

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")




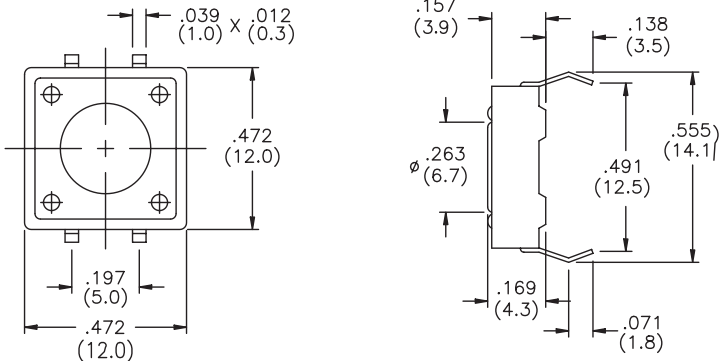
MATERIALS

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


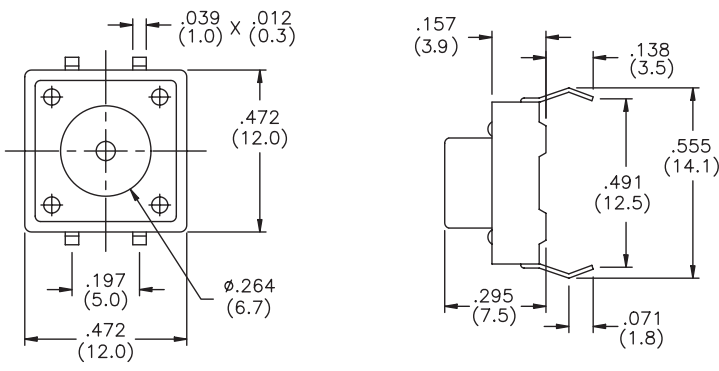
MJTP series

12mm Square tact switches • through hole


MJTP1212 Flush actuator

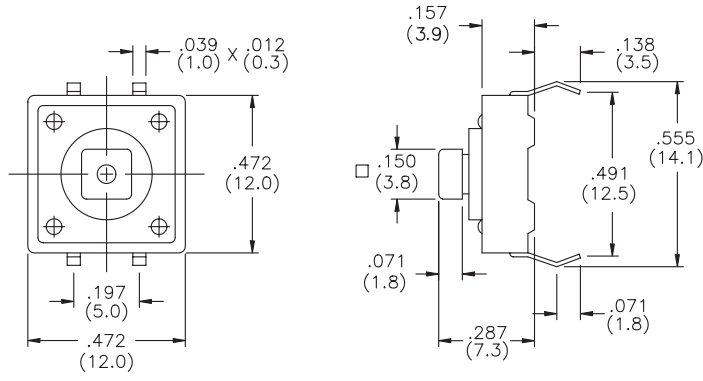
MJTP1212A Round actuator

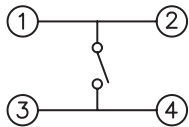
MJTP1212C Square actuator



Caps available - see below

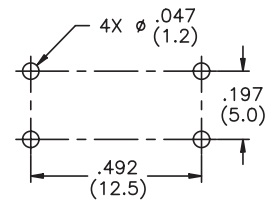


SCHEMATIC



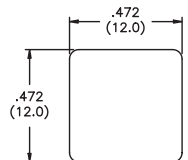
PRINTED CIRCUIT BOARD LAYOUT

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

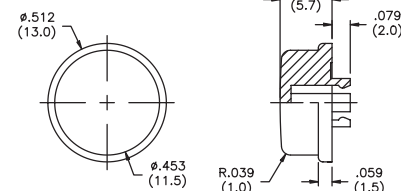


CAPS for MJTP1212C only

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 Ω - 500 m Ω max. depending on series
- Insulation Resistance: 100 M Ω 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

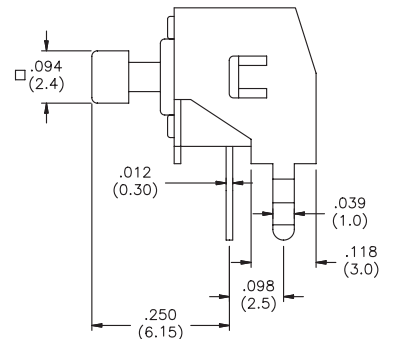
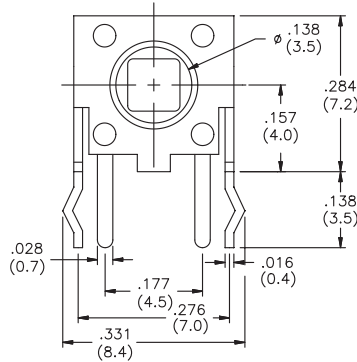
MJTP1105T

