



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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MATERIAL		
COMPONENT NAME	BASE MATERIAL	FINISH
CASE	LCP, BLACK, UL94 V-0	
TERMINAL, WIRE LUG (GOLD)	BRASS	GOLD OVER NICKEL
TERMINAL, PC & RA (GOLD)	BRASS	GOLD OVER NICKEL IN CONTACT AREA, TIN OVER NICKEL IN SOLDER AREA
TERMINAL, VRA (GOLD)	BRASS	GOLD OVER NICKEL IN CONTACT AREA, TIN OVER NICKEL IN SOLDER AREA
TERMINAL, WIRE LUG (SILVER)	SILVER CLAD COPPER	SILVER OVER NICKEL
TERMINAL, PC (SILVER)	SILVER CLAD COPPER	SILVER OVER NICKEL
CONTACT (GOLD)	COPPER ALLOY OR BRASS	GOLD OVER NICKEL
CONTACT (SILVER)	SILVER CLAD COPPER OR COPPER	SILVER OVER NICKEL
FRAME	STEEL	TIN OVER COPPER
SPRING	MUSIC WIRE	
PLUNGER BUTTON	NYLON 6/6, BLACK, RED OR BLUE, UL94 HB (EXTENDED) OR UL94V-2 (FLUSH)	
SUPPORT BRACKET (RA*ES VERSIONS ONLY)	BRASS	TIN OVER COPPER
SUPPORT BRACKET, VRA (B&C BUSHINGS ONLY)	STEEL	TIN OVER COPPER
BUSHING	BRASS	NICKEL OVER COPPER
MOUNTING NUT	BRASS	NICKEL
LOCKWASHER	STEEL	NICKEL
ES HOUSING	NYLON 6/6, NATURAL, UL94 V-2	
ES BOOT	VINYL PLASTISOL, BLACK	

PART NUMBER MATRIX									
MODEL	ACTUATOR	POLES	RATING	FUNCTION	PLATING	TERMINATIONS	PROCESS SEAL	BUTTON COLOR	04
TPC	BLANK=EXTENDED	1	1=GOLD .4VA	C=SPST MOMENTARY	G=GOLD	BLANK=WIRE LUG	ES=PROCESS SEALED <sup>2</sup>	0=BLACK	
		2	3=SILVER 1 AMP <sup>1</sup>	F=SPDT MOMENTARY	BLANK=SILVER <sup>1</sup>	PC=PRINTED CIRCUIT		2=RED	
				M=DPST MOMENTARY		RA=RIGHT ANGLE <sup>2</sup>		6=BLUE	
				R=DPDT MOMENTARY		VRA=VERTICAL RIGHT ANGLE <sup>3</sup>			

NOTES:  
 1. SILVER ONLY AVAILABLE IN WIRE LUG AND PC TERMINATIONS  
 2. RAES AVAILABLE WITH B AND C BUSHINGS ONLY  
 3. VRA ONLY AVAILABLE IN SINGLE POLE

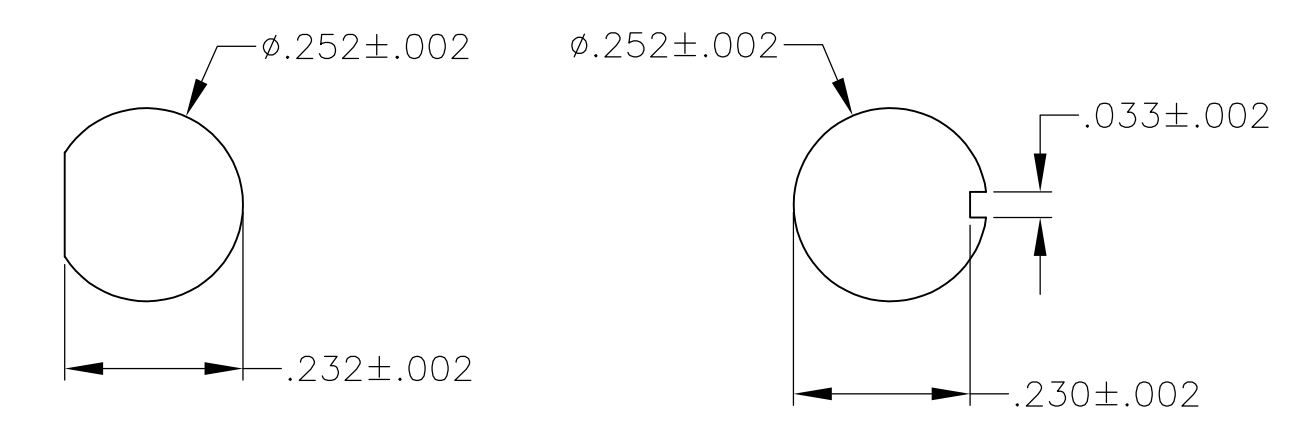
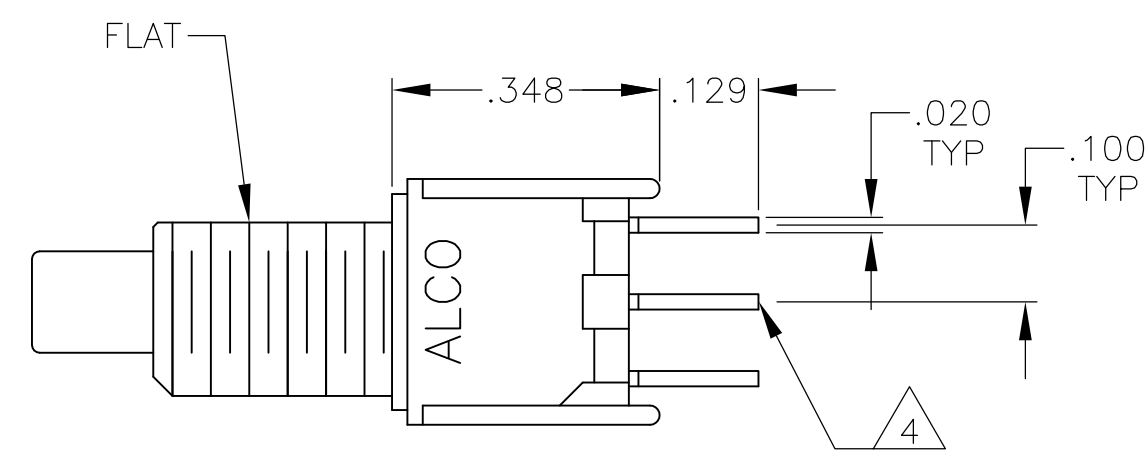
SPECIFICATIONS	
RATING	GOLD: .4VA MAX. @ 20VDC OR PEAK AC RESISTIVE SILVER: 1A @ 125VAC OR 28 VDC RESISTIVE
INITIAL TERMINATION RESISTANCE	20 MILLIOHMS MAX.
INSULATION RESISTANCE	1,000 MEGOHMS MIN @ 500 VDC
DIELECTRIC STRENGTH	1,000 VOLTS RMS AT SEA LEVEL
TIMING	BREAK BEFORE MAKE
PLUNGER TRAVEL	.030
ACTUATION FORCE	50 TO 400 GRAMS
LIFE EXPECTANCY	.4 VA, 1 POLE: 100,000 .4 VA, 2 POLES: 80,000 1 A, 1 POLE: 60,000 1 A, 2 POLES: 50,000
OPERATING TEMPERATURE	-30°C TO +65°C
STORAGE TEMPERATURE	-30°C TO +65°C
TERMINAL SEAL	SINGLE POLE: EPOXY DOUBLE POLE: EPOXY OPTIONAL

- TERMINAL NUMBERS ARE FOR REFERENCE ONLY AND DO NOT APPEAR ON SWITCHES.
  - ALL MATERIALS AND FINISHES COMPLY WITH EU DIRECTIVE 2002/95/EC OF 27JAN2003 (ROHS).
  - DISPOSABLE BOOT SUPPLIED WITH ES VERSIONS. BOOT TO BE PLACED OVER BUSHING BEFORE SOLDER WASHING.
- 4 CENTER TERMINAL PRESENT ON DOUBLE THROW SWITCHES ONLY.  
 5 OBSOLETE.

