

TP Series, Tiny

Features

- Compact design
- Round or rectangular actuator buttons.
- Vertical or right angle versions



Pushbutton Switches

Typical performance characteristics

Contact configuration SPST, SPDT, DPDT
 Contact timing Break-Before-Make
 Contact rating max. gold: 0.4VA @20VDC or peak AC
 silver: 1A @ 125VAC or 28 VDC resistive
 Electrical life 1 pole2 . . .2 pole
 gold 100,000 . . .80,000 cycles
 silver 60,000 . . .50,000 cycles
 Contact resistance, initial max.20 mOhms
 Insulation resistance 1,000 MOhms @ 500VDC
 Dielectric strength 1,000 Volts rms @ sea level
 Actuation force 0.5 to 4N (50-400gf)
 Actuator travel momentary .030" (.762)

Environmental specification

Operating temperature -30°C to +65°C
 Storage temperature -30°C to +65°C
 Solder heat resistance wave solder capable to 265° C

Material specifications

Contacts copper or brass, gold over nickel finish or silver
 clad with silver over nickel finish
 Actuator thermoplastic
 Terminals brass with gold over nickel or silver over nickel
 Case thermoplastic
 Frame and support bracket steel with tin over copper finish
 RoHS Directive 2002/95/EC compliant

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|-------------------------|--|--|---|--|-------------------------|---|--|--|-------|---|----------|--|----------|----------|---|----------|-----------|----------|-----------|---|--|--|--|--|--|--|--|--|------|--|--|--|--|--|--|--|--|--|
| Product key | Typical product key | | | | | | | | | | TP | A | | 1 | 1 | C | G | PC | 0 | 04 | | | | | | | | | | | | | | | | | | | |
| Type | TP | | | | | | | | | | Tiny pushbutton series | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bushing | blank | | | | | | | | | | square, no bushing | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | A | | | | | | | | | | round, no bushing | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | B | | | | | | | | | | round .188 (4.78) dia. bushing not threaded | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | C | | | | | | | | | | round 10/48 UNS 2B thread | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | D | | | | | | | | | | .250" (6.35) dia. bushing, not threaded | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | F | | | | | | | | | | round 1/4-40 UNS 2B thread | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Actuator | blank | | | | | | | | | | standard | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | F | | | | | | | | | | flush (available with B and C bushings only) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of Poles | 1 | | | | | 2 | | | | | single pole | | | | | | | | | | double pole | | | | | | | | | | | | | | | | | | |
| Contact rating | 1 | | | | | | | | | | 0.4VA Gold | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | | | | | | | | | | 1.0 A Silver (Silver available only in wire lug and PC termination) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Function | single pole | | | | | | | | | | double pole | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | C | | | | | F | | | | | M | | | | | R | | | | | | | | | | | | | | | | | | | | | | | |
| | single throw, momentary | | | | | double throw, momentary | | | | | single throw, momentary | | | | | double throw, momentary | | | | | | | | | | | | | | | | | | | | | | | |
| | CC | | | | | FF | | | | | dual function C - 2 x single throw, momentary | | | | | | | | | | dual function F - 2 x double throw, momentary | | | | | | | | | | | | | | | | | | |
| Plating | G | | | | | | | | | | blank | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Gold | | | | | | | | | | Silver (Silver available only in wire lug and PC termination) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminals | blank | | | | | PC | | | | | RA | | | | | VRA | | | | | | | | | | | | | | | | | | | | | | | |
| | wire lug | | | | | printed circuit board | | | | | right angle | | | | | vertical, right angle (available only in single pole) | | | | | | | | | | | | | | | | | | | | | | | |
| Button Color | 0 | | | 2 | | | 6 | | | black | | | | | | | | | | red | | | | | | | | | | blue | | | | | | | | | |
| Material | 04 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | RoHS compliant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

TP Series, Tiny (Continued)

