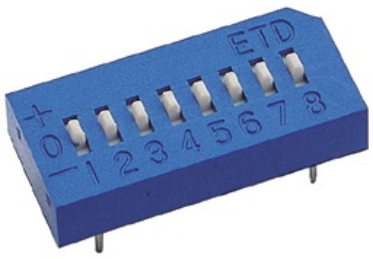
ETD/ETA/ETS SERIES
TRI-STATE TYPE



ETD

ETA

ETS

■ FEATURES

- With three state (1, open, 0) setting function, especially suitable for encoding/decoding of tri-state encoder/decoder integrated circuit to obtain more security codes than traditional two-state (1,0) operation. For instance, 9 bits with tri-state gets 19,683 (3^9) codes, while two-state has 512 (2^9) codes, gains 38 times more codes with a ECE tri-state DIP Switch.
- Bottom sealed to ensure free of flux immersion during wave soldering.
- All plastics are UL 94V-0 grade fire retardant.
- Gold plated contact to ensure low contact resistance and Tin plated terminals to prevent contamination during soldering.
- Twin contacts designed to ensure stable contact.
- Ideal for coding tele-communication, transceiving, remote control and burglar alarm systems which use integrated circuits with tri-state coding systems.
- RoHS Compliant

■ APPLICATIONS

- Numerical setting for computer terminal equipment
- Price setting for vending machines
- Programming for game machines
- Programming for industrial equipment and measuring instruments

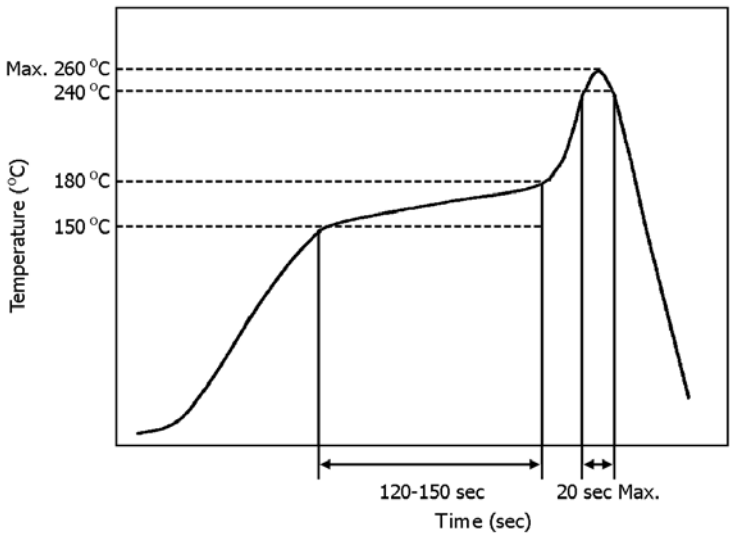
■ SPECIFICATIONS

1.ELECTRICAL

● Contact rating	
switching	25mA, 24VDC
non-switching	100mA

● Contact resistance	
initial	50mΩ Max.
after life test	100mΩ Max.
● Insulation resistance	1000MΩ Min. at 100VDC
● Dielectric strength	500VDC Min. for 60 seconds
● Capacitance between adjacent switches 5pF Max.	

2.MECHANICAL and ENVIRONMENTAL

● Temperature rating	operating	-25℃ to +70℃
	storage	-40℃ to +85℃
● Operation force		800g Max.
● Mechanical life		2000 operations
● Humidity		95% RH, 40℃ for 96 Hrs.
● Vibration		10Hz-55Hz-10Hz for 6 Hrs.
● Solderability (for through hole type)		After flux 230±5℃ for 5±0.5 seconds, 95% coverage
● Resistance to soldering heat (for through hole type)		260±5℃ for 5±1 seconds.
● Reflow soldering heat for SMT type (reference only)		

