



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!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



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, PC & wire lug (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	
Guide, CC & FF switches only	Nylon 6/6, white	

Specifications	
Rating	Gold: .4VA max. @ 20VDC or peak AC resistive Silver: 1 A @ 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

Model	Poles	Rating	Function	Plating	Terminations	Button color	04
TPA							04
	1	1 = Gold .4VA	C = SPST momentary	G = Gold	Blank = Wire lug	0 = Black	
	2 (1+1)	3 = Silver 1 Amp	F = SPDT momentary	Blank = Silver	PC = printed circuit	2 = Red	
			M = DPST momentary		RA = right angle	6 = Blue	
			R = DPDT momentary				

Notes:  
1. Silver only available in wire lug and pc terminations

P/N	Alco P/N	Poles	Throws	Plating	Terminals	Button Color	Function		Connected Terminals	
							ALCO	ALCO	ALCO	ALCO
1825096-1	TPA11CGPC004	1	1	Gold	PC	Black	Off	Mom	Off	1-3
1825096-2	TPA11CGPC204	1	1	Gold	PC	Red	Off	Mom	Off	1-3
1825096-3	TPA11CGPC604	1	1	Gold	PC	Blue	Off	Mom	Off	1-3
1825096-4	TPA11CGRA004	1	1	Gold	Right Angle	Black	Off	Mom	Off	1-3
1825096-5	TPA11CGRA204	1	1	Gold	Right Angle	Red	Off	Mom	Off	1-3
1825096-6	TPA11CGRA604	1	1	Gold	Right Angle	Blue	Off	Mom	Off	1-3
1825096-7	TPA11FGPC004	1	2	Gold	PC	Black	On	Mom	1-2	2-3
1825096-8	TPA11FGPC204	1	2	Gold	PC	Red	On	Mom	1-2	2-3
1825096-9	TPA11FGPC604	1	2	Gold	PC	Blue	On	Mom	1-2	2-3
1-1825096-0	TPA11FGRA004	1	2	Gold	Right Angle	Black	On	Mom	1-2	2-3
1-1825096-1	TPA11FGRA204	1	2	Gold	Right Angle	Red	On	Mom	1-2	2-3
1-1825096-2	TPA11FGRA604	1	2	Gold	Right Angle	Blue	On	Mom	1-2	2-3
1-1825096-3	TPA21CCGPC004	2 (1+1)	1	Gold	PC	Black	Off	Mom	Off	1-3, 4-6
1-1825096-4	TPA21CCGRA004	2 (1+1)	1	Gold	Right Angle	Black	Off	Mom	Off	1-3, 4-6
1-1825096-5	TPA21FFGRA204	2 (1+1)	2	Gold	Right Angle	Red	On	Mom	1-2, 4-5	2-3, 5-6
1-1825096-6	TPA21MGRA004	2	1	Gold	Right Angle	Black	Off	Mom	Off	1-3, 4-6