Right angle, grounding

Bulk packaging



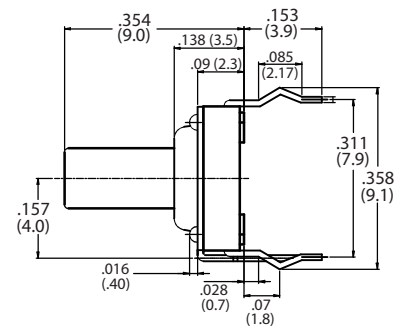
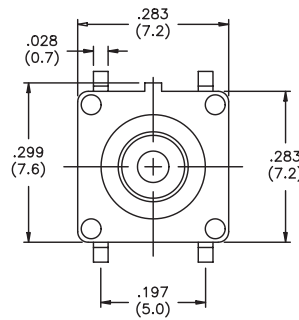
Caps available:
See end of section



MJTP1109A

Process compatible, grounding

Bulk packaging



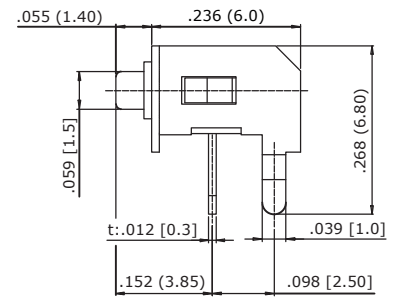
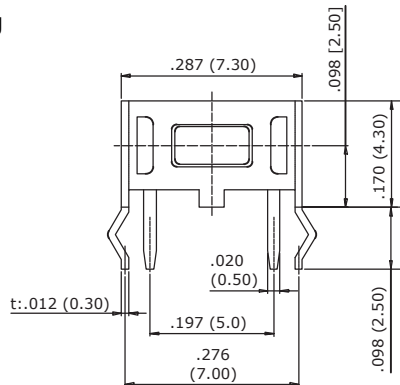
MJTP1117

Right angle, grounding

Bulk packaging



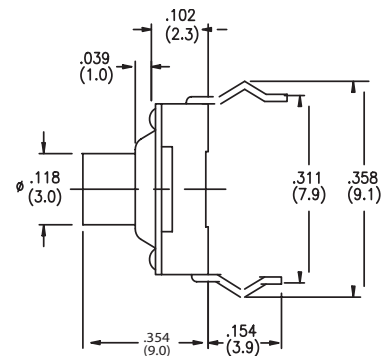
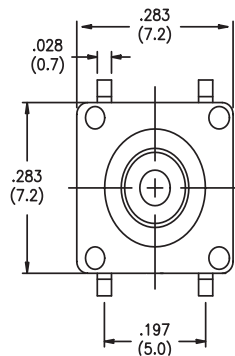
Actuation Force:
180gf +/-50g