Bushing

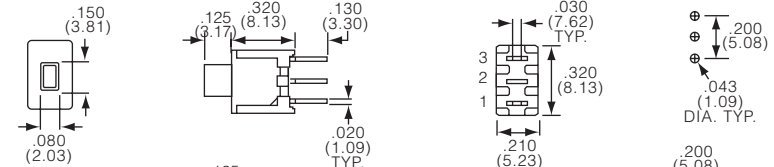


blank, square, no bushing

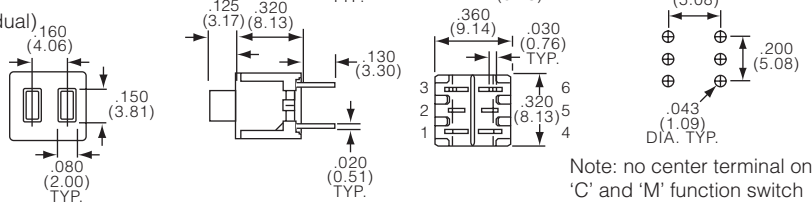
printed circuit board



Single pole



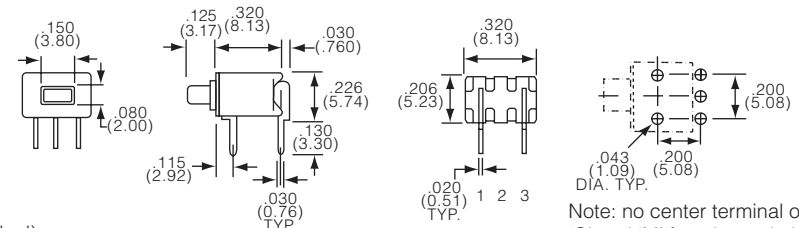
2 x Single pole (dual)



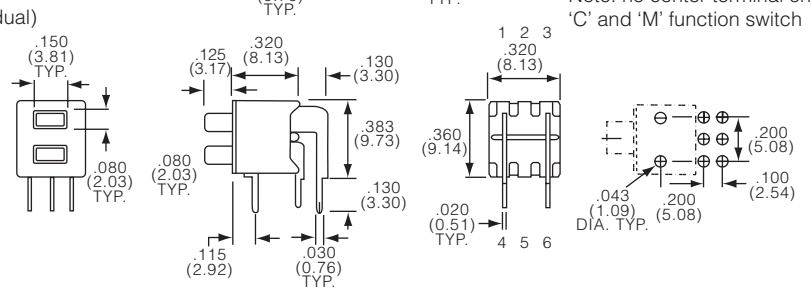
right angle



Single pole



2 x Single pole (dual)

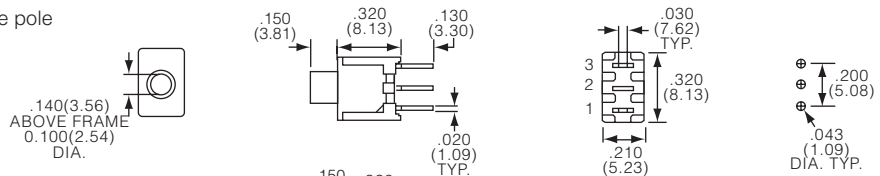


A, Round, no bushing

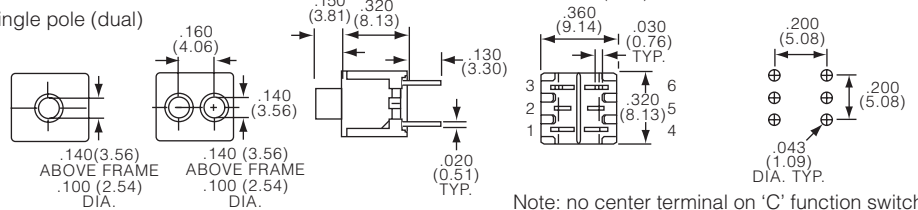
printed circuit board



Single pole

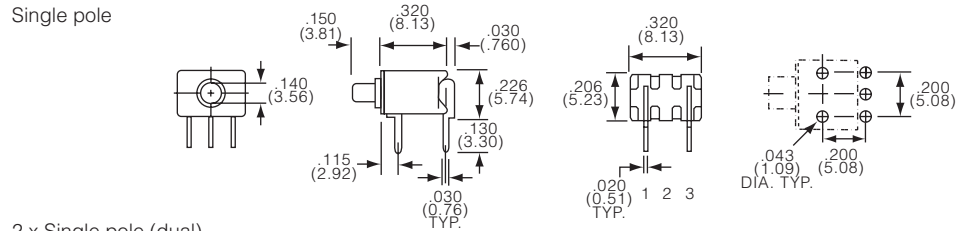


2 x Single pole (dual)

