

# MJTP series

12mm Square tact switches •  
Through hole



## DISTINCTIVE FEATURES

- SPST momentary action
- Excellent tactile feedback (snap dome)
- Long operating life for high reliability
- Molded-in terminals minimizing wicking of flux or solder
- Flush, round, keyed or square actuator
- Through hole mounting



## ENVIRONMENTAL SPECIFICATIONS

- Operating Temperature: -20 °C to +70 °C (-4°F to +158 °F)
- Storage Temperature: -30 °C to +80 °C (-22 °F to +176 °F)



## ELECTRICAL SPECIFICATIONS

- Contact rating: 50 mA 12VDC
- Contact Resistance: 100 mΩ - 500 mΩ max. depending on series
- Insulation Resistance: 100 MΩ min. at 500VDC
- Dielectric Strength: 250 VAC / 1 minute
- Electrical life: 50,000 - 100,000 cycles depending on series
- Contact bounce: Less than 5 msec.



## MECHANICAL SPECIFICATIONS

- Operating force: 160 gf ±50gf to 260gf ±50gf
- Mechanical life: 50,000 - 100,000 cycles depending on series
- Plunger travel: 0.30 ±15 mm (.012" ±.006")




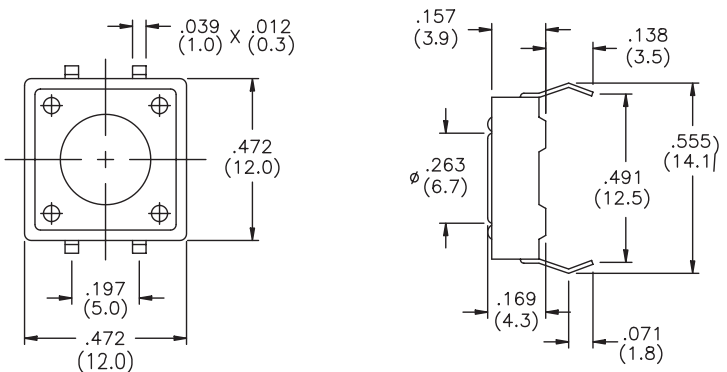
## MATERIALS

- Body: PBT
- Contact: Silver plated phosphor bronze
- Cover: Stainless Steel
- Terminals: Silver plated brass
- Actuator: Thermoplastic

# MJTP series


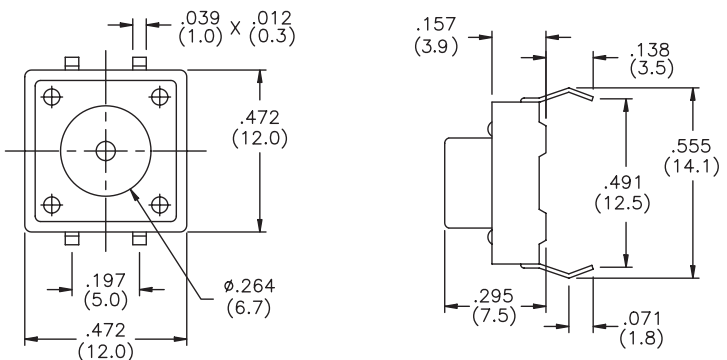
12mm Square tact switches • through hole

**MJTP1212** Flush actuator


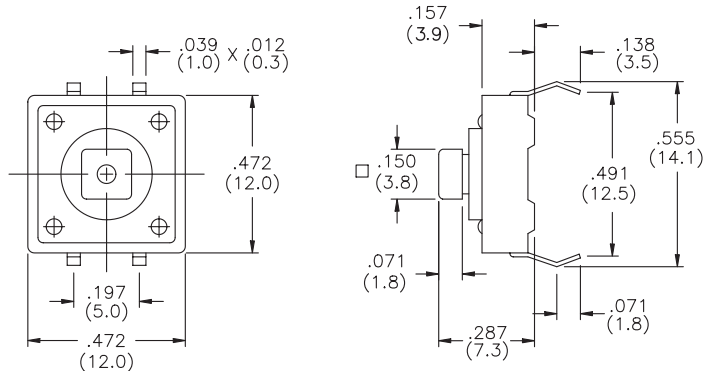
Dimensions: .039 (1.0) x .012 (0.3), .472 (12.0), .197 (5.0), .157 (3.9), .138 (3.5), .263 (6.7), .491 (12.5), .555 (14.1), .169 (4.3), .071 (1.8)

**MJTP1212A** Round actuator

Dimensions: .039 (1.0) x .012 (0.3), .472 (12.0), .197 (5.0), .264 (6.7), .157 (3.9), .138 (3.5), .491 (12.5), .555 (14.1), .295 (7.5), .071 (1.8)

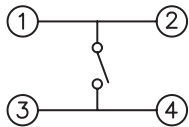
**MJTP1212C** Square actuator

Dimensions: .039 (1.0) x .012 (0.3), .472 (12.0), .197 (5.0), .157 (3.9), .138 (3.5), .150 (3.8), .491 (12.5), .555 (14.1), .071 (1.8), .287 (7.3), .071 (1.8)