MJTP1119A

Process compatible

Bulk packaging



MJTP series

6mm Square tact switches • through hole

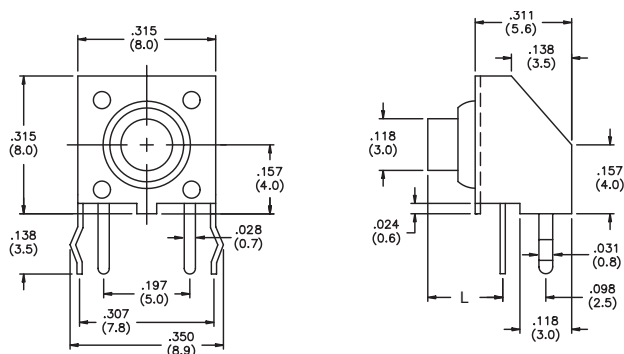
MJTP1129

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

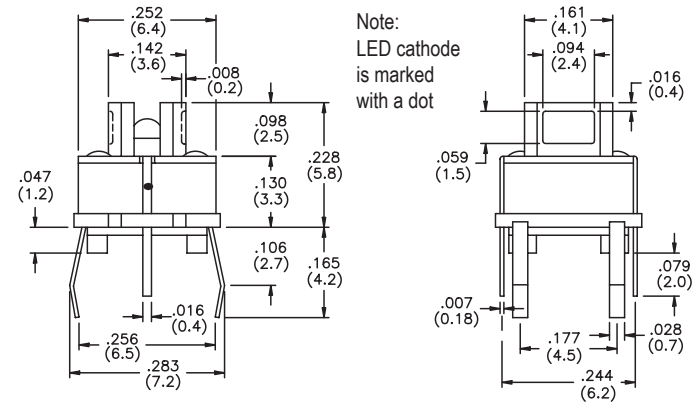
With LED

Bulk packaging

Caps available:
See end of section



Model #	LED color
MJTP11936	Red
MJTP11933	Green

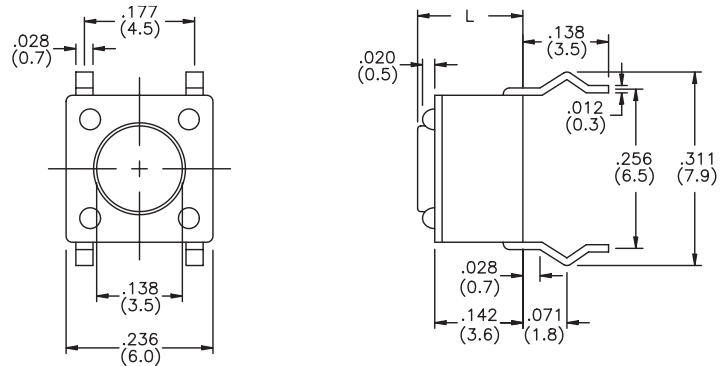


MJTP1230

Bulk packaging

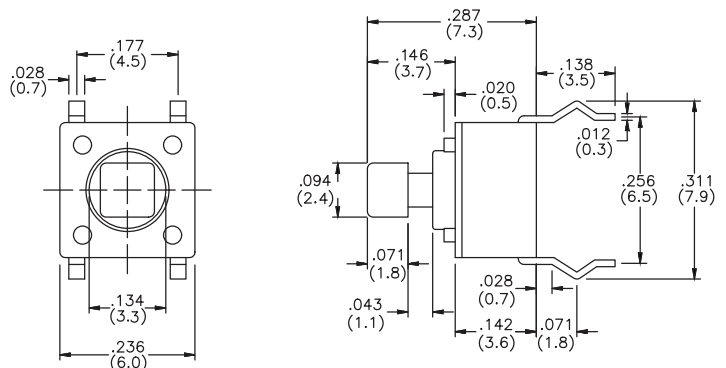


Model #	Dimensions L (in/mm)
MJTP1230	.170 (4.3)
MJTP1230A	.197(5.0)
MJTP1230B	.374(9.5)
MJTP1230C	.315(8.0)
MJTP1230D	.512(13.0)
MJTP1230G	.275(7.0)



MJTP1234

Bulk package



MJTP series

6mm Square tact switches • through hole

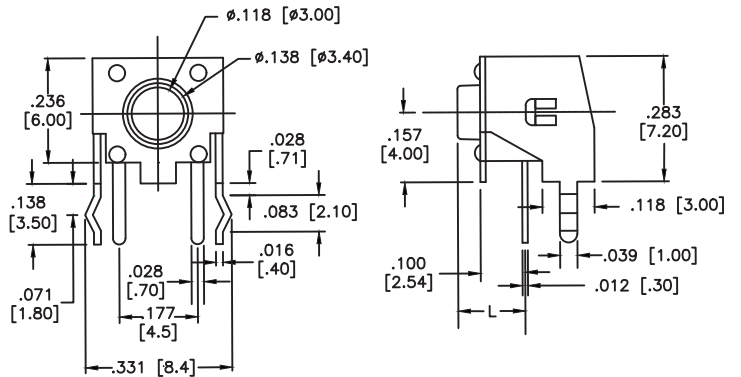
MJTP1236

Right angle, grounding

Bulk packaging

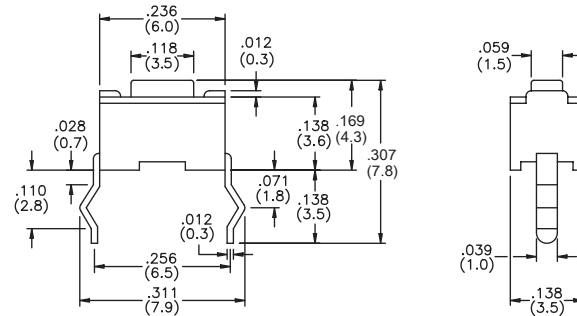


Model #	Dimensions L (in/mm)
MJTP1236	.124 (3.1)
MJTP1236A	.152 (3.9)
MJTP1236F	.289 (7.3)
MJTP1230G	.230 (5.8)