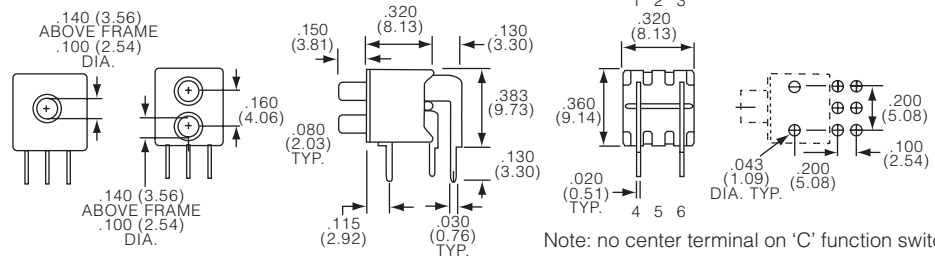


TP Series, Tiny (Continued)

right angle

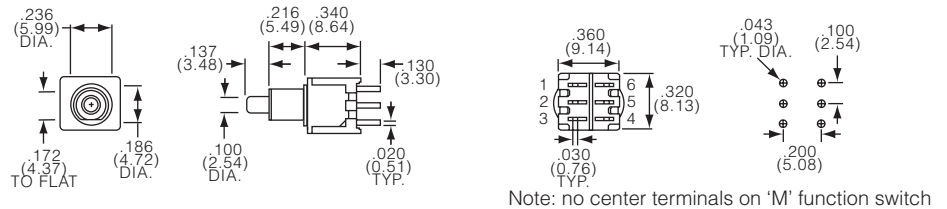
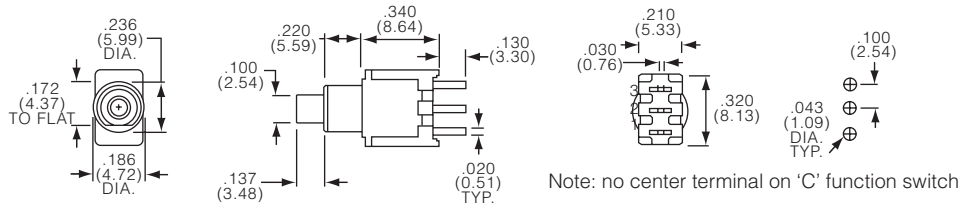


2 x Single pole (dual)

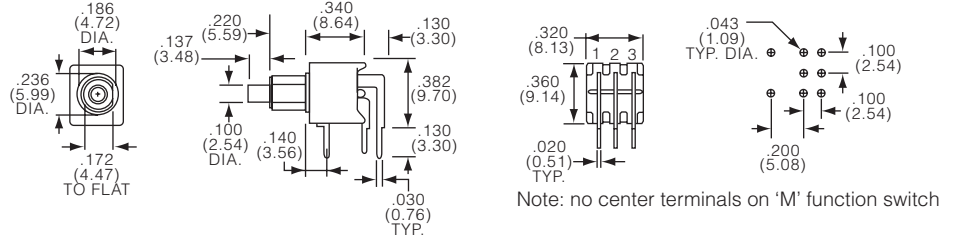
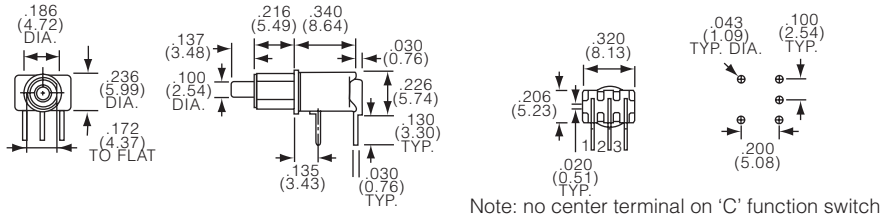


B, Round .188 (4.78) dia. bushing not threaded

printed circuit board

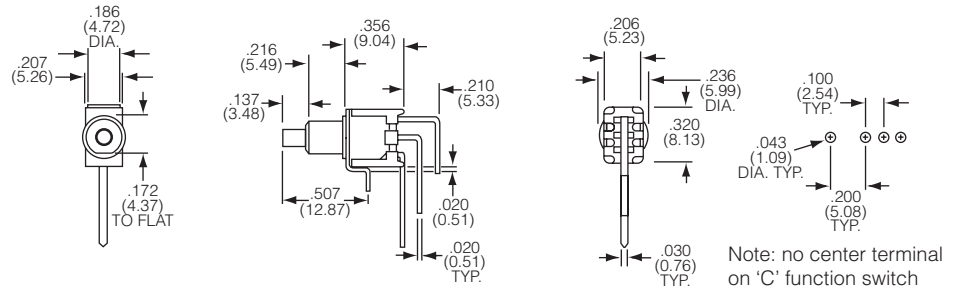


right angle



TP Series, Tiny (Continued)

