

SENSOR SWITCH

Item No.	S45	Description	TILT SWITCH	Version	2
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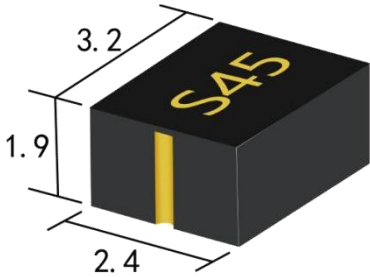
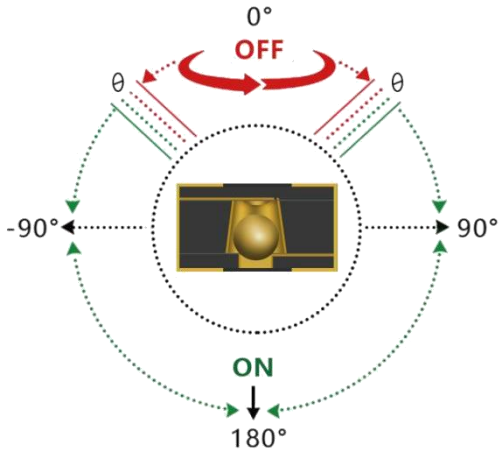
● FUNCTIONS

45° Tilt Detecting within a 360° radius

● APPLICATIONS

1. Automatically shut off for home appliances
2. Wake up systems for power saving, such like remote controllers
3. Automatically shut off for sporting equipment
4. Alarm system
5. Anti-theft / Anti-tamper devices
6. Toys
7. Being motion detection (personal locator)
8. Watches
9. Filter Kettle

