

**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
Electrical life	silver: 1A @ 125VAC or 28 VDC resistive
	1 pole2 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

<b>Product key</b>	Typical product key										<b>TP</b>	<b>A</b>		<b>1</b>	<b>1</b>	<b>C</b>	<b>G</b>	<b>PC</b>	<b>0</b>	<b>04</b>
<b>Type</b>	TP										Tiny pushbutton series									
<b>Bushing</b>	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									
<b>Actuator</b>	blank										standard									
	F										flush (available with B and C bushings only)									
<b>Number of Poles</b>	1					2					single pole double pole									
<b>Contact rating</b>	1										0.4VA Gold									
	2										1.0 A Silver (Silver available only in wire lug and PC termination)									
<b>Function</b>	single pole					double pole														
	C					M					single throw, momentary single throw, momentary									
	F					R					double throw, momentary double throw, momentary									
	CC										dual function C - 2 x single throw, momentary									
	FF										dual function F - 2 x double throw, momentary									
<b>Plating</b>	G					blank					Gold Silver (Silver available only in wire lug and PC termination)									
<b>Terminals</b>	blank					RA					wire lug right angle									
	PC					VRA					printed circuit board vertical, right angle (available only in single pole)									
<b>Button Color</b>	0			2			6			black red blue										
<b>Material</b>	04										RoHS compliant									

**TP Series, Tiny (Continued)**

**Bushing**

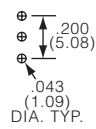
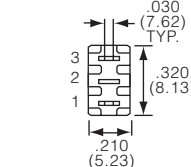
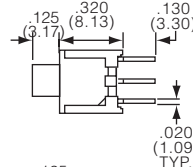
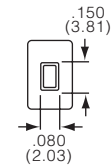


**blank, square, no bushing**

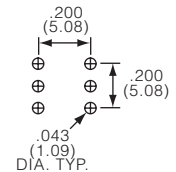
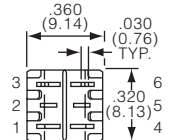
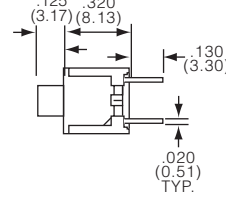
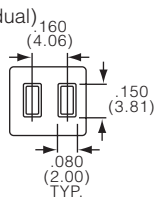
**printed circuit board**



Single pole



2 x Single pole (dual)

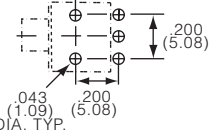
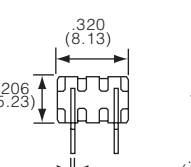
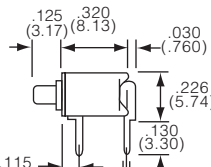
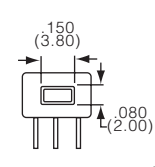


Note: no center terminal on 'C' and 'M' function switch

**right angle**



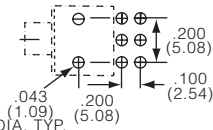
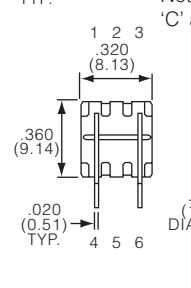
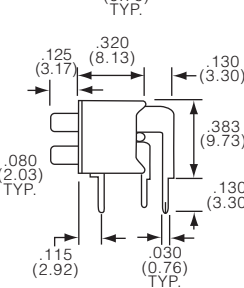
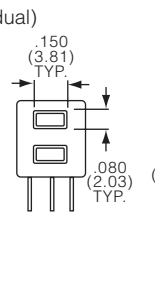
Single pole



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



2 x Single pole (dual)

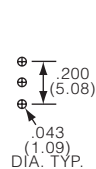
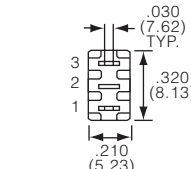
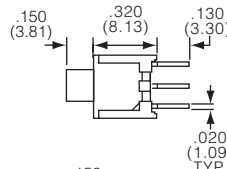
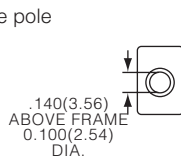