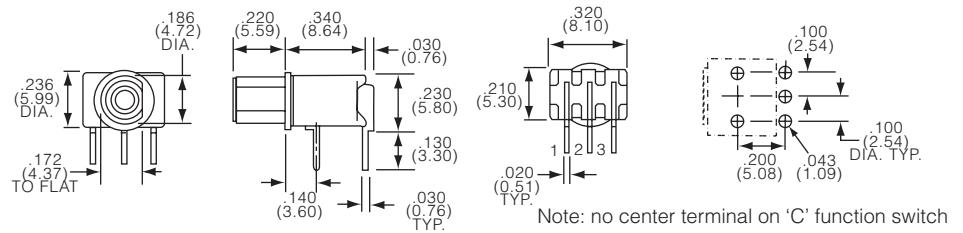
vertical right angle



printed circuit board, flush actuator



right angle, flush actuator

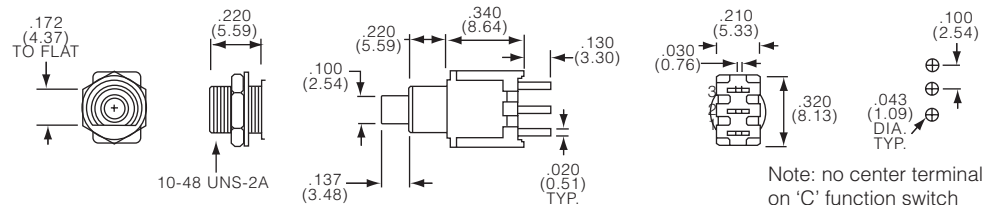


C, Round 10/48 UNS 2B thread

wire lug

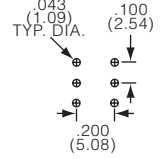
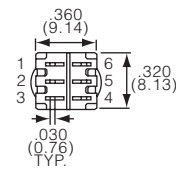


printed circuit board



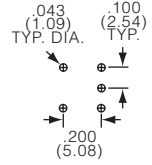
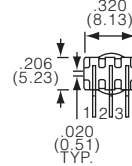
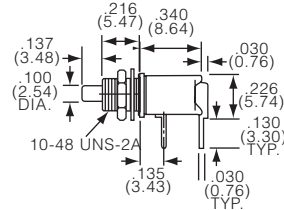
Pushbutton Switches

TP Series, Tiny (Continued)

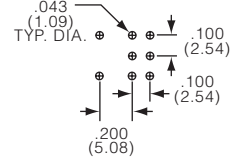
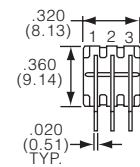
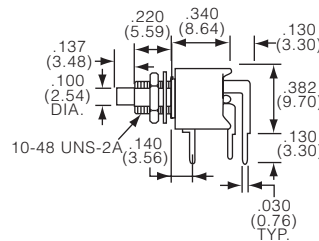


Note: no center terminals on 'M' function switch

right angle

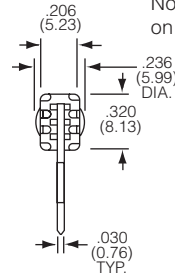
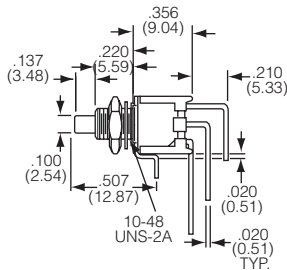
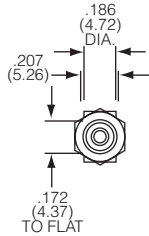


Note: no center terminal on 'C' function switch

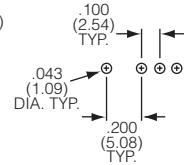


Note: no center terminals on 'M' function switch

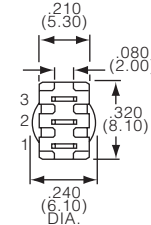
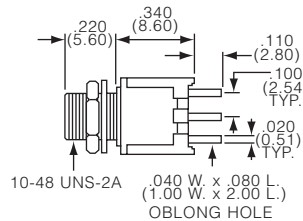
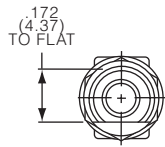
vertical right angle



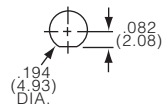
Note: no center terminal on 'C' function switch



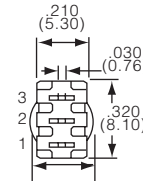
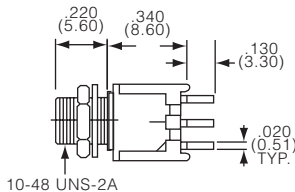
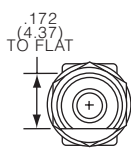
wire lug, flush actuator



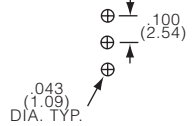
Note: no center terminal on 'C' function switch



printed circuit board, flush actuator



Note: no center terminal on 'C' function switch



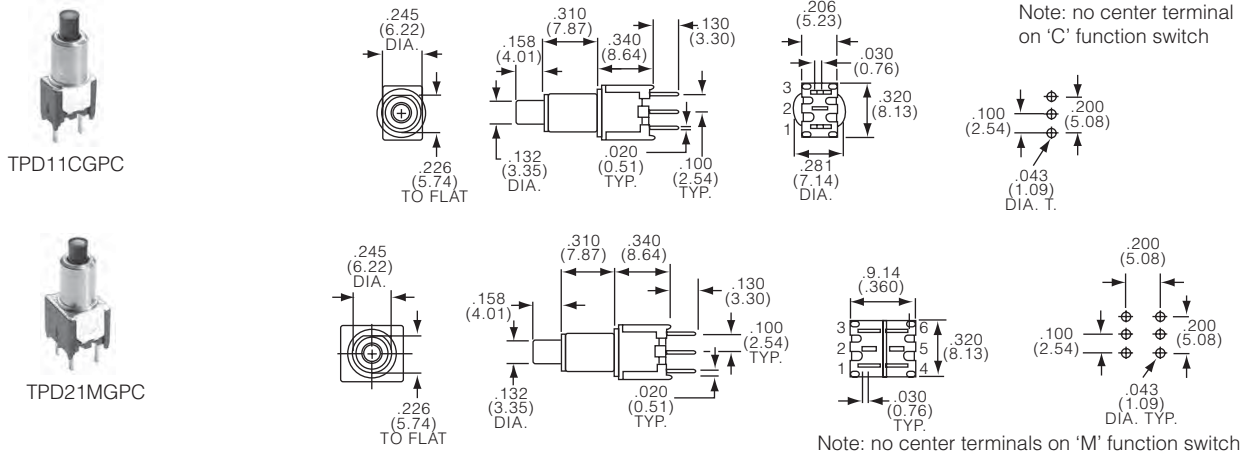
TP Series, Tiny (Continued)

right angle, flush actuator

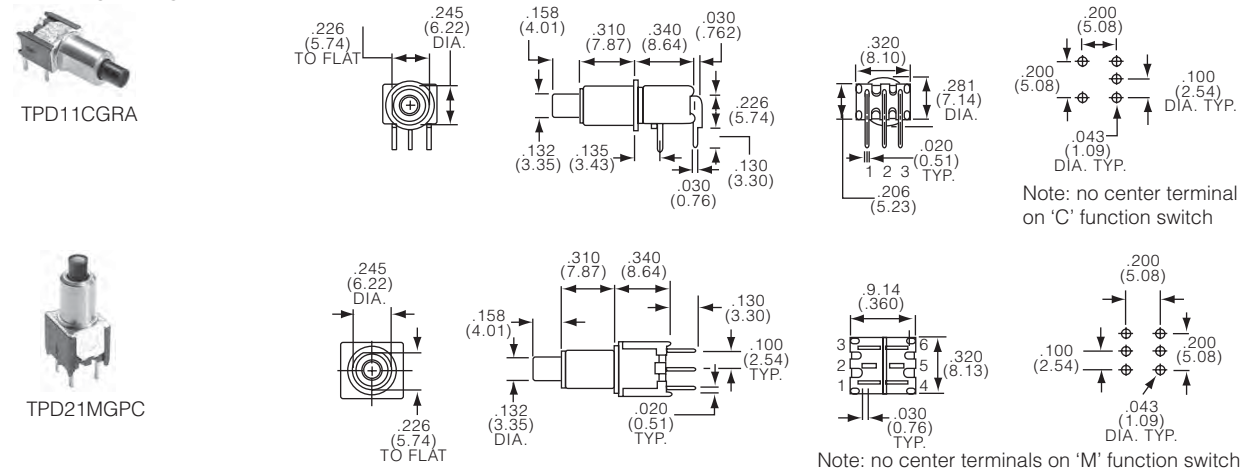


D, .250" (6.35) dia. bushing, not threaded

printed circuit board



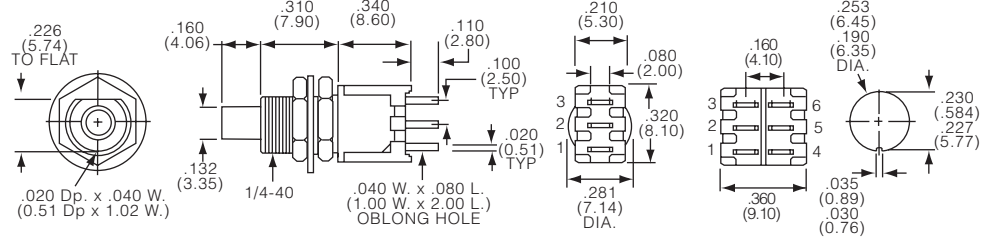
right angle



TP Series, Tiny (Continued)

