 EXCEL CELL ELECTRONIC CO., LTD.	NO.	A30873		
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# ESD DIP SWITCH

## 1. FEATURES:

- 1-1 End stackable for standard 0.1"integrated circuit pitch.
- 1-2 Molded 0.3"integrated circuit packing outline allowing automatic insertion.
- 1-3 Smaller size makes better heat convection during PC board reflow soldering.
- 1-4 Top tape sealed to withstand reflow soldering, board washing.
- 1-5 All plastics are UL 94V-0 grade fire retardant.
- 1-6 Twin contacts designed to ensure stable contact.
- 1-7 Gold plated contact to ensure low contact resistance and Tin plated terminals to prevent contamination during soldering.
- 1-8 RoHS Compliant.

## 2. APPLICATIONS:

- 2-1 Numerical setting for computer terminal equipment
- 2-2 Price setting for vending machines
- 2-3 Programming for game machines
- 2-4 Programming for industrial equipment and measuring instruments

## 3. SPECIFICATION:

### 3-1 ELECTRICAL

#### 3-1-1 Contact rating

switching	25 mA, 24 VDC
non-switching	100 mA, 20 VDC

#### 3-1-2 Contact resistance

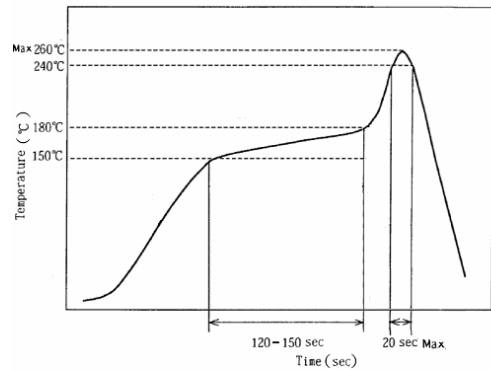
initial	50mΩ Max.
after life test	100mΩ Max.

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- 3-1-3 Insulation resistance 1,000 MΩ Min. at 100 VDC
- 3-1-4 Dielectric strength 500 VDC Min. for 60 seconds
- 3-1-5 Capacitance between adjacent switches 5 pF Max.


**3-2 MECHANICAL AND ENVIRONMENTAL**

- 3-2-1 Temperature rating
  - operating -40°C to +85°C
  - storage -40°C to +85°C
- 3-2-2 Operation force 800g Max.
- 3-2-3 Mechanical life 2,000 operations
- 3-2-4 Humidity 95% RH, 40°C for 96 Hrs.
- 3-2-5 Vibration 10Hz - 55Hz - 10Hz for 6 Hrs.
- 3-2-6 Solderability After flux 245±5°C for 5±0.5 seconds, 95% coverage
- 3-2-7 Reflow soldering heat for SMT type(reference only)



