

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 | 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 | single pole | | | | | | | | | | |
| 2 | 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 | | | | | | | | | | | |
| C | single throw, momentary | | | | | | | | | | |
| F | double throw, momentary | | | | | | | | | | |
| CC | dual function C - 2 x single throw, momentary | | | | | | | | | | |
| FF | dual function F - 2 x double throw, momentary | | | | | | | | | | |
| double pole | | | | | | | | | | | |
| M | single throw, momentary | | | | | | | | | | |
| R | double throw, momentary | | | | | | | | | | |
| Plating | | | | | | | | | | | |
| G | Gold | | | | | | | | | | |
| blank | Silver (Silver available only in wire lug and PC termination) | | | | | | | | | | |
| Terminals | | | | | | | | | | | |
| blank | wire lug | | | | | | | | | | |
| PC | printed circuit board | | | | | | | | | | |
| RA | right angle | | | | | | | | | | |
| VRA | vertical, right angle (available only in single pole) | | | | | | | | | | |
| Button Color | | | | | | | | | | | |
| 0 | black | | | | | | | | | | |
| 2 | red | | | | | | | | | | |
| 6 | blue | | | | | | | | | | |
| Material | | | | | | | | | | | |
| 04 | RoHS compliant | | | | | | | | | | |

TP Series, Tiny (Continued)

Bushing

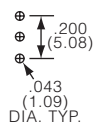
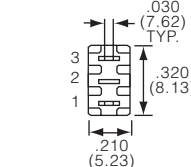
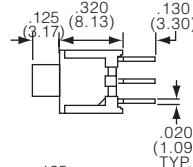
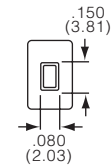


blank, square, no bushing

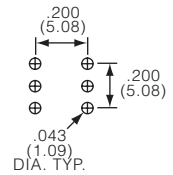
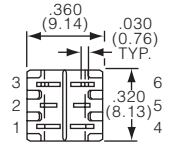
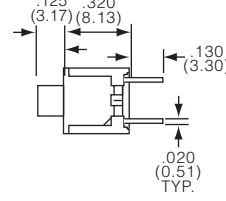
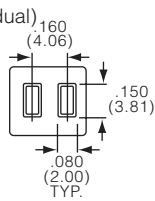
printed circuit board



Single pole



2 x Single pole (dual)

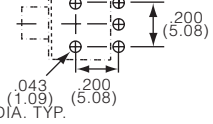
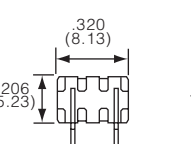
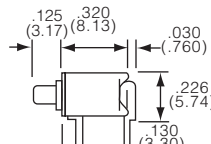
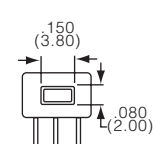


Note: no center terminal on 'C' and 'M' function switch

right angle



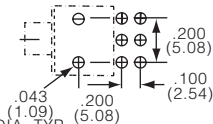
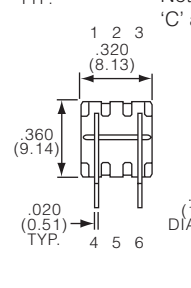
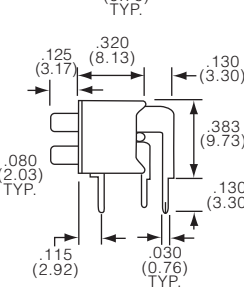
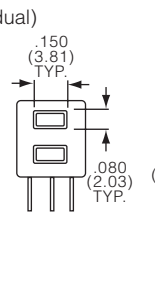
Single pole



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



2 x Single pole (dual)

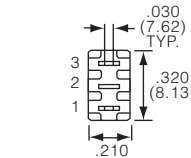
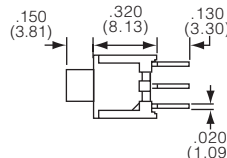
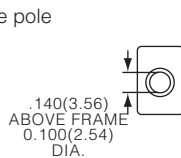


A, Round, no bushing

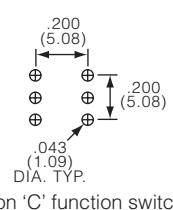
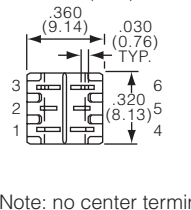
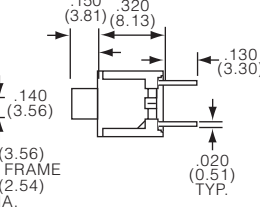
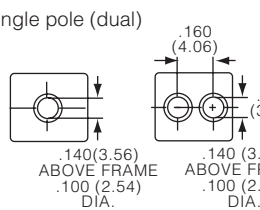
printed circuit board



Single pole



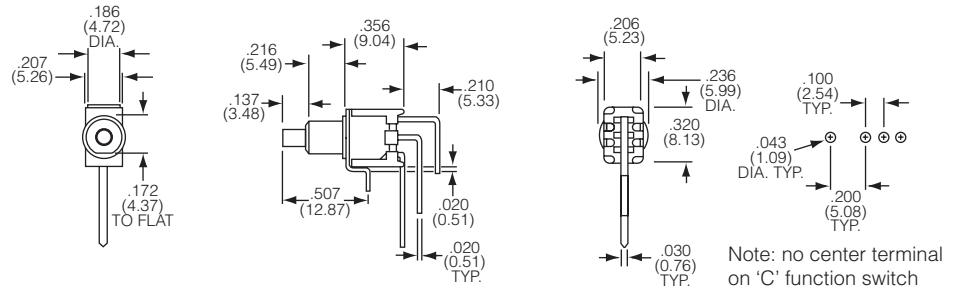
2 x Single pole (dual)



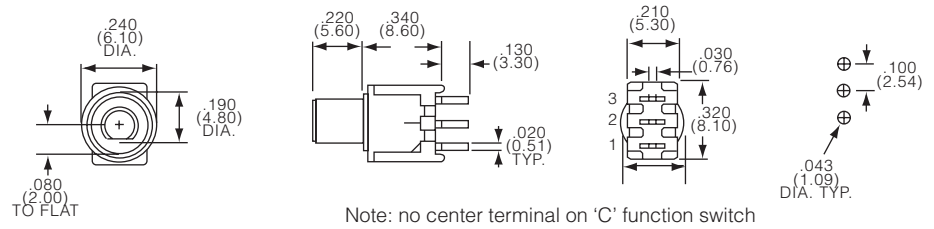
Note: no center terminal on 'C' function switch

TP Series, Tiny (Continued)

