

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, color black unless otherwise specified.
 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.

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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)
 1,000,000 cycles available - consult factory
 Contact bounce: less than 10 msec.

MECHANICALS, THERMALS, ENVIRONMENTALS

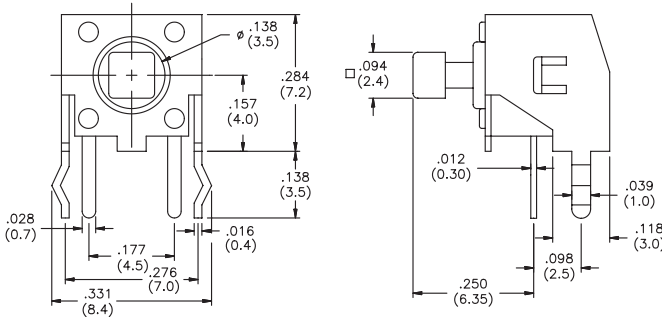
Plunger travel: .010" + .008", - .004" (0,25 +0,2, -0,1 mm)
 Actuation force: 160 grams ±30 grams
 Operating temperature range: -20°C to +70°C
 Storage temperature range: -30°C to +80°C for 96 hours
 Shock resistance: 30G per method 213, MIL-STD-202
 Vibration resistance: passes method 201, MIL-STD-202

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

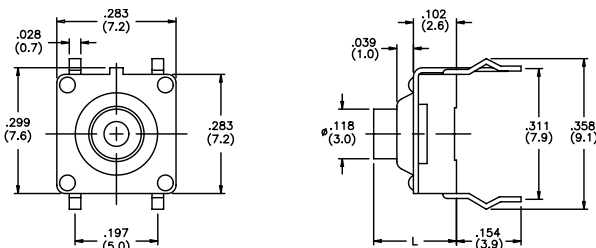


Caps available - see end of section.
Bulk packaged.

US # MJTP1109

EU # PHAP3350

Process compatible,
grounding



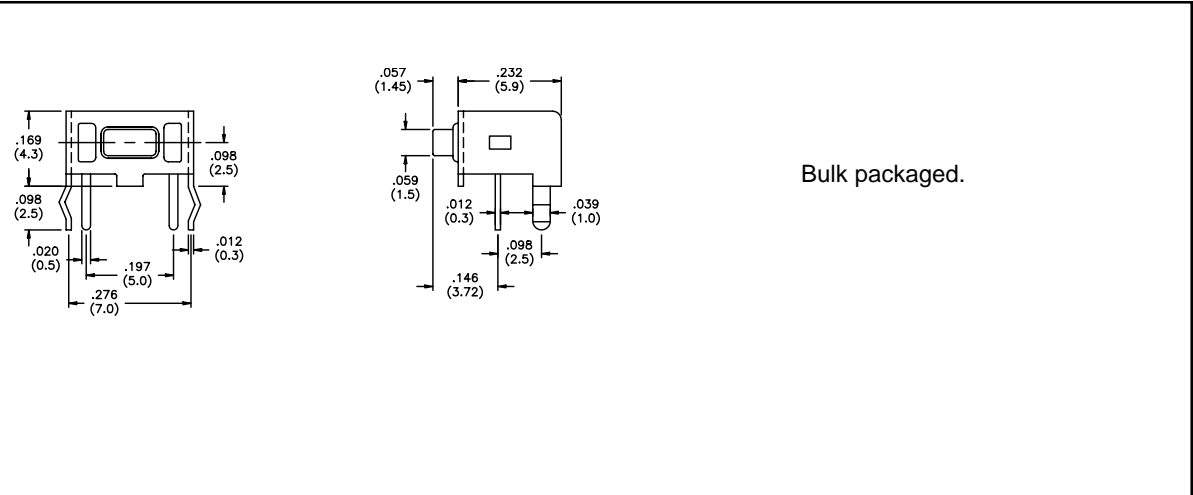
| US Model No. | Dim. L (In./mm) | EU Model No. |
|--------------|-----------------|--------------|
| MJTP1109 | .197 (5.0) | PHAP3350 |
| MJTP1109A | .354 (9.0) | PHAP3350A |
| MJTP1109B | .512 (13.0) | PHAP3350B |

Bulk packaged.

