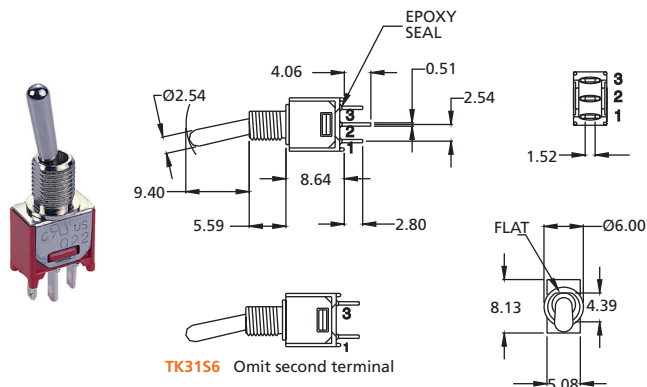


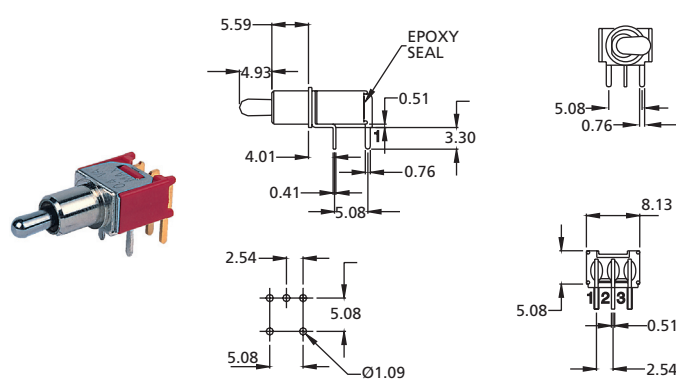
Toggle Switches

Sub-Miniature SPDT Toggle Switches

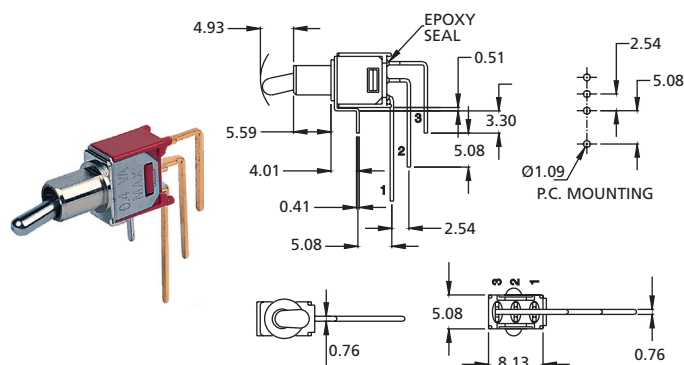
TK31 Series



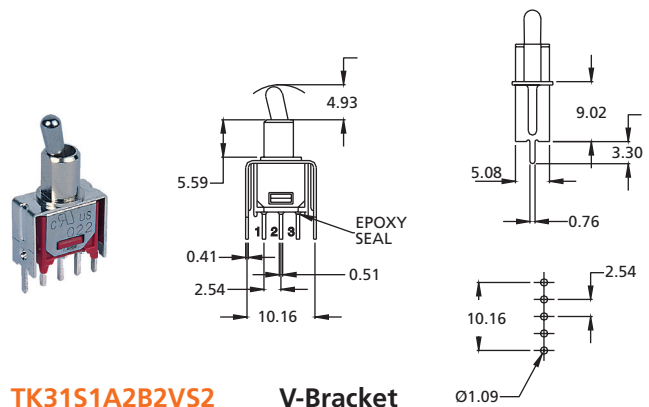
TK31S1A1B1T1__ Solder Lug



TK31S1A2B2T6__ THT Right Angle



TK31S1A2B2T7__ THT Vertical Right Angle



TK31S1A2B2VS2__ V-Bracket

No. Poles	Model No.	Switch Function			Connected Terminals / Schematic		
		Position 1	Position 2	Position 3	Position 1	Position 2	Position 3
							
SP	TK31S1	ON	NONE	ON	 	N/A	 
SP	TK31S2	ON	NONE	MOM			
SP	TK31S3	ON	OFF	ON			
SP	TK31S4	MOM	OFF	MOM			
SP	TK31S5	ON	OFF	MOM			
SP	TK31S6	OFF	NONE	ON	OPEN	N/A	3-1

How to order:

TK31

1 POLES & SWITCH FUNCTION:

- S1 SP ON-NONE-ON
- S2 SP ON-NONE-MOM
- S3 SP ON-OFF-ON
- S4 SP MOM-OFF-MOM
- S5 SP ON-OFF-MOM
- S6 SP OFF-NONE-ON

2 ACTUATOR (See page A11):

- A1 Height = 9.40 mm
- A2 Height = 5.33 mm
- A3 Height = 7.37 mm
- A4 Height = 10.41 mm
- A5 Height = 5.59 mm