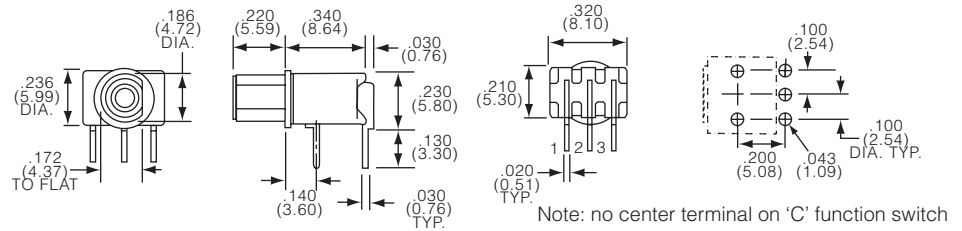
vertical right angle



printed circuit board, flush actuator

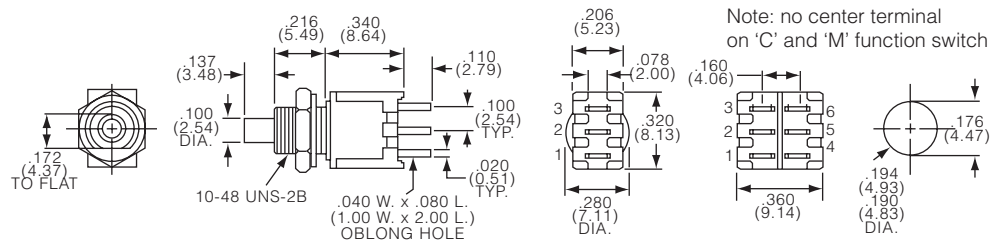


right angle, flush actuator

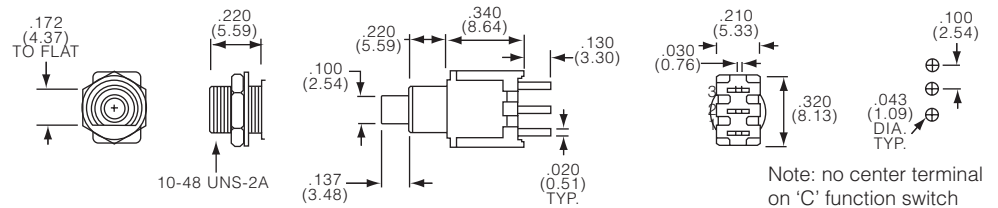


C, Round 10/48 UNS 2B thread

wire lug

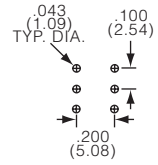
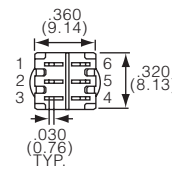
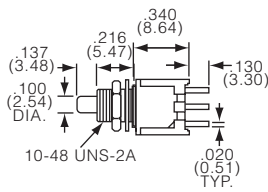


printed circuit board



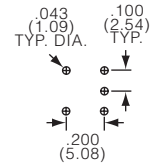
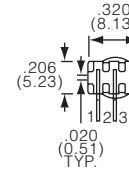
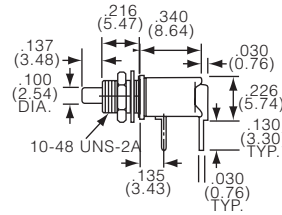
Pushbutton Switches

TP Series, Tiny (Continued)

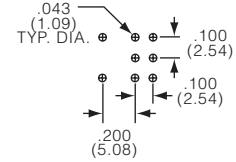
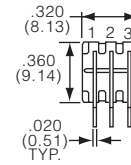
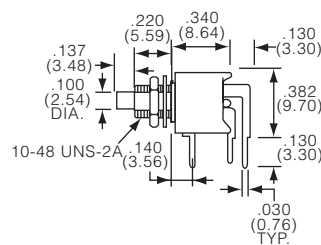
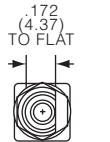


Note: no center terminals on 'M' function switch

right angle

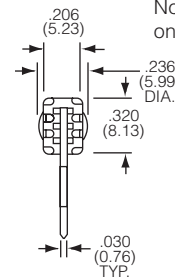
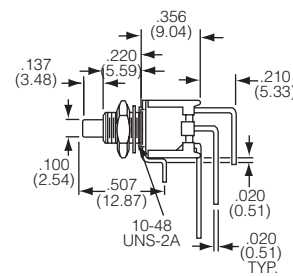
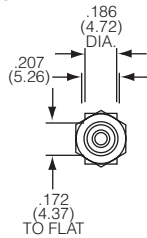


Note: no center terminal on 'C' function switch

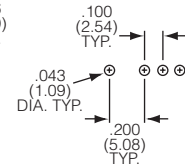


Note: no center terminals on 'M' function switch

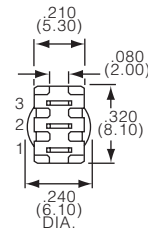
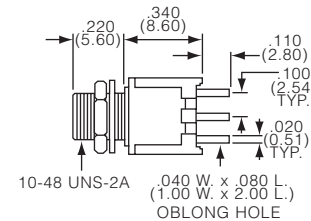
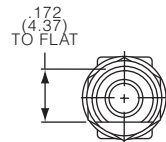
vertical right angle



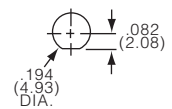
Note: no center terminal on 'C' function switch



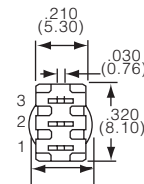
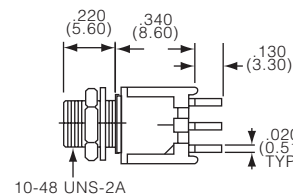
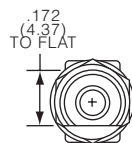
wire lug, flush actuator



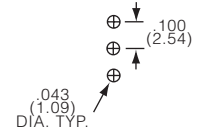
Note: no center terminal on 'C' function switch