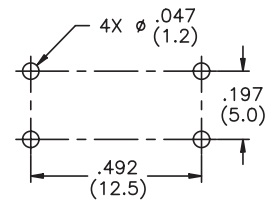
Caps available - see below

**SCHEMATIC**



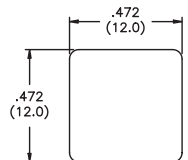
**PRINTED CIRCUIT BOARD LAYOUT**

Layout Tolerances;  
 Linear: ± .004" ( ± 0,1mm)  
 Holes: ± .002" ( ± 0,05mm)

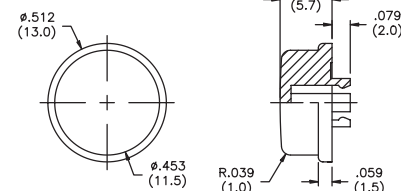


**CAPS for MJTP1212C only**

**Square cap**



**Round cap**



Note - add digit from table to cap part numbers above for color.  
 Example - **MJ1212** indicates square black cap.

No.	Color
1	blue
2	black
3	green
5	yellow
6	red
7	ivory

# MJTP series

6mm Square tact switches •  
Through hole



## DISTINCTIVE FEATURES

- Numerous single pole / single throw momentary configurations
- Excellent tactile feedback (snap dome)
- Ultra compact size
- Long operating life for high reliability
- Molded-in terminals minimizing wicking of flux or solder



## ENVIRONMENTAL SPECIFICATIONS

- Operating Temperature: -20 °C to +70 °C (-4°F to +158 °F)
- Storage Temperature: -30 °C to +80 °C (-22 °F to +176 °F) for 96 hours



## ELECTRICAL SPECIFICATIONS

- Contact rating: 50 mA 12VDC
- Contact Resistance: 100 m  $\Omega$  - 500 m $\Omega$  max. depending on series
- Insulation Resistance: 100 M  $\Omega$  min. at 100VDC
- Dielectric withstanding voltage: 250 VAC / 1 minute
- Electrical life: 50,000 - 100,000 cycles min. depending on series
- Contact bounce: Less than 10 msec.



## MECHANICAL SPECIFICATIONS

- Operating force: 160 gf  $\pm$ 30gf
- Mechanical life:  
- 100,000 cycles min.
- Plunger travel: 0.25 +0.2, -0.1mm (0.010 +.008, .004")



## MATERIALS

- Body: Thermoplastic
- Contact: Phosphor bronze or stainless steel with silver plating
- Cover: PET film, tin plated brass or Stainless Steel
- Terminals: Silver plated brass
- Actuator: Thermoplastic
- LED rating: Forward voltage 2.1 (3.0V max.)  
Cont. forward current 20mA max at 25°C

# MJTP series

6mm Square tact switches • through hole

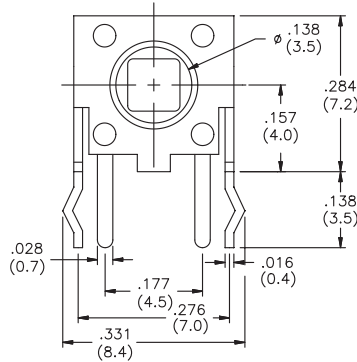
MJTP1105T

Right angle, grounding

Bulk packaging



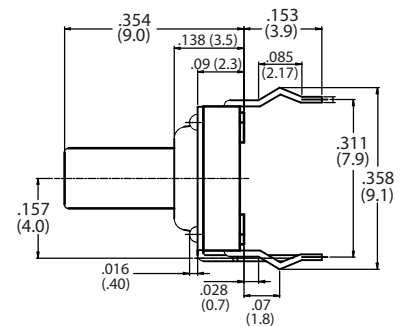
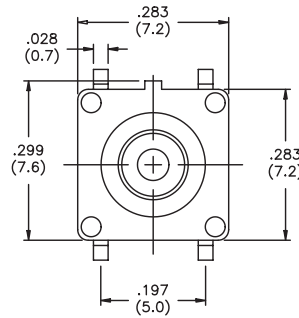
Caps available:  
See end of section



MJTP1109A

Process compatible, grounding

Bulk packaging



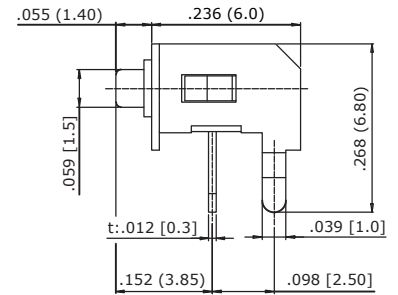
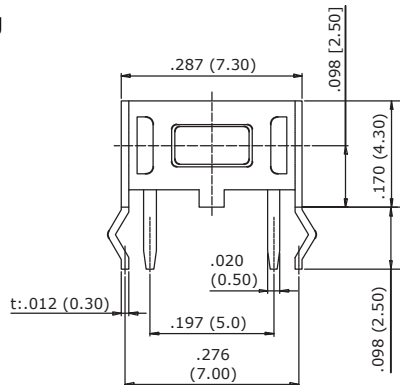
MJTP1117

Right angle, grounding

Bulk packaging



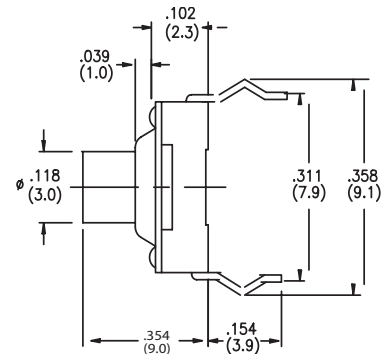
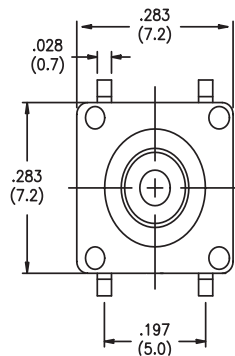
**Actuation Force:**  
180gf +/-50g



MJTP1119A

Process compatible

Bulk packaging



# MJTP series

6mm Square tact switches • through hole

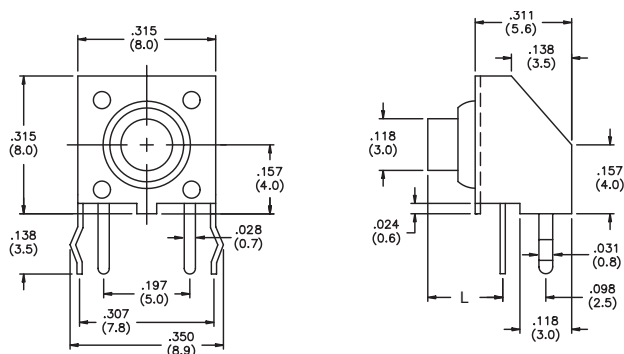
MJTP1129

Right angle, grounding process compatible

Bulk packaging



Model #	Dimensions L (in/mm)
MJTP1129	.171 (4.35)
MJTP1129A	.329 (8.35)
MJTP1129B	.486 (12.35)



MJTP11936  
MJTP11933

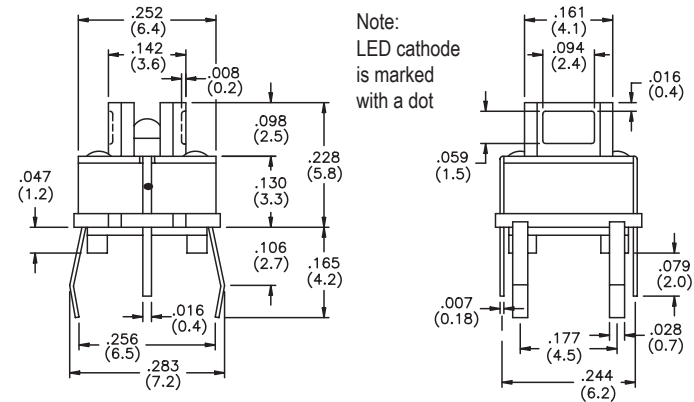
With LED

Bulk packaging

Caps available:  
See end of section



Model #	LED color
MJTP11936	Red
MJTP11933	Green

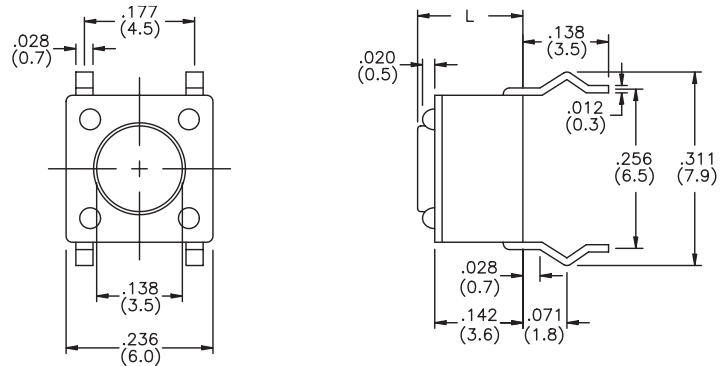


MJTP1230

Bulk packaging

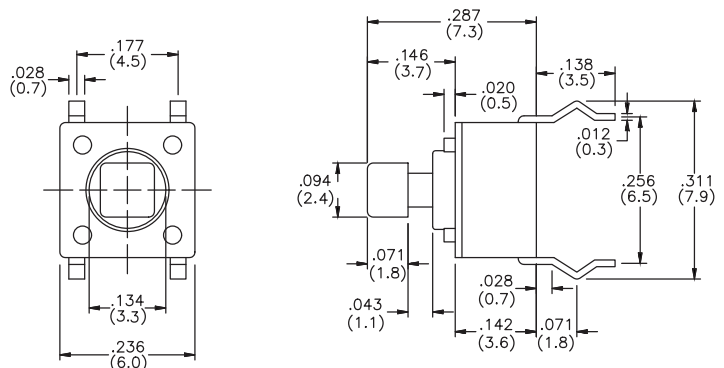


Model #	Dimensions L (in/mm)
MJTP1230	.170 (4.3)
MJTP1230A	.197(5.0)
MJTP1230B	.374(9.5)
MJTP1230C	.315(8.0)
MJTP1230D	.512(13.0)
MJTP1230G	.275(7.0)



MJTP1234

Bulk package



# MJTP series

6mm Square tact switches • through hole

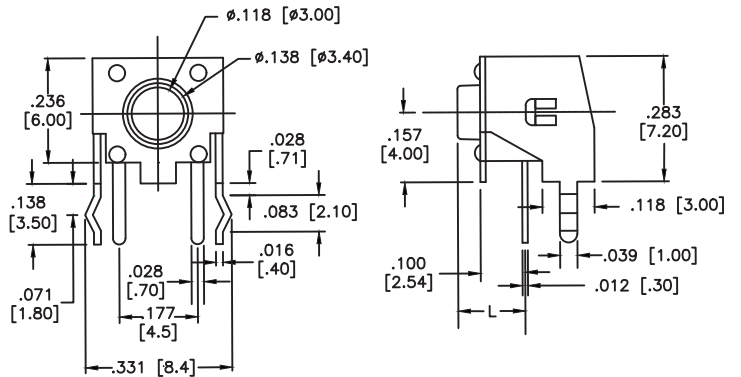
MJTP1236

Right angle, grounding

Bulk packaging

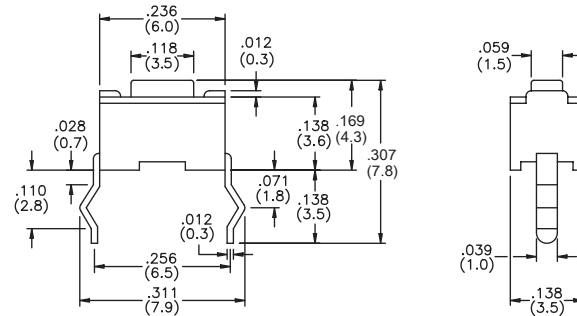


Model #	Dimensions L (in/mm)
MJTP1236	.124 (3.1)
MJTP1236A	.152 (3.9)
MJTP1236F	.289 (7.3)
MJTP1230G	.230 (5.8)



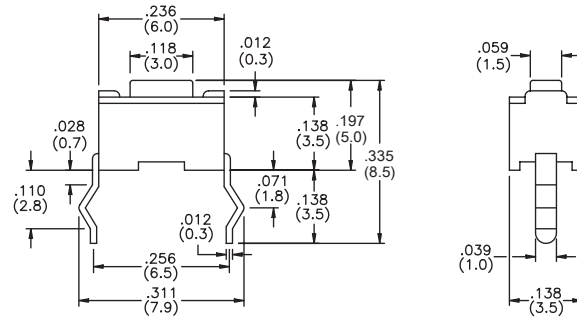
MJTP1243

Bulk packaging



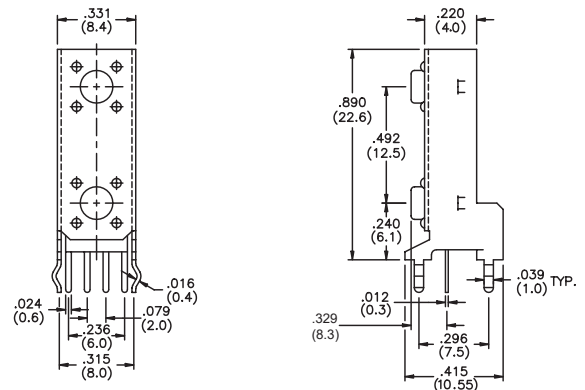
MJTP1250

Bulk packaging



MJTP2205B

Bulk package



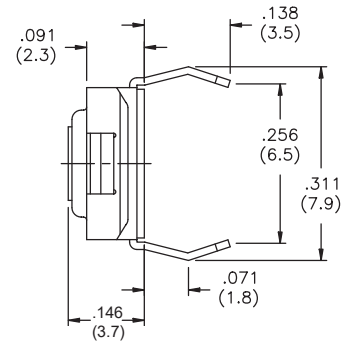
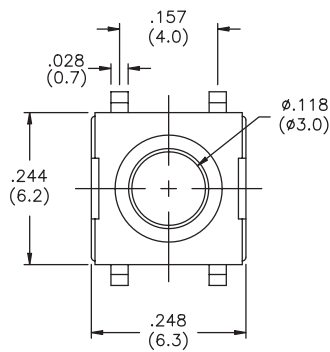
# MJTP series

## 6mm Square tact switches • through hole

MJTPSHWB

Process compatible

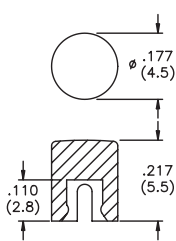
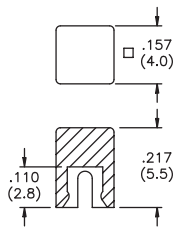
Bulk packaging



**CAPS** (for MJTP1105T and MJTP1234 only)

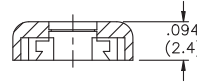
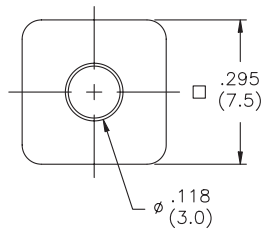
MJ61 Square cap

MJ62 Round cap



**CAPS** (for MJTP1193 only)

MJ3 Square cap with clear lens in center for LED illumination



**CAP COLORS**

Note: add digit from table to cap part number for color. Example: MJ612 indicates square black cap.

No.	Color
1	Blue
2	Black
3	Green
5	Yellow
6	Red
7	Ivory

# MJTP series

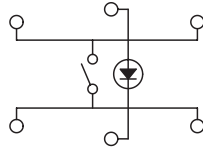
6mm Square tact switches • through hole

## SCHEMATICS

MJTP1109  
MJTP1119  
MJTP1193  
MJTP1230

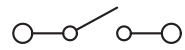
MJTP1234  
MJTP2205  
MJTPSHW

Note: LED is for  
MJTP1193 only

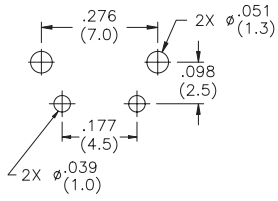


MJTP1105  
MJTP1117  
MJTP1129  
MJTP1236

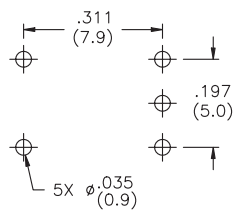
MJTP1243  
MJTP1250  
MJTP2205



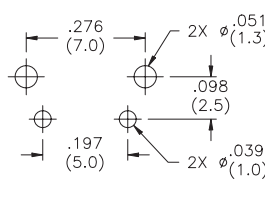
## PRINTED CIRCUIT BOARD LAYOUTS



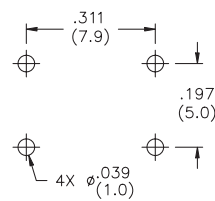
MJTP1105T



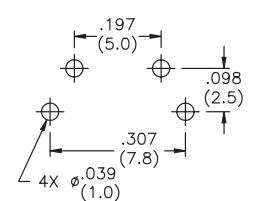
MJTP1109



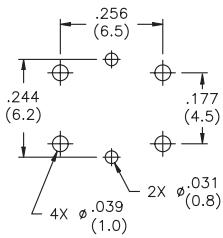
MJTP1117



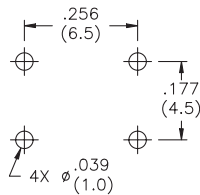
MJTP1119



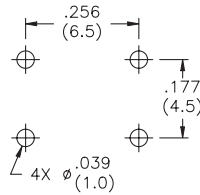
MJTP1129



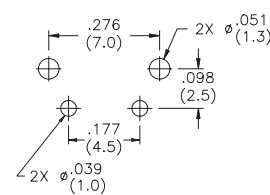
MJTP1193



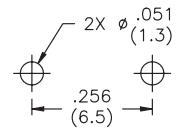
MJTP1230



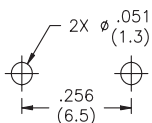
MJTP1234



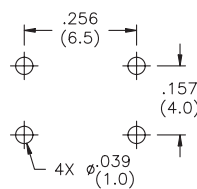
MJTP1236



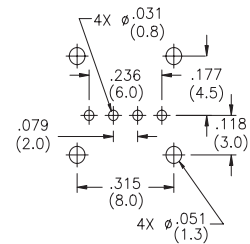
MJTP1243



MJTP1250



MJTPSHW



MJTP2205



# MJTP series

6mm & 4mm Square tact switches •  
Surface mount

## DISTINCTIVE FEATURES

- Numerous single pole / single throw momentary configurations
- Excellent tactile feedback (snap dome)
- Ultra compact size
- Long operating life for high reliability
- Molded-in terminals minimizing wicking of flux or solder



## ENVIRONMENTAL SPECIFICATIONS

- Operating Temperature: -20 °C to +70 °C (-4°F to +158 °F)
- Storage Temperature: -30 °C to +80 °C (-22 °F to +176 °F) for 96 hours



## ELECTRICAL SPECIFICATIONS

- Contact rating: 50 mA 12VDC
- Contact Resistance: 100 m  $\Omega$  - 500 m $\Omega$  max. depending on series
- Insulation Resistance: 100 M  $\Omega$  min. at 100VDC
- Dielectric withstanding voltage: 250 VAC for 1 minute
- Electrical life: 100,000 cycles min.
- Contact bounce: Less than 10 msec.



