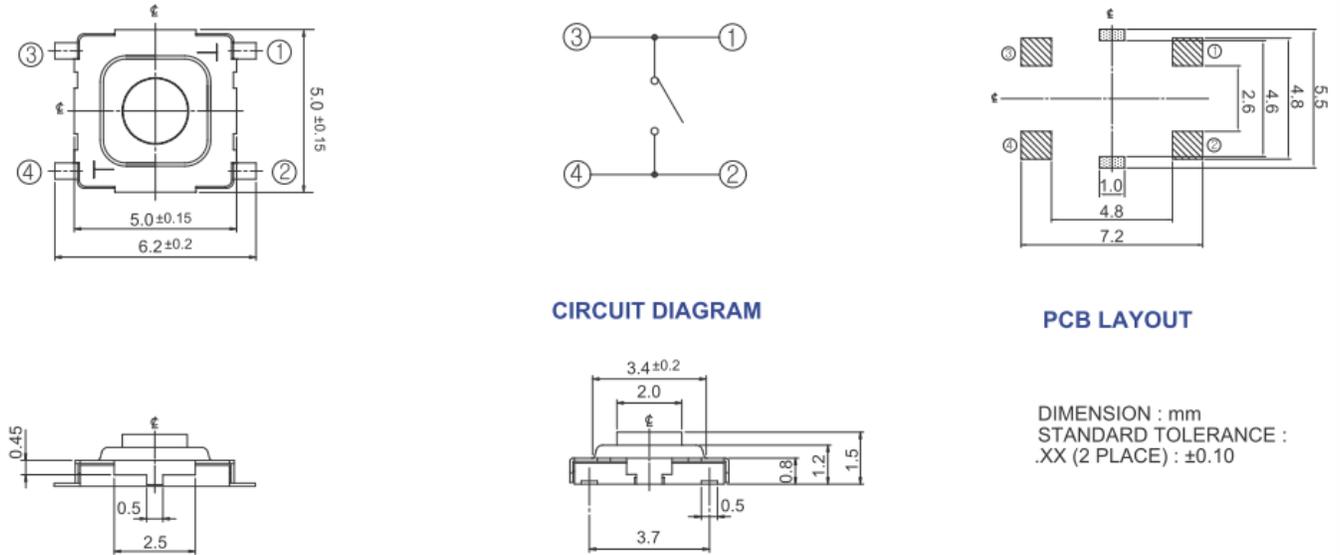
Soldering	Maximum reflow temperature, 260°C for 5 seconds Maximum manual temperature, 350°C for 3 seconds
RoHS	Lead-Free. Fully compliant to RoHS Directive 2011/65/EU
Operating Force	160±50 gf 260±50 gf
Actuation Life	160 gf: 1,000,000 cycles 260 gf: 200,000 cycles
Actuator Strength	3 Kgf maximum
Travel	0.25 ^{+0.05} _{-0.15} 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 – 222EM1VA, Surface Mount Gull Wing, Square Top, With Ground Terminal

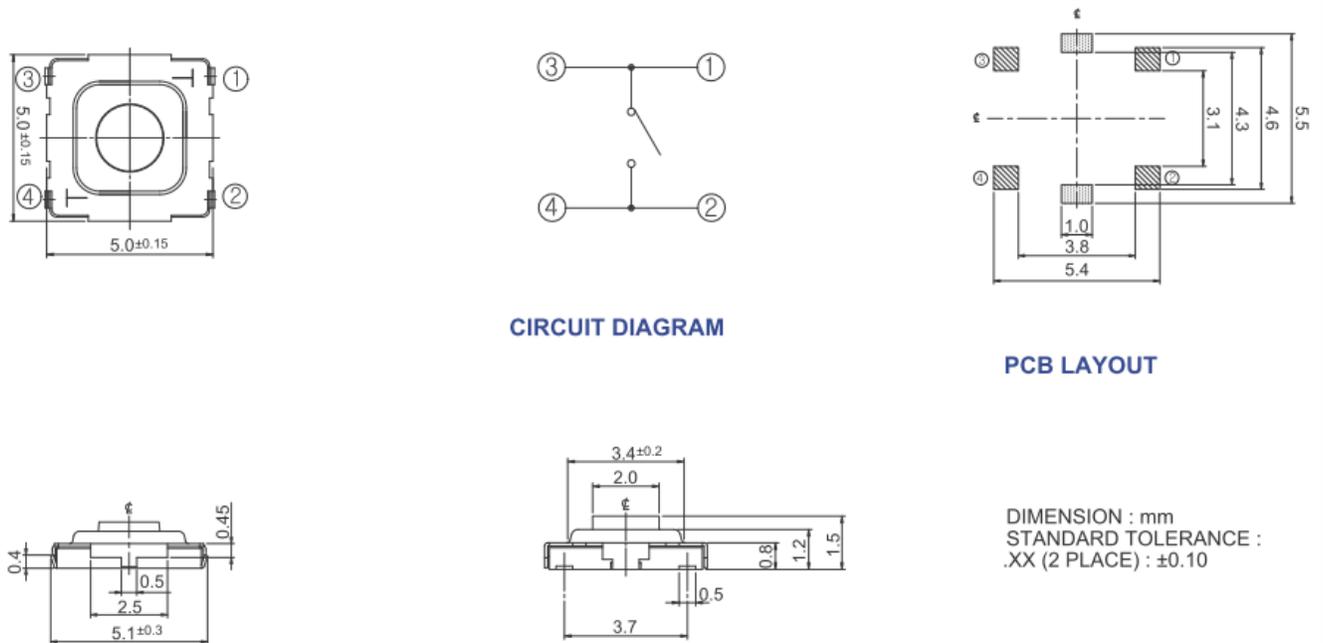


CIRCUIT DIAGRAM

PCB LAYOUT

DIMENSION : mm
STANDARD TOLERANCE :
.XX (2 PLACE) : ±0.10

Figure 2 – 222EJ1VA, Surface Mount J Bend Terminal, Square Top, With Ground Terminal



CIRCUIT DIAGRAM

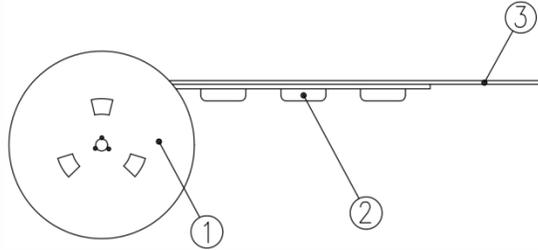
PCB LAYOUT

DIMENSION : mm
STANDARD TOLERANCE :
.XX (2 PLACE) : ±0.10

Packing: Tape and Reel

Surface Mount Gull Wing/J Bend, Square Top with 1.5mm Actuator Height

The packing specifications:
Structure and materials:



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

1. Packing quantity: 4,000 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.
7. Dimensions:

