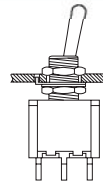
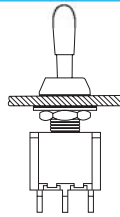
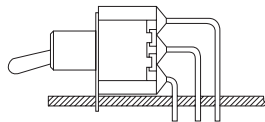
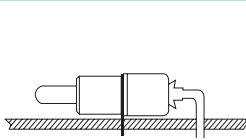




# T80-T

## Miniature Toggle Switches



### SPECIFICATIONS

CONTACT RATING: 5A @125 VAC or 28 VDC (Q contact)  
 ELECTRICAL LIFE: 50,000 make-and-break cycles at full load  
 CONTACT RESISTANCE: 10 mΩ max. initial @2-4 VDC, 100 mA  
 INSULATION RESISTANCE: 1,000 MΩ min.  
 DIELECTRIC STRENGTH: 1,500 V RMS @ sea level.  
 OPERATING TEMPERATURE: -30°C to +85°C

### MATERIALS

CASE - diallyl phthalate ( DAP )  
 TOGGLE HANDLE - Copper alloy , chrome plated  
 BUSHING - Copper alloy , nickel plated  
 HOUSING - Stainless Steel  
 CONTACT AND TERMINAL - copper alloy, silver plated

### How do you build the switches you need!!

The straight type , please see the (A) ;

The right angle P.C terminals, please see the (B)

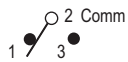
(A) T 8 0 1 3 - S E C Q - E - S 2 0 - T 1 - 2 -