F, Round 1/4-40 UNS 2B thread

wire lug



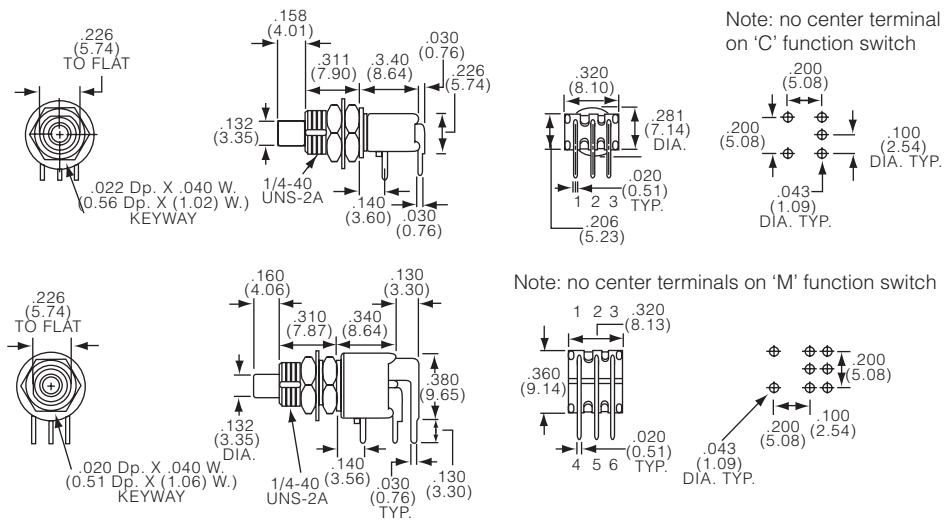
Note: no center terminal on 'C' and 'M' function switch

printed circuit board





Pushbutton Switches

right angle



TP Series, Tiny (Continued)