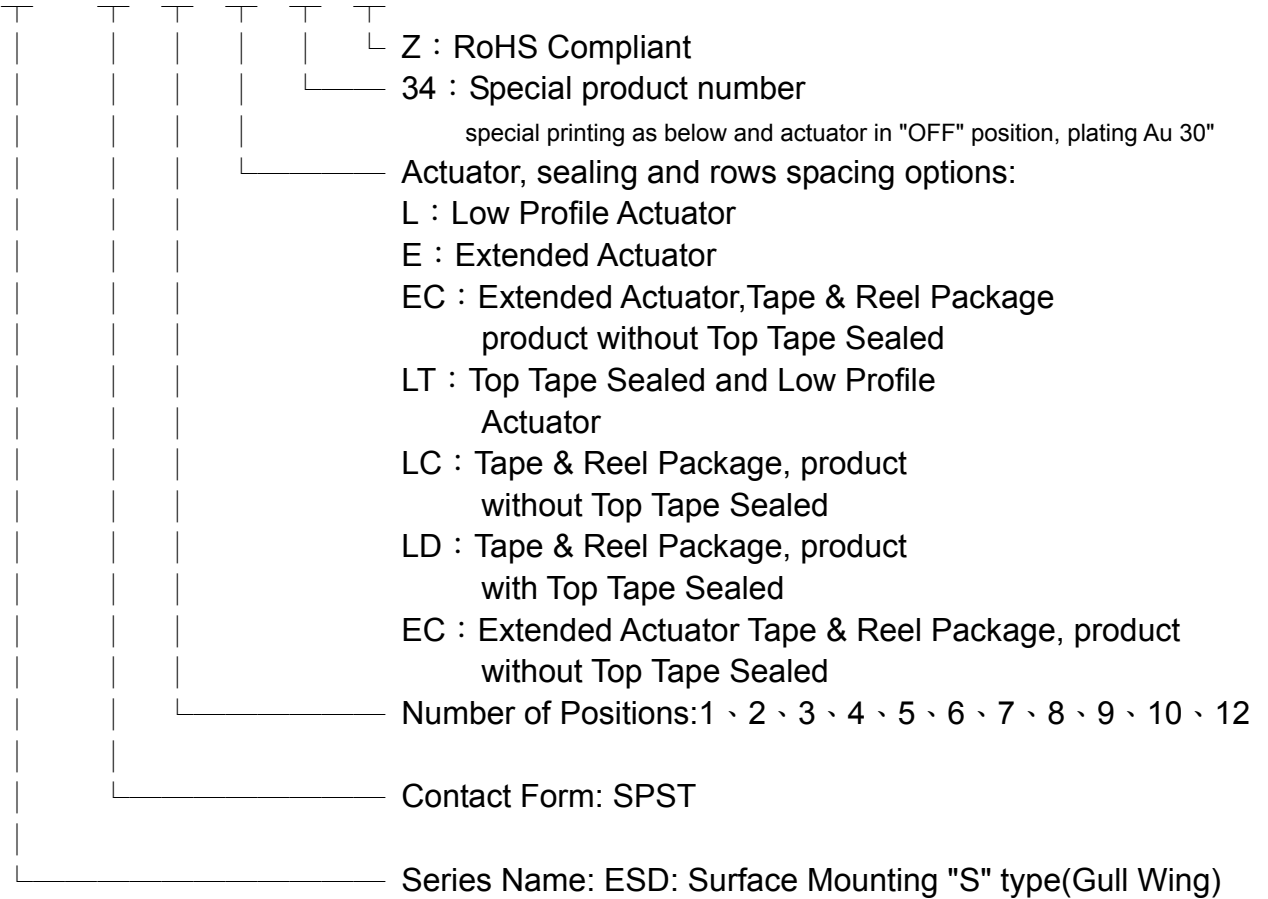
**4. OPTIONS:**


- 4-1 Special marking is available
- 4-2 Extended Actuator
- 4-3 Top Tape Sealed
- 4-4 Tape & Reel Packaging

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5. PART NUMBERING SYSTEM

ESD    1    12    EC    34    Z



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## 6. PACKING

### 6-1 PACKING METHOD

All switches are packed into IC tubes as an inner packing unit,  
then ten IC tubes are bundled together with rubber bands

Length of IC tube: 560 mm.

Model No.	Quantity per IC tube		Quantity per bundle	
	non tape	Tape sealed	non tape	Tape sealed
ESD101L(E)XX(Z)	100	100	1000	1000
ESD102L(E)XX(Z)	100	100	1000	1000
ESD103L(E)XX(Z)	68	68	680	680
ESD104L(E)XX(Z)	51	51	510	510
ESD105L(E)XX(Z)	40	40	400	400
ESD106L(E)XX(Z)	34	34	340	340
ESD107L(E)XX(Z)	29	29	290	290
ESD108L(E)XX(Z)	26	26	260	260
ESD109L(E)XX(Z)	22	22	220	220
ESD110L(E)XX(Z)	20	20	200	200
ESD112L(E)XX(Z)	17	17	170	170

6-2 Switches may be packed using Tape & Reel Packing methods

6-3 INFORMATION ON LABEL (stuck to each bundle of IC tubes)

- |                  |                         |
|------------------|-------------------------|
| (1) DESCRIPTION. | (6) WARNING.            |
| (2) LOT NO.      | (7) QC STAMP.           |
| (3) QUANTITY.    | (8) DATE.               |
| (4) TESTER NO.   | (9) MANUFACTURERS NAME. |
| (5) ECE MARK.    |                         |

## 7. DRAWINGS

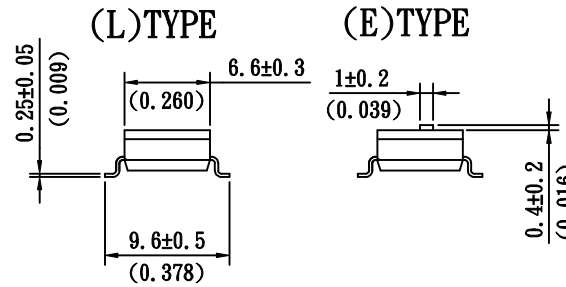
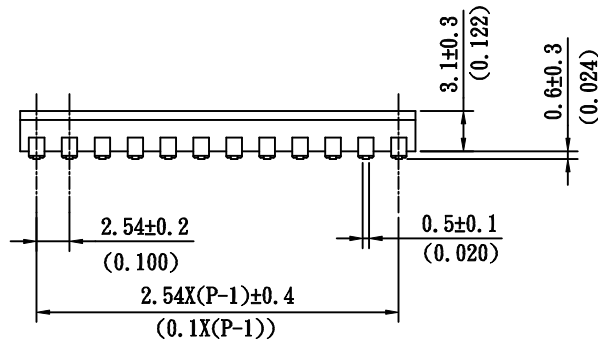
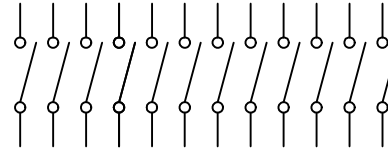
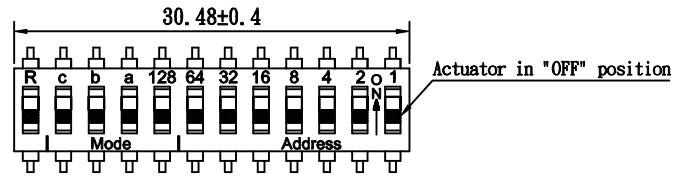
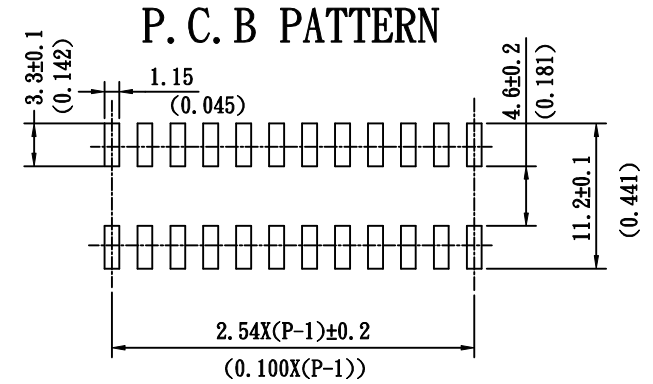
Dip switch dimensions: see attached drawing

Circuit diagram: see attached drawing

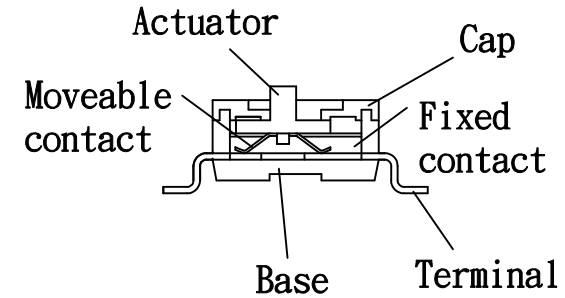
P.C.B. layout diagram: see attached drawing

# DIMENSIONS Unit:mm(inch)

# CIRCUIT DIAGRAM



# CONSTRUCTION



NOTE : special number 34  
 special printing and actuator in "OFF" position, plating Au 30"

				NORMAL TOLERANCE		EXCEL CELL ELECTRONIC CO., LTD.				PART NUMBER		ESD112EC34(Z)					
				RANGE	TOLERANCE					UNIT		MM ( INCH )		PART NAME		ESD	
				0-1	±0.1	CHECK	Gary	DESIGN	Marcus	DRAWN	Marcus	SCALE	5:3	TYPE	SPST		
				1-4	±0.3							SIZE	A4	FILE NAME	7231121134ZA.DWG	EDITION	A
				4-16	±0.5							PROJECTION					
				16-63	±0.8												
				63-250	±1.0												
				X.	+5°												
NO.	DETAILS	ALTERED BY	DATE	X.X	±2.5°												