**A, Round, no bushing**

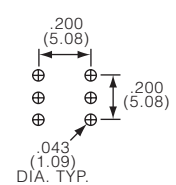
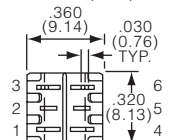
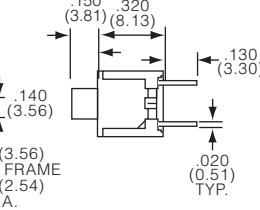
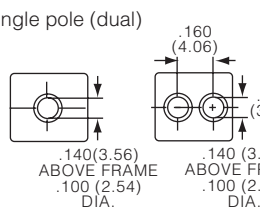
**printed circuit board**



Single pole



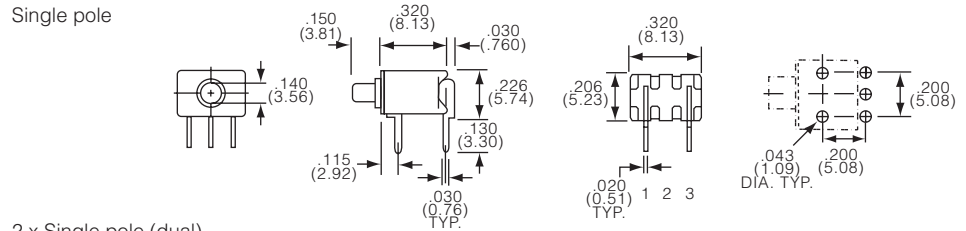
2 x Single pole (dual)



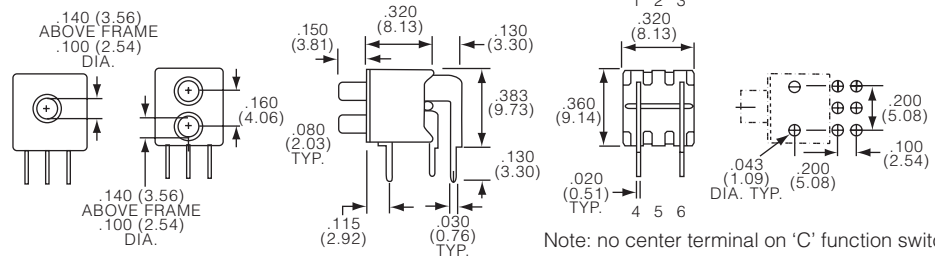
Note: no center terminal on 'C' function switch

**TP Series, Tiny (Continued)**

**right angle**

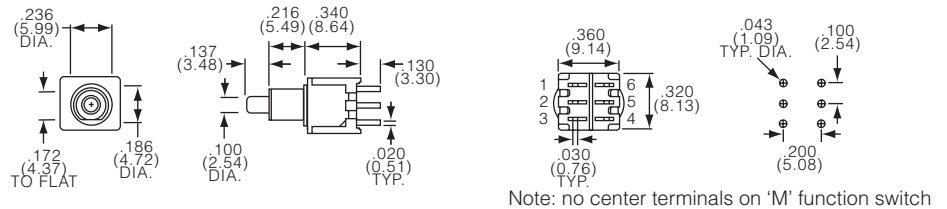
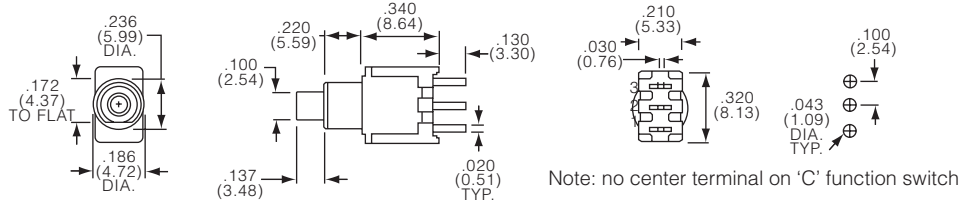


2 x Single pole (dual)