US # MJTP1117
EU # PHAP3363
 Right angle,
 grounding



New!

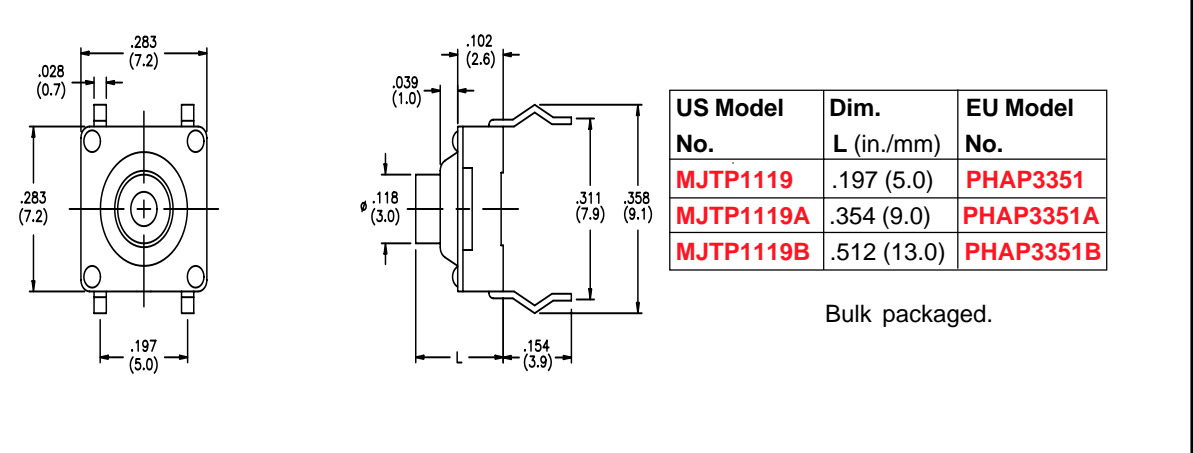


Bulk packaged.

US # MJTP1119
EU # PHAP3351
 Process compatible



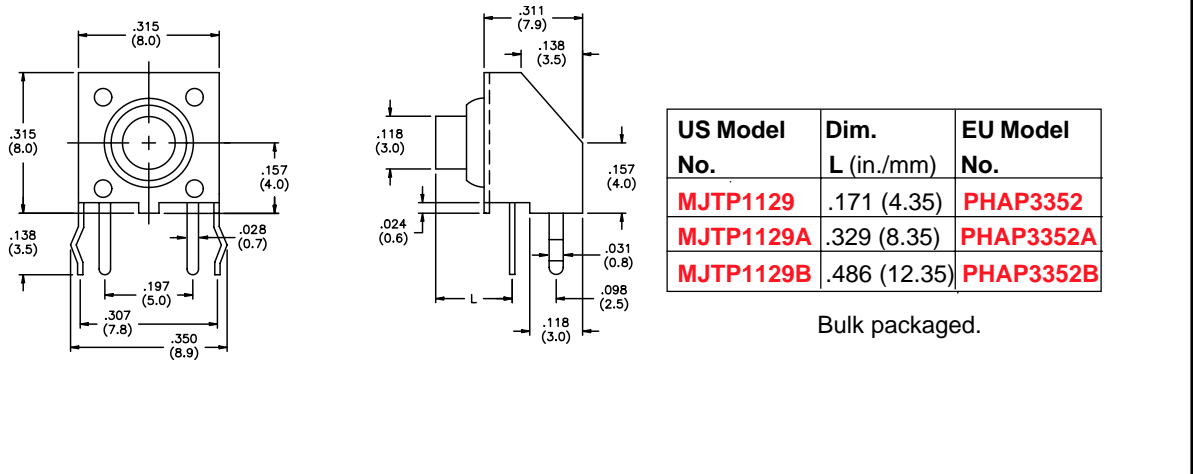
New!



| 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.

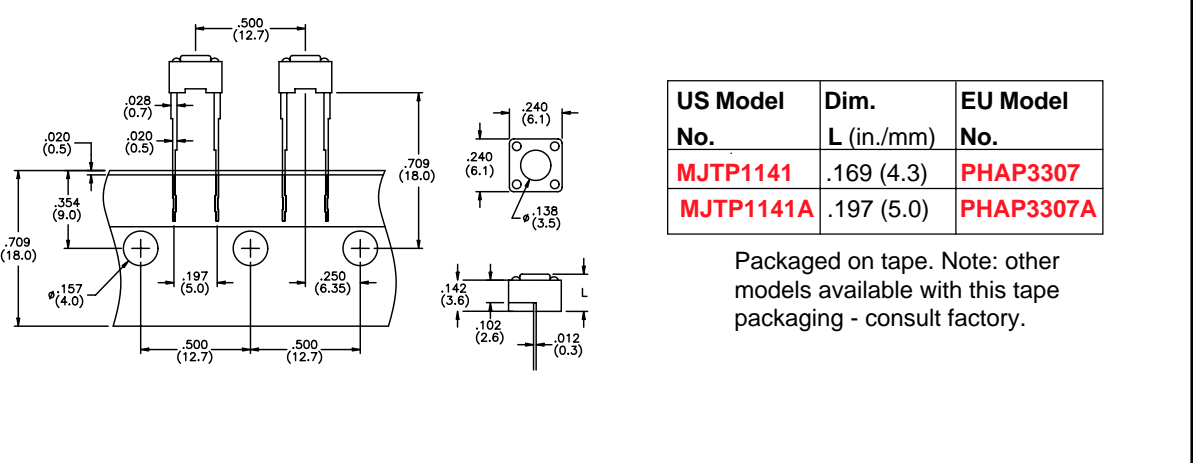
US # MJTP1129
EU # PHAP1152
 Right angle,
 grounding,
 process compatible



| 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 |

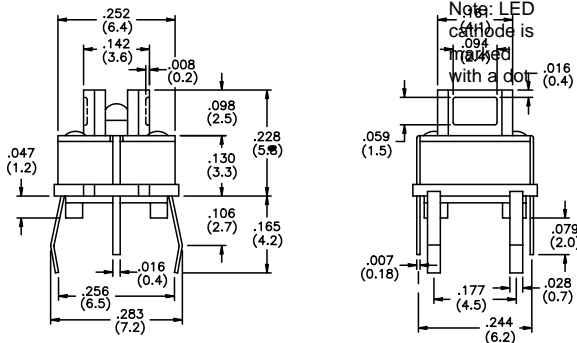
Packaged on tape. Note: other models available with this tape packaging - consult factory.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

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



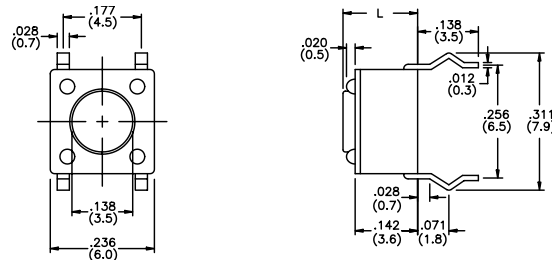
New!



| 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.

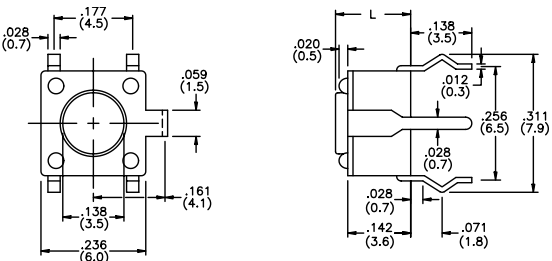
US # MJTP1230
EU # PHAP3301



| 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.

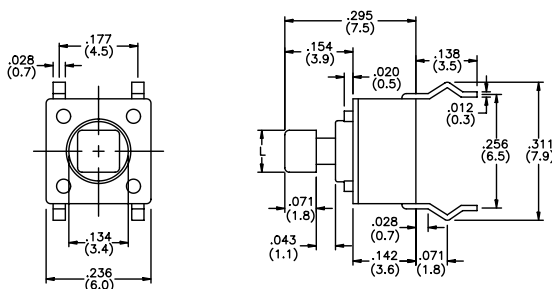
US # MJTP1232
EU # PHAP3302
Grounding



| 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

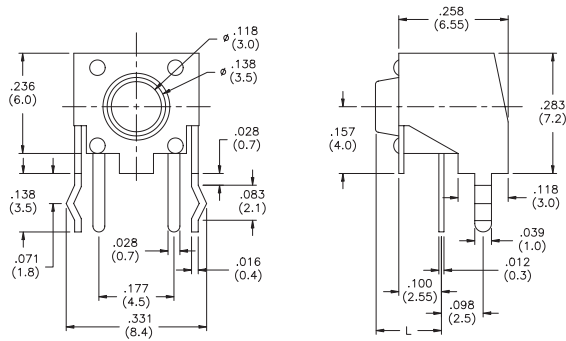


| US Model No. | Dim. L (in./mm) | EU Model No. |
|------------------|-----------------|------------------|
| MJTP1234 | .094 (2,4) | PHAP3303 |
| MJTP1234A | .110 (2,8) | PHAP3303A |

Caps available - see end of section.
Bulk packaged.



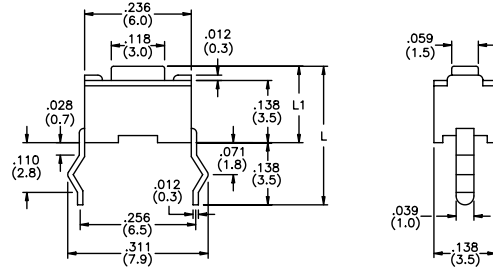
US # MJTP1236
EU # PHAP3305
 Right angle,
 grounding



| 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.

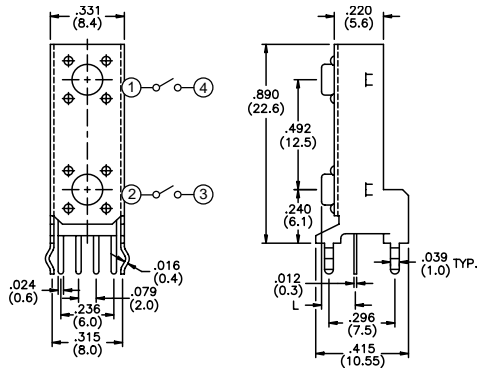
US # MJTP1243 & MJTP1250



| 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

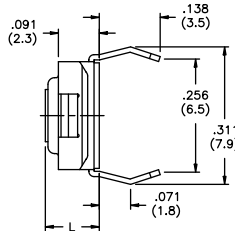
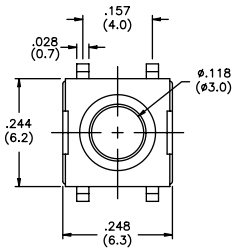


| US Model No. | Dim. L (in./mm) | EU Model No. |
|------------------|-----------------|------------------|
| MJTP2205 | .124 (3,15) | PHAP3306 |
| MJTP2205A | .152 (3,85) | PHAP3306A |
| MJTP2205B | .329 (8,35) | PHAP3306B |
| MJTP2205C | .270 (6,85) | PHAP3306C |
| MJTP2205D | .466 (11,85) | PHAP3306D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

Bulk packaged.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

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.

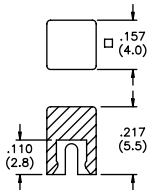
CAPS (for MJTP1105T and MJTP1234 only)

CAPS (for MJTP1193 only)

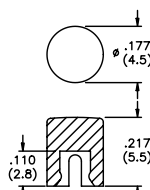
New!

CAP COLORS

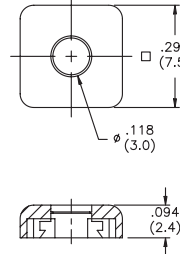
MJ61 Square cap



MJ62 Round cap



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



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

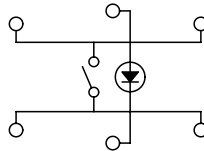
| No. | Color |
|----------|--------|
| 1 | blue |
| 2 | black |
| 3 | green |
| 5 | yellow |
| 6 | red |
| 7 | ivory |

SCHEMATICS

MJTP1109
MJTP1119
MJTP1193
MJTP1230
MJTP1232

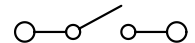
MJTP1234
MJTP2205
MJTP4102
MJTP5302
MJTPSHW

Note: LED is for MJTP1193 only.



MJTP1105
MJTP1117
MJTP1129
MJTP1141
MJTP1144
MJTP1145

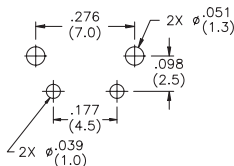
MJTP1236
MJTP1243
MJTP1250
MJTP2205
MJTP4102
MJTP5302



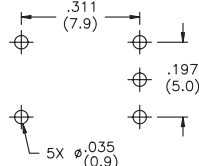
M

PRINTED CIRCUIT BOARD LAYOUTS

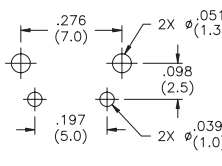
Layout tolerances; Linear: ±.004" (±0,1MM) Holes: ±.002" (±0,05MM)



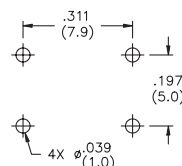
MJTP1105T



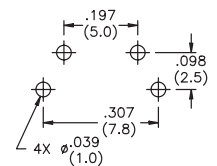
MJTP1109



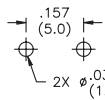
MJTP1117



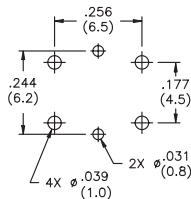
MJTP1119



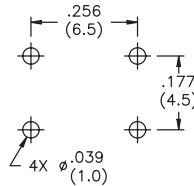
MJTP1129



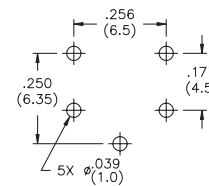
MJTP1141, 44 & 45



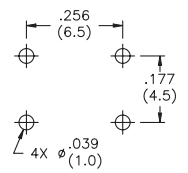
MJTP1193



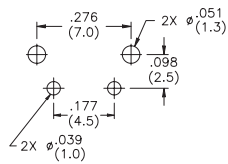
MJTP1230



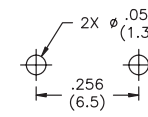
MJTP1232



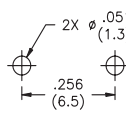
MJTP1234



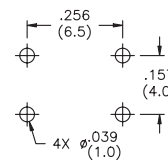
MJTP1236



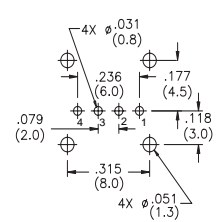
MJTP1243



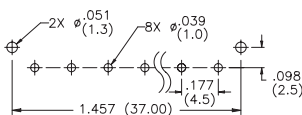
MJTP1250



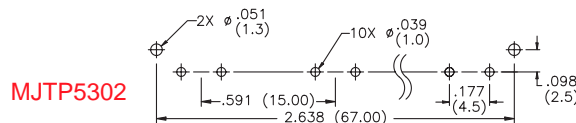
MJTPSHW



MJTP2205



MJTP4102



MJTP5302