

## 1825096-4 Product Details

[+ Share](#) [Print](#) [Email](#)


**1825096-4**


(TPA11CGRA004)

TE Internal Number: 1825096-4

 **Active**

 [View 3D PDF](#)

### Pushbutton Switches

 **Always EU RoHS/ELV Compliant**  
(Statement of Compliance)

#### Product Highlights:

- Switch
- Tactile
- Single Pole - Single Throw Configuration (Pole-Throw)
- Contact Rating = 0.4VA
- Operating Function = Off [On]

[View all Features](#)

### Quick Links

- ▶ [Pricing & Availability](#)
- ▶ [Search for Tooling](#)
- ▶ [Product Feature Selector](#)
- ▶ [Contact Us About This Product](#)

[Add to My Part List](#)

[Request Sample](#)

[Find Similar Products](#)

[Buy Product](#)

### Documentation & Additional Information

#### Product Drawings:

- [PUSHBUTTON SWITCH, TPA SERIES](#) (PDF, English)

#### Catalog Pages/Data Sheets:

- [SWITCHES\\_CORE\\_PROGRAM\\_CATALOG](#) (PDF, English)

#### Product Specifications:

- None Available

#### Application Specifications:

- None Available

#### Instruction Sheets:

- None Available

#### CAD Files: (CAD Format & Compression Information)

- [2D Drawing](#) (DXF, Version A)
- [3D Model](#) (IGES, Version A)
- [3D Model](#) (STEP, Version A)

[List all Documents](#)

#### Related Products:

- [Tooling](#)

### Product Features (Please use the Product Drawing for all design activity)

#### Product Type Features:

- Product Type = Switch
- Tactile = Yes
- [Series](#) = TPA
- Mount Angle = Right Angle
- Termination Type = Printed Circuit
- Actuator Style = Round

#### Electrical Characteristics:

- Contact Rating = 0.4VA

#### Dimensions:

- Actuator Length (mm [in]) = 3.84 [0.151]

#### Body Features:

- Mount Style = Through-Hole
- Actuator Profile = Extended
- Actuator Color = Black

#### Configuration Features:

- Configuration (Pole-Throw) = Single Pole - Single Throw
- Operating Function = Off [On]
- Ganged = No
- ESD Grounding Terminal = Without
- Number of Actuators = Single
- Illuminated = No
- Dust Proof = No
- Support Bracket = Without
- Snap Action = Without

#### Industry Standards:

- [RoHS/ELV Compliance](#) = RoHS compliant, ELV compliant
- [Lead Free Solder Processes](#) = Wave solder capable to 240°C, Wave solder capable to 260°C, Wave solder capable to 265°C

<ul style="list-style-type: none"> <li>Case Material = Thermoplastic (LCP)</li> <li>Actuator Material = Nylon</li> </ul> <p><b>Contact Features:</b></p> <ul style="list-style-type: none"> <li>Contact Plating = Gold</li> <li>Contact Base Material = Copper Alloy</li> </ul> <p><b>Housing Features:</b></p> <ul style="list-style-type: none"> <li>Process Sealed = No</li> <li>Low Profile = No</li> </ul>	<ul style="list-style-type: none"> <li>RoHS/ELV Compliance History = Always was RoHS compliant</li> </ul> <p><b>Conditions for Usage:</b></p> <ul style="list-style-type: none"> <li>Temperature Rating = Standard</li> </ul> <p><b>Operation/Application:</b></p> <ul style="list-style-type: none"> <li>Actuator Force (g [oz]) = 50.00 – 400.00 [1.770 – 14.120]</li> </ul> <p><b>Packaging Features:</b></p> <ul style="list-style-type: none"> <li>Packaging Method = Loose Piece/Bulk</li> </ul> <p><b>Other:</b></p> <ul style="list-style-type: none"> <li>Brand = Alcoswitch</li> </ul>
---	--

Corporate Information

- About TE
- Investors
- News Room
- Supplier Portal
- Careers
- Terms & Conditions
- Privacy Policy

Quick Links

- Distributor Inventory
- Product Cross Reference
- Documents & Drawings
- Product Compliance Support Center
- Site Map

Customer Support

- Email or Chat With Us
- Find a Phone Number
- Knowledge Base
- Manage Your Account

Keep Me Informed



8

7

6

5

4

3

2

1

THIS DRAWING IS UNPUBLISHED.