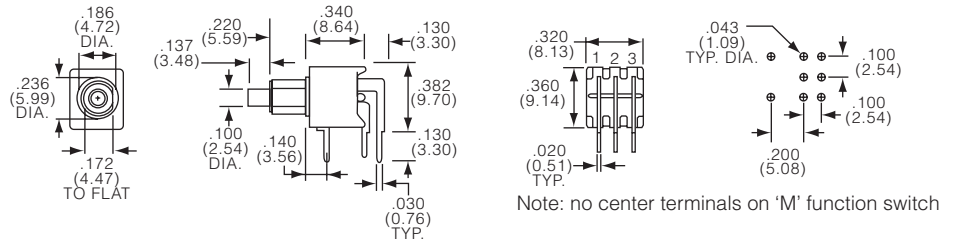
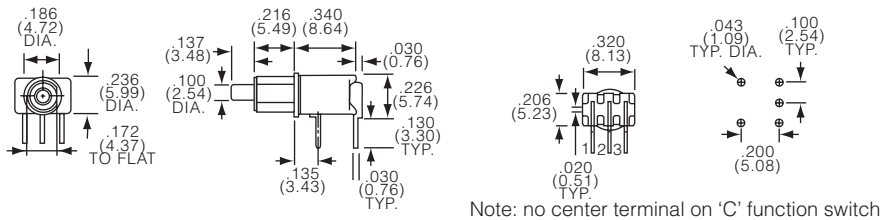