## MECHANICAL SPECIFICATIONS

- Operating force: 160 - 260 gf
- Mechanical life:
  - 50,000 - 100,000 cycles min. depending on series
- Plunger travel: .010" + .008", .004" (0.25 + 0.2, -0.1mm)



## MATERIALS

- Body: High temperature 4/6 nylon
- Contact: Phosphor bronze or stainless steel with silver plating
- Cover: PET film, tin plated brass or Stainless Steel
- Terminals: Silver plated brass
- Actuator: High temperature 4/6 nylon

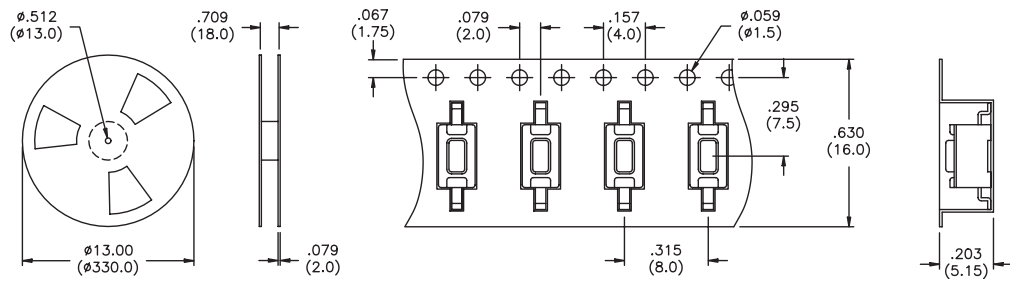
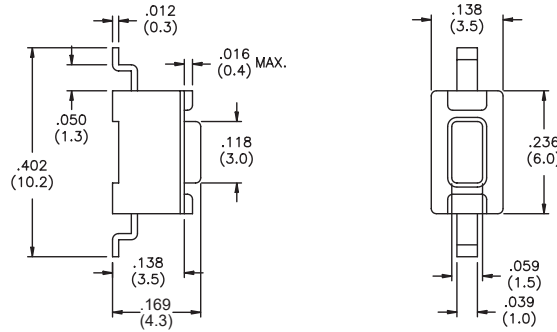
\* Gold plated available on contacts & terminals  
Consult APEM

# MJTP series

6mm Square tact switches • surface mount

## MJTP1106STR

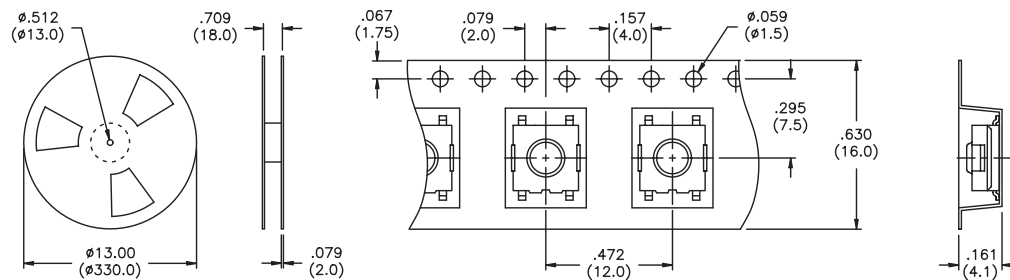
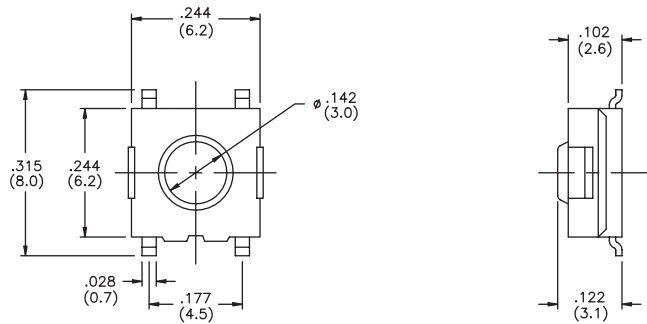
Tape & reel packaging



Tape & reel packaging: quantity 1800 per reel

## MJTP1122TR

Tape & reel packaging



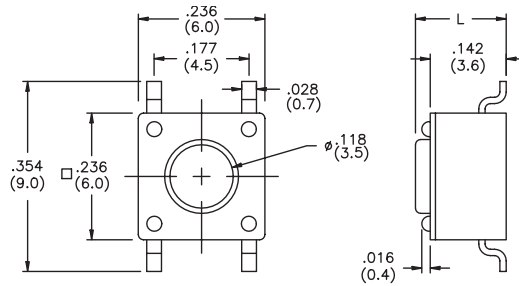
Tape & reel packaging: quantity 1800 per reel

