

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

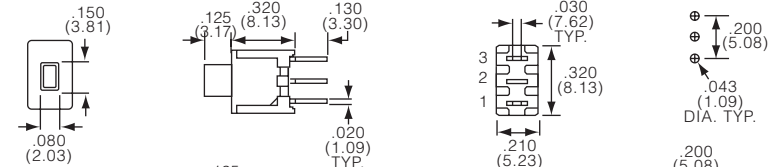


blank, square, no bushing

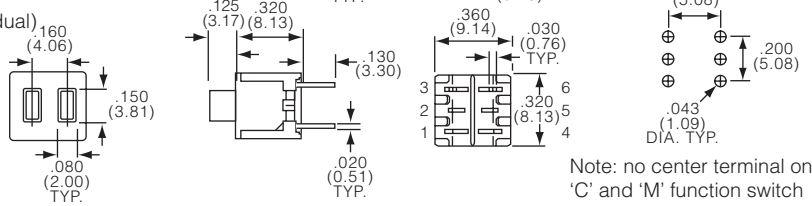
printed circuit board



Single pole



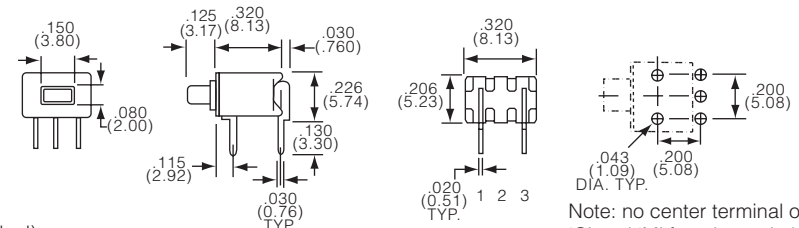
2 x Single pole (dual)



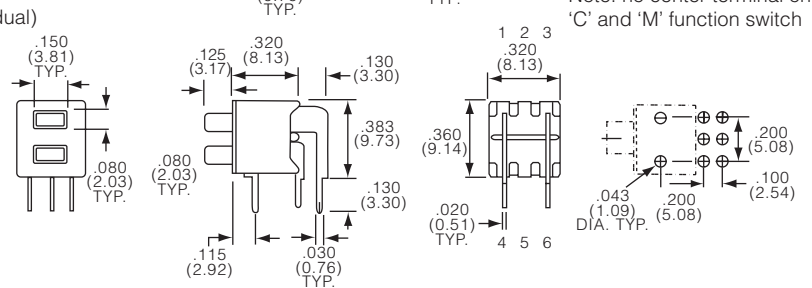
right angle



Single pole



2 x Single pole (dual)

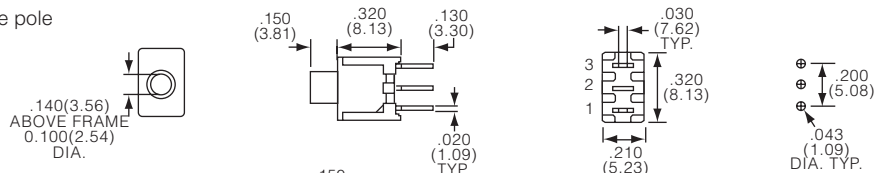


A, Round, no bushing

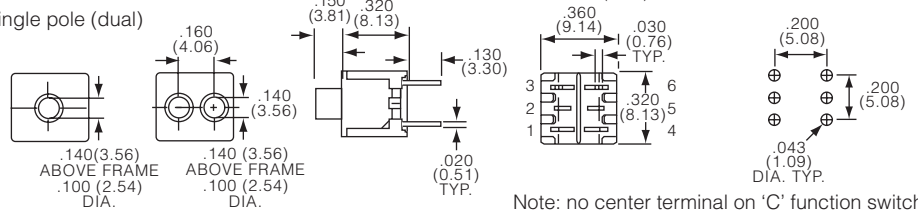
printed circuit board



Single pole



2 x Single pole (dual)