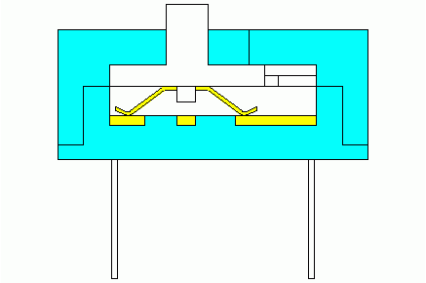
■ PART NUMBERING SYSTEM

ETS 1 08 L T Z

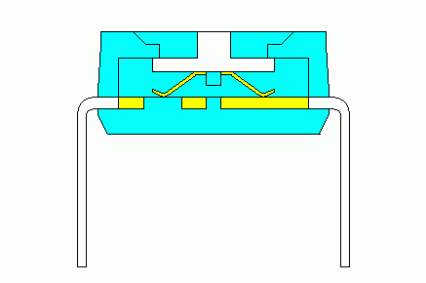
- Z: RoHS Compliant
- Option:
  - Blank: Non-Top Tape Sealed
  - T: Top Tape Sealed
- Actuator:
  - L: Low Profile Actuator (For ETA/ETS only)
  - E: Extended Actuator
- Number of Positions: As Dimensions and Circuitry
- Contact Form: SPST
- Series Name:
  - ETD: Bottom Sealed Type
  - ETA: Automatic Inserting Type
  - ETS: Surface Mounting Type

■ CONSTRUCTION

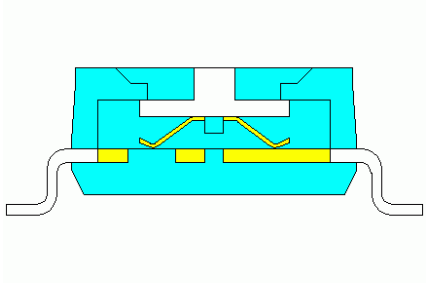
ETD



ETA



ETS



■ OPTIONS

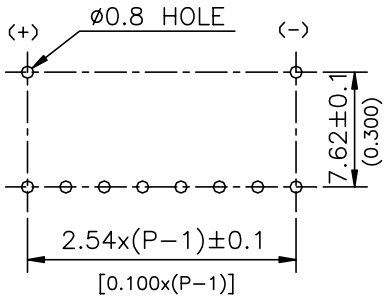
1.Tape Sealed

ETDxxxET

ETSxxxLT

ETAxxxLT

2.Reverse P.C.B. LAYOUT available

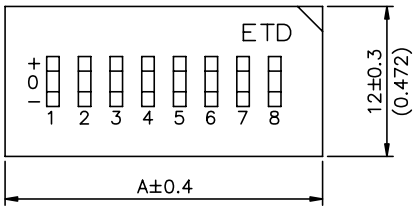


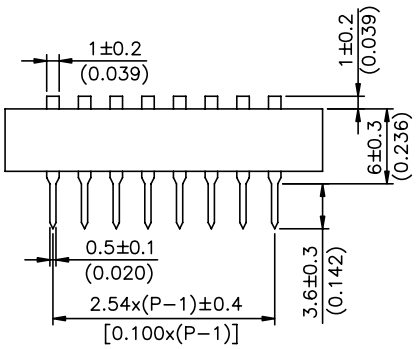
■ DIMENSIONS AND CIRCUITRY

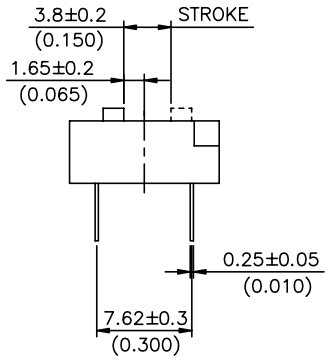
ETD SERIES

Dimension A UNIT:mm(inch)

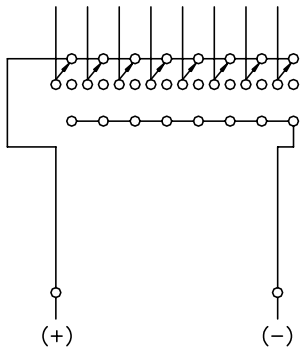
Positions	4	5	6	7	8	9	10
A	15.30 (0.602)	17.84 (0.702)	20.38 (0.802)	22.92 (0.902)	25.46 (1.002)	28.00 (1.102)	30.54 (1.202)