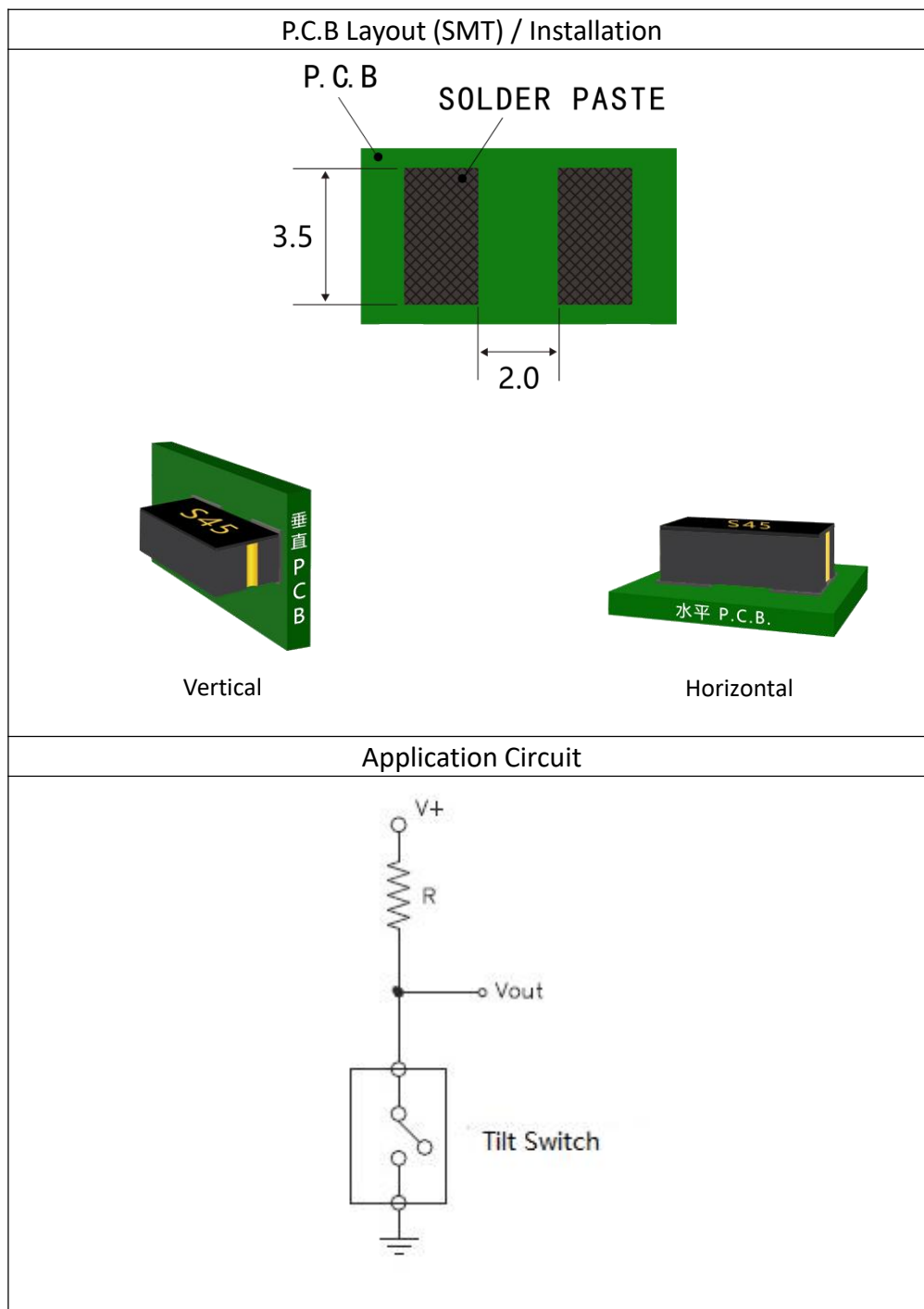
● DIMENSIONS / OPERATION

S45	Tilt Angle $\theta = 45^\circ \pm 10^\circ$
	

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- P.C.B LAYOUT (Unit: mm, Tolerance: ± 0.1 mm)



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- Current / Voltage Suggested

Input Current (mA)	Operating Voltage (V)	Condition
<10	3 ~ 24	--

- ELECTRICAL CHARACTERISTICS

1	Insulation Resistance	1,000 M Ω min., 100V DC
2	Dielectric Strength	500 V DC min. for 1 minute
3	Capacitance	5 pF Max.
4	Average Conductive Rate	98% min.

- RELIABLE TEST ITEMS

Test Item	Contents
IR Reflow	Peak temp. = 260℃ *2 times
Operating Temperature	-25 ℃ ~85 ℃
Storage Temperature	-40 ℃ ~85 ℃
Humidity	40 ℃ / 95% RH
Mechanical Life	2 Hz, horizontal 50,000,000 times
Electrical Life	50,000,000 times

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● SOLDERING CONDITION

Following soldering conditions are for reference only, please use soldering information that solder paste manufacturer recommends.

Condition Operation Method	Soldering Temperature	Soldering Time	Wattage of Manual Soldering	Suitable Production Process
IR Reflow	260±5℃	< 5 seconds max.	--	SMT
Manual Soldering	320±5℃	< 3 seconds max.	20 W or Temperature-controlled manual soldering	DIP、SMT

● PACKAGE

Part Number	Package	Quantity
S45	Tape & Reel	3000 pcs

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● FEATURES

1. Suitable for horizontal PCB or Vertical PCB .
2. Switch state: Normal open.
3. Tiny size, suitable for small space.
4. Gold-plated ball and terminals, low possibility of oxidization.
5. Simple ON and OFF signals, easy for design.
6. RoHS compliance, an ideal substitute for mercury switch.
7. A more economical tilt detection option than IC design solution.
8. All made in China and examined before shipment.

● NOTE

1. Suggestion for usage : For vibration usage or application, we suggest to add hysteresis for IC.
2. For the continued product improvement as one of the company policy, specifications may change or update without notice. The latest information can be obtained through our sales offices. Normally, all products are supplied under our standard conditions.

● PRECAUTIONS FOR USE

1. If the product is intended to be used for other endurance equipment requiring higher safety and reliability such as life support system, space and aviation devices, disaster and safety system, it's necessary to make verification of conformity or contact us for the details before using.
2. Do not try to clean the switch with a solvent or similar substance after the soldering process.
3. Use water-soluble flux may damage the switch.
4. If soldering temperature exceeds our specification, sensor switch could get apart.
5. Do not use switch in the environment of high humidity, because such an environment may cause the leakage current between the terminals.
6. More than the rated load may cause fire, so do not use more than the load.
7. In the circuit, switch should not be near or directly connected with the magnetic component solder joints(for example: relays, transformers, etc.).