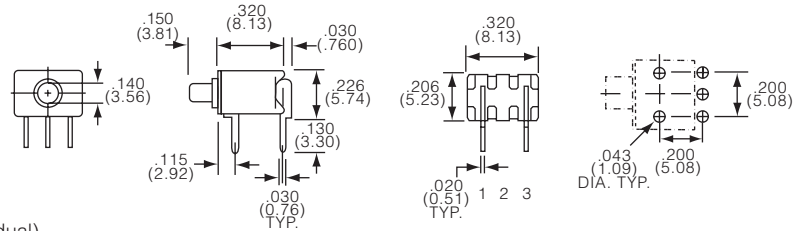
Pushbutton Switches

TP Series, Tiny (Continued)

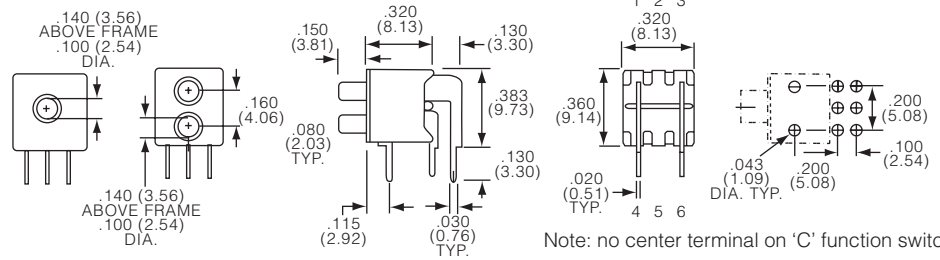
right angle



Single pole



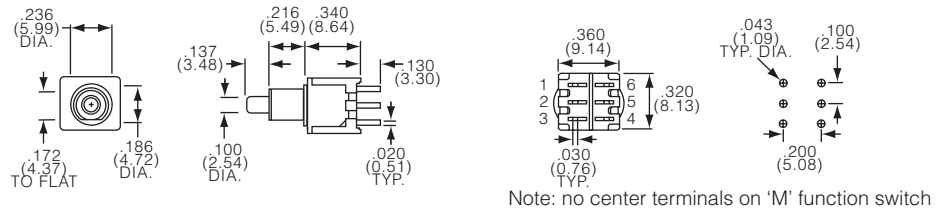
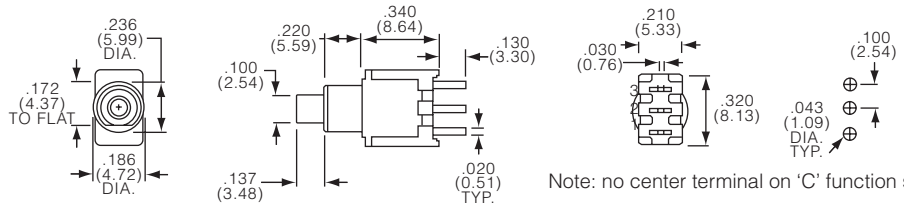
2 x Single pole (dual)



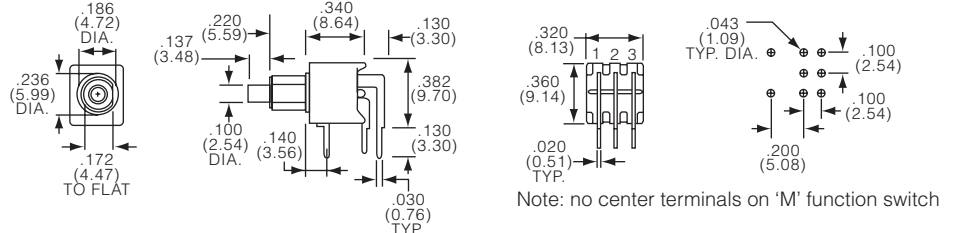
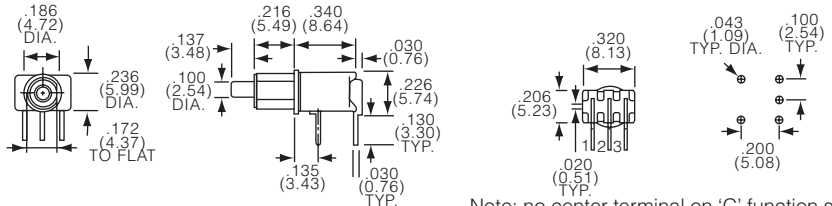
Pushbutton Switches