**B, Round .188 (4.78) dia. bushing not threaded**

**printed circuit board**

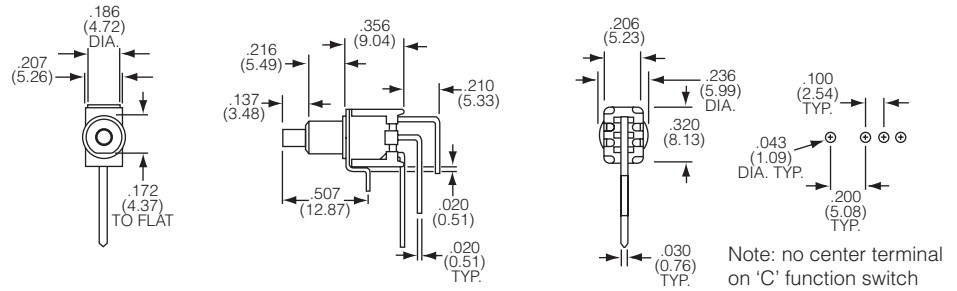


**right angle**

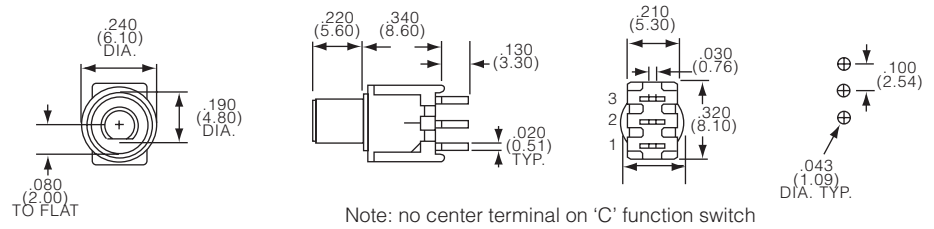


**TP Series, Tiny (Continued)**

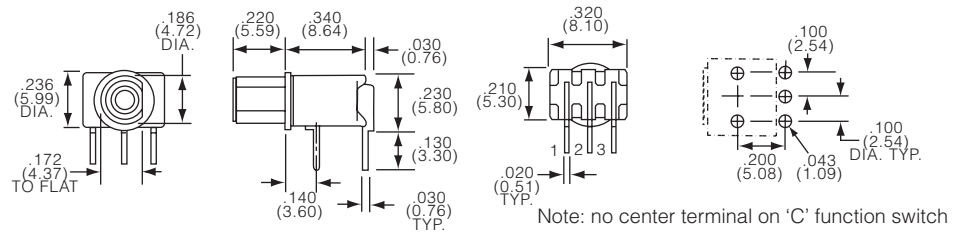
**vertical right angle**



**printed circuit board, flush actuator**

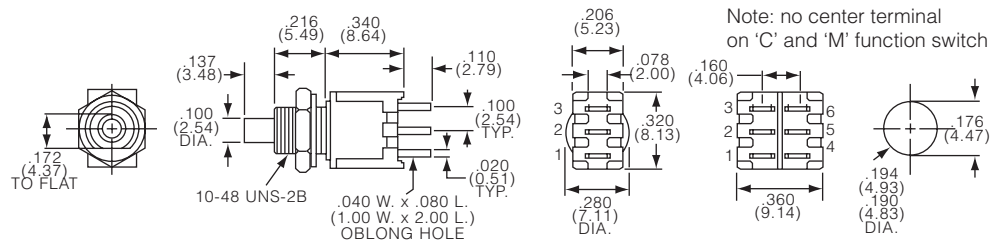


**right angle, flush actuator**

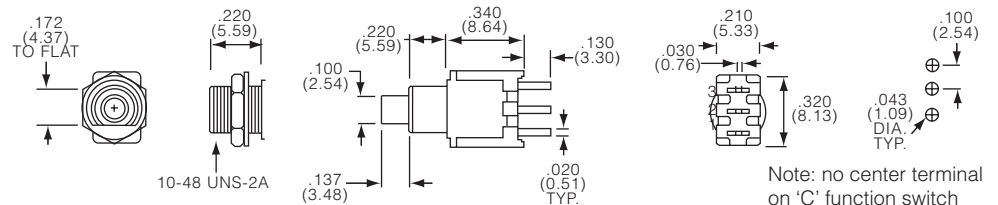


**C, Round 10/48 UNS 2B thread**

**wire lug**



**printed circuit board**

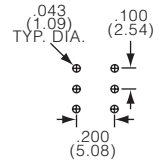
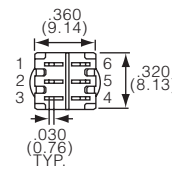
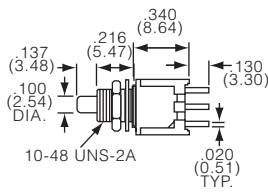


Pushbutton Switches

**TP Series, Tiny (Continued)**



TPC21RGPC

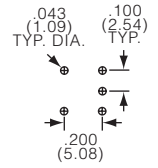
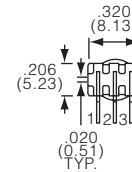
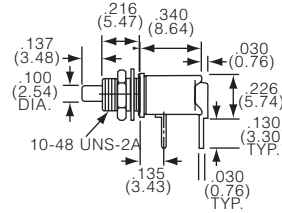


Note: no center terminals on 'M' function switch

**right angle**



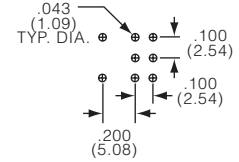
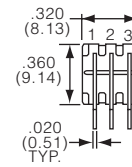
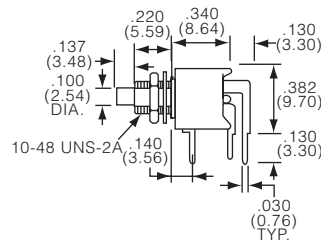
TPC11CGRA



Note: no center terminal on 'C' function switch

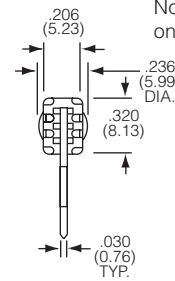
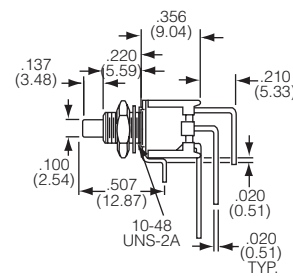
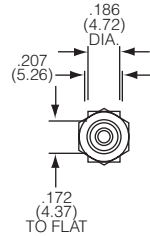