# MJTP series

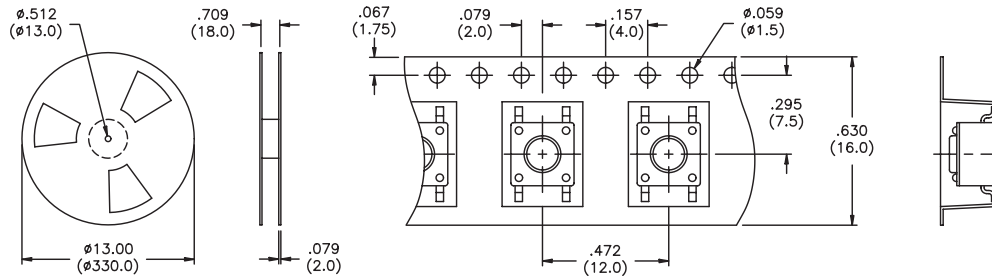
6mm Square tact switches • surface mount

## MJTP1138TR

Tape & reel packaging

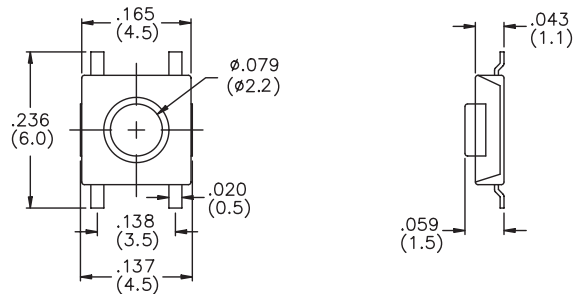


Model #	Dimensions L (in/mm)	Quantity per reel
MJTP1138TR	.170 (4.3)	1200
MJTP1138ATR	.197 (5.0)	1200
MJTP1138BTR	.374 (9.5)	500
MJTP1138CTR	.315 (8.0)	700
MJTP1138DTR	.512 (13.0)	500
MJTP1138ETR	.275 (7.0)	750



## MJTP1140A

Bulk packaging

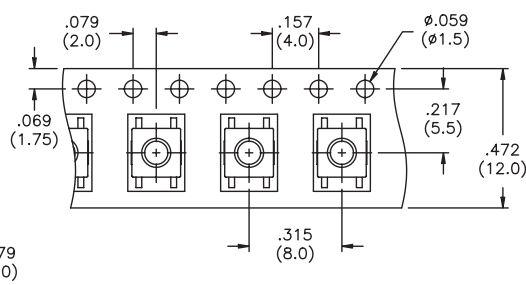
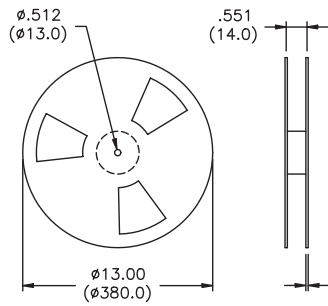
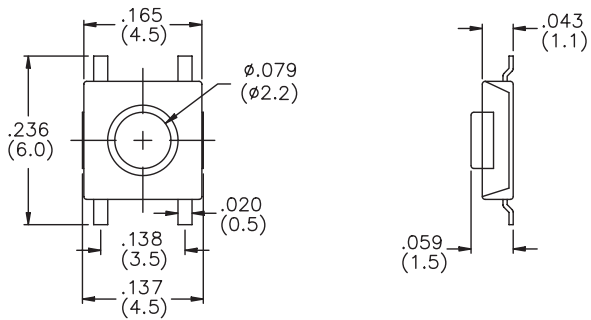


# MJTP series

6mm Square tact switches • surface mount

## MJTP1140ATR

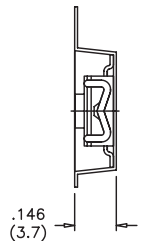
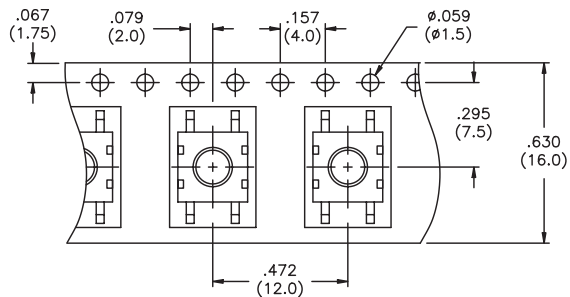
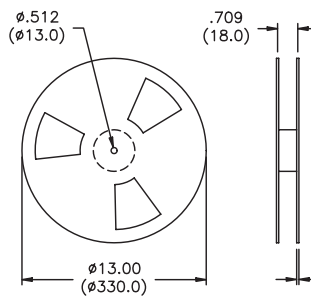
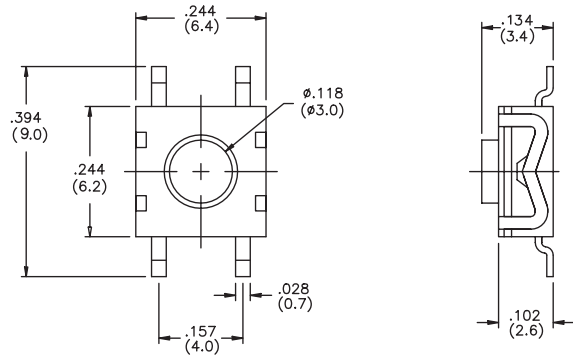
Tape & reel packaging