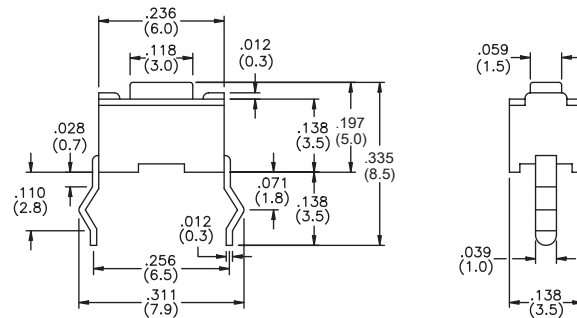
MJTP1243

Bulk packaging



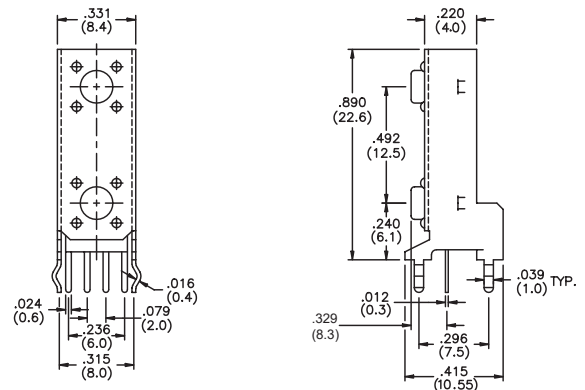
MJTP1250

Bulk packaging



MJTP2205B

Bulk package



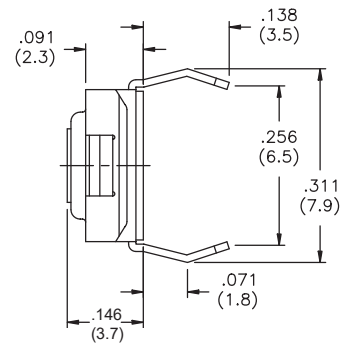
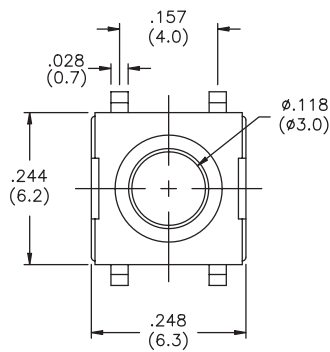
MJTP series

6mm Square tact switches • through hole

MJTPSHWB

Process compatible

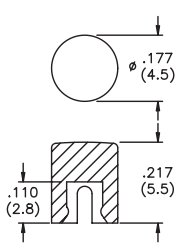
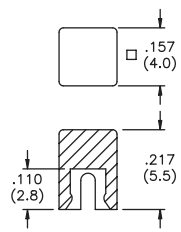
Bulk packaging



CAPS (for MJTP1105T and MJTP1234 only)

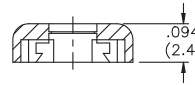
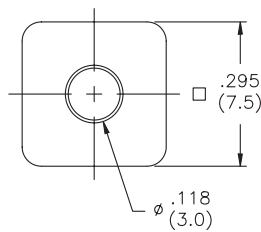
MJ61 Square cap

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

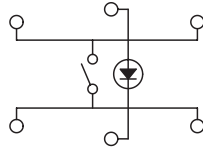
6mm Square tact switches • through hole

SCHEMATICS

MJTP1109
MJTP1119
MJTP1193
MJTP1230

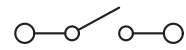
MJTP1234
MJTP2205
MJTPSHW

Note: LED is for
MJTP1193 only

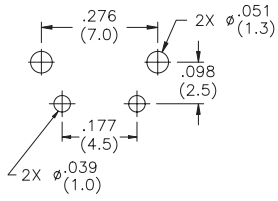


MJTP1105
MJTP1117
MJTP1129
MJTP1236

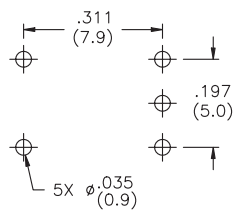
MJTP1243
MJTP1250
MJTP2205



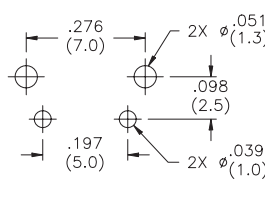
PRINTED CIRCUIT BOARD LAYOUTS



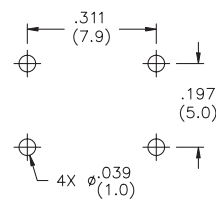
MJTP1105T



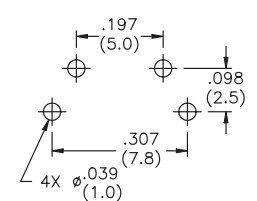
MJTP1109



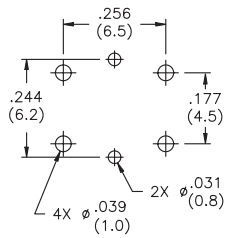
MJTP1117



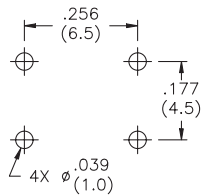
MJTP1119



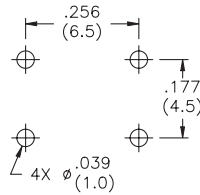
MJTP1129



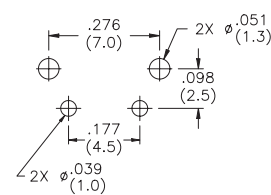
MJTP1193



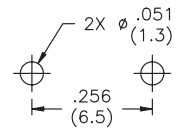
MJTP1230



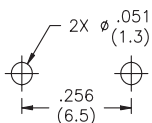
MJTP1234



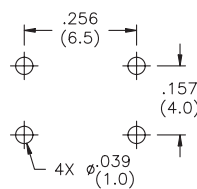
MJTP1236



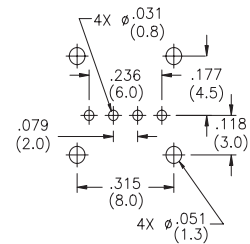
MJTP1243



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 Ω - 500 m Ω max. depending on series
- Insulation Resistance: 100 M Ω 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

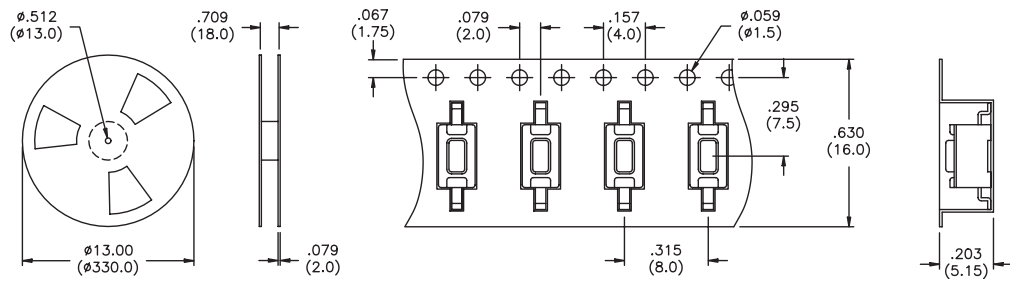
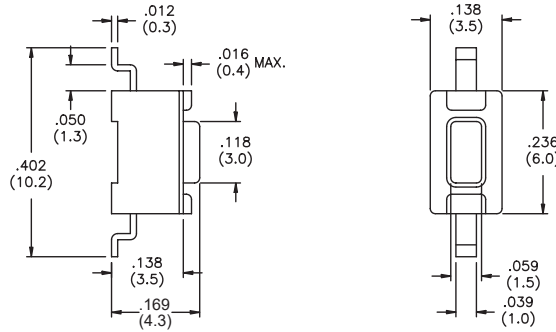
* Gold plated available on contacts & terminals
Consult APEM

MJTP series

6mm Square tact switches • surface mount

MJTP1106STR

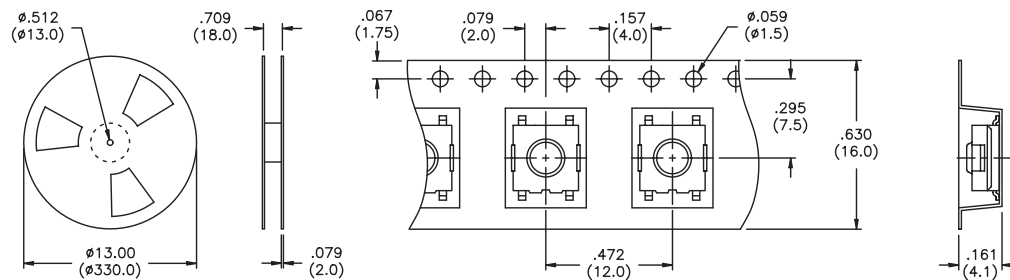
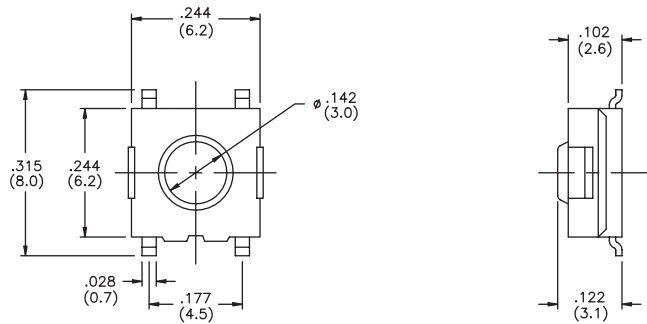
Tape & reel packaging



Tape & reel packaging: quantity 1800 per reel

MJTP1122TR

Tape & reel packaging



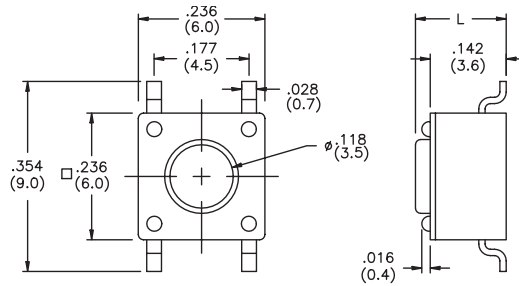
Tape & reel packaging: quantity 1800 per reel

MJTP series

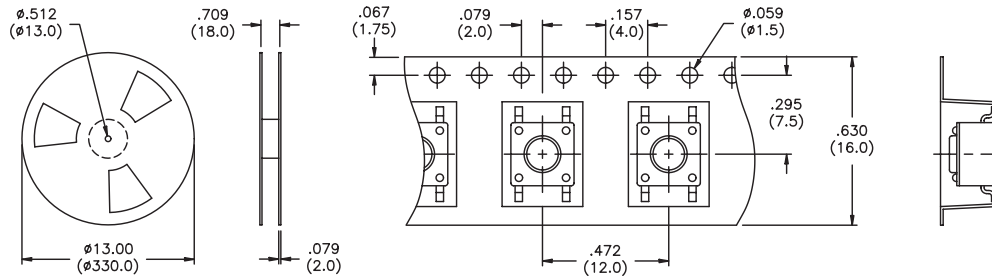
6mm Square tact switches • surface mount

MJTP1138TR

Tape & reel packaging

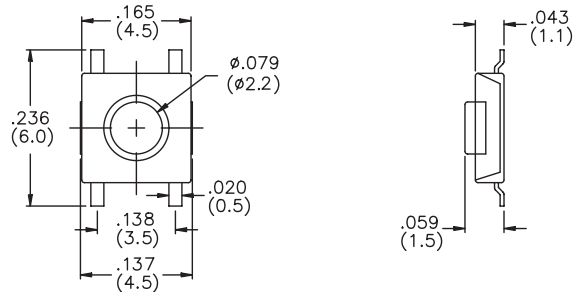


Model #	Dimensions L (in/mm)	Quantity per reel
MJTP1138TR	.170 (4.3)	1200
MJTP1138ATR	.197 (5.0)	1200
MJTP1138BTR	.374 (9.5)	500
MJTP1138CTR	.315 (8.0)	700
MJTP1138DTR	.512 (13.0)	500
MJTP1138ETR	.275 (7.0)	750



MJTP1140A

Bulk packaging

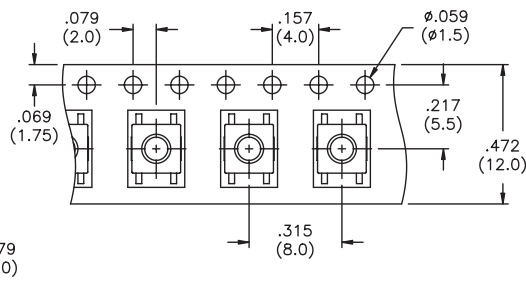
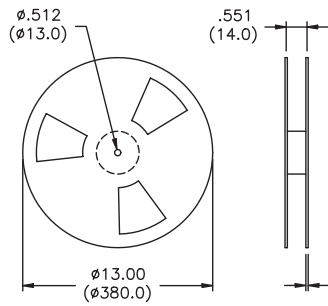
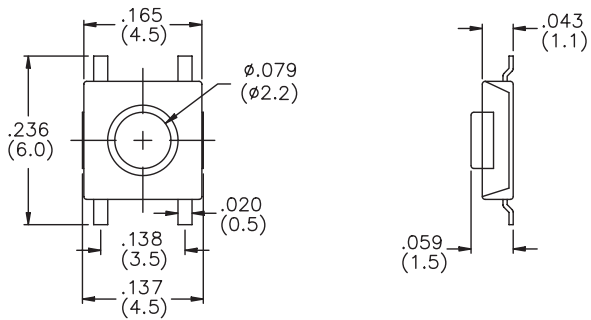


MJTP series

6mm Square tact switches • surface mount

MJTP1140ATR

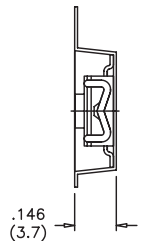
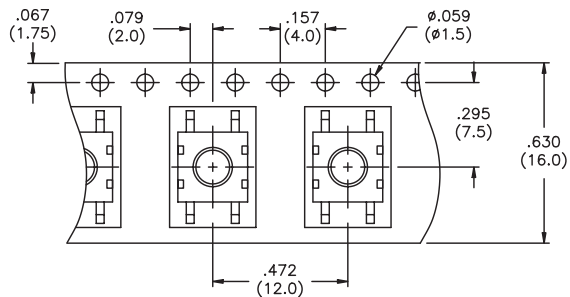
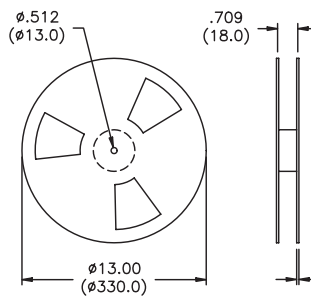
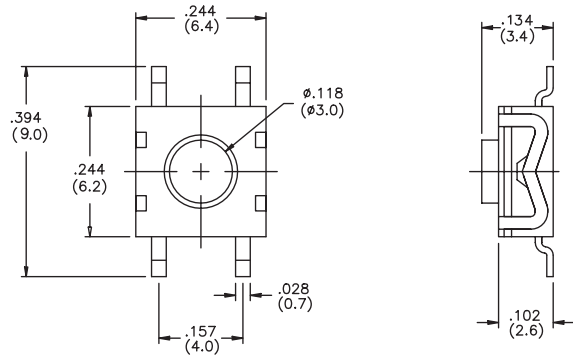
Tape & reel packaging



Tape & reel packaging: quantity 3400 per reel

MJTP1162ATR

Tape & reel packaging



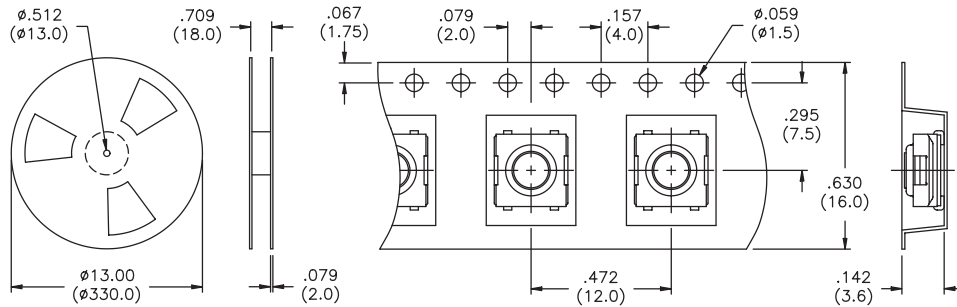
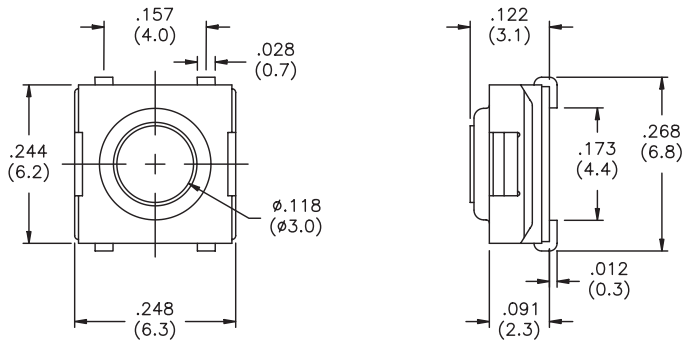
Tape & reel packaging: quantity 1600 per reel

MJTP series

6mm Square tact switches • surface mount

MJTPSJW66NTR

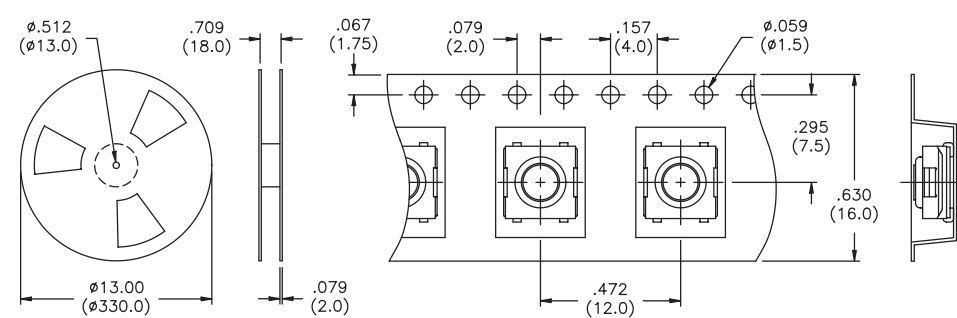
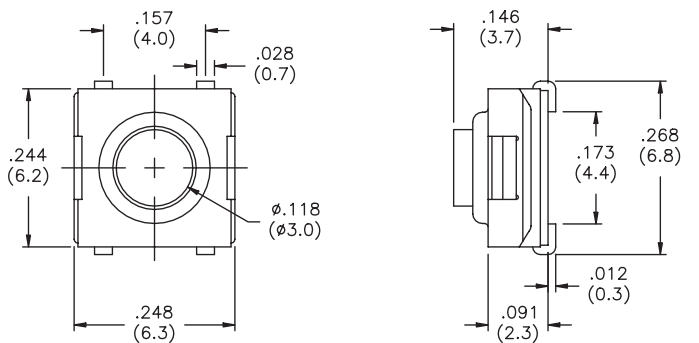
Tape & reel packaging



Tape & reel packaging: quantity 1900 per reel

MJTPSJW69TR

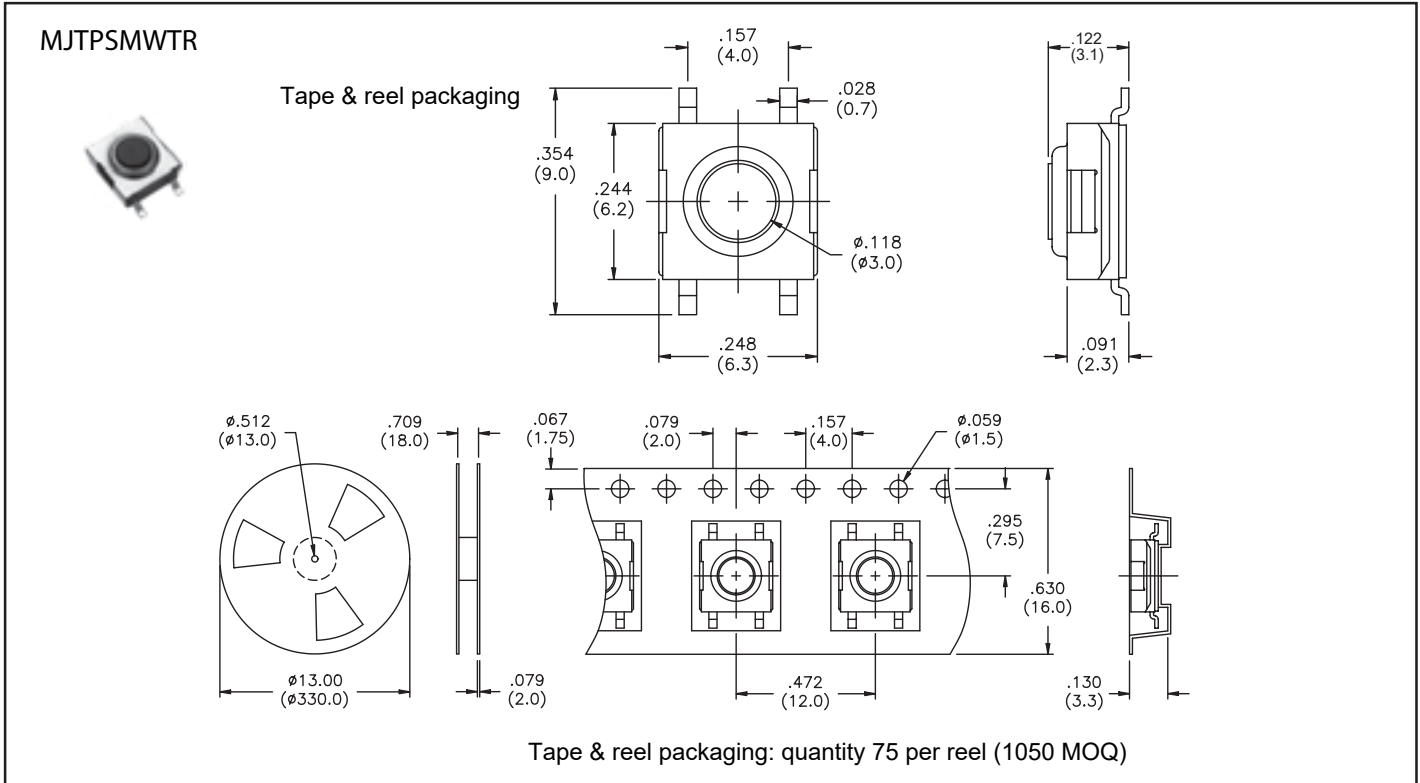
Tape & reel packaging



Tape & reel packaging: quantity 1900 per reel

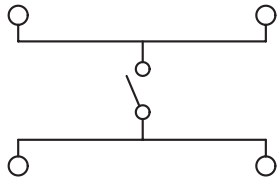
MJTP series

6mm Square tact switches • surface mount

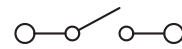


SCHEMATICS

MJTP1122
MJTP1138
MJTP1140
MJTP1162
MJTPSJW66N
MJTPSJW69N
MJTPSMW



MJTP1106



PRINTED CIRCUIT BOARD LAYOUTS

Layout tolerances - Linear: $\pm .004"$ ($\pm 0.1\text{mm}$) Holes: $\pm .002"$ ($\pm 0.05\text{mm}$) Pads: $\pm .008"$ ($\pm 0.2\text{mm}$)