TPC21MGRA

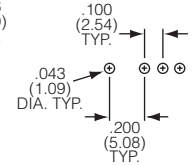


Note: no center terminals on 'M' function switch

**vertical right angle**



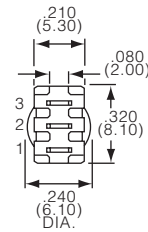
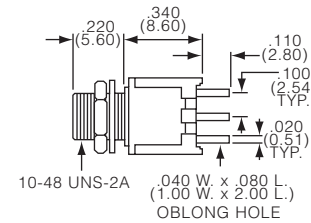
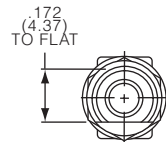
Note: no center terminal on 'C' function switch



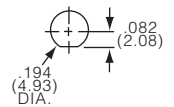
**wire lug, flush actuator**



TPCF13C



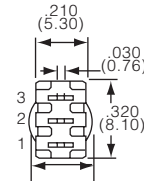
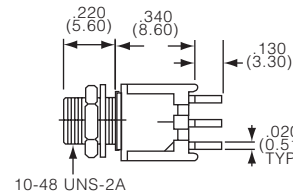
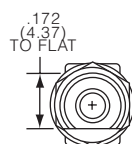
Note: no center terminal on 'C' function switch



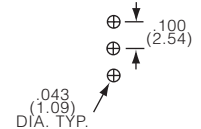
**printed circuit board, flush actuator**