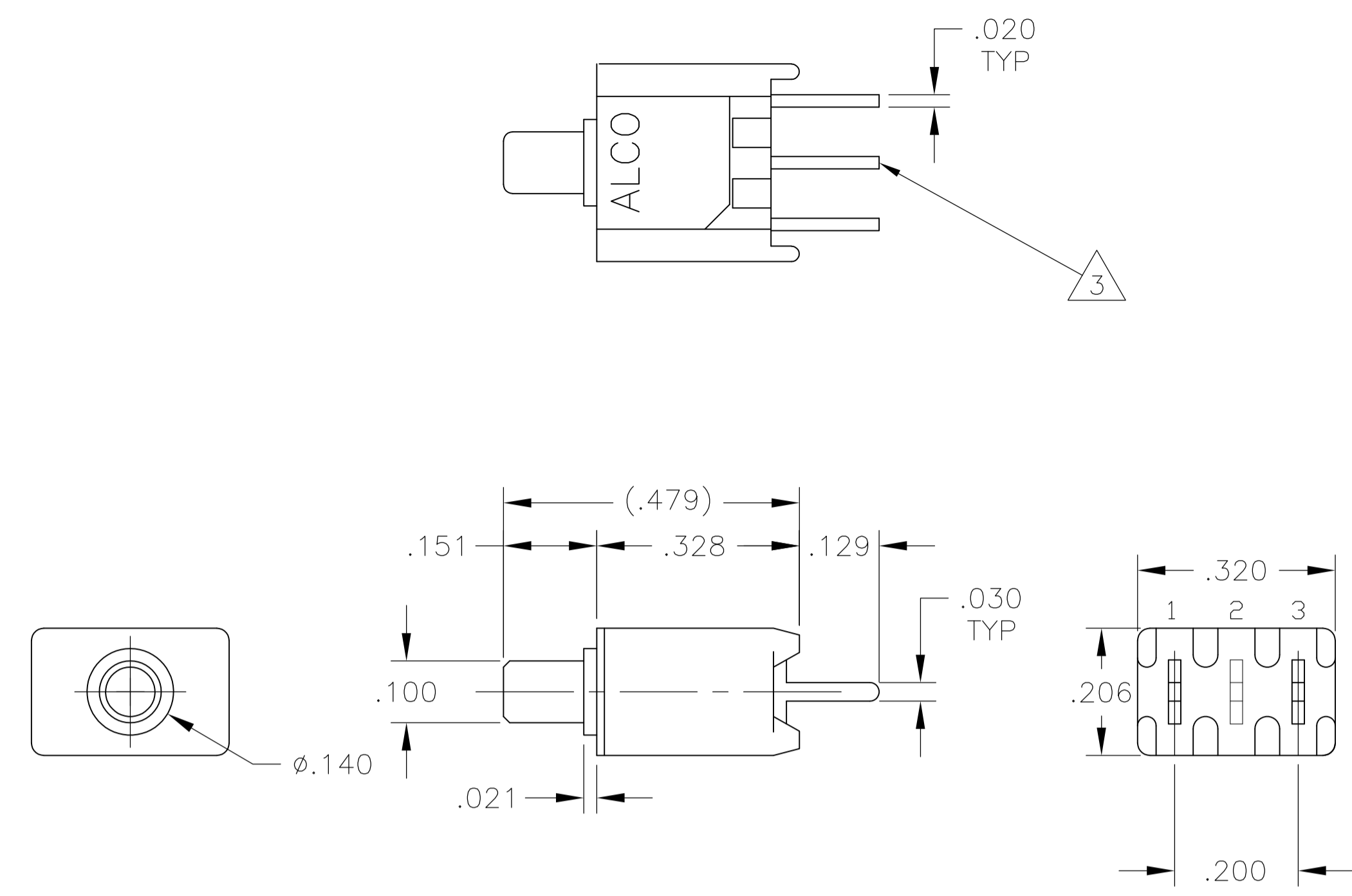
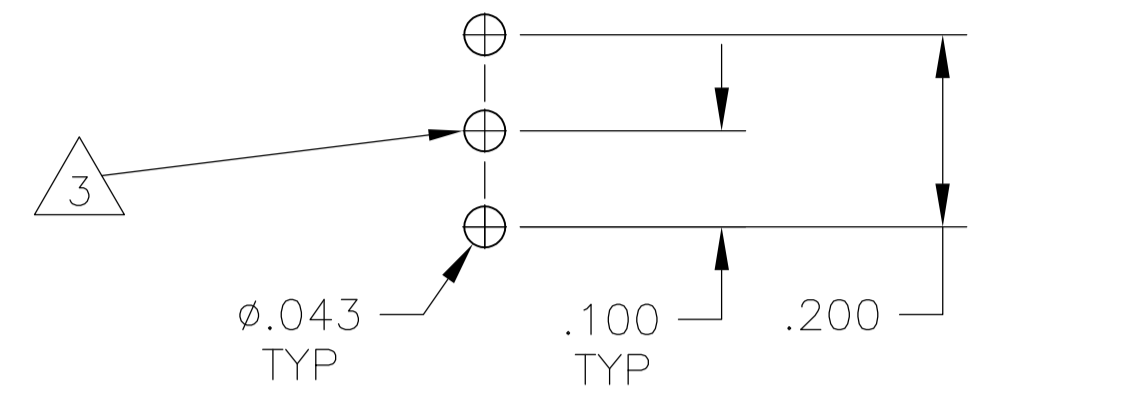
NOTES:

1. TERMINAL NUMBERS ARE FOR REFERENCE ONLY AND DO NOT APPEAR ON SWITCHES
2. ALL MATERIALS AND FINISHES COMPLY WITH EU DIRECTIVE 2002/95/EC OF 27JAN2003 (ROHS).
3. CENTER TERMINAL PRESENT ON DOUBLE THROW SWITCHES ONLY.