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

printed circuit board

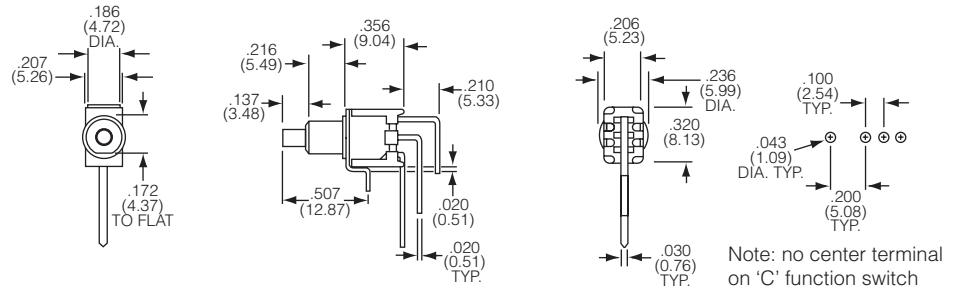


right angle

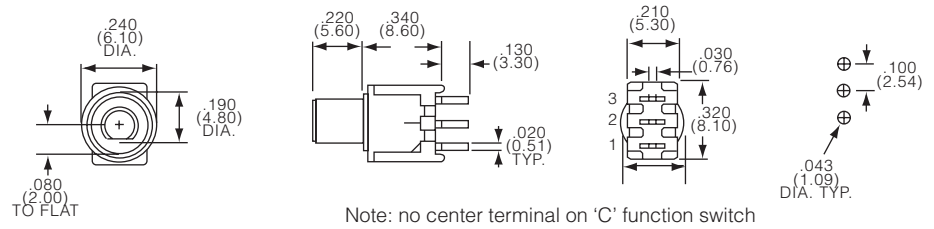


TP Series, Tiny (Continued)

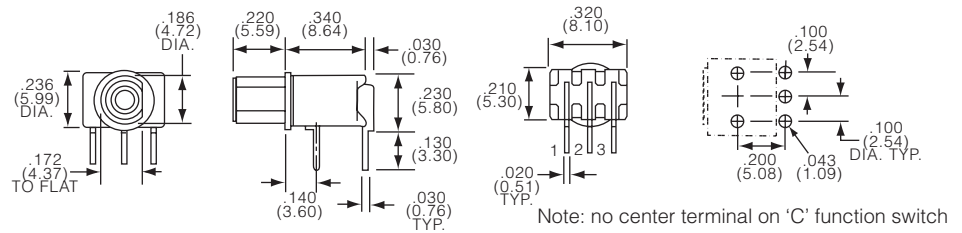
vertical right angle



printed circuit board, flush actuator

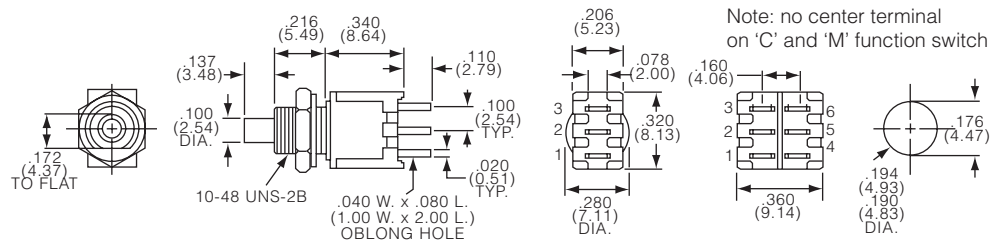


right angle, flush actuator

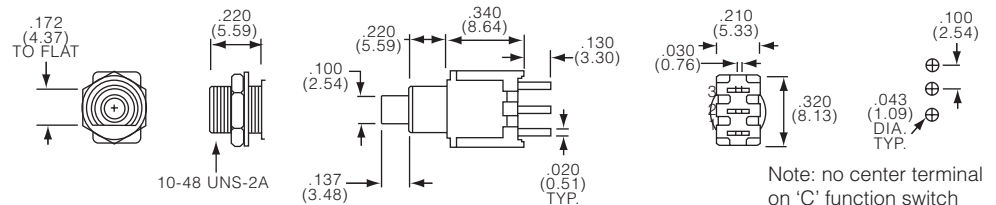


C, Round 10/48 UNS 2B thread

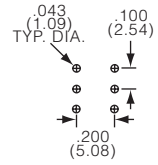
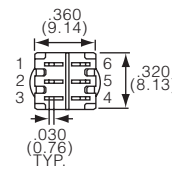
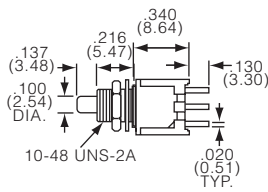
wire lug



