# MJTP SERIES 6MM THRU-HOLE MTG. TACT SWITCHES

## FEATURES

- Numerous single pole-single throw momentary configurations.
- Excellent tactile feed-back (Snap dome).
- Ultra-compact size.
- Long operating life for high reliability.
- Molded-in terminals minimize wicking of flux or solder.

## MATERIALS

Gold plating available on contacts & terminals - consult factory.

| | |
|---|---|
| Case: | Thermoplastic, color black. UL94HB Standard. |
| Actuator: | Thermoplastic |
| Cover/Bracket: | PET film, tin plated brass or stainless steel. |
| Terminals: | Silver plated brass. |
| Shorting Contact: | Phosphor bronze or stainless steel with silver plating. |
| L.E.D. rating: | Forward voltage- 2.1 V (3.0 V Max.). Cont. fwd. current 20mA max.@ 25°C. |

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

## GENERAL SPECIFICATIONS

### ELECTRICALS

| | |
|---|---|
| Contact rating: | 50 mA @ 12 VDC |
| Insulation resistance: | 100 megohms min. (100 VDC) |
| Dielectric withstanding voltage: | 250 VAC for 1 minute |
| Contact resistance: | 100 milliohms max. @ 5 VDC, 10 mA |
| Electrical life: | 100,000 cycles min. (except models MJTP1243 & 1250- 50,000 cycles)<br>1,000,000 cycles available - consult factory |
| Contact bounce: | less than 10 msec. |

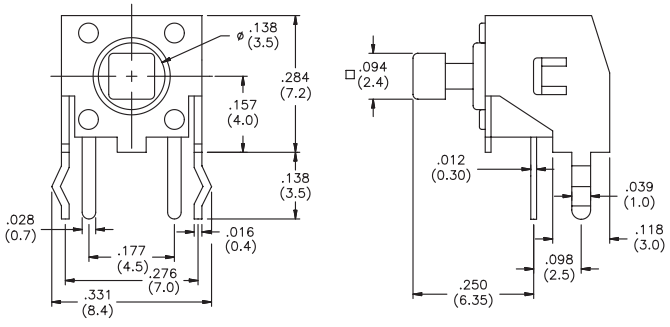
### MECHANICALS, THERMALS, ENVIRONMENTALS

| | |
|---|---|
| Plunger travel: | .010"+ .008", - .004" (0,25 +0,2, -0,1 mm) |
| Actuation force: | 160 grams ±30 grams |
| Operating temperature range: | -20°C to +70°C |
| Storage temperature range: | -30°C to +80°C for 96 hours |
| Shock resistance: | 30G per method 213, MIL-STD-202 |
| Vibration resistance: | passes method 201, MIL-STD-202 |

### SOLDERING (note - non-washable except for models indicated 'process compatible' below).

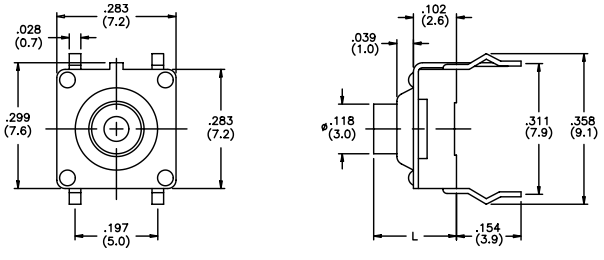
| | |
|---|---|
| IR reflow soldering: | 240°C max. for 20 seconds max. |
| Wave soldering: | 255°C max. for 5 seconds max. |
| Hand soldering: | 320°C max. for 3.5 seconds max. (40 watt iron max.) |

**MJTP1105T**
Right angle, grounding




Caps available - see end of section.
Bulk packaged.

**US # MJTP1109**
**EU # PHAP3350**
Process compatible, grounding




| US Model No. | Dim. L (In./mm) | EU Model No. |
|---|---|---|
| MJTP1109 | .197 (5.0) | PHAP3350 |
| MJTP1109A | .354 (9.0) | PHAP3350A |
| MJTP1109B | .512 (13.0) | PHAP3350B |

Bulk packaged.

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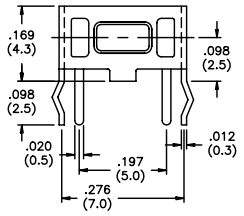
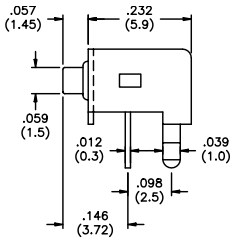
**US # MJTP1117**
**EU # PHAP3363**
Right angle, grounding

New!

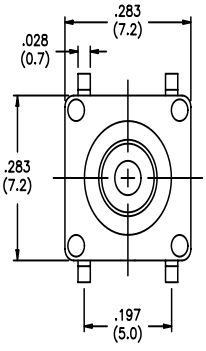


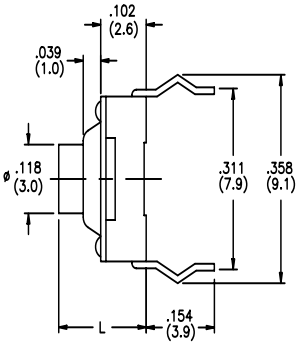




Bulk packaged.

**US # MJTP1119**
**EU # PHAP3351**
Process compatible

New!

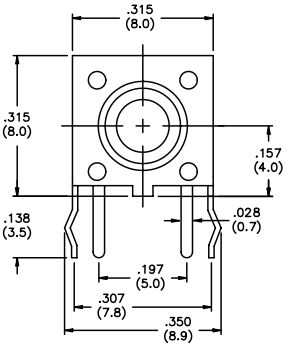


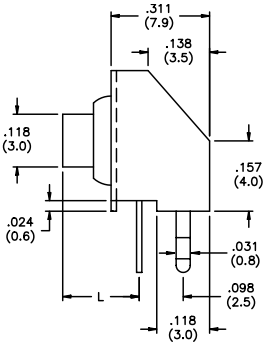




| US Model No. | Dim. L (in./mm) | EU Model No. |
|---|---|---|
| MJTP1119 | .197 (5.0) | PHAP3351 |
| MJTP1119A | .354 (9.0) | PHAP3351A |
| MJTP1119B | .512 (13.0) | PHAP3351B |

Bulk packaged.

**US # MJTP1129**
**EU # PHAP1152**
Right angle, grounding, process compatible

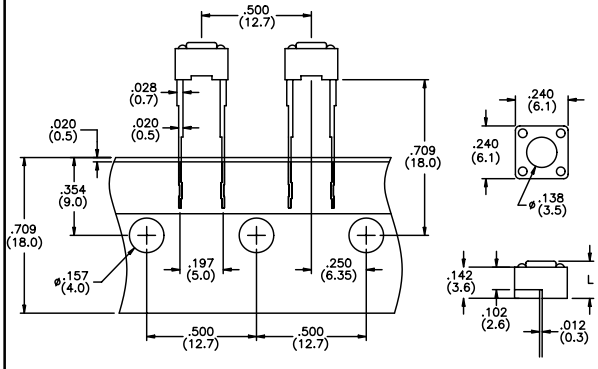



| US Model No. | Dim. L (in./mm) | EU Model No. |
|---|---|---|
| MJTP1129 | .171 (4.35) | PHAP3352 |
| MJTP1129A | .329 (8.35) | PHAP3352A |
| MJTP1129B | .486 (12.35) | PHAP3352B |

Bulk packaged.

**US # MJTP1141**
**EU # PHAP3307**
Long terminals




| US Model No. | Dim. L (in./mm) | EU Model No. |
|---|---|---|
| MJTP1141 | .169 (4.3) | PHAP3307 |
| MJTP1141A | .197 (5.0) | PHAP3307A |

Packaged on tape. Note: other models available with this tape packaging - consult factory.

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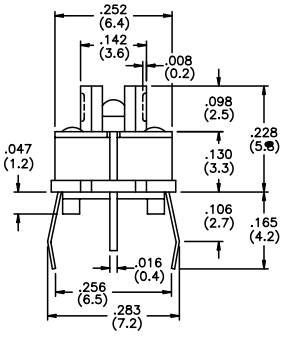
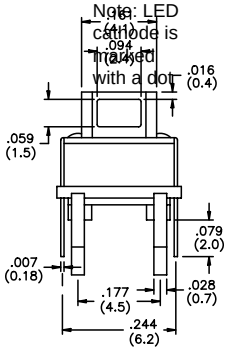
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

**US # MJTP1193**
**EU # PHAP3308**
With L.E.D.

New!

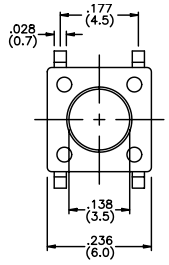


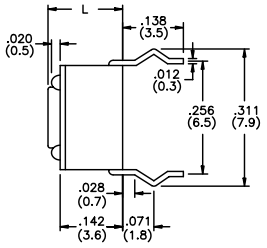




| US Model No. | L.E.D. Color | EU Model No. |
|---|---|---|
| MJTP1193 | No L.E.D. | PHAP3308 |
| MJTP11936 | Red | PHAP3308R |
| MJTP11935 | Yellow | PHAP3308Y |
| MJTP11933 | Green | PHAP3308G |

Caps available with lens - see end of section.
Bulk packaged.

**US # MJTP1230**
**EU # PHAP3301**

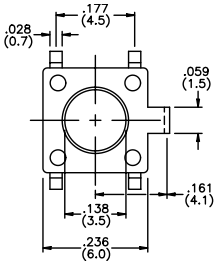


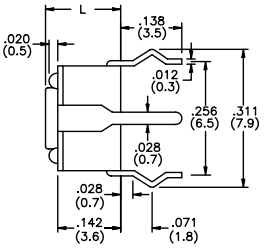




| US Model No. | Dim. L (in./mm) | EU Model No. |
|---|---|---|
| MJTP1230 | .170 (4,3) | PHAP3301 |
| MJTP1230A | .197 (5,0) | PHAP3301A |
| MJTP1230B | .374 (9,5) | PHAP3301B |
| MJTP1230C | .315 (8,0) | PHAP3301C |
| MJTP1230D | .512 (13,0) | PHAP3301D |
| MJTP1230E | .287 (7,3) | PHAP3301E |
| MJTP1230F | .335 (8,5) | PHAP3301F |
| MJTP1230G | .275 (7,0) | N/A |

Bulk packaged.

**US # MJTP1232**
**EU # PHAP3302**
Grounding

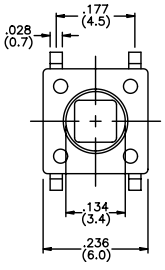


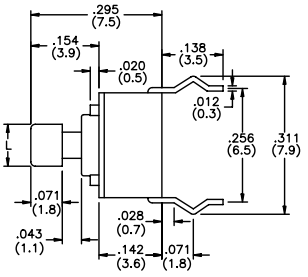




| US Model No. | Dim. L (in./mm) | EU Model No. |
|---|---|---|
| MJTP1232 | .170 (4,3) | PHAP3302 |
| MJTP1232A | .197 (5,0) | PHAP3302A |
| MJTP1232B | .374 (9,5) | PHAP3302B |
| MJTP1232C | .315 (8,0) | PHAP3302C |
| MJTP1232D | .512 (13,0) | PHAP3302D |
| MJTP1232E | .287 (7,3) | PHAP3302E |
| MJTP1232F | .335 (8,5) | PHAP3302F |
| MJTP1232G | .275 (7,0) | PHAP3302G |

Bulk packaged.

**US # MJTP1234**
**EU # PHAP3303**



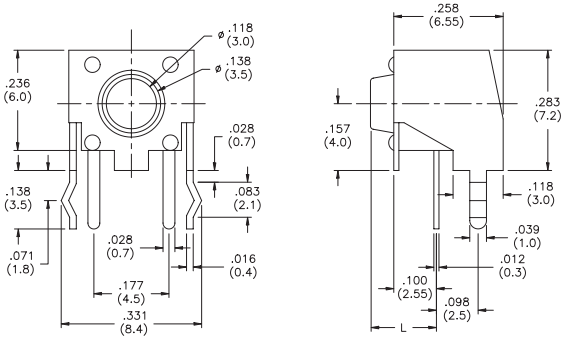




| US Model No. | Dim. L (in./mm) | EU Model No. |
|---|---|---|
| MJTP1234 | .094 (2,4) | PHAP3303 |
| MJTP1234A | .110 (2,8) | PHAP3303A |

Caps available - see end of section.
Bulk packaged.

M

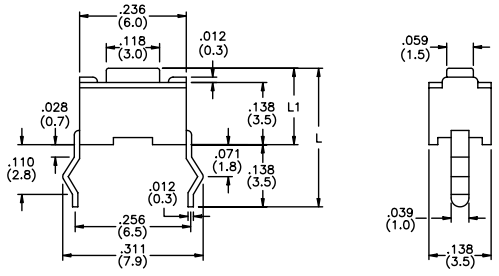
**US # MJTP1236**
**EU # PHAP3305**
Right angle, grounding




| US Model No. | Dim. L (in./mm) | EU Model No. |
|---|---|---|
| MJTP1236 | .124 (3,1) | PHAP3305 |
| MJTP1236A | .152 (3,9) | PHAP3305A |
| MJTP1236B | .329 (8,4) | PHAP3305B |
| MJTP1236C | .270 (6,9) | PHAP3305C |
| MJTP1236D | .466 (11,9) | PHAP3305D |
| MJTP1236E | .244 (6,2) | PHAP3305E |
| MJTP1236F | .289 (7,3) | N/A |
| MJTP1236G | .230 (5,8) | N/A |

Bulk packaged.

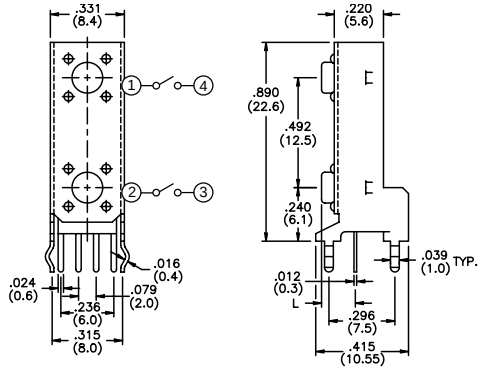
**US # MJTP1243 & MJTP1250**




| US # Model No. | Dim. L1(in./mm) | Dim. L (in./mm) |
|---|---|---|
| MJTP1243 | .169 (4,3) | .307 (7,8) |
| MJTP1250 | .197 (5,0) | .335 (8,5) |

Bulk packaged.

**US # MJTP2205**
**EU # PHAP3306**
2 switch vertical gang assembly, black actuators




| US Model No. | Dim. L (in./mm) | EU Model No. |
|---|---|---|
| MJTP2205 | .124 (3,15) | PHAP3306 |
| MJTP2205A | .152 (3,85) | PHAP3306A |
| MJTP2205B | .329 (8,35) | PHAP3306B |
| MJTP2205C | .270 (6,85) | PHAP3306C |
| MJTP2205D | .466 (11,85) | PHAP3306D |
| MJTP2205E | .242 (6,15) | PHAP3306E |

Bulk packaged.

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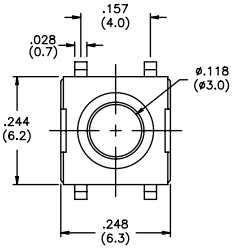
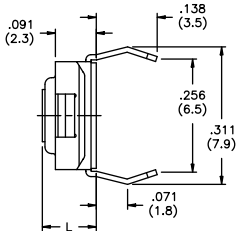
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.


APEM, 63 NECK ROAD, HAVERHILL, MA USA 01835-0788 TOLL FREE: (877) 246-7890 FAX: (978) 372-3534 E-mail: info@apem.com

**US # MJTPSHW**
Process compatible



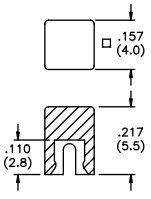




| US # Model No. | Dim. L (in./mm) |
|---|---|
| MJTPSHW | .122 (3,1) |
| MJTPSHWA | .091 (2,3) |
| MJTPSHWB | .146 (3,8) |

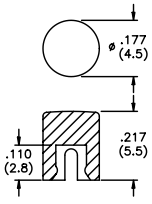
Bulk packaged.

## CAPS (for MJTP1105T and MJTP1234 only)

**MJ61** Square cap

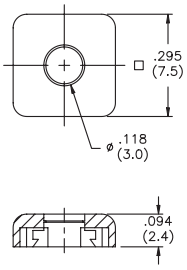



**MJ62** Round cap




## CAPS (for MJTP1193 only) New!

**MJ3** Square cap (w/clear lens in center for LED illumination)




## CAP COLORS

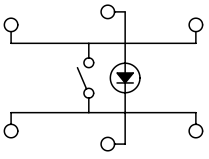
Note - add digit from table to cap part number for color. Example - **MJ612** indicates square black cap.

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

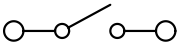
## SCHEMATICS

MJTP1109
MJTP1119
MJTP1193
MJTP1230
MJTP1232
MJTP1234
MJTP2205
MJTP4102
MJTP5302
MJTPSHW

Note: LED is for MJTP1193 only.

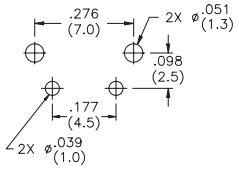


MJTP1105
MJTP1117
MJTP1129
MJTP1141
MJTP1144
MJTP1145
MJTP1236
MJTP1243
MJTP1250
MJTP5302

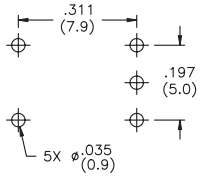


## PRINTED CIRCUIT BOARD LAYOUTS

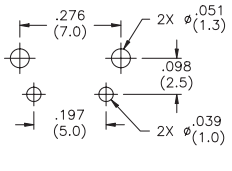
Layout tolerances; Linear: ± .004" ( ± 0,1MM) Holes: ± .002" ( ± 0,05MM)



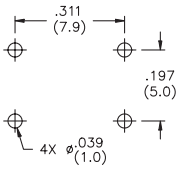

MJTP1105T



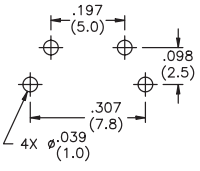

MJTP1109



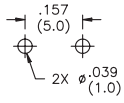

MJTP1117



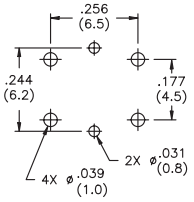

MJTP1119



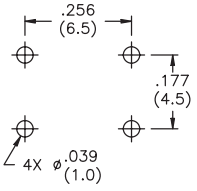

MJTP1129



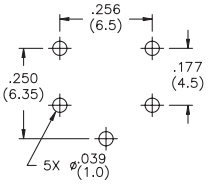

MJTP1141, 44 & 45




MJTP1193




MJTP1230

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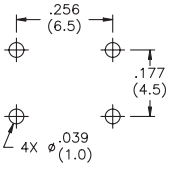


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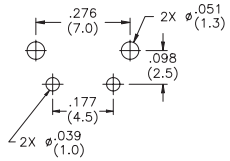


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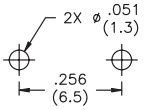


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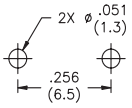


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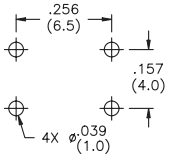


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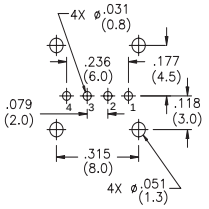


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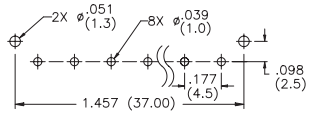


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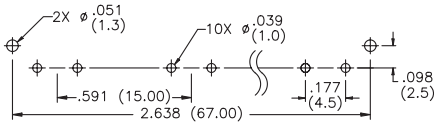



MJTP5302

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

M

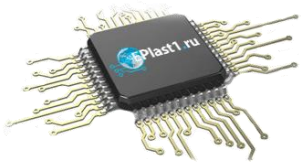
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.




**Как с нами связаться**

**Телефон:** 8 (812) 309 58 32 (многоканальный)
**Факс:** 8 (812) 320-02-42
**Электронная почта:** org@eplast1.ru
**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.