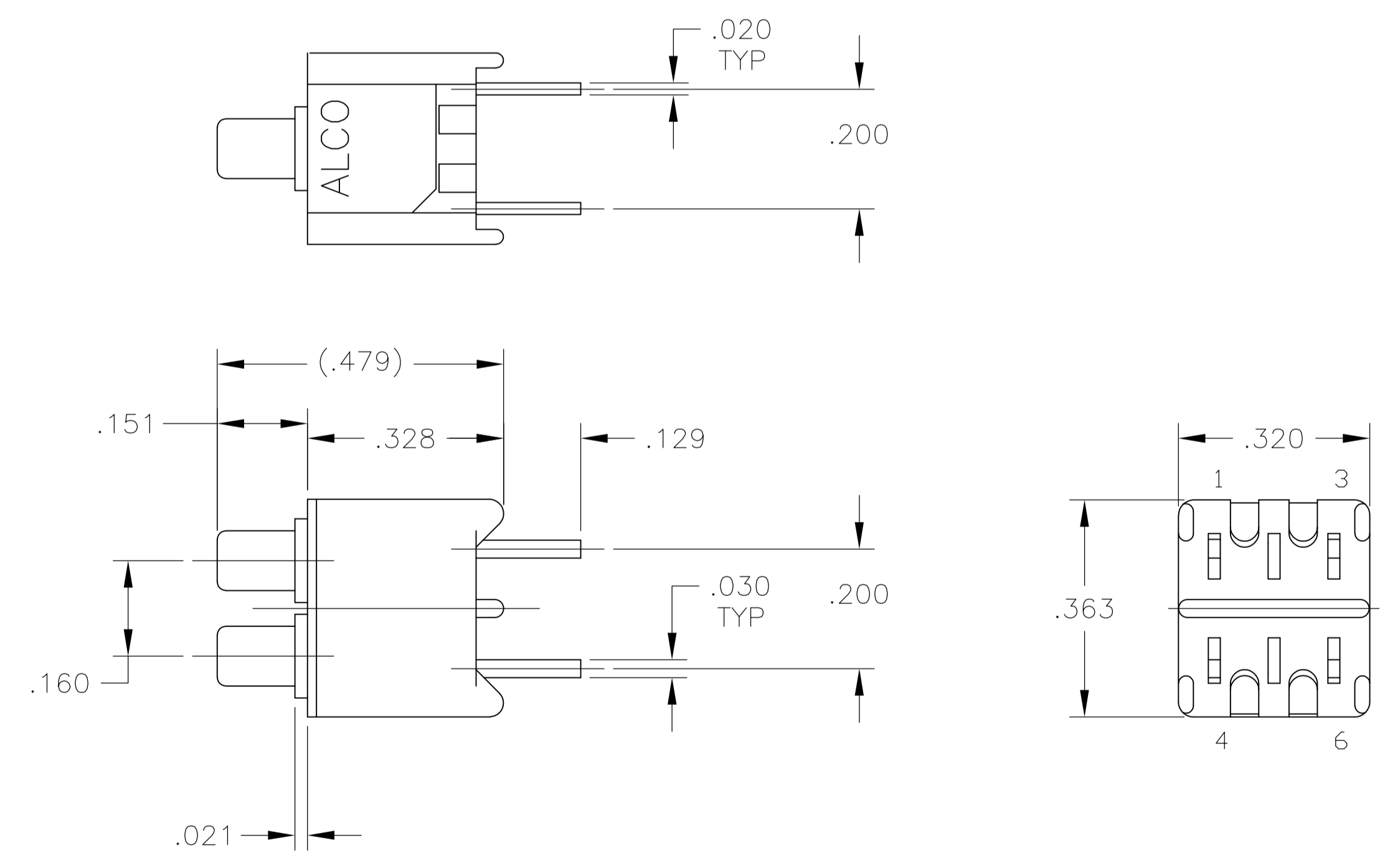
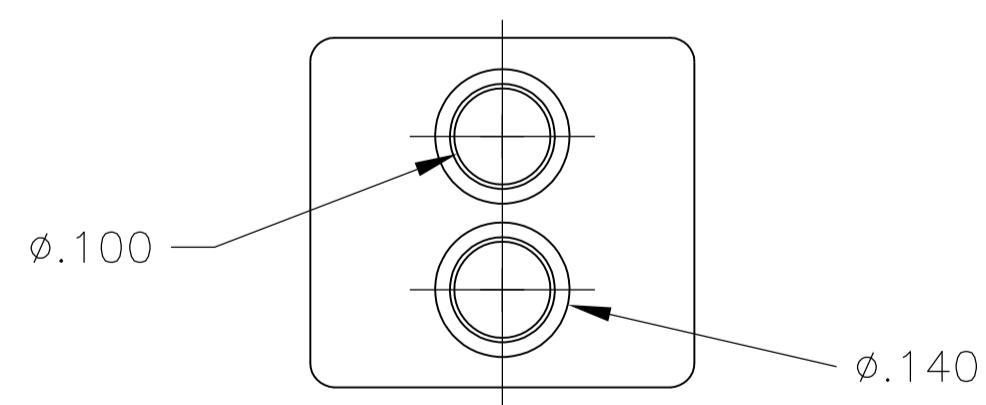
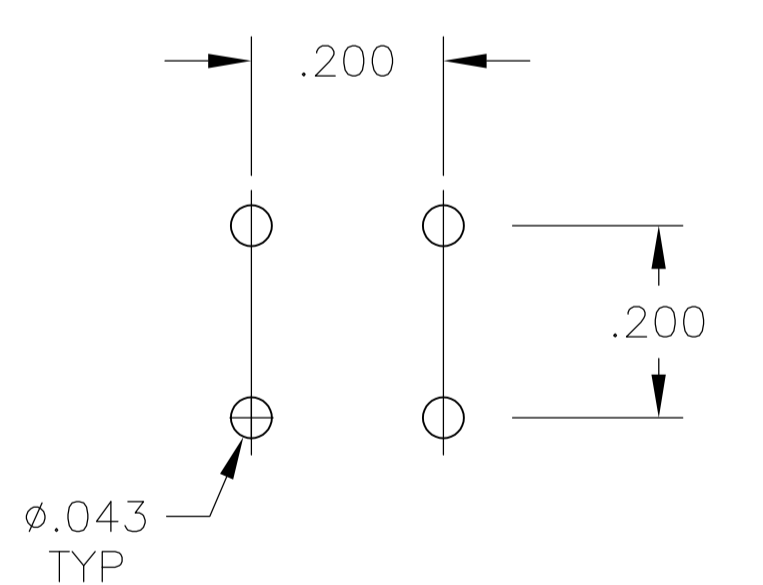
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STE TE Connectivity. M. BINNER 01SEP05. M. ZITTO 21JUL05. M. ZITTO 21JUL05. NAME: PUSHBUTTON SWITCH, TPA SERIES. APPLICATION SPEC: PRODUCT SPEC: SIZE: CASE CODE: DRAWING NO: RESTRICTED TO: WEIGHT: A1 00779 1825096. CUSTOMER DRAWING. SCALE: 4:1. SHEET 1 OF 4. REV A1.