| Switch Function         |                    | Actuator              |                      | Bushing                                                                                                                                               |                | Termination                                                                                                                                           |                  | Vertical support Bracket                                                                                                                              |                                   | Cap color                        |                                                 |        |
|-------------------------|--------------------|-----------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------|-------------------------------------------------|--------|
| T8013                   | SP on-none-on      | S                     | 10.41                | E                                                                                                                                                     | (STD)          | 8.89                                                                                                                                                  | B                | solder lug                                                                                                                                            | (none)                            | 0                                | transparent                                     |        |
| T8013A                  | SP on-none-(on)    | T                     | 5.08                 | M                                                                                                                                                     | (non-thd)      | 8.89                                                                                                                                                  | C                | P.C 1.27width                                                                                                                                         | S20                               | 11.68                            | 1                                               | white  |
| T8014                   | SP on-off-on       | X                     | 13.97                | K                                                                                                                                                     | (metric)       | 8.89                                                                                                                                                  | D                | Quick connect                                                                                                                                         | S25                               | 16.00                            | 2                                               | black  |
| T8014A                  | SP (on)-off-(on)   | W                     | 21.34                | F                                                                                                                                                     | □              | 7.10                                                                                                                                                  | D1               | wire wrap(19.05)                                                                                                                                      | S35                               | 11.68                            | 3                                               | red    |
| T8014B                  | SP on-off-(on)     | V                     | 16.26                | N                                                                                                                                                     | (non-thd)      | 7.10                                                                                                                                                  | D3               | wire wrap(10.8)                                                                                                                                       | S40                               | 16.00                            | 4                                               | yellow |
| T8011                   | DP on-none-on      | Y                     | 21.34                | G                                                                                                                                                     | □              | 7.52                                                                                                                                                  | Contact Material |                                                                                                                                                       | V20                               | snap-in 11.68                    | 5                                               | blue   |
| T8011A                  | DP on-none-(on)    | Flatted toggle        |                      | G1                                                                                                                                                    | (non-thd)      | 7.52                                                                                                                                                  |                  |                                                                                                                                                       | V25                               | snap-in 16.00                    | 6                                               | green  |
| T8012                   | DP on-off-on       |                       |                      | H                                                                                                                                                     | □              | 8.00                                                                                                                                                  | V35              | snap-in 11.68                                                                                                                                         | 7                                 | orange                           |                                                 |        |
| T8012A                  | DP (on)-off-(on)   | U                     | 11.43                | H1                                                                                                                                                    | (non-thd)      | 8.00                                                                                                                                                  | Q                | silver plated                                                                                                                                         | V40                               | snap-in 16.00                    | RoHS code<br><br>□ = none<br>H = RoHS Compliant |        |
| T8012B                  | DP on-off-(on)     | U1□                   | 7.20□                | J                                                                                                                                                     | (long)         | 9.60                                                                                                                                                  | R                | gold plated                                                                                                                                           | Actuator Cap/ Rubber hood Sealing |                                  |                                                 |        |
| T8301                   | 3P on-none-on      | U2                    | 21.30                | J1                                                                                                                                                    | (non-thd)      | 9.60                                                                                                                                                  | G                | gold over silver                                                                                                                                      | Rubber hood                       |                                  |                                                 |        |
| T8303                   | 3P on-none-(on)    | Large15/32 bushing    |                      | L                                                                                                                                                     | (splash-proof) | 7.47                                                                                                                                                  | K                | tin plated                                                                                                                                            | (none)                            |                                  |                                                 |        |
| T8305                   | 3P on-off-on       |                       |                      | none                                                                                                                                                  |                | the actuator:<br>Z/Z1/Z3/Z4/LK/LK1 No requirement to choose the bushing unless the splash proof (L)<br>ZL/Z1L/LK/LK1L and the non-thd (N)<br>LKN/LK1N |                  | Epoxy seal                                                                                                                                            |                                   | (none) none seal<br>E epoxy seal |                                                 |        |