3 BUSHING (See page A11):

- B1 Height = 5.59 mm, flat (thd)
- B2 Height = 5.59 mm, flat (non-thd)
- B3 Height = 5.59 mm, keyway (thd)
- B4 Height = 5.59 mm, keyway (non-thd)
- B5 Height = 7.87 mm, flat (thd)
- B6 Height = 7.87 mm, flat (non-thd)
- B7 Height = 6.60 mm, keyway (thd)
- B8 Height = 6.60 mm, keyway (non-thd)

4 TERMINALS (See page A11):

- T1 Solder Lug

T2 PC Thru Hole

- T5 Wire Wrap
- T6 PC Thru Hole, Right Angle
- T6N PC Thru Hole, Right Angle, Snap-in
- T7 PC Thru Hole, Vertical Right Angle
- T7N PC Thru Hole, Vertical Right Angle, Snap-in

VS2 V-Bracket

- V2N Snap-in V-Bracket
- VS3 V-Bracket
- V3N Snap-in V-Bracket

5 CONTACT MATERIAL:

- AG Silver
- AU Gold
- UT Gold, Tin-Lead
- GT Silver, Tin-Lead
- UG Gold over Silver
- UGT Gold over Silver, Tin-Lead

6 SEAL:

- E Epoxy (Standard)
- N No Epoxy

7 ROHS & LEAD FREE:

- blank RoHS Compliant (Standard)
- V RoHS Compliant & Lead Free

General Specifications:

MATERIALS

- » Movable Contact & Fixed Terminals:
AG, GT, UG & UGT: Silver plated over copper alloy
AU & UT: Gold over nickel plated over copper alloy

MECHANICAL

- » Operating Temperature: -30°C to +85°C
- » Mechanical Life: 30,000 cycles

CONTACT RATING

- » AG, GT, UG & UGT: 3A120VAC/28VDC
1A250VAC
- » AU & UT: 0.4VA max. 20V max. (AC/DC)

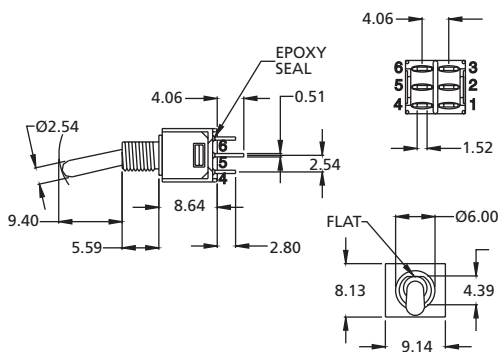
ELECTRICAL

- » Contact Resistance: 10mΩ max. initial @ 2-4VDC
100mA for silver & gold plated contacts
- » Insulation Resistance: 1,000MΩ min.

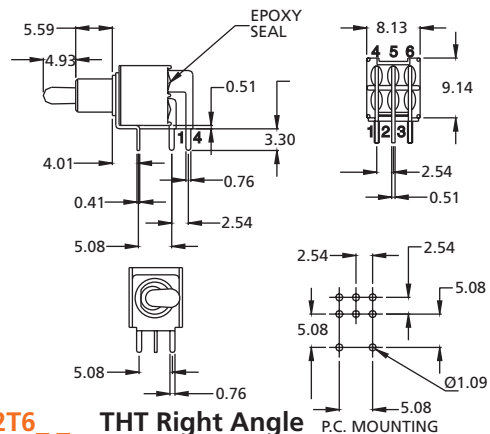
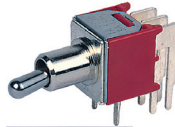
Toggle Switches

Sub-Miniature DPDT Toggle Switches

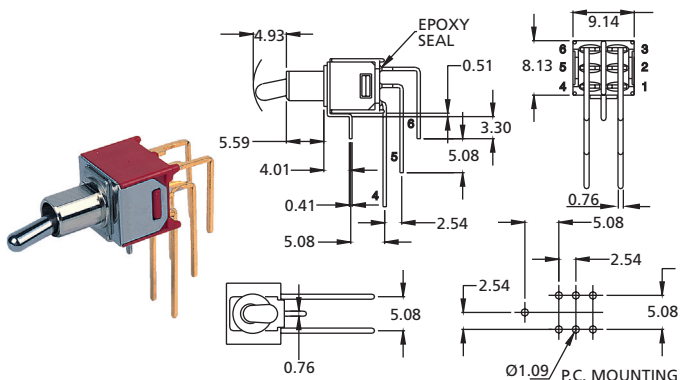
TK32 Series



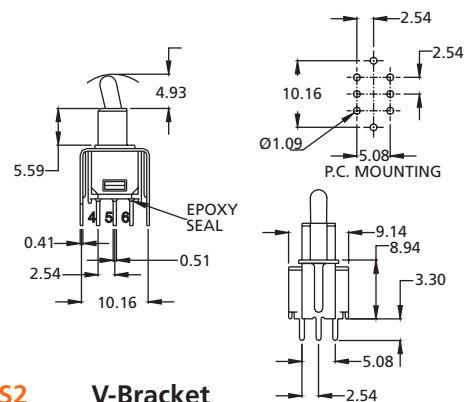
TK32D1A1B1T1_ _ Solder Lug



TK32D1A2B2T6_ _ **THT Right Angle** **P.C. MOUNTING**



TK32D1A2B2T7__ THT Vertical Right Angle



TK32D1A2B2VS2__ V-Bracket

No. Poles	Model No.	Switch Function			Connected Terminals / Schematic		
		Position 1	Position 2	Position 3	Position 1	Position 2	Position 3
							