LOC	DIST	REVISIONS			
P	LTR	DESCRIPTION	DATE	DNW	APVD
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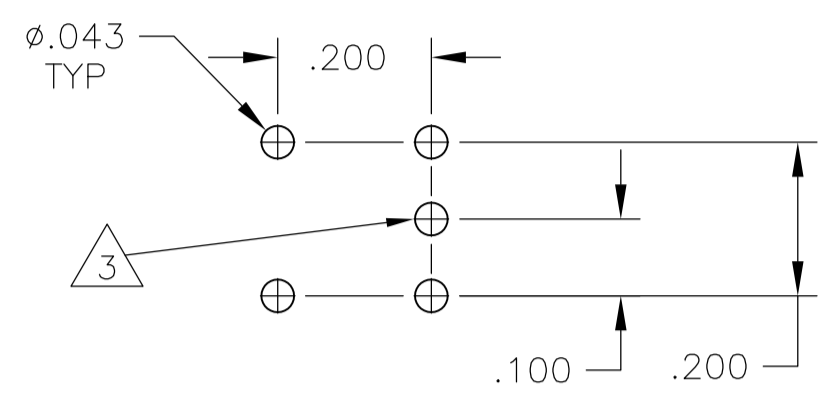
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TPA11FGPC



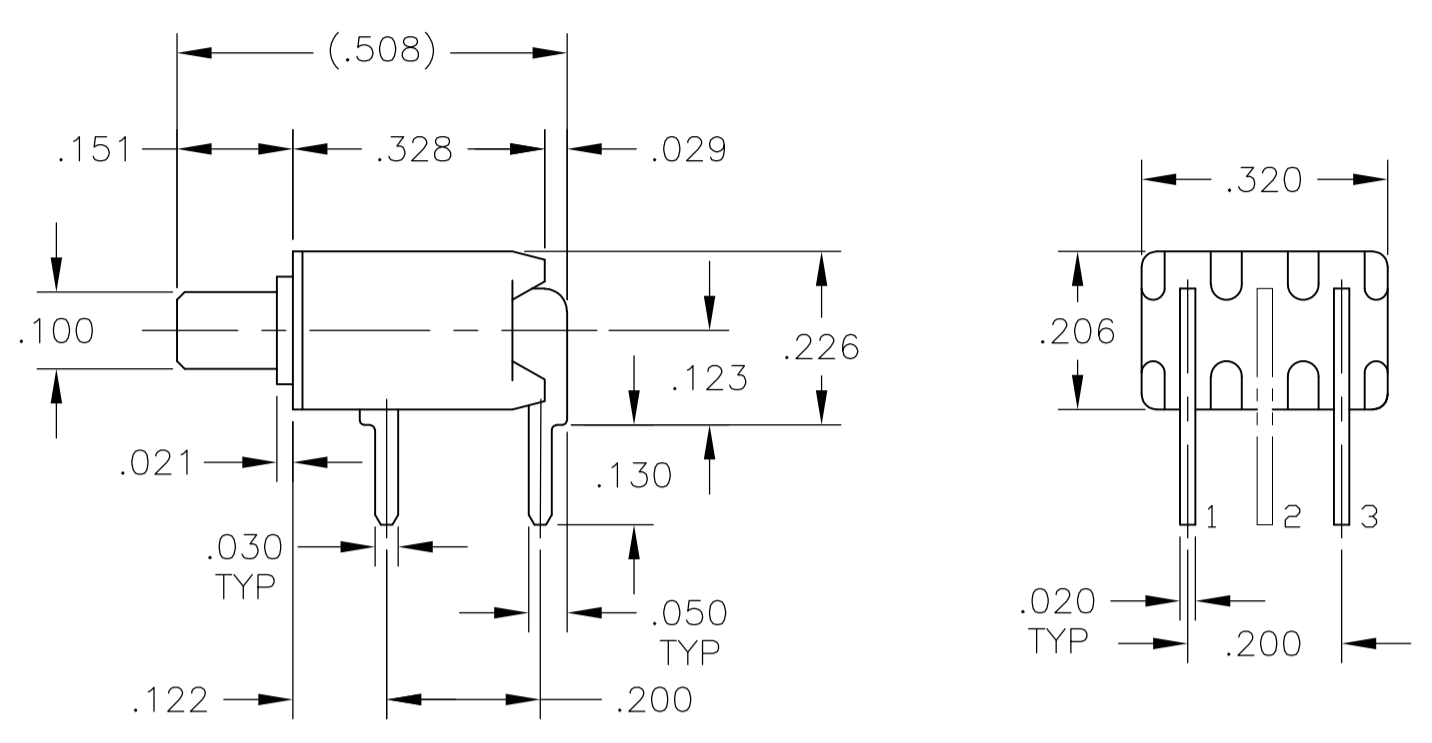
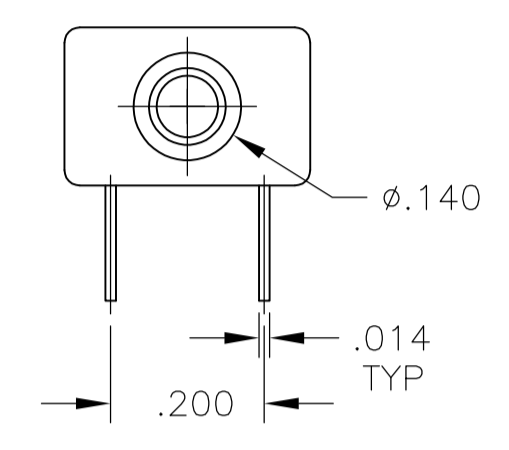
TPA21CCGPC

THIS DRAWING IS A CONTROLLED DOCUMENT.		DIN M. BINNER 21JUL05	STE TE Connectivity	
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TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD M. ZITTO	PRODUCT SPEC	
0. PLC ± -		APPLICATION SPEC		
1. PLC ± -		SIZE		
2. PLC ± -		CAGE CODE		
3. PLC ± .010		DRAWING NO		
4. PLC ± -		RESTRICTED TO		
ANGLES ± -		WEIGHT		
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MATERIAL -		CUSTOMER DRAWING		
		SCALE 4:1 SHEET 2 OF 4 REV A1		

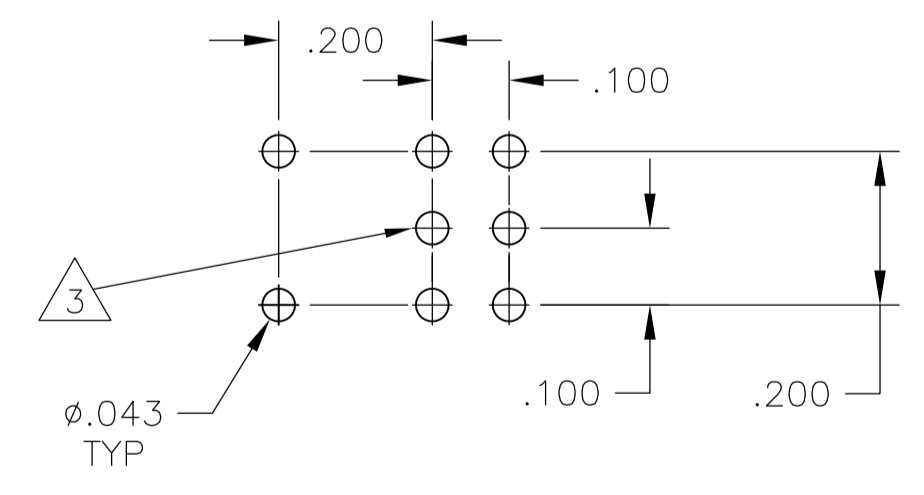
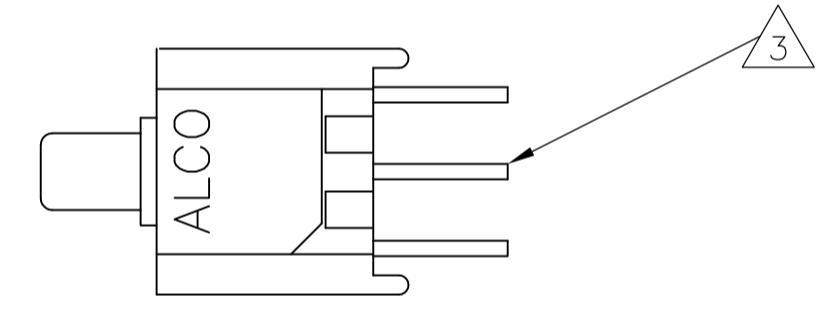
LOC	DIST	REVISIONS			
P	LTR	DESCRIPTION	DATE	DNW	APVD
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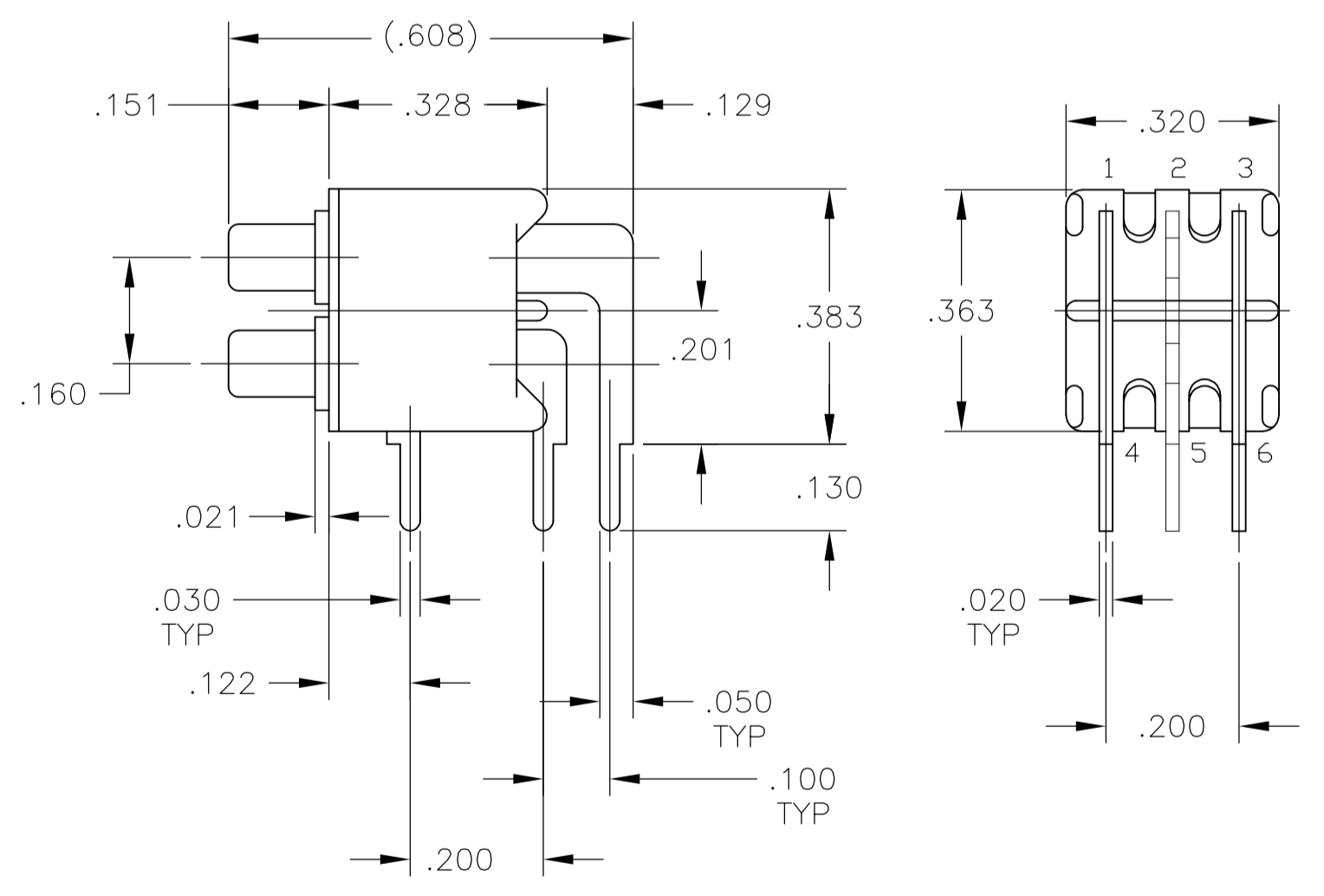
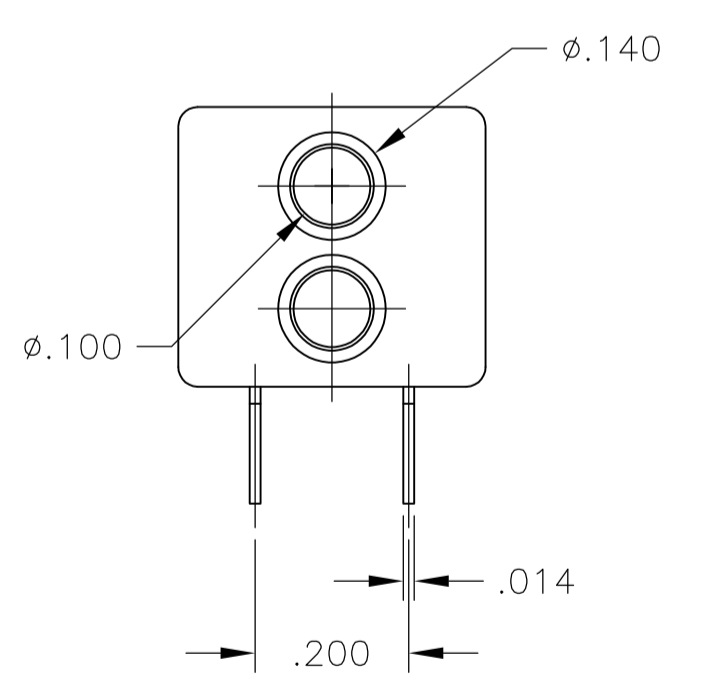
PCB HOLE LAYOUT