| T8307                   | 3P (on)-off-(on)   |                       |                      |                                                                                                                                                       |                |                                                                                                                                                       |                  |                                                                                                                                                       |                                   |                                  |                                                 |        |
| T8309                   | 3P on-off-(on)     | Z                     | 11.68                | Locking Lever                                                                                                                                         |                | 3 way position switches                                                                                                                               |                  | the actuator:<br>Z/Z1/Z3/Z4/LK/LK1 No requirement to choose the bushing unless the splash proof (L)<br>ZL/Z1L/LK/LK1L and the non-thd (N)<br>LKN/LK1N |                                   |                                  |                                                 |        |
| T8401                   | 4P on-none-on      | Z1□                   | 17.45□               |                                                                                                                                                       |                |                                                                                                                                                       |                  |                                                                                                                                                       |                                   |                                  |                                                 |        |
| T8403                   | 4P on-none-(on)    | Z3□                   | antirotation (17.45) |                                                                                                                                                       |                |                                                                                                                                                       |                  |                                                                                                                                                       |                                   |                                  |                                                 |        |
| T8405                   | 4P on-off-on       | Z4                    | antirotation (11.68) |                                                                                                                                                       |                |                                                                                                                                                       |                  |                                                                                                                                                       |                                   |                                  |                                                 |        |
| T8407                   | 4P (on)-off-(on)   | Round top<br>Flat top |                      | the actuator:<br>Z/Z1/Z3/Z4/LK/LK1 No requirement to choose the bushing unless the splash proof (L)<br>ZL/Z1L/LK/LK1L and the non-thd (N)<br>LKN/LK1N |                | Epoxy seal                                                                                                                                            |                  | (none) none seal<br>E epoxy seal                                                                                                                      |                                   |                                  |                                                 |        |
| T8409                   | 4P on-off-(on)     |                       |                      |                                                                                                                                                       |                |                                                                                                                                                       |                  |                                                                                                                                                       |                                   |                                  |                                                 |        |
| 3 way position switches |                    |                       |                      |                                                                                                                                                       |                |                                                                                                                                                       |                  |                                                                                                                                                       |                                   |                                  |                                                 |        |
| T812                    | SP3T on-on-on      | LK                    | Round top            |                                                                                                                                                       |                |                                                                                                                                                       |                  |                                                                                                                                                       |                                   |                                  |                                                 |        |
| T812A□                  | SP3T (on)-on-(on)□ | LK1                   | Flat top             |                                                                                                                                                       |                |                                                                                                                                                       |                  |                                                                                                                                                       |                                   |                                  |                                                 |        |
| T812B                   | SP3T on-on-(on)    |                       |                      |                                                                                                                                                       |                |                                                                                                                                                       |                  |                                                                                                                                                       |                                   |                                  |                                                 |        |
| T845□                   | DP3T on-on-on□     |                       |                      |                                                                                                                                                       |                |                                                                                                                                                       |                  |                                                                                                                                                       |                                   |                                  |                                                 |        |
| T847□                   | DP3T (on)-on-(on)□ |                       |                      |                                                                                                                                                       |                |                                                                                                                                                       |                  |                                                                                                                                                       |                                   |                                  |                                                 |        |
| T849                    | DP3T on-on-(on)    |                       |                      |                                                                                                                                                       |                |                                                                                                                                                       |                  |                                                                                                                                                       |                                   |                                  |                                                 |        |