printed circuit board, flush actuator

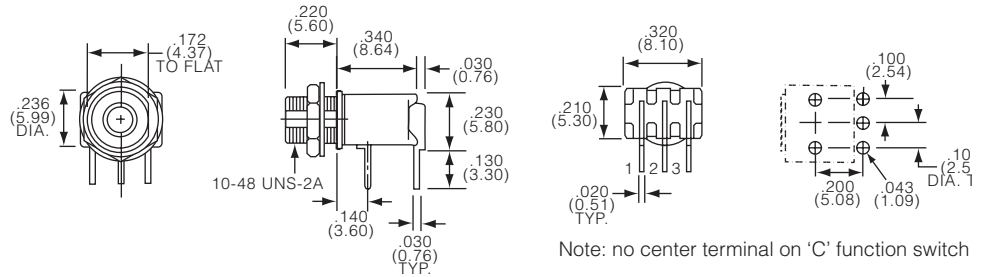


Note: no center terminal on 'C' function switch



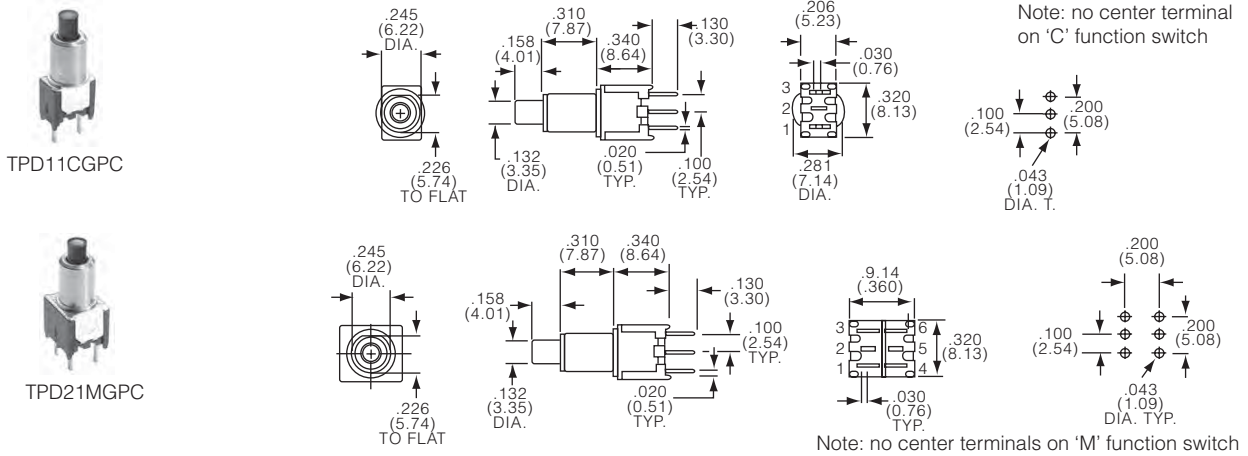
TP Series, Tiny (Continued)