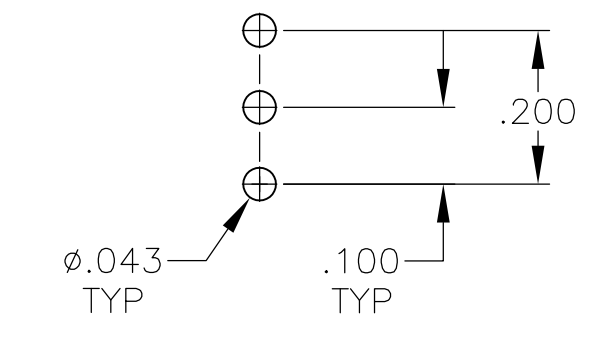
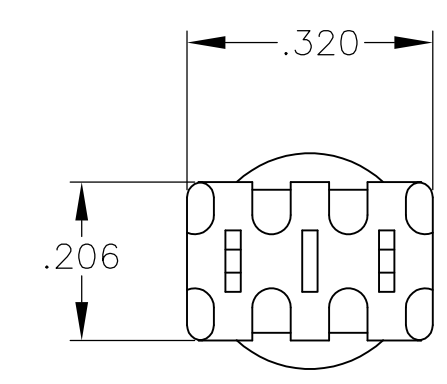
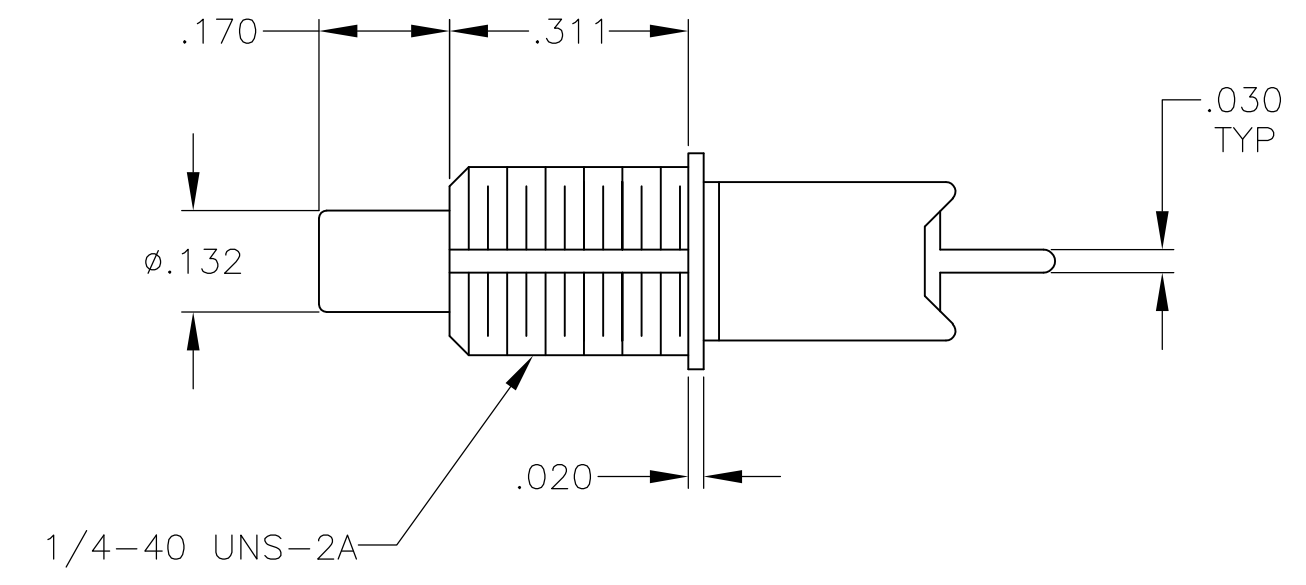
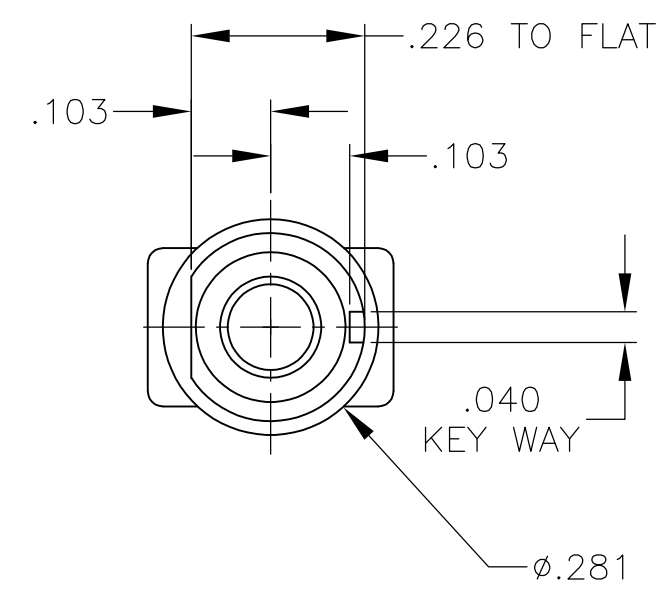
TE P/N	ALCO P/N	POLES	THROWS	PLATING	TERMINALS	PROCESS SEALED	BUTTON COLOR	FUNCTION				CONNECTED TERMINALS	
								OFF	MOM	ON	OFF	1-2	2-3
1825100-1	TPF11CGPC004	1	1	GOLD	PC	NO	BLACK	OFF	MOM	OFF	OFF	1-3	
1825100-2	TPF11CGPC204	1	1	GOLD	PC	NO	RED	OFF	MOM	OFF	OFF	1-3	
1825100-3	TPF11CGPCES004	1	1	GOLD	PC	YES	BLACK	OFF	MOM	OFF	OFF	1-3	
1825100-4	TPF11CGRA004	1	1	GOLD	RIGHT ANGLE	NO	BLACK	OFF	MOM	OFF	OFF	1-3	
1825100-5	TPF11CGRA204	1	1	GOLD	RIGHT ANGLE	NO	RED	OFF	MOM	OFF	OFF	1-3	
1825100-6	TPF11CGRA604	1	1	GOLD	RIGHT ANGLE	NO	BLUE	OFF	MOM	OFF	OFF	1-3	
1825100-7	TPF11FGPC004	1	2	GOLD	PC	NO	BLACK	ON	MOM	OFF	OFF	1-2, 2-3	
1825100-8	TPF11FGPC204	1	2	GOLD	PC	NO	RED	ON	MOM	OFF	OFF	1-2, 2-3	
1825100-9	TPF11FGPC604	1	2	GOLD	PC	NO	BLUE	ON	MOM	OFF	OFF	1-2, 2-3	
1825100-0	TPF11FGPCES004	1	2	GOLD	PC	YES	BLACK	ON	MOM	OFF	OFF	1-2, 2-3	
1825100-1	TPF11FGRA004	1	2	GOLD	RIGHT ANGLE	NO	BLACK	ON	MOM	OFF	OFF	1-2, 2-3	
1825100-2	TPF13C004	1	1	SILVER	WIRE LUG	NO	BLACK	OFF	MOM	OFF	OFF	1-3	
1825100-3	TPF13C204	1	1	SILVER	WIRE LUG	NO	RED	OFF	MOM	OFF	OFF	1-3	
1825100-4	TPF13F204	1	2	SILVER	WIRE LUG	NO	RED	ON	MOM	OFF	OFF	1-2, 2-3	
1825100-5	TPF13F604	1	2	SILVER	WIRE LUG	NO	BLUE	ON	MOM	OFF	OFF	1-2, 2-3	
1825100-6	TPF21MGPC004	2	1	GOLD	PC	NO	BLACK	OFF	MOM	OFF	OFF	1-3, 4-6	
1825100-7	TPF21RGRA004	2	2	GOLD	RIGHT ANGLE	NO	BLACK	ON	MOM	OFF	OFF	1-2, 4-5, 2-3, 5-6	
1825100-8	TPF23M004	2	1	SILVER	WIRE LUG	NO	BLACK	OFF	MOM	OFF	OFF	1-3, 4-6	

THIS DRAWING IS A CONTROLLED DOCUMENT. DIMENSIONS: INCHES. TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ± .010, 1 PLC ± .010, 2 PLC ± .010, 3 PLC ± .010, 4 PLC ± .010. MATERIAL: FINISH: WEIGHT: A1 00779 1825100. CUSTOMER DRAWING. SCALE: 4:1. SHEET 1 OF 5. REV B.