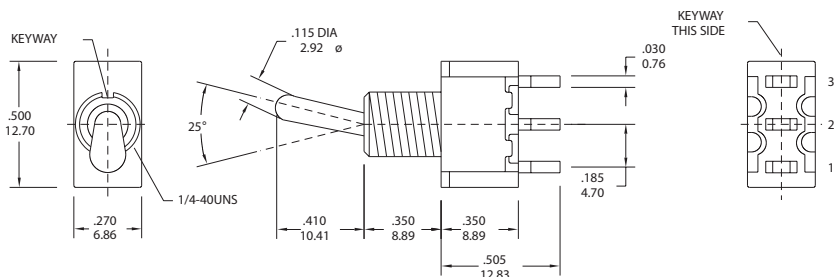
(B) T 8 0 1 9 L - T N Q - E - S - T 2 - 2 -

| Horizon Right Angle            | Vertical Right Angle | Switches Function | Actuator              |                | Bushing     |                | Contact Material                                                                                                               |                             | Actuator Cap     |        |
|--------------------------------|----------------------|-------------------|-----------------------|----------------|-------------|----------------|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------|--------|
| T8019                          | T8019L               | SP on-none-on     | S                     | 10.41          | E           | (STD)          | 8.89                                                                                                                           | Q                           | silver plated    | (none) |
| T8019A                         | T8019LA              | SP on-none-(on)   | T                     | 5.08           | M           | (non-thd)      | 8.89                                                                                                                           | R                           | gold plated      | T1     |
| T8020                          | T8020L               | SP on-off-on      | X                     | 13.97          | K           | (metric)       | 8.89                                                                                                                           | G                           | gold over silver | T2     |
| T8020A                         | T8020LA              | SP (on)-off-(on)  | W                     | 21.34          | F           |                | 7.10                                                                                                                           | K                           | tin plated       |        |
| T8020B                         | T8020LB              | SP on-off-(on)    | V                     | 16.26          | N           | (non-thd)      | 7.10                                                                                                                           | <b>Epoxy seal</b>           |                  |        |
| T8021                          | T8021L               | DP on-none-on     | <b>Flatted toggle</b> |                | G           |                | 7.52                                                                                                                           |                             |                  |        |
| T8021A                         | T8021LA              | DP on-none-(on)   |                       |                | G1          | (non-thd)      | 7.52                                                                                                                           | E                           | epoxy seal       |        |
| T8022                          | T8022L               | DP on-off-on      | U                     | 11.43          | H           |                | 8.00                                                                                                                           | <b>Support Bracket type</b> |                  |        |
| T8022A                         | T8022LA              | DP (on)-off-(on)  | U1                    | 7.2            | H1          | (non-thd)      | 8.00                                                                                                                           |                             |                  |        |
| T8022B                         | T8022LB              | DP on-off-(on)    | U2                    | 21.30          | J           | (long)         | 9.60                                                                                                                           | S                           | snap-in type     |        |
| T8301P(A)                      | T8301P               | 3P on-none-on     | <b>Locking Lever</b>  |                | J1          | (non-thd)      | 9.60                                                                                                                           | <b>RoHS code</b>            |                  |        |
| T8303P(A)                      | T8303P               | 3P on-none-(on)   |                       |                | L           | (splash-proof) | 7.47                                                                                                                           |                             |                  |        |
| T8305P(A)                      | T8305P               | 3P on-off-on      | LK                    | Round top(thd) | <b>none</b> |                | the actuator:<br>LK/LK1 No requirement to choose the bushing unless the splash proof (L) LKL/LK1L and the non-thd (N) LKN/LK1N |                             |                  |        |
| T8307P(A)                      | T8307P               | 3P (on)-off-(on)  | LK1                   | Flat top(thd)  |             |                |                                                                                                                                |                             |                  |        |
| T8309P(A)                      | T8309P               | 3P on-off-(on)    |                       |                |             |                |                                                                                                                                |                             |                  |        |
| T8401P                         | T8401P               | 4P on-none-on     |                       |                |             |                |                                                                                                                                |                             |                  |        |
| T8403P                         | T8403P               | 4P on-none-(on)   |                       |                |             |                |                                                                                                                                |                             |                  |        |
| T8405P                         | T8405P               | 4P on-off-on      |                       |                |             |                |                                                                                                                                |                             |                  |        |
| T8407P                         | T8407P               | 4P (on)-off-(on)  |                       |                |             |                |                                                                                                                                |                             |                  |        |
| T8409P                         | T8409P               | 4P on-off-(on)    |                       |                |             |                |                                                                                                                                |                             |                  |        |
| <b>3 way position switches</b> |                      |                   |                       |                |             |                |                                                                                                                                |                             |                  |        |
| T822                           | T822L                | SP3T on-on-on     |                       |                |             |                |                                                                                                                                |                             |                  |        |
| T822A                          | T822LA               | SP3T (on)-on-(on) |                       |                |             |                |                                                                                                                                |                             |                  |        |
| T822B                          | T822LB               | SP3T on-on-(on)   |                       |                |             |                |                                                                                                                                |                             |                  |        |
|                                | T845P                | DP3T on-on-on     |                       |                |             |                |                                                                                                                                |                             |                  |        |
|                                | T847P                | DP3T (on)-on-(on) |                       |                |             |                |                                                                                                                                |                             |                  |        |
|                                | T849P                | DP3T on-on-(on)   |                       |                |             |                |                                                                                                                                |                             |                  |        |

### SPDT



| Model No.   | Switching position |      |      |
|-------------|--------------------|------|------|
|             |                    |      |      |
| T8013       | ON                 | none | ON   |
| T8013A      | ON                 | none | (ON) |
| T8014       | ON                 | OFF  | ON   |
| T8014A      | (ON)               | OFF  | (ON) |
| T8014B      | ON                 | OFF  | (ON) |
| Term. Comm. | 2-3                | open | 2-1  |