Tape & reel packaging: quantity 3400 per reel

## MJTP1162ATR

Tape & reel packaging



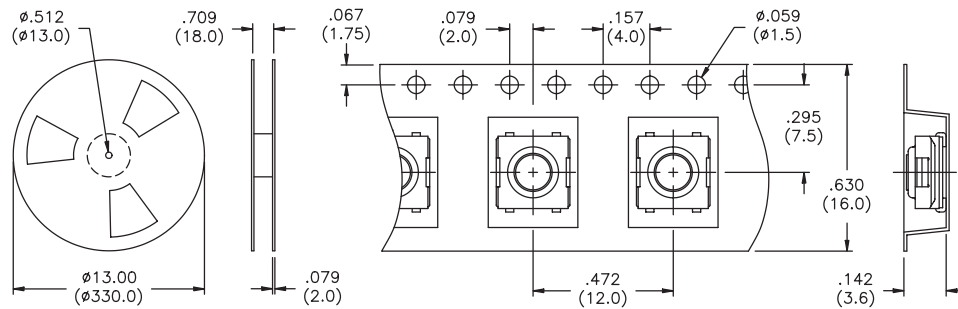
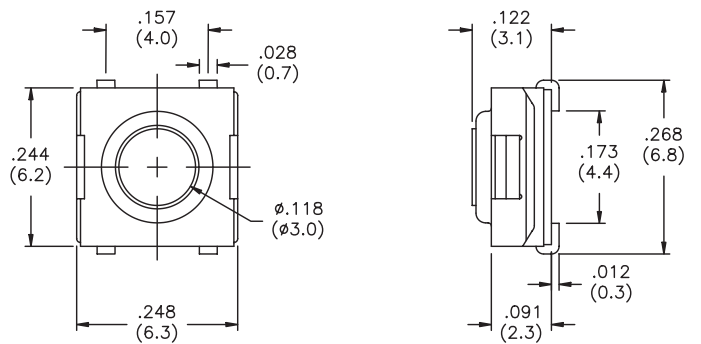
Tape & reel packaging: quantity 1600 per reel

# MJTP series

6mm Square tact switches • surface mount

## MJTPSJW66NTR

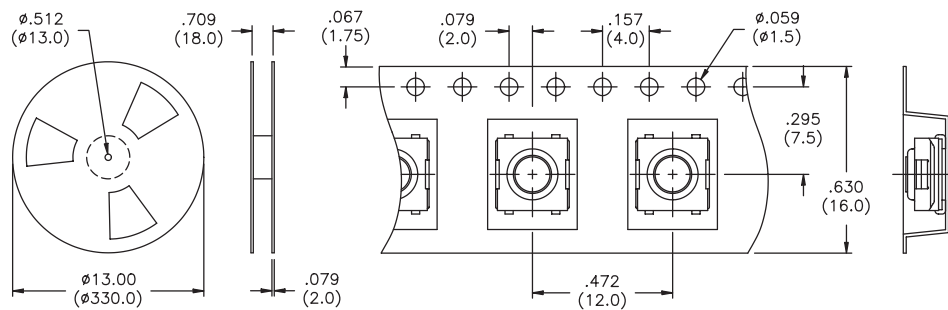
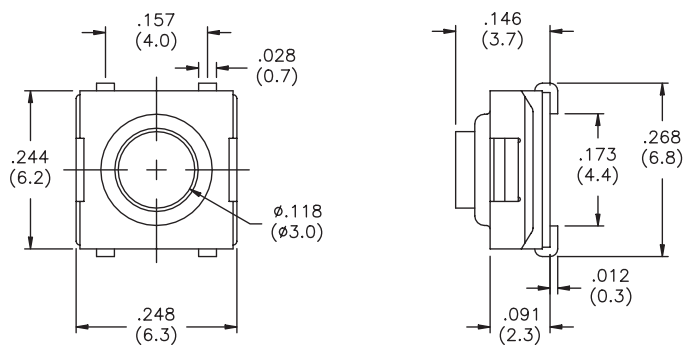
Tape & reel packaging



Tape & reel packaging: quantity 1900 per reel

## MJTPSJW69TR

Tape & reel packaging



Tape & reel packaging: quantity 1900 per reel

# MJTP series

6mm Square tact switches • surface mount