STE TE Connectivity  
 PUSHBUTTON SWITCH, TPF SERIES

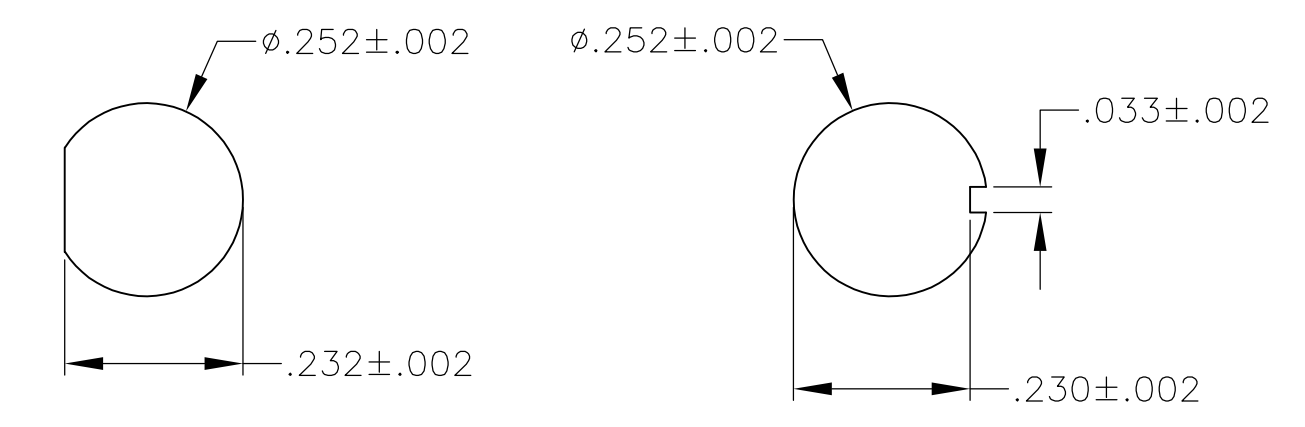
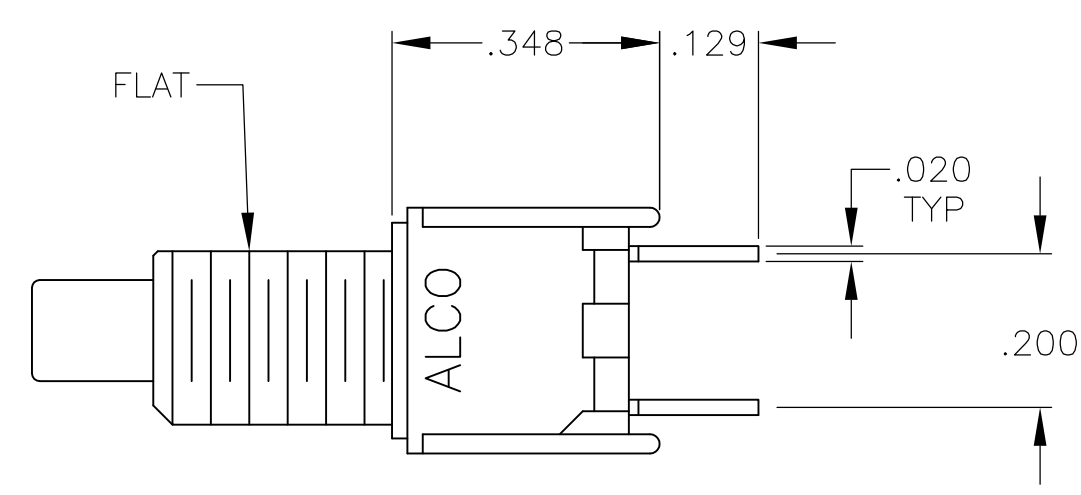


RECOMMENDED PANEL LAYOUTS

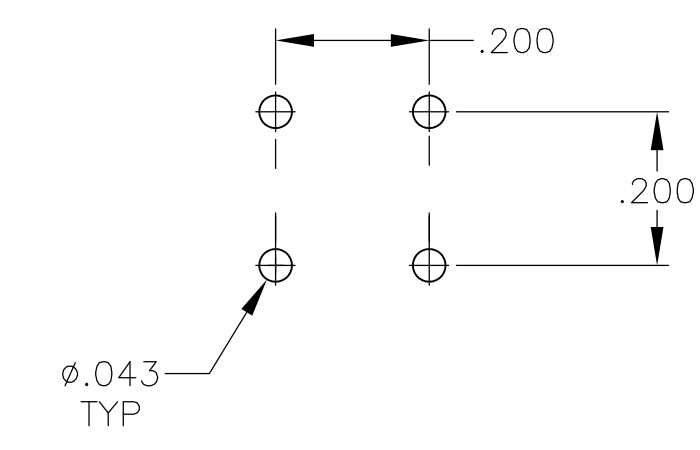
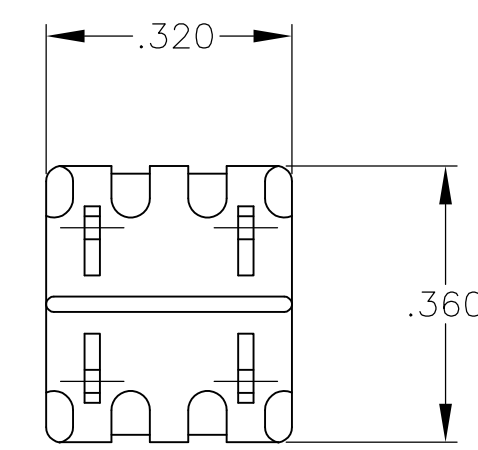
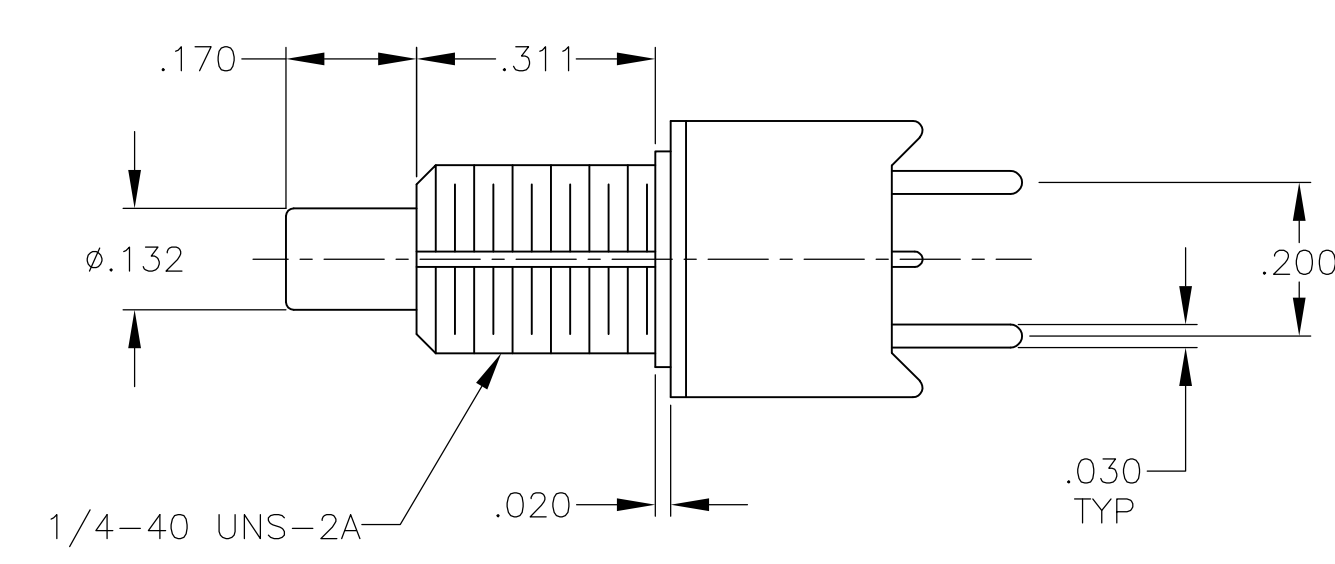
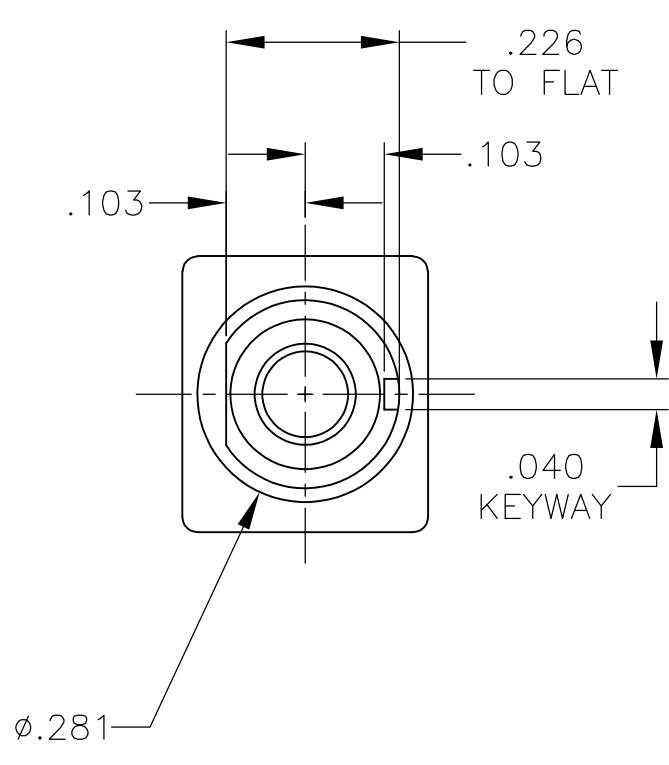