TPCF11CGPC

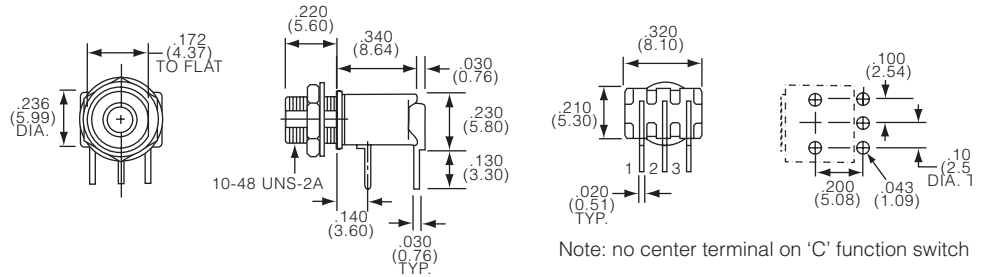


Note: no center terminal on 'C' function switch



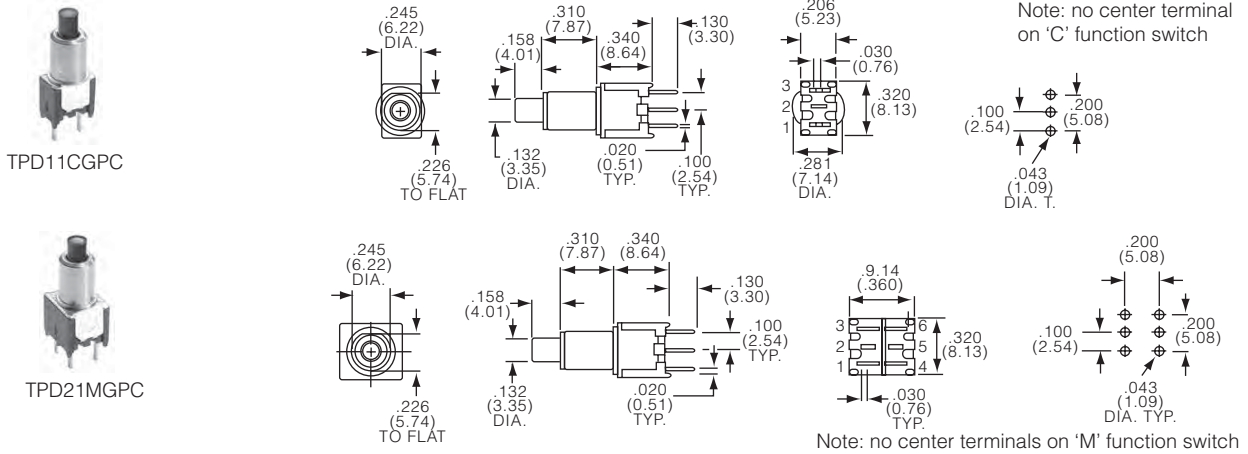
**TP Series, Tiny (Continued)**

**right angle, flush actuator**

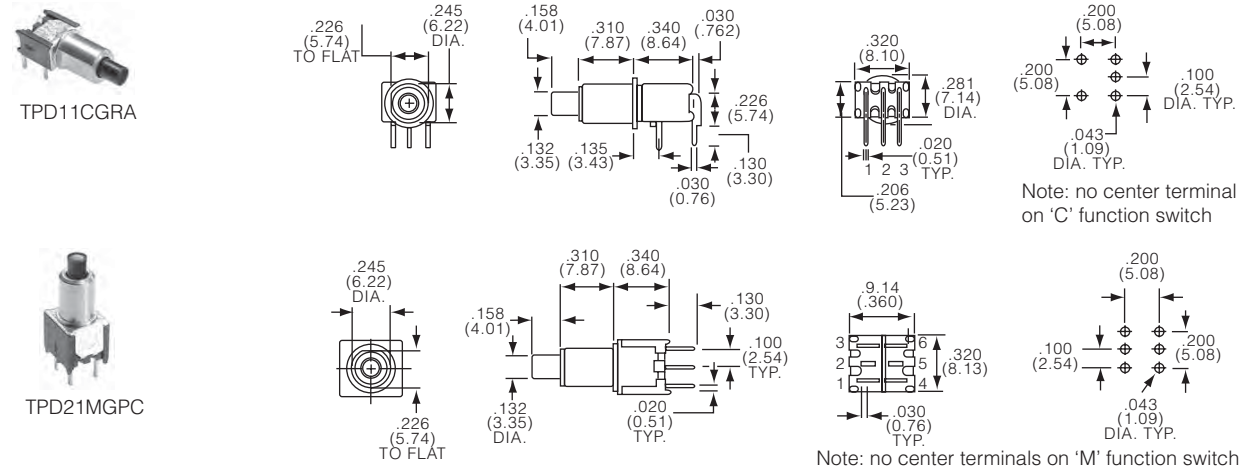


**D, .250" (6.35) dia. bushing, not threaded**

**printed circuit board**



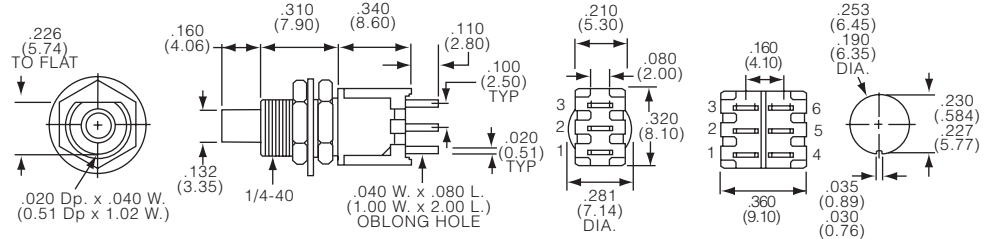
**right angle**



**TP Series, Tiny (Continued)**

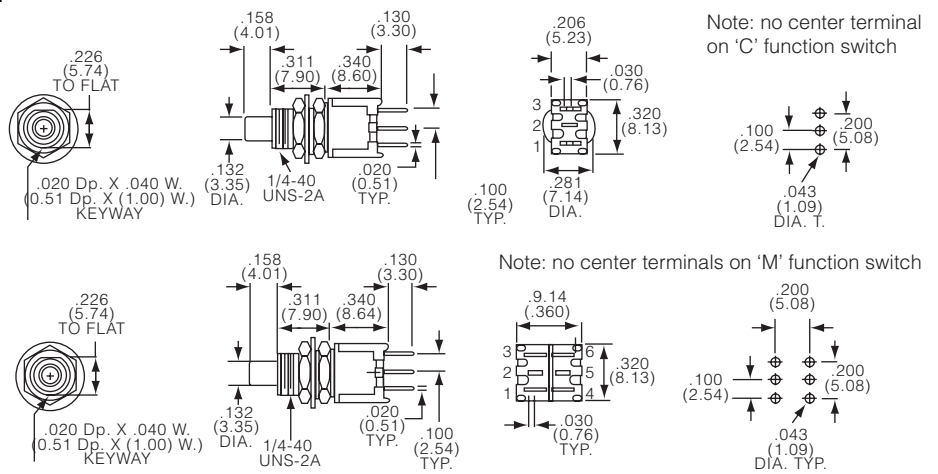
**F, Round 1/4-40 UNS 2B thread**

**wire lug**



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

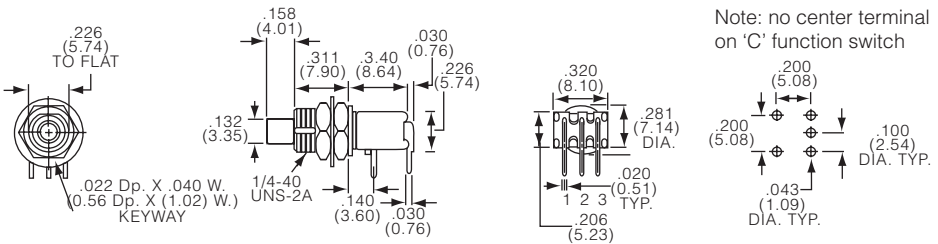
**printed circuit board**



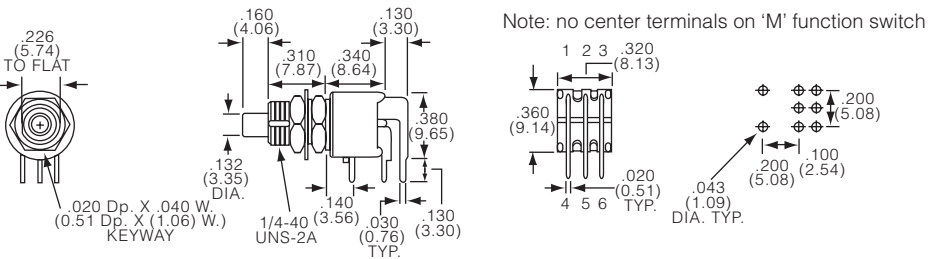
Note: no center terminal on 'C' function switch

Note: no center terminals on 'M' function switch

**right angle**





Note: no center terminal on 'C' function switch



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
<b>TPA11CGPC004</b>	round		1		Off-(On)	Off	1-3		pcb			<b>1825096-1</b>
TPA11CGPC204	no bushing									red		1825096-2
TPA11CGPC604										blue		1825096-3