| Product key | Bushing | Act. | Poles | Rating | Function |  |  | Plating | Terminals | Btn. | Material | Part Number |
|---------------------|-------------|-------|---------|--------|----------|---|---|---------|---------------|-------|-----------|--------------------|
| TP11CGPC004 | square | n/a | 1 | 0.4VA | Off-(On) | Off | 1-3 | Gold | pcb | black | RoHS | 1825095-1 |
| TP11CGPC204 | no bushing | | | | | | | | | red | compliant | 1825095-2 |
| TP11CGRA004 | | | | | | | | | right angle | black | | 1825095-3 |
| TP11CGRA204 | | | | | | | | | | red | | 1825095-4 |
| TP11CGRA604 | | | | | | | | | | blue | | 1825095-5 |
| TP11FGPC004 | | | | | On-(On) | 1-2 | 2-3 | | pcb | black | | 1825095-6 |
| TP11FGPC204 | | | | | | | | | | red | | 1825095-7 |
| TP11FGRA004 | | | | | | | | | right angle | black | | 1825095-8 |
| TP11FGRA204 | | | | | | | | | | red | | 1825095-9 |
| TP11FGRA604 | | | | | | | | | | blue | | 1-1825095-0 |
| TP21CCGRA004 | | | 2 (1+1) | | Off-(On) | Off | 1-3 | | | black | | 1-1825095-1 |
| TP21CCGRA204 | | | | | | | | | | red | | 1-1825095-2 |
| TP21FFGRA004 | | | | | On-(On) | 1-2 | 2-3 | | | black | | 1-1825095-3 |
| TPA11CGPC004 | round | | 1 | | Off-(On) | Off | 1-3 | | pcb | | | 1825096-1 |
| TPA11CGPC204 | no bushing | | | | | | | | | red | | 1825096-2 |
| TPA11CGPC604 | | | | | | | | | | blue | | 1825096-3 |
| TPA11CGRA004 | | | | | | | | | right angle | black | | 1825096-4 |
| TPA11CGRA204 | | | | | | | | | | red | | 1825096-5 |
| TPA11CGRA604 | | | | | | | | | | blue | | 1825096-6 |
| TPA11FGPC004 | | | | | On-(On) | 1-2 | 2-3 | | pcb | black | | 1825096-7 |
| TPA11FGPC204 | | | | | | | | | | red | | 1825096-8 |
| TPA11FGPC604 | | | | | | | | | | blue | | 1825096-9 |
| TPA11FGRA004 | | | | | | | | | right angle | black | | 1-1825096-0 |
| TPA11FGRA204 | | | | | | | | | | red | | 1-1825096-1 |
| TPA11FGRA604 | | | | | | | | | | blue | | 1-1825096-2 |
| TPA21CCGPC004 | | | 2 (1+1) | | Off-(On) | Off | 1-3, 4-6 | | pcb | black | | 1-1825096-3 |
| TPA21CCGRA004 | | | | | | | | | right angle | | | 1-1825096-4 |
| TPA21FFGRA204 | | | | | On-(On) | 1-2, 4-5 | 2-3, 5-6 | | | red | | 1-1825096-5 |
| TPA21MGRA004 | | | 2 | | Off-(On) | Off | 1-3, 4-6 | | | black | | 1-1825096-6 |
| TPB11CGPC004 | round | std | 1 | | | | 1-3 | | pcb | | | 1825097-1 |
| TPB11CGPC204 | .188 (4.78) | | | | | | | | | red | | 1825097-2 |
| TPB11CGRA004 | dia | | | | | | | | right angle | black | | 1825097-6 |
| TPB11CGRA204 | bushing, | | | | | | | | | red | | 1825097-4 |
| TPB11CGVRA004 | not | | | | | | | | vertical r.a. | black | | 1825097-8 |
| TPB11FGPC004 | threaded | | | | On-(On) | 1-2 | 2-3 | | pcb | | | 1825097-9 |
| TPB11FGRA004 | | | | | | | | | right angle | | | 1-1825097-1 |
| TPB11FGRA204 | | | | | | | | | | red | | 1-1825097-2 |
| TPB11FGRA604 | | | | | | | | | | blue | | 1-1825097-3 |
| TPB11FGVRA004 | | | | | | | | | vertical r.a. | black | | 1-1825097-6 |
| TPB21MGPC004 | | | 2 | | Off-(On) | Off | 1-3, 4-6 | | pcb | | | 1-1825097-7 |
| TPB21MGPC204 | | | | | | | | | | red | | 1-1825097-8 |
| TPB21MGRA004 | | | | | | | | | right angle | black | | 2-1825097-8 |
| TPB21RGRA004 | | | | | On-(On) | 1-2, 4-5 | 2-3, 5-6 | | | | | 1-1825097-9 |
| TPB21RGRA0EDC04 | | | | | | | | | | | | 1825112-1 |
| TPBF11CGRA004 | | flush | 1 | | Off-(On) | Off | 1-3 | | | | | 2-1825097-1 |
| TPBF11FGRA004 | | | | | On-(On) | 1-2 | 2-3 | | | | | 2-1825097-4 |
| TPBF11FGRA204 | | | | | | | | | | red | | 2-1825097-5 |

Preferred parts in bold print

TP Series, Tiny (Continued)