RECOMMENDED PCB LAYOUT  
TOLERANCES +/- .002

TPF11CGPC, TPF11FGPC



RECOMMENDED PANEL LAYOUTS

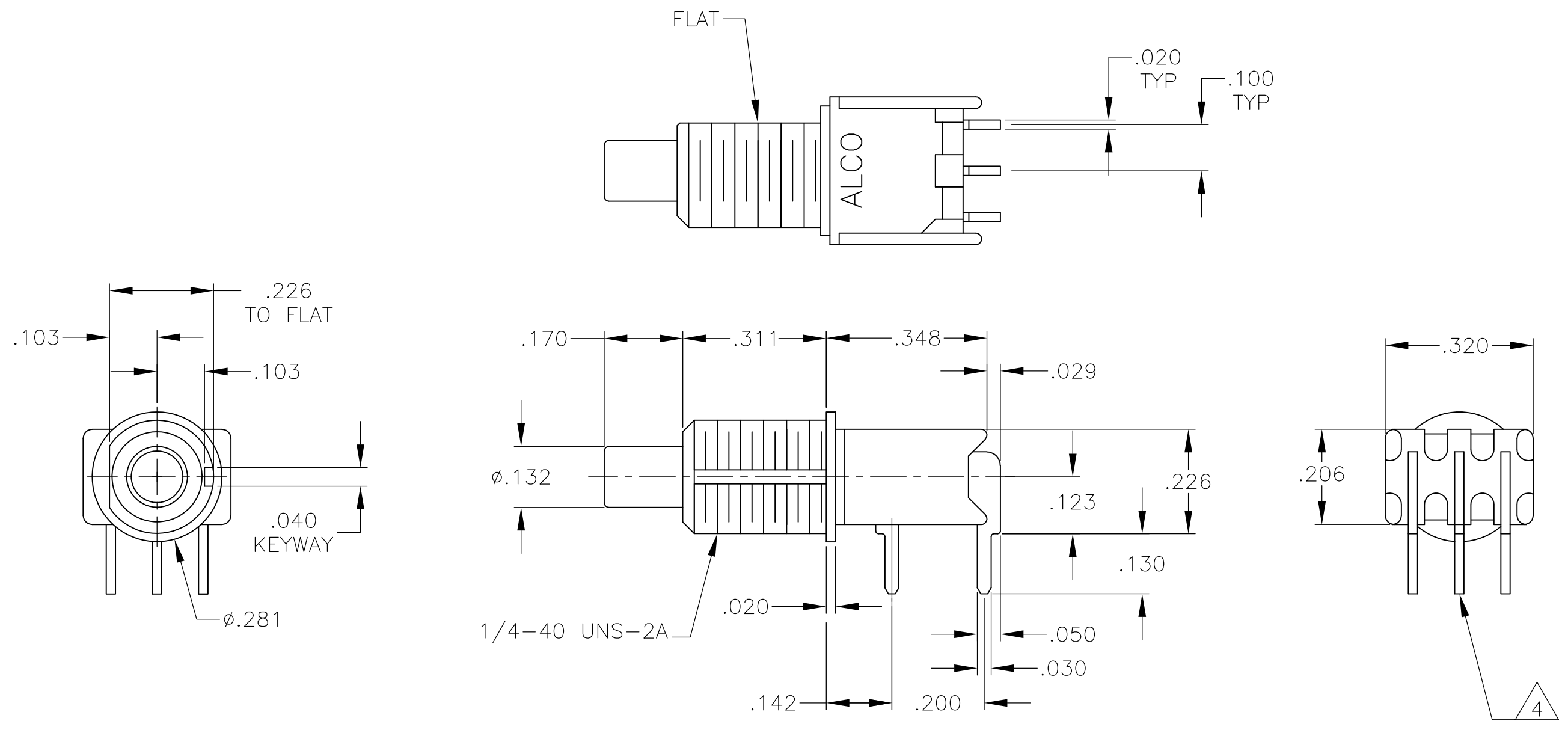


RECOMMENDED PCB LAYOUT  
TOLERANCES +/- .002

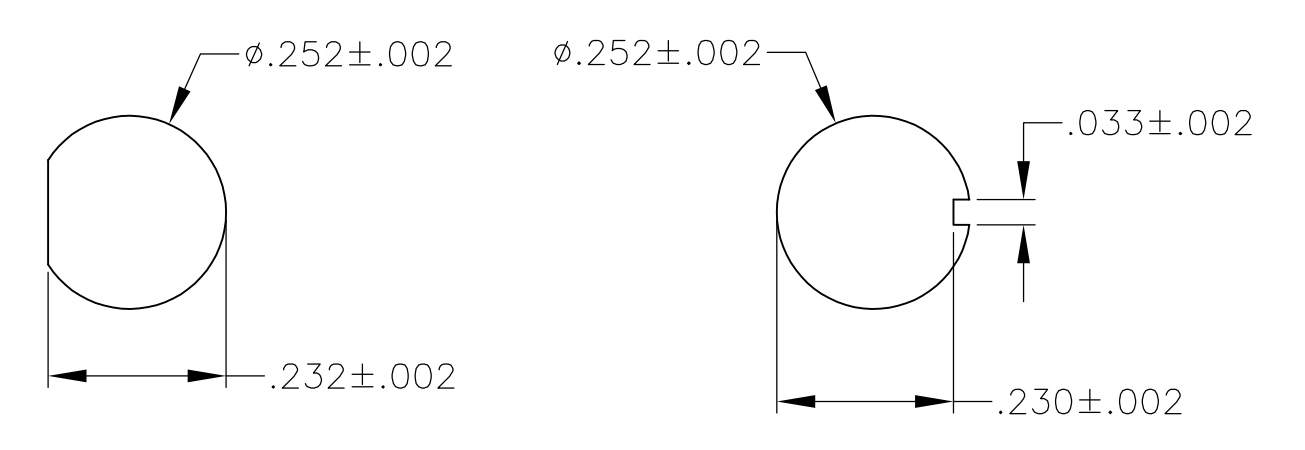
TPF21RGPC

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0. PLC	± .010	APPLICATION SPEC		PUSHBUTTON SWITCH, TPF SERIES	
1. PLC	± .005	SIZE		CAGE CODE	
2. PLC	± .002	DRAWING NO		RESTRICTED TO	
3. PLC	± .010	A1 00779		C=1825100	
4. PLC	± .005	WEIGHT		CUSTOMER DRAWING	
ANGLES	± .5°	SCALE		SHEET 2 OF 5	
MATERIAL		4:1		REV B	

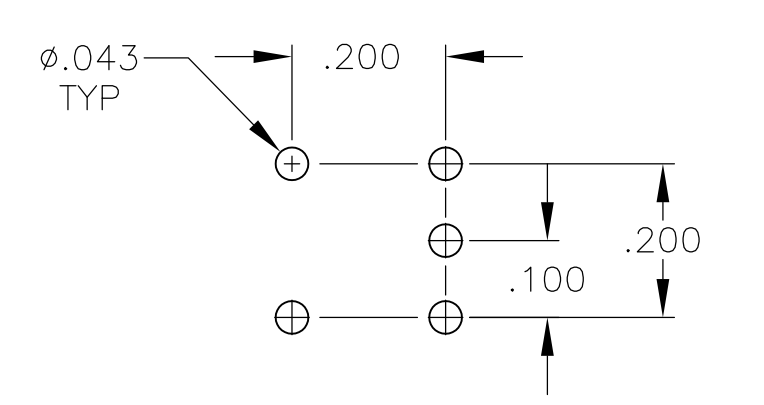




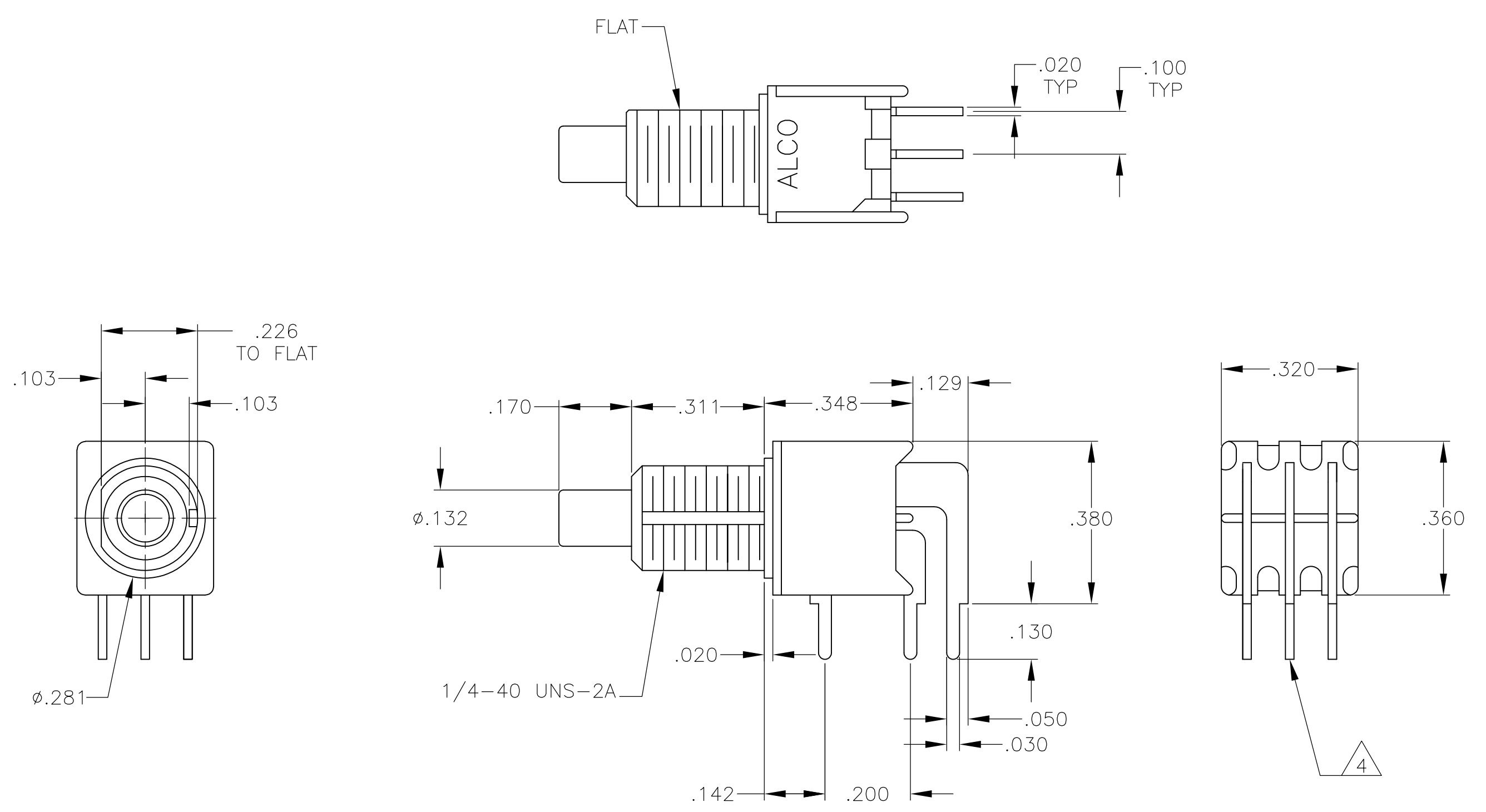
TPF11CGRA, TPF11FGRA



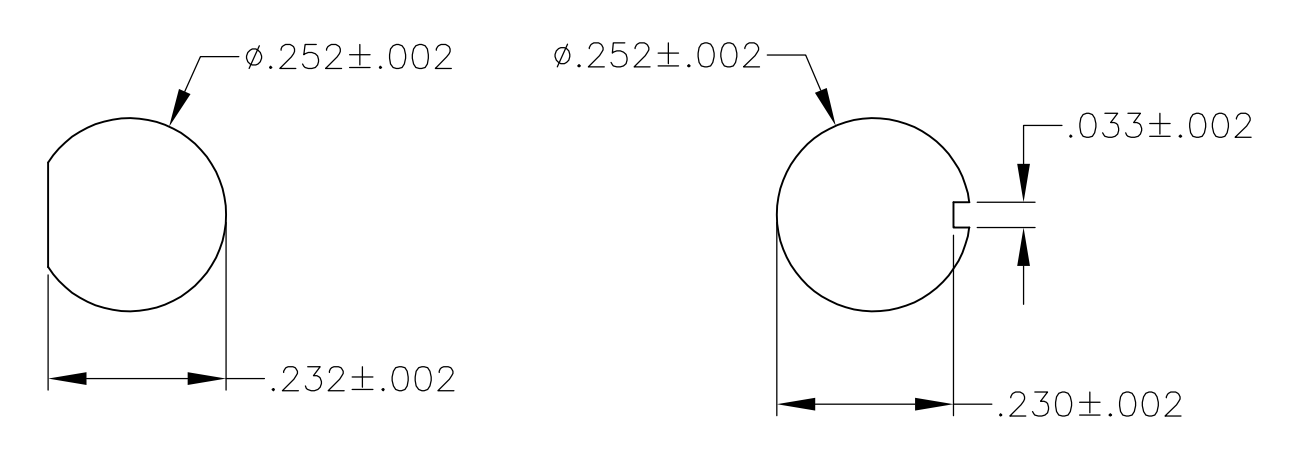
RECOMMENDED PANEL LAYOUTS



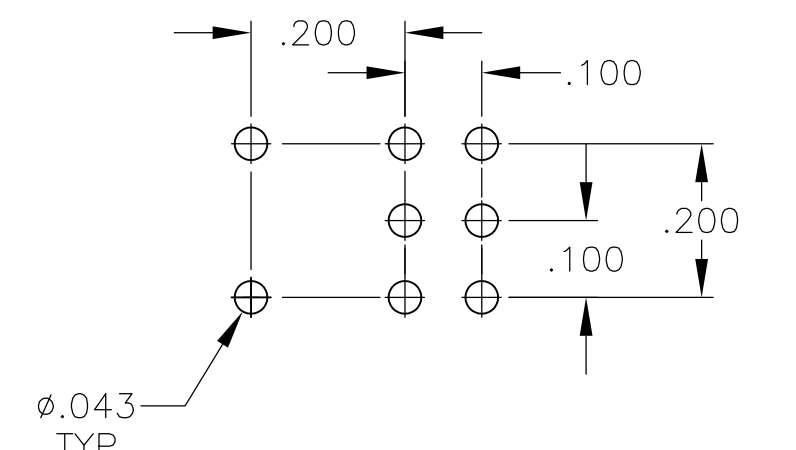
RECOMMENDED PCB LAYOUT  
TOLERANCES +/- .002



TPF21RGRA

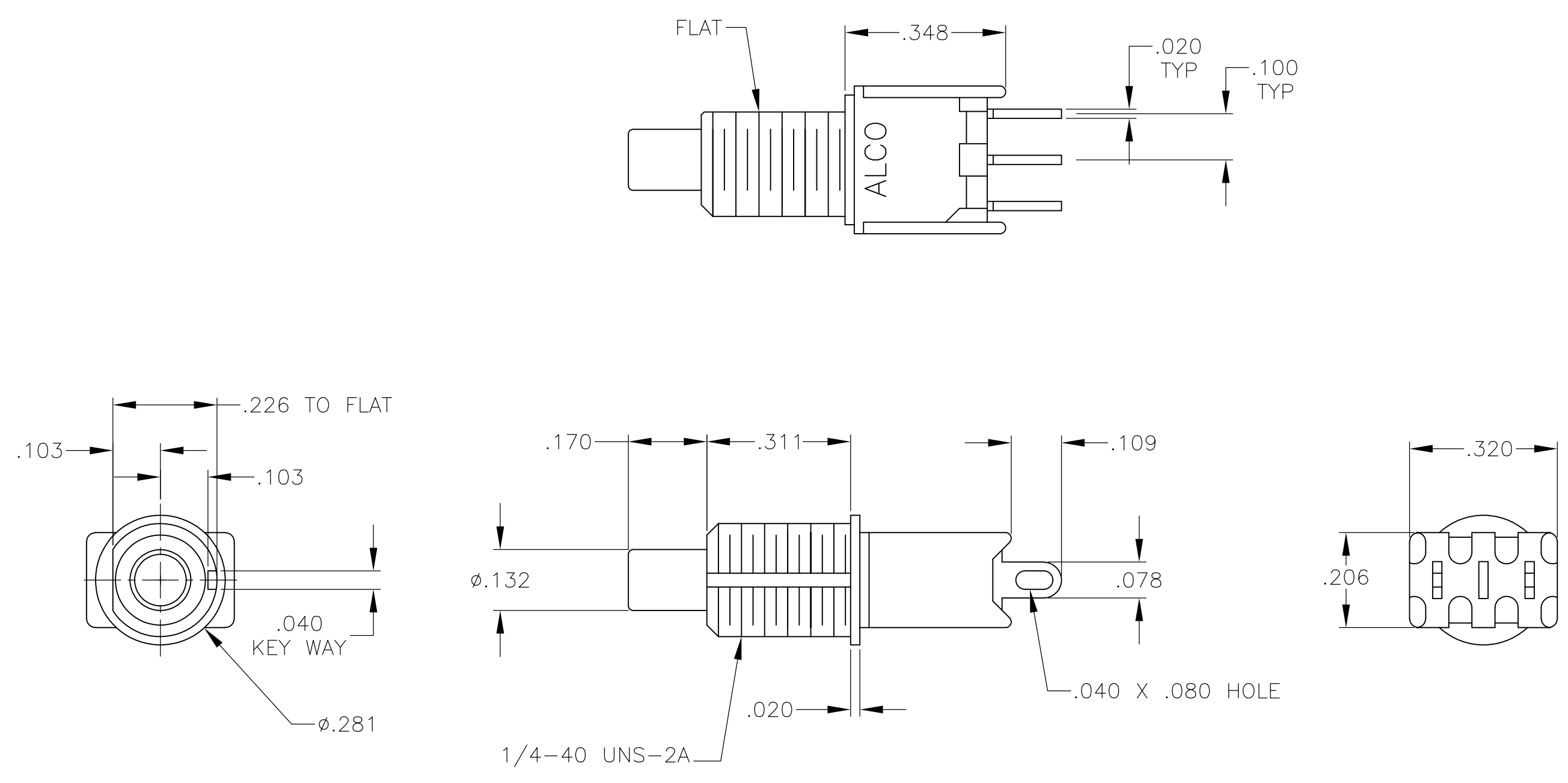


RECOMMENDED PANEL LAYOUTS

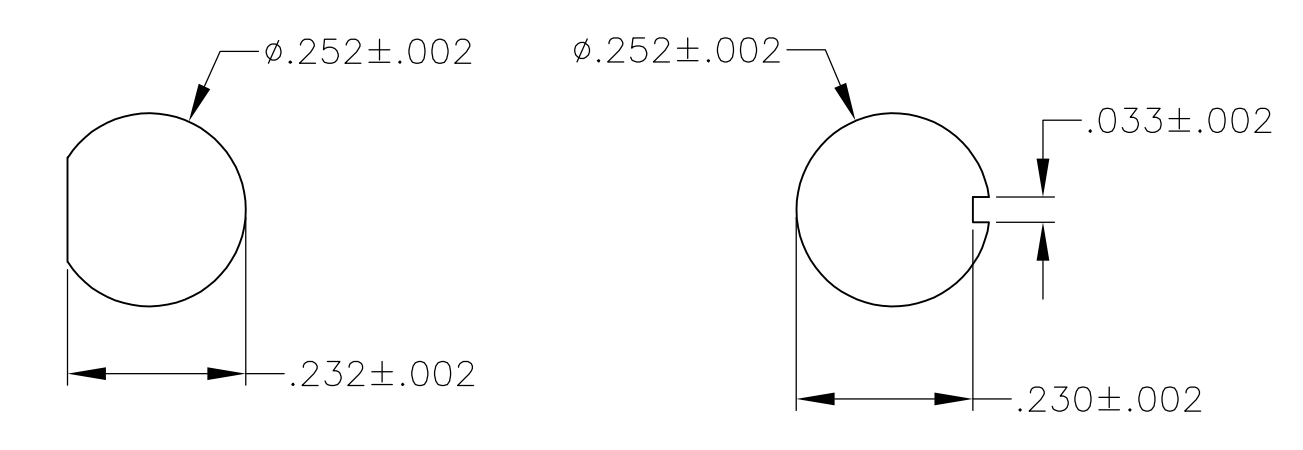


RECOMMENDED PCB LAYOUT  
TOLERANCES +/- .002

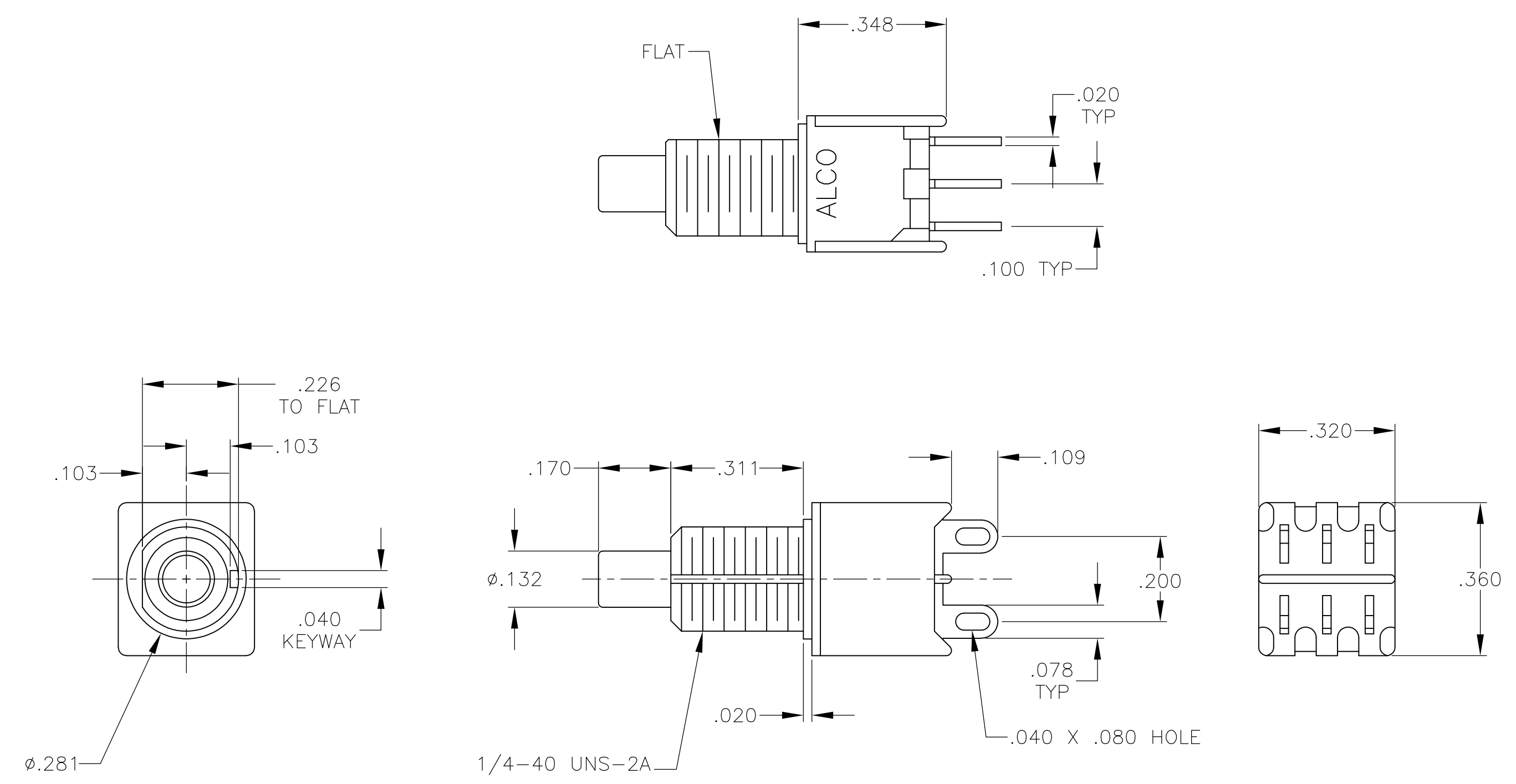
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		0. PLC ± .010	---	PRODUCT SPEC
		1. PLC ± .010	---	APPLICATION SPEC
		2. PLC ± .010	---	SIZE
		3. PLC ± .010	---	CAGE CODE
		4. PLC ± .010	---	DRAWING NO
		ANGLES ± .5°	---	RESTRICTED TO
MATERIAL	FINISH	WEIGHT	A1 00779	1825100
CUSTOMER DRAWING		SCALE	4:1	SHEET 3 OF 5



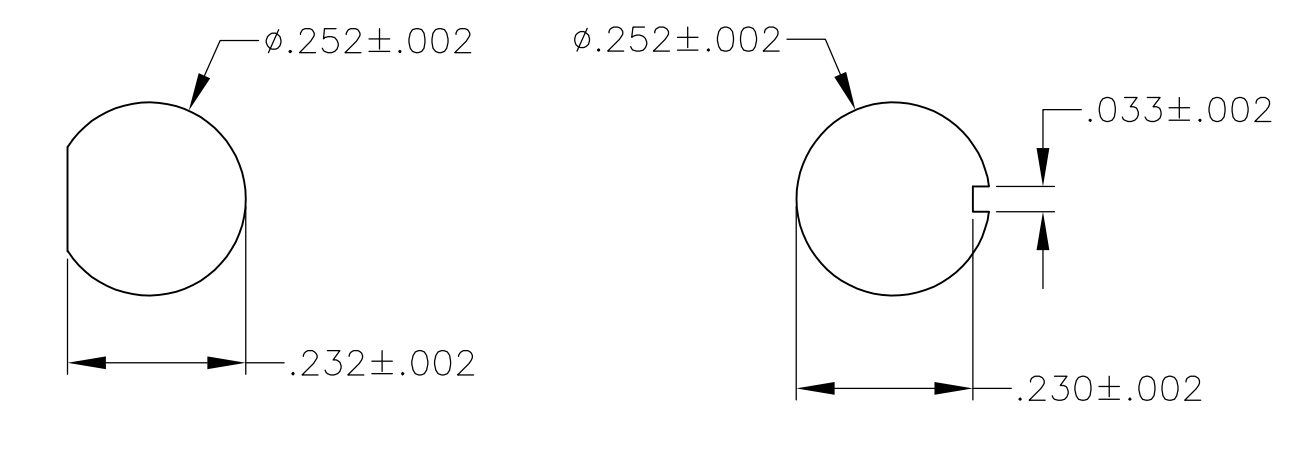
TPF13C, TPF13F



RECOMMENDED PANEL LAYOUTS

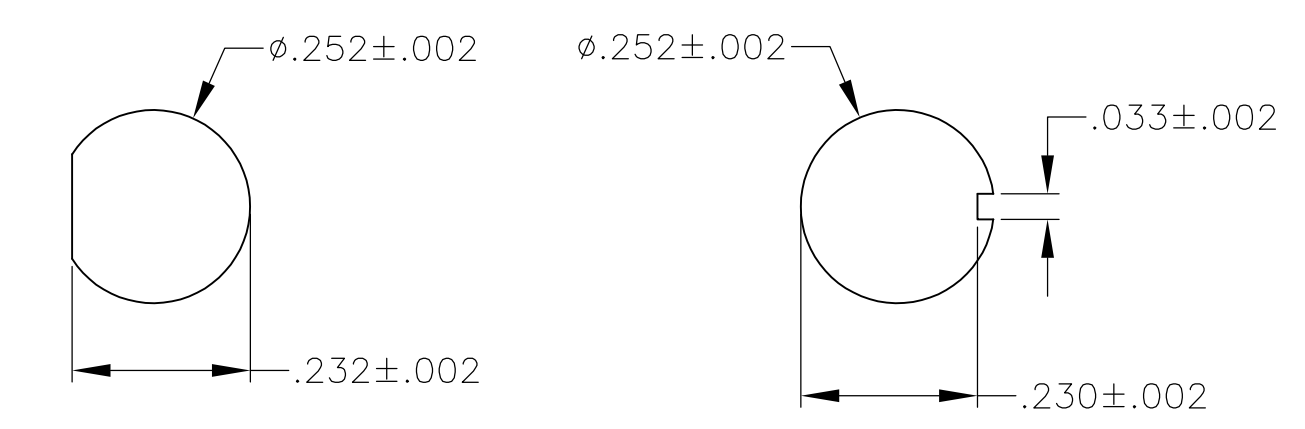
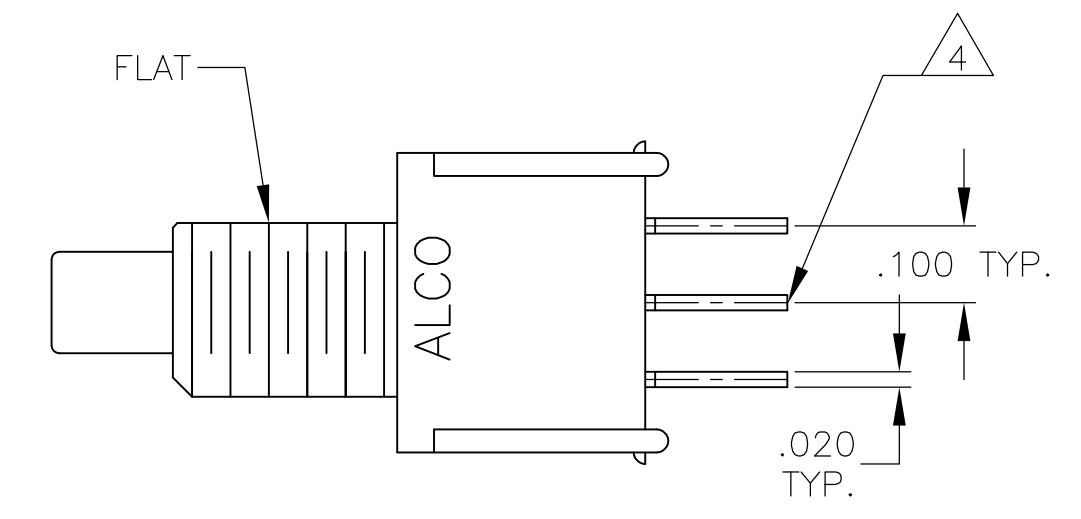


TPF23M

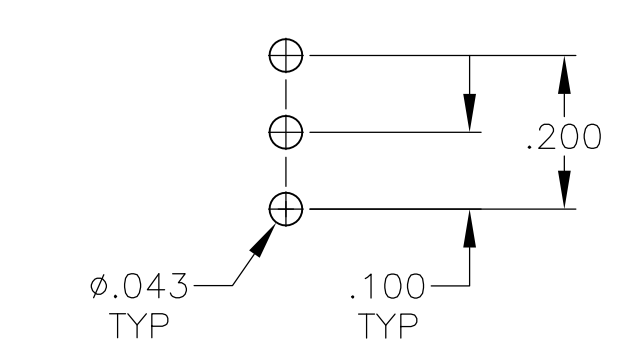
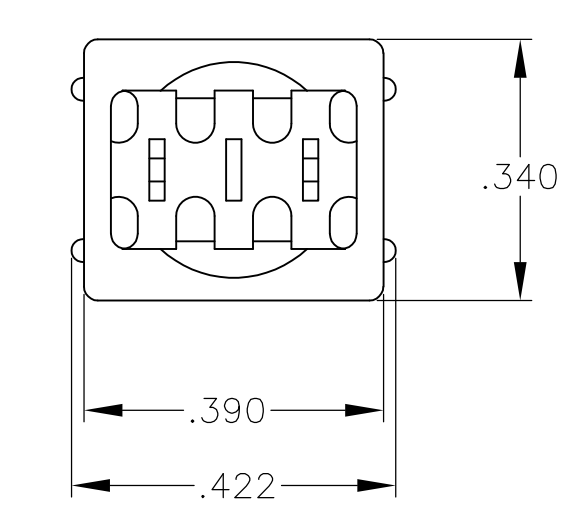
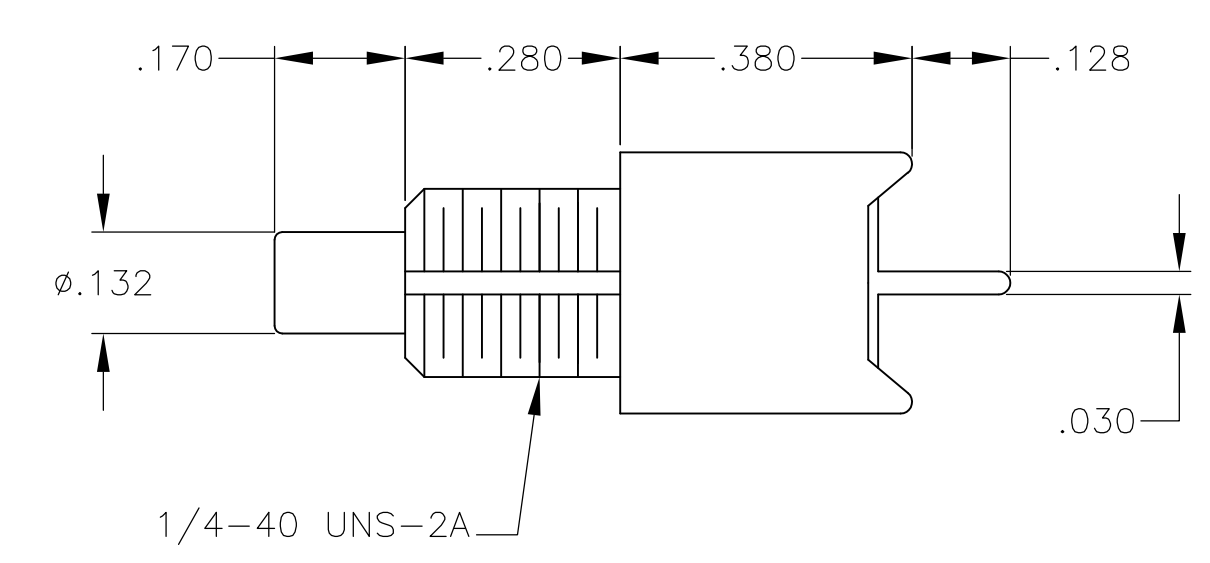
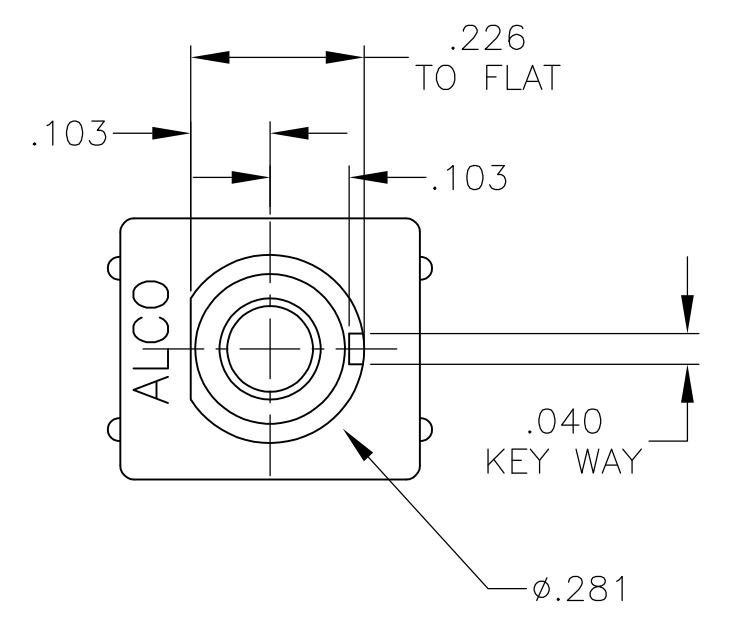


RECOMMENDED PANEL LAYOUTS

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWG	RAGHU	12-7-05
DIMENSIONS: INCHES		CHK		
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APPV		
0. PLC	± .005	NAME	PUSHBUTTON SWITCH, TPF SERIES	
1. PLC	± .002	PRODUCT SPEC		
2. PLC	± .001	APPLICATION SPEC		
3. PLC	± .010	SIZE	A1	00779
4. PLC	± .010	CAGE CODE	1825100	
ANGLES	± .5°	DRAWING NO		
MATERIAL		WEIGHT		
FINISH		CUSTOMER DRAWING	SCALE	4:1
		SHEET	4	OF 5
		REV	B	



RECOMMENDED PANEL LAYOUTS



RECOMMENDED PCB LAYOUT  
TOLERANCES +/- .002

TPF11CGPCES, TPF11FGPCES

THIS DRAWING IS A CONTROLLED DOCUMENT.		DIN	12-7-05	TE Connectivity	
DIMENSIONS: INCHES		CHK	RAGHU	PUSHBUTTON SWITCH, TPF SERIES	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD		PRODUCT SPEC	
0 PLG ± -		APPLICATION SPEC		SIZE	
1 PLG ± -				CAGE CODE	
2 PLG ± -				DRAWING NO	
3 PLG ± .010				RESTRICTED TO	
4 PLG ± -				A1 00779	
ANGLES ± °		WEIGHT		C=1825100	
MATERIAL	FINISH	CUSTOMER DRAWING	SCALE	SHEET	REV
			4:1	5 OF 5	B