

## 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.

### • SPECIFICATIONS

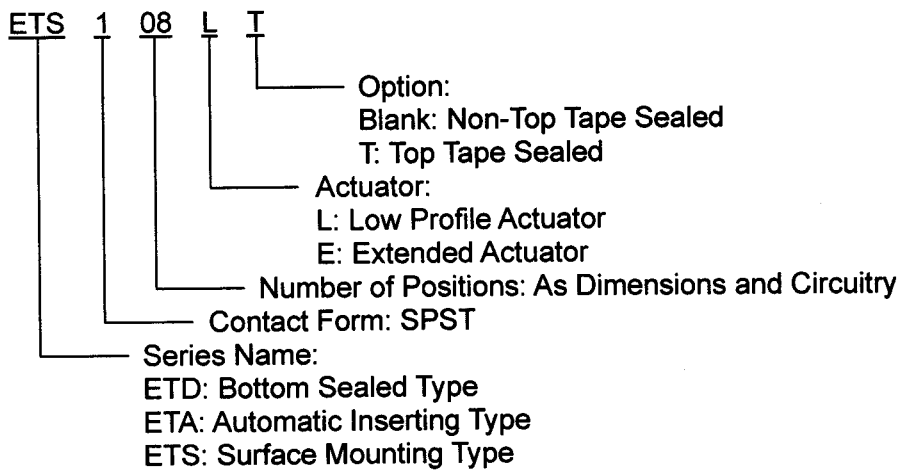
#### 1. ELECTRICAL

● Contact rating	
switching	25mA, 24VDC
non-switching	100mA
● Contact resistance	
initial	50m• •Max.
after life test	100m• •Max.
● Insulation resistance	1000M• •Min. at 100VDC
● Dielectric strength	500VDC Min. for 60 seconds
● Capacitance between adjacent switches 5pF Max.	

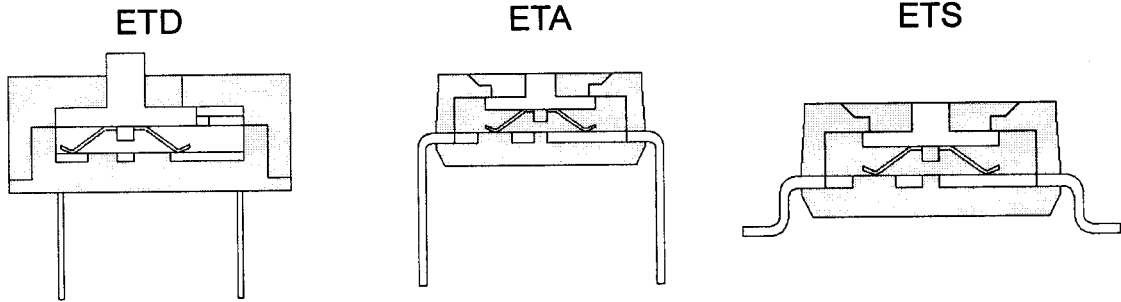
## 2. MECHANICAL and ENVIRONMENTAL

● 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	Per MIL-STD-202F, method 204D.
● Solderability (for through hole type)	after flux 230° for 5 seconds, 95% coverage
● Resistance to soldering heat (for through hole type)	260° for 5 seconds.
● Reflow soldering heat for SMT type (reference only)	

### • PART NUMBERING SYSTEM



• CONSTRUCTION



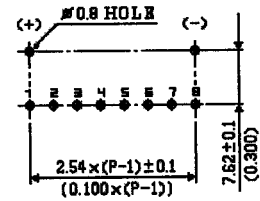
• OPTIONS

1. Tape Sealed



2. Reverse P.C.B. LAYOUT available

P.C.B. LAYOUT (TOP VIEW)



• DIMENSIONS AND CIRCUITRY

DIMENSION A		ETD					
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)

Unit: mm(inch)

CIRCUIT DIAGRAM

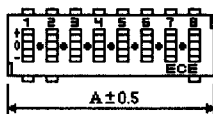
P.C.B. LAYOUT (TOP VIEW)

**DIMENSION A**

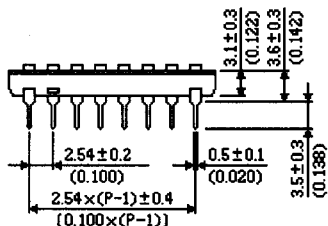
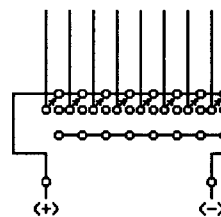
**ETA**

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)

Unit:mm(inch)



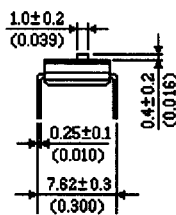
**CIRCUIT DIAGRAM**



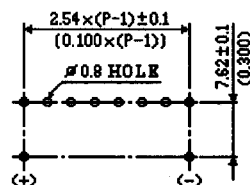
**(L) TYPE**



**(E) TYPE**



**P.C.B. LAYOUT (TOP VIEW)**



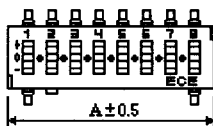
..

**DIMENSION A**

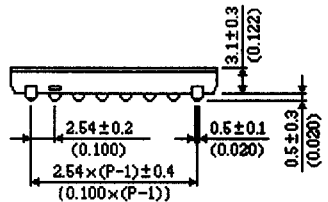
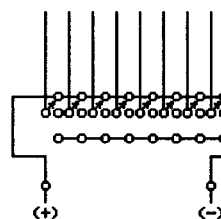
**ETS**

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)

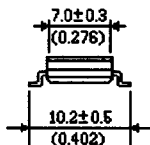
Unit:mm(inch)



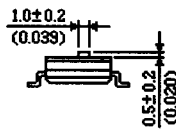
**CIRCUIT DIAGRAM**



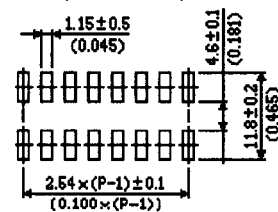
**(L) TYPE**



**(E) TYPE**



**P.C.B. LAYOUT (TOP VIEW)**



..