printed circuit board

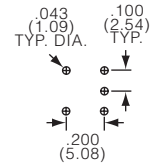
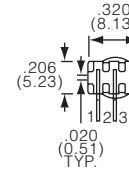
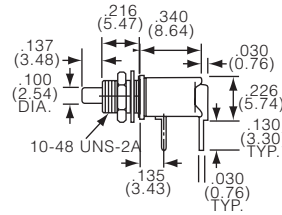


TP Series, Tiny (Continued)

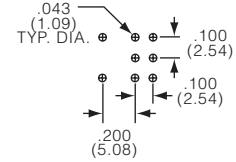
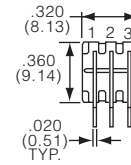
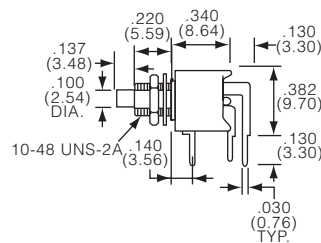
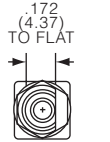


Note: no center terminals on 'M' function switch

right angle

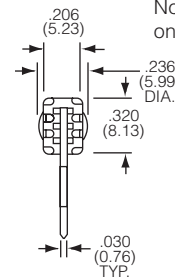
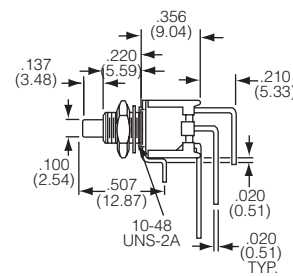
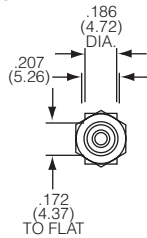


Note: no center terminal on 'C' function switch

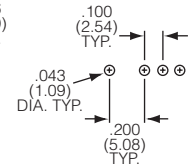


Note: no center terminals on 'M' function switch

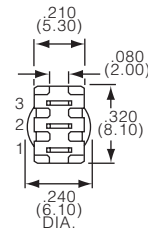
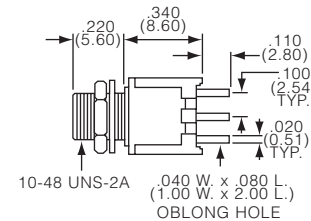
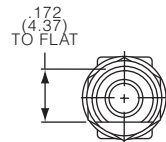
vertical right angle



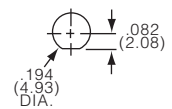
Note: no center terminal on 'C' function switch



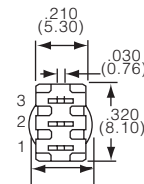
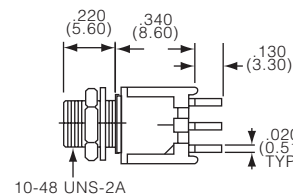
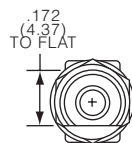
wire lug, flush actuator



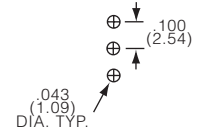
Note: no center terminal on 'C' function switch