<b>TPA11CGRA004</b>									right angle	black		<b>1825096-4</b>
TPA11CGRA204										red		1825096-5
TPA11CGRA604										blue		1825096-6
<b>TPA11FGPC004</b>					On-(On)	1-2	2-3		pcb	black		<b>1825096-7</b>
TPA11FGPC204										red		1825096-8
TPA11FGPC604										blue		1825096-9
<b>TPA11FGRA004</b>									right angle	black		<b>1-1825096-0</b>
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
<b>TPB11CGPC004</b>	round	std	1				1-3		pcb			<b>1825097-1</b>
TPB11CGPC204	.188 (4.78)									red		1825097-2
<b>TPB11CGRA004</b>	dia								right angle	black		<b>1825097-6</b>
TPB11CGRA204	bushing,									red		1825097-4
TPB11CGVRA004	not								vertical r.a.	black		1825097-8
<b>TPB11FGPC004</b>	threaded				On-(On)	1-2	2-3		pcb			<b>1825097-9</b>
<b>TPB11FGRA004</b>									right angle			<b>1-1825097-1</b>
TPB11FGRA204										red		1-1825097-2
TPB11FGRA604										blue		1-1825097-3
TPB11FGVRA004									vertical r.a.	black		1-1825097-6
<b>TPB21MGPC004</b>			2		Off-(On)	Off	1-3, 4-6		pcb			<b>1-1825097-7</b>
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