Pushbutton Switches

| Product key | Bushing | Act. | Poles | Rating | Function |  |  | Plating | Terminals | Btn. | Material | Part Number |
|---------------|-------------|-------|-------|--------|----------|---|---|---------|---------------|-------|----------------|-------------|
| TPC11CGPC004 | round | std | 1 | 0.4VA | Off-(On) | Off | 1-3 | Gold | pcb | black | RoHS compliant | 1825098-1 |
| TPC11CGRA004 | 10/48 | | | | | | | | right angle | | | 1825098-2 |
| TPC11CGRA204 | UNS 2B | | | | | | | | | red | | 1825098-3 |
| TPC11CGVRA004 | thread | | | | | | | | vertical r.a. | black | | 1825098-4 |
| TPC11FGPC004 | | | | | On-(On) | 1-2 | 2-3 | | pcb | | | 1825098-5 |
| TPC11FGRA004 | | | | | | | | | right angle | | | 1825098-6 |
| TPC11FGVRA004 | | | | | | | | | vertical r.a. | | | 1825098-7 |
| TPC11FGVRA204 | | | | | | | | | | red | | 1825098-8 |
| TPC13C004 | | | | 1.0 A | Off-(On) | Off | 1-3 | Silver | wire lug | black | | 1825098-9 |
| TPC13C204 | | | | | | | | | | red | | 1-1825098-0 |
| TPC13CPC004 | | | | | | | | | pcb | black | | 1-1825098-1 |
| TPC13F004 | | | | | On-(On) | 1-2 | 2-3 | | wire lug | | | 1-1825098-2 |
| TPC21MGRA204 | | | 2 | 0.4VA | Off-(On) | Off | 1-3, 4-6 | Gold | right angle | red | | 1-1825098-3 |
| TPC21RGPC004 | | | | | On-(On) | 1-2, 4-5 | 2-3, 5-6 | | pcb | black | | 1-1825098-4 |
| TPC23M004 | | | | 1.0 A | Off-(On) | Off | 1-3, 4-6 | Silver | wire lug | | | 1-1825098-5 |
| TPC23R204 | | | | | On-(On) | 1-2, 4-5 | 2-3, 5-6 | | | red | | 1-1825098-6 |
| TPCF11CGPC004 | | flush | 1 | 0.4VA | Off-(On) | Off | 1-3 | Gold | pcb | black | | 1-1825098-7 |
| TPCF11CGRA004 | | | | | | | | | right angle | | | 1-1825098-8 |
| TPCF11FGRA004 | | | | | On-(On) | 1-2 | 2-3 | | | | | 1-1825098-9 |
| TPCF13C004 | | | | 1.0 A | Off-(On) | Off | 1-3 | Silver | wire lug | | | 2-1825098-0 |
| TPCF13F004 | | | | | On-(On) | 1-2 | 2-3 | | | | | 2-1825098-1 |
| TPD11CGPC004 | .259 (6.35) | n/a | | 0.4VA | Off-(On) | Off | 1-3 | Gold | pcb | | | 1825099-1 |
| TPD11CGPC204 | dia | | | | | | | | | red | | 1825099-2 |
| TPD11CGRA004 | bushing, | | | | | | | | right angle | black | | 1825099-3 |
| TPD11CGRA204 | not | | | | | | | | | red | | 1825099-4 |
| TPD11CGRA604 | threaded | | | | | | | | | blue | | 1825099-5 |
| TPD11FGPC004 | | | | | On-(On) | 1-2 | 2-3 | | pcb | black | | 1825099-6 |
| TPD11FGRA004 | | | | | | | | | right angle | | | 1825099-7 |
| TPD11FGRA204 | | | | | | | | | | red | | 1825099-8 |
| TPD21MGRA004 | | | 2 | | Off-(On) | Off | 1-3, 4-6 | | | black | | 1825099-9 |
| TPD21RGPC004 | | | | | On-(On) | 1-2, 4-5 | 2-3, 5-6 | | pcb | | | 1-1825099-0 |
| TPF11CGPC004 | round | | 1 | | Off-(On) | Off | 1-3 | | | | | 1825100-1 |
| TPF11CGPC204 | 1/4-40 | | | | | | | | | red | | 1825100-2 |
| TPF11CGRA004 | UNS 2B | | | | | | | | right angle | black | | 1825100-4 |
| TPF11CGRA204 | thread | | | | | | | | | red | | 1825100-5 |
| TPF11CGRA604 | | | | | | | | | | blue | | 1825100-6 |
| TPF11FGPC004 | | | | | On-(On) | 1-2 | 2-3 | | pcb | black | | 1825100-7 |
| TPF11FGPC204 | | | | | | | | | | red | | 1825100-8 |
| TPF11FGPC604 | | | | | | | | | | blue | | 1825100-9 |
| TPF11FGRA004 | | | | | | | | | right angle | black | | 1-1825100-1 |
| TPF13C004 | | | | 1.0 A | Off-(On) | Off | 1-3 | Silver | wire lug | | | 1-1825100-2 |
| TPF13C204 | | | | | | | | | | red | | 1-1825100-3 |
| TPF13F204 | | | | | On-(On) | 1-2 | 2-3 | | | | | 1-1825100-4 |
| TPF13F604 | | | | | | | | | | blue | | 1-1825100-5 |
| TPF21MGPC004 | | | 2 | 0.4VA | Off-(On) | Off | 1-3, 4-6 | Gold | pcb | black | | 1-1825100-6 |
| TPF21RGRA004 | | | | | On-(On) | 1-2, 4-5 | 2-3, 5-6 | | right angle | | | 1-1825100-7 |
| TPF23M004 | | | | 1.0 A | Off-(On) | Off | 1-3, 4-6 | Silver | wire lug | | | 1-1825100-8 |