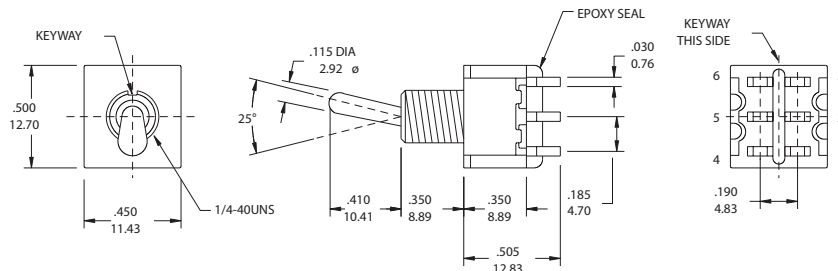


T8013 - SEBQ

### DPDT



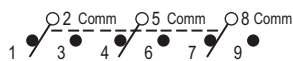
| Model No.             | Switching position |         |         |
|-----------------------|--------------------|---------|---------|
|                       |                    |         |         |
| T8011                 | ON                 | none    | ON      |
| T8011A                | ON                 | none    | (ON)    |
| T8012                 | ON                 | OFF     | ON      |
| T8012A                | (ON)               | OFF     | (ON)    |
| T8012B                | ON                 | OFF     | (ON)    |
| Term. Comm.           | 2-3,5-6            | open    | 2-1,5-4 |
| 3 way switches (SP3T) |                    |         |         |
| T812                  | ON                 | ON      | ON      |
| T812A                 | (ON)               | ON      | (ON)    |
| T812B                 | ON                 | ON      | (ON)    |
| Term. Comm.           | 2-3,5-6            | 2-3,5-4 | 2-1,5-4 |



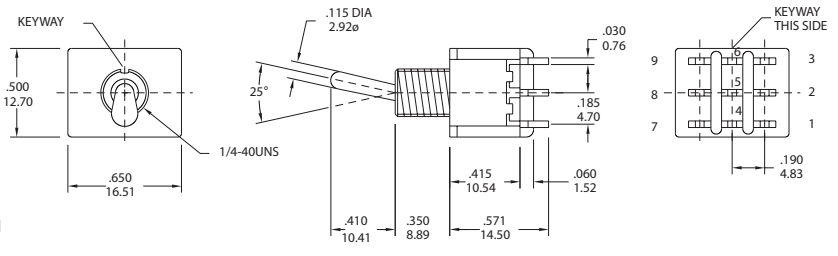
T8011 - SEBQ

Please see page A14 to know more about T812 (3-way Switches)

### 3PDT



| Model No.   | Switching position |      |                |
|-------------|--------------------|------|----------------|
|             |                    |      |                |
| T8301       | ON                 | none | ON             |
| T8303       | ON                 | none | (ON)           |
| T8305       | ON                 | OFF  | ON             |
| T8307       | (ON)               | OFF  | (ON)           |
| T8309       | ON                 | OFF  | (ON)           |
| Term. Comm. | 2-3,5-6<br>8-9     | open | 2-1,5-4<br>8-7 |

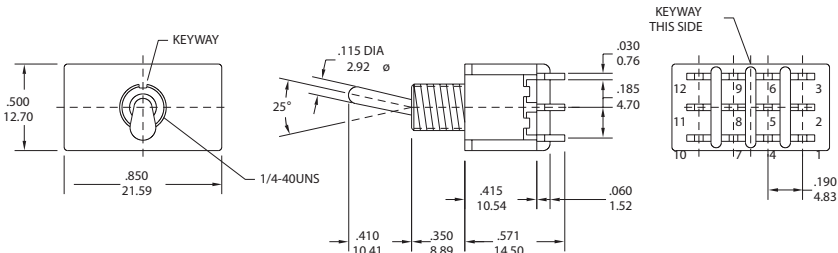


T8301- SEBQ

### 4PDT



| Model No.             | Switching position   |                      |                      |
|-----------------------|----------------------|----------------------|----------------------|
|                       |                      |                      |                      |
| T8401                 | ON                   | none                 | ON                   |
| T8403                 | ON                   | none                 | (ON)                 |
| T8405                 | ON                   | OFF                  | ON                   |
| T8407                 | (ON)                 | OFF                  | (ON)                 |
| T8409                 | ON                   | OFF                  | (ON)                 |
| Term. Comm.           | 2-3,5-6<br>8-9,11-12 | open                 | 2-1,5-4<br>8-7,11-10 |
| 3 way switches (DP3T) |                      |                      |                      |
| T845                  | ON                   | ON                   | ON                   |
| T847                  | (ON)                 | ON                   | (ON)                 |
| T849                  | ON                   | ON                   | (ON)                 |
| Term. Comm.           | 2-3,5-6<br>8-9,11-12 | 2-3,5-4<br>8-9,11-10 | 2-1,5-4<br>8-7,11-10 |



T8401 - SEBQ

Please see page A14 to know more about T845 (3-way Switches)

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TACT