RELEASED FOR PUBLICATION

ALL RIGHTS RESERVED.

LOCAD

DIST00

REVISED PER ECO-11-004917

DATE11MAR11

DWNRK

APVDHMR

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	

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 lever
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

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.

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	
1825096-1	TPA11CGPC004	1	1	Gold	PC	Black		Mom	Off	1-3
1825096-2	TPA11CGPC204	1	1	Gold	PC	Red		Mom	Off	1-3
1825096-3	TPA11CGPC604	1	1	Gold	PC	Blue		Mom	Off	1-3
1825096-4	TPA11CGRA004	1	1	Gold	Right Angle	Black		Mom	Off	1-3
1825096-5	TPA11CGRA204	1	1	Gold	Right Angle	Red		Mom	Off	1-3
1825096-6	TPA11CGRA604	1	1	Gold	Right Angle	Blue		Mom	Off	1-3
1825096-7	TPA11FGPC004	1	2	Gold	PC	Black		Mom	1-2	2-3
1825096-8	TPA11FGPC204	1	2	Gold	PC	Red		Mom	1-2	2-3
1825096-9	TPA11FGPC604	1	2	Gold	PC	Blue		Mom	1-2	2-3
1-1825096-0	TPA11FGRA004	1	2	Gold	Right Angle	Black		Mom	1-2	2-3
1-1825096-1	TPA11FGRA204	1	2	Gold	Right Angle	Red		Mom	1-2	2-3
1-1825096-2	TPA11FGRA604	1	2	Gold	Right Angle	Blue		Mom	1-2	2-3
1-1825096-3	TPA21CCGPC004	2 (1+1)	1	Gold	PC	Black		Mom	Off	1-3, 4-6
1-1825096-4	TPA21CCGRA004	2 (1+1)	1	Gold	Right Angle	Black		Mom	Off	1-3, 4-6
1-1825096-5	TPA21FFGRA204	2 (1+1)	2	Gold	Right Angle	Red		Mom	1-2, 4-5	2-3, 5-6
1-1825096-6	TPA21MGRA004	2	1	Gold	Right Angle	Black		Mom	Off	1-3, 4-6

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: INCHES

MATERIAL-

TOLERANCES UNLESS OTHERWISE SPECIFIED:

0 PLC ± -

1 PLC ± -

2 PLC ± -

3 PLC ± .010

4 PLC ± -

ANGLES ± -

FINISH-

THIS DRAWING IS A CONTROLLED DOCUMENT.