right angle, flush actuator

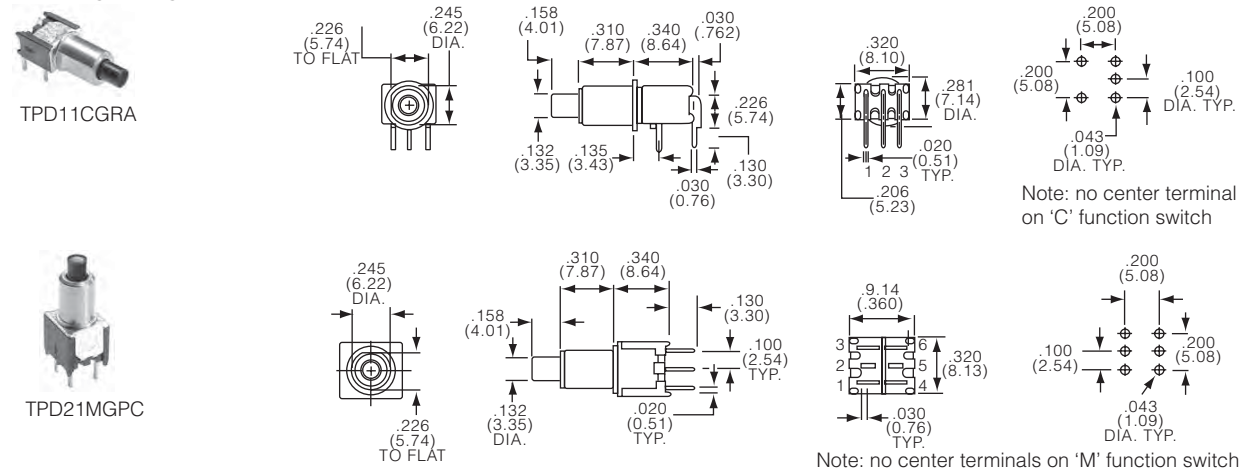


D, .250" (6.35) dia. bushing, not threaded

printed circuit board



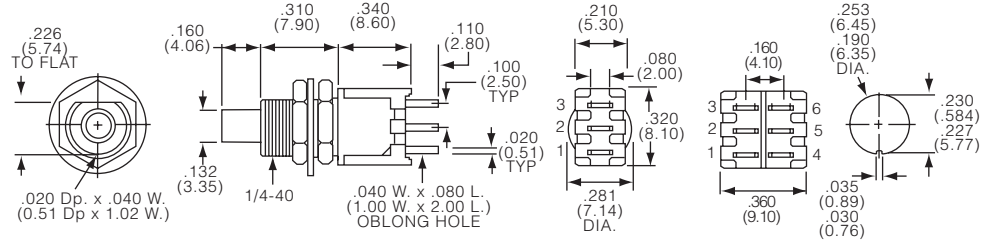
right angle



TP Series, Tiny (Continued)

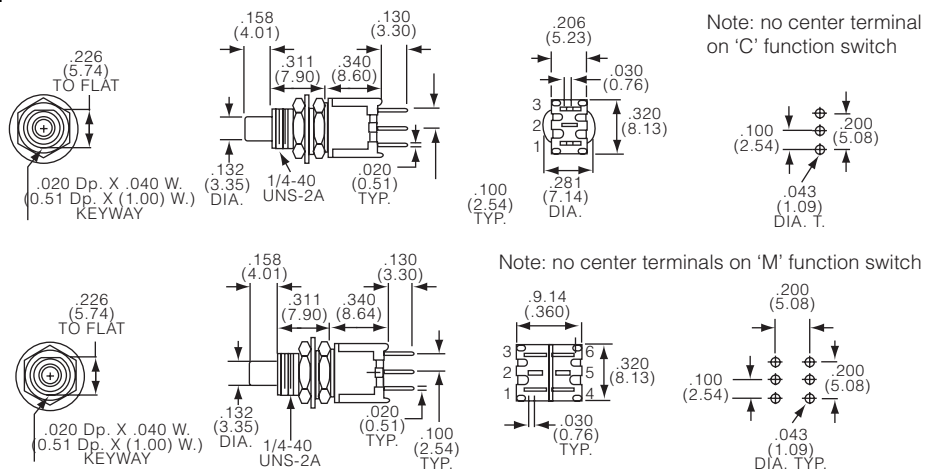
F, Round 1/4-40 UNS 2B thread

wire lug



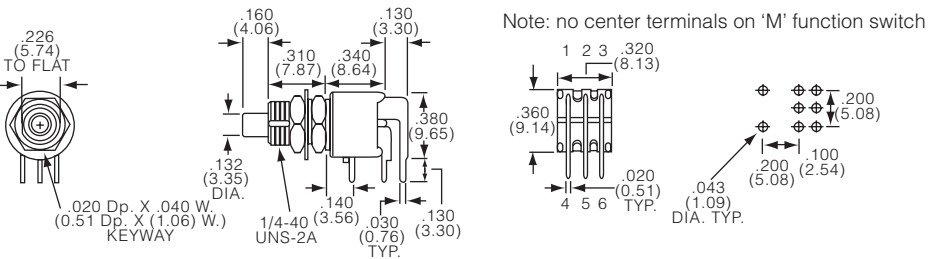
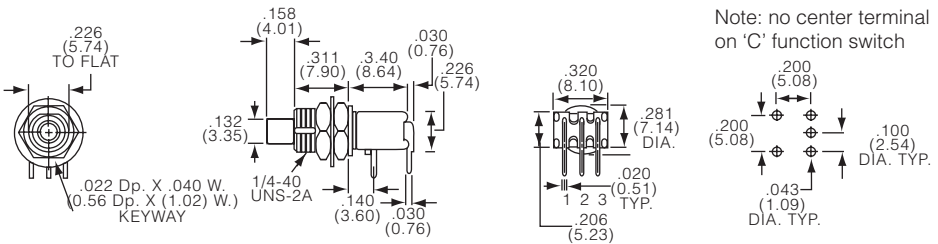
Note: no center terminal on 'C' and 'M' function switch

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 |

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

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



Телефон: 8 (812) 309-75-97 (многоканальный)

Факс: 8 (812) 320-03-32

Электронная почта: ocean@oceanchips.ru

Web: <http://oceanchips.ru/>

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А