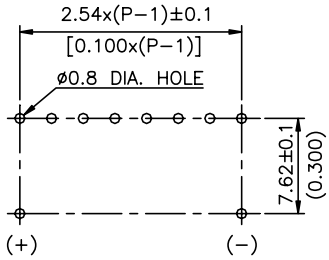




CIRCUIT DIAGRAM



P.C.B. LAYOUT
(TOP VIEW)



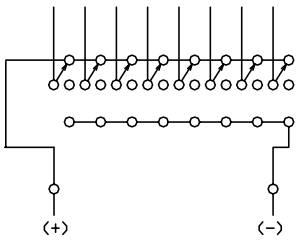
ETA SERIES

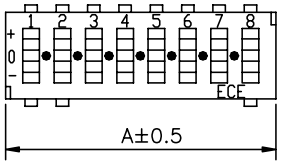
Dimension A UNIT: mm(inch)

Positions	2	3	4	5	6	7	8	9	10	12
A	6.88 (0.263)	9.22 (0.363)	11.76 (0.463)	14.30 (0.563)	16.84 (0.663)	19.38 (0.763)	21.92 (0.863)	24.46 (0.963)	27.00 (1.063)	32.08 (1.263)

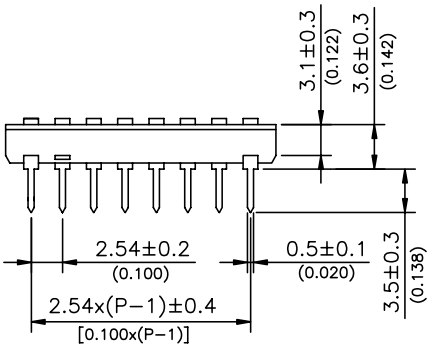
*ETA series: 2, 3 and 6 pole switches are unavailable

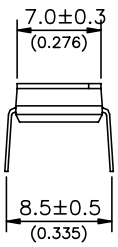
CIRCUIT DIAGRAM

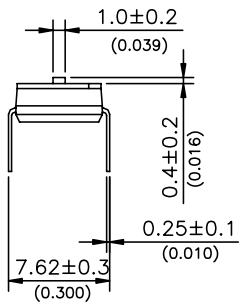




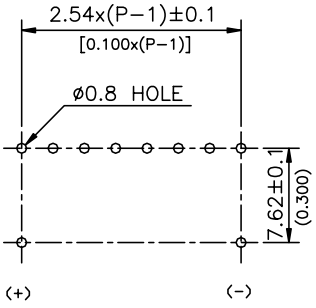
(L)TYPE (E)TYPE







P.C.B. LAYOUT
(TOP VIEW)



ETS SERIES

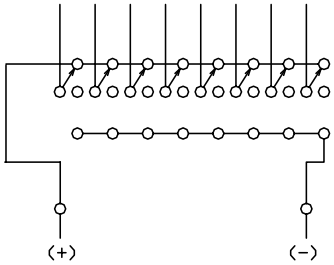
Dimension A

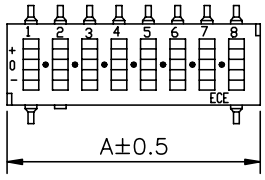
UNIT: mm(inch)

Positions	2	3	4	5	6	7	8	9	10	12
A	6.88 (0.263)	9.22 (0.363)	11.76 (0.463)	14.30 (0.563)	16.84 (0.663)	19.38 (0.763)	21.92 (0.863)	24.46 (0.963)	27.00 (1.063)	32.08 (1.263)

*ETS series: 2, 3 and 6 pole switches are unavailable

CIRCUIT DIAGRAM





(L)TYPE

(E)TYPE

P.C.B. LAYOUT
(TOP VIEW)