TPA11CGRA  
TPA11FGRA

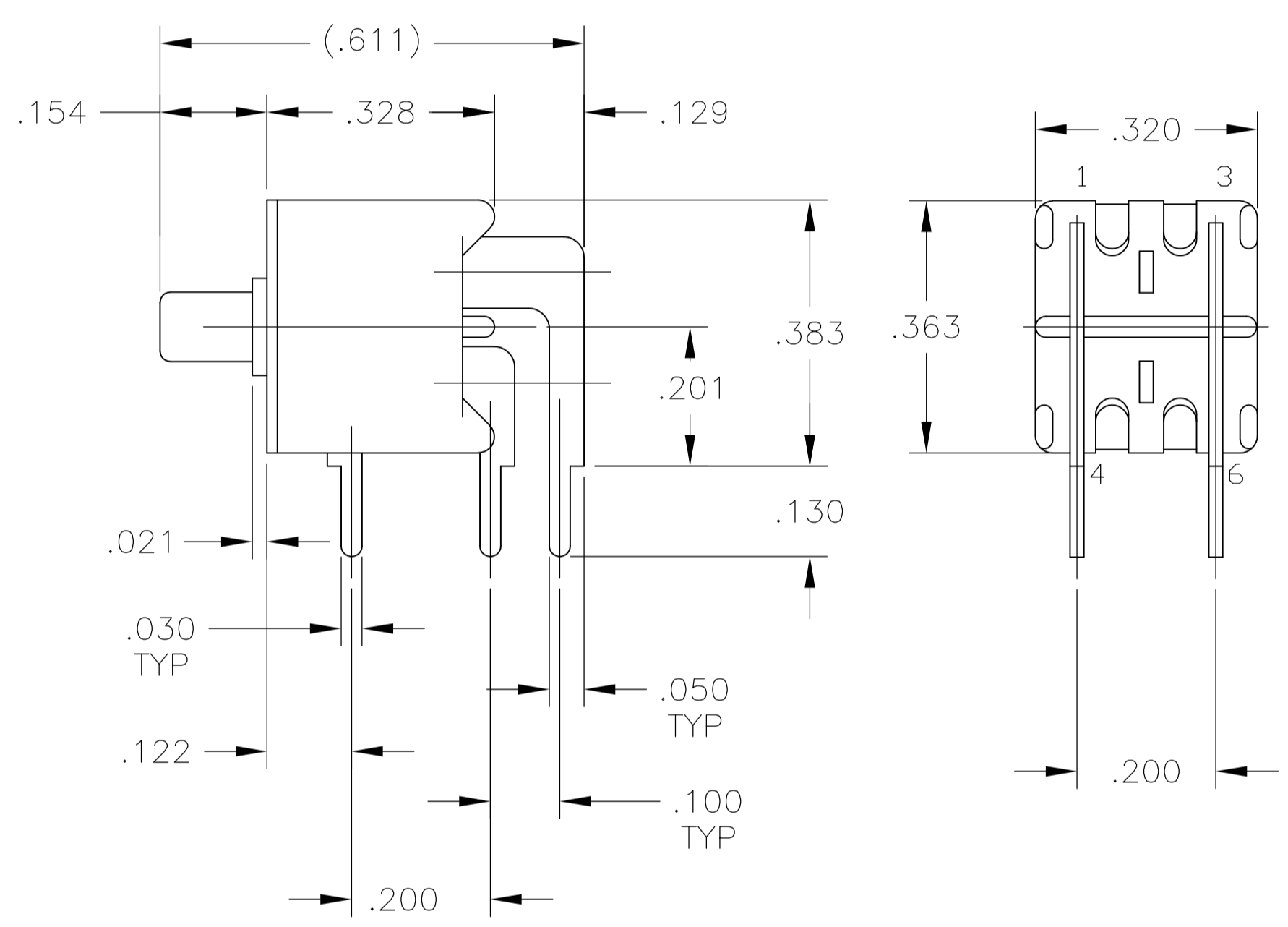
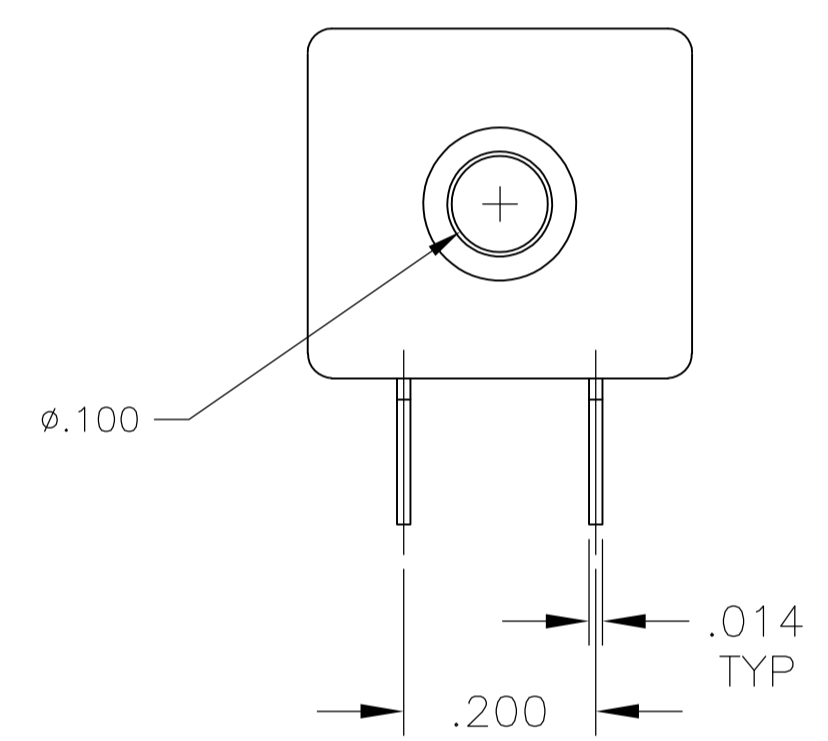
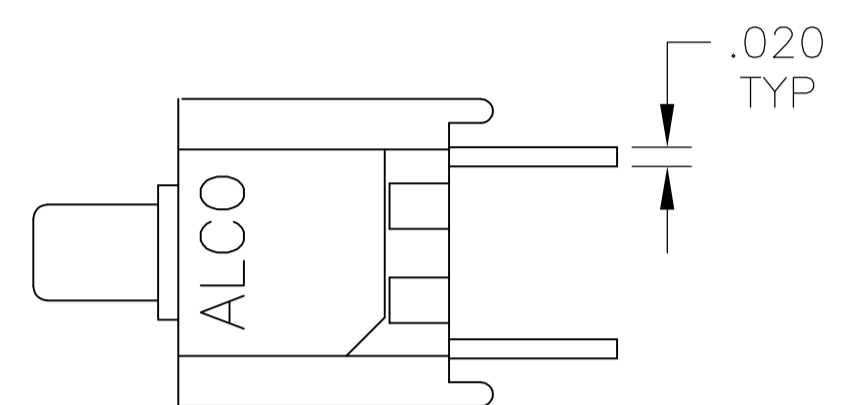