DP	TK32D1	ON	NONE	ON		N/A	
DP	TK32D2	ON	NONE	MOM			
DP	TK32D3	ON	OFF	ON		OPEN	

How to order:

TK32

1	2	3	4	5	6	7
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- ## 1 POLES & SWITCH FUNCTION:

- D1 DP ON-NONE-ON
D2 DP ON-NONE-MOM
D3 DP ON-OFF-ON

- 2 ACTUATOR (See page A11):**

- | | |
|----|-------------------|
| A1 | Height = 9.40 mm |
| A2 | Height = 5.33 mm |
| A3 | Height = 7.37 mm |
| A4 | Height = 10.41 mm |
| A5 | Height = 5.59 mm |

- 3 BUSHING (See page A11):**

- | | |
|-----------|------------------------------------|
| B1 | Height = 5.59 mm, flat (thd) |
| B2 | Height = 5.59 mm, flat (non-thd) |
| B3 | Height = 5.59 mm, keyway (thd) |
| B4 | Height = 5.59 mm, keyway (non-thd) |
| B5 | Height = 7.87 mm, flat (thd) |
| B6 | Height = 7.87 mm, flat (non-thd) |
| B7 | Height = 6.60 mm, keyway (thd) |
| B8 | Height = 6.60 mm, keyway (non-thd) |

- #### 4 TERMINALS(See page A11):

- T1** Solder Lug
T2 PC Thru Hole
T5 Wire Wrap

- | | |
|------------|-------------------------------------|
| T6 | PC Thru Hole, Right Angle |
| T6N | PC Thru Hole, Right Angle, Snap-in |
| T7 | PC Thru Hole, Vertical Right Angle |
| T7N | PC Thru Hole, Vertical Right Angle. |

- | | |
|-----|-------------------|
| VS2 | V-Bracket |
| V2N | Snap-in V-Bracket |
| VS3 | V-Bracket |
| V3N | Snap-in V-Bracket |

- 5 CONTACT MATERIAL:**

- | | |
|-----|----------------------------|
| AG | Silver |
| AU | Gold |
| UT | Gold, Tin-Lead |
| GT | Silver, Tin-Lead |
| UG | Gold over Silver |
| UGT | Gold over Silver, Tin-Lead |

- 6** **SEAL:**
Epoxy (Standard)
No Epoxy

- 7 ROHS & LEAD FREE:**
RoHS Compliant (Standard)
RoHS Compliant & Lead Free

General Specifications:

MATERIALS

- » Movable Contact & Fixed Terminals:
AG, GT, UG & UGT: Silver plated over copper alloy
AU & UT: Gold over nickel plated over copper alloy

MECHANICAL

- » Operating Temperature: -30°C to +85°C
- » Mechanical Life: 30,000 cycles

CONTACT RATING

- » AG, GT, UG & UGT: 3A120VAC/28VDC
1A250VAC
» AU & UT: 0.4VA max. 20V max. (AC/DC)

ELECTRICAL

- » Contact Resistance: 10mΩ max. initial @ 2-4VDC
100mA for silver & gold plated contacts
- » Insulation Resistance: 1,000MΩ min.

Toggle Switches

Additional Informations for TK31 & 32 Series

ACTUATOR OPTIONS

A1	A2	A3	A4	A5
Actuators A1, A2 & A3 shown with B1 to B4 bushing, subtract 2.29mm for B5 bushing, subtract 1.02 for B7 bushing.			Actuators A4 & A5 shown with B5 & B6 bushing, add 2.29mm for B1 to B3 bushing, add 1.27mm for B7 bushing.	

BUSHING OPTIONS

B1 (THD) & B2 (NON-THD)		B3 (THD) & B4 (NON-THD)	
B5 (THD) & B6 (NON-THD)		B7 (THD) & B8 (NON-THD)	

TERMINAL OPTIONS

T1 (Single Pole, 0.51 thick)	T1 (Double Pole, 0.51 thick)	T2 (Single Pole, 0.51 thick)	T2 (Double Pole, 0.51 thick)
T6N	T7N	V2N	V3N

PANEL MOUNTING

10-48 Bushing without locking ring	10-48 Bushing with locking ring	1/4 In. Bushing without locking ring	1/4 In. Bushing with locking ring

HARDWARE

Ring	Locking Ring 0.46mm thick