DWNM.BINNER01SEP05

CHKM.ZITTO21JUL05

APVDM.ZITTO21JUL05

PRODUCT SPEC

APPLICATION SPEC

WEIGHT-

CUSTOMER DRAWING

TE Connectivity

NAMEPUSHBUTTON SWITCH, TPA SERIES

SIZEA1

CAGE CODE00779

DRAWING NO1825096

RESTRICTED TO-

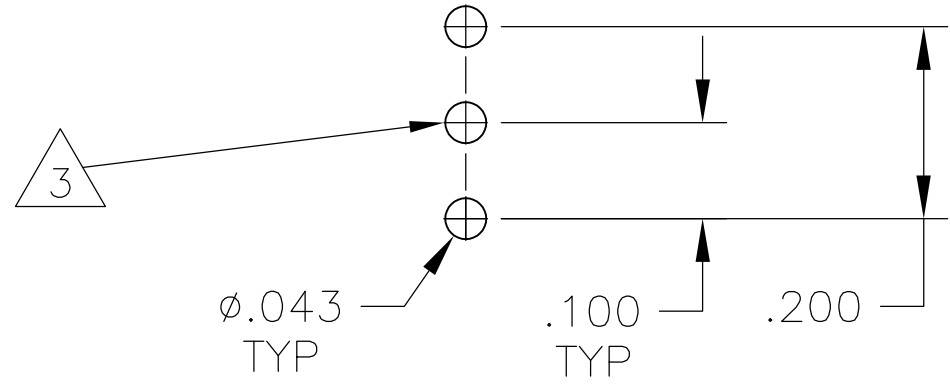
SCALE4:1

SHEET1 OF 4

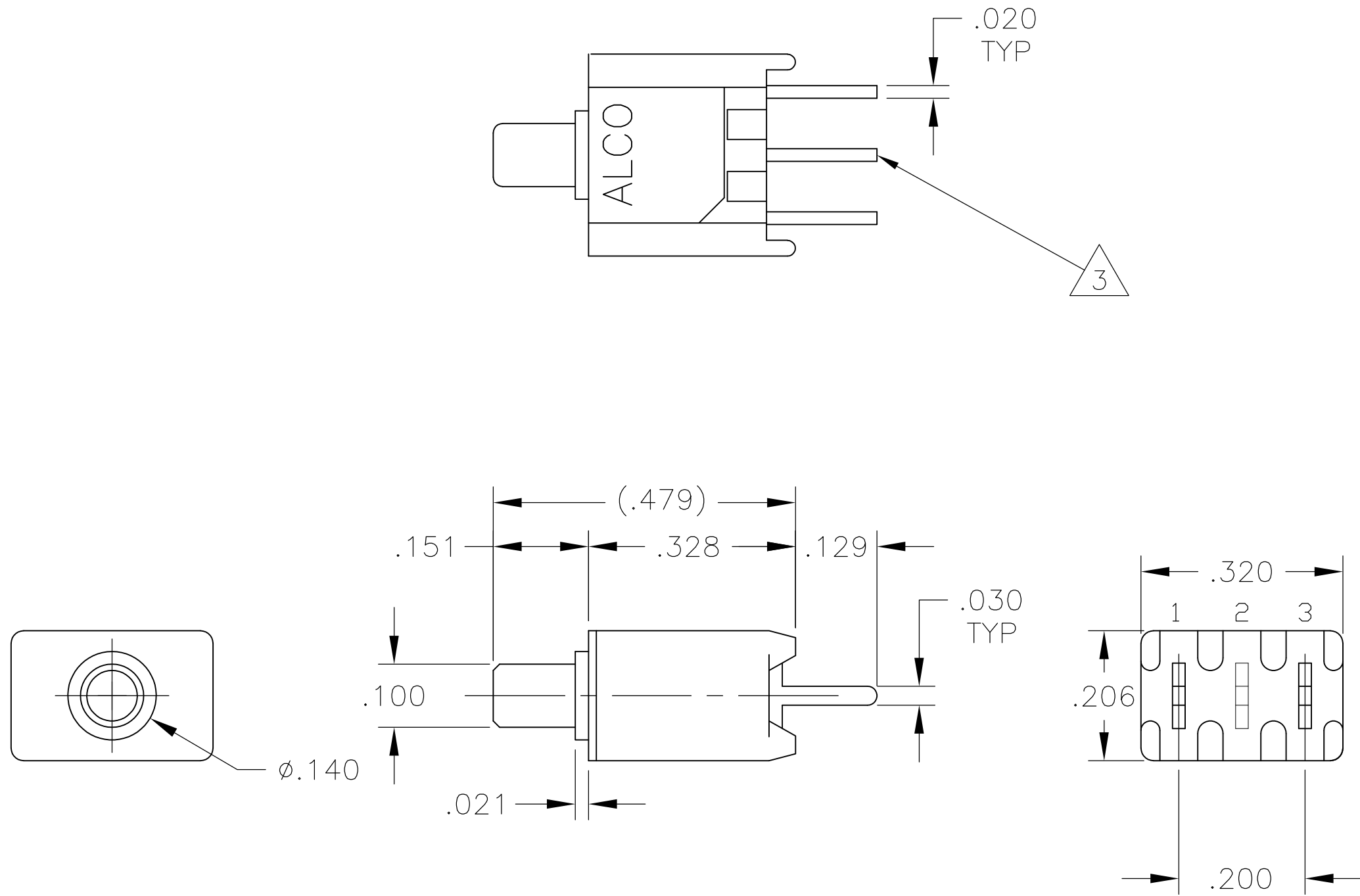
REV

4805 (3/11)

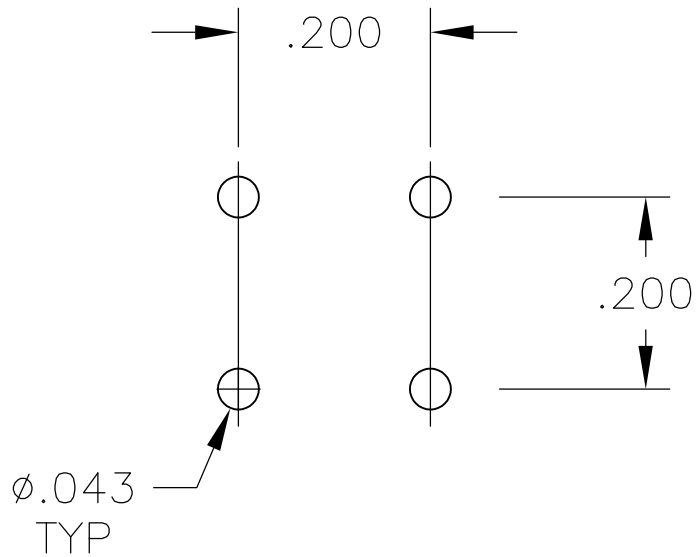
LOC	DIST	REVISIONS				
AD	—	P	LTR	DESCRIPTION	DATE	DWN
		—	—	SEE SHEET 1	—	—



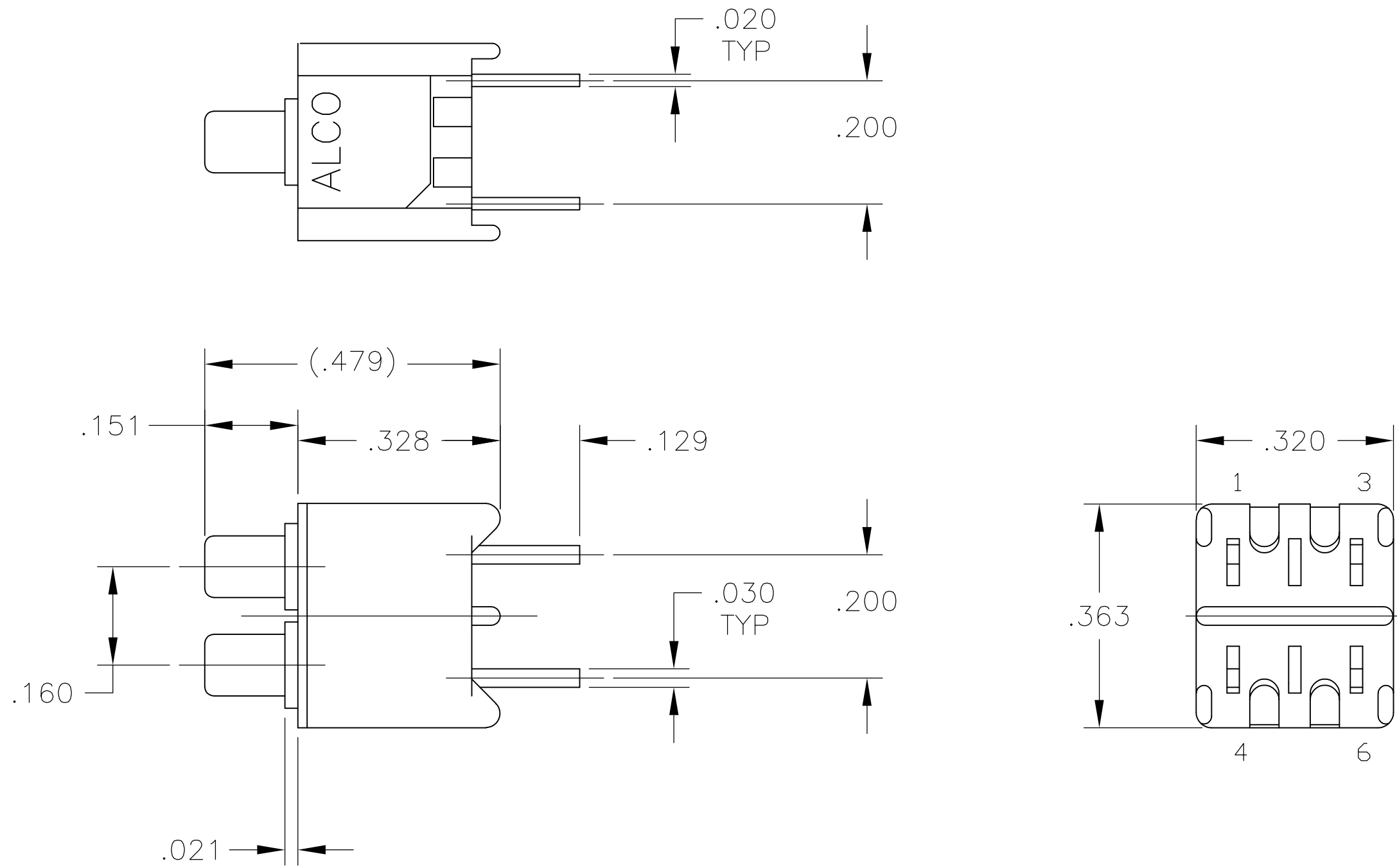
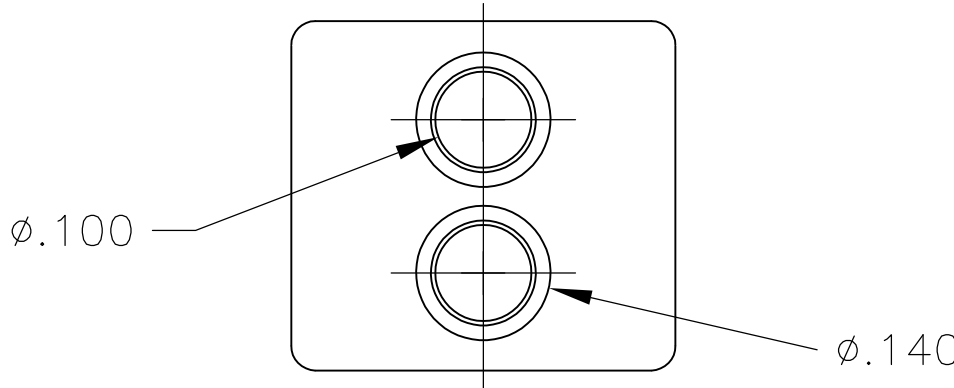
PCB HOLE LAYOUT



TPA11CGPC  
TPA11FGPC



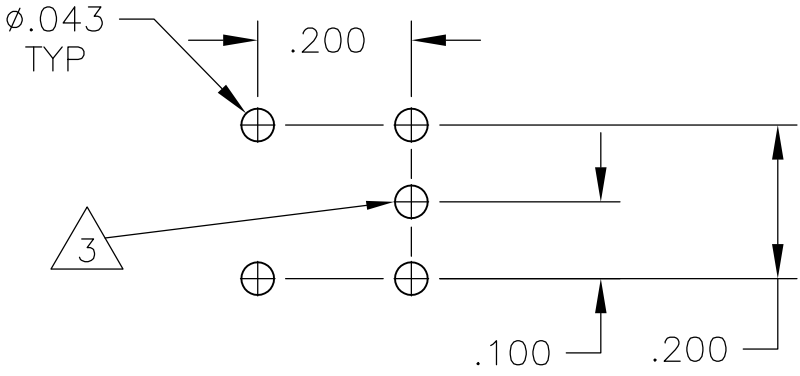
PCB HOLE LAYOUT



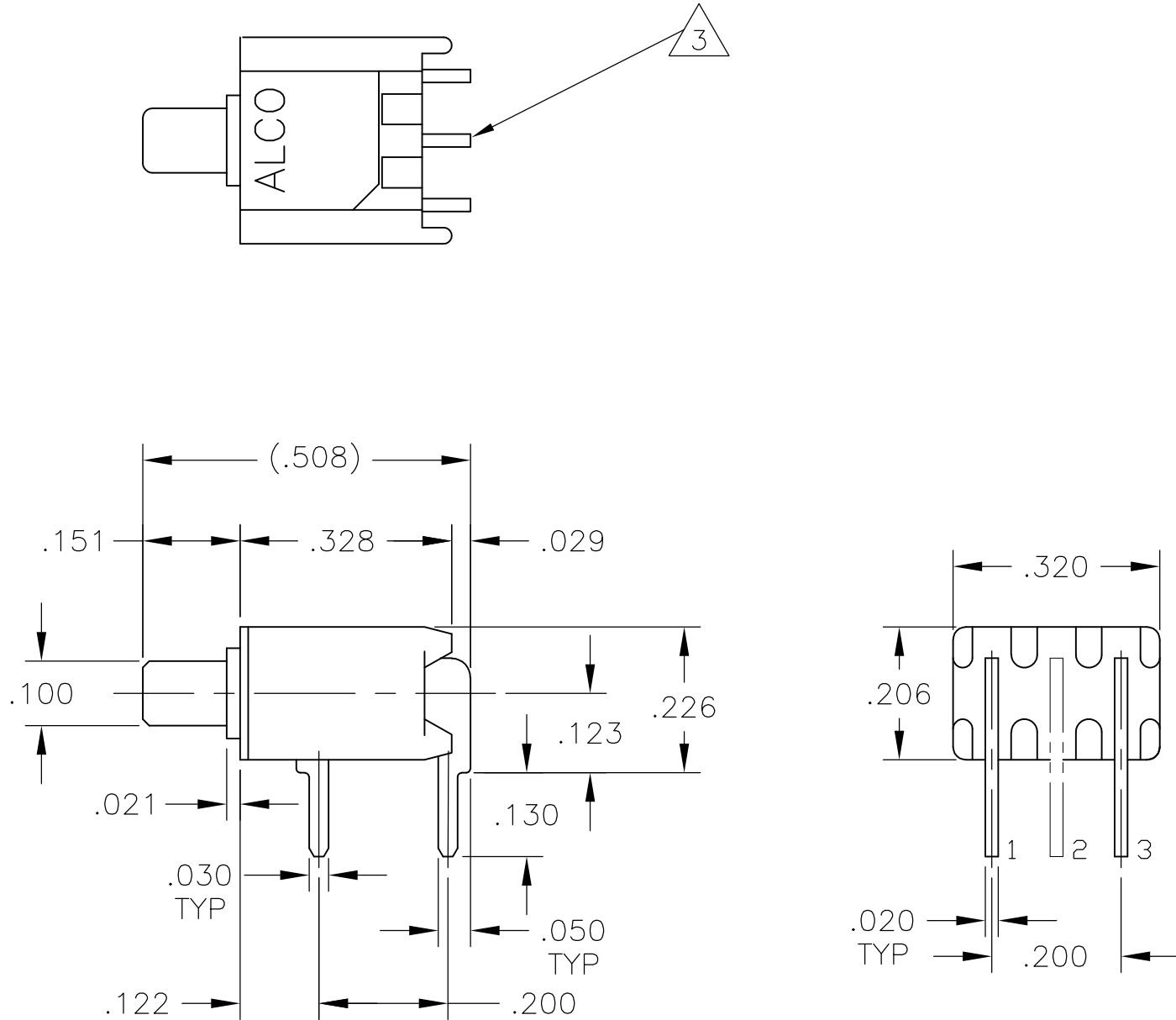
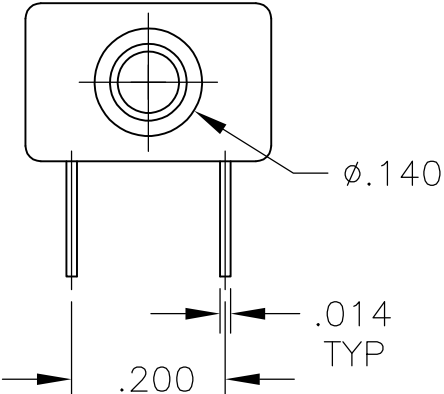
TPA21CCGPC

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN M. BINNER	01SEP05	TE Connectivity	
		CHK M. ZITTO	21JUL05		
DIMENSIONS: INCHES	TOLERANCES UNLESS OTHERWISE SPECIFIED:	APPROVED M. ZITTO		NAME	
		PRODUCT SPEC		PUSHBUTTON SWITCH, TPA SERIES	
	0. PLC ± .010 1. PLC ± .010 2. PLC ± .010 3. PLC ± .010 4. PLC ± .010 ANGLES ± .010	APPLICATION SPEC		RESTRICTED TO	
		WEIGHT		—	
MATERIAL	FINISH	CUSTOMER DRAWING		SCALE 4:1 SHEET 2 OF 4 REV A1	

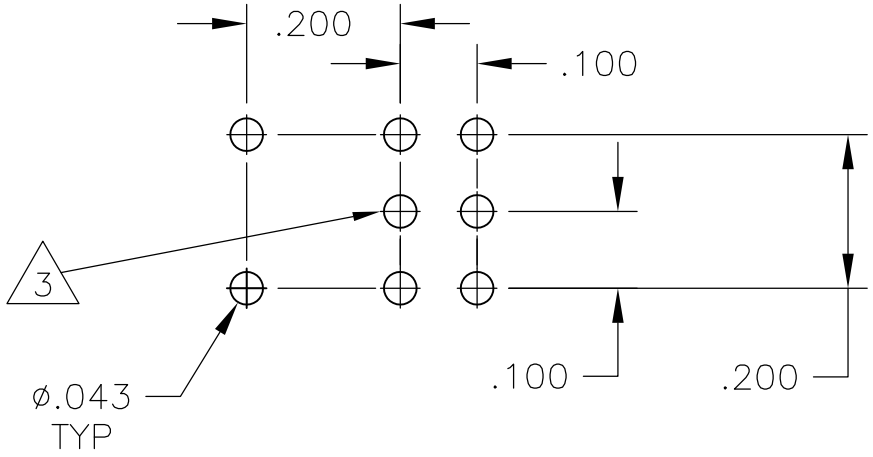
LOC	DIST	REVISIONS				
		P	LTR	DESCRIPTION	DATE	DWN
AD	—	—	—	SEE SHEET 1	—	—



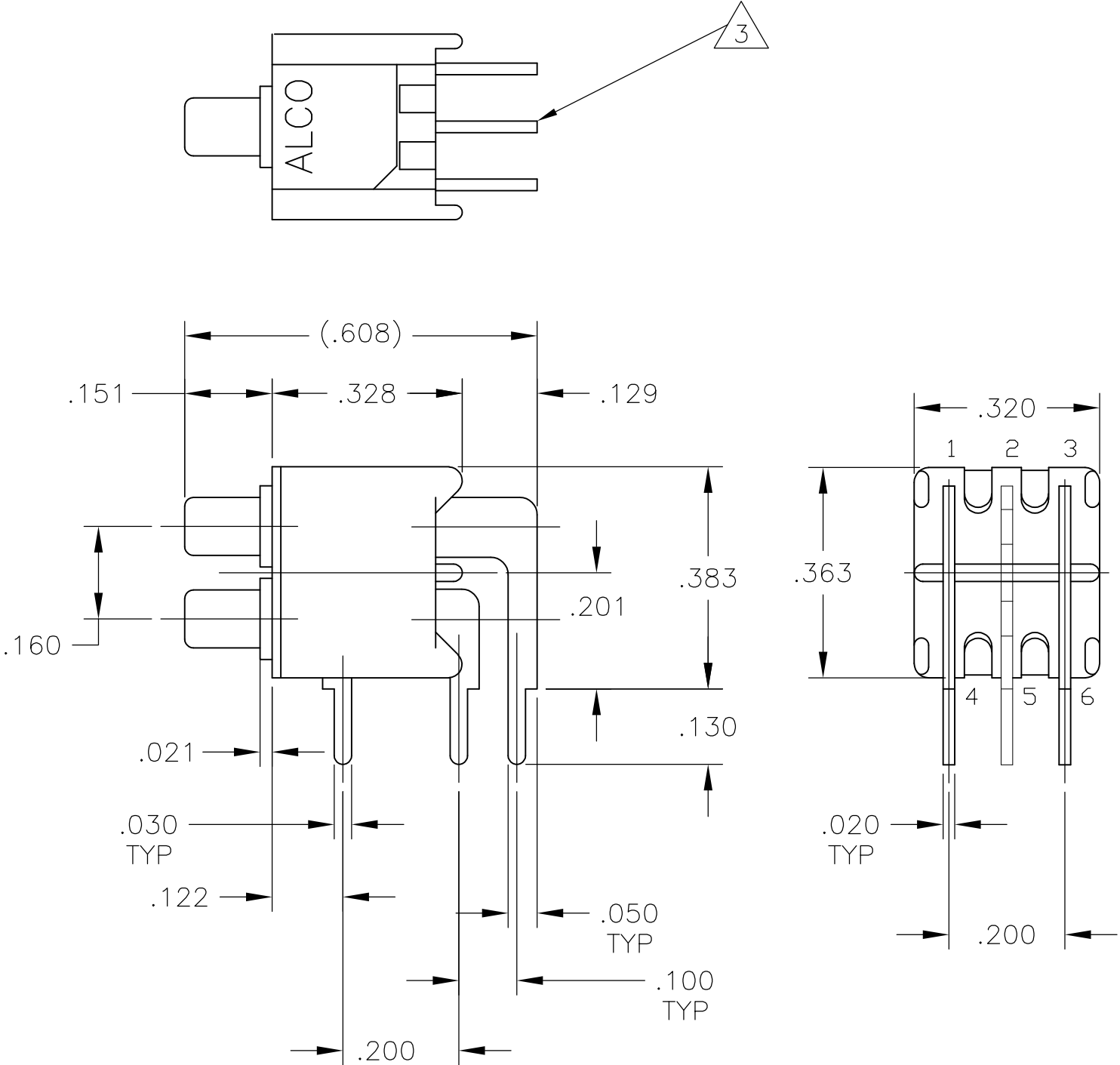
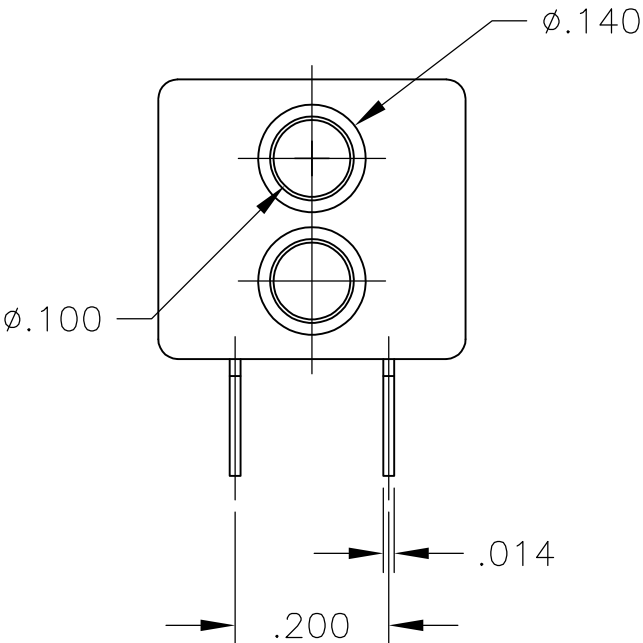
PCB HOLE LAYOUT



TPA11CGRA  
TPA11FGRA



PCB HOLE LAYOUT



TPA21CCGRA  
TPA21FFGRA

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN M. BINNER	01SEP05	TE Connectivity	
		CHK M. ZITTO	21JUL05		
DIMENSIONS: INCHES	TOLERANCES UNLESS OTHERWISE SPECIFIED:	AP'D M. ZITTO	21JUL05	NAME PUSHBUTTON SWITCH, TPA SERIES	
		PRODUCT SPEC		—	
	0. PLC 1. PLC 2. PLC 3. PLC 4. PLC ANGLES	APPLICATION SPEC		—	
		—		—	
MATERIAL	FINISH	WEIGHT	—	RESTRICTED TO	
—	—	—	—	—	
CUSTOMER DRAWING		SCALE	4:1	SHEET	3 OF 4
		REV	A1		