printed circuit board, flush actuator

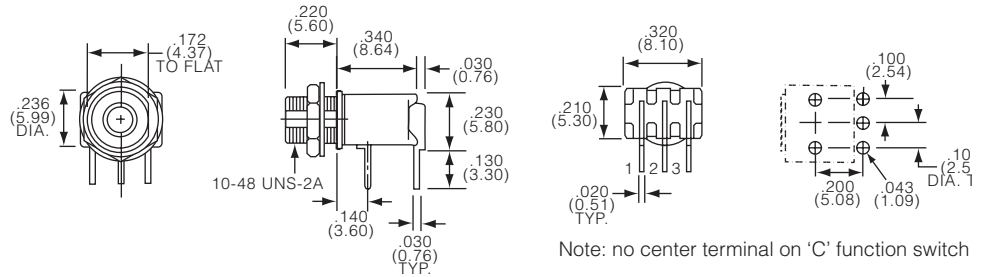


Note: no center terminal on 'C' function switch



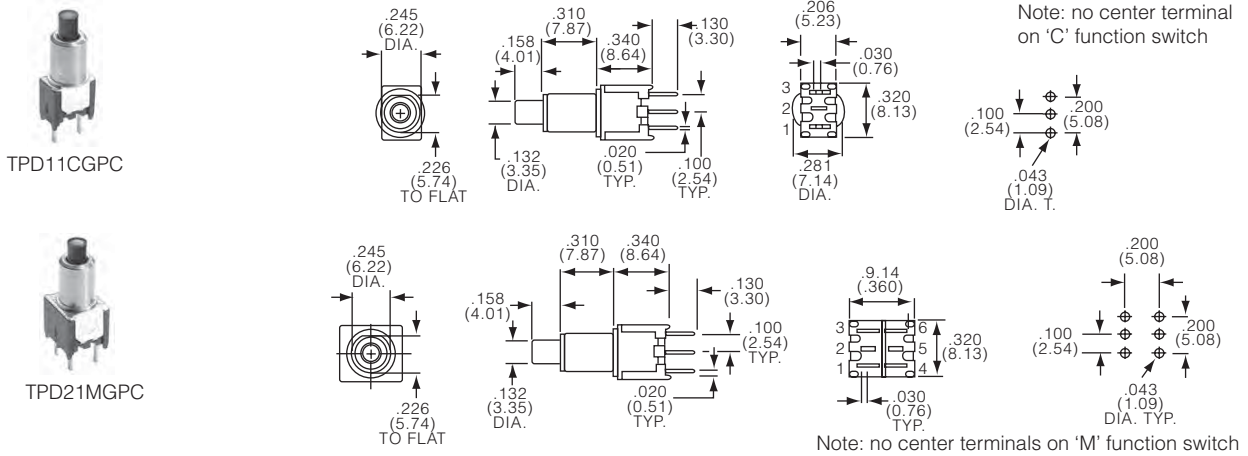
TP Series, Tiny (Continued)

right angle, flush actuator

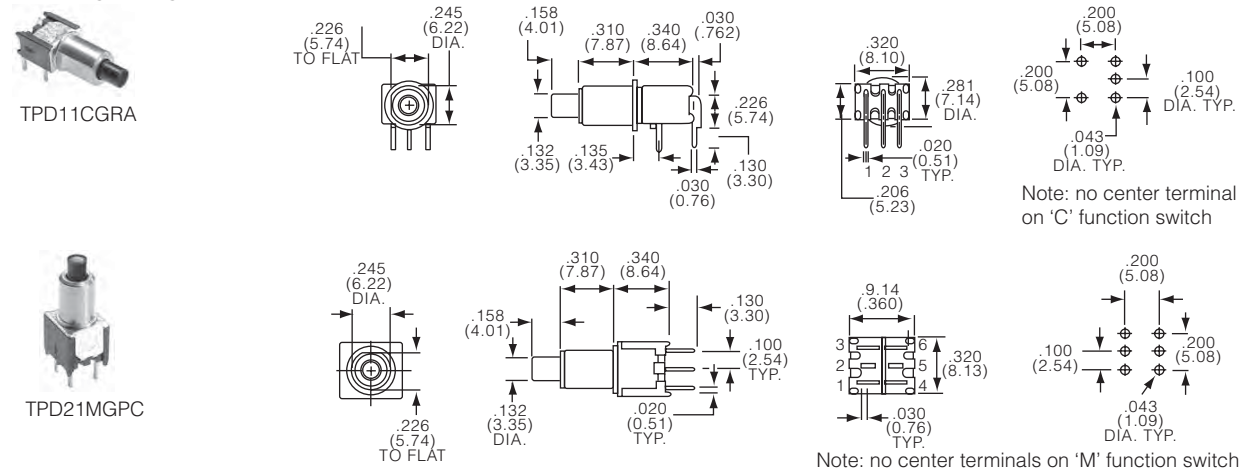


D, .250" (6.35) dia. bushing, not threaded

printed circuit board



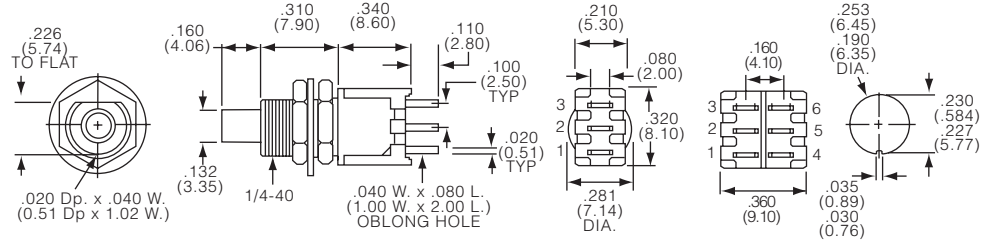
right angle



TP Series, Tiny (Continued)

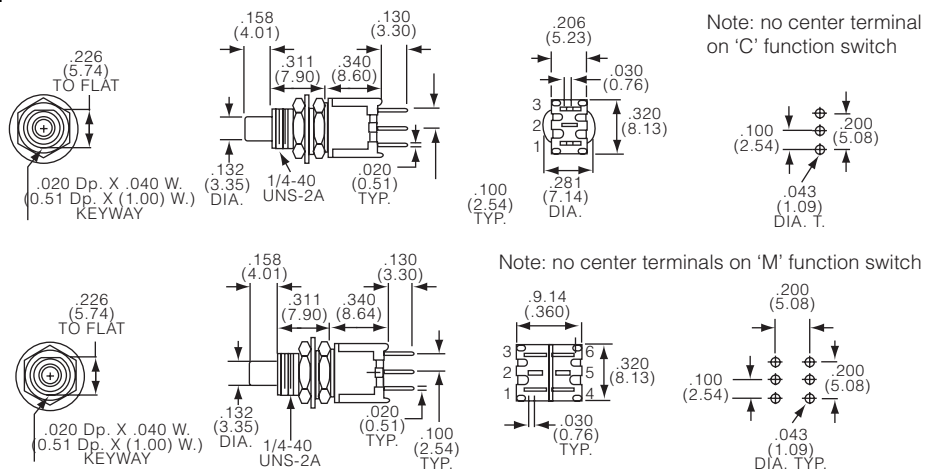
F, Round 1/4-40 UNS 2B thread

wire lug



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

printed circuit board



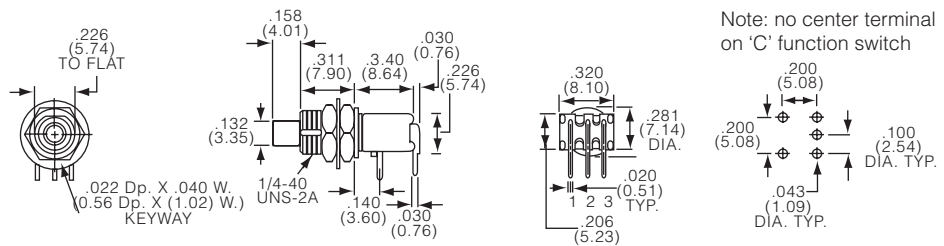
Note: no center terminal on 'C' function switch

Note: no center terminals on 'M' function switch

right angle



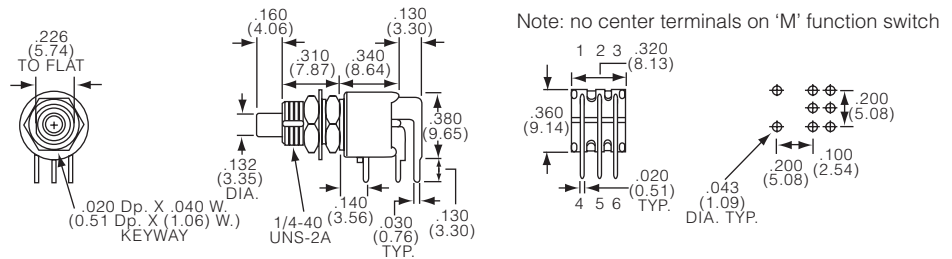
TPF11CGRA



Note: no center terminal on 'C' function switch





TPF21MGRA



Note: no center terminals on 'M' function switch



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