PCB HOLE LAYOUT

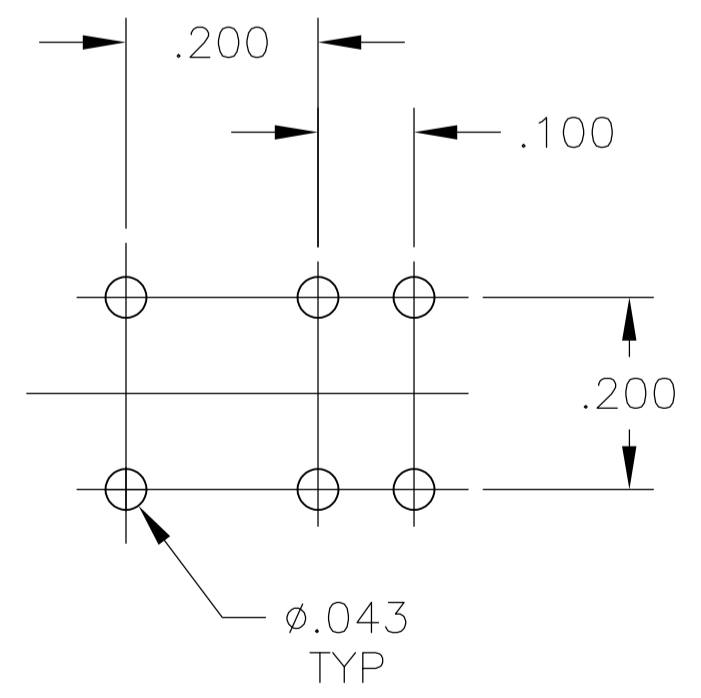


TPA21CCGRA  
TPA21FFGRA

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN M. BINNER 21JUL05	01SEP05	TE Connectivity
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TOLERANCES UNLESS OTHERWISE SPECIFIED:		APPD M. ZITTO 21JUL05	PRODUCT SPEC	
0. PLC ± - 1. PLC ± - 2. PLC ± - 3. PLC ± .010 4. PLC ± - ANGLES ± -		APPLICATION SPEC		
MATERIAL		WEIGHT		RESTRICTED TO
FINISH		A1 00779 C=1825096		SCALE 4:1 SHEET 3 OF 4 REV A1
CUSTOMER DRAWING				



TPA21MGRA



PCB HOLE LAYOUT

THIS DRAWING IS A CONTROLLED DOCUMENT.		DIN	M. BINNER	01SEP05	 TE Connectivity
		CHK	M. ZITTO	21JUL05	
		APP'D	M. ZITTO	21JUL05	NAME
		DIMENSIONS: INCHES TOLERANCES UNLESS OTHERWISE SPECIFIED: 0. PLC ± - 1. PLC ± - 2. PLC ± - 3. PLC ± .010 4. PLC ± - ANGLES ± -			PRODUCT SPEC APPLICATION SPEC WEIGHT RESTRICTED TO
MATERIAL		SIZE: A1 CAGE CODE: 00779 DRAWING NO: 1825096			CUSTOMER DRAWING SCALE: 4:1 SHEET: 4 OF 4 REV: A1