

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

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.

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

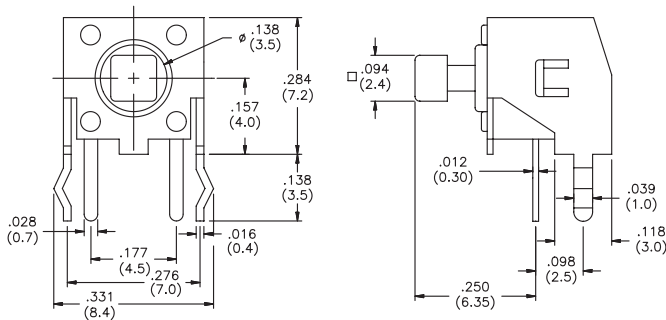
Plunger travel:	.010" + .008", - .004" (0,25 +0,2, -0,1 mm)
Actuation force:	160 grams \pm 30 grams
Operating temperature range:	-20°C to +70°C
Storage temperature range:	-30°C to +80°C for 96 hours
Shock resistance:	30G per method 213, MIL-STD-202
Vibration resistance:	passes method 201, MIL-STD-202

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

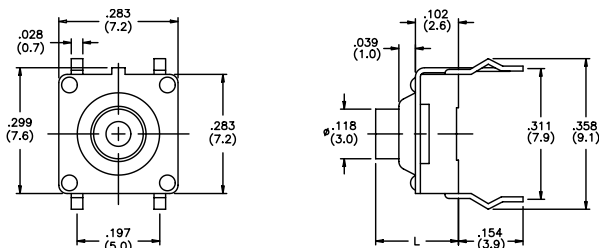


Caps available -
see end of section.
Bulk packaged.


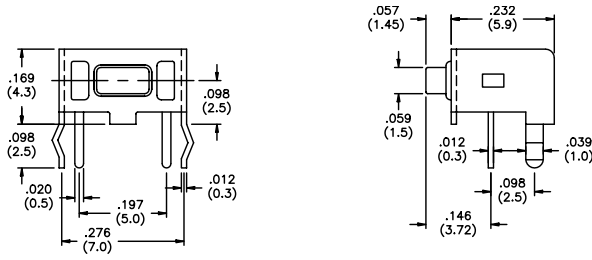

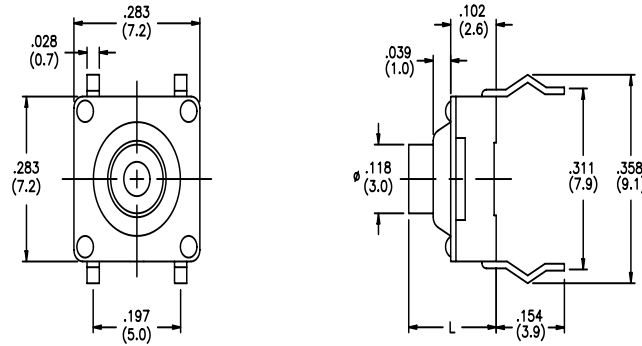

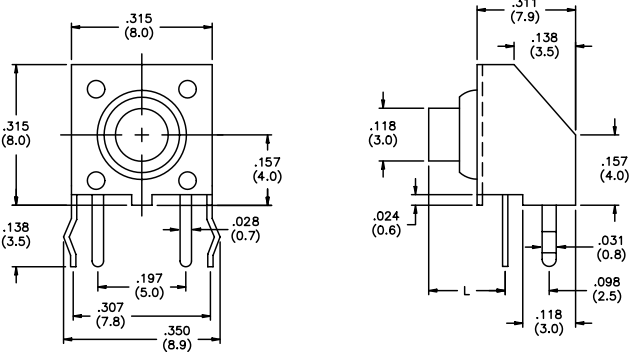

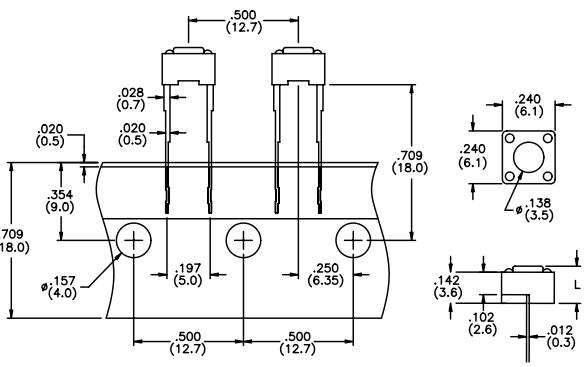
US # MJTP1109

EU # PHAP3350

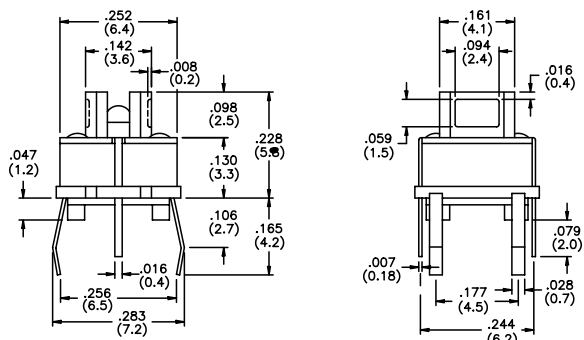
Process
compatible,
grounding



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

<div>US # MJTP1117</div> <div>EU # PHAP3363</div> <div>Right angle, grounding</div> <div></div>	<div></div> <div>Bulk packaged.</div>												
<div>US # MJTP1119</div> <div>EU # PHAP3351</div> <div>Process compatible</div> <div></div>	<div></div> <div><table><tr><th>US Model No.</th><th>Dim. L (in./mm)</th><th>EU Model No.</th></tr><tr><td>MJTP1119</td><td>.197 (5.0)</td><td>PHAP3351</td></tr><tr><td>MJTP1119A</td><td>.354 (9.0)</td><td>PHAP3351A</td></tr><tr><td>MJTP1119B</td><td>.512 (13.0)</td><td>PHAP3351B</td></tr></table></div> <div>Bulk packaged.</div>	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
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											
<div>US # MJTP1129</div> <div>EU # PHAP1152</div> <div>Right angle, grounding, process compatible</div> <div></div>	<div></div> <div><table><tr><th>US Model No.</th><th>Dim. L (in./mm)</th><th>EU Model No.</th></tr><tr><td>MJTP1129</td><td>.171 (4.35)</td><td>PHAP3352</td></tr><tr><td>MJTP1129A</td><td>.329 (8.35)</td><td>PHAP3352A</td></tr><tr><td>MJTP1129B</td><td>.486 (12.35)</td><td>PHAP3352B</td></tr></table></div> <div>Bulk packaged.</div>	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
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MJTP1129A	.329 (8.35)	PHAP3352A											
MJTP1129B	.486 (12.35)	PHAP3352B											
<div>US # MJTP1141</div> <div>EU # PHAP3307</div> <div>Long terminals</div> <div></div>	<div></div> <div><table><tr><th>US Model No.</th><th>Dim. L (in./mm)</th><th>EU Model No.</th></tr><tr><td>MJTP1141</td><td>.169 (4.3)</td><td>PHAP3307</td></tr><tr><td>MJTP1141A</td><td>.197 (5.0)</td><td>PHAP3307A</td></tr></table></div> <div>Packaged on tape. Note: other models available with this tape packaging - consult factory.</div>	US Model No.	Dim. L (in./mm)	EU Model No.	MJTP1141	.169 (4.3)	PHAP3307	MJTP1141A	.197 (5.0)	PHAP3307A			
US Model No.	Dim. L (in./mm)	EU Model No.											
MJTP1141	.169 (4.3)	PHAP3307											
MJTP1141A	.197 (5.0)	PHAP3307A											

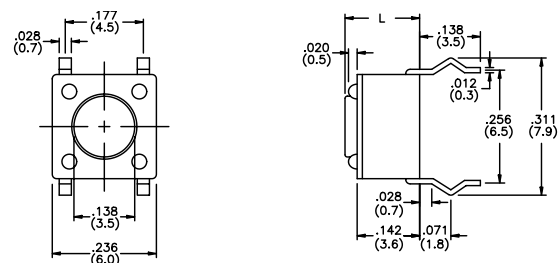
US # MJTP1193
EU # PHAP3308
 With L.E.D.



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.

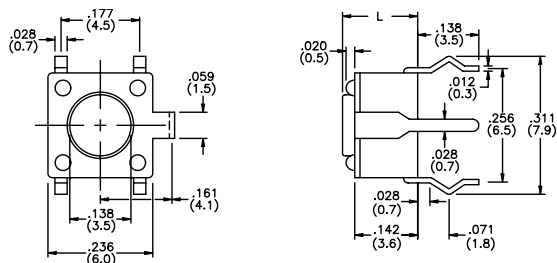
US # MJTP1230
EU # PHAP3301



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.

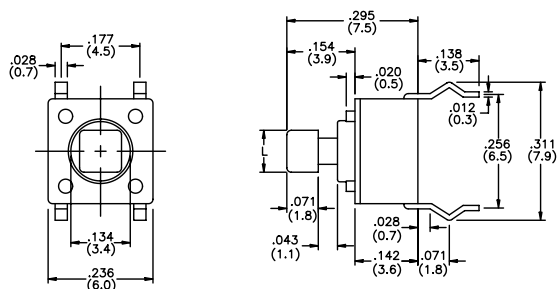
US # MJTP1232
EU # PHAP3302
 Grounding



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.

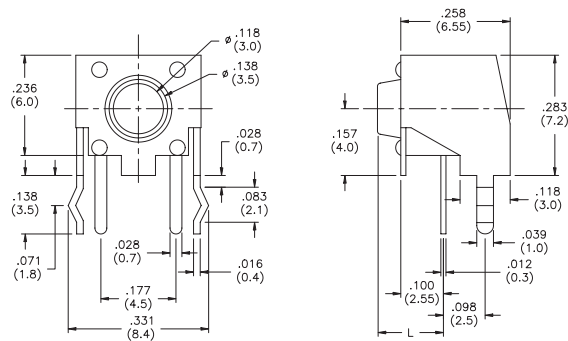
US # MJTP1234
EU # PHAP3303



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.

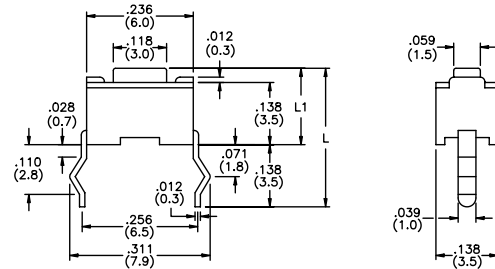
US # MJTP1236
EU # PHAP3305
 Right angle,
 grounding



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

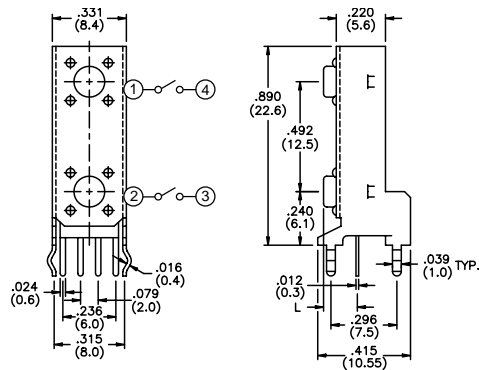
Bulk packaged.

US # MJTP1243 & MJTP1250



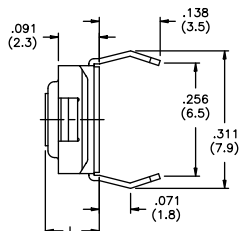
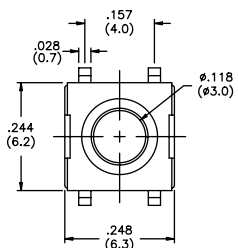
US # Model No.	Dim. L1 (in./mm)	Dim. L (in./mm)
MJTP1243	.169 (4,3)	.307 (7,8)
MJTP1250	.197 (5,0)	.335 (8,5)

Bulk packaged.



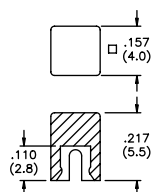
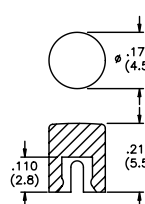
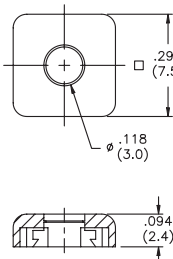
US Model No.	Dim. L (in./mm)	EU Model No.
MJTP2205	.124 (3,15)	PHAP3306
MJTP2205A	.152 (3,85)	PHAP3306A
MJTP2205B	.329 (8,35)	PHAP3306B
MJTP2205C	.270 (6,85)	PHAP3306C
MJTP2205D	.466 (11,85)	PHAP3306D
MJTP2205E	.242 (6,15)	PHAP3306E

Bulk packaged.

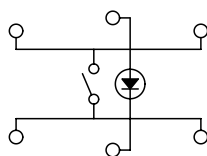
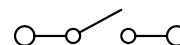
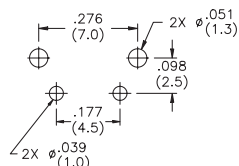
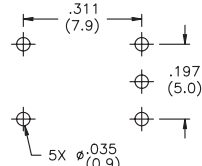
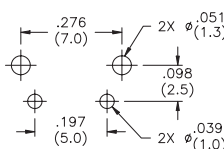
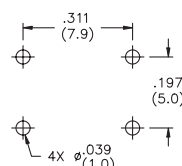
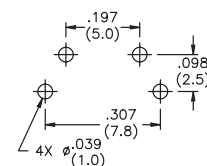
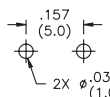
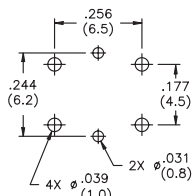
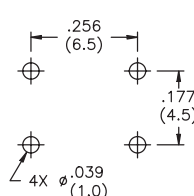
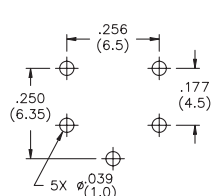
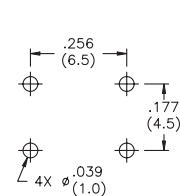
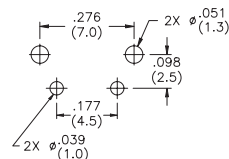
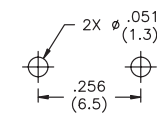
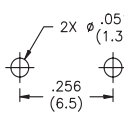
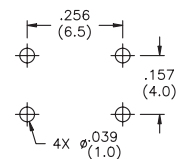
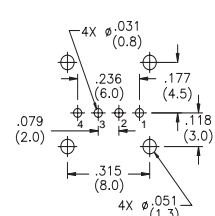
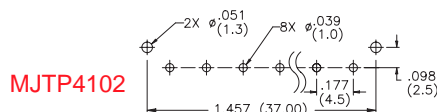
US # MJTPSHWProcess
compatible

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

SCHEMATICSMJTP1109
MJTP1119
MJTP1193
MJTP1230
MJTP1232MJTP1234
MJTP2205
MJTP4102
MJTP5302
MJTPSHWNote: LED is for
MJTP1193 only.MJTP1105
MJTP1117
MJTP1129
MJTP1141
MJTP1144
MJTP1145MJTP1236
MJTP1243
MJTP1250
MJTP2205
MJTP4102
MJTP5302**PRINTED CIRCUIT BOARD LAYOUTS**Layout tolerances; Linear: $\pm .004"$ ($\pm 0,1\text{MM}$) Holes: $\pm .002"$ ($\pm 0,05\text{MM}$)**MJTP1105T****MJTP1109****MJTP1117****MJTP1119****MJTP1129****MJTP1141, 44 & 45****MJTP1193****MJTP1230****MJTP1232****MJTP1234****MJTP1236****MJTP1243****MJTP1250****MJTPSHW****MJTP2205****MJTP